

Dictionary of Analytical Reagents



SPRINGER-SCIENCE+BUSINESS MEDIA, B.V.

Periodic Table of the Elements

IUPAC Notation

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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Previous IUPAC Notation

IA	IIA	IIIA	IVA	VA	VIA	VIIA	VIIIA	IB	IIB	IIIB	IVB	VB	VIB	VIIIB	0
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1 H 1.01																	2 He 4.00
3 Li 6.94	4 Be 9.01											5 B 10.81	6 C 12.01	7 N 14.01	8 O 16.00	9 F 19.00	10 Ne 20.18
11 Na 22.99	12 Mg 24.31											13 Al 26.98	14 Si 28.09	15 P 30.97	16 S 32.07	17 Cl 35.45	18 Ar 39.95
19 K 39.10	20 Ca 40.08	21 Sc 44.96	22 Ti 47.88	23 V 50.94	24 Cr 52.00	25 Mn 54.94	26 Fe 55.85	27 Co 58.93	28 Ni 58.69	29 Cu 63.55	30 Zn 65.39	31 Ga 69.72	32 Ge 72.61	33 As 74.92	34 Se 78.96	35 Br 79.90	36 Kr 83.80
37 Rb 85.47	38 Sr 87.62	39 Y 88.91	40 Zr 91.22	41 Nb 92.91	42 Mo 95.94	43 Tc (98.91)	44 Ru 101.07	45 Rh 102.91	46 Pd 106.42	47 Ag 107.87	48 Cd 112.41	49 In 114.82	50 Sn 118.71	51 Sb 121.75	52 Te 127.60	53 I 126.90	54 Xe 131.29
55 Cs 132.91	56 Ba 137.33	57–71 See Lantha- nides	72 Hf 178.49	73 Ta 180.95	74 W 183.85	75 Re 186.21	76 Os 190.2	77 Ir 192.22	78 Pt 195.08	79 Au 196.97	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.98	84 Po (209.98)	85 At (209.99)	86 Rn (222.02)
87 Fr (223.02)	88 Ra (226.03)	89–103 See Acti- nides	104 Unq (261.11)	105 Unp (262.11)	106 Unh (263.12)	107 Uns (262.12)	108 Uno	109 Une	110 Uun								

57 La 138.91	58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm (144.91)	62 Sm 150.36	63 Eu 151.97	64 Gd 157.25	65 Tb 158.93	66 Dy 162.50	67 Ho 164.93	68 Er 167.26	69 Tm 168.93	70 Yb 173.04	71 Lu 174.97
89 Ac 227.03	90 Th 232.04	91 Pa 231.04	92 U 238.03	93 Np 237.05	94 Pu (239.05)	95 Am (241.06)	96 Cm (244.06)	97 Bk (249.08)	98 Cf (252.08)	99 Es (252.08)	100 Fm (257.10)	101 Md (256.09)	102 No (259.10)	103 Lr (262.11)

Lanthanides

Actinides

Dictionary
of
Analytical
Reagents

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Springer-Science+Business Media, B.V.

Published by Chapman & Hall, 2–6 Boundary Row, London SE1 8HN

Chapman & Hall, 2–6 Boundary Row, London SE1 8HN, UK

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Glasgow G64 2NZ, UK

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First edition 1993

© Springer Science+Business Media Dordrecht 1993

Originally published by Chapman & Hall in 1993

Softcover reprint of the hardcover 1st edition 1993

ISBN 978-0-412-35150-1

ISBN 978-1-4899-7270-5 (eBook)

DOI 10.1007/978-1-4899-7270-5

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A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data available

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Caution

Treat all chemical substances as if they have dangerous properties.

The publisher makes no representation, express or implied, with regard to the accuracy of the information contained in this Dictionary, and cannot accept any legal responsibility or liability for any errors or omissions that may be made.

The specific information in this publication on the hazardous and toxic properties of certain substances is included to alert the reader to possible dangers associated with the use of those compounds. The absence of such information should not however be taken as an indication of safety in use or misuse.

Preface

Although modern analytical chemistry relies heavily on instrumentation and data processing, organic reagents play an important role across the whole range of analytical procedures. Their uses vary from pH buffers to NMR shift reagents, and from chromogenic reagents to enzyme substrates and chromatographic derivatisation reagents. This Dictionary, one of a series derived from the Chapman & Hall Chemical Database, provides extensive and carefully constructed documentation of the (mainly organic) reagents most commonly used by analytical chemists working in academia, industry or the public domain.

Use of the *Dictionary of Analytical Reagents* is greatly facilitated by the innovative indexing systems, which give rapid access to concise, carefully edited information on each reagent, which then provides a convenient reference point for further queries using other printed and on-line sources. Thus, in addition to the usual indexes of reagent name, molecular formula and CAS Registry number, compounds are also indexed according to their use (such as spectrophotometric reagent or NMR shift reagent), inorganic analyte, and class of compound (such as crown ether or β -diketone).

A small proportion of entries in the present Dictionary derive from the Fifth Edition of the *Dictionary of Organic Compounds* (1982) and its supplements, heavily augmented with the addition of large amounts of pertinent information for analytical chemists. However, most of the entries are completely new and have been compiled over the past three years by a team of specialist contributors.

The selection of entries has been carefully reviewed by the Editors at each stage of the development of the Dictionary. We believe that the result will be of the maximum utility for the analytical chemist within the most practicable compact size.

A.T., D.T.B., G.G.G., R.L.,
Z.M., E.J.N., H.O.

Introduction

1. Using the Dictionary

The Dictionary is arranged alphabetically by entry name. Every entry is numbered to assist ready location. Many reagents are included as derivatives of main entry compounds; the extensive indexing of the Dictionary means that these can be readily located through the Name, Molecular Formula or Type of Compound indexes.

Indexes

There are four printed indexes:

Name Index. This lists every name given throughout the Dictionary, whether it refers to an entry, stereoisomer or derivative, and including some names embedded in the text of entries.

Molecular Formula Index. This lists all molecular formulae given in the Dictionary in Hill convention order. Molecular formulae are reported for all reagents but not normally for derivatives such as hydrates or salts of neutral compounds. Cationic compounds are given a molecular formula which is that of the cation and the various salts are listed as derivatives, together with their molecular formulae.

CAS Registry Number Index. Lists all CAS (Chemical Abstracts Service) Registry numbers given throughout the Dictionary in serial order.

Type of Compound Index. This valuable index classifies all reagents included in the Dictionary under three or more of approximately 200 headings according to analyte (e.g. copper), compound group (e.g. phenothiazine) and analytical application (e.g. chromatographic derivatisation reagent). A full list of the headings used is given at the beginning of the Index.

2. Compound selection policy

In compiling this Dictionary the aim of the International Editorial Board has been to select all those reagents thought to be of interest to the majority of analytical chemists. This has been done by consulting laboratory chemical suppliers' catalogues, IUPAC analytical reagent recommendations and by searching the primary literature. It does not include macromolecular materials, such as enzymes, ion-exchange resins and antibodies which, although widely used in analytical procedures, cannot readily be defined by a molecular formula.

3. Chemical names and synonyms

The Dictionary contains a wide range of synonyms which may be (a) those found in the primary literature, (b) *Chemical Abstracts* names, (c) a small proportion of names added editorially to achieve as much consistency as possible, or (d) tradenames and *Colour Index* names.

Most entries are headed by a systematic name but in the case of very well known reagents the trivial name is preferred. Care has been taken to incorporate as many helpful synonyms as possible, including trivial and semitrivial names, generic names and tradenames (including *Colour Index* names).

Frequently a trivial name of a reagent strictly applies to a derivative of the parent compound (e.g. a sodium salt or a hydrochloride) but for ease of use the trivial name is used as the entry name and an appropriate note to this effect is added to the entry.

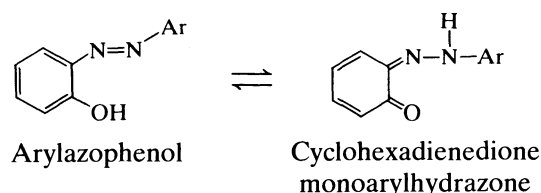
Names corresponding to those used by CAS during the 8th and 9th Collective Index Periods (1967–1971 and 1972–1976 respectively) are labelled with the suffixes 8CI, 9CI. Names first introduced since 1976 are referred to as 9CI as there have been no substantial changes of CA nomenclature affecting organic compounds since that date.

If a compound cannot be located immediately in the main body of the entries, **it is important to use the indexes.**

Tautomerism

Some of the analytical reagents with more than one functional group are capable of tautomerism, the nature of which may be influenced by solvation and, especially, complexation.

The following example shows the type of tautomerism frequently encountered amongst azo compounds in particular, and which may lead to difficulties in registering the compound in *Chemical Abstracts* and in this Dictionary.



The tautomeric equilibrium even in neutral solution will be shifted according to the precise structure of the reagent, and for a particular compound may or may

Introduction

not have been investigated in detail. The CAS policy for registering such compounds is generally to index them under the azo tautomer whether this is the predominant tautomer or not. There are some exceptions to this, for example acetoacetanilide azo derivatives are indexed under the ketohydrazone tautomer. The Dictionary policy is to list the compound under the CAS name but to present the structure of the more favourable tautomer. A comment to indicate the likelihood of tautomer formation is usually added (see for example entry no. H-00391). Where CAS numbers have been assigned to individual tautomers these are listed at the end of the entry in brackets.

4. Bibliographic references and literature coverage

The selection of references is made with the aim of facilitating entry into the literature for the user who wishes to locate more detailed information about a particular compound. Reference contents are indicated using suffixes e.g. (*detn*, *Au*).

Journal abbreviations generally follow the practice of the Chemical Abstracts Service Source Index (CASSI). In patent references, no distinction is made between patent applications and granted patents. Wherever possible, English-language patent equivalents are quoted.

In compiling this Dictionary the primary literature has been surveyed to early 1992 and extensive reference has been made to reviews available at that time.

5. Hazard Information

Many reagents are toxic. Information on their toxicity is highlighted by the use of the symbol \triangleright , which also appears in the indexes. Whilst every effort has been made to alert the user to potential hazards associated with particular reagents, **the absence of such information cannot be taken as a guarantee of safety in use or misuse**. The information provided is given in good faith but the Editors cannot be held responsible for any inaccuracies therein.

6. Principal Abbreviations

[α]	specific rotation
abs. config.	absolute configuration
Ac	Acetyl
AcOH	Acetic acid
Ac ₂ O	Acetic anhydride
alk.	alkaline
amorph.	amorphous
anal.	analytical applications, analysis or detection
aq.	aqueous
B	base

bibl.	bibliography
biosynth.	biosynthesis
Bp	boiling point
BAN	British Approved Name
c.	concentration
ca.	(<i>circa</i>) about
cd	circular dichroism
chromatog.	chromatography
C.I.	Colour Index
cmr	¹³ C nuclear magnetic resonance
col.	colour, coloration
conc.	concentrated
config.	configuration
constit.	constituent
compd.	compound
cryst. struct.	X-ray crystal structure determination
d	density
dec.	decomposes, decomposition
degradn.	degradation
deriv(s)	derivatives
descr.	described
detn.	detection
dil.	dilute, dilution
dimorph.	dimorphic
esr	electron spin resonance
Et	Ethyl
EtOAc	Ethyl acetate
fluor.	fluoresces, fluorescence
glc	gas liquid chromatography
Glc	β -D-glucopyranosyl
haz.	hazard
hplc	high performance liquid chromatography
hydrol.	hydrolyses, hydrolysed, hydrolysis
i.m.	intramuscular
INN	International Nonproprietary Name
i.p.	intraperitoneal
ir	infra-red spectrum
isol.	isolation
isom.	isomerises, isomers
i.v.	intravenous
JAN	Japanese Accepted Name
LD	lethal dose: LD ₅₀ , a dose which is lethal to 50% of the animals tested
M	molecular weight (formula weight)
max.	maximum
Me	Methyl
metab.	metabolism, metabolite
misc.	miscible
mixt.	mixture

mod.	moderately	sl.	slightly
Mp	melting point	sol.	soluble
ms	mass spectrum	soln.	solution
<i>n</i>	index of refraction (e.g. n_D^{20} for 20° and sodium light)	solv.	solvent
obt.	obtained	subl.	sublimation, sublimes
occur.	occurrence	synth.	synthesis
ord	optical rotatory dispersion	tautom.	tautomerism
pet. ether	Petroleum ether (light petroleum)	tlc	thin layer chromatography
Ph	Phenyl (C ₆ H ₅)	tox.	toxicity, toxicology
pharmacol.	pharmacology	unsatd.	unsaturated
pmr	proton (¹ H) nuclear magnetic resonance	USAN	United States Adopted Name
props.	properties	uv	ultraviolet spectrum
purifn.	purification	v.	very
Py	Pyridine	vol.	volume
ref.	reference		
resoln.	resolution		
rev.	review		
r.t.	room temperature		
s.c.	subcutaneous		

7. Further information

For further information about the presentation of data in this and other Dictionaries, see the introduction to the *Dictionary of Organic Compounds*, Fifth Edition and Supplements.

Analytical Reagents

Despite the major advances that have been made in analytical instrumentation in the past decade, it is still rare for an analytical measurement to be made on a sample without the use of chemical reagents. Pre-treatment of the sample may simply be the adjustment of pH or precipitation of unwanted compounds, or it can involve conversion of the analyte into a form suitable for quantitation by a particular instrumental technique. Examples of the latter are the use of chromogenic reagents for the spectrophotometric determination of metal ions and the derivatisation of organic compounds prior to gas chromatographic separation and detection. Most reagents used for such purposes are organic compounds, and it is such compounds that are described in this Dictionary. Uniquely in the Dictionary, the reagents are also indexed according to their analytical application, inorganic analyte and type of reagent. More detailed discussions of the applications of analytical reagents are available in numerous textbooks and review articles.

Additional references to general sources of information

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Ackermann, G., Sommer, L., and Burns, D.T.,

Organic Analytical Reagents for the Determination of Inorganic Substances, in *Handbook of Chemistry and Physics*, 74th Edn., CRC Press, Boca Raton, 1993.

1. Description of main applications of analytical reagents

In this Dictionary, the following analytical application areas are identified. Reagents having entries in the Dictionary are indicated in boldface type.

1.1. Amperometric reagent

Amperometry is the determination of a species by titration with a reagent whilst monitoring the change in the voltammetric current. The current may be that produced by oxidation or reduction of the analyte or the titrant, or both. The end-point of the titration is indicated by a sharp break in the titration graph.

The titrant may react with the analyte to form a complex which is not electroactive at the potential used, or a precipitate.

Additional references

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Crow, D.R., *Principles and Applications of Electrochemistry*, 3rd Edn., Chapman & Hall, London, 1988.

Hulanicki, A. and Glab, S., Present and Future Status of Organic Analytical Reagents – Part III: Organic Analytical Reagents in Electroanalysis, *Pure Appl. Chem.*, 1991, **63**, 1805.

1.2. Buffer (pH)

pH buffers are substances that resist a change in the pH of a solution when acid or base is added. Simple buffers are mixtures of, e.g. a weak acid and its anion (acetic acid/sodium acetate), and are widely used. However, in some instances, the buffer components interact in undesirable ways with the analytical system, especially when biochemical studies are being undertaken, e.g. by forming complexes or by inhibiting enzymes. To minimize such interactions, a series of zwitterionic *N*-substituted amino-sulfonic acids (the so-called “Good” buffers) have been introduced, which include compounds such as **4-(2-Hydroxyethyl)-1-piperazineethanesulfonic acid (HEPES)**. The pH of particular buffer solutions may be calculated from the pK_a values for the buffering compound, or found in one of numerous compilations.

Additional references

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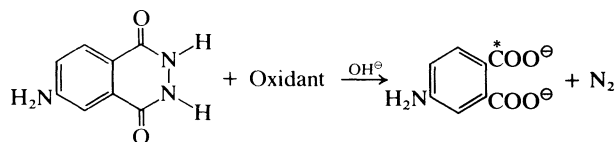
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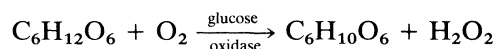
Hulanicki, A., *Reactions of Acids and Bases in Analytical Chemistry*, Horwood, Chichester, 1987.
Handbook of Chemistry and Physics, 74th Edn., CRC Press, Boca Raton, 1993.

1.3. Chemiluminescence generation agent

Chemiluminescence (CL) is the light generated by a chemical reaction. The product of the reaction is formed in an excited state, which can then emit light, or transfer its energy to another species (sensitizer, fluorophore) which then emits. The most common CL reaction is the oxidation of **Luminol** (5-amino-2,3-dihydrophthalazine-1,4-dione, catalysed by various metal ions) in alkaline solution, to form the emitter 3-aminophthalate:



Analytical applications of CL measurements based on luminol involve determination of the oxidant, or trace metal catalyst, or monitoring various enzyme-catalysed reactions which produce hydrogen peroxide, which is then determined by CL. Glucose determination using glucose oxidase:



is a typical example.

A useful way of generating sensitized CL is by the use of aryl oxalates such as **Bis(2,4,6-trichlorophenyl) oxalate**. On oxidation they only emit very weak CL, but they are capable of stimulating intense

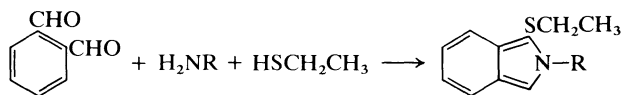
luminescence from a wide range of fluorophores, including polyaromatic hydrocarbons and rhodamine-type compounds. The reactions are usually used for determination of fluorophores, often on-line after liquid chromatographic separation.

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 Robards, K. and Worsfold, P.J., Analytical Applications of Liquid-phase Chemiluminescence, *Anal. Chim. Acta*, 1992, **266**, 147.

1.4. Chromatographic derivatisation agent

Gas and liquid chromatography are extremely popular analytical techniques for analysis of multi-component mixtures. Supercritical fluid chromatography, capillary electrophoresis and ion-exchange chromatography have also become popular in the last decade. Derivatisation in chromatography is often required either to improve the amenability of the analytes to chromatographic separation or to improve their detectability. For example, methylation or silylation is often used to make compounds more volatile, so that they can be separated and determined by gas chromatography. Analytes can be converted to fluorescent derivatives (before or after liquid chromatographic separation) so that they can be detected with great sensitivity by their derivative's fluorescence. A typical example is the reaction of amines with **1,2-Benzenedicarboxaldehyde** in the presence of 2-mercaptoethanol to produce a fluorescent derivative:



Additional references

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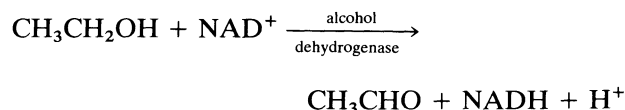
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Hanai, T. (Ed.) *Liquid Chromatography in Biomedical Analysis*, Elsevier, Amsterdam, 1991.

Blau, K. and King, G.S., *Handbook of Derivatives for Chromatography*, 2nd Edn., Wiley, New York, 1992.

1.5. Enzyme substrate or co-factor

Enzyme-catalysed reactions are widely used for analytical purposes, for the determination of substrates (e.g. glucose oxidase for determination of glucose) and of inhibitors (such as pesticides, by their inhibition of cholinesterase) and activators. Although enzymes are very useful as analytical reagents, they are not classified individually in this Dictionary. However, enzymes themselves are extensively assayed by clinical chemists, biochemists, forensic scientists and food chemists, and the substrates used for such assays are carefully chosen to achieve optimum sensitivity, selectivity and reliability. Such substrates are listed in this Dictionary, as are the co-enzymes (co-factors) required by many redox enzymes, for example nicotinamide adenine dinucleotide (NAD^+/NADH) which is a co-enzyme for many dehydrogenases, e.g.



Additional reference

Bergmeyer, H.U. (Ed.), *Methods of Enzymatic Analysis*, 3rd Edn. 12 vols, VCH, Weinheim, 1986.

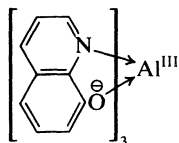
1.6. Extractant

Analytes can be separated from the sample matrix (or vice versa) or from other analytes by extraction into a water-immiscible liquid phase. Such extractions are carried out for a number of reasons (removal of, or from interfering species, increasing the analyte concentration, improving the detectability of the analyte). For most organic analytes, extraction takes place without the aid of another reagent, although recently the improved extraction achieved with the aid of micelles or cyclodextrins has been extensively investigated. The main exceptions are the extraction

Analytical Reagents

of charged species, such as quaternary ammonium ions, or long chain sulfonate ions, which is achieved after ion-pair formation with a bulky anion (e.g. **Methyl orange**) or cation (e.g. **Methylene blue**), respectively. In such instances, the highly coloured extracted species are readily detected by spectrophotometry.

Inorganic ions can also be extracted with the aid of organic reagents. Oxoanions such as $\text{Cr}_2\text{O}_7^{2-}$ can be extracted as ion pairs with bulky cations e.g. benzyltributylammonium ions. Metal ions can be converted into chelates. If the chelate is uncharged, as, for example, in tris(8-quinolinolato)aluminium:



it is likely to be readily extractable (and to precipitate from aqueous solution). If it is charged, as in **Tris-(1,10-phenanthroline- N^1, N^{10})iron(II)(2+)** (ferroin), a polarizable counterion e.g. iodide or thiocyanate can be added to facilitate extraction.

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- Bowd, A.J., Burns, D.T. and Fogg, A.G., Analytical Aspects of Organo-P, As, Sb, S, Se, Te and Sn(IV) (Onium) cations, *Talanta*, 1969, **16**, 719.
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- Alegret, S., *Developments in Solvent Extraction*, Horwood, Chichester, 1988.
- Malat, M., *Extrakční Spektrofotometrie Kovů a Nekovů*, SNTL, Prague, 1988.
- Rydberg, J., Musikas, C. and Choppin, G.R. (Eds.), *Principles and Practices of Solvent Extraction*, Dekker, New York, 1992.

1.7. Fluorescent label

Fluorimetry provides a very sensitive means of detection in organic and inorganic analysis. Most analyte species, however, are not fluorescent, or are only weakly so. Thus, if they are to be detected fluorimetrically, they have to be 'tagged' or 'labelled' with a fluorophore by reaction with derivatives of molecules such as **Fluorescein**, **Anthracene** or **Rhodamine B**. Such derivatives are valuable for liquid chromatographic detection. They are also useful for labelling of antibodies or antigens in immunoassay procedures, and for labelling of DNA fragments.

1.8. Gravimetric reagent

Most inorganic ions can be determined by precipitation, collection of the precipitate, and either weighing the dry precipitate as such or after conversion to another (more stable) compound, usually by heating. Certain organic reagents have been particularly effective as gravimetric precipitants because the compounds formed are readily filtered off, have a reproducible, stoichiometric composition, and can readily be dried and weighed. The analyte element proportion of the precipitate is often quite small, so that a small amount of analyte gives rise to a large weight of precipitate, which can be weighed relatively precisely. For example, reaction of aluminium with 8-quinolinol produces a precipitate that contains 5.9% by weight of aluminium.

Additional references

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- Erdey, L. *Gravimetric Analysis*, Pergamon, Oxford, 1963-5.

1.9. Indicator

An indicator is a compound that is added to a solution being titrated to indicate the equivalence point of the titration. During the titration, there is an abrupt change in a visual property of the compound, denoted the 'end-point' which, if the indicator has been properly chosen, will be coincident with the equivalence point. The visual property involved is usually colour, i.e. there is a distinct colour change at the end point, but there are many examples of fluorescent indicators and chemiluminescent indicators, where the end-point is usually indicated by the appearance or disappearance of luminescence.

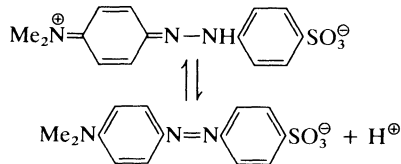
The mode of action of the indicator depends on the type of titration:

(a) Acid-base

An acid-base indicator is a weak acid or weak base, whose conjugate forms have distinctly different colours, e.g. for an indicator A which is a weak acid,



A and A^{\ominus} have different colours. The colour of the solution during the titration depends on their relative concentrations, which in turn depends on the pH of the solution and the acid dissociation constant of the indicator (k_A). A colour change is visible approximately from $[A] = 10[A^{\ominus}]$ to $[A] = 0.1[A^{\ominus}]$, so the pH range for the colour change is given by $(0.1 - 10) k_A$. A typical example is **Methyl orange**.



(b) Argentimetric (adsorption)

The end-point of a precipitation titration of substances (usually halides and pseudohalides) with silver ions can be detected by the change in colour of certain compounds adsorbed on the precipitate. The colour change results from a change of the charge on the precipitate surface at the equivalence point, which leads to a change in the light absorption properties of the adsorbed indicator. The best-known example is **Fluorescein**, which changes from colourless to pink when silver ions become in excess in the solution.

(c) Compleximetric

Almost all compleximetric titrations of metal ions are carried out with EDTA or related compounds as titrant. The equivalence point, when all the metal ion

has just been complexed by titrant, can be located by using chromogenic complexing agents which form significantly weaker complexes with the metal ion than does EDTA. The final drops of titrant remove the metal ion from its coloured complex, thus causing an abrupt colour change. A large range of spectrophotometric reagents for metals can be used as compleximetric indicators. Typical examples are **Xylenol orange** (an iminodiacetic acid derivative) and **Chrome black special** (Eriochrome black T, an azo dye). A limited number of fluorescent indicators is also available. These become fluorescent when their metal chelates are dissociated at the end-point.

(d) Redox

The equivalence point of a given redox titration occurs at a particular electrochemical potential, governed by the standard redox potentials of the reactants and the reaction conditions. A redox indicator is a compound that reversibly changes its colour (or, rarely, luminesces) at a particular potential. Thus the indicator is chosen so that its transition potential overlaps the equivalence potential of the titration system.

There are two main types of indicator. One involves a complex of a metal ion, which changes colour when the oxidation state of the metal ion changes. The iron-1,10-phenanthroline system is a typical example, the iron(II) chelate (ferroin) being red, the iron(III) chelate (ferrion) being essentially colourless (actually very pale blue). The transition potential is about 1.1 V, so the indicator is very suitable for use in titrations with cerium(IV) in sulphuric acid. The second type of indicator comprises various types of organic compound (aromatic amines, triphenylmethane dyestuffs, for example) which can be oxidised and reduced reversibly, and change colour on doing so. **N,N'-Diphenylbenzidine** is a typical example.

Additional references

Bishop, E. (Ed.), *Indicators*, Pergamon, Oxford, 1972.

Polster, J. and Laehmann, H., *Spectrometric Titrations*, VCH, Weinheim, 1989.

1.10. Masking agent

A masking agent is a molecule that binds with another species to form a soluble product, thus preventing it from reacting with a particular analytical reagent and interfering with an analytical measurement. In most instances, such masking agents are complexing agents, and act by complexing with the potential interferent so that it does not participate in the

Analytical Reagents

analytical reaction. The analytical reaction may itself be a complexing reaction, but also could be, for example, precipitation, a redox reaction (including an electrochemical process), or extraction. Some typical examples are given below. Small amounts of Cu(II) can be separated from Hg(II) by extraction with **Dithizone**, if a 1M bromide solution is used to mask (i.e. complex with) the Hg. Oxalate, tartrate or citrate can prevent precipitation of the hydrated oxides of Fe(III) or Al. Triethanolamine masks Al and Fe(III), thus allowing the titration of Ca with EDTA in the presence of these other ions using murexide as indicator. In this last example, the masking agent also prevents reaction of Fe(III) and Al with the indicator. These ions block the indicator action in that the Fe(III) and Al complexes of murexide are not broken down by EDTA.

Additional references

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- Perrin, D.D., *Masking and Demasking of Chemical Reactions*, Wiley-Interscience, New York, 1970.
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1.11. NMR shift reagent

Such reagents are used to disperse the NMR peaks obtained for certain types of compound over a larger frequency range, thus often allowing overlapping peaks to be separated. These reagents are usually complexes of the paramagnetic ions Eu³⁺ or Pr³⁺, e.g. the dipivalomethanato complex of Pr(III) [**Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')-praseodymium(III)**, Pr(thd)₃], generally dissolved in non-polar solvents such as CCl₄, CDCl₃ or C₆D₆, to avoid competition of the solvent with the analyte for sites on the metal ion. The shift is caused by the interaction with the analyte of the magnetic field generated by the large magnetic moment of the paramagnetic ions in the reagent complex.

Additional references

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- Atta-ur-Rahman, *NMR Basic Principles*, Springer, New York, 1986.
- Flockhart, B.D. and Burns, D.T., *Organic Analytical Reagents in Nuclear Magnetic*

Resonance Spectroscopy, *Pure Appl. Chem.*, 1987, **59**, 915.

Popov, A.I. and Hallenga, K. (Eds.), *Modern NMR Techniques and their Application in Chemistry*, Dekker, New York, 1990.

1.12. Scintillator

A scintillator is a compound which, when dissolved in an appropriate solvent, is raised to an excited state by collision with β -particles. The β -particles mainly excite the solvent molecules, and the excitation energy is then transferred to the scintillator. The subsequent de-excitation results in the emission of a photon. Excitation is caused even by low energy β -particles, such as those emitted by ³H, ¹⁴C, ³⁵S and ¹²⁵I, so that the scintillation process is widely used to monitor such emitters, the detector being a photomultiplier tube. Scintillation counting is used in a wide range of analytical procedures, especially in radioimmunoassay and radiotracer studies.

The solvent used is usually an aromatic hydrocarbon (toluene or xylene are most common), or sometimes dioxan. The scintillator is a polyaromatic fluorophore, such as **2,5-Diphenyloxazole** (PPO). In the past it has sometimes been necessary to add a secondary scintillator to which the energy is transferred from the primary scintillator. Secondary scintillators, of which **2,2'-(1,4-Phenylene)bis-[5-phenyloxazole]** (POPOP) is the most well known, are somewhat larger molecules, with more delocalisation than the primary scintillators: they emit at longer wavelengths at which photomultiplier tube sensitivity is greater.

1.13. Spectrofluorimetric reagent

Relatively few organic compounds, and only a handful of inorganic species are sufficiently fluorescent to be detectable at trace levels by direct monitoring of their native fluorescence. In order to provide sensitive spectrofluorometric procedures for most analytes, therefore, reagents have to be used which convert the analyte into fluorescent derivatives. For metal ions, such reagents are generally chelating agents (and which can often also be used as extractants). A typical example is **8-Hydroxy quinoline**, which forms fluorescent chelates with a number of metal ions. For organic compounds, a wide variety of reagents is available, which themselves are generally highly fluorescent, and produce intensely fluorescent products. Typical reagents are **1,2-Benzenedicarboxaldehyde** or **Dansyl chloride**, which form fluorescent derivatives with amines. Some of these reagents are used as chromatographic

derivatizing agents in conjunction with fluorimetric detection.

Additional references

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- Guilbault, G.G., *Practical Fluorescence: Theory, Methods and Techniques*, Dekker, New York, 1973.
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- Snell, F.D., *Photometric and Fluorometric Methods of Analysis. Metals, Parts 1 and 2* (1978), *Non metals* (1981), Wiley-Interscience, New York.
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- Wolfbeis, O.S. (Ed.), *Fluorescence Spectroscopy: New Methods and Applications*, Springer, Berlin, 1993.

1.14. Spectrophotometric reagent

Absorption spectrophotometry in the UV-visible region is arguably the most common analytical technique in current use, being employed in batch analysis, flow systems (including chromatography and electrophoresis), and in optical sensors (opt(r)odes). Many inorganic and organic species are sufficiently absorbing at particular wavelengths within the UV-visible range that they can be determined without further treatment. However, for poorly absorbing species, or for increasing the sensitivity or changing the wavelength at which absorbance measurements are made, reaction with appropriate reagents is commonplace. For metal ions, reaction with chromogenic chelating agents is the usual procedure. For example, iron(II) gives an intense red, water soluble complex with 1,10-phenanthroline $[\text{Fe}(1,10\text{-phen})_3]^{2\oplus}$ which has a molar absorptivity of $1.1 \times 10^4 \text{ l mol}^{-1} \text{ cm}^{-1}$. The most highly absorbing chelates have molar absorptivities of the order of $10^5 \text{ l mol}^{-1} \text{ cm}^{-1}$, and consequently provide a means of high sensitivity detection.

There is a great variety of chromogenic reactions for inorganic compounds; sulphur dioxide, for example, is frequently determined spectrophotometrically after reaction with Tris(4-aminophenyl)-methanol (pararosaniline). There is also an extremely large selection of reagents available for organic compounds, either for classes of compounds (for example, amines, carbonyl compounds) or for individual species.

metrically after reaction with Tris(4-aminophenyl)-methanol (pararosaniline). There is also an extremely large selection of reagents available for organic compounds, either for classes of compounds (for example, amines, carbonyl compounds) or for individual species.

Additional references

- Snell, F.D. and Snell, C.T., *Colorimetric Methods of Analysis, Including Photometric and Fluorimetric Methods, Vols I–IV, and various supplements up to Vol. IV AAA*, Van Nostrand Reinhold, (1919–1971).
- Boltz, D.F. and Howell, J.A. (Eds.), *Colorimetric Determination of Nonmetals*, 2nd Edn., Wiley-Interscience, New York, 1978.
- Sandell, E.B. and Onishi, H. *Photometric Determination of Traces of Metals. General Aspects*, 4th Edn., Wiley-Interscience, New York, 1978.
- Thomas, L.C. and Chamberlain, G.J., *Colorimetric Chemical Analytical Methods*, 9th Edn., Tintometer, Salisbury, 1980.
- Onishi, H. *Photometric Determination of Traces of Metals. Part IIA: Individual Metals, Aluminium to Lithium* (1986), *Part IIB: Individual Metals, Magnesium to Zirconium* (1989), 4th Edn., Wiley-Interscience, New York.
- Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, 2nd Edn., Horwood, Chichester, 1986.
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- Malat, M., *Extrakční Spektrofotometrie Kovů a Nekovů*, SNTL, Prague, 1988.
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- Ackermann, G., Sommer, L. and Burns, D.T., in *Handbook of Chemistry and Physics*, 74th Edn., CRC Press, Boca Raton, 1993.

1.15. Surfactant

Surfactants find a variety of uses in analytical processes. One is the formation of micelles (or microemulsions) which can provide protective environments for analytes or reagents which may enhance stability, or luminescence intensity, for example, or allow reagents to act in conditions not normally accessible to them. They also find application in sample pretreatment including flotation procedures, electro-analytical measurements (e.g. suppression of polarographic maxima) and flow systems.

Additional references

- Sebba, F., *Ion Flotation*, Elsevier, Amsterdam, 1962.
Lemlich, R. (Ed.), *Adsorptive Bubble Separation Techniques*, Academic Press, New York, 1972.
Diaz Garcia, M.E. and Sanz-Medel, A., Dye-Surfactant Interactions: A Review, *Talanta*, 1986, **33**, 255.
Caballero, M., Cela, R. and Perez-Bustamante, J.A., Analytical Applications of some Flotation Techniques, *Talanta*, 1990, **37**, 275.

1.16. Titrant

A titration is the process of determining the quantity of a substance by adding measured increments of another substance, the titrant. The latter is almost always added as a standardised solution (or by electrolyte generation, as in a coulometric titration). The end-point of the titration, which should indicate the addition of an exact chemical equivalence, is recognized by a visual indicator or instrumentally. Titrations are based on acid-base reactions (for determination of acids or bases), redox reactions (for determining oxidants or reductants), chelating reactions (usually with EDTA-type compounds, for determination of metal ions) or precipitations (usually of halides or pseudohalides with silver ions).

Additional references

- Kolthoff, I.M., Stenger, V.A. and Belcher, R., *Volumetric Analysis*, Interscience, New York, 1942–57.

2. Description of main classes of analytical reagents

The ability of a reagent to react with metal ions is generally derived from a particular feature of the molecule, the functional group, as was clearly stated by Feigl many decades ago. For example, all molecules containing the grouping $-\text{N}=\text{C}-\text{C}=\text{N}-$ will be expected to complex strongly with Fe(II) and Cu(I) , and form highly coloured chelates. Compounds bearing the $\text{HN}-\text{C}=\text{S}$ grouping will bind strongly with Hg(I) , (II) , Ag(I) and the noble metal ions. The measurable properties of the complexes formed depend on other features of the reagent, such as the presence of chromophoric groups (in a spectrophotometric reagent) or of electroactive groups (in an electroanalytical reagent).

This Dictionary classifies such reagents, where appropriate, on the basis of the following most commonly encountered functional groups or compound types.

- Berka, A., Vulterin, J. and Zyka, J., *Newer Redox Titrants*, Pergamon, Oxford, 1965.
Schwarzenbach, G., Flaschka, H. and Irving, H.M.N.H., *Complexometric Titrations*, 2nd Edn., Methuen, London, 1969.
West, T.S., *Complexometry with EDTA and Related Reagents*, 3rd Edn., BDH Chemicals, Poole, 1969.
Erdey, L. and Svehla, G., *Ascorbinometric Titrations*, Akadémiai Kiadó, Budapest, 1973.
Svehla, G., *Automatic Potentiometric Titrations*, Pergamon, Oxford, 1978.
Šafařík, L. and Stránský, Z., *Titrimetric Analysis in Organic Solvents*, Elsevier, Amsterdam, 1986.
Oehme, F. and Richter, W., *Instrumental Titration Techniques*, Hüthig, Heidelberg, 1987.

1.17. Turbidimetric/Nephelometric reagent

Many analytes can be determined by measuring the light-scattering that occurs after they have been converted into a colloidal suspension by addition of a suitable reagent under appropriate conditions. The reagents used are generally precipitants, but the conditions for the reaction are chosen so that a highly dispersed precipitate is formed. In turbidimetry, the light absorbed by the suspension is measured (equivalent to spectrophotometry), whereas in nephelometry the intensity of the scattered light is monitored.

Additional reference

- Bobtelsky, M., *Heterometry*, Elsevier, Amsterdam, 1960.

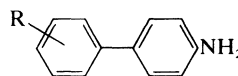
Additional references

- Feigl, F., *Chemistry of Specific, Selective and Sensitive Reactions*, Academic Press, New York, 1949.
Kodama, K., *Methods of Quantitative Inorganic Analysis*, Interscience, New York, 1963, pp. 45–142.

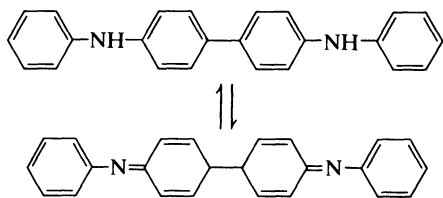
See also the references to the introductory section of this Chapter.

2.1. Aminobiphenyl compounds

Compounds with the general structure:



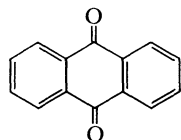
and related compounds are used analytically in two ways. One is as a precipitant for certain oxoanions, especially sulphate. The traditional reagent was benzidine (**4,4'-Diaminobiphenyl**) but it is no longer used because it is a carcinogen. Alternative, non-carcinogenic derivatives are available, such as **4-Amino-4'-chlorobiphenyl**. The other uses of such compounds are as redox indicators. **N,N'-Diphenylbenzidine** is a typical example, which is reversibly oxidized to *N,N*-diphenylbenzidine violet:



This indicator is used in iron(II) - dichromate titrations.

2.2. Anthraquinones

Anthraquinone itself is:



Many of its hydroxy derivatives form strong complexes with metal ions. For example, Alizarine (**1,2-Dihydroxyanthraquinone**) forms coloured suspensions or solutions by complexing with one of a wide range of metal ions, including Zr, Th, Ga, In, Ti and U. The red-violet Zr(IV) chelate is decolourised by F[⊖], by preferential complexation of F[⊖] with Zr(IV), thus providing the basis of a popular spectrophotometric method for the determination of fluoride.

Alizarine fluorine blue is the 3-methylamino-*N,N*-bisacetic acid derivative of alizarine, the Ce or La chelate of which binds with fluoride ions to form a ternary complex. This was the first reagent that could be used for the direct spectrophotometric determination of fluoride.

2.3. Azo compounds

Azo compounds, especially those with at least one coordinating group on an aromatic ring ortho to the azo group, form strongly bound, highly coloured metal chelates, and thus find use as spectrophotometric reagents and compleximetric indicators. Many of these compounds were originally developed as

dyestuffs, and are classified in the Colour Index. A typical example is **Chrome black special** which forms a red, soluble chelate with Mg^{2⊕} and can thus be used as an indicator for the EDTA titration of Mg^{2⊕}, and as a spectrophotometric reagent for that metal. Other azo compounds, such as **1-(2-Pyridyl-azo)-2-naphthol (PAN)** were developed specifically as metallochromic reagents.

Hydroxy-substituted azo compounds frequently exhibit tautomerism which can lead to difficulties with nomenclature and CAS registration (see note in Introduction).

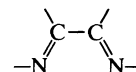
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Anderson, R.G. and Nickless, G., Heterocyclic Azo Dyestuffs in Analytical Chemistry, *Analyst*, 1967, **92**, 207.

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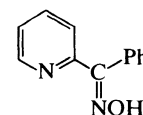
2.4. 2,2-Bipyridyl and related compounds:

Compounds containing the functional group:



chelate with many metal ions via the two nitrogen atoms. However, of the common metal ions only Cu(I) and Fe(II) produce intensely coloured complexes which are used for spectrophotometric measurements and, in the case of the iron(II) complexes, as redox indicators. The complexes of the other metal ions are colourless, absorbing only in the UV region. This allows such ligands to be used as effective masking agents for these other metal ions. The generic example of such a compound is **2,2'-Bipyridine (bipy)** which forms charged and therefore water soluble complexes of the type [Fe(bipy)₃]^{2⊕}. Considerable effort has been made to synthesize more elaborate derivatives which have improved analytical properties such as greater molar absorptivity or changed redox potential for its iron(II) complex.

Many other reagents contain this functional group, including phenyl-2-pyridyl ketoxime



and **Dimethylglyoxime**.

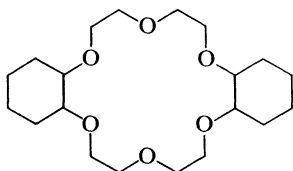
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- Schilt, A.A., *Analytical Reactions of 1,10-Phenanthroline and Related Compounds*, Pergamon, Oxford, 1969.

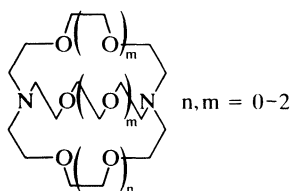
2.5. Crown ethers and cryptands

Crown ethers are macrocyclic polyethers, forming charged metal ion complexes by ion-dipole interactions. These complexes, with an appropriate counter-ion, are usually soluble in organic solvents. A simple example is dicyclohexyl-18-crown-6 (18 atoms in the ring, 6 heterocyclic oxygen atoms).



Selectivity is achieved in such reagents by changing the size and shape of the cavity, introduction of other heteroatoms, etc. Of the simple crown ethers, potassium is most strongly complexed by dicyclohexyl-18-crown-6 because the cavity diameter (0.26–0.32 nm) is almost the same as that of the potassium ion (0.27 nm), but a ring of 15–18 atoms binds more strongly to the smaller sodium ion, and one of 18–21 atoms is optimal for the larger caesium ion. Such reagents can be used for extraction of metal ions, especially the alkali and alkaline earth metals, and can be used in ion-selective electrodes for such cations. Addition of chromophores to the basic crown structure produces spectrophotometric extractants and reagents that can be used in ion-selective opt(r)odes.

Cryptands are essentially 3-dimensional (cage) analogues of crown ethers. A simple series of cryptands is as follows:



They bind strongly with alkali metal ions that can be accommodated within the cage. Their uses are similar to those of the cryptands, as are those of the calixarenes and spherands, which are similar molecules with a partial cage structure.

Additional references

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- Cooper, S.R., (Ed.), *Crown Compounds. Towards Future Applications*, VCH, New York, 1992.
- Hiraoka, M. (Ed.), *Crown Ethers and Analogous Compounds*, Elsevier, Amsterdam, 1992.

2.6. Dansyl compounds

These are compounds that are used to react with non-fluorescent organic compounds to produce fluorescent derivatives, which can then be determined directly by spectrofluorimetry, or by liquid chromatography with fluorescence detection. For example, amines may be determined by coupling with dansyl chloride (**5-Dimethylamino-1-naphthalene-sulfonyl chloride**)

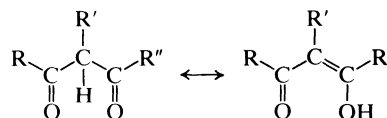
2.7. Diazo compounds

Diazonium compounds ($R-N_2^{\oplus}$) are used to couple to aromatic rings, thus producing intensely coloured derivatives which can be monitored by spectrophotometry. Reaction with 8-quinolinol (**8-Hydroxyquinoline**) is a typical example. They are also used for coupling with enzymes in order to produce immobilised enzymes in order to produce immobilised enzymes, or for labelling antibodies.

Diazo compounds such as **4-Diazobenzenesulfonic acid** gives colours on reaction with H_2S and certain other inorganic species.

2.8. β -Diketones

These compounds have the general formulae:



They form strongly bound chelates with a wide range of metal ions. Generally the chelates are uncharged, and are readily soluble in organic solvents. The aluminium chelate, for example, is AL_3 . Such reagents are widely used for liquid-liquid extraction of metal ions. They also find use as spectrophotometric reagents, as ligands for producing volatile metal chelates which can be used for gas chromatographic separation of metal ions, and, more recently, for use in liquid chromatography of metal ions. Certain rare earth β -diketone chelates have also been used as fluorescent labels in immunoassay procedures

where a relatively long-lived emission is required to distinguish the analyte signal from endogenous matrix emissions.

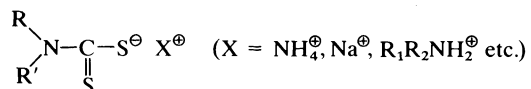
Additional references

Starý, J. and Hladký, E., Systematic Study of the Solvent Extraction of Metal β -Diketonates, *Anal. Chim. Acta*, 1963, **28**, 227.

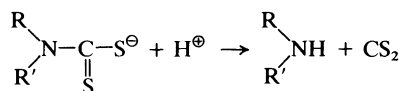
Mehrota, R.C., Bohra, R. and Gaur, D.P., *Metal β -Diketonates and Allied Derivatives*, Academic Press, London, 1978.

2.9. Dithiocarbamates

A wide range of dithiocarbamates has been investigated as potential analytical reagents for metal ions, largely as extractants followed by spectrophotometric measurement. The compounds have the general formula:



and form uncharged chelates with metal ions, such as CuL_2 , by binding via the S and, probably, N atoms. The compounds break down in sufficiently acidic solution:



Additional references

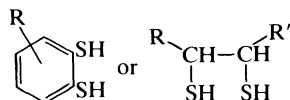
Thorn, G.D. and Ludwig, R.A., *The Dithiocarbamates and Related Compounds*, Elsevier, Amsterdam, 1962.

Hulanicki, A., Complexation Reactions of Dithiocarbamates, *Talanta*, 1967, **14**, 1371.

Bajo, S., Calculation of the Optimal Experimental Conditions for Liquid-liquid Extractions with Diethyldithiocarbamic acid, *Anal. Chim. Acta*, 1979, **105**, 281.

2.10. Dithiols

These are usually 1,2-dithiols:



which form precipitates with heavy metals and As and Sb in acidic aqueous media. The precipitate can usually be extracted into organic solvents for spectrophotometric measurements. Such reagents have also

been used to prevent interference by certain metals in EDTA titrations.

2.11. Dithizone derivatives

Dithizone ($\text{PhN}=\text{NCSNHNHPh}$) forms uncharged, water insoluble complexes with most heavy metals, especially Hg (forming HgL_2), Ag and Cu, which can be extracted into organic solvents and measured spectrophotometrically. Various derivatives of dithizone have been prepared in an attempt to improve on its analytical properties and its stability. Its metal complexes are subject to photochemical decomposition. Dithizones are potentially capable of tautomerism to SH-forms, leading to difficulties of nomenclature and CAS registration (see note on page xi).

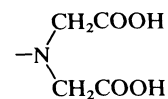
Additional references

Irving, H.M.N.H., *Dithizone*, Chemical Society, London, 1977.

Irving, H.M.N.H., The Analytical Applications of Dithizone, *Crit. Rev. Anal. Chem.*, 1980, **8**, 321.

2.12. EDTA-type compounds

Compounds containing the iminodiacetic acid functional group:

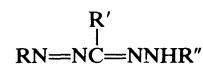


chelate with most metal ions via the nitrogen and oxygen atoms in many instances forming very strongly bound water soluble complexes. Molecules of this type, especially EDTA (**Ethylenediaminetetraacetic acid**) itself are used as compleximetric titrants for metal ions because the chelates formed are almost always 1 : 1 metal : ligand species, and are colourless unless the metal ion itself is coloured. Such compounds are also very useful masking agents for metal ions.

Introduction of the iminodiacetic acid group into highly coloured molecules produces chromogenic metal binding reagents that form water soluble complexes. Such reagents (of which **Xylenol orange** is typical) are employed as very sensitive spectrophotometric reagents or as indicators for compleximetric titrations.

2.13. Formazans

Formazans have the general formula:



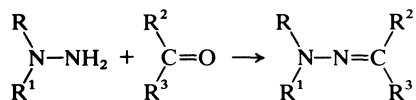
Analytical Reagents

They bind transition metal ions to form highly coloured, extractable metal chelates.

Formazans exhibit tautomerism which can lead to difficulties with nomenclature and CAS registration (see note in Introduction).

2.14. Hydrazine derivatives and hydrazones

Hydrazones are formed from the reaction between hydrazine derivatives and carbonyl compounds:



These are usually highly coloured, and are widely used for detection and spectrophotometric determination of carbonyl compounds.

Many hydrazones form highly coloured chelates with metal ions, and thus find use as spectrophotometric reagents. **2-Pyridinecarboxaldehyde 2-pyridylhydrazone** is a typical example. **Luminol** is also a hydrazine derivative, widely used for its chemiluminescent property.

Additional references

Přibil, R., *Analytical Applications of EDTA and Related Compounds*, Pergamon, Oxford, 1972.

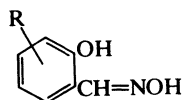
Kaytal, M. and Dutt, T., *Analytical Applications of Hydrazones*, *Talanta*, 1975, **22**, 151.

Singh, R.B., Jain, P. and Singh, R.P., *Hydrazones as Analytical Reagents*, *Talanta*, 1982, **29**, 77.

2.15. Hydroxylamine derivatives

A number of types of compound can be considered as hydroxylamine derivatives. *Hydroxamic acids* have the general formula $\text{RC}(\text{OH})\text{NOH}$ and can be used to precipitate or extract a range of metal ions, including Zr, Th, Fe and Cr. **Cupferron** (ammonium *N*-nitroso-*N*-phenylhydroxylamine) and *N*-substituted phenylhydroxylamines such as ***N*-Benzoyl-*N*-phenylhydroxylamine** behave similarly to the hydroxamic acids, and are used for similar purposes.

Numerous other oximes and nitroso compounds are also used as reagents for metal ions, including hydroxoximes such as salicylaldoxime and derivatives:



α -Dioximes and α -ketomonoximes are discussed separately below.

Additional reference

Majundar, A.K., *N-Benzoylphenylhydroxylamine and its Analogues*, Pergamon, Oxford, 1972.

2.16. Organophosphorus compounds

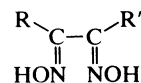
Such compounds find extensive use as metal ion extractants. Solutions of compounds such as **Tributylphosphate** (TBT) in cyclohexane or CCl_4 enable salts such as $\text{UO}_2(\text{NO}_3)_2$ and $\text{Th}(\text{NO}_3)_4$ to be extracted because the TBT solvates the metal ion via its strongly basic oxygen, forming, e.g. $\text{UO}_2(\text{NO}_3)_2 \cdot 2\text{TBT}$. Phosphonium ions such as **Tetraphenylphosphonium** (1+) $[\text{PPh}_4]^{\oplus}$ are used as ion-pairing cations for the extraction of anions such as ClO_4^{\ominus} , ReO_4^{\ominus} and SbCl_6^{\ominus} . Quaternary ammonium salts and arsonium salts behave similarly. Some phosphoric acids have been proposed as metal ion precipitants.

Additional reference

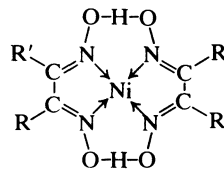
Burns, D.T., *Ions Pairing: A Marriage of Analytical Convenience*, *Anal. Proc.*, 1982, **19**, 355.

2.17. Oximes: α -dioximes

α -Dione dioximes:



have achieved greatest fame as precipitants for Ni and Pd ions, forming uncharged chelates such as:



The Ni and Pd chelates are insoluble in water not only because they are uncharged, but also because the molecules stack along an axis of Ni-Ni bonds. The complexes of other metal ions, such as $\text{Co}^{2\oplus}$ or $\text{Fe}^{2\oplus}$ are coloured but are soluble because of the lack of metal-metal bonding. Soluble complexes can be used for spectrophotometric measurements.

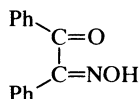
Additional references

Egneus, B., *Investigation of Dioximes and their Metal Complexes: A Survey of the Literature since 1963*, *Talanta*, 1972, **19**, 1387.

Singh, R.B., Garg, B.S. and Singh, R.P., *Oximes as Spectrophotometric Reagents - A Review*, *Talanta*, 1979, **26**, 425.

2.18. Oximes: α -ketomonoximes

α -Ketomonoximes have achieved limited popularity as analytical reagents, as precipitants or extractants for metal ions. 4-Isonitroso-3-methyl-*N*-phenyl-5-pyrazolone (**3-Methyl-1-phenyl-1H-pyrazole-4,5-dione 4-oxime**) and violuric acid (**2,4,5,6(1H,3H)-Pyrimidinetetrone 5-oxime**) give coloured precipitates or soluble complexes with several metal ions. α -Benzilmonoxime and related compounds behave similarly:



Ketomonoximes frequently exhibit tautomerism which can lead to difficulties with nomenclature and CAS registration (see note in Introduction).

2.19. Phenazines and Phenothiazines

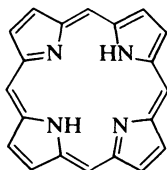
Phenazines form precipitates with Cu(I) and Hg, and form coloured complexes with Bi, Cd and Pb. **Phenothiazine** reacts with Ag, Fe and Pd.

2.20. Phenylfluorones

Phenylfluorones are a variety of chelating xanthene molecules which form sparingly soluble coloured complexes with certain inorganic species. Phenylfluorone (**2,6,7-Trihydroxy-9-phenyl-3H-xanthen-3-one**) itself, for example, forms a reddish suspension with Ge(IV), Ga(III), Sn(IV), Sb(III) and other species. The coloured suspensions can be stabilized with a protective polymer such as poly(vinyl alcohol) for spectrophotometric measurement.

2.21. Porphines

These are molecules based on the porphyrin type structure:



They are used as chromogenic chelating agents for transition metals.

2.22. Quaternary ammonium salts

Compounds of general formula $RR^1R^2R^3N^{\oplus}X^{\ominus}$ are widely used as extractants by forming ion-pairs with anions, including anionic complexes (e.g. $PtCl_6^{2\ominus}$)

and heteropoly anions (e.g. 12-molybdophosphate) as well as simple anions such as SCN^{\ominus} and MnO_4^{\ominus} . Compounds of this type also find use as cationic surfactants.

Additional references

- Bowd, A.J., Burns, D.T. and Fogg, A.G., Analytical Aspects of Organo P, As, Sb, S, Se, Te and Sn(IV) (Onium cations), *Talanta*, 1969, **16**, 719.
 Keller, W.E., *Compendium of Phase-Transfer Reactions and Related Synthetic Methods*, Fluka, Buchs, 1979.
 Burns, D.T., Ion Pairing: A Marriage of Analytical Convenience, *Anal. Proc.*, 1982, **19**, 355.

2.23. 8-Quinolinol derivatives

8-Quinolinol (**8-Hydroxyquinoline**, oxine, HQ) is a classical organic reagent for metal ions.

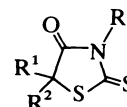
It forms coloured, often fluorescent metal chelates such as AlQ_3 and ZnQ_2 . These complexes are uncharged and precipitate from aqueous solution, so can be used for gravimetric purposes. The chelates can be extracted into various water-insoluble organic solvents, thus providing a means of separating and preconcentrating metal ions, and of spectrophotometric or spectrofluorimetric determination. Numerous derivatives have been synthesised in attempts to improve the analytical properties of these reagents. The 8-thio derivative, **8-Quinolinethiol**, also complexes strongly with a wide range of metal ions, especially the 'heavy' and noble metals. Coloured precipitates are again formed.

Additional references

- Hollingshead, R.G.W., *Oxine and its Derivatives*, Vols. 1-4, Butterworths, London, 1954-6.
 Starý, J., Systematic Study of the Solvent Extraction of Metal 8-Hydroxyquinolinates, *Anal. Chim. Acta*, 1963, **28**, 132.

2.24. Rhodanines

Rhodanines are 5-membered heterocyclic compounds of the general form:



They react with Cu(I), Ag(I), Hg(I), (II) and the noble metals. When R = H, reaction occurs with loss of H^{\oplus} , to give polymeric, insoluble complexes, with bonding to S and N. Incorporation of a chromogenic group at R^1R^2 gives highly coloured colloidal complexes. When R is an alkyl or aryl group, and

Analytical Reagents

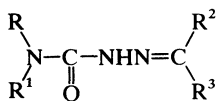
R^1R^2 is a chromogen, intense colours are again produced by the above metal ions, but the mechanism of the reaction is unclear.

Additional reference

Stephen, W.I. and Townshend, A., Some Derivatives of Rhodanine as Analytical Reagents, *Anal. Chim. Acta*, 1965, **33**, 257.

2.25. Semicarbazones

Semicarbazides react with carbonyl compounds to produce semicarbazones:



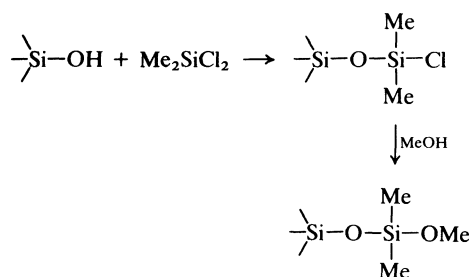
which are used for characterising carbonyl compounds. Many semicarbazones form highly coloured metal chelates which are used for spectrophotometric determination of metals. A few derivatives have also found use as gravimetric and spectrofluorimetric reagents.

Additional reference

Singh, R.B., Garg, B.S. and Singh, R.P., Analytical Applications of Thiosemicarbazones and Semicarbazones – A Review, *Talanta*, 1978, **25**, 619.

2.26. Silyl derivatives

There are many areas of analytical chemistry in which silyl compounds are useful. In gas chromatography, 'active' OH groups on the solid phase silicate material can be deactivated by silanization, by treatment, for example, with dimethyl dichlorosilane:



The volatility of many compounds can be increased by silanization, so as to improve their amenability to gas chromatographic separation. Trimethylsilylimidazole in pyridine is a typical reagent, useful for carbohydrate silylation. Silylating agents also find use

in solid phase pretreatment for attachment of enzymes, antibodies or chelating moieties.

2.27. Thiazoles and related compounds

The most common thiazole used analytically is 2-mercaptobenzothiazole (**2-Benzothiazolethiol**), related to rhodanine, and which precipitates a range of metal ions (Ag^\oplus , $\text{Pb}^{2\oplus}$, Cu^\oplus , and the noble metals). **2-Mercaptobenzimidazole** and its derivatives behave similarly.

2.28. Thiourea derivatives

Thiourea (Tu) and its derivatives ($\text{RR}'\text{NCSNR}^2\text{R}^3$) form strongly bound, water soluble complexes with Ag and the noble metals in acidic media. The Ag complex, for example, is $[\text{AgTu}_3]^\oplus$, so that thiourea under these conditions serves as an excellent masking agent for Ag. As the pH is increased, however, the nature of the reaction changes, with the thiourea reacting similarly to dithizone or rhodanine, with release of a proton and forming a precipitate.

1-Phenylthiosemicarbazide and its derivatives react with many metal ions, including those of the noble metals, to give coloured complexes which may be used for spectrophotometric determination.

Additional reference

Campbell, M.J.M., *Coord. Chem. Revs.*, 1975, **15**, 279.

2.29. Triphenylmethane dyes

A number of valuable metallochromic reagents are based on the triphenylmethane structure. A typical example is **Pyrocatechol violet** which is an acid-base indicator, as well as forming coloured (usually blue) chelates with a wide range of metal ions. Compounds such as **Xylenol orange** are also based on this structure, with the addition of two iminodiacetic acid groups.

Highly fluorescent compounds such as **Rhodamine B** which are used as fluorescent sensitizers, or as a fluorescent ion-pair extractants for bulky anions, are also based on the triphenylmethane structure.

Additional reference

Fogg, A.G., Burgess, C. and Burns, D.T., Use of Basic Dyes in the Determination of Anions, *Talanta*, 1971, **18**, 1175.

2.30. Xanthates

The xanthates are compounds of the type ROCSS^\ominus , usually available as alkali metal salts. They form water insoluble complexes with a wide range of transition metal ions, which are readily extracted into organic solvents.

Additional reference

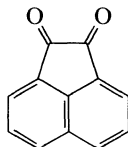
Donaldson, E.M., Solvent Extraction of Metal Xanthates, *Talanta*, 1976, **23**, 417.

A

Acenaphthenequinone

A-00001

1,2-Acenaphthylene-dione, 9CI. 1,2-Dioxoacenaphthene
[82-86-0]



C₁₂H₆O₂ M 182.178

Has bactericidal and fungicidal props. Yellow needles (AcOH). Mp 243-245°, Mp 261°.

Monohydrazone: Yellow prisms. Mp 241°.

Monophenylhydrazone: Orange needles (EtOH). Mp 179°.

Bisphenylhydrazone: Yellow needles (AcOH). Mp 219°.

Monothiosemicarbazone: [95264-76-9]. 2-(2-Oxo-1(2H)-acenaphthylidene)hydrazinecarbothioamide, 9CI

C₁₃H₉N₃OS M 255.300

Used as 3mM soln. in DMF for photometric detn. of Ru (λ_{max} 655 nm, ε 9800) and Pt (λ_{max} 515 nm, ε 12000), Os (λ_{max} 525 nm, ε 15000) and Ir (λ_{max} 520 nm, ε 4900). Cryst. (EtOH). Sol. DMF, EtOH.

Monoxime: [33489-49-5].

C₁₂H₇NO₂ M 197.193

Used as 0.1M soln. in EtOH for photometric detn. of Ru, Pt, Os, Rh. Prisms (EtOH), yellow cryst. (AcOH). Sol. EtOH, AcOH; spar. sol. H₂O. Mp 230° dec. (prisms), Mp 207° dec. (cryst.).

Dioxime: [1932-08-7].

C₁₂H₈N₂O₂ M 212.207

Used as 1mM EtOH soln. for extraction-photometric detn. of Co (λ_{max} 370 nm, ε 12800, CHCl₃), Ni, Cu. Cryst. Sol. EtOH, DMF, dioxan; insol. H₂O, C₆H₆. Mp 221-222°.

Org. Synth., 1944, 24, 1 (synth)

Sah, P.T. et al, Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.), 1950, 69, 1545 (synth, thiosemicarbazone)

Nath Singh, S. et al, Curr. Sci., 1967, 36, 624 (ir)

Staples, T.L. et al, J. Am. Chem. Soc., 1970, 92, 5022 (uv)

Sindhwani, S.K. et al, Anal. Chim. Acta, 1971, 55, 409 (monoxime, detn. Ru)

Cohen, A. et al, J. Org. Chem., 1972, 37, 3147 (ms)

Sindhwani, S.K. et al, Talanta, 1973, 20, 248 (monoxime, detn. Pt)

Borisova, T., Zh. Anal. Khim., 1973, 28, 1820 (detn. Ni, synth)

Kuse, S. et al, Anal. Chim. Acta, 1974, 70, 65 (synth, use, dioxime)

Singh, S.K. et al, Analysis, 1986, 14, 247 (thiosemicarbazone, detn. Ir)

Singh, S.K. et al, Bull. Chem. Soc. Jpn., 1986, 59, 1223 (thiosemicarbazone, detn. Ru, Pt)

Acetaldehyde, 9CI

A-00002

Ethanal

[75-07-0]



C₂H₄O M 44.053

Manuf. by hydration of acetylene, oxidn. of ethanol etc. Intermed. in respiration. Toxic intermed. in ethanol metab. in humans. Widely distributed in essential oils and other plant products. Chemical intermed. used in manuf. of pentaerythritol, paracetic acid, pyridines.

Declining as source of acetic acid. Various acetals are used in perfumery. Misc. H₂O, org. solvs. d₄²⁰ 0.778. Mp -121°. Bp 21°. pK_{a1} 13.57 (25°) (hydrate). n_D²⁰ 1.3316. Readily polymerises. Crit. point 181.5°/63.2 atm.

► Mod. toxic, TLV 180. Extremely flammable, fl. p. -38°. AB1925000.

2,4-Dinitrophenylhydrazone: Yellow plates (EtOH) or orange cryst. Mp 163.5-164.5° (yellow form), Mp 146° (orange form).

Oxime: [107-29-9]. Acetaldoxime. Aldoxime.

Ethylidenehydroxylamine

C₂H₅NO M 59.068

Colorimetric reagent for Co, Cu, Ni. Needles. Sol. H₂O. Mp 47°. Bp 115°. Exists in 2 cryst. modifications.

► Highly toxic. AB2975000.

Semicarbazone: Needles (H₂O or EtOH). Mp 163°.

Di-Me acetal: 1,1-Dimethoxyethane

C₄H₁₀O₂ M 90.122

Synthetic reagent. Bp 64.5°.

► Mod. toxic, highly flammable, fl. p. 1°.

Cyanohydrin: see 2-Hydroxypropanoic acid, H-00516

Dimedone deriv.: Cryst. (EtOH). Mp 141-142°.

Wertheim, E., J. Am. Chem. Soc., 1922, 44, 2658 (synth)

Welcher, F.J., Organic Analytical Reagents, Van Nostrand, New York, 1947, 3, 339 (use, oxime)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, 2, 4.

Austin, G.T., Chem. Eng. (N.Y.), 1974, 81, 127 (rev. manuf)

Kalinowski, H.O. et al, Org. Magn. Reson., 1974, 6, 305 (cmr)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, 1, 97 (bibl)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 159.

Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, AAG250, AAH250.

Acetamide, 9CI

A-00003

[60-35-5]



C₂H₅NO M 59.068

Isol. from some plants e.g. *Chimonanthus fragrans*.

Solubiliser, plasticiser, stabiliser, used industrially as solv. in molten form. Dissolves virtually all classes of organic and inorganic compds. Deliquescent, hexagonal cryst. Odourless when pure but usually has characteristic "mouse" odour. V. sol. H₂O, EtOH; sol. CHCl₃; prac. insol. Et₂O. Mp 82-83°. Bp 222°, Bp₅ 92°. Triboluminescent.

► Mild irritant, exp. carcinogen. AB4025000.

B_{1/2} HBr: [20731-46-8].

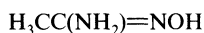
Reagent for brominating acid-sensitive compds. Needles. Mp 138-139°.

Picrate: Mp 117°.

N-Hydroxy, N-Ph: see N-Phenylhydroxylamine, P-00135
Org. Synth., Coll. Vol., 1, 1932, 3 (*synth*)
 Robson, J.H. *et al.* *J. Am. Chem. Soc.*, 1955, **77**, 498 (*deriv*)
 Marakami, M. *et al.* *Bull. Chem. Soc. Jpn.*, 1962, **35**, 11 (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 3.
 Ueki, M. *et al.* *Bull. Chem. Soc. Jpn.*, 1971, **44**, 1108 (*deriv*)
 Ottersen, T., *Acta Chem. Scand., Ser. A*, 1975, **29**, 944 (*cryst struct*)
 Kerridge, D.H., *Chem. Soc. Rev.*, 1988, **17**, 181 (*rev*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AAI000.

Acetamidoxime, 8CI**A-00004**

N-Hydroxyethanimidamide, 9CI
 [22059-22-9]



$\text{C}_2\text{H}_6\text{N}_2\text{O}$ M 74.082
 Used in photometric detn. of Ni. Cryst. Sol. EtOH, H_2O , dioxan. Mp 140°. Hygroscopic.

▷ AC6900000.

B, HCl: [5426-04-0].
 Cryst. Mp 140-142°.

O-Formyl:

$\text{C}_3\text{H}_6\text{N}_2\text{O}_2$ M 102.093
 Cryst. (hexane). Mp 29°.

O-Ac:

$\text{C}_4\text{H}_8\text{N}_2\text{O}_2$ M 116.119
 Cryst. (C_6H_6). Mp 96°.

O-Benzyl:

$\text{C}_9\text{H}_{12}\text{N}_2\text{O}$ M 164.207
 Pale-yellow oil. Bp 200°.

O-Benzyl; B, HCl: Cryst. Mp 163°.

N-Ph: [5661-30-3]. N-Hydroxy-N'-phenylethanimidamide, 9CI. *Acetanilidoxime*

$\text{C}_8\text{H}_{10}\text{N}_2\text{O}$ M 150.180
 Large brown-yellow plates. Mp 121°.

Nordmann, E., *Ber.*, 1884, **17**, 2746 (*synth, deriv*)

Lenaers, R. *et al.* *Helv. Chim. Acta*, 1962, **45**, 441 (*synth*)

Eloy, F. *et al.* *Bull. Soc. Chim. Belg.*, 1964, **73**, 518 (*deriv*)

Masuda, N. *et al.* *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1196;
CA, **80**, 78089g (*detn, Ni*)

Bedford, C.D. *et al.* *J. Med. Chem.*, 1986, **29**, 2174.

(Acetato-O)phenylmercury**A-00005**

Phenylmercury acetate. Acetoxyphenylmercury. Maysan.
Ceresol. Acetoxymercuribenzene



$\text{C}_8\text{H}_8\text{HgO}_2$ M 336.740

Bactericide, fungicide, algicide etc. Reference material used in elemental microanalysis. Needles (H_2O). Mp 146-147°.

▷ Highly toxic orally.

Braker, A.B. *et al.* *Zh. Obshch. Khim.*, 1958, **28**, 2725.

Hutzinger, O. *et al.* *Int. J. Environ. Anal. Chem.*, 1971, **1**, 85 (*ms Analyst (London)*, 1972, **97**, 740 (*microanal*))

Kamenar, B. *et al.* *Inorg. Chim. Acta*, 1972, **6**, 191 (*cryst struct*)

Sens, M.A. *et al.* *J. Magn. Reson.*, 1975, **19**, 323 (*nmr*)

Brown, A.J. *et al.* *J. Chem. Soc., Dalton Trans.*, 1976, 1589 (*cmr*)

Goggin, P.L. *et al.* *J. Chem. Res., Synop.*, 1978, 171 (*ir, raman*)

Schwartzman, G., *J. Pharm. Sci.*, 1978, **67**, 539 (*uv, ir*)

Fedorov, L.A. *et al.* *J. Struct. Chem. (Engl. Transl.)*, 1978, **19**, 549 (*pmr*)

Pesticide Manual, 6th Ed., 1979, 416.

Michel, E. *et al.* *J. Organomet. Chem.*, 1981, **204**, 1 (*cmr, nmr*)

Kamenar, B. *et al.* *Croat. Chem. Acta*, 1984, **57**, 145; *CA*, **100**, 165859.

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 904.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 382.

Acetic acid, 9CI**A-00006**

Ethanoic acid

[64-19-7]



$\text{C}_2\text{H}_4\text{O}_2$ M 60.052

Metabolic intermed., bacterial oxidn. prod. of ethanol, known since ancient times as dil. soln. (vinegar).

Industrial and lab. solv., used for preserving foods.

Major petrochemical used in manuf. of vinyl acetate and other acetate esters. Solv. in prodn. of terephthalic acid. Used as component of buffers; as masking agent for Al, La, Cr(III), Pb, Th; lead(IV) acetate used for photometric detn. of H_2O (λ_{max} 400 nm) in pure solvs. Important industrial chemical. 33rd in order of volume for USA in 1990 (production 1.88 million tons/year).

Liq. or cryst. with powerful vinegar odour. Misc. H_2O , EtOH, Et_2O ; sol. most org. solvs.; insol. CS_2 . d_4^{20} 1.049.

Mp 16.7°. Bp₃₁ 30°. Molecular Fp depression 39, molecular Bp elevation 29.9.

▷ Causes severe burns. TLV 25. Flammable. AF1340000.
Chloride: [75-36-5]. *Acetyl chloride*
 $\text{C}_2\text{H}_3\text{ClO}$ M 78.498
 Acetyating agent. Reduces sulphoxides to sulphides. Used in titrimetric detn. of H_2O (e.g. 0.02%) in solvs. (acid-base reaction). Pungent liq. fuming in air. Sol. Et_2O , C_6H_6 . Mp -112°. Bp 51-52°. Violently hydrol. by H_2O .

▷ Highly toxic and irritant, causes burns. Highly flammable, flash pt. 4°. AO6390000.
Amide: see *Acetamide*, A-00003
sec-Pentyl ester: see *3-Methyl-1-butanol*, M-00147
Hydrazide: [1068-57-1]. *Acetylhydrazide. Acetylhydrazide*
 $\text{C}_2\text{H}_6\text{N}_2\text{O}$ M 74.082
 Needles (EtOH). Sol. H_2O . Mp 67°. Bp₁₈ 127°. Reduces $\text{NH}_3 \cdot \text{AgNO}_3$.

▷ Highly toxic. AI1225000.

2-Phenylhydrazide: see *Phenylhydrazine*, P-00134

2-(4-Nitrophenylhydrazide): [2719-13-3].

$\text{C}_8\text{H}_9\text{N}_3\text{O}_3$ M 195.177
 Used as an acid-base indicator (pH range: 10.0-11.6; colour change: orange → red).

Thompson, C.D. *et al.* *Anal. Chem.*, 1970, **42**, 1474 (*detn, H₂O*)

Perrin, D.D., *Masking and Demasking of Chemical Reactions*, Interscience, New York, 1970.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Karrer, W. *et al.* *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 682 (*occur*)

Lowry, R.P., *Hydrocarbon Process.*, 1974, **53**, 103 (*rev, bibl*)

Holzbecher, Z. *et al.* *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use*)

Couperus, P.A. *et al.* *Org. Magn. Reson.*, 1978, **11**, 590 (*cmr*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **1**, 167 (*rev, bibl*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 3; **8**, 1.

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1305, 1306.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 159, 163.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AAT250, ACF750, ACM750.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ABC750, ABF000, DOM400, TFQ250.

Acetone**A-00007**

2-Propanone, 9CI. Dimethyl ketone
[67-64-1]



$\text{C}_3\text{H}_6\text{O}$ M 58.080

A common constit. of plant tissues, e.g. *Ribes nigrum* volatiles. Widely used solvent. Major industrial intermed. used in manuf. of other solvs., methacrylates and bisphenol A. Forms acetonides with diols and Schiff bases with amines for gc or ms anal. Important industrial chemical, 43rd in order of volume for USA in 1990 (production 1.11 million tons/year). Volatile liq. Misc. H_2O , org. solvs. d_{25}^{20} 0.79. Mp -94° . Bp₂₀ 56.2° . Crit. temp. 246.1° .

► Mod. toxic vapour, TLV 2400. Highly flammable, fl. p. -18° . AL3150000.

Di-Me acetal: [77-76-9]. 2,2-Dimethoxypropane, 9CI

$\text{C}_5\text{H}_{12}\text{O}_2$ M 104.149

Reagent for synth. of acetonides and enol ethers. Bp₂₀ 83° .

Anil: [1124-52-3]. *Isopropylideneaniline*

$\text{C}_9\text{H}_{11}\text{N}$ M 133.193

Bp₂₀ $227-229^\circ$. The trivial name "acetone anil" has also been appl. to 1,2-Dihydro-2,2,4-trimethylquinoline.

Oxime: [127-06-0]. *Acetoxime*

$\text{C}_3\text{H}_7\text{NO}$ M 73.094

Used for photometric detn. of Pt(II). Cryst. (EtOH). Sol. H_2O , EtOH, Et_2O , Me_2CO . Mp 61° . Bp $134-135^\circ$.

► AL6825000.

Semicarbazone: Needles (H_2O or Me_2CO). Mp $190-191^\circ$ dec.

► Highly toxic. Emits toxic fumes when heated to dec.

2,4-Dinitrophenylhydrazone: [1567-89-1].

$\text{C}_9\text{H}_{10}\text{N}_4\text{O}_4$ M 238.202

Used as 0.05% EtOH soln. as acid-base indicator (pH range: 11.6-12.6; colour change: pale yellow → red). Yellow needles (EtOH). Sol. H_2O , EtOH, Et_2O . Mp 128° .

Hydrazone: [5281-20-9]. *Isopropylidenehydrazide*

$\text{C}_3\text{H}_8\text{N}_2$ M 72.110

Used for photometric detn. of V. Cryst. Sol. EtOH, Me_2CO . Bp $122-126^\circ$.

Thiosemicarbazone: [1752-30-3]. 2-(1-Methylethylidene)hydrazinecarbothioamide, 9CI

$\text{C}_4\text{H}_9\text{N}_3\text{S}$ M 131.201

Used as 2.5% soln. in Me_2CO aq. for extraction-photometric detn. of Mo (λ_{max} 472 nm, ϵ 19000, CHCl_3). Yellow cryst. Sol. Me_2CO .

► AL7350000.

Chugreeva, N.V., *Zh. Anal. Khim.*, 1960, **15**, 391 (use, 2,4-dinitrophenylhydrazone)

Org. Synth., 1970, **50**, 3 (synth)

Panasuk, W.D. et al, *Zh. Neorg. Khim.*, 1971, **16**, 2725 (use, oxime)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1972, **3**, 4; **5**, 226.

Fielding, J.C., *Propylene. Its Ind. Deriv.*, 1973, 214 (rev)

Tserkovnitskaya, I.A. et al, *CA*, 1980, **92**, 103709s (use, hydrazone)

Dixon, D.W. et al, *J. Org. Chem.*, 1985, **50**, 3194 (deriv, synth, props)

Thimmaiah, K.N. et al, *Microchem. J.*, 1985, **32**, 281 (synth, detn, Mo)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 161.

Acetophenone, 8CI**A-00008**

1-Phenylethanone, 9CI. Methyl phenyl ketone. Hyponone. Acetylbenzene
[98-86-2]



$\text{C}_8\text{H}_8\text{O}$ M 120.151

Isol. from essential oils. Has soporific props. Solvent, resin intermed. Photochemical sensitiser. Used in extraction separation of Se from Te. Plates (freq. obt. as liq.). Sol. EtOH, Et_2O ; insol. H_2O . d_4^{20} 1.029. Mp 20° . Bp 202° , Bp₅ 67° . n_D^{20} 1.5342.

► AM5250000.

(E)-*Oxime*: [10341-75-0]. syn-*Oxime*

$\text{C}_8\text{H}_9\text{NO}$ M 135.165

Mp $59.5-60.5^\circ$. pK_{a1} 11.35.

(Z)-*Oxime*: [50314-86-8]. anti-*Oxime*

$\text{C}_8\text{H}_9\text{NO}$ M 135.165

Cryst. (CHCl_3 /pet. ether). Mp $81-83^\circ$.

Hydrazone: [13466-30-3].

$\text{C}_8\text{H}_{10}\text{N}_2$ M 134.180

Cryst. (pet. ether). Mp 22° .

Phenylhydrazone: [583-11-9].

Needles (EtOH). Mp 106° .

(E)-2,4-Dinitrophenylhydrazone: [23245-99-0]. syn-2,4-

Dinitrophenylhydrazone

Yellow cryst. Mp $147-147.5^\circ$.

(Z)-2,4-Dinitrophenylhydrazone: anti-2,4-

Dinitrophenylhydrazone

Red cryst. Mp $244-246^\circ$.

Registry of Mass Spectral Data, Wiley-Interscience, 180 (ms)

Sadtler Standard C-13 NMR Spectra, 550 (cmr)

Sadtler Standard Ultraviolet Spectra, 953 (uv)

Org. Synth., Coll. Vol., 1, 1932, 109 (synth)

Jordanov, N. et al, *Talanta*, 1968, **15**, 850 (use)

Aldrich Library of NMR Spectra, 1974, **6**, 6A (pmr)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 5.

Aldrich Library of IR Spectra, 2nd Ed., 1975, 746H (ir)

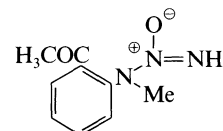
Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (cmr)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ABH000.

3-(2-Acetophenyl)methyltriazene N-oxide**A-00009**

1-[2-(3-Methyl-2-triazenyl)phenyl]ethanone N-oxide, 9CI. IG80

[58100-47-3]



$\text{C}_9\text{H}_{11}\text{N}_3\text{O}_2$ M 193.205

Used in photometric detn. of Co. Cryst. Sol. EtOH, CHCl_3 ; insol. H_2O .

Biswas, N.R. et al, *Indian J. Chem., Sect. A*, 1980, **19**, 58 (use)

2-Acetoxybenzoic acid

A-00010

2-Acetyloxybenzoic acid, 9CI. Salicylic acid acetate, 8CI.
Acetylsalicylic acid. *Aspirin*, USAN
[50-78-2]



$C_9H_8O_4$ M 180.160

Analgesic, antipyretic and antiinflammatory agent. Used as soln. in 10% ammonia for photometric detn. of Mn (λ_{max} 385 nm; in the presence of H_2O_2). Cryst. Mp 135° (rapid heat), Fp 118°. pK_a 3.38 (25°, 1.0M KCl). Ca salt used in combination with urea as Carbaspirin calcium, USAN.

► Mod. toxic. Exp. teratogen. VO0700000.

Me ester: [580-02-9].

$C_{10}H_{10}O_4$ M 194.187

Cryst. Mp 49°.

Et ester: [529-68-0].

$C_{11}H_{12}O_4$ M 208.213

Liq. Bp 272°.

Ph ester: [134-55-4]. *Acetylsalol*. *Phennin*. *Spiroform*.

Vesipyryn

$C_{15}H_{12}O_4$ M 256.257

Analgesic, antipyretic, and antibacterial agent. Mp 97°.

Bp₁₁ 197-198°.

[5749-67-7]

Ciusa, R. *et al*, *Chem. Zentralbl.*, 1943, **2**, 615 (*synth*)

Henriques, H.P. *et al*, *Mikrochim. Acta*, 1971, 807 (*detn*, Mn)

Scott, K., *J. Magn. Reson.*, 1972, **6**, 55 (*nmr*)

Florey, K., *Anal. Profiles Drug Subst.*, 1979, **8**, 1 (*rev*)

Barnett, H.J.M. *et al*, *Acetylsalicylic Acid*, Raven Press, N.Y., 1982 (*book*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2601.

Rainsford, K.D., *Aspirin and the Salicylates*, Butterworths,

London, 1984 (*book*)

Collier, H.O.J. *et al*, *Discoveries Pharmacol.*, 1984, **2**, 555 (*rev. pharmacol*)

Hallam, J. *et al*, *Int. Congr. Symp. Ser. R. Soc. Med.*, 1984 (*rev*)

Kim, Y. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 2641 (*cryst struct*)

Chang, C.J. *et al*, *Magn. Reson. Chem.*, 1986, **24**, 768 (*cmr*)

Pelz, J., *Pharmazie*, 1986, **41**, 733 (*history*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,

Akademie-Verlag, Berlin, 1987, 1120 (*synonyms*)

Vane, J.R. *et al*, *Aspirin and the Salicylates*, Ed., Chapman and

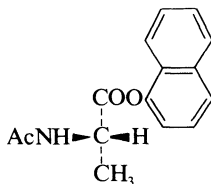
Hall, 1992 (*book*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, ADA725.

N-Acetylalanine 1-naphthyl ester

A-00011



$C_{15}H_{15}NO_3$ M 257.288

(*S*)-*form* [69975-68-4]

L-form

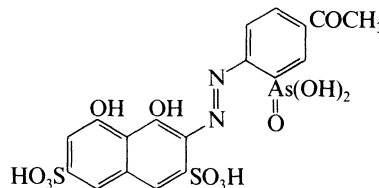
Chromogenic substrate for histochemical demonstration of ester proteases. Cryst. (Et₂O). Mp 105°.

Schaller, E. *et al*, *Anal. Biochem.*, 1979, **93**, 251 (*synth, ms*)

p-Acetylarsenazo

A-00012

3-[(4-Acetyl-2-arsenophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI
[87816-65-7]



$C_{18}H_{15}AsN_2O_{12}S_2$ M 590.376

Used for photometric detn. of U, rare earth elements. Red cryst. powder. Sol. H₂O, alkalis; spar. sol. EtOH; insol. C₆H₆.

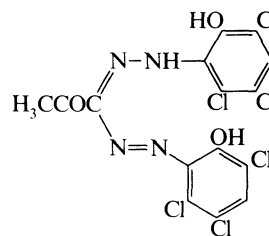
Lili, D. *et al*, *CA*, 1985, **102**, 16659g.

Yang, Q. *et al*, *CA*, 1985, **102**, 214276t.

3-Acetyl-1,5-bis[bis(3,5,6-trichloro-2-hydroxyphenyl)]formazan

A-00013

1,5-Bis(2,3,5-trichloro-6-hydroxyphenyl)formazanyl methyl ketone, 8CI
[1565-68-0]



$C_{15}H_8Cl_6N_4O_3$ M 504.969

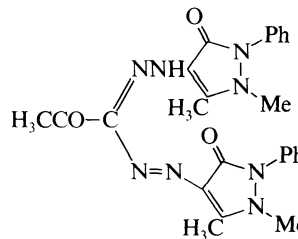
Used as 0.005% soln. in EtOAc for photometric detn. of Sc (λ_{max} 675 nm, ϵ 27000). Red-brown cryst. (C₆H₆). Sol. C₆H₆, EtOAc; insol. H₂O, Me₂CO. Mp 202-203°.

Dziomko, V.M. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 267 (*synth, detn. Sc*)

3-Acetyl-1,5-bis(1,2-dihydro-1,5-dimethyl-3-oxo-2-phenyl-4-pyrazolyl)formazan

A-00014

4,4'-(3-Acetyl-1,5-formazandiyl)bis(1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one), 9CI. 1-(4-Antipyrinylazo)-1-(4-antipyrinylhydrazino)-2-propanone. Azonol A2
[118747-06-1]



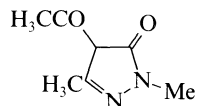
$C_{25}H_{26}N_8O_3$ M 486.532

Used as 1mM soln. in 25% EtOH for photometric detn. of Cu(II) (λ_{max} 413 nm, ϵ 24000, pH 2.4). Dark red needles (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 130° dec. pK_a 10.25 (1% EtOH).

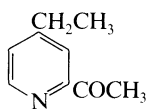
Ishizuki, T. *et al*, *Anal. Chim. Acta*, 1988, **212**, 253 (*synth, use*)

4-Acetyl-2,4-dihydro-2,5-dimethyl-3H-pyrazol-3-one, 9CI

A-00015

4-Acetyl-1,3-dimethyl-2-pyrazolin-5-one
[74937-11-4]C₇H₁₀N₂O₂ M 154.168Used as 0.02M aq. soln. for sorption separation of U(VI).
Cryst. (0.01M HCl). Sol. H₂O. Mp 122°.King, J.N. *et al*, *Anal. Chim. Acta*, 1988, **207**, 137 (*synth, detn, U*)**2-Acetyl-4-ethylpyridine**

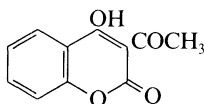
A-00016

4-Ethyl-2-pyridyl methyl ketone, 8CI. 1-(4-Ethyl-2-pyridinyl) ethanone
[59576-27-1]C₉H₁₁NO M 149.192Liq. Bp₁₁ 100-101°.

Oxime (Z-): [18103-85-0].

C₉H₁₂N₂O M 164.207Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 325 nm, ε 11900, EtOH aq.), Cu(I) (λ_{max} 410 nm, ε 5800, EtOH aq.), extraction-photometric detn. of Fe(II) (λ_{max} 543 nm, ε 15100, isopentanol). Cryst. Sol. EtOH.Case, F.H. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 5842 (*synth*)Schilt, A. *et al*, *Talanta*, 1969, **16**, 448 (*detn, Co, Cu, Fe*)**3-Acetyl-4-hydroxy-2H-1-benzopyran-2-one, 9CI**

A-00017

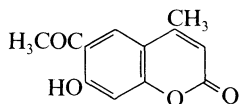
3-Acetyl-4-hydroxycoumarin
[2555-37-5]C₁₁H₈O₄ M 204.182

Used as a soln. in EtOH for gravimetric detn. of Ce, Th, Ti, U(VI), Zr; photometric detn. of Fe(III), U(VI).

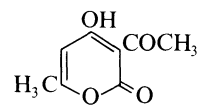
Cryst. (EtOH). Mp 138°.

Bhat, A.N. *et al*, *J. Inorg. Nucl. Chem.*, 1960, **4**, 136 (*detn, U*)Bhat, A.N. *et al*, *Talanta*, 1960, **4**, 13; **5**, 271 (*detn, Th, U, Fe*)Katyal, M. *et al*, *Talanta*, 1968, **15**, 1043 (*synth, use, pKa*)**6-Acetyl-7-hydroxy-4-methyl-2H-1-benzopyran-2-one, 9CI**

A-00018

6-Acetyl-7-hydroxy-4-methylcoumarin
[16555-98-9]C₁₂H₁₀O₄ M 218.209Used as 0.016M dioxan soln. for extraction-fluorimetric detn. of Be (λ_{max} 465 nm, 20% dioxan, pH 7.5-7.8, C₆H₆). Cryst. Sol. dioxan.Yoshida, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1990, **338**, 738 (*synth, detn, Be*)**3-Acetyl-4-hydroxy-6-methyl-2H-pyran-2-one, 9CI**

A-00019

Dehydroacetic acid. Dehydracetic acid
[771-03-9]C₈H₈O₄ M 168.149Isol. from *Solandra nitida*. Fungicide used against moulds on fresh and dried fruit. Used as a 1% aq. soln. for separation and gravimetric detn. of Pd. Rhombic needles or plates (EtOH). Sol. H₂O, EtOH, Me₂CO, Et₂O. Mp 109°. Bp 270°, Bp₅ 132-133°. pK_a 5.12 (25°).

▷ Highly toxic orally.

Me enol ether:

C₉H₁₀O₄ M 182.176Yellow prisms (EtOH). Sol. H₂O. Mp 91°.

Et enol ether:

C₁₀H₁₂O₄ M 196.202

Mp 93-94°.

Anilide:

C₁₄H₁₃NO₃ M 243.262

Mp 115°.

Oxime:

C₈H₉NO₄ M 183.163

Mp 153-154°.

[520-45-6]

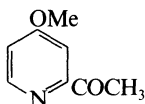
Berson, J.A., *J. Am. Chem. Soc.*, 1952, **74**, 5172 (*uv*)Kiang, A. *et al*, *J. Chem. Soc.*, 1965, 2283 (*synth*)Royals, E.E. *et al*, *J. Org. Chem.*, 1965, **30**, 1255 (*uv, ir, pmr, struct*)Manku, G.S., *Anal. Chim. Acta*, 1971, **54**, 181 (*use*)Manku, G.S., *Talanta*, 1971, **18**, 1079 (*use*)Rivera, C. *et al*, *Experientia*, 1976, **32**, 1490 (*isol*)Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 537.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MFW500.**Acetyl methanesulfonate**

A-00020

Acetic acid anhydride with methanesulfonic acid, 9CI
[5539-53-7]AcOSO₂MeC₃H₆O₄S M 138.144Readily cleaves aliphatic ethers. Reagent for acetylating alcohols for gc anal. Bp_{0.05} 100°, Bp_{0.001} 70-72°.Boehme, H. *et al*, *Justus Liebigs Ann. Chem.*, 1965, **688**, 78 (*synth*)Schwartz, D.P., *Anal. Biochem.*, 1967, **71**, 24 (*use*)Karger, M.H. *et al*, *J. Org. Chem.*, 1971, **36**, 528, 532, 540 (*synth, use*)Modi, M.N. *et al*, *Indian J. Chem.*, 1973, **11**, 1049 (*synth*)Corey, E.J. *et al*, *Tetrahedron Lett.*, 1973, 3153 (*use*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1975, **5**, 5 (*use*)Effenberger, F. *et al*, *Chem. Ber.*, 1983, **116**, 1183 (*synth, ir, pmr*)

2-Acetyl-4-methoxy pyridine**A-00021**

1-[2-(4-Methoxy pyridinyl)]ethanone, 9CI. 4-Methoxy-2-pyridyl methyl ketone, 8CI

 $C_8H_9NO_2$ M 151.165

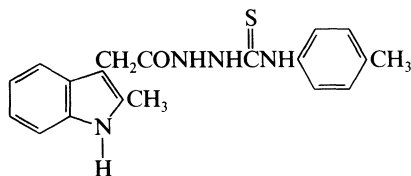
Oxime (Z-): [18103-86-1].

 $C_8H_{10}N_2O_2$ M 166.179

Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 319 nm, ϵ 13500, EtOH aq.), Cu(I) (λ_{max} 400 nm, ϵ 4000, EtOH aq.), extraction-photometric detn. of Fe(II) (λ_{max} 543 nm, ϵ 11900, isopentanol). Cryst. Sol. EtOH.

Schilt, A. et al, *Talanta*, 1969, **16**, 448 (detn. Co, Cu, Fe)**3-Acetyl-2-methylindole****A-00022****p-tolylthiosemicarbazone**

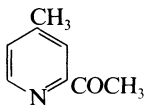
2-Methyl-1H-indole-3-acetic acid 2-[[[(4-methylphenyl)amino]thioxomethyl]hydrazide [54648-92-9]

 $C_{19}H_{20}N_4OS$ M 352.459

Used as a 0.01M soln. in MeOH for gravimetric and photometric detn. of Co, Cu, Hg, Zn. Cryst. Mp 187°.

Sengupta, A.K. et al, *Indian J. Chem., Sect. B*, 1983, **22**, 263 (synth)Barsoum, B.N. et al, *J. Chin. Chem. Soc. (Taipei)*, 1985, **32**, 117; *CA*, 1986, **103**, 205016b (synth, use)**2-Acetyl-4-methylpyridine****A-00023**

1-(4-Methyl-2-pyridinyl)ethanone, 9CI. Methyl 4-methyl-2-pyridyl ketone, 8CI [59576-26-0]

 C_8H_9NO M 135.165Cryst. (pet. ether). Sol. EtOH. Mp 33-34°. Bp₁₅ 95-97°.

Oxime (E-): [23089-35-2].

 $C_8H_{10}N_2O$ M 150.180

Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 325 nm, ϵ 11800, EtOH aq.), Cu(I) (λ_{max} 409 nm, ϵ 5300, EtOH aq.), extraction-photometric detn. of Fe(II) (λ_{max} 541 nm, ϵ 14000, isopentanol). Cryst. (C_6H_6 /pet. ether). Mp 98-99°.

[18103-84-9]

Case, F.H. et al, *J. Am. Chem. Soc.*, 1956, **78**, 5842 (synth)Case, F.H. et al, *J. Heterocycl. Chem.*, 1968, **5**, 161 (synth, oxime)Schilt, A. et al, *Talanta*, 1969, **16**, 448 (detn. Co, Cu, Fe)**2-Acetyl-6-methylpyridine****A-00024**

1-(6-Methyl-2-pyridinyl)ethanone, 9CI. Methyl 6-methyl-2-pyridyl ketone, 8CI

[6940-57-4]

 C_8H_9NO M 135.165Liq. Bp₁ 46°.

Oxime (E-): [23089-39-6].

 $C_8H_{10}N_2O$ M 150.180

Used as a 0.01M soln. in EtOH for photometric detn. of

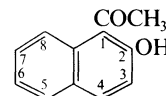
Cu(I) (λ_{max} 422 nm, ϵ 8400, EtOH aq.). Cryst. (pet.

ether). Sol. EtOH. Mp 49-50°.

[18103-88-3]

Case, F.H. et al, *J. Heterocycl. Chem.*, 1968, **5**, 161 (synth, oxime)Schilt, A. et al, *Talanta*, 1969, **16**, 448 (detn. Cu)Amin, H.B. et al, *J. Chem. Soc., Perkin Trans. 2*, 1979, 624 (synth)**1-Acetyl-2-naphthol****A-00025**

1-(2-Hydroxy-1-naphthalenyl)ethanone, 9CI. 2-Hydroxy-1-acetonaphthone, 8CI. 1-Acetyl-2-hydroxynaphthalene [574-19-6]

 $C_{12}H_{10}O_2$ M 186.210

Needles (pet. ether). Mp 64°.

Me ether:

 $C_{13}H_{12}O_2$ M 200.237

Cryst. (EtOH aq.). Mp 59°.

Benzoyl:

 $C_{19}H_{14}O_3$ M 290.318

Mp 85-86°.

Oxime: [61537-74-4]. 2-Hydroxy-1-acetonaphthoxime

 $C_{12}H_{11}NO_2$ M 201.224

Used as 1% EtOH soln. for detn. of Cu; gravimetric detn. of Pd(II) (pH 1.5), Ni, Mn. Cryst. Sol. EtOH. Mp 86°.

Hydrazone:

 $C_{12}H_{12}N_2O$ M 200.240

Mp 130°.

Fries, K. et al, *Ber.*, 1921, **54**, 709; 1925, **58**, 2835.Imoto, M., *CA*, 1938, **32**, 534.Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3** (synth, detn. Cu)Hunsberger, I.M., *J. Am. Chem. Soc.*, 1950, **72**, 5626 (ir)Bergmann, E.D. et al, *J. Chem. Soc.*, 1950, 2351 (uv)Joshi, G.G. et al, *J. Indian Chem. Soc.*, 1952, **29**, 225.Dudek, G.O., *Spectrochim. Acta*, 1963, **19**, 691 (pmr)Balakrishna, V.V. et al, *J. Indian Chem. Soc.*, 1986, **63**, 512

(oxime, synth, use)

2-Acetyl-1-naphthol**A-00026**

1-(1-Hydroxy-2-naphthalenyl)ethanone, 9CI. 1'-Hydroxy-2'-acetonaphthone. 2-Acetyl-1-hydroxynaphthalene [711-79-5]

 $C_{12}H_{10}O_2$ M 186.210Green-yellow needles (EtOH), prisms (C_6H_6 or ligroin).Sol. AcOH, $CHCl_3$, CS_2 , C_6H_6 ; insol. H_2O . Mp 103°

(needles), Mp 98° (prisms). Bp 325° sl. dec. Pale-yellow

soln. in most solvs., colourless in pet. ether.

Me ether:

 $C_{13}H_{12}O_2$ M 200.237

Mp 49°.

Et ether:

 $C_{14}H_{14}O_2$ M 214.263

Bp 320°.

Ac:

 $C_{14}H_{12}O_3$ M 228.247

Mp 107°.

Oxime: [51864-09-6].

 $C_{12}H_{11}NO_2$ M 201.224

Used as 1% EtOH soln. for gravimetric detn. of Ni (pH 8.5), Cu(II), Pd(II), Mn. Cryst. Sol. EtOH. Mp 168-169°.

Phenylhydrazone: Mp 141°.

Witt, O.N. *et al*, *Ber.*, 1914, **47**, 3216.

Stroughton, R.W., *J. Am. Chem. Soc.*, 1935, **57**, 202.

Imoto, M., *CA*, 1938, **32**, 534.

Akram, M. *et al*, *Proc. - Indian Acad. Sci., Sect. A*, 1940, **11**, 149, 156; *CA*, **34**, 5436.

Hunsberger, I.M. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 5626 (*ir*)

Bergmann, E.D. *et al*, *J. Chem. Soc.*, 1950, 2351 (*uv*)

Matsui, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 565.

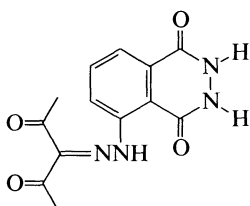
Hauser, F.M. *et al*, *J. Org. Chem.*, 1978, **43**, 178.

Balakrishna, V.V. *et al*, *J. Indian Chem. Soc.*, 1986, **63**, 512 (*synth. use*)

5-[(1-Acetyl-2-oxopropyl)azo]-2,3-dihydro-1,4-phthalazinedione, 9CI

Phthalhydrazidylazoacetylacetone

[109632-03-3]



$C_{13}H_{12}N_4O_4$ M 288.262

Used as 0.1% soln. in 50% EtOH as an acid-base chemiluminescent indicator. Yellow needles (EtOH). Sol. EtOH. Mp 312°.

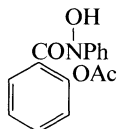
Thankarajan, N. *et al*, *J. Indian Chem. Soc.*, 1986, **63**, 977 (*synth. use, ind*)

Thankarajan, N. *et al*, *Talanta*, 1987, **34**, 507 (*synth. use, ind*)

2-(Acetyloxy)-N-hydroxy-N-phenylbenzamide, 9CI

N-Phenyl-2-acetatosalicylohydroxamic acid, 8CI

[25004-85-7]



$C_{15}H_{13}NO_4$ M 271.272

Used as a 0.3% soln. in $CHCl_3$ for photometric detn. of Nb, Ti. Needles (EtOH aq.). Spar. sol. H_2O ; sol. EtOH, C_6H_6 , $CHCl_3$.

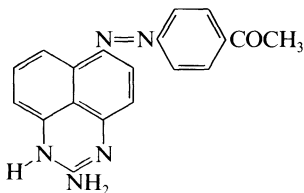
Savariar, C.P. *et al*, *Anal. Chim. Acta*, 1969, **47**, 347 (*synth. detn. Ti*)

Savariar, C.P. *et al*, *Talanta*, 1970, **17**, 45 (*detn. Nb*)

6-(4-Acetylphenylazo)-2-aminoperimidine A-00029

1-[4-[(2-Amino-1H-perimidin-6-yl)azo]phenyl]ethanone, 9CI

[71759-46-1]



$C_{19}H_{15}N_5O$ M 329.360

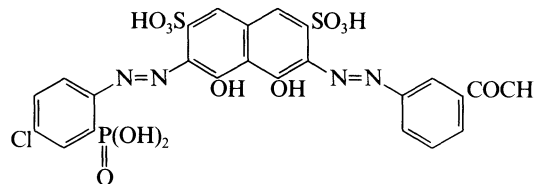
Used as a 0.74mM soln. in EtOH for indirect photometric detn. of SO_4^{2-} (λ_{max} 480 nm, ϵ 6100). Greenish needles (glac. AcOH). Sol. acids, EtOH, C_6H_6 ; insol. H_2O .

Toei, K. *et al*, *Anal. Chim. Acta*, 1977, **94**, 485 (*synth*)

3-[(3-Acetylphenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI

Chlorophosphonazo mA

[86167-87-5]



$C_{24}H_{18}ClN_4O_{12}PS_2$ M 684.984

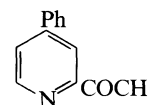
Used as 0.015% aq. soln. for photometric detn. of Ca (λ_{max} 630 nm, ϵ 3900). Dark cryst. powder. Sol. H_2O .

Qui, X. *et al*, *Analyst (London)*, 1983, **108**, 754 (*synth. use, detn. Ca*)

2-Acetyl-4-phenylpyridine A-00031

Methyl 4-phenyl-2-pyridyl ketone, 8CI

[52565-58-9]



$C_{13}H_{11}NO$ M 197.236

Cryst. (pet. ether). Mp 75-76°.

Oxime (E-): [23089-37-4].

$C_{13}H_{12}N_2O$ M 212.251

Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 338 nm, ϵ 16500, EtOH aq.), Cu(I) (λ_{max} 430 nm, ϵ 9700, EtOH aq.), extraction-photometric detn. of Fe(II) (λ_{max} 568 nm, ϵ 23400, isopentanol). Cryst. (C_6H_6). Sol. EtOH. Mp 132-133°.

Case, F.H. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 5842 (*synth*)

Case, F.H. *et al*, *J. Heterocycl. Chem.*, 1968, **5**, 161 (*synth. oxime*)

Schilt, A. *et al*, *Talanta*, 1969, **16**, 448 (*detn. Co, Cu, Fe*)

2-Acetyl-6-phenylpyridine A-00032

1-(6-Phenyl-2-pyridinyl)ethanone, 9CI. Methyl 6-phenyl-2-pyridyl ketone, 8CI

[59576-29-3]

$C_{13}H_{11}NO$ M 197.236

Cryst. (pet. ether). Mp 75-76°.

Oxime (E-): [23089-40-9].

$C_{13}H_{12}N_2O$ M 212.251

Used as a 0.01M soln. in EtOH for photometric detn. of Cu(I) (λ_{max} 422 nm, ϵ 3500). Cryst. (C_6H_6 /pet. ether). Sol. EtOH. Mp 87-88°.

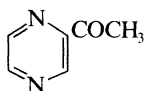
[18103-89-4]

Case, F.H. *et al*, *J. Heterocycl. Chem.*, 1968, **5**, 161 (*synth. oxime*)

Schilt, A. *et al*, *Talanta*, 1969, **16**, 448 (*oxime, detn. Cu*)

2-Acetylpyrazine

Methyl pyrazinyl ketone. 1-Pyrazinylethanone

 $C_6H_6N_2O$ M 122.126Flavouring ingredient. Mp 31-33°. Bp₆ 57-58°.

Thiosemicarbazone: Pale-yellow powder. Mp 236-237° dec.

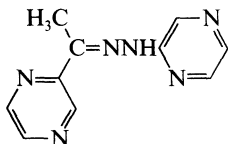
2,4-Dinitrophenylhydrazone: Mp 239-240°.

2-Thiazolylhydrazone: [73568-92-0].

 $C_9H_9N_5S$ M 219.270Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 527 nm, ϵ 18600), Cu(I) (λ_{max} 512 nm, ϵ 12600), Fe(II) (λ_{max} 631 nm, ϵ 5800), Ni (λ_{max} 495 nm, ϵ 27300). Cryst. (EtOH). Sol. common org. solvs. Mp 210°.Kushner, S. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 3617 (*deriv*)Rutner, H. *et al*, *J. Org. Chem.*, 1963, **28**, 1848 (*synth*)Hirshberg, A. *et al*, *J. Heterocycl. Chem.*, 1966, **3**, 103 (*synth*)French, A.F. *et al*, *J. Med. Chem.*, 1966, **9**, 585; *CA*, **65**, 7121e.Spingam, N.E. *et al*, *J. Med. Chem.*, 1979, **22**, 1314.Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*thiazolylhydrazone, use*)**2-Acetylpyrazine pyrazinylhydrazone****A-00034**

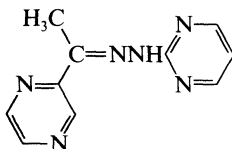
2(1H)-Pyrazinone (1-pyrazinylethylidene)hydrazone, 9CI

[58495-44-6]

 $C_{10}H_{10}N_6$ M 214.229Used as a soln. in EtOH for photometric detn. of Cu(I) (λ_{max} 511 nm, ϵ 15400), Co (λ_{max} 528 nm, ϵ 22000), Ni (λ_{max} 498 nm, ϵ 35500), Fe(II). Cryst. Sol. common org. solvs.Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 373 (*use*)**2-Acetylpyrazine 2-pyrimidinylhydrazone****A-00035**

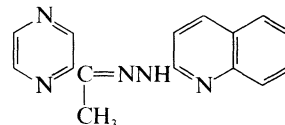
1-Pyrazinylethanone 2-pyrimidinylhydrazone, 9CI

[73569-02-5]

 $C_{10}H_{10}N_6$ M 214.229Used as 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 487 nm, ϵ 20400), Cu(I) (λ_{max} 467 nm, ϵ 12600), Fe(II) (λ_{max} 556 nm, ϵ 5400), Ni (λ_{max} 459 nm, ϵ 30200). Cryst. (MeOH aq.). Sol. common org. solvs. Mp 160°.Schilt, A. *et al*, *Talanta*, 1980, **27**, 55 (*synth, use*)**2-Acetylpyrazine 2-quinolylyhydrazone****A-00036**

2(1H)-Quinolinone (1-pyrazinylethylidene)hydrazone. 1-Pyrazinylethanone 2-quinolinylhydrazone

[82633-02-1]

 $C_{15}H_{13}N_5$ M 263.301Used as 0.01M EtOH soln. for photometric detn. of Fe(II) (λ_{max} 466 nm, ϵ 19800, pH 4), Zn (λ_{max} 488 nm, ϵ 30100), Ni (λ_{max} 502 nm, ϵ 20600), Co, Cu(I). Cryst. (MeOH). Sol. EtOH, MeOH. Mp 166°.Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth, use*)**2-Acetylpyrazine 3-quinolylyhydrazone****A-00037**

1-Pyrazinylethanone 3-quinolinylhydrazone, 9CI

[82633-07-6]

 $C_{15}H_{13}N_5$ M 263.301Used as a 0.01M soln. in 0.05M HCl/EtOH for photometric detn. of Cu(I) (λ_{max} 556 nm, ϵ 2000). Cryst. (EtOH). Sol. common org. solvs. Mp 250°.Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 338 (*synth, detn, Cu*)**2-Acetylpyrazine 8-quinolylyhydrazone****A-00038**

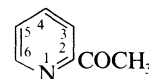
1-Pyrazinylethanone 8-quinolinylhydrazone, 9CI. 8(1H)-Quinolinone (1-pyrazinylethylidene)hydrazone

[82633-11-2]

 $C_{15}H_{13}N_5$ M 263.301Used as a 0.01M soln. in 0.05M HCl/EtOH for photometric detn. of Co, Cu(I), Fe(II) (λ_{max} 545 nm, ϵ 10000, pH 7). Cryst. (EtOH). Sol. common org. solvs. Mp 172°.Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 338 (*synth, detn, Co, Cu, Fe*)**2-Acetylpyridine****A-00039**

1-(2-Pyridinyl)ethanone, 9CI. Methyl 2-pyridyl ketone. 2-Acetylpyridine

[1122-62-9]

 C_7H_7NO M 121.138

Organoleptic. Bp 192°. Turns yellow in air.

B,HCl: Mp 183-185° dec.

B,MeI: Mp 161°.

B,EtI: Mp 205°.

Picrate: Yellow cryst. (EtOH). Mp 131°.

Oxime: [1758-54-9]. Acepox

 $C_7H_8N_2O$ M 136.153Plant protectant. Used for photometric detn. of Re (λ_{max} 490 nm, ϵ 3800). Prisms (EtOH). Sol. H₂O. Mp 121°.

Hydrazone: [59742-91-5].

 $C_7H_9N_3$ M 135.168Used as 0.5mM aq. soln. for fluorimetric detn. of Tc(VII) (λ_{max} 430 nm, 0.01-10 μ g/ml, ~1.4M HCl). Cryst. (EtOH). Sol. H₂O, EtOH.

Phenylhydrazone: [7734-05-6].

Yellow cryst. (EtOH). Mp 155°.

Thiosemicarbazone: [6839-90-3].

 $C_8H_{10}N_4S$ M 194.260

Used as EtOH soln. or 1% Me₂CO aq. soln. for photometric detn. of Mo (λ_{\max} 470 nm, ϵ 17000), V (λ_{\max} 400 nm, ϵ 56000, pH 3.5). Cryst. (EtOH). Sol. EtOH, DMF, Me₂CO.

Ethylene ketal:

C₉H₁₁NO₂ M 165.191
Bp_{0.8} 91-95°.

Thompson, R.J. *et al*, *Anal. Chim. Acta*, 1964, **31**, 590 (*oxime, detn. Re*)

Miyajama, G. *et al*, *Chem. Pharm. Bull.*, 1972, **20**, 429 (*cmr*)

Lesman, T. *et al*, *Org. Mass Spectrom.*, 1973, **7**, 1321 (*ms*)

Seth-Paul, W.A., *Spectrochim. Acta, Part A*, 1974, **30**, 1817 (*ir*)

Reimann, E. *et al*, *Justus Liebigs Ann. Chem.*, 1976, 1351 (*synth*)

Klayman, D.L. *et al*, *J. Med. Chem.*, 1979, **22**, 855 (*synth, thiosemicarbazone*)

Grases, F. *et al*, *Anal. Chim. Acta*, 1984, **166**, 71 (*synth, detn. Tc*)

Thimmaiah, K.N. *et al*, *Microchem. J.*, 1985, **32**, 8 (*detn. Mo*)

Norman, M.H. *et al*, *J. Org. Chem.*, 1987, **52**, 226 (*deriv. synth, ir, pmr, cmr*)

Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (*cmr*)

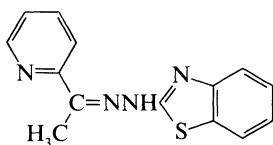
2-Acetylpyridine

A-00040

2-benzothiazolyldiazone

2(3H)-Benzothiazolone [1-(2-pyridinyl)ethylidene]hydrazone, 9CI

[99093-71-7]



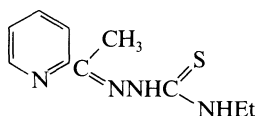
C₁₄H₁₂N₄S M 268.342

Used as 2.5mM soln. in EtOH for extraction-photometric detn. of Fe (λ_{\max} 418 nm, ϵ 45400, C₆H₆), Cd, Cu(II), Hg(II), Ni, Pd, V(IV), Zn. Light brown cryst. (EtOH aq.). Sol. EtOH, MeOH. Mp 110-112°. pK_{a1} 1.62; pK_{a2} 3.38; pK_{a3} 10.7 (μ = 0.2, 25°).

Odashima, T. *et al*, *Microchem. J.*, 1986, **33**, 138 (*synth, detn. Fe*)

4-Acetylpyridine 4-ethyl-3-thiosemicarbazone

A-00041



C₁₀H₁₄N₄S M 222.313

Used as 5mM MeOH soln. for chromatographic (hplc) sepn. of In, Co, Zn, Ni. Needles (MeOH aq.). Sol. MeOH; mod. sol. H₂O.

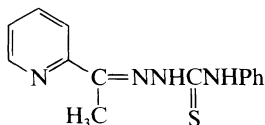
Main, M.V. *et al*, *Talanta*, 1991, **38**, 253 (*synth, use*)

2-Acetylpyridine phenylthiosemicarbazone

A-00042

N-Phenyl-2-[1-(2-pyridinyl)ethylidene]hydrazinecarbothioamide, 9CI

[63698-06-6]



C₁₄H₁₄N₄S M 270.357

Used as a 0.1% soln. in DMF for extraction-photometric detn. of Fe(II) (λ_{\max} 650 nm, ϵ 8800). Yellow cryst. (EtOH). Spar. sol. H₂O; sol. alkalis, acids, EtOH, C₆H₆, Me₂CO, CHCl₃. Mp 187-189°. pK_a 4.13.

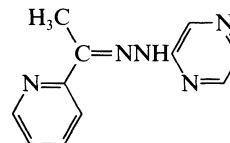
Martinez, A.M.T. *et al*, *Anal. Chim. Acta*, 1977, **90**, 335 (*synth, detn. Fe*)

2-Acetylpyridine 2-pyrazinylhydrazone

A-00043

2(1H)-Pyrazinone [1-(2-pyridinyl)ethylidene]hydrazone, 9CI

[58495-42-4]



C₁₁H₁₁N₅ M 213.241

Used as a soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 475 nm, ϵ 16600), Co (λ_{\max} 480 nm, ϵ 24000), Ni (λ_{\max} 460 nm, ϵ 37500), Fe(II). Cryst. Sol. common org. solvs.

Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)

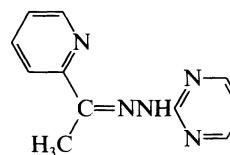
Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 373 (*use*)

2-Acetylpyridine 2-pyrimidinylhydrazone

A-00044

1-(2-Pyridinyl)ethanone 2-pyrimidinylhydrazone, 9CI

[73569-00-3]



C₁₁H₁₁N₅ M 213.241

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 452 nm, ϵ 23700), Cu(I) (λ_{\max} 426 nm, ϵ 6600), Fe(II) (λ_{\max} 613 nm, ϵ 65000), Ni (λ_{\max} 419 nm, ϵ 32100). Cryst. (C₆H₆). Sol. common org. solvs. Mp 153°.

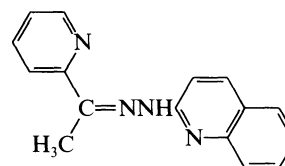
Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth, use*)

2-Acetylpyridine 2-quinolyldiazone

A-00045

1-(2-Pyridinyl)ethanone 2-quinolinyldiazone, 9CI

[70845-27-1]



C₁₆H₁₄N₄ M 262.313

Used as a 0.01M soln. in 0.05M HCl in EtOH for photometric detn. of Cu(I) (λ_{\max} 525 nm, ϵ 2200). Cryst. (MeOH). Sol. common org. solvs. Mp 203°.

Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth, use*)

2-Acetylpyridine 8-quinolyldiazone

A-00046

1-(2-Pyridinyl)ethanone 8-quinolinyldiazone, 9CI

[82633-09-8]

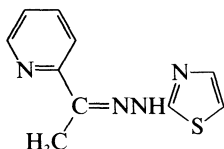
C₁₆H₁₄N₄ M 262.313

Used as a 0.01M soln. in 0.05M HCl in EtOH for photometric detn. of Co (λ_{\max} 557 nm, ϵ 17000, pH 7), Cu(I), Fe(II) (λ_{\max} 515 nm, ϵ 8600). Cryst. (EtOH). Sol. common org. solvs. Mp 168°.

Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth*, *use*)

2-Acetylpyridine 2-thiazolyldiazone A-00047

1-(2-Pyridinyl)ethanone 2-thiazolyldiazone, 9CI
[73568-89-5]



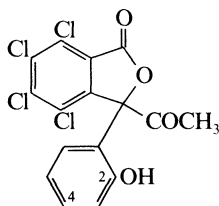
$C_{10}H_{10}N_4S$ M 218.282

Used as 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 475 nm, ϵ 24300), Cu (λ_{\max} 457 nm, ϵ 15100), Fe(II) (λ_{\max} 488 nm, ϵ 8000), Ni (λ_{\max} 442 nm, ϵ 35800). Cryst. (MeOH). Sol. common org. solvs. Mp 175°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth*, *use*)

3-Acetyl-4,5,6,7-tetrachloro-3-(2-hydroxyphenyl)-1(3H)-isobenzofuranone, 9CI

3-Acetyl-4,5,6,7-tetrachloro-3-(o-hydroxyphenyl)phthalide
[62512-05-4]



$C_{16}H_8Cl_4O_4$ M 406.048

Used as a 0.1% soln. in EtOH as adsorption indicator for argentometric titrimetric detn. of Cl^{\ominus} , I^{\ominus} . Cryst.

Singh, E., *J. Indian Chem. Soc.*, 1976, **53**, 948, 950 (*detn*, I^{\ominus} , Cl^{\ominus})

3-Acetyl-4,5,6,7-tetrachloro-3-(4-hydroxyphenyl)-1(3H)-isobenzofuranone, 9CI

3-Acetyl-4,5,6,7-tetrachloro-3-(p-hydroxyphenyl)phthalide
[62512-06-5]

$C_{16}H_8Cl_4O_4$ M 406.048

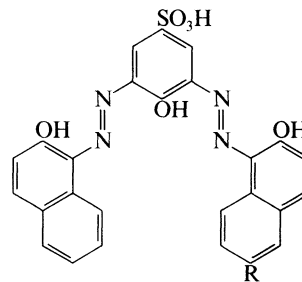
Used as a 0.1% soln. in EtOH as adsorption indicator for argentometric titrimetric detn. of Cl^{\ominus} , I^{\ominus} . Cryst.

Singh, E., *J. Indian Chem. Soc.*, 1976, **53**, 948, 950 (*detn*, I^{\ominus} , Cl^{\ominus})

Acid alizarin black SE

A-00050

4-Hydroxy-3,5-bis(2-hydroxynaphthylazo)benzenesulfonic acid. C.I. Mordant black 10. Anthranol fast black SE. C.I. 21720



R = H

$C_{26}H_{18}N_4O_6S$ M 514.517

Strictly the name Acid alizarin black SE refers to the sodium salt. Used as 0.1% soln. in 2% NaCl soln. in titrimetry as metal indicator: Ca (pH 11.5, colour change red→blue); Mn (pH 11.5, colour change purple→blue). Dark blue cryst. powder. Sol. H_2O ; sl. sol. EtOH.

Belcher, R. *et al*, *Chemist-Analyst*, 1958, **47**, 2; *CA*, **58**, 9850h.

Close, R.A. *et al*, *Anal. Chim. Acta*, 1960, **23**, 261.

Colour Index, 3rd Edn, 1971, **4**, 4163 (*synth*)

Acid alizarin black SN

A-00051

6-Hydroxy-5-[[2-hydroxy-3-[(2-hydroxy-1-naphthalenyl)azo]-5-sulfophenyl]azo]-2-naphthalenesulfonic acid, 9CI. Acid chrome black NSN. Anthranol fast black SM. Diamond alizarin black SN. C.I. Mordant black 25. C.I. 21725

As Acid alizarin black SE, A-00050 with

R = SO_3H

$C_{26}H_{18}N_4O_9S_2$ M 594.582

Strictly the name Acid alizarin black SN refers to the disodium salt.

Di-Na salt: [3258-74-0].

Used as 0.1% aq. soln. as metal indicator: Ba, Ca, Zn (pH 11.5; colour change red→blue), Mn, Ni (pH 10; colour change purple→blue), Cd (pH 8.5; colour change red→blue), Th (pH 4; colour change red→orange) and in photometric detn. of Cu, Th. Bluish cryst. powder. Sol. H_2O ; sl. sol. EtOH; insol. Me_2CO .

Close, R.A. *et al*, *Anal. Chim. Acta*, 1960, **23**, 261 (*use*)

Kusakul, P. *et al*, *Anal. Chim. Acta*, 1965, **32**, 301 (*detn*, Th)

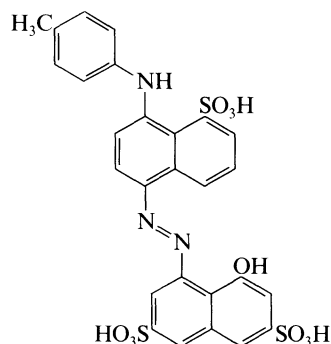
Hosain, M. *et al*, *Anal. Chim. Acta*, 1965, **33**, 164 (*detn*, Cu)

Colour Index, 3rd Edn, 1971, **4**, 4163 (*synth*)

Acid blue 89

4-Hydroxy-5-[[4-[(4-methylphenyl)amino-5-sulfo-1-naphthalenyl]azo]-2,7-naphthalene]disulfonic acid, 9CI. C.I. 13405

[32651-57-3]



$C_{27}H_{21}N_3O_{10}S_3$ M 643.675

Strictly the name Acid blue 89 refers to the trisodium salt.

Used as acid-base indicator (pH_1 11.29; colour: change blue → red). Dark red cryst. Sol. H_2O , EtOH. Available as trisodium salt.

[10359-95-2]

Konopik, N. *et al*, *Monatsh. Chem.*, 1948, **79**, 586.

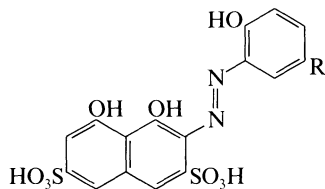
Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Acid chrome blue K

A-00053

4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid. 7-(2-Hydroxy-5-sulfophenylazo)chromotropic acid. C.I. Mordant blue 31. C.I. 16675

[25849-37-0]



R = SO_3H

$C_{16}H_{12}N_2O_{12}S_3$ M 520.475

Strictly the name Acid chrome blue K applies to the trisodium salt.

Tri-Na salt: [3270-25-5].

Used as 0.1% aq. or EtOH soln. in photometric detn. of Nb, V, Zr, Mg (λ_{max} 505 nm); fluorimetric detn. of Al, Ga, Sc; as metal indicator for Ca (pH 12), Cd, Mg, Pb, Zn (pH 10), La, Th, Y. Bluish cryst. powder. Sol. H_2O , EtOH; spar. sol. Me_2CO . pK_{a1} 6.7; pK_{a2} 10.2; pK_{a3} 14.6.

[25849-37-0]

Lazarev, A.I. *et al*, *Zavod. Lab.*, 1959, **25**, 542 (*detn.*, Cd, Zn)

Korenman, I.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 36 (*detn.*, Al, Ga, Sc, Th, Y)

Morachevskii, Y.V. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 106 (*detn.*, V)

Bezdekova, A. *et al*, *Collect. Czech. Chem. Commun.*, 1966, **31**, 199 (*pKa*)

Hiraki, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 789 (*detn.*, Al, Ga, Sc)

Tselinskii, Y.K. *et al*, *CA*, 1974, **81**, 57807v (*detn.*, Zn)

Stolyarov, K.P. *et al*, *CA*, 1975, **82**, 50975k (*detn.*, Y, La)

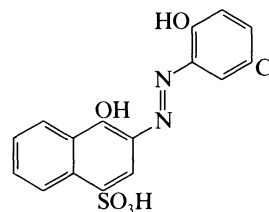
Acid chrome violet BR

A-00054

3-[(5-Chloro-2-hydroxyphenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid, 9CI. Omega chrome violet B. C.I. 14745. C.I. Mordant violet 40. Orthochrom violet BR.

Poloxal bordeaux G

[1658-85-1]



$C_{16}H_{11}ClN_2O_5S$ M 378.792

Strictly the name Acid chrome violet BR applies to the monosodium salt.

Na salt: [5858-44-6].

Metal indicator used in titrimetric detn. of Fe(III). Used as 0.25-1mM aq. soln. to give colour reactions with Co, Cu, In, Ga, Ni, Sc, Y, Zr. Red cryst. powder. Red in aq. soln., orange in EtOH soln. Sol. H_2O (red soln.), EtOH (orange soln.).

Belcher, R. *et al*, *Chemist-Analyst*, 1958, **47**, 2.

Korenman, I.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 36 (*use*)

Colour Index, 3rd Edn, 1971, **4**, 4069 (*synth*)

Basargin, N.N. *et al*, *Zavod. Lab.*, 1972, **38**, 773 (*detn.*, Zr)

Basargin, N.N. *et al*, *CA*, 1974, **81**, 177647q, 177703e (*detn.*, Cu, Ga, Co, Ni)

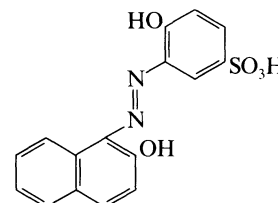
Acid chrome violet K

A-00055

4-Hydroxy-3-[(2-hydroxy-1-naphthalenyl)azo]benzenesulfonic acid, 9CI. Solochrome violet RS. C.I. Mordant violet 5.

Eriochrome violet B. Chrome fast violet B. Acid alizarin violet N. C.I. 15670

[3219-56-5]



$C_{16}H_{12}N_2O_5S$ M 344.347

Strictly the name Acid chrome violet K applies to the sodium salt. pK_{a2} 7.0; pK_{a3} 13.0. λ_{max} 501 nm (H_2O).

Na salt: [2092-55-9].

Commercially available. Used in photometric detn. of Si(IV), P(V) (indirectly), ClO_2 , Al, Mo; as a metallochromic indicator in titrimetric detn. of Ca, Mg, Mn, Sr. Red-violet cryst. Sol. H_2O , EtOH; sl. sol. Me_2CO .

▷ DB7012000.

Belcher, R. *et al*, *Chem. Anal. (Warsaw)*, 1957, **46**, 86 (*detn.*, Mg, Mn)

Budesinsky, B., *Collect. Czech. Chem. Commun.*, 1958, **23**, 895 (*detn.*, Ca, Sr)

Coates, E. *et al*, *Trans. Faraday Soc.*, 1961, **57**, 1088 (*pKa*)

Arslanova, N.V. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 946 (*detn.*, P)

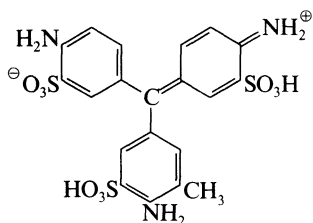
Knechtel, J.R., *Anal. Chem.*, 1978, **50**, 202 (*detn.*, ClO_2)

Pina, G.L., *Zh. Anal. Khim.*, 1978, **33**, 2377 (*detn.*, Si)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HLI000.

Acid fuchsin**A-00056**

2-Amino-5-[(4-amino-3-sulphophenyl)(4-imino-3-sulfo-2,5-cyclohexadien-1-ylidene)methyl]-3-methylbenzenesulfonic acid. *Acid magenta*. *Acid rubin*. *C.I. Acid violet 19*. *C.I. 42685*. *Acid roseine*. *Acid fuchsine*



$C_{20}H_{19}N_3O_9S_3$ M 541.583

Strictly the name Acid fuchsin applies to the disodium salt.

Di-Na salt: [3244-88-0].

Biological stain, indicator (pH range 12-14; colour change red → colourless). Olive to dark olive green powder. Sol. H_2O ; sl. sol. EtOH.

Ca salt: [123334-10-1].

Biological stain.

Colour Index, 3rd Edn, 1971, 4, 4399 (*synth*)

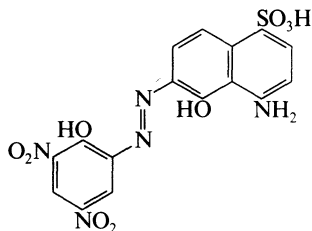
H.J. Conn's Biological Stains, Lillie, R.D., Ed., 9th Edn., 1977, 285 (*use*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1538.

Sigma-Aldrich Library of Chemical Safety Data, 1988, 1, 53A.

Acid monochrome green S**A-00057**

4-Amino-5-hydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-1-naphthalenesulfonic acid, 9CI. *C.I. Mordant green 14*. *C.I. 17125*. *Chrome fast green GW*. *Metachrome green G*



$C_{16}H_{11}N_3O_9S$ M 449.357

Strictly the name Acid monochrome green S implies the sodium salt.

Na salt: [3687-83-0].

Orange cryst. Sol. H_2O ; sl. sol. EtOH.

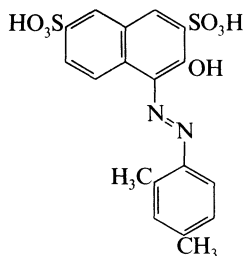
Bagreev, V.V., *Talanta*, 1968, 15, 988 (*detn, Co*)

Colour Index, 3rd Edn, 1971, 4, 4104 (*synth*)

Acid red 26**A-00058**

4-[(2,4-Dimethylphenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, 9CI. *Ponceau red 2RL*. *C.I. 16150*

[7481-49-4]



$C_{18}H_{16}N_2O_7S_2$ M 436.466

Strictly, the name Acid red 26 applies to the disodium salt.

Di-Na salt: [3761-53-3].

Used as a 0.5% aq. soln. for photometric detn. of Pd (λ_{max} 610 nm). Dark red cryst. powder. Sol. H_2O ; spar. sol EtOH, Me_2CO ; insol. Et_2O , C_6H_6 .

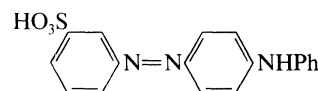
▷ QJ6825000.

Popa, G. *et al*, *Stud. Cercet. Chim.*, 1964, 13, 601; *CA*, 62, 7105c (*detn, Pd*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FMU070.

Acid yellow 2G**A-00059**

3-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid, 9CI. *C.I. Acid yellow 36*. *Metanil yellow*. *Victoria yellow*. *C.I. 13065*



$C_{18}H_{15}N_3O_3S$ M 353.401

Strictly the name Acid yellow 2G applies to sodium salt.

Na salt: [587-98-4].

Used in photometric detn. of U(III), Zn, Pb (λ_{max} 410 nm, ϵ 45000); as 0.1% soln. as an indicator (pH range: 1.2-2.3; colour change: red → yellow). Dark yellow cryst. powder. Sol. H_2O , EtOH; mod. sol. Et_2O , Me_2CO , C_6H_6 .

▷ DB7329500.

Welcher, F.S., *Organic Analytical Reagents*, Van Nostrand, 1948, 4, 516 (*synth*)

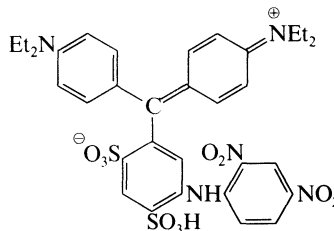
Nemodruk, A.A. *et al*, *Zh. Anal. Khim.*, 1971, 26, 2388.

Pyatnitskii, I.V. *et al*, *Zh. Anal. Khim.*, 1983, 38, 2176 (*detn, Pb*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MDM775.

Acilan fast green**A-00060**

N-[4-[[4-(Diethylamino)phenyl][5-[(2,4-dinitrophenyl)amino]-2,4-disulphophenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium hydroxide inner salt, 9CI. *C.I. Acid green 8*. *C.I. 42050*



$C_{33}H_{35}N_5O_{10}S_2$ M 725.799

Strictly the name Acilan fast green applies to sodium salt.

Triphenylmethane basic dye.

Na salt: [6416-29-1].

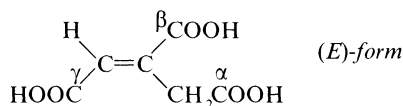
Used as 0.1% aq. soln. as redox indicator. Sol. H_2O , EtOH. E° +0.94-1.00 V, H_2SO_4 .

Brazier, J.N. *et al*, *Anal. Chim. Acta*, 1965, 33, 625.

Colour Index, 3rd Edn, 1971, 4, 4383 (*synth*)

Aconitic acid**A-00061**

1-Propene-1,2,3-tricarboxylic acid, 9CI. Achilleaic acid.
Citridinic acid. Equisetic acid. Pyrocitric acid
[499-12-7]



$C_6H_6O_6$ M 174.110

▷ UD2380000.

(E)-form [4023-65-8]

Isol. from *Asarum europaeum*, from cane-sugar molasses and other plant sources. Used to prod. unsatd. polyesters. Reagent used for fluorimetric anal. of tertiary amines. Leaflets (H_2O). Sol. H_2O , EtOH. Mp 194-195° dec. pK_{a1} 2.8; pK_{a2} 4.46 (25°). Decarboxylates at Mp to Itaconic acid. Mp variable with rate of htg.

α -Mono-Me ester: [65146-88-5].

$C_7H_8O_6$ M 188.137

Prisms (Me_2CO/C_6H_6). Mp 136-137°. Called 3-ester in CA.

β -Mono-Me ester: [65146-89-6].

$C_7H_8O_6$ M 188.137

Prisms (Me_2CO/C_6H_6). Mp 144-145°. Called 2-ester in CA.

γ -Mono-Me ester: [62424-07-1].

$C_7H_8O_6$ M 188.137

Prisms (Me_2CO/C_6H_6). Mp 154-155°. Called 1-ester in CA.

Tri-Me ester: [4271-99-2].

$C_9H_{12}O_6$ M 216.190

Sol. EtOH, Et₂O. Bp 270°, Bp₁₄ 161°.

Triamide:

$C_6H_9N_3O_3$ M 171.155

Needles. Sol. hot H_2O , insol. EtOH, Et₂O. Turns brown at 250°. Sinters without melting at 260°.

Anhydride:

$C_6H_4O_5$ M 156.095

Mp 134-135°.

(Z)-form [585-84-2]

Mp 125°. Gives (E)-form on heating.

α -Mono-Me ester: [65146-85-2].

Prisms (Me_2CO/C_6H_6). Mp 101-102°.

β -Mono-Me ester: [65146-86-3].

Mp 102-104°.

γ -Mono-Me ester: [65146-87-4].

Prisms (Me_2CO/C_6H_6). Mp 126-127°.

Anhydride: [31511-11-2].

Mp 74°.

[20820-77-3, 65629-33-6]

Malachowski, R. *et al*, *Ber.*, 1928, **61**, 2521 (*synth. props*)

Org. Synth., *Coll. Vol.*, 2, 1943, 12 (*synth*)

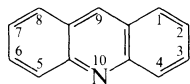
Krogh, A., *Acta Chem. Scand.*, 1969, **23**, 2932 (*isol*)

Bartos, J. *et al*, *Pure Appl. Chem.*, 1984, **56**, 467 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ADH000.

Acridine**A-00062**

Dibenzo[b,e]pyridine. 9-Azaanthracene
[260-94-6]



$C_{13}H_9N$ M 179.221

Obt. from coal tar. Parent compd. of many important

dyes, alkaloids and antibacterials. Used for flotr. separation of $TeBr_6^{2-}$; also for gravimetric detn. of Os. Needles or prisms. Sol. EtOH, Et₂O; sl. sol. H_2O . Mp 111° (sealed tube)(subl. > 100°). Bp ~ 360° (345-346°). pK_a 5.60 (H_2O). Solutions show blue fluor. Five cryst. modifications known, all melting at ca. 106-111°. Triboluminescent.

▷ Flammable. Toxic, irritant. LD₅₀ 400 mg/kg (s.c., mice). Nasal and skin irritant. AR7175000.

B, MeI: Red triclinic cryst.

N-Oxide: [10399-73-2].

$C_{13}H_9NO$ M 195.220

Yellow needles (pet. ether). Mp 169°.

Radulescu, D. *et al*, *Chem. Ber.*, 1931, **64**, 2233 (*w*)

Corwin, A.H., *Chem. Heterocycl. Compd.*, (Elderfield, R.C. Ed.), Wiley, N.Y., 1950, **1** (*rev*)

Albert, A., *The Acridines*, Arnold, London, 1951 (*props*)

Kokko, J.P. *et al*, *Spectrochim. Acta*, 1963, **19**, 1119 (*pmr*)

Beamish, F.E., *The Analytical Chemistry of the Noble Metals*, Pergamon, Oxford, 1966 (*detn. Os*)

Nakamura, K. *et al*, *J. Chem. Soc., Chem. Commun.*, 1970, 1135 (*cryst struct*)

Acheson, R.M., *Chem. Heterocycl. Compd.*, 2nd Ed. (Weissberger, A., Ed.), 1972, **9** (*rev. ir, uv, pmr, ms*)

Noeth, M. *et al*, *Chem. Ber.*, 1974, **107**, 3070 (*nmr*)

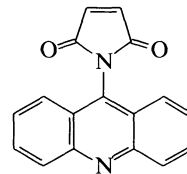
Skripchuk, V.G., *Zh. Anal. Khim.*, 1983, **38**, 2198 (*sepn, Te*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ADJ500.

1-(9-Acridinyl)-1H-pyrrole-2,5-dione, 9CI**A-00063**

N-(9-Acridinyl)maleimide. NAM

[49759-20-8]



$C_{17}H_{10}N_2O_2$ M 274.278

Fluorescent thiol reagent. Pale yellow prisms (Me_2CO).

Mp 248° dec.

Takahashi, H. *et al*, *Agric. Biol. Chem.*, 1978, **42**, 769, 793; 1979,

43, 1439 (*synth. use, ir, uv, pmr*)

Machida, M. *et al*, *Chem. Pharm. Bull.*, 1978, **26**, 596 (*synth. use*)

Hiroshi, O. *et al*, *Agric. Biol. Chem.*, 1985, **49**, 885 (*synth*)

Asakawa, K. *et al*, *Agric. Biol. Chem.*, 1986, **50**, 1139 (*use*)

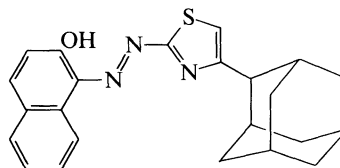
Dasgupta, P.K. *et al*, *Anal. Chem.*, 1986, **58**, 2839 (*use*)

Hatakeyama, E. *et al*, *Anal. Sci.*, 1989, **5**, 657 (*use*)

4-Adamantyl-2-(2-hydroxy-1-naphthalenylazo)thiazole**A-00064**

1-[(4-Tricyclo[3.3.1.1^{3,7}]dec-1-yl-2-thiazolyl)azo]-2-naphthalenol, 9CI

[61601-59-0]



$C_{23}H_{23}N_3OS$ M 389.520

Used as 1mM EtOH soln. for extraction-photometric detn. of Zn (λ_{max} 555 nm, ϵ 49000, $CHCl_3$), Cu(II) (λ_{max} 565 nm, ϵ 53000, $CHCl_3$). Cryst. Sol. EtOH, MeOH.

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1976, **42**, 741 (synth)
 Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 1116; 1983, **38**, 1787 (detn, Zn, Cu)

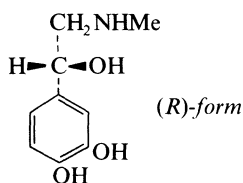
Adogen 364**A-00065**

Liq. anion-exchanger. Trialkyl tertiary amine mixt. of C₈ and C₁₀ chains with C₈ predominating. Used as soln. in toluene for extraction of Ga, In, Fe(III) from halide media. Oily liq. Sol. C₆H₆, toluene, acids; insol. H₂O. d 0.8. Av. MW 390.

Sherif, S.H. *et al*, *Talanta*, 1970, **17**, 137.

Adrenaline**A-00066**

4-[1-Hydroxy-2-(methylamino)ethyl]-1,2-benzenediol, 9CI.
 3,4-Dihydroxy- α -[(methylamino)methyl]benzyl alcohol, 8CI.
 1-(3,4-Dihydroxyphenyl)-2-methylaminoethanol. **Epinephrine**,
INN, USAN. *Bronkaid. Epifrin. Glaucon. Bosmin*
 [6912-68-1]



C₉H₁₃NO₃ M 183.207

Detected in callus tissue of *Portulaca grandiflora* (chirality not establ.)(Portulacaceae). Used in photometric detn. of Ti. Sol. alkalis, acids; sp. sol. H₂O, EtOH; insol. Et₂O. Mp 216° dec.

▶ High oral toxicity. Antidote; guanine. May cause contact dermatitis.

(R)-form [51-43-4]

L-form (obsol.)

Active constit. of the adrenal gland. Adrenergic agent, vasoconstrictor. White powder. Mp 216° dec. [α]_D²⁰ –53° (c, 4 in 1M HCl).

▶ DO2625000.

B,HCl: Mp 157°.

Tartrate: [51-42-3]. **Epinephrine bitartrate**, **USAN**. *Epitrate*.

Suprarenin

Ophthalmic adrenergic agent.

▶ DO3500000.

Cyclic borate: [5579-16-8]. **Epinephryl borate**, **USAN**.

Epinal

Ophthalmic adrenergic agent.

N-Me: [554-99-4]. **N-Methyladrenaline**. 4-[2-

(Dimethylamino)-1-hydroxyethyl]-1,2-benzenediol, 9CI

C₁₀H₁₅NO₃ M 197.233

Alkaloid from tubers of *Aconitum nasutum* (Ranunculaceae).

▶ DO5425000.

(S)-form [150-05-0]

D-form (obsol.)

Light brown cryst. Mp 211-212°.

▶ DO2800000.

(±)-form [329-65-7] **Racpinefrine**, **INN, USAN**. *Vaponephrin*

Vasoconstrictor, often employed as bitartrate or borate. Microscopic cryst. Sl. sol. H₂O. Mp >230° dec.

▶ DO2975000.

B,HCl: **Racpinephrine hydrochloride**, **USAN**

Di-Ac:

C₁₃H₁₇NO₅ M 267.281

Mp 168°.

Di-Ac; B,HCl: Mp 155-156°.

Aberhalden, E. *et al*, *Ber.*, 1904, **37**, 2022 (isol)

Ciocca, B., *Boll. Chim. Farm.*, 1934, **73**, 241; *CA*, **28**, 4398 (synth)

Pratesi, P. *et al*, *J. Chem. Soc.*, 1959, 4062 (abs config)

Payne, K.R., *Ind. Chem.*, 1961, **37**, 523 (manuf, bibl)

Thies, H. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1962, **295**, 194 (uv)

Jerman, L. *et al*, *Anal. Chim. Acta*, 1966, **36**, 240 (use)

Carlström, D., *Acta Crystallogr., Sect. B*, 1973, **29**, 161 (cryst struct)

Hawkins, C.J. *et al*, *Aust. J. Chem.*, 1973, **26**, 2553 (resoln)

Samokish, I.I. *et al*, *CA*, 1975, **84**, 102283 (isol, deriv)

Nagatsu, T., *Method. Chim.*, 1977, **11**, 194 (rev)

Szulcowski, D. *et al*, *Anal. Profiles Drug Subst.*, 1978, **7**, 193 (rev)

McLean, J.R., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed.,

Wiley, N.Y., 1978-1984, **9**, 241 (rev)

Weisser, U., *Med. Welt*, 1980, **31**, 40 (synth)

Lai, A. *et al*, *J. Chem. Soc., Faraday Trans. 2*, 1981, **77**, 227 (cmr)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 336, 2041, 2042.

Endress, R. *et al*, *J. Plant Physiol.*, 1984, **115**, 291; *CA*, **101**,

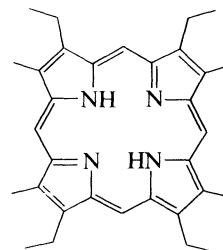
127016u (occur)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademi-Verlag, Berlin, 1987, 1288 (synonyms)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AES000, AES250, EBB500, MJV000, VGP000.

Aetioporphyrin II**A-00067**

3,7,13,17-Tetraethyl-2,8,12,18-tetramethylporphyrin. 2,3,6,7-Tetraethyl-1,4,5,8-tetramethylporphyrin. **Etioporphyrin II** [448-70-4]



C₃₂H₃₈N₄ M 478.679

Synthetic; porphyrins of this type have not been found in nature but this struct. serves as a reference for "type II" porphyrins. Used as a 0.25mM DMF soln. for fluorimetric detn. of Zn (λ_{max} 578 nm, EtOH). Violet cryst. (CHCl₃/MeOH). Sol. Py, DMF, EtOH, Me₂CO, dioxan, CHCl₃. Mp 360-366°.

Fischer, H. *et al*, *Die Chemie des Pyrrols*, Akademische Verlag, Leipzig, Vol. II, (i), 1937, 197 (struct)

Corwin, A.H. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 5196 (synth)

Fakeeva, O.A. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 827 (detn, Zn)

Agar**A-00068**

Agar-agar

[9002-18-0]

Mucilaginous substance extracted from red marine algae (Rhodophyceae). Used as protective colloid in photometric detn. of Sn, Mg, Si, SO₄²⁻. Used as a solid medium for the cultivation of bacteria. A thickener, stabiliser and gelling agent in the food industry. Strips or fine powder. Sl. sol. in hot H₂O. Consists of a mixt. of 2 polysaccharides, agarose and agarpectin.

Clark, R.E., *Analyst (London)*, 1937, **62**, 661 (detn, Sn)

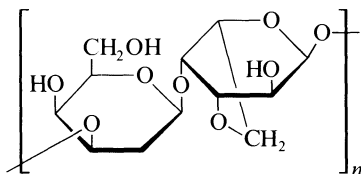
Bogan, E.J. *et al*, *Ind. Eng. Chem., Anal. Ed.*, 1942, **14**, 849 (detn, SO₄²⁻)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4** (use)

Davidson, R.L., *Handb. Water-Soluble Gums Resins*, McGraw-Hill, N.Y., 1980, 7/1 (rev)
 Glickmann, M., *Food Hydrocolloids*, CRC, Boca Raton, Florida, 1983, 2, 73 (rev)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AEX250.

Agarose

Neutral agarose

A-00069

Composed of repeating units of β-D-Galp (1→4) 3,6-anhydro-α-L-Galp(1→3). Isol. from red seaweed agar. Gives gels of high strength at low concs. in water which are nearly transparent. These are used commercially as gelling agents and for biomedical applications, eg. electrophoresis media, chromatography and immunology assays. There are two other polysaccharides in agar, one is similar to agarose but with 4,6-acetals of pyruvic acid at some of the D-galactose units. The other contains fewer 3,6-anhydro-L-galactose units and is sulfated.

Percival, E., *The Carbohydrates*, 1970, **2B**, 553.
 Batey, J.F. *et al*, *Carbohydr. Res.*, 1975, **43**, 133.
 Turvey, J.R. *et al*, *Carbohydr. Res.*, 1976, **49**, 419.
 Rees, D. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1977, **16**, 214.

Alanine

[58318-36-8]

A-00070

Liq. anion exchanger; a mixt. of C₈-C₁₀ chain tertiary amines. Used as a 1-10% soln. in xylene for extraction of Th and rare earth elements. Pale yellow oily liq.

De Amorim, H.A.L. *et al*, *CA*, 1976, **84**, 96823d.

Alanine oxide

Alam O

A-00071

[39421-48-2]

Liq. anion-exchanger. Used as a soln. in CHCl₃ for extraction-separation of Co, Cu, Fe, Pu, U. Oily liq. Sol. C₆H₆, CHCl₃; insol. H₂O. Product of oxidation of Alanine 336S.

Kennedy, J. *et al*, *J. Inorg. Nucl. Chem.*, 1964, **26**, 601.
 Leene, H.R. *et al*, *J. Chromatogr.*, 1971, **57**, 173 (synth. use, Pu, U)
 de Jong, G.J. *et al*, *Fresenius' Z. Anal. Chem.*, 1978, **289**, 358 (use, Co, Cu, Fe)

Alanine 336**A-00072**

Liq. anion exchanger; a mixt. of C₈-C₁₀ straight chain tertiary amines. Used as a 1-10% soln. in xylene for extraction of actinides and transition metals. Pale yellow oily liq. Sol. C₆H₆, CHCl₃; insol. H₂O. Av. MW 392.

Green, H. *et al*, *Talanta*, 1973, **20**, 39.
 Clark, J.R. *et al*, *Anal. Chem.*, 1981, **51**, 61.

Alanine 336S**A-00073**

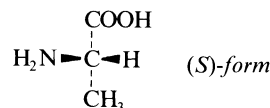
[39421-47-1]

Liq. anion exchanger; a mixt. of C₈-C₁₀ chain tertiary amines. Used as a 1-10% soln. in xylene for extraction of Cd, Mn, Co. Pale yellow oily liq. Av. MW 392.

McDonald, C.W. *et al*, *Anal. Chem.*, 1973, **45**, 983.
 Claasen, V.P. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **287**, 138.
 de Jong, G.J. *et al*, *Fresenius' Z. Anal. Chem.*, 1978, **289**, 358.

Alanine**A-00074**

2-Aminopropanoic acid, 9CI. α-Alanine

C₃H₇NO₂ M 89.094**(R)-form** [338-69-2]*D-form*

Occurs in the cell walls of bacteria and in some higher plants. Prisms (EtOH aq.). Sol. hot H₂O. Mp 295-297° dec. [α]_D²⁵ -1.8° (c, 1 in H₂O), [α]_D -14.6° (c, 1 in 5M HCl).

B,HCl: Sol. H₂O. [α]_D²⁰ -10.3° (H₂O).

Et ester:C₅H₁₁NO₂ M 117.147

Needles (EtOH aq.). Mp 104-105°. [α]_D²⁰ +6.91° (EtOH).

Benzyl ester; B,HCl:C₁₀H₁₃NO₂ M 179.218

Mp 139-140°. [α]_D²⁵ +10.5° (c, 2 in 0.1M HCl).

Benzyl ester, p-toluenesulphonate salt: Mp 113-114°. [α]_D²⁷ +6.9° (c, 2 in H₂O).

N-Benzoyl:C₁₀H₁₁NO₃ M 193.202

Mp 151°. [α]_D -37.3° (c, 0.8 in KOH).

N-Ac:C₅H₉NO₃ M 131.131

Mp 125°. [α]_D +66.5° (c, 2 in H₂O).

(S)-form [56-41-7]*L-form*

Obt. from hydrolysates of many proteins. Insol. EtOH, sl. sol. H₂O. Mp 297° dec. [α]_D +14.6° (c, 1 in 5M HCl), [α]_D +1.8° (c, 1 in H₂O). *N*-Protected derivs. useful in peptide systems synth. have been listed alphabetically elsewhere.

B,HCl: Mp 204°. [α]_D²⁰ +10.4° (H₂O).

Me ester; B,HCl: Mp 154-155°, Mp 109-110°.

Et ester; B,HCl: Mp 76°. [α]_D²⁵ -11.4° (c, 2 in 5M HCl).

Benzyl ester; B,HCl: Mp 140°. [α]_D²⁵ -10.9° (c, 2 in 0.1M HCl).

Benzyl ester, p-toluenesulphonate salt: Mp 114°. [α]_D¹³ -6.8° (c, 2 in H₂O).

N-Ac: Mp 125°. [α]_D -66.2° (c, 2 in H₂O).

N-Benzoyl: Mp 152-154°. [α]_D²⁰ +37.1° (c, 0.7 in KOH).

N-2,4-Dinitrophenyl: Yellow plates (Et₂O/pet. ether). Mp 177°.

N-(2-Hydroxyethyl): [24560-77-8].

C₅H₁₁NO₃ M 133.147

Prod. by the seaweed *Petalonia jascia*.

Amide:C₃H₈N₂O M 88.109

Prisms (CHCl₃). Mp 72°. Hygroscopic.

(±)-form [302-72-7]

Reference material used in elemental microanalysis.

Needles or prisms. Spar. sol. H₂O; insol. Et₂O. Mp 295° dec. pK_{a1} 2.35 (COOH); pK_{a2} 9.69 (NH₂) (25°).

Me ester:C₄H₉NO₂ M 103.121

Bp₁₅ 38-42°.

Me ester; B,HCl: Mp 158°.

Et ester: Bp₁₁ 48°.

Et ester; B,HCl: Mp 64-68°, Mp 86-87° and 129°.

N-Ac: Mp 137-138°.

N-Benzoyl: Mp 165-166°.

N-Et, Et ester:

C₇H₁₅NO₂ M 145.201

Bp₁₁ 48°.

N-Di-Et, Et ester:

C₉H₁₉NO₂ M 173.255

Bp₁₃ 74°.

N-Di-Et, nitrile:

C₇H₁₄N₂ M 126.201

Bp₁₅ 66°.

Amide: Mp 62°.

Amide; B,HCl: Mp 170°.

Nitrile; B,HCl:

C₃H₆N₂ M 70.094

Mp 115-117°, Mp 132-138° dec.

Org. Synth., Coll. Vol., 1, 1932, 20 (synth)

Biochem. Prep., 1949, 1, 9.

Greenstein, J.P. et al, Chemistry of the Amino Acids, Wiley, N.Y., 1961, 3, 1819 (rev)

Kost, A.N. et al, Chem. Ind. (London), 1966, 1496 (synth)

Cavanaugh, J.R., J. Am. Chem. Soc., 1967, 89, 1558 (pmr)

Analyst (London), 1972, 97, 740 (microanal)

Lehmann, M.S. et al, J. Am. Chem. Soc., 1972, 94, 2657 (cryst struct)

Okawara, T. et al, Bull. Chem. Soc. Jpn., 1973, 46, 869 (synth)

Kiyooka, S. et al, Bull. Chem. Soc. Jpn., 1976, 49, 1897 (synth)

Krapcho, A. et al, Tetrahedron Lett., 1976, 2205 (synth)

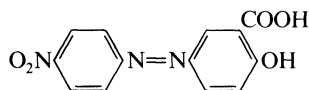
Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, AFH600, AFH625.

Alizarine chrome orange G

A-00075

2-Hydroxy-5-[(4-nitrophenyl)azo]benzoic acid, 9CI. 5-[(p-Nitrophenyl)azo]salicylic acid. 4'-Nitro-4-oxiazobenzene-3-carboxylic acid. Alizarine orange 2GN. C.I. Mordant orange 1. Azochromol orange R. Brasilon chrome orange R. Kenachrome orange. C.I. 14030. Numerous other proprietary names

[2243-76-7]



C₁₃H₉N₃O₅ M 287.231

Strictly the name Alizarine chrome orange G applies to the sodium salt. Available as acid or monosodium salt.

▷ VO5310000.

Na salt: Used as 0.1% aq. soln. as acid-base indicator, (pH range 10.1-12.1; colour change yellow → brown-red).

Brown-yellow needles. Sol. EtOH, H₂O; spar. sol.

Me₂CO; insol. CHCl₃, C₆H₆. Mp 253-257° dec. pK_a 11.05.

Meldola, R., J. Chem. Soc., 1885, 47, 666 (synth)

Hewitt, J.T. et al, J. Chem. Soc., 1901, 79, 53 (synth)

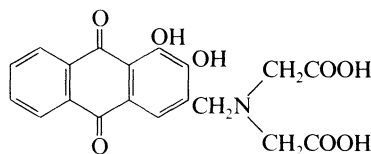
Bishop, E., Indicators, Pergamon, Oxford, 1972.

Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, NEY000.

Alizarine fluorine blue

A-00076

N-(Carboxymethyl)-N-[(9,10-dihydro-3,4-dihydroxy-9,10-dioxo-2-anthracenyl)methyl]glycine, 9CI. 3-[Di(carboxymethyl)aminomethyl]-1,2-dihydroxyanthraquinone. 3,4-Dihydroxyanthraquinon-2-ylmethylimino-N,N-diacetic acid. Alizarin-3-methylimino-N,N-diacetic acid. Alizarine complexone [3952-78-1]



C₁₉H₁₅NO₈ M 385.329

Used as 0.5% soln. in dil. aq. NH₃ for photometric detn. of F[⊖] (λ_{max} 620 nm, ε 14000), Al, Ge, Mo, Co, Ni, U. Orange cryst. (HCl). Sol. alkalis; spar. sol. H₂O; insol. acids, Et₂O. Mp 180° dec.

▷ AH0585000.

Leonard, M.A. et al, J. Chem. Soc., 1960, 4474.

Belcher, R. et al, Talanta, 1961, 8, 853, 863 (detn, F)

Langmyhr, F.J. et al, Anal. Chim. Acta, 1971, 57, 341 (mechanism)

Ingman, F., Talanta, 1973, 20, 999 (detn, Al)

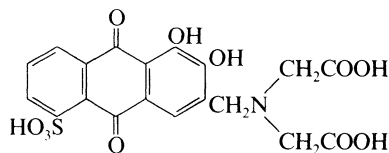
Cheng, K.L. et al, Handbook of Organic Analytical Reagents, CRC Press, Boca Raton, 1982, 247 (use)

Marzenko, Z., Separation and Spectrophotometric Determination of Elements, Horwood, Chichester, 1986, 135, 274.

Alizarine fluorine blue S

A-00077

N-(Carboxymethyl)-N-[(9,10-dihydro-3,4-dihydroxy-9,10-dioxo-8-sulfo-2-anthracenyl)methyl]glycine, 9CI. Alizarine fluorine blue sulfonate. 5-Sulfoalizarin complexone [55671-62-0]



C₁₉H₁₅NO₁₁S M 465.394

Strictly the name Alizarine fluorine blue S refers to the potassium salt.

K salt: [55671-61-9].

Used in photometric detn. of F[⊖] (λ_{max} 635 nm).

Hygroscopic orange-yellow cryst. Sol. alkalis; spar. sol.

H₂O (5mM); insol. Me₂CO, Et₂O. pK_{a1} 2.7; pK_{a2} 6.1;

pK_{a3} 10.2; pK_{a4} 12.5.

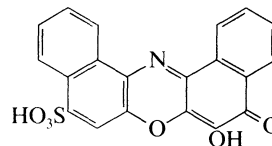
Leonard, M.A. et al, Analyst (London), 1974, 99, 645; 1975, 100, 275 (synth, detn, F[⊖])

Deane, S.F. et al, Analyst (London), 1977, 102, 340; 1978, 103, 1134.

Alizarine green

A-00078

6-Hydroxy-5-oxo-5H-dibenzo[a,j]phenoxazine-9-sulfonic acid



C₂₀H₁₁NO₆S M 393.376

Strictly the name Alizarine green applies to the sodium salt.

Na salt: [55968-30-4].

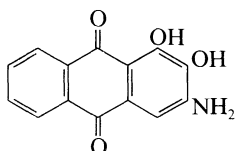
Dark greenish-blue cryst. powder. Sol. H₂O. Used as metal indicator in titrimetric detn. of Cd, Cu, Mn, Bi, Zn.

Simek, J. *et al*, *CA*, 1975, **83**, 90274h.

Alizarine maroon**A-00079**

3-Amino-1,2-dihydroxy-9,10-anthracenedione, 9CI. 3-Amino-1,2-dihydroxyanthraquinone. 3-Aminoalizarine

[3963-78-8]

C₁₄H₉NO₄ M 255.229

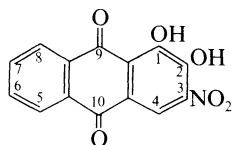
Used as a 5mM aq. soln. for photometric detn. of Se(IV) (λ_{\max} 560 nm, ϵ 25000). Dark red cryst. (AcOH). Sol. alkalis; spar. sol. EtOH, H₂O. Mp > 300°.

Idriss, K.A. *et al*, *Analyst (London)*, 1982, **107**, 12.

Alizarine orange**A-00080**

1,2-Dihydroxy-3-nitro-9,10-anthracenedione, 9CI. 1,2-Dihydroxy-3-nitroanthraquinone. 3-Nitroalizarin. C.I. Mordant orange 14. C.I. 58015

[568-93-4]

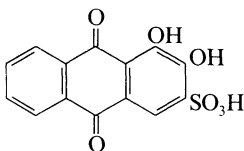
C₁₄H₇NO₆ M 285.212

Dye, insecticide stabiliser, indicator. Used as 1mM EtOH soln. for photometric detn. of Sn(IV) (ϵ 200000), Zr (λ_{\max} 420 nm, ϵ 63000); acid base indicator (pH range 2.0-4.0; colour change: golden orange → yellow). Orange needles or plates (AcOH). Sol. EtOH. Mp 244° dec.

Barnett, E. de B. *et al*, *J. Chem. Soc.*, 1922, **121**, 1376 (*synth*)
Qureshi, G.A. *et al*, *Analyst (London)*, 1979, **104**, 705 (*polarog*)
Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 126 (*detn*, Zr)
Flyantikova, G.V. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1043 (*detn*, Sn)

Alizarine red S**A-00081**

9,10-Dihydro-3,4-dihydroxy-9,10-dioxo-2-anthracenesulfonic acid, 9CI. 1,2-Dihydroxyanthraquinone-3-sulfonic acid. 3-Alizarinsulfonic acid. Alizarine S. Alizarine carmine. C.I. Mordant red 3. C.I. 58005

C₁₄H₈O₇S M 320.279

Strictly the name Alizarine red S applies to the sodium salt. The boron complex (Borosulfoalizarine) is used for photometric detn. of Ga, Yb.

Na salt: [130-22-3].

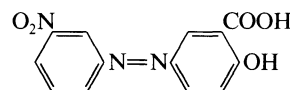
Used as soln. in acetate buffer for photometric detn. of Al, Be, Sc, rare earth elements, Zr, F[⊖]; acid-base indicator (pH 5.0-6.6). Orange-yellow needles (H₂O). Sol. H₂O; spar. sol. Me₂CO, EtOH.

Kawashima, T. *et al*, *Talanta*, 1961, **8**, 552 (*detn*, rare earths)
Kost, T., *Fresenius' Z. Anal. Chem.*, 1964, **203**, 260 (*detn*, F)
Corbett, J.A. *et al*, *Analyst (London)*, 1966, **91**, 490 (*detn*, Al)
Zittel, H.E. *et al*, *Anal. Chem.*, 1967, **39**, 320 (*detn*, Zr)
Serdyuk, L.S. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 464 (*B complex*)
Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 784; *Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 360.

Alizarine yellow G**A-00082**

2-Hydroxy-5-[(3-nitrophenyl)azo]benzoic acid, 9CI. 5-[(m-Nitrophenyl)azo]salicylic acid. Salicylic yellow. Metachrome yellow. C.I. Mordant yellow 1. C.I. 14025. Alizarin 2G. Chrome yellow G. Poloxal yellow GL. Numerous other proprietary names

[6283-26-7]

C₁₃H₉N₃O₅ M 287.231

Strictly the name Alizarin yellow G applies to the sodium salt.

Na salt: [584-42-9].

Commercially available. Used as 0.1% aq. soln. as acid-base indicator (pH 10.0-12.1; colour change light yellow → orange). Used for photometric detn. of Ga.

Yellow cryst. powder. Sol. H₂O; spar. sol. EtOH, Me₂CO, 2-ethoxyethanol; insol. C₆H₆, CHCl₃, pKa 11.

Morgan, E.T. *et al*, *J. Chem. Soc.*, 1922, **121**, 2866 (*detn*, Co)
Croitoru, V. *et al*, *Chim. Anal. (Bucharest)*, 1971, **1**, 229; *CA*, **76**, 148458v (*detn*, Ga)

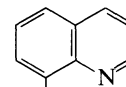
Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.

Allthiox**A-00083**

8-(2-Propenylthio)quinoline, 9CI. Thiooxine allyl ether.

Allthiox

[36256-68-5]

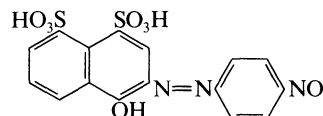
H₂C=CHCH₂SC₁₂H₁₁NS M 201.292

Used as soln. in 40% EtOH in photometric detn. of Rh. Cryst. Sol. EtOH, Et₂O, C₆H₆; spar. sol. H₂O. Mp 67°.

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 870 (*detn*, Rh)

Alpha blue**A-00084**

4-Hydroxy-3-[(4-nitrophenyl)azo]-1,8-naphthalenedisulfonic acid. 2-(4'-Nitrophenylazo)-1-naphthol-4,8-disulfonic acid

C₁₆H₁₁N₃O₉S₂ M 453.410

Strictly the name Alpha blue applies to the disodium salt.

Di-Na salt: Used as acid-base indicator (test papers).

Cryst. Sol. H₂O. pK_a 9.6.

Ferber, K.H., *Ind. Eng. Chem., Anal. Ed.*, 1946, **18**, 631 (*synth*, *props*)

Bishop, E., *Indicators*, Pergamon Oxford, 1972.

Aluminophthalexon**A-00085**

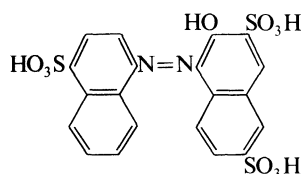
[65666-41-3]

Used in photometric detn. of Cr (ϵ 28000).Novopol'tseva, V.M., *Khim. Khim. Tekhnol. (Minsk)*, 1977, **20**, 793; *CA*, **88**, 98625x.**Aluminophthalexon A****A-00086**

[65666-42-4]

Used for photometric detn. of Cr (ϵ 24000).Novopol'tseva, V.M., *Khim. Khim. Tekhnol. (Minsk)*, 1977, **20**, 793 (*detn. Cr*)**Amaranth****A-00087**

3-Hydroxy-4-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI. C.I. Acid red 27, 8CI. FD and C Red No. 2. Azorubine S. C.I. 16185. Amaranth S. Amaranth R

 $C_{20}H_{14}N_2O_{10}S_3$ M 538.536

Usually obt. as tri-Na salt, to which most synonyms refer.

Used in dyeing, colour photography and food colouring.

Used as its complex with Th in indirect photometric detn. of F^{\ominus} and $S^{2\ominus}$. Sol. H_2O , EtOH, 2-ethoxyethanol.

Banned by FDA for use in food, drugs and cosmetics.

Tri-Na salt: [915-67-3].Dark-red-brown powder. Sol. H_2O .

▷ QJ6550000.

Knecht, O., *J. Soc. Dyers Colour.*, 1886, **2**, 24 (*synth*)Lambert, J.L., *Anal. Chem.*, 1954, **26**, 558 (*detn. F*)Lambert, J.L. *et al.*, *Anal. Chem.*, 1955, **27**, 800 (*detn. S*)Nursten, H.E., *J. Soc. Dyers Colour.*, 1973, **89**, 49 (*synth*)Marmino, D.M., *J. Assoc. Off. Anal. Chem.*, 1974, **57**, 495 (*synth*)*Merck Index*, 9th Ed., 1976, No. 378.Fogg, M.G. *et al.*, *Analyst (London)*, 1979, **104**, 723 (*anal*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, FAG020.

Amberlite LA1, 9CI**A-00088**

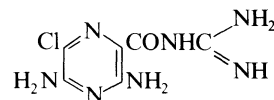
[12642-13-6]

Liq. anion exchanger; a mixt. of *N*-dodecyl(trialkylmethyl) amines. Used for extraction-separation of manyelements as a 1-10% soln. in xylene, or $CHCl_3$.Yellowish oily liq. Sol. C_6H_6 , heptane, $CHCl_3$; insol. H_2O , acids.Saas, A., *Analysis*, 1972, **1**, 507.Kim, C.H. *et al.*, *Talanta*, 1975, **22**, 739.Minczewski, J. *et al.*, *Separation and Preconcentration Methods in Inorganic Trace Analysis*, Horwood, Chichester, 1982, 29, 636.**Amberlite LA2, 9CI****A-00089**

[11128-96-4]

Liq. anion exchanger; a mixt. of *N*-lauryl(trialkylmethyl) amines. Used as a 1-10% soln. in xylene for extraction separation of Cd, Sn(II), Sn(IV), Te(IV). Yellowish oily liq.Hofer, A., *Fresenius' Z. Anal. Chem.*, 1968, **240**, 229; 1969, **244**, 103.Minczewski, J. *et al.*, *Separation and Preconcentration Methods in Inorganic Trace Analysis*, Horwood, Chichester, 1982, 581.**Amiloride, BAN, INN****A-00090**

3,5-Diamino-N-(aminoiminomethyl)-6-chloropyrazinecarboxamide, 9CI. N-Amidino-3,5-diamino-6-chloropyrazinamide. Amipramidine. Amipramizide. Guanamprazine. Other proprietary names [2609-46-3]

 $C_6H_8ClN_7O$ M 229.628Potassium-sparing diuretic. Used as a 0.01M aq. soln. for extraction-photometric detn. of ClO_4^{\ominus} (ϵ 13000). Mp 240-241.5°.*B.HCl*: [2016-88-8]. Amiloride hydrochloride, USAN Cryst. + 2 H_2O . Mp 285-288° dec. (293.5° anhydr.).Cragoe, E.J. *et al.*, *J. Med. Chem.*, 1967, **10**, 66 (*synth. pharmacol*) Smith, R.L. *et al.*, *J. Am. Chem. Soc.*, 1979, **101**, 191 (*pmr, cmr, 15 nmr, tautom*)Burns, D.T. *et al.*, *Anal. Chim. Acta*, 1980, **118**, 185 (*detn. ClO_4^{\ominus}*)Hyams, D.E., *Int. Congr. Symp. Ser. R. Soc. Med.*, 1981, **44**, 65 (*rev*)Laragh, J.H., *Curr. Ther. Res.*, 1982, **32**, 173 (*rev*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2304.

Mazzo, D.J., *Anal. Profiles Drug Subst.*, 1986, **15**, 1 (*rev*)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 445 (*synonyms*)**4'-Aminoacetophenone, 8CI****A-00091**

1-(4-Aminophenyl)ethanone, 9CI

[99-92-3]

 C_8H_9NO M 135.165Reagent for Meerwein reactions. Used in photometric detn. of Ce, Pd. Cryst. (H_2O). Sol. hot acids, EtOH, C_6H_6 ; insol. H_2O . Mp 106°. Bp 293-295°.

▷ AM5500000.

N-Ac: $C_{10}H_{11}NO_2$ M 177.202Needles (H_2O or EtOH). Mp 166-169°.*N-Benzoyl*: $C_{15}H_{13}NO_2$ M 239.273Plates (EtOH or $CHCl_3$). Mp 205°.*Oxime*: [38063-81-9]. $C_8H_{10}N_2O$ M 150.180

Needles (EtOH). Mp 147-148°.

Semicarbazone: [18300-68-0].

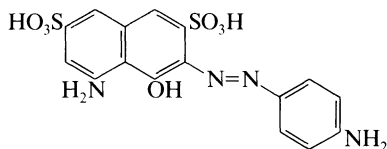
Yellowish cryst. (EtOH). Mp 250°.

2,4-Dinitrophenylhydrazone: Mp 263°.

N-Me: [17687-47-7]. 1-[4-(Methylamino)phenyl]ethanone $C_9H_{11}NO$ M 149.192Herbicide. Plates (H_2O). Mp 58-59°.Leonard, N.J. *et al.*, *J. Org. Chem.*, 1946, **11**, 405 (*synth*)De Hovre, E., *Ing. Chim. (Brussels)*, 1953, **35**, 83; *CA*, **47**, 12114c (*detn. Pd*)Somidevamma, G. *et al.*, *Talanta*, 1967, **14**, 861 (*detn. Ce*)Howe, I. *et al.*, *J. Am. Chem. Soc.*, 1969, **91**, 7137 (*ms*)Bloxdige, J. *et al.*, *Org. Magn. Reson.*, 1970, **2**, 337 (*nmr*)Wu, A., *J. Organomet. Chem.*, 1971, **33**, 53 (*nmr, ir*)*Ger. Pat.*, 2 210 564, (1972); *CA*, **77**, 151655 (*synth*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1974, **4**, 18.Hinoaha, T. *et al.*, *Nippon Kagaku Kaishi*, 1974, 297 (*w*)

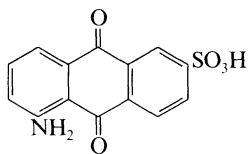
Haisa, M. *et al*, *Acta Crystallogr., Sect. B*, 1976, **32**, 1326 (*cryst struct*)
 Penner, G.H. *et al*, *Can. J. Chem.*, 1989, **67**, 525 (*cmr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AHR450.

5-Amino-3-[[4-aminophenyl]azo]-4-hydroxy-2,7-naphthalenedisulfonic acid **A-00092**



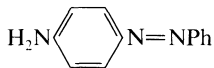
$C_{16}H_{14}N_4O_7S_2$ M 438.441
*N*⁴-Ac: 3-[[4-(Acetylamino)phenyl]azo]-5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid, 9CI
 $C_{18}H_{16}N_4O_8S_2$ M 480.478
*N*⁴-Ac, Di-Na salt: [36105-94-9].
 Used as a 0.01% soln. in EtOH to give colour reaction with Pd. Cryst.
 Popa, G. *et al*, *Zh. Anal. Khim.*, 1959, **14**, 322 (*use*)

5-Aminoanthraquinone-2-sulfonic acid **A-00093**
 5-Amino-9,10-dihydro-9,10-dioxo-2-anthracenesulfonic acid, 9CI



$C_{14}H_9NO_5S$ M 303.295
N-Benzoyl: *N*-(9,10-Dihydro-9,10-dioxo-2-sulfoanthracenyl)benzenecarboxamide. 5-Benzamidoanthraquinone-2-sulfonic acid
 $C_{21}H_{13}NO_6S$ M 407.403
 Used for indirect photometric detn. of Na. Yellow leaflets. Sol. H₂O, EtOH.
 Fujinaga, T. *et al*, *Nippon Kagaku Kaishi*, 1964, **85**, 547.

4-Aminoazobenzene **A-00094**
 4-(Phenylazo)benzenamine, 9CI. *p*-(Phenylazo)aniline, 8CI [60-09-3]

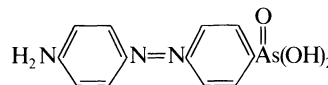


$C_{12}H_{11}N_3$ M 197.239
 Reagent for characterisation of diacids as *p*-phenylazoanils. Used as 0.02% soln. in EtOH for photometric detn. of SO₂ and S and phenols. Acid-base indicator. Orange needles with blue cast (EtOH). Sol. EtOH, acids, Et₂O; sl. sol. H₂O. Mp 126°. Bp > 360°. *pK*_a 11.12.
 ▶ Exp. carcinogen. BY8225000.
B.HCl: [3457-98-5].
 Reddish-blue needles. Mp > 360°.
 ▶ BY8235000.
N-Ac: [4128-71-6].
 $C_{14}H_{13}N_3O$ M 239.276
 Golden needles (EtOH). Mp 144-146°.
 ▶ AE6300000.
N-Benzoyl:

$C_{19}H_{15}N_3O$ M 301.347
 Orange cryst. (EtOH). Mp 211° (205°).
N-(4-Methylbenzenesulfonyl): Red needles. Mp 187-189° dec.
N-Me:
 $C_{13}H_{13}N_3$ M 211.266
 Red needles. Mp 180°.
N-Di-Me: see 4-Dimethylaminoazobenzene, D-00778
N-Di-Et: [2481-94-9].
 $C_{16}H_{19}N_3$ M 253.346
 Mp 97-98°.
 ▶ CX9871000.
N^α-Oxide: [95633-08-2]. 4-(Phenyl-N,N,O-azoxy)benzenamine, 9CI
 $C_{12}H_{11}N_3O$ M 213.238
 Orange prismatic leaflets. Mp 142° (138°). Oxidised on the azo *N*-atom proximal to the *p*-aminophenyl residue.
N^β-Oxide: [95633-07-1]. 4-(Phenyl-O,N,N-azoxy)benzenamine, 9CI
 $C_{12}H_{11}N_3O$ M 213.238
 Pale-yellow cryst. Mp 136°. Oxidised on the azo *N*-atom distal to the *p*-aminophenyl residue.
 [25548-34-9, 25548-35-0]

Berju, G., *Ber.*, 1884, **17**, 1400.
 Staedel, W. *et al*, *Ber.*, 1886, **19**, 1954.
 Higuchi, T. *et al*, *Anal. Chem.*, 1952, **24**, 685 (*use*)
 Kniseley, S.J. *et al*, *Anal. Chem.*, 1966, **38**, 1270 (*detn*, SO₂)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 37.
 Whitlock, L.R. *et al*, *Anal. Chem.*, 1972, **44**, 532 (*detn*, phenols)
 Pentimalli, L., *Ann. Chim. (Rome)*, 1973, **63**, 727.
 Ames, B.N. *et al*, *Proc. Natl. Acad. Sci. U.S.A.*, 1973, **70**, 2281 (*tox*)
 Bhatt, A. *et al*, *Analyst (London)*, 1983, **108**, 374 (*detn*, S)
 Chaube, A. *et al*, *Analyst (London)*, 1984, **109**, 391 (*detn*, S)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, OH1875, PEH750, PEI000, PEI250.

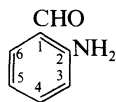
4-Aminoazobenzene-4'-arsonic acid **A-00095**
 4-[[[(4-Aminophenyl)azo]phenyl]arsonic acid, 9CI [6966-64-9]



$C_{12}H_{12}AsN_3O_3$ M 321.167
 Cryst. (EtOH). Mp > 360°.
 ▶ Toxic.
N-Di-Me: [622-68-4].
 $C_{14}H_{16}AsN_3O_3$ M 349.220
 Used as 0.5% soln. in 6M HCl for indirect photometric detn. of Zr; as 0.5% soln. in 1M HCl for photometric detn. of Ce(IV) (λ_{max} 490 nm), F[⊖]. Red cryst. (EtOH). Sol. EtOH, Me₂CO, acids, H₂O.
N-Di-Me; *B.HCl*: Cryst. Mp 203° dec.
 Barrowcliff, M. *et al*, *J. Chem. Soc.*, 1909, **93**, 1896 (*deriv*)
 Pauling, L. *et al*, *J. Am. Chem. Soc.*, 1942, **64**, 2994 (*synth*)
 Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4**, 59 (*synth*, *deriv*, *use*)
 Eberle, A.R. *et al*, *Anal. Chem.*, 1962, **34**, 1176 (*detn*, Zr)
 Smith, G.W. *et al*, *J. Mol. Spectrosc.*, 1964, **12**, 146 (*pmr*)
 Elbeih, I.I. *et al*, *Fresenius' Z. Anal. Chem.*, 1975, **274**, 31 (*detn*, Ce)
 Kumar, K. *et al*, *Can. J. Chem.*, 1977, **55**, 1444 (*raman*)

2-Aminobenzaldehyde, 9CI*Anthranilaldehyde, 8CI*

[529-23-7]

 C_7H_7NO M 121.138Reagent for spectrophotometric anal. of aliphatic aldehydes. Leaflets. Mp 40°. Bp₂ 80-85°.

N-Me: [7755-70-6].

 C_8H_9NO M 135.165Light-yellow liq. Bp₁₀ 112°, Bp₁ 77-78°.

N,N-Di-Me: [579-72-6].

 $C_9H_{11}NO$ M 149.192Yellow oil. Bp 244°, Bp₈ 114-115°.

N-Ac: [13493-47-5].

 $C_9H_9NO_2$ M 163.176Needles (H₂O). Mp 70-71°.

N-Benzoyl: [33768-43-3].

 $C_{14}H_{11}NO_2$ M 225.246

Needles (ligroin). Mp 74°.

Oxime: [3398-07-0].

 $C_7H_8N_2O$ M 136.153Cryst. (H₂O). Mp 137°.

Semicarbazone: Yellow. Mp 247°.

Org. Synth., Coll. Vol., 3, 1955, 56 (synth)Albrecht, A.M. *et al*, *Anal. Chem.*, 1962, **34**, 398 (use)Luk'yanchikova, G.I. *et al*, *CA*, 1963, **59**, 1441c (use, deriv)*UV Atlas of Organic Compounds*, Butterworths/Verlag Chemie, 1968, D9/37 (w)Srivastava, M.P. *et al*, *Indian J. Pure Appl. Phys.*, 1972, **10**, 50 (ir)Yoder, C.H. *et al*, *J. Org. Chem.*, 1976, **41**, 1511 (cmr)Shapiro, B.L. *et al*, *J. Phys. Chem. Ref. Data*, 1977, **6**, 919 (pmr)Zivanovic, L. *et al*, *CA*, 1988, **108**, 1379426; **109**, 98921t (use, deriv)**4-Aminobenzaldehyde, 9CI**

[556-18-3]

 C_7H_7NO M 121.138

Leaflets. Mp 71°. Polymerises readily under acidic conditions; the linear polymer is commercially available.

▷ CU4400000.

Oxime: [3419-18-9].

 $C_7H_8N_2O$ M 136.153

Yellow cryst. Mp 124°.

Phenylhydrazone: [19098-48-7].

Leaflets (EtOH). Mp 156° (175°).

2,4-Dinitrophenylhydrazone: Light-brown cryst. Mp 192.5-194.5° dec.

N-Ac: [122-85-0].

 $C_9H_9NO_2$ M 163.176

Needles. Mp 155°.

N-Me: [556-21-8].

 C_8H_9NO M 135.165Plates (H₂O). Mp 60-61°.

N,N-Di-Me: see 4-(Dimethylamino)benzaldehyde, D-00779

N-Et:

 $C_9H_{11}NO$ M 149.192Needles (C₆H₆/ligroin). Mp 81-82°.

N,N-Di-Et: [120-21-8].

 $C_{11}H_{15}NO$ M 177.246Reagent for detn. of aromatic amines. Yellow needles (H₂O). Mp 41°. Bp₇ 174°.N-Ac, thiosemicarbazone: [104-06-3]. **Thiacetazone, BAN.***Thioacetazone, INN. Thioparamizone. Amithiozone.**TBI/698***A-00096** $C_{10}H_{12}N_4OS$ M 236.297

Antibacterial agent used in treatment of tuberculosis and leprosy. Reagent for spectrophotometric anal. of corticosteroids.

▷ AE3850000.

N-Me, N-nitroso: 4-Methylnitrosoaminobenzaldehyde

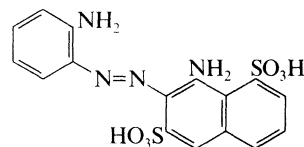
 $C_8H_8N_2O_2$ M 164.163Isol. from fungus *Clitocybe suaveolens*. Pale-yellow needles (EtOH aq.). Mp 81-82°.Yamaguchi, I. *et al*, *Bull. Chem. Soc. Jpn.*, 1960, **33**, 1128 (pmr)
Herrmann, H., *Hoppe Seyler's Z. Physiol. Chem.*, 1961, **326**, 13 (4-Methylnitrosoaminobenzaldehyde)Luk'yanchikova, G.I., *CA*, 1963, **59**, 1441c (use, deriv)*Org. Synth., Coll. Vol.*, 4, 1963, 31 (synth)Lees, W.A. *et al*, *Tetrahedron*, 1963, **19**, 419 (uv)Srivastava, M.P. *et al*, *Indian J. Pure Appl. Phys.*, 1972, **10**, 50 (ir)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7572.

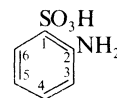
Zivanovic, L. *et al*, *CA*, 1988, **108**, 137942b; **109**, 98921t (use, deriv)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FNF000.**Aminobenzene AE****A-00098**

8-Amino-7-(2-aminophenylazo)-1,6-naphthalenedisulfonic acid

[65848-28-4]

 $C_{16}H_{14}N_4O_6S_2$ M 422.442Used as 0.2% aq. soln. for photometric detn. of Co (λ_{max} 581 nm, ϵ 19000). Orange cryst. Sol. H₂O, EtOH; insol. C₆H₆, pK_{a1} 2.96 ($\mu = 1$, 20°).Kalenchenko, T.Y. *et al*, *CA*, 1970, **88**, 114765a.**2-Aminobenzenesulfonic acid, 9CI****A-00099***Orthanilic acid, 8CI. Aniline-o-sulfonic acid*

[88-21-1]

 $C_6H_7NO_3S$ M 173.192Used for photometric detn. of NO₂[⊖], Os. Cryst. + ½ H₂O. Mp 315° dec. pK_a 2.48 (25°).

Amide: [3306-62-5].

 $C_6H_8N_2O_2S$ M 172.207

Needles. Mp 153°.

N-Me: [70916-29-9]. 2-(Methylamino)benzenesulfonic acid, 9CI

 $C_7H_9NO_3S$ M 187.219

Mp 182° dec., Mp 220° dec.

N-Me, amide: [21639-28-1].

 $C_7H_{10}N_2O_2S$ M 186.234Needles (H₂O). Mp 114.5-115.9°.

N-Di-Me: [14503-46-9]. 2-(Dimethylamino)benzenesulfonic acid

 $C_8H_{11}NO_3S$ M 201.246Cryst. (H₂O). Mp 229-230°.*Org. Synth., Coll. Vol.*, 2, 1943, 471 (synth)Brand, J.C.D., *J. Chem. Soc.*, 1952, 3927 (deriv)Kresse, G. *et al*, *Chem. Ber.*, 1956, **89**, 1412 (synth)

Garcia-Gutierrez, A.G., *Quim. Ind. (Madrid)*, 1972, **18**, 5; *CA*, **78**, 131677j (*detn*, NO_2^\ominus)
 Chakraborti, D., *Indian J. Chem., Sect. A*, 1976, **14**, 516 (*detn*, Os)
 Bamfield, P. et al, *J. Chem. Soc., Perkin Trans. 2*, 1988, 691 (*synth*)

4-Aminobenzenesulfonic acid, 9CI **A-00100**

Aniline-p-sulfonic acid. Sulfanilic acid

[121-57-3]

$\text{C}_6\text{H}_7\text{NO}_3\text{S}$ M 173.192

Used as a 0.8% soln. in 25% AcOH for photometric detn. of NO_2^\ominus (Griess method), Ce(IV) (λ_{max} 540 nm). Cryst. + $2\text{H}_2\text{O}$. $\text{p}K_{\text{a}1}$ 3.24 (25°). Also used as Zn salt, Sulfanilate zinc, USAN.

▷ Emits highly toxic fumes on contact with acids or on heating to dec.

Me ester: [55034-26-9].

$\text{C}_7\text{H}_9\text{NO}_3\text{S}$ M 187.219

Mp 92°.

Amide: [63-74-1]. **Sulfanilamide**, INN. *Prontosil album*.

Numerous proprietary names

$\text{C}_6\text{H}_8\text{N}_2\text{O}_2\text{S}$ M 172.207

Antibacterial chiefly of historical importance. Numerous derivs. have antibacterial props. Used for photometric detn. of NO_2^\ominus and NO_3^\ominus . Leaflets (EtOH aq.). Sol. H_2O . Mp 165-166°. $\text{p}K_{\text{a}1}$ 10.58 (20°, 0.1M KCl). Can be diazotised.

▷ WO8400000.

N-Me: [24447-99-2]. *4-(Methylamino)benzenesulfonic acid*

$\text{C}_7\text{H}_9\text{NO}_3\text{S}$ M 187.219

Used as an adsorption indicator for titrimetric detn. of Cl^\ominus . Plates (H_2O). Mp 244-245° dec.

N-Me, amide: [16891-79-5].

$\text{C}_7\text{H}_{10}\text{N}_2\text{O}_2\text{S}$ M 186.234

Plates (EtOH aq.). Mp 210-211°.

N-Ac, amide: [144-80-9]. **Sulfacetamide**, INN. *Albucid*

$\text{C}_8\text{H}_{10}\text{N}_2\text{O}_3\text{S}$ M 214.245

Antibacterial, freq. employed as Na salt (Sulphacetamide sodium, BAN). Mp 181-184°.

▷ AC8450000.

N-Benzoyl, amide: [127-71-9]. *N-[(4-Aminophenyl)sulfonyl]benzamide, 9CI*. *N-Sulfanilylbenzamide, 8CI*.

Sulfabenzamide, USAN, INN. *Sulfabenzide*

$\text{C}_{13}\text{H}_{12}\text{N}_2\text{O}_3\text{S}$ M 276.315

Antibacterial. Sol. H_2O . Mp 181.2-182.3°. $\text{p}K_{\text{a}}$ 4.57.

▷ CV5802500.

N-Ph: [101-57-5]. *Diphenylamine-4-sulfonic acid. 4-*

(Phenylamino)benzenesulfonic acid, 9CI

$\text{C}_{12}\text{H}_{11}\text{NO}_3\text{S}$ M 249.290

N-Ph, Ba salt: [6211-24-1].

Used as a 0.2% aq. soln. as redox indicator; titrimetric detn. of Ce(IV) , Sb(III) , NO_3^\ominus . Cryst. powder. Sol. H_2O , EtOH; insol. Et_2O , C_6H_6 . $E^\ominus + 0.85\text{V}$; λ_{max} 593 nm.

N-Ph, Na salt: [6152-67-6].

Indicator. Light yellow cryst.

[127-56-0, 6209-17-2, 22484-64-6, 31884-76-1]

Gelmo, H., *J. Prakt. Chem.*, 1908, **77**, 369 (*synth*)

Kolthoff, I.M. et al, *J. Am. Chem. Soc.*, 1930, **52**, 4179; 1933, **55**, 1448 (*use*)

Sarver, L.A. et al, *J. Am. Chem. Soc.*, 1931, **53**, 2902 (*use*)

Org. Synth., Coll. Vol., 1, 1932, 8 (*deriv*)

Northey, E.H., *Chem. Rev.*, 1940, **27**, 85 (*rev, deriv*)

Fierz-David, H.E. et al, *Helv. Chim. Acta*, 1946, **29**, 1718 (*derivs*)

Stockdale, D., *Analyst (London)*, 1950, **75**, 150 (*use*)

Barnes, H. et al, *Analyst (London)*, 1951, **76**, 599 (*detn*, NO_2^\ominus)

Perrot, R., *Bull. Soc. Chim. Fr.*, 1951, 278 (*deriv*)

Saltzman, B.E., *Anal. Chem.*, 1954, **26**, 1949 (*detn*, NO_2^\ominus)

Sarma, P.L. et al, *Talanta*, 1966, **13**, 347 (*detn*, Ce)

Kieruczenkova, A., *Chem. Anal. (Warsaw)*, 1967, **12**, 1031 (*detn*, NO_2^\ominus)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 3 (*use, deriv*)

Alleume, M. et al, *Acta Crystallogr., Sect. B*, 1968, **24**, 214

(*Sulfanilamide, cryst struct*)

Roeges, N., *J. Chem. Educ.*, 1968, **45**, 121 (*synth*)

Pollock, E.N., *Talanta*, 1969, **16**, 1323 (*detn*, Ce)

Tschernova, M.A. et al, *Zavod. Lab.*, 1973, **39**, 390 (*N-Me, synth, use*)

Rao, G. et al, *Anal. Chim. Acta*, 1975, **79**, 273 (*use*)

Rambaud, J. et al, *Bull. Soc. Chim. Fr.*, 1980, 51 (*Sulfabenzamide, cryst struct*)

Bult, A., *Pharm. Weekbl.*, 1981, **3**, 213; 1983, **5**, 77 (*deriv, cmr, tautom*)

Snell, F.D., *Photometric and Fluorimetric Methods of Analysis*,

Non-Metals, John Wiley, New York, 1981, 559, 585.

Bult, A., *Met. Ions Biol. Syst.*, 1983, **16**, 261 (*derivs*)

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 419.

Pomerantz, M. et al, *J. Org. Chem.*, 1987, **52**, 159 (*cmr, N-15 nmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

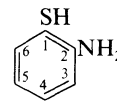
Ed., Van Nostrand-Reinhold, 1992, DUD000, SNH800,

SNM500, SNP500, SNQ000.

2-Aminobenzenethiol, 9CI**A-00101**

o-Aminophenyl mercaptan. o-Aminothiophenol. o-Mercaptoaniline

[137-07-5]



$\text{C}_6\text{H}_7\text{NS}$ M 125.194

Use in extraction-photometric detn. of Mo (CHCl_3), and as an indicator in potentiometric acid-base titrations.

Needles. Mp 26°. Bp 234°, Bp₄ 94-97°, Bp₆ 125-127°.

$\text{p}K_{\text{a}1}$ 3.00; $\text{p}K_{\text{a}2}$ 6.59 (20°).

▷ Mod. toxic (oral). DC0600000.

B,HCl: [3292-42-0].

Cryst. (H_2O). Mp 217°.

▷ DC0700000.

N-Me: [21749-63-3].

$\text{C}_7\text{H}_9\text{NS}$ M 139.221

Bp₁₈ 126-127°, Bp₁₂ 115-120°.

S-Me: [2987-53-3]. *o-Thioanisidine*

$\text{C}_7\text{H}_9\text{NS}$ M 139.221

Bp₁₅ 133-134°.

N,N-Di-Me:

$\text{C}_8\text{H}_{11}\text{NS}$ M 153.248

Bp₅ 87°.

N,S-Di-Me: [13372-62-8].

$\text{C}_8\text{H}_{11}\text{NS}$ M 153.248

Bp_{0.06} 64°.

N,N,S-Tri-Me: [2388-50-3].

$\text{C}_9\text{H}_{13}\text{NS}$ M 167.274

Oil. Bp₂₀ 130°.

N-Et: [1074-18-6].

$\text{C}_8\text{H}_{11}\text{NS}$ M 153.248

Bp₂₀ 129-130°.

S-Et: [13920-91-7].

$\text{C}_8\text{H}_{11}\text{NS}$ M 153.248

Oil. Bp₁₅ 144°.

N-Ac:

$\text{C}_8\text{H}_9\text{NOS}$ M 167.231

Mp 114.5-115.5°.

N,S-Di-Ac:

$\text{C}_{10}\text{H}_{11}\text{NO}_2\text{S}$ M 209.268

Rods (EtOH). Mp 135°.

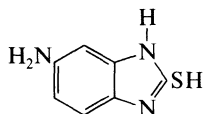
S-Me, N-Ac:
 $C_9H_{11}NOS$ M 181.258
 Mp 102-103°.

S-Ph:
 $C_{12}H_{11}NS$ M 201.292
 Cryst. Mp 42°.

Registry of Mass Spectral Data, Wiley-Interscience, 204 (ms)
Sadtler Standard C-13 NMR Spectra, 6431 (cmr)
Sadtler Standard Ultraviolet Spectra, 449 (uv)
 Hofmann, A.W., *Ber.*, 1887, **20**, 2260 (synth)
 Affsprung, H.E. *et al.*, *Anal. Chim. Acta*, 1965, **32**, 496 (use, indicator)
Aldrich Library of NMR Spectra, 1974, **5**, 45A (pmr)
Aldrich Library of IR Spectra, 2nd Ed., 1975, 633H (ir)
 Bag, S.P. *et al.*, *Indian J. Chem.*, 1975, **13**, 1227 (use, indicator)
 Chakrabarti, A.K. *et al.*, *Talanta*, 1976, **23**, 736 (detn, Mo)
 Takeuchi, H. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1988, 521 (deriu, synth, ir, pmr, cmr)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AIF500.

5-Amino-2-benzimidazolethiol, 8CI**A-00102**

5-Amino-2-mercaptobenzimidazole
 [2818-66-8]



$C_7H_7N_3S$ M 165.218
 Used as 0.5% soln. in dil. AcOH in photometric detn. of Rh, Pd. Cryst. Sol. alkalis, acids, EtOH; insol. H₂O. Mp 245°.

Sen Gupta, J.G., *Talanta*, 1961, **8**, 729, 785.

2-Aminobenzoic acid, 9CI**A-00103**

Anthranilic acid, 8CI. Vitamine L₁
 [118-92-3]



$C_7H_7NO_2$ M 137.138
 Prod. by bacteria and fungi. An important intermed. in the synth. of many compds., corrosion inhibitor for metals. Used as 3% aq. soln. of Na salt for gravimetric detn. of Co, Ni, Cu(II), Hg(II), Mn, Pb, Cd, U(VI), Zn. Leaflets. Sol. H₂O. Mp 144-148°. pK_{a1} 1.97; pK_{a2} 4.79 (25°), pK_{a1} 2.17; pK_{a2} 4.85 (25°, 0.1M KCl). Sublimes, triboluminescent.

▷ Mod. toxic orally. CB2450000.

B, HCl: [2099-63-0].
 Mp 193-194°.

Me ester: [134-20-3].

$C_8H_9NO_2$ M 151.165

Found in essential oils, including bergamot, jasmine, ylang-ylang and neroli. Used in perfumery as artificial orange blossom fragrance, also employed extensively in the form of its Schiff's bases (e.g. with Hydroxycitronellal). Cryst. Mp 24-25°. Bp₁₅ 133.5°. pK_a 2.32 (25°, 1% EtOH aq.). Steam-volatile.

▷ CB3325000.

Amide: [88-68-6]. 2-Aminobenzamide. Anthranilamide

$C_7H_8N_2O$ M 136.153

Leaflets. Mp 109-111.5° dec.

Amide, N-hydroxy: [5623-04-1]. 2-Amino-N-hydroxybenzamide, 9CI. o-Aminobenzohydroxamic acid. N-Anthranilohydroxamic acid

$C_7H_8N_2O_2$ M 152.152

Used as 0.1-1% soln. in 4-methyl-2-pentanone for photometric detn. of V(V). Cryst. Sol. H₂O, EtOH; spar. sol. Et₂O. Mp 149°.

N-Me:

$C_8H_9NO_2$ M 151.165

Plates (EtOH). Mp 175-182°.

Benzoylhydrazide: see 2-Aminobenzoic acid 2-benzoylhydrazide, A-00106

Acetonehydrazide: see 2-Aminobenzoic acid (1-methylethylidene)hydrazide, A-00109

Funk, H. *et al.*, *Fresenius' Z. Anal. Chem.*, 1935, **101**, 85; 1942, **123**, 241 (detn, Pb, Hg, Zn, Cd)

Kiba, T. *et al.*, *Nippon Kagaku Kaishi*, 1940, **61**, 133 (detn, metal pptn)

Smith, P.A.S., *J. Am. Chem. Soc.*, 1954, **76**, 431.

Holmes, F. *et al.*, *Anal. Chim. Acta*, 1956, **15**, 312 (pptn)

Morachevskii, Yu.G. *et al.*, *Zh. Anal. Khim.*, 1959, **14**, 55 (pptn)

Chacrawarty, D. *et al.*, *J. Pharm. Sci.*, 1969, **43**, 26

(acetonehydrazide, synth)

Dhaneshwar, N.N. *et al.*, *Acta Crystallogr., Sect. B*, 1972, **28**, 647 (cryst struct)

Sutamihardja, T.M. *et al.*, *Chem. Pharm. Bull.*, 1972, **20**, 2694.

Aldrich Library of NMR Spectra, 1974, **6**, 144D (pmr)

Dolgorev, A.V., *Zh. Anal. Khim.*, 1974, **29**, 721 (acetonehydrazide, use)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 838G (ir)

Errede, L.A., *J. Org. Chem.*, 1976, **41**, 1763 (synth)

Boone, C.D.G. *et al.*, *Acta Crystallogr., Sect. B*, 1977, **33**, 3205 (cryst struct)

Dougherty, C.J., *J. Chem. Educ.*, 1977, **54**, 643 (synth)

Pedersen, E.B., *Tetrahedron*, 1977, **33**, 217 (synth)

Bag, S.P. *et al.*, *J. Indian Chem. Soc.*, 1983, **60**, 226 (detn, V)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, API500, APJ250, EGM000.

3-Aminobenzoic acid, 9CI**A-00104**

[99-05-8]

$C_7H_7NO_2$ M 137.138

Used as 2% aq. soln. (neutralised with Na₂CO₃) in photometric detn. of Os. Needles (H₂O). Sol. alkalis, acids; spar. sol. H₂O. Mp 178°. pK_{a1} 3.07 (base); pK_{a2} 4.79 (acid) (25°).

▷ Causes exp. neoplasms. DG1225000.

Me ester: [4518-10-9].

$C_8H_9NO_2$ M 151.165

Leaflets (Et₂O). Mp 54°. Bp₁ 126°.

Et ester: [582-33-2].

$C_9H_{11}NO_2$ M 165.191

Oil. Bp 294°, Bp₃ 144°.

Chloride: [21563-72-4].

C_7H_6ClNO M 155.583

Mp 42°. Bp₁₅ 125°.

Anhydride:

$C_{14}H_{12}N_2O_3$ M 256.260

Needles (C₆H₆). Mp 113-114°.

Amide: [3544-24-9].

$C_7H_8N_2O$ M 136.153

Cryst. (C₆H₆). Mp 115°.

▷ CU8992000.

N-Ac: [587-48-4].

$C_9H_9NO_3$ M 179.175

Needles (EtOH). Mp 248-249°. pK_{a1} 4.03 (25°).

N-Benzoyl: [587-54-2].

$C_{14}H_{11}NO_3$ M 241.246
Prisms (EtOH). Mp 248°.

N,N-Di-Me:

$C_9H_{11}NO_2$ M 165.191
Cryst. (H₂O). Mp 151°.

N-Et: [7085-93-0].

$C_9H_{11}NO_2$ M 165.191
Prisms. Mp 112°.

N,N-Di-Et: [25642-60-8].

$C_{11}H_{15}NO_2$ M 193.245
Prisms + 2H₂O. Mp 90°.

Registry of Mass Spectral Data, Wiley-Interscience, 290 (ms)

Sadtler Standard C-13 NMR Spectra, 1231 (cmr)

Sadtler Standard Ultraviolet Spectra, 1802 (uv)

Majumdar, A.K. et al, *Fresenius' Z. Anal. Chem.*, 1961, **179**, 13 (detn. Os)

Neilson, T. et al, *J. Chem. Soc.*, 1962, 371 (synth)

Arora, S.K. et al, *Acta Crystallogr., Sect. B*, 1973, **29**, 1849 (cryst struct)

Aldrich Library of NMR Spectra, 1974, **6**, 147D (pmr)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 840D (ir)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AID625, AIH500.

4-Aminobenzoic acid, 9CI

A-00105

Vitamin H'. PABA

[150-13-0]

$C_7H_7NO_2$ M 137.138

Prod. by yeasts and bacteria. Reagent for characterisation of aldoses. Used as a growth factor, an antirickettsial and as a sunscreen agent. Bacterial growth factor. Used as 1.5% soln. in 0.1M NaOH for gravimetric detn. of Cu(II). Yellowish-red prisms. Sol. H₂O, alkalis, EtOH, Et₂O, C₆H₆. d 1.374. Mp 188-188.5°. pK_{a1} 2.50; pK_{a2} 4.87 (25°).

▷ Mod. toxic. DG1400000.

Me ester: [619-45-4]. *Methyl 4-aminobenzoate*
Leaflets (EtOH aq.). Mp 112°.

Et ester: [94-09-7]. *Ethyl 4-aminobenzoate. Benzocaine.*
Anesthezin. Numerous proprietary names

$C_9H_{11}NO_2$ M 165.191

Local anaesthetic. Used as 1% aq. soln.; gives specific colour reaction for Ce(IV). Needles (EtOH). Sol. EtOH, Et₂O, CHCl₃; sl. sol. H₂O. Mp 92°. Bp₁₄ 183-184°.

▷ Highly toxic (oral), mild sensitiser. DG2450000.

Heptyl ester: [14309-40-1]. *Heptyl 4-aminobenzoate*

$C_{14}H_{21}NO_2$ M 235.325

Reagent for the indirect photometric detection of aliphatic compds. by reversed phase hplc. Mp 80.5°.

Amide:

$C_7H_8N_2O$ M 136.153

Light-yellow cryst. + $\frac{1}{2}$ H₂O. Mp 183°.

N-Me: [10541-83-0]. *4-(Methylamino)benzoic acid*

$C_8H_9NO_2$ M 151.165

Cryst. (EtOH aq. or C₆H₆). Mp 168° (155-157°).

N-Me, Me ester: [18358-63-9].

$C_9H_{11}NO_2$ M 165.191

Plates (EtOH aq.). Mp 95.5°. pK_a 11.68 (25°).

[577-48-0, 64059-66-1]

Registry of Mass Spectral Data, Wiley-Interscience, 290 (ms)

Sadtler Standard C-13 NMR Spectra, 3466, 6429 (cmr)

Sadtler Standard Ultraviolet Spectra, 15745, 16313 (uv)

Kremer, C.B., *J. Chem. Educ.*, 1956, **33**, 71 (synth)

Batalin, Ak. et al, *Khim. Khim. Tekhnol. (Minsk)*, 1962, **5**, 845; *CA*, **58**, 13117h (use)

Erdey, L. et al, *Talanta*, 1968, **15**, 149 (detn. Cu)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 24.

Aldrich Library of NMR Spectra, 1974, **6**, 151C; **7**, 129A (pmr)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 842D, 986B (ir)

Ali, S.L., *Anal. Profiles Drug Subst.*, 1983, **12**, 73 (*Benzocaine*)

Parkin, J.E., *J. Chromatogr.*, 1986, **351**, 532 (use)

Gasparro, F.P., *Photodermatology*, 1986, **3**, 6 (rev)

Togashi, A. et al, *Bull. Chem. Soc. Jpn.*, 1987, **60**, 1171 (synth, heptyl ester)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 662, 1216 (synonyms)

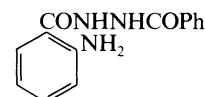
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AIH600, BPZ000, COK125, EFX000, MOT750.

2-Aminobenzoic acid 2-benzoylhydrazide

A-00106

Anthranilic acid benzoylhydrazide

[28864-27-9]



$C_{14}H_{13}N_3O_2$ M 255.276

Used as a 0.02M soln. in Me₂CO for photometric detn. of V. Pale yellow cryst. powder. Insol. H₂O; spar. sol. EtOH; sol. dioxan Me₂CO.

Karpova, O.I. et al, *Zh. Anal. Khim.*, 1977, **32**, 1142 (detn. V)

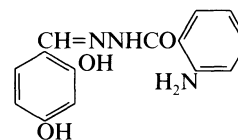
2-Aminobenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, 9CI

A-00107

Anthranilic acid resorcylalhydrazide. 2,4-

Dihydroxybenzaldehyde 2-aminobenzoylhydrazone

[102915-34-4]



$C_{14}H_{13}N_3O_3$ M 271.275

Used as 2mM Me₂CO soln. for photometric detn. of V (V) (λ_{max} 400 nm, ϵ 13500, pH ~4.5). Cryst. (EtOH). Sol. EtOH, Me₂CO; mod. sol. H₂O. pK_{a2} 3.2; pK_{a3} 8.1.

Dudarev, V.I. et al, *Zh. Anal. Khim.*, 1986, **41**, 289 (synth, detn. V)

2-Aminobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, 9CI

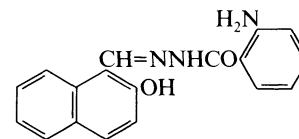
A-00108

2-Hydroxy-1-naphthalenecarboxaldehyde 2-

aminobenzoylhydrazone. Anthranilic acid β -

hydroxynaphthalhydrazide. Hydrazo T

[50886-62-9]



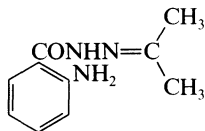
$C_{18}H_{15}N_3O_2$ M 305.335

Used as Me₂CO soln. for photometric detn. of Ti (ϵ 27000). Yellowish cryst. Sol. Me₂CO, EtOH, AcOH, CHCl₃. Mp 182°.

Dolgorev, A.V., *Zavod. Lab.*, 1973, **39**, 772 (detn. Ti)

2-Aminobenzoic acid (1-methylethylidene) hydrazide **A-00109**

Anthranilic acid acetonehydrazide
[53131-21-8]



$C_{10}H_{13}N_3O$ M 191.232

Used as a 0.05% soln. in Me_2CO for photometric detn. of V (λ_{max} 525 nm, ϵ 5100). Pale yellow cryst. powder.

Insol. H_2O ; spar. sol. EtOH; sol. dioxan, Me_2CO .

Chacrawarty, D. *et al.*, *J. Pharm. Sci.*, 1969, **43**, 26 (*synth*)
Dolgorev, A.V. *et al.*, *Zavod. Lab.*, 1974, **40**, 771 (*detn.*, V)
Dolgorev, A.V., *Zh. Anal. Khim.*, 1974, **29**, 721 (*use*)

4-Aminobenzoic acid [(2-hydroxyphenyl) methylene]hydrazide, 9CI **A-00110**

p-Aminobenzoic acid salicyloylhydrazide
[50366-22-8]



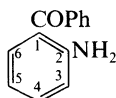
$C_{14}H_{13}N_3O_2$ M 255.276

Used as a 0.5% soln. in EtOH for photometric detn. of Ti; extraction-photometric detn. of Fe, Ti, V. Cryst. (EtOH aq.). Sol. EtOH. Mp 230°.

Dolgorev, A.V. *et al.*, *Zh. Anal. Khim.*, 1973, **28**, 1093 (*detn.*, Fe, Ti, V)

2-Aminobenzophenone, 8CI **A-00111**

(2-Aminophenyl)phenylmethanone, 9CI. o-Aminodiphenyl ketone. 2-Benzoylaniline
[2835-77-0]



$C_{13}H_{11}NO$ M 197.236

Used as $CHCl_3$ soln. for extraction-photometric detn. of Pd (λ_{max} 475 nm, $CHCl_3$ /benzyl alcohol). Pale-yellow cryst. (EtOH). Sol. $CHCl_3$, isopentanol, Et_2O ; sl. sol. EtOH. Mp 110°.

B, HCl: [40318-20-5].

Needles. Mp 192-193° dec.

N-Ac: [85-99-4].

$C_{15}H_{13}NO_2$ M 239.273

Used as 4% soln. in EtOH for extraction-photometric detn. of Mo(VI). Cryst. (EtOH aq. or toluene). Sol. EtOH, Me_2CO , C_6H_6 , $CHCl_3$. Mp 89°.

N-Benzoyl: [29670-64-2]. *2-Benzoylacetanilide, 9CI*

$C_{20}H_{15}NO_2$ M 301.344

Cryst. (EtOH aq.). Mp 91°.

(*E*)-*Oxime*: [15185-37-2].

$C_{13}H_{12}N_2O$ M 212.251

Cryst. (C_6H_6). Mp 127°.

(*Z*)-*Oxime*: [4844-60-4].

$C_{13}H_{12}N_2O$ M 212.251

Needles. Mp 156°.

2,4-Dinitrophenylhydrazone: Cryst. in two forms (EtOH).

Mp 260-261°, Mp 235-236°.

N-Me: [1859-76-3].

$C_{14}H_{13}NO$ M 211.263

Yellow cryst. (ligroin). Mp 69°. Bp 280-290°, Bp₁₂ 185-187°.

N,N-Di-Me: [36648-32-5].

$C_{15}H_{15}NO$ M 225.290

Bp_{<1} 141-142°.

UV Atlas of Organic Compounds, Butterworths/Verlag Chemie, D11/11 (*uv*)

Org. Synth., *Coll. Vol.*, 4, 1963, 34 (*synth*)

Sarkar, A.K. *et al.*, *Anal. Chem.*, 1967, **39**, 1608 (*synth*)

Sarkar, A.K. *et al.*, *Anal. Lett.*, 1969, **2**, 141 (*detn.*, Mo)

Uhlemann, E. *et al.*, *Z. Chem.*, 1970, **10**, 309 (*detn.*, Pd)

Aldrich Library of NMR Spectra, 1974, **6**, 57B (*pmr*)

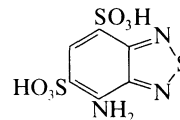
Heller, R. *et al.*, *Org. Mass Spectrom.*, 1974, **9**, 1134 (*ms*)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 779C (*ir*)

Walsh, D.A., *Synthesis*, 1980, 677 (*rev*)

7-Amino-2,1,3-benzothiadiazole-4,6-disulfonic acid, 9CI **A-00112**

4-Amino-5,7-disulfo-2,1,3-benzothiadiazole
[42219-49-8]



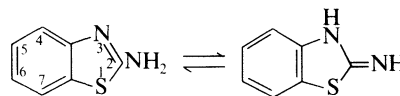
$C_6H_5N_3O_6S_3$ M 311.320

Used for photometric detn. of Rh. Cryst. Sol. H_2O .

Kukushkin, Y.N. *et al.*, *Zh. Obshch. Khim.*, 1973, **43**, 503.

2-Aminobenzothiazole **A-00113**

2-Benzothiazolamine, 9CI. μ -Aminobenzthiazole
[136-95-8]



$C_7H_6N_2S$ M 150.204

Amino-form predominates. Used as a soln. in EtOH aq. for gravimetric detn. of Hg and photometric detn. of Pd (λ_{max} 370 nm). Leaflets (H_2O). Sol. Et_2O , EtOH, $CHCl_3$. Mp 132°, Mp 123°.

▷ Emits toxic fumes when heated to dec.. DL1050000.

2-N-Ac: [3028-06-6].

$C_9H_8N_2OS$ M 192.241

Mp 186°.

2-N-Benzoyl: [5005-14-1].

$C_{14}H_{10}N_2OS$ M 254.312

Mp 186°.

2-N-Me: [16954-69-1].

$C_8H_8N_2S$ M 164.231

Prisms (EtOH). Mp 138°.

▷ DL5775000.

2-N-Ph: [1843-21-6]. *2-Anilinobenzothiazole*

$C_{13}H_{10}N_2S$ M 226.301

Needles (EtOH). Mp 159°.

Imino-form

3-N-Ac:

$C_9H_8N_2OS$ M 192.241

Mp 158°.

Hugerschhoff, A., *Ber.*, 1903, **36**, 3121, 3134 (*synth*)

Skraup, S., *Justus Liebigs Ann. Chem.*, 1919, **419**, 65.

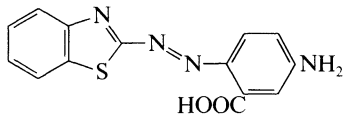
Hunter, R.F., *J. Chem. Soc.*, 1926, 1394.

Fehlmann, M., *Acta Crystallogr., Sect. B*, 1970, **26**, 1736 (*cryst struct, deriv*)

Tandon, S.N. *et al.*, *Mikrochim. Acta*, 1970, 1208 (*detn.*, Hg)

Joshii, S.R. *et al*, *Indian J. Chem.*, 1973, **11**, 590 (*detn*, Pd)
 Papenfuhs, T., *Angew. Chem., Int. Ed. Engl.*, 1982, **21**, 541 (*synth*)
 Kaupp, G. *et al*, *Chem. Ber.*, 1986, **119**, 1525 (*w*, *cmr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AIS500.

5-Amino-2-(2-benzothiazolylazo)benzoic acid A-00114



$C_{14}H_{10}N_4O_2S$ M 298.325

N-Di-Et: 2-(Benzothiazolylazo)-5-diethylaminobenzoic acid

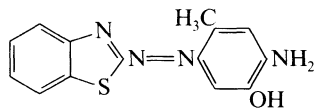
$C_{18}H_{18}N_4O_2S$ M 354.432

Used as 1mM dioxan soln. for photometric detn. of Ni (λ_{max} 647 nm, ϵ 142000, 40% dioxan, pH 8), Co, Cu(II).
 Cryst. Mp 192°. pK_{a1} 1.4; pK_{a2} 4.97 (40% dioxan, $\mu = 0.1$, 25°).

Furukawa, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1990, **39**, 589 (*synth*, *detn*, Ni)

2-Amino-5-(2-benzothiazolyl)-4-methylphenol A-00115

2-(4-Amino-5-hydroxy-2-methylphenylazo)thiazole



$C_{14}H_{12}N_4OS$ M 284.341

N-Me: [58795-12-3]. 5-(2-Benzothiazolylazo)-4-methyl-2-(methylamino)phenol, 9CI

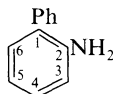
$C_{15}H_{14}N_4OS$ M 298.368

Used as a 2mM soln. in EtOH for photometric detn. of Bi (ϵ 48000). Dark red cryst. powder. Sol. alkalis, EtOH; spar. sol. H_2O .

Nevskaya, E.M. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1560.

2-Aminobiphenyl A-00116

[1,1'-Biphenyl]-2-amine, 9CI
 [90-41-5]



$C_{12}H_{11}N$ M 169.226

Fluorogenic reagent for the detn. of carbonyl compds.

Cryst. (EtOH aq.). Mp 49-50°. Bp 299°, Bp₁₅ 170°, Bp₅ 145-148°. Steam-volatile.

▷ DU8850000.

N-Formyl:

$C_{13}H_{11}NO$ M 197.236

Needles (EtOH aq.). Mp 75°.

N-Ac: [2113-47-5]. 2-Acetamidobiphenyl

$C_{14}H_{13}NO$ M 211.263

Needles (EtOH aq. or pet. ether). Mp 121°. Bp 355°.

▷ Exp. carcinogen. AE6000000.

N-Benzoyl:

$C_{19}H_{15}NO$ M 273.334

Leaflets (EtOH aq.). Mp 88°, Mp 102°.

N-Me: [14925-09-8]. 2-(Methylamino)biphenyl

$C_{13}H_{13}N$ M 183.252

Bp₂ 115-116°.

N-Di-Me: [6590-81-4]. 2-(Dimethylamino)biphenyl

$C_{14}H_{15}N$ M 197.279

Mp 98-99°.

Dieteren, H.M.L. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth.*

Chem. Soc.), 1963, **82**, 5 (*synth*, *w*)

Org. Synth., 1966, **46**, 85 (*synth*)

Lalancette, J.M. *et al*, *Can. J. Chem.*, 1971, **49**, 2990 (*synth*)

Nakai, T. *et al*, *Agric. Biol. Chem.*, 1974, **38**, 1209 (*use*)

Nakai, T. *et al*, *J. Chromatogr.*, 1974, **88**, 356 (*use*)

Takagi, K. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1977, 1148 (*synth*, *ir*)

Ohta, T. *et al*, *Tetrahedron Lett.*, 1977, 101 (*synth*)

Julliard, M. *et al*, *Tetrahedron Lett.*, 1977, 375 (*synth*)

Grant, C.B. *et al*, *J. Am. Chem. Soc.*, 1978, **100**, 2433 (*synth*, *pmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BGE250, PDY000.

4-Aminobiphenyl A-00117

[1,1'-Biphenyl]-4-amine, 9CI. Xenylamine

[92-67-1]

$C_{12}H_{11}N$ M 169.226

Formerly an important dyestuffs intermed. Used for pptn. of SO_4^{2-} . Leaflets (EtOH aq.). Mp 52.9-53.6°. Bp 302°, Bp₁₅ 191°, Bp₅ 166°. Steam-volatile.

▷ Human carcinogen. Use prohibited in the UK under the Carcinogenic Substances Regulations 1967. DU8925000.

N-Formyl:

$C_{13}H_{11}NO$ M 197.236

Needles (EtOH aq.). Mp 172°.

N-Ac: [4075-79-0].

$C_{14}H_{13}NO$ M 211.263

Cryst. (MeOH aq.). Mp 171°.

▷ Carcinogen. AE6125000.

N-Di-Ac:

$C_{16}H_{15}NO_2$ M 253.300

Needles (pet. ether). Mp 120°.

N-Benzoyl:

$C_{19}H_{15}NO$ M 273.334

Cryst. (EtOH). Mp 229-230°.

N-(4-Methylbenzenesulfonyl): Mp 160°, Mp 254-255°.

N-Et: [68254-66-0]. 4-(Ethylamino)biphenyl

$C_{14}H_{15}N$ M 197.279

Plates (pet. ether). Mp 67-69°.

N-Di-Me: [1137-79-7]. 4-(Dimethylamino)biphenyl

$C_{14}H_{15}N$ M 197.279

▷ Carcinogen.

Morgan, G.T. *et al*, *J. Soc. Chem. Ind., London*, 1930, **49**, 15T (*synth*, *bibl*)

Belcher, R. *et al*, *J. Chem. Soc.*, 1953, 1334 (*use*)

Dieteren, H.M.L. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth.*

Chem. Soc.), 1963, **82**, 5 (*synth*, *w*)

Schulman, E.M. *et al*, *J. Org. Chem.*, 1974, **39**, 2686 (*cmr*)

Zhel'tov, A.Ya. *et al*, *Zh. Org. Khim.*, 1975, **11**, 1304 (*w*, *N,N-Di-Me*)

Ohta, T. *et al*, *Tetrahedron Lett.*, 1977, 101 (*synth*)

Julliard, M. *et al*, *Tetrahedron Lett.*, 1977, 375 (*synth*)

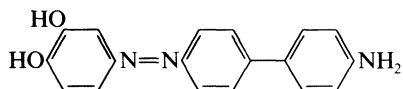
Battersby, A.R. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1979, 2550 (*synth*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 175.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AJS100, BGF899, PDY500.

4-[(4'-Amino-(1,1'-biphenyl)-4-yl)azo]-1,2-benzenediol **A-00118**

4-Amino-4'-(3,4-dihydroxyphenylazo)biphenyl. 4-Catecholyazo-4'-aminobiphenyl
[80495-43-8]



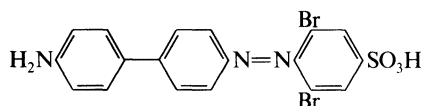
$C_{18}H_{15}N_3O_2$ M 305.335

Used as 0.5mM EtOH soln. for photometric detn. of Zr (λ_{max} 560 nm, ϵ 52000, $\sim 2M$ HCl). Insol. H_2O .

N-Ac: [80495-44-9]. 4-Catecholyazo-4'-acetylaminobiphenyl
 $C_{20}H_{17}N_3O_3$ M 347.373

Used as 0.5mM EtOH soln. for photometric detn. of Zr (λ_{max} 570 nm, ϵ 64000, $\sim 2M$ HCl). Yellow cryst. (EtOH). Sol. EtOH, Et_2O .

Savos'kina, L.N. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1483 (*synth*, *detn*, Zr)

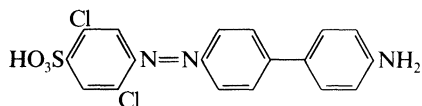
4-(4-Amino-4-biphenylazo)-3,5-dibromobenzenesulfonic acid **A-00119**

$C_{18}H_{13}Br_2N_3O_3S$ M 511.193

Acid-base indicator ($pH \frac{1}{2}$ 0.55; colour change: red \rightarrow yellow). Used as a 1mM aq. soln. or in appropriate buffer soln.

Na salt: Orange cryst. powder. Sol. H_2O , EtOH; insol. C_6H_6 .

Kuznetsov, V.I. *et al*, *Zh. Anal. Khim.*, 1956, **11**, 208 (*synth*)

4-[(4'-Amino-4-biphenyl)azo]-2,5-dichlorobenzenesulfonic acid **A-00120**

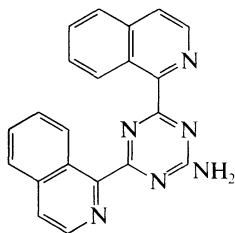
$C_{18}H_{13}Cl_2N_3O_3S$ M 422.290

Na salt: Acid-base indicator ($pH_{\frac{1}{2}}$ 0.26; colour change: red \rightarrow yellow); used as a 1mM aq. soln. or appropriate buffer soln. Orange cryst. powder. Sol. H_2O , EtOH; insol. C_6H_6 .

Kuznetsov, V.I. *et al*, *Zh. Anal. Khim.*, 1956, **11**, 208 (*synth*)

2-Amino-4,6-bis(1-isoquinolyl)-1,3,5-triazine **A-00121**

1,1'-(6-Amino-s-triazine-2,4-diyl)diisoquinoline, 8Cl
[17583-59-4]



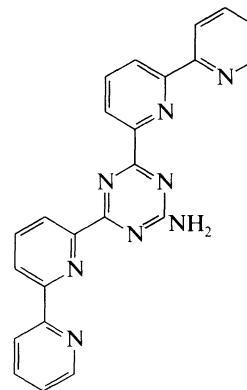
$C_{21}H_{14}N_6$ M 350.382

Gives colour reactions with Co, Cu(I), Fe(II) as a 5mM soln. in aq. EtOH. Cryst. (DMF). Sol. common org. solvs. Mp 286-288°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*detn*, Co, Cu, Fe)

2-Amino-4,6-bis[6-(2-pyridyl)-2-pyridyl]-s-triazine, 8Cl **A-00122**

[10495-75-7]



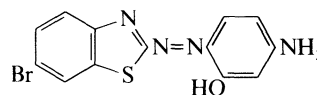
$C_{23}H_{16}N_8$ M 404.433

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co, Cu(I), Fe(II). Cryst. (DMF). Sol. common org. solvents. Mp 318-319°.

Case, F.H., *J. Org. Chem.*, 1966, **31**, 2398 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 475 (*detn*, Co, Cu, Fe)

5-Amino-2-[(6-bromo-2-benzothiazolyl)azo]phenol **A-00123**

2-(5-Amino-2-hydroxyphenylazo)-6-bromobenzothiazole



$C_{13}H_9BrN_4OS$ M 349.210

N-Di-Et: [54776-51-1]. 2-[(6-Bromo-2-benzothiazolyl)azo]-5-(diethylamino)phenol, 9Cl

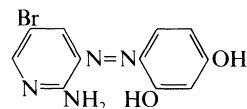
$C_{17}H_{17}BrN_4OS$ M 405.317

Used as a 0.05% soln. in DMF for photometric detn. of Hf, Zr (λ_{max} 520 nm, ϵ 44000). Red cryst. (DMF). Sol. EtOH, Me_2CO , alkalis; spar. sol. H_2O . Mp 209°.

Zhang, C.P. *et al*, *Talanta*, 1982, **29**, 1119.

4-[(2-Amino-5-bromo-3-pyridinyl)azo]-1,3-benzenediol **A-00124**

2-Amino-5-bromopyridylazoresorcinol. 2-Amino-5-bromo-3-(2,4-dihydroxyphenylazo)pyridine



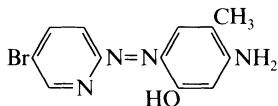
$C_{11}H_9BrN_4O_2$ M 309.122

Used as 0.9mM aq. soln. for sequential photometric detn. of Fe (ϵ 67000), Cu (ϵ 72000) and Zn (λ_{max} 510 nm, ϵ 91000). Cryst. (Et_2O) (as monohydrate, Na salt). Sol. H_2O , EtOH.

Sudeal, N.D. *et al*, *Microchem. J.*, 1986, **34**, 131 (*synth*, *use*)

5-Amino-2-[(5-bromo-2-pyridinyl)azo]-4-methylphenol **A-00125**

2-(4-Amino-2-hydroxy-5-methylphenylazo)-5-bromopyridine

C₁₂H₁₁BrN₄O M 307.149

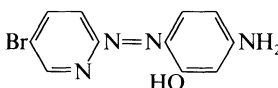
N-Et: [14337-50-9]. 2-[(5-Bromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, 9CI

C₁₄H₁₅BrN₄O M 335.203Used as soln. in EtOH for titrimetric detn. of Tl. Orange red cryst. Mod. sol. alkalis, EtOH, Me₂CO.

Gusev, S.I. et al, Zh. Anal. Khim., 1967, 22, 863 (detn, Tl)

5-Amino-2-(5-bromo-2-pyridinylazo)phenol **A-00126**

2-(4-Amino-2-hydroxyphenylazo)-5-bromopyridine

C₁₁H₉BrN₄O M 293.122

Mp 157-158°.

N-Di-Me: [50783-82-9]. 2-[(5-Bromo-2-pyridinyl)azo]-5-(dimethylamino)phenol, 9CI. 5-Br-DMPAP

Used as an EtOH soln. for photometric detn. of Zn (λ_{max} 552 nm, ε 133000), Ni, Co, Cu, Cd, Fe(III), La, Mg, Mn, Pb. Dark red needles. Sol. C₆H₆, CHCl₃, EtOH; sl. sol. H₂O. Subl. 190°. pK_{a1} < 1; pK_{a2} 3.4; pK_{a3} 11.6.

N-Di-Et: [14337-53-2]. 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, 9CI. 5-Br-PADAP

C₁₅H₁₇BrN₄O M 349.229Used as 0.02% soln. in EtOH for photometric detn. of Sb, Bi, Cd, Ce, Cr, Co (λ_{max} 586 nm, ε 91000), Cu, Fe, Pb, Pd, Hg, Ni (λ_{max} 560 nm, ε 121000), Zn, U and CN[⊖] (indirectly). Dark brown-red cryst. Sol. EtOH; mod. sol. alkalis, Me₂CO; sl. sol. Et₂O. Mp 157-158°.

Gusev, S.I. et al, Zh. Anal. Khim., 1969, 24, 210 (use)

Johnson, D.A. et al, Anal. Chim. Acta, 1971, 53, 73 (detn, U)

Shibata, S. et al, Anal. Chim. Acta, 1973, 66, 397 (N-Di-Me, synth, use)

Zbiral, J. et al, Fresenius' Z. Anal. Chem., 1981, 306, 129 (detn, Co)

Wei Fu-sheng, et al, Talanta, 1981, 28, 694 (detn, CN[⊖])

Kubaň, V. et al, Collect. Czech. Chem. Commun., 1983, 48, 52 (detn, Cd)

Nonová, D. et al, Mikrochim. Acta, 1984, 1, 143 (detn, Cu)

Marczenko, Z., Separation and Spectrophotometric Determination of Elements, Ellis Horwood, Chichester, 1986, 197, 397.

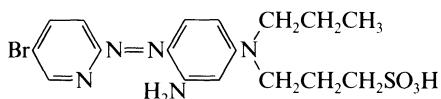
Langová, M. et al, Collect. Czech. Chem. Commun., 1987, 52, 878 (detn, Ni)

Onishi, H., Photometric Determination of Traces of Metals, Part IIb: Individual Metals. Magnesium to Zinc, John Wiley, New York, 4th Ed., 1989, 625 (detn, U)

3-[[3-Amino-4-[(5-bromo-2-pyridinyl)azo]phenyl]propylamino]-1-propanesulfonic acid, 9CI **A-00127**

2-(5-Bromo-2-pyridylazo)-5-(N-propyl-N-sulfopropylamino)aniline

[87035-61-8]

C₁₇H₂₂BrN₄O₃S M 456.362

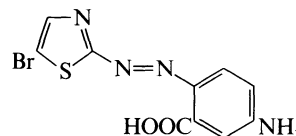
Na salt: [87035-60-7].

Used as a 1mM aq. soln. for photometric detn. of Fe(II) (λ_{max} 558 nm, ε 89000). Cryst. (H₂O). Sol. H₂O. Mp 235-240° (dec.).

Horiguchi, D. et al, Anal. Chim. Acta, 1983, 151, 457.

5-Amino-2-(5-bromo-2-thiazolylazo)benzoic acid **A-00128**

5-Bromo-2-(4-amino-2-carboxyphenylazo)thiazole

C₁₀H₇BrN₄O₂S M 327.161

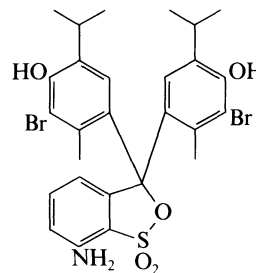
N-Di-Et: 2-(5-Bromo-2-thiazolylazo)-5-(diethylamino)benzoic acid

C₁₄H₁₅BrN₄O₂S M 383.268Used as 1mM dioxan soln. for photometric detn. of Ni (λ_{max} 635 nm, ε 112000, 40% dioxan, pH 8), Co, Cu(II). Cryst. Sol. dioxan, EtOH. Mp 160°. pK_{a1} 0.4; pK_{a2} 4.94 (40% dioxan, μ = 0.1, 25°).

Furukawa, M. et al, Bunseki Kagaku (Jpn. Anal.), 1990, 39, 589 (synth, detn, Ni)

Aminobromothymol blue **A-00129**

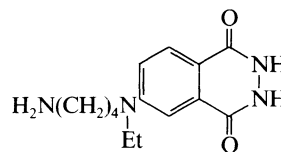
4,4'-(7-Amino-3H-2,1-benzoxathiol-3-ylidene)bis[2-bromo-3-methyl-6-(1-methylethyl)phenol] S,S-dioxide, 9CI [134116-38-4]

C₂₇H₂₉Br₂NO₅S M 639.404Used as an acid-base indicator (pH range 6.5-8.5, colour change: yellow → blue). Pink cryst. powder. Sol. EtOH, bases; insol. H₂O. pK_a 7.6.

Puschett, J.B. et al, Talanta, 1991, 38, 335 (synth, use)

6-[(4-Aminobutyl)ethylamino]-2,3-dihydro-1,4-phthalazinedione, 9CI **A-00130**

N-(4-Aminobutyl)-N-ethylisoluminol. ABEI [66612-29-1]

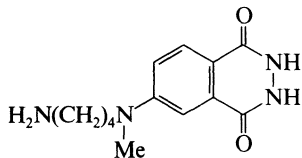
C₁₄H₂₀N₄O₂ M 276.338

Used in chemiluminescent assays. Cryst. (DMF). Mp 259-260°.

Schroeder, H.R. et al, Methods Enzymol., 1978, 57, 424 (synth, use)

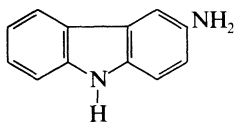
Pazzagli, M. *et al*, *J. Steroid Biochem.*, 1981, **14**, 1005; 1983, **19**, 407 (*synth, use*)
 Patel, A. *et al*, *Anal. Biochem.*, 1983, **129**, 162 (*synth, use*)
 Klinger, W. *et al*, *Steroids*, 1983, **42**, 123 (*synth, use*)
 Kawasaki, T. *et al*, *J. Chromatogr.*, 1985, **328**, 121 (*use*)
 Yuki, H. *et al*, *Chem. Pharm. Bull.*, 1988, **36**, 1905 (*use*)

6-[(4-Aminobutyl)methylamino]-2,3-dihydro-1,4-phthalazinedione, 9CI **A-00131**
ABMI
 [80944-69-0]



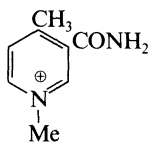
$C_{13}H_{18}N_4O_2$ M 262.311
 Chemiluminescent label for steroids. Cryst. (DMF aq.).
 Pazzagli, M. *et al*, *J. Steroid Biochem.*, 1981, **14**, 1005; 1983, **19**, 407 (*synth, use*)
 Karatani, H., *Bull. Chem. Soc. Jpn.*, 1987, **60**, 2023 (*synth, ms*)

3-Aminocarbazole **A-00132**
9H-Carbazol-3-amine, 9CI



$C_{12}H_{10}N_2$ M 182.224
 Mp 254° dec.
 N-Ac: [57102-95-1].
 $C_{14}H_{12}N_2O$ M 224.262
 Needles (EtOH). Insol. H_2O . Mp 217°.
 N-Et: [132-32-1]. *9-Ethyl-9H-carbazol-3-amine, 9CI. AEC*
 Indicator for peroxidase activity. Mp 98-100°.
 [57360-17-5]
 Whitner, T., *J. Am. Chem. Soc.*, 1924, **46**, 2326 (*synth*)
 Anderson, G. *et al*, *J. Chem. Soc.*, 1950, 2904.
 Buu-Hoi, N.P. *et al*, *J. Org. Chem.*, 1950, **15**, 123 (*synth*)
 Kaplow, L.S., *Am. J. Clin. Pathol.*, 1975, **63**, 451 (*use*)
 De Jong, A.S.H. *et al*, *Histochem. J.*, 1985, **17**, 1119 (*use*)
 Fritz, P. *et al*, *Acta Histochem., Suppl.*, 1986, **32**, 235 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AJV000.

3-(Aminocarbonyl)-1,4-dimethylpyridinium(1+), 9CI **A-00133**
3-Carbamoyl-1,4-dimethylpyridinium. DCP-Cl
 [126077-63-2]

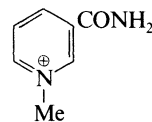


$C_8H_{11}N_2O^{\oplus}$ M 151.188 (ion)
Chloride: [110999-36-5].
 $C_8H_{11}ClN_2O$ M 186.640
 Used for fluorimetric detn. of aromatic aldehydes and phenylpyruvic acid. Powder. Mp 209-211° dec.
Iodide: [111025-40-2].
 $C_8H_{11}IN_2O$ M 278.092

Powder. Mp 202-204°.

Sano, A. *et al*, *Anal. Sci.*, 1987, **3**, 359; 1988, **4**, 663 (*synth, use*)
 Sano, A. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 3746 (*use*)

3-(Aminocarbonyl)-1-methylpyridinium(1+), 9CI **A-00134**
3-Carbamoyl-1-methylpyridinium, 8CI. 1-Methylnicotinamide
 [3106-60-3]



$C_7H_9N_2O^{\oplus}$ M 137.161 (ion)
 Urinary metabolite of nicotinic acid.

▷ UU3300000.

Chloride: [1005-24-9]. *Nicotinamide methochloride*

$C_7H_9ClN_2O$ M 172.614

Reagent for the fluorometric anal. of α -oxomethylene compds. Mp 244-245°.

▷ UU1925000.

Iodide: [6456-44-6]. *Nicotinamide methiodide*

$C_7H_9IN_2O$ M 264.065

Yellowish-green prisms. Mp 204°.

Karrer, P. *et al*, *Helv. Chim. Acta*, 1936, **19**, 826 (*synth*)

Huff, J.W. *et al*, *J. Biol. Chem.*, 1943, **150**, 395 (*synth*)

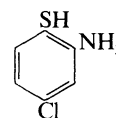
Decker, R.H. *et al*, *Anal. Biochem.*, 1962, **3**, 357 (*synth, chloride*)

Long, K.R. *et al*, *J. Magn. Reson.*, 1972, **8**, 207 (*cmr*)

Freeman, G.R. *et al*, *Acta Crystallogr., Sect. B*, 1974, **30**, 431 (*cryst struct*)

Nakamura, H. *et al*, *J. Chromatogr.*, 1979, **168**, 407 (*use, chloride*)

2-Amino-4-chlorobenzenethiol, 9CI **A-00135**
 [1004-00-8]



C_6H_6ClNS M 159.639

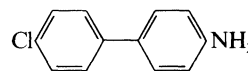
Used as a 4% soln. in EtOH for photometric detn. of Mo; indirect photometric detn. of P(V), Si(IV). Pale yellow cryst. Sol. alkalis, acids, EtOH; spar. sol. H_2O .

Kirkbright, G.F. *et al*, *Talanta*, 1964, **11**, 415 (*detn, Mo*)

Djurkin, V. *et al*, *Analyst (London)*, 1966, **91**, 89 (*detn, P*)

Trudell, L.A. *et al*, *Talanta*, 1972, **19**, 37 (*detn, Si*)

4-Amino-4'-chlorobiphenyl **A-00136**
4'-Chloro-[1,1'-biphenyl]-4-amine, 9CI. 4'-Chloroxenylamine
 [135-68-2]



$C_{12}H_{10}ClN$ M 203.670

Used as a 0.2% soln. in 0.05% HCl aq. for turbidimetric detn. of $SO_4^{2\ominus}$. Plates (pet. ether). Mp 134°. pK_a 3.89 (4.00) (20°, 50% EtOH aq.).

N-Ac: [56474-80-7].

$C_{14}H_{12}ClNO$ M 245.708

Prisms (EtOH aq.). Mp 245°.

Gelmo, P., *Ber.*, 1906, **39**, 4175 (*synth*)

Belcher, R. *et al*, *J. Chem. Soc.*, 1953, 1334 (*synth*)

Parish, J.H. *et al*, *J. Chem. Soc.*, 1964, 4713 (*ir*)

Byron, D.J. *et al*, *J. Chem. Soc.*, 1966, 831.

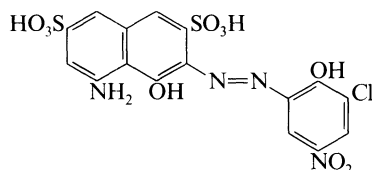
Martin, J.M. *et al*, *Anal. Chim. Acta*, 1967, **39**, 175, 525 (*use*)

Zhetov, A.Y. *et al*, *J. Org. Chem. USSR (Engl. Transl.)*, 1970, 6, 2573; 1975, 11, 1288 (*synth. w*)
 Idoux, J.P. *et al*, *Tetrahedron*, 1977, 33, 2369.

5-Amino-3-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, 9Cl
Gallion

A-00137

[3769-62-8]



$C_{16}H_{11}ClN_4O_{10}S_2$ M 518.868

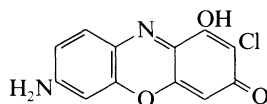
Used as aq. soln. for photometric detn. of Ga (λ_{max} 530 nm, ϵ 21000), In; metal indicator. Brown red cryst. powder. Sol. H_2O , EtOH; insol. Me_2CO , C_6H_6 .

Lukin, A.M. *et al*, *Zh. Anal. Khim.*, 1958, 13, 66 (*synth. detn. Ga*)
 Devatova, T.M. *et al*, *Zh. Anal. Khim.*, 1968, 23, 1468 (*detn. Ga*)
 Joshi, A.P. *et al*, *Mikrochim. Acta*, 1971, 526 (*detn. In*)
 Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 150 (*use*)

7-Amino-2-chloro-1-hydroxy-3H-phenoxazin-3-one, 8Cl

A-00138

[18821-44-8]



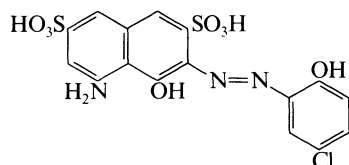
$C_{12}H_7ClN_2O_3$ M 262.652

Used as a 0.5mM soln. in EtOH as redox indicator for titanometry; acid-base indicator. Orange-red cryst. (by subl.). Sol. EtOH, Et_2O , C_6H_6 . Mp 350°. pK_{a1} 4.6 (30% EtOH, $\mu = 0.07$, KCl).

Stuzka, V. *et al*, *Monatsh. Chem.*, 1967, 98, 1754 (*acid-base ind*)
 Stuzka, V. *et al*, *CA*, 1969, 68, 8945m (*use, titanometry*)

5-Amino-3-[(5-chloro-2-hydroxyphenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid

A-00139



$C_{16}H_{12}ClN_3O_8S_2$ M 473.871

N-Ac: [65330-48-5]. 5-(Acetylamino)-3-[(5-chloro-2-hydroxyphenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, 9Cl

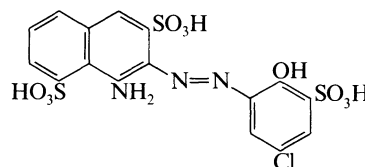
$C_{18}H_{14}ClN_3O_9S_2$ M 515.908

N-Ac, di-Na salt: [6844-73-1]. *C.I. Mordant blue 18*
 Used as a 1.4mM aq. soln. for photometric detn. of Ga (λ_{max} 560 nm, ϵ 4300). Orange-red cryst. Sol. H_2O . pK_{a3} 7.0; pK_{a4} 13.0.

Dev'atova, T.M., *Zh. Anal. Khim.*, 1968, 23, 1468 (*detn. Ga*)

4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,5-naphthalenedisulfonic acid

A-00140



$C_{16}H_{12}ClN_3O_{10}S_3$ M 537.936

Used as 0.1% aq. soln. for photometric detn. of Pd (λ_{max} 556 nm, ϵ 10600). Dark red cryst. Sol. H_2O .

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, 26, 558 (*detn. Pd*)

4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid

A-00141

Chloroxaminazo

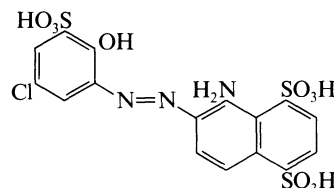
$C_{16}H_{12}ClN_3O_{10}S_3$ M 537.936

Used as 0.1% aq. soln. for photometric detn. of Pd (λ_{max} 573 nm, ϵ 16000). Dark red cryst. Sol. H_2O .

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, 26, 558 (*detn. Pd*)

5-Amino-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-1,4-naphthalenedisulfonic acid

A-00142



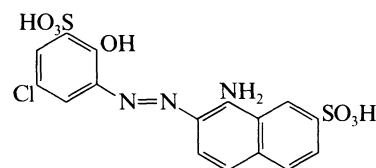
$C_{16}H_{12}ClN_3O_{10}S_3$ M 537.936

Used as 0.1% aq. soln. for photometric detn. of Pd (λ_{max} 573 nm, ϵ 16000). Dark red cryst. Sol. H_2O .

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, 26, 558 (*detn. Pd*)

8-Amino-7-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2-naphthalenesulfonic acid

A-00143



$C_{16}H_{12}ClN_3O_7S_2$ M 457.871

Used as 0.1% aq. soln. for photometric detn. of Pd (λ_{max} 556 nm, ϵ 9500). Dark red cryst. Sol. H_2O .

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, 26, 558 (*detn. Pd*)

8-Amino-7-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-3-naphthalenesulfonic acid

A-00144

$C_{16}H_{12}ClN_3O_7S_2$ M 457.871

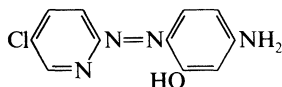
Used as 0.1% aq. soln. for photometric detn. of Pd (λ_{max} 554 nm, ϵ 9200). Dark red cryst. Sol. H_2O .

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, 26, 558 (*detn. Pd*)

5-Amino-2-[(5-chloro-2-pyridinyl)azo]phenol

A-00145

2-(4-Amino-2-hydroxyphenylazo)-5-chloropyridine

C₁₁H₉ClN₄O M 248.671

N-Di-Me: [50783-81-8]. 2-[(5-Chloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, 9CI

C₁₃H₁₃ClN₄O M 276.725Used as a 1mM soln. in EtOH or H₂O for extraction-photometric detn. of Cd, Co, Cu, Fe(III), La, Mg, Mn, Ni, Pb, V(V) (λ_{\max} 586 nm, ϵ 55300, pH 3.8), Zn (4-methyl-2-pentanone, C₆H₆, 1,2-dichloroethane). Dark red needles (EtOH aq.). Sol. C₆H₆, CHCl₃, EtOH, Me₂CO; spar. sol. H₂O. Subl. 190°. pK_{a1} < 1; pK_{a2} 3.4; pK_{a3} 11.6.

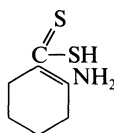
N-Di-Et: [26015-51-0]. 2-[(5-Chloro-2-pyridinyl)azo]-5-(diethylamino)phenol, 9CI

C₁₅H₁₇ClN₄O M 304.778Used as 1mM soln. in EtOH in photometric detn. of Co (ϵ 106000) (2.5 M H₂SO₄). Dark cryst. powder. Sol. EtOH.Shibata, S. *et al*, *Anal. Chim. Acta*, 1973, **66**, 397.Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 810 (use)Shen, N.K. *et al*, *Analyst (London)*, 1981, **106**, 1229 (use)Olsina, R.A. *et al*, *Microchem. J.*, 1987, **36**, 348 (detn. V)**2-Amino-1-cyclohexene-1-dithiocarboxylic acid**

A-00146

2-Iminocyclohexanecarbothioic acid, 9CI

[72272-49-2]

C₇H₁₁NS₂ M 173.303Used as 1mM aq. soln. for photometric detn. of Ni (λ_{\max} 535 nm, ϵ 28000, Me₂CO aq., pH 3-8). Cryst. Sol. Me₂CO, EtOH, dioxan, H₂O. Mp 107-108°.Takeshima, T. *et al*, *J. Chem. Res., Synop.*, 1979, 140 (synth)Safavi, A. *et al*, *Talanta*, 1991, **38**, 229 (detn. Ni)**2-Amino-1-cyclopentene-1-dithiocarboxylic acid**

A-00147

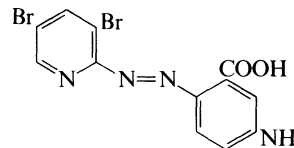
2-Amino-1-cyclopentene-1-carbothioic acid, 9CI

[20735-33-5]

C₆H₉NS₂ M 159.276Used as a 0.6% soln. in EtOH for photometric detn. of Ni and Os (λ_{\max} 470 nm). Yellow cryst. (EtOH). Spar. sol. H₂O; sol. alkalis, acids, EtOH, C₆H₆, Et₂O.Yokoyama, M. *et al*, *Anal. Chem.*, 1968, **40**, 1344 (synth)Dutt, N.K. *et al*, *Anal. Chim. Acta*, 1969, **47**, 571.**5-Amino-2-[(3,5-dibromo-2-pyridyl)azo]benzoic acid**

A-00148

3,5-Dibromo-2-[(4-amino-2-carboxyphenyl)azo]pyridine

C₁₂H₈Br₂N₄O₂ M 400.029

N-Di-Et: [84641-03-2]. 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(diethylamino)benzoic acid, 9CI

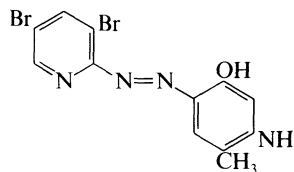
C₁₆H₁₆Br₂N₄O₂ M 456.136Used as 0.05% soln. in DMF for extraction-photometric detn. of Fe(II) (λ_{\max} 624 nm, ϵ 11000, CHCl₃). Cryst. Sol. DMF, EtOH.

N-Propanesulfonic acid: [102387-11-1]. 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(3-sulfopropyl)amino]benzoic acid

C₁₅H₁₄Br₂N₄O₅S M 522.173Used as a 0.08mM aq. soln. of disodium salt for photometric detn. of Co(III), Cu, Ni, Zn. Dark red cryst. (H₂O) (as di-Na salt).Horiguchi, O. *et al*, *Anal. Sci.*, 1985, **1**, 461 (deriv. use)Furukawa, M. *et al*, *Chem. Express*, 1988, **3**, 283 (synth)Sakai, T. *et al*, *Mikrochim. Acta*, 1989, **2**, 31 (detn. Fe)**5-Amino-2-[(3,5-dibromo-2-pyridyl)azo]-4-methylphenol**

A-00149

2-(4-Amino-2-hydroxy-5-methylphenylazo)-3,5-dibromopyridine

C₁₂H₁₀Br₂N₄O M 386.045

N-Et: [14337-51-0]. 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, 9CI

C₁₄H₁₄Br₂N₄O M 414.099Used as a soln. in EtOH for titrimetric detn. of Tl; as 0.2% soln. in EtOH in photometric detn. of Cu (λ_{\max} 545 nm, ϵ 49000), Th; indicator used for complexometric titration of Pb. Orange-red cryst. Mod. sol. alkalis, EtOH, Me₂CO.

N-Ethanesulfonic acid: [86190-03-6]. 2-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]ethanesulfonic acid, 9CI

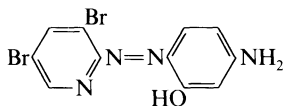
C₁₃H₁₂Br₂N₄O₄S M 480.136Used as a 1mM aq. soln. for photometric detn. of U (λ_{\max} 578 nm, ϵ 63000), Zn, Ni, Co, Cu. Brown cryst. Sol. H₂O. pK_{a2} 2; pK_{a3} 10.7 (25°, μ = 0.1).

N-Propanesulfonic acid: [86190-01-4]. 3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, 9CI

C₁₄H₁₄Br₂N₄O₄S M 494.163Used as a 1mM aq. soln. for photometric detn. of U (λ_{\max} 575 nm, ϵ 54000), Zn, Co, Ni, Cu. Brown cryst. pK_{a2} 2.05; pK_{a3} 11.2 (25°, μ = 0.1).Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 863, 1190; 1973, **28**, 1064 (synth, detn. Tl, Pb, Cu)Novoselova, E.A. *et al*, *CA*, 1981, **94**, 113860q (detn. Th)Ohshita, K. *et al*, *Anal. Chim. Acta*, 1983, **149**, 269 (synth, derivs. use)

5-Amino-2-(3,5-dibromo-2-pyridylazo)phenol A-00150

3,5-Dibromo-2-(4-amino-2-hydroxyphenylazo)pyridine

C₁₁H₈Br₂N₄O M 372.018

Red needles.

N-Di-Et: [14337-54-3]. 2-[(3,5-Dibromo-2-pyridyl)azo]-5-(diethylamino)phenol, 8Cl

C₁₅H₁₆Br₂N₄O M 428.126

Used as 0.5mM soln. in EtOH for photometric detn. of

Ag (λ_{\max} 570 nm, ϵ 7000) and U (λ_{\max} 576 nm, ϵ 91000),Co (λ_{\max} 590 nm, ϵ 96000), Cu(II) (λ_{\max} 578 nm, ϵ 81000); extraction-detn. of Zr (CHCl₃) and Tl(III) (λ_{\max} 580 nm, ϵ 120000, C₆H₆). Red needles. Sol. EtOH,Me₂CO, alkalis. Mp 159-160°.

Gusev, S.I. et al, Zh. Anal. Khim., 1969, 24, 210, 1148; 1977, 32, 1363 (detn, Co, Tl, Zr)

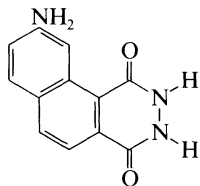
Hung, S.G. et al, Talanta, 1982, 29, 85 (synth, detn, Ag)

Shui-Chieh Hung, et al, Talanta, 1982, 29, 85, 629 (synth, detn, Ag, U)

Ohshita, K. et al, Anal. Chim. Acta, 1985, 176, 41 (detn, Cu)

9-Amino-2,3-dihydrobenzo[f]phthalazine-1,4-dione, 9Cl A-00151

[2890-10-0]

C₁₂H₉N₃O₂ M 227.222

Used for chemiluminescent detn. of Ag, Au, Cu. Cryst.

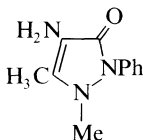
Pilipenko, L.A. et al, Zh. Anal. Khim., 1977, 32, 478 (use)

Pilipenko, L.A., CA, 1978, 88, 81247c (props)

4-Amino-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9Cl A-00152

4-Amino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one. 4-Aminoantipyrene, 8Cl. Ampyrone

[83-07-8]

C₁₁H₁₃N₃O M 203.243

Metab. of antipyrene. Widely used pharmaceutical intermed., component of various colorimetric reagents.

Used as 3% aq. soln. in photometric detn. of H₂O₂, phenols. Used for detn. of glucose in the presence of phenol and peroxidase. Light-yellow needles (C₆H₆). Sol. H₂O, acids, EtOH, CHCl₃; spar. sol. Et₂O. Mp 109°.

▷ CD2480000.

Knorr, L. et al, Justus Liebig's Ann. Chem., 1896, 293, 56 (synth)

Ettinger, M.B. et al, Anal. Chem., 1951, 23, 1783 (detn, phenols)

Shipileva, I.S. et al, Dokl. Akad. Nauk SSSR, Ser. Khim., 1974, 217, 365 (ms)

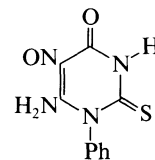
Bauminger, B.B., J. Clin. Pathol., 1974, 27, 1015 (detn, glucose)

Singh, S.P. et al, J. Pharm. Sci., 1979, 68, 470 (cmr)

Saito, Y. et al, Talanta, 1987, 34, 667 (detn, H₂O₂)**6-Amino-2,3-dihydro-5-nitroso-1-phenyl-2-thio-4(1H)-pyrimidinone, 9Cl** A-00153

6-Amino-5-nitroso-4-oxo-1-phenyl-2-thio-1,2,3,4-tetrahydropyrimidine. 6-Amino-5-nitroso-1-phenyl-2-thiouracil, 8Cl

[15836-99-4]

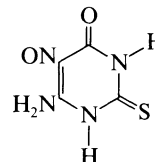
C₁₀H₈N₄O₂S M 248.265Used for photometric detn. of Fe(II) (λ_{\max} 670 nm, ϵ 53000). Cryst. Insol. H₂O; sol. Me₂CO, DMF, acids.

Kishikawa, T. et al, Chem. Pharm. Bull., 1966, 14, 1365 (synth)

Nakashima, K. et al, CA, 1978, 89, 173049p (detn, Fe)

6-Amino-2,3-dihydro-5-nitroso-2-thio-4(1H)-pyrimidinone, 9Cl A-00154

6-Amino-4-hydroxy-2-mercapto-5-nitrosopyrimidine [1672-48-6]

C₄H₄N₄O₂S M 172.167Used as a 1mM soln. in dil. HCl for photometric detn. of Co, Cu (λ_{\max} 386 nm), Fe(II), Ni (λ_{\max} 380 nm), Os (λ_{\max} 440 nm, ϵ 4300), Ru (λ_{\max} 530 nm, ϵ 15300). Cryst. (H₂O). Sol. acids, hot H₂O.

Waksmundzki, A. et al, Chem. Anal. (Warsaw), 1964, 9, 69.

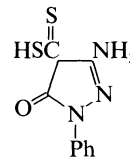
Przeszlakowski, S. et al, Chem. Anal. (Warsaw), 1964, 9, 919 (detn, Cu, Ni)

Kushwaha, V. et al, CA, 1976, 85, 86736j (detn, Ru, Os)

Jain, P. et al, Curr. Sci., 1976, 45, 178 (detn, Co, Fe)

3-Amino-4,5-dihydro-5-oxo-1-phenyl-1H-pyrazole-4-carbodithioic acid, 9Cl A-00155

3-Amino-1-phenyl-5-pyrazolono-4-dithiocarboxylic acid [7245-38-7]

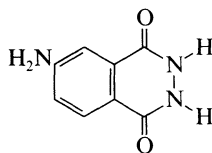
C₁₀H₉N₃OS₂ M 251.333Used as a 5mM aq. soln. for extraction-photometric detn. of Ni (λ_{\max} 500 nm, ϵ 28700, CHCl₃). Cryst. (EtOH). Sol. alkalis, Me₂CO, EtOH; spar. sol. H₂O, butanol; insol. CHCl₃, toluene. Mp 146-149°.

Papini, P. et al, Gazz. Chim. Ital., 1966, 96, 430 (synth)

Rudzit, G.P. et al, CA, 1979, 91, 20372s (detn, Ni)

6-Amino-2,3-dihydro-1,4-phthalazinedione, A-00156**9CI**

4-Aminophthalhydrazide. 4-Amino-1,2-benzenedicarbonylhydrazide. Isoluminol [3682-14-2]

C₈H₇N₃O₂ M 177.162

Used for chemiluminescent detn. of Ag, Au, Cu. Reagent for protein binding assay for biotin, monitored by chemiluminescence. Yellowish needles + 1H₂O. Mp 339° dec.

N,N-Di-Me: [18697-31-9]. 6-(Dimethylamino)-2,3-dihydro-1,4-phthalazinedione, 9CI

C₁₀H₁₁N₃O₂ M 205.216

Used for chemiluminescent detn. of Ag, Au, Cu. Cryst.

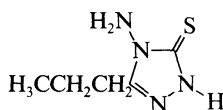
N,N-Di-Et: [29415-71-2]. 6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, 9CI

C₁₂H₁₅N₃O₂ M 233.269

Used for chemiluminescent detn. of Ag, Au, Cu; used as 0.01mM soln. in aq. KOH for catalytic-fluorimetric detn. of Co (in the presence of H₂O₂, 0.8M KOH). Flesh-coloured cryst. Sol. acids, alkalis. Mp 297° dec. pK_a 2.6.

Curtius, T., *J. Prakt. Chem.*, 1907, **76**, 301 (synth)Drew, H.D. et al, *J. Chem. Soc.*, 1937, 26 (synth)Schroeder, H.R. et al, *Anal. Chem.*, 1976, **48**, 1933; 1978, **50**, 1114 (use)Pilipenko, L.A. et al, *Zh. Anal. Khim.*, 1977, **32**, 478 (use)Dubovenko, L.I. et al, *Zh. Anal. Khim.*, 1981, **36**, 695 (synth, detn, Co)Olsson, T. et al, *Clin. Chim. Acta*, 1982, **122**, 125 (use)Bélanger, A. et al, *Can. J. Chem.*, 1987, **65**, 1392 (bibl)**4-Amino-2,4-dihydro-5-propyl-3H-1,2,4-triazole-3-thione, 9CI A-00157**

4-Amino-5-mercapto-3-propyl-1,2,4-triazole [30342-87-1]

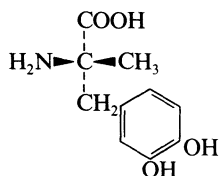
C₅H₁₀N₄S M 158.227

Used as 0.025M Me₂CO soln. as a displacing agent in the complexometric (EDTA) detn. of Hg(II) and Tl(III).

Cryst. Sol. Me₂CO. Mp 104°.

Gadiyar, H.R. et al, *Talanta*, 1982, **29**, 941 (synth, detn, Hg)Shetty, N. et al, *Talanta*, 1988, **35**, 721 (detn, Tl)**2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid A-00158****propanoic acid**

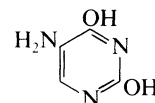
3-Hydroxy-α-methyltyrosine, 9CI. α-Methyl-β-(3,4-dihydroxyphenyl)alanine

C₁₀H₁₃NO₄ M 211.217**(S)-form** [555-30-6]*L-form*

Used as 0.07M soln. in isopropanol for fluorimetric detn. of Tb(III) (λ_{max} 530-560 nm, pH 9.8-10.0). Cryst. Sol. isopropanol, EtOH, H₂O.

Kravchenko, T.B. et al, *Zh. Anal. Khim.*, 1981, **36**, 2138 (use)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DNA800.**5-Amino-2,4-dihydroxypyrimidine A-00159**

5-Amino-2,4-(1H,3H)-pyrimidinedione, 9CI [932-52-5]

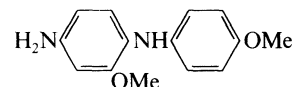
C₄H₅N₃O₂ M 127.102

Used as a soln. in 0.1M NaOH for photometric detn. of Ru(III) (λ_{max} 480 nm, ε 7600), Os(VIII). Cryst. Sol. alkalis; spar. sol. H₂O.

▷ YQ8740000.

Kundra, S.K. et al, *J. Indian Chem. Soc.*, 1976, **53**, 715 (detn, Os, Ru)**4-Amino-2,4'-dimethoxydiphenylamine A-00160**

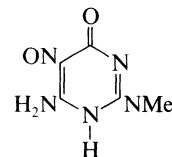
2-Methoxy-N-(4-methoxyphenyl)-1,4-benzenediamine. 2-Methoxyvariamine blue

C₁₄H₁₆N₂O₂ M 244.293

Used as 5mM soln. in EtOH as redox indicator. Cryst. Sol. dil. acids, EtOH, C₆H₆. E° + 0.636 V (pH 0, 30°).

Erdely, L. et al, *Talanta*, 1959, **3**, 54 (use, ind)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)**6-Amino-2-(dimethylamino)-5-nitroso-4(1H)-pyrimidinone, 9CI A-00161**

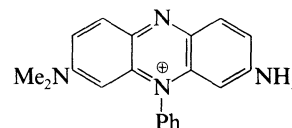
4-Hydroxy-2-(dimethylamino)-5-nitroso-6-aminopyrimidine [70700-44-6]

C₆H₉N₅O₂ M 183.169

Used for photometric detn. of Fe(II) (λ_{max} 395 nm, ε 30500); Co(III) (λ_{max} 395 nm, ε 63000). Cryst. Sol. EtOH, Me₂CO.

Tsuchiya, M., *CA*, 1979, **91**, 32339n (detn, Fe, Co)**3-Amino-7-(dimethylamino)-5-phenylphenazinium(1+), 9CI A-00162**

Dimethylphenosafranine. C.I. Basic violet 5. C.I. 50205

C₂₀H₁₉N₄[⊕] M 315.397 (ion)

Strictly, the name dimethylphenosafranin applies to the chloride.

Chloride: [2390-56-9].

$C_{20}H_{19}ClN_4$ M 350.850

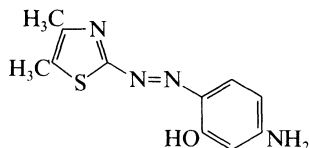
Redox indicator. Dark red cryst. Sol. H_2O , EtOH, Me_2CO . $E^\circ + 0.286$ V (30°).

Bindschelder, R., *Ber.*, 1883, 869 (*synth*)

Stichler, R.D. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 891.

5-Amino-2-[(4,5-dimethyl-2-thiazolyl)azo] phenol **A-00163**

2-(4-Amino-2-hydroxyphenylazo)-4,5-dimethylthiazole



$C_{11}H_{12}N_4OS$ M 248.308

N-Di-Et.: [92569-68-1]. 5-(Diethylamino)-2-[(4,5-dimethyl-2-thiazolyl)azo]phenol, 9CI

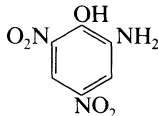
$C_{15}H_{20}N_4OS$ M 304.415

Used as 0.025% soln. in EtOH for photometric detn. of Bi (λ_{max} 590 nm, ϵ 100000, 30% EtOH, pH 2.5-3.5). Purple-red cryst. (EtOH aq.). Sol. EtOH, Me_2CO ; sl. sol. H_2O . Mp 119°.

Tongyue, C. *et al*, *Mikrochim. Acta*, 1985, **1**, 375 (*detn*, Bi)

2-Amino-4,6-dinitrophenol, 9CI **A-00164**

2-Hydroxy-3,5-dinitroaniline. Picramic acid. Picraminic acid [96-91-3]



$C_6H_5N_3O_5$ M 199.123

Intermediate for azo dyestuffs. Used as a 0.1% soln. in EtOH for photometric detn. of Au(III), Ce(IV), Fe(III), V(V). Dark-red needles (EtOH), prisms ($CHCl_3$). Sol. EtOH, C_6H_6 ; v. spar. sol. H_2O . Mp 169°. pK_a 4.7.

▷ Toxic. SJ5800000.

N-Ac.: [5422-72-0].

$C_8H_7N_3O_6$ M 241.160

Needles (H_2O). Mp 201°.

N-Benzoyl.:

$C_{13}H_9N_3O_6$ M 303.231

Greenish-yellow needles (AcOH or xylene). Mp 299-300°.

N-(4-Methylbenzenesulfonyl).:

$C_{13}H_{11}N_3O_7S$ M 353.312

Mp 191°.

O-Ac.:

$C_8H_7N_3O_6$ M 241.160

Mp 193°.

O-Benzoyl.:

$C_{13}H_9N_3O_6$ M 303.231

Mp 218-219°.

N-Me.:

$C_7H_7N_3O_5$ M 213.149

Orange scales (EtOH aq.). Mp 144-145°.

N-Di-Me.:

$C_8H_9N_3O_5$ M 227.176

Yellow microcryst. (AcOH). Mp 218-220°.

Me ether.: 2-Methoxy-3,5-dinitroaniline. 2-Amino-4,6-dinitroanisole. 3,5-Dinitro-o-anisidine

$C_7H_7N_3O_5$ M 213.149

Violet needles (EtOH).

[831-52-7]

Clayton, E., *J. Soc. Dyers Colour.*, 1930, **46**, 365; *CA*, **25**, 926 (*use*)

Hodgson, H.H. *et al*, *J. Chem. Soc.*, 1945, 663 (*synth*)

Popa, G. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **184**, 353 (*detn*, Au, Ce, Fe, V)

Ger. Pat., 2 601 466, (1975); *CA*, **86**, 8574m.

Wyman, J.F., *Appl. Environ. Microbiol.*, 1979, **37**, 222 (*tox*)

Ger. Pat., 2 832 756, (1979); *CA*, **90**, 205764.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUP400, PIC500.

2-Aminodiphenylamine **A-00165**

N-Phenyl-1,2-benzenediamine, 9CI. *N-Phenyl-o-phenylenediamine*. *o-Semidine*

[534-85-0]



$C_{12}H_{12}N_2$ M 184.240

Used as 1% soln. in 1M $HClO_4$ for extraction-photometric detn. of Se (λ_{max} 352 nm, ϵ 18100, hexanol, PhCl). Needles (H_2O). Sol. acids, C_6H_6 , cyclohexane. Mp 79-80°.

B,HCl.: Mp 115.5-117° dec.

2-N-Ac.:

$C_{14}H_{14}N_2O$ M 226.277

Mp 121°.

2-N-Benzoyl.:

$C_{19}H_{16}N_2O$ M 288.348

Mp 136°.

Kehrmann, F. *et al*, *Ber.*, 1913, **46**, 341 (*synth*)

Ariyoshi, H. *et al*, *Talanta*, 1960, **5**, 112 (*detn*, Se)

Ger. Pat., 2 213 895, (1972); *CA*, **78**, 85944 (*use*)

Kalyanaraman, V. *et al*, *J. Org. Chem.*, 1973, **38**, 507 (*bibl*)

Kasterka, B., *Mikrochim. Acta*, 1989, **1**, 337 (*detn*, Se)

4-Aminodiphenylamine **A-00166**

N-Phenyl-1,4-benzenediamine, 9CI. *N-Phenyl-p-phenylenediamine*. *Diphenyl black base P*. *p-Semidine*

[101-54-2]

$C_{12}H_{12}N_2$ M 184.240

Used in calico printing, dyeing of fur. Used as redox indicator. Needles (EtOH), cryst. (ligroin). Sol. EtOH, Et_2O , acids; insol. H_2O . Mp 66°, Mp 75°. $Bp_{0.026}$ 155°. $E^\circ + 0.76$ V.

▷ High oral toxicity, exp. carcinogen. ST3150000.

N-Ac.: [38674-90-7]. 4-(Acetylamino)diphenylamine

$C_{14}H_{14}N_2O$ M 226.277

Used as redox indicator. Leaflets or needles. Sol. EtOH, acids; spar. sol. H_2O . Mp 158°. $E^\circ + 0.70$ V.

Meyer, R., *Ber.*, 1920, **53**, 1265 (*synth*)

Oldfield, L.F. *et al*, *J. Phys. Colloid Chem.*, 1951, **55**, 1255 (*use*)

Shenai, V.A., *Text. Dyer Printer*, 1971, **5**, 29, 32 (*rev*, *use*)

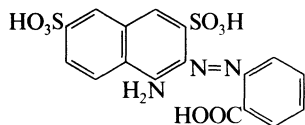
Martynov, N.V. *et al*, *Khim. Promst. (Moscow)*, 1972, **48**, 824; *CA*, **78**, 42927g.

U.K. Pat., 1 304 525, (1973); *CA*, **78**, 124256t (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PFU500.

2-[(1-Amino-3,6-disulfo-2-naphthalenyl)azo]benzoic acid **A-00167**

4-Amino-3-[(2-carboxyphenyl)azo]-2,7-naphthalenedisulfonic acid. Carbaminazo



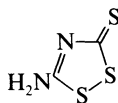
$C_{17}H_{13}N_3O_8S_2$ M 451.437

Used as 0.1% aq. soln. for photometric detn. of Pd (λ_{max} 576 nm, ϵ 18600). Dark red cryst. Sol. H_2O .

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 558 (*detn*, Pd)

5-Amino-1,2,4-dithiazolidine-3-thione, 8CI **A-00168**

5-Amino-3H-1,2,4-dithiazole-3-thione, 9CI. Isoperthiocyanic acid. 3-Imino-1,2,4-dithiazolidine-5-thione. Xanthan hydride [6846-35-1]



$C_2H_2N_2S_3$ M 150.249

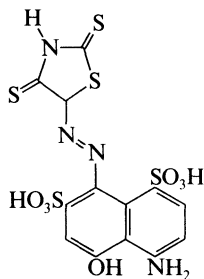
Exists as an imine-enamine tautomer. This substance and its derivs. are used as corrosion inhibitors and vulcanisation accelerators. Used as a 5% soln. in conc. H_2SO_4 for detn. of Bi, Fe(II), NO_2^\ominus . Yellow prisms (H_2O or DMSO aq.). Sol. $CHCl_3$, mod. sol. Me_2CO , EtOH, C_6H_6 , insol. Et_2O , H_2O . Mp 200-202°.

▷ JO6500000.

Chattaway, F.D. *et al*, *J. Chem. Soc.*, 1897, **71**, 607 (*synth*)
Foss, O., *Acta Chem. Scand.*, 1956, **10**, 868 (*cryst struct*)
Cotton, F.A. *et al*, *Inorg. Chem.*, 1967, **6**, 229 (*synth*)
Seltzer, R. *et al*, *J. Org. Chem.*, 1970, **35**, 1665 (*synth*)
Petropol'skaya, V.M. *et al*, *CA*, 1972, **76**, 5575 (*manuf*)
Johar, G.S. *et al*, *Mikrochim. Acta*, 1972, 571 (*detn*, NO_2^\ominus)
Johar, G.S., *Talanta*, 1972, **19**, 1231 (*detn*, Bi, Fe)
Zhorkin, N.V. *et al*, *CA*, 1973, **78**, 124470 (*rev*, *bibl*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IBL000.

4-Amino-8-[(2,4-dithioxo-5-thiazolidinyl)azo]-5-hydroxy-1,7-naphthalenedisulfonic acid, 9CI **A-00169**

[36576-02-0]



$C_{13}H_{10}N_4O_7S_5$ M 494.575

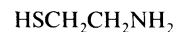
Used as aq. soln. for photometric detn. of Pt(II) (λ_{max} 650 nm, ϵ 20000). Red cryst. powder. Sol. H_2O , EtOH, DMF.

Basargin, N.N. *et al*, *Zavod. Lab.*, 1972, **38**, 260 (*synth*, *detn*, Pt)

2-Aminoethanethiol **A-00170**

2-Aminoethyl mercaptan. 2-Mercaptoethylamine. Thioethanolamine. **Cysteamine**, BAN. Mercaptamine, INN. Becptan. Lambratene. Mercamin. Merkammin. Riacon. NSC 25116

[60-23-1]



C_2H_7NS M 77.150

Radioprotective agent, also used as antidote to paracetamol poisoning. Prolactin inhibitor. Masking agent in chelatometric titration of Ca, Mg, Mn. Used as 4% MeOH soln. of hydrochloride. Cryst. (EtOH). Sol. MeOH, EtOH; spar. sol. H_2O . Mp 99-100°. pK_{a1} 8.19; pK_{a2} 10.75 (25°).

▷ KJ0175000.

B, HCl: [156-57-0].

Mp 70.2-70.7°.

▷ Gives toxic fumes on heating to dec. or contact with H_2O . KJ0200000.

N-Di-Me: [108-02-1]. 2-(Dimethylamino)ethanethiol, 9CI, 8CI. **Captamine**, INN

$C_4H_{11}NS$ M 105.204

Depigmentation agent. Liq. Bp 120-127°, Bp₄₀ 45-47°. pK_{a1} 10.25 (SH) (H_2O , 20°), pK_{a1} 10.90 (25% EtOH, 20°).

▷ KJ1050000.

N-Di-Me: B, HCl: [13242-44-9]. *Captamine hydrochloride*, USAN. NSC 45463

Solid. Mp 156-157°.

▷ KJ1051000.

N-Di-Me, S-Ac:

$C_6H_{13}NOS$ M 147.241

Mp 145° (as hydrochloride).

N-Di-Et: [1942-52-5].

$C_6H_{15}NS$ M 133.257

Used as 0.1% aq. soln. for simultaneous photometric detn. of Rh and Pd (λ_{max} 258, 303 nm). Solid (as hydrochloride). Sol. H_2O , EtOH. pK_{a1} 7.69 (SH); pK_{a2} 11.01 (NET₂).

▷ KJ0700000.

N-Diisopropyl: [5842-07-9].

$C_8H_{19}NS$ M 161.311

Bp₁₆ 125-126°.

▷ KJ0875000.

[100-38-9, 20739-39-3, 58607-68-4]

Mills, E.J. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 1173 (*synth*)

Bestian, H., *Justus Liebigs Ann. Chem.*, 1950, **566**, 240 (*synth*)

Rachinskii, F.I. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1958, **28**, 3027 (*synth*, *bibl*, *derivs*)

Srivastava, S.C. *et al*, *Anal. Chem.*, 1963, **35**, 1165 (N-di-Et, *detn*, Rh)

Yamaguchi, K. *et al*, *Talanta*, 1963, **10**, 1041 (*use*)

Burke, R.W. *et al*, *Talanta*, 1963, **10**, 1267 (N-di-Et, *detn*, Pd, Rh)

Srivastava, S.C. *et al*, *Anal. Chim. Acta*, 1965, **32**, 309 (N-di-Et, *detn*, Rh)

Owen, T.C. *et al*, *J. Chem. Soc. C*, 1967, 1373 (*synth*)

Frenk, E. *et al*, *Arch. Dermatol.*, 1968, **97**, 465 (*pharmacol*, *deriv*)

Milvy, P., *Radiat. Res.*, 1971, **48**, 206 (*pharmacol*)

Bazzone, T.J., *J. Am. Chem. Soc.*, 1974, **96**, 1465 (*nmr*)

Szabo, S. *et al*, *Endocrinology (Baltimore)*, 1981, **109**, 2255 (*props*)

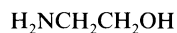
Millard, W.J. *et al*, *Science (Washington, D.C.)*, 1982, **217**, 452 (*props*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1041.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AJT250, DHO400, DIY600, DOY600, MCN750.

2-Aminoethanol

2-Hydroxyethylamine. Ethanolamine. Colamine
[141-43-5]



$\text{C}_2\text{H}_7\text{NO}$ M 61.083

Widely distributed in biol. tissues. Component of lecithin. Chemical intermed., org. base. Removes CO_2 and H_2S from gases. Reagent for fluorimetric anal. of carbohydrates by hplc. Viscous, hygroscopic liq. Misc. H_2O ; spar. sol. C_6H_6 , Et_2O . d_4^{25} 1.012. Bp 171° . pK_a 9.47. n_D^{20} 1.4539.

▷ Toxic vapour, irritant, TLV 8. KJ5775000.

N-Ac: [142-26-7]. N-(2-Hydroxyethyl)acetamide, 9CI. N-Acetyethanolamine

$\text{C}_4\text{H}_9\text{NO}_2$ M 103.121

d_4^{20} 1.12. Bp $195-196^\circ$.

▷ AC3120000.

N-Me: [109-83-1]. 2-(Methylamino)ethanol, 9CI

$\text{C}_3\text{H}_9\text{NO}$ M 75.110

In vivo precursor of Choline. Strongly basic liq. with fishy odour. Misc. H_2O , EtOH , Et_2O . d_4^{20} 0.94. Bp $155-156^\circ$, Bp₃ $115-118^\circ$.

▷ KL6650000.

N-Et: [110-73-6]. 2-Ethylaminoethanol. 2-

Hydroxydiethylamine

$\text{C}_4\text{H}_{11}\text{NO}$ M 89.137

Corrosion inhibitor, fungicide, has antifertility props. Oily liq. with faint odour, fumes in air. Sol. H_2O . Bp $169-170^\circ$, Bp₁₅ $75-76^\circ$. Spar. steam-volatile.

▷ Highly toxic. KK9100000.

N-Isopropyl: [109-56-8]. 2-Isopropylaminoethanol. 2-[(1-Methylethyl)amino]ethanol, 9CI. N-(2-Hydroxyethyl)isopropylamine. Isopropylethanolamine

$\text{C}_5\text{H}_{13}\text{NO}$ M 103.164

Shows antifertility props. Oil. Sol. H_2O . Bp₁₃ $150-152^\circ$.

▷ KL5080000.

N-tert-Butyl: [4620-70-6]. 2-[(1,1-Dimethyl)amino]ethanol,

9CI. 2-tert-Butylaminoethanol, 8CI. N-tert-

Butylethanolamine

$\text{C}_6\text{H}_{15}\text{NO}$ M 117.191

Intermed. for resins. Needles. Mp $43-45^\circ$. Bp $176-177^\circ$.

[20739-39-3]

Knorr, L., *Ber.*, 1897, **30**, 909 (synth)

Knorr, L. *et al.*, *Ber.*, 1898, **31**, 1072 (synth, derivs)

Kawai, S., *Nippon Kagaku Kaishi*, 1923, **44**, 303.

Putokhin, N., *CA*, 1929, **23**, 2938.

Fr. Pat., 650 574, (1929); *CA*, **23**, 3232.

U.S. Pat., 1 904 013, (1933); *CA*, **27**, 3222.

Wenker, H., *J. Am. Chem. Soc.*, 1935, **57**, 1079 (deriv)

Org. Synth., *Coll. Vol.*, 2, 1943, 183 (deriv)

Org. Synth., 1946, **26**, 38 (derivs)

Terakawa, T. *et al.*, *Yakugaku Zasshi*, 1953, **73**, 1330.

Childress, S.J. *et al.*, *J. Am. Chem. Soc.*, 1954, **76**, 3988 (N-tert-butyl)

Feuer, H. *et al.*, *J. Am. Chem. Soc.*, 1954, **76**, 5124 (deriv)

Nikolaev, A.F. *et al.*, *Zh. Obshch. Khim.*, 1963, **33**, 391.

Gelbard, G. *et al.*, *Bull. Soc. Chim. Fr.*, 1969, 1161 (synth, derivs)

Bafford, R.A. *et al.*, *Bull. Soc. Chim. Fr.*, 1973, 971 (derivs)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 222.

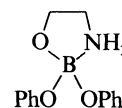
Kato, T. *et al.*, *Anal. Biochem.*, 1980, **106**, 238 (use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 175, 286.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DHO500, EEC600, EGA500, HKM000, INN400, MGG000.

A-00171**(2-Aminoethoxy)diphenoxyborane**

Boric acid (H_3BO_3) 2-aminoethyl diphenyl ester, 10CI, 9CI
[51685-18-8]



$\text{C}_{14}\text{H}_{16}\text{BNO}_3$ M 257.096

Intramolecularly coordinated. Nmr shift reagent for flavonoids; spray reagent for sugar detection after chromatog.

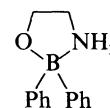
Niemann, G.J., *J. Chromatogr.*, 1979, **170**, 227 (use)

Homberg, H. *et al.*, *Phytochemistry*, 1980, **19**, 2443 (use)

(2-Aminoethoxy)diphenylborane**A-00173**

(2-Aminoethanolato-N,O)diphenylboron, 10CI.

Diphenylborinic acid 2-aminoethyl ester. Aminoethyl diphenylborinate. Hydroxydiphenylborane ethanolamine
[15614-89-8]



$\text{C}_{14}\text{H}_{16}\text{BNO}$ M 225.097

Intramolecularly coordinated cyclic molecule. Shows bactericidal, fungicidal and antiprotozoal props.

Reagent for the detn. of flavonoids and other phenols.

Cryst. (EtOH aq.). Mp $190-191^\circ$ ($186-188^\circ$). Air-stable.

Letsinger, R.L. *et al.*, *J. Am. Chem. Soc.*, 1955, **77**, 2491 (synth)

Mikhailov, B.M. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1957, 989 (synth)

Bellamy, L.J. *et al.*, *J. Chem. Soc.*, 1958, 2412 (ir)

Somaroo, B.H. *et al.*, *J. Chromatogr.*, 1973, **87**, 290 (use)

Rettig, S.J. *et al.*, *Can. J. Chem.*, 1976, **54**, 3130 (cryst struct)

Kliegel, W. *et al.*, *Chem. Ber.*, 1977, **110**, 2067.

Hohaus, E. *et al.*, *Int. J. Mass Spectrom. Ion Phys.*, 1979, **31**, 113 (ms)

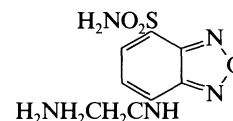
Brasseur, T. *et al.*, *J. Chromatogr.*, 1986, **351**, 351 (use)

7-[(2-Aminoethyl)amino]-4-**A-00174**

benzofurazansulfonamide, 9CI

7-(2-Aminoethylamino)-4-(aminosulfonyl)-2,1,3-benzoxadiazole

[135406-33-6]



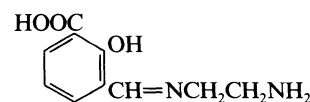
$\text{C}_8\text{H}_{11}\text{N}_5\text{O}_3\text{S}$ M 257.273

Fluorogenic reagent for carboxylic acids. Orange cryst. Mp $144-146^\circ$.

Toyooka, T. *et al.*, *Analyst (London)*, 1991, **116**, 609 (synth, use)

3-[[2-Aminoethyl]imino]methyl]-2-hydroxybenzoic acid**A-00175**

Ethylenediamine-3-aldehydosalicylic acid



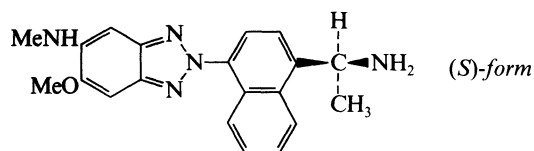
$\text{C}_{10}\text{H}_{12}\text{N}_2\text{O}_3$ M 208.216

Used as a 1% aq. soln. as metallochromic indicator in titrimetric detn. of Fe(III). Cryst. Sol. H₂O.

Poddar, S.N. *et al*, *CA*, 1963, **59**, 13326e (*detn*, Fe)

Poddar, S.N. *et al*, *Indian J. Chem.*, 1964, **2**, 12 (*detn*, Fe)

2-[4-(1-Aminoethyl)-1-naphthyl]-6-methoxy-N-methyl-2H-benzotriazol-5-amine **A-00176**



C₂₀H₂₁N₅O M 347.419

(S)-form

B,2HCl: [125272-63-1].

Fluorescence chiral derivatisation reagent for carboxylic acids. Light yellow needles (MeOH/Et₂O). Mp 255-257°.

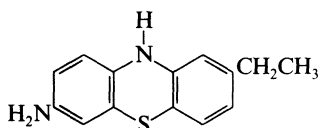
[α]_D²⁵ – 16.8° (c, 1 in MeOH).

Narita, S. *et al*, *Anal. Sci.*, 1989, **5**, 361 (*synth*, use)

7-Amino-2-ethylphenothiazine **A-00177**

8-Ethyl-10H-phenothiazin-3-amine, 9CI

[67615-62-7]



C₁₄H₁₄N₂S M 242.344

Used for photometric detn. of Ti. Yellow cryst. powder.

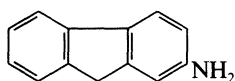
Sol. dil. HCl.

Chaudhary, R.C., *An. Quim.*, 1978, **74**, 172 (*detn*, Ti)

2-Aminofluorene **A-00178**

9H-Fluoren-2-amine, 9CI. 2-Fluorenamine

[153-78-6]



C₁₃H₁₁N M 181.237

Cryst. (EtOH aq.). Mp 129°.

▶ LL5075000.

N,N-Di-Me: [13261-62-6].

C₁₅H₁₅N M 209.290

Cryst. (EtOH). Mp 180°.

▶ LL5250000.

N-Ac:

C₁₅H₁₃NO M 223.274

Cryst. (EtOH aq.). Mp 191°.

▶ Strong carcinogen.

N-Hydroxy-N-nitroso: N-(2-Fluorenyl)-N-nitrosylhydroxylamine. N-Hydroxy-N-nitroso-2-fluorenamine

C₁₃H₁₀N₂O₂ M 226.234

Used as a satd. soln. of NH₄⁺ salt in MeOH for pptn. of Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Mn, Mg, Pb, Ni, Ag, Sr, Sn, Th, Sb, Zn. Cryst. (MeOH) (as NH₄⁺ salt). Mp 201-202° (as NH₄⁺ salt).

Bennett, C.W. *et al*, *J. Am. Chem. Soc.*, 1930, **52**, 3437. *Org. Synth.*, 1933, **13**, 74.

Buu-Hoi, Ng.Ph. *et al*, *Bull. Soc. Chim. Fr.*, 1946, 379.

Oesper, R.E. *et al*, *Anal. Chem.*, 1953, **25**, 908 (*deriv*, use)

Shendrikar, A.D., *Talanta*, 1969, **16**, 51 (*deriv*, use)

Fletcher, T.L. *et al*, *J. Org. Chem.*, 1970, **35**, 4231 (*synth*)

Mathieu, A. *et al*, *Bull. Soc. Chim. Fr.*, 1974, 299 (*nmr*)

Alper, H. *et al*, *Angew. Chem.*, 1977, **89**, 43 (*synth*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 332.

Patty's *Ind. Hyg. Toxicol.* (3rd Rev. Ed.), Vol. 2, Wiley, 1980, 2419.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DPJ600, FDI000.

Aminoguanidine **A-00179**

Hydrazinecarboximidamide, 9CI. Guanylhiazine

[79-17-4]



CH₆N₄ M 74.085

Used as a spray reagent for tlc detn. of sugars. Cryst. Sol.

H₂O, EtOH; insol. Et₂O. pK_a 11.04. Dec. on melting.

▶ ME8225000.

B,HCl: Large prisms (EtOH aq.). Sol. H₂O, EtOH; insol.

Et₂O. Mp 163°.

Smith, G.B.L. *et al*, *J. Am. Chem. Soc.*, 1935, **57**, 2730 (*synth*)

U.S. Pat., 1 990 511, (1935); *CA*, 1836, **29** (*synth*)

U.S. Pat., 2 033 203, (1936); *CA*, **30**, 2992 (*synth*)

Godfrey, L.E.A., *Chem. Ind. (London)*, 1962, 1584 (*rev*)

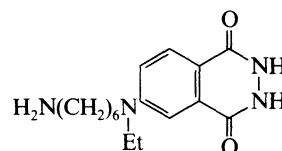
Martins, P.M. *et al*, *J. Chromatogr.*, 1968, **32**, 188 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AKC750.

6-[(6-Aminoethyl)ethylamino]-2,3-dihydro-1,4-phthalazinedione, 9CI **A-00180**

N-(6-Aminoethyl)-N-ethylisoluminol. AHEI

[66612-32-6]



C₁₆H₂₄N₄O₂ M 304.391

Chemiluminescence tracer used for steroid hormone immunoassays.

Schroeder, H.R. *et al*, *Anal. Chem.*, 1978, **50**, 1114 (*use*)

Kohen, F. *et al*, *FEBS Lett.*, 1979, **104**, 201 (*use*)

Pazzagli, M. *et al*, *J. Steroid Biochem.*, 1983, **19**, 407 (*synth*, use)

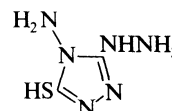
4-Amino-3-hydrazino-5-mercapto-1,2,4-triazole **A-00181**

4-Amino-5-thioxo-1,2,4-triazolidin-3-one 3-hydrazone, 9CI.

4-Amino-5-hydrazino-4H-1,2,4-triazole-3-thiol, 8CI. 4-

Amino-3-hydrazino-1,2,4-triazoline-5-thione. Purpald

[1750-12-5]



C₂H₆N₆S M 146.176

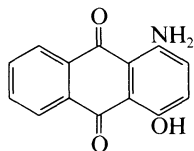
Several tautomers possible. Used for photometric detn. of aldehydes. Prisms (H₂O). Mp 240° dec.

Potts, K.T. *et al*, *J. Org. Chem.*, 1968, **33**, 143 (*synth*, ir)

Kennard, G.H.L. *et al*, *J. Chem. Soc. B*, 1971, 270.
 Dickenson, R.G. *et al*, *Aust. J. Chem.*, 1976, **29**, 459 (*use, bibl*)
 Kurzer, F. *et al*, *Tetrahedron*, 1977, **33**, 1999 (*synth, ir*)
 Durst, H.D. *et al*, *J. Chem. Educ.*, 1978, **55**, 206 (*use*)

1-Amino-4-hydroxyanthraquinone **A-00182**

1-Amino-4-hydroxy-9,10-anthracenedione, 9CI. C.I. Disperse red 15. C.I. Solvent red 53. Celliton fast pink B. C.I. 60710 [116-85-8]



$C_{14}H_9NO_3$ M 239.230
 Dyestuff. Used as a soln. in MeOH for fluorimetric detn. of Be, Ga, Pr, Th; used as 0.05% EtOH soln. for kinetic fluorimetric detn. of Ce(IV) (λ_{max} 575 nm, 0.1-1 ppm), Zr. Pink plates (C_6H_6), violet needles (C_6H_6 /pet. ether). Sol. EtOH, C_6H_6 , Me_2CO . Mp 215° (207-209°).

▷ CB5600000.

Me ether: [116-83-6]. *1-Amino-4-methoxyanthraquinone*

$C_{15}H_{11}NO_3$ M 253.257
 Needles (toluene). Mp 186°.

▷ CB5735100.

N-Me: [6373-16-6]. *1-Hydroxy-4-(methylamino)anthraquinone*. C.I. Disperse blue 22

$C_{15}H_{11}NO_3$ M 253.257
 Dyestuff. Violet needles (butanol). Mp 171.5-172°.

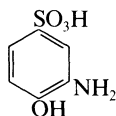
Jain, A.K. *et al*, *Talanta*, 1972, **19**, 1481 (*use*)
 Garg, S.P. *et al*, *J. Org. Chem.*, 1973, **38**, 1247 (*synth, bibl*)
 Morley, J.O. *et al*, *J. Chem. Technol. Biotechnol.*, 1980, **30**, 409 (*synth*)
 Flemming, C.A. *et al*, *Can. J. Chem.*, 1982, **60**, 624 (*synth*)
 Salinas, F. *et al*, *Microchem. J.*, 1982, **27**, 32 (*detn, Ce*)
 Idriss, K.A. *et al*, *Analyst (London)*, 1988, **113**, 1643 (*detn, Zr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AKE250.

3-Amino-4-hydroxybenzenesulfonic acid, **A-00183**

9CI

2-Aminophenol-4-sulfonic acid

[98-37-3]



$C_6H_7NO_4S$ M 189.192
 Used as 1% aq. soln. of the Na salt for photometric detn. of Os. Rhombohedra (H_2O). Mp 155-156°. pK_{a1} 4.12; pK_{a2} 9.15 (20°).

O,N-Di-Ac; B,HCl:

$C_{10}H_{12}ClNO_6S$ M 309.727
 Mp 43°.

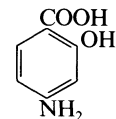
Anilide:

$C_{12}H_{12}N_2O_3S$ M 264.304
 Mp 205° (172°).

Post, J., *Justus Liebig's Ann. Chem.*, 1880, **205**, 49 (*synth*)
 Minevitch, J.R., *CA*, 1922, **16**, 2994 (*synth*)
 Popov, A.M., *CA*, 1934, **28**, 1671; 1936, **30**, 7554 (*synth*)
 Williams, T., *J. Chem. Soc.*, 1942, 708 (*deriv*)
 Majumdar, A.K. *et al*, *Anal. Chim. Acta*, 1960, **22**, 306 (*detn, Os*)
 Tripathi, S., *Indian J. Chem.*, 1973, **11**, 817 (*anal*)

4-Amino-2-hydroxybenzoic acid**A-00184**

p-Aminosalicilic acid. P.A.S. Rezipas. Pamisyl. Propasa [65-49-6]

 $C_7H_7NO_3$ M 153.137

Tuberculostatic, antibacterial, often administered as Na, K or Ca salt. Used as 10% aq. soln. of Na salt for photometric detn. of Fe(III) (λ_{max} 420 nm). Needles or plates (EtOH/Et₂O). Mp 147°, Mp 150-151°, 240° dec. pK_{a1} 2.05; pK_{a2} 3.66; pK_{a3} 13.74 (25°).

▷ Mod. toxic. VO1225000.

Na salt: [6018-19-5]. *Aminosalicylate sodium*, USAN.*Pamisyl sodium*

Antibacterial agent (tuberculostatic).

Ca salt: [6059-16-1]. *Aminosalicylate calcium*, USAN

Antibacterial agent (tuberculostatic).

Compd. with isonicotinoylhydrazide: [2066-89-9]. **Pasiniazid**, INN. RD 328 $C_{13}H_{14}N_4O_4$ M 290.278

Tuberculostatic. Yellow cryst. (MeOH). Mp 142-144°.

Me ester: [4136-97-4]. $C_8H_9NO_3$ M 167.164

Tuberculostatic. Pale-yellow cryst. Mp 120-121°, Mp 136° dec.

Et ester: [6059-17-2]. $C_9H_{11}NO_3$ M 181.191

Tuberculostatic. Prisms or tablets (EtOH). Mp 113-115°.

 $Bp_{0.3}$ 125-127°.

▷ VO1625000.

Ph ester: [133-11-9]. *Phenyl aminosalicylate*, BAN, USAN.**Fenamisal**, INN. *p-Aminosalol*. *Temposil*. NSC 40144 $C_{13}H_{11}NO_3$ M 229.235

Tuberculostatic. Cryst. (2-propanol). Mp 153°.

Nitrile: [67608-58-6]. *4-Amino-2-hydroxybenzonitrile*. *5-Amino-2-cyanophenol* $C_7H_6N_2O$ M 134.137Yellow needles (EtOAc/ C_6H_6). Mp 182°.*O-Et, N-Ac, Me ester*: [59-06-3]. *Methyl 4-(acetylamino)-2-ethoxybenzoate*, 9CI. **Ethopabate**, BAN. *Ethyl pabate* $C_{12}H_{15}NO_4$ M 237.255

Veterinary antiprotozoal drug. Pinkish-white cryst.

(MeOH aq.). Mp 148-149°.

N-Benzoyl: [13898-58-3]. *4-(Benzamido)salicilic acid* $C_{14}H_{11}NO_4$ M 257.245

Tuberculostatic. Needles. Mp 260-261°.

N-Benzoyl, Ca salt (2:1): [5631-00-5]. *Calcium**benzamidosalicylate*, BAN, INN. *Benzoylpas calcium*,USAN. *Temposil*. *Benzapas*. *Therapas**Me ether*: [2486-80-8]. *4-Amino-2-methoxybenzoic acid* $C_8H_9NO_3$ M 167.164Mp 157-158°. pK_{a1} 2.24; pK_{a2} 4.42.

[133-09-5, 133-10-8, 133-15-3, 528-96-1, 537-20-2, 5631-00-5]

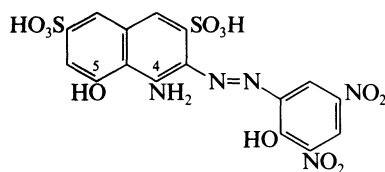
Drain, D.J. *et al*, *J. Chem. Soc.*, 1949, 1498 (*synth*)Bavin, E.M. *et al*, *J. Pharm. Pharmacol.*, 1953, **5**, 849 (*pharmacol*,*N-benzoyl*)Van der Stelt, C. *et al*, *Arzneim.-Forsch.*, 1954, **4**, 544 (*synth*,*pharmacol, N-benzoyl*)Grimme, W. *et al*, *Chem. Ber.*, 1954, **87**, 179 (*deriv*)Meyer, H.C., *Antibiot. Annu.*, 1957, **58**, 614 (*Fenamisal*)Lukasiak-Wardzińska, H. *et al*, *Chem. Anal. (Warsaw)*, 1958, **3**,893 (*detn, Fe*)Rogers, E.F. *et al*, *Proc. Soc. Exp. Biol. Med.*, 1964, **117**, 488

(Ethopabate)

Kakemi, K. *et al*, *Chem. Pharm. Bull.*, 1967, **15**, 1819 (*esters, props*)
 Iyer, K.S.N. *et al*, *Indian J. Chem.*, 1970, **8**, 964 (*derivs, props*)
 Bernheim, F., *Drill's Pharmacol. Med.*, 4th Ed., 4th Ed., McGraw-Hill, 1971 (*rev*)
CRC Atlas of Spectral Data and Physical Constants, 1973, b847 (*uv, ir, nmr, ms*)
 Lin, C.T. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1978, 957, 963 (*cryst struct*)
 Wesolowski, M., *Sci. Pharm.*, 1980, **48**, 393 (*synth, rev*)
 Hassan, M.M.A., *Anal. Profiles Drug Subst.*, 1981, **10**, 1 (*rev*)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 7551-7554.
 Bergeron, R.J. *et al*, *J. Org. Chem.*, 1987, **52**, 144 (*deriv, synth*)
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 438, 667, 2671, 3016 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AMM250, EEK100, SEP000.

4-Amino-4'-hydroxydiphenylamine**A-00185**

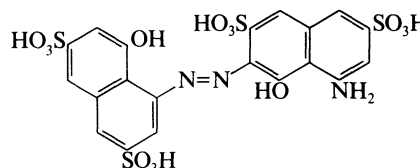
$C_{12}H_{12}N_2O$ M 200.240
 Plates (H_2O or toluene). Mp 166°. pK_{a1} 6.6 (5.9).
 $B\frac{1}{2}H_2SO_4$: C.I. Azoic diazo compound 35. C.I. 37255
 Used as 1% aq. soln. as redox indicator. pK_{a1} 6.6 (30°).
 $E^\circ + 0.712$ V (30°).
Me ether: [101-64-4]. N-(4-Methoxyphenyl)-1,4-benzenediamine, 9CI. 4-Amino-4'-methoxydiphenylamine. *Variamine blue*. *Variamine blue B*
 $C_{13}H_{14}N_2O$ M 214.266
 Used as 0.1-1% aq. soln. as a metallochromic indicator for titrimetric detn. of Cd, Cu, Fe(III), Pb, V(V), Zn; redox indicator. Needles (ligroin). Mp 102°. Bp₁₂ 238°.
Et ether: [60457-49-0]. N-(4-Ethoxyphenyl)-1,4-benzenediamine. 4-Amino-4'-ethoxydiphenylamine
 $C_{14}H_{16}N_2O$ M 228.293
 Needles (ligroin). Mp 98-99°.
 Jacobson, P. *et al*, *Ber.*, 1893, **26**, 693.
 Ullmann, F. *et al*, *Ber.*, 1909, **42**, 1080.
 Willstätter, R. *et al*, *Ber.*, 1909, **42**, 4139.
 Erdey, L. *et al*, *Fresenius' Z. Anal. Chem.*, 1953, **137**, 140 (*use*)
 Flaschka, H., *Mikrochim. Acta*, 1954, 361 (*detn, Fe*)
 Wehber, P., *Mikrochim. Acta*, 1955, 927 (*detn, Cu*)
 Erdey, L. *et al*, *Anal. Chim. Acta*, 1957, **17**, 458 (*detn, Cd, Pb, Zn*)
 Jach, Z. *et al*, *Fresenius' Z. Anal. Chem.*, 1957, **154**, 185 (*use*)
 Nakasaka, N. *et al*, *Anal. Chim. Acta*, 1966, **36**, 422 (*detn, Fe*)
 Tanaka, M. *et al*, *Anal. Chim. Acta*, 1966, **36**, 515 (*detn, V*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

4-Amino-5-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI**A-00186**

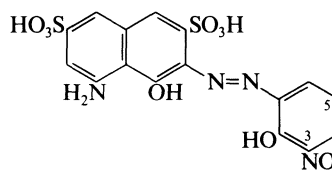
$C_{16}H_{11}N_5O_{12}S_2$ M 529.421
Di-Na salt: [35794-22-0].
 Used as a 0.1% aq. soln. to give colour reactions with Ga, In, La, Sc, Th. Cryst.
 Korenman, I.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 36 (*detn, Ga, In, Sc, Th*)
 Chernova, R.K. *et al*, *CA*, 1972, **76**, 132129c (*detn, La*)

5-Amino-4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid**A-00187**

Dark green S. Picraminazo H acid. C.I. Mordant green 6. C.I. 17235. Pentachrome green G
 $C_{16}H_{11}N_5O_{12}S_2$ M 529.421
 Strictly, the trade names apply to the disodium salt.
Di-Na salt: [3769-61-7].
 Used as a 0.015M aq. soln. for photometric detn. of Ga (λ_{max} 620 nm, ϵ 15000), V(IV) (λ_{max} 630 nm, ϵ 12400); used as a 1mM aq. soln. as metallochromic indicator for titrimetric detn. of Bi. Dark green cryst. powder. Sol. H_2O , EtOH; insol. C_6H_6 , $CHCl_3$, CCl_4 , Et_2O , Me_2CO .
 pK_{a1} 2.5; pK_{a2} 13.4 ($\mu = 0.1$, 20°).
 Korenman, I.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 36 (*use*)
 Gusev, S.I., *Zh. Anal. Khim.*, 1966, **21**, 568 (*use*)
 Devyatova, T.M. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 1468 (*detn, Ga*)
 Zadumina, E. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1969, **12**, 1483 (*detn, V*)
Colour Index, 3rd Edn., 1971, **4**, 4106 (*synth*)

4-Amino-5-hydroxy-6-[(8-hydroxy-3,6-disulfo-1-naphthalenyl)azo]-2,7-naphthalene-2,7-disulfonic acid**A-00188**

$C_{20}H_{15}N_3O_{14}S_4$ M 649.614
 Used as 0.05-0.1% aq. soln. for photometric detn. of Be; gives colour reactions with Be, Co. Cryst.
 Kuznetsov, V.I., *Zh. Anal. Khim.*, 1955, **10**, 276 (*use*)

5-Amino-4-hydroxy-3-[(2-hydroxy-3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI**A-00189**

$C_{16}H_{12}N_4O_{10}S_2$ M 484.424
Di-Na salt: Used as a 0.1% aq. soln. to give colour reactions with Al, Ga, In, Sc, Th, Zn. Cryst.
 Korenman, I.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 36 (*use*)

5-Amino-4-hydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI**A-00190**

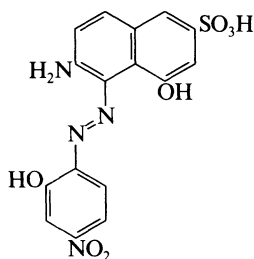
Palatine chrome green. Acid chrome dark green G. Chrome fast green G. Eriochrome green H. Omega chrome green F. Hydron II. C.I. 17223
 [13301-33-2]
 $C_{16}H_{12}N_4O_{10}S_2$ M 484.424
 Strictly, the trivial names given apply to the disodium salt.
 pK_{a2} 5.0; pK_{a4} 12.5.
Di-Na salt: [3564-28-1].

Used as a 1.4mM aq. soln. for photometric detn. of Ga (λ_{\max} 600 nm, ϵ 10200); colorimetric detn. of Al, In, Th, Zn and as an indicator in titrimetric detn. of Ca, Ga. Orange-red cryst. Sol. H₂O.

Mustafin, I.S. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 20 (*detn*, Ca)
Korenmen, I.M., *Zh. Anal. Khim.*, 1960, **15**, 36 (*use*)
Kruchkova, E.S. *et al*, *Zavod. Lab.*, 1961, **27**, 668 (*detn*, Ca)
Meites, L., *Handbook of Analytical Chemistry*, McGraw-Hill, N.Y., 1963 (*detn*, Ca, Ga)
Dev'atova, T.M., *Zh. Anal. Khim.*, 1968, **23**, 1468.

6-Amino-4-hydroxy-5-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenesulfonic acid, 9CI

Gammaazonitrophenol
[120889-37-4]

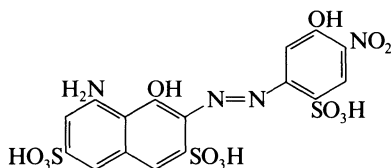


C₁₆H₁₂N₄O₇S M 404.359

Used as 0.1% alkaline aq. soln. for photometric detn. of Co (ϵ 37000). Dark brown cryst. powder. Sol. alkalis.

Dedkova, V.P. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 1246, 2012 (*synth*, *detn*, Co)

5-Amino-4-hydroxy-3-[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid

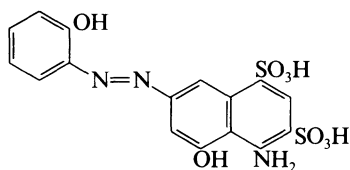


C₁₆H₁₂N₄O₁₃S₃ M 564.488

Metalochromic indicator used as 0.1% aq. soln. for titrimetric detn. of Ga. Dark red cryst. powder. Sol. H₂O, EtOH.

Korenman, I.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 36 (*detn*, Ga)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*detn*, Ga)

4-Amino-5-hydroxy-7-[(2-hydroxyphenyl)azo]-1,3-naphthalenedisulfonic acid



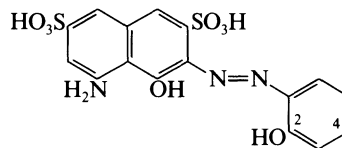
C₁₆H₁₃N₃O₈S₂ M 439.426

Used for titrimetric detn. of Ca, Mg. Blue-black amorphous powder. Sol. EtOH, H₂O. pK_{a1} 7.4; pK_{a2} 11.6 (μ = 0.1).

Diehl, H. *et al*, *Anal. Chem.*, 1960, **32**, 1120 (*synth*, *detn*, Co, Mg)

5-Amino-4-hydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI

[56973-25-2]



C₁₆H₁₃N₃O₈S₂ M 439.426

Used for titrimetric detn. of Ca, Mg. Blue-black amorph. powder. Sol. EtOH, H₂O. pK_{a1} 8.4; pK_{a2} 11.9 (μ = 0.1).

Diehl, H. *et al*, *Anal. Chem.*, 1960, **32**, 1120 (*synth*, *detn*, Ca, Mg)

5-Amino-4-hydroxy-3-[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI

[84077-78-1]

C₁₆H₁₃N₃O₈S₂ M 439.426

Used as 0.35mM aq. soln. for catalytic photometric detn. of Co (λ_{\max} 548 nm, pH 12.5). Cryst. Sol. H₂O, EtOH.

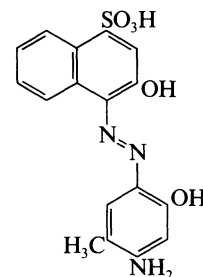
4'-Me ether: [129738-72-3]. *5-Amino-4-hydroxy-3-[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI*

C₁₇H₁₅N₃O₈S₂ M 453.453

Used as 0.35mM aq. soln. for catalytic photometric detn. of Co (λ_{\max} 547 nm, pH 9). Cryst. Sol. H₂O, EtOH.

Watanabe, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1990, **39**, 375 (*synth*, *detn*, Co)

4-(4-Amino-2-hydroxy-5-methylphenylazo)-3-hydroxy-1-naphthalenesulfonic acid



C₁₇H₁₅N₃O₅S M 373.389

N-Et: [23204-20-8]. *4-[[4-(Ethylamino)-6-hydroxy-m-tolyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, 8CI*.

Ethylsulfonaphtholazoaminocresol

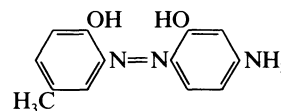
C₁₉H₁₉N₃O₅S M 401.442

Used as a 0.1% soln. in NH₃ buffer for photometric detn. of Ga (λ_{\max} 580 nm, ϵ 55000); metalochromic indicator for titrimetric detn. of water hardness. Red-brown cryst. Mod. sol. EtOH, DMF, Me₂CO; sol. alkalis. Mp 234°. pK_{a1} 1.4; pK_{a2} 8.0; pK_{a3} 12.2 (μ = 0.5, 20°).

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 585, 1506 (*synth*, *use*)

5-Amino-2-(2-hydroxy-5-methylphenylazo)phenol

4-Amino-2,2'-dihydroxy-5'-methylazobenzene



C₁₃H₁₃N₃O₂ M 243.265

N,N-Di-Me: [50783-85-2]. 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-methylphenol, 9CI

C₁₈H₁₇N₃O₂ M 271.318Used as a 1mM soln. in EtOH or H₂O for extraction-photometric detn. of Al, Cd, Co, Cu, Fe(III), La, Mg, Mn, Ni, Zn. Orange-red needles (EtOH aq.). Sol. C₆H₆, CHCl₃, EtOH, Me₂CO; spar. sol. H₂O. Subl. 190°.Shibata, S. *et al*, *Anal. Chim. Acta*, 1973, **66**, 397 (*synth, use*)**2-Amino-2-hydroxymethyl-1,3-propanediol, 9CI**

A-00198

Trimethylolaminomethane. Tris(hydroxymethyl)aminomethane. Aminotris(hydroxymethyl)methane.

Tromethamine, USAN. Trometamol, BAN, INN, JAN.

Trisamine. Tris buffer. Talatrol. THAM. NSC 6365.

Other proprietary names

[77-86-1]

C₄H₁₁NO₃ M 121.136Used in the synth. of surfactants, vulcanisation accelerators and pharmaceuticals. Also a titrimetric standard, emulsifying agent and absorbent for acidic gases. Alkalizer and osmotic diuretic. Buffer component, acidimetric standard. Cryst. mass. Sol. H₂O, EtOH, insol. Et₂O. Mp 171-172°. Bp₁₀ 219-220°. pK_a 8.08 (25°).

▷ Irritant. TY2900000.

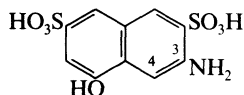
Johnson, K. *et al*, *J. Org. Chem.*, 1943, **8**, 7 (*synth*)
 Fossum, J.H. *et al*, *Anal. Chem.*, 1951, **23**, 491 (*purifn, use*)
 Whitehead, T.H., *J. Chem. Educ.*, 1959, **36**, 297 (*use*)
 Nahas, G.C., *Pharmacol. Rev.*, 1962, **14**, 447 (*rev*)
 v. Artsdalen, E.R. *et al*, *J. Phys. Chem.*, 1971, **75**, 1338 (*pmr*)
Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **1**, 961 (*manuf, use rev*)
Eur. Pat., 3 460, (1979); *CA*, **92**, 6045q (*synth*)
 Kendi, E., *Z. Kristallogr.*, 1982, **160**, 139 (*cryst struct*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 260.
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 245 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TEM500.

3-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, 9CI

A-00199

2-Amino-8-naphthol-3,6-disulfonic acid. 2R-Acid

[90-40-4]

C₁₀H₉NO₇S₂ M 319.316Used as aq. soln. for photometric detn. of Fe, Os, V. Cryst. powder. Sol. H₂O; insol. EtOH, C₆H₆, CCl₄.Seth, R.L. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **194**, 271 (*detn, V*)Agarwala, B.V. *et al*, *Mikrochim. Acta*, 1968, 442 (*detn, Fe*)
 Agarwala, B.V. *et al*, *Talanta*, 1973, **20**, 129 (*detn, Os*)**4-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, 8CI, 9CI**

A-00200

8-Amino-1-naphthol-3,6-disulfonic acid. H acid

[90-20-0]

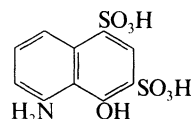
C₁₀H₉NO₇S₂ M 319.316

Used in azo dye manuf., in photography and also in corrosion prevention. Used for photometric detn. of aromatic amines by diazotization and coupling.

▷ QJ6180000.

U.S. Pat., 2 875 243, (1959); *CA*, **53**, 16094i (*synth*)
Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **13**, 725 (*rev*)Yoshie, T., *Bull. Chem. Soc. Jpn.*, 1965, **38**, 1419 (*uv*)Cee, A. *et al*, *Mikrochim. Acta*, 1966, **1**, 295 (*use*)Norwitz, G. *et al*, *Anal. Chem.*, 1981, **53**, 56; 1982, **54**, 807 (*use*)Norwitz, G. *et al*, *Talanta*, 1984, **31**, 295; 1986, **33**, 311 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AKH000.**5-Amino-4-hydroxy-1,3-naphthalenedisulfonic acid**

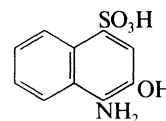
A-00201

C₁₀H₉NO₅S₂ M 319.316Fluorescent acid-base indicator. Used as an aq. soln. of Na salt (pH range: 10-12; colour change: violet → yellow-green). Cryst. Sol. H₂O, alkalis; insol. C₆H₆.Deribéré, M. *et al*, *Anal. Chim. Acta*, 1936, **18**, 37, 120, 173, 289.Deribéré, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1939, **116**, 341.**4-Amino-3-hydroxy-1-naphthalenesulfonic acid, 9CI**

A-00202

1-Amino-2-naphthol-4-sulfonic acid

[116-63-2]

C₁₀H₉NO₄S M 239.251Intermediate for azo-dyestuff manuf. Used for photometric detn. of Si. Grey needles which turn red in exp. to light. Insol. cold EtOH, Et₂O, C₆H₆; spar. sol. H₂O.

O,N-Di-Ac:

C₁₄H₁₃NO₆S M 323.326

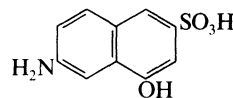
Mp 194-195° (as Py salt).

Fieser, L.F., *J. Am. Chem. Soc.*, 1935, **57**, 494 (*synth*)Zaloudek, J. *et al*, *CA*, 1966, **64**, 15813h (*synth*)Sorrentino, F.A. *et al*, *Microchem. J.*, 1970, **15**, 441 (*detn, Si*)**6-Amino-4-hydroxy-2-naphthalenesulfonic acid, 9CI**

A-00203

2-Amino-8-naphthol-6-sulfonic acid

[90-51-7]

C₁₀H₉NO₄S M 239.251Used as a 0.1% soln. in aq. NaOH for photometric detn. of Ru. Cryst. Sol. EtOH, alkalis; spar. sol. H₂O; insol. C₆H₆.Popa, G. *et al*, *Anal. Chim. Acta*, 1965, **33**, 676 (*detn, Ru*)

7-Amino-4-hydroxy-2-naphthalenesulfonic acid, 9CI **A-00204**

6-Amino-1-naphthol-3-sulfonic acid. *J acid*
[87-02-5]

$C_{10}H_9NO_4S$ M 239.251

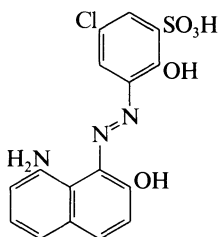
Dyestuff intermediate. Reagent for photometric detn. of formaldehyde. Mp > 300°.

▷ QK1295500.

Sawicki, E. *et al*, *Anal. Chim. Acta*, 1963, **28**, 156 (*use*)

Czech, F.P., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1489 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AKI000.

3-[(8-Amino-2-hydroxy-1-naphthalenyl)azo]-5-chloro-2-hydroxybenzenesulfonic acid, 9CI **A-00205**

$C_{16}H_{12}ClN_3O_5S$ M 393.807

N-Ac: C.I. Mordant black 38. 5-Chloro-3-(8-acetamido-2-hydroxy-1-naphthalenylazo)-2-hydroxybenzenesulfonic acid. 3-[[8-(Acetylamino)-2-hydroxy-1-naphthalenyl]azo]-5-chloro-2-hydroxybenzenesulfonic acid, 9CI. Omega chrome black blue G. Eriochrome grey SGL. Chrome fast grey GL. C.I. 18160

$C_{18}H_{14}ClN_3O_6S$ M 435.844

Used as a 0.1% aq. soln. of sodium salt as metallochromic indicator in titrimetric detn. of Ca, Cd, Mg, Mn, Ni, Pb, Sr, Zn. Orange-red cryst. (Na salt). Sol. H_2O ; sl. sol. EtOH; insol. Me_2CO (Na salt). Strictly, the name Mordant black 38 applies to the sodium salt.

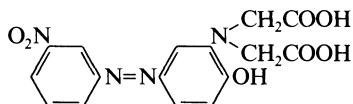
[6441-96-9]

Belcher, R. *et al*, *Chemist-Analyst*, 1958, **47**, 2 (*detn. Ca, Mg, Ni, Sr*)

Abd El Reheem, A.A. *et al*, *Fresenius' Z. Anal. Chem.*, 1959, **169**, 328; 1971, **256**, 356 (*detn. Ca, Cd, Mg, Mn, Pb, Zn*)

3-Amino-4-hydroxy-3'-nitroazobenzene-*N,N*-diacetic acid **A-00206**

N-[2-Hydroxy-5-(3-nitrophenylazo)phenyl]iminodiacetic acid. *HNPIDA*



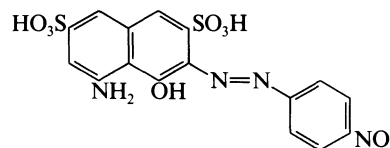
$C_{16}H_{14}N_4O_7$ M 374.309

Metallochromic indicator used as 0.1% aq. soln. in titrimetric detn. of Ca. Brown cryst. Sol. H_2O .

Chraszczewski, J. *et al*, *CA*, 1961, **55**, 4395g (*synth, detn. Ca*)

5-Amino-4-hydroxy-3-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **A-00207**

[53524-14-4]



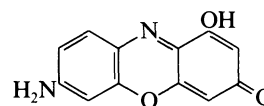
$C_{16}H_{12}N_4O_9S_2$ M 468.424

Used as 0.35mM aq. soln. for catalytic photometric detn. of Co (λ_{max} 542 nm). Cryst. Sol. H_2O , EtOH.

Watanabe, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1990, **39**, 375 (*synth, detn. Co*)

7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, 8CI **A-00208**

[14331-04-5]



$C_{12}H_8N_2O_3$ M 228.207

Used as a 1mM soln. in EtOH as a redox indicator for titanometric detn. of Fe(III), Au(III), Ce(IV), $Cr_2O_7^{2-}$, VO_4^{3-} and some organic compounds; redox indicator for stannometry; acid-base indicator. Orange cryst. (by subl.). Sol. Et_2O , EtOH. pK_{a1} 6.06 (30% EtOH, $\mu = 0.07$). $E^\circ + 0.337$ V (pH 1.18).

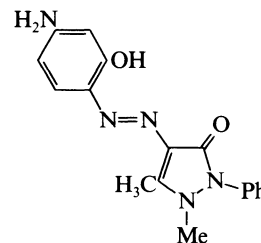
Stuzka, V. *et al*, *Monatsh. Chem.*, 1967, **98**, 1754 (*use, acid-base ind*)

Ruzicka, E. *et al*, *CA*, 1968, **69**, 40930j (*use, stannometry*)

Stuzka, V. *et al*, *CA*, 1969, **71**, 108668d (*use, titanometry*)

4-[(4-Amino-2-hydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, 9CI **A-00209**

[50886-45-8]



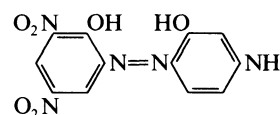
$C_{17}H_{17}N_5O_2$ M 323.354

Used for photometric detn. of Bi (λ_{max} 510 nm, ϵ 72200), Ga (λ_{max} 505 nm, ϵ 66000), In (λ_{max} 505 nm, ϵ 36700). Orange-red cryst. Mp 135° dec. pK_{a1} 10.46; pK_{a2} 10.41.

Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn. Bi, Ga, Zn*)

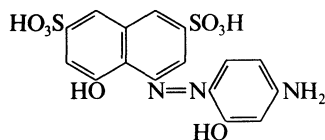
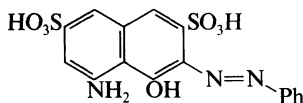
2-(4-Amino-2-hydroxyphenylazo)-4,6-dinitrophenol **A-00210**

4'-Amino-2,2'-dihydroxy-3,5-dinitroazobenzene



C₁₂H₉N₅O₆ M 319.233

N,N-Di-Me: [50783-87-4]. 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4,6-dinitrophenol, 9CI

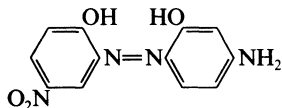
C₁₄H₁₃N₅O₆ M 347.287Used as a 1mM soln. in EtOH or H₂O for extraction-photometric detn. of Al, Cd, Co, Cu, Fe(III), La, Mg, Mn, Ni, Zn. Dark brown amorphous powder. Sol. C₆H₆, CHCl₃, EtOH, Me₂CO; spar. sol. H₂O.Shibata, S. *et al*, *Anal. Chim. Acta*, 1973, **66**, 397 (*synth, use*)**4-(4-Amino-2-hydroxyphenylazo)-5-hydroxy-2,7-naphthalenedisulfonic acid** A-00211C₁₆H₁₃N₃O₈S₂ M 439.426N-Di-Et: [3627-04-1]. *Beryllon III*. 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-5-hydroxy-2,7-naphthalenedisulfonic acid, 9CIC₂₀H₂₁N₃O₈S₂ M 495.533Used as 0.02% in aq. soln. of NaOH in photometric detn. of Be (λ_{\max} 526 nm, ϵ 19000). Black cryst. Sol. H₂O.Kuznetsov, V.I. *et al*, *Zh. Anal. Khim.*, 1955, **10**, 276; 1963, **18**, 160 (*synth, detn, Be*)Pakalns, P. *et al*, *Analyst (London)*, 1965, **90**, 300 (*detn, Be*)**4-Amino-5-hydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid, 9CI** A-00212
[38304-37-9]C₁₆H₁₃N₃O₇S₂ M 423.427

Di-Na salt: [56444-96-3].

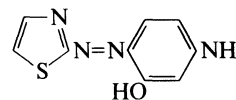
Used as a 0.01% soln. in EtOH to give colour reaction with Pd. Cryst.

Popa, G. *et al*, *Zh. Anal. Khim.*, 1959, **14**, 322 (*detn, Pd*)**2-(4-Amino-2-hydroxyphenylazo)-4-nitrophenol** A-00213

4-Amino-2,2'-dihydroxy-5'-nitroazobenzene [50783-86-3]

C₁₂H₁₀N₄O₄ M 274.235

N,N-Di-Me: 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-nitrophenol, 9CI. 2-[1-(2-Hydroxy-5-nitrophenyl)azo]-5-dimethylaminophenol

C₁₄H₁₄N₄O₄ M 302.289Used as a 0.1% soln. in EtOH or H₂O for extraction-photometric detn. of Al, Cd, Co, Cu, Fe(III), La, Mg, Mn, Ni, Zn. Dark yellow-brown needles (EtOH aq.). Sol. C₆H₆, CHCl₃, EtOH, Me₂CO; spar. sol. H₂O.Shibata, S. *et al*, *Anal. Chim. Acta*, 1973, **66**, 397 (*synth, use*)**2-(4-Amino-2-hydroxyphenylazo)thiazole** A-00214
[13999-00-3]C₉H₈N₄OS M 220.254

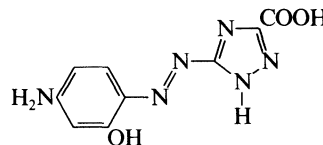
N,N-Di-Me: [3695-43-0]. 5-(Dimethylamino)-2-(2-thiazolylazo)phenol, 9CI. TAM

C₁₁H₁₂N₄OS M 248.308Used as 1mM soln. in EtOH or 0.02% in aq. Py for photometric detn. of U(VI) (λ_{\max} 570 nm, ϵ 40000), Cu, Fe, Ni, Ta, Th; indicator in EDTA titrations; used as a 0.1% soln. in MeOH as metallochromic indicator in titrimetric detn. of Co, Cu, Ni, Pb, Zn; photometric detn. of Bi (λ_{\max} 585 nm, ϵ 46000), Nb (λ_{\max} 603 nm, ϵ 48000), Y (λ_{\max} 575 nm, ϵ 72000). Red needles (EtOH aq.). Sol. EtOH, Me₂CO, CHCl₃; spar. sol. H₂O. Mp 216°. pK_{a2} 2.8; pK_{a3} 9.9.

N,N-Di-Et: [10558-42-6]. 2-(4-Diethylamino-2-hydroxyphenylazo)thiazole. 5-(Diethylamino)-2-(2-thiazolylazo)phenol, 9CI. 2-(2-Thiazolylazo)-5-diethylaminophenol

C₁₃H₁₆N₄OS M 276.362Used as a 0.4-4mM soln. in propanol for photometric detn. of Co (λ_{\max} 580 nm, ϵ 64000), Ir (λ_{\max} 570 nm, ϵ 48000), Rh (λ_{\max} 590 nm, ϵ 58000), U (λ_{\max} 580 nm, ϵ 46000); extraction-photometric detn. of Hg (CHCl₃, λ_{\max} 580 nm). Orange red cryst. Mod. sol. alkalis, EtOH, Me₂CO; sl. sol. H₂O. Mp 146-147°. pK_{a1} 3.20 (5.0); pK_{a2} 9.40 (11.20) ($\mu = 0.1$).

[101412-82-2]

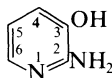
Skytte Jensen, B., *Acta Chem. Scand.*, 1960, **14**, 927, 965 (*use*)
Kasura, K. *et al*, *Chem. Anal. (Warsaw)*, 1968, **13**, 177 (*detn, Ni*)
Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 210; 1975, **30**, 540 (*detn, U*)Kolossova, I.V., *CA*, 1973, **78**, 37630s (*detn, Hg*)Kiryukhina, N.N., *CA*, 1973, **79**, 73213n (*detn, Co*)Tsurumi, C. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1974, **23**, 143;1975, **24**, 566; 1979, **28**, 754 (*detn, Nb, Bi, Th*)Tsurumi, C. *et al*, *CA*, 1976, **84**, 25490g (*detn, Y*)Shurupova, T.I. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 2162; 1981, **36**, 926 (*detn, Ir*)Goroshko, G.G. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1114 (*pKa, detn, Ir, Rh*)Tsurumi, C. *et al*, *Analyst (London)*, 1981, **106**, 944 (*detn, Ta*)Ueda, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1981, **54**, 3763 (*detn, Fe*)Goroshko, G.G. *et al*, *Zavod. Lab.*, 1984, **50**, 11 (*detn, Ir, Rh*)**5-(4-Amino-2-hydroxyphenylazo)-1H-1,2,4-triazole-3-carboxylic acid** A-00215C₉H₈N₆O₃ M 248.201

N-Di-Et: [74813-85-7]. 5-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-1H-1,2,4-triazole-3-carboxylic acid, 9CI

C₁₃H₁₆N₆O₃ M 304.308Used as 0.2% aq. soln. in photometric detn. of Co (λ_{\max} 535 nm, ϵ 70000). Brown cryst. Sl. sol. H₂O.Yusupov, M.Yu. *et al*, *Zavod. Lab.*, 1980, **46**, 390 (*detn, Co*)

2-Amino-3-hydroxypyridine

A-00216

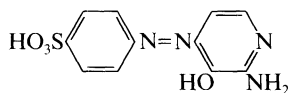
2-Amino-3-pyridinol, 9CI, 8CI. 3-Hydroxy-2-pyridinamine
[16867-03-1]C₅H₆N₂O M 110.115

Used as a soln. in 95% EtOH or 10% AcOH for photometric detn. of Fe(III), Os (λ_{\max} 600 nm, ϵ 9000), Ru(III) (λ_{\max} 510-525 nm, ϵ 4460). Cryst. (MeOH). Sol. EtOH, MeOH, acids, alkalis; spar. sol. H₂O. Mp 172°.

Picrate: Cryst. (EtOH aq.). Mp 256° dec.

Frazer, J. *et al*, *J. Chem. Soc.*, 1957, 4625 (*synth*)Boyland, E. *et al*, *J. Chem. Soc.*, 1958, 4198 (*synth*)Lewicka, K. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1959, **78**, 644 (*synth*)Mehta, Y.L. *et al*, *J. Chin. Chem. Soc. (Peking)*, 1974, **21**, 127 (*detn, Ru*)Kushwaha, V. *et al*, *Talanta*, 1974, **21**, 763 (*detn, Ru, Fe*)Mehta, Y.L. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 402 (*detn, Os*)Mehta, Y.L. *et al*, *Talanta*, 1976, **23**, 53 (*detn, Os*)Greuter, H. *et al*, *J. Heterocycl. Chem.*, 1977, **14**, 203 (*synth*)**4-[(2-Amino-3-hydroxy-4-pyridinyl)azo] benzenesulfonic acid, 9CI**

A-00217

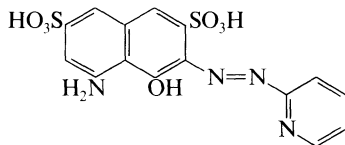
2-Amino-3-hydroxy-4-(4-sulfophenylazo)pyridine
[65837-77-6]C₁₁H₁₀N₄O₄S M 294.290

Used as 0.25% aq. soln. for photometric detn. of V(V) (λ_{\max} 530 nm, ϵ 5450, pH 5-6). Cryst. Sol. H₂O.

Sharma, Y., *Mikrochim. Acta*, 1982, **2**, 305 (*synth, detn, V*)**5-Amino-4-hydroxy-3-(2-pyridinylazo)-2,7-naphthalenedisulfonic acid**

A-00218

Pyridylazo-H-acid

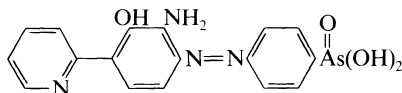
C₁₅H₁₂N₄O₇S₂ M 424.414

Used as a 0.1% aq. soln. as indicator for titrimetric detn. of Cu. Orange-red cryst. Mod. sol. H₂O.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*detn, Cu*)**[4-[1-[2-Amino-3-hydroxy-4-(2-pyridinyl)phenyl]azo]phenyl]arsonic acid, 9CI**

A-00219

[71316-35-3]

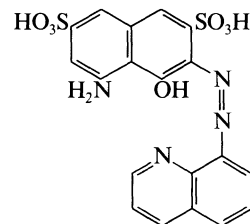
C₁₇H₁₅AsN₄O₄ M 414.251

Used as 1mM aq. soln. in for indirect photometric detn. of CN[⊖]. Orange cryst. Sol. H₂O.

Verma, Y.S. *et al*, *Mikrochim. Acta*, 1979, **1**, 445.**5-Amino-4-hydroxy-3-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, 9CI**

A-00220

[93201-59-3]

C₁₉H₁₄N₄O₇S₂ M 474.474

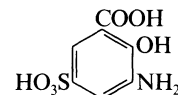
Used for photometric detn. of Co. Dark red cryst. powder. Spar. sol. H₂O, EtOH; sol. alkalis.

Li, Y. *et al*, *CA*, 1984, **101**, 221499a (*detn, Co*)**3-Amino-2-hydroxy-5-sulfobenzoic acid, 9CI**

A-00221

3-Aminosulfosalicylic acid

[6201-86-1]

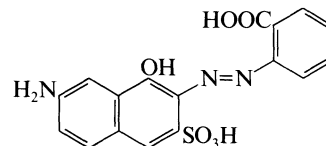
C₇H₇NO₆S M 233.201

Used as a 1mM aq. soln. for fluorimetric detn. of Al (λ_{\max} 460 nm). Cryst. (EtOH).

Alykov, N.M. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1974, **17**, 1254 (*use*)**2-[[7-Amino-1-hydroxy-3-sulfo-2-naphthalenyl]azo]benzoic acid, 9CI**

A-00222

7-Amino-3-(2-carboxyphenylazo)-4-hydroxy-2-naphthalenesulfonic acid

C₁₇H₁₃N₃O₆S M 387.372

7-N-Ph: [6369-32-0]. 2-[[1-Hydroxy-7-(phenylamino)-3-sulfo-2-naphthalenyl]azo]benzoic acid, 9CI

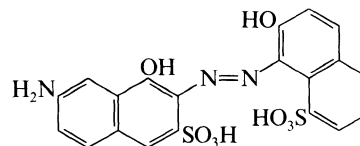
C₂₃H₁₇N₃O₆S M 463.470

Used as a 0.05-0.1% aq. soln. to give colour reactions with Be, Co, Ni, Zn. Cryst. (as di-Na salt). Mod. sol. H₂O (di-Na salt).

Kuznetsov, V.I., *Zh. Anal. Khim.*, 1955, **10**, 276 (*use*)**8-(7-Amino-1-hydroxy-3-sulfophenylazo)-7-hydroxy-1-naphthalenesulfonic acid**

A-00223

Ponceau 3R. C.I. 17110 Acid dye

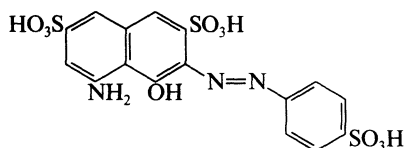
C₂₀H₁₅N₃O₈S₂ M 489.486

Strictly, the name Ponceau 3R applies to the disodium salt. This compound is sometimes confused with C.I. 16155 Food Red 6 having the same trade name.

Di-Na salt: Used as a 0.1-0.25% aq. soln. as metallochromic indicator in titrimetric detn. of Cu, Ni. Cryst. Sol. H₂O, EtOH.

Belcher, R. *et al*, *Chemist-Analyst*, 1957, **46**, 86 (*detn. Cu*)
Sanderson, I.P. *et al*, *Talanta*, 1962, **9**, 71; **10**, 247 (*detn. Cu*)
Meites, L., *Handbook of Analytical Chemistry*, McGraw-Hill, N.Y., 1963 (*use*)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

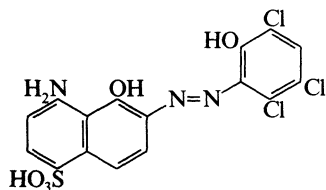
5-Amino-4-hydroxy-3-[(4-sulphophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI A-00224
[52172-47-1]



C₁₆H₁₃N₃O₁₀S₃ M 503.491
Used as 0.35*M* aq. soln. for catalytic photometric detn. of Co (λ_{max} 528 nm, pH 11.4). Orange-red cryst. Sol. H₂O, EtOH.

Watanabe, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1990, **39**, 375 (*synth, detn. Co*)

8-Amino-2-(2-hydroxy-3,5,6-trichlorophenylazo)-1-naphthol-5-sulfonic acid A-00225

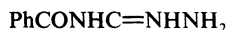


C₁₆H₁₀Cl₃N₃O₅S M 462.696
N-Ac: [3819-12-3]. *Solochrome fast blue B*. 8-Acetamido-2-(2-hydroxy-3,5,6-trichlorophenylazo)-1-naphthol-5-sulfonic acid. *Eriochrome navy blue BRL*. *Metachrome brilliant blue BL*. *Metomega chrome cyanine BLL*. C.I. 17940. C.I. Mordant blue 7

C₁₈H₁₂Cl₃N₃O₆S M 504.733
Used as a 1:100 mixture with NaCl for titrimetric detn. of Cd, Mg, Mn(II), Pb, Zn. Blue-black cryst. with faint metallic lustre. Sol. H₂O, EtOH.

Mustafin, I.S. *et al*, *Zavod. Lab.*, 1958, **24**, 1060 (*detn. Cu, Mg, Zn*)
Abd El Raheem, A.A. *et al*, *Anal. Chim. Acta*, 1959, **20**, 133 (*detn. Cd, Mn, Pb, Zn*)
U.S. Pat., 2 933 490, (1960); *CA*, **54**, 20220h (*synth*)

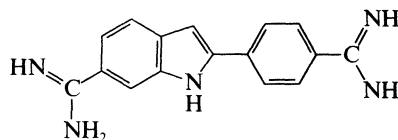
***N*-(Aminoiminomethyl)benzamide, 9CI** A-00226
[3166-00-5]



C₈H₉N₃O M 163.179
Used as 0.1 *M* aq. soln. for flotation-photometric detn. of In. Cryst. (H₂O). Sol. H₂O; spar. sol. EtOH; insol. CHCl₃, C₆H₆. Mp 110°.

Piwowska, B. *et al*, *Chem. Anal. (Warsaw)*, 1986, **31**, 495 (*detn. In*)

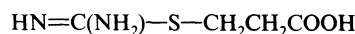
2-[4-(Aminoiminomethyl)phenyl]-1*H*-indole-6-carboximidamide, 9CI A-00227
2-(*p*-Amidinophenyl)-indole 5-carboximidine, 8CI. 5-Amidino-2-(4-amidinophenyl)-1*H*-indole. *DAPI*
[47165-04-8]



C₁₆H₁₅N₅ M 277.328
Fluorescent labelling reagent; reagent for fluorimetric microassay of DNA.

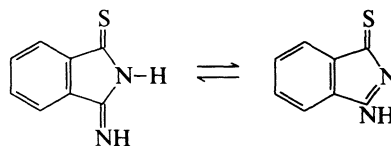
▷ NL5995050.
[28718-90-3]
Dann, O. *et al*, *Justus Liebigs Ann. Chem.*, 1971, **749**, 68 (*synth*)
Kapuscinski, J. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1977, **83**, 252 (*use*)
van der Kooy, D. *et al*, *Science (Washington, D.C.)*, 1979, **204**, 873 (*use*)
Schnedl, W. *et al*, *Eur. J. Cell Biol.*, 1980, **20**, 290 (*use*)
Matsumoto, S. *et al*, *J. Mol. Biol.*, 1981, **152**, 501 (*use*)
Manzini, G. *et al*, *Nucleic Acids Res.*, 1983, **11**, 8861; 1985, **13**, 8955 (*use*)
Katouzian-Safadi, M. *et al*, *Anal. Chim. Acta*, 1989, **176**, 416 (*use*)
Kubista, M. *et al*, *J. Am. Chem. Soc.*, 1989, **111**, 7031.

3-[(Aminoiminomethyl)thio]propanoic acid, 9CI A-00228
β-Isothioureidopropionic acid. Isothiourea-S-propanoic acid
[5398-29-8]



C₄H₈N₂O₂S M 148.185
Used as a 2.5% soln. in aq. NH₃ to give colour reaction with Ni (λ_{max} 425 nm). Cryst. (hot H₂O). Mp 178-179°.
Gresham, T.L. *et al*, *J. Am. Chem. Soc.*, 1948, **70**, 1001 (*synth*)
Uhlig, L.J. *et al*, *Anal. Chem.*, 1951, **23**, 1014 (*detn. Ni*)
Vladimirskaya, E. *et al*, *CA*, 1973, **79**, 65755a (*synth*)

3-Amino-1*H*-isoindole-1-thione, 9CI A-00229
1-Imino-3-thioisindoline
[41848-35-5]



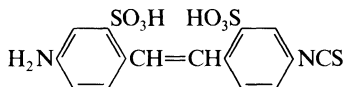
C₈H₆N₂S M 162.215
Used as a 0.1-0.5% soln. in NaOH for gravimetric detn. of Cd, Cu, Hg, Rh. Golden needles. Mp 218° dec.
Baguley, M.E. *et al*, *J. Chem. Soc.*, 1957, 709 (*synth*)
Nigam, A.K. *et al*, *Indian J. Appl. Chem.*, 1972, **35**, 150; *CA*, **81**, 114169q (*detn. Cu*)
Nigam, A.K. *et al*, *J. Indian Chem. Soc.*, 1973, **50**, 158, 227; 1974, **51**, 912 (*detn. Cd, Rh, Hg*)

5-Amino-2-[2-(4-isothiocyanato-2-sulfophenyl)ethenyl]benzenesulfonic acid, 9CI

A-00230

[58403-33-1]

4-Amino-4'-isothiocyanatostilbene-2,2'-disulfonic acid

C₁₅H₁₂N₂O₆S₃ M 412.468

N-Ac: [27816-59-7]. 4-Acetamido-4'-isothiocyanatostilbene-2,2'-disulfonic acid. SITS

C₁₇H₁₄N₂O₇S₃ M 454.505Reagent used in the fluorescent labelling of proteins, etc. *trans*-Form predominates.

N-Ac, di-Na salt: [51023-76-8].

Moisture-sensitive pale yellow cryst. (NaCl aq.).

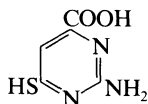
Commercially available.

[19293-45-9]

Maddy, A.H., *Biochim. Biophys. Acta*, 1964, **88**, 390 (*synth, use*)
 Marinetti, G.V. *et al*, *Biochim. Biophys. Acta*, 1967, **135**, 580 (*use*)
 Benjaminson, M.A. *et al*, *Stain Technol.*, 1970, **45**, 57 (*props*)
 Rothbarth, P.H. *et al*, *J. Immunol. Methods*, 1978, **19**, 101 (*use*)
 Stoehr, M. *et al*, *Stain Technol.*, 1978, **53**, 205 (*use*)
 Schmuied, L.C. *et al*, *Brain Res.*, 1982, **249**, 137 (*use*)
 Wessel, G.M. *et al*, *J. Histochem. Cytochem.*, 1986, **34**, 703 (*use*)
 Horobin, R.W. *et al*, *J. Microsc. (Oxford)*, 1987, **146**, 87 (*synth, ir, nmr, use*)

2-Amino-6-mercapto-4-pyrimidinecarboxylic acid

A-00231

C₅H₅N₃O₂S M 171.179Cryst. + H₂O (DMF aq.). Mp 291-293°.

S-Me: [7249-72-1]. 2-Amino-6-(methylthio)-4-pyrimidinecarboxylic acid, 8CI

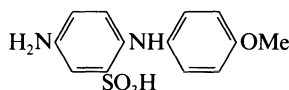
C₆H₇N₃O₂S M 185.206

Used as 0.05% soln. in aq. DMF for photometric detn. of Ag. Cryst. powder (DMF aq.). Mp 255°.

Davies, G.D. *et al*, *J. Org. Chem.*, 1961, **26**, 2755 (*synth*)Chung, O.K. *et al*, *Anal. Chem.*, 1967, **39**, 383 (*detn, Ag*)**5-Amino-2-[(4-methoxyphenyl)amino]benzenesulfonic acid, 9CI**

A-00232

Variamine blue 2-sulfonic acid

C₁₃H₁₄N₂O₄S M 294.331Used as a redox indicator. Cryst. pK_{a1} 5.0 (30°). E° +0.78 V (30°).

Me ester:

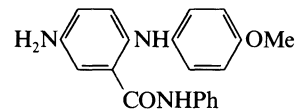
C₁₄H₁₆N₂O₄S M 308.357Used as a redox indicator. Cryst. pK_{a1} 5.1 (30°). E° +0.786 V (30°).

Anilide: N-Phenyl-2-(4-methoxyphenylamino)-5-aminobenzenesulfonamide. Variamine blue 2-sulfonic acid anilide

C₁₉H₁₉N₃O₃S M 369.443Used as a redox indicator. Cryst. pK_{a1} 4.1 (30°). E° +0.776 V (30°).**5-Amino-2-[(4-methoxyphenyl)amino]-N-phenylbenzamide**

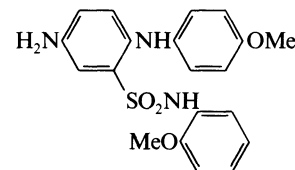
A-00233

Variamine blue 2-carbonic acid anilide

C₂₀H₁₉N₃O₂ M 333.389Used as a redox indicator. Cryst. pK_{a1} 5.5 (30°). E° +0.754 V (30°).Erdey, L. *et al*, *Talanta*, 1959, **3**, 54 (*use*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972.**5-Amino-N-(2-methoxyphenyl)-2-[(4-methoxyphenyl)amino]benzenesulfonamide**

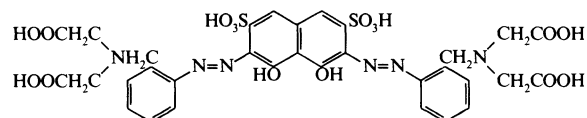
A-00234

Variamine blue 2-sulfonic acid 2-methoxyanilide

C₂₀H₂₁N₃O₄S M 399.470Used as a redox indicator. Cryst. pK_{a1} 5.1 (30°). E° +0.78 V (30°).Erdey, L. *et al*, *Talanta*, 1959, **3**, 54 (*use*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)**Aminomethylazo III**

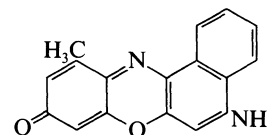
A-00235

[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthylene)bis(azo-o-phenylenemethylenetrilo)]tetraacetic acid, 8CI. 2,7-Bis[o-di(carboxymethyl)aminomethylphenylazo]chromotropic acid [1938-78-9]

C₃₂H₃₀N₆O₁₆S₂ M 818.752Used as a 0.01% aq. soln. for photometric detn. of Co, Cu, Mn, Ni, Th, U. Dark red cryst. powder. Sp. sol. H₂O; sol. alkalis. pK_{a1} 14.1; pK_{a2} 13.3; pK_{a3} 12.2.Budesinsky, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **214**, 325.**5-Amino-11-methyl-9H-benzo[a]phenoxazin-9-one, 8CI**

A-00236

[17799-99-4]

C₁₇H₁₂N₂O₂ M 276.294Used as a 0.1mM soln. in EtOH as an acid-base indicator; redox indicator for titanometric detn. of Fe(III), Au(III), Ce(IV), Cr₂O₇²⁻, VO₄³⁻ and some organic

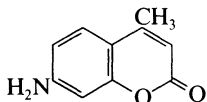
compds. Violet cryst. Sol. C₆H₆, Et₂O; sl. sol. EtOH.
Mp > 360°. pK_{a1} 5.15 (20% EtOH, μ = 0.07); pK_{a2}
12.15 (50% EtOH, μ = 0.07). E° + 0.310V (1N HCl,
50% EtOH, μ = 0.07).

Ruzicka, E. *et al*, *Mikrochim. Acta*, 1968, 1299; 1969, 698 (*use*,
acid-base ind, redox ind)

Ruzicka, E. *et al*, *Monatsh. Chem.*, 1968, **99**, 838 (*use, synth*)

7-Amino-4-methyl-2H-1-benzopyran-2-one, 9CI **A-00237**

7-Amino-4-methylcoumarin. Coumarin 120. AMC
[26093-31-2]



C₁₀H₉NO₂ M 175.187

Fluorescent labelling reagent for trace detn. of enzymes
and saccharides. Laser dye. Commercially available.
Light sensitive yellow rods (EtOH). Mp 223-226°.

Pechmann, H. *et al*, *Ber.*, 1899, **32**, 3696 (*synth*)

Cox, A.J. *et al*, *Appl. Phys. Lett.*, 1977, **31**, 389 (*use*)

Atkins, R.L. *et al*, *J. Org. Chem.*, 1978, **43**, 1975 (*synth*)

Krejcovs, J. *et al*, *Collect. Czech. Chem. Commun.*, 1979, **44**, 2211
(*ir, pmr, uv*)

Kanaoka, Y. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 1485; 1984, **32**,
3926 (*use*)

Prakash, C. *et al*, *Anal. Biochem.*, 1983, **128**, 41 (*use*)

Prasad, C.V. *et al*, *J. Liq. Chromatogr.*, 1983, **6**, 951 (*purifn, use*)

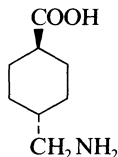
Sinha, P. *et al*, *Histochemistry*, 1984, **81**, 167 (*use*)

Pavlopoulos, T.G. *et al*, *Spectrochim. Acta, Part A*, 1986, **42**, 47
(*use*)

Sigma-Aldrich Library of Chemical Safety Data, 1988, **1**, 190D.

4-(Aminomethyl)cyclohexanecarboxylic acid, 9CI, 8CI **A-00238**

[701-54-2]



C₈H₁₅NO₂ M 157.212

cis-form [1197-17-7]

Cryst. (Me₂CO aq.). Mp 236-238° dec.

B, HCl: [3667-38-7].

Prisms (Me₂CO aq.). Mp 195-197° dec.

N-Ac: [20704-65-8].

Prisms (EtOH). Mp 189-190°.

trans-form [1197-18-8] *Tranexamic acid, BAN, USAN, INN,*
JAN. Amstat. Cyclokapron

Antiplasminic, haemostatic agent. Used as an internal
standard for glc. anal. of amino acids. Cryst.

(Me₂CO/EtOH aq.). V. spar. sol. EtOH, Et₂O. Mp 386-
392° dec.

▷ GU8400000.

B, HCl: [3667-39-8].

Needles (Me₂CO aq.). Mp 238-242° dec.

N-Ac: [20704-66-9].

Prisms (Me₂CO). Mp 154-155°.

Levine, M. *et al*, *J. Org. Chem.*, 1959, **24**, 115 (*synth*)

Naito, T. *et al*, *Chem. Pharm. Bull.*, 1968, **16**, 728 (*synth, ir*)

Kaiser, F.E. *et al*, *J. Chromatogr.*, 1974, **94**, 113 (*use*)

Isoda, S. *et al*, *Chem. Pharm. Bull.*, 1979, **27**, 2735.

Nilsson, I.M., *J. Clin. Pathol.*, 1980, **14**, 41 (*rev*)

Yamazaki, K. *et al*, *Acta Crystallogr., Sect. B*, 1981, **37**, 1447
(*cryst struct*)

Pilbrant, A. *et al*, *Eur. J. Clin. Pharmacol.*, 1981, **20**, 65
(*pharmacol*)

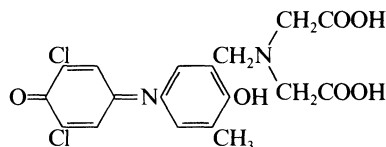
Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,
Pharmaceutical Press, London, 1982/1989, 1726.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,
Akademie-Verlag, Berlin, 1987, 1002 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, AJV500.

2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)-6-methylphenol-N,N-diacetic acid **A-00239**

N-[2-Hydroxy-3-methyl-5-[(3,5-dichloro-4-oxo-2,5-cyclohexadien-1-ylidene)iminophenyl]methyl]-N-(carboxymethyl)glycine. Dichloroindo-o-cresol complexan



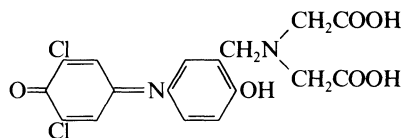
C₁₈H₁₆Cl₂N₂O₆ M 427.240

Metal indicator used as a 0.2% aq. soln. + NaCl for
titrimetric detn. of Bi, Fe(III), Sc, Th. Dark violet cryst.
powder. Sol. H₂O, alkalis; spar. sol. EtOH; insol. Et₂O,
C₆H₆. Used as a 0.2% soln. of a mixt. with NaCl (1:50)
in H₂O.

Svoboda, V. *et al*, *Collect. Czech. Chem. Commun.*, 1960, **25**, 1037.

2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)phenol-N,N-diacetic acid **A-00240**

N-[2-Hydroxy-5-[(3,5-dichloro-4-oxo-2,5-cyclohexadien-1-ylidene)iminophenyl]methyl]-N-(carboxymethyl)glycine.
Dichloroindophenol complexan



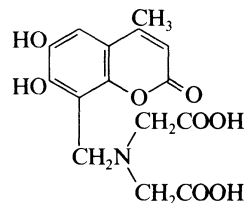
C₁₇H₁₄Cl₂N₂O₆ M 413.213

Used as metal indicator for titrimetric detn. of Bi, Fe(III),
Th. Used as a 0.2% aq. soln. + NaCl. Dark violet
cryst. powder. Sol. H₂O, alkalis; spar. sol. EtOH; insol.
Et₂O, C₆H₆.

Svoboda, V. *et al*, *Collect. Czech. Chem. Commun.*, 1960, **25**, 1037.

8-(Aminomethyl)-6,7-dihydroxy-4-methylcoumarin-N,N-diacetic acid **A-00241**

N-(Carboxymethyl)-N-[(6,7-dihydroxy-4-methyl-2-oxo)-2H-1-benzopyran-8-yl]methylglycine, 9CI. 4-Methylesculetin-8-methyleneiminodiacetic acid
[54696-36-5]

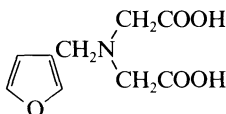


C₁₅H₁₅NO₈ M 337.285

Used as metal fluorescent indicator for detn. of Ca, Cu.
Grey cryst. Sol. alkalis; sl. sol. H₂O; insol. Me₂CO. Mp
> 300°. p*K*_{a1} 3.03; p*K*_{a2} 6.3; p*K*_{a3} 1.38 (0.1*M* KCl).
Huitnik, G.M. *et al*, *Talanta*, 1974, **21**, 1193 (*synth, nmr, detn, Cu*)

3-(Aminomethyl)furan-*N,N*-diacetic acid A-00242

N-(Carboxymethyl)-*N*-(2-furanylmethyl)glycine, 9CI.
Furfuryliminodiacetic acid
[57362-11-5]



C₉H₁₁NO₅ M 213.190

Used for photometric detn. of Cu, Zn, Ni, Co, Fe(III).

Cryst. Sol. alkalis.

[57249-46-4]

Capitan, F. *et al*, *Afinidad*, 1975, **32**, 421 (*detn, Zn*)

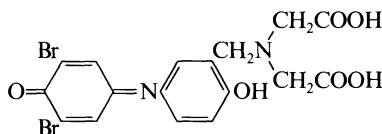
Capitan, F. *et al*, *Bol. Soc. Quim. Peru*, 1975, **41**, 31 (*detn, Ni, Co*)

Alonso, E.T. *et al*, *Quim. Anal. (Madrid)*, 1975, **29**, 292 (*detn, Fe*)

Capitan, F. *et al*, *Ars Pharm.*, 1978, **19**, 151; *CA*, **90**, 33469w
(*detn, Cu*)

4-[(3-Aminomethyl)-4-hydroxyphenyl]iminol]-2,6-dibromo-2,5-cyclohexadien-1-one-*N,N*-diacetic acid A-00243

N-[2-Hydroxy-5-[(3,5-dibromo-4-oxo-2,5-cyclohexadien-1-ylidene)iminophenyl]methyl]-*N*-(carboxymethyl)glycine. 2,6-Dibromoinodophenol complexan



C₁₇H₁₄Br₂N₂O₆ M 502.115

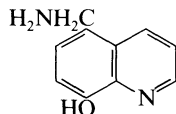
Used as metal indicator for titrimetric detn. of Bi, Fe(III),

Th. Used as a 0.2% aq. soln. + NaCl. Dark violet
cryst. powder. Sol. H₂O, alkalis; spar. sol. EtOH; insol.
Et₂O, C₆H₆.

Svoboda, V. *et al*, *Collect. Czech. Chem. Commun.*, 1960, **25**, 1037.

5-(Aminomethyl)-8-hydroxyquinoline A-00244

5-(Aminomethyl)-8-quinolinol



C₁₀H₁₀N₂O M 174.202

B,2HCl: Light yellow needles (EtOH). Mp > 360°.

*N*⁵-Dioctyl: [102269-67-0]. 5-Dioctylaminomethyl-8-quinolinol, 9CI

C₂₆H₄₂N₂O M 398.631

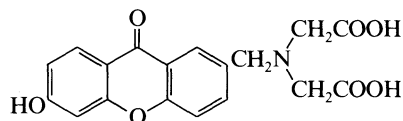
Used as 0.01*M* CHCl₃ soln. for extraction-photometric
detn. of Cu(II) (λ_{max} 410 nm). Greenish-orange oil. Sol.
CHCl₃, hexane.

Ishidate, M. *et al*, *Chem. Ber.*, 1960, **93**, 2898 (*synth*)

Ohashi, K. *et al*, *Anal. Sci.*, 1985, **1**, 467 (*synth, deriv, detn, Cu*)

2-(Aminomethyl)-6-hydroxy-9*H*-xanthen-9-one-*N,N*-diacetic acid A-00245

Xanthone complexan



C₁₈H₁₅NO₇ M 357.319

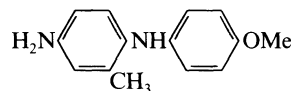
Used as metallofluorescent indicator for titrimetric detn. of
Bi, Ca, Cd, Co, Cu, Fe(III), Hg, Mg, Mn, Ni, Pb, Sr,
Zn. Cryst.

Eggers, J.H., *Talanta*, 1960, **4**, 38 (*use*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 705 (*use, ind*)

4-Amino-2-methyl-4'-methoxydiphenylamine A-00246

*N*¹-(4-Methoxyphenyl)-2-methyl-1,4-benzenediamine. 2-Methylvariamine blue



C₁₄H₁₆N₂O M 228.293

Used as a 5*mM* soln. in EtOH as redox indicator. Cryst.

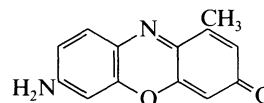
Sol. dil. acids, EtOH, C₆H₆. E° + 0.686 V (pH 0, 30°).

Erdey, L. *et al*, *Talanta*, 1959, **3**, 54 (*use, ind*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 477 (*use, ind*)

7-Amino-1-methyl-3*H*-phenoxazin-3-one, 8CI A-00247

[493-42-5]



C₁₃H₁₀N₂O₂ M 226.234

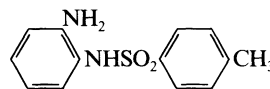
Used as a 0.5*mM* soln. in EtOH as redox indicator for
titrimetric detn. of Fe(III), Au(III), Ce(IV), Cr₂O₇²⁻,
VO₄³⁻ and some organic compounds; redox indicator
for stannometry. Orange-red cryst. (EtOH). Sol. EtOH,
Et₂O, C₆H₆. E° + 0.352 V (pH 1.43).

Ruzicka, E. *et al*, *Mikrochim. Acta*, 1967, 277 (*use, titanometry*)

Ruzicka, E. *et al*, *CA*, 1968, **69**, 40930j (*use, stannometry*)

2-Amino-*N*-(4-methylphenyl) benzenesulfonamide, 9CI A-00248

o-(*p*-Toluenesulfonamido)aniline. *T*-Sulfonamidine
[27384-96-9]



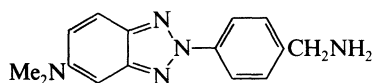
C₁₃H₁₄N₂O₂S M 262.332

Used as 0.1% soln. in EtOH for gravimetric and
photometric detn. of Cu (λ_{max} 455 nm, ε 2150). Cryst.
(EtOH aq.). Mp 135-136°.

Billman, J.H. *et al*, *Anal. Chem.*, 1960, **32**, 1342; 1964, **36**, 552
(*synth, detn, Cu*)

Bamfield, P. *et al*, *CA*, 1976, **84**, 73936d (*synth*)

2-[4-(Aminomethyl)phenyl]-N,N-dimethyl-2H-benzotriazol-5-amine, 9CI A-00249
2-[4-(Aminomethyl)phenyl]-5-(dimethylamino)-2H-benzotriazole
[122842-37-9]

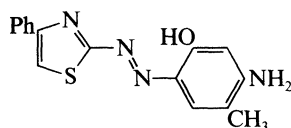


$C_{15}H_{17}N_5$ M 267.333

Fluorescent derivatisation reagent for carboxylic acids.
Yellow needles (MeOH). Mp 127-128°.

Narita, S. *et al*, *Chem. Pharm. Bull.*, 1989, **37**, 831 (*synth, use*)

5-Amino-4-methyl-2-(4-phenyl-2-thiazolylazo)phenol A-00250
2-(4-Amino-2-hydroxy-5-methylphenylazo)thiazole



$C_{16}H_{14}N_4OS$ M 310.379

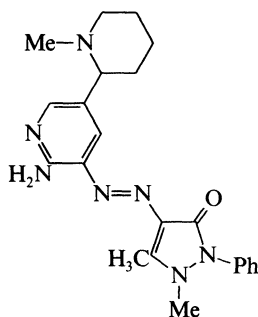
N-Et: [101373-14-2]. 5-(Ethylamino)-4-methyl-2-[(4-phenyl-2-thiazolyl)azo]phenol, 9CI

$C_{18}H_{18}N_4OS$ M 338.432

Used as 1mM EtOH soln. for extraction-photometric detn. of Cd (λ_{max} 580 nm, ϵ 55000, 0.1-4M NaOH, $CHCl_3$). Dark red cryst. (EtOH aq.). Sol. EtOH; sl. sol. H_2O . Mp 148-150°.

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1985, **40**, 2134 (*synth, detn, Cd*)

4-[[2-Amino-5-(1-methyl-2-piperidinyl)-3-pyridinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI A-00251
[59104-65-3]

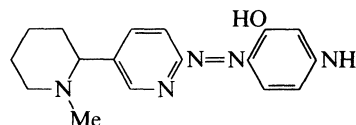


$C_{22}H_{27}N_7O$ M 405.502

Used for photometric detn. of Co (λ_{max} 650 nm, ϵ 10400), Cu (λ_{max} 630 nm, ϵ 15000), Pd (λ_{max} 550nm, ϵ 11000). Orange-red cryst. Mp 144°. pK_{a1} 1.34; pK_{a2} 5.32; pK_{a3} 8.73.

Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn, Co, Cu, Pd*)

5-Amino-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, 9CI A-00252
6'-[[4-Amino-2-hydroxyphenyl]azo]-1-methylanabasine, 8CI
[22271-58-5]



$C_{17}H_{21}N_5O$ M 311.386

Used as a 0.1% soln. in EtOH for photometric detn. of Be (λ_{max} 530 nm), Cu (λ_{max} 520 nm, ϵ 36400), Nb (λ_{max} 520 nm), UO_2^{2+} (λ_{max} 520 nm); as a metallochromic indicator in titrimetric detn. of Cu. Orange-red cryst. Sol. EtOH. λ_{max} 420 nm.

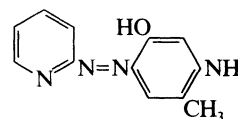
Turakhanova, S.T. *et al*, *Uzb. Khim. Zh.*, 1967, **11**, 23; 1968, **12**, 67; *CA*, 1968, **68**, 65412j; **70**, 73995h (*detn, Nb, U*)

Dzhiyanbaeva, R.K. *et al*, *CA*, 1968, **69**, 92619j (*detn, Be*)

Karamaeva, G. *et al*, *CA*, 1969, **70**, 92886q; 1972, **77**, 172203z (*detn, Cu*)

Kagramanova, N.G. *et al*, *CA*, 1969, **71**, 56314p.

5-Amino-4-methyl-2-(2-pyridinylazo)phenol A-00253
2-(4-Amino-2-hydroxy-5-methylphenylazo)pyridine



$C_{12}H_{12}N_4O$ M 228.253

N-Me: 4-Methyl-5-(methylamino)-2-(2-pyridinylazo)phenol

$C_{13}H_{14}N_4O$ M 242.280

Used as a 0.1% soln. in EtOH for titrimetric detn. of Bi, In, Zn. Red cryst. (H_2O). Sol. MeOH, EtOH, isopentanol, dioxan, $CHCl_3$; mod. sol. C_6H_6 , toluene, butanol, CCl_4 ; insol. H_2O . Mp 223°. pK_a 10.16.

N-Et: [13059-69-3]. 5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, 9CI. PAAC

$C_{14}H_{16}N_4O$ M 256.307

Used as a 0.1% aq. soln. for titrimetric detn. of Bi, Tl; as 0.1% EtOH soln. for photometric detn. of Co, In. Orange-red cryst. Mod. sol. EtOH, Me_2CO , alkalis; sl. sol. H_2O .

Et ether, N-Et: 2-[(2-Ethoxy-4-ethylamino-5-methylphenyl)azo]pyridine. PAMB

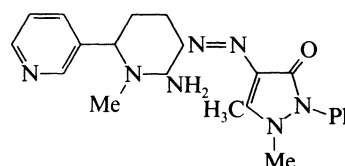
$C_{16}H_{20}N_4O$ M 284.360

Used as 0.1% EtOH soln. for photometric detn. of In. Brown-red cryst. powder. Sol. EtOH, MeOH.

[10254-18-9]

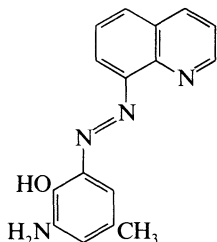
Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 799, 964; 1966, **21**, 281; 1967, **22**, 863; 1968, **23**, 889 (*detn, Bi, Tl, Co, In*)

4-[[2-Amino-1-methyl-6-(3-pyridinyl)-3-piperidinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI A-00254
[36517-00-7]



C₂₂H₂₇N₇O M 405.502Used as a soln. in EtOH for photometric detn. of Cu(II) (λ_{\max} 630 nm, ϵ 15000), Co. Red-brown cryst. powder. Sol. EtOH, Me₂CO, CHCl₃, Et₂O; spar. sol. H₂O.Smaglyuk, M.G. *et al.*, *Uzb. Khim. Zh.*, 1971, **15**, 12; *CA*, **75**, 58362j (use)Smaglyuk, M.G. *et al.*, *CA*, 1974, **80**, 33508b (use)**2-Amino-4-methyl-6-(8-quinolyazo)phenol** A-00255

8-(4-Amino-2-hydroxy-5-methylphenylazo)quinoline

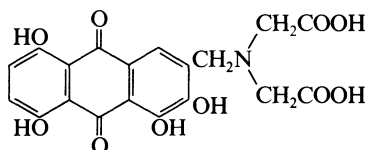
C₁₆H₁₄N₄O M 278.313

N-Et: [42485-45-0]. 2-(Ethylamino)-4-methyl-5-(8-quinolinylo)phenol, 9CI. 5-(8-Quinolylazo)-2-monoethylamino-p-cresol

C₁₈H₁₈N₄O M 306.366Used as 0.01% soln. in propanol for photometric detn. of V(V) (λ_{\max} 530 nm, ϵ 42000, propanol, aq.). Cryst. (EtOH). Sol. EtOH, MeOH, propanol, dioxan.Dimova, L.M. *et al.*, *Zh. Anal. Khim.*, 1986, **41**, 1832 (synth, detn, V)**3-(Aminomethyl)-1,2,5,8-tetrahydroxyanthraquinone-N,N-diacetic acid** A-00256

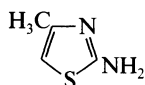
N-(Carboxymethyl)-N-[(9,10-dihydro-3,4,5,8-tetrahydroxy-9,10-dioxo-2-anthracenyl)methyl]glycine, 9CI. Quinalizarin complexon

[52086-66-5]

C₁₉H₁₅NO₁₀ M 417.328Used as 1mM aq. soln. for photometric detn. of B (λ_{\max} 610 nm, ϵ 18000, 94% H₂SO₄); F[⊖] (λ_{\max} 660 nm, in the presence of La) and alkaline earths. Orange cryst. Sol. H₂O, acids, alkalis.Minin, A.A. *et al.*, *Zh. Anal. Khim.*, 1975, **30**, 2196 (detn, F[⊖])Aleksandrova, B.G. *et al.*, *CA*, 1977, **86**, 133008f (use)Khakhalkina, I.G. *et al.*, *Zavod. Lab.*, 1983, **49**, 14 (synth, detn, B)**2-Amino-4-methylthiazole** A-00257

4-Methyl-2-thiazolamine, 9CI

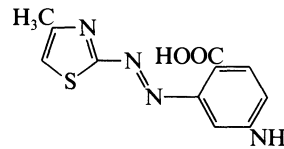
[1603-91-4]

C₄H₆N₂S M 114.171Commercially available. Cryst. (EtOH). Sol. EtOH, H₂O. Mp 44-47°. Bp 231-232°, Bp₂₀ 124-126°.

▷ XJ2620000.

Sprague, *et al.*, *J. Am. Chem. Soc.*, 1946, **68**, 2155 (synth)Tandon, S.N. *et al.*, *Anal. Chim. Acta*, 1972, **59**, 311 (use)**5-Amino-2-(4-methyl-2-thiazolylazo)benzoic acid** A-00258

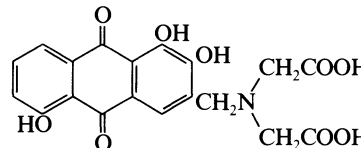
2-(5-Amino-2-carboxyphenylazo)-4-methylthiazole

C₁₁H₁₀N₄O₂S M 262.292

N-Di-Et: 2-(4-Methyl-2-thiazolylazo)-5-diethylaminobenzoic acid

C₁₅H₁₈N₄O₂S M 318.399Used as 1mM dioxan soln. for photometric detn. of Ni (λ_{\max} 621 nm, ϵ 116000, 40% dioxan, pH 8), Fe(III), Co, Cu(II). Cryst. Sol. dioxan, EtOH. Mp 181°. pK_{a1} 1.8; pK_{a2} 5.20 (40% dioxan, μ = 0.1, 25°).Furukawa, M. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1990, **39**, 589 (synth, detn, Ni)**3-(Aminomethyl)-1,2,5-trihydroxyanthraquinone-N,N-diacetic acid** A-00259

N-(Carboxymethyl)-N-[(9,10-dihydro-3,4,8-trihydroxy-9,10-dioxo-2-anthracenyl)methyl]glycine

C₁₉H₁₅NO₉ M 401.329Used as a 0.5% soln. in aq. dil. NH₃ as metallochromic indicator for titrimetric detn. of In (colour change: red → yellow). Yellow cryst. powder. Sol. alkalis; spar. sol. EtOH, Me₂CO, H₂O. Mp 203° dec.Belcher, R. *et al.*, *J. Chem. Soc.*, 1958, 2390 (detn, In)**3-(Aminomethyl)-1,2,7-trihydroxyanthraquinone-N,N-diacetic acid** A-00260

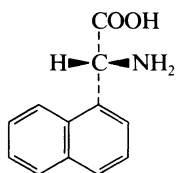
N-(Carboxymethyl)-N-[(9,10-dihydro-3,4,6-trihydroxy-9,10-dioxo-2-anthracenyl)methyl]glycine, 9CI. Anthrapurpurin complexon

[32446-72-3]

C₁₉H₁₅NO₉ M 401.329Used as a 0.5% soln. in NH₃ aq. for photometric detn. of Ca, Mn(II) (λ_{\max} 500 nm). Used as acid-base indicator (pH range: 5.0-12.5; colour change: yellow → red → blue); gives colour reactions with Mo, Pd, Ru(III), Sb, W(VI). Orange cryst. Spar. sol. H₂O, Et₂O; sol. alkalis, EtOH, Me₂CO.Belcher, R. *et al.*, *J. Chem. Soc.*, 1958, 2390.Capitan, F. *et al.*, *CA*, 1971, **74**, 106798; 150841s (use, Mn)Capitan, F. *et al.*, *An. Quim.*, 1972, **68**, 989 (detn, Ca)

α -Amino-1-naphthaleneacetic acid*1-Naphthylglycine*

[13372-96-8]

 $C_{12}H_{11}NO_2$ M 201.224**(R)-form** [100896-07-9]Solid. $[\alpha]_D^{25} + 8.0^\circ$ (c, 0.05 in H_2O).

N-(3,5-Dinitrobenzoyl): [122872-14-4]. N-(3,5-Dinitrobenzoyl)-1-naphthylglycine

 $C_{19}H_{13}N_3O_7$ M 395.328

Chiral stationary phase for the sepn. of enantiomers by hplc. Mp 138.3°.

(±)-form [97611-60-4]

Cryst. Mp 199-201°.

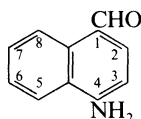
Me ester; B,HCl: [86217-77-8].

Cryst. Mp 177-178.5°.

[13227-00-4, 70946-42-8, 74928-57-7, 110470-26-3, 110470-39-8, 110470-40-1, 115016-08-5, 121216-83-9, 127358-23-0]

Baumgarten, H.E. *et al*, *J. Org. Chem.*, 1966, **31**, 3708 (*synth*)Bretschneider, T. *et al*, *Tetrahedron*, 1988, **44**, 5403 (*synth*)Oi, N. *et al*, *J. Chromatogr.*, 1989, **462**, 382 (*synth, use, deriv*)Williams, R.M. *et al*, *J. Org. Chem.*, 1990, **55**, 3723 (*synth*)**4-Amino-1-naphthalenecarboxaldehyde,****A-00262****9CI***4-Amino-1-naphthaldehyde. 1-Amino-4-formylnaphthalene*

[61757-43-5]

 $C_{11}H_9NO$ M 171.198

Yellow needles (EtOH aq.). Mp 163°.

N,N-Di-Me: 4-(Dimethylamino)-1-naphthalenecarboxaldehyde, 9CI

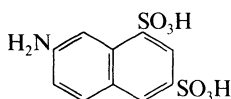
 $C_{13}H_{13}NO$ M 199.252Reagent for sequence detn. of peptides by ms. Bp₁₀ 190-195°, Bp₆ 160-165°.

N,N-Di-Me, 2,4-dinitrophenylhydrazone: Brown silky needles. Mp 230-231°.

N,N-Di-Me, semicarbazone: Light yellow woolly needles. Mp 208-209°.

Thompson, H.W., *J. Chem. Soc.*, 1932, 2310 (*synth*)Oda, R. *et al*, *Nippon Kagaku Zasshi*, 1962, **83**, 1292; *CA*, **59**, 11399h.Banerji, J.C., *Indian J. Chem.*, 1968, **6**, 346 (*synth*)Day, R.A. *et al*, *J. Org. Chem.*, 1973, **38**, 782 (*use*)Patil, G.C. *et al*, *Org. Mass Spectrom.*, 1973, **7**, 817 (*use*)**7-Amino-1,3-naphthalenedisulfonic acid,****A-00263****9CI***2-Naphthylamine-6,8-disulfonic acid. Amido G acid. Amino G acid*

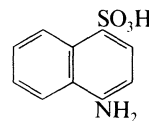
[86-65-7]

**A-00261** $C_{10}H_9NO_6S_2$ M 303.316Acid-base fluorescent indicator (pH 12-14) used as an aq. soln. of salt. Needles + 4 H_2O (H_2O). Sol. H_2O .

▷ QJ6132000.

Diethylamine salt: Mp 273-275° dec.*S-Benzylisothiuronium salt*: Cryst. + 8 H_2O (H_2O). Mp 276° dec.Armstrong, H.E. *et al*, *Proc. Chem. Soc., London*, 1890, **6**, 128.Dressel, O. *et al*, *Ber.*, 1894, **27**, 2152.Bucherer, H.T., *J. Prakt. Chem.*, 1904, **70**, 358.Fierz-David, H.E. *et al*, *Helv. Chim. Acta*, 1923, **6**, 1146.Ofitzerov, V.V., *CA*, 1935, **29**, 1086, 2530.Dérivé, E., *Fresenius' Z. Anal. Chem.*, 1939, **116**, 341 (*use, ind*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NBE850.**4-Amino-1-naphthalenesulfonic acid, 9CI****A-00264***1-Naphthylamine-4-sulfonic acid. Naphthionic acid*

[84-86-6]

 $C_{10}H_9NO_3S$ M 223.252Dyestuff intermediate. Needles + $\frac{1}{2}$ H_2O (H_2O). Spar. sol. H_2O with blue fluor., sol. MeOH. pK_a 2.68 (25°).

▷ QK1270000.

Na salt: [130-13-2].Used as an aq. soln. as acid-base fluorescent indicator (pH range: 3-4; colour change: non fl. → blue; pH range: 10-12; colour change: blue → yellow-green). Needles (H_2O).*Amide*: [5695-34-1]. $C_{10}H_{10}N_2O_2S$ M 222.267Used as 0.05% soln. in EtOH as acid-base fluorescent indicator (pH range: 9.5-13.0, colour change: dark blue → white/blue). Cryst. Mp 241°. pK_{a1} 1.48; pK_{a2} 10.71 (25°).Langguth, S., *Chim. Ind. (Paris)*, 1930, **24**, 31; *CA*, **24**, 5035 (*synth*)Caullet, C. *et al*, *CA*, 1967, **67**, 58864 (*ir*)Mayer, J. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 4129 (pK_a)Kracmar, J. *et al*, *Pharmazie*, 1971, **26**, 155 (*uv*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 689 (*use, ind*)Franc, J. *et al*, *J. Chromatogr.*, 1979, **170**, 89 (*chromatog*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALI000.**5-Amino-1-naphthalenesulfonic acid, 9CI****A-00265***1-Naphthylamine-5-sulfonic acid. Laurent's acid*

[84-89-9]

 $C_{10}H_9NO_3S$ M 223.252Dyestuff intermediate. Needles + 1 H_2O . pK_a 3.62 (25°).

Fairly readily oxid. acid and salts colour in moist air.

S-Benzylthiuronium salt: Mp 179°.*Amide*: [32327-47-2]. $C_{10}H_{10}N_2O_2S$ M 222.267Used as a 0.05% soln. in aq. EtOH as acid-base fluorescent indicator (pH range: 2.0-4.0, colour change: no fluorescence → yellow-orange; pH range: 9.5-13.0, colour change: yellow-orange → no fluorescence). Mp 241° (259-260°). pK_{a1} 2.89; pK_{a2} 10.16 (25°).

N-Di-Me: [4272-77-9]. 5-Dimethylamino-1-naphthalenesulfonic acid

 $C_{12}H_{13}NO_3S$ M 251.306

The acid and its derivs. cont. the fluorescent dansyl chromophore and are used in fluorimetric analysis.

Leaflets + 1H₂O. Green fluor. in soln.

N-Di-Me, chloride: see 5-(Dimethylamino)-1-naphthalenesulfonyl chloride, D-00796

N-Di-Me, hydrazide: [33008-06-9]. Dansylhydrazine

C₁₂H₁₅N₃O₂S M 265.335

Fluorimetric reagent for detn. of carbonyl compds. and reducing sugars. Mp 128-130°.

Erdmann, H., *Justus Liebigs Ann. Chem.*, 1893, **275**, 193 (*synth*)

Fussgänger, V., *Ber.*, 1902, **35**, 976 (*synth, deriv*)

Collonge, J. *et al*, *Bull. Soc. Chim. Fr.*, 1957, 1043.

Caullet, C. *et al*, *CA*, 1967, **67**, 58864 (*ir*)

Chayen, R. *et al*, *Anal. Biochem.*, 1971, **42**, 283 (*use, deriv*)

Mayer, J. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 4129 (*pKa*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 689 (*use*)

Kirsche, C. *et al*, *Bull. Soc. Chim. Fr.*, 1975, 101.

Avigad, A., *J. Chromatogr.*, 1977, **139**, 343 (*use*)

Franc, J. *et al*, *J. Chromatogr.*, 1979, **170**, 89 (*chromatog*)

Anderson, J.H., *Anal. Biochem.*, 1986, **152**, 146 (*use*)

5-Amino-2-naphthalenesulfonic acid, 9CI A-00266

1-Naphthylamine-6-sulfonic acid. Cleve's acid

[119-79-9]

C₁₀H₉NO₃S M 223.252

Dyestuff intermediate. Needles + 2H₂O. V. spar. sol. H₂O. pK_a 3.71 (25°).

▷ QK1285000.

Na salt: [28907-84-8].

Cryst. + 2H₂O or plates + 4½ H₂O. Sol. H₂O with blue fluor.

▷ QK1300000.

Amide: [13261-51-3]. 5-Amino-2-naphthalenesulfonamide

C₁₀H₁₀N₂O₂S M 222.267

Acid base fluorescent indicator (pH range 1.9-3.9, colour change: no fluorescence → green; pH range 9.6-13.0, colour change: green → no fluorescence). Used as a 0.05% soln. in aq. EtOH. Mp 218-219° dec. pK_{a1} 3.13; pK_{a2} 10.27 (25°).

Erdmann, H., *Justus Liebigs Ann. Chem.*, 1893, **275**, 193 (*synth*)

Collonge, J. *et al*, *Bull. Soc. Chim. Fr.*, 1957, 1043 (*chromatog*)

Schriever, K. *et al*, *Chem. Ber.*, 1958, **91**, 414.

Caullet, C. *et al*, *CA*, 1967, **67**, 58864.

Mayer, J. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 4129 (*pKa*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 689 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALI250, ALI500.

6-Amino-1-naphthalenesulfonic acid, 9CI A-00267

2-Naphthylamine-5-sulfonic acid. 2-Naphthionic acid

[81-05-0]

C₁₀H₉NO₃S M 223.252

Needles (H₂O). Spar. sol. cold H₂O, mod. sol. hot. pK_a 4.03 (25°). Reddish-blue fluor. in aq. soln.

Na salt: [58306-87-9].

Used as a 1% aq. soln. as acid-base fluorescent indicator (pH range: 12-13; colour change: blue→violet). Needles (H₂O). Sol. H₂O.

S-Benzylthiuronium salt: Mp 172-174°.

Amide: [1206-43-5].

C₁₀H₁₀N₂O₂S M 222.267

Used as 0.05% soln. in aq. EtOH. Acid-base fluorescent indicator (pH range: 1.9-3.9, colour change: no fluorescence → green, pH range 9.6-13.0, colour change: green → no fluorescence). Needles. Mp 165°. pK_{a1} 3.13; pK_{a2} 10.27 (25°).

Hennion, G.F. *et al*, *J. Am. Chem. Soc.*, 1943, **65**, 2468 (*synth*)

Collonge, J. *et al*, *Bull. Soc. Chim. Fr.*, 1957, 1043 (*chromatog*)

Caullet, C. *et al*, *CA*, 1967, **67**, 58864 (*ir*)

Mayer, J. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 4129 (*pKa*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 689 (*use, ind*)

Franc, J. *et al*, *J. Chromatogr.*, 1979, **70**, 89 (*chromatog*)

6-Amino-2-naphthalenesulfonic acid, 9CI A-00268

2-Naphthylamine-6-sulfonic acid. Bronner acid

[93-00-5]

C₁₀H₉NO₃S M 223.252

Dyestuff intermediate. Leaflets + 1H₂O. V. spar. sol. cold H₂O; spar. sol. hot.

Na salt: [58306-86-8].

Cryst. + 2H₂O. Mod. sol. H₂O.

S-Benzylthiuronium salt: Cryst. + 10H₂O. Mp 330° dec.

Amide: [27771-61-5]. 6-Amino-2-naphthalenesulfonamide

Acid-base fluorescent indicator (pH range: 1.9-3.9, colour change: no fluorescence → blue; pH range: 9.6-13.0, colour change: blue → no fluorescence). Used as a 0.05% soln. in aq. EtOH. Cryst. pK_{a1} 3.06; pK_{a2} 10.33 (25°).

Green, A.G. *et al*, *J. Chem. Soc.*, 1918, **113**, 38 (*synth*)

Caullet, C. *et al*, *CA*, 1967, **67**, 58864 (*ir*)

Seliskar, C.J. *et al*, *CA*, 1969, **71**, 43974d (*w*)

Mayer, J. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 4129 (*pKa*)

Seliskar, C.J. *et al*, *J. Am. Chem. Soc.*, 1971, **93**, 5405 (*esr*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 689 (*use*)

Franc, J. *et al*, *J. Chromatogr.*, 1979, **70**, 89 (*chromatog*)

7-Amino-1-naphthalenesulfonic acid A-00269

C₁₀H₉NO₃S M 223.252

Amide: [53669-09-3]. 7-Amino-1-naphthalenesulfonamide, 9CI

C₁₀H₁₀N₂O₂S M 222.267

Acid-base fluorescent indicator (pH range: 1.9-3.9, colour change: no fluorescence → blue; pH range: 9.6-13.0, colour change: blue → no fluorescence). Used as a 0.05% soln. in aq. EtOH. Cryst. pK_{a1} 2.97; pK_{a2} 10.17 (μ = 0, 25°).

Mayer, J. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 4129 (*pKa*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

8-Amino-2-naphthalenesulfonic acid, 9CI A-00270

1-Naphthylamine-7-sulfonic acid. Cleve's O-acid

[119-28-8]

C₁₀H₉NO₃S M 223.252

Dyestuff intermediate. Used as a 0.07-0.3% soln. in dil. AcOH for photometric detn. of NO₂[⊖]. Flakes + 1H₂O. Mod. sol. H₂O. pK_a 3.64 (25°).

Na salt: [6322-37-8].

Needles + ½ H₂O. Sol. H₂O. pK_{a1} 2.90; pK_{a2} 10.20 (25°).

Amide: [13261-52-4].

C₁₀H₁₀N₂O₂S M 222.267

Acid-base fluorescent indicator (pH 1.9-3.9, colour change: no fluorescence → green; pH range 9.6-13.0, colour change: green → no fluorescence); used as 0.05% soln. in 90% EtOH. Needles + 1½ H₂O. Mp 181°.

Erdmann, H., *Justus Liebigs Ann. Chem.*, 1895, **275**, 193 (*synth*)

Tomicek, O., *Collect. Czech. Chem. Commun.*, 1948, **13**, 116 (*use, ind*)

Collonge, J. *et al*, *Bull. Soc. Chim. Fr.*, 1957, 1043 (*chromatog*)

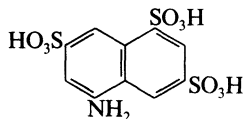
Schriever, K. *et al*, *Chem. Ber.*, 1958, **91**, 414.

Bunton, N.G. *et al*, *Analyst (London)*, 1969, **94**, 585 (*detn. NO₂[⊖]*)

Mayer, J. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 4129 (*pKa*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 689 (*use, ind*)

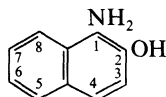
Lepri, L. *et al*, *J. Chromatogr.*, 1974, **88**, 331 (*chromatog*)

5-Amino-1,3,7-naphthalenetrisulfonic acid A-00271C₁₀H₉NO₉S₃ M 383.380

Used as 0.5mM aq. soln. for photometric detn. of Os, Ru.

Cryst. (2-propanol aq.). Sol. H₂O.Wingfield, H.C. *et al*, *Anal. Chim. Acta*, 1956, **14**, 446 (*detn. Os*)Steele, E.L. *et al*, *Anal. Chim. Acta*, 1959, **20**, 211 (*detn. Ru*)**8-Amino-1,3,5-naphthalenetrisulfonic acid** A-00272C₁₀H₉NO₉S₃ M 383.380Used as 0.5mM aq. soln. for photometric detn. of Os (λ_{\max} 555 nm). Cryst. (2-propanol aq.).Steele, E.L. *et al*, *Anal. Chem.*, 1957, **29**, 1622 (*detn. Os*)Steele, E.L. *et al*, *Anal. Chim. Acta*, 1959, **20**, 205 (*detn. Os*)**1-Amino-2-naphthalenol, 9CI** A-002731-Amino-2-naphthol. 2-Hydroxy- α -naphthylamine

[2834-92-6]

C₁₀H₉NO M 159.187Leaflets (Et₂O). Spar. sol. Et₂O, sol. EtOH, AcOH, dil. acids, alkalis. Mp 150° dec., 175° dec.*Me ether*:C₁₁H₁₁NO M 173.214Prisms (MeOH). Mp 55°. Bp_{0.05} 110°.*N-Ac*:C₁₂H₁₁NO₂ M 201.224

Leaflets (EtOH). Mp 235°.

N-Octanesulfonyl: [86252-97-3]. 1-Octanesulfonylamido-2-naphthol. N-(2-Hydroxy-1-naphthalenyl)-1-octanesulfonamide, 9CIC₁₈H₂₅NO₃S M 335.466

Used as a 0.1% soln. in PhCl for extraction separation of Cu(II), Co, Zn, Cd, Pb, Hg(II). Brown cryst. Sol. PhCl, cyclohexane, MeOH. Mp 71.5-72.5°.

Org. Synth., 1931, **21**, 8 (*synth*)Fieser, L.F. *et al*, *J. Am. Chem. Soc.*, 1935, **57**, 491 (*synth*)Ide, S. *et al*, *Anal. Chim. Acta*, 1983, **149**, 235 (*octanesulfonamide, synth, use*)**8-Amino-2-naphthalenol, 9CI** A-002748-Amino-2-naphthol. 7-Hydroxy- α -naphthylamine

[118-46-7]

C₁₀H₉NO M 159.187Needles (EtOH). Sol. hot H₂O, EtOH. Mp 205-207°. Sol. in acids and alkalis with blue fluor.

▷ QL3331000.

Na salt: Derivatisation reagent for acyl halides for hplc anal.*N-Ac*:C₁₂H₁₁NO₂ M 201.224

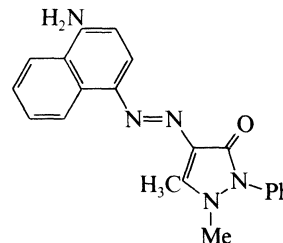
Needles (AcOH aq.). Mp 164-165°.

Et ether: 2-Amino-8-ethoxynaphthaleneC₁₂H₁₃NO M 187.241

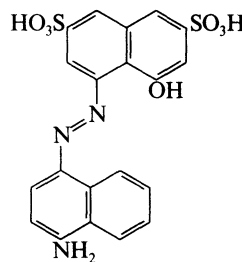
Prisms (pet. ether). Mp 67°. Bp 315°.

Brown, W.F. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 1766 (*synth*)Colgon, S.T. *et al*, *J. Chromatogr. Sci.*, 1988, **26**, 501 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALJ750.**4-[(4-Amino-1-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI** A-00275

[28169-73-5]

C₂₁H₁₉N₅O M 357.414Used as a 1mM soln. in dil. NaOH for photometric detn. of Bi, Co(III), Cu, Fe(II), Ga, In, Ni, Pd; extraction-photometric detn. of Au, Cd, Co, Cu, Fe, Mo, Pd, Ni, Zn. Orange-red cryst. Sol. alkalis, acids, EtOH, Me₂CO. Mp 172°. pK_{a1} 0.99; pK_{a2} 10.27. λ_{\max} 460 nm (EtOH); λ_{\max} 540 nm (1M HCl); λ_{\max} 460 nm (1M KOH).Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1973, **39**, 601 (*detn. Au, Cd, Co, Cu, Fe, Mo, Pd, Ni, Zn*)Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn. Bi, Co(III), Cu, Fe(II), Ga, In, Ni, Pd*)**4-[(4-Amino-1-naphthalenyl)azo]-5-hydroxy-2,7-naphthalenedisulfonic acid, 9CI** A-00276

4'-Amino-8-hydroxy-1,1'-azonaphthalene-3,6-disulfonic acid

C₂₀H₁₅N₃O₇S₂ M 473.486*N-Et*: Lanacyl violet BF(C). C.I. 13375 Acid dyeC₂₂H₁₉N₃O₇S₂ M 501.540*N-Et, di-Na salt*: [10214-18-3].Acid-base indicator (pH range 11-13; colour change: violet → orange) used as aq. soln. Orange red cryst. powder. Sol. H₂O; sl. sol. EtOH.

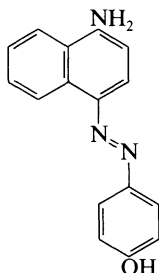
[89276-87-9]

Colour Index, 3rd Edn., 1971, **4**, 4053 (*synth*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

4-(4-Amino-1-naphthalenylazo)phenol

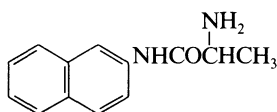
4-(4-Hydroxyphenylazo)-1-naphthylamine

[74217-45-1]

C₁₆H₁₃N₃O M 263.298*Et ether*: [7654-27-5]. 4-[(4-Ethoxyphenyl)azo]-1-naphthalenamine, 9CIC₁₈H₁₇N₃O M 291.352Used as acid-base indicator (pH range: 2.2-4.0; colour change: violet → yellow). Orange cryst. (H₂O). Sol.EtOH, Et₂O, dil. acids.Schulek, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1948, **128**, 398 (*use, ind*)**2-Amino-N-2-naphthalenylpropanamide, 9CI**

9CI

Alanine β-naphthylamide

C₁₃H₁₄N₂O M 214.266**(S)-form** [720-82-1]*L-form*

Used for photometric detn. of aminopeptidase.

Derivatisation reagent for hplc resolution of carboxylic acid enantiomers. Cryst. (pet. ether). Mp 99-100°.

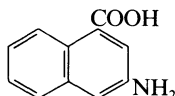
[2149-46-4, 20723-89-1]

Gomori, G., *Proc. Soc. Exp. Biol. Med.*, 1954, **87**, 559 (*synth, use*)Goldstein, T.P. *et al*, *J. Med. Pharm. Chem.*, 1962, **5**, 852 (*synth*)Fujimoto, Y. *et al*, *J. Chromatogr.*, 1987, **402**, 344 (*use*)**3-Amino-1-naphthoic acid, 8CI**

A-00279

3-Amino-1-naphthalenecarboxylic acid, 9CI

[32018-86-3]

C₁₁H₉NO₂ M 187.198Used as a 0.1% soln. of sulfate in aq. EtOH as acid-base fluorescent indicator (pH range: 1.5-3; colour change: non-fluoresc. → green; pH range: 4-6; colour change: green → blue; pH range: 11.6-13; colour change: blue → non-fluoresc.). Straw-coloured needles. Sol. EtOH, Et₂O. Mp 181-182°. pK_{a1} 2.52; pK_{a2} 4.52 (20°, MeOH aq.), pK_{a1} 2.61; pK_{a2} (25°, H₂O).*Me ester*:C₁₂H₁₁NO₂ M 201.224Rhombs (Et₂O), needles (MeOH aq.). Mp 72-73°.*N-Ac*:C₁₃H₁₁NO₃ M 229.235

Cream-coloured needles. Mp 254.5°.

Tomiček, O., *Chemical Indicators*, Butterworths, London (*use*)Leuch, G.J. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 1831 (*synth*)*Elsevier's Encycl. Org. Chem.*, Ser. III, 1953, **12B**, 4185 (*bibl*)Bryson, A. *et al*, *Aust. J. Chem.*, 1961, **14**, 237.Krueger, P.J., *Spectrochim. Acta*, 1963, **19**, 705 (*ir*)Mentre, I., *Ann. Chim. (Paris)*, 1973, **8**, 115 (*uw, bibl*)**3-Amino-2-naphthoic acid, 8CI**

A-00280

3-Amino-2-naphthalenecarboxylic acid, 9CI

[5959-52-4]

C₁₁H₉NO₂ M 187.198Azo dyestuff intermediate, used in detection of Cu, Ni, Co. Yellow leaflets (EtOH aq.). Spar. sol. hot H₂O. Mp 219-220° (214°). Fluor. in soln.

▷ Mod. toxic. QL1400000.

Me ester: [21597-54-6].C₁₂H₁₁NO₂ M 201.224

Mp 104-105°.

Et ester:C₁₃H₁₃NO₂ M 215.251

Yellow needles (EtOH). Mp 117-118°.

N-Ac:C₁₃H₁₁NO₃ M 229.235

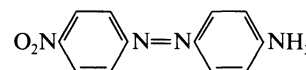
Prisms (EtOH aq.). Mp 246°.

Fierz-David, H.E. *et al*, *Helv. Chim. Acta*, 1922, **5**, 557 (*synth*)*Org. Synth.*, 1942, **22**, 19 (*synth*)*Elsevier's Encycl. Org. Chem.*, Ser. III, 1953, **12B**, 4209 (*bibl*)Mentre, I. *et al*, *Bull. Soc. Chim. Fr.*, 1972, 2605 (*uw, bibl*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALJ000.**4-Amino-4'-nitroazobenzene**

A-00281

4-[(4-Nitrophenyl)azo]benzenamine, 9CI. C.I. Disperse orange 3. C.I. 11005

[730-40-5]

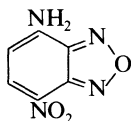
C₁₂H₁₀N₄O₂ M 242.237Used as a 5% soln. in Py as acid-base indicator for non-aq. titrations. Cryst. (toluene). Sol. Me₂CO, EtOH, 2-ethoxyethanol, toluene. Mp 216° (210-212°).*B,HCl*: Steel-blue needles. Mp 193°.*N-Ac*: [19680-34-3].C₁₄H₁₂N₄O₃ M 284.274

Orange-red needles. Mp 245-246°.

N-Me: [31464-31-0].C₁₃H₁₂N₄O₂ M 256.263Blue prisms and needles (C₆H₆), plates (EtOH or AcOH). Mp 206-207°. Dichroic.*N-Ac, N-Me*: [51095-63-7].C₁₅H₁₄N₄O₃ M 298.301

Orange-red needles. Mp 194-195°.

Witt, O.N. *et al*, *Ber.*, 1912, **45**, 1148 (*synth*)Meyer, K.H. *et al*, *Ber.*, 1921, **54**, 2272 (*synth*)v. Mechel, L. *et al*, *Helv. Chim. Acta*, 1941, **24**, 151E (*synth*)Marple, L.W. *et al*, *Anal. Chem.*, 1963, **35**, 1305 (*use*)Fritz, J.S. *et al*, *Talanta*, 1966, **13**, 939 (*use*)

4-Amino-7-nitrobenzofurazan7-Nitro-2-benzofurazanamine, 9CI
[10199-91-4]C₈H₄N₄O₃ M 180.123

Fluorogenic substance for determination of amino acids, eg. in chymotrypsin. Orange microprisms by subl. Mp 237° dec.

4-N-Benzyl: [18378-20-6]. 7-Nitro-N-(phenylmethyl)-4-benzofurazanamine, 9CI. 4-Benzylamino-7-nitrobenzoxadiazole. BBD

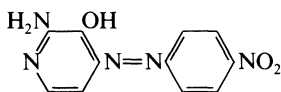
C₁₃H₁₀N₄O₃ M 270.247

Fluorescent labelling reagent for amino acids, peptides and proteins. Orange prisms (EtOH) or dark green cryst. (EtOH). Mp 214-215°.

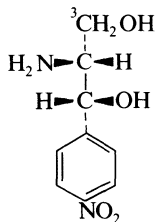
4-N-Benzyl, 3-oxide: [18378-03-5]. 7-Benzylamino-4-nitrobenzofuroxan

C₁₃H₁₀N₄O₄ M 286.246

Red needles (EtOH). Mp 169-170°.

Boulton, A.J. *et al*, *J. Chem. Soc. B*, 1966, 1004 (*synth*)Ghosh, P.B. *et al*, *Biochem. J.*, 1968, **108**, 155 (*use*)Kenner, R.A. *et al*, *Biochemistry*, 1971, **10**, 4433 (*deriv, synth, use*)Sato, E. *et al*, *Chem. Pharm. Bull.*, 1984, **32**, 336 (*uv, use*)Heberer, H. *et al*, *J. Prakt. Chem.*, 1985, **327**, 487 (*deriv, synth, ir, uv*)**2-Amino-4-[(4-nitrophenyl)azo]-3-pyridinol, 9CI**2-Amino-3-hydroxy-4-(4-nitrophenylazo)pyridine
[96399-47-2]C₁₁H₉N₅O₃ M 259.224Used as 0.4mM Me₂CO soln. for extraction-photometric detn. of Ag (λ_{max} 605 nm, ε 107000, C₆H₆), Cu(II) (λ_{max} 560 nm, ε 52000). Cryst. (Me₂CO). Sol. Me₂CO, DMF.Salilas, M. *et al*, *Microchem. J.*, 1985, **31**, 61 (*synth, detn, Cu*)Tarin, P. *et al*, *Mikrochim. Acta*, 1986, **1**, 97 (*detn, Ag*)**2-Amino-1-(4-nitrophenyl)-1,3-propanediol**

A-00284

C₉H₁₂N₂O₄ M 212.205**(1R,2R)-form** [119-62-0]

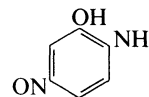
Chloramphenicol base

Resolving agent for carboxylic acids. Cryst. (H₂O). Mp 162-163°. [α]_D²⁵ -23.1° (c, 1.58 in MeOH).N-Ac: [4423-58-9]. **Corynecin I**C₁₁H₁₄N₂O₅ M 254.242

A-00283

2-Amino-5-nitrosophenol

A-00285

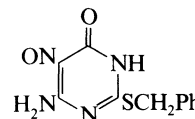
C₆H₆N₂O₂ M 138.126

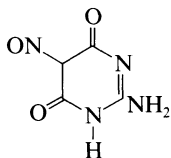
N,N-Di-Et: [6358-20-9]. 5-(Diethylamino)-2-nitrosophenol, 9CI

C₁₀H₁₄N₂O₂ M 194.233Used as 0.02% soln. in 0.01M HCl for photometric detn. of Co. Cryst. (HCl aq.). Sol. acids, Et₂O.Motomizu, S., *Anal. Chim. Acta*, 1973, **64**, 217.**6-Amino-5-nitroso-2-[(phenylmethyl)thio]-4(1H)-pyrimidinone, 9CI**

A-00286

[66604-43-1]

C₁₁H₁₀N₄O₂S M 262.292Used in extraction-photometric detn. of Co (λ_{max} 410 nm, ε 61000). Cryst. Sol. acids, EtOH, Et₂O, C₆H₆; insol. H₂O.Nakashima, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1978, **28**, 529; *CA*, **90**, 15751c.

2-Amino-5-nitroso-4,6(1H,5H)-pyrimidinedione, 9CI
[56983-60-9]C₄H₄N₄O₃ M 156.101Used for photometric detn. of Co(III) (λ_{\max} 375 nm, ϵ 51000). Cryst. Insol. H₂O; sol. Me₂CO, DMF, acids.Traube, W., *Ber.*, 1893, **26**, 2551.Tsuchiya, M., *Nippon Kagaku Kaishi*, 1977, 1844 (*detn.*, Co)

A-00287

Used as 0.01M soln. in aq. NH₃ for photometric detn. of Cu, Co, Os. Cryst. Sol. alkalis; spar. sol. H₂O. Mp > 300°. λ_{\max} 320 nm (dil. alkali).

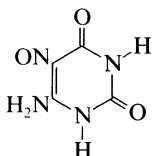
▷ RM3190000.

Roy, B. *et al.*, *Talanta*, 1983, **30**, 617 (*use*)**Aminooxoacetic acid hydrazide, 9CI** A-00291*Semioxamazide*, 8CI. *Aminooxamide*. *Oxamic hydrazide*
[515-96-8]C₂H₅N₃O₂ M 103.080

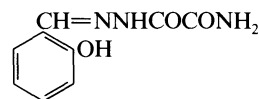
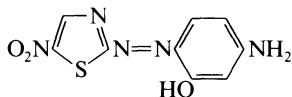
Reagent for characterisation of aldehydes and ketones.

Leaflets (H₂O). Mp 220-221° dec.

▷ AF2620000.

Kerp, W. *et al.*, *Ber.*, 1897, **30**, 586 (*synth*)Leonard, N.J. *et al.*, *J. Org. Chem.*, 1950, **15**, 42 (*use*)Tripathi, G.N.R. *et al.*, *J. Mol. Struct.*, 1979, **54**, 19 (*ir.*, *raman*, *struct*)**6-Amino-5-nitroso-2,4(1H,3H)-pyrimidinedione, 9CI***4-Amino-5-nitrosopyrimidine-2,6-diol*
[5442-24-0]C₄H₄N₄O₃ M 156.101Used as a 0.01M aq. soln. for photometric detn. of Pd (λ_{\max} 400 nm, ϵ 19000), Fe(II) (λ_{\max} 610 nm). Cryst. (EtOH). Sol. EtOH, Me₂CO, H₂O. Occurs in tautomeric equilibrium between keto and enol forms.Singh, A.K. *et al.*, *J. Indian Chem. Soc.*, 1975, **52**, 891 (*detn.*, Fe)Singh, A.K. *et al.*, *Analyst (London)*, 1983, **108**, 1263 (*detn.*, Pd)

A-00288

Aminooxoacetic acid [(2-hydroxyphenyl)methylene]hydrazide, 9CI A-00292*Salicylaldehyde semioxamazone*, 8CI
[5663-69-4]C₉H₉N₃O₃ M 207.188Used as 0.2% DMF soln. for fluorimetric detn. of Al (λ_{\max} 475 nm) and Ga (λ_{\max} 475 nm) (DMF aq.) in drinking water. Cryst. (EtOH). Sol. DMF; sl. sol. H₂O. Mp 277-280°.De Pablos, F. *et al.*, *Analyst (London)*, 1986, **111**, 1159 (*synth.*, *detn.*, Al)De Pablos, F. *et al.*, *Talanta*, 1987, **34**, 835 (*detn.*, Ga)**5-Amino-2-(5-nitro-2-thiazolylazo)phenol** A-00289
2-(4-Amino-2-hydroxyphenylazo)-5-nitrothiazole
[60488-36-0]C₉H₇N₅O₃S M 265.252N,N-Di-Me: [50783-92-1]. *5-(Dimethylamino)-2-[(5-nitro-2-thiazolylazo)phenol]*, 9CIC₁₁H₁₁N₅O₃S M 293.306Used as a 1mM soln. in EtOH or H₂O for extraction-photometric detn. of Cd, Co, Cu, Fe(III), Mn, Ni, Pb, Zn. Dark purple amorph. powder. Sol. C₆H₆, CHCl₃, EtOH, Me₂CO; spar. sol. H₂O. Mp 172°.Shibata, S. *et al.*, *Anal. Chim. Acta*, 1973, **66**, 397 (*use*, *synth*)

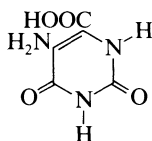
A-00289

2-[(2-Amino-2-oxoethyl)amino]ethanesulfonic acid, 9CI A-00293*N-(Carbamoylmethyl)taurine*, 8CI. *ACES*
[7365-82-4]C₄H₁₀N₂O₄S M 182.200

Good's buffer with pH range 6.0-7.5. Cryst. (EtOH aq.).

Mp 293° dec. pK_a 6.9 (20°).Good, N.E. *et al.*, *Biochemistry*, 1966, **5**, 467 (*synth.*, *use*)*Eastman Org. Chem. Bull.*, 1977, **49**, 4 (*rev*)**5-Aminoorotic acid** A-00290*5-Amino-1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid*, 9CI

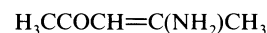
[7164-43-4]

C₅H₅N₃O₄ M 171.112

A-00290

4-Amino-3-penten-2-one, 9CI A-00294*Fluoral P*

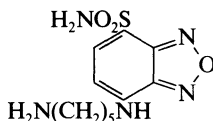
[1118-66-7]

C₅H₉NO M 99.132Anal. reagent for aldehydes. Cryst. (Et₂O). Mp 42-43°.Bp₁₀ 110-115°.

[23652-84-8, 80012-14-2]

Lacey, M.J., *Aust. J. Chem.*, 1970, **23**, 841 (*synth*)Kloek, J.A. *et al.*, *J. Org. Chem.*, 1978, **43**, 1460 (*synth*)Compton, B.J. *et al.*, *Anal. Chim. Acta*, 1980, **119**, 349 (*use*)Baraldi, P.G. *et al.*, *Synthesis*, 1983, 902 (*synth*)

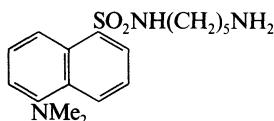
7-[(5-Aminopentyl)amino]-4-benzofurazansulfonamide, 9CI
 7-(5-Aminopentylamino)-4-(aminosulfonyl)-2,1,3-benzoxadiazole. APD-AP
 [135406-32-5]



$C_{11}H_{17}N_5O_3S$ M 299.353
 Fluorogenic reagent for carboxylic acids. Orange cryst. Mp 148-150°.

Toyooka, T. *et al*, *Analyst (London)*, 1991, **116**, 609 (*synth*, *use*)

N-(5-Aminopentyl)-5-(dimethylamino)-1-naphthalenesulfonamide, 9CI
 Monodansylcadaverine
 [10121-91-2]

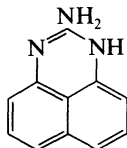


$C_{17}H_{25}N_3O_2S$ M 335.469
 Derivatisation reagent for hplc anal. of fatty acids. Cryst. (C_6H_6 /EtOAc). Mp 134-136°.

Narayanan, R. *et al*, *Biochem. Biophys. Res. Commun.*, 1976, **70**, 1122 (*synth*)

Junker-Buchheit, A. *et al*, *Fresenius' Z. Anal. Chem.*, 1988, **331**, 387 (*use*)

2-Aminoperimidine
 1H-Perimidin-2-amine, 9CI
 [28832-64-6]



$C_{11}H_9N_3$ M 183.212
 Used for gravimetric, nephelometric and photometric detn. of SO_4^{2-} (λ_{max} 305.5 nm, ϵ 29000). Cryst. Sol. acids; insol. H_2O . Mp 239°.

▷ SD4391000.

B, HCl: Greyish cryst. (MeOH). Mp 282°.

B, HBr: [40835-96-9].

Cryst. (H_2O). Sol. MeOH. Mp 265°.

Sachs, F., *Justus Liebigs Ann. Chem.*, 1909, **365**, 143 (*synth*)

Stephen, W.I., *Anal. Chim. Acta*, 1970, **50**, 413 (*synth*, *detn*, SO_4^{2-})

Burns, T. *et al*, *Mikrochim. Acta*, 1974, 245 (*detn*, SO_4^{2-})

Archer, A.W., *Analyst (London)*, 1975, **100**, 755.

McClure, E.L., *Anal. Chim. Acta*, 1976, **48**, 639 (*synth*)

Dasgupta, P.K. *et al*, *Anal. Chim. Acta*, 1977, **94**, 205 (*synth*)

Tôei, K. *et al*, *Anal. Chim. Acta*, 1977, **94**, 485.

Thorpe, M.C. *et al*, *J. Magn. Reson.*, 1977, **28**, 321 (*nmr*)

Dasgupta, P.K. *et al*, *Anal. Chem.*, 1978, **50**, 1793 (*use*)

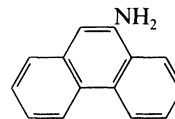
Dasgupta, P.K. *et al*, *J. Org. Chem.*, 1979, **44**, 2502 (*synth*)

Suzuki, K.Y. *et al*, *Anal. Chim. Acta*, 1982, **136**, 435.

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 515 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALR750.

9-Aminophenanthrene
 9-Phenanthrenamine, 9CI. 9-Phenanthrylamine, 8CI
 [947-73-9]



$C_{14}H_{11}N$ M 193.248

Fluorescence derivatisation reagent used in hplc of carboxylic acids. Mp 104°, Mp 139° (dimorph.).

▷ Exp. carcinogen. SG0175000.

B, HCl: [5328-67-6].

Prisms (EtOH/HCl). Mp 275° dec.

Picrate: Green needles (EtOH). Mp 190°.

N-Ac:

$C_{16}H_{13}NO$ M 235.285

Needles (EtOH). Mp 207-208°.

▷ Exp. carcinogen.

N-Benzoyl:

$C_{21}H_{15}NO$ M 297.356

Needles (EtOH). Mp 199°.

Schmidt, J. *et al*, *Ber.*, 1911, **44**, 1488.

Goldberg, M.A. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 260.

Ali, M.A. *et al*, *J. Chem. Soc.*, 1964, 387.

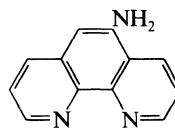
Martin, R.H. *et al*, *Tetrahedron*, 1965, **21**, 2435 (*pmr*)

Altiparmakian, R.H. *et al*, *J. Chem. Soc. C*, 1967, 1818.

Ikeda, M. *et al*, *J. Chromatogr.*, 1984, **305**, 261 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PDA750.

5-Amino-1,10-phenanthroline
 1,10-Phenanthroline-5-amine, 9CI
 [54258-41-2]



$C_{12}H_9N_3$ M 195.223

Used as redox indicator for titrimetric detn. of Fe(II), Cu(I). Cryst. Sol. H_2O , EtOH, Me_2CO , C_6H_6 . Mp 259-260°.

B, HBr: [22426-20-6].

Yellow solid. Mp 302-304°.

B, 2HBr: [22426-19-3].

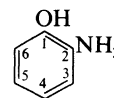
Yellow solid. Mp 281°.

Koft, E. *et al*, *J. Org. Chem.*, 1962, **27**, 865 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*detn*, Cu, Fe)

Gillard, R.D. *et al*, *J. Chem. Soc., Dalton Trans.*, 1974, 1217 (*deriv*, *ir*, *ms*)

2-Aminophenol, 9CI
 o-Hydroxyaniline. 1-Amino-2-hydroxybenzene. *Questiomycin B*
 [95-55-6]



C_6H_7NO M 109.127

Isol. from *Streptomyces* sp. Tuberculostatic. Possesses antibacterial props. Cryst. (H_2O). Mp 174°. pK_{a1} 4.78; pK_{a2} 9.97 (20°).

▷ Toxic by inhalation and skin contact. SJ4950000.

B, HCl: Mp 207°.

N-Formyl: [2843-27-8]. 2-Hydroxyformanilide

C₇H₇NO₂ M 137.138

Needles (H₂O). Mp 129-129.5°.

N-Ac: [614-80-2]. 2-Acetamidophenol. 2-Hydroxyacetanilide

C₈H₉NO₂ M 151.165

Plates (EtOH). Sol. hot H₂O. Mp 209°.

▷ Exp. carcinogen. AE4025000.

N-Benzoyl: [3743-70-2]. 2-Hydroxybenzanilide

C₁₃H₁₁NO₂ M 213.235

Leaflets. Mp 167° dec.

Me ether: see 2-Methoxyaniline, M-00072

N-Di-Me: [3743-22-4]. 2-(Dimethylamino)phenol. 2-

Hydroxydimethylaniline

C₈H₁₁NO M 137.181

Prisms. Mp 45°. Bp 199-200°. p*K*_a 10.62 (25°, 0.1M KCl).

N-Di-Me, Me ether: [700-75-4]. 1-(Dimethylamino)-2-methoxybenzene. 2-Dimethylaminoanisole. *N*-Dimethyl-*o*-anisidine

C₉H₁₃NO M 151.208

Liq. Bp 210-212°.

N-Methanesulfonyl: *N*-(2-Hydroxyphenyl)

methanesulfonamide, 9CI

C₇H₉NO₃S M 187.219

Used as 0.01% soln. in PhCl for extraction-separation of Cu(II), Co, Zn, Cd, Pb, Hg(II). Cryst. (H₂O or CHCl₃). Sol. PhCl, CHCl₃, H₂O. Mp 116-118° (115-116°).

Forbes, W.F. *et al*, *Can. J. Chem.*, 1958, **36**, 1371; 1959, **37**, 1294 (w)

Anzai, K. *et al*, *J. Antibiot., Ser. A*, 1960, **13**, 125 (isol)

Neilson, T. *et al*, *J. Chem. Soc.*, 1962, 371 (synth)

Portnaya, B.S. *et al*, *Zh. Org. Khim.*, 1965, 2202 (synth)

de Courville, A., *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1966, **262**, 1196.

Aldrich Library of NMR Spectra, 1974, **5**, 45C (pmr)

Aldrich Library of IR Spectra, 1975, **2**, 633F (ir)

Vogel, A.I., *Practical Organic Chemistry*, 4th Ed., Longmans, 1978, 662 (synth)

Korp, J.D. *et al*, *J. Cryst. Mol. Struct.*, 1981, **11**, 117 (cryst struct)

Ide, S. *et al*, *Anal. Chim. Acta*, 1983, **149**, 235 (synth, use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 176.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALT000, HIL000.

3-Aminophenol, 9CI

A-00301

1-Amino-3-hydroxybenzene. *m*-Hydroxyaniline

[591-27-5]

C₆H₇NO M 109.127

Reagent for hplc anal. of aspirin. Prisms (toluene). Mp

124-126°. Bp₁₁ 164°. p*K*_{a1} 4.37; p*K*_{a2} 9.82 (20°, 0.1M KCl).

▷ Mod. toxic. SJ4900000.

B, HCl: [51-81-0].

Prisms (H₂O). Mp 229°.

Forbes, W.F. *et al*, *Can. J. Chem.*, 1958, **36**, 1371; 1959, **37**, 1294 (w)

Neilson, T. *et al*, *J. Chem. Soc.*, 1962, 371 (synth)

de Courville, A., *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1966, **262**, 1196.

McLafferty, F.W. *et al*, *Arch. Mass Spectral Data*, 1970, **1**, 284 (ms)

Aldrich Library of NMR Spectra, 1974, **5**, 51B (pmr)

Aldrich Library of IR Spectra, 1975, **2**, 635E (ir)

Verma, K.K. *et al*, *J. Pharm. Sci.*, 1987, **76**, 551 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALT500, HIL500.

4-Aminophenol, 9CI

A-00302

p-Hydroxyaniline. *Ursol P. Rodinal. Unal*

[123-30-8]

C₆H₇NO M 109.127

Photographic developer. Used for photometric detn. of IO₃[⊖]. Plates (H₂O). Mp 186°. p*K*_{a1} 5.29; p*K*_{a2} 10.46 (25°).

▷ Highly toxic, allergen. SJ5075000.

B, HCl: [51-78-5].

Prisms. Mp 306° dec.

▷ SJ6070000.

Me ether: see 4-Methoxyaniline, M-00073

Et ether: see 4-Ethoxyaniline, E-00051

N-Ac: [103-90-2]. 4-Hydroxyacetanilide. 4-Acetamidophenol.

N-(4-Hydroxyphenyl)acetamide. Acetaminophen, USAN.

Paracetamol, BAN, INN. Panadol. Tramil. Hedex.

Numerous proprietary names

C₈H₉NO₂ M 151.165

Widely used analgesic, antipyretic. Prisms (EtOH). Sol. hot H₂O. Mp 169-170.5°.

▷ AE4200000.

N-Me: [150-75-4].

C₇H₉NO M 123.154

Needles (C₆H₆). Mp 87°.

▷ Highly irritant, toxic. SL8225000.

N-Me; B, H₂SO₄: [55-55-0]. *Metol*

Photographic developer. Used as aq. soln. for detn. of Ag and for photometric detn. of PO₄^{3⊖}, SiO₄[⊖]. Needles (H₂O). Sol. H₂O. Mp 250-260°.

▷ SL8650000.

N-Me, Ac: [579-58-8].

C₉H₁₁NO₂ M 165.191

Needles (pet. ether). Mp 43°. Bp₉ 168.5°.

N-Di-Me: [619-60-3]. 4-Hydroxydimethylaniline. 4-

(Dimethylamino)phenol. **Dimetamfenol**. DMAP

C₈H₁₁NO M 137.181

Antidote to cyanide poisoning. Mp 76-77°. Bp₃₀ 165°.

▷ SL1120000.

Boratynski, K., *Fresenius' Z. Anal. Chem.*, 1935, **102**, 421 (PO₄^{3⊖})

Wenger, P. *et al*, *Helv. Chim. Acta*, 1943, **26**, 1465 (detn, Ag)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **1**, 235 (use)

Lambert, J.L. *et al*, *Anal. Chem.*, 1951, **23**, 1247 (detn, IO₃[⊖])

Forbes, W.F. *et al*, *Can. J. Chem.*, 1958, **36**, 1371; 1959, **37**, 1294 (w)

Neilson, T. *et al*, *J. Chem. Soc.*, 1962, 371 (synth)

de Courville, A. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1966, **262**, 1196.

McLafferty, F.W. *et al*, *Arch. Mass Spectral Data*, 1970, **1**, 284 (ms)

Miyajima, G. *et al*, *Chem. Pharm. Bull.*, 1971, **19**, 2301 (cmr)

Aldrich Library of NMR Spectra, 1974, **5**, 57A (pmr)

Aldrich Library of IR Spectra, 1975, **2**, 639C (ir)

Holzbecher, Z., *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (detn, PO₄^{3⊖}, SiO₄[⊖])

Ameer, B. *et al*, *Ann. Intern. Med.*, 1977, **87**, 202 (rev, Paracetamol)

Baehring-Kuhlmei, S.R., *Med. Actual.*, 1977, **13**, 480 (rev, Dimetamfenol)

Vogel, A.I., *Practical Organic Chemistry*, 4th Ed., Longmans, 1978, 723 (synth)

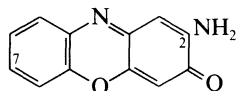
Lechat, P. *et al*, *Therapie*, 1978, **33**, 551 (Paracetamol)

Liedtke, R.K., *Med. Klin. (Munich)*, 1982, **77**, 551 (Paracetamol)

Weger, N.P., *Fundam. Appl. Toxicol.*, 1983, **3**, 387 (*Dimetamfenol*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, ALT250, ALU500,
 HIM000, MGJ750.

2-Amino-3H-phenoxazin-3-one, 9CI, 8CI A-00303

Questioniomycin A. AV toxin C
 [1916-59-2]



$C_{12}H_8N_2O_2$ M 212.207

Isol. from *Acrospermum viticola*, *Brevibacterium iodinum*,
Calocybe gambosa, *Microbispora aerata*, *Streptomyces*
thioluteus, *Pycnoporus* sp. and *Waksmania* sp. Active
 against gram-positive bacteria, mycobacteria, *Candida*
albicans and shows antitumour activity. Phytotoxin.
 Used as a 1mM soln. in EtOH as redox indicator for
 titanometric detn. of Fe(III), Au(III), $Cr_2O_7^{2\ominus}$, $VO_4^{3\ominus}$
 and some organic compds.; redox indicator for
 stannometry. Dark-brown or red cryst. (EtOH). Sol.
 EtOH. Subl. 255-257°. Sometimes occurs in amorph.
 form with Mp 296-297°. $E^\ominus + 0.372V$ (pH 0.92, 23°).

▷ SP7695000.

N-Ac: [1916-55-8]. N-(3-Oxo-3H-phenoxazin-2-yl)
acetamide, 9CI. 2-Acetamido-3H-phenoxazin-3-one
 $C_{14}H_{10}N_2O_3$ M 254.245
 From *B. iodinum*, *M. aerata*, *S. thioluteus* and *W.* sp.
 Active against *Sarcina lutea* and *Trichophyton* sp. Used
 as a 1mM soln. in EtOH as redox indicator for
 titanometric detn. of Fe(III), Au(III), Ce(IV), $Cr_2O_7^{2\ominus}$,
 $VO_4^{3\ominus}$ and some organic compounds. Orange cryst. Sol.
 EtOH, Et_2O , C_6H_6 . Subl. 165°. $E^\ominus + 0.375V$ (pH 0.84,
 23°).

Fischer, O. *et al*, *Ber.*, 1961, **27**, 2784 (*synth*)
 Gerber, N.N. *et al*, *Biochemistry*, 1964, **3**, 598; 1966, **5**, 3824; *J.*
Org. Chem., 1967, **32**, 4055 (*isol, uv, ir, bibl*)
 Ruzička, E. *et al*, *Mikrochim. Acta*, 1967, 277 (*use*)
 Ruzička, E. *et al*, *CA*, 1968, **69**, 40930j (*stannometry*)
 Ikekawa, T. *et al*, *Chem. Pharm. Bull.*, 1968, **16**, 1705 (*synth, ir*)
 Sullivan, G. *et al*, *J. Pharm. Sci.*, 1971, **60**, 1097 (*isol*)
 Baer, H. *et al*, *Pharmazie*, 1971, **26**, 108, 314 (*isol*)
 Hishida, T. *et al*, *Chem. Lett.*, 1974, 293 (*synth*)
 Schlunegger, U.V. *et al*, *Helv. Chim. Acta*, 1976, **59**, 1383 (*isol*)
 Motohashi, N., *Yakugaku Zasshi*, 1983, **103**, 364 (*synth, props*)
 Bolognese, A. *et al*, *J. Heterocycl. Chem.*, 1986, **23**, 1003 (*synth,*
pmr, uv, deriv)
 Kinjo, J. *et al*, *Tetrahedron Lett.*, 1987, **28**, 3697 (*isol*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, QJC275.

7-Amino-3H-phenoxazin-3-one, 8CI A-00304

[3950-31-0]

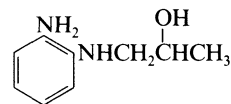
$C_{12}H_8N_2O_2$ M 212.207

Used as a 0.5 mM soln. in EtOH as redox indicator for
 titanometric detn. of Fe(III), Au(III), Ce(IV), $Cr_2O_7^{2\ominus}$,
 $VO_4^{3\ominus}$ and some organic compounds; redox indicator
 for stannometry. Orange cryst. (EtOH). Sol. EtOH,
 Et_2O . $E^\ominus + 0.374 V$ (pH 1.21).

Musso, H. *et al*, *Chem. Ber.*, 1961, **94**, 2551 (*synth*)
 Ruzička, E. *et al*, *Mikrochim. Acta*, 1967, 277 (*use, titanometry*)
 Ruzička, E. *et al*, *CA*, 1968, **69**, 40930j (*use, stannometry*)

1-[(2-Aminophenyl)amino]-2-propanol, 9CI A-00305

N-(β -Hydroxypropyl)-o-phenylenediamine
 [63346-84-9]



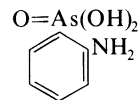
$C_9H_{14}N_2O$ M 166.222

Used as 0.2mM soln. in MeOH for photometric detn. of
 Se (λ_{max} 348 nm, ϵ 2000). Cryst. (C_6H_6 /MeOH). Sol.
 C_6H_6 , $CHCl_3$, MeOH. Mp 85.5°.

Sawlewicz, J., *Acta Pol. Pharm.*, 1959, **16**, 479 (*synth*)
 Kasterka, B., *Chem. Anal. (Warsaw)*, 1976, **21**, 1339; 1979, **24**, 329
 (*detn, Se*)

2-Aminophenylarsonic acid, 9CI A-00306

2-Aminobenzearsonic acid. o-Aminophenylarsonic acid. o-Arsanilic acid
 [2045-00-3]



$C_6H_8AsNO_3$ M 217.056

Used in photometric detn. of BrO_3^\ominus ; pptn. sepn. of Bi,
 Fe(III), Sb, Sn, Th, Ti, U, Zr. Reference material used
 in elemental microanalysis. Pale yellow needles (H_2O).
 V. sol. H_2O ; spar. sol. Et_2O . Mp 153° dec. pK_{a1} 0.69
 (NH_3^\oplus); pK_{a2} 3.79; pK_{a3} 8.93 (25°).

▷ Toxic.

Jacobs, W.A. *et al*, *J. Am. Chem. Soc.*, 1918, **56**, 1583 (*synth*)
 MacDonald, J.C. *et al*, *Anal. Chim. Acta*, 1963, **28**, 383 (*detn,*
 BrO_3^\ominus)
 Yasukouchi, K. *et al*, *CA*, 1968, **68**, 45536; **69**, 15327 (*synth*)
 Modro, A. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1969, **43**, 1493; *CA*,
72, 11753.
Analyst (London), 1972, **97**, 740 (*microanal*)
 Lehl, L. *et al*, *J. Chromatogr.*, 1974, **88**, 331 (*chromatog*)
 Chatterjee, A. *et al*, *Acta Crystallogr., Sect. B*, 1977, **33**, 104
 (*struct*)
 Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC
 Press, Boca Raton, 1983 (*use*)

4-Aminophenylarsonic acid A-00307

4-Aminobenzearsonic acid, 9CI. p-Aminophenylarsonic
 acid. p-Aminophenylarsonic acid. Arsanilic acid, BAN, INN.
Pro-gen. AS 101

[98-50-0]

$C_6H_8AsNO_3$ M 217.056

Used in vet. treatment of enteritis and as a growth
 promoter. Also an antileukaemic drug. Used in
 photometric detn. of Zr. Needles (H_2O). Insol. Me_2CO ,
 $CHCl_3$, C_6H_6 ; spar. sol. EtOH; sol. Et_2O , H_2O , conc.
 acids, alkalis. pK_{a1} 1.91 (NH_3^\oplus); pK_{a2} 4.13; pK_{a3} 9.19
 (25°).

▷ Highly toxic. Carcinogen. CF7875000.

Mono Na salt: [127-85-5]. Sodium arsanilate. Atoxyl/
 Cryst. + $4H_2O$.

▷ CF9625000.

N-Chloroacetyl: [5425-62-7].

Plates (H_2O). Mod. sol. hot H_2O , AcOH, sol. hot
 EtOH. Mp 285° dec.

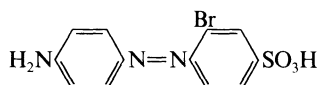
Org. Synth., Coll. Vol., 1, 1932, 63 (*synth*)
 Chandelle, R., *Bull. Soc. Chim. Belg.*, 1941, **50**, 185 (*detn, Zr*)
 Modro, A. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1969, **43**, 1493; *CA*,
72, 11753.

U.S. Pat., 3 763 201, (1973); *CA*, **79**, 137293 (*synth*)
 Lehr, L. et al, *J. Chromatogr.*, 1974, **88**, 331 (*chromatog*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,
 Pharmaceutical Press, London, 1982/1989, 12394.
 Schmid, A., *CA*, 1983, **98**, 118960 (*rev*)
 Chatterjee, A. et al, *Indian J. Phys.*, **A**, 1983, **57**, 322 (*cryst struct*)
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,
 Akademie-Verlag, Berlin, 1987, 442 (*synonyms*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,
 Royal Society of Chemistry, London, 1981, 185.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, ARA250, ARA500.

4-(4-Aminophenylazo)-3-bromobenzenesulfonic acid

A-00308

4'-Amino-2-bromoazobenzene-4-sulfonic acid



$C_{12}H_{10}BrN_3O_3S$ M 356.199

N-Di-Me: 3-Bromo-4-[(4-dimethylaminophenyl)azo]benzenesulfonic acid. 2'-Bromo-4'-dimethylaminoazobenzene-4-sulfonic acid

$C_{14}H_{14}BrN_3O_3S$ M 384.253

pK_{a1} 2.73 (50% EtOH).

N-Di-Me, Na salt: Used as aq. soln as acid-base indicator (pH range: 1.6 - 3.6; colour change red → yellow).

Orange-red cryst. (EtOH). Sol. H_2O , EtOH; insol. C_6H_6 .

N-Ph: 4-[(4-Phenylaminophenyl)azo]-3-bromobenzenesulfonic acid

$C_{18}H_{14}BrN_3O_3S$ M 432.297

Acid-base indicator used as an aq. soln. of the Na salt (pH_3 0.68; colour change: red → yellow). Orange cryst. powder. Sol. EtOH, alkalis; spar. sol. H_2O .

Kuznetsov, V.I. et al, *Zh. Anal. Khim.*, 1952, **7**, 56; 1956, **11**, 208.

4-(4-Aminophenylazo)-3-chlorobenzenesulfonic acid

A-00309

4'-Amino-2-chloroazobenzene-4-sulfonic acid

$C_{12}H_{10}ClN_3O_3S$ M 311.748

pK_{a1} 2.70 (50% EtOH).

N-Di-Me: 3-Chloro-4-[(4-dimethylaminophenyl)azo]benzenesulfonic acid. 2-Chloro-4'-dimethylaminoazobenzene-4-sulfonic acid

$C_{14}H_{14}ClN_3O_3S$ M 339.802

N-Di-Me, Na salt: Used as aq. soln. as acid-base indicator (pH range: 1.6 - 3.7; colour change red → yellow).

Orange-red cryst. Sol. H_2O , EtOH; insol. C_6H_6 .

N-Ph: 3-Chloro-4-[(4-phenylamino)phenylazo]benzenesulfonic acid

$C_{18}H_{14}ClN_3O_3S$ M 387.846

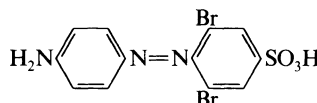
Acid-base indicator (pH_3 0.76; colour change: red → yellow). Used as an aq. soln. of Na salt. Orange cryst. Sol. alkalis; sl. sol. H_2O .

Kuznetsov, V.I. et al, *Zh. Anal. Khim.*, 1952, **7**, 56; 1956, **11**, 208 (*use, indicator*)

4-(4-Aminophenylazo)-3,5-dibromobenzenesulfonic acid

A-00310

4'-Amino-2,6-dibromoazobenzene-4-sulfonic acid



$C_{12}H_8Br_2N_3O_3S$ M 435.095

N-Di-Me: 3,5-Dibromo-4-[(4-dimethylaminophenyl)azo]benzenesulfonic acid

$C_{14}H_{13}Br_2N_3O_3S$ M 463.149

N-Di-Me, Na salt: Used as a 1mM aq. soln. as acid-base indicator (pH_3 = 0.5; colour change: red → yellow).

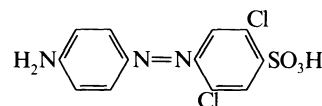
Orange cryst. powder. Sol. H_2O , EtOH; insol. C_6H_6 .

Kuznetsov, V.I. et al, *Zh. Anal. Khim.*, 1952, **7**, 56 (*synth*)

4-(4-Aminophenylazo)-2,5-dichlorobenzenesulfonic acid

A-00311

4'-Amino-2,5-dichloroazobenzene-4-sulfonic acid



$C_{12}H_9Cl_2N_3O_3S$ M 346.193

N,N-Di-Me: [115525-78-5]. 2,5-Dichloro-4-[[4-(4-dimethylamino)phenyl]azo]benzenesulfonic acid

$C_{14}H_{13}Cl_2N_3O_3S$ M 374.246

Used as a 0.5mM aq. soln. for extraction-photometric detn. of K (λ_{max} 430 nm, C_6H_6); used as aq. soln. of Na salt as an acid-base indicator (pH range: 1.4-3.2; colour change: red → yellow). Orange-red cryst. Sol. alkalis; spar. sol. H_2O .

N,N-Di-Et: [86565-64-2]. 2,5-Dichloro-4-[[4-(4-diethylamino)phenyl]azo]benzenesulfonic acid

$C_{16}H_{17}Cl_2N_3O_3S$ M 402.300

Used as a 0.5mM aq. soln. for extraction-photometric detn. of K (λ_{max} 450 nm). Orange-red cryst. Sol. alkalis; spar. sol. H_2O .

N,N-Dibutyl: [115525-79-6]. 2,5-Dichloro-4-[[4-(4-dibutylamino)phenyl]azo]benzenesulfonic acid

Used as a 0.5mM aq. soln. for extraction-photometric detn. of K (λ_{max} 450 nm). Orange-red cryst. Sol. alkalis; spar. sol. H_2O .

Kuznetsov, V.I. et al, *Zh. Anal. Khim.*, 1952, **7**, 56 (*synth*)

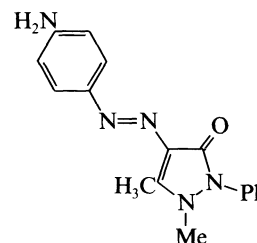
Iwahido, T. et al, *Bunseki Kagaku (Jpn. Anal.)*, 1985, **34**, 579 (*synth*)

Motomizu, S. et al, *Analyst (London)*, 1988, **113**, 743 (*detn, K*)

4-[(4-Aminophenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI

A-00312

[53534-17-1]



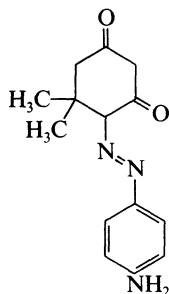
$C_{17}H_{17}N_5O$ M 307.354

Gives colour reactions with Bi, Co, Cu, Fe, Ga, In, Ni, Pd. Orange-red cryst. Mp 162°. pK_{a1} 1.26; pK_{a2} 11.5.

Smaglyuk, N.G. et al, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*use*)

4-[(4-Aminophenyl)azo]-5,5-dimethyl-1,3-cyclohexanedione

A-00313

 $C_{14}H_{17}N_3O_2$ M 259.307

N,N-Di-Et: [36478-11-2]. 4-[[4-(Diethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, 9CI

 $C_{18}H_{25}N_3O_2$ M 315.414

Used as an acid-base indicator (pH range: 4.5 - 6.0; colour change: yellow → red; pH range 9.3 - 10.5; colour change: red → yellow). Dark red cryst. (EtOH). Sol. AcOH, EtOH, Me₂CO, Et₂O, CHCl₃; spar. sol. H₂O. Mp 132-134°. pK_{a1} 5.40; pK_{a2} 9.80.

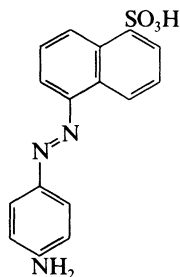
N-Et, N-Hydroxy: 4-(4-N-Ethyl-N-hydroxyaminophenylazo)-5,5-dimethyl-1,3-cyclohexanedione

 $C_{16}H_{21}N_3O_3$ M 303.360

Used as an acid-base indicator (pH range: 3.8 - 4.6; colour change: yellow → red; pH range 9.5 - 10.5; colour change: red → yellow). Dark red cryst. (EtOH). Sol. AcOH, EtOH, Me₂CO; sl. sol. H₂O, CCl₄.

Madajova, V. et al, *Chem. Zvesti*, 1971, **25**, 343 (pKa, use)**5-(4-Aminophenylazo)-1-naphthalenesulfonic acid**

A-00314

 $C_{16}H_{13}N_3O_3S$ M 327.363

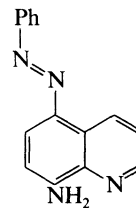
N,N-Di-Me, chloride: [116247-66-6]. 5-[[4-(Dimethylamino)phenyl]azo]-1-naphthalenesulfonyl chloride, 9CI. DABNS-5-CI

 $C_{18}H_{16}ClN_2O_2S$ M 373.862

Anal. reagent for amino acids. Brown-violet cryst. Mp 169-175°.

Wolski, T. et al, *Chem. Anal. (Warsaw)*, 1987, **32**, 233 (synth, use)**8-Amino-5-(phenylazo)quinoline**

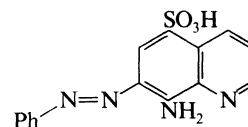
A-00315

5-(Phenylazo)-8-quinolinamine, 9CI
[7771-17-7] $C_{15}H_{12}N_4$ M 248.287

Used as 0.12% EtOH soln. for extraction-photometric detn. of Pd(II) (λ_{max} 620 nm, ϵ 79000, 4-methyl-2-pentanone). Orange needles (EtOH aq.). Sol. EtOH, DMF, Me₂CO; insol. H₂O. Mp 132-133°.

Blanco, M. et al, *Mikrochim. Acta*, 1983, **3**, 11 (synth, detn, Pd)**8-Amino-7-(phenylazo)-5-quinolinesulfonic acid**

A-00316

 $C_{15}H_{12}N_4O_3S$ M 328.351

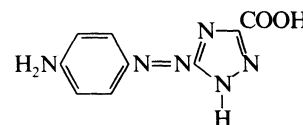
Na salt: [132412-57-8].

Used as 0.1mM EtOH soln. for fluorimetric detn. of Au (λ_{max} 380 nm, 1-300 ppb). Red cryst. (EtOH aq.). Sol. EtOH. Mp 239-241°.

Ruan Chuanmin, et al, *Analyst (London)*, 1991, **116**, 99 (synth, detn, Au)**5-[(4-Aminophenyl)azo]-1H-1,2,4-triazole-3-carboxylic acid, 9CI**

A-00317

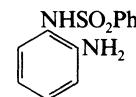
[72553-18-5]

 $C_9H_8N_6O_2$ M 232.201

Used for photometric detn. of Co. Orange cryst. Sol. alkalis, EtOH.

Israilov, M.A. et al, *CA*, 1980, **92**, 69040e.**N-(2-Aminophenyl)benzenesulfonamide, 9CI**

A-00318

Benzenesulfonic acid 2-aminoanilide
[43200-31-3] $C_{12}H_{12}N_2O_2S$ M 248.305

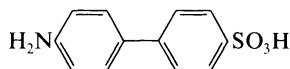
Used as a 0.2% soln. in 0.2M H₂SO₄ for gravimetric detn. of NO₂[⊖]. Cryst. (EtOH). Sol. Et₂O, EtOH.

Komar, N.P., *Zh. Anal. Khim.*, 1956, **11**, 259.

4-Aminophenylbenzenesulfonic acid

4'-Amino-4-biphenylsulfonic acid

[3365-89-7]

C₁₂H₁₁NO₃S M 249.290

Needles. Mp > 300°.

Amide: 4-Aminophenylbenzenesulfonamide. p-

Anilinebenzenesulfonamide

C₁₂H₁₂N₂O₂S M 248.305Fluorescence acid-base indicator (pH range 3.0 - 4.0; non fluoresc. → blue). Used as a 0.05% soln. in 50% EtOH. Needles (EtOH). Sol. acids, EtOH, Me₂CO. Mp 262-263° dec.Van Meter, C.J. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 3146 (*synth*, *amide*)Novelli, A. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 854 (*synth*, *amide*)Tomiček, O. *et al*, *Collect. Czech. Chem. Commun.*, 1948, **13**, 116 (*use*)Cesare, F. *et al*, *Ann. Chim. (Rome)*, 1950, **40**, 334 (*synth*)**2-Aminophenylcarbamdithioic acid, 9CI** **A-00320**

o-Aminophenyldithiocarbamic acid. o-Aminodithiocarbanilic acid

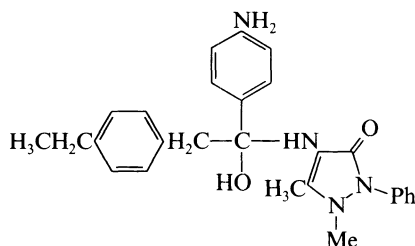
C₇H₈N₂S₂ M 184.286*NH₄* salt: [49791-42-6].Used as a 0.05% aq. soln. for photometric detn. of Cr(VI). Pale yellow cryst. (H₂O). Sol. H₂O; spar. sol. EtOH; insol. C₆H₆.Gagliardi, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1955, **147**, 321 (*detn*, Cr)**4-Aminophenylcarbamdithioic acid** **A-00321**

p-Aminophenyldithiocarbamic acid. p-Aminodithiocarbanilic acid

C₇H₈N₂S₂ M 184.286*NH₄* salt: [30714-43-3].Used for gravimetric detn. of Ir. Pale yellow cryst. (H₂O). Sol. H₂O; spar. sol. EtOH; insol. C₆H₆.Pshenitsyn, N.K. *et al*, *Zh. Neorg. Khim.*, 1957, **2**, 2375 (*detn*, Ir)**4-Aminophenyl-4-ethylbenzylaminoantipyrinylcarbinol** **A-00322**

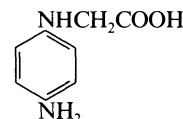
4-[p-Amino-α-[(p-ethylbenzyl)amino]-α-hydroxybenzyl]antipyrine, 8CI

[33834-71-8]

C₂₇H₃₀N₄O₂ M 442.560**A-00319**Used for photometric detn. of In. Red cryst. (C₆H₆). Sol. EtOH, Me₂CO; insol. H₂O.Shmeleva, I.A. *et al*, *CA*, 1971, **75**, 83777f (*detn*, In)**N-(p-Aminophenyl)glycine, 8CI** **A-00323**

p-Aminohippuric acid

[23227-24-9]

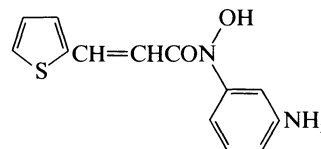
C₈H₁₀N₂O₂ M 166.179

Used as a 0.1% aq. soln. for photometric detn. of Os.

Cryst. (H₂O). Sol. hot H₂O, EtOH; sl. sol. Et₂O; insol. C₆H₆.Popper, E. *et al*, *Rev. Roum. Chim.*, 1967, **12**, 999.**N-(3-Aminophenyl)-N-hydroxy-3-(2-thienyl)-2-propenamide, 9CI** **A-00324**

N-m-Aminophenyl-2-thenylacrylohydroxamic acid

[119581-95-2]

C₁₃H₁₂N₂O₂S M 260.316Used as 0.1M CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 545 nm, ε 8800, pH 3.5-7.5M HCl). Cryst. (C₆H₆). Sol. CHCl₃, C₆H₆.Abbasi, S.A. *et al*, *Analyst (London)*, 1988, **113**, 1561 (*synth*, *detn*, V)**N-(4-Aminophenyl)-N-hydroxy-3-(2-thienyl)-2-propenamide, 9CI** **A-00325**

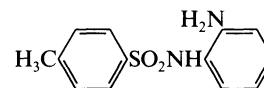
N-p-Aminophenyl-2-thenylacrylohydroxamic acid

[119581-94-1]

C₁₃H₁₂N₂O₂S M 260.316Used as 0.1M soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{max} 550 nm, ε 9100, 3.5-7.5M HCl).Cryst. (C₆H₆). Sol. CHCl₃, C₆H₆.Abbasi, S.A. *et al*, *Analyst (London)*, 1988, **113**, 1561 (*synth*, *detn*, V)**N-(2-Aminophenyl)-4-methylbenzenesulfonamide, 9CI** **A-00326**

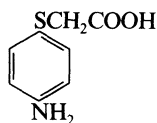
2-(4-Toluenesulfonamido)aniline

[3624-90-6]

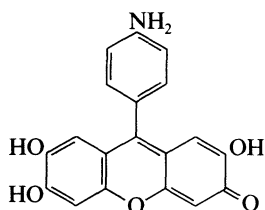
C₁₃H₁₄N₂O₂S M 262.332Used as a 0.5% soln. in aq. EtOH for photometric detn. of Cu (λ_{max} 550 nm, ε 6620), gravimetric detn. of Cu. Cryst. (EtOH aq.). Mp 135-136°.Billman, J.H. *et al*, *Anal. Chem.*, 1960, **32**, 1342; 1962, **34**, 1342; 1964, **36**, 552 (*synth*, *detn*, Cu)Betteridge, D. *et al*, *Anal. Chim. Acta*, 1968, **42**, 293 (*phot*, *detn*, Cu)

[(4-Aminophenyl)thio]acetic acid, 9CI **A-00327***p*-Aminophenylmercaptoacetic acid

[104-18-7]

 $C_8H_9NO_2S$ M 183.231Used for photometric detn. of Fe. Cryst. Sol. H_2O , alkalis; insol. C_6H_6 .Fernandez-Gomez, E. *et al*, *CA*, 1979, **91**, 116661z (detn, Fe)**9-(4-Aminophenyl)-2,6,7-trihydroxy-3H-xanthen-3-one, 9CI** **A-00328***4*-Aminophenylfluorone

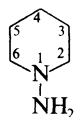
[58093-33-7]

 $C_{19}H_{13}NO_5$ M 335.315Used as a 0.05% soln. in EtOH for photometric detn. of Mo, Sb. Red cryst. powder. Spar. sol. H_2O ; sol. EtOH.N-Ac: [72007-65-9]. *4*-Acetamidophenylfluorone. N-[4-(2,6,7-

Trihydroxy-3-oxo-3H-xanthen-9-yl)phenyl]acetamide, 9CI

 $C_{21}H_{15}NO_6$ M 377.353Used as 0.02mM MeOH soln. for photometric detn. of Ge, Sn(IV), Ti, Pb, Cu, U(VI). Cryst. Sol. MeOH, EtOH; sl. sol. H_2O .N,N-Di-Et: [72007-66-0]. *4*-Diethylaminophenylfluorone. 9-(*4*-Diethylaminophenyl)-2,6,7-trihydroxy-3H-xanthen-3-one, 9CI $C_{23}H_{21}NO_5$ M 391.423Used as 0.02mM MeOH soln. for photometric detn. of Ge, Sn(IV), Ti, Pb, Cu and U(VI). Cryst. Sol. MeOH, EtOH; sl. sol. H_2O .Lu-Min-Lan, *CA*, 1960, **54**, 18181.Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Nauka, Moscow, 1973 (detn, Mo, Sb)Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **298**, 150 (synth, use)**1-Aminopiperidine** **A-00329***1*-Piperidinamine, 9CI

[2213-43-6]

 $C_5H_{12}N_2$ M 100.163Forms hydrazones with ketones suitable for gc. anal. Bp₇₂₈ 145-146°.

▷ TM4165000.

B, HCl: [63234-70-8].

Mp 159-162°.

p-Toluenesulfonate: Colourless fine needles (EtOAc/hexane). Mp 106-109°.Omiotanski, G.M. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 3874 (synth)Smith, P.A.S. *et al*, *J. Org. Chem.*, 1959, **24**, 1325 (synth, bibl)Carpino, L.A. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 2728 (synth)Vanden Heuval, W.J.A. *et al*, *J. Chromatogr.*, 1965, **18**, 391 (use)Krueger, P.J. *et al*, *Can. J. Chem.*, 1970, **48**, 3236 (ir)Gillis, R.G., *Org. Mass Spectrom.*, 1971, **5**, 1107 (ms)Murakami, Y. *et al*, *Chem. Pharm. Bull.*, 1983, **31**, 423 (synth)**2-Amino-1-propene-1,1,3-tricarbonitrile, 9CI** **A-00330***2*-Amino-1,1,3-tricyanopropene. Dimeric malonitrile.

Maleonitrile dimer

[868-54-2]

 $C_6H_4N_4$ M 132.124

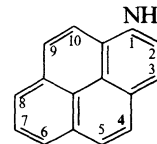
Dimer of Maleonitrile. Important intermed. in synth. of heterocycles esp. pyridines and pyrimidines. Used as a reagent for fluorimetric anal. of imidazoles, Cu.

Yellowish monoclinic needles (EtOH). Mp 170-173°.

▷ UD2340000.

Carboni, R.A. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 2838 (synth)Ritchie, K. *et al*, *Anal. Chem.*, 1969, **41**, 163 (use)Klewe, B., *Acta Chem. Scand.*, 1971, **25**, 1999; 1972, **26**, 317 (cryst struct)Takahashi, K., *Bull. Chem. Soc. Jpn.*, 1971, **44**, 3484 (synth)Mittlebach, M. *et al*, *Monatsh. Chem.*, 1985, **116**, 689 (synth)Gutierrez, M.C. *et al*, *Microchem. J.*, 1986, **34**, 332 (use)**1-Aminopyrene** **A-00331***1*-Pyrenamine, 9CI

[1606-67-3]

 $C_{16}H_{11}N$ M 217.270Isol. from coal tar. Used as 0.05% soln. in conc. H_2SO_4 for photometric detn. of NO_2^\ominus , NO_3^\ominus . Pale-yellow needles (hexane). Sol. C_6H_6 , Et_2O ; insol. H_2O . Mp 117-118°. Conc. H_2SO_4 → colourless soln. with violet-blue fluor.

▷ Mutagen. UR2275000.

N-Ac:

 $C_{18}H_{13}NO$ M 259.307

Needles (AcOH). Mp 260°.

N-Me: [22965-22-6].

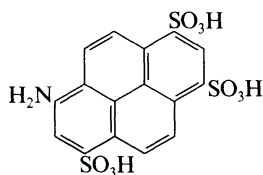
 $C_{17}H_{13}N$ M 231.296

Mp 82-83°.

Vollmann, H. *et al*, *Justus Liebigs Ann. Chem.*, 1937, **531**, 1.Jones, R.N., *J. Am. Chem. Soc.*, 1945, **67**, 2127 (uv)Lund, H. *et al*, *CA*, 1946, **40**, 6072.Weigel, W. *et al*, *Justus Liebigs Ann. Chem.*, 1961, **647**, 108.Sawicki, E. *et al*, *Anal. Chem.*, 1963, **35**, 1934 (detn, NO_2^\ominus , NO_3^\ominus)Buu-Hoi, N.P. *et al*, *J. Chem. Soc.*, 1963, 956.Martin, R.H. *et al*, *Bull. Soc. Chim. Belg.*, 1965, **74**, 418 (pmr)Kosuge, T. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 1535 (isol, tox)Tintel, C. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1983, **102**, 224 (synth)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PON000.

8-Amino-1,3,6-pyrenetrisulfonic acid, 9CI **A-00332**

[51987-58-7]

 $C_{16}H_{11}NO_9S_3$ M 457.462

Fluorescent probe for thiamine and pyridinium ion.

Koller, E. *et al*, *Spectroscopy* (Eugene, Oreg.), 1988, 3, 37 (use)**2-Aminopyridine****A-00333**2-Pyridinamine, 9CI. α -Pyridylamine

[504-29-0]

 $C_5H_6N_2$ M 94.116Has anaesthetic props. Reagent for fluorescence labelling of sugars. Cryst. (ligroin). Mp 57.5°. Bp 204°, Bp₂₀ 104-106°. Sublimes.

▷ Highly toxic by inhalation and skin contact, TLV 2. Emits toxic fumes on heating. US1575000.

B,HCl: Cryst. + 2H₂O. Mp 86°.*Picrate*: Yellow cryst. Mp 190°.

2-N-Ac:

 $C_7H_8N_2O$ M 136.153Cryst. (ligroin/C₆H₆). Mp 71°.

2-N-Benzoyl: [4589-12-2]. N-2-Pyridinylbenzamide, 9CI. 2-Benzamidopyridine

 $C_{12}H_{10}N_2O$ M 198.224Used for extraction-photometric detn. of Au(III) (λ_{max} 395 nm, ϵ 5200), Mo (λ_{max} 470 nm, ϵ 19000). Mp 85-87°, Mp 94°.

2-N-Me: 2-Methylaminopyridine

 $C_6H_8N_2$ M 108.143

Mp 190° (as picrate).

2-N-Di-Me: 2-(Dimethylamino)pyridine

 $C_7H_{10}N_2$ M 122.169

Bp 196°.

2-N-Di-Me, *picrate*: Yellow cryst. Mp 182°.

2-N-Et: 2-(Ethylamino)pyridine

 $C_7H_{10}N_2$ M 122.169Bp₄ 79-82°.2-N-Et; *B,H₂SO₄*: Mp 111-113°.

2-N-Isopropyl: [4214-72-6]. N-(1-Methylethyl)-2-pyridinamine, 9CI. 2-(Isopropylamino)pyrimidine.

Isaxonine, INN. *Nerfactor* $C_8H_{12}N_2$ M 136.196Drug for treatment of neuropathic disorders; promotes nerve growth. Mp 27-28°. Bp₁₂ 92-93°. Used as phosphate salt.

2-N-Octyl: [34366-90-0]. 2-Octylaminopyridine. 1-Octyl-2(IH)-pyridinamine, 9CI

 $C_{13}H_{22}N_2$ M 206.330Used as 0.05M CHCl₃ soln. for extraction separation of Ir, Rh. Cryst. Sol. CHCl₃, 1,2-dichloroethane, PhNO₂, C₆H₆, pK_a 7.4.

[65606-21-5]

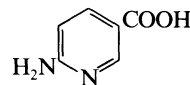
Shriner, R.L. *et al*, *Chem. Rev.*, 1944, 35, 351 (*N-benzoyl*, *synth*)Adams, R. *et al*, *J. Am. Chem. Soc.*, 1949, 71, 3539.Brown, D.J. *et al*, *J. Chem. Soc.*, 1965, 5542 (*uv*, *synth*)Buzas, A. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1966, 262, 658 (*deriv*)Kuthan, J. *et al*, *Z. Chem.*, 1968, 8, 305 (*tautom*)Belg. Pat., 788 648, (1973); *CA*, 79, 96981a (*pharmacol*)Chao, M. *et al*, *Acta Crystallogr., Sect. B*, 1976, 32, 2920 (*cryst struct*)Borshch, N.A. *et al*, *Zh. Anal. Khim.*, 1978, 33, 1805, 2181 (*N-octyl*, *synth*, *use*)Hase, S. *et al*, *J. Biochem. (Tokyo)*, 1981, 90, 407, 1275 (*use*)Patel, K.S. *et al*, *Talanta*, 1982, 29, 791 (*N-benzoyl*, *detn*, *Mo*)*Martindale, The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 19357.

Patel, K.S. *et al*, *Anal. Chem.*, 1986, 58, 1547 (*N-benzoyl*, *use*)Cook, I.B., *Aust. J. Chem.*, 1989, 42, 1493 (*cmr*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 176.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AM1000.**6-Amino-3-pyridinecarboxylic acid, 9CI** **A-00334**

6-Aminonicotinic acid

[3167-49-5]

 $C_6H_6N_2O_2$ M 138.126Has tuberculostatic props. Cryst. + 2H₂O (AcOH aq.).

Mp 310-312° dec.

B,HCl: Mp 194-195°.*Et ester*: [39658-41-8]. $C_8H_{10}N_2O_2$ M 166.179

Mp 148°.

Amide: [329-89-5]. 6-Aminonicotinamide $C_6H_7N_3O$ M 137.141

Used as a 2% aq. soln. for gravimetric detn. of Fe.

Cryst. Mp 200°, Mp 239-240°.

▷ US4550000.

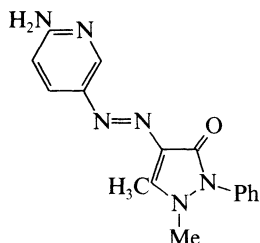
Hydrazide: [42596-56-5]. $C_6H_8N_4O$ M 152.155

Tuberculostatic. Mp 220-221°.

▷ Exp. teratogen.

Nitrile: [4214-73-7]. 6-Amino-3-pyridinecarbonitrile. 2-Amino-5-cyanopyridine $C_6H_5N_3$ M 119.126Cryst. (H₂O, MeOH or C₆H₆). Mp 163-164°. Bp₁₅ 240-250°.Khaletskii, A.M. *et al*, *Zh. Obshch. Khim.*, 1954, 24, 369; *CA*, 49, 4643.Dummel, R.J. *et al*, *J. Org. Chem.*, 1959, 24, 1007 (*synth*)Kajihara, S., *Nippon Kagaku Zasshi*, 1965, 86, 839; *CA*, 65, 16936 (*synth*)Bajpaj, K. *et al*, *Fresenius' Z. Anal. Chem.*, 1976, 280, 381 (*detn*, *Fe*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALL250.

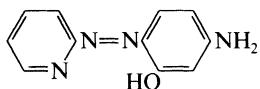
4-[(6-Amino-3-pyridinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI
[59104-63-1]



$C_{16}H_{16}N_6O$ M 308.342
Gives colour reactions with Bi, Co, Cu, Fe, Ga, In, Ni, Pd. Orange-red cryst. Mp 83°. pK_{a1} 1.75; pK_{a2} 5.79; pK_{a3} 8.91.

Smaglyuk, N.G. *et al.*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*use*)

5-Amino-2-(2-pyridinylazo)phenol **A-00336**
2-(4-Amino-2-hydroxyphenylazo)pyridine. PAPAN
[20716-31-8]



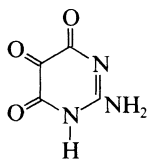
$C_{11}H_{10}N_4O$ M 214.226
N-Di-Me: [50783-80-7]. 5-(Dimethylamino)-2-(2-pyridinylazo)phenol, 9CI

$C_{13}H_{14}N_4O$ M 242.280
Used as 1mM EtOH soln. for photometric detn. of Zn (λ_{max} 538 nm, ϵ 112000), Ni, Co, Cu; as 0.1% soln. in EtOH or H₂O for extraction-photometric detn. of Al, Cd, Fe(III), La, Mg, Mn. Dark red needles (EtOH aq.). Sol. EtOH, MeOH, C₆H₆, CHCl₃, Me₂CO; spar. sol. H₂O. Mp 174°. pK_{a1} < 1; pK_{a2} 3.6; pK_{a3} 16.1 (MeOH aq.).

N-Di-Et: 5-(Diethylamino)-2-(2-pyridinylazo)phenol, 9CI
 $C_{15}H_{18}N_4O$ M 270.333
Used as 0.1% EtOH soln. for extraction-photometric of Tl(III) (λ_{max} 500 nm, ϵ 29000, C₆H₆), U(VI) (ϵ 76000). Dark red cryst. powder. Sol. EtOH, CHCl₃, Me₂CO, Et₂O; insol. H₂O. Mp 109°.

Florence, T.M. *et al.*, *Anal. Chem.*, 1969, **41**, 1652 (*synth, detn.*, U)
Gusev, S.I. *et al.*, *Zh. Anal. Khim.*, 1969, **24**, 1148 (*detn.*, Tl)
Shibata, S. *et al.*, *Anal. Chim. Acta*, 1973, **66**, 397 (*synth, use*)

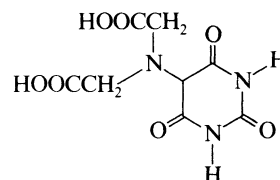
2-Amino-4,5,6(1H)-pyrimidinetrione **A-00337**



$C_4H_3N_3O_3$ M 141.086
5-Oxime: [52011-72-0]. Isonitrosomalonylguanidine
Used as a 0.2% soln. in dil. HClO₄ for photometric detn. of Co (λ_{max} 372 nm). Dark violet-blue cryst. (H₂O). Sol. hot H₂O.

Traube, W., *Ber.*, 1893, **26**, 2551 (*synth*)
Jean, M., *Anal. Chim. Acta*, 1952, **6**, 278 (*synth, use*)
Boulin, R. *et al.*, *Anal. Chim. Acta*, 1971, **56**, 45 (*detn.*, Co)

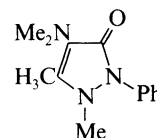
5-Amino-2,4,6-pyrimidinetrione-N⁵,N⁵-diacetic acid **A-00338**
N-(Carboxymethyl)-N-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)glycine, 9CI. Uramildiacetic acid
[13055-06-6]



$C_8H_9N_3O_7$ M 259.175
Used as a 0.07% soln. in dil. NaOH for photometric detn. of Be (λ_{max} 266 nm, ϵ 2100), Co (λ_{max} 266 nm). Cryst. Sol. alkalis.

Presas-Barrosa, M.J. *et al.*, *Anal. Chim. Acta*, 1977, **88**, 395 (*detn.*, Be, Co)

Aminopyrine **A-00339**
4-(Dimethylamino)-1,2-dihydro-1,5-dimethyl-3H-pyrazol-3-one, 9CI. 4-(Dimethylamino)antipyrene, 8CI. 4-Dimethylamino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one. **Aminophenazone**, INN. Amidopyrine. Pyramidone. Amidazofen. Numerous proprietary names
[58-15-1]



$C_{13}H_{17}N_3O$ M 231.297
Antipyretic, analgesic. Reagent for colorimetric anal. of phenols and anilines; used as 10% soln. in 0.1M H₂SO₄ for photometric detn. of Cu, Fe, platinum metals. Cryst. (toluene). Sol. H₂O, EtOH, CHCl₃, Et₂O, toluene. acids. Mp 107-109°.

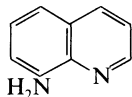
▷ LD₅₀ 98 mg/kg (rat, i.v.). CD2625000.

B,HCl: Deliquescent prisms. Mp 143-144°.
Cyclamate salt: [747-30-8]. **Aminophenazone cyclamate**, INN
Hart, E.R., *J. Pharmacol. Exp. Ther.*, 1947, **89**, 205 (*pharmacol*)
Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, **3**, 112 (*synth, use*)
Pesez, M. *et al.*, *Ann. Pharm. Fr.*, 1967, **25**, 577 (*detn, phenols, anilines*)
Kametani, T. *et al.*, *Chem. Pharm. Bull.*, 1967, **15**, 1305 (*synth*)
Tubaro, E. *et al.*, *Arzneim.-Forsch.*, 1970, **20**, 1024 (*tox*)
Zadeczyk, S., *Acta Pharm. Hung.*, 1973, **43**, 33 (*tlc*)
Singh, T.P. *et al.*, *Curr. Sci.*, 1975, **44**, 153 (*cryst struct*)
Baidarovsteva, M.A. *et al.*, *J. Chromatogr.*, 1975, **104**, 277 (*glc*)
Okada, J. *et al.*, *Chem. Pharm. Bull.*, 1976, **24**, 61 (*nmr*)
Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2609.
Carlsson, K.H. *et al.*, *Naunyn-Schmiedeberg's Arch. Pharmacol.*, 1987, **335**, 154 (*pharmacol*)
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 2825.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DOT000.

8-Aminoquinoline

8-Quinolamine, 9CI

[578-66-5]

C₉H₈N₂ M 144.176

Has tuberculostatic props. Used as a 0.05% soln. in dil. aq. HCl for photometric detn. of Pd; gravimetric detn. of Cu. Yellow cryst. (EtOH or ligroin). Mp 70°, Mp 63-64°, 65°. Bp₂₀ 157-162°. Steam-volatile.

B, HCl: Dark-red cryst. Mp 208-209°.

8-N-Ac: [33757-42-5].

C₁₁H₁₀N₂O M 186.213

Cryst. (EtOH). Mp 103°.

8-N-Benzoyl: [33757-48-1].

C₁₆H₁₂N₂O M 248.284

Cryst. (EtOH). Mp 98°.

8-N-Methanesulfonyl: [10374-76-2]. N-8-

Quinolylmethanesulfonamide, 8CI

C₁₀H₁₀N₂O₂S M 222.267

Used for extraction-sepn. of Cu(II), Co, Zn, Cd, Pb, Hg(II). Cryst. (cyclohexane). Sol. PhCl, cyclohexane, toluene. Mp 148-149°.

8-N-Ethanesulfonyl: [86252-96-2]. N-8-

Quinolylethanesulfonamide, 9CI

Used for extraction-sepn. of Cu(II), Co, Zn, Cd, Pb, Hg(II). Cryst. (cyclohexane). Mp 72-73.5°.

8-N-Butanesulfonyl: [86252-95-1]. N-8-Quinolyl-1-

butanesulfonamide, 9CI

C₁₃H₁₆N₂O₂S M 264.348

Used as a 0.02M soln. in PhCl for extraction-sepn. of Cu(II), Co, Zn, Cd, Pb, Hg(II). Viscous oil. Bp_{0.005} 170-195°.

8-N-Octanesulfonyl: [65286-40-0].

C₁₇H₂₄N₂O₂S M 320.455

Used as a 0.02M soln. in PhCl for extraction-sepn. of Cu(II), Co, Zn, Cd, Pb, Hg(II). Yellow viscous oil. Bp_{0.00038} 190-205°.

8-N-(4-Methylsulfohenyl): [10304-39-9]. N-(8-Quinolyl)-4-

toluenesulfonamide. 4-Methyl-N-8-

quinolylbenzenesulfonamide, 9CI

C₁₆H₁₄N₂O₂S M 298.365

Used as 1mM CHCl₃ or 0.1M soln. in EtOH for photometric detn. of Cu(II) (λ_{max} 370 nm, ε 7660); as Me₂CO soln. for pptn. of Ag, Co, Cu, Hg, Pb, Zn; fluorimetric detn. of Cd, Zn. Cryst. (EtOH). Sol. CHCl₃, C₆H₆. Mp 153-154°.

Dikshoorn, R.P., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1929, **48**, 147.

Dewar, M.J.S. *et al*, *J. Chem. Soc.*, 1956, 2556 (synth)

Richardson, A. *et al*, *J. Org. Chem.*, 1960, **25**, 1138 (synth)

Billman, J.H. *et al*, *Anal. Chem.*, 1962, **34**, 408 (synth, pptn)

Gustin, V.K. *et al*, *Anal. Chem.*, 1963, **35**, 44 (use)

Haworth, D.T. *et al*, *Microchem. J.*, 1968, **13**, 158 (N-4-methylsulfohenyl, detn, Cd, Zn)

Haworth, D.T. *et al*, *Anal. Chem.*, 1969, **41**, 529 (N-4-methylsulfohenyl, detn, Cu)

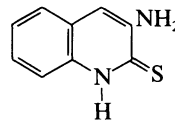
Ide, S. *et al*, *Anal. Chim. Acta*, 1983, **149**, 235 (sulfonyl derivs, use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AML250.

A-00340**3-Amino-2(1H)-quinolinethione, 9CI**

3-Amino-2-mercaptoquinoline

[71316-38-6]

C₉H₈N₂S M 176.242

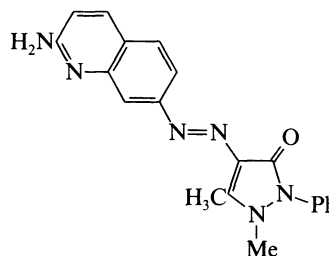
Used for extraction-fluorimetric detn. of 1-naphthol and carbaryl.

Yoshida, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1979, **28**, 351 (synth)

Yoshida, T. *et al*, *Chem. Pharm. Bull.*, 1986, **34**, 3774; 1989, **37**, 1823 (use)

4-[(2-Amino-7-quinolinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI**A-00342**

[59104-64-2]

C₂₀H₁₈N₆O M 358.402

Gives colour reactions with Bi, Co, Cu, Fe, Ga, In, Ni, Pd. Orange-red cryst. Mp 97°. pK_{a1} 1.22; pK_{a2} 3.61; pK_{a3} 6.98.

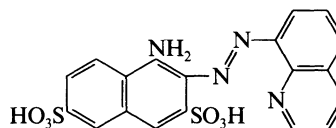
Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (use)

8-Amino-7-(8-quinolinylazo)-3,6-naphthalenedisulfonic acid, 9CI**A-00343**

4-Amino-3-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid.

Aminoquinoline F. Quinoliazof F

[42438-71-1]

C₁₉H₁₄N₄O₆S₂ M 458.475

Incorr. named as 1,6-disulfonic acid by CA. Used as aq. soln. for photometric detn. of Pd, Rh, Zn (λ_{max} 584 nm, ε 19000). Brown cryst. powder. Sol. H₂O, EtOH.

Dedkov, Y.M., *Zh. Anal. Khim.*, 1971, **26**, 558 (synth, use)

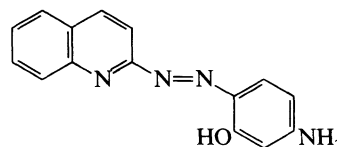
Dedkov, Y.M. *et al*, *CA*, 1973, **79**, 13101q (detn, Rh)

Sturte, I.G. *et al*, *Zavod. Lab.*, 1975, **41**, 11 (detn, Pd)

5-Amino-2-(2-quinolinylazo)phenol, 9CI**A-00344**

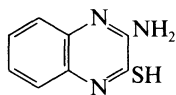
2-(4-Amino-2-hydroxyphenylazo)quinoline

[81947-68-4]



C₁₅H₁₂N₄O M 264.286Used as 0.14mM soln. in EtOH for photometric detn. of V, Ga (λ_{\max} 540 nm, ϵ 64500, pH 2.4-5.4). Yellow cryst. Sol. EtOH.Turakhanova, N.T. *et al.*, *Zh. Anal. Khim.*, 1985, **40**, 2779; 1988, **43**, 1042 (*synth, detn, V, Ga*)**2-Amino-3-quinoxalinethiol**

A-00345

3-Amino-2(1H)-quinoxalinethione, 9CI
[34972-19-5]C₈H₇N₃S M 177.229Used as 0.01M soln. in DMF for photometric detn. of Co, Ni, Cu, Pd. Yellow needles (DMF aq.). Spar. sol. H₂O; sol. EtOH, Me₂CO, DMF. Mp 285°. pK_{a1} 2.86; pK_{a2} 8.56 (50% EtOH).

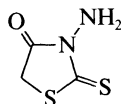
N-Me:

C₉H₉N₃S M 191.256Used as 0.01M soln. in DMF for photometric detn. of Co, Ni, Cu, Pd, but less effective than parent compound. Mp 226°. pK_{a1} 3.12; pK_{a2} 9.07.

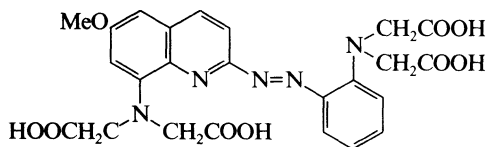
N-Ph: Mp 244°. May be used as photometric reagent but not nearly as effective as parent or N-Me compds.

Ohira, K. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1974, **23**, 658 (*synth, use*)**3-Aminorhodanine**

A-00346

3-Amino-2-thioxo-4-thiazolidinone, 9CI
[1438-16-0]C₃H₄N₂OS₂ M 148.209Used for photometric detn. of Au, Pd, Pt, Ir, Rh. Yellow cryst. (EtOH). Sol. acids, EtOH, Et₂O; spar. sol. H₂O.Savvin, S.B. *et al.*, *Talanta*, 1987, **34**, 87 (*detn, noble metals*)**2-(2-Aminostyryl)-6-methoxy-8-aminoquinoline-N,N,N',N'-tetraacetic acid**

A-00347

N-[2-[2-[8-[Bis(carboxymethyl)amino]-6-methoxy-2-quinolinyl]ethenyl]phenyl]-N-(carboxymethyl)glycine, 9CI.
Quene 1C₂₆H₂₅N₃O₉ M 523.498**(E)-form** [86277-62-5]

Fluorescent intracellular pH indicator.

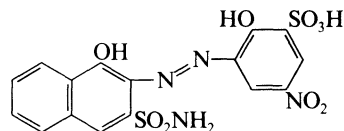
Tetrakis(acetoxymethyl) ester: [86293-31-4].C₃₈H₄₁N₃O₁₇ M 811.752

Used in the pH detn. of intracellular fluid.

Rogers, J. *et al.*, *FEBS Lett.*, 1983, **161**, 21 (*use*)Rogers, J. *et al.*, *J. Biol. Chem.*, 1983, **258**, 5994 (*synth, use*)**3-[[3-(Aminosulfonyl)-1-hydroxy-2-naphthalenyl]azo]-2-hydroxy-5-nitrobenzenesulfonic acid, 9CI**

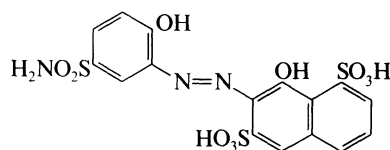
A-00348

[33683-77-1]

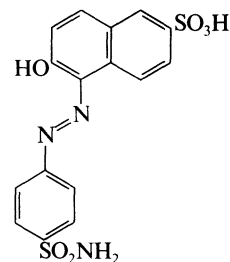
C₁₆H₁₂N₄O₉S₂ M 468.424Used as a 0.6mM aq. soln. for photometric detn. of Ga (λ_{\max} 560 nm, ϵ 15300). Orange-red cryst. Sol. H₂O. pK_{a2} 3.89; pK_{a3} 9.0.Dedkov, Y.M. *et al.*, *Zh. Anal. Khim.*, 1971, **26**, 2350 (*detn, Ga*)**7-[[5-(Aminosulfonyl)-2-hydroxyphenyl]azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, 9CI**

A-00349

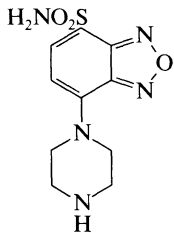
[33683-73-7]

C₁₆H₁₃N₃O₁₀S₃ M 503.491Used for photometric detn. of Al (λ_{\max} 550 nm, ϵ 14000), Ga (λ_{\max} 560 nm, ϵ 18400), In (λ_{\max} 570 nm, ϵ 15200). Cryst. pK_{a1} 6.46.Tutiunnikova, P.D. *et al.*, *Zh. Anal. Khim.*, 1975, **30**, 508 (*detn, Al, Ga, In*)**5-[[4-(Aminosulfonyl)phenyl]azo]-6-hydroxy-2-naphthalenesulfonic acid, 9CI**

A-00350

1-[(4-Sulfamidophenyl)azo]-2-hydroxynaphthalene-6-sulfonic acid
[62936-58-7]C₁₆H₁₃N₃O₆S₂ M 407.427Used as a 0.1% soln. in 15% EtOH for photometric titrimetric detn. of Pd (λ_{\max} 565 nm). Orange-red cryst. Sol. EtOH, Me₂CO.Khalifa, H. *et al.*, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 46 (*detn, Pd*)

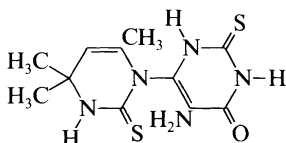
4-(Aminosulfonyl)-7-(1-piperaziny)-2,1,3-benzoxadiazole, 9CI **A-00351**
7-(1-Piperaziny)-4-benzofurazansulfonamide, 9CI. APD-PZ [135406-31-4]



$C_{10}H_{13}N_5O_3S$ M 283.310
Fluorogenic reagent for carboxylic acids. Orange cryst. Mp 179-180°.

Toyooka, T. *et al*, *Analyst* (London), 1991, **116**, 609 (synth, use)

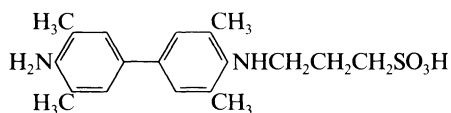
5'-Amino-2',3,3',4-tetrahydro-4,4,6-trimethyl-2,2'-dithioxo[1(2H),4'-bipyrimidin]-6'(1H)-one, 9CI **A-00352**
1-(6-Amino-5-hydroxy-3-mercaptopyrimidyl)-4,4,6-trimethyl-1H,4H-pyrimidine-2-thiol [67737-01-3]



$C_{11}H_{15}N_5OS_2$ M 297.404
Used as 0.01M MeOH soln. for photometric detn. of Os (λ_{max} 520 nm, ϵ 14600, 50% MeOH, pH 4.5-8). Cryst. Sol. MeOH.

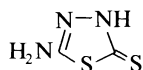
Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1747 (synth)
Singh, A.K. *et al*, *J. Indian Chem. Soc.*, 1979, **56**, 423 (detn, Os)

3-[[4'-Amino-3,3',5,5'-tetramethyl]1,1-biphenyl]-4-yl]amino]-1-propanesulfonic acid **A-00353**
4-Amino-4'-sulfopropylamino-3,3',5,5'-tetramethylbiphenyl [102062-36-2]



$C_{19}H_{26}N_2O_3S$ M 362.492
Na salt: [102062-46-4].
Chromogenic reagent for H_2O_2 or peroxidase. Sol. H_2O .
Ger. Pat., 3 443 415, (1986); *CA*, **104**, 203490y (use)

5-Amino-1,3,4-thiadiazoline-2(3H)-thione, 9CI **A-00354**
2-Amino-5-mercapto-1,3,4-thiadiazole [2349-67-9]

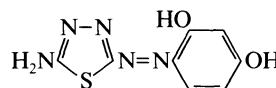


$C_2H_3N_3S_2$ M 133.198
Used for gravimetric detn. of Ag, Bi, Co, Fe(II), Ni, Pb, Zn. Cryst. (H_2O). Mp 233-234° dec. pK_{a1} 6.74 (20°).

▷ XI4550000.

Petrow, V. *et al*, *J. Chem. Soc.*, 1958, 1508.
Sandstrom, J., *Acta Chem. Scand.*, 1962, **15**, 1295 (synth)
Domagalina, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **207**, 411 (detn, Ag, Co, Ni, Pb, Zn)
Domagalina, E. *et al*, *Chem. Anal. (Warsaw)*, 1966, **11**, 1087 (detn, Bi, Fe)
Downie, T.C. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 1584 (cryst struct)
Oteleanu, D., *Farmacia (Bucharest)*, 1972, **20**, 525; *CA*, **78**, 111217 (synth)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AKM000.

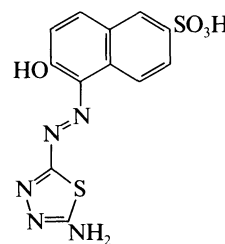
4-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-1,3-benzenediol, 9CI **A-00355**
2-Amino-5-(2,4-dihydroxyphenylazo)-1,3,4-thiadiazole [60592-95-2]



$C_8H_7N_5O_2S$ M 237.242
Used as a 0.1-0.3mM soln. in MeOH or acetate or borate buffer to give colour reactions with Co (λ_{max} 510 nm, ϵ 20200), Cu (λ_{max} 530 nm, ϵ 16500), Fe (λ_{max} 710 nm, ϵ 10100), Ni (λ_{max} 502 nm, ϵ 27600). Red-orange needles (MeOH). Sol. EtOH. Mp 282-285°. pK_{a1} 7.34; pK_{a2} 10.87.

Domagalina, E., *Chem. Anal. (Warsaw)*, 1976, **21**, 105, 411 (synth, pKa, use)

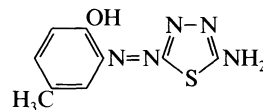
5-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-6-hydroxy-2-naphthalenesulfonic acid, 9CI **A-00356**
[60592-97-4]



$C_{12}H_9N_5O_4S_2$ M 351.366
Used as a 0.1-0.3mM soln. in MeOH or acetate, or borate buffer to give colour reactions with Co (λ_{max} 574 nm, ϵ 17700), Cu, Fe, Ni (λ_{max} 554 nm, ϵ 17600). Red amorphous powder. Sol. EtOH. pK_{a1} 8.35.

Domagalina, E., *Chem. Anal. (Warsaw)*, 1976, **21**, 105, 411 (synth, pKa, use)

4-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-4-methylphenol, 9CI **A-00357**
2-Amino-5-(2-hydroxy-5-methylphenylazo)-1,3,4-thiadiazole



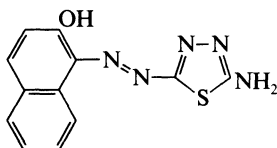
$C_9H_9N_5OS$ M 235.269

Used as a 0.1-0.3mM soln. in MeOH or acetate or borate buffer to give colour reactions with Cu (λ_{\max} 620 nm, ϵ 5150), Co, Fe, Ni. Dark orange prisms (MeOH). Sol. EtOH. Mp 253-254°. pK_{a1} 9.47.

Domagalina, E., *Chem. Anal. (Warsaw)*, 1976, **21**, 105, 411 (*synth, pKa, use*)

1-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, 9CI **A-00358**

2-Amino-5-(2-hydroxy-1-naphthylazo)-1,3,4-thiadiazole.
Atidan
[36408-59-0]

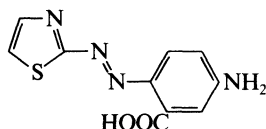


$C_{12}H_9N_3OS$ M 271.302

Used as 2mM soln. in MeOH for extraction-photometric detn. of Ni (λ_{\max} 570 nm, ϵ 16500). Red needles (MeOH). Sol. MeOH, EtOH, DMF, alkalis; spar. sol. H_2O . Mp 210°.

Domagalina, E. *et al*, *Chem. Anal. (Warsaw)*, Warsaw, 1971, **16**, 883 (*synth, use*)

5-Amino-2-(2-thiazolylazo)benzoic acid **A-00359**
2-(4-Amino-2-carboxyphenylazo)thiazole



$C_{10}H_8N_4O_2S$ M 248.265

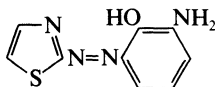
N-Di-Et: 5-Diethylamino-2-(2-thiazolylazo)benzoic acid

$C_{14}H_{16}N_4O_2S$ M 304.372

Used a 1mM dioxan soln. for photometric detn. of Ni (λ_{\max} 615 nm, ϵ 109000, 40% dioxan, pH 8), Co, Cu(II). Cryst. Sol. dioxan, EtOH. Mp 170°. pK_{a1} 1.4; pK_{a2} 5.08 (40% dioxan, $\mu = 0.1$, 25°).

Furukawa, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1990, **39**, 589 (*synth, detn, Ni*)

2-Amino-6-(2-thiazolylazo)phenol **A-00360**
2-(3-Amino-2-hydroxyphenylazo)thiazole



$C_9H_8N_4OS$ M 220.254

N,N-Di-Et: [26325-38-2]. 2-(Diethylamino)-6-(2-thiazolylazo)phenol, 9CI. 6-(2-Thiazolylazo)-2-diethylaminophenol

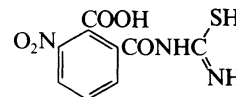
$C_{13}H_{16}N_4OS$ M 276.362

Used as a 0.1% soln. in propanol for photometric detn. of Ir (λ_{\max} 570 nm, ϵ 48000), Rh (λ_{\max} 590 nm, ϵ 58000). Orange-red cryst. Sol. EtOH, Me_2CO , alkalis.

Goroshko, G.G. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 11 (*detn, Ir, Rh*)

2-[(Aminothioxomethyl)amino]carbonyl]-6-nitrobenzoic acid, 9CI **A-00361**

[51031-98-2]



$C_9H_7N_3O_5S$ M 269.237

Used as a 0.5mM soln. in $CHCl_3$ /pentanol for extraction-photometric detn. of Pd (λ_{\max} 306 nm, ϵ 29000). Yellow-green cryst. (EtOH). Sol. EtOH, AcOH, Me_2CO , DMF; spar. sol. H_2O , C_6H_6 ; insol. CCl_4 , $CHCl_3$. Mp 160°.

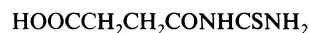
Ciba, J. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1973, **47**, 1275; *CA*, **80**, 14760y (*synth*)

Gregorowicz, Z. *et al*, *Microchem. J.*, 1978, **23**, 517 (*detn, Pd*)

4-[(Aminothioxomethyl)amino]-4-oxobutanoic acid, 9CI **A-00362**

α -Oxothioureia-N-butanoic acid. Succinic acid monothioureide

[76265-98-0]



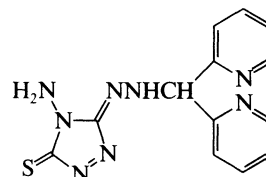
$C_5H_8N_2O_3S$ M 176.196

Used as 1mM aq. soln. for photometric detn. of Pd (λ_{\max} 295 nm, ϵ 30000). Yellow cryst. (MeOH). Sol. MeOH, EtOH, H_2O . Mp 227°.

Buhl, F. *et al*, *Chem. Anal. (Warsaw)*, 1980, **25**, 335 (*synth, Pd*)

4-Amino-5-thioxo-1,2,4-triazolidin-3-one di-(2-pyridinylmethylene)hydrazone, 9CI **A-00363**

[99380-57-1]



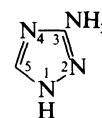
$C_{13}H_{12}N_8S$ M 312.357

Used as 0.2% soln. in EtOH for photometric detn. of Co (λ_{\max} 520 nm, ϵ 21000, pH ~8), Cu(II), Zn, Cd, Pb, Ni. Yellow cryst. (EtOH). Sol. EtOH, Me_2CO ; spar. sol. H_2O . Mp 274-277°.

Samara, C. *et al*, *Microchem. J.*, 1986, **33**, 252 (*synth, use*)

3(5)-Amino-1,2,4-triazole **A-00364**

1H-1,2,4-Triazol-3-amine, 9CI. Amizol. Amitrole
[61-82-5]



$C_2H_4N_4$ M 84.080

Non-selective herbicide. Used for detn. of tryptophan in proteins. Cryst. (H_2O , EtOH or EtOAc). Mp 159°.

▷ Suspected carcinogen. Emits highly toxic fumes when slightly heated. XZ3850000.

B,HCl: Cryst. (EtOH). Mp 153°.

3-N-Ac: [5295-23-8].

$C_4H_6N_4O$ M 126.118

Mp 295-300° dec.

▷ AC9075000.

1H-form*1-Ph*: 3-Amino-1-phenyl-1,2,4-triazole. 1-Phenyl-1H-1,2,4-triazol-3-amineC₈H₈N₄ M 160.178Cryst. (H₂O). Mp 150°.*1-Ph*; *B*, *HCl*: Cryst. + 1H₂O (HCl aq.). Mp 187°.*1-Ph*, 3-*N-Ac*: [31709-14-5].C₁₀H₁₀N₄O M 202.215

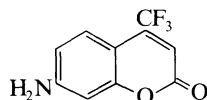
Cryst. (EtOH). Mp 168°.

2H-form*2-Ph*: 5-Amino-1-phenyl-1H-1,2,4-triazole. 1-Phenyl-1H-1,2,4-triazol-5-amineC₈H₈N₄ M 160.178Cryst. (H₂O). Mp 157°.*2-Ph*, *picrate*: Yellow cryst. (H₂O). Mp 175°.Cuneo, G., *Gazz. Chim. Ital.*, 1899, **29**, 16 (*1-Ph*)*Org. Synth.*, 1946, **26**, 11 (*synth*)Grundmann, C. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 2839 (*synth*)Gompper, R. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1963, **2**, 686 (*2-Ph*)Barlin, G.B., *J. Chem. Soc. B*, 1967, 641 (*tautom*)De Traglia, M.C. *et al*, *Anal. Biochem.*, 1979, **99**, 464 (*use*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 177.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AMY050.**7-Amino-4-(trifluoromethyl)-2H-1-benzopyran-2-one, 9CI**

A-00365

7-Amino-4-(trifluoromethyl)coumarin

[53518-15-3]

C₁₀H₆F₃NO₂ M 229.158

Laser dye. Fluorescent marker in proteinase detection. Mp 222°.

N-Ac: [78277-38-0].C₁₂H₈F₃NO₃ M 271.195Solid (MeOH/Et₂O). Mp 184°.*N-Benzoyl*: [78277-39-1].C₁₇H₁₀F₃NO₃ M 333.266

Solid (EtOAc). Mp 229.9°.

N-Et: [52840-38-7].C₁₂H₁₀F₃NO₂ M 257.212

Solid (EtOH aq.). Mp 161.7°.

N-Ph: [78277-34-6].C₁₆H₁₀F₃NO₂ M 305.256

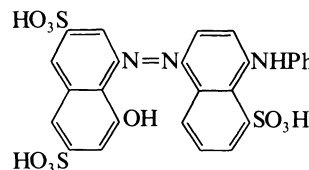
Solid (EtOH aq.). Mp 161°.

Bissel, E.R. *et al*, *J. Org. Chem.*, 1980, **45**, 2283 (*synth*, *pmr*, *ir*)Smith, R.E. *et al*, *Thromb. Res.*, 1980, **17**, 393; *CA*, **92**, 159413 (*derivs*)Bissel, E.R. *et al*, *J. Chem. Eng. Data*, 1981, **26**, 348 (*derivs*)**Anazolene**

A-00366

4-Hydroxy-5-[[4-(phenylamino)-5-sulfo-1-naphthaleny]azo]-2,7-naphthalenedisulfonic acid, 9CI. C.I. Acid blue 92, 8CI. Coomassie blue. Fast wool blue B. Fast acid blue RH. C.I. 13390

[7488-76-8]

C₂₆H₁₉N₃O₁₀S₃ M 629.648

Strictly the C.I. names refer to the trisodium salt.

Tri-Na salt: [3861-73-2]. *Anazolene sodium*, *INN*, *USAN*.*Sodium anoxynaphthionate*, *BAN*

Dye used for detn. of blood volume and cardiac output.

Acid-base indicator (pH₁ 11.22; colour change:blue→pink). Blue cryst. Sol. H₂O, 2-ethoxyethanol; sl.sol. EtOH. λ_{max} 571 nm (H₂O).▷ LD₅₀ 450mg/kg (i.v., mouse). QJ6300000.*Ger. Pat.*, 108 546 (*synth*)Konopik, N. *et al*, *Monatsh. Chem.*, 1948, **79**, 586; 1949, **80**, 420.Anderson, N.M. *et al*, *J. Lab. Clin. Med.*, 1968, **72**, 705 (*synth*, *detn*)Hitzberger, G., *CA*, 1973, **79**, 123196g (*rev*)*Martindale, The Extra Pharmacopoeia*, 28th/29th Ed.,

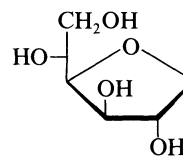
Pharmaceutical Press, London, 1982/1989, 2149.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ADE750.**1,4-Anhydroglucitol, 9CI, 8CI**

A-00367

1,4-Anhydrosorbitol. *Arlitan*. *Sorbitan*

[27299-12-3]

C₆H₁₂O₅ M 164.158***D*-form**Mp 115-116°. [α]_D²⁷ -21.9° (c. 2.5 in H₂O).5,6-*O*-Isopropylidene, 2-*mesyl*: [55730-74-0].

Mp 112°.

5,6-*O*-Isopropylidene, 2,3-*dimesyl*: [55730-75-1].

Mp 163-163.5°.

Tetra-Me ether:C₁₀H₂₀O₅ M 220.265Bp₁₄ 170-174°. [α]_D²² -43° (c. 4.84 in EtOH).6-*Monododecanoyl ester*: [1338-39-2]. *Sorbitan monolaurate*,*BAN*, *USAN*. *Sorbitan laurate*, *INN*. *Sorbester P12*. *Span*

20

C₁₈H₃₄O₆ M 346.463Nonionic surface active agent. Used as a 0.1% soln. in toluene for extraction-photometric detn. of SO₄²⁻ (λ_{max} 600 nm, ε 15000, toluene).

▷ WG2920000.

6-*Mono(9-octadecenoyl ester)*: [1338-43-8]. *Sorbitan**monooleate*, *BAN*, *USAN*. *Sorbitan oleate*, *INN*. *Sorbester**P17*. *Span 80*. *NSC 406239*C₂₄H₄₄O₆ M 428.608

Nonionic surface active agent.

▷ WG2932400.

6-Monohexadecanoyl ester: [26266-57-9]. Sorbitan monopalmitate, BAN, USAN. Sorbitan palmitate, INN. Sorbester P16. Span 40
 $C_{22}H_{42}O_6$ M 402.570
 Nonionic surface active agent.

6-Monooctadecanoyl ester: [1338-41-6]. Sorbitan monostearate, BAN, USAN. Sorbitan stearate, INN. Sorbester P18. Span 60
 $C_{24}H_{46}O_6$ M 430.624
 Nonionic surface active agent.
 ▶ WG2933500.

3,5,6-Tri(9-octadecenoyl) ester: [5960-06-5]. Sorbitan trioleate, BAN, USAN. Sorbester P37. Span 85
 $C_{60}H_{108}O_8$ M 957.508
 Nonionic surface active agent.

3,5,6-Triocadecanoyl ester: [26658-19-5]. Sorbitan tristearate, BAN, USAN. Sorbester P38. Span 65
 Nonionic surface active agent.

[26266-58-0]

Soltzberg, S. et al, *J. Am. Chem. Soc.*, 1946, **68**, 919.
 Que, L.Jr. et al, *Biochemistry*, 1974, **13**, 146 (cmr)
 Hanessian, S. et al, *Tetrahedron Lett.*, 1974, 3983.
 Sato, S. et al, *Anal. Lett.*, 1981, **14**, 531 (use)
 Sato, S. et al, *Anal. Chim. Acta*, 1982, **142**, 319 (use)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SKV000, SKV100, SKV150.

Aniline, 8CI

A-00368

Benzenamine, 9CI. Aminobenzene. Phenylamine
 [62-53-3]



C_6H_7N M 93.128

Manuf. mainly by cat. redn. of nitrobenzene. Used in manuf. of rubber chemicals, agricultural chemicals and dyestuffs and in prodn. of MDI group isocyanates used in polyurethanes. US prodn. ~ 200,000 tons/yr. Used for extraction of anionic complexes of Nb, V, Ta with polyphenols. Liq. which darkens on exp. to light. Mod. sol. H_2O (3.5% at 25°). d_{15}^{15} 1.0268. Mp -6°. Bp 184°, Bp₀ 71°. pK_a 9.40. n_D^{20} 1.5855. Steam-volatile.

▶ Highly toxic by inhalation and skin absorption, TLV(skin) 10. Vigorously oxid. by some oxidants. Flash point 76° (closed cup). BW6650000.

B,HCl: [142-04-1]. Aniline salt

Important dyestuffs intermed. Cryst. Mp 198°. Bp 245°.

▶ Toxic, skin irritant. CY0875000.

N-Ac: [103-84-4]. Acetanilide. N-Phenylacetamide.

Antifebrin

C_8H_9NO M 135.165

Formerly in use as an antipyretic. Used as 0.2M soln. in C_6H_6 for extraction-photometric detn. of Au(III) (λ_{max} 400 nm, ϵ 4300; bromide-5M HCl medium). Reference material used in elemental microanalysis. Cryst. (H_2O). Sol. C_6H_6 , toluene, $CHCl_3$, 4-methyl-2-pentanone, EtOAc. Mp 115-116°.

▶ AD7350000.

N-Di-Ac: [1563-87-7]. N-Acetyl-N-phenylacetamide, 9CI.

Diacetanilide

$C_{10}H_{11}NO_2$ M 177.202

Cryst. (pet. ether). Mp 34-36°. Bp₁₁ 142°.

N-Di-Me: see N,N-Dimethylaniline, D-00831

N-Di-Et: see N,N-Diethylaniline, D-00337

N-Ph: see Diphenylamine, D-01000

Kirk-Othmer *Encycl. Chem. Technol.*, **2**, 309 (rev, props)

Org. Synth., Coll. Vol., **1**, 1932, 80, 82 (derivs)

Shriner, R.L. et al, *Chem. Rev.*, 1944, **35**, 351 (synth, N-Ac)

Org. Synth., Coll. Vol., **3**, 1955, 10 (derivs)

Miyajima, G. et al, *Chem. Pharm. Bull.*, 1971, **19**, 2301 (nmr)

Analyst (London), 1972, **97**, 740 (microanal)

Ali-Zade, I.D. et al, *Zh. Anal. Khim.*, 1974, **29**, 739 (use)

Wasylishen, R. et al, *Can. J. Chem.*, 1976, **54**, 833 (nmr)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1977, **6**, 21.

Vogel, A.I., *Practical Organic Chemistry*, 4th Ed., Longmans, 1978, 659 (synth)

Wasserman, H.J. et al, *Acta Crystallogr., Sect. C*, 1985, **41**, 783 (cryst struct, N-Ac)

Patel, K.S. et al, *Anal. Chem.*, 1986, **58**, 1547 (use, N-Ac)

Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (cmr)

Penner, G.H. et al, *Can. J. Chem.*, 1989, **67**, 525 (cmr, N-Ac)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,

Butterworths, London and Boston, 1979, 572, 586.

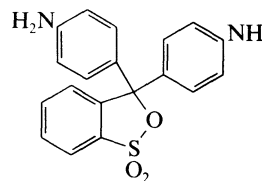
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 182, 276.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AAQ500, AOQ000, BBL000, FNJ000, NJI700.

Anilinesulfonephthalein

A-00369

3,3-Bis(4-aminophenyl)-3H-2,1-benzoxathiole S,S-dioxide
 [4538-11-8]



$C_{19}H_{16}N_2O_3S$ M 352.413

Acid-base indicator. Cryst. with green-red lustre.

N,N'-Di-Me: N-Methylanilinesulfonephthalein

$C_{21}H_{20}N_2O_3S$ M 380.467

Used as a soln. in EtOH as acid-base indicator (pH range: 0.91-1.92; colour change: yellow → blue; pH range: 11.75-13.06; colour change: blue → yellow).

Leaflets or prisms with green or bronze lustre. Sol. EtOH; insol. H_2O . pK_{a1} 1.36; pK_{a2} 12.94 (20°, KCl).

N,N'-Di-Et: N-Ethylanilinesulfonephthalein

$C_{23}H_{24}N_2O_3S$ M 408.520

Acid-base indicator (pH range: 0.91-1.52; colour change: yellow → blue; pH range: 11.75-13.06; colour change: blue → yellow). Used as EtOH soln. Leaflets or short columns or prisms with green or brown lustre. Sol. EtOH; insol. H_2O . pK_{a1} 1.73; pK_{a2} 13.20.

N,N'-Bis(2-hydroxyethyl): N-(Hydroxyethyl)

anilinesulfonephthalein

$C_{23}H_{24}N_2O_5S$ M 440.519

Used as an EtOH soln. as an acid base indicator (pH range: 0.37-0.98; colour change: yellow → blue; pH range: 11.75-12.71; colour change: blue → yellow). Leaflets or short columns or prisms with green or bronze lustre. Sol. EtOH; insol. H_2O . pK_{a1} 0.51; pK_{a2} 12.49.

N,N'-Dipropyl: N-Propylanilinesulfonephthalein

$C_{25}H_{28}N_2O_3S$ M 436.574

Used as a soln. in EtOH as acid base indicator (pH range: 0.82-1.80; colour change: yellow → blue; pH range: 12.58-13.10; colour change: blue → yellow). Leaflets or short columns or prisms with green or bronze lustre. Sol. EtOH; insol. H_2O . pK_{a1} 1.57; pK_{a2} 13.11.

N,N'-Dibenzyl: N-Benzylanilinesulfonephthalein

$C_{33}H_{28}N_2O_3S$ M 532.662

Used as acid-base indicator (pH range: 0.3-1; colour change: yellow → blue; pH range: 12.1-12.8; colour change: blue → yellow). Leaflets with green lustre. Sol. EtOH, Me₂CO, C₆H₆; insol. H₂O. pK_{a1} 0.30; pK_{a2} 12.7.

N,N'-Bis(2-methylphenyl): N-(o-Methylphenyl) anilinesulfonephthalein

$C_{33}H_{28}N_2O_3S$ M 532.662

Used as a soln. in EtOH as acid-base indicator (pH range: 9.84-11.3; colour change: blue → yellow). Leaflets or prisms with green or bronze lustre. Sol. EtOH; insol. H₂O. pK_{a2} 10.60 (20°, KCl).

N,N'-Bis(2,4-dimethylphenyl): N-(o,p-Dimethylphenyl) anilinesulfonephthalein

$C_{35}H_{32}N_2O_3S$ M 560.715

Acid-base indicator (pH range: 9.84-11.3; colour change: yellow → blue, blue → yellow) used as EtOH soln. Leaflets with green lustre. Sol. EtOH; insol. H₂O. pK_{a1} 10.73.

N,N'-Bis(2,4,5-trimethylphenyl): N-(2,4,5-Trimethylphenyl) anilinesulfonephthalein

$C_{37}H_{36}N_2O_3S$ M 588.769

Used as a soln. in EtOH as acid-base indicator (pH range: 9.84-11.30; colour change: blue → yellow). Leaflets, short columns or prisms with green or bronze lustre. Sol. EtOH; insol. H₂O. pK_{a2} 10.89.

N,N'-Bis(4-aminophenyl): N-(p-Aminophenyl) anilinesulfonephthalein

$C_{31}H_{26}N_4O_3S$ M 534.637

Used as acid-base indicator (pH range: 9.8-11.3; colour change: violet → yellow). Leaflets or prisms with green or bronze lustre. Sol. EtOH, Me₂CO, C₆H₆, acids; insol. H₂O.

N,N'-Bis(3-hydroxyphenyl): N-(3-Hydroxyphenyl) anilinesulfonephthalein

$C_{31}H_{24}N_2O_5S$ M 536.607

Used as a soln. in EtOH as acid base indicator (pH range: 9.87-11.30; colour change: blue → yellow). Leaflets or short columns or prisms with green or bronze lustre. Sol. EtOH; insol. H₂O. pK_{a2} 10.76.

N,N'-Bis(4-ethoxyphenyl): N-(p-Ethoxyphenyl) anilinesulfonephthalein

$C_{35}H_{32}N_2O_5S$ M 592.714

Used as a soln. in EtOH as acid-base indicator (pH range: 10.5-11.3; colour change: yellow → blue). Leaflets or short columns or prisms with green or bronze lustre. Sol. EtOH; insol. H₂O. pK_a 11.48.

N,N'-Bis(2-bromophenyl): N-(o-Bromophenyl) anilinesulfonephthalein

$C_{31}H_{22}Br_2N_2O_3S$ M 662.400

Acid-base indicator (pH range: 8.1-8.9; colour change: violet → yellow), used as a soln. in EtOH. Leaflets with green or bronze lustre. Sol. EtOH, Me₂CO, C₆H₆; insol. H₂O. pK_a 8.9.

Schwarzenbach, G. *et al*, *Helv. Chim. Acta*, 1937, **20**, 498, 627, 654 (synth, use, pKa)

Mohler, H. *et al*, *Helv. Chim. Acta*, 1937, **20**, 653 (use)

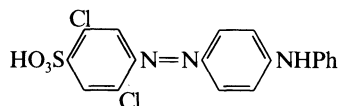
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 120.

4'-Anilino-2,5-dichloroazobenzene-4-sulfonic acid

A-00370

2,5-Dichloro-4-[[4-(phenylamino)phenyl]azo]benzenesulfonic acid, 9CI. 4-(4-Anilinophenyl)azo-2,5-dichlorobenzenesulfonic acid

[99776-84-8]



$C_{18}H_{13}Cl_2N_3O_3S$ M 422.290

Used as a 0.5mM aq. soln. for extraction-photometric detn. of K (λ_{max} 420 nm, C₆H₆). Orange-red cryst. Sol. alkalis; spar. sol. H₂O.

Iwachido, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1985, **34**, 579 (detn, K)

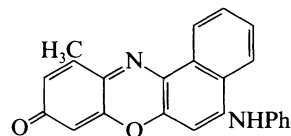
Iwachido, T. *et al*, *Anal. Sci.*, 1986, **2**, 493 (detn, K)

Motomizu, S. *et al*, *Analyst (London)*, 1988, **113**, 743 (detn, K)

5-Anilino-11-methyl-9H-benzo[a]phenoxazin-9-one, 8CI

A-00371

[17800-01-0]



$C_{23}H_{16}N_2O_2$ M 352.392

Used as a satd. EtOH soln. as an acid-base indicator. Brown-violet cryst. Sol. C₆H₆, Et₂O; sl. sol. EtOH. Mp > 360°. pK_{a1} 3.62 (EtOH, μ = 0.07).

Ruzička, E. *et al*, *Mikrochim. Acta*, 1968, 1299 (use, ind)

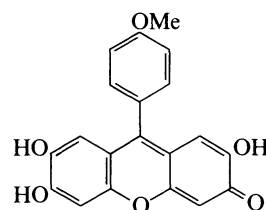
Ruzička, E. *et al*, *Monatsh. Chem.*, 1968, **99**, 838 (synth)

Anisylfluorone

A-00372

9-(4-Methoxyphenyl)-2,6,7-trihydroxy-3H-xanthen-3-one, 9CI

[37569-53-2]



$C_{20}H_{14}O_6$ M 350.327

Used as a 0.05% soln. in EtOH for photometric detn. of B, Ge, Sn, Sb. Red cryst. powder. Insol. H₂O; sol. EtOH, alkalis.

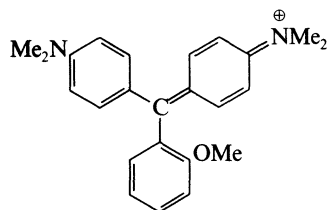
Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1955, **10**, 289 (use)

Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Nauka, Moskva, 1973 (use)

***o*-Anize green**

A-00373

N-[4-[[4-(Dimethylamino)phenyl](2-methoxyphenyl)methylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+), 9CI



$C_{24}H_{27}N_2O^{\oplus}$ M 359.490 (ion)
Strictly, the name *o*-Anize green applies to the chloride.

Chloride: [13393-34-5].

$C_{24}H_{27}ClN_2O$ M 394.943

Used as a 1mM aq. soln. for extraction-photometric detn. of Tl (on forming ion-pair with $TlBr_4^{\ominus}$). Green cryst. (aq. HCl). Sol. H_2O ; insol. EtOH, CCl_4 .

Constantinescu, C. *et al.*, *Rev. Roum. Chim.*, 1976, **21**, 391 (*detn. Tl*)

***p*-Anize green**

A-00374

N-[4-[[4-(Dimethylamino)phenyl](4-methoxyphenyl)methylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+), 9CI

$C_{24}H_{27}N_2O^{\oplus}$ M 359.490 (ion)

Strictly the name *p*-Anize green applies to the chloride.

Chloride: [4612-24-2].

$C_{24}H_{27}ClN_2O$ M 394.943

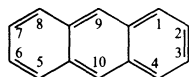
Used as a 1mM aq. soln. for extraction-photometric detn. of Tl (on forming an ion-pair with $TlBr_4^{\ominus}$). Green cryst. (aq. HCl). Insol. C_6H_6 , CCl_4 ; sol. H_2O .

Constantinescu, C. *et al.*, *Rev. Roum. Chim.*, 1976, **21**, 391 (*detn. Tl*)

Anthracene

A-00375

[120-12-7]



$C_{14}H_{10}$ M 178.233

Found in coal tar. Dyestuff intermed. Reference material used in elemental microanalysis. Monoclinic plates (EtOH), colourless with violet fluor. when pure. d_4^{25} 1.283. Mp 216.1°. Bp 339.9°. Strongly triboluminescent.

▷ Weak carcinogen, allergen, mild irritant. CA9350000.

Trinitrotoluene complex: Mp 162°.

Picrate: Mp 138°.

Dumas, *et al.*, *Justus Liebigs Ann. Chem.*, 1833, **5**, 10 (*isol*)

Clar, E., *Ber.*, 1932, **65**, 506; 1939, **72**, 1645 (*w, purifn*)

Analyst (London), 1972, **97**, 740 (*microanal*)

Agranat, T. *et al.*, *Synthesis*, 1974, 865 (*synth*)

Fleming, I. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1975, 964 (*synth*)

Hansen, P.E. *et al.*, *Org. Magn. Reson.*, 1979, **12**, 50 (*cmr*)

Brock, C.P. *et al.*, *Acta Crystallogr., Sect. B*, 1990, 795 (*cryst struct*)

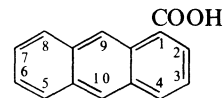
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, APG500.

1-Anthracenecarboxylic acid, 9CI

A-00376

Anthracene- α -carboxylic acid. α -Anthroic acid

[607-42-1]



$C_{15}H_{10}O_2$ M 222.243

Yellow needles (AcOH), yellow prisms (EtOAc or EtOH).

Mod. sol. hot EtOH; insol. H_2O . Mp 251-252°. Subl.

Me ester: [25308-58-1].

$C_{16}H_{12}O_2$ M 236.270

Yellow plates (AcOH). Mp 108°.

Amide:

$C_{15}H_{11}NO$ M 221.258

Leaflets or needles (EtOH). Mp 260°.

▷ Exp. carcinogen.

Hydrazide: [92437-15-5].

$C_{15}H_{12}N_2O$ M 236.273

Fluorescence derivatisation reagent for carbonyl compds. Yellow needles (EtOH). Mp 250-253° dec.

Liebermann, C. *et al.*, *Ber.*, 1904, **37**, 648 (*synth*)

Coulson, E.A., *J. Chem. Soc.*, 1930, 1931 (*synth*)

Dokunikhin, N.S. *et al.*, *Zh. Obshch. Khim.*, 1964, **34**, 2374; *CA*, **61**, 9447c (*hydrazide, synth*)

Goto, J. *et al.*, *Anal. Sci.*, 1989, **5**, 399 (*hydrazide, synth, use*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 382.

2-Anthracenecarboxylic acid, 9CI

A-00377

Anthracene- β -carboxylic acid. β -Anthroic acid

[613-08-1]

$C_{15}H_{10}O_2$ M 222.243

Yellow leaflets (EtOH). Mod. sol. hot EtOH. Mp 281°.

Me ester: [25308-60-5].

$C_{16}H_{12}O_2$ M 236.270

Mp 128°.

Amide:

$C_{15}H_{11}NO$ M 221.258

Yellow plates (AcOH). Mp 293-295°.

▷ Exp. carcinogen.

Hydrazide: [2143-79-5].

$C_{15}H_{12}N_2O$ M 236.273

Fluorescence derivatisation reagent for carbonyl compds. Yellow needles (EtOH). Mp 241-244°.

Barnett, E. de B. *et al.*, *Ber.*, 1924, **57**, 1775 (*synth*)

Ferrari, J.L. *et al.*, *J. Am. Chem. Soc.*, 1965, **87**, 1247 (*hydrazide, synth*)

Goto, J. *et al.*, *Anal. Sci.*, 1989, **5**, 399 (*hydrazide, synth, use*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 382.

9-Anthracenecarboxylic acid, 9CI

A-00378

ms-Anthracenecarboxylic acid. ms-Anthroic acid. Anthroic acid

[723-62-6]

$C_{15}H_{10}O_2$ M 222.243

Pale-yellow needles (EtOH). Mp 207° dec.

▷ CB8764000.

Me ester: [1504-39-8].

$C_{16}H_{12}O_2$ M 236.270

Yellow prisms. Mp 111°.

Amide: [34810-13-4].

$C_{15}H_{11}NO$ M 221.258

Cryst. (C_6H_6). Mp 219-219.5°.

Chloride: [16331-52-5]. 9-Anthracenecarbonyl chloride, 9Cl.

9-Anthroyl chloride, 8Cl

Hplc derivatising agent for hydroxy compds. Dull yellow solid. Mp 93.5-94.5°.

Karrer, P. *et al*, *Helv. Chim. Acta*, 1919, **2**, 482 (*synth*)

Dufraisse, C. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1945, **221**, 625.

Goeckner, N.A. *et al*, *J. Org. Chem.*, 1973, **38**, 481 (*chloride, synth*)

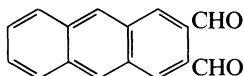
Bayliss, M.A.J. *et al*, *J. Chromatogr.*, 1988, **445**, 393, 403 (*chloride, use*)

2,3-Anthracenedicarboxaldehyde

A-00379

2,3-Diformylanthracene

[76197-35-8]



C₁₆H₁₀O₂ M 234.254

Precolumn labelling reagent for the peroxyoxalate chemiluminescence detn. of primary amines. Orange cryst. (C₆H₆). Mp 217°.

Mallouli, A. *et al*, *Synthesis*, 1980, 689 (*synth, uv*)

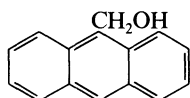
Kwakman, P.J.M. *et al*, *J. Chromatogr.*, 1990, **511**, 155 (*use*)

9-Anthracenemethanol, 9Cl

A-00380

9-(Hydroxymethyl)anthracene. 9-Anthrylcarbinol

[1468-95-7]



C₁₅H₁₂O M 208.259

Reagent for fluorimetric detn. of carboxylic acids. Bright yellow needles (C₆H₆ or EtOH). Mp 162-164° (151-152°).

Ac: [16430-32-3].

C₁₇H₁₄O₂ M 250.296

Yellow needles (EtOH). Mp 111-112°.

Alder, K. *et al*, *Chem. Ber.*, 1953, **86**, 1312 (*synth*)

Métayer, M., *Bull. Soc. Chim. Fr.*, 1954, 614 (*synth*)

Hunter, W.T. *et al*, *J. Org. Chem.*, 1956, **21**, 1512 (*synth*)

Nakaya, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1967, **40**, 691 (*synth*)

Kornblum, N. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 590 (*use*)

Lingeman, H. *et al*, *J. Chromatogr.*, 1984, **290**, 215 (*use*)

Baty, J.D. *et al*, *J. Chromatogr.*, 1987, **395**, 403 (*use*)

van den Beld, C.M.B. *et al*, *Anal. Chim. Acta*, 1988, **205**, 15 (*use*)

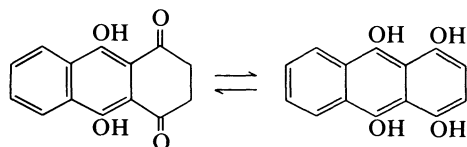
Sweeting, L.M., *J. Phys. Chem.*, 1988, **92**, 5648 (*cryst struct*)

1,4,9,10-Anthracenetetrol

A-00381

Leucoquinizarin, 8Cl. 1,4,9,10-Tetrahydroxyanthracene

[476-60-8]



C₁₄H₁₀O₄ M 242.231

Used as 0.05% soln. in EtOH for photometric and fluorimetric detn. of Mg (λ_{\max} 562 nm, ϵ 8100, pH 9.5), Be (λ_{\max} 438 nm, ϵ 12000, pH 5.4). Cryst. in 2 forms, one yellow. Sol. EtOH. Mp 155°, Mp 131-136°.

9,10-Di-Ac:

C₁₈H₁₄O₆ M 326.305

Cryst. Mp 214-215°.

Zahn, K. *et al*, *Justus Liebigs Ann. Chem.*, 1928, **462**, 72 (*synth*)

Flett, M.S.C., *J. Chem. Soc.*, 1948, 1441 (*ir*)

Burstall, M.L., *J. Chem. Soc., Chem. Commun.*, 1965, 15.

Sterk, H., *Monatsh. Chem.*, 1969, **100**, 916 (*struct*)

Metwally, S.A. *et al*, *Indian J. Chem., Sect. B*, 1977, **15**, 165 (*ms*)

Allen, N.S. *et al*, *Chem. Ind. (London)*, 1979, 593 (*synth*)

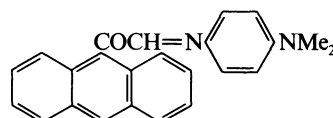
Bello Lopez, M.A. *et al*, *Analyst (London)*, 1986, **111**, 429, 1293

(*detn, Mg, Be*)

1-(9-Anthracenyl)-2-[[4-(dimethylamino)phenyl]imino]ethanone, 9Cl

A-00382

[57400-09-6]



C₂₄H₂₀N₂O M 352.435

Used as 0.01M soln. in Me₂CO for gravimetric detn. of Pd, Pt. Cryst.

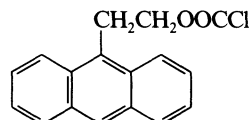
Upadhyay, R.K. *et al*, *J. Indian Chem. Soc.*, 1974, **51**, 528 (*detn, Pd, Pt*)

2-(9-Anthracenyl)ethyl carbonochloridate, 9Cl

A-00383

2-(9-Anthryl)ethyl chloroformate. AEOC

[129948-83-0]



C₁₇H₁₃ClO₂ M 284.741

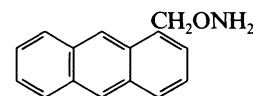
Derivatisation reagent for polyamines in hplc. Cryst. (pentane). Mp 86-87°.

Faulkner, A.J. *et al*, *Anal. Chem.*, 1991, **63**, 292 (*use*)

O-(1-Anthracenylmethyl)hydroxylamine

A-00384

[125942-38-3]



C₁₅H₁₃NO M 223.274

Fluorescence labelling reagent for hplc of carbonyl compds.

B,HCl: [125942-43-0].

Pale yellow cryst. (EtOH/Et₂O). Mp 159-162° dec.

Goto, J. *et al*, *Anal. Sci.*, 1989, **5**, 399 (*synth, use*)

O-(2-Anthracenylmethyl)hydroxylamine

A-00385

[125942-39-4]

C₁₅H₁₃NO M 223.274

Fluorescence labelling reagent for hplc of carbonyl compds.

B,HCl: Yellow cryst. (EtOH/Et₂O). Mp 213-218° dec.

Goto, J. *et al*, *Anal. Sci.*, 1989, **5**, 399 (*synth, use*)

O-(9-Anthracenylmethyl)hydroxylamine

A-00386

[125942-40-7]

C₁₅H₁₃NO M 223.274

Fluorescence labelling reagent for hplc of carbonyl compds.

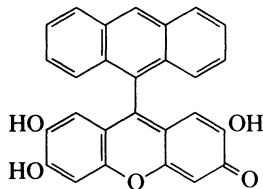
B,HCl: [125942-41-8].

Yellow cryst. (EtOH/Et₂O). Mp 180-182° dec.

Goto, J. *et al*, *Anal. Sci.*, 1989, **5**, 399 (*synth, use*)

Anthrafluorone**A-00387**

9-(9-Anthracenyl)-2,6,7-trihydroxy-3H-xanthen-3-one, 9CI
[7194-31-2]



C₂₇H₁₆O₅ M 420.420

Used as a 0.05% soln. in EtOH for photometric detn. of Al, Te, W (λ_{max} 568 nm, ε 35200). Dark red cryst. powder. Spar. sol. H₂O; sol. EtOH, alkalis.

Poluetkova, V.A. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 856 (*detn, W*)

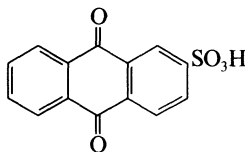
Biryuk, E.A. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 459 (*use*)

Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Nauka, Moskva, 1973.

Shitareva, G.G. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1850 (*detn, Te*)

Anthraquinone-2-sulfonic acid**A-00388**

9,10-Dihydro-9,10-dioxo-2-anthracenesulfonic acid. β-Sulfoanthraquinone
[84-48-0]



C₁₄H₈O₅S M 288.280

Used as 0.005% aq. soln. for photometric detn. of O₂. Electron acceptor in biological redox systems. Leaflets + 3H₂O (H₂O by addn. of HCl). Sol. H₂O, EtOH; insol. Et₂O.

Na salt: [131-08-8].

Cryst. + 1H₂O. Spar. sol. H₂O. Known commercially as "silver salt".

► CB1095550.

Me ester:

C₁₅H₁₀O₅S M 302.307

Cryst. by subl. Mp 163.6-164.2°.

Amide:

C₁₄H₉NO₄S M 287.295

Yellow cryst. (AcOH). Mp 261°.

Fierz-David, H.E., *Helv. Chim. Acta*, 1927, **10**, 216 (*synth*)

Lauer, K., *J. Prakt. Chem.*, 1931, **130**, 185 (*synth*)

Stafford, C. *et al*, *Anal. Chem.*, 1955, **27**, 2012.

Karasek, F.W. *et al*, *Anal. Chem.*, 1956, **28**, 233.

Silverman, L. *et al*, *Anal. Chim. Acta*, 1956, **14**, 514.

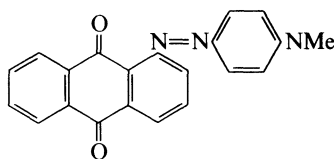
Kolesnik, Yu.A. *et al*, *CA*, 1967, **66**, 37202; **67**, 99896 (*uv, ir, isol*)

Kano, K. *et al*, *CA*, 1974, **81**, 90793 (*uv, esr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SER000.

Anthrazo**A-00389**

1-[[4-(Dimethylamino)phenyl]azo]-9,10-anthracenedione



C₂₂H₁₇N₃O₂ M 355.395

Strictly, the name Anthrazo applies to the hydrochloride.

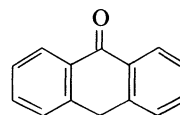
B,HCl: [4575-56-8].

Used as 1mM soln. for extraction-photometric detn. of TI (λ_{max} 570 nm, ε 60000). Yellow cryst. Sol. H₂O.

Kish, P.P. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1969, **12**, 1031; *CA*, **72**, 38483j (*detn, TI*)

Anthrone, 8CI**A-00390**

9(10H)-Anthracenone, 9CI. 9,10-Dihydro-9-oxoanthracene. Carbothrone
[90-44-8]



C₁₄H₁₀O M 194.232

Used for colorimetric detn. of carbohydrates. Cryst. (C₆H₆/pet. ether). Mp 155°.

Org. Synth., Coll. Vol., 1, 1932, 52 (*synth*)

Jones, N., *J. Am. Chem. Soc.*, 1945, **67**, 2127 (*uv*)

Scott, T.A. *et al*, *Anal. Chem.*, 1953, **25**, 1956 (*use*)

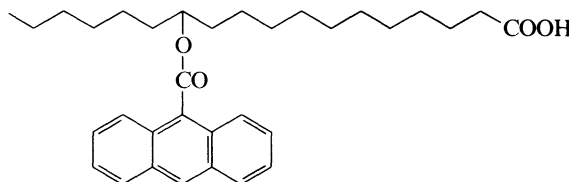
Dische, Z., *Methods Carbohydr. Chem.*, Academic Press, 1962, **1**, 488.

Aldrich Atlas of IR Spectra, 2nd Ed., 1975, 659 (*ir*)

Jermyn, M.A., *Anal. Biochem.*, 1975, **68**, 332 (*use*)

Castelas, J. *et al*, *Phytochemistry*, 1977, **16**, 735 (*cmr*)

Almdal, K. *et al*, *Acta Chem. Scand., Ser. B*, 1986, **40**, 230 (*tautom*)

12-(9-Anthroyloxy)stearic acid**A-00391**

C₃₃H₄₄O₄ M 504.708

(±)-*form* [30536-60-8]

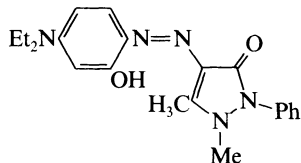
Fluorescent probe used in cell membrane studies. Cryst. Mp 78-79°.

Waggoner, A. *et al*, *Proc. Natl. Acad. Sci. U.S.A.*, 1970, **67**, 579 (*synth*)

Podo, F. *et al*, *Proc. Natl. Acad. Sci. U.S.A.*, 1977, **74**, 1032 (*use*)

2-(4-Antipyrilazo)-5-diethylaminophenol **A-00392**

4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]antipyrine, 9CI. 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI
[10527-56-7]



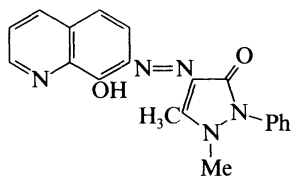
$C_{21}H_{25}N_5O_2$ M 379.461

Used for photometric detn. of Hg. In. Red-brown cryst.
Sol. MeOH, EtOH, Me₂CO, CHCl₃; spar. sol. H₂O,
Et₂O. Mp 195°. pK_{a2} 13.

Gusev, S.I. *et al*, *Zh. Neorg. Khim.*, 1966, **11**, 1271 (*detn*, *In*)
Kolossova, I.V., *Khim. Khim. Tekhnol. (Minsk)*, 1969, **12**, 1329
(*detn*, *Hg*)

7-(4-Antipyrilazo)-8-hydroxyquinoline **A-00393**

1,2-Dihydro-4-[(8-hydroxy-7-quinolyl)azo]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI
[54723-32-9]



$C_{20}H_{17}N_5O_2$ M 359.387

Used for photometric detn. of Au, Co (λ_{max} 490 nm, ϵ 19200), Cu (λ_{max} 505 nm, ϵ 24000), Ni (λ_{max} 485 nm, ϵ 19800); used as 1.3mM EtOH soln. for kinetic detn. of Ag (oxidn. of the azo-reagent with S₂O₈²⁻). Yellow cryst. Sol. alkalis, EtOH, C₆H₆; spar. sol. H₂O. Mp 170°, Mp 183°. pK_{a1} 1.1; pK_{a2} 8.94; pK_{a3} 9.97.

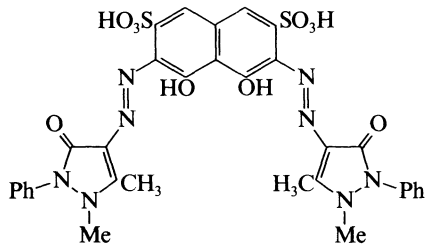
Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn*, *Ni*, *Co*)

Talipov, S.T. *et al*, *CA*, 1976, **85**, 56102g, 136733d, 171135g (*detn*, *Ni*, *Co*, *Cu*)

Matat, L.M. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 2165 (*synth*, *detn*, *Ag*)

Antipyrilazo III **A-00394**

3,6-Bis[(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI. Antipyrine S. Diantipyrilazo
[14918-39-9]



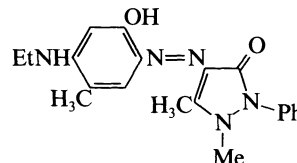
$C_{32}H_{28}N_8O_{10}S_2$ M 748.753

Used as a 0.01M aq. soln. for photometric detn. of Ca (λ_{max} 605 nm, ϵ 21500), lanthanides, Y. Greyish-green lustrous cryst. (H₂O). Sol. H₂O, alkalis; insol. C₆H₆, CCl₄.

Budesinsky, B.W. *et al*, *Anal. Chim. Acta*, 1966, **36**, 246; **71**, 343
(*detn*, *lanthanides*, *Ca*)
Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 164 (*synth*)

5-(4-Antipyrilazo)-2-monoethylamino-p-cresol **A-00395**

4-[[4-(Ethylamino)-2-hydroxy-5-methylphenyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI
[10527-55-6]



$C_{20}H_{23}N_5O_2$ M 365.434

Used for photometric detn. of In, U, Al, Ga, Fe(III). Red cryst. Sol. MeOH, CHCl₃; spar. sol. H₂O. Mp 224°. pK_{a1} 10.62.

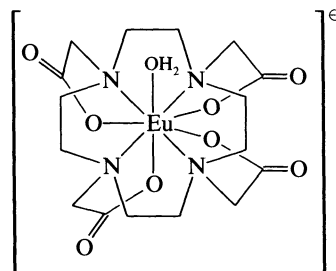
Gusev, S.I. *et al*, *Zh. Neorg. Khim.*, 1966, **11**, 1271.

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 2427.

Biryuk, E.A. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 1465.

Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]europate(III) **A-00396**

(1-)
[93426-81-4]



$C_{16}H_{26}EuN_4O_9$ ⊖ M 570.368 (ion)

Proposed as axially symmetric nmr shift reagent.

Na salt: [88083-35-6].

Colourless cryst. + 4H₂O. Sol. H₂O. 9-Coordinate; one H₂O coord.; distorted capped sq. antiprism.

[80927-24-8, 109955-51-3]

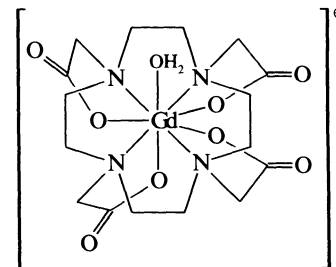
Desreux, J.F., *Inorg. Chem.*, 1980, **19**, 1319 (*synth*, *pmr*)

Bryden, C.C. *et al*, *Anal. Chem.*, 1981, **53**, 1418; 1982, **54**, 610
(*pmr*, *luminescence*)

Albin, M. *et al*, *Chem. Phys. Lett.*, 1982, **85**, 61 (*luminescence*)

Spirlet, M.R. *et al*, *Inorg. Chem.*, 1984, **23**, 359 (*cryst struct*, *synth*)

Brittain, H.G. *et al*, *Inorg. Chem.*, 1984, **23**, 4459 (*luminescence*)

Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]gadoliniate(III)(1-) **A-00397**

$C_{16}H_{26}GdN_4O_9^{\ominus}$ M 575.653 (ion)
 Contrast-enhancing agent in magnetic resonance imaging.
Na salt: [92923-44-9].

Colourless cryst. (aq. Me_2CO). Sol. H_2O . Believed to be 9-coordinate as for Eu analogue. Presumably 4 H_2O of cryst.

Mg salt (2:1): [117584-76-6].

Colourless cryst. Sol. H_2O .

Ca salt (2:1): [117584-75-5].

Colourless cryst. Sol. H_2O .

[83678-67-5]

Belg. Pat., 898 708, (1984); *CA*, **101**, 216407 (use)

Magerstaedt, M. *et al*, *Magn. Reson. Med.*, 1986, **3**, 808.

Cacheris, W.P. *et al*, *Inorg. Chem.*, 1987, **26**, 958 (synth)

Hagan, J.F. *et al*, *Anal. Chem.*, 1988, **60**, 514 (anal)

Sherry, A.D., *J. Less-Common Met.*, 1988, **149**, 133 (rev)

Tweedle, M.F. *et al*, *Nucl. Med. Biol.*, 1988, **15**, 31 (rev)

Bosquet, J.C. *et al*, *Radiology*, 1988, **166**, 693.

Hernandez, G. *et al*, *Inorg. Chem.*, 1990, **29**, 5109 (synth, relaxation)

Dubost, J.-P. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1991, **312**, 349 (cryst struct)

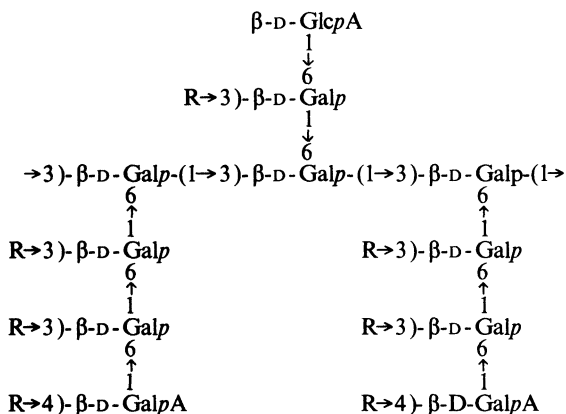
Chang, C., *Eur. J. Solid State Inorg. Chem.*, 1991, **28**, 237 (rev)

Wang, X. *et al*, *Inorg. Chem.*, 1992, **31**, 1095 (stability const)

Arabic acid, 9CI, 8CI

A-00398

[32609-14-6]



R = L-Araf (1→), L-Rhap (1→), α-D-Galp (1→3)-L-Araf (1→)

Most common components

A highly branched polysaccharide composed of L-Arabinose, D-Galactose, L-Rhamnose and D-Gluconic acid in an approximate 3:3:1:1 ratio. Salt-free polysaccharide formed by precipitation from an acidified soln. of gum arabic.

Per-Ac: $[\alpha]_D -21^\circ$ (c, 0.94 in $CHCl_3$).

Me ester: $[\alpha]_D^{19} -47^\circ$ (c, 1.0 in $CHCl_3$).

Mixed salts: Gum arabic

Exudate from *Acacia senegal*. Used as protective colloid to prevent settling of ppts. in some photometric and turbidimetric detns. Yellowish-amber lumps. Dissolves slowly in H_2O .

Mixed salts, per-Me: $[\alpha]_D -48^\circ$ (c, 1.0 in $CHCl_3$).

Smith, F. *et al*, *J. Chem. Soc.*, 1939, 1724; 1940, 1035.

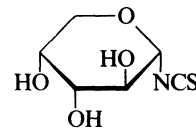
Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, NY, 1948.

Aspinal, G.O. *et al*, *J. Chem. Soc.*, 1963, 1696.

Aspinal, G.O., *The Carbohydrates*, (Pigman, W. *et al*, Ed.), Academic Press, 1970, **2B**, 523.

Arabinopyranosyl isothiocyanate

A-00399



$C_6H_9NO_4S$ M 191.207

α-D-form

2,3,4-Tri-Ac: [62414-75-9].

$C_{12}H_{15}NO_7S$ M 317.319

Reagent used for the hplc resolu. of amino acids. Syrup.

Kinoshita, T. *et al*, *J. Chromatogr.*, 1981, **210**, 77 (use)

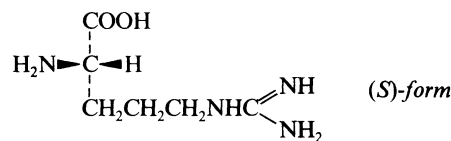
Ogura, H. *et al*, *Heterocycles*, 1982, **17**, 87 (synth)

Miller, K.J. *et al*, *J. Chromatogr.*, 1984, **307**, 335 (use)

Arginine, INN, USAN

A-00400

2-Amino-5-[(aminoiminomethyl)amino]pentanoic acid, 9CI. 2-Amino-5-guanidinovaleric acid



$C_6H_{14}N_4O_2$ M 174.202

(S)-form [74-79-3]

L-form

Found in seeds/shoots of pine, fir, acacia, arachis etc. and in many proteins. Diagnostic aid (pituitary function determination), ammonia detoxicant. Reagent for the fluorimetric anal. of reducing sugars by hplc. Plates or prisms + 2 H_2O (H_2O), plates ($EtOH$). Mp 207°, Mp 244° dec. (anhyd. 105°). $[\alpha]_D +12.5^\circ$ (c, 1 in H_2O), $[\alpha]_D^{25} +27.6^\circ$ (c, 1 in 5M HCl). *N*-Protected derivs. useful in peptide synth. have been listed alphabetically elsewhere.

B,HCl: [1119-34-2]. *Arginine hydrochloride, USAN*

Mp 222° dec. (235°). $[\alpha]_D^{20} +12.1^\circ$ (H_2O).

▷ CF1995500.

(±)-form [7200-25-1]

Mp 238° dec. pK_{a1} 2.17 (COOH); pK_{a2} 9.04 (NH_2); pK_{a3} 12.48 (guanido).

Org. Synth., 1932, **12**, 4 (synth)

Greenstein, J.P. *et al*, *Chemistry of the Amino Acids*, Wiley, N.Y., 1961, **3**, 1841 (rev)

Legrand, M. *et al*, *Bull. Soc. Chim. Fr.*, 1965, 679 (cd)

Bak, B. *et al*, *J. Mol. Spectrosc.*, 1968, **26**, 78 (pmr)

Voelter, W. *et al*, *Z. Naturforsch. B*, 1971, **26**, 213 (cmr)

Lehmann, M.S. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1973, 133 (cryst struct)

Torgerson, D.F. *et al*, *Biochem. Biophys. Res. Commun.*, 1974, **60**, 616 (ms)

Mikami, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1983, **32**, E207;

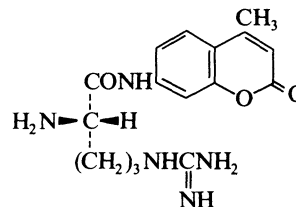
CA, **99**, 63599s (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AQV980, AQW000.

7-Arginylamino-4-methylcoumarin

A-00401

2-Amino-5-[(aminoiminomethyl)amino]-N-(4-methyl-2-oxo-2H-1-benzopyran-7-yl)pentanamide, 9CI



$C_{16}H_{21}N_5O_3$ M 331.374

(S)-form [65286-27-3]

Sensitive fluorogenic substrate for trypsin and papain.

B, HCl: [69304-16-1].

Mp 275° dec. $[\alpha]_D^{25} +91.9^\circ$ (c, 1.01 in 25% AcOH).

B, AcOH: [69439-40-3].

Mp 210-214.5° dec. $[\alpha]_D^{18} +82.3^\circ$ (c, 0.5 in 50% AcOH).

Kanaoka, Y. et al, *Chem. Pharm. Bull.*, 1977, **25**, 3126 (synth)

Japan. Pat., 78 108 974, (1978); *CA*, **90**, 103829q.

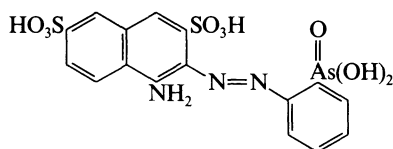
Japan. Pat., 79 03 072, (1979); *CA*, **91**, 21129t (synth)

Japan. Pat., 79 09 273, (1979); *CA*, **91**, 21114j.

Arsaminazo

A-00402

4-Amino-3-[(2-aronophenyl)azo]-2,7-naphthalenedisulfonic acid



$C_{16}H_{14}AsN_3O_9S_2$ M 531.355

Used as 0.1% aq. soln. for photometric detn. of Pd. Dark red cryst. Sol. H_2O .

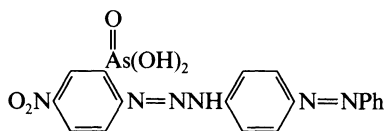
Dedkov, Y.M. et al, *Zh. Anal. Khim.*, 1971, **26**, 558 (detn, Pd)

Arsazen

A-00403

5-Nitro-2-[3-[4-(phenylazo)phenyl]-1-triazenyl]phenylarsonic acid, 9CI

[3688-91-3]



$C_{18}H_{15}AsN_6O_5$ M 470.275

Used in photometric detn. of Pb, Pd. Yellow cryst. powder. Sol. dioxan, EtOH, alkalis; spar. sol. H_2O .

Lukin, A.M. et al, *Zavod. Lab.*, 1962, **28**, 398 (detn, Pb)

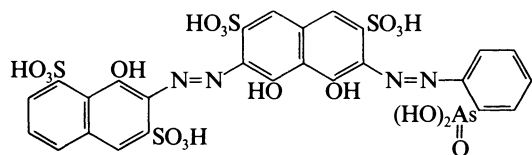
Pilipenko, A.T. et al, *Uzb. Khim. Zh.*, 1972, **38**, 268 (detn, Pd)

Arsenazo AE

A-00404

7-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, 9CI. 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(1-hydroxy-3,8-disulfo-2-naphthyl)azo]-2,7-naphthalenedisulfonic acid, 8CI

[3867-33-2]



$C_{26}H_{19}AsN_4O_{18}S_4$ M 878.638

Gives colour reactions with La, Pr, Ga, Nd, Sm, Gd, Dy; used for extraction-photometric detn. of Pu(IV). Brown-red cryst. powder. Sol. H_2O , alkalis, EtOH.

Savvin, S.B. et al, *Zh. Anal. Khim.*, 1966, **21**, 1075 (use)

Milyukova, M.S. et al, *Zh. Anal. Khim.*, 1967, **22**, 751 (detn, Pu)

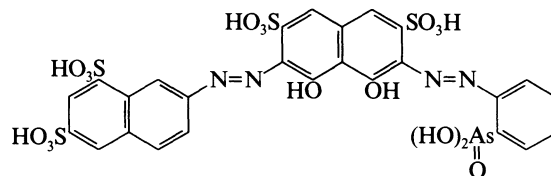
Akmaeva, N.L. et al, *Zh. Anal. Khim.*, 1967, **22**, 1482 (use)

Arsenazo AG

A-00405

7-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-1,3-naphthalenedisulfonic acid, 9CI. 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(1,3-disulfo-7-naphthyl)azo]-2,7-naphthalenedisulfonic acid, 8CI

[37465-96-6]



$C_{26}H_{19}AsN_4O_{17}S_4$ M 862.638

Gives colour reactions with lanthanides. Dark red cryst. Sol. H_2O .

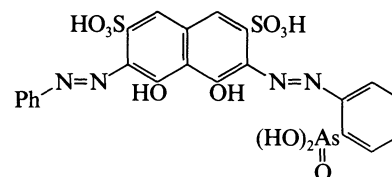
Khramov, V.P. et al, *CA*, 1972, **77**, 28444m (use)

Khramov, V.P. et al, *Zh. Neorg. Khim.*, 1972, **17**, 2376 (use)

Arsenazo B

A-00406

3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-(phenylazo)-2,7-naphthalenedisulfonic acid, 9CI



$C_{22}H_{17}AsN_4O_{11}S_2$ M 652.450

Sol. H_2O .

Di-Na salt: [14044-84-9].

Used as 0.05% aq. soln. for photometric detn. of Cr(III) (λ_{max} 635 nm, ϵ 33000) Zr, Sc, Th, U, Pu; gives colour reactions with many metals. Dark red cryst. powder.

Savvin, S.B. et al, *Zh. Anal. Khim.*, 1966, **21**, 1075 (detn, Pu)

Muk, A.A. et al, *Zh. Anal. Khim.*, 1968, **23**, 1277 (colour reactions)

Muk, A.A. et al, *Anal. Chim. Acta*, 1969, **44**, 59 (pKa)

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971.

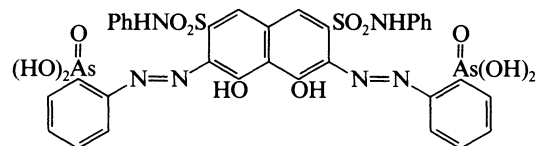
Fu-Sheng Sun, *Talanta*, 1983, **30**, 446 (synth, detn, Cr)

Arsenazo DAL

A-00407

[[1,8-Dihydroxy-3,6-bis[(phenylamino)sulfonyl]-2,7-naphthalenediy]]bis(azo-2,1-phenylene)]bisarsonic acid, 9CI

[14765-72-1]



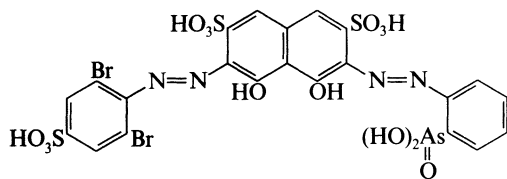
$C_{34}H_{28}As_2N_6O_{12}S_2$ M 926.603

Used as 0.05% soln. in aq. NaOH in photometric detn. of Th. Dark red cryst. powder. Sol. alkalis; insol. H_2O .

Budešinsky, B. et al, *Talanta*, 1967, **14**, 523 (detn, Th)

Arsenazo DBS**A-00408**

3-[(2-Arsonophenyl)azo]-6-[(2,6-dibromo-4-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI
[94779-97-2]



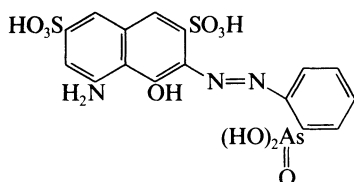
$C_{22}H_{15}AsBr_2N_4O_{14}S_3$ M 890.306

Used in photometric detn. of Ce (ϵ 120000). Dark red cryst. powder. Sol. alkalis, H_2O ; spar. sol. EtOH, Et_2O .

Chen, Z. *et al*, *CA*, 1987, **106**, 168059g (detn, Ce)

Arsenazo H**A-00409**

5-Amino-3-[(2-aronophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, 9CI
[23387-28-2]



$C_{16}H_{14}AsN_3O_{10}S_2$ M 547.354

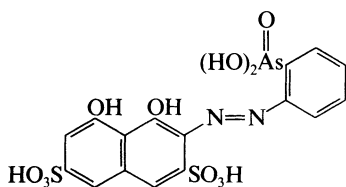
Used as $1mM$ aq. soln. for photometric detn. of Cu (λ_{max} 496 nm); used as a 0.05-0.1M aq. soln. to give colour reactions with Be, Ni. Red cryst. powder. Sol. H_2O .

Kuznetsov, V.I., *Zh. Anal. Khim.*, 1955, **10**, 276 (detn, Be, Ni)

Cherkesov, A.I. *et al*, *CA*, 1969, **70**, 83948j (detn, Cu)

Arsenazo I**A-00410**

3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI. O-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)benzenearsonic acid. 2-(2-Arsonophenylazo)chromotropic acid. Neothovin. Neothoron. Uranon



$C_{16}H_{13}AsN_2O_{11}S_2$ M 548.339

pK_{a1} 0.6; pK_{a2} 0.8; pK_{a3} 3.5; pK_{a4} 8.2; pK_{a5} 11.6.

► Toxic.

Tri-Na salt: [520-10-5].

Used as 0.1% or 0.5% aq. soln. in photometric detn. of Th, Zr, Nb, Ta (pH 1-2); Sc, rare earth elements, U(VI) (pH 6-7); Be, Ca, Sr (pH 9-12); metal indicator in chelatometric titrn. of rare-earth elements, Th, Ca. Red cryst. powder. Sol. H_2O ; insol. most org. solvs. Mp > 300°.

Dunning, F. *et al*, *J. Am. Chem. Soc.*, 1927, **49**, 2869 (synth)

Fritz, J.S. *et al*, *Anal. Chem.*, 1957, **29**, 158 (ind)

Holcomb, H.P. *et al*, *Anal. Chem.*, 1960, **32**, 612 (synth, detn, U)

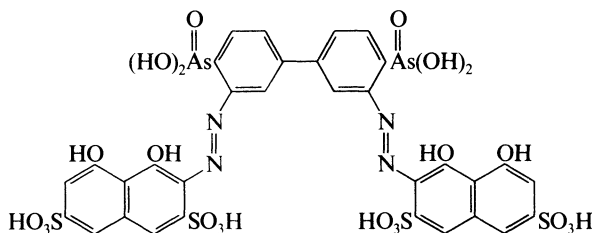
Onishi, H. *et al*, *Anal. Chim. Acta*, 1962, **26**, 528 (detn, Th)

Hiiri, K. *et al*, *Anal. Chim. Acta*, 1967, **37**, 209 (detn, rare earth elements)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 159 (use)

Arsenazo II**A-00411**

3,3'-Bis[(4,4'-diarsono[1,1'-biphenyl]-3,3'-diyl)bis(azo)]-bis[4,5-dihydroxy-2,7-naphthalenedisulfonic acid], 9CI
[3861-75-4]



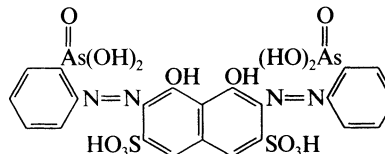
$C_{32}H_{24}As_2N_4O_{22}S_4$ M 1094.662

Used as 0.1% aq. soln. in photometric detn. of Th, Zr, rare earth elements (0.1-0.6M HCl). Dark red cryst. powder. Sol. H_2O , alkalis; spar. sol. EtOH.

Kuznetsov, V.I. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 175 (use)

Arsenazo III**A-00412**

3,6-Bis[(2-aronophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI. o-(1,8-Dihydroxy-3,6-disulfonaphthalene-2,7-bisazo)bisbenzenearsonic acid
[1668-00-4]



$C_{22}H_{18}As_2N_4O_{14}S_2$ M 776.378

Used as 0.05% aq. soln. in photometric detn. of Th (λ_{max} 655 nm, ϵ 115000), Zr, Hf (ϵ 120000, 9M HCl), U(IV) (ϵ 127000, 6-8M HCl), rare earth elements, Sc, Cr, Bi, Cd, Zn, Ca, Pd. Dark red cryst. powder. Sol. alkalis; spar. sol. H_2O ; insol. EtOH, Et_2O . Mp > 320°.

► Toxic.

Pauling, L. *et al*, *J. Am. Chem. Soc.*, 1944, **66**, 784 (synth)

Savvin, S.B., *Talanta*, 1961, **8**, 673; 1964, **11**, 1, 7 (detn, Th, Zr, U, rare earth elements)

Zaikovskii, P.V. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 1030; *CA*, **60**, 544 (synth)

Holsopple, H.L., *CA*, 1964, **61**, 684 (synth)

Alimarin, I.P. *et al*, *Pure Appl. Chem.*, 1966, **13**, 445 (rev)

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1231; 1980, **35**, 1485 (mechanism)

Akimova, T.G. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 2242 (purif)

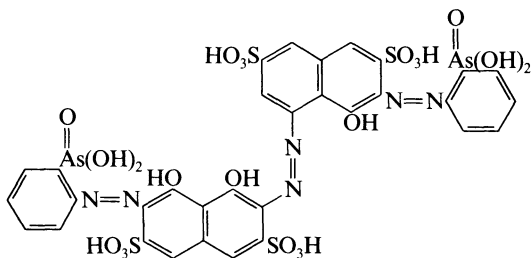
Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 165 (use)

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 2nd Ed., 1986, 468, 575, 611 (use)

Onishi, H., *Photometric Determination of Traces of Metals, Part II: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 460, 539, 627, 770.

Arsenazo IV**A-00413**

4,5,5'-Trihydroxy-3,4'-azobis[[6-(2-aronophenyl)azo]-2,7-naphthalenedisulfonic acid], 9CI
[22318-07-6]



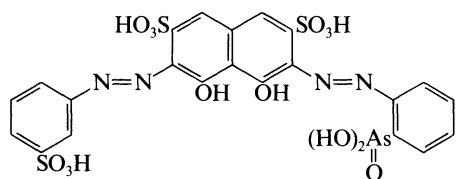
$C_{32}H_{24}As_2N_6O_{21}S_4$ M 1106.676

Used as 0.5mM aq. soln. in photometric detn. of Th (ϵ 110000). Dark red cryst. powder. Sol. alkalis, H_2O , EtOH.

Vasilenko, V.D. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1968, **11**, 138; *CA*, **69**, 49000p (*detn*, Th)

Arsenazo M**A-00414**

3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI
[3563-69-7]



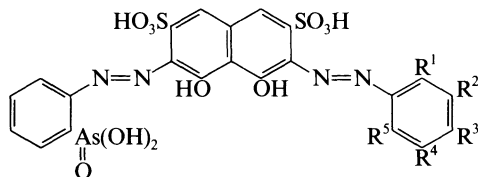
$C_{22}H_{17}AsN_4O_{14}S_3$ M 732.514

Used as 0.05% aq. soln. in photometric detn. of rare earth elements, La, Sc, Pb. Dark red cryst. Sol. H_2O , alkalis; sl. sol. EtOH; insol. Et_2O . pK_{a1} 0.7; pK_{a2} 3.5; pK_{a3} 6.5; pK_{a4} 8.0; pK_{a5} 9.5; pK_{a6} 10.6; pK_{a7} 13.0.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 31 (*detn*, rare earths)
Bocharova, R.I. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1505 (*detn*)
Spitsyn, P.K. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2121 (pK_a)

Arsenazo SA**A-00415**

3-[[4-(Aminosulfonyl)phenyl]azo]-6-[(2-aronophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI
[41743-76-4]



$R^1 = R^3 = R^4 = R^5 = H$
 $R^2 = SO_2NH_2$

$C_{22}H_{18}AsN_5O_{13}S_3$ M 731.529

Gives colour reactions with lanthanides. Dark red cryst. powder. Sol. H_2O . pK_{a4} 8.5; pK_{a5} 10.5; pK_{a6} 11.3.

Khranov, V.P. *et al*, *Zh. Neorg. Khim.*, 1972, **17**, 2376 (*use*)

Arsenazo 4S3NB**A-00416**

3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(3-nitro-4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI
[41743-79-7]

As Arsenazo SA, A-00415 with

$R^1 = R^4 = R^5 = H$; $R^2 = NO_2$; $R^3 = SO_3H$

$C_{22}H_{16}AsN_5O_{16}S_3$ M 777.512

Gives colour reactions with lanthanides; used as aq. soln.

Dark red cryst. Sol. H_2O . pK_{a5} 7.8; pK_{a6} 10.6.

Khranov, V.P. *et al*, *Zh. Neorg. Khim.*, 1972, **17**, 2376 (*use*, pK_a)

Arsenazo SU**A-00417**

3-[2-(Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI
[38579-98-5]

As Arsenazo SA, A-00415 with

$R^1 = R^2 = R^4 = R^5 = H$; $R^3 = SO_3H$

$C_{22}H_{17}AsN_4O_{14}S_3$ M 732.514

Gives colour reactions with lanthanides. Brown red cryst. powder. Sol. H_2O . pK_{a5} 7.5; pK_{a6} 10.5.

Khranov, V.P. *et al*, *Zh. Neorg. Khim.*, 1972, **17**, 2376 (*use*, pK_a)

Arsenazo T**A-00418**

3-[2-(Arsonophenyl)azo]-4,5-dihydroxy-6-[5-(N,N'-dimethylsulfonamido)-2-methoxy]-2,7-naphthalenedisulfonic acid

As Arsenazo SA, A-00415 with

$R^1 = OMe$, $R^4 = SO_2NMe_2$; $R^2 = R^3 = R^5 = H$

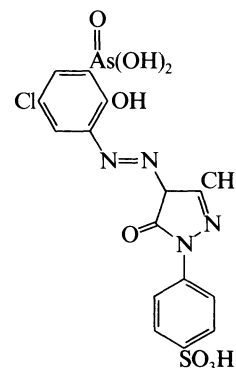
$C_{25}H_{24}AsN_5O_{14}S_3$ M 789.609

Used for photometric detn. of Pu (λ_{max} 635 nm, ϵ 35000), Th, U. Brown-red powder. Sol. H_2O .

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*detn*, Pu)

4-[4-[(3-Arsono-5-chloro-2-hydroxyphenyl)azo]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl]benzenesulfonic acid, 9CI**A-00419**

4-[(3-Arsono-5-chloro-2-hydroxyphenyl)azo]-4,5-dihydro-3-methyl-1-(4-sulfophenyl)-5-pyrazolone
[65953-57-3]



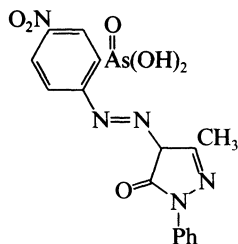
$C_{16}H_{14}AsClN_4O_8S$ M 532.749

Used as 0.004mM aq. soln. for fluorimetric detn. of Mg (λ_{max} 620 nm, pH 9.5-11.5). Cryst. Sol. H_2O .

Bozhevot'nov, E.A. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1734 (*synth*, *detn*, Mg)

4-(2-Arsono-4-nitrophenylazo)-4,5-dihydro-3-methyl-1-phenyl-1H-pyrazol-5-one

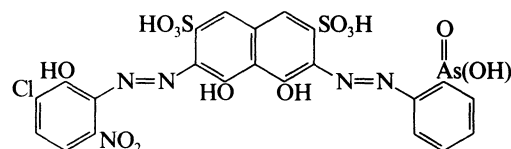
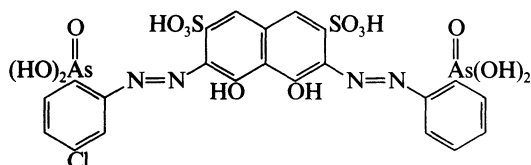
A-00420

Used for photometric detn. of rare earth elements, Th, $\text{UO}_2^{2\oplus}$. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use) $\text{C}_{16}\text{H}_{14}\text{AsN}_5\text{O}_6$ M 447.238Used for photometric detn. of Na. Orange cryst. (BuOH). Sol. DMF; insol. CHCl_3 . Mp 239-241°.Markovich, I.S. et al, *Zh. Anal. Khim.*, 1971, 26, 1097 (detn, Na)**3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI**

A-00421

3-[(2-Arsonophenyl)azo]-6-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI

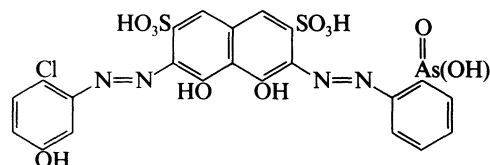
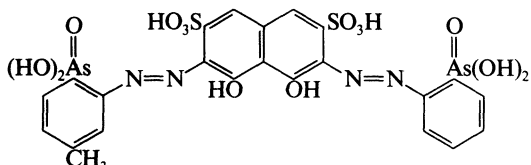
A-00424

 $\text{C}_{22}\text{H}_{15}\text{AsClN}_5\text{O}_{14}\text{S}_2$ M 747.892Used for photometric detn. of La, Th, $\text{UO}_2^{2\oplus}$. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use) $\text{C}_{22}\text{H}_{17}\text{As}_2\text{ClN}_4\text{O}_{14}\text{S}_2$ M 810.823Used for photometric detn. of rare earth elements, Th, U, Zr. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI**

A-00422

3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI

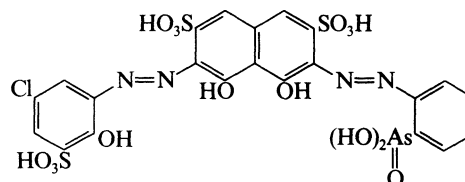
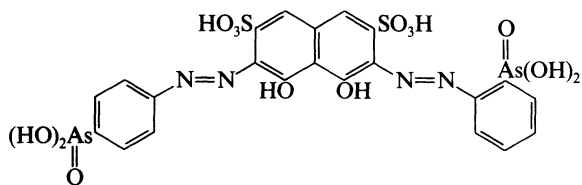
A-00425

 $\text{C}_{22}\text{H}_{16}\text{AsClN}_4\text{O}_{12}\text{S}_2$ M 702.894Used for photometric detn. of La, Th, $\text{UO}_2^{2\oplus}$. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use) $\text{C}_{23}\text{H}_{20}\text{As}_2\text{N}_4\text{O}_{14}\text{S}_2$ M 790.405Used for photometric detn. of rare earth elements, Th, U, Zr. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**3-[(2-Arsonophenyl)azo]-6-[(4-arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8CI**

A-00423

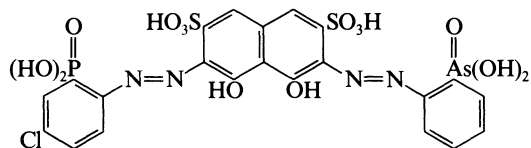
3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8CI

A-00426

 $\text{C}_{22}\text{H}_{16}\text{AsClN}_4\text{O}_{15}\text{S}_3$ M 782.959Used for photometric detn. of Pd (λ_{max} 630 nm, ϵ 55000). Dark red cryst. (EtOH aq.). Sol. H_2O .Savvin, S.B. et al, *Talanta*, 1969, 16, 423 (detn, Pd) $\text{C}_{22}\text{H}_{18}\text{As}_2\text{N}_4\text{O}_{14}\text{S}_2$ M 776.378

3-[[2-Arsonophenyl]azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8Cl

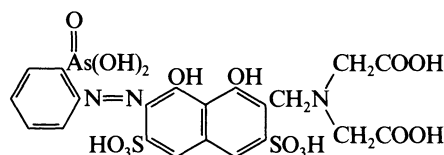
[2590-82-1]

 $C_{22}H_{17}AsClN_4O_{14}PS_2$ M 766.875Used for photometric detn. of Th. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)Lukin, A.M. et al, *CA*, 1975, **82**, 50976m (detn, Th)

A-00427

N-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]methyl]-N-(carboxymethyl)glycine, 9Cl*Arsenazo-khimdu*

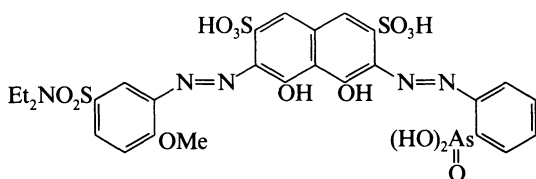
[33098-93-0]

 $C_{21}H_{20}AsN_3O_{15}S_2$ M 693.454Used as 0.05% aq. soln. in photometric detn. of Th, Be, La, V, rare-earth elements. More selective than *Arsenazo(I)*. Dark red cryst. powder. Sol. alkalis; spar. sol. H_2O , EtOH; insol. Et_2O .Basargin, N.N. et al, *Zavod. Lab.*, 1971, **37**, 269 (use)

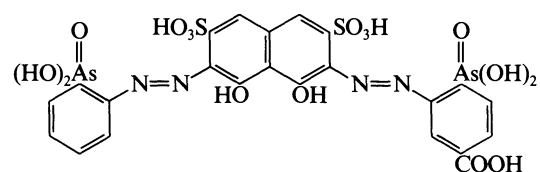
A-00430

3-[[2-Arsonophenyl]azo]-6-[[5-(diethylsulfamoyl)-2-methoxyphenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9Cl*Arsenazo-2-methoxy-5-diethylsulfamic acid*

[14155-09-0]

 $C_{27}H_{28}AsN_5O_{14}S_3$ M 817.663Used as 0.1% aq. soln. for extraction-photometric detn. of Pu(IV) (butanol). Dark red cryst. powder. Sol. H_2O , alkalis, EtOH.Savvin, S.B. et al, *Zh. Anal. Khim.*, 1966, **21**, 1075.Milyukova, M.S. et al, *Zh. Anal. Khim.*, 1967, **22**, 751.

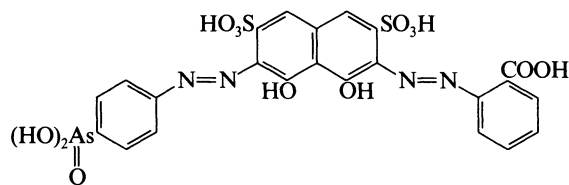
A-00428

3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-4- arsonobenzoic acid*2-(2-Arsono-5-carboxyphenylazo)-7-(2-arsonophenylazo) chromotropic acid* $C_{23}H_{18}As_2N_4O_{16}S_2$ M 820.388Used for photometric detn. of rare earth elements, Th, U, Zr. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)

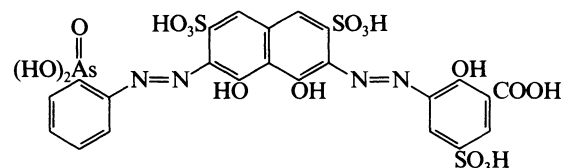
A-00431

2-[[7-[(4-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9Cl

[26075-04-7]

 $C_{23}H_{17}AsN_4O_{13}S_2$ M 696.460Used as a 0.1% aq. soln. for photometric detn. of Ba (λ_{max} 640 nm, ϵ 35000), Ca, La (λ_{max} 710 nm), Sr; gives colour reactions with Co, Cu, Fe(III), Mn, Ni, Zn (dioxan aq., EtOH aq., Me_2CO aq.) Ce, Dy, La, Nd, Sm, Th, Y. Dark red cryst. powder. Sol. H_2O .Savvin, S.B. et al, *Zh. Anal. Khim.*, 1969, **24**, 1460; 1971, **26**, 297 (detn, Ca, Sr, La)Petrova, T.V. et al, *Zh. Anal. Khim.*, 1970, **25**, 2320; 1973, **28**, 1888 (detn, Co, Cu, Fe, Mn, Ni, Zn, Ba)Basargin, N.N. et al, *Zh. Anal. Khim.*, 1971, **26**, 722 (detn, Dy, Th, Y)Basargin, N.N. et al, *CA*, 1974, **81**, 180649x (detn, Ce, La, Nd, Sm)

A-00429

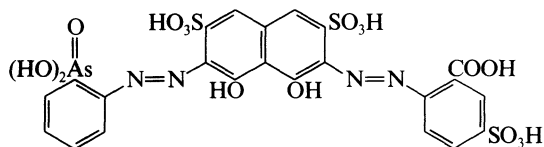
3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-2-hydroxy-5-sulfobenzoic acid, 8Cl*3-(2-Arsonophenylazo)-6-(3-carboxy-2-hydroxy-5-sulfophenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid* $C_{23}H_{17}AsN_4O_{17}S_3$ M 792.523Used for photometric detn. of La, Sc, Th, UO_2^{2+} . Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)

A-00432

2-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-5-sulfobenzoic acid, 8CI

A-00433

3-(2-Arsonophenylazo)-7-(2-carboxy-4-sulfo-phenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. 2-(2-Arsonophenylazo)-7-(2-carboxy-4-sulfo-phenylazo) chromotropic acid



$C_{23}H_{17}AsN_4O_{16}S_3$ M 776.524

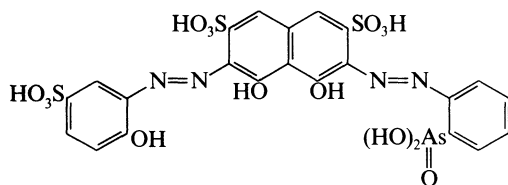
Used for photometric detn. of Al, Ba, Pb, Ni, rare earth elements. Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)

3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfo-phenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI

A-00434

[26102-89-6]



$C_{22}H_{17}AsN_4O_{15}S_3$ M 748.514

Used for photometric detn. of Al, Ga, In, La, Pd, Th, UO_2^{2+} . Dark red cryst. powder. Mod. sol. H_2O .

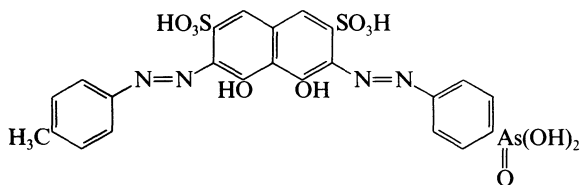
Savvin, S.B. *et al*, *CA*, 1970, **72**, 38508w (detn. Al, Ga, In, Pd)
Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (detn. La, Th, U)

3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-methylphenyl)azo]-2,7-naphthalenedisulfonic acid

A-00435

3-[(p-Arsonophenyl)azo]-4,5-dihydroxy-6-(p-tolylazo)-2,7-naphthalenedisulfonic acid, 8CI

[34716-81-9]



$C_{23}H_{19}AsN_4O_{11}S_2$ M 666.477

Gives colour reactions with Dy, Lu, Th, Y. Dark red cryst. powder. Mod. sol. H_2O .

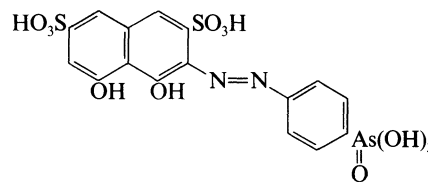
Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 722 (use)

3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid

A-00436

p-Arsonophenylazochromotropic acid

[15475-87-3]



$C_{16}H_{13}AsN_2O_{11}S_2$ M 548.339

Used for photometric detn. of Nb. Dark red cryst. powder. Sol. H_2O ; insol. Et_2O , C_6H_6 .

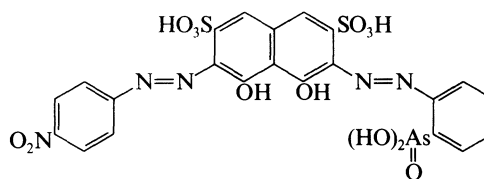
Perez-Bustamente, J.A., *Ph.D. Thesis, Universidad Complutense, Madrid*, 1967 (synth)
Sanz-Medel, A. *et al*, *Anal. Chem.*, 1980, **52**, 1035.

3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI

A-00437

Arsenazo-p- NO_2

[22322-96-9]



$C_{22}H_{16}AsN_5O_{13}S_2$ M 697.448

Used as 0.05% aq. soln. in photometric detn. of La (λ_{max} 665 nm, ϵ 62000) and other rare earth elements. Dark red cryst. Sol. alkalis, H_2O ; spar. sol. $EtOH$, Et_2O . pK_a 7.4.

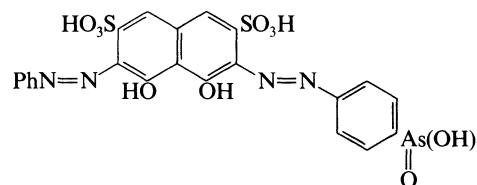
Perisic-Janjic, N.U. *et al*, *Anal. Chem.*, 1973, **45**, 798 (detn. rare earths)

Muk, A.A. *et al*, *Anal. Chem.*, 1974, **46**, 1121 (detn. rare earths)

3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-(phenylazo)-2,7-naphthalenedisulfonic acid, 8CI

A-00438

[22514-55-2]



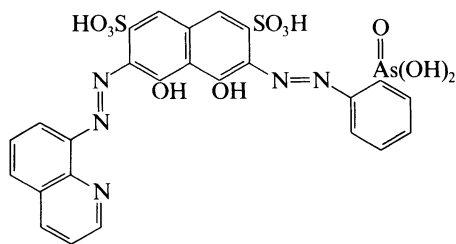
$C_{22}H_{17}AsN_4O_{11}S_2$ M 652.450

Gives colour reactions with Ce, Dy, La, Lu, Nd, Sm, Th, Y. Dark red cryst. powder. Mod. sol. H_2O .

Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 722 (detn. Dy, Lu, Th, Y)

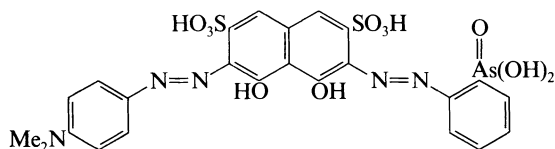
Basargin, N.N. *et al*, *CA*, 1974, **81**, 180649x (detn. Ce, La, Nd, Sm)

3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-(8-quinolyazo)-2,7-naphthalenedisulfonic acid, 8CI **A-00439**
[22106-87-2]



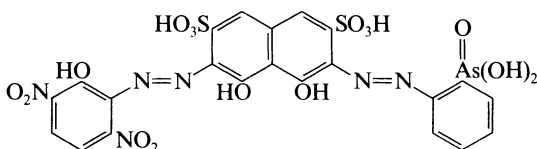
$C_{25}H_{18}AsN_5O_{11}S_2$ M 703.498
Used for extraction-photometric detn. of Cu (butanol).
Dark red cryst. Sol. H_2O , EtOH.
Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (detn, Cu)

3-[(2-Arsonophenyl)azo]-6-[(4-dimethylaminophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI **A-00440**



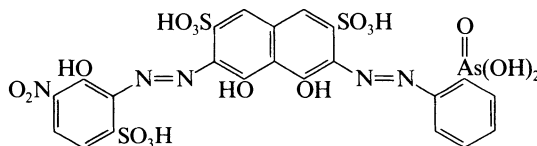
$C_{24}H_{22}AsN_5O_{11}S_2$ M 695.518
Used for photometric detn. of La, Th, UO_2^{2+} . Dark red
cryst. powder. Mod. sol. H_2O .
Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*,
Atomizdat, Moscow, 1971 (use)

3-[(2-Arsonophenyl)azo]-6-[(3,5-dinitro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI **A-00441**



$C_{22}H_{15}AsN_6O_{16}S_2$ M 758.445
Used for photometric detn. of Nb, Th, U, Zr. Dark red
cryst. powder. Mod. sol. H_2O .
Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*,
Atomizdat, Moscow, 1971 (use)

3-[(2-Arsonophenyl)azo]-6-[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8CI **A-00442**

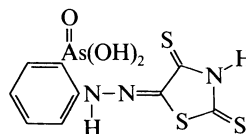


$C_{22}H_{16}AsN_5O_{17}S_3$ M 793.511

Used for photometric detn. of Bi, Pb, Zr. Dark red cryst.
powder. Mod. sol. H_2O .

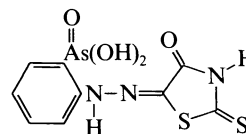
Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*,
Atomizdat, Moscow, 1971 (use)

5-[(2-Arsonophenyl)azo]-2,4-thiazolidinedithione **A-00443**
Arsonobenzeneazothiorhodanine



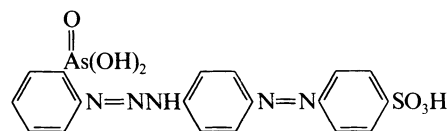
$C_9H_8AsN_3O_3S_3$ M 377.300
Used for photometric detn. of noble metals. Dark red
cryst. powder. Sol. H_2O , EtOH; insol. C_6H_6 .
Savvin, S.B. et al, *Talanta*, 1987, **34**, 87 (synth, use)

5-[(2-Arsonophenyl)azo]-2-thioxo-4-thiazolidinone **A-00444**
Arsonobenzeneazorhodanine



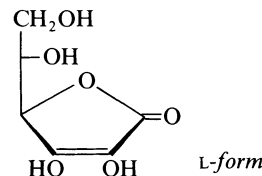
$C_9H_8AsN_3O_4S_2$ M 361.234
Various tautomers possible. Used for photometric detn. of
platinum group metals. Dark red cryst. powder. Sol.
 H_2O , EtOH; insol. C_6H_6 .
Savvin, S.B. et al, *Talanta*, 1987, **34**, 87 (synth, use)

4-[4-(2-Arsonophenyltriazenyl)phenylazo]benzenesulfonic acid **A-00445**
2-[3-[4-(4-Sulfophenylazo)phenyl]-1-triazenyl]phenylarsonic acid



$C_{18}H_{16}AsN_5O_6S$ M 505.342
Used as 0.05% aq. soln. for photometric detn. of Pb (λ_{max}
430 nm). Orange-red cryst. Mod. sol. H_2O .
Lukin, A.M. et al, *Zh. Anal. Khim.*, 1960, **15**, 295 (detn, Pb)

Ascorbic acid, BAN, INN, USAN **A-00446**
threo-Hex-2-enonic acid γ -lactone, 9CI, 8CI. threo-Hexulosono-1,4-lactone-2,3-enediol. Hexuronic acid



$C_6H_8O_6$ M 176.126
D-form [10504-35-5]
Mp 190° dec. $[\alpha]_D^{18} -23^\circ$ (c. 2.0 in H_2O), $[\alpha]_D^{18} -48^\circ$
(MeOH). Shows little antiscorbutic action.

L-form [50-81-7]

Vitamin C. Ascorbicap. Cebione. Cenolate. Cevalin.

Numerous proprietary names

Occurs widely in animals and plants. Good sources are citrus fruits and hip berries. Isol. from ox adrenal cortex, lemons and paprika. Vitamin (antiscorbutic); urinary acidifier. Used as a reducing agent, masking agent in photometric detn. of Ti, Nb. Mp 190-192°. $[\alpha]_D^{25} +24^\circ$ (c, 1.0 in H₂O), $[\alpha]_D^{18} +49^\circ$ (MeOH). pK_{a1} 4.04; pK_{a2} 11.34 (25°, 0.1 M KNO₃).

▷ CI7650000.

Brucine salt: Mp 216-217°.

Ca salt: $[\alpha]_D^{10} +91^\circ$ (c, 0.3 in H₂O).

Na salt: Sodium ascorbate, INN

$[\alpha]_D +24^\circ$ (c, 3.0 in H₂O).

Phenylhydrazone: Mp 216°.

5,6-O-Cyclohexylidene: 5,6-O-Cyclohexylidene-L-threo-hex-2-enono-1,4-lactone

C₁₂H₁₆O₆ M 256.255

Mp 185°. $[\alpha]_D +37.0^\circ$ (c, 2.0 in MeOH).

5,6-O-Isopropylidene: 5,6-O-Isopropylidene-L-threo-hex-2-enono-1,4-lactone

C₉H₁₂O₆ M 216.190

Mp 220-222°. $[\alpha]_D^{20} +14^\circ$ (c, 0.5 in EtOH).

2,3-Di-Me:

C₈H₁₂O₆ M 204.179

Mp 59° (hydrate). $[\alpha]_D +32^\circ$ (MeOH).

Herbert, R.W. et al, *J. Chem. Soc.*, 1933, 1270.

Reichstein, T. et al, *Helv. Chim. Acta*, 1934, 17, 311 (synth)

Hirst, E.L., *Fortschr. Chem. Org. Naturst.*, 1939, 2, 132.

Janauer, G.E. et al, *Anal. Chim. Acta*, 1961, 24, 270 (detn, Nb)

Korkisch, J. et al, *Anal. Chim. Acta*, 1963, 28, 270 (detn, Ti)

Sawyer, D.T. et al, *Anal. Chem.*, 1966, 38, 192 (pmr)

Pilipenko, A.T. et al, *Zavod. Lab.*, 1966, 32, 3 (rev, use)

Hvoslef, J., *Acta Crystallogr., Sect. B*, 1969, 25, 2214 (cryst struct)

Sadtler Standard Spectra, No. 3126, 1972 (pmr)

Berger, S., *Tetrahedron*, 1977, 33, 1587 (cmr)

Crawford, T.C. et al, *Adv. Carbohydr. Chem.*, 1980, 37, 7 (rev)

Sieb, P.A. et al, *Adv. Chem. Ser.*, 1982, 200.

Al-Meshal, I.A. et al, *Anal. Profiles Drug Subst.*, 1982, 11, 45 (rev)

Davies, M.B. et al, *Vitamin C: its Chemistry and Biochemistry*, RSC, 1991.

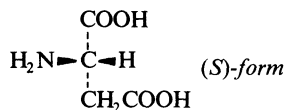
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ARN000.

Aspartic acid

A-00447

Aminobutanedioic acid, 9CI. Aminosuccinic acid. Asparagic acid. Asparaginic acid

[6899-03-2]



C₄H₇NO₄ M 133.104

(S)-form [56-84-8]

L-form

Found in sugar cane and sugar beet molasses and proteins/peptides. Made comly. by biotransformation of ammonium fumarate using *Escherichia alcalescens* immobilised on polymer gel. Leaflets (H₂O). Mp 269-271°. $[\alpha]_D^{25} +5.05^\circ$ (c, 1 in H₂O), $[\alpha]_D +25.4^\circ$ (c, 1 in 5M HCl). pK_{a1} 2.09; pK_{a2} 3.86; pK_{a3} 9.82 (25°). N-Protected derivs. useful in peptide synth. are listed alphabetically elsewhere.

(±)-form [617-45-8]

Used as a 0.02M aq. soln. for complexometric titrimetry of Be, Cu, Th. Monoclinic prisms. Insol. EtOH, Et₂O; sol. H₂O. Mp 278-280° (338-339°).

Biochem. Prep., 1952, 2, 71 (synth)

Wood, J.W. et al, *J. Org. Chem.*, 1952, 17, 891.

Greenstein, J.P. et al, *Chemistry of the Amino Acids*, Wiley, N.Y., 1961, 3, 1856, 2759 (rev)

Org. Synth., Coll. Vol., 4, 1963, 55 (synth)

Fujiwara, S. et al, *Bull. Chem. Soc. Jpn.*, 1964, 37, 344 (pmr)

Young, D.P., *Chem. Ind. (London)*, 1967, 1251.

Zintel, J.A. et al, *Can. J. Chem.*, 1969, 47, 411 (synth)

Ressler, C. et al, *J. Org. Chem.*, 1971, 36, 3960 (I-mononitrile)

Rao, S.T., *Acta Crystallogr., Sect. B*, 1973, 29, 1718 (cryst struct)

Sergeev, G.M. et al, *CA*, 1977, 89, 208521r (use)

Sergeev, G.M. et al, *Zavod. Lab.*, 1977, 43, 1306 (use)

Harada, K. et al, *Bull. Chem. Soc. Jpn.*, 1983, 56, 653 (resoln)

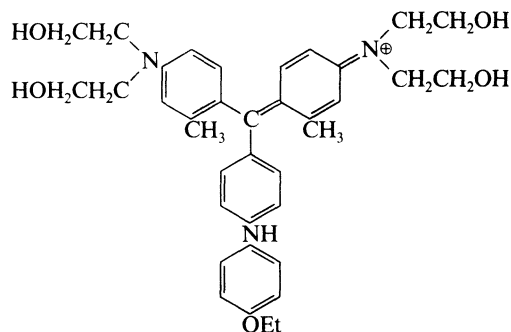
Zahradnik, J. et al, *Collect. Czech. Chem. Commun.*, 1985, 50, 2122 (manuf)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ARN830, ARN850.

Astracyanine B

A-00448

Basic blue 18. C.I. 42705



C₃₇H₄₆N₃O₅[⊕] M 612.787 (ion)

Triarylmethane dye. Strictly the name Astracyanine B applies to the chloride.

Chloride: [5905-33-9].

C₃₇H₄₆ClN₃O₅ M 648.240

Used as redox indicator (transition range 1.08-1.12 V).

Blue cryst. powder. Sol. H₂O, EtOH, Me₂CO; insol.

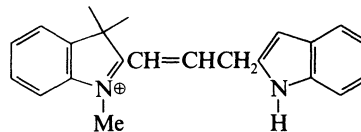
CCl₄. E° + 1.10 V.

Brazier, J.N. et al, *Anal. Chim. Acta*, 1965, 33, 625.

Astrafloxine FF

A-00449

2-[3-(1,3-Dihydro-2H-indol-2-ylidene)-1-propenyl]-1,3,3-trimethyl-3H-indolium(1+), 9CI



C₂₂H₂₃N₂[⊕] M 315.437 (ion)

Strictly, the name Astrafloxine FF applies to the chloride.

Tautomerism possible.

Chloride: [23134-01-2].

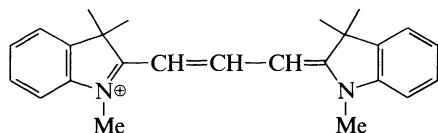
C₂₂H₂₃ClN₂ M 350.890

Used as a 1mM aq. soln. for extraction-photometric detn. of Hg (λ_{max} 568 nm, ϵ 102000). Forms ion pairs with HgBr₃[⊖] and HgI₃[⊖]. Dark red bluish cryst. powder.

Kish, P.P. et al, *Zh. Anal. Khim.*, 1977, 32, 1942.

Astrafloxine G**A-00450**

2-[3-(1,3-Dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propeny]-1,3,3-trimethyl-3H-indolium(1+), 9CI. C.I. Basic red 12. C.I. 48070. Aizen astraphloxine FF. Basic phloxine FF. Calcozine red BG. Cosmophloxine F



$C_{25}H_{29}N_2^{\oplus}$ M 357.517 (ion)

Basic dye. Strictly, the name Astrafloxine G applies to the chloride.

Chloride: [6320-14-5].

$C_{25}H_{29}ClN_2$ M 392.970

Used for extraction-photometric detn. of Re (ϵ 110000, C_6H_6), Ti(III). Violet cryst. powder. Sol. H_2O , EtOH, 2-ethoxyethanol; insol. C_6H_6 , CCl_4 .

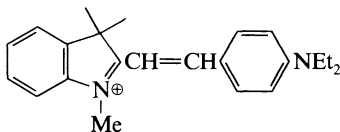
Konig, W., *Ber.*, 1924, **57**, 685 (*synth*)

Borisova, I.A. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1973, 122; *CA*, **81**, 85607y.

Constantinescu, C. *et al*, *Rev. Chim. (Bucharest)*, 1982, **33**, 167; *CA*, **97**, 119680g.

Astra violet 3R**A-00451**

2-[2-[4-(Diethylamino)phenyl]etheny]-1,3,3-trimethyl-3H-indolium(1+), 9CI. C.I. Basic violet 16. Basacryl brilliant red BG. Fabracyl violet 3RA. Maxilon brilliant red 2B. Viocryl violet 3RBS. Intradene brilliant red 2B. Aizen cathilon-red 5BH. C.I. 48013. Numerous other proprietary names



$C_{23}H_{29}N_2^{\oplus}$ M 333.495 (ion)

Strictly, the name Astra violet 3R applies to the chloride.

Chloride: [6359-45-1].

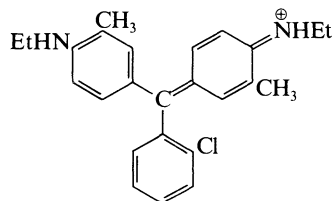
$C_{23}H_{29}ClN_2$ M 368.948

Used as 0.05% aq. soln. for photometric detn. of Au (forms ion-pair with the $Au(CN)_2^{\ominus}$ complex). Dark red-violet cryst. powder. Sol. H_2O , EtOH, Me_2CO ; insol. C_6H_6 , CCl_4 .

Armeanu, V.Y. *et al*, *Anal. Chim. Acta*, 1969, **44**, 230 (*detn. Au*)
Colour Index, 3rd Edn, 1971, **4**, 4437 (*synth*)

Astrazon blue B**A-00452**

4-[(2-Chlorophenyl)[4-(ethylimino)-3-methyl-2,5-cyclohexadien-1-ylidene]methyl]-N-ethyl-2-methylbenzenamine, 9CI. C.I. Basic blue 5. C.I. 42140. Astrarhoduline blue 5B. Atacryl blue 5B. Brilliant basic blue R. Elcozine basic blue 5R. Hidaco caribbean blue. Hispacril blue 5B. Primocyanine BX



$C_{25}H_{28}ClN_2^{\oplus}$ M 391.962 (ion)

Triphenylmethane basic dye. Strictly, the name Astrazon blue B applies to the chloride.

Chloride: [3943-82-6].

$C_{25}H_{28}Cl_2N_2$ M 427.415

Used as 2% aq. soln. in extraction-photometric detn. of Ga and Re. Bluish cryst. powder. Sol. EtOH, H_2O ; insol. C_6H_6 , CCl_4 .

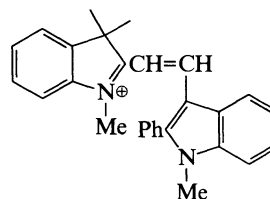
Armeanu, V.Y. *et al*, *Talanta*, 1967, **14**, 699.

Colour Index, 3rd Edn, 1971, **4**, 4387 (*synth*)

Constantinescu, C. *et al*, *Rev. Chim. (Bucharest)*, 1980, **25**, 1421; *CA*, **94**, 113901d.

Astrazon orange R**A-00453**

1,3,3-Trimethyl-2-[2-(1-methyl-2-phenyl-1H-indol-3-yl)etheny]-3H-indolium(1+), 9CI. C.I. Basic orange 22. C.I. 48040. Aizen cathilon orange RH. Atacryl orange LR. Catacryl orange R. Sumiacryl orange R



$C_{28}H_{27}N_2^{\oplus}$ M 391.535 (ion)

Strictly, the name Astrazon orange R applies to the chloride.

Chloride: [4657-00-5].

$C_{28}H_{27}ClN_2$ M 426.987

Used as a 7.5mM aq. soln. for extraction photometric detn. of Sn(IV) (λ_{max} 500 nm, C_6H_6/Me_2CO); acid base indicator. Orange cryst. (HCl aq.). Sol. H_2O , EtOH; insol. C_6H_6 , CCl_4 .

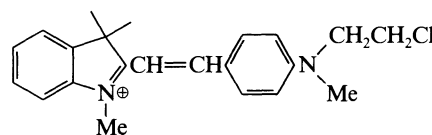
Colour Index, 3rd Edn, 1971, **4**, 4438 (*synth*)

Abadi, M.A. *et al*, *Zh. Org. Khim.*, 1972, **8**, 240g (*use*)

Popa, G. *et al*, *Rev. Chim. (Bucharest)*, 1979, **30**, 686 (*detn. Sn*)

Astrazon pink FG**A-00454**

2-[2-[4-[(2-Chloroethyl)methylamino]phenyl]etheny]-1,3,3-trimethyl-3H-indolium, 9CI. Astrazon rose FG. C.I. Basic red 13. C.I. 48015. Aizen cathilon pink FGH. Atacryl pink G. Catacryl pink FG. Intradene brilliant pink G. Stanacril pink G



$C_{22}H_{26}Cl_2N_2^{\oplus}$ M 353.913 (ion)

Methine basic dye. Strictly, the name Astrazon pink FG applies to the chloride.

Chloride: [3648-36-0].

$C_{22}H_{26}Cl_2N_2$ M 389.366

Used as aq. soln. in extraction-photometric detn. of Au, Th. Red cryst. Sol. H_2O , Et₂O.

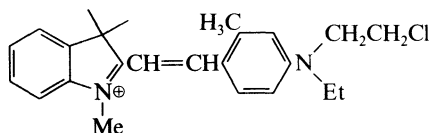
Colour Index, 3rd Edn, 1971, **4**, 4438 (*synth*)

Popa, G. *et al*, *Chim. Anal. (Bucharest)*, 1972, **2**, 243; *CA*, **78**, 131666e (*use, Th*)

Nabivanets, B.I. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 2140 (*use, Au*)

Astrazon red 6B**A-00455**

2-[2-[4-[(2-Chloroethyl)ethylamino]-2-methylphenyl]ethenyl]-1,3,3-trimethyl-3H-indolium(1+), 9CI. C.I. Basic violet 7. C.I. 48020. Aizen cathilon red 6BH. Atacryl red 6B. Catacyl red 6B. Stenacril brilliant red 6B. Sumiacryl red N6B
[6441-82-3]



$C_{24}H_{30}ClN_2^{\oplus}$ M 381.967 (ion)

Methine basic dye. Strictly, the name Astrazon red 6B applies to the chloride.

Chloride:

$C_{24}H_{30}Cl_2N_2$ M 417.420

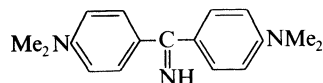
Used as 0.05% EtOH soln. in extraction-photometric detn. of Tl(III). Dark violet cryst. powder. Sol. EtOH; spar. sol. H₂O.

Colour Index, 3rd Edn, 1971, 4, 4438.

Constantinescu, C. et al, Rev. Chim. (Bucharest), 1981, 32, 477; CA, 95, 180184f.

Auramine**A-00456**

4,4'-Carbonimidoylbis[N,N-dimethylbenzenamine], 9CI. Bis(4-dimethylaminophenyl)methylenimine. 4,4'-Bisdimethylaminobenzophenone imide. Apyonin. Yellow pyocetenin. C.I. Solvent yellow 34
[492-80-8]



$C_{17}H_{21}N_3$ M 267.373

Non light-fast dye for solvents, oils, waxes, lacquers and inks. Used for photometric detn. of PO_4^{3-} (ϵ 460000). Yellow plates (EtOH). Sol. EtOH, Et₂O, acids; spar. sol. H₂O. Mp 136°.

▶ Highly toxic by skin absorption and inhalation. Human carcinogen, manuf. in the UK controlled by the Carcinogenic Substances Regulations, 1967. BY3500000.

B,HCl: [2465-27-2]. C.I. Basic yellow 2

Dye for silk, cotton, wool, leather, paper. Dye for inks; fluorescence probe; has some bacteriostatic activity.

Golden-yellow plates + H₂O (H₂O). Spar. sol. cold H₂O. Mp 267°.

▶ BY3675000.

Lynch, D.F.J. et al, J. Am. Chem. Soc., 1933, 55, 2515 (synth)

Hellerman, L. et al, J. Am. Chem. Soc., 1946, 68, 1890 (synth)

Grishko, V.P. et al, Zavod. Lab., 1984, 50, 13 (detn, PO_4^{\ominus})

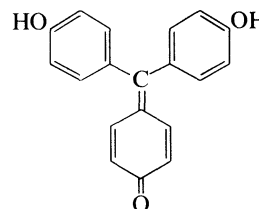
Muralidharan, D. et al, J. Chromatogr., 1986, 368, 405 (tlc)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 186.

Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, IBA000, IBB000.

Aurin**A-00457**

4-[Bis(4-hydroxyphenyl)methylene]-2,5-cyclohexadien-1-one, 9CI. Corallin. C.I. 43800
[603-45-2]



$C_{19}H_{14}O_3$ M 290.318

Dye intermed. Acid-base indicator (pH range 6.9-8.0; colour change brown → red). Deep-red cryst. with metallic lustre. Sol. EtOH (yellow soln.), prac. insol. H₂O, C₆H₆. Dec. at 308-310°.

Na salt: Yellow corallin

Yellow solid with green metallic lustre. Sol. H₂O (carminic red soln.).

Zulkowsky, K., Justus Liebigs Ann. Chem., 1878, 194, 109, 122 (synth)

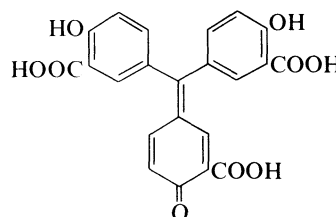
Nencki, M. et al, J. Prakt. Chem., 1881, 23, 549 (synth)

Stora. C. et al, C. R. Hebd. Seances Acad. Sci., 1949, 229, 766 (struct)

Bishop, E., Indicators, Pergamon, Oxford, 1972, 125 (use)

Aurintricarboxylic acid**A-00458**

5-[(3-Carboxy-4-hydroxyphenyl)(3-carboxy-4-oxo-2,5-cyclohexadien-1-ylidene)methyl]-2-hydroxybenzoic acid, 9CI
[4431-00-9]



$C_{22}H_{14}O_9$ M 422.347

The struct. shown is that generally given in the lit. but Aurintricarboxylic acid actually appears to be a mixt. of polymeric species. Effective inhibitor of complement activity in pharmaceuticals. Potent inhibitor of cellular processes depending on the binding of nucleic acids to proteins. Appears to function as an oligonucleotide mimic.

Tri-NH₄ salt: [569-58-4]. Aluminon

$C_{22}H_{23}N_3O_9$ M 473.438

Commercially available. Used as 0.5% aq. soln. in photometric detn. Al, Be, rare earth elements, F[⊖]; metal indicator in titrimetric detn. of Al, In, Cu et al.

Reddish-brown powder. Sol. H₂O; sl. sol. EtOH; insol. non-polar solvs.

▶ GU4800000.

Tri-Na salt: [13186-45-3]. C.I. Mordant violet 39. C.I. 43810

Dyestuff. Commercially available.

Org. Synth., Coll. Vol., 1, 1932, 54.

Smith, W.H. et al, Anal. Chem., 1949, 21, 1334 (synth, use)

Codell, M. et al, Anal. Chem., 1953, 25, 1437 (detn, Al)

Dhond, P.V. et al, Anal. Chem., 1973, 45, 1937 (detn, Be)

U.S. Pat., 4 007 270, (1977); CA, 86, 177318 (use)

Cabrera, F. et al, Analyst (London), 1981, 106, 1296 (detn, Al)

Janowski, A. et al, Pol. J. Chem. (Rocz. Chem.), 1982, 56, 451 (ir)

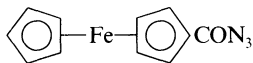
Hulanicki, A. et al, Pure Appl. Chem., 1983, 55, 1137 (use)

Pannell, L.K. *et al.*, *Anal. Chem.*, 1985, **57**, 1060 (*ms*)
 Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 21.
 Cushman, M. *et al.*, *Tetrahedron*, 1990, **46**, 1491 (*struct, bibl*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AGW750.

(Azidocarbonyl)ferrocene, 9CI

A-00459

3-Ferrocenonyl azide
 [1273-85-4]



$C_{11}H_9FeN_3O$ M 255.059

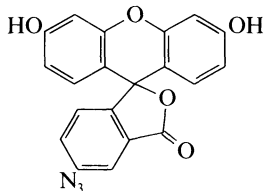
Derivatisation reagent for alcohols used in hplc with electrochem. detn. Yellow prisms (Et₂O). Mp 84-85°.

Arimoto, F.S. *et al.*, *J. Am. Chem. Soc.*, 1955, **77**, 6295 (*synth*)
 Schlogl, K. *et al.*, *Naturwissenschaften*, 1958, **45**, 337 (*synth*)
 Shimaka, K. *et al.*, *J. Chromatogr.*, 1986, **352**, 329 (*synth, use*)

Azido fluorescein

A-00460

5-Azido-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one



$C_{20}H_{11}N_3O_5$ M 373.324

Di-Ac: [77162-07-3]. 3',6'-Bis(acetyloxy)-5-azidospiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-3-one, 9CI. Azido fluorescein diacetate. Azido-FDA

$C_{24}H_{15}N_3O_7$ M 457.398

Fluorescent intracellular fluid pH indicator. Orange-red solid.

Rotman, A. *et al.*, *Biochemistry*, 1981, **20**, 5995 (*synth, use*)
 Rotman, A. *et al.*, *Biochim. Biophys. Acta*, 1982, **720**, 75 (*use*)

(3-Azido-3-oxopropyl)ferrocene, 9CI

A-00461

3-Ferrocenylpropionyl azide
 [102563-30-4]



$C_{13}H_{13}FeN_3O$ M 283.112

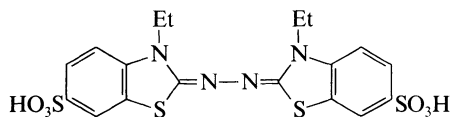
Derivatisation reagent for alcohols used in hplc (with electrochem. detn.). Yellow prisms (Et₂O). Mp 55-56°.

Shimaka, K. *et al.*, *J. Chromatogr.*, 1986, **352**, 329 (*synth, use*)

2,2'-Azinobis[3-ethyl-2,3-dihydro-6-benzothiazolesulfonic acid], 9CI

A-00462

2,2'-Azinodi(3-ethylbenzothiazoline)sulfonic acid
 [28752-68-3]



$C_{18}H_{18}N_4O_6S_4$ M 514.627

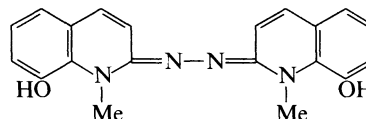
Used as a 1% soln. in phosphate buffer for photometric detn. of H₂O₂ (λ_{max} 420 nm, ϵ 51000). Yellow cryst. powder. Sl. sol. H₂O; sol. alkalis.

Hunig, S. *et al.*, *Justus Liebigs Ann. Chem.*, 1964, **676**, 32 (*synth*)
 Mahuzier, G. *et al.*, *Anal. Chim. Acta*, 1975, **76**, 79.
 Hasegawa, N. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1981, **30**, 470 (*detn H₂O₂*)

2,2'-Azinobis(8-hydroxy-1-methylquinoline)

A-00463

8-Hydroxy-1-methyl-2(1H)-quinolinone azine



$C_{20}H_{18}N_4O_2$ M 346.388

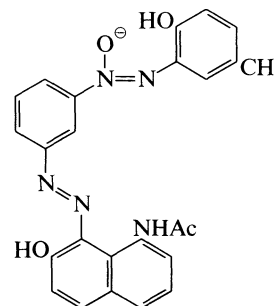
Used as a 0.1mM soln. in AcOH for photometric detn. of NO₂[⊖]. Glistening red plates (ethylcyclohexane/C₆H₆). Sol. C₆H₆, Mp 257-258°.

Fuchs, K. *et al.*, *Ber.*, 1928, **61**, 57.
 Sawicki, E. *et al.*, *Anal. Chem.*, 1963, **35**, 2183 (*synth, detn, NO₂[⊖]*)

Azo-azoxy AN

A-00464

8-Acetamido-1-[3-(2-hydroxy-5-methylphenylazoxy)phenylazo]-2-naphthol. N-[7-Hydroxy-8-[[m-[(6-hydroxy-m-tolyl)-NNO-azoxy]phenyl]azo]-1-naphthyl]acetamide, 8CI
 [19343-40-9]



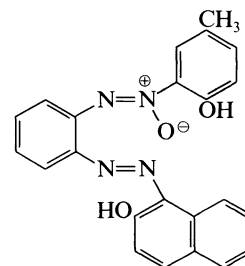
$C_{25}H_{21}N_5O_4$ M 455.472

Used for extraction-photometric detn. of Ca, Cu, Sr. Brown cryst. powder. Spar. sol. EtOH; insol. H₂O. Gorbenko, F.P., *CA*, 1968, **68**, 26573t.

Azo-azoxy BN

A-00465

1-[[2-[(2-Hydroxy-5-methylphenyl)azoxy]phenyl]azo]-2-naphthalenol, 9CI. 1-[[o-[(6-Hydroxy-m-tolyl)-NNO-azoxy]phenyl]azo]-2-naphthol, 8CI. Azo-azohydroxy BN
 [3837-14-7]



$C_{23}H_{18}N_4O_3$ M 398.420

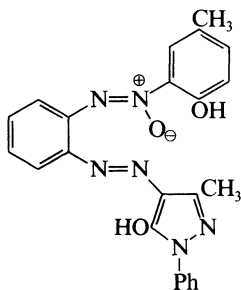
Used for extraction separation of Ca and photometric detn. of Cu, Co, Zn. Orange-red cryst. Sol. CCl_4 , CHCl_3 ; spar. sol. 0.5M NaOH. Mp 230-231°. $\text{p}K_{a1}$ 10.5; $\text{p}K_{a2}$ 13.3.

Gorbenko, F.P. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 1198, 1397; 1968, **23**, 1139; 1969, **24**, 15; 1970, **25**, 1884.

Wieteska, E. *et al*, *Chem. Anal. (Warsaw)*, 1972, **17**, 85 (detn. Co)
Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 181 (use)

Azo-azoxy PMP A-00466

4-[[2-[(2-Hydroxy-5-methylphenyl)-ONN-azoxy]phenyl]azo]-3-methyl-1-phenyl-1H-pyrazol-5-ol, 9CI. 4-[2-(2-Hydroxy-5-methylphenylazoxy)phenylazo]-3-methyl-1-phenyl-2-pyrazolin-5-one
[15175-31-2]



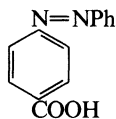
$\text{C}_{23}\text{H}_{20}\text{N}_6\text{O}_3$ M 428.449

Used for extraction separation of Sr from Ca, Ba. Sol. CCl_4 , CHCl_3 , C_6H_6 ; insol. H_2O .

Gorbenko, F.P. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 671.

Azobenzene-4-carboxylic acid A-00467

4-Phenylazobenzoic acid, 8CI. Benzeneazo-p-benzoic acid
[1562-93-2]



$\text{C}_{13}\text{H}_{10}\text{N}_2\text{O}_2$ M 226.234

Red leaflets with golden lustre (EtOH). Mp 249°.

Me ester: [2918-88-9].

$\text{C}_{14}\text{H}_{12}\text{N}_2\text{O}_2$ M 240.261

Orange-red cryst. (EtOH). Mp 123-124°.

Amide:

$\text{C}_{13}\text{H}_{11}\text{N}_3\text{O}$ M 225.249

Red cryst. Mp 224-225°.

Nitrile: 4-Cyanoazobenzene

$\text{C}_{13}\text{H}_9\text{N}_3$ M 207.234

Brown needles (C_6H_6). Mp 120-121°.

Hydrazide: Gives high-melting orange hydrazones with carbonyl compds. Mp 209°.

Chloride: [104-24-5].

Forms coloured esters with alcohols. Used for identification and chromatog. sepn. of alcohols, amines and phenols. Mp 92-94°.

Woolfolk, E.O. *et al*, *J. Org. Chem.*, 1955, **20**, 391; 1956, **21**, 436; 1957, **22**, 827 (use, chloride)

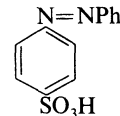
Syz, M. *et al*, *Helv. Chim. Acta*, 1965, **48**, 383 (synth)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 44, 832.

Bakke, J. *et al*, *Acta Chem. Scand.*, 1972, **26**, 355 (synth)

Azobenzene-4-sulfonic acid A-00468

4-Phenylazobenzenesulfonic acid, 9CI. p-Sulfoazobenzene
[2484-88-0]



$\text{C}_{12}\text{H}_{10}\text{N}_2\text{O}_3\text{S}$ M 262.289

Orange-red cryst. + 3H₂O (H₂O), cryst.(EtOH). Mp 127° (hydrate), Mp 82-83° (anhyd.).

Chloride: [58359-53-8].

$\text{C}_{12}\text{H}_9\text{ClN}_2\text{O}_2\text{S}$ M 280.734

Forms highly cryst. orange or red derivs. with amines.

Derivatisation reagent for densitometric anal. of estrogens. Orange needles (Et₂O). Mp 82°.

Amide: [77163-67-8].

$\text{C}_{12}\text{H}_{11}\text{N}_3\text{O}_2\text{S}$ M 261.304

Orange cryst. (EtOH).

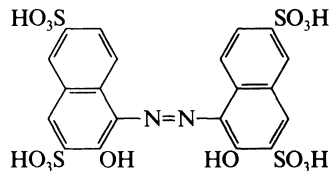
Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 832.

Penzes, L. *et al*, *J. Chromatogr.*, 1970, **51**, 322 (use)

Boto, K.G. *et al*, *Aust. J. Chem.*, 1974, **27**, 1215 (synth)

4,4'-Azobis[3-hydroxy-2,7-naphthalenedisulfonic acid], 9CI A-00469

2,2'-Dihydroxy-1,1'-azonaphthalene-3,3',6,6'-tetrasulfonic acid
[76877-41-3]



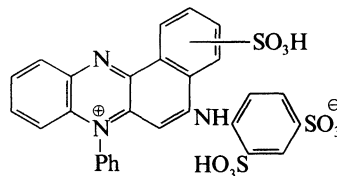
$\text{C}_{20}\text{H}_{14}\text{N}_2\text{O}_{14}\text{S}_4$ M 634.600

Used as 0.1mM aq. soln. as an indicator for complexometric titration of Ca (λ_{max} 560 nm, pH 12). Dark violet cryst. Sol. H_2O . $\text{p}K_{a1}$ 5.73; $\text{p}K_{a2}$ 13.5 (25°, $\mu = 1$).

Wada, H. *et al*, *Anal. Chim. Acta*, 1980, **121**, 265 (synth, detn, Ca)

Azocarmine B A-00470

5-[(2,4-Disulphophenyl)amino]-7-phenylsulfobenzo[a]phenazinium hydroxide inner salt. Azocarmine BX. C.I. Acid red 103. C.I. 50090



$\text{C}_{28}\text{H}_{21}\text{N}_3\text{O}_9\text{S}_3$ M 639.687

Strictly the name Azocarmine B applies to the disodium salt.

Di-Na salt: [25360-72-9].

Used as a 0.1% aq. soln. as indicator in bromatometric titrimetric detn. of As(III). Commercially available.

Dark reddish blue cryst. powder. Sol. H_2O .

Colour Index, 3rd Ed., 1971, **4**, 4447 (synth)

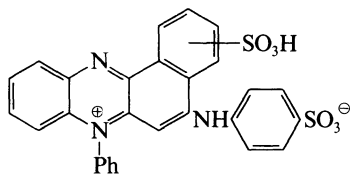
Venkateswara Rao, N. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **285**, 125 (use)

Ramana, P.V. *et al*, *J. Indian Chem. Soc.*, 1980, **57**, 235 (use)

Azocarmine G

A-00471

7-Phenylsulfo-5-[(4-sulfophenyl)amino]benzo[a]phenazinium hydroxide inner salt. Rosiniduline. C.I. Acid red 101. C.I. 50085



$C_{28}H_{19}N_3O_6S_2$ M 557.607

Strictly the name Azocarmine G applies to the sodium salt.

Na salt: [25641-18-3].

Used as a 0.1 % aq. soln. as indicator in bromatometric titrimetric detn. of As(III), Sb(III); redox indicator.

Dark red cryst. powder. Sl. sol. H_2O .

Colour Index, 3rd Ed., 1971, 4, 4447 (synth)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

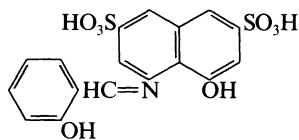
Venkateswara Rao, N. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **285**, 125 (use)

Ramana, P.V. *et al*, *J. Indian Chem. Soc.*, 1980, **57**, 235 (use)

Azomethine H

A-00472

4-Hydroxy-5-[[[(2-hydroxyphenyl)methylene]amino]-2,7-naphthalenedisulfonic acid, 9CI. 4-Hydroxy-5-(salicylideneamino)-2,7-naphthalenedisulfonic acid



$C_{17}H_{13}NO_8S_2$ M 423.424

Na salt: [32266-60-7].

Used in photometric detn. of B, Th, V. Yellow cryst. powder. Sol. H_2O ; spar. sol. EtOH, MeOH; insol. Et_2O , Me_2CO , $CHCl_3$. Mp 300° dec.

Poddar, S.N. *et al*, *Indian J. Chem.*, 1965, **3**, 407; 1966, **4**, 371 (detn. Th, V)

Basson, W.D. *et al*, *Analyst (London)*, 1969, **94**, 1135.

Schucker, G.D. *et al*, *Anal. Chim. Acta*, 1975, **75**, 95.

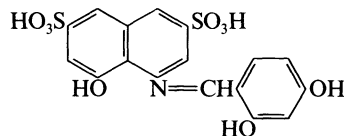
Yoshimura, K. *et al*, *Anal. Chim. Acta*, 1979, **109**, 115.

Krug, F.J. *et al*, *Anal. Chim. Acta*, 1981, **125**, 29.

Azomethine HR

A-00473

4-[[[(2,4-Dihydroxyphenyl)methylene]amino]-5-hydroxy-2,7-naphthalenedisulfonic acid, 9CI [125552-97-8]



$C_{17}H_{13}NO_9S_2$ M 439.423

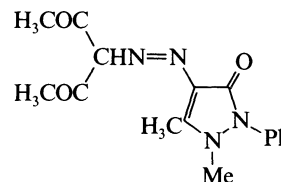
Used as 0.3% aq. soln. (in the presence of ascorbic acid) for photometric detn. of B (λ_{max} 425 nm, ϵ 20000, pH 7.5). Yellow powder. Sol. H_2O . pK_{a1} 4.2; pK_{a2} 6.8; pK_{a3} 9.5 (0.1M KCl, 25°).

Zenki, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1989, **334**, 238 (synth. detn. B)

Azolon A1

A-00474

3-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-2,4-pentanedione, 9CI. 3-(4-Antipyrilazo)-2,4-pentanedione [26304-27-8]



$C_{16}H_{18}N_4O_3$ M 314.343

Used as a 0.5mM soln. in 20% EtOH for photometric detn. of Sc, heavy metals. Dark red needles (50% EtOH aq.). Sol. EtOH, Me_2CO ; mod. sol. H_2O . Mp 148-150° (180°).

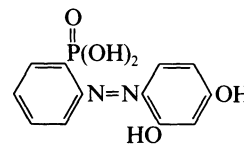
Budešinsky, B. *et al*, *Anal. Chim. Acta*, 1970, **49**, 231 (synth)

Ishizuki, T. *et al*, *Anal. Chim. Acta*, 1988, **212**, 253.

Azophosphon

A-00475

[2-[(Dihydroxyphenyl)azo]phenyl]phosphonic acid, 9CI [39275-94-0]



$C_{12}H_{11}N_2O_5P$ M 294.203

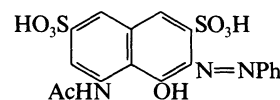
Used for photometric detn. of Sc (λ_{max} 415 nm, ϵ 14000). Yellow cryst. powder. Sol. H_2O , alkalis, EtOH.

Lukin, A.M. *et al*, *CA*, 1970, **73**, 31353d; 1973, **78**, 52300v.

Azorhodine 2G

A-00476

5-(Acetylamino)-4-hydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid, 9CI. C.I. Acid red 1. C.I. Food red 10. C.I. 18050. Brilliant acid red G. Fast crimson GR. Naphthazine rose 2G. Solar fast red 3G. Vopsider red ASTR G. Numerous other proprietary names



$C_{18}H_{15}N_3O_8S_2$ M 465.464

Strictly, the name Azorhodine 2G applies to the disodium salt.

▷ QJ6030000.

Di-Na salt: [3734-67-6].

$C_{18}H_{13}N_3O_8S_2$ M 463.448

Used for photometric detn. of Pd; as 0.01% soln. in EtOH to give colour reactions with Fe(III), Pd. Dark red cryst. Sol. H_2O ; sl. sol. EtOH; insol. Et_2O .

Popa, G. *et al*, *Zh. Anal. Khim.*, 1959, **14**, 322 (detn. Pd)

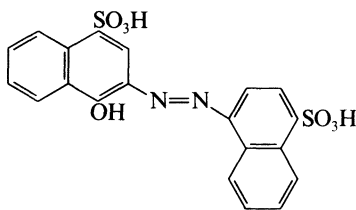
Mathur, J.N. *et al*, *Indian J. Appl. Chem.*, 1970, **33**, 209.

Colour Index, 3rd Edn, 1971, **4**, 4116 (synth)

Nemodruk, A.A. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 326 (detn. Fe)

Azorubine**A-00477**

4-Hydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-1-naphthalenesulfonic acid, 9CI. C.I. Chromotrope FB. C.I. Acid red 14. C.I. Food red 3. C.I. Mordant blue 79. C.I. 14720. Brilliant carmoisine. Lissamine red W. Nacarar. Numerous other proprietary names



$C_{20}H_{14}N_2O_7S_2$ M 458.472

Strictly, the name Azorubine applies to the disodium salt.

Di Na salt: [3567-69-9].

Used in photometric detn. of Mg, Pd, Cu, Sn, Cr. Dark red cryst. powder. Sol. H_2O ; mod. sol. EtOH; insol. Me_2CO .

▷ QK1925000.

Colour Index, 3rd Edn, 1971, 4, 4068 (synth)

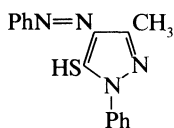
Bosch Serrat, F., *An. Quim.*, 1972, **68**, 155; *CA*, **77**, 42752s (*detn, Mg*)

Bosch Serrat, F., *Inf. Quim. Anal.*, 1973, **27**, 14; *CA*, **79**, 111414p (*detn, Pd*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HJF500.

Azothiopyrine**A-00478**

5-Mercapto-3-methyl-1-phenyl-4-(phenylazo)-1H-pyrazole. 3-Methyl-1-phenyl-4-(phenylazo)-1H-pyrazole-5-thiol [78431-22-8]



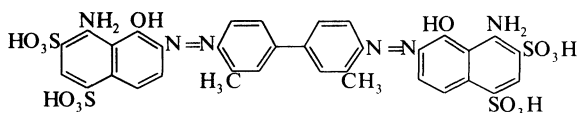
$C_{16}H_{14}N_4S$ M 294.379

Used as 0.1% soln. in MeOH for extraction-photometric detn. of Ni, Co, (alkaline media), Ag, Cu, Hg, Pd (acid media). Reddish-orange needles (C_6H_6). Insol. H_2O ; sol. C_6H_6 , pet. ether, alkalis. Mp 100-101°.

Tanaka, T. *et al, Chem. Pharm. Bull.*, 1981, **29**, 445 (*synth*)

Azovan blue, BAN**A-00479**

6,6'-[3,3'-Dimethyl(1,1'-biphenyl)-4,4'-diyl]bis(azo)bis[4-amino-5-hydroxy-1,3-naphthalenedisulfonic acid], 9CI. Chlorazol sky blue FF. C.I. Direct blue 53. Diamine sky blue FF. Evablin. Evans blue, USAN. T 1824 [314-13-6]



$C_{34}H_{24}N_6Na_4O_{14}S_4$ M 960.818

Commonly used as tetra-Na salt. Diagnostic aid for measurement of blood volume. Dyestuff. Used as 0.04% aq. soln. in photometric detn. of Mg. Blue cryst. with brown/green lustre. Sol. H_2O , EtOH, acid, alkalis.

▷ QJ6440000.

Org. Synth., Coll. Vol., 2, 1943, 145 (*synth*)

Mani, R.S. *et al, Indian J. Chem.*, 1966, **4**, 498 (*synth*)

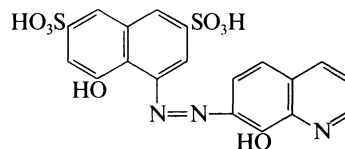
Chauhan, U.P. *et al, Talanta*, 1967, **14**, 575 (*use, detn, Mg*)

Gloria, T.S., *Rev. Bras. Farm.*, 1973, **54**, 55 (*pharmacol*)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2123.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BGT250.

Azoxin H**A-00480**

4-Hydroxy-5[(8-hydroxy-7-quinoly)azo]-2,7-naphthalenedisulfonic acid, 8CI [28539-45-9]



$C_{19}H_{13}N_3O_8S_2$ M 475.459

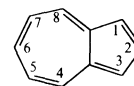
Used in photometric detn. of Hg (λ_{max} 540 nm, ϵ 35000).

Dark red-brown cryst. powder + $3H_2O$. Sol. H_2O , EtOH, spar. sol. Me_2CO . pK_{a1} 8.7; pK_{a2} 12.8.

Cherkesov, A.I. *et al, Zh. Anal. Khim.*, 1970, **25**, 466.

Azulene, 9CI**A-00481**

Bicyclo[5.3.0]deca-1,3,5,7,9-pentaene [275-51-4]



$C_{10}H_8$ M 128.173

Aromatic hydrocarbon. Occurs in camomile and other essential oils. Used as a 0.1% soln. in glac. AcOH for photometric detn. of NO_2^- (λ_{max} 515 nm, ϵ 52000). Greenish-black cryst. or blue needles (hexane). Sol. conc. acids, C_6H_6 ; insol. H_2O . Mp 99°, Mp 93°. Isomerises to Naphthalene at 270°.

▷ CO4570000.

Plattner, P.I.A. *et al, Helv. Chim. Acta*, 1937, **20**, 224; 1952, **35**, 1036 (*synth, uv*)

Braude, E.A. *et al, J. Chem. Soc.*, 1953, 2208 (*synth*)

Garcia, E.E. *et al, Anal. Chem.*, 1967, **39**, 1605 (*detn, NO_2^-*)

Jones, A.J. *et al, J. Am. Chem. Soc.*, 1970, **92**, 2386 (*cmr*)

Altridge, C.J. *et al, Organomet. Chem. Synth.*, 1971, **1**, 183 (*synth*)

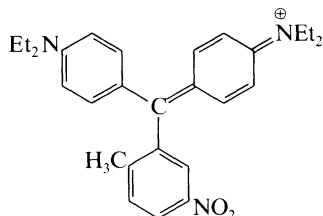
Eland, J.H.D., *Int. J. Mass Spectrom. Ion Phys.*, 1972, **9**, 214.

B

Basic turquoise

B-00001

N-[4-[[4-(Diethylamino)phenyl](2-methyl-5-nitrophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium(1+), 9CI. C.I. Turquoise blue. Turquoise blue B. C.I. 42037



$C_{28}H_{34}N_3O_2^{\oplus}$ M 444.595 (ion)

Strictly the name Basic turquoise applies to the trichlorozincate salt; also applies to the *N,N'*-di-Me compd.

Trichlorozincate: [7140-99-0].

$C_{28}H_{34}Cl_3N_3O_2Zn$ M 616.344

Used as 1mM aq. soln. for extraction-photometric detn. of Co (λ_{max} 610 nm, toluene/DMF). Cryst. (MeOH). Sol. H_2O .

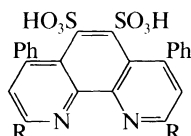
Colour Index, 3rd Ed., 1971, 4, 4382 (synth)

Kish, P.P. et al, *Zh. Anal. Khim.*, 1987, 42, 1082 (detn, Co)

Bathocuproinedisulfonic acid

B-00002

2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline-5,6-disulfonic acid, 9CI



R = CH_3

$C_{26}H_{20}N_2O_6S_2$ M 520.586

Di-Na salt: [58814-68-9].

Used for photometric detn. of Fe, Cu. Hygroscopic light tan cryst. (H_2O). Sol. H_2O . Shows blue fluoresc.

[52698-84-7]

Zak, B., *Clin. Chim. Acta*, 1958, 3, 328 (use)

Blair, D. et al, *Talanta*, 1961, 7, 163 (use)

Quarmby, C. et al, *Analyst (London)*, 1967, 92, 305 (use)

Fuhrman, D.L. et al, *Talanta*, 1967, 14, 1199 (use)

West, T.S. et al, *The Determination of Trace Metals in Natural Waters*, Blackwell, Oxford, 1988, 52.

Bathophenanthrolinedisulfonic acid

B-00003

4,7-Diphenyl-1,10-phenanthroline-5,6-disulfonic acid, 9CI [28061-20-3]

As Bathocuproinedisulfonic acid, B-00002 with

R = H

$C_{24}H_{16}N_2O_6S_2$ M 492.532

Syrupy liq.

Di-Na salt: [52746-49-3].

Used for photometric detn. of Fe. Light tan cryst. (H_2O). Sol. H_2O .

Zak, B., *Am. J. Clin. Pathol.*, 1958, 29, 590 (use)

Blair, D. et al, *Talanta*, 1961, 7, 163 (use)

Benzaldehyde

B-00004

[100-52-7]

PhCHO

C_7H_6O M 106.124

Found in plants, esp. in almond kernels. Derivs. (e.g. glyceryl acetal) are used as flavourings. Used for photometric detn. of O_3 . Forms benzylidene derivs. with sugars for ms anal. Liq. with characteristic almond-type odour. V. spar. sol. H_2O , misc. org. solvs. d_4^{15} 1.0504. Mp -26° , Fp -56.9° to -55.6° . Bp $178-179^\circ$, Bp₁₀ 62° . pK_a 14.90 (hydrate) (25° , 1% EtOH). Steam-volatile. Forms bisulphite compd. Slowly oxid. in air. Reduces $AgNO_3 \cdot NH_2$ but not Fehling's soln.

► Mod. toxic orally. Violently oxid. by 90% $HCOOOH$. CU4375000.

(E)-Oxime: [622-31-1]. α -Oxime. α -Benzaldoxime

C_7H_7NO M 121.138

Used as EtOH soln. for detn. of Co and Ni (pptn.).

Needles. Sol. EtOH. Mp 35° . Bp₁₀ $118-119^\circ$.

(Z)-Oxime: [622-32-2]. β -Oxime

Needles (Et₂O). Mp 130° . Gradually inverts to (E)-form, more rapidly on heating or by dil. acids.

Di-Et acetal: [774-48-1]. (Diethoxymethyl)benzene.

Diethoxyphenylmethane

$C_{11}H_{16}O_2$ M 180.246

Liq. d_4^{25} 0.979. Bp $217-221^\circ$.

Semicarbazone: [1574-10-3].

Mp 222° (rapid heat, $233-235^\circ$).

Cyanhydrin: see Mandelic acid, M-00007

Hydrazone: [5281-18-5]. Benzylidenehydrazine

$C_7H_8N_2$ M 120.154

Leaflets. Mp 16° . Bp₁₄ 140° .

Phenylhydrazone: [588-64-7].

Two forms known. Mp $157-158^\circ$, Mp $154-155^\circ$.

4-Nitrophenylhydrazone: Two forms known. Mp $234-236^\circ$, Mp $261-262^\circ$.

2,4-Dinitrophenylhydrazone: Mp 237° .

Briner, E. et al, *Helv. Chim. Acta*, 1937, 20, 293.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, 3 (synth, use, oxime)

Org. Synth., 1971, 51, 11, 20, 31; 1974, 54, 42; 1977, 56, 36 (synth)

Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, 56, 1037 (ir)

Naik, D.V. et al, *Acta Crystallogr., Sect. B*, 1974, 30, 2396 (cryst struct, semicarbazone)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1977, 6, 26.

Org. Synth., 1977, 56, 36 (synth)

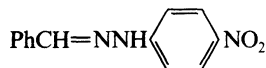
Cook, I.B., *Aust. J. Chem.*, 1989, 42, 1493 (cmr)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 627, 300.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 189.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BAY500.

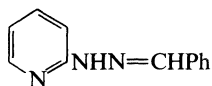
Benzaldehyde (4-nitrophenyl)hydrazone, 9CI **B-00005**
[3078-09-9]



$C_{13}H_{11}N_3O_2$ M 241.249
Acid-base indicator (pH range: 11-12; colour change: yellow \rightarrow red). Used as a 0.5% soln. in MeOH. Yellow cryst. (EtOH). Sol. EtOH; insol. H_2O . Mp 211°. pK_a 11.5.

Cuisa, R. *et al*, *Gazz. Chim. Ital.*, 1922, **52II**, 215 (*synth*)
O'Connor, R., *Anal. Chem.*, 1961, **33**, 1282 (*use*)

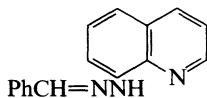
Benzaldehyde 2-pyridinylhydrazone, 9CI **B-00006**
[2719-73-5]



$C_{12}H_{11}N_3$ M 197.239
Used as 1% soln. in EtOH for photometric detn. of Co (λ_{max} 550 nm, ϵ 27000). Cryst. (EtOH). Sol. $CHCl_3$, C_6H_6 , EtOH; insol. H_2O . Mp 140-141°.

Pflaum, R.T. *et al*, *Anal. Chem.*, 1971, **18**, 458 (*use*)

Benzaldehyde 8-quinolinyhydrazone, 9CI **B-00007**
[82633-14-5]



$C_{16}H_{13}N_3$ M 247.299
Used as a 0.01M soln. in 0.05M HCl in EtOH to give colour reaction with Cu(I). Cryst. (MeOH). Sol. common org. solvs. Mp 118°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 338 (*synth, use*)

Benzamide **B-00008**
[55-21-0]



C_7H_7NO M 121.138
Isol. from the leaves of *Homalium foetidum*. Plates (H_2O). Spar. sol. H_2O , Et_2O ; sol. EtOH. Mp 130°. Bp 288° part. dec.

▷ CU8700000.

N-Chloro: [1821-34-7]. N-Chlorobenzamide, 9CI

C_7H_6ClNO M 155.583
Used as titrant (0.033M aq. soln.) for potentiometric detn. of reductants (e.g. As(III), I^- , SO_3^{2-} , $S_2O_3^{2-}$). Cryst. (H_2O). Sol. H_2O . Mp 116°.

N-Bromo: [19964-97-7].

C_7H_6BrNO M 200.034
Plates (C_6H_6). Mp 129-131°.

N-Et: [614-17-5].

$C_9H_{11}NO$ M 149.192
Needles (H_2O). Mp 70-71°. Bp 298-300°.

▷ CV4920000.

N-Di-Et: [1696-17-9].

$C_{11}H_{15}NO$ M 177.246
Bp 280-282°.
▷ CV4202000.

N-(Aminoiminomethyl): see N-(Aminoiminomethyl) benzamide, A-00226

N-Methylsulfonyl, oxime: see N-Methanesulfonylbenzamidoxime, M-00067

Elliott, G.R., *J. Chem. Soc.*, 1922, **121**, 203 (*synth*)
Kao, C.H. *et al*, *J. Chem. Soc.*, 1930, 2788 (*synth*)
Hauser, C.R. *et al*, *J. Am. Chem. Soc.*, 1937, **59**, 121 (*N-bromo*)
Singh, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **196**, 323.
Johns, S.R. *et al*, *Aust. J. Chem.*, 1969, **22**, 1315 (*isol*)
Blake, C.C.F. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 2201 (*cryst struct*)
Lord, G.H. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1973, 572 (*ms*)
Gottaroli, W., *Monatsh. Chem.*, 1975, **106**, 611 (*N-bromo*)
Jones, R.G. *et al*, *Org. Magn. Reson.*, 1978, **11**, 20 (*cmr*)
Calvert, D.J. *et al*, *Aust. J. Chem.*, 1979, **32**, 337 (*pmr*)
Nishinaga, A. *et al*, *J. Chem. Soc., Chem. Commun.*, 1979, 970 (*synth*)
Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1492 (*cmr*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBB000, BCM250.

Benzamidine **B-00009**

Benzenecarboximidamide, 9CI
[618-39-3]



$C_7H_8N_2$ M 120.154
Cryst. Mp 75-80°.

B,HCl: [1670-14-0].

Cryst. + 2 H_2O . Mp 72° (anhyd. 169°).

Picrate: Yellow needles (EtOH). Mp 236-237° (230°).

4-Methylbenzenesulfonyl: Mp 195°.

[59387-41-6]

Org. Synth., Coll. Vol., 1, 1932, 6 (*synth*)

Partridge, M.W. *et al*, *J. Chem. Soc.*, 1947, 390.

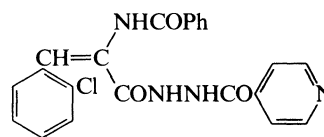
Ried, W. *et al*, *Chem. Ber.*, 1963, **96**, 1213 (*synth*)

Wagner, G. *et al*, *Pharmazie*, 1975, **30**, 444 (*ir*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1977, 6, 27.

Thailambal, V.G. *et al*, *Acta Crystallogr., Sect. C*, 1986, **42**, 587 (*cryst struct*)

α -Benzamido-*o*-chlorocinnamic acid isonicotinyldiazide, 8CI **B-00010**



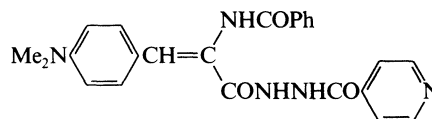
$C_{22}H_{17}ClN_4O_3$ M 420.854

Used for photometric detn. of Cu. Orange cryst. (EtOH).

Teodorescu, N. *et al*, *Fresenius' Z. Anal. Chem.*, 1967, **232**, 119 (*detn, Cu*)

1-[α -Benzamido-*p*-(dimethylamino) cinnamoyl]-2-isonicotinyldiazide, 8CI **B-00011**

[2134-08-9]



$C_{24}H_{23}N_5O_3$ M 429.477

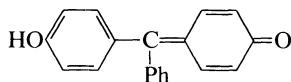
Used as 0.025M soln. in DMF as an acid-base indicator.
Orange cryst. (EtOH). Sol. common org. solvs. Mp
273°.

Teodorescu, N. *et al*, *Rev. Roum. Chim.*, 1971, **16**, 63 (*synth, use*)

Benaurin**B-00012**

4-[(4-Hydroxyphenyl)phenylmethylene]-2,5-cyclohexadien-1-one, 9CI. Phenolbenzein

[569-60-8]

C₁₉H₁₄O₂ M 274.318

Used as a 0.1% soln. in EtOH as an acid-base indicator
(pH range: 6.0 - 7.6; colour change: yellow → red).

Orange red cryst. Sol. EtOH; insol. H₂O.

Orndorff, W.R. *et al*, *J. Am. Chem. Soc.*, 1925, **47**, 2767 (*synth, use, ind*)

Bury, C.R., *J. Am. Chem. Soc.*, 1935, **57**, 2115 (*struct*)

Benzenebutane(dithioic)acid, 9CI**B-00013**

3-Phenylpropylxanthic acid

[128538-43-2]

C₁₀H₁₂S₂ M 196.337

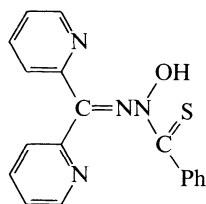
Used as 1% aq. soln. for extraction-separation of Tl(I)
(CHCl₃). Yellow cryst. Sol. H₂O, alkalis, EtOH.

Schweitzer, G.K. *et al*, *Anal. Chim. Acta*, 1966, **35**, 467 (*sepn, Tl*)

Benzenecarbothioic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, 9CI**B-00014**

Di-2-pyridinylmethanone 2-hydroxythiobenzoylhydrazone

[73697-18-4]

C₁₈H₁₄N₄OS M 334.401

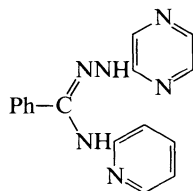
Used as 0.01M soln. in EtOH or Me₂CO for extraction-
photometric detn. of Re (in the presence of SnCl₂, 4-
methyl-2-pentanone). Orange red cryst. (EtOH). Sol.
EtOH, Me₂CO, CHCl₃. Mp 82°.

Kettrup, A. *et al*, *Anal. Chim. Acta*, 1980, **115**, 383 (*synth, detn, Re*)

Benzenecarboximidic acid N-2-pyridinyl-2-pyrazinylhydrazone, 9CI**B-00015**

N-2-Pyridylbenzamide pyrazinylhydrazone

[58495-48-0]

C₁₆H₁₄N₆ M 290.327

Used as a soln. in aq. EtOH for photometric detn. of
Cu(I) (λ_{max} 422 nm, ε 4200), Co (λ_{max} 446 nm, ε 11000),
Fe(II). Cryst. Sol. common org. solvs.

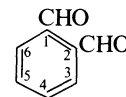
Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 373 (*use*)

1,2-Benzenedicarboxaldehyde, 9CI**B-00016**

o-Phthalaldehyde, 8CI. 1,2-Diformylbenzene

[643-79-8]

C₈H₆O₂ M 134.134

Fluorogenic reagent for amino acids. Cryst. (ligroin). Mp
55.5-56°. pK_{a1} 13.00 (hydrate) (25°). Steam-volatile.

Non-benzenoid tautomers have been characterised in Ar
matrix.

▷ TH6950000.

Tetra-Ac:

C₁₆H₁₈O₈ M 338.313

Mp 126-127°.

Bisphenylhydrazone: Mp 190-191°.

Aldrich Library of IR Spectra, **2**, 278H (ir)Aldrich Library of NMR Spectra, **6**, 81B (pmr)Chaudhuri, T.C., *J. Am. Chem. Soc.*, 1942, **64**, 315 (*synth*)

Caujolle, F. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1956, **243**, 1933
(*tox*)

Org. Synth., *Coll. Vol.*, **4**, 1963, 807 (*synth*)Hervieu, J. *et al*, *J. Chromatogr.*, 1967, **29**, 274 (*chromatog*)

Person, M. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1972, **275**,
527; *CA*, **78**, 10865 (*polarog*)

Tomasik, P. *et al*, *Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1974, **22**,
1065; *CA*, **82**, 124540 (*w*)

Lee, K.S. *et al*, *Int. J. Biochem.*, 1978, **9**, 457 (*use, rev*)

Gebicki, J. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1990, 765

(tautom)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, PHV500.

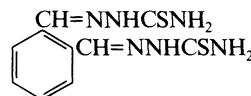
1,2-Benzenedicarboxaldehyde**B-00017****bis(thiosemicarbazone)**

2,2'-(1,2-Phenylenedimethylidene)

bishydrazinecarbothioamide, 9CI. o-Phthalaldehyde

bis(thiosemicarbazone)

[58244-15-8]

C₁₀H₁₂N₆S₂ M 280.377

Used for photometric detn. of Pd (λ_{max} 405 nm, ε 11000,
pH 3.0 - 4.5). Cryst. Sol. DMF.

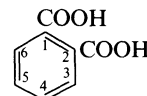
Lopez, P.J. *et al*, *Quim. Anal. (Madrid)*, 1984, **3**, 226; *CA*, **103**,
47421y (*detn, Pd*)

1,2-Benzenedicarboxylic acid, 9CI**B-00018**

Phthalic acid, 8CI. Naphthalinic acid. Phthalinic acid.

Alizarinic acid

[88-99-3]

C₈H₆O₄ M 166.133

Obt. industrially by oxidn. of *o*-Xylene and Naphthalene.

Found in *Gibberella fujikuroi*. Esters are important plasticisers. Used for gravimetric detn. of Pb. Used as aq. soln. in buffer solns.; alkalimetric standard (as K salt). Plates (H₂O). Mod. sol. H₂O, EtOH; sol. hot H₂O, alkalis; spar. sol. Et₂O. Mp 210° dec., Mp 234°. p*K*_{a1} 2.95; p*K*_{a2} 5.41 (H₂O, 25°). Forms anhydride at Mp. Reports of the isoln. of phthalate esters as nat. prods. are in many and prob. all cases erroneous because of their ubiquitous presence in solvs., laboratory plastics, etc. as plasticisers.

▷ TH9625000.

Mono-Me ester: [4376-18-5].

C₉H₈O₄ M 180.160

Needles (C₆H₆). Mp 85°.

Di-Me ester: [131-11-3]. *Dimethyl phthalate*

C₁₀H₁₀O₄ M 194.187

Liq. Mp 0°. Bp 282.4°, Bp₂ 116-116.5°.

▷ Toxic TLV 5, exp. carcinogen. TI1575000.

Di-Ph ester: [84-62-8]. *Diphenyl phthalate*

C₂₀H₁₄O₄ M 318.328

Reagent used for conversion of amino acids to *N*-phthalenyl derivs. without racemisation. Mp 74-76°.

Dichloride: [88-95-9].

C₈H₄Cl₂O₂ M 203.024

Reagent for converting acids and anhydrides to acid chlorides. Mp 15-16°. Bp 281°, Bp₂ 153.3°.

Imide: see *Phthalimide*, P-00223

Anhydride: see *Phthalic anhydride*, P-00222

Monothioureide: [36053-26-6]. 2-[[*(Aminothioxomethyl) amino*]carbonyl]benzoic acid, 9CI

C₉H₈N₂O₃S M 224.240

Used as 1% MeOH soln. for photometric detn. of Pd (λ_{max} 360, 428 nm). Cryst. Sol. MeOH, EtOH.

Registry of Mass Spectral Data, Wiley-Interscience, 543 (*ms*)

Sadtler Standard C-13 NMR Spectra, 979 (*cmr*)

Sadtler Standard Ultraviolet Spectra, 1730 (*uv*)

Kolthoff, I.M. et al, *Ind. Eng. Chem., Anal. Ed.*, 1943, **15**, 174 (*buffer*)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, **2**, 75 (*use*)

Cross, B.E. et al, *J. Chem. Soc.*, 1963, 2937 (*isol*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 347, 883.

Gregorowicz, Z. et al, *Chem. Anal. (Warsaw)*, 1972, **17**, 727 (*synth. detn. Pd*)

Burger, K., *Organic Reagents in Metal Analysis*, Akadémiai Kiadó, Budapest, 1973 (*use*)

Aldrich Library of NMR Spectra, 1974, **6**, 153B (*pmr*)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 843D (*ir*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **17**, 732 (*rev*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DEH200, DJX000,

DTR200, DVL700, PHW250.

1,3-Benzenedicarboxylic acid

B-00019

Isophthalic acid. m-Phthalic acid

[121-91-5]

C₈H₆O₄ M 166.133

Found in the rhizome of *Iris versicolor*. Esters form polymers with a variety of compds. Needles (H₂O or EtOH). Mp 345-347°, Mp 348°. p*K*_{a1} 3.50; p*K*_{a2} 4.50 (25°). Subl.

▷ NT2007000.

Mono-Me ester:

C₉H₈O₄ M 180.160

Mp 193°.

Mono-Et ester:

C₁₀H₁₀O₄ M 194.187

Mp 115-117°.

Di-Me ester: [1459-93-4].

C₁₀H₁₀O₄ M 194.187

Corrosion inhibitor for steel welds and used in manuf. of polyesters. Needles (EtOH aq.). Mp 67.8-68.3°. Bp 282°, Bp₁₂ 124°.

▷ NT2540000.

Di-Et ester: [636-53-3].

C₁₂H₁₄O₄ M 222.240

Used in manuf. of polyesters. Mp 11.5°. Bp 285°, Bp 302°, Bp_{2,4} 170-170.5°.

▷ NT2500000.

Dichloride: [99-63-8].

C₈H₄Cl₂O₂ M 203.024

Mp 43-44°. Bp 276°.

▷ NT2625000.

Monoamide: [4481-28-1]. *Isophthalamic acid*

C₈H₇NO₃ M 165.148

Needles (MeOH). Mp 280°.

Diamide: [1740-57-4].

C₈H₈N₂O₂ M 164.163

Mp 280°.

Diamide, N,N'-OH: [20073-81-8]. *Isophthaldihydroxamic acid*.

N,N'-Dihydroxybenzenedicarboxamide, 9CI. *N,N'-Dihydroxyisophthalamide*

C₈H₈N₂O₄ M 196.162

Used as a 0.4M aq. soln. for extraction-photometric detn. of Mn (λ_{max} 480 nm, ε 8500), V, Mo(VI) (λ_{max} 350 nm, ε 6050). Cryst. Sol. H₂O, EtOH.

Dinitrile: [626-17-5]. *1,3-Dicyanobenzene*

C₈H₄N₂ M 128.133

Mp 161.5-162°.

▷ CZ1900000.

[91816-63-6]

Aldrich Library of IR Spectra, 2nd Ed., 843F (*ir*)

Aldrich Library of NMR Spectra, **6**, 153 (*pmr*)

Morton, A.A. et al, *J. Am. Chem. Soc.*, 1943, **65**, 1339 (*synth*)

Derrissen, J.L., *Acta Crystallogr., Sect. B*, 1974, **30**, 2764 (*cryst. struct*)

Salinas, F. et al, *Anal. Lett.*, 1983, **16**, 999, 1449 (*detn. V, Mn*)

Salinas, F. et al, *Microchem. J.*, 1985, **31**, 113; **32**, 383 (*detn. Mn, Mo*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IMJ000, IML000, IMO000, PHX550.

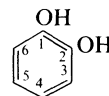
1,2-Benzenediol, 9CI

B-00020

Pyrocatechol, 8CI. *Catechol*. *1,2-Dihydroxybenzene*.

Pyrocatechuic acid

[120-80-9]



C₆H₆O₂ M 110.112

Isol. from various plant sources and by hydrol. of tannins.

Used as 5% aq. soln. for photometric detn. of Nb, Os, Ta, Ti, W; complexing agent of some metals (e.g. Al, Ti) (anionic complexes associated with basic dyes). Needles (H₂O). Sol. H₂O, EtOH. Mp 105°. Bp 240°. p*K*_{a1} 9.23; p*K*_{a2} 13.0 (25°). Sublimes. Steam-volatile.

▷ Toxic by skin absorption, irritant, causes burns, TLV 20. Explodes on contact with conc. nitric acid. UX1050000.

Mono-Ac:

$C_8H_6O_3$ M 152.149
 Leaflets. Mp 57-58°. Bp₁₀₂ 189-191°.
Di-Ac: [635-67-6].
 $C_{10}H_{10}O_4$ M 194.187
 Needles (EtOH). Mp 63.5°.
Monobenzoyl: [5876-92-6].
 $C_{13}H_{10}O_3$ M 214.220
 Cryst. (EtOH/Et₂O). Mp 131°.
Dibenzoyl: [643-94-7].
 $C_{20}H_{14}O_4$ M 318.328
 Cryst. Mp 84°.
Mono-Me ether: see 2-Methoxyphenol, M-00102
Di-Me ether: see 1,2-Dimethoxybenzene, D-00766
Mono-Et ether: [94-71-3]. 2-Ethoxyphenol
 $C_8H_{10}O_2$ M 138.166
 Mp 28-29°. Bp 217°. p*K*_{a1} 10.11 (25°).
Di-Et ether: [2050-46-6]. 1,2-Diethoxybenzene
 $C_{10}H_{14}O_2$ M 166.219
 Mp 43-45°.
 ▷ CZ5580000.
Me-Et ether: [17600-72-5]. 1-Ethoxy-2-methoxybenzene
 $C_9H_{12}O_2$ M 152.193
 Bp 207-209°.
O-β-D-Glucopyranosyl:
 $C_{12}H_{16}O_7$ M 272.254
 Isol. from leaves of *Gaultheria ovatifolia*, also in *G. humifusa*. Amorph. yellowish powder. Mp 130-140°. [α]_D²² –79° (c, 0.3 in EtOH).
Registry of Mass Spectral Data, Wiley, 128 (ms)
Sadtler Standard C-13 NMR Spectra, 4428 (cmr)
Sadtler Standard Ultraviolet Spectra, 2572 (uv)
Org. Synth., Coll. Vol., 1, 1932, 149.
 Rosotte, R. et al, *Chim. Anal. (Paris)*, 1959, **41**, 229 (detn, Ta)
 Ackermann, G. et al, *Talanta*, 1962, **9**, 1015 (detn, Nb)
 Towers, G.H.N. et al, *Phytochemistry*, 1966, **5**, 677 (glucoside)
 Busev, A.I. et al, *Zh. Anal. Khim.*, 1968, **23**, 1348 (detn, W)
 Gibalo, I.M. et al, *Zh. Anal. Khim.*, 1971, **26**, 1531 (detn, Nb)
 Karrer, W. et al, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 179 (occur)
Aldrich Library of NMR Spectra, 1974, **4**, 133C (pmr)
Aldrich Library of IR Spectra, 2nd Ed., 1975, 590F (ir)
 Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Metals, Part 2*, John Wiley, New York, 1978, 1427.
Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **13**, 39 (rev)
 Press, J.B., *Synth. Commun.*, 1979, 407 (synth)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 232.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CCP850, CCP900.

1,3-Benzenediol, 9CI**B-00021**

Resorcinol, 8CI. 1,3-Dihydroxybenzene. *Astriderm. Resorcin. Rezacuid*
 [108-46-3]
 $C_6H_6O_2$ M 110.112
 Keratolytic, antiseptic. Used as 5% EtOH soln. for photometric detn. of Co, Zn, NO₂[⊖], NO₃[⊖]. Platelets (EtOH). Sol. Et₂O, H₂O, EtOH. Mp 111°. Bp 280°. p*K*_{a1} 9.30; p*K*_{a2} 11.06 (20°).
 ▷ Mod. toxic, irritant, TLV 45. VG9625000.
Mono-Ac: [102-29-4]. 3-Acetoxyphenol. **Resorcinol monoacetate**, USAN. *Euresol*
 $C_8H_8O_3$ M 152.149
 Antiseborrheic, keratolytic agent. Oil. Bp 283°.
 Component of Sulforcin.
 ▷ VH2750000.
Di-Ac: [108-58-7].
 $C_{10}H_{10}O_4$ M 194.187

Liq. Bp 278°.
 ▷ VH0580000.
Monobenzoyl: [136-36-7].
 $C_{13}H_{10}O_3$ M 214.220
 Leaflets (EtOH aq.). Mp 135-136°.
 ▷ VH2800000.
Dibenzoyl: [94-01-9].
 $C_{20}H_{14}O_4$ M 318.328
 Mp 117°.
 ▷ VH0590000.
Mono-Me ether: [150-19-6]. *m-Methoxyphenol*
 $C_7H_8O_2$ M 124.139
 Oil. Bp 244°. p*K*_a 9.65 (25°).
 ▷ SL7524000.
Mono-Et ether: [621-34-1]. *m-Ethoxyphenol*
 $C_8H_{10}O_2$ M 138.166
 Liq. Bp 246-247°. p*K*_a 9.66 (25°).
Di-Et ether: [2049-73-2]. 1,3-Diethoxybenzene
 $C_{10}H_{14}O_2$ M 166.219
 Prisms. Fp 12.4°. Bp 235°.
Me-Et ether: [25783-45-3]. 1-Ethoxy-3-methoxybenzene
 $C_9H_{12}O_2$ M 152.193
 Liq. Bp 216°.
Registry of Mass Spectral Data, Wiley, 128 (ms)
Sadtler Standard C-13 NMR Spectra, 4428 (cmr)
Sadtler Standard Ultraviolet Spectra, 2572 (uv)
 Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, **1**, 176 (use)
Aldrich Library of NMR Spectra, 1974, **4**, 136D (pmr)
Aldrich Library of IR Spectra, 2nd Ed., 1975, 593A (ir)
 Varagnat, J., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **13**, 39 (rev)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1637, 1638.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 1467.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HNH500, RDZ900, REA000, REA100, REF050.

1,4-Benzenediol, 9CI**B-00022**

Hydroquinone, 8CI, USAN. *Hydroquinol. 1,4-Dihydroxybenzene. Quinol. Pyrogentisic acid. Arctuin. Eldopaque. Eldoquin. Pyrogentisic acid. Arctuin*
 [123-31-9]
 $C_6H_6O_2$ M 110.112
 Isol. from plant sources, eg. *Pyrola rotundifolia* and by hydrol. of plant tannins. Depigmentor, antiseptic. Used as 0.05% soln. in conc. H₂SO₄ for photometric detn. of Nb, Ta, W. Needles (H₂O). Mp 172°. Bp₇₃₀ 285°. p*K*_{a1} 9.91; p*K*_{a2} 11.56 (20°). Component of Artra and Solaquin.
 ▷ Toxic and irritant, TLV 2. Skin contact may cause dermatitis and vapour can damage eyes. MX3500000.
Mono-Ac: [3233-32-7].
 $C_8H_8O_3$ M 152.149
 Prisms (pet. ether). Mp 62-63°. Bp₁₁ 160-162°.
Di-Ac: [1205-91-0].
 $C_{10}H_{10}O_4$ M 194.187
 Cryst. (EtOH). Mp 123-124°.
Monobenzoyl: [2444-19-1].
 $C_{13}H_{10}O_3$ M 214.220
 Needles (EtOH). Mp 162-163°.
Dibenzoyl: [14210-97-0].
 $C_{20}H_{14}O_4$ M 318.328
 Needles (C₆H₆). Mp 199°.
Mono-Me ether: [150-76-5]. 4-Methoxyphenol. **Mequinol**, INN

$C_7H_8O_2$ M 124.139

Isol. from leaves of *P. secunda*. Depigmentor. Leaflets (H_2O). Mp 53°. Bp 243°, Bp₁₂ 128°. p*K*_{a1} 10.12 (25°, 0.1*M* KCl).

▷ SL7700000.

Mono-Et ether: [622-62-8]. 4-Ethoxyphenol

$C_8H_{10}O_2$ M 138.166

Isol. from star anise oil (*Illicium anisatum*), *I. verum* and *Empleurum serrulatum*. Leaflets (H_2O). Mp 66-67°. Bp 246-247°. p*K*_{a1} 10.13 (25°).

Di-Et ether: [122-95-2]. 1,4-Diethoxybenzene

$C_{10}H_{14}O_2$ M 166.219

Prisms. Mp 72°.

Me-Et ether: [5076-72-2]. 1-Ethoxy-4-methoxybenzene

$C_9H_{12}O_2$ M 152.193

Mp 39°. Bp₇₅₄ 216-217°.

Registry of Mass Spectral Data, Wiley, 128 (ms)

Sadtler Standard C-13 NMR Spectra, 38 (cmr)

Sadtler Standard Ultraviolet Spectra, 60 (uv)

Waterbury, G.R. *et al.*, *Anal. Chem.*, 1957, **29**, 1474; 1958, **30**, 1007 (detn, Nb, Ta)

Brun, R., *J. Soc. Cosmet. Chem.*, 1960, **11**, 571 (Mequinol)

Hibbits, J.O. *et al.*, *Talanta*, 1961, **8**, 209 (detn, Nb)

Karrer, W. *et al.*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, nos. 203, 205, 208.

Aldrich Library of NMR Spectra, 1974, **4**, 140B (pmr)

Norwitz, G. *et al.*, *Anal. Chim. Acta*, 1974, **69**, 59 (detn, W)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 594F (ir)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1975, **5**, 341.

Varagnat, J., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **13**, 39 (rev)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1612, 1619.

Lai, A. *et al.*, *Magn. Reson. Chem.*, 1985, **23**, 379 (cmr)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 422.

Penner, G.H. *et al.*, *Can. J. Chem.*, 1989, **67**, 525 (cmr, 4-methoxyphenol)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 357.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EFA100, HIH000, MFC700.

Benzeneethane(dithioic) acid, 9CI

B-00023

Phenyldithioacetic acid

[5873-91-6]

PhCH₂CSSH

$C_8H_8S_2$ M 168.283

Orange liq. with penetrating odour. Dec. on attempted dist.

Et₄N salt: Gives colour reaction with transition metals.

Orange-red cryst. (EtOH/Et₂O). Sol. H₂O, EtOH, CHCl₃, Me₂CO, 1,2-dichloroethane. p*K*_{a1} 2.05.

[20155-37-7]

Houben, J., *Ber.*, 1906, **39**, 3227 (synth)

Borgeson, R.W. *et al.*, *J. Am. Chem. Soc.*, 1929, **51**, 1455 (synth)

Apsit, A.A. *et al.*, *Latv. PSR Zinat. Akad. Vestis*, 1968, **4**, 400 (use, deriv)

Benzeneseleninic acid, 9CI

B-00024

Phenylselenious acid

[6996-92-5]

PhSe(O)OH

$C_6H_6O_2Se$ M 189.072

Reagent for acetoxyselelenation of alkenes and rearr. of hydroxamic acids. Plates (H_2O). Mp 124-125°. p*K*_a 4.70 (25°, 4% MeOH).

NH₄ salt: Used as 20% aq. soln. for gravimetric detn. of Sc, Zr. Plates (H_2O). Sol. H₂O.

Anhydride: [17697-12-0]. Benzeneseleninic anhydride

$C_{12}H_{10}O_3Se_2$ M 360.129

Reagent for regiospecific hydroxylations and oxidn. of phenols to *ortho*-quinones. Fairly stable solid. Mp 164°. Slowly hydrol. in moist atmosphere.

Pyman, F.L., *J. Chem. Soc.*, 1919, 167 (synth)

Behaghel, O. *et al.*, *Ber.*, 1933, **66**, 708 (synth)

Bryden, J.H. *et al.*, *Acta Crystallogr.*, 1954, **7**, 833 (cryst struct)

Alimarin, I.P. *et al.*, *Zh. Anal. Khim.*, 1958, **13**, 332; 1961, **16**, 412 (detn, Zr, Sc)

de Filipp, D. *et al.*, *J. Chem. Soc. B*, 1971, 1065 (ir)

Rebane, E., *Chem. Scr.*, 1974, **5**, 5 (ms)

Barton, D.H.R. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1977, 567; 1981, 1473 (deriv)

Saleh, G. *et al.*, *Chem. Ber.*, 1979, **112**, 355 (use)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1979, **7**, 139; **8**, 28.

Faehl, L.G. *et al.*, *J. Org. Chem.*, 1979, **44**, 2357 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBR325.

Benzenesulfonic acid, 9CI

B-00025

[618-41-7]

PhSO₂H

$C_6H_6O_2S$ M 142.178

Used as a 5*mM* aq. soln. for gravimetric detn. of Th, Zr; photometric detn. of quinones. Prisms. Mp 83-84°. p*K*_a 1.29 (20°). Dec. at ca. 100°.

Me ester: [670-98-4].

$C_7H_8O_2S$ M 156.205

Bp_{0.45} 76-78°, Bp_{0.04} 59-60°.

▷ Skin irritant.

Chloride: [4972-29-6].

C_6H_5ClOS M 160.624

Plates. Mp 38°. Hydrol. by H₂O.

▷ Explodes after prolonged storage in glass.

Anhydride:

$C_{12}H_{10}O_3S_2$ M 266.341

Mp 67°.

Amide: [16066-31-2].

C_6H_7NOS M 141.193

Mp 121°.

Dimethylamide: [5539-54-8].

$C_8H_{11}NOS$ M 169.247

Bp₂₋₃ 90°.

Anilide:

$C_{12}H_{11}NOS$ M 217.291

Mp 112-114°.

Azide: [21230-20-6]. Benzenesulfinyl azide

$C_6H_5N_3OS$ M 167.191

Prepd. in solution, dec. at r.t.

▷ Concentrated solutions explosive above 0°.

Alimarin, I.P. *et al.*, *Zh. Anal. Khim.*, 1957, **23**, 658; 1958, **24**, 804 (detn, Zr, Th)

Kobayashi, M. *et al.*, *Bull. Chem. Soc. Jpn.*, 1966, **39**, 1788 (uv, ir)

Reinheckel, H. *et al.*, *Chem. Ber.*, 1966, **99**, 1718 (synth)

Org. Synth., 1966, **46**, 62 (ester)

Horner, L. *et al.*, *Chem. Ber.*, 1970, **103**, 2718 (synth)

Exner, O. *et al.*, *J. Chem. Soc. B*, 1970, 278 (conformn)

Maricich, T.J. *et al.*, *J. Am. Chem. Soc.*, 1974, **96**, 7770; 1984, **49**, 1928, 1931 (azide, synth, ir)

Cahiez, G. *et al*, *J. Organomet. Chem.*, 1976, **121**, 123 (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 374 (*deriv*)
 Stadnik, A.S. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 1801 (*detrn, quinones*)
 Oae, S. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1978, 913 (*synth*)
 Nokami, J. *et al*, *Tetrahedron Lett.*, 1979, 3659 (*synth*)
 Kamiyama, T. *et al*, *Chem. Pharm. Bull.*, 1988, **36**, 2652 (*synth*)
 Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (*cmr*)
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 571.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBR380, BBR390.

Benzenesulfonic acid, 9CI**B-00026**

C₆H₆O₃S M 158.178
 Plates + 1½ H₂O. Mp 43-44° (anhyd. 65-66°). pK_a –2.7.
 Deliquescent.

▷ Toxic, irritant, causes burns.

Na salt: [515-42-4].

Leaflets + 1H₂O. Mp ca. 450° dec.

▷ DB7350000.

Me ester: [80-18-2].

C₇H₈O₃S M 172.204d₄¹⁷ 1.273. Bp₁₅ 150°.

Et ester: [515-46-8].

C₈H₁₀O₃S M 186.231Spar. sol. H₂O. d₄¹⁷ 1.219. Bp₁₅ 156°.

Ph ester: [4358-63-8].

C₁₂H₁₀O₃S M 234.275

Mp 34-35°.

Amide: [98-10-2].

C₆H₇NO₂S M 157.193Mp 147-148°, Mp 156°. pK_{a1} 10.00 (20°, 0.1M KCl).

▷ DA9380000.

Amide, N-chloro: [80-16-0]. **Chloramine B**. N-Chlorobenzenesulfonamide, 9CI. Antigen. Chlorseptal (new form). Chlorogen. Neomagnol

C₆H₆ClNO₂S M 191.638

Antibacterial, disinfectant (as Na salt trihydrate).

Amide, N-chloro, Na salt: [127-52-6].

Oxidising agent; used as titrant for reducing substances (eg. Br[⊖]). Cryst. + 1H₂O. Mod. sol. H₂O; insol. CHCl₃. Mp 190°.

▷ May decompose violently if heated above 180°.

Amide, N,N-dichloro: [473-29-0]. **Dichloramine B**. N,N-Dichlorobenzenesulfonamide, 9CI

C₆H₅Cl₂NO₂S M 226.082

Used as 0.1M soln. in AcOH for indirect titrimetric detn. of CN[⊖] and NCS[⊖] (with the use of I[⊖] and S₂O₃^{2⊖}). Cryst. powder. Sol. AcOH.

Amide, N-bromo: [16917-09-2]. **Bromamine B**C₆H₆BrNO₂S M 236.089

Used for indirect titrimetric detn. of I[⊖] and NCS[⊖]. Cryst. (H₂O).

Amide, N-hydroxy: [599-71-3]. **Benzenesulfohydroxamic acid**. N-Hydroxybenzenesulfonamide, 9CI.

Benzenesulfonylhydroxylamine. Piltoy's acid

C₆H₇NO₃S M 173.192

Used for extraction-photometric detn. of Nb (λ_{max} 320 nm, CHCl₃). Plates (H₂O). Sol. H₂O, Me₂CO, EtOH, Et₂O, AcOH. Mp 126° dec. (109-110°).

▷ MX9350000.

Anilide: [1678-25-7].

C₁₂H₁₁NO₂S M 233.290

Mp 110°.

▷ Causes exp. neoplasms. DB3500000.

Chloride: [98-09-9].

C₆H₅ClO₂S M 176.623

Reagent for prep. of benzenesulfonates and for Hinsberg's separation of primary, secondary and tertiary amines. d₁₅¹⁵ 1.384. Mp 14.5°. Bp 251-252°, Bp₁₀ 120°.

▷ Toxic, irritant, causes burns. Violent reaction with DMSO. DB8750000.

Anhydride: [512-35-6].

C₁₂H₁₀O₅S₂ M 298.340

Reagent for Friedel-Crafts synth. of sulphones. Cryst. (Et₂O). Mp 92°, Mp 88.5-91.5°. Bp₁₀ 240° dec.

2-Phenyldiazide: [6596-69-6].

C₁₂H₁₂N₂O₂S M 248.305

Used as 2% EtOH soln. for pptn. separation and gravimetric detn. of Se. Cryst. Sol. EtOH. Mp 148-150° dec.

Azide:

▷ Crude material explodes on heating.

[39510-76-4]

Guyot, A., *Chim. Ind. (Milan)*, 1919, **2**, 879 (*synth*)Davies, W. *et al*, *J. Chem. Soc.*, 1931, 2104 (*deriv*)*Org. Synth., Coll. Vol.*, 1, 1932, 84 (*deriv*)Field, L., *J. Am. Chem. Soc.*, 1952, **74**, 394 (*anhydride*)Maltseva, E.H., *Zh. Anal. Khim.*, 1955, **10**, 380 (*use*)Fedorov, V.P., *Zh. Anal. Khim.*, 1956, **11**, 250 (*use*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1969, **2**, 46; **5**, 22.Gibalo, I.M., *Zh. Anal. Khim.*, 1971, **26**, 2145 (*use*)Soothill, R.J. *et al*, *Org. Mass Spectrom.*, 1972, **6**, 141 (*ms*)Heintzelman, R.W. *et al*, *Synthesis*, 1976, 731 (*Chloramine B*)Guthrie, P.J., *Can. J. Chem.*, 1978, **56**, 2342.Birchall, J.D. *et al*, *J. Chem. Soc., Dalton Trans.*, 1978, 604 (*cmr*)Diwan, J.K. *et al*, *Talanta*, 1978, **25**, 44 (*phenylhydrazide, synth, detn, Se*)Kim, Y.H. *et al*, *Tetrahedron Lett.*, 1978, 1211 (*synth*)Yathirajan, H.S. *et al*, *Talanta*, 1980, **27**, 52 (*synth, titrant*)Mahadevappa, D.S. *et al*, *Microchem. J.*, 1982, **27**, 77 (*synth, use*)*Martindale, The Extra Pharmacopoeia*, 28th/29th Ed.,Pharmaceutical Press, London, 1982/1989, 2219 (*Chloramine*)Scholz, J.N. *et al*, *Tetrahedron*, 1989, **45**, 7695 (*synth, cryst struct, bibl*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 191, 489.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBR500, BBR750, BBS750, SFV275.

3-(Benzenesulfonylamino)propanoic acid B-00027

N-Benzenesulfonyl-β-alanine, 9CI. N-(Phenylsulfonyl)-β-alanine

[31867-78-4]

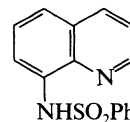
C₉H₁₁NO₄S M 229.256

Used as a 3.5% soln. in dil. KOH as masking agent for Hg^{2⊖}. Cryst. Sol. alkalis.

Pechmann, H.V., *Justus Liebig's Ann. Chem.*, 1891, **264**, 289 (*synth*)Ghosh, N.N. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 407 (*use*)**8-(Benzenesulfonylamino)quinoline B-00028**

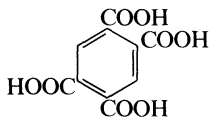
N-8-Quinolinybenzenesulfonamide, 9CI

[16082-59-0]

C₁₅H₁₂N₂O₂S M 284.338

Used for extraction-fluorimetric detn. of Cd, Zn (CHCl₃).
Cryst. (Me₂CO). Sol. EtOH, Me₂CO; spar. sol. H₂O.
Serebryakova, G.V. *et al*, *CA*, 1967, **66**, 72198f.

1,2,4,5-Benzenetetracarboxylic acid, 9CI **B-00029**
Pyromellitic acid
[89-05-4]



C₁₀H₆O₈ M 254.153
Used as 2% aq. soln. for gravimetric detn. of Hf, Th, Zr.
Prisms + 2H₂O (H₂O). Mp 275° (anhyd.), Mp 259° ,
262°. pK_{a1} 1.87; pK_{a2} 2.72; pK_{a3} 4.30; pK_{a4} 5.52 (25°).

▷ Highly irritant. DB9275000.

1,4-Di-Me ester:

C₁₂H₁₀O₈ M 282.206
Mp 176-177°.

Tetra-Me ester: [635-10-9].

C₁₄H₁₄O₈ M 310.260
Leaflets (MeOH). Mp 143-144°.

Tetra-Et ester: [6634-01-1].

C₁₈H₂₂O₈ M 366.367
Mp 54°.

Dianhydride: [89-32-7]. 1H,3H-Benzo[1,2-c:4,5-c']difuran-
1,3,5,7-tetrone. *Pyromellitic anhydride*

C₁₀H₂O₆ M 218.122

Forms charge-transfer complexes with aromatic
hydrocarbons etc. Anal. reagent for amines and
alcohols. Needles. Mp 286°. Sublimes.

▷ DB9300000.

González-Sánchez, F., *Spectrochim. Acta*, 1958, **12**, 17 (*ir*)

Siggia, S. *et al*, *Anal. Chem.*, 1961, **33**, 900; 1965, **37**, 600
(*dianhydride*, use)

Bailey, W.J. *et al*, *J. Org. Chem.*, 1962, **27**, 3479 (*synth*)

Mukherji, A.K., *Anal. Chem.*, 1964, **36**, 1064 (*detn*, Zr, Hf)

Mukherji, A.K., *Fresenius' Z. Anal. Chem.*, 1965, **209**, 321 (*detn*,
Th)

Soyer, N. *et al*, *Bull. Soc. Chim. Fr.*, 1975, 2121 (*synth*)

Selig, W., *Microchem. J.*, 1976, **21**, 92 (*dianhydride*, use)

Bruck, D. *et al*, *Tetrahedron Lett.*, 1977, 4121 (*conformn*, pmr,
cmr)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed.,
Van Nostrand-Reinhold, 1979, 949.

Benzenethiol, 9CI **B-00030**
Thiophenol. Phenyl mercaptan. Mercaptobenzene
[108-98-5]

PhSH

C₆H₆S M 110.179

Reagent for alkene isomerisations. K deriv. used for
epoxide cleavages. Na deriv. used to demethylate
acetylcholine for gc. anal. Liq. with penetrating odour.
d₄²⁵ 1.973. Bp 169.5°, Bp₃₀ 77°.

▷ Toxic, irritant, causes dermatitis. Violent explosion has
resulted during prep. from benzenediazonium chloride.
DC0525000.

Org. Synth., *Coll. Vol.*, 1, 1932, 504 (*synth*, *bibl*)

Lawesson, S.-O. *et al*, *Acta Chem. Scand.*, 1966, **20**, 2325 (*ms*)

Wagner, A.W., *Chem. Ber.*, 1966, **99**, 375 (*synth*)

Jenden, D.L. *et al*, *Anal. Chem.*, 1968, **40**, 125; 1972, **44**, 1879 (*use*)

Jones, I.W. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1973, 1125 (*uv*)

Overman, L.E. *et al*, *Synthesis*, 1974, 59 (*synth*)

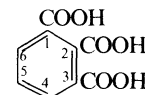
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**,
585; **7**, 367; **8**, 420.

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,
Butterworths, London and Boston, 1979, 586.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,
Royal Society of Chemistry, London, 1981, 191.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, PFL850.

1,2,3-Benzenetricarboxylic acid, 9CI **B-00031**
Hemimellitic acid
[569-51-7]



C₉H₆O₆ M 210.143

Needles (H₂O). d²⁰ 1.546. Mp 194-197° dec. pK_{a1} 2.62;
pK_{a2} 3.82; pK_{a3} 5.51 (25°, 0.1M KCl).

Monohydrate: Needles. Mp 223-224°.

Dihydrate: Plates.

Tri-Na salt: [55680-81-4].

Used for fluorescence detn. of Cu, V.

2-Me ester: [31158-53-9].

C₁₀H₈O₆ M 224.170

Mp 203-205°.

1,3-Di-Me ester:

C₁₁H₁₀O₆ M 238.196

Mp 148-150°.

Tri-Me ester: [2672-57-3].

C₁₂H₁₂O₆ M 252.223

Plates (MeOH). Mp 102°.

Tri-Et ester: [56366-05-3].

C₁₅H₁₈O₆ M 294.304

Mp 39°.

Anhydride:

C₉H₄O₅ M 192.128

Mp 196°.

Imide:

C₉H₅NO₄ M 191.143

Mp 247°.

Trinitrile: [38700-18-4]. 1,2,3-Benzenetricarbonitrile, 9CI.

1,2,3-Tricyanobenzene

C₉H₃N₃ M 153.143

Cryst. (C₆H₆). Mp 173°.

Graebe, C. *et al*, *Justus Liebigs Ann. Chem.*, 1896, **290**, 217 (*synth*)

Koh, K., *Anal. Chim. Acta*, 1970, **52**, 503 (*detn*, Cu, V)

Takusagawa, F. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 2998 (*cryst*
struct)

Mo, F. *et al*, *Acta Crystallogr., Sect. B*, 1975, **31**, 192 (*cryst struct*)

Ferris, J.P. *et al*, *J. Org. Chem.*, 1990, **55**, 5601 (*trinitrile*)

1,2,4-Benzenetricarboxylic acid, 9CI **B-00032**
Trimellitic acid
[528-44-9]

C₉H₆O₆ M 210.143

Used as a 2% aq. soln. for gravimetric detn. of Hf, Th,
Zr; fluorescence detn. of Cu, V. Cryst. (AcOH or EtOH
aq.). Sol. H₂O, Et₂O, EtOH. Mp 229-230°, Mp 238°.
pK_{a1} 2.42; pK_{a2} 3.71; pK_{a3} 5.01 (25°, 0.1M KCl).

▷ DC1980000.

1-Me ester: [13912-71-5].

C₁₀H₈O₆ M 224.170

Cryst. in two forms. Mp 177°, Mp 203.5-205.5°. pK_{a1}
2.74; pK_{a2} 4.11 (25°).

2-Me ester: [13940-95-9].

C₁₀H₈O₆ M 224.170

Mp 208°. pK_{a1} 2.59; pK_{a2} 4.00.

4-*Me ester*: [29639-49-4].
 $C_{10}H_8O_6$ M 224.170
 Leaflets (H_2O). Mp 145-147°. pK_{a1} 2.54; pK_{a2} 4.96.

1,2-*Di-Me ester*: [54699-35-3].
 $C_{11}H_{10}O_6$ M 238.196
 Needles (CS_2 , C_6H_6 or Et_2O /pet. ether). Mp 115.5-117°
 (solidifies and remelts at 121°). pK_a 3.47 (25°).

Tri-*Me ester*: [2459-10-1].
 $C_{12}H_{12}O_6$ M 252.223
 Thick oil. Fp -13°. Bp₁₂ 194°.

Tri-*Et ester*: [14230-18-3].
 $C_{15}H_{18}O_6$ M 294.304
 Bp₂₈ 238°.

1-*Amide*:
 $C_9H_7NO_5$ M 209.158
 Yellowish cryst. ($MeOH/C_6H_6$). Mp 185-186°. pK_{a1} 3.36
 (25°).

2-*Amide*:
 $C_9H_7NO_5$ M 209.158
 Cryst. ($MeOH/C_6H_6$). Mp 199-200°. pK_{a1} 3.12 (25°).

4-*Amide*:
 $C_9H_7NO_5$ M 209.158
 Cryst. (Et_2O/C_6H_6). Mp 166°.

2-*Nitrile*: 2-Cyano-1,4-benzenedicarboxylic acid
 $C_9H_5NO_4$ M 191.143
 Yellow amorph. mass.

Anhydride: [552-30-7]. 1,3-Dihydro-1,3-dioxo-5-
 isobenzofurancarboxylic acid, 9CI. Anhydrotrimellitic acid
 $C_9H_4O_5$ M 192.128
 Component of many polymers. Needles. Mp 162.5-
 163.5° (157°). Bp₁₄ 240-245°.

► Irritant by inhalation. Strong sensitiser. DC2050000.

Trinitrile: [10347-14-5]. 1,2,4-Tricyanobenzene
 $C_6H_3N_3$ M 153.143
 Mp 125°.

Schultze, W., *Justus Liebigs Ann. Chem.*, 1908, **359**, 129 (*synth*)
 Morgan, G.T. et al, *J. Chem. Soc.*, 1929, 2551 (*synth*)
 Mukherji, A.K., *Anal. Chem.*, 1964, **36**, 1064 (*detn*, Zr, Hf)
 Mukherji, A.K., *Fresenius' Z. Anal. Chem.*, 1965, **209**, 321 (*detn*,
 Th)

Koh, K., *Anal. Chim. Acta*, 1970, **52**, 503 (*detn*, Cu, V)
 Takusagawa, F. et al, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 2960 (*cryst*
struct)

Kalalova, E. et al, *Z. Chem.*, 1973, **13**, 348 (*ir*)
 Bruck, D. et al, *Tetrahedron Lett.*, 1977, 4121 (*conformn*, pmr,
 cmr)

Sucrow, W. et al, *Angew. Chem., Int. Ed. Engl.*, 1979, **18**, 149
 (*synth*)

Acheson, R.M. et al, *J. Chem. Soc., Perkin Trans. 1*, 1979, 591
 (*derivs*)

Hanack, M. et al, *Chem. Ber.*, 1989, **122**, 1665 (*trinitrile*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, TKV000.

1,3,5-Benzenetricarboxylic acid, 9CI**B-00033***Trimesic acid*

[554-95-0]

$C_9H_6O_6$ M 210.143
 Isol. from leaves of *Talauma mexicana*. Used as a 2% aq.
 soln. for gravimetric detn. of Hf, Th, Zr. Needles or
 prisms (H_2O). Mp ca. 380°.

Tri-*Na salt*: [17274-08-7].Sol. H_2O , EtOH.*Mono-Me ester*:

$C_{10}H_8O_6$ M 224.170
 Cryst. + H_2O (H_2O). Mp 205-208° (anhyd.).

Tri-*Me ester*: [2672-58-4].

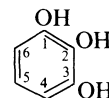
$C_{12}H_{12}O_6$ M 252.223
 Needles. Mp 144°.

Tri-*Et ester*: [4105-92-4]. $C_{15}H_{18}O_6$ M 294.304

Prisms or needles (EtOH). Mp 133.5-134.5°.

Ullmann, F. et al, *Ber.*, 1903, **36**, 1797 (*synth*)Pallares, E.S. et al, *CA*, 1948, **42**, 2730 (*isol*)Mukherji, A.K., *Anal. Chem.*, 1964, **36**, 1064 (*detn*, Zr, Hf)Mukherji, A.K., *Fresenius' Z. Anal. Chem.*, 1965, **209**, 321 (*detn*,
 Th)Sakakibara, T. et al, *Tetrahedron Lett.*, 1971, 4719 (*synth*)Sucrow, W. et al, *Angew. Chem., Int. Ed. Engl.*, 1979, **18**, 149
 (*synth*)**1,2,3-Benzenetriol, 9CI****B-00034**

Pyrogallol, 8CI. 1,2,3-Trihydroxybenzene. Pyrogallic acid
 [87-66-1]

 $C_6H_6O_3$ M 126.112

Widespread in plants. Obt. commercially by
 decarboxylation of gallic acid (from galls). Reducing
 agent used in gas analysis, as photographic developer,
 etc. Used as 5% aq. soln. for gravimetric detn. of Sb,
 Bi, Mo, Ta, Th; photometric detn. of Ta. Plates or
 needles. V. sol. H_2O , EtOH, Et_2O ; sl. sol. $CHCl_3$, C_6H_6 .
 Mp 133-134°. Bp 309°, Bp₁₂ 171.5°. pK_{a1} 9.28; pK_{a2}
 11.34 (20°, $\mu = 0.1$). Bitter taste. Readily absorbs O_2 .

► Highly toxic, an exp. carcinogen. Causes kidney and liver
 damage etc. Readily absorbed through skin. UX2800000.

Tri-*Ac*: [525-52-0]. $C_{12}H_{12}O_6$ M 252.223

Mp 165°.

Tribenzoyl:

 $C_{27}H_{18}O_6$ M 438.436

Prisms (EtOH). Mp 89-90°.

1-*Me ether*: [934-00-9]. 3-Methoxy-1,2-benzenediol, 9CI. 3-
 Methoxycatechol $C_7H_8O_3$ M 140.138Isol. from the trunkwood of *Machaerium kuhlmanii*.Needles. Mp 38-41°. Bp₁₀ 129°.1-*Me ether, di-Ac*: $C_{11}H_{12}O_5$ M 224.213

Plates (EtOH). Mp 91-93°.

2-*Me ether*: [29267-67-2]. 2-Methoxy-1,3-benzenediol, 9CI.

2-Methoxyresorcinol

 $C_7H_8O_3$ M 140.138Cryst. (C_6H_6). Mp 85-87°. Bp₂₄ 154-155°.2-*Me ether, di-Ac*: $C_{11}H_{12}O_5$ M 224.213

Plates (EtOH). Mp 51-54°.

1,2-*Di-Me ether*: [5150-42-5]. 2,3-Dimethoxyphenol $C_8H_{10}O_3$ M 154.165Oil. Bp 233-234°, Bp₁₇ 124-125°.1,2-*Di-Me ether, benzoyl*: [18093-00-0]. $C_{15}H_{14}O_4$ M 258.273

Needles (pet. ether). Mp 55-57°.

1,3-*Di-Me ether*: [91-10-1]. 2,6-Dimethoxyphenol. Syringol $C_8H_{10}O_3$ M 154.165Isol. from maple syrup and from seed oil of *Artemisia*
herba-alba prob. as degradn. artifact. Spar. sol. H_2O .
 Mp 55-56°. Bp 262-267°.

► SL0900000.

1,3-*Di-Me ether, Ac*: [944-99-0]. $C_{10}H_{12}O_4$ M 196.202

Cryst. (EtOH aq.). Mp 53.5°.

Tri-*Me ether*: [634-36-6]. 1,2,3-Trimethoxybenzene $C_9H_{12}O_3$ M 168.192

Needles (EtOH aq.). Mp 47°. Bp 241°.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **1**, 161 (*use*)
 Hunt, E.C. *et al.*, *Analyst (London)*, 1954, **79**, 345 (*detn. Ta*)
 Webb, H.W. *et al.*, *Analyst (London)*, 1963, **88**, 142 (*detn. Nb*)
 Šantavý, F. *et al.*, *Collect. Czech. Chem. Commun.*, 1972, **37**, 1825 (*uv*)
 Shipchandler, M.T. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1975, 1400 (*synth*)
 Ollis, W.D. *et al.*, *Phytochemistry*, 1978, **17**, 1383 (*isol. 3-methoxy-1,2-benzenediol*)
 Kirk-Othmer *Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **18**, 670 (*rev*)
 Green, K., *J. Org. Chem.*, 1991, **56**, 4325 (*2-Me ether*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DOJ200, PPQ500.

1,2,4-Benzenetriol, 9CI, 8CI**B-00035**

1,2,4-Trihydroxybenzene. Hydroxyhydroquinone.
 Hydroxyquinol
 [533-73-3]

$C_6H_6O_3$ M 126.112

Constit. of the sponge *Axinella polycapella*. Also isol. from the fruiting bodies of *Gomphidus* spp. Antibacterial agent. Used as 1% aq. soln. for photometric detn. of Os. Plates (Et₂O). Sol. H₂O. Mp 140.5° subl. pK_{a1} 9.08; pK_{a2} 11.82 (20°).

▷ DC4200000.

Picrate: Orange-red needles. Mp 96°.

Tri-Ac: [613-03-6].

$C_{12}H_{12}O_6$ M 252.223

Cryst. (EtOH). Mp 96-97°.

1-Me ether: [6100-60-3]. 4-Methoxy-1,3-benzenediol. 4-Methoxyresorcinol

$C_7H_8O_3$ M 140.138

Prisms (C₆H₆). Mp 66-67°.

1-Me ether, 2,4-di-Ac:

$C_{11}H_{12}O_5$ M 224.213

Prisms (MeOH). Mp 62-64°.

2-Me ether: [824-46-4]. 2-Methoxy-1,4-benzenediol.

Methoxyhydroquinone. Methoxyquinol

$C_7H_8O_3$ M 140.138

Plates (H₂O or C₆H₆). Mp 88° (84°).

2-Me ether, 1,4-di-Ac:

$C_{11}H_{12}O_5$ M 224.213

Needles (MeOH). Mp 93-94°.

2-Me ether, 1-O-β-D-glucopyranoside: [31427-08-4].

$C_{13}H_{18}O_8$ M 302.280

Found in oat seedings. Mp 202°. The struct. of this as the 1- rather than the 4-glucoside has been disputed.

Tri-Me ether: [135-77-3]. 1,2,4-Trimethoxybenzene

$C_9H_{12}O_3$ M 168.192

Liq. Bp 247°.

Org. Synth., Coll. Vol., 1, 1932, 317 (*deriv*)

Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **16**, 190 (*rev*)

Wawrzyczek, W. *et al.*, *Fresenius' Z. Anal. Chem.*, 1967, **228**, 433 (*detn. Os*)

von Ardenne, R. *et al.*, *Z. Naturforsch., C*, 1974, **29**, 446; 1981, **36**, 488 (*isol*)

Chatterjee, A. *et al.*, *Tetrahedron*, 1976, **32**, 2407 (*synth*)

Wratten, S.J. *et al.*, *Experientia*, 1981, **37**, 13 (*isol*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBU250.

1,3,5-Benzenetriol**B-00036**

1,3,5-Trihydroxybenzene. Phloroglucin. Phloroglucinol.

Dilospan S. Spasfon-Lyoc

[108-73-6]

$C_6H_6O_3$ M 126.112

Isol. from *Eucalyptus kino* and *Acacia arabica*. Spasmodic agent, used as mixt. with trimethyl ether. Anal. reagent used for the detn. of aldehydes. Leaflets or plates + 2H₂O (H₂O). Mod. sol. H₂O. Mp 117° (dihydrate), Mp 217-219° (anhyd.) (rapid heat), Mp 200-209° (slow heat). pK_{a1} 7.97; pK_{a2} 9.23 (20°).

▷ SY1050000.

Tri-Ac: [2999-40-8].

$C_{12}H_{12}O_6$ M 252.223

Cryst. Mp 104°.

Org. Synth., Coll. Vol., 1, 1932, 455 (*synth*)

Pridham, J.B. *et al.*, *Biochem. J.*, 1960, **74**, 42P.

Arison, B.H. *et al.*, *J. Am. Chem. Soc.*, 1963, **85**, 627 (*pmr, derivs*)

Anger, V. *et al.*, *Fresenius' Z. Anal. Chem.*, 1964, **203**, 422 (*use*)

Clifford, M.N., *J. Chromatogr.*, 1974, **94**, 321 (*use*)

McKillop, A. *et al.*, *Synth. Commun.*, 1974, **4**, 35 (*synth*)

Hight, R.J. *et al.*, *J. Org. Chem.*, 1988, **53**, 2843 (*tautom, props*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PGR000, TKY250.

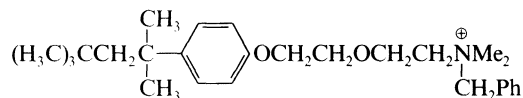
Benzethonium(1 +)**B-00037**

N,N-Dimethyl-N-[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]benzenemethanaminium(1 +), 9CI.

Benzyltrimethyl[2-[2-(p-1,1,3,3-tetramethylbutylphenoxy)ethoxy]ethyl]ammonium. Hyamine 1622.

Diisobutylphenoxyethoxyethyltrimethylbenzylammonium (1 +). Numerous proprietary names

[10172-60-8]



$C_{27}H_{42}NO_2^+$ M 412.634 (ion)

Antiseptic detergent.

Chloride: [121-54-0]. Benzethonium chloride, BAN, INN.

Phermerol chloride

$C_{27}H_{42}ClNO_2$ M 448.087

Used as aq. soln. for extraction separation of Th, Zr, Mo, Fe, Zn, Cd; extraction-photometric detn. of Co (as SCN complex, C₆H₆). Topical anti-infective agent. Plates + 1H₂O (CHCl₃/Et₂O). V. sol. H₂O, sol. Me₂CO, EtOH, CHCl₃. Mp 164-166°, Mp 184-186°.

▷ Severe eye irritant. LD₅₀ 30 mg/kg (mouse, i.v.).

BO7175000.

Rawlins, A.L. *et al.*, *J. Am. Pharm. Assoc.*, 1943, **32**, 11.

Finnegan, J.K. *et al.*, *J. Pharmacol. Exp. Ther.*, 1953, **109**, 422 (*pharmacol*)

Wilson, A.M. *et al.*, *Anal. Chem.*, 1962, **34**, 203 (*rev*)

Gundersen, N. *et al.*, *Anal. Chim. Acta*, 1968, **42**, 330 (*use*)

El-Yamani, I.S. *et al.*, *Talanta*, 1978, **25**, 714; 1984, **31**, 627 (*detn. Zr, Th*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2207.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 7603 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BEN000.

Benzil, 8CI**B-00038**

Diphenylethanedione, 9CI. Dibenzoyl. Bibenzoyl. Diphenyl α,α-diketone. Diphenylglyoxal

[134-81-6]

PhCOCOPh

$C_{14}H_{10}O_2$ M 210.232

Yellow prisms (EtOH). Mp 95°. Bp 346-348°, Bp₁₂ 188°.

▷ DD1925000.

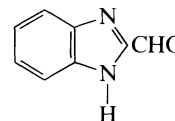
- (E)-*Monoxime*: [574-15-2]. *α*-*Monoxime*.
Diphenylethanedione monoxime
 C₁₄H₁₁NO₂ M 225.246
 Used for photometric detn. of Co, Cu, Ni. Cryst. + $\frac{1}{2}$
 C₆H₆ (C₆H₆). Sol. Et₂O, EtOH, Me₂CO; insol. H₂O. Mp
 137-138°, Mp 140°, p*K*_{a1} 8.6 (25°).
- (Z)-*Monoxime*: [574-16-3]. *β*-*Monoxime*
 C₁₄H₁₁NO₂ M 225.246
 Leaflets. Mp 62-63°, Mp 70° (unsolvated 113-114°).
- (E)-*Monoxime*, O-Me:
 C₁₅H₁₃NO₂ M 239.273
 Mp 64-65°.
- (Z)-*Monoxime*, O-Me:
 C₁₅H₁₃NO₂ M 239.273
 Mp 62-63°.
- (E,E)-*Dioxime*: [522-34-9]. (E,E)-*Diphenylglyoxime*. anti-*Dioxime*. *α*-*Dioxime*
 C₁₄H₁₂N₂O₂ M 240.261
 Used as a 0.025% soln. in MeOH for extraction-
 photometric detn. of Ni, Fe(II) (λ_{\max} 559 nm, ϵ 18000).
 Leaflets (C₆H₆). Sol. EtOH, C₆H₆, Me₂O, Et₂O; insol.
 H₂O. Mp 235-237°, Mp 238° dec. p*K*_{a1} 10.3; p*K*_{a2} 11.9
 (20°).
- (E,Z)-*Dioxime*: (E,Z)-*Diphenylglyoxime*. amphi-*Dioxime*. γ -*Dioxime*
 C₁₄H₁₂N₂O₂ M 240.261
 Cryst. + EtOH (EtOH). Mp 164-165°. Forms (Z,Z)-*dioxime* at Mp.
- (Z,Z)-*Dioxime*: [572-45-2]. (Z,Z)-*Diphenylglyoxime*. syn-*Dioxime*. *β*-*Dioxime*
 C₁₄H₁₂N₂O₂ M 240.261
 Mp 207° dec.
- Monosemicarbazone*: Mp 174-175° dec. (rapid heat).
Disemicarbazone: Leaflets. Mp 243-244° dec.
Monohydrazone: [5344-88-7].
 C₁₄H₁₂N₂O M 224.262
 Cryst. Mp 151°.
- Dihydrazone*: [4702-78-7].
 C₁₄H₁₄N₄ M 238.291
 Needles (EtOH). Mp 134°.
- Monophenylhydrazone*: [6630-86-0].
 C₂₀H₁₆N₂O M 300.359
 Cryst. (EtOH). Mp 134°.
- Bisphenylhydrazone*: *Benzil osazone*
 C₂₆H₂₂N₄ M 390.487
 Needles. Mp 225° (rapid heat). Three stereoisomers
 known (cf. oximes).
- Anil*: *Phenyliminodeoxybenzoin*
 C₂₀H₁₅NO M 285.345
 Yellow prisms (EtOH). Mp 105°.
- Bis(2-pyridinylhydrazone)*: see *Diphenylethanedione bis(2-pyridinylhydrazone)*, D-01012
- Mono(2-quinolinylhydrazone)*: see *Diphenylethanedione mono(2-quinolinylhydrazone)*, D-01014
- Mono(pyrazinylhydrazone)*: see *Diphenylethanedione mono(pyrazinylhydrazone)*, D-01013
 [14090-77-8]
- Auwers, K. *et al.* *Ber.*, 1888, **21**, 792 (*synth. resohn. dioximes*)
 Forster, M.D., *J. Chem. Soc.*, 1909, 425 (*synth. E-monoxime*)
 Taylor, T.W.J. *et al.* *J. Chem. Soc.*, 1930, 2303 (*synth. E, Z-monoximes*)
Org. Synth., *Coll. Vol.*, 1, 1932, 80 (*synth*)
 Hatt, H.H. *et al.* *J. Chem. Soc.*, 1936, 93 (*synth*)
 Bowie, J.H. *et al.* *Aust. J. Chem.*, 1968, **21**, 1247 (*ms*)
 Ueda, K. *et al.* *Nippon Kagaku Zasshi*, 1971, **92**, 1160 (*monoxime, detn. Co, Cu, Ni*)
 Ho, T., *Synthesis*, 1972, 697 (*synth*)
 Kuse, S. *et al.* *Anal. Chim. Acta*, 1974, **70**, 65 (*detn. Ni*)
 Olah, G.A. *et al.* *J. Org. Chem.*, 1975, **40**, 2102 (*cmr*)
 Einaga, H. *et al.* *Mikrochim. Acta*, 1976, **1**, 67 (*detn. Fe(II)*)
 Savostina, V.M. *et al.* *Zh. Anal. Khim.*, 1977, **32**, 556.

- Odou, G. *et al.* *Acta Crystallogr., Sect. A*, 1978, **34**, 459 (*cryst struct*)
 Lee, D.G. *et al.* *Synthesis*, 1978, 462 (*synth*)
 Ivanova, E.K. *et al.* *Zh. Anal. Khim.*, 1981, **36**, 1107.
 Cheng, K.L. *et al.* *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 339 (*use. dioxime*)
 Garmash, A.V. *et al.* *Zh. Anal. Khim.*, 1982, **37**, 872.
 Firouzabadi, H. *et al.* *Synthesis*, 1986, 946 (*synth*)
 Olah, G.A. *et al.* *J. Org. Chem.*, 1991, **56**, 902 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBY750.

1*H*-Benzimidazole-2-carboxaldehyde**B-00039**

2-Formylbenzimidazole

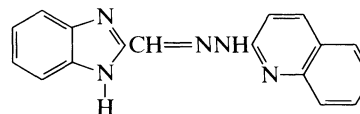
[3314-30-5]

C₈H₆N₂O M 146.148Exists as cyclic semiaminal dimer in solid state. Powder.
Mp 235° dec.*l*-Benzyl: 1-(Phenylmethyl)-1*H*-benzimidazole-2-carboxaldehyde, 9CIC₁₅H₁₂N₂O M 236.273*l*-Benzyl, oxime: [62209-30-7].C₁₅H₁₃N₃O M 251.287Used as a 0.02% soln. in CHCl₃ for extraction-
photometric detn. of Co, Cu. Cryst. (C₆H₆). Sol. C₆H₆,
EtOH, CHCl₃; insol. H₂O.

[6816-39-3]

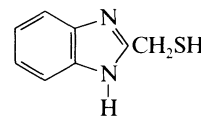
Hensel, H.R. *et al.* *Chem. Ber.*, 1965, **98**, 1325 (*struct*)Chernov'yants, M.S. *et al.* *CA*, 1977, **87**, 94945h.Ooi, H.C. *et al.* *J. Chem. Soc., Perkin Trans. 1*, 1982, 2871 (*synth*)**1*H*-Benzimidazole-2-carboxaldehyde 2-quinolinylhydrazone, 9CI****B-00040**

[35907-44-9]

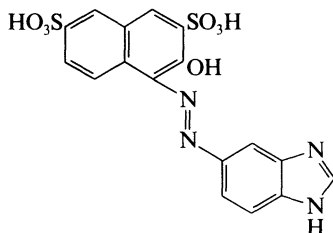
C₁₇H₁₃N₅ M 287.323Used as a soln. in EtOH for fluorimetric detn. of Zn (λ_{\max}
485 nm, ϵ 13000). Red cryst. (EtOH). Sol. EtOH, C₆H₆;
insol. H₂O. Mp 283-284°.Ryan, D.E. *et al.* *Anal. Chim. Acta*, 1972, **58**, 101.**1*H*-Benzimidazole-2-methanethiol, 9CI****B-00041**

2-(Mercaptomethyl)benzimidazole

[4344-85-8]

C₈H₈N₂S M 164.231Used as a soln. in 0.5*M* NaOH for amperometric
titrimetric detn. of Ag, Cu, Pd. Sol. H₂O, EtOH.Bera, B.C. *et al.* *Talanta*, 1966, **13**, 1186 (*detn. Ag, Cu, Pd*)

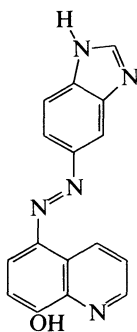
4-(1*H*-Benzimidazol-5-ylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid, 9CI
[73170-31-7]



$C_{17}H_{12}N_4O_7S_2$ M 448.436
Used for photometric detn. of Co, Cu, Ni. Red cryst. (EtOH). Sol. EtOH, alkalis; spar. sol. H_2O .

Khater, M.M. *et al*, *Mikrochim. Acta*, 1979, 2, 501.

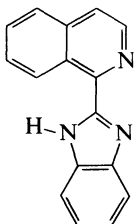
5-(1*H*-Benzimidazol-5-ylazo)-8-quinolinol, 9CI
[73170-29-3]



$C_{16}H_{11}N_5O$ M 289.296
Used for photometric detn. of Co, Cu, Ni. Red cryst. (EtOH). Sol. EtOH, C_6H_6 ; insol. H_2O .

Khater, M.M. *et al*, *Mikrochim. Acta*, 1979, 2, 501.

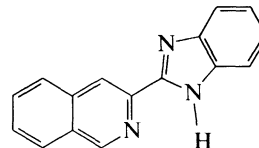
1-(2-Benzimidazolyl)isoquinoline, 8CI
2-(1-Isoquinoly)benzimidazole
[17583-61-8]



$C_{16}H_{11}N_3$ M 245.283
Used as 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(II), Fe(II). Cryst. (C_6H_6). Sol. common org. solvs. Mp 211-212°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, 4, 483 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1970, 17, 649 (*use*)

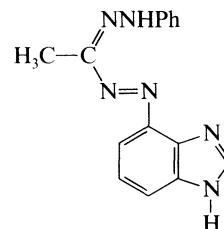
3-(2-Benzimidazolyl)isoquinoline, 8CI
2-(3-Isoquinoly)benzimidazole
[6528-66-1]



$C_{16}H_{11}N_3$ M 245.283
Used as 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(II), Fe(II). Cryst. (C_6H_6). Sol. common org. solvs. Mp 176-177°.

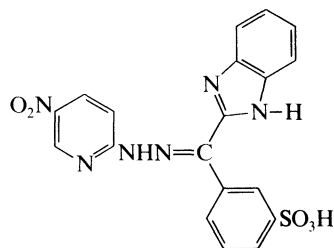
Case, F.H., *J. Heterocycl. Chem.*, 1967, 4, 483 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1970, 17, 649 (*use*)

1-(1*H*-Benzimidazol-4-yl)-3-methyl-5-phenylformazan, 9CI
[37724-22-4]



$C_{15}H_{14}N_6$ M 278.316
Used for photometric detn. of Cu. Violet cryst. Sol. EtOH.
Sidorova, L.P. *et al*, *CA*, 1972, 77, 152061y (*detn*, Cu)

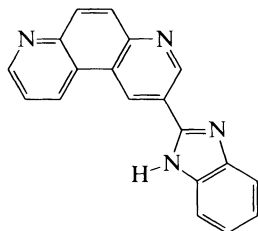
3-[1*H*-Benzimidazol-2-yl]((5-nitro-2-pyridinyl)hydrazono)methyl] benzenesulfonic acid, 9CI
[132499-97-9]



$C_{19}H_{14}N_6O_5S$ M 438.423
Used as 1mM soln. in 0.01M NaOH for photometric detn. of Ni (λ_{max} 409 nm, ϵ 87000, pH 6.5-9), Co (λ_{max} 517 nm, ϵ 66500), Cu(II), Fe(II), Zn. Cryst. Sol. H_2O , EtOH, DMF, alkalis. Mp 300° dec. pK_{a4} 3.58; pK_{a5} 10.6.

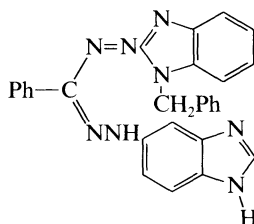
Kohata, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1990, 63, 3398 (*synth*, *use*)
Ishii, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1990, 63, 3405 (*detn*, Ni)
Ishii, H. *et al*, *Anal. Chim. Acta*, 1991, 244, 223 (*detn*, Co)

2-(2-Benzimidazolyl)-4,7-phenanthroline, 8CI **B-00048**
 2-[2-(4,7-Phenanthrolyl)]benzimidazole
 [14044-50-9]



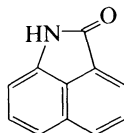
$C_{19}H_{12}N_4$ M 296.331
 Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 603 nm, ϵ 11900). Cryst. (C_6H_6). Sol. common org. solvs. Mp 271-272° (as hydrate).
 Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 1055 (*detn*, Fe)

5-(1H-Benzimidazol-5-yl)-3-phenyl-1-[1-(phenylmethyl)-1H-benzimidazol-2-yl]formazan, 9CI **B-00049**
 [52479-84-2]



$C_{28}H_{22}N_8$ M 470.535
 Used as EtOH soln. for photometric detn. of Zn (ϵ 51000) and Pb (ϵ 10500). Cryst. Sol. EtOH. DMF.
 Podchainova, V.N. *et al*, *CA*, 1974, **80**, 103463j (*detn*, Zn)
 Podchainova, V.N. *et al*, *Zh. Obshch. Khim.*, 1974, **44**, 618 (*detn*, Zn, Pb)

Benz[cd]indol-2-(1H)-one, 9CI **B-00050**
 Naphthostyryl. 2H-Benzo[cd]isoindol-2-one. 8-Amino-1-naphtholactam
 [130-00-7]

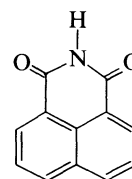


$C_{11}H_7NO$ M 169.182
 Fine needles (EtOH). Mod. sol. boiling H_2O , spar. sol. Et_2O . Mp 180-181°. Sol. EtOH \rightarrow green fluor.
 N-Ac: [58779-65-0].
 $C_{13}H_9NO_2$ M 211.220
 Mp 125°.
 N-Benzoyl:
 $C_{18}H_{11}NO_2$ M 273.290
 Mp 170°.
 N-Me: [1710-20-9].
 $C_{12}H_9NO$ M 183.209
 Cryst. (C_6H_6 /pet. ether). Mp 78-80°.
 N-Ph: [1830-57-5].
 $C_{17}H_{11}NO$ M 245.280

Yellow needles (pet. ether). Mp 104-105°.
 N-Chloromethyl: [114044-23-4]. 1-Chloromethylbenz[cd]indol-2(1H)-one
 $C_{12}H_8ClNO$ M 217.654
 Reagent for the derivatisation and fluorometric detn. of carboxylic acids. Cryst. (cyclohexane). Mp 141°.

Rule, H.G. *et al*, *J. Chem. Soc.*, 1934, 137; 1935, 318 (*synth*)
 Dokunitchin, N.S. *et al*, *CA*, 1963, **58**, 6772b (*synth*)
 Protiva, M. *et al*, *Collect. Czech. Chem. Commun.*, 1985, **50**, 1888 (*deriv*)
 Wendelin, W. *et al*, *J. Heterocycl. Chem.*, 1987, **24**, 1381 (*synth*, ir, uv, use, deriv)

1H-Benz[de]isoquinoline-1,3(2H)-dione, 9CI **B-00051**
 Naphthalimide, 8CI
 [81-83-4]

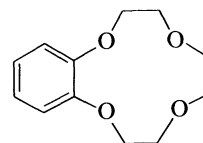


$C_{12}H_7NO_2$ M 197.193
 Parent compd. of many dyes, fluorescent brighteners and dye intermediates. Needles (Et_2O or EtOH). Mp 300°. Subl. undec.

N-Me: [2382-08-3].
 $C_{13}H_9NO_2$ M 211.220
 Prisms (EtOH). Mp 228-229° (206.5°).
 N-Amino: [5690-46-0].
 $C_{12}H_8N_2O_2$ M 212.207
 Golden needles ($MeNO_2$). Mp 265-266° (262°).
 N-Hydroxy: [7797-81-1]. 2-Hydroxy-1H-benz[de]isoquinoline-1,3(2H)-dione, 9CI. Naphthalhydroxamic acid
 $C_{12}H_7NO_3$ M 213.192
 Used as 0.025% soln. in $EtNH_2$ for photometric detn. of Ca. Sol. alkalis.

Behr, A. *et al*, *Justus Liebigs Ann. Chem.*, 1874, **172**, 263 (*synth*)
 Triader, P., *Analyst (London)*, 1960, **85**, 889 (*detn*, Ca)
 Carpino, L.A. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 2728 (*amino*)
 Nishizaki, S., *Nippon Kagaku Zasshi*, 1965, **86**, 696 (*ir*)
 Schindlbauer, H., *Monatsh. Chem.*, 1973, **104**, 848 (*methyl*)
 Shalabaev, S.B. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1977, **27**, 44 (*synth*)
 Bigotto, A. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1979, 1502 (*uv*)

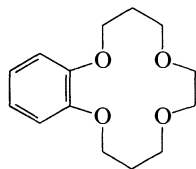
Benzo-12-crown-4 **B-00052**
 2,3,5,6,8,9-Hexahydro-1,4,7,10-benzotetraoxacyclododecine, 9CI
 [14174-08-4]



$C_{12}H_{16}O_4$ M 224.256
 Used in extraction photometric detn. of Na. Cryst. Sol. C_6H_6 , toluene, $CHCl_3$. Mp 46-47°, Mp 44-44.5°.
 Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 7017 (*synth*)
 Pacey, C.J. *et al*, *Synth. Commun.*, 1981, **11**, 323 (*synth*)
 Czech, B.P. *et al*, *J. Heterocycl. Chem.*, 1985, **22**, 1297 (*synth*)
 Zhang, F. *et al*, *CA*, 1987, **106**, 77835r (*detn*, Na)

Benzo-14-crown-4

3,4,6,7,10,11-Hexahydro-2H,9H-1,5,8,12-benzotetraoxacyclotetradecin, 9CI
[88718-32-5]

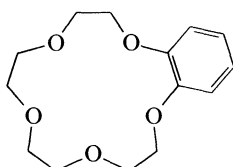


$C_{14}H_{20}O_4$ M 252.310
Used as 0.7mM CH_2Cl_2 soln. for extraction-photometric detn. of Li (in the presence of picrate, pH ~ 13). Cryst. Sol. $CHCl_3$, CH_2Cl_2 .

Wu, Y.P. *et al*, *Anal. Chim. Acta*, 1984, **162**, 285 (*detn. Li*)

Benzo-15-crown-5

2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecine, 9CI
[14098-44-3]

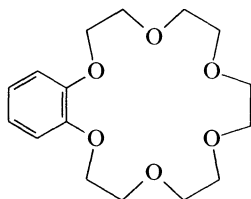


$C_{14}H_{20}O_5$ M 268.309
Crown ether. Used for complexing and extraction-separation of group I and II metal ions. Cryst. (toluene). Sl. sol. H_2O ; sol. C_6H_6 , toluene, $CHCl_3$, Mp 79-81°.

Wada, F. *et al*, *Chem. Lett.*, 1980, 1189.
Poonia, N.S. *et al*, *Indian J. Chem., Sect. A*, 1980, **19**, 37.
Yoshio, M. *et al*, *Anal. Lett.*, 1982, **15**, 1197 (*rev*)

Benzo-18-crown-6

2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecine, 9CI
[14098-24-9]

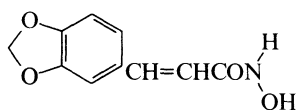


$C_{16}H_{24}O_6$ M 312.362
Used for extraction-photometric detn. of K, Na. Cryst. Sol. C_6H_6 , toluene; spar. sol. H_2O . Mp 42-45°.

Motomizu, S. *et al*, *Anal. Chim. Acta*, 1988, **214**, 289 (*detn. K, Na*)
Motomizu, S. *et al*, *Analyst (London)*, 1988, **113**, 743 (*detn. K*)

3-(1,3-Benzodioxol-5-yl)-N-hydroxy-2-propenamide, 9CI

3,4-(Methylenedioxy)cinnamohydroxamic acid



$C_{10}H_9NO_4$ M 207.185

B-00053

N-Ph: [29265-66-5]. 3-(1,3-Benzodioxol-5-yl)-N-hydroxy-N-phenyl-2-propenamide, 9CI

$C_{16}H_{13}NO_4$ M 283.283

Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of Ti (λ_{max} 400 nm, ϵ 17000), V (λ_{max} 540 nm, ϵ 7400). Cryst. Sol. $CHCl_3$.

N-(3-Methylphenyl): [29265-67-6]. 3-(1,3-Benzodioxol-5-yl)-N-hydroxy-N-(3-methylphenyl)-2-propenamide, 9CI

$C_{17}H_{15}NO_4$ M 297.310

Used as 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 570 nm, ϵ 7500, 4M HCl). Cryst. Sol. $CHCl_3$.

N-(4-Methylphenyl): [29265-68-7]. 3-(1,3-Benzodioxol-5-yl)-N-hydroxy-N-(4-methylphenyl)-2-propenamide, 9CI

Used as 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 570 nm, ϵ 7500, 4M HCl). Cryst. Sol. $CHCl_3$.

Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 276, 278 (*synth*)

Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn. V*)

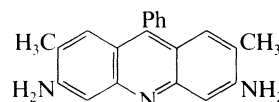
Bhura, D.C. *et al*, *Analysis*, 1980, **8**, 108 (*deriv. detn. Ti*)

Bhura, D.C. *et al*, *Chem. Anal. (Warsaw)*, 1980, **25**, 143 (*detn. V*)

B-00054**Benzoiflavine**

2,7-Dimethyl-9-phenyl-3,6-acridinediamine, 9CI

[6359-38-2]



$C_{21}H_{19}N_3$ M 313.401

Acid-base fluorescence indicator (pH range: 0-1.7; colour change: yellow → green). Used as a 1% soln. in EtOH. Orange cryst. (C_6H_6). Sol. EtOH, Me_2CO , acids, C_6H_6 ; insol. H_2O .

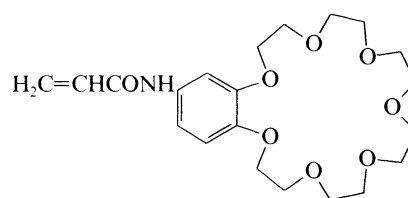
Jensen, K.A. *et al*, *Fresenius' Z. Anal. Chem.*, 1933, **94**, 177.

B-00057***N*-(1,4,7,10,13,16,19-**

Benzoheptaoxacycloheneicosin-21-yl)-2-propenamide, 9CI

Acryloylaminobenzo-21-crown-7

[84740-96-5]



$C_{21}H_{31}NO_8$ M 425.478

Used as 0.5mM $CHCl_3$ soln. for extraction separation of Cs, Rb, K. Fine cryst. Sol. DMF, $CHCl_3$, Mp 98.5-101°.

Kimura, K. *et al*, *Fresenius' Z. Anal. Chem.*, 1982, **313**, 132 (*synth. use*)

B-00055**Benzoic acid, 9CI**

[65-85-0]

PhCOOH

$C_7H_6O_2$ M 122.123

Widespread in plants esp. in essential oils, mostly in esterified form. Obt. in 17th Century by sublimation of *Styrax* spp. resin. Preservative in the food industry.

Used in manuf. of preservatives, plasticisers, alkyd resins coatings and caprolactam. Antiseptic and expectorant.

B-00056**B-00059**

Used as alkalimetric standard; in photometric detn. of U and Zr (anionic complexes associated with basic dyes). Reference material used in elemental microanalysis. Leaflets or needles (H₂O). V. spar. sol. H₂O. Mp 122°. Bp 249°, Bp₁₀ 133°, Subl. ca. 100°. Steam-volatile.

▷ Toxic by skin absorption. DG0875000.

Me ester: [93-58-3]. *Methyl benzoate*

C₈H₈O₂ M 136.150

Used in perfumery and flavourings. Liq. d₂₅²⁵ 1.09. Fp –12.3°. Bp 199.6°, Bp₂₄ 96-98°.

▷ DH3850000.

Benzyl ester: [120-51-4]. *Benzyl benzoate*, **USAN**. *Ascabin*.

Benylate. *Vanzoate*. *Numerous proprietary names*

C₁₄H₁₂O₂ M 212.248

Contained in Peru balsam. Isol. from other plants e.g.

Jasminum spp., ylang-ylang oil. Insect repellent component. Acaricide and pediculicide. Used in perfumery as fixative and in food flavouring. Leaflets. d₁₈¹⁸ 1.11. Mp 21° (19.5°). Bp 323-324° (316-317°), Bp_{0.1} 80-82°. Spar. steam-volatile.

▷ Mod. toxic, LD₅₀ 1.5 g/kg. DG4200000.

Chloride: [98-88-4]. *Benzoyl chloride*

C₇H₅ClO M 140.569

Polymerisation catalyst, benzoylating agent. Can be used for synth. of aliphatic acid chlorides. Used to derivatise steroids and carbohydrates for chromatog. Fuming liq. d₁₅¹⁵ 1.22. Fp –1°. Bp 197°.

▷ Highly irritant, causes burns, violent reaction with dimethyl sulphoxide. DM6600000.

Anhydride: [93-97-0]. *Benzoic anhydride*

C₁₄H₁₀O₃ M 226.231

Cross-linking agent for polymers. Acylation and decarboxylating agent, can be used in polymer-linked form. Can be used to prep. derivs. of e.g. glycosphingolipids for hplc. Rhombic prisms. d₄¹⁵ 1.99. Mp 42°. Bp 360°.

▷ Mild irritant and allergen.

Amide: see *Benzamide*, B-00008

Hydrazide: [613-94-5]. *Benzoylhydrazine*

C₇H₈N₂O M 136.153

Used as 0.2M aq. soln. for photometric detn. of V (λ_{max} 400 nm, ε 9000); as 0.1M aq. soln. for photometric detn. of IO₄[⊖]. Cryst. (H₂O). Sol. H₂O, acids, EtOH, C₆H₆, Me₂CO. Mp 112.5°.

Hydroxamate: see *N-Hydroxybenzamide*, H-00109

Org. Synth., *Coll. Vol.*, 1, 1932, 75, 361 (*synth. deriv*)

Jesson, J.P. *et al.* *Proc. R. Soc. London, A*, 1962, **268**, 68 (*raman*)

Beynon, J.H. *et al.* *Z. Naturforsch., A*, 1965, **20**, 883 (*ms*)

Moeken, H.H. *et al.* *Anal. Chim. Acta*, 1967, **37**, 480 (*detn. U*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 49, 1004; **5**, 23, 24.

Evans, H.B. *et al.* *J. Phys. Chem.*, 1968, **72**, 2552 (*pmr*)

Escarrilla, A.M. *et al.* *Anal. Chim. Acta*, 1969, **45**, 199 (*use*)

Analyst (London), 1972, **97**, 740 (*microanal*)

Bel'tyukova, S.V. *et al.* *Zh. Anal. Khim.*, 1972, **27**, 191 (*detn. Zr*)

Fitzpatrick, F.A. *et al.* *Anal. Chem.*, 1973, **45**, 2310 (*chloride, use*)

Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)

Dubey, S.C. *et al.* *Talanta*, 1977, **24**, 266 (*detn. U*)

Pilipenko, A.T. *et al.* *Zh. Anal. Khim.*, 1977, **32**, 1369 (*hydrazide, detn. V*)

Fauvet, G. *et al.* *Acta Crystallogr., Sect. B*, 1978, **34**, 1376 (*cryst struct, nitrile*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **3**, 778 (*rev*)

White, C.A. *et al.* *Carbohydr. Res.*, 1979, **76**, 1 (*chloride, use*)

Rama Rao, A.V. *et al.* *Chem. Ind. (London)*, 1984, 270 (*synth*)

Ullman, M.D. *et al.* *Methods Enzymol.*, 1987, **138**, 117 (*use, anhydride*)

Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (*cmr*)

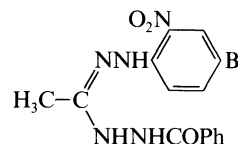
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 193.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBV250, BCL750, BCM000, BDM500, BQK250, EGR000, IOD000, MHA750.

Benzoic acid [1-[2-(4-bromo-2-nitrophenyl)hydrazino]ethylidene]hydrazide, 9CI

2-Benzoyl-4-(2-nitro-4-bromophenyl)acetohydrazidine

[93245-55-7]



C₁₅H₁₄BrN₅O₃ M 392.211

Used as 6mM Me₂CO soln. for photometric detn. of Ni (λ_{max} 340 nm, ε 14400, pH 7.9-9.2, 20% Me₂CO).

Orange cryst. Sol. Me₂CO, DMF; insol. H₂O, EtOH.

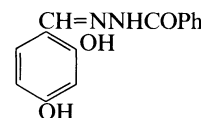
Mp 221°. pK_{a1} 4.2; pK_{a2} 9.2.

Dudareva, G.N. *et al.* *Zh. Anal. Khim.*, 1984, **39**, 1285 (*synth, detn, Ni*)

Benzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, 9CI

Benzoic acid resorcylalhydrazide. *2,4-Dihydroxybenzaldehyde benzoylhydrazone*

[71040-04-5]



C₁₄H₁₂N₂O₃ M 256.260

Used as 2mM Me₂CO soln. for photometric detn. of V(V)

(λ_{max} 390 nm, ε 10800, pH 3.5). Cryst. (EtOH). Sol.

EtOH, Me₂CO; mod. sol. H₂O. pK_{a2} 3.2; pK_{a3} 7.5.

Dudarev, V.I. *et al.* *Zh. Anal. Khim.*, 1986, **41**, 289 (*synth, detn, V*)

Benzoic acid [1-[2-(2,4-dinitrophenyl)hydrazino]ethylidene]hydrazide, 9CI

2-Benzoyl-4-(2,4-dinitrophenyl)acetohydrazidine

[93245-56-8]



C₁₅H₁₄N₆O₅ M 358.313

Used as 6mM Me₂CO soln. for photometric detn. of Ni (λ_{max} 410 nm, ε 17000, pH 7.5-10, 20% Me₂CO). Yellow

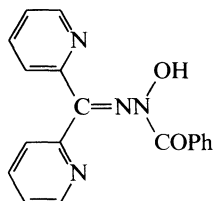
cryst. Sol. Me₂CO, DMF; insol. H₂O, EtOH. Mp 246°.

pK_{a1} 2.3; pK_{a2} 9.1.

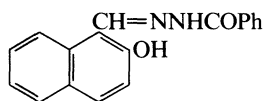
Dudareva, G.N. *et al.* *Zh. Anal. Khim.*, 1984, **39**, 1285 (*detn, Ni*)

Benzoic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, 9CI

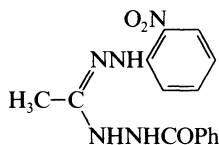
B-00063

Di-2-pyridinylmethanone 2-hydroxybenzoylhydrazone
[73697-21-9] $C_{18}H_{14}N_4O_2$ M 318.334Used as 0.01M soln. in EtOH or Me₂CO for extraction-photometric detn. of Re (in the presence of SnCl₂, 4-methyl-2-pentanone). Orange red cryst. (EtOH). Sol. EtOH, Me₂CO, CHCl₃. Mp 169-170°.Ketrup, A. et al, *Anal. Chim. Acta*, 1980, **115**, 383 (*synth, detn, Re*)**Benzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, 9CI**

B-00064

Benzoic acid 2-hydroxynaphthalhydrazide. 2-Hydroxy-1-naphthalenecarboxaldehyde benzoylhydrazone
[15017-21-7] $C_{18}H_{14}N_2O_2$ M 290.321Used as a 0.1mM Me₂CO soln. for fluorimetric detn. of Al (λ_{max} 475 nm, pH 3-4, 60% Me₂CO). Yellow cryst. (EtOH). Sol. EtOH, Me₂CO; sl. sol. H₂O.Dugorev, A.V. et al, *Zh. Anal. Khim.*, 1978, **33**, 2357 (*synth, detn, Al*)**Benzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, 9CI**

B-00065

2-Benzoyl-4-(2-nitrophenyl)acetohydrazidine
[54928-38-0] $C_{15}H_{15}N_5O_3$ M 313.315Used as 6mM Me₂CO soln. for photometric detn. of Ni (λ_{max} 340 nm, ϵ 20000, pH 7.3-9.1, 20% Me₂CO). Yellow cryst. Sol. Me₂CO, DMF; insol. H₂O, EtOH. Mp 184°. pK_{a1} 4.3; pK_{a2} 9.4.Dudareva, G.N. et al, *Zh. Anal. Khim.*, 1984, **39**, 1285 (*synth, detn, Ni*)**Benzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, 9CI**

B-00066

2-Benzoyl-4-(4-nitrophenyl)acetohydrazidine
[54928-42-6] $C_{15}H_{15}N_5O_3$ M 313.315Used as 6mM Me₂CO soln. for photometric detn. of Ni (λ_{max} 560 nm, ϵ 31300, pH 7.2-8.7, 20% Me₂CO). Orange cryst. Sol. Me₂CO, DMF; insol. H₂O, EtOH. Mp 190°. pK_{a1} 1.5; pK_{a2} 9.6.Dudareva, G.N. et al, *Zh. Anal. Khim.*, 1984, **39**, 1285 (*synth, detn, Ni*)**Benzoic ethylcarbonic anhydride**

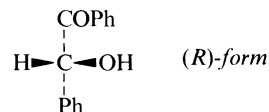
B-00067

Benzoic acid anhydride with ethyl hydrogen carbonate, 9CI
[3741-66-0] $C_{10}H_{10}O_4$ M 194.187

Reagent for amino acid sequence anal. by ms. Cryst. (pet. ether). Mp 70-72°.

Windholz, T.B., *J. Org. Chem.*, 1960, **25**, 1703 (*synth*)
Kamerling, J.P. et al, *Org. Mass Spectrom.*, 1968, **1**, 351 (*use*)**Benzoin**

B-00068

1,2-Diphenyl-2-hydroxyethanone. α -Hydroxybenzyl phenyl ketone. Benzoylphenylcarbinol
[119-53-9] $C_{14}H_{12}O_2$ M 212.248

▷ DI1590000.

(R)-form [5928-66-5]Needles. Mp 131-132.5°. $[\alpha]_D^{25} - 117.5^\circ$ (Me₂CO).*Ac*: $C_{16}H_{14}O_3$ M 254.285Needles. $[\alpha]_D^{25} - 217.7^\circ$ (CHCl₃).*Me ether*: $C_{15}H_{14}O_2$ M 226.274Mp 53-54°. $[\alpha]_D^{25} - 88.2^\circ$ (CHCl₃), $[\alpha]_D^{25} - 94.3^\circ$ (EtOH).**(S)-form** [5928-67-6]Needles. Mp 131-132.5°. $[\alpha]_D^{25} + 118.4^\circ$ (Me₂CO).**(E)-Oxime**: $C_{14}H_{13}NO_2$ M 227.262Mp 164°. $[\alpha]_D^{25} + 3.0^\circ$ (CHCl₃).**(±)-form** [579-44-2]Used in test for S (H₂S with Pb²⁺) and for B (fluorescence). Topical protectant. Prisms (EtOH). Mp 133-134°. Bp₇₆₈ 344°, Bp₁₂ 194°. Enolises to β -dihydroxystilbene.*Ac*: [62398-10-1].

Prisms. Mp 83°.

Benzoyl: $C_{21}H_{16}O_3$ M 316.356Needles (EtOH), prisms (Et₂O). Mp 125°.*Me ether*: [5987-95-1].

Needles. Mp 49°.

(E)-Oxime: [574-13-0]. α -Oxime. **Cupron**Used as 0.2% soln. in CHCl₃ in extraction separation of Mo, W (from conc. HCl media) and of V (pH 2-4); also in pptn. of Cu, Pd, Bi, Au. Light sensitive prisms. Sol. EtOH, Et₂O, Me₂CO; insol. H₂O. Mp 151-152°.**(Z)-Oxime**: [7110-50-1]. β -Oxime

Prisms. Mp 99°.

Semicarbazone: Prisms. Mp 206° dec.*2,4-Dinitrophenylhydrazide*: [13804-47-2].

Orange-yellow cryst. Mp 234°.

Thiosemicarbazone: [87051-83-0]. *Benzointhiosemicarbazone* $C_{15}H_{15}N_3OS$ M 285.369

Used as EtOH soln. for colorimetric detn. of Pd, Cu, Pt, Ni. Cryst. (EtOH). Sol. C₆H₆, CCl₄, EtOH. Mp 179°. pK_a 1.13.

[441-38-3, 8050-35-9, 57794-28-2]

Org. Synth., Coll. Vol., 1, 1932, 94 (*synth*)

White, C.E. *et al.*, *Anal. Chem.*, 1947, **19**, 802 (*detn.*, B)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, **3**, 239 (*synth.*, *use*, *E-oxime*)

Gianturco, M. *et al.*, *Gazz. Chim. Ital.*, 1952, **82**, 429 (*synth.*, *thiosemicarbazone*)

Watson, M.B. *et al.*, *Chem. Ind. (London)*, 1954, 658 (*abs config*)

Ory, H.A. *et al.*, *Analyst (London)*, 1957, **82**, 189 (*detn.*, S)

Peng, P.Y. *et al.*, *Anal. Chim. Acta*, 1963, **29**, 325 (*detn.*, W)

Kenyon, J. *et al.*, *J. Chem. Soc.*, 1965, 435 (*resoln*)

Hoenes, H.J. *et al.*, *Talanta*, 1969, **4**, 250.

Bock, R. *et al.*, *Fresenius' Z. Anal. Chem.*, 1970, **250**, 358 (*oxime*, *detn.*, V)

Kreiser, W., *Justus Liebig's Ann. Chem.*, 1971, **745**, 164 (*synth*)

Couvert, O. *et al.*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1972, **274**, 296 (*pmr*)

Desai, M. *et al.*, *Indian J. Appl. Chem.*, 1972, **35**, 507; *CA*, **99**, 186547p (*synth.*, *detn.*, Ga)

Desai, M. *et al.*, *Z. Anorg. Allg. Chem.*, 1972, **259**, 367 (*detn.*, Fe)

Ohgo, Y. *et al.*, *Chem. Lett.*, 1974, 1327 (*synth*)

Kudo, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 2969.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 34.

Hakimelahi, G.H. *et al.*, *Helv. Chim. Acta*, 1977, **60**, 342 (*synth*)

Haisa, M. *et al.*, *Acta Crystallogr., Sect. B*, 1980, **36**, 2832 (*cryst struct*)

Donaldson, E.M., *Talanta*, 1980, **27**, 79 (*oxime*, *detn.*, Mo)

Aznarez, J. *et al.*, *CA*, 1982, **100**, 150200n (*use*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 274.

Davis, F.A. *et al.*, *J. Org. Chem.*, 1989, **54**, 2021 (*synth.*, *deriv.*, *pmr.*, *ir*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BCP250, BCP500.

Benzophenone, 8CI

B-00069

Diphenylmethanone, 9CI. *Diphenyl ketone*

[119-61-9]

PhCOPh

C₁₃H₁₀O M 182.221

Constit. of *Pseudomonas putida*, also occurs in Baltic Sea shale tar. Fixative for heavy perfumes, esp. soaps. Used in the manuf. of antihistamines, hypnotics and insecticides. Rhombic prisms (stable form), monoclinic prisms (labile form). Insol. H₂O. d₄¹⁸ 1.11. Mp 48.5-49° (stable form), Mp 26° (labile form). Bp₁₀₀ 224-224°, Bp₁₀ 157.6°.

▷ DI9950000.

Di-Me acetal: [2235-01-0]. *1,1'-(Dimethoxymethylene) bisbenzene*, 9CI. *Dimethoxydiphenylmethane*

C₁₅H₁₆O₂ M 228.290

Plates (EtOH). Mp 106-109°. Bp 288-290°.

Di-Et acetal: [6397-77-9]. *1,1'-(Diethoxymethylene) bisbenzene*, 9CI. *Diethoxydiphenylmethane*

C₁₇H₂₀O₂ M 256.344

Prisms (EtOH). Mp 51-52°. Bp 294-295°.

Oxime: [574-66-3].

C₁₃H₁₁NO M 197.236

Cryst. (ligroin). Sol. Et₂O, Me₂CO; mod. sol. CHCl₃,

C₆H₆; spar. sol. H₂O.

▷ DJ1810000.

Hydrazone: [5350-57-2].

C₁₃H₁₂N₂ M 196.251

Mp 98°. Bp₅₅ 225-230°.

Semicarbazone: Mp 167°.

Thiosemicarbazone: [7341-60-8].

C₁₄H₁₃N₃S M 255.343

Used as EtOH soln. for photometric detn. of Cu (λ_{max} 360 nm, ε 13200). Cryst. Sol. DMF, EtOH.

Phenylhydrazone: [574-61-8].

Needles. Mp 137°.

2,4-Dinitrophenylhydrazone: Mp 238°.

Barton, D.H.R. *et al.*, *J. Chem. Soc.*, 1962, 470 (*azine*, *synth.*, *w.*, *ir*)

Morrison, J.D. *et al.*, *J. Org. Chem.*, 1972, **37**, 1034 (*use*)

Grimaud, M. *et al.*, *Bull. Soc. Chim. Fr.*, 1974, 1935 (*w*)

Herman, F.L., *Diss. Abstr. Int.*, B, 1976, **16**, 6169; *CA*, **85**, 93411c (*use*)

Groebal, B.T. *et al.*, *Chem. Ber.*, 1977, **110**, 854 (*use*)

Loletta, M. *et al.*, *Inorg. Chim. Acta*, 1977, **24**, 195 (*pmr*, *cmr*)

Vogel, A.I., *Textbook of Practical Organic Chemistry*, 4th Ed., Longman, London, 1978, 775 (*synth*)

Gowda, H.S., *Indian J. Chem., Sect. A*, 1983, **22**, 1086 (*detn.*, Cu)

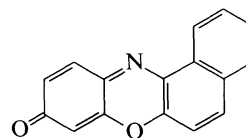
Abraham, R.J. *et al.*, *J. Chem. Soc., Perkin Trans. 2*, 1988, 1429 (*conformn*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BCS250.

9-Benzo[*a*]phenoxazin-9-one, 8CI

B-00070

[731-72-6]



C₁₆H₉NO₂ M 247.253

Used as a satd. soln. in EtOH as a redox indicator for titanometry; acid-base indicator. Violet cryst. Sol. Et₂O, C₆H₆; sl. sol. EtOH.

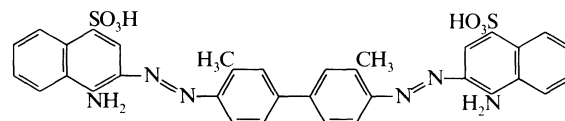
Stransky, Z. *et al.*, *Chem. Zvesti*, 1968, **22**, 341, 424 (*use*, *ind*)

Stuzka, V. *et al.*, *CA*, 1969, **71**, 108668d (*use*, *titanometry*)

Benzopurpurine 4B

B-00071

3,3'-(3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[4-amino-1-naphthalenesulfonic acid], 9CI. *C.I. Direct red 2*. *C.I.* 23500



C₃₄H₂₈N₆O₆S₂ M 680.764

Strictly, the name Benzopurpurine 4B applies to the disodium salt.

Di-Na salt: [992-59-6].

Used for photometric detn. of Pd (λ_{max} 610 nm). Red cryst. (H₂O). Sol. EtOH, Me₂CO, H₂O; insol. C₆H₆, CCl₄.

▷ QK1765000.

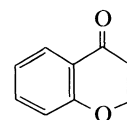
Baulescu, G. *et al.*, *An. Univ. Bucuresti, Chim.*, 1970, **19**, 107; *CA*, **75**, 136759k.

4H-1-Benzopyran-4-one, 9CI

B-00072

Chromone. *Benz-γ-pyrone*. *Benzopyrone*

[491-38-3]



$C_9H_6O_2$ M 146.145

Reagent for the identification of amines. Needles (H_2O or pet. ether). Mp 59°. Sublimes. Steam-volatile.

▷ GB7887000.

B,HCl: Mp 101-102°.

Gomberg, M. *et al*, *Justus Liebigs Ann. Chem.*, 1910, **376**, 228.

Schönberg, A. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 3396.

Badawi, M.M. *et al*, *Indian J. Chem.*, 1965, **5**, 63 (nmr)

Badawi, M.M. *et al*, *Chem. Ind. (London)*, 1966, 498 (ms)

Kostka, K. *et al*, *Chem. Anal. (Warsaw)*, 1969, **14**, 1145; *CA*, **72**, 128486n (use)

Ellis, G.P. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1981, 2557 (cmr)

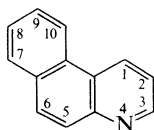
Benzo[f]quinoline, 9CI

B-00073

1-Azaphenanthrene. β-Naphthoquinoline (obsol.).

Naphtho[2',1':2,3]pyridine (obsol.)

[85-02-9]



$C_{13}H_9N$ M 179.221

Used in iodometric detn. of Cd. Leaflets (H_2O or pet. ether). Mp 94°. Bp₇₂₁ 350°, Bp₂₂ 210-215°.

▷ Mutagen. DK1428000.

B,H₂SO₄: Yellow needles. Mp 90°.

B,MeCl: Needles (EtOH/Et₂O). Mp 236° (anhyd.).

B,MeI: Yellow needles (H_2O or EtOH). Mp 200-205° dec.

v. Braun, J. *et al*, *Ber.*, 1922, **55**, 1714.

Clem, W.J. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 2349.

Uhle, F.C. *et al*, *J. Org. Chem.*, 1945, **10**, 76.

Kröllner, E.Z., *Z. Lebensm.-Unters. -Forsch.*, 1964, **125**, 401 (detn. Cd)

Jutz, C. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1972, **11**, 315.

Nasipuri, D. *et al*, *Indian J. Chem., Sect. B*, 1976, **14**, 819.

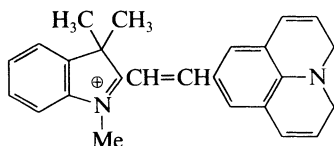
Kosuge, T. *et al*, *Chem. Pharm. Bull.*, 1978, **26**, 611 (tox)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BDB750.

2-[2-(3H,5H-Benzo[i,j]quinolizin-9-yl)ethenyl]-1,3,3-trimethyl-3H-indolium(1+), 9CI

B-00074

2-Pyrido[1,2,3-i,j]quinoliny-6-vinyl-1,3,3-trimethyl-3H-indolium



$C_{25}H_{25}N_2^{\oplus}$ M 353.486 (ion)

Basic cyanine dye.

Iodide:

$C_{25}H_{25}IN_2$ M 480.390

Used as 1mM aq. soln. for photometric detn. of Pb.

Cryst. (MeOH). Sol. H_2O , EtOH; insol. $CHCl_3$.

[125232-87-3]

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 313 (detn. Pb)

1,2-Benzoquinone

B-00075

3,5-Cyclohexadiene-1,2-dione, 9CI. o-Quinone

[583-63-1]



$C_6H_4O_2$ M 108.096

Mp 60-70° dec. Exists in two modifications, red and colourless prisms. Red form is dione, other form's struct. not satisfactorily shown.

▷ DK2490000.

Monoxime: [13168-78-0]. *2-Nitrosophenol*

$C_6H_5NO_2$ M 123.111

Used as metallochromic indicator for titrimetric detn. of Co, Cu, Fe, Ni, Zn; acid-base indicator. Green needles (pet. ether).

▷ Explodes on heating or contact with acids.

Dioxime: [14208-17-4].

$C_6H_6N_2O_2$ M 138.126

Tan needles (EtOH aq.). Mp 148-149°. pK_{a1} 6.93.

Bis-2,4-dinitrophenylhydrazone: Cryst. (DMF or MeOH). Mp 268°.

Willstätter, R. *et al*, *Ber.*, 1908, **41**, 2580 (synth)

Brockhaus, R., *Justus Liebigs Ann. Chem.*, 1968, **712**, 214 (synth)

Thomson, R.H., *Naturally Occurring Quinones*, Academic Press, London, 1971 (w)

Berger, S. *et al*, *Tetrahedron*, 1972, **28**, 3123 (cmr)

Hollenstein, R. *et al*, *Helv. Chim. Acta*, 1973, **56**, 320 (pmr, cmr)

Durst, H.D. *et al*, *J. Org. Chem.*, 1975, **40**, 268 (synth)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 295 (use)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 575 (deriv)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 417 (deriv)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BDC250, NLF300.

1,4-Benzoquinone, 8CI

B-00076

2,5-Cyclohexadiene-1,4-dione, 9CI. Quinone. p-Benzoquinone

[106-51-4]

$C_6H_4O_2$ M 108.096

Component of arthropod defensive secretions; isol. from the grasshopper *Romalea microptera*. Metab. of *Streptothrix chromogena*. Dienophile, H acceptor for Oppenauer oxidns., mild dehydrogenating agent.

Reagent for the spectrophotometric detn. of amines and amino acids. Used as a 0.34mM soln. in DMSO for fluorimetric detn. of CN^{\ominus} . Yellow cryst. with penetrating chlorine-like odour (pet. ether or H_2O). Sol. EtOH, Et₂O; v. spar. sol. H_2O . Mp 117°. Sublimes. Steam-volatile.

▷ Irritant, causes dermatitis and conjunctivitis. Highly toxic. DK2625000.

Dioxime: [105-11-3].

$C_6H_6N_2O_2$ M 138.126

Pale-yellow cryst. Mp 240° dec.

▷ DK4900000.

Monosemicarbazone: Yellow cryst. Mp 178° dec.

Disemicarbazone: Red cryst. Mp 241-243° dec.

1,4-Benzenediol complex (1:1): [106-34-3]. *Quinhydrone*

Red-brown needles. Mp 171°.

▷ VA4550000.

Mono(ethylene ketal): [35357-34-7]. *7,10-Dioxaspiro[5.4]*

deca-2,5-dien-4-one

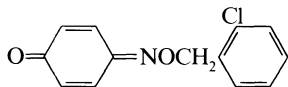
$C_8H_8O_3$ M 152.149

Needles (C₆H₆/cyclohexane). Mp 52-53°.
Bis(ethylene ketal): [35357-33-6].
 C₁₀H₁₂O₄ M 196.202
 Cryst. (C₆H₆). Mp 235-236°.
Chloroimine: see 4-(Chloroimino)-2,5-cyclohexadien-1-one,
 C-00164

Evans, T.W. *et al*, *J. Am. Chem. Soc.*, 1930, **52**, 3204 (*complex*)
Org. Synth., Coll. Vol., 1, 1932, 482 (*synth*)
Org. Synth., Coll. Vol., 2, 1943, 553 (*synth*)
 Flaig, W. *et al*, *Justus Liebigs Ann. Chem.*, 1958, **618**, 117 (*uv*)
 Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn*, CN[⊖])
 Norris, R.K. *et al*, *Aust. J. Chem.*, 1966, **19**, 617 (*pmr*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**,
 49.
 Kikot, B.S. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1968, **38**,
 883 (*ir*)
 Heiss, J. *et al*, *Org. Mass Spectrom.*, 1969, **2**, 1325 (*ms*)
 Eisner, T. *et al*, *Science (Washington, D.C.)*, 1971, **172**, 277 (*isol*)
 Berger, S. *et al*, *Tetrahedron*, 1972, **28**, 3123 (*cmr*)
 Heller, J.E. *et al*, *Helv. Chim. Acta*, 1973, **56**, 272 (*deriv*, *synth*, *ir*,
pmr)
 Lorenz, K. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1974, **20**,
 1553 (*use*)
 v. Bolhuis, F. *et al*, *Acta Crystallogr., Sect. B*, 1978, **34**, 1015
 (*cryst struct*)
 Hassan, S.S.M. *et al*, *Talanta*, 1985, **32**, 301 (*use*)
 Caparelli, M.P. *et al*, *J. Org. Chem.*, 1987, **52**, 5360 (*synth*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,
 Royal Society of Chemistry, London, 1981, 1193.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, DVR200, QFJ000,
 QQS200.

1,4-Benzoquinone *O*-(2-chlorobenzyl) oxime **B-00077**

2-Chloro-O-benzylquinone monoxime



C₁₃H₁₀ClNO₂ M 247.680
 Used as a 0.34mM soln. in DMSO for fluorimetric detn.
 of CN[⊖]. Yellow cryst. (EtOH). Sol. EtOH, CHCl₃,
 Me₂CO. Mp 97-98°.
 Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn*, CN[⊖])

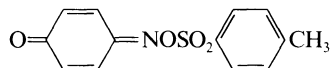
1,4-Benzoquinone *O*-(4-chlorobenzyl) oxime **B-00078**

4-Chloro-O-benzylquinone monoxime

C₁₃H₁₀ClNO₂ M 247.680
 Used as a 0.34mM soln. in DMSO for fluorimetric detn.
 of CN[⊖]. Yellow cryst. (EtOH). Sol. EtOH, Me₂CO,
 CHCl₃. Mp 101-102°.

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn*, CN[⊖])

1,4-Benzoquinone mono[*O*-(*p*-methylphenyl)sulfonyl]oxime **B-00079**

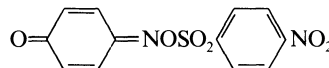


C₁₃H₁₁NO₄S M 277.300
 Used as a 0.34mM soln. in DMSO for fluorimetric detn.
 of CN[⊖]. Yellow cryst. (CCl₄). Sol. EtOH, CHCl₃,
 Me₂CO. Mp 132°.

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395.

1,4-Benzoquinone mono[*O*-(*p*-nitrophenyl)sulfonyl]oxime], 8Cl **B-00080**

[7239-22-7]

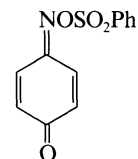


C₁₂H₈N₂O₆S M 308.271
 Used as a 0.34mM soln. in DMSO for fluorimetric detn.
 of CN[⊖]. Yellow cryst. (CCl₄). Sol. EtOH, CHCl₃,
 Me₂CO. Mp 164-165°.

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn*, CN[⊖])

1,4-Benzoquinone mono[*O*-phenylsulfonyl]oxime **B-00081**

O-Phenylsulfonylquinone monoxime

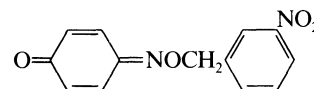


C₁₂H₉NO₄S M 263.273
 Used as a 0.34mM soln. in DMSO for fluorimetric detn.
 of CN[⊖]. Yellow cryst. (CCl₄). Sol. EtOH, CHCl₃,
 Me₂CO. Mp 130-131°.

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn*, CN[⊖])

1,4-Benzoquinone *O*-(*m*-nitrobenzyl)oxime **B-00082**

O-(*m*-Nitrobenzyl)-*p*-benzoquinone oxime



C₁₃H₁₀N₂O₄ M 258.233
 Used as a 0.34mM soln. in DMSO for fluorimetric detn.
 of CN[⊖]. Yellow cryst. (EtOH). Sol. EtOH, Me₂CO,
 CHCl₃. Mp 113-114°.

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn*, CN[⊖])

1,4-Benzoquinone *O*-(*p*-nitrobenzyl)oxime **B-00083**

O-(*p*-Nitrobenzyl)-*p*-benzoquinone oxime

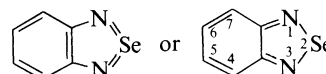
C₁₃H₁₀N₂O₄ M 258.233
 Used as a 0.34mM soln. in DMSO for fluorimetric detn.
 of CN[⊖]. Yellow cryst. (EtOH). Sol. EtOH, CHCl₃,
 Me₂CO. Mp 157-158°.

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn*, CN[⊖])

2,1,3-Benzoselenadiazole-*Se*^{IV}, 9Cl **B-00084**

Benzo[c]*selenadiazole*. 3,4-*Benzo*-1,2,5-*selenodiazole*.

Piaselenole
 [22706-23-6]



C₆H₄N₂Se M 183.071
 Used as a 1% soln. in EtOH for indirect photometric
 detn. of Pd. Needles (H₂O or by subl) with odour of
 Quinoline. Sol. EtOH, C₆H₆. Mp 75°.

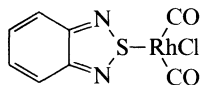
Hinsberg, O., *Ber.*, 1889, **22**, 2897 (*synth*)
 Parker, C.A. *et al*, *Analyst (London)*, 1962, **87**, 559 (*synth*)
 Bunting, T.G. *et al*, *Anal. Chem.*, 1968, **40**, 435 (*detn*, Pd)
 Cheeseman, G.W.H. *et al*, *Org. Magn. Reson.*, 1974, **6**, 430 (*cmr*)

Pedersen, C.L. *et al*, *Acta Chem. Scand., Ser. B*, 1975, **29**, 483 (*ms*)
 Gomes, A.C. *et al*, *Acta Crystallogr., Sect. C*, 1989, **45**, 73 (*cryst struct*)

**(2,1,3-Benzothiadiazole-*S*²)
 dicarbonylchlororhodium, 9CI**

B-00085

[76791-04-3]



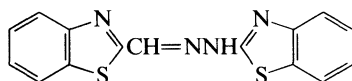
$C_9H_4ClN_2O_2RhS$ M 330.556
 Reagent for the detn. of NH_3 and primary amines.
 [64588-36-9]

Kukushkin, Yu.N. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1977, **47**, 1725 (*synth*)
 Kukushkin, Yu.N. *et al*, *Zh. Prikl. Khim. (Leningrad)*, 1986, **59**, 707; *CA*, **105**, 34852f (*use*)

2-Benzothiazolecarboxaldehyde 2-benzothiazolylhydrazone

B-00086

[18672-66-7]



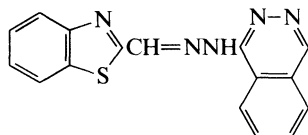
$C_{15}H_{10}N_4S_2$ M 310.403
 Used for photometric detn. of Co, Cu (λ_{max} 464 nm, ϵ 32500), Ni. Cryst. Sol. Me_2CO , EtOH.

Uno, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1961, **10**, 822 (*detn. Co, Cu, Ni*)

2-Benzothiazolecarboxaldehyde 1(2*H*)-phthalazinylidenehydrazone, 9CI

B-00087

[73448-67-6]

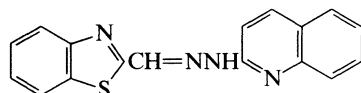


$C_{16}H_{11}N_5S$ M 305.362
 Used as $CHCl_3$ soln. for extraction-photometric detn. of Pd (λ_{max} 587 nm, ϵ 16800). Cryst. Sol. $CHCl_3$.

Otomo, M. *et al*, *Microchem. J.*, 1980, **25**, 75 (*synth. detn. Pd*)
 Nakagawa, T. *et al*, *Analyst (London)*, 1985, **110**, 387 (*detn. Pd*)

2-Benzothiazolecarboxaldehyde 2-quinolylhydrazone

B-00088



$C_{17}H_{12}N_4S$ M 304.375
 Used as C_6H_6 soln. for extraction-photometric detn. of Pd (λ_{max} 647 nm, ϵ 21400), Cu (λ_{max} 523 nm, ϵ 75000). Cryst. (EtOH). Sol. C_6H_6 , dioxan. Mp 281-283°. pK_{a2} 3.2; pK_{a3} 5.2; pK_{a4} 13.1 (25°, 20% aq. dioxan, 0.1M $NaClO_4$).

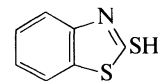
Otomo, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1977, **26**, 455 (*synth. Pd*)

Otomo, M. *et al*, *Microchem. J.*, 1978, **23**, 297 (*synth. detn. Cu*)
 Nakagawa, T. *et al*, *Analyst (London)*, 1985, **110**, 387 (*detn. Pd*)

2-Benzothiazolethiol, 8CI

B-00089

2-Mercaptobenzothiazole



$C_7H_5NS_2$ M 167.255
 Used as 1% soln. in $CHCl_3$ for separation pptn. of Au, I^- ; photometric detn. of Pd, Os, Rh, Se, Ni (λ_{max} 750 nm). Needles. Sol. alkalis, $CHCl_3$; spar. sol. EtOH, Et_2O ; insol. H_2O . Mp 177-181°.

S-Me:

$C_8H_7NS_2$ M 181.282
 Prisms (EtOH aq.). Mp 52°. Bp 291-300°, $Bp_{0.5}$ 116°.

S-Et:

$C_9H_9NS_2$ M 195.309
 Cryst. (EtOH). Mp 26°. Bp 148-150°.

S-Benzyl:

$C_{14}H_{11}NS_2$ M 257.380
 Mp 149-150°.

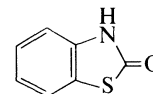
Mercaptobenzthiazyl ether: 2,2'-Dithiobisbenzthiazole

Rubber vulcanisation accelerator. Needles (C_6H_6). Insol. EtOH, alkalis. Mp 186°.

Jacobson, P. *et al*, *Ber.*, 1891, **24**, 1403.Rassow, B. *et al*, *Chem. Zentralbl.*, 1916, **2**, 394.Welcher, J.F., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1948, **4**, 109.Kiprianov, A.I. *et al*, *Zh. Obshch. Khim.*, 1949, **19**, 1523; *CA*, **44**, 3487.Fry, D.J. *et al*, *J. Chem. Soc.*, 1951, 1723.Moore, C.G. *et al*, *J. Chem. Soc.*, 1952, 4237.Walliczek, E.G., *Talanta*, 1964, **11**, 573 (*detn. Ni*)Bera, C.C. *et al*, *Analyst (London)*, 1968, **93**, 50 (*detn. Se*)Sohar, P. *et al*, *J. Heterocycl. Chem.*, 1969, **6**, 163.Kujawa, R., *Mikrochim. Acta*, 1969, 193 (*detn. I⁻*)Fries, J. *et al*, *Organic Reagents for Trace Analysis*, E. Merck, Darmstadt, 1977, 302.

2(3*H*)-Benzothiazolone, 9CI

B-00090



C_7H_5NOS M 151.189
 Major tautomer of 2-Hydroxybenzothiazole, H-00125.
 Prod. by a *Micrococcus* sp. found in *Tedania ignis*.
 Needles (EtOH). Mp 138-139°.

N-Me: [2786-62-1]. 3-Methyl-2-benzothiazolone

C_8H_7NOS M 165.215
 Cryst. (H_2O). Mp 70-71°.

N(?) -Ac:

$C_9H_7NO_2S$ M 193.226
 Needles (EtOH aq.). Mp 50°.

N-Me, hydrazone: [1128-67-2]. MBTH

$C_8H_9N_3S$ M 179.245

Used as a 0.25% aq. soln. of hydrochloride for photometric detn. of H_2O_2 (λ_{max} 442 nm, ϵ 36000) and aldehydes. Yellow cryst. (EtOH). Sol. dil. acids, EtOH, Me_2CO , C_6H_6 . Mp 144°.

▷ DL7160000.

N-Me, hydrazone; B,HCl: [14448-67-0].

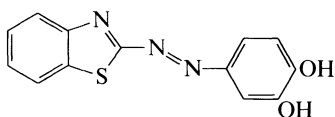
Mp 264-266°.

Mills, W.H. *et al*, *J. Chem. Soc.*, 1927, 2738 (*synth*)Davies, W.H. *et al*, *J. Chem. Soc.*, 1942, 304 (*deriv*)Sawicke, E. *et al*, *Anal. Chem.*, 1961, **33**, 93 (*use, deriv*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 672 (*deriv*)Hauser, T.R. *et al*, *Anal. Chem.*, 1968, **40**, 231 (*detn. H_2O_2*)Sohar, P. *et al*, *J. Heterocycl. Chem.*, 1969, **6**, 163.

Aboulezz, A.F. *et al*, *Egypt. J. Chem.*, 1973, **16**, 355; *CA*, **81**, 152075.
 Fife, T.H. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 5878 (*synth, deriv*)
 Faure, R. *et al*, *Org. Magn. Reson.*, 1978, **11**, 617 (*tautom, cmr*)
 Rudd, S. *et al*, *Acta Crystallogr., Sect. C*, 1984, **40**, 2118 (*cryst struct, deriv*)
 Safanda, J. *et al*, *Collect. Czech. Chem. Commun.*, 1984, **49**, 1869 (*use, deriv*)
 Konishi, K. *et al*, *Synthesis*, 1984, 254 (*synth*)
 D'Amico, J.J. *et al*, *J. Heterocycl. Chem.*, 1986, **23**, 641 (*synth, pmr*)
 Stierle, A.A. *et al*, *Tetrahedron Lett.*, 1991, **32**, 4847 (*isol*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MHJ250.

4-(2-Benzothiazolylazo)-1,2-benzenediol, 9CI **B-00091**

4-(2-Benzothiazolylazo)pyrocatechol. 2-(3,4-Dihydroxyphenylazo)benzothiazole
 [95833-36-6]



$C_{13}H_9N_3O_2S$ M 271.299
 Used as 2mM DMF soln. for photometric detn. of Fe(II) (λ_{max} 615 nm, ϵ 110000, 40% Me_2CO , pH 6.3-6.8).
 Cryst. Sol. DMF, Me_2CO , EtOH, dioxan.

Ueda, K. *et al*, *Mikrochim. Acta*, 1984, **3**, 103 (*synth, detn, Fe*)
 Wang Zhen-Pu, *et al*, *Mikrochim. Acta*, 1990, **3**, 311 (*synth, detn, Fe*)

4-(2-Benzothiazolylazo)-1,3-benzenediol, 9CI **B-00092**

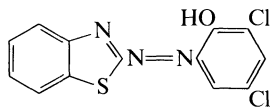
[3706-50-1]
 $C_{13}H_9N_3O_2S$ M 271.299
 Used as 0.05% soln. in 0.5M NaOH in 50% EtOH for photometric detn. of Fe(II) (λ_{max} 750 nm, ϵ 11400, pH 8). Red cryst. Sol. EtOH, alkalis.

1-Me ether: [95833-34-4]. 2-(2-Benzothiazolylazo)-5-methoxyphenol, 9CI
 $C_{14}H_{11}N_3O_2S$ M 285.326
 Used as 0.05% soln. in 0.5M NaOH in 50% EtOH for photometric detn. of Fe(II) (λ_{max} 768 nm, ϵ 4500, pH 8-8.5). Red cryst. Sol. EtOH, alkalis.

Ueda, K. *et al*, *Mikrochim. Acta*, 1984, **3**, 103 (*synth, detn, Fe*)

2-(2-Benzothiazolylazo)-4,6-dichlorophenol, 9CI **B-00093**

2-(3,5-Dichloro-2-hydroxyphenylazo)thiazole
 [51101-43-0]

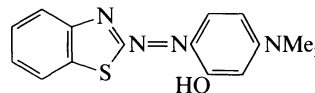


$C_{13}H_7Cl_2N_3OS$ M 324.189
 Used as a 1mM soln. in Me_2CO for photometric detn. of Cd (λ_{max} 550 nm; ϵ 38800). Reddish-brown cryst. powder (EtOH). Sol. alkalis, EtOH, Me_2CO ; insol. H_2O .

Armeanu, V. *et al*, *Rev. Roum. Chim.*, 1973, **18**, 1475.

2-(2-Benzothiazolylazo)-5-(dimethylamino)phenol, 9CI **B-00094**

2-(4-Dimethylamino-2-hydroxyphenylazo)benzothiazole
 [95833-35-5]

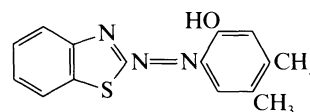


$C_{15}H_{14}N_4OS$ M 298.368
 Used as 0.2mM xylene soln. for extraction-photometric detn. of Cd (λ_{max} 600 nm, ϵ 45000, 1M NaOH aq. medium), Fe(II). Violet needles ($CHCl_3$). Sol. $CHCl_3$, xylene. Subl. 200°.

Ueda, K. *et al*, *Mikrochim. Acta*, 1984, **2**, 13 (*synth, detn, Fe*)
 Grudpan, K. *et al*, *Talanta*, 1989, **36**, 1005 (*synth, detn, Cd*)

2-[(2-Benzothiazolyl)azo]-4,5-dimethylphenol, 9CI **B-00095**

2-[(2-Hydroxy-4,5-dimethylphenyl)azo]benzothiazole
 [67508-90-1]



$C_{15}H_{13}N_3OS$ M 283.353
 Used for extraction-photometric detn. of Cd (λ_{max} 600 nm, xylene). Red cryst. powder (EtOH). Sol. EtOH, Me_2CO , alkalis; insol. H_2O , CCl_4 .

Dragusin, E. *et al*, *Rev. Chim. (Bucharest)*, 1978, **29**, 257.

2-(2-Benzothiazolylazo)-4,6-dimethylphenol, 9CI **B-00096**

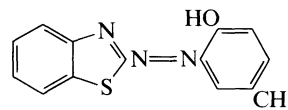
2-(2-Hydroxy-3,5-dimethylphenylazo)benzothiazole
 [67913-14-8]

$C_{15}H_{13}N_3OS$ M 283.353
 Used for extraction-photometric detn. of Cu (λ_{max} 635 nm, ϵ 16000). Red cryst. powder. Sol. EtOH, Me_2CO , alkalis; insol. H_2O , CCl_4 .

Arias-Leon, J.J. *et al*, *An. Quim.*, 1978, **74**, 606.

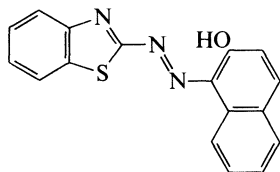
2-(2-Benzothiazolylazo)-4-methylphenol, 9CI **B-00097**

2-(2-Hydroxy-5-methylphenylazo)benzothiazole
 [2938-24-1]



$C_{14}H_{11}N_3OS$ M 269.326
 Used as a soln. in EtOH for photometric detn. of Tl. Red cryst. powder. Sol. EtOH, Me_2CO , alkalis; insol. CCl_4 , H_2O .

Gusev, S.J. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 279.

1-(2-Benzothiazolylazo)-2-naphthalenol,**B-00098****9CI**2-(2-Hydroxy-1-naphthylazo)benzothiazole
[3012-50-8] $C_{17}H_{11}N_3OS$ M 305.359

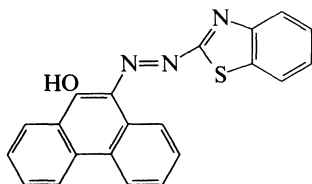
Used as a 1mM soln. in dioxan for photometric detn. of Zn. Orange-red cryst.

Kawase, A., *Talanta*, 1965, **12**, 195 (detn, Zn)Kawase, A., *Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 56 (detn, Zn)Used as a 1mM soln. in Me_2CO for photometric detn. of Cd, Cu (λ_{max} 635 nm), Ni (λ_{max} 628 nm); metallochromic indicator for titrimetric detn. of Cu; acid-base indicator. Green cryst. (MeOH). Mp 183-185°.

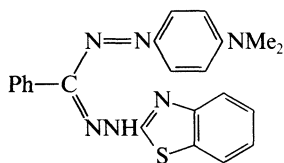
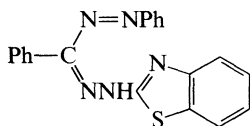
[21542-41-6]

Kawase, A., *Bunseki Kagaku (Jpn. Anal.)*, 1967, **16**, 1364 (synth)Bednyagina, N.P. et al, *Khim. Geterotsikl. Soedin.*, 1968, 902 (synth)Kholevinskaya, L.V. et al, *Zh. Anal. Khim.*, 1969, **24**, 1756.Kiyokawa, M. et al, *Bunseki Kagaku (Jpn. Anal.)*, 1972, **21**, 244 (detn, Cu)**10-(2-Benzothiazolylazo)-9-phenanthrenol****B-00099**

[25058-64-4]

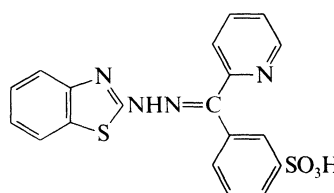
 $C_{21}H_{13}N_3OS$ M 355.419Incorr. descr. by CA as 1-(2-benzothiazolylazo)-9-phenanthrenol. Used as a 1mM soln. in dioxan for photometric detn. of Co (λ_{max} 560 nm, ϵ 50000); for extraction-photometric detn. of Cu, Zn. Dark red cryst. powder. Sol. EtOH, Me_2CO ; insol. H_2O .Kawase, A., *Bunseki Kagaku (Jpn. Anal.)*, 1969, **18**, 463 (detn, Cu, Zn)Okawa, S. et al, *Bunseki Kagaku (Jpn. Anal.)*, 1982, **31**, 373.**5-(2-Benzothiazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan****B-00100**

[32003-70-6]

 $C_{22}H_{20}N_6S$ M 400.506Used as a 1mM soln. in Me_2CO for photometric detn. of Cd. Brown cryst. (MeOH aq.). Sol. Me_2CO , EtOH, $CHCl_3$, C_6H_6 , CCl_4 , DMF.Holevinskaya, L.M. et al, *Zh. Anal. Khim.*, 1969, **24**, 1756 (detn, Cd)**5-(2-Benzothiazolyl)-1,3-diphenylformazan, 8CI****B-00101**1-(2-Benzothiazolyl)-3,5-diphenylformazan
[21326-44-3] $C_{20}H_{15}N_5S$ M 357.438**3-[(2-Benzothiazolylhydrazono)-2-pyridinylmethyl]benzenesulfonic acid,****B-00102****9CI**

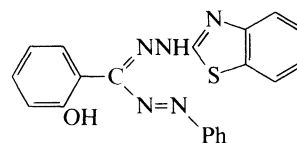
(2-Pyridyl)(-3-sulfophenyl)methanone 2-benzothiazolylhydrazone

[94787-51-6]

 $C_{19}H_{14}N_4O_3S_2$ M 410.477Used as 0.01M soln. in 0.01M NaOH for photometric detn. of Fe(II) (λ_{max} 409 nm, ϵ 35000), Cu, Co, Cd, Ni, Zn. Cryst. (EtOH aq.). Sol. alkalis, EtOH. Mp 280° dec.Aita, T. et al, *Analyst (London)*, 1984, **109**, 1139 (synth, use)**5-(2-Benzothiazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan****B-00103**

2-[5-(2-Benzothiazolyl)-1-phenylformazanyl]phenol, 9CI

[62164-46-9]

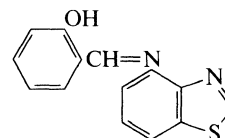
 $C_{20}H_{15}N_5OS$ M 373.437Used as 1mM EtOH soln. for photometric detn. of Hg(II) (λ_{max} 520 nm, ϵ 25000, pH 6-9, 40% EtOH). Cryst. Sol. EtOH, Me_2CO .

2-Me ether: [62164-47-0]. 5-Benzothiazolyl-3-(2-methoxyphenyl)-1-phenylformazan

 $C_{21}H_{17}N_5OS$ M 387.464Used as 1mM EtOH soln. for photometric detn. of Hg(II) (λ_{max} 490 nm, ϵ 18500, pH 5-6, EtOH). Cryst. Sol. EtOH, Me_2CO .Dubinina, L.V. et al, *Zh. Anal. Khim.*, 1978, **33**, 1547 (synth, detn, Hg)**2-[(4-Benzothiazolylimino)methyl]phenol,****B-00104****9CI**

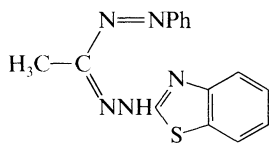
4-N-Salicylidenaminobenzothiazole

[41228-94-8]



$C_{14}H_{10}N_2OS$ M 254.312
Used for fluorimetric detn. of Zn. Cryst.
Shimidzu, N. *et al*, *Chem. Pharm. Bull.*, 1973, **21**, 184, 762 (*detn. Zn*)

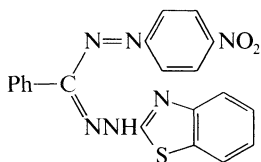
5-(2-Benzothiazolyl)-3-methyl-1-phenylformazan, 8CI
[26705-82-8]



$C_{15}H_{13}N_5S$ M 295.367
Used as a 1mM soln. in Me_2CO for photometric detn. of Cd. Orange-yellow cryst. (MeOH aq.). Sol. Me_2CO , EtOH, $CHCl_3$, C_6H_6 , CCl_4 , DMF. Mp 108-110°.

Bednyagina, N.P. *et al*, *Khim. Geterotsykl. Soedin.*, 1969, 877 (*synth*)
Holevinskaya, L.M. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1756 (*detn. Cd*)

5-(2-Benzothiazolyl)-1-(4-nitrophenyl)-3-phenylformazan
[16586-60-0]

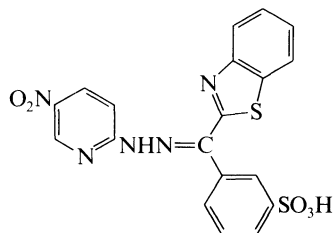


$C_{20}H_{14}N_6O_2S$ M 402.436
Used as a 1mM soln. in Me_2CO for photometric detn. of Cd. Brown cryst. (MeOH aq.). Sol. Me_2CO , EtOH, $CHCl_3$, C_6H_6 , CCl_4 , DMF. Mp 213-214°.

Bednyagina, N.P. *et al*, *Khim. Geterotsykl. Soedin.*, 1967, 342 (*synth*)
Holevinskaya, L.M. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1756 (*detn. Cd*)

3-[2-Benzothiazolyl](5-nitro-2-pyridinyl)hydrazono[methyl]benzenesulfonic acid, 9CI

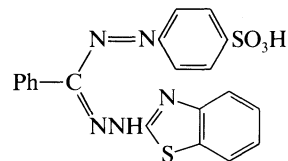
α -(2-Benzothiazolyl)- α -(5-nitro-2-pyridyl)hydrazono-3-toluenesulfonic acid
[132499-96-8]



$C_{19}H_{13}N_5O_5S_2$ M 455.474
Used as 1mM soln. in 0.01M NaOH for photometric detn. of Co (λ_{max} 538 nm, ϵ 58000), Cu(II), Fe(II), Ni, Zn. Cryst. Sol. H_2O , EtOH, DMF, alkalis. Mp 315° dec. pK_{a4} 1.32; pK_{a5} 10.7.

Kohata, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1990, **63**, 3398 (*synth, use*)
Ishii, H. *et al*, *Anal. Chim. Acta*, 1991, **244**, 223 (*detn. Co*)

1-(2-Benzothiazolyl)-3-phenyl-5-(4-sulfophenyl)formazan B-00108
4-[1-(2-Benzothiazolyl)-3-phenyl-5-formazano]benzenesulfonic acid, 9CI

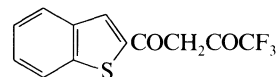


$C_{20}H_{15}N_5O_3S_2$ M 437.502
Na salt: [37829-05-3].

Used as metallochromic indicator for titrimetric detn. of Cu. Dark violet needles (MeOH). Sol. H_2O , EtOH. pK_{a2} 1.63; pK_{a3} 8.25 (30°).

Matsushima, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1971, **20**, 1310 (*synth. detn. Cu*)

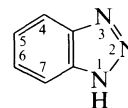
1-Benzo[b]thien-2-yl-4,4,4-trifluoro-1,3-butanedione, 9CI B-00109
3-Thionaphthyltrifluoroacetone
[399-80-4]



$C_{12}H_7F_3O_2S$ M 272.247
Used as a 2-10% soln. in EtOH for extraction separation of Hf, Zr, extraction-photometric detn. of Ce(IV) (λ_{max} 424 nm), Cr(III), Cu ($CHCl_3$), Fe(III), Hf, U (λ_{max} 408 nm, ϵ 17000), Zr. Cryst. Sol. EtOH. Mp 58-59°.

Gerard, J. *et al*, *Mikrochim. Acta*, 1969, 724 (*detn. Fe, synth*)
Holland, W.J. *et al*, *Mikrochim. Acta*, 1970, 297 (*detn. Ce*)
Johnston, J.R. *et al*, *Mikrochim. Acta*, 1971, 886; 1972, 126, 321, 608 (*detn. U, Cu, Cr, Hf, Zr*)

1H-Benzotriazole B-00110
Aziminobenzene (obsol.). *Azimidobenzene (obsol.)*
[95-14-7]



$C_6H_5N_3$ M 119.126
Used for pptn. separation and gravimetric detn. of Cd, Co, Ni, Zn. The benzotriazolyl group is an extremely versatile substituent showing props. of leaving group, electron donor and ability to promote adjacent proton loss. Needles (C_6H_6). Sol. C_6H_6 . Mp 100°. pK_{a1} 1.6; pK_{a2} 8.64 (20°).

► Mod. toxic. Can detonate during vac. dist.. DM1225000.

N-Ac: [18773-93-8].

$C_8H_7N_3O$ M 161.163
Mp 51°.

N-Benzoyl: [4231-62-3].

$C_{13}H_9N_3O$ M 223.234
Mp 112°.

l-Et:

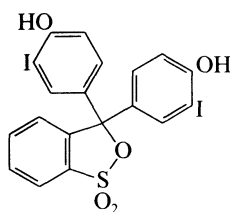
$C_8H_9N_3$ M 147.179
Bp₁₀ 150°.

l-Benzyl:

$C_{13}H_{11}N_3$ M 209.250
Plates (MeOH). Mp 114-115°.

Cheng, K.L., *Anal. Chem.*, 1954, **26**, 1036 (use)
Boyer, J.H., *Heterocycl. Compd.*, (Elderfield, R.C., Ed.), 1961, **7**, 384 (rev)
Hibbits, J.O. et al, *Talanta*, 1961, **8**, 104 (detr. Cd)
Carbon, J.A., *J. Org. Chem.*, 1962, **27**, 185 (synth)
Sharma, H.L., *Bull. Chem. Soc. Jpn.*, 1965, **38**, 1086 (use)
Rees, C.W. et al, *J. Chem. Soc., Chem. Commun.*, 1971, 532.
Katritzky, A.R. et al, *J. Chem. Soc., Perkin Trans. 1*, 1987, 781 (derivs)
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 576.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 193.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BDH250.

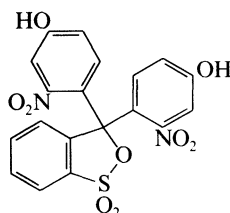
4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2-iodophenol] S,S-dioxide B-00111
3,3'-Diiodophenolsulfonephthalein



$C_{19}H_{12}I_2O_5S$ M 606.176
Acid-base indicator (pH range: 5.7 - 7.3; colour change: yellow → purple) used as aq. soln. Cryst. (AcOH). Sol. H_2O .

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 116.

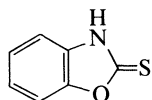
4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[3-nitrophenol] S,S-dioxide B-00112
3,3'-Dinitrophenolsulfonephthalein



$C_{19}H_{12}N_2O_9S$ M 444.378
Acid-base indicator (pH range: 2.6 - 3.9; colour change: yellow → violet, pH range: 11.5-14, colour change violet → yellow). Light yellow cryst. Sol. H_2O . Mp 187-188°.

Nagase, Y. et al, *CA*, 1960, **50**, 14648a.

2(3H)-Benzoxazolethione, 9Cl B-00113
2-Benzoxazolinethione, 8Cl
[2382-96-9]



C_7H_5NOS M 151.189
Reagent for prepn. of sulfides. Used as 0.15% soln. in aq. dioxan for photometric detn. of Os, Pd. Needles (H_2O). Spar. sol. H_2O , EtOH. Mp 196°. pK_a 6.33 (25°). HCl at 170° → CO_2 + H_2S + 2-Aminophenol.

▷ DM4882500.

NH-form

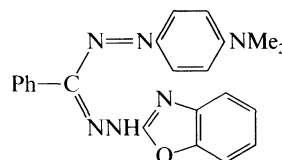
3-Ac: [37441-95-5].
 $C_9H_7NO_2S$ M 193.226
Plates. Mp 117°.
3-Me: [13673-63-7].
 C_8H_7NOS M 165.215
Needles (EtOH). Mp 132°.
3-Et: [40888-01-5].
 C_9H_9NOS M 179.242
Cryst. (C_6H_6). Mp 112°.
3-Benzyl: [87707-51-5].
 $C_{14}H_{11}NOS$ M 241.313
Cryst. (C_6H_6). Mp 167-169.5°.

SH-form

S-Me:
 C_8H_7NOS M 165.215
Cryst. + $1H_2O$. Mp 30° (hydrate), Mp 8° (anhyd.). Bp₂₀ 148-150°.
S-Et:
 C_9H_9NOS M 179.242
Bp_{4,5,5} 114-115°.
S-Ph:
 $C_{13}H_9NOS$ M 227.286
Yellow oil. Bp₁₄ 195-196°.

Kalckhoff, H., *Ber.*, 1883, **16**, 1825.
Fry, D.J. et al, *J. Chem. Soc.*, 1951, 1716, 1723.
Zinner, H. et al, *Chem. Ber.*, 1956, **89**, 1012.
Arita, T. et al, *Anal. Chim. Acta*, 1963, **29**, 500 (detr. Pd)
Groth, F., *Acta Chem. Scand.*, 1973, **27**, 945 (cryst struct)
DeJongh, D.C., *Adv. Mass Spectrom.*, 1974, **6**, 99 (ms)
Lowakina, L.N. et al, *Zh. Anal. Khim.*, 1978, **33**, 527 (detr. Os)
Yamato, M. et al, *Chem. Pharm. Bull.*, 1983, **31**, 1733 (derivs)
Sih, J.C. et al, *J. Org. Chem.*, 1983, **48**, 3842 (use)
Sugimoto, H. et al, *J. Org. Chem.*, 1988, **53**, 2263 (synth)

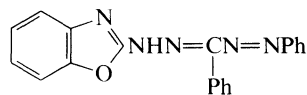
5-(2-Benzoxazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, 8Cl B-00114
[32003-74-0]



$C_{22}H_{20}N_6O$ M 384.440
Used as a 1 mM soln. in Me_2CO for photometric detn. of Cd. Brown cryst. (MeOH aq.). Sol. Me_2CO , EtOH, $CHCl_3$, C_6H_6 , CCl_4 , DMF.

Holevinskaya, L.M. et al, *Zh. Anal. Khim.*, 1969, **24**, 1756 (detr. Cd)

5-(2-Benzoxazolyl)-1,3-diphenylformazan, 9Cl B-00115
[21326-47-6]

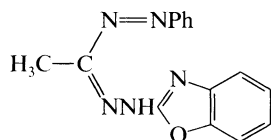


$C_{20}H_{15}N_5O$ M 341.371
Used as a 1mM soln. in Me_2CO for photometric detn. of Cd (λ_{max} 610 nm, ϵ 46700). Reddish-brown cryst. powder. Sol. EtOH, C_6H_6 , Me_2CO , $CHCl_3$, CCl_4 ; insol. H_2O .

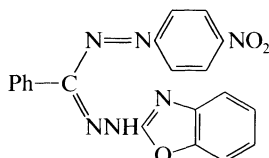
Holevinskaya, L.M. et al, *Zh. Anal. Khim.*, 1975, **30**, 265.

5-(2-Benzoxazolyl)-3-methyl-1-phenylformazan, 8CI

[26705-85-1]

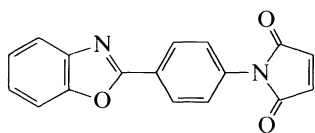
 $C_{15}H_{13}N_5O$ M 279.301Used as a 1 mM soln. in Me_2CO for photometric detn. of Cd. Red cryst. (EtOH aq.). Sol. Me_2CO , EtOH, $CHCl_3$, C_6H_6 , CCl_4 , DMF. Mp 160-162°.Bednyagina, N.P. *et al*, *Khim. Geterotsikl. Soedin.*, 1969, 877 (synth)Holevinskaya, L.M. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1756 (detn, Cd)**5-(2-Benzoxazolyl)-1-(4-nitrophenyl)-3-phenylformazan**

[16586-65-5]

 $C_{20}H_{14}N_6O_3$ M 386.369Used as a 1 mM soln. in Me_2CO for photometric detn. of Cd. Brown cryst. (MeOH aq.). Sol. Me_2CO , EtOH, $CHCl_3$, C_6H_6 , CCl_4 , DMF. Mp 174-175°.Bednyagina, N.P. *et al*, *Khim. Geterotsikl. Soedin.*, 1967, 342 (synth)Holevinskaya, L.M. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1756 (detn, Cd)**1-[4-(2-Benzoxazolyl)phenyl]-1H-pyrrole-2,5-dione, 9CI**

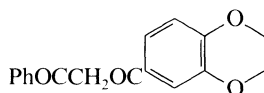
N-[4-(2-Benzoxazolyl)phenyl]maleimide

[16707-41-8]

 $C_{17}H_{10}N_2O_3$ M 290.278Fluorescent label for thiol groups. Yellow cryst. (Me_2CO). Mp 208-210°.Kanaoka, Y. *et al*, *Chem. Pharm. Bull.*, 1967, **15**, 1738; 1968, **16**, 1747 (synth, use)Papadakis, N. *et al*, *Biochemistry*, 1977, **16**, 1890 (use)Miners, J.O. *et al*, *J. Chromatogr.*, 1983, **275**, 89 (use)**6-(Benzoylacetyl)-1,4-benzodioxan**

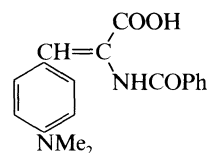
1-(1,4-Benzodioxan-6-yl)-3-phenyl-1,3-propanedione, 8CI

[5533-81-3]

 $C_{17}H_{14}O_4$ M 282.295**B-00116**Used for photometric detn. of Ti. Cryst. (EtOH). Sol. EtOH, Me_2CO , C_6H_6 ; insol. H_2O .Ramonaitė, S. *et al*, *CA*, 1970, **73**, 31302m.**2-(Benzoylamino)-3-[4-(dimethylamino)phenyl]-2-propenoic acid, 9CI**

p-Dimethylaminobenzylidene-N-benzoylaminoacetic acid

[3626-95-7]

 $C_{18}H_{18}N_2O_3$ M 310.352

Used as a 0.02mM aq. soln. for catalytic fluorimetric detn. of Cu. Cryst. Sol. alkalis.

Kreingold, S.M., *Zh. Anal. Khim.*, 1963, **18**, 942 (detn, Cu)**2-[(Benzoylamino)thioxomethyl]amino]benzoic acid, 9CI**

o-(2-Benzoylthioureido)benzoic acid

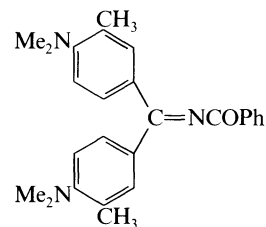
[13277-24-2]

 $C_{15}H_{12}N_2O_3S$ M 300.337

Used as a 1% soln. in EtOH for photometric detn. of Os. Cryst. (EtOH). Sol. EtOH. Mp 160°.

Douglas, I.B. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 719 (synth)Majumdar, A.K. *et al*, *Anal. Chim. Acta*, 1966, **35**, 479 (use)**Benzoylauramine G**

N-[Bis[4-(dimethylamino)-3-methylphenyl]methylene]benzamide

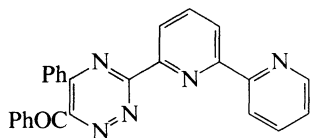
 $C_{26}H_{29}N_3O$ M 399.535

Acid-base indicator (pH range 5.0-5.6; colour change: violet → pale yellow). As a 0.25% soln. in MeOH.

Yellow needles (PhCl). Sol. EtOH, C_6H_6 , Me_2CO ; insol. H_2O . Mp 177-178°.Scanlan, J.T. *et al*, *Ind. Eng. Chem., Anal. Ed.*, 1935, **7**, 125; *CA*, **29**, 2875b.**B-00119**

6-Benzoyl-3-(2,2'-bipyridin-6-yl)-5-phenyl-1,2,4-triazine **B-00123**

(3-[2,2'-Bipyridin-6-yl]-5-phenyl-1,2,4-triazin-6-yl) phenylmethanone, 9CI
[37004-76-5]



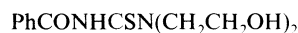
$C_{26}H_{17}N_5O$ M 415.453

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 608 nm, ϵ 11200). Cryst. (2-methoxyethanol). Sol. common org. solvs. Mp 194°.

Case, F.H., *J. Heterocycl. Chem.*, 1972, **9**, 457 (synth)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (detn. Fe)

N'-Benzoyl-N,N-[bis(2-hydroxyethyl)]thiourea **B-00124**

N-[[Bis(2-hydroxyethyl)amino]thioxomethyl]benzamide, 9CI
[56003-84-0]



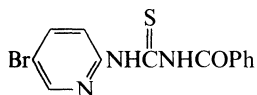
$C_{12}H_{16}N_2O_3S$ M 268.336

Used as a 1% soln. in EtOH for photometric detn. of Os(VIII). Cryst. (EtOH). Sol. EtOH, Me_2CO ; spar. sol. H_2O .

Bhaval, S.K., *Indian J. Chem.*, 1975, **13**, 92 (detn. ??)

N-Benzoyl-N'-(5-bromo-2-pyridyl)thiourea **B-00125**

N-[[5-Bromo-2-pyridinyl]amino]thioxomethyl]benzamide, 9CI
[31430-37-2]



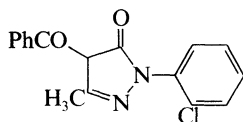
$C_{13}H_{10}BrN_3OS$ M 336.211

Used for extraction-photometric detn. of Ir, Pd, Ru; photometric detn. of Os (λ_{max} 630 nm, ϵ 36000). Cryst. (EtOH). Sol. EtOH, C_6H_6 , Me_2CO ; spar. sol. H_2O .

Das, D.K. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **286**, 249.
Shome, Y. *et al*, *CA*, 1981, **94**, 18494c (use)

4-Benzoyl-2-(2-chlorophenyl)-2,4-dihydro-5-methyl-3H-pyrazol-3-one **B-00126**

[125670-26-0]



$C_{17}H_{13}ClN_2O_2$ M 312.755

Used as 0.01M cyclohexane soln. for extraction separation of Zn. Cryst. (dioxan aq., MeOH). Sol. cyclohexane, MeOH, dioxan. Mp 130.5°. pK_{a1} 3.45.

Ozaki, T. *et al*, *Anal. Chim. Acta*, 1989, **226**, 187 (synth, detn. Zn)

4-Benzoyl-2-(4-chlorophenyl)-2,4-dihydro-5-methyl-3H-pyrazol-3-one **B-00127**

[125670-60-2]

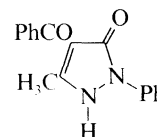
$C_{17}H_{13}ClN_2O_2$ M 312.755

Used as 0.01M cyclohexane soln. for extraction separation of Zn. Cryst. (dioxan aq., MeOH). Sol. cyclohexane, MeOH, dioxan. Mp 143.5°. pK_{a1} 3.64.

Ozaki, T. *et al*, *Anal. Chim. Acta*, 1989, **226**, 187 (synth, detn. Zn)

4-Benzoyl-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one **B-00128**

4-Benzoyl-3-methyl-1-phenyl-5-pyrazolone
[4551-69-3]



$C_{17}H_{14}N_2O_2$ M 278.310

Used as a 0.1% soln. in CHCl_3 /butanol for photometric detn. of V, extraction-photometric detn. of Fe(III), (λ_{max} 500 nm ϵ 4950, CHCl_3), Ca, U(IV), Li and rare earths; as 0.01M C_6H_6 soln. for extraction separation of Lu(III). Cream cryst. (MeOH aq.). Sol. EtOH, C_6H_6 , Me_2CO , CHCl_3 , dioxan, cyclohexane, heptane. Mp 120°. Mp 92-92.5°. pK_{a1} 8.1.

Jensen, B.S. *et al*, *Acta Chem. Scand.*, 1959, **13**, 1668 (synth)
Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 659 (synth, detn. Ca)

Chmutova, M.K. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 711 (sepn, Fe)

Rao, G.N. *et al*, *Microchem. J.*, 1976, **21**, 1 (detn, Fe)

Nurtaeva, A.K. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 1735 (detn, rare earths)

Akama, Y. *et al*, *Analyst (London)*, 1981, **106**, 250 (detn. V)

Talavera Coronel, F. *et al*, *Talanta*, 1982, **29**, 119 (detn, U)

Umetani, S. *et al*, *Talanta*, 1987, **34**, 779 (detn, Li)

Mukai, H. *et al*, *Anal. Chim. Acta*, 1990, **239**, 277 (synth, use)

 β -Benzoyl- α -(ethanol)thiourea **B-00129**

N-[[2-Hydroxyethyl]amino]thioxomethyl]benzamide, 9CI. N-Benzoyl-N'-(2-hydroxyethyl)thiourea
[29146-60-9]



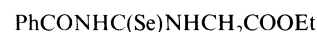
$C_{10}H_{12}N_2O_3S$ M 224.283

Used as a 1% soln. in EtOH for photometric detn. of Os(VIII). Cryst. (EtOH). Sol. EtOH, Me_2CO ; spar. sol. H_2O . Mp 128°.

Bhaval, S.K., *Indian J. Chem.*, 1975, **13**, 92 (detn. Os)

N-Benzoyl-N'-(ethoxycarbonylmethyl)selenourea **B-00130**

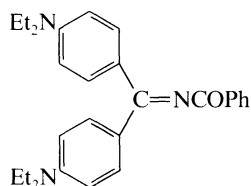
N-(Benzoylselenocarbamoyl)glycine ethyl ester, 8CI
[14205-33-5]



$C_{12}H_{14}N_2O_3\text{Se}$ M 313.214

Used as a 0.1% soln. in CS_2 for photometric detn. of Pd. Cryst. (EtOH). Sol. EtOH, C_6H_6 . Mp 133-134°.

Bendito, D., *Fresenius' Z. Anal. Chem.*, 1967, **231**, 315 (synth, use)

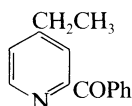
Benzoylethylauramine**B-00131***N*-[Bis[4-(diethylamino)phenyl]methylene]benzamide $C_{28}H_{33}N_3O$ M 427.588Used as acid-base indicator (pH range 4.0-5.2; colour change: blue→yellow). Yellow needles (MeOH). Sol. EtOH, C_6H_6 , Me_2CO ; insol. H_2O . Mp 165°.Reid, J.D. *et al.* *J. Am. Chem. Soc.*, 1936, **58**, 1430.Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 334 nm, ϵ 12100, EtOH aq.), Cu(I) (λ_{max} 422 nm, ϵ 8400, EtOH aq.), extraction-photometric detn. of Fe(II) (λ_{max} 546 nm, ϵ 15900, isopentanol). Cryst. (C_6H_6). Sol. EtOH. Mp 163-164°.

[18150-09-9, 58088-24-7]

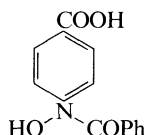
Case, F.H. *et al.* *J. Heterocycl. Chem.*, 1968, **5**, 161 (*synth*)
Schilt, A. *et al.* *Talanta*, 1969, **16**, 448 (*detn. Co, Cu, Fe*)**2-Benzoyl-4-ethylpyridine****B-00132**

4-Ethyl-2-pyridinylphenylmethanone

[18103-79-2]

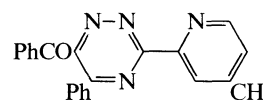
 $C_{14}H_{13}NO$ M 211.263Liq. Bp₃ 172-176°.*Oxime* (E-): [18150-10-2].Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 341 nm, ϵ 12400, EtOH aq.), Cu(I) (λ_{max} 425 nm, ϵ 10000, EtOH aq.), extraction-photometric detn. of Fe(II) (λ_{max} 548 nm, ϵ 16500, isopentanol). Cryst. (C_6H_6 /pet. ether). Sol. EtOH. Mp 134-135°.*Oxime* (Z-): [18150-11-3].Cryst. (C_6H_6). Mp 150-151°.

[58088-26-9]

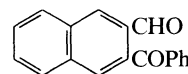
Case, F.H. *et al.* *J. Heterocycl. Chem.*, 1968, **5**, 161 (*synth*)Schilt, A. *et al.* *Talanta*, 1969, **16**, 448 (*detn. Co, Cu, Fe*)**4-(Benzoylhydroxyamino)benzoic acid, 9CI****B-00133** $C_{14}H_{11}NO_4$ M 257.245*Me ester*: [67467-52-1]. $C_{15}H_{13}NO_4$ M 271.272Used as 2mM $CHCl_3$ soln. for extraction-photometric detn. of Co, Cu(I), Fe(II, III), Ti, V(V) (pH ~5).Cryst. Sol. $CHCl_3$, EtOH. p*K*_a 8.12.Vernon, F. *et al.* *Anal. Chim. Acta*, 1978, **98**, 349 (*synth, use*)**6-Benzoyl-3-(4-methyl-2-pyridyl)-5-methyl-1,2,4-triazine****B-00136**

[3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazin-6-yl]phenylmethanone, 9CI

[37004-74-3]

 $C_{22}H_{16}N_4O$ M 352.395Used as a 5mM soln. in EtOH aq. for photometric detn. of Cu(I) (λ_{max} 490 nm, ϵ 5900), Fe(II) (λ_{max} 572 nm, ϵ 23400). Cryst. (EtOH). Sol. common org. solvs. Mp 158-159°.Case, F.H., *J. Heterocycl. Chem.*, 1972, **9**, 457 (*synth*)Schilt, A.A. *et al.* *Talanta*, 1977, **24**, 685 (*detn. Cu, Fe*)**3-Benzoyl-2-naphthalenecarboxaldehyde, 9CI****B-00137**

[129762-84-1]

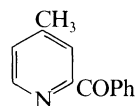
 $C_{18}H_{12}O_2$ M 260.292

Fluorogenic reagent for amino acids.

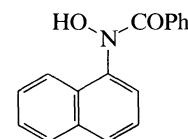
Hsieh, Y.Z. *et al.* *J. Microcolumn Sep.*, 1989, **1**, 96; *CA*, **113**, 164706n (*synth, use*)**2-Benzoyl-4-methylpyridine****B-00134**

4-Methyl-2-pyridinylphenylmethanone

[18103-77-0]

 $C_{13}H_{11}NO$ M 197.236Oil. Bp₃ 160-165°.*Oxime* (E-): [18150-08-8].***N*-Benzoyl-*N*-(1-naphthyl)hydroxylamine****B-00138***N*-Hydroxy-*N*-1-naphthalenylbenzamide, 9CI

[29556-18-1]



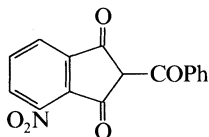
C₁₇H₁₃NO₂ M 263.295

Used as a 1% soln. in EtOH for pptn. of Al, Cu, Fe, Hf, Mn, Pb, Sn(II), Sn(IV), Ti, Zr. Cryst. Sol. common org. solvs.; spar. sol. H₂O (0.013 g per 100 cm³, 25°). Mp 164°.

Lutwick, G.D. *et al*, *Can. J. Chem.*, 1954, **32**, 949 (*use*)
Shendrikar, A.D. *et al*, *Talanta*, 1969, **16**, 51 (*use*)

2-Benzoyl-4-nitro-1*H*-indene-1,3(2*H*)-dione, 9CI

[52191-54-5]

C₁₆H₉NO₅ M 295.251

Used as a 5*mM* soln. in 0.1*M* NaOH for extraction-photometric detn. of Cu, Fe, U(VI). Sol. EtOH; spar. sol. H₂O. p*K*_{a1} 1.20 (0.1*M* HCl, 10% EtOH), p*K*_{a1} 1.27 (0.1*M* NaOH, 20% EtOH).

Apsitis, A.A. *et al*, *Zh. Obshch. Khim.*, 1981, **51**, 2577 (*synth*)
Apsitis, A.A. *et al*, *Latv. PSR Zinat. Akad. Vestis, Fiz. Teh. Zinat. Ser.*, 1983, 207; *CA*, **99**, 63418g (*use*)

2-Benzoyl-5-nitro-1*H*-indene-1,3(2*H*)-dione, 9CI

[52191-55-6]

C₁₆H₉NO₅ M 295.251

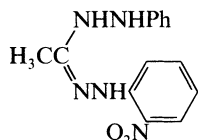
Used as a 5*mM* soln. in 0.1*M* NaOH for extraction-photometric detn. of Cu, Fe, U(VI). Sol. EtOH; spar. sol. H₂O. p*K*_{a1} 1.26 (0.1*M* HCl, 30% EtOH); p*K*_{a2} 1.42 (0.1*M* NaOH, 40% EtOH).

Apsitis, A.A. *et al*, *Zh. Obshch. Khim.*, 1981, **51**, 2577 (*synth*)
Apsitis, A.A., *CA*, 1983, **99**, 63418g (*use*)

2-Benzoyl-4-(2-nitrophenyl)acetohydrazine B-00141

N-(2-Nitrophenyl)ethanehydrazonic acid 2-phenylhydrazide, 9CI

[123132-59-2]

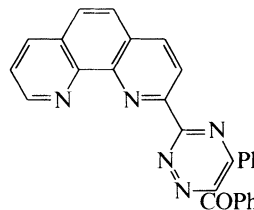
C₁₄H₁₅N₅O₂ M 285.305

Used as 0.006% Me₂CO soln. for photometric detn. of Ni (λ_{max} 580 nm). Brown-orange cryst. Sol. Me₂CO, MeOH, EtOH, dioxan, DMF.

Dudareva, G.N. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 883 (*synth, use*)**6-Benzoyl-3-(1,10-phenanthrolin-2-yl)-5-phenyl-1,2,4-triazine B-00142**

[3-(1,10-Phenanthrolin-2-yl)-5-phenyl-1,2,4-triazin-6-yl]phenylmethanone, 9CI

[37004-77-6]

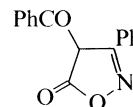
C₂₈H₁₇N₅O M 439.475

Used as a 5*mM* soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 623 nm, ε 9900). Cryst. (2-methoxyethanol). Sol. common org. solvs. Mp 182° (as monohydrate).

Case, F.H. *et al*, *J. Heterocycl. Chem.*, 1972, **9**, 457 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn. Fe*)

4-Benzoyl-3-phenyl-5(4*H*)-isoxazolone, 9CI B-00143

[41836-94-6]

C₁₆H₁₁NO₃ M 265.268

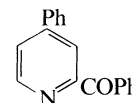
Used as 0.01*M* CHCl₃ soln. for extraction separation of Th from U(VI), La, Ce, Eu (pH 0.5-1). Cryst. Sol. CHCl₃.

Korte, F. *et al*, *Chem. Ber.*, 1961, **94**, 1956 (*synth*)
Jyothi, A. *et al*, *Talanta*, 1990, **37**, 431 (*use*)

2-Benzoyl-4-phenylpyridine B-00144

4-Phenyl-2-pyridinylphenylmethanone

[18103-82-7]

C₁₈H₁₃NO M 259.307Cryst. (C₆H₆/pet. ether). Mp 63-64°.

Oxime (E-): [18150-03-3].

Used as a 0.01*M* soln. in EtOH for photometric detn. of Co (λ_{max} 350 nm, ε 15600, EtOH aq.), Cu(I) (λ_{max} 441 nm, ε 13800, EtOH aq.), extraction-photometric detn. of Fe(II) (λ_{max} 556 nm, ε 25700, isopentanol). Cryst. (C₆H₆). Sol. EtOH. Mp 166-167°.

Oxime (Z-): [18150-04-4].

Cryst. (C₆H₆). Mp 186-187°.

Case, F.H. *et al*, *J. Heterocycl. Chem.*, 1968, **5**, 161 (*synth*)
Schilt, A. *et al*, *Talanta*, 1969, **16**, 448 (*detn. Co, Cu, Fe*)

2-Benzoyl-6-phenylpyridine B-00145

(6-Phenyl-2-pyridinyl)phenylmethanone

[18103-80-5]

C₁₈H₁₃NO M 259.307Cryst. (C₆H₆/pet. ether). Mp 65-66°.

Oxime: [18150-07-7].

C₁₈H₁₄N₂O M 274.321

Used as 0.01M soln. in EtOH for photometric detn. of Cu(I) (λ_{\max} 429 nm, ϵ 4900, EtOH). Cryst. (C₆H₆). Sol. EtOH. Mp 168-169°.

[58088-27-0]

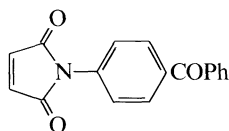
Case, F.H. *et al*, *J. Heterocycl. Chem.*, 1968, **5**, 161 (*synth*)
Schilt, A. *et al*, *Talanta*, 1969, **16**, 448 (*detn*, Cu)

1-(4-Benzoylphenyl)-1H-pyrrole-2,5-dione, B-00146

9CI

N-(4-Benzoylphenyl)maleimide. 4-Maleimidobenzophenone

[92944-71-3]



C₁₇H₁₁NO₃ M 277.279

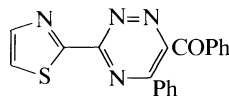
Reagent used in the anal. of mercapto compds., e.g. captopril.

Sanzhizhapov, D.B. *et al*, *CA*, 1984, **101**, 210913e (*synth*)
Japan. Pat., 59 204 171, (1984); *CA*, **102**, 113288t (*synth*)
Hayashi, K. *et al*, *J. Chromatogr.*, 1985, **338**, 161 (*use*)

6-Benzoyl-5-phenyl-3-(2-thiazolyl)-1,2,4-triazine B-00147

Phenyl[5-phenyl-3-(2-thiazolyl)-1,2,4-triazin-6-yl]methanone, 9CI

[37004-78-7]



C₁₉H₁₂N₄OS M 344.396

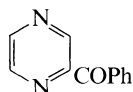
Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 562 nm, ϵ 5200). Cryst. (EtOH). Sol. common org. solvs. Mp 200-201°.

Case, F.H., *J. Heterocycl. Chem.*, 1972, **9**, 457 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn*, Fe)

Benzoylpyrazine B-00148

Phenylpyrazinylmethanone, 9CI

[3430-09-9]



C₁₁H₈N₂O M 184.197

Cryst. (diisopropyl ether). Mp 50-52°.

2-Pyrimidinylhydrazone: [73569-03-6].

C₁₅H₁₂N₆ M 276.300

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 498 nm, ϵ 22400), Cu(I) (λ_{\max} 441 nm, ϵ 18800), Fe(II) (λ_{\max} 425 nm, ϵ 26600), Ni (λ_{\max} 473 nm, ϵ 34200). Cryst. (C₆H₆). Sol. common org. solvs. Mp 226°.

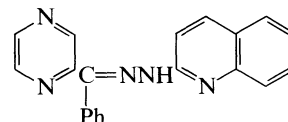
Grutzmacher, H.-F. *et al*, *Org. Mass Spectrom.*, 1979, **14**, 567 (*ms*)
Schilt, A. *et al*, *Talanta*, 1980, **27**, 55 (*synth*, *use*, *deriv*)
Hermann, C.K.F. *et al*, *J. Heterocycl. Chem.*, 1987, **24**, 1061 (*synth*)

Heinisch, G. *et al*, *Synthesis*, 1988, 119 (*synth*, *pmr*)

2-Benzoylpyrazine 2-quinolyldiazone B-00149

2(1H)-Quinolinone (phenylpyrazinylmethylene)hydrazone, 9CI

[82633-03-2]



C₂₀H₁₅N₅ M 325.372

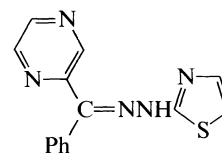
Used as 0.01M EtOH soln. for photometric detn. of Fe(II) (λ_{\max} 471 nm, ϵ 22200, pH 4), Ni (λ_{\max} 502 nm, ϵ 20600), Co, Cu(I). Cryst. (EtOH). Sol. EtOH. Mp 227°.

Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth*, *use*)

2-Benzoylpyrazine 2-thiazolylhydrazone B-00150

Phenylpyrazinylmethanone 2-thiazolylhydrazone

[73568-93-1]



C₁₄H₁₁N₅S M 281.340

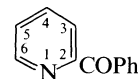
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 541 nm, ϵ 21800), Cu(I) (λ_{\max} 528 nm, ϵ 13500), Fe(II) (λ_{\max} 644 nm, ϵ 7000), Ni (λ_{\max} 508 nm, ϵ 34000). Cryst. (EtOH). Sol. common org. solvs. Mp 210° dec.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth*, *detn*, Co, Cu, Fe, Ni)

2-Benzoylpyridine B-00151

Phenyl-2-pyridinylmethanone, 9CI. Phenyl 2-pyridyl ketone, 8CI

[91-02-1]



C₁₂H₉NO M 183.209

d_4^{20} 1.156. Mp 42-44°. Bp 317°, Bp₁₀ 170-172°.

▷ OB6400000.

(E)-Oxime: [14178-31-5].

C₁₂H₁₀N₂O M 198.224

Cryst. Mp 165-167°.

(Z)-Oxime: [14178-30-4].

C₁₂H₁₀N₂O M 198.224

Used as 1% soln. in 95% EtOH for photometric detn. of Re (λ_{\max} 510 nm, ϵ 7250), Fe; simultaneous extraction-photometric detn. of Au(III) and Pd(II) (CHCl₃). Pale-yellow prisms. Sol. EtOH, MeOH, acids. Mp 150-152°.

(E)-Phenylhydrazone: Yellow needles. Mp 77°.

(Z)-Phenylhydrazone: Yellow cryst. (EtOH). Mp 136-137°.

Picrate: Cryst. (EtOH or Me₂CO). Mp 130°.

Hydrazone: [56009-91-7].

C₁₂H₁₁N₃ M 197.239

Used for photometric detn. of Fe(III) (λ_{\max} 480 nm, ϵ 9550); fluorimetric detn. of Cu(II) (λ_{\max} 435 nm, pH 9). Cryst. (EtOAc). Sol. EtOH, Et₂O, Me₂O, EtOAc; insol. H₂O.

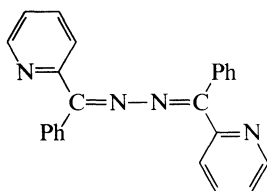
Tschitschibabin, A.E., *Chem. Zentralbl.*, 1902, **1**, 206.

Crook, K.E. *et al*, *J. Am. Chem. Soc.*, 1930, **52**, 4006.

Huntress, E.H. *et al*, *J. Am. Chem. Soc.*, 1948, **70**, 3702, 3703 (oxime, synth)
 Troysi-Grassellini, M., *CA*, 1959, **53**, 18588i (cryst struct)
 Guyon, J. *et al*, *Anal. Chem.*, 1964, **36**, 1058 (oxime, detn, Re)
 Chernin, R. *et al*, *Anal. Chem.*, 1964, **36**, 1093 (use, oxime, detn, Fe)
 Brown, E.V. *et al*, *Org. Mass Spectrom.*, 1972, **6**, 479 (ms)
 Graciani Constanta, E. *et al*, *An. Quim.*, 1974, **70**, 695
 Bhaskare, C.K. *et al*, *Anal. Chim. Acta*, 1974, **73**, 405 (oxime, use)
 Shapiro, B.L. *et al*, *J. Phys. Chem. Ref. Data*, 1977, **6**, 919 (pmr)
 Grases, F. *et al*, *Anal. Chim. Acta*, 1981, **125**, 21 (hydrazone, synth, detn, Cu)

2-Benzoylpyridine azine **B-00152**

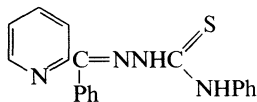
Phenyl-2-pyridinylmethanone (phenyl-2-pyridinylmethylene) hydrazone, 9CI. *Phenyl-2-pyridyl ketone azine*
 [30742-81-5]



$C_{24}H_{18}N_4$ M 362.433
 Used as a 0.1% soln. in EtOH for photometric detn. of Pd (λ_{max} 425 nm, ϵ 10400), Fe (λ_{max} 630 nm). Cryst.
 Luque de Castro, M.D. *et al*, *An. Quim.*, 1976, **72**, 382 (detn, Fe)
 Luque de Castro, M.D. *et al*, *Quim. Anal. (Barcelona)*, 1977, **31**, 141 (detn, Fe)
 Garcia-Vargas, M. *et al*, *Microchem. J.*, 1978, **23**, 366 (detn, Pd)

2-Benzoylpyridine phenylthiosemicarbazone **B-00153**

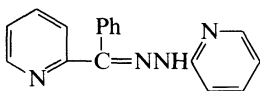
N-Phenyl-2-(phenyl-2-pyridinylmethylene) hydrazinecarbothioamide
 [65518-40-3]



$C_{19}H_{16}N_4S$ M 332.428
 Used as 0.1% soln. in DMF for extraction-photometric detn. of Fe(II) (λ_{max} 670 nm, ϵ 11000), Fe(III) (λ_{max} 395 nm, ϵ 27000). Yellow cryst. (EtOH). Sol. $CHCl_3$; spar. sol. H_2O ; mod. sol. alkalis, acids. Mp 152-154°.
 Martinez-Aguilar, M.T. *et al*, *Mikrochim. Acta*, 1977, **II**, 631.

2-Benzoylpyridine 2-pyridylhydrazone **B-00154**

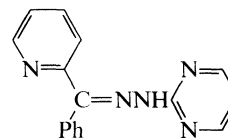
Phenyl-2-pyridyl ketone 2-pyridylhydrazone, 8CI
 [24929-06-4]



$C_{17}H_{14}N_4$ M 274.324
 Used as a 0.02M soln. in dil. HCl for photometric detn. of Co, Cu, Ni, Zn. Pale yellow cryst. (EtOH). Sol. EtOH, C_6H_6 , acids; insol. H_2O . Mp 113-114°.
 Going, I.E. *et al*, *Anal. Chem.*, 1970, **42**, 1098.

2-Benzoylpyridine 2-pyrimidinylhydrazone **B-00155**

Phenyl-2-pyridinylmethanone 2-pyrimidinylhydrazone, 9CI
 [73569-01-4]

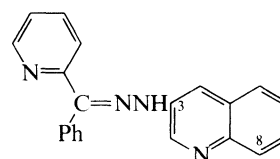


$C_{16}H_{13}N_5$ M 275.312
 Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 435 nm, ϵ 10300). Cryst. (MeOH). Sol. common org. solvents. Mp 195°.

Schilt, A. *et al*, *Talanta*, 1980, **27**, 55 (synth, detn, Cu)

2-Benzoylpyridine 3-quinolyhydrazone **B-00156**

Phenyl-2-pyridinylmethanone 3-quinolinylhydrazone, 9CI
 [82633-06-5]



$C_{21}H_{16}N_4$ M 324.384
 Used as a 0.01M soln. in 0.05M HCl in EtOH for photometric detn. of Cu(I) (λ_{max} 463 nm, ϵ 4900). Cryst. (MeOH). Sol. common org. solvents. Mp 180°.

Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (synth, detn, Cu)

2-Benzoylpyridine 8-quinolyhydrazone **B-00157**

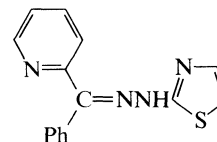
Phenyl-2-pyridinylmethanone 8-quinolinylhydrazone, 9CI.
 [(2-Pyridyl)phenyl]-N-8-quinolyhydrazone
 [82633-10-1]

$C_{21}H_{16}N_4$ M 324.384
 Used as a 0.01M soln. in 0.05M HCl in EtOH for photometric detn. of Co (λ_{max} 569 nm, ϵ 20000, pH 7), Cu(I), Fe(II). Cryst. (MeOH). Sol. common org. solvents. Mp 145°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 338 (synth, use)

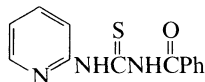
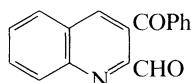
2-Benzoylpyridine 2-thiazolylhydrazone **B-00158**

Phenyl-2-pyridinylmethanone 2-thiazolylhydrazone, 9CI
 [73568-90-8]



$C_{15}H_{12}N_4S$ M 280.353
 Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 495 nm, ϵ 26700), Cu (I) (λ_{max} 476 nm, ϵ 17000), Fe(II) (λ_{max} 597 nm, ϵ 9200), Ni (λ_{max} 459 nm, ϵ 40400). Cryst. (MeOH). Sol. common org. solvs. Mp 164°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (synth, detn, Co, Cu, Fe, Ni)

N-Benzoyl-N'-(2-pyridyl)thiourea**B-00159**N-[[[(2-Pyridinyl)amino]thioxomethyl]benzamide, 9CI
[4921-86-2]C₁₃H₁₁N₃OS M 257.315Used as a 0.1mM or 1% soln. in EtOH for photometric detn. of Cu (λ_{\max} 430 nm, ϵ 3100); as 1% soln. in 30% AcOH for gravimetric and extraction-photometric detn. of Os, Ir, Rh (λ_{\max} 350 nm, ϵ 18000, CHCl₃). Cryst. Sol. Me₂CO, EtOH, CHCl₃, C₆H₆, H₂O, AcOH. Mp 144°.Das, M.K. *et al.* *Microchem. J.*, 1970, **15**, 540 (*detn.*, Cu)Wandalkar, D.N. *et al.* *Fresenius' Z. Anal. Chem.*, 1976, **280**, 220 (*detn.*, Os)Shome, S.C. *et al.* *J. Indian Chem. Soc.*, 1977, **54**, 599; 1980, **57**, 139 (*synth.*, *detn.*, Os)**3-Benzoyl-2-quinolinecarboxaldehyde, 9CI****B-00160**BQCA
[53326-91-3]C₁₇H₁₁NO₂ M 261.279

Used for fluorimetric detn. of amino acids and amines. Yellow cryst.

Beale, C.S. *et al.* *Anal. Chem.*, 1988, **60**, 1765 (*synth.*, *use*)Beale, C.S. *et al.* *Talanta*, 1989, **36**, 321 (*synth.*, *use*)**Benzoylthiourea****B-00161**Benzoylthiocarbamide
[614-23-3]C₈H₈N₂OS M 180.230

Used to enhance brightness in copper plating. Prisms (EtOH). Mp 172°.

▷ YS1450000.

N,N-Di-Ph: [70989-46-7]. N,N-Diphenyl-N'-benzoylthiourea

C₂₀H₁₆N₂OS M 332.425Used as toluene soln. for extraction separation of Pd(II). Cryst. (EtOH). Sol. toluene, C₆H₆, EtOH. Mp 151°.

N,N-Dihexyl: [80457-30-3]. N,N-Dihexyl-N'-benzoylthiourea

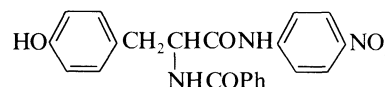
C₂₀H₃₂N₂OS M 348.552Used as toluene soln. for extraction separation of Pd, Pt, Ru, Rh. Cryst. (EtOH). Sol. toluene, C₆H₆, EtOH, CHCl₃, decane. Mp 59°.

N-Ph, N'-Thiobenzoyl: see N-[(Phenylamino)thioxomethyl]benzenecarbothioamide, P-00088

N-(2-Pyridyl), N'-Benzoyl: see N-Benzoyl-N'-(2-pyridyl)thiourea, B-00159

Chocholousek, J. *et al.* *CA*, 1962, **57**, 9587b (*use*)Bhattacharya, A.K., *J. Indian Chem. Soc.*, 1966, **43**, 742; *CA*, **67**, 21554g (*synth.*)Koenig, K.H. *et al.* *Fresenius' Z. Anal. Chem.*, 1985, **321**, 457 (*synth.*, *use*)Vest, P. *et al.* *Fresenius' Z. Anal. Chem.*, 1989, **335**, 759 (*deriv.*, *synth.*, *detn.*, Pd)**N-Benzoyltyrosine 4-nitroanilide****B-00162**

BTpNA

C₂₂H₁₉N₃O₅ M 405.409

(±)-form

Substrate for the detn. of chymotrypsin activity. Cryst. (EtOH aq.). Mp 227-228°.

Bundy, H.F., *Anal. Biochem.*, 1962, **3**, 431 (*synth.*)**Benzylamine, 8CI****B-00163**Benzenemethanamine, 9CI. α -Aminotoluene. Moringine
[100-46-9]C₇H₉N M 107.155Alkaloid from *Moringa oleifera* and *M. pterosperma* (Moringaceae). Reagent for gc anal. of alkyl isocyanates. d_4^{19} 0.983. Bp 185°, Bp₁₂ 90°. n_D^{20} 1.5401. Absorbs CO₂ from air.

▷ Highly irritant, causes burns.

B,HCl: [3287-99-8].

Mp 255-257°.

▷ DP5425000.

B,HBr: [37488-40-7].

Mp 204°.

B,HI: Leaflets. Mp 162°.

B,H₂SO₄: [2208-34-6].

Needles. Mp 93°.

Picrate: Mp 194°.

N-Benzoyl: [1485-70-7]. N-Benzylbenzamide

C₁₄H₁₃NO M 211.263

Leaflets. Mp 105-106°.

N-4-Methylbenzenesulfonyl: Mp 185°.

N-Me: [103-67-3].

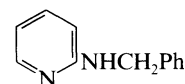
C₈H₁₁N M 121.182Minor constit. of Ma Huang (from *Ephedra* sp.). Bp 180-181°, Bp₁₄ 78°.N-Me; B,HCl: Needles (EtOH/Et₂O). Mp 178°.

N,N-Di-Me: [103-83-3].

C₉H₁₃N M 135.208Corrosive liq. Bp 181°, Bp₁₅ 66-67°. Steam-volatile.

▷ Flammable. DP4500000.

N,N-Di-Me; B,HCl: Mp 175°.

Chen, A.L. *et al.* *J. Am. Pharm. Assoc.*, 1931, **20**, 339 (*isol.*, *deriv.*)Chakravarti, R.N., *CA*, 1955, **50**, 16891f (*isol.*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 51.Witanowski, M. *et al.* *Can. J. Chem.*, 1969, **47**, 1321 (*nmr*)Egli, R.A., *Helv. Chim. Acta*, 1970, **53**, 47 (*synth.*)Lichter, R.L. *et al.* *J. Am. Chem. Soc.*, 1972, **94**, 2495 (*nmr*)Shapiro, M.J., *J. Org. Chem.*, 1976, **41**, 3197 (*cmr*)Knights, R.J. *et al.* *Anal. Biochem.*, 1977, **77**, 106 (*use*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 194.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*. 8th Ed., Van Nostrand-Reinhold, 1992, BDY000, DQP800.**2-Benzylaminopyridine****B-00164**2-[(Phenylmethyl)amino]pyridine
[6935-27-9]

C₁₂H₁₂N₂ M 184.240Used as 0.1M soln. in aq. HCl for photometric detn. of Nb. Cryst. (C₆H₆). Insol. H₂O; sol. acids, EtOH, Me₂CO, C₆H₆.Pilipenko, A.T. *et al.*, *Zh. Anal. Khim.*, 1970, **25**, 1330.**N-Benzylaniline****B-00165**

N-Phenylbenzenemethanamine, 9CI. N-Phenylbenzylamine, 8CI

[103-32-2]

PhNHCH₂PhC₁₃H₁₃N M 183.252Catalyst in cross-linking reactions. Used in extraction-separation of Ga, In, Tl(III), Mo, Re, Th, U. Granules (pet. ether). Mp 37-39°. Bp 306-307°, Bp₃₇ 201-203°.

B,HCl: [2290-89-3].

Mp 214-216°.

N-Ac: [6840-29-5].

C₁₅H₁₅NO M 225.290

Mp 58°.

N-Benzoyl: [19672-91-4].

C₂₀H₁₇NO M 287.360

Mp 107°.

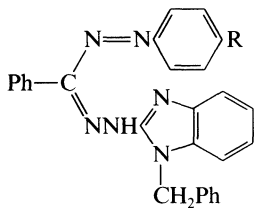
N-Nitroso: Phenylbenzyl nitrosamine

C₁₃H₁₂N₂O M 212.251

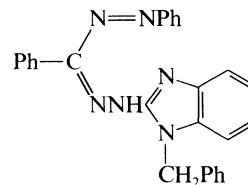
Yellow needles. Mp 58°.

Org. Synth., *Coll. Vol.*, 1, 1932, 102 (*synth*)Schellenberg, K.A., *J. Org. Chem.*, 1963, **28**, 3259 (*synth*)Eisch, J.J. *et al.*, *J. Org. Chem.*, 1966, **31**, 453 (*synth*, *ir*, *pmr*)Gagliardi, E. *et al.*, *Mikrochim. Acta*, 1968, 1259 (*detn*)Khosla, M.M. *et al.*, *Anal. Chim. Acta*, 1971, **54**, 315; 1972, **61**, 156 (*detn*, *Ga*, *Th*)Khosla, M.M. *et al.*, *Talanta*, 1974, **21**, 411 (*detn*, *Ga*, *In*, *Tl*)**5-(1-Benzyl-1H-benzimidazol-2-yl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan****B-00166**

[32003-67-1]

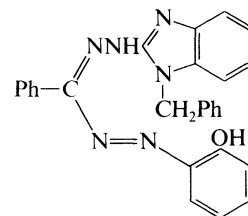
R = NMe₂C₂₉H₂₇N₇ M 473.579Used as a 1mM soln. in Me₂CO for photometric detn. of Cd. Brown cryst. (MeOH aq.). Sol. Me₂CO, EtOH, CHCl₃, C₆H₆, CCl₄, DMF.Holevinskaya, L.M. *et al.*, *Zh. Anal. Khim.*, 1969, **24**, 1756 (*detn*, *Cd*)**5-(1-Benzyl-1H-benzimidazol-2-yl)-1,3-diphenylformazan****B-00167**

[21326-41-0]

C₂₇H₂₂N₆ M 430.511Used as a 1mM soln. in Me₂CO for photometric detn. of Cd. Brown cryst. (pet. ether/heptane). Sol. Me₂CO, EtOH, CHCl₃, C₆H₆, CCl₄, DMF. Mp 70-72°.Bednyagina, N.P. *et al.*, *Khim. Geterotsikl. Soedin.*, 1968, 902 (*synth*)Holevinskaya, L.M. *et al.*, *Zh. Anal. Khim.*, 1969, **24**, 1756 (*detn*, *Cd*)**5-(1-Benzyl-2-benzimidazolyl)-1-(2-hydroxyphenyl)-3-phenylformazan****B-00168**

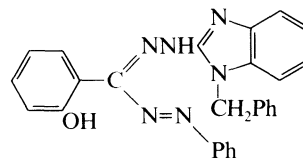
2-[3-Phenyl-5-[1-(phenylmethyl)-1H-benzimidazol-2-yl]-1-formazano]phenol, 9CI

[94816-77-0]

C₂₇H₂₂N₆O M 446.510Used as 0.02% soln. in Me₂CO for photometric detn. of Y, Sc (λ_{max} 660 nm, ε 18000). Red-brown cryst. Sol. EtOH, Me₂CO, CHCl₃; insol. H₂O. Mp 126°.Marina, N.V. *et al.*, *Zavod. Lab.*, 1984, **50**, 4 (*synth*, *use*, *detn*, *Sc*, *Y*)**5-(1-Benzyl-2-benzimidazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan****B-00169**

2-[1-Phenyl-5-[1-(phenylmethyl)-1H-benzimidazol-2-yl]formazany]phenol, 9CI

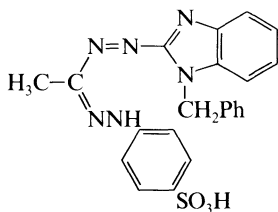
[62164-51-6]

C₂₇H₂₂N₆O M 446.510Used as 1mM EtOH soln. for photometric detn. of Hg(II) (λ_{max} 350 nm, ε 19500, pH 5-6, Me₂CO). Cryst. Sol. EtOH, Me₂CO.

2-Me ether: [62164-52-7]. 5-(1-Benzyl-2-benzimidazolyl)-3-(2-methoxyphenyl)-1-phenylformazan

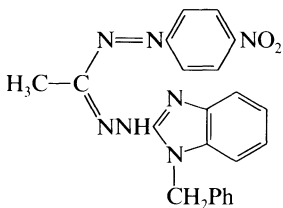
C₂₈H₂₄N₆O M 460.537Used as 1mM EtOH soln. for photometric detn. of Hg(II) (λ_{max} 500 nm, ε 27500, pH 5-6, EtOH). Cryst. Sol. EtOH, Me₂CO.Dubinina, L.V. *et al.*, *Zh. Anal. Khim.*, 1978, **33**, 1547 (*synth*, *detn*, *Hg*)

***p*-[1-(1-Benzyl-2-benzimidazolyl)-3-methyl-5-formazano]benzenesulfonic acid, 8CI** B-00170
*1-(1-Benzyl-2-benzimidazolyl)-3-methyl-5-*p*-sulfophenylformazan*
 [31830-33-8]



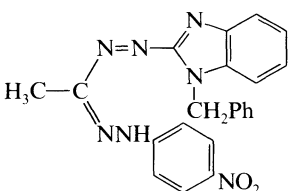
$C_{22}H_{20}N_6O_3S$ M 448.504
 Used as EtOH soln. for photometric detn. of Cu (λ_{max} 545 nm, ϵ 25000, pH 4-9). Cryst. Sol. EtOH, DMF.
 Malkina, T.G. *et al*, *CA*, 1970, **74**, 119716f (*detn*, Cu)
 Podchainova, V.N. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 822 (*detn*, Cu)

1-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-5-(4-nitrophenyl)formazan B-00171
*3-Methyl-1-(4-nitrophenyl)-5-[1-(phenylmethyl)-1*H*-benzimidazol-2-yl]formazan, 9CI*
 [61007-32-7]



$C_{22}H_{19}N_7O_2$ M 413.438
 Used as a 0.2% soln. in CCl_4 for extraction-photometric detn. of Tl (λ_{max} 670 nm, ϵ 24500, CCl_4). Sol. EtOH, $CHCl_3$, C_6H_6 , CCl_4 .
 Dement'eva, M.I. *et al*, *Zavod. Lab.*, 1975, **41**, 1319 (*detn*, Tl)

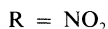
5-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-1-(4-nitrophenyl)formazan B-00172
 [28780-04-3]



$C_{22}H_{19}N_7O_2$ M 413.438
 Used as EtOH soln. for photometric detn. of Tl(III) (λ_{max} 670 nm, ϵ 23000). Cryst. Sol. EtOH, DMF.
 Podchainova, V.N. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 822 (*detn*, Tl)

5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-(4-nitrophenyl)-3-phenylformazan B-00173
 [32003-66-0]

As 5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00166 with



$C_{27}H_{21}N_7O_2$ M 475.509

Used as a 1mM soln. in Me_2CO for photometric detn. of Cd. Brown cryst. ($MeOH$ aq.). Sol. Me_2CO , EtOH, $CHCl_3$, C_6H_6 , CCl_4 , DMF.
 Holvevinskaya, L.M. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1756 (*detn*, Cd)

Benzyl bromide B-00174
(Bromomethyl)benzene, 9CI. α -Bromotoluene, 8CI
 [100-39-0]

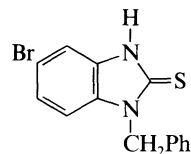


C_7H_7Br M 171.036
 Benzylating agent showing selectivity. Reagent for anal. of ethylenethiourea in apples. Liq. d_0^{22} 1.438. Mp -4° . Bp 198° , Bp₈₀ 127° .

► Lachrymator, causes burns. XS7965000.

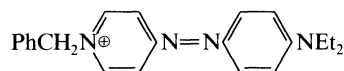
Schramm, J., *Ber.*, 1885, **18**, 606 (*synth*)
 Newsome, W.H., *J. Agric. Food Chem.*, 1972, **20**, 967 (*use*)
 Olah, G.A. *et al*, *Synthesis*, 1974, 653 (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 25.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 195.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BEC000.

1-Benzyl-5-bromo-1,3-dihydro-2*H*-benzimidazole-2-thione B-00175
*5-Bromo-1,3-dihydro-1-(phenylmethyl)-2*H*-benzimidazole-2-thione, 9CI. 1-Benzyl-5-bromo-2-mercaptobenzimidazole*
 [30769-98-3]



$C_{14}H_{11}BrN_2S$ M 319.224
 Used as a 3 mM soln. in EtOH for photometric detn. of Te(IV). Cryst. (EtOH aq.). Sol. EtOH; mod. sol. H_2O .
 Melchekova, Z.E. *et al*, *Zavod. Lab.*, 1976, **42**, 257 (*detn*, Te)

***N*-Benzyl-4-(4-diethylaminophenylazo)pyridinium(1+)** B-00176
4-[[4-(Diethylamino)phenyl]azo]-1-(phenylmethyl)pyridinium(1+), 9CI
 [75885-29-9]



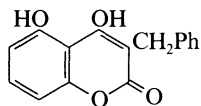
$C_{22}H_{25}N_4^{\oplus}$ M 345.466 (ion)
 Cationic azo dye; occurs as salt with halide or other anion. Used as aq. soln. Forms extractable ion-pairs with Co, Ni and other metals (as anionic complexes) which are used in sensitive extraction-photometric detn. of metals. Cryst. Sol. H_2O .

Motomizu, S. *et al*, *Anal. Chim. Acta*, 1980, **120**, 267 (*synth*, *use*)

3-Benzyl-4,5-dihydroxycoumarin

B-00177

4,5-Dihydroxy-3-phenylmethyl-2H-1-benzopyran-2-one

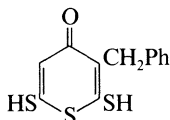
C₁₆H₁₂O₄ M 268.268

Used for photometric detn. of Ti(IV), U(VI). Cryst. (EtOH). Mp 259-260°.

Katyal, M. *et al*, *Talanta*, 1968, **15**, 1043 (*synth, use*)**3-Benzyl-2,6-dimercapto-4H-thiopyran-4-one**

B-00178

2,6-Dimercapto-3-(phenylmethyl)-4H-thiopyran-4-one [1768-87-2]

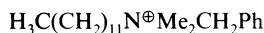
C₁₂H₁₀OS₃ M 266.408Used as 0.01M soln. in 0.3M aq. KOH for photometric detn. of Se(IV), Te(IV), Sn(IV); as 0.1mM aq. soln. for photometric detn. of Bi (λ_{max} 430 nm, ε 38900), Sn (λ_{max} 430 nm, ε 24900). Yellow cryst. powder. Sol. alkalis; spar. sol. H₂O.Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn, Bi, Sn*)Arishkevich, A.M. *et al*, *CA*, 1972, **76**, 80775p (*detn, Se, Te*)**Benzyl-dimethyldodecylammonium(1+)**

B-00179

N-Dodecyl-N,N-dimethylbenzenemethanaminium, 9CI.

Benzododecinium. Ajatin. Sterinol

[10328-35-5]

C₂₁H₃₈N[⊕] M 304.538 (ion)

Phase-transfer catalyst. Disinfectant and antiseptic. Sol.

H₂O, acids; spar. sol. EtOH; insol. CCl₄.

Bromide: [7281-04-1].

C₂₁H₃₈BrN M 384.442Used as 10% aq. soln. for photometric detn. of Be (λ_{max} 610 nm, ε 105000); extraction of V(V) (C₆H₆/octanol, pH 3.8), [Fe(CN)₆]⁴⁻; extraction of Prussian blue. Cryst. Sol. H₂O. Mp 47°.

▷ BO7875000.

Chloride: [139-07-1], Benzododecinium chloride, INN

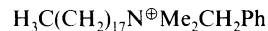
C₂₁H₃₈ClN M 339.991

Mp 31-32°.

Cella, J.A. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 2061 (*synth*)Stepanenko, B.N. *et al*, *CA*, 1968, **69**, 106057 (*synth*)Namba, Y. *et al*, *CA*, 1971, **74**, 125014 (*synth*)Bartecki, A. *et al*, *Nukleonika*, 1973, **18**, 71; *CA*, **79**, 35617q (*detn, V*)Galik, A. *et al*, *Talanta*, 1974, **21**, 307.Palacek, J. *et al*, *Synthesis*, 1976, 550 (*use*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1979, **7**, 16 (*use*)Kwapulińska, G. *et al*, *Mikrochim. Acta*, 1984, **1**, 333 (*detn, Be*)He, H., *CA*, 1986, **104**, 206795 (*synth*)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 6402.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BEM000, BEO000.**Benzyl-dimethyloctadecylammonium(1+)**

B-00180

N,N-Dimethyl-N-octadecylbenzenemethanaminium(1+), 9CI [37612-69-4]

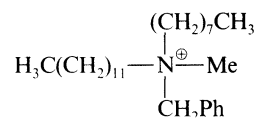
C₂₇H₅₀N[⊕] M 388.699 (ion)

Perchlorate:

C₂₇H₅₀ClNO₄ M 488.149Used as 0.02% aq. soln. for extraction-photometric detn. of Fe(III) (ε 31700, 1,2-dichloroethane). Cryst. Sol. H₂O.Alferov, E.A. *et al*, *Zavod. Lab.*, 1976, **42**, 19 (*detn, Fe*)**Benzyl-dodecylmethyloctylammonium(1+)**

B-00181

N-Dodecyl-N-methyl-N-octylbenzenemethanaminium(1+), 9CI [47636-72-6]

C₂₈H₅₂N[⊕] M 402.725 (ion)Chloride: [40002-60-6]. *Moonion A-9Q-08*C₂₈H₅₂ClN M 438.178Used as a 5% soln. in CHCl₃ for extraction-photometric detn. of U(VI) (λ_{max} 655 nm, ε 56000). Cryst. Sol.EtOH, CHCl₃, Me₂CO.

Bromide: [38012-14-5].

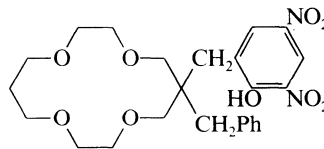
C₂₈H₅₂BrN M 482.629

Used as soln. in 4-methyl-2-pentanone for extraction-detn. of Pb in Cu, Ni, Al metals and copper-base alloys by atomic absorption.

Tsukahara, I. *et al*, *Anal. Chim. Acta*, 1972, **61**, 33 (*detn, Pb*)Fukamachi, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1972, **21**, 1165 (*detn, U*)**6-Benzyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane**

B-00182

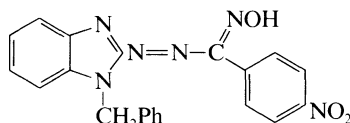
2,4-Dinitro-6-[[6-(phenylmethyl)-1,4,8,11-tetraoxacyclotetradec-6-yl]methyl]phenol, 9CI [106419-39-0]

C₂₄H₃₀N₂O₉ M 490.509Used as soln. in 1,2-dichloroethane for extraction separation of Li (λ_{max} 371 nm, ε 15000) from other alkali metals (selectivity ratio Li/Na 100). Yellowish brown liq. Sol. CHCl₃, 1,2-dichloroethane.Kimura, K. *et al*, *J. Org. Chem.*, 1987, **52**, 836 (*synth, use*)

1-Benzyl-2-(α -hydroxyimino-4-nitrobenzyl)-1*H*-imidazole

B-00183

2-[[(*Hydroxyimino*)(4-nitrophenyl)methyl]azo]-1-(phenylmethyl)-1*H*-benzimidazole, 9*CI*
[76128-58-0]



$C_{21}H_{16}N_6O_3$ M 400.396

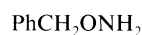
Used as 0.05% EtOH soln. for photometric detn. of Cu (λ_{\max} 500 nm, ϵ 7100), Ni, Co. Yellow cryst. (EtOH). Sol. EtOH, DMF, Me₂CO. pK_a 7.96.

Dubinina, L.F. *et al.* *Zh. Anal. Khim.*, 1981, **36**, 1700 (*synth, detn.* Cu, Ni, Co)

O-Benzylhydroxylamine

B-00184

O-(Phenylmethyl)hydroxylamine, 9*CI*. α -Benzylhydroxylamine. Benzylhydroxylamine
[622-33-3]



C_7H_9NO M 123.154

Derivatisation reagent for carbonyl compds. Liq. Bp₃₀ 118-119°, Bp₁₅ 90°. Steam-volatile.

B, HCl: [2687-43-6].

Leaflets. Subl. 230-250°.

▷ NC3040000.

N-2,4-Dinitrophenyl: Yellow needles (EtOH). Mp 141°.

N-Me: [22513-22-0].

$C_8H_{11}NO$ M 137.181

Light yellow oil.

Anderson, N.H. *et al.* *J. Chem. Soc., Perkin Trans. 1*, 1975, 825 (*pmr, synth*)

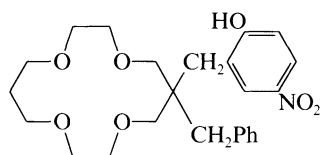
Magin, D.F., *J. Chromatogr.*, 1979, **178**, 219 (*use*)

Sharma, S.K. *et al.* *J. Med. Chem.*, 1989, **32**, 357 (*synth, deriv, ir, pmr*)

6-Benzyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane

B-00185

2-Nitro-6-[[6-(phenylmethyl)-1,4,8,11-tetraoxacyclotetradec-6-yl]methyl]phenol, 9*CI*
[106419-38-9]



$C_{24}H_{31}NO_7$ M 445.511

Used as 1,2-dichloroethane soln. for extraction separation of Li (λ_{\max} 411 nm, ϵ 21000) from other alkali metals (selectivity ratio Li/Na 200). Pale yellow solid (MeOH). Sol. MeOH, 1,2-dichloroethane. Mp 105°.

Kimura, K. *et al.* *J. Org. Chem.*, 1987, **52**, 836 (*synth, use*)

Benzyl iodide

B-00186

Iodomethylbenzene. α -Iodotoluene
[620-05-3]



C_7H_7I M 218.037

Used as derivatisation reagent for benzylation of acids for gc anal. Colourless or pale yellow needles (MeOH). Mp 24.5°. Bp₁₀ 93°.

▷ Mod. irritant. XT2830000.

Dunges, W., *Anal. Chem.*, 1973, **45**, 963 (*use*)

Harrison, A.G. *et al.* *Can. J. Chem.*, 1976, **54**, 3439 (*ms*)

Shapiro, M.J., *J. Org. Chem.*, 1976, **41**, 3197 (*nmr*)

Jung, M.E. *et al.* *Tetrahedron Lett.*, 1977, **31**, 2659 (*synth*)

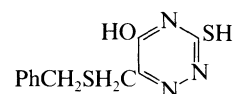
Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed.,

Van Nostrand-Reinhold, 1979, 411.

6-[(Benzylmercapto)methyl]-5-hydroxy-3-mercapto-1,2,4-triazine

B-00187

6-[(Benzylthio)methyl]-3-mercapto-as-triazin-5-ol, 8*CI*
[24558-44-9]



$C_{11}H_{11}N_3OS_2$ M 265.359

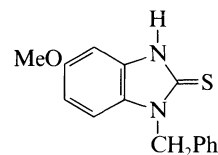
Used as 0.1% soln. in 0.2*M* NaOH for photometric detn. of Os (λ_{\max} 430 nm). Cryst. Sol. alkalis.

Lazar, C. *et al.* *Anal. Chim. Acta*, 1969, **47**, 166 (*detn, Os*)

1-Benzyl-5-methoxy-1,3-dihydro-2*H*-benzimidazole-2-thione

B-00188

1,3-Dihydro-5-methoxy-1-(phenylmethyl)-2*H*-benzimidazole-2-thione, 9*CI*. 1-Benzyl-5-methoxy-2-mercaptobenzimidazole
[30912-05-1]



$C_{15}H_{14}N_2OS$ M 270.354

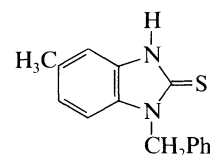
Used as a 3 mM soln. in EtOH for photometric detn. of Te(IV) (λ_{\max} 440 nm, ϵ 29500). Cryst. (EtOH aq.). Sol. EtOH; mod. sol. H₂O.

Melchekova, Z.E. *et al.* *Zavod. Lab.*, 1976, **42**, 257 (*detn, Te*)

1-Benzyl-5-methyl-2,3-dihydro-2*H*-benzimidazole-2-thione

B-00189

1,3-Dihydro-5-methyl-1-(phenylmethyl)-2*H*-benzimidazole-2-thione, 9*CI*. 1-Benzyl-5-methyl-2-mercaptobenzimidazole
[30769-97-2]



$C_{15}H_{14}N_2S$ M 254.355

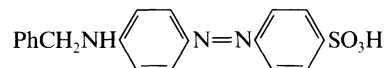
Used as a 3 mM soln. in EtOH for photometric detn. of Te(IV). Cryst. (EtOH aq.). Sol. EtOH; mod. sol. H₂O.

Melchekova, Z.E. *et al.* *Zavod. Lab.*, 1976, **42**, 257 (*detn, Te*)

Benzyl orange

B-00190

4-[[4-[(Phenylmethyl)amino]phenyl]azo]benzenesulfonic acid, 9*CI*. 4'-Benzylaminoazobenzene-4-sulfonic acid



$C_{19}H_{17}N_3O_3S$ M 367.428

Strictly, the name Benzyl orange applies to the sodium salt.

Na salt: [36402-77-4].

Used as a 0.01% aq. soln. as acid-base indicator (pH range: 1.9 - 3.3; colour change: red → yellow). Orange-red cryst. powder. Sol. EtOH; spar. sol. cold H_2O .

El-Sebai, A.I. *et al*, *Pharmazie*, 1971, **26**, 615.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 86.

Laforge, F.B., *J. Am. Chem. Soc.*, 1928, **50**, 2484.

Bryans, F. *et al*, *J. Chem. Soc.*, 1929, 549.

Veer, W.L.C. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1946, **65**, 793.

Benkeser, R.A. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 5861.

Jerchel, D. *et al*, *Chem. Ber.*, 1960, **93**, 2966.

Mitra, R.B. *et al*, *Indian J. Chem.*, 1973, **11**, 965.

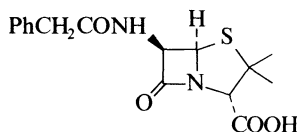
Hall, S.S. *et al*, *J. Heterocycl. Chem.*, 1987, **24**, 1205 (*synth. ir. pmr, ms*)

Ejaz, M. *et al*, *Talanta*, 1987, **34**, 337 (*use*)

Benzylpenicillin, INN

B-00191

6-(Phenylacetamido)penicillanic acid. Penicillin G. Penicillin II. Phenylacetylpenin. Numerous proprietary names [61-33-6]



$C_{16}H_{18}N_2O_4S$ M 334.395

Antibiotic from *Penicillium* spp. and also other fungal spp.

Shows activity against gram-positive bacteria. Starting material for production of 6-Aminopenicillanic acid.

Used as a 5% soln. in acetate buffer for gravimetric detn. of Fe. Cryst. $[\alpha]_D^{25} + 282^\circ$ (EtOH). Production enhanced by adding Phenylacetic acid to fermentation.

▷ Toxic. XH9400000.

Na salt: [69-57-8].

Needles (butanol aq.). Sol. H_2O , MeOH. Mp 215° dec.

$[\alpha]_D^{25} + 301^\circ$ (H_2O).

▷ Exp. carcinogen. XH9800000.

K salt: [113-98-4].

Needles (butanol aq.). Sol. H_2O . Mp $214-217^\circ$ dec. $[\alpha]_D^{22} + 285^\circ$ (H_2O).

▷ XH9700000.

Me ester: Needles (EtOAc/hexane). Mp $97-98^\circ$. $[\alpha]_D + 286^\circ$ ($CHCl_3$).

Chain, E.B. *et al*, *Antibiotics*, Oxford University Press, 1949, **2** (*rev*)

The Chemistry of Penicillin, Princeton University Press, 1949 (*rev*)

Malissa, H., *Mikrochim. Acta*, 1951, 120; 1954, 413 (*detn. Fe*)

Sheehan, J.C. *et al*, *J. Am. Chem. Soc.*, 1962, **84**, 2983 (*synth*)

Bycroft, B.W. *et al*, *J. Chem. Soc., Chem. Commun.*, 1975, 923 (*biosynth*)

Bachi, M.D. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1980, 11 (*synth*)

Morin, R.B. *et al*, *Chem. and Biol. of β -Lactam Antibiotics*, (Eds.), Vol. 1, Academic Press, N.Y., 1982 (*book*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 22, 125, 141, 181.

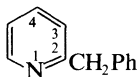
Kirschbaum, J., *Anal. Profiles Drug Subst.*, 1986, **15**, 427 (*rev*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BDY669, BFC750, BFD000, BFD250, PAQ100.

2-Benzylpyridine, 8CI

B-00192

2-(Phenylmethyl)pyridine, 9CI. Phenyl-2-pyridylmethane [101-82-6]



$C_{12}H_{11}N$ M 169.226

Liq. d_4^{20} 1.067. Bp_{742} 276° , Bp_1 $93-94^\circ$. Compd. with unspecified substitution (Benzylpyridine) is used for extraction of Se.

Picrate: Prisms (C_6H_6). Mp $140-141^\circ$.

[42010-21-9]

2-Benzyl-2-thiopseudourea, 8CI

B-00193

Phenylmethyl carbamimidothioate, 9CI [621-85-2]



$C_8H_{10}N_2S$ M 166.246

B, HCl: [538-28-3]. *S-Benzylthiuronium chloride*

$C_8H_{11}ClN_2S$ M 202.707

Reference material used in elemental microanalysis.

Reagent for the isolation and identification of org. acids. Dimorphic. Mp $146-148^\circ$, Mp $172-174^\circ$ (2 forms).

Donleavy, J.J., *J. Am. Chem. Soc.*, 1936, **58**, 1004 (*synth, use*)

Friediger, A. *et al*, *Acta Chem. Scand.*, 1955, **9**, 1425 (*use*)

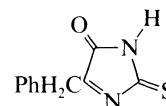
Analyst (London), 1972, **97**, 740 (*microanal*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BEU500.

5-Benzyl-2-thioxo-4-imidazolidinone

B-00194

5-(Phenylmethylene)-2-thioxo-4-imidazolidinone, 9CI [583-46-0]



$C_{10}H_8N_2OS$ M 204.252

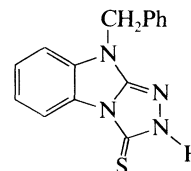
Various tautomers possible. Used as a 0.01 or 0.2% soln. in EtOH for photometric detn. of Ag, Au, Cu, Hg, Pd, Pt. Cryst. Sol. EtOH.

Turkevich, N.M. *et al*, *Zh. Anal. Khim.*, 1956, **11**, 180.

9-Benzyl-s-triazolo-[4,3-a]-benzimidazole-3-thione

B-00195

2,9-Dihydro-9-(phenylmethyl)-3H-1,2,4-triazolo-[4,3-a]benzimidazole-3-thione, 9CI [4290-99-7]



$C_{15}H_{12}N_4S$ M 280.353

Used as 0.2% AcOH soln. for extraction-photometric detn. of Pd, Pt, Au, Os, Ru (6-7M HCl, $CHCl_3$).

Yellowish cryst. Sol. AcOH, hot EtOH, alkalis.

Radushev, A.V. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 742 (*synth, use*)

Benzyltriphenylphosphonium(1 +), 8CI

B-00196

Triphenyl(phenylmethyl)phosphonium(1 +), 9CI [15853-35-7]



$C_{25}H_{22}P^{\oplus}$ M 353.422 (ion)

Converted by base to benzyltriphenylphosphorane, a Wittig reagent. Used as material for phosphate-selective electrodes.

Chloride: [1100-88-5].

$C_{25}H_{22}ClP$ M 388.875

Used in gravimetric detn. of Ir (0.4M HCl). Cryst. ($CHCl_3$ /pet. ether). Mp 343-345° (338°).

Bromide: [1449-46-3].

$C_{25}H_{22}BrP$ M 433.326

Cryst. (EtOH). Mp 295° (285°).

Iodide: [1243-97-6].

$C_{25}H_{22}IP$ M 480.327

Hexagonal prisms (EtOH).

▷ TA1846500.

Triiodide: [72974-99-3].

$C_{25}H_{22}I_3P$ M 734.136

Mp 164-166°.

Pentaiodide: [72975-00-9].

$C_{25}H_{22}I_5P$ M 987.945

Mp 92-96°.

Heptaiodide:

$C_{25}H_{22}I_7P$ M 1241.754

Mp 105-107°.

Kröhnke, F., *Chem. Ber.*, 1950, **83**, 291 (*bromide*)

Neeb, R., *Fresenius' Z. Anal. Chem.*, 1960, **177**, 420 (*chloride, detn. Ir*)

Witschard, G. *et al*, *Spectrochim. Acta*, 1963, **19**, 1905 (*ir*)

Skapski, A.C. *et al*, *J. Cryst. Mol. Struct.*, 1974, **4**, 77 (*cryst struct*)

Nanjo, M. *et al*, *Anal. Chim. Acta*, 1975, **77**, 19 (*use*)

Albright, T.A. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 2946 (*nmr*)

Ostoja Starzewski, K.A. *et al*, *Phosphorus Relat. Group V Elem.*, 1976, **6**, 177 (*cmr*)

Verstuyft, A.W. *et al*, *Inorg. Chem.*, 1977, **16**, 2776 (*pmr, cmr, nmr*)

Kostina, V.G. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 2165), 1979, **49**, 2452 (*polyiodides*)

Havens, S. *et al*, *J. Polym. Sci., Polym. Chem. Ed.*, 1981, **19**, 1349 (*chloride*)

Archer, S.J. *et al*, *Phosphorus Sulfur Relat. Elem.*, 1981, **11**, 101 (*iodide, cryst struct*)

Maccarone, E. *et al*, *Gazz. Chim. Ital.*, 1982, **112**, 25; *CA*, **97**, 23908.

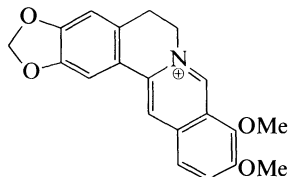
Makovestskii, Yu.P. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 1989), 1982, **52**, 2235 (*polyiodides, uv*)

Berberine

B-00197

5,6-Dihydro-9,10-dimethoxybenzo[g]-1,3-benzodioxolo[5,6-a]quinolinizinium(1+), 9Cl. Umbellatine. Berbericine. Natural yellow 18. C.I. 75160

[2086-83-1]



$C_{20}H_{18}NO_4^{\oplus}$ M 336.366 (ion)

Quaternary alkaloid from many *Berberis* and *Mahonia* spp. (Berberidaceae) and very many other spp. in several different families. Pharmacol. extensively studied. Shows a wide variety of pharmacol. effects including respiratory stimulation, transient hypotension, convulsion. Cholinesterase, tyrosine decarboxylase and tryptophanase inhibitor. Antianaemic agent. Shows antibacterial and antifungal props. and some cytotoxic and antineoplastic activity. Of clinical use in treatment of gastrointestinal disorders, has been used for cholera and infantile diarrhoea. Of rel. low toxicity.

▷ Toxic, LD₅₀ 27.5 mg/kg. DR9870000.

Hydroxide: [117-74-8].

$C_{20}H_{19}NO_5$ M 353.374

Mp 145° ($CHCl_3$ solvate). Forms hydrate, Mp variable, dec. ca. 160°.

▷ DR9866500.

Sulfate: [633-66-9].

Mp 274°.

▷ DR9867000.

Chloride: [633-65-8].

Used as fluorescent stain for heparin in mast cells.

Iodide: [4263-84-7].

$C_{20}H_{18}INO_4$ M 463.271

Mp 250° dec.

[633-65-8]

Perkin, W.H. *et al*, *J. Chem. Soc.*, 1925, **127**, 740 (*synth*)

Haworth, R.D. *et al*, *J. Chem. Soc.*, 1927, 548 (*synth*)

Kametani, T. *et al*, *J. Chem. Soc. C*, 1969, 2036 (*synth, ir*)

Preininger, V. *et al*, *Collect. Czech. Chem. Commun.*, 1970, **35**, 124 (*isol, uv*)

Jewers, K. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1972, 1393 (*pmr*)

Wu, W.-N. *et al*, *J. Nat. Prod. (Lloydia)*, 1977, **40**, 384 (*isol*)

Dimlich, R.V.W. *et al*, *Stain Technol.*, 1980, **55**, 217 (*use*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 524.

Berlin, G. *et al*, *Agents Actions*, 1984, **14**, 401.

Bhakuni, D.S. *et al*, *Alkaloids (N.Y.)*, 1986, **28**, 78 (*rev, pharmacol*)

Schiff, P.L., *Alkaloids: Chem. Biol. Perspect.*, Wiley, N.Y., 1987, **5**, 363 (*rev, pharmacol*)

Blaskó, G. *et al*, *Heterocycles*, 1988, **27**, 911 (*cmr*)

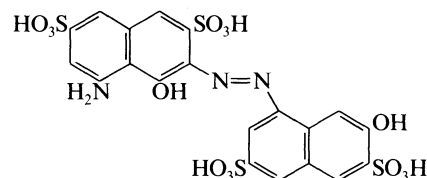
Janssen, R.H.A.M. *et al*, *Phytochemistry*, 1989, **28**, 2833 (*pmr, cmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BFN500.

Beryllon I

B-00198

5-Amino-4-hydroxy-3-[(7-hydroxy-3,6-disulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid. 8'-Amino-1',7-dihydroxy-1,2'-azonaphthalene-3,3',6,6'-tetrasulfonic acid



$C_{20}H_{15}N_3O_{14}S_4$ M 649.614

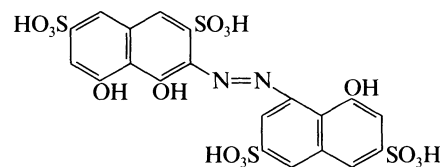
Used for photometric detn. of Be. Dark red powder. Sol. H_2O .

Lukin, A.N. *et al*, *Zh. Anal. Khim.*, 1956, **11**, 393.

Beryllon II

B-00199

4,5-Dihydroxy-3-[(8-hydroxy-3,6-disulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl. 2-(8-Hydroxy-3,6-disulfo-1-naphthylazo)chromotropic acid. 1',8,8'-Trihydroxy-1,2'-azonaphthalene-3,3',6,6'-tetrasulfonic acid [480-29-5]



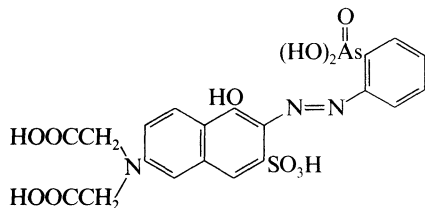
$C_{20}H_{14}N_2O_{15}S_4$ M 650.599

Strictly, the name Beryllon II applies to the tetrasodium salt. Used as 0.02% aq. soln. for photometric detn. of Be (λ_{\max} 630 nm, ϵ 12000), Mg. Red brown cryst. powder. Sol. H_2O , EtOH; spar. sol. Me_2CO ; insol. C_6H_6 . [51550-25-5]

Lukin, A.M. *et al*, *Zh. Anal. Khim.*, 1956, **11**, 393 (*synth*)
Adamovich, L.P. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 292 (*detn. Be*)
Kasiura, K., *Chem. Anal. (Warsaw)*, 1971, **16**, 407 (*detn. Be*)

Beryllon IV**B-00200**

[[6-[(*o*-Arsonophenyl)azo]-5-hydroxy-7-sulfo-2-naphthyl]imino]diacetic acid, 8CI
[3861-82-3]



$\text{C}_{20}\text{H}_{18}\text{AsN}_3\text{O}_{11}\text{S}$ M 583.363

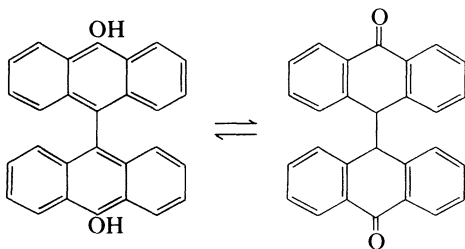
Used in photometric detn. of Be. Sol. H_2O .

Kuznetsov, V.I. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 160 (*synth, detn. Be*)

Budanova, L.M. *et al*, *Zavod. Lab.*, 1966, **32**, 401 (*detn. Be*)

Bianthranol**B-00201**

Bianthrol. Bianthrone. Dianthranol



$\text{C}_{28}\text{H}_{18}\text{O}_2$ M 386.449

Enol-form [16014-05-4]

[9,9'-*Bianthracene*]-10,10'-diol, 9CI. 10,10'-*Bi-9-anthrol*
Leaflets. Sol. alkalis, spar. sol. EtOH. Mp ca. 230°.
Deep-green col. with FeCl_3 , yellow soln. in conc. H_2SO_4 .

Di-Ac:

$\text{C}_{32}\text{H}_{22}\text{O}_4$ M 470.523
Mp 284°. Mauve fluor. in pet. ether soln.

Dibenzoyl:

$\text{C}_{42}\text{H}_{26}\text{O}_4$ M 594.665
Mp > 350°.

Di-Me ether: [10294-75-4].

$\text{C}_{30}\text{H}_{22}\text{O}_2$ M 414.503
Mp 245°.

Oxo-form [434-84-4]

[9,9'-*Bianthracene*]-10,10'(9H,9'H)-dione, 9CI. 10,10'-*Bianthrone*

Used as a 8mM soln. in H_2SO_4 for photometric detn. of NO_3^- (λ_{\max} 500 nm). Cryst. (CHCl_3 /hexane). Sol. H_2SO_4 , C_6H_6 , CHCl_3 , H_2O . Mp ca. 250° dec.

Meyer, H., *Ber.*, 1909, **42**, 143.

Barnett, E. de B. *et al*, *J. Chem. Soc.*, 1923, **123**, 387.

Fischer, C.H. *et al*, *J. Org. Chem.*, 1941, **6**, 169.

Schönberg, A. *et al*, *J. Chem. Soc.*, 1944, **67**, 307.

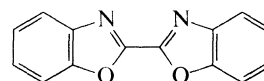
Navratil, B. *et al*, *Anal. Chim. Acta*, 1974, **68**, 217 (*detn. NO₃⁻*)

Chauhan, Y.S. *et al*, *Indian J. Chem.*, 1975, **13**, 38.

Oka, K. *et al*, *J. Org. Chem.*, 1978, **43**, 4533.

2,2'-Bibenzoxazole, 9CI**B-00202**

[7210-07-3]

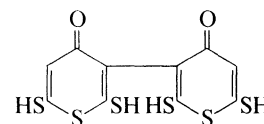


$\text{C}_{14}\text{H}_8\text{N}_2\text{O}_2$ M 236.229

Used as metallochromic indicator for titrimetric detn. of Ca. Cryst. (EtOH). Sol. common org. solvs. Mp 262-263°.

Nabutaka, I., *Bunseki Kagaku (Jpn. Anal.)*, 1962, **11**, 1061 (*detn. Ca*)

Yoshifujii, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1982, **55**, 873 (*synth*)

3,3'-Bi[2,6-dimercapto-4H-thiopyran-4-one]**B-00203**

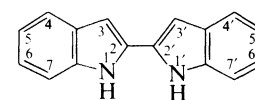
$\text{C}_{10}\text{H}_6\text{O}_2\text{S}_6$ M 350.552

Used as a 0.1mM aq. soln. for photometric detn. of Bi, Sn (λ_{\max} 430 nm, ϵ 25600). Cryst.

Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn. Sn, Bi*)

2,2'-Bi-1H-indole, 9CI**B-00204**2,2'-*Biindolyl*

[40899-99-8]



$\text{C}_{16}\text{H}_{12}\text{N}_2$ M 232.284

Gives colour reaction with Fe(II). Cryst. (EtOAc). Mp 308-310°.

1,1'-Di-Me:

$\text{C}_{18}\text{H}_{16}\text{N}_2$ M 260.338
Yellow cryst. (CH_2Cl_2 /Et₂O). Mp 170°.

Brandt, W., *Chem. Rev.*, 1954, **54**, 959 (*use*)

Faseeh, S.A. *et al*, *J. Chem. Soc.*, 1957, 4141 (*synth*)

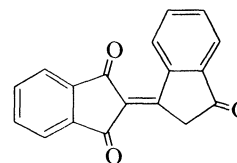
Bergman, J. *et al*, *Tetrahedron*, 1979, **36**, 1439 (*ir, ms*)

Capuano, L. *et al*, *Chem. Ber.*, 1988, **121**, 2259 (*synth, pmr*)

Pindur, U. *et al*, *Tetrahedron*, 1989, **45**, 6427 (*deriv*)

Bindone**B-00205**

2-(2,3-Dihydro-3-oxo-1H-inden-1-ylidene)-1H-indene-1,3(2H)-dione, 9CI. [$\Delta^{1,2}$ -*Biindan*]-1',3,3'-trione, 8CI. 2-(3-Oxo-1-indanylidene)-1,3-indanedione. 2'-Dionylidene-1,3-indanedione. Anhydrobisindandione. *Biindone*
[1707-95-5]



$\text{C}_{18}\text{H}_{10}\text{O}_3$ M 274.275

Used as colorimetric reagent for amines. Yellow plates.

Mp 208-210°, Mp 206-208°. Shows solv.-dependent tautom. Solns. in nonpolar solvs. are yellow, in EtOH violet-red becoming more intense on addn. of H_2O .

▷ NK6050000.

enol-form

Deep-violet mass. Struct. apparently not investigated; 3 isomeric enols possible.

Me ether:

$C_{19}H_{12}O_3$ M 288.302
Red-violet cryst. Mp 213° (196°).

Et ether:

$C_{20}H_{14}O_3$ M 302.329
Mp 164-165°.

Hantzsch, A. *et al*, *Justus Liebigs Ann. Chem.*, 1912, **392**, 322 (autom, uv)

Singewald, A., *Fresenius' Z. Anal. Chem.*, 1958, **164**, 219 (use)

Murdoch, K.C., *J. Org. Chem.*, 1959, **24**, 845 (synth)

Zagata, R. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1960, **135**, 77; *CA*, **60**, 14014b (struct)

Zagata, R. *et al*, *CA*, 1962, **50**, 5890f (synth)

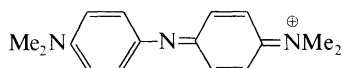
Tirzitis, G. *et al*, *CA*, 1963, **59**, 519b (synth)

Bravic, G. *et al*, *Cryst. Struct. Commun.*, 1976, **5**, 5 (cryst struct)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ONY000.

Bindschedler's green**B-00206**

N-[4-[[4-(Dimethylamino)phenyl]imino]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+), 9CI



$C_{16}H_{20}N_3^{\oplus}$ M 254.354 (ion)

Indamine basic dye.

Chloride: [4486-05-9].

$C_{16}H_{20}ClN_3$ M 289.807

Used in anal. of hydrazo compds. Dyestuff. Used in extraction-photometric detn. of Hg (λ_{max} 740 nm, ϵ 170000). Green solid. V. sol. H_2O .

Bindschedler, R., *Ber.*, 1883, **16**, 864 (synth)

Wieland, H., *Ber.*, 1915, **48**, 1078 (synth)

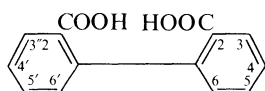
Shine, H.J. *et al*, *Anal. Chem.*, 1958, **30**, 383 (synth, detn, Hg)

Tsubouchi, M., *Anal. Chem.*, 1970, **42**, 1087 (detn, Hg)

2,2'-Biphenyldicarboxylic acid**B-00207**

Diphenic acid

[482-05-3]



$C_{14}H_{10}O_4$ M 242.231

Used for gravimetric detn. of Th (pH 4.5-8.6). Leaflets (H_2O or AcOH). Mp 232-233°. pK_{a1} 3.53; pK_{a2} 5.42 (H_2O), pK_{a1} 7.7; pK_{a2} 12.7 (MeOH).

Mono-Me ester: [6926-84-7].

$C_{15}H_{12}O_4$ M 256.257

Plates (MeOH aq.). Mp 110-111°.

Di-Me ester:

$C_{16}H_{14}O_4$ M 270.284

Cryst. (MeOH). Mp 74°. Bp_{14} 204-206°.

Et ester: [27428-70-2].

$C_{16}H_{14}O_4$ M 270.284

Mp 91-92°.

Di-Et ester:

$C_{18}H_{18}O_4$ M 298.338

Mp 42°.

Anhydride:

$C_{14}H_8O_3$ M 224.215

Cryst. (Ac_2O). Mp 217°. Sublimes.

Dichloride:

$C_{14}H_8Cl_2O_2$ M 279.121

Mp 94°, Mp 97°.

Monoamide:

$C_{14}H_{11}NO_3$ M 241.246

Cryst. (EtOH). Mp 193°.

Diamide:

$C_{14}H_{12}N_2O_2$ M 240.261

Cryst. (EtOH). Mp 212°.

Imide: Diphenimide

$C_{14}H_9NO_2$ M 223.231

Mp 219°.

Mononitrile: 2'-Cyanobiphenyl-2-carboxylic acid

$C_{14}H_9NO_2$ M 223.231

Mp 170-172°.

Dinitrile: 2,2'-Dicyanobiphenyl

$C_{14}H_8N_2$ M 204.231

Needles (pet. ether). Mp 171-172°.

Underwood, H.W. *et al*, *J. Am. Chem. Soc.*, 1924, **46**, 2069; 1929, **51**, 583.

Org. Synth., Coll. Vol., 1, 1932, 222 (synth)

Williamson, B. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 3018 (uv)

Korchennaya, E.K. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1515 (use)

Dashevskii, M.M. *et al*, *CA*, 1970, **72**, 31494 (synth)

Sheley, C.F. *et al*, *Org. Mass Spectrom.*, 1974, **9**, 731 (ms, pmr)

Kolthoff, I.M. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 7465.

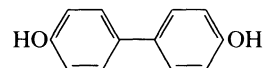
Fronczek, F.R. *et al*, *Acta Crystallogr., Sect. C*, 1987, **43**, 1615 (cryst struct)

Knapp, S. *et al*, *J. Am. Chem. Soc.*, 1990, **112**, 3452 (nitrile)

4,4'-Biphenyldiol**B-00208**

4,4'-Dihydroxybiphenyl. p,p'-Diphenol

[92-88-6]



$C_{12}H_{10}O_2$ M 186.210

Polymer intermediate. Used for photometric detn. of Br^{\ominus} (λ_{max} 339 nm). Needles or plates (EtOH). Mp 286° (274-275°). pK_{a1} 10.40; pK_{a2} 11.70 (20°, 50% MeOH aq.).

▷ DV4725000.

Di-Ac: [32604-29-8].

$C_{16}H_{14}O_4$ M 270.284

Needles (Me_2CO). Mp 160-161°.

Di-Me ether: [2132-80-1]. **4,4'-Dimethoxybiphenyl**

$C_{14}H_{14}O_2$ M 214.263

Leaflets. Mp 176-177° (173°).

Musso, H. *et al*, *Chem. Ber.*, 1961, **94**, 356.

Chiraleu, F., *Rev. Roum. Chim.*, 1966, **11**, 999 (ir)

Hay, A.S., *J. Org. Chem.*, 1969, **34**, 1160 (synth)

Hutzinger, O. *et al*, *J. Chromatogr.*, 1974, **97**, 233 (tlc)

Mentasti, E. *et al*, *Anal. Chim. Acta*, 1975, **78**, 227 (use)

Lotjonen, S. *et al*, *Finn. Chem. Lett.*, 1978, 260 (cmr)

Tamura, Y. *et al*, *Synthesis*, 1978, 822 (synth)

Jackisch, M.A. *et al*, *Acta Crystallogr., Sect. C*, 1990, **46**, 919 (cryst struct)

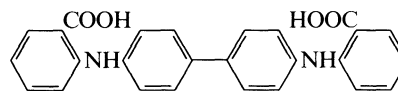
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BGG500.

2,2'-([1,1'-Biphenyl]-4,4'-diyl-diimino)**B-00209**

bisbenzoic acid

Diphenylbenzidine-2,2'-dicarboxylic acid. N,N'-Bis(2-carboxyphenyl)benzidine

[53036-42-3]



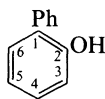
$C_{26}H_{20}N_2O_4$ M 424.455

Used as a 0.1 or 1% soln. in conc. H_2SO_4 for photometric detn. of V (λ_{max} 559 nm, ϵ 42700); redox indicator (colour change: colourless \rightarrow blue). Cryst. powder. Sol. alkalis, conc. acids.

Frumina, N.S. *et al*, *Talanta*, 1969, **16**, 138 (*detn.*, *V*)

2-Biphenylol, 8CI**B-00210**2-Hydroxybiphenyl. *o*-Phenylphenol

[90-43-7]

 $\text{C}_{12}\text{H}_{10}\text{O}$ M 170.210

Reagent for the anal. of aromatic acetals and aldehydes.

Needles (pet. ether). Mp 56°. Bp 275°, Bp₁₄ 145°.

▷ DV5775000.

Ac: [3271-80-5].

 $\text{C}_{14}\text{H}_{12}\text{O}_2$ M 212.248Needles (pet. ether). Mp 62.5-63°. Bp₁₅ 164-165°.

Benzoyl: [5449-49-0].

 $\text{C}_{19}\text{H}_{14}\text{O}_2$ M 274.318

Cryst. Mp 73-76°.

4-Methylbenzenesulfonyl: Mp 64-66°.

Me ether: [86-26-0]. 2-Methoxybiphenyl. Methyl diphenyl ether

 $\text{C}_{13}\text{H}_{12}\text{O}$ M 184.237Perfumery ingredient. Prisms (pet. ether). Mp 29°. Bp 274°, Bp₁₈ 159-160°.

▷ BZ8835000.

Et ether: [6734-91-4]. 2-Ethoxybiphenyl

 $\text{C}_{14}\text{H}_{14}\text{O}$ M 198.264

Prisms (pet. ether). Mp 34°. Bp 276°.

Ph ether: [6738-04-1]. 2-Phenoxybiphenyl

 $\text{C}_{18}\text{H}_{14}\text{O}$ M 246.308

Mp 49.5°.

Hirsch, R., *Ber.*, 1890, **23**, 3705 (*synth*)v. Auwers, K. *et al*, *J. Prakt. Chem.*, 1924, **108**, 99 (*deriv*)Musso, H. *et al*, *Chem. Ber.*, 1959, **92**, 3101 (*ir*)Wenkert, E. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 4671 (*deriv*)Trible, M.T. *et al*, *J. Am. Chem. Soc.*, 1969, **91**, 379 (*pmr*)Drapala, T. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1974, **48**, 965 (*ir*, *uv*)Asabe, Y. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1975, **24**, 160; *CA*, **83**, 22035f (*use*)Robbiani, R. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1977, **16**, 120 (*ms*)Lotjonen, S. *et al*, *Finn. Chem. Lett.*, 1978, 260; *CA*, **90**, 120562q (*cmr*)Perrin, M. *et al*, *Acta Crystallogr., Sect. C*, 1987, **43**, 980 (*cryst struct*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BGJ250, PEG000.**4-Biphenylol, 8CI****B-00211**4-Hydroxybiphenyl. *p*-Phenylphenol

[92-69-3]

 $\text{C}_{12}\text{H}_{10}\text{O}$ M 170.210

Colorimetric reagent for acetaldehyde. Needles or plates (EtOH aq.). Mp 164-165°. Bp 305-308°. Sublimes.

▷ DV5850000.

Ac: [148-86-7].

 $\text{C}_{14}\text{H}_{12}\text{O}_2$ M 212.248

Plates (EtOH). Mp 88-89°.

Benzoyl: [2170-13-0].

 $\text{C}_{19}\text{H}_{14}\text{O}_2$ M 274.318

Cryst. Mp 121°, Mp 150°.

4-Methylbenzenesulfonyl: Plates (AcOH). Mp 177°.

Me ether: [613-37-6]. 4-Methoxybiphenyl

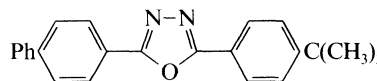
 $\text{C}_{13}\text{H}_{12}\text{O}$ M 184.237Plates (EtOH). Mp 91-92°. Bp₁₈ 174°.

▷ Exp. carcinogen. BZ8850000.

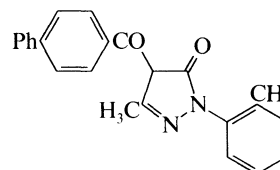
Hirsch, R., *Ber.*, 1890, **23**, 3705 (*synth*)Werner, A. *et al*, *Justus Liebigs Ann. Chem.*, 1902, **322**, 135 (*deriv*)Raiford, L.C. *et al*, *J. Am. Chem. Soc.*, 1925, **47**, 1454 (*derivs*)Bell, F. *et al*, *J. Chem. Soc.*, 1926, 3044.Schulman, E.M. *et al*, *J. Org. Chem.*, 1974, **39**, 2686 (*cmr*)Robbiani, R. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1977, **16**, 120 (*ms*)Dagani, D. *et al*, *Anal. Biochem.*, 1978, **87**, 455 (*use*)Bourelle-Wargnier, F. *et al*, *J. Chem. Soc., Chem. Commun.*, 1979, 584 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BGJ500, PEG250.**2-(4-Biphenyl)-5-(4-tert-butylphenyl)-1,3,4-oxadiazole****B-00212**

2-[1,1'-Biphenyl]-4-yl-5-[4-(1,1-dimethylethyl)phenyl]-1,3,4-oxadiazole, 9CI. Butyl-PBD. BPBD

[15082-28-7]

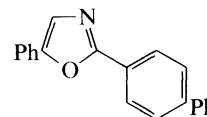
 $\text{C}_{24}\text{H}_{22}\text{N}_2\text{O}$ M 354.451

Liquid scintillation solute. Mp 133-138°.

Kowalski, E. *et al*, *Int. J. Appl. Radiat. Isot.*, 1967, **18**, 307 (*synth*)Pfeffer, M. *et al*, *Anal. Biochem.*, 1971, **39**, 46 (*use*)**4-[(1,1'-Biphenyl)-4-ylcarbonyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3H-pyrazol-3-one, 9CI****B-00213**3-Methyl-4-(*p*-phenylbenzoyl)-1-*o*-tolyl-5-pyrazolone [123035-90-5] $\text{C}_{24}\text{H}_{20}\text{N}_2\text{O}_2$ M 368.434Used as 0.01M C_6H_6 soln. for extraction separation of Li and Na. Cryst. (dioxan aq.). Sol. dioxan, cyclohexane, C_6H_6 , CHCl_3 . Mp 176°.Mukai, H. *et al*, *Anal. Chim. Acta*, 1989, **220**, 111 (*synth*, *use*)**2-[1,1'-Biphenyl]-4-yl-5-phenoxazole, 9CI****B-00214**

BPO

[852-37-9]

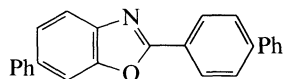
 $\text{C}_{21}\text{H}_{15}\text{NO}$ M 297.356

Used in liquid scintillation spectrometry. Mp 115-118°.

Balaban, A.T. *et al*, *Tetrahedron*, 1963, **19**, 169 (*synth*)Langenscheidt, E., *Liq. Scintill. Counting*, 1971, **1**, 23 (*spectra*)Borisovich, N.A. *et al*, *Opt. Commun.*, 1980, **33**, 203 (*use*)

2-(4-Biphenyl)-6-phenylbenzoxazole **B-00215**

2-[1,1'-Biphenyl]-4-yl-6-phenylbenzoxazole, 9CI. PBBO
[17064-47-0]



$C_{25}H_{17}NO$ M 347.415

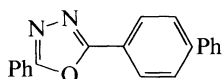
Laser dye. Used in liquid scintillation spectrometry. Mp 198-199°.

Kowalski, E. *et al*, *Int. J. Appl. Radiat. Isot.*, 1967, **18**, 307 (*synth*)
Birks, J.B. *et al*, *Liq. Scintill. Counting*, 1972, 1 (*props*)
Speiser, S. *et al*, *Appl. Phys. B*, 1985, **38**, 191; 1986, **39**, 155 (*props*)

2-[1,1'-Biphenyl]-4-yl-5-phenyl-1,3,4-oxadiazole, 9CI **B-00216**

PBD

[852-38-0]



$C_{20}H_{14}N_2O$ M 298.343

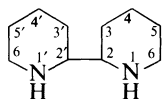
Used in liquid scintillation spectrometry, laser dye. Cryst. (toluene). Mp 167-169°.

Hayes, F.N. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 1850 (*synth*)
Kowalski, E. *et al*, *Int. J. Appl. Radiat. Isot.*, 1967, **18**, 307 (*use*)
Myer, J.A. *et al*, *Nature (London)*, 1970, **225**, 540 (*use*)
Maeda, M. *et al*, *Jpn. J. Appl. Phys.*, 1972, **11**, 692 (*use*)
Milcent, R. *et al*, *J. Heterocycl. Chem.*, 1983, **20**, 77 (*synth*)

2,2'-Bipiperidine, 9CI, 8CI **B-00217**

2,2'-Bipiperidyl

[531-67-9]



$C_{10}H_{20}N_2$ M 168.281

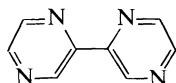
Gives colour reaction with Fe(II). Liq. Sol. H_2O , Et_2O , Me_2CO , $EtOH$, $CHCl_3$, C_6H_6 . Bp 259°, Bp_{0.05} 60°.

Picrate: Cryst. Mp 120°.

Smith, C.R., *J. Am. Chem. Soc.*, 1928, **50**, 1936 (*synth*)
Morgan, G.T. *et al*, *J. Chem. Soc.*, 1932, 20.
Krumholtz, P., *J. Am. Chem. Soc.*, 1953, **75**, 2163 (*synth, use*)

2,2'-Bipyrazine **B-00218**

[10199-00-5]



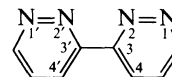
$C_8H_6N_4$ M 158.162

Used as a 5mM soln. in $EtOH$ aq. for photometric detn. of Fe(II) (λ_{max} 512 nm, ϵ 1700), Cu(I) (λ_{max} 460 nm, ϵ 1500). Cryst. (hexane). Sol. C_6H_6 , Me_2CO , $EtOH$, dil. HCl. Mp 183-184°.

Lafferty, J.J. *et al*, *J. Org. Chem.*, 1967, **32**, 1591 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn, Fe, Cu*)

3,3'-Bipyridazine, 9CI **B-00219**

[10198-96-6]



$C_8H_6N_4$ M 158.162

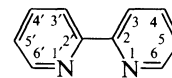
Used as a 5mM soln. in $EtOH$ aq. for photometric detn. of Fe(II) (λ_{max} 517 nm, ϵ 6350), Cu(I) (λ_{max} 473 nm, ϵ 5700). Cryst. (Et_2O). Sol. C_6H_6 , dil. HCl. Mp 224-226°.

Lafferty, J.J. *et al*, *J. Org. Chem.*, 1967, **32**, 1591 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn, Cu, Fe*)
Maeda, M. *et al*, *Chem. Pharm. Bull.*, 1970, **18**, 1548 (*detn, Fe*)

2,2'-Bipyridine, 9CI **B-00220**

2,2'-Bipyridyl. α, α' -Bipyridyl. Bipy

[366-18-7]



$C_{10}H_8N_2$ M 156.187

Used in photometric detn. of Fe(II) (λ_{max} 522 nm, ϵ 8700, pH 2-9); as a masking agent for Zn, Cd, Cu. Fe(II) chelate is used as a redox indicator. Complexing agent for prepn. of inorganic complexes. Prisms (pet. ether). Sol. H_2O , $EtOH$, Et_2O , C_6H_6 , $CHCl_3$, dil. acids. Mp 69.5°. Bp 272.5°. pK_{a1} 4.30 (25°, H_2O). Fe^{II} salts \rightarrow red col.

► Highly toxic orally. DW1750000.

1-Oxide: [33421-43-1].

$C_{10}H_8N_2O$ M 172.186

Mp 59°.

1,1'-Dioxide: [7275-43-6].

$C_{10}H_8N_2O_2$ M 188.185

Mp 310° dec.

Fresenius, W. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **209**, 340 (*detn, Fe*)

Schilt, A.A., *Analytical Applications of 1,10-Phenanthroline and Related Compounds*, Pergamon, London, 1969 (*use*)

Norden, B. *et al*, *Acta Chem. Scand.*, 1972, **26**, 429 (*spectra*)

French, W.J. *et al*, *Analyst (London)*, 1972, **97**, 828 (*detn, Fe*)

Org. Synth., Coll. Vol., 5, 1973, 102.

Keats, N.G. *et al*, *J. Heterocycl. Chem.*, 1976, **13**, 369 (*ms*)

Cheng, K.L., *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 309 (*use*)

Wenkert, D. *et al*, *J. Org. Chem.*, 1983, **48**, 283 (*oxides*)

Moran, D.B. *et al*, *J. Heterocycl. Chem.*, 1986, **23**, 1071 (*monoxide*)

Almninggen, A. *et al*, *Acta Chem. Scand.*, 1989, **43**, 932 (*ed, struct, bibl*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BGO500.

2,3'-Bipyridine, 9CI **B-00221**

2,3'-Dipyridyl. Isonicotine

[581-50-0]

$C_{10}H_8N_2$ M 156.187

Occurs in tobacco (*Nicotiana tabacum*) (Solanaceae) and the marine hoplonemertine *Amphiporus angulatus*. Used for extraction-photometric detn. of Cu(II), and for extraction of Sc. Liq. Insol. H_2O . d_{20}^{20} 1.140. Bp 298°. n_D^{20} 1.6223.

► Neurotoxin.

$B,2HClO_4$: Mp 215-216°.

Picrate: Mp 153-154°.

Dipicrate: Mp 165-168°.

1'-Oxide:

$C_{10}H_8N_2O$ M 172.186
Cryst. + $1H_2O$ (Me₂CO/hexane). Mp 78°.
1,1'-Dioxide:
 $C_{10}H_8N_2O_2$ M 188.185
Cryst. (MeOH). Mp 240-243°.
[42907-60-8]
Smith, J.R., *J. Am. Chem. Soc.*, 1930, **52**, 397 (*synth*)
Morgan, G.T. *et al*, *J. Chem. Soc.*, 1932, 20 (*synth*)
Späth, E. *et al*, *Ber.*, 1936, **69**, 2448 (*isol*)
Talipov, S.T., *Uzb. Khim. Zh.*, 1963, 22 (*detn*, Cu)
Leete, E., *J. Am. Chem. Soc.*, 1969, **91**, 1697 (*synth*)
Alimarin, I.P. *et al*, *CA*, 1973, **78**, 8393m (*sepn*, Sc)
Kem, W.R. *et al*, *Experientia*, 1976, **32**, 684 (*isol*, ms)
Leete, E. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 6326 (*biosynth*)
Moran, D.B. *et al*, *J. Heterocycl. Chem.*, 1986, **23**, 1071 (*oxides*)

4,4'-Bipyridine, 9Cl**B-00222**

4,4'-Bipyridyl
[553-26-4]
 $C_{10}H_8N_2$ M 156.187
Used for microcrystalline detn. of Pd(II), Pt(IV). Mp 114°.
Bp 305°. Sublimes.

▷ DW1760000.

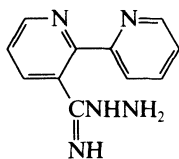
B, HCl: [27926-72-3].
Needles + $2H_2O$ (H₂O).
B, 2MeCl: see *1,1'-Dimethyl-4,4'-bipyridinium(2+)*, D-00841

N-Oxide: [39182-30-4].
 $C_{10}H_8N_2O$ M 172.186
Needles (Me₂CO). Mp 180°.
N,N'-Dioxide: [24573-15-7].
 $C_{10}H_8N_2O_2$ M 188.185
Cryst. + $\frac{1}{2}H_2O$ (EtOH). Mp 335°.

Smith, C.R., *J. Am. Chem. Soc.*, 1924, **46**, 414 (*synth*)
Schaeffer, H.F. *et al*, *Mikrochim. Acta*, 1970, 148 (*use*)
Emsley, J.W. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1975, 1541 (*struct*)
Keats, N.G. *et al*, *J. Heterocycl. Chem.*, 1976, **13**, 753 (*ms*)

[2,2'-Bipyridine]-6-carboximidic acid hydrazide**B-00223**

[10495-77-9]

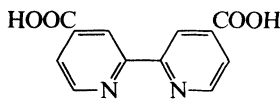


$C_{11}H_{11}N_5$ M 213.241
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 510 nm), Fe(II) (λ_{max} 550 nm, ϵ 8700).
Cryst. (C₆H₆). Sol. common org. solvs. Mp 155-156°.

Case, F.H., *J. Org. Chem.*, 1966, **31**, 2398 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 475 (*detn*, Fe, Co)

[2,2'-Bipyridine]-4,4'-dicarboxylic acid, 9Cl**B-00224**

2,2'-Bipyridyl-4,4'-dicarboxylic acid. *2,2'-Biisonicotinic acid*
[6813-38-3]



$C_{12}H_8N_2O_4$ M 244.206
Used as redox indicator. Cryst. powder. Sol. alkalis. Mp 384-388°.

Di-Me ester: [71071-46-0].
 $C_{14}H_{12}N_2O_4$ M 272.260
Cryst. (Me₂CO/CHCl₃). Mp 208-210°.

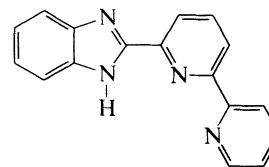
Diamide:
 $C_{12}H_{10}N_4O_2$ M 242.237
Cryst. (1,2-ethanediol). Mp 251° dec.

Dichloride: [72460-28-7].
 $C_{12}H_6Cl_2N_2O_2$ M 281.097
Cryst. (heptane). Mp 141-143°.

Maerker, G. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 2745 (*synth*, amide)
Schilt, A.A., *Analytical Applications of 1,10-Phenanthroline and Related Compounds*, Pergamon, Oxford, 1969 (*use*, ind)
Bos, K.D. *et al*, *Synth. Commun.*, 1979, **9**, 497 (*synth*)
Elliott, C.M. *et al*, *J. Am. Chem. Soc.*, 1982, **104**, 7519 (*synth*)
Evers, R.C. *et al*, *J. Polym. Sci., Polym. Chem. Ed.*, 1986, **24**, 1863 (*synth*)

2-(2,2'-Bipyridin-6-yl)benzimidazole**B-00225**

2-[6-(2-Pyridyl)-2-pyridyl]benzimidazole, 8Cl
[14044-49-6]

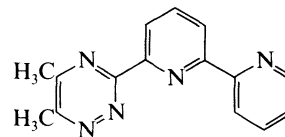


$C_{17}H_{12}N_4$ M 272.309
Used as a 5 mM soln. in 50% EtOH aq. for photometric detn. of Cu(I) (λ_{max} 425 nm, ϵ 16000), Fe(II) (λ_{max} 558 nm, ϵ 8400). Cryst. (C₆H₆). Sol. common org. solvents. Mp 221-222°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 1055 (*detn*, Cu, Fe)

3-[2,2'-Bipyridin-6-yl]-5,6-dimethyl-1,2,4-triazine, 9Cl**B-00226**

[31696-81-8]

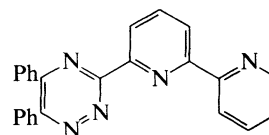


$C_{15}H_{13}N_5$ M 263.301
Used as a 5mM soln. in EtOH aq. for photometric detn. of Co (λ_{max} 514 nm, ϵ 1830), Cu(I) (λ_{max} 425 nm, ϵ 3700), Fe(II) (λ_{max} 555 nm, ϵ 9900). Cryst. (C₆H₆). Sol. common org. solvents. Mp 149-150°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*use*)

3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine**B-00227**

5,6-Diphenyl-3-[6-(2-pyridyl)-2-pyridyl]-as-triazine, 8Cl
[10495-78-0]

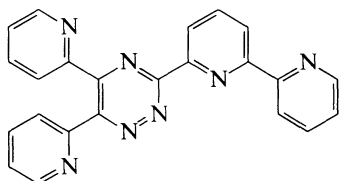


$C_{25}H_{17}N_5$ M 387.443

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 544 nm, ϵ 2600), Cu(I) (λ_{\max} 470 nm, ϵ 2700), Fe(II) (λ_{\max} 590 nm, ϵ 12500). Cryst. (EtOH). Sol. common org. solvs. Mp 184-185°.

Case, F.H., *J. Org. Chem.*, 1966, **31**, 2398 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 475 (*detn. Co, Cu, Fe*)

3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine **B-00228**
5,6-Di-2-pyridyl-3-[6-(2-pyridyl)-2-pyridyl]-as-triazine, 8CI
[10495-79-1]

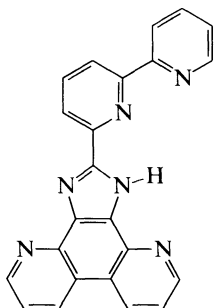


$C_{23}H_{15}N_7$ M 389.418

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 555 nm, ϵ 2700), Cu(I) (λ_{\max} 450 nm, ϵ 3400), Fe(II) (λ_{\max} 601 nm, ϵ 11900). Cryst. (EtOH). Sol. common org. solvs. Mp 164-165°.

Case, F.H., *J. Org. Chem.*, 1966, **31**, 2398 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 475 (*detn. Co, Cu*)

2-(2,2'-Bipyridin-6-yl)-1H-imidazo[4,5-f][4,7]phenanthroline **B-00229**
2-[6-(2-Pyridyl)-2-pyridyl]-1H-imidazo[4,5-f][4,7]phenanthroline, 8CI
[14040-63-2]

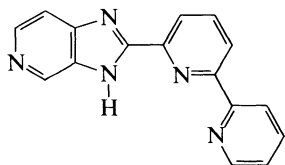


$C_{23}H_{14}N_6$ M 374.404

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 570 nm, ϵ 7000). Cryst. (EtOH). Sol. common org. solvs., dil. HCl. Mp 315-316°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 1055 (*detn. Fe*)

2-(2,2'-Bipyridin-6-yl)-1H-imidazo[4,5-c]pyridine **B-00230**
2-[6-(2-Pyridyl)-2-pyridyl]-1H-imidazo[4,5-c]pyridine, 8CI
[14241-38-4]

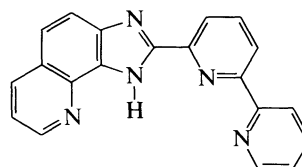


$C_{16}H_{11}N_5$ M 273.296

Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 415 nm, ϵ 14400), Fe(II) (λ_{\max} 566 nm, ϵ 9600). Cryst. (EtOH aq.). Sol. common org. solvents. dil. HCl. Mp 241-242°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 1055 (*detn. Cu, Fe*)

2-(2,2'-Bipyridin-6-yl)-3H-imidazo[4,5-h]quinoline **B-00231**
2-[6-(2-Pyridyl)-2-pyridyl]-3H-imidazo[4,5-h]quinoline, 8CI
[14044-52-1]

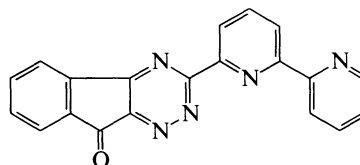


$C_{20}H_{13}N_5$ M 323.356

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 554 nm, ϵ 7300), Cu(I) (λ_{\max} 425 nm, ϵ 15400). Cryst. (C_6H_6). Sol. common org. solvs. Mp 179-180°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 1055 (*detn. Fe, Cu*)

3-[2,2'-Bipyridin-6-yl]-9H-indeno[1,2-e]-1,2,4-triazin-9-one **B-00232**
[37004-81-2]

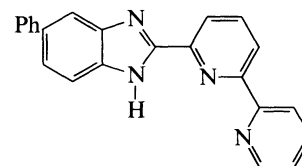


$C_{20}H_{11}N_5O$ M 337.340

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 600 nm, ϵ 11800). Cryst. (2-methoxyethanol). Sol. common org. solvents. Mp 256°.

Case, F.H., *J. Heterocycl. Chem.*, 1972, **9**, 457 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn. Fe*)

2-(2,2'-Bipyridin-6-yl)-5-phenylbenzimidazole **B-00233**
5-Phenyl-2-[6-(2-pyridyl)-2-pyridyl]benzimidazole

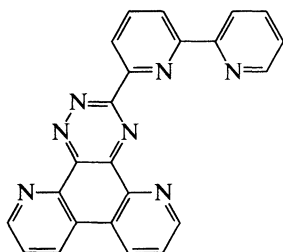


$C_{23}H_{16}N_4$ M 348.406

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 570 nm, ϵ 7000). Cryst. (C_6H_6). Sol. common org. solvents. Mp 170-171°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 1055 (*detn. Fe*)

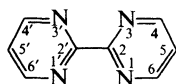
3-(2,2'-Bipyridin-6-yl)-1,2,4-triazino[5,6-f][4,7]phenanthroline **B-00234**
 2-[6-(2-Pyridyl)-2-pyridyl]-as-triazino[5,6-f][4,7]phenanthroline, 8CI
 [10495-80-4]



$C_{23}H_{13}N_7$ M 387.403
 Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 579 nm, ϵ 3100), Cu(I) (λ_{max} 540 nm, ϵ 2400), Fe(II) (λ_{max} 660 nm, ϵ 12000). Cryst. (DMF). Sol. common org. solvs. Mp 372°.

Case, F.H., *J. Org. Chem.*, 1966, **31**, 2398 (synth)
 Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 475 (detn. Co, Cu, Fe)

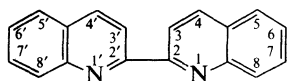
2,2'-Bipyrimidine **B-00235**
 [34671-83-5]



$C_8H_6N_4$ M 158.162
 Complexing agent. Used as a 2% aq. soln. for photometric detn. of Fe(II). Cryst. (EtOAc/pet. ether). Sol. H₂O. Mp 113-115°. Dimeric in H₂O soln.

Bly, D.D. *et al*, *J. Org. Chem.*, 1962, **27**, 2945 (synth)
 Bly, D.D., *Anal. Chem.*, 1963, **35**, 1386 (detn. Fe)
 Dose, E.V. *et al*, *Inorg. Chem.*, 1978, **17**, 2660 (synth, use)

2,2'-Biquinoxaline, 9CI **B-00236**
 2,2'-Biquinoxyl. Cuproine
 [119-91-5]



$C_{18}H_{12}N_2$ M 256.306
 Used as 0.03% soln. in isopentanol for specific photometric detn. of Cu (λ_{max} 546 nm, ϵ 6400). Leaflets. Sol. org. solvs.; insol. H₂O. Mp 196°.

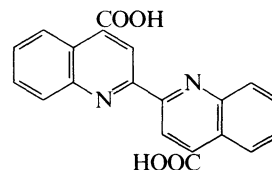
$B_2Me_2SO_4 \cdot$ [26723-70-6].
 Cryst. (EtOH aq.). Mp 260°.
 1,1'-Dioxide: [6495-83-6].

$C_{18}H_{12}N_2O_2$ M 288.305
 Cryst. (MeOH) (anhyd.). Mp 257° dec., Mp 248-250°.
 Also forms hydrates.

Smirnoff, A.P., *Helv. Chim. Acta*, 1921, **4**, 807 (synth)
 Wilbaut, J.P. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1935, **54**, 804 (synth)
 Hoste, J. *et al*, *Anal. Chim. Acta*, 1953, **9**, 263 (detn. Cu)
 Pflaum, R.T. *et al*, *Anal. Chem.*, 1955, **27**, 253 (detn. Cu)
 Natsume, S. *et al*, *Chem. Pharm. Bull.*, 1966, **14**, 557 (oxide)
 Case, F.H. *et al*, *J. Heterocycl. Chem.*, 1966, **3**, 170 (oxide)
 Irving, H.M. *et al*, *Talanta*, 1968, **15**, 1953 (detn. Cu)
 Folting, K. *et al*, *Acta Crystallogr., Sect. B*, 1977, **33**, 3540 (cryst struct)
 Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 331 (use)

Wakabayashi, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1989, **62**, 2338 (synth)
 Iyoda, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1990, **63**, 80 (synth)

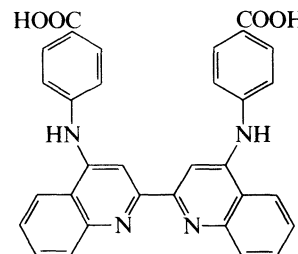
[2,2'-Biquinoxaline]-4,4'-dicarboxylic acid, 9CI **B-00237**
 2,2'-Bicinchoninic acid
 [1245-13-2]



$C_{20}H_{12}N_2O_4$ M 344.326
 Used as a 0.5mM soln. in dil. KOH or 0.1% soln. in 2% KI soln. for photometric detn. of Cu; titrimetric detn. of Cu, Mg; used in detn. of protein conc. Cryst. Sol. EtOH, alkalis; insol. H₂O.

Tikhonov, V.N. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1961, **4**, 25 (synth)
 Mustafin, I.S. *et al*, *Zavod. Lab.*, 1963, **29**, 782 (detn. Cu)
 Tikhonov, V.N. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 390; 1972, **27**, 673 (detn. Cu, Mg)
 Buhl, F. *et al*, *Chem. Anal. (Warsaw)*, 1974, **19**, 361 (detn. Cu)
 Noskova, N.N. *et al*, *CA*, 1975, **83**, 110722h (detn. Cu)
 Smith, P.K. *et al*, *Anal. Biochem.*, 1985, **150**, 76 (use)

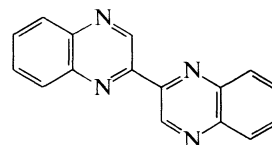
4,4'-([2,2'-Biquinoxaline]-4,4'-diyldiimino) bisbenzoic acid, 9CI **B-00238**



$C_{32}H_{22}N_4O_4$ M 526.550
 Di-Et ester: [29197-37-3].
 $C_{36}H_{30}N_4O_4$ M 582.657
 Used in specific extraction-photometric detn. of Cu(I), (λ_{max} 556 nm, ϵ 17400, butanol). Yellow cryst. (EtOH). Sol. EtOH, butanol; C₆H₆; insol. H₂O. Mp 247°.

Gershuns, A.L. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 595 (synth)
 Gershuns, A.L. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 2048 (detn. Cu)

2,2'-Biquinoxaline, 9CI **B-00239**
 [27739-37-3]

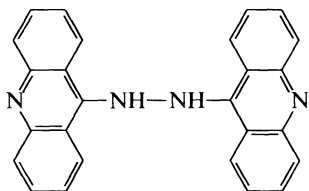


$C_{16}H_{10}N_4$ M 258.282
 Used as a 0.005% soln. in 6M HCl for photometric detn. of Ti(III) (λ_{max} 680 nm, ϵ 29000), Sn(II) (λ_{max} 675 nm, ϵ 20600); potentiometric detn. of Zn; complexing agent for Cu. Sol. dil. acids, Et₂O, Me₂CO, EtOH.

- Baranowski, R. *et al*, *Chem. Anal. (Warsaw)*, 1974, **19**, 997 (*detn. Sn*)
 Baranowski, R. *et al*, *Fresenius' Z. Anal. Chem.*, 1974, **269**, 122 (*detn. Zn*)
 Gershuns, A.L. *et al*, *CA*, 1975, **83**, 34950p (*detn. Cu*)
 Baranowski, R. *et al*, *Microchem. J.*, 1975, **20**, 1 (*detn. Sn*)
 Sidorov, E.O. *et al*, *CA*, 1976, **85**, 33085q (*synth*)
 Baranowski, R. *et al*, *Mikrochim. Acta*, 1976, **2**, 151 (*detn. Ti*)

N,N'-Bis(9-acridinyl)hydrazine**B-00240**

[3548-08-1]

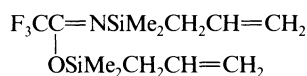
 $C_{26}H_{18}N_4$ M 386.455

Used as acid-base indicator (colour change: rose → yellow). Cryst.

- Ladanyi, L. *et al*, *CA*, 1972, **77**, 83158r (*use*)
 Pham Hai Tung, *et al*, *CA*, 1972, **77**, 93428y (*use*)

N,O-Bis(allyldimethylsilyl)trifluoroacetamide**B-00241**

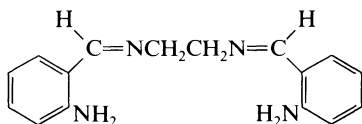
Dimethyl-2-propenylsilyl N-(dimethyl-2-propenylsilyl)-2,2,2-trifluoroethanimidate, 9CI. *BADMSTFA*
 [126235-52-7]

 $C_{12}H_{22}F_3NOSi_2$ M 309.478Silylation reagent for prostaglandins and steroids. Oil. Bp₄ 67-70°.

- Steffenrud, S. *et al*, *J. Chromatogr. Sci.*, 1989, **27**, 545 (*synth, use*)

N,N'-Bis(o-aminobenzylidene)ethylenediamine**B-00242**

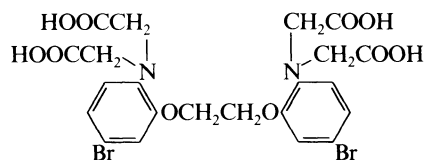
N, N'-Bis(2-aminophenyl)methylene-1,2-ethanediamine, 9CI
 [4408-47-3]

 $C_{16}H_{18}N_4$ M 266.345Used for photometric detn. of Co, Ni. Cryst. (EtOH). Sol. EtOH, Me₂CO, C₆H₆ insol. H₂O.

- Berge, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **213**, 346.

1,2-Bis(2-amino-5-bromophenoxy)ethane-N,N,N',N'-tetraacetic acid**B-00243**

N,N'-[1,2-Ethanediy]bis[oxy(4-bromo-2,1-phenylene)]]bis[N-(carboxymethyl)glycine], 9CI. *Dibromo-BAPTA*
 [111248-72-7]

 $C_{22}H_{22}Br_2N_2O_{10}$ M 634.231

Calcium buffer and indicator.

Tetra-Et ester: [73630-12-3].

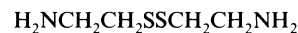
 $C_{30}H_{38}Br_2N_2O_{10}$ M 746.446
Mp 125-127°.

[73630-11-2]

Tsien, R.Y., *Biochemistry*, 1980, **19**, 2396 (*synth, use*)Harrison, S.M. *et al*, *Biochim. Biophys. Acta*, 1987, **925**, 133 (*use*)**Bis(2-aminoethyl) disulfide****B-00244**

2,2'-Dithiobisethanamine, 9CI. *2,2'-Dithiobisethylamine*, 8CI.
Cystamine. *Cystineamine*. L 1591

[51-85-4]

 $C_4H_{12}N_2S_2$ M 152.284

Radioprotective agent. Viscous oil. Dec. on dist.

▷ KR7175000.

B,2HCl: [56-17-7].

Prisms (EtOH). Mp 212°.

▷ KR7260000.

Dipicrate: Yellow cryst. Mp 204°.*N,N'-Bisacrylyl*: [60984-57-8]. *N,N'-(Dithiodi-2,1-ethanediy)bis-2-propenamide* $C_{10}H_{16}N_2O_2S_2$ M 260.381

Used for making polyacrylamide gels which are soluble in thiol reagents. Mp 119-123°.

Johnston, T.P. *et al*, *J. Org. Chem.*, 1961, **26**, 3780 (*synth*)Wallace, T.J. *et al*, *Chem. Ind. (London)*, 1966, 1558 (*synth*)Owen, T.C., *J. Chem. Soc. C*, 1967, 1373 (*synth*)Castle, R.N. *et al*, *J. Heterocycl. Chem.*, 1968, **5**, 113 (*synth*)Wilson, G.E. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 1465 (*pmr*)Hansen, J.N. *et al*, *Anal. Biochem.*, 1976, **76**, 37; 1980, **105**, 192;1981, **116**, 146 (*synth, props, use, bisacrylyl*)Foye, W.O. *et al*, *J. Pharm. Sci.*, 1976, **65**, 1247 (*synth, props*)Vedavathi, B.M. *et al*, *Curr. Sci.*, 1979, **48**, 1028 (*cryst struct*)Gosselet, M. *et al*, *Eur. Polym. J.*, 1979, **15**, 1079 (*synth,**bisacrylyl*)Yamaguchi, H. *et al*, *CA*, 1982, **97**, 143983 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CQJ750, MCN500.**Bis(2-aminoethyl)dithiocarbamic acid****B-00245***Bis(2-aminoethyl)carbamodithioic acid*, 9CI

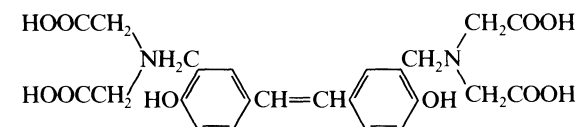
[31635-89-9]

 $C_5H_{13}N_3S_2$ M 179.310

Used for photometric detn. of Mo(VI). Cryst.

Deshmukh, G.S. *et al*, *Indian J. Chem.*, 1969, **9**, 498.**3,3'-Bis(aminomethyl)-4,4'-dihydroxystilbene-N,N,N',N'-tetraacetic acid****B-00246**

3,3'-[Vinylenebis[(6-hydroxy-m-phenylene)methylenenitrilo]]tetraacetic acid, 8CI

 $C_{24}H_{26}N_2O_{10}$ M 502.477

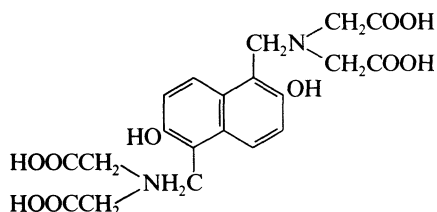
(E)-form [23191-11-9]

Used as fluorescent indicator for Cd. Cryst. (hot H₂O).
Sol. alkalis; sl. sol. H₂O.

Tamkina, V.Y. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 894 (*detn*, Cd)

**1,5-Bis(aminomethyl)-2,6-naphthalenediol-
N,N,N',N'-tetraacetic acid** **B-00247**

[(2,6-Dihydroxy-1,5-naphthylene)bis(methylenenitrilo)]
tetraacetic acid, 8CI
[22919-40-0]



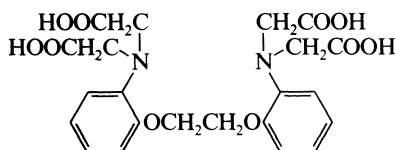
C₂₀H₂₂N₂O₁₀ M 450.401

Used as a 0.1mM aq. soln. of di-Na salt for fluorimetric
detn. of Ba, Ca, Ce, Mg, Sr. Cryst. (H₂O). Sol. EtOH,
hot H₂O, alkalis.

Budesinsky, B. *et al*, *Talanta*, 1969, **16**, 399.

**1,2-Bis(2-aminophenoxy)ethane-
N,N,N',N'-tetraacetic acid** **B-00248**

N,N'-[1,2-Ethanediy]bis(oxy-2,1-phenylene)]bis[N-
(carboxymethyl)glycine], 9CI. BAPTA
[85233-19-8]



C₂₂H₂₄N₂O₁₀ M 476.439

Highly selective buffer and optical indicator for cellular
Ca²⁺ ions. Mp 172-178°.

Tetra-Me ester:

C₂₆H₃₂N₂O₁₀ M 532.546
Cryst. Mp 95-97°.

Tetra-Et ester: [73630-07-6].

C₃₀H₄₀N₂O₁₀ M 588.653
Mp 95-97°.

[73630-08-7]

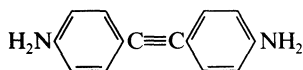
Tsien, R.Y., *Biochemistry*, 1980, **19**, 2396 (*synth*, *pmr*, *uv*, *use*)

Chaincone, E. *et al*, *J. Biol. Chem.*, 1986, **261**, 16306 (*use*)

Adams, S.R. *et al*, *J. Am. Chem. Soc.*, 1989, **111**, 7957 (*deriv*,
synth, *use*)

Bis(4-aminophenyl)acetylene **B-00249**

4,4'-(1,2-Ethynediyl)bisbenzenamine, 9CI. 4,4'-
Ethynylenedianiline, 8CI. 4,4'-Diaminotolane
[6052-15-9]



C₁₄H₁₂N₂ M 208.262

Used for gravimetric detn. of SO₄²⁻. Pale-yellow needles
(EtOH). Mod. sol. Me₂CO. Mp 236°.

Di-Ac:

C₁₈H₁₆N₂O₂ M 292.337
Mp 281°.

Dibenzoyl:

C₂₈H₂₀N₂O₂ M 416.478
Mp 332°.

Ruggli, P. *et al*, *Helv. Chim. Acta*, 1938, **21**, 38 (*synth*)

Belcher, R. *et al*, *Anal. Chim. Acta*, 1953, **8**, 122 (*synth*, *detn*,
SO₄²⁻)

Litvinenko, L.M. *et al*, *Zh. Obshch. Khim.*, 1958, **28**, 2046 (*synth*)

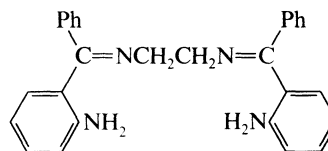
Berry, R.W.H. *et al*, *Tetrahedron*, 1960, **10**, 109 (*ir*)

Bazhin, N.M. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1966, 1154
(*nmr*)

Veschambre, H. *et al*, *Bull. Soc. Chim. Fr.*, 1967, 134 (*uv*)

**N,N'-Bis(o-amino-α-phenylbenzylidene)
ethylenediamine, 8CI** **B-00250**

N,N'-Bis(o-aminobenzophenone)ethylenediimine
[29055-00-3]



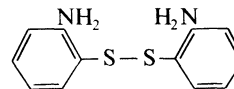
C₂₈H₂₆N₄ M 418.540

Used as 0.02% soln. in C₆H₆ for extraction-photometric
detn. of Co, Ni, Pd, Pt. Pale yellow cryst. (C₆H₆). Sol.
EtOH, Me₂CO, C₆H₆, acids; insol. H₂O. Mp 136-137°.

Uhlemann, E. *et al*, *Anal. Chim. Acta*, 1968, **42**, 247 (*use*)

Bis(2-aminophenyl) disulfide **B-00251**

2,2'-Dithiobisbenzenamine, 9CI. 2,2'-Dithiodianiline, 8CI.
2,2'-Diaminodiphenyl disulfide. Intramine
[1141-88-4]



C₁₂H₁₂N₂S₂ M 248.372

Vulcanizing agent for urethane rubbers, shows bactericidal
and fungicidal activity. Used as EtOH soln. for
photometric detn. of Pt(IV) (λ_{max} 725 nm, ε 54800).
Leaflets or needles (EtOH aq.). Sol. acids, EtOH; spar.
sol. H₂O. Mp 93°.

▷ Toxic. BX9540000.

Dipicrate: Mp 141°.

2,2'-N-Di-Ac: [3095-79-2].

C₁₆H₁₆N₂O₂S₂ M 332.447
Mp 156°.

Gialdi, F. *et al*, *Farmaco, Ed. Sci.*, 1959, **14**, 216 (*synth*)

Davara, A.C., *CA*, 1968, **68**, 95438 (*synth*, *nmr*, *ir*)

Uemura, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1977, **50**, 220 (*synth*)

Shapiro, B.L. *et al*, *J. Phys. Chem. Ref. Data*, 1977, **6**, 919 (*nmr*)

Bag, S.P. *et al*, *Talanta*, 1977, **24**, 128 (*use*)

Higashi, L.S. *et al*, *J. Am. Chem. Soc.*, 1978, **100**, 8101 (*cryst*
struct)

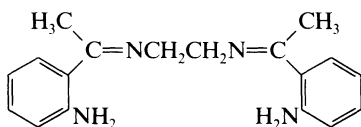
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, DXJ800.

N,N'-Bis[1-(2-aminophenyl)ethylidene-1,2-ethanediamine

B-00252

N,N'-Bis(o-amino- α -methylbenzylidene)ethylenediamine, 8Cl

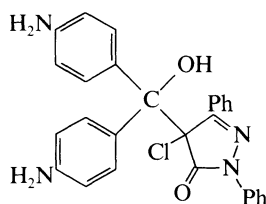
[21338-92-1]

C₁₈H₂₂N₄ M 294.399

Used as 0.02% soln. in C₆H₆ for extraction-photometric detn. of Co, Cu, Ni, Pd, Pt. Pale yellow cryst. (C₆H₆). Sol. EtOH, Me₂CO, C₆H₆, acids; insol. H₂O. Mp 153-156°.

Uhlemann, E. *et al*, *Anal. Chim. Acta*, 1968, **42**, 247.**4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3H-pyrazol-3-one, 9Cl**

B-00253

C₂₈H₂₃ClN₄O₂ M 482.968N⁴,N⁴,N^{4'},N^{4'}-Tetra-Me: [30535-22-9].C₃₂H₃₁ClN₄O₂ M 539.075

Used as 3mM aq. soln. (with 3% Me₂CO) for co-pptn. sepn. of Pd, Pt and Rh (0.2-0.5M H₂SO₄, 1.5M KI). Dark green cryst. powder. Sol. Me₂CO, EtOH; sl. sol. H₂O.

N⁴,N⁴,N^{4'},N^{4'}-Tetra-Et: [81195-42-8].C₃₆H₃₉ClN₄O₂ M 595.182

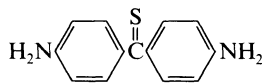
Used as 3mM aq. soln. (with 3% Me₂CO) for co-pptn. sepn. of Pd, Pt and Rh (0.2-0.5M H₂SO₄, 1.5M KI). Dark green cryst. powder. Sol. Me₂CO, EtOH.

Chelnokova, M.N. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1368 (*use*)**Bis(4-aminophenyl)methanethione**

B-00254

4,4'-Diaminothiobenzophenone

[59142-17-5]

C₁₃H₁₂N₂S M 228.317

N,N'-Di-Et: [25642-33-5]. Bis[4-(diethylamino)phenyl]methanethione, 9Cl. 4,4'-Bis(diethylamino)thiobenzophenone

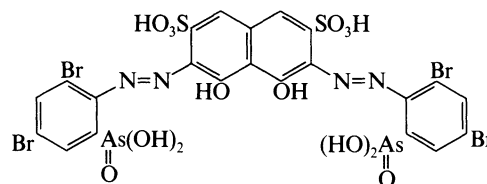
C₂₁H₂₈N₂S M 340.532

Used as 0.08% EtOH soln. for sensitive photometric detn. of Pt(IV) (λ_{\max} 500 nm). Dark red cryst. (EtOH). Sol. EtOH; insol. H₂O.

Madelung, W., *J. Prakt. Chem.*, 1926, **114**, 1 (*synth*)Chang Wen Bao, *et al*, *Microchem. J.*, 1989, **39**, 149 (*detn. Pt*)**3,6-Bis[(2-arsono-4,6-dibromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8Cl**

B-00255

Tetrabromoarsenazo III

C₂₂H₁₄As₂Br₄N₄O₁₄S₂ M 1091.962

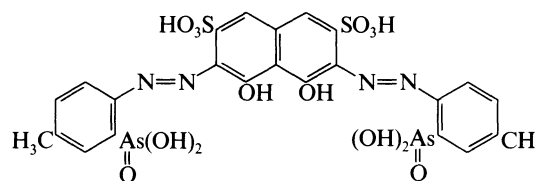
Used for photometric detn. of Be, Cu, Th, U(VI). Dark red cryst. powder. Mod. sol. H₂O.

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)**3,6-Bis[(2-arsono-4-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9Cl**

B-00256

p-Dimethylarsenazo III

[61996-72-3]

C₂₄H₂₂As₂N₄O₁₄S₂ M 804.431

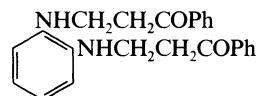
Used as 0.05% aq. soln. for photometric detn. of Th (λ_{\max} 690 nm, ϵ 11000), rare earth elements, U, Zn. Dark red cryst. (MeOH). Sol. H₂O; insol. C₆H₆.

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)Luk'yanov, V.F. *et al*, *Zavod. Lab.*, 1976, **42**, 1302.**N,N'-Bis(4-benzoylethyl)-1,2-benzenediamine**

B-00257

3',3'-(o-Phenylenediimido)dipropiophenone, 8Cl. N,N'-Bis(2-benzoylethyl)-o-phenylenediamine

[3506-47-6]

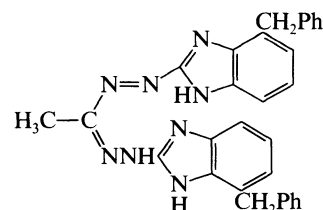
C₂₄H₂₄N₂O₂ M 372.466

Used as a 0.1% soln. in AcOH for photometric detn. of Se (λ_{\max} 508 nm). Cryst. Sol. EtOH, Me₂CO.

Ramanauskas, E. *et al*, *CA*, 1970, **73**, 52028s (*detn. Se*)**1,5-Bis(7-benzyl-2-benzimidazolyl)-3-methylformazan, 8Cl**

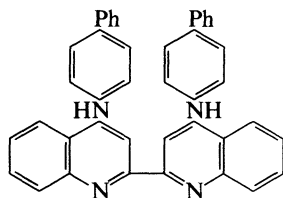
B-00258

[1182-75-8]



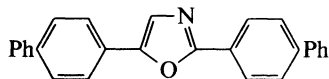
$C_{30}H_{26}N_8$ M 498.589Used as 0.01% soln. in $CHCl_3$ for extraction-photometric detn. of $Tl(III)$. Cryst. (EtOH). Sol. $CHCl_3$, DMF, EtOH.Lomonosov, S.A. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 1062 (*detn*, *Tl*)
Bednaeva, N.P. *et al*, *Zh. Obshch. Khim.*, 1964, **34**, 1288 (*synth*)**4,4'-Bis(4-biphenylamino)-2,2'-biquinoline**

[29197-35-1]

 $C_{42}H_{30}N_4$ M 590.726Used as a soln. in butanol for photometric detn. of Cu (λ_{max} 550 nm, ϵ 14500). Cryst. (EtOH). Sol. hot EtOH, DMF, dioxan; insol. H_2O . Mp 320-321°.Gershuns, A.L. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 595; *CA*, **73**, 98771 (*detn*, *Cu*)**2,5-Bis([1,1'-biphenyl]-4-yl)oxazole, 9CI**

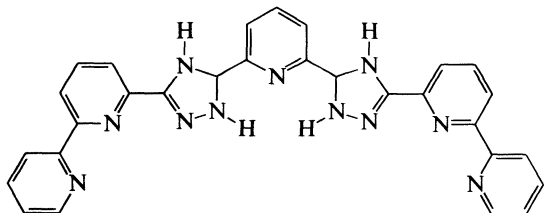
BBO

[2083-09-2]

 $C_{27}H_{19}NO$ M 373.453Laser dye. Scintillator solute. Cryst. ($CHCl_3$ /EtOH). Mp 232-233°.Balaban, A.T. *et al*, *Tetrahedron*, 1963, **19**, 169 (*synth*, *uv*)Birks, J.B. *et al*, *Liq. Scintill. Counting*, 1972, 1 (*use*)Fouassier, J.P. *et al*, *J. Photochem.*, 1977, **7**, 17 (*use*)Slomka, I. *et al*, *Opt. Appl.*, 1979, **9**, 25 (*use*)**2,6-Bis[3-(2,2'-bipyridin-6-yl)-1,2,4-triazolin-5-yl]pyridine**

6,6''-[2,6-Pyridinediyl bis(4,5-dihydro-1H-1,2,4-triazole-5,3-diy)]bis[2,2'-bipyridine], 9CI

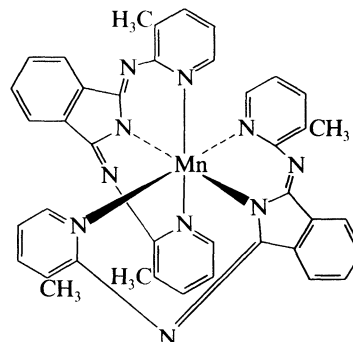
[35171-35-8]

 $C_{29}H_{23}N_{11}$ M 525.574Used as a 5mM soln. in EtOH aq. for photometric detn. of $Fe(II)$ (λ_{max} 550 nm, ϵ 9600, EtOH aq.). Cryst. (2-methoxyethanol). Sol. common org. solvents. Mp 251°.Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 1043 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn*, *Fe*)**Bis[bis(3-methyl-2-pyridylimino)****isoindolinato- N,N',N'']manganese(II)**

B-00262

 $Bis[N-(3-methyl-2-pyridinyl)-1-[(3-methyl-2-pyridinyl)imino]-1H-isoindol-3-aminato]manganese, 11CI$

[79062-03-6]

 $C_{40}H_{32}MnN_{10}$ M 707.698*mer*-Octahedral. Synth. from the ligand + NaOH in MeOH + Mn^{2+} . Nmr shift reagent. Cryst.; forms a $\frac{1}{2}CH_2Cl_2$ solvate. 4-Methyl-2-pyridylimino deriv. also known.

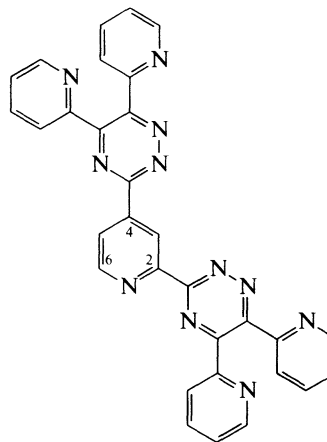
[87802-52-6]

Gagné, R.T. *et al*, *Inorg. Chem.*, 1981, **20**, 3260 (*synth*, *props*)Domaille, P.J. *et al*, *Inorg. Chem.*, 1983, **22**, 3944 (*synth*, *cryst struct*)*Gmelin Handbook Inorg. Chem., Syst. No. 56, 1988, D6, 223 (rev, bibl)***2,4-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine**

B-00263

3,3'-(2,4-Pyridinediyl)bis[5,6-di-2-pyridinyl-1,2,4-triazine], 9CI

[35221-88-6]

 $C_{31}H_{19}N_{11}$ M 545.565Used as a 5 mM soln. in EtOH aq. for photometric detn. of $Fe(II)$ (λ_{max} 565 nm, ϵ 16000, EtOH aq.). Cryst. (DMF). Sol. common org. solvs. Mp 287-288°.Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 1043 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn*, *Fe*)**2,6-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine**

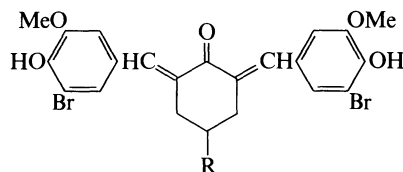
B-00264

2,2'-(2,6-Pyridinediyl)bis[5,6-di-2-pyridinyl-1,2,4-triazine], 9CI

[35171-29-0]

C₃₁H₁₉N₁₁ M 545.565Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{\max} 470 nm, ϵ 16900, EtOH aq.). Cryst. (DMF). Sol. common org. solvs. Mp 264-265°.Case, F.H., *J. Heterocycl. Chem.*, 1971, 8, 1043 (synth)
Schilt, A.A. *et al. Talanta*, 1974, 21, 831 (use)**2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)cyclohexanone**

B-00265

Di-5-bromovanillidenecyclohexanone

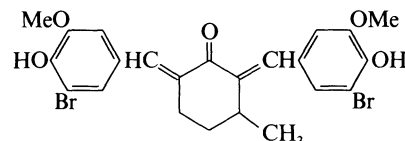
R = H

C₂₂H₂₀Br₂O₅ M 524.205

Used as a 0.1% EtOH soln. as acid-base indicator (pH range: 7.2-8.6; colour change: yellow → red). Yellow cryst. Sol. EtOH. Mp 222-224°.

Samdahl, B., *J. Pharm. Chim.*, 1930, 11, 8 (use)**2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)-3-methyl-1-cyclohexanone**

B-00266

Di-5-bromovanillidene-m-methylcyclohexanoneC₂₃H₂₂Br₂O₅ M 538.232Used as 0.1% soln. in EtOH as an acid-base indicator (pH range: 7.2-8.6; colour change: yellow → red). Yellow cryst. Sol. EtOH, Me₂CO; insol. H₂O. Mp 120°.Samdahl, B., *J. Pharm. Chim.*, 1930, 11, 8 (use)**2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)-4-methyl-1-cyclohexanone**

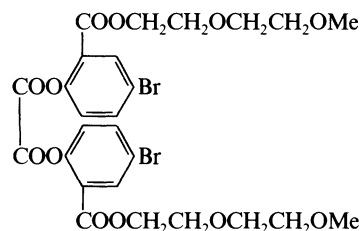
B-00267

Di-5-bromovanillidene-p-methylcyclohexanone

As 2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)cyclohexanone, B-00265 with

R = CH₃C₂₃H₂₂Br₂O₅ M 538.232Used as a 0.1% EtOH soln. as acid-base indicator (pH range: 7.2-8.6; colour change: yellow-green → orange-red). Yellow cryst. Sol. EtOH, Me₂CO; insol. H₂O. Mp 189°.Samdahl, B., *J. Pharm. Chim.*, 1930, 11, 8 (use)**Bis[4-bromo-2-[[2-(2-methoxyethoxy)ethoxy]carbonyl]phenyl] ethanedioate, 9CI**

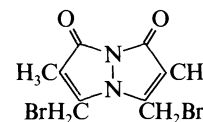
B-00268

Bis[2-(3,6-dioxaheptyloxy)carbonyl]-4-bromophenyl]oxalate
[126192-51-6]C₂₆H₂₈Br₂O₁₂ M 692.308Chemiluminescence reagent for detn. of H₂O₂ and fluorescent compds. Sol. MeCN. Mp 69-72°. λ_{\max} 286 nm.*Difluoro analogue*: [126192-49-2]. *Bis[4-fluoro-2-[[2-(2-methoxyethoxy)ethoxy]carbonyl]phenyl]ethanedioate*C₂₆H₂₈F₂O₁₂ M 570.497Chemiluminescent reagent for detn. of H₂O₂ and fluorescent compds. Mp 62-63°.Nakashima, K. *et al. Analyst (London)*, 1989, 114, 1413 (synth, use)**3,5-Bis(bromomethyl)-2,6-dimethyl-1H,7H-pyrazolo[1,2-a]pyrazole-1,7-dione, 9CI**

B-00269

Dibromobimane

[68654-25-1]

C₁₀H₁₀Br₂N₂O₂ M 350.009

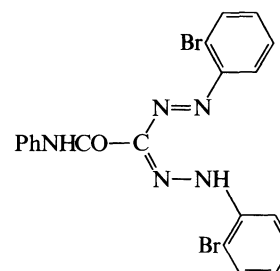
Fluorescent label for thiol groups, e.g. in proteins. Yellow cryst. (EtOAc). Mp 176-177°.

Kosower, N.S. *et al. Proc. Natl. Acad. Sci. U.S.A.*, 1979, 76, 3382 (use)Kosower, E.M. *et al. J. Am. Chem. Soc.*, 1980, 102, 4983 (synth, pmr, ir, uv)Kosower, N.S. *et al. Biochim. Biophys. Acta*, 1982, 622, 201 (use)Kosower, N.S. *et al. Methods Enzymol.*, 1987, 143, 76 (rev)**1,5-Bis(2-bromophenyl)-N-phenyl-3-formazancarboxamide, 9CI**

B-00270

Formazan F51

[112756-83-9]

C₂₀H₁₅Br₂N₅O M 501.179

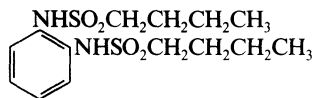
Used as 4mM soln. in CH₂Cl₂ for extraction separation of Ag. Cryst. Sol. CH₂Cl₂, CHCl₃, toluene.

Grote, M. *et al*, *Anal. Chim. Acta*, 1988, **207**, 171 (*synth, detn, Ag*)

N,N'-Bis(butanesulfonyl)-1,2-benzenediamine **B-00271**

N,N'-1,2-Phenylenebis-1-butanefulfonamide, 9CI. 1,2-Bis(butanesulfonamido)benzene. N,N'-Bis(butanesulfonyl)-O-phenylenediamine

[78755-54-1]



C₁₄H₂₄N₂O₄S₂ M 348.487

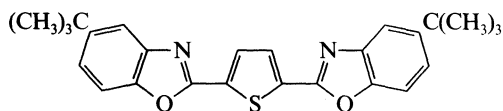
Used as 0.01% soln. in PhCl for extraction separation of Cu(II), Co, Zn, Cd, Pb, Hg(II). Cryst. (Et₂O at -10°). Sol. PhCl, toluene, Et₂O.

Ide, S. *et al*, *Anal. Chim. Acta*, 1983, **149**, 235 (*synth, use*)

2,5-Bis[5-tert-butyl-2-benzoxazolyl]thiophene **B-00272**

2,2'-(2,5-Thiophenediyl)bis[5-(1,1-dimethylethyl)benzoxazole], 9CI. BBOT

[7128-64-5]



C₂₆H₂₆N₂O₂S M 430.570

Solute used for scintillation counting. Laser dye. Cryst. (dioxan/EtOH). Mp 199-202°.

Maeda, M. *et al*, *Jpn. J. Appl. Phys.*, 1974, **13**, 827 (*use*)

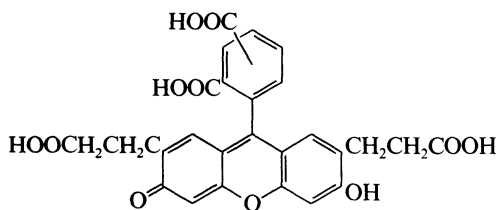
Slomka, I. *et al*, *Opt. Appl.*, 1979, **9**, 25 (*use*)

Seha, Z. *et al*, *Helv. Chim. Acta*, 1980, **63**, 413 (*synth*)

2',7'-Bis(carboxyethyl)carboxyfluorescein **B-00273**

ar-Carboxy-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H)-9'-[9H]xanthene]-2:7'-dipropanoic acid, 9CI. BCECF

[85138-49-4]



C₂₇H₂₀O₁₁ M 520.448

Fluorescent pH indicator for intracellular fluid. Brick-red powder. pK_a 7.0 (37°).

Tetrakis(acetoxymethyl) ester:

C₃₉H₃₆O₁₉ M 808.702

Used in the pH detn. of intracellular fluid.

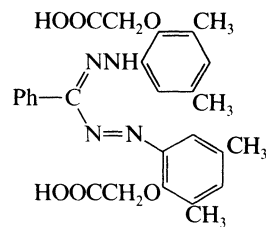
Rink, T.J. *et al*, *J. Cell Biochem.*, 1982, **95**, 189 (*synth, use*)

Grabner, M.L. *et al*, *Anal. Biochem.*, 1986, **156**, 202 (*use*)

1,5-Bis[2-(carboxymethoxy)-3,5-dimethylphenyl]-3-phenylformazan **B-00274**

2,2'-[(3-Phenyl-1,5-formazandiyl)bis[(4,6-dimethyl-2,1-phenylene)oxy]]bisacetic acid, 9CI

[60129-47-7]



C₂₇H₂₈N₄O₆ M 504.541

Used as 0.05% soln. in EtOH for photometric detn. of Li (λ_{max} 590 nm, ε 15000), Ni (λ_{max} 620 nm, ε 33000). Dark violet cryst. (EtOH). Sol. EtOH, Me₂CO, aq. buffer solns. (pH > 7). Mp 174-175°.

Zelichenko, S.L. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2311 (*synth, detn, Li*)

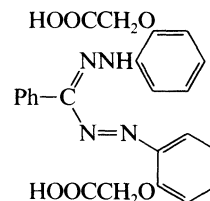
Podchainova, N.V. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 822 (*detn, Li*)

Ostrovskaya, V.M. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1548 (*detn, Ni*)

1,5-Bis[2-(carboxymethoxy)phenyl]-3-phenylformazan **B-00275**

2,2'-[(3-Phenyl-1,5-formazandiyl)bis(2,1-phenylene)oxy]bisacetic acid, 9CI

[57252-81-0]



C₂₃H₂₀N₄O₆ M 448.434

Used as 0.05% soln. in EtOH for photometric detn. of Ni (λ_{max} 620 nm, ε 33000), Li (λ_{max} 580 nm, ε 7600). Dark red cryst. (EtOH). Sol. EtOH, Me₂CO, aq. buffer solns. (pH > 7). Mp 186°. pK_{a1} 4.0; pK_{a2} 4.6; pK_{a3} 10.9.

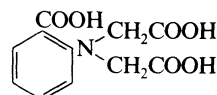
Zelichenko, S.L. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2311 (*synth, detn, Li*)

Ostrovskaya, V.M. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1548 (*detn, Ni*)

2-[Bis(carboxymethyl)amino]benzoic acid, 9CI **B-00276**

N-(2-Carboxyphenyl)iminodiacetic acid. N,N-Bis(carboxymethyl)anthranilic acid. Anthranilicdiacetic acid. Cpida

[1147-65-5]



C₁₁H₁₁NO₆ M 253.211

Used as 0.01M aq. soln. of disodium salt for photometric detn. of Sc, Y, La, Ga, In. Cryst. Sol. alkalis; spar. sol. H₂O; insol. C₆H₆, H₂O.

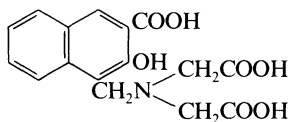
Young, A. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 800 (*synth*)

Dragulescu, C. *et al*, *Talanta*, 1966, **13**, 1451, 1543 (*use*)
Swaminathan, K. *et al*, *Acta Crystallogr., Sect. C*, 1991, **47**, 119
(*cryst struct*)

4-[[Bis(carboxymethyl)amino]methyl]-3-hydroxy-2-naphthoic acid, 8CI **B-00277**

4-(Aminomethyl)-3-hydroxy-2-naphthoic acid-N,N-diacetic acid

[21542-48-3]



$C_{16}H_{15}NO_7$ M 333.297

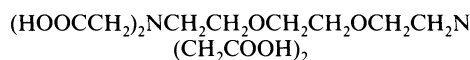
Used as 0.1-1 mM aq. soln. for fluorimetric detn. of Be (λ_{max} 450 nm), La, Lu (λ_{max} 460 nm). Cryst. (H_2O) (as Na salt). Sol. H_2O .

Budeřinsky, B. *et al*, *Anal. Chim. Acta*, 1968, **42**, 455 (*synth, use*)

3,12-Bis(carboxymethyl)-6,9-dioxa-3,12-diazatetradecanedioic acid, 9CI **B-00278**

Ethylenebis(oxyethylenenitrilo)tetraacetic acid, 8CI. Ethylene glycol bis[2-[bis(carboxymethyl)amino]ethyl] ether. Ethylene glycol bis(2-aminoethyl ether)-N,N,N',N'-tetraacetic acid. EGTA. Egtazic acid, INN, USAN

[67-42-5]



$C_{14}H_{24}N_2O_{10}$ M 380.351

Chelating agent, e.g. used in detn. of Ca in presence of Mg. Biochemistry much investigated.

▷ LD₅₀ 150 mg/kg (mouse, i.p.). AH3760000.

Na salt: [31571-71-8].

Used as aq. soln. as a titrant in chelatometric titration; masking agent. Cryst. Sol. H_2O , EtOH, DMF, acids, alkalis. pK_{a1} 2.00; pK_{a2} 2.65; pK_{a3} 8.85; pK_{a4} 9.46.

U.K. Pat., 695 346, (1953); CA, **48**, 11486i (*manuf*)
Schmid, R.W. *et al*, *Anal. Chem.*, 1957, **29**, 264 (*use*)
Sudmeier, J.L. *et al*, *Anal. Chem.*, 1964, **36**, 1698 (*pmr*)
Fr. Pat., 1 381 847, (1964); CA, **62**, 9014d (*manuf*)
Wynn, J.E. *et al*, *Toxicol. Appl. Pharmacol.*, 1970, **16**, 807 (*use, tox*)

Přibil, R., *Analytical Applications of EDTA and Related Compounds*, Pergamon, Oxford, 1972 (*use*)

Ahamd, N. *et al*, *Microchem. J.*, 1977, **22**, 38 (*use*)
Fu Chung Chang, *et al*, *Mikrochim. Acta*, 1979, **2**, 219 (*masking*)
Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press Boca Raton, 1982.

Freeman, M.A. *et al*, *Inorg. Chem.*, 1982, **21**, 567.

Bers, D.H. *et al*, *Am. J. Physiol.*, 1983, **242c**, 404 (*detn, Ca*)

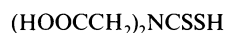
Schauer, C.K. *et al*, *Acta Crystallogr., Sect. C*, 1988, **44**, 981 (*cryst struct, complexes*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EIT000.

Bis(carboxymethyl)dithiocarbamic acid **B-00279**

N-(Carboxymethyl)-N-(dithiocarboxy)glycine, 9CI

[36061-59-3]

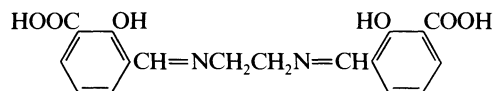


$C_5H_7NO_4S_2$ M 209.247

Used as a 0.1 M soln. in dil. aq. NaOH as masking agent in detn. of Zn with dithizone. Cryst. (H_2O). Sol. hot H_2O , EtOH, Me_2CO , alkalis.

Hulanicki, A. *et al*, *Talanta*, 1967, **14**, 677.

N,N'-Bis[3-carboxysalicylidene]ethylenediamine **B-00280**



$C_{18}H_{16}N_2O_6$ M 356.334

Di-Na salt: Used as a 8% aq. soln. as metallochromic indicator in titrimetric detn. of Fe(III). Yellow cryst. (EtOH). Mp 242°.

Poddar, S.N. *et al*, *Indian J. Chem.*, 1964, **2**, 12 (*detn, Fe*)

Bis(2-chloroethyl) phosphate, 9CI **B-00281**

Bis(2-chloroethyl) hydrogen phosphate. Bis(2-chloroethyl) phosphoric acid



$C_4H_8Cl_2O_4P$ M 222.992

Fluoride: Bis(2-chloroethyl) phosphorofluoridate. Bis(2-chloroethyl) phosphoryl fluoride

$C_4H_8Cl_2FO_3P$ M 224.983

Liq. Bp₂₃ 159-160°.

Chloride: [6087-94-1]. Bis(2-chloroethyl) phosphorochloridate. Bis(2-chloroethyl) phosphoryl chloride

$C_4H_8Cl_3O_3P$ M 241.437

Derivatisation reagent for glc anal. of nitrosamines. Liq. Insol. H_2O . d_4^{20} 1.46. Bp₂ 116-117°. n_D^{20} 1.4710.

▷ Pungent.

Amide: Bis(2-chloroethyl) phosphoramidate

$C_4H_{10}Cl_2NO_3P$ M 222.007

Solid. Insol. $CHCl_3$, Mp 77°.

Cook, H.G. *et al*, *J. Chem. Soc.*, 1949, 635 (*chloride, fluoride, synth, tox*)

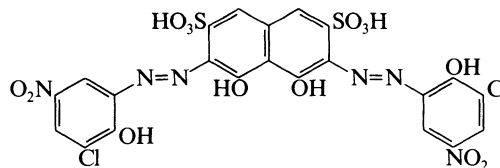
Goldwhite, H. *et al*, *J. Chem. Soc.*, 1955, 2040 (*fluoride*)

Walsh, E.N., *J. Am. Chem. Soc.*, 1959, **81**, 3028 (*amide*)

Pudovik, A.N. *et al*, *Zh. Obshch. Khim.*, 1966, **36**, 1454 (*synth, chloride*)

Idowu, I.R. *et al*, *Talanta*, 1987, **34**, 441 (*use*)

3,6-[Bis(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI **B-00282**



$C_{22}H_{12}Cl_2N_6O_{14}S_2$ M 719.406

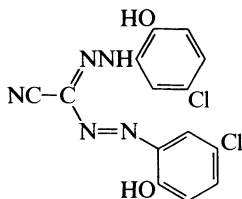
Used for photometric detn. of Al, Ga, Nb, Sc, Zr. Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)

1,5-Bis(5-chloro-2-hydroxyphenyl)-3-cyanoformazan

B-00283

1,5-Bis(5-chloro-2-hydroxyphenyl)-3-formazancarbnitrile
[84890-01-7]



$C_{14}H_9Cl_2N_5O_2$ M 350.163

Used as a 0.05% soln. in EtOH for photometric detn. of alkali metals. Red cryst. (EtOH). Sol. EtOH, Et₂O.

Feng, Y. *et al*, *CA*, 1983, **98**, 118664w (use)

Bis[(chloromethyl)dimethylsilyl]amine

B-00284

1-(Chloromethyl)-N-[(chloromethyl)dimethylsilyl]-1,1-dimethylsilanamine, 9CI. 1,3-Bis(chloromethyl)-1,1,3,3-tetramethyldisilazane, 8CI
[14579-91-0]



$C_6H_{17}Cl_2NSi_2$ M 230.283

Silylation reagent used in gc analysis of steroids. Liq. $d^{20}_{1.0543}$. Bp_{10} 103-105°, Bp_7 95.5°. n_D^{25} 1.4671.

▶ JM9210000.

Schmidt, M. *et al*, *Inorg. Chem.*, 1962, **1**, 909 (synth)

Nametkin, N.S. *et al*, *Khim. Geterotsikl. Soedin.*, 1967, 148.

Brooks, C.J.W. *et al*, *Anal. Lett.*, 1972, **5**, 611 (use)

Hammar, C.G., *Biomed. Mass Spectrom.*, 1978, **5**, 25 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BIL250.

Bis(4-chlorophenyl)ethanedione, 9CI

B-00285

4,4'-Dichlorobenzil, 8CI. Di-p-chlorophenyl diketone
[3457-46-3]



$C_{14}H_8Cl_2O_2$ M 279.121

Yellow needles. Mp 199°.

Monophenylhydrazone: Mp 178°, Mp 200°.

Dioxime: [23766-37-2].

$C_{14}H_{10}Cl_2N_2O_2$ M 309.151

Used as 1mM EtOH soln. for extraction-photometric detn. of Ni (λ_{max} 414 nm, ϵ 14200), Co, Cu. Needles (MeOH aq.). Sol. MeOH, EtOH. Mp 226° dec.

Kenner, J. *et al*, *J. Chem. Soc.*, 1910, **97**, 1967.

Boulton, A.J. *et al*, *J. Chem. Soc. C*, 1969, 1901.

Cumper, C.W.N. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1972, 106 (synth, struct)

Kuse, S. *et al*, *Anal. Chim. Acta*, 1974, **70**, 65 (dioxime, detn, Ni)

Macaione, D.P. *et al*, *Synthesis*, 1974, **10**, 716.

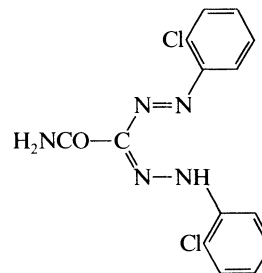
Dillard, J.G. *et al*, *Org. Mass Spectrom.*, 1975, **10**, 28 (ms)

Cremlen, R.J. *et al*, *J. Heterocycl. Chem.*, 1987, **24**, 117 (synth)

1,5-Bis(2-chlorophenyl)-3-formazancarboxamide, 9CI

B-00286

Formazan F52
[69211-10-5]



$C_{14}H_{11}Cl_2N_5O$ M 336.179

Used as 4mM soln. in CH₂Cl₂ for extraction separation of Ag. Cryst. Sol. CH₂Cl₂, CHCl₃.

N-Ph: [62526-02-7]. *1,5-Bis(2-chlorophenyl)-N-phenyl-3-formazancarboxamide, 9CI. Formazan F43*

$C_{20}H_{15}Cl_2N_5O$ M 412.277

Used as a 0.01M soln. in toluene for extraction separation of Pd from Pt and of Ag from Cu(II); photometric detn. of Pd(II) (λ_{max} 623 nm, ϵ 10400). Orange cryst. (EtOH). Sol. toluene, 1,2-dichloroethane, EtOH, dioxan, MeOH; spar. sol. H₂O.

Kettrup, A. *et al*, *Zh. Anal. Khim.*, 1978, **293**, 115 (synth, detn, Pd)

Kettrup, A. *et al*, *CA*, 1979, **90**, 33455p (*N-Ph*, detn, Pd)

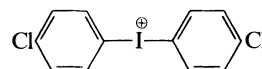
Grote, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1980, **300**, 280; 1982, **310**, 269 (*N-Ph*, synth)

Grote, M. *et al*, *Talanta*, 1984, **31**, 755 (*N-Ph*, use)

Grote, M. *et al*, *Anal. Chim. Acta*, 1988, **207**, 171 (synth, detn, Ag)

Bis(4-chlorophenyl)iodonium(1+), 9CI

B-00287



$C_{12}H_8Cl_2I^{\oplus}$ M 350.005 (ion)

Chloride: [34220-01-4].

$C_{12}H_8Cl_3I$ M 385.458

Used as a 1.2% aq. soln. for extraction-photometric detn. of Co; gravimetric detn. of PO₄³⁻; gives colour reaction with Bi, Co. Cryst. Mp 229°.

[26018-88-2]

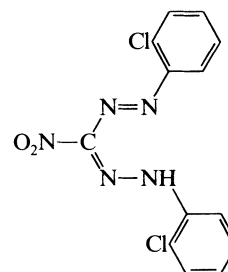
Potratz, H.A. *et al*, *Anal. Chem.*, 1949, **21**, 1276 (detn, Bi, Co)

Bowd, A.J. *et al*, *Mikrochim. Acta*, 1965, 1151; 1967, 560 (detn, Co, PO₄³⁻)

1,5-Bis(2-chlorophenyl)-3-nitroformazan, 9CI

B-00288

Formazan F54
[99514-57-5]



$C_{13}H_9Cl_2N_5O_2$ M 338.152

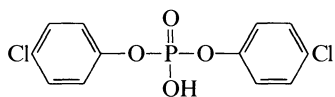
Used as 4mM soln. in toluene for extraction separation of Ag. Cryst. Sol. toluene, CHCl₃.

Grote, M. et al, *Anal. Chim. Acta*, 1988, **207**, 171 (*synth, detn, Ag*)

Bis(4-chlorophenyl) phosphate, 9CI **B-00289**

Bis(4-chlorophenyl) hydrogen phosphate. Bis(4-chlorophenyl) phosphoric acid

[4795-31-7]



C₁₂H₉Cl₂O₄P M 319.080

Used for gravimetric detn. of Fe(III) and for extraction of rare earth elements. Needles or plates. Mp 133-135°.

Chloride: [15074-53-0]. *Bis(4-chlorophenyl) phosphorochloridate. Bis(4-chlorophenyl) phosphoryl chloride. Bis(4-chlorophenyl) chlorophosphate*

C₁₂H₈Cl₃O₃P M 337.525

Phosphorylating agent for nucleosides. Cryst. (ligroin). Mp 56-57°. Bp₈ 219°, Bp_{0.1} 164-176°.

Zetsche, F. et al, *Helv. Chim. Acta*, 1926, **9**, 420, 979 (*synth, use*)

Rosenmund, K.W. et al, *Arch. Pharm. (Weinheim, Ger.)*, 1943, **281**, 317 (*synth, chloride*)

Krasovec, F. et al, *Radiochim. Acta*, 1966, **6**, 114 (*use*)

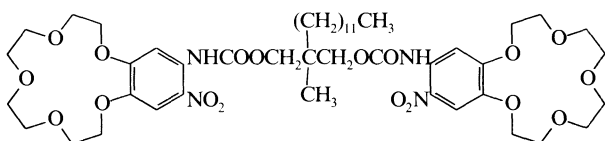
Reimschüssel, W. et al, *Int. J. Chem. Kinet.*, 1980, **12**, 979 (*chloride, synth, props*)

Daskalov, H.P. et al, *Bull. Chem. Soc. Jpn.*, 1981, **54**, 3076 (*chloride, use*)

2,2'-Bis[3,4-(15-crown-5)-2-nitrophenylcarbamoxymethyl] tetradecane **B-00290**

(2,3,5,6,8,9,11,12-Octahydro-16-nitro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)carbamic acid 2-dodecyl-2-methyl-1,3-propanediyl ester, 9CI

[99348-39-7]



C₄₆H₇₀N₄O₁₈ M 967.075

Used in detn. of K in urine and blood analysis (liq. membrane ion-selective electrodes). Yellow solid. Sl. sol. H₂O. Mp 71-72°.

Wang, K. et al, *Anal. Sci.*, 1990, **6**, 715 (*use*)

Lindner, E. et al, *Mikrochim. Acta*, 1990, **1**, 157 (*synth, use*)

Dinten, O. et al, *Anal. Chem.*, 1991, **63**, 596 (*detn, K*)

N,N'-Bis(2,3,5,6,9,10,12,13,15,16-decahydro-8H-1,7,4,7,11,14-benzodioxatetrathiacyclonadecin-19-yl)pentanediamide, 9CI **B-00291**

1,3-Bis[(2,3-benzo-1,4-dioxo-7,10,14,17-tetrathiacyclonadecenyl)aminocarbonyl]propane

[81810-65-3]



C₃₉H₅₈N₂O₆S₈ M 907.425

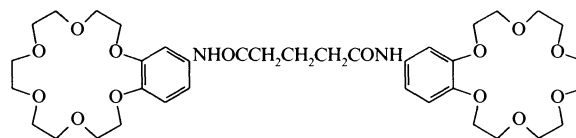
Used as 0.05mM soln. in CHCl₃ for selective extraction separation of Ag from Cu, Hg, Pb and other metals. Cryst. Sol. CHCl₃.

Oue, M. et al, *J. Polym. Sci., Polym. Chem. Ed.*, 1985, **23**, 2033 (*synth*)

Oue, M. et al, *Anal. Chim. Acta*, 1987, **194**, 293 (*use*)

N,N'-Bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)pentanediamide, 9CI **B-00292**

[69067-18-1]



C₃₇H₅₄N₂O₁₄ M 750.839

Used as 0.1-0.5mM CHCl₃ soln. for extraction of Ag, Tl(I), alkali and alkali earth metals. Cryst. Sol. CHCl₃.

Kimura, K. et al, *Anal. Lett. Part A*, 1978, **11**, 821 (*synth*)

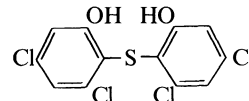
Maeda, T. et al, *Fresenius' Z. Anal. Chem.*, 1979, **298**, 363; 1982, **313**, 407 (*detn, Ag, Tl*)

Kimura, K. et al, *Talanta*, 1979, **26**, 945 (*alkali and alkali earth metals*)

Bis(2,4-dichloro-6-hydroxyphenyl)disulfide **B-00293**

2,2'-Thiobis[4,6-dichlorophenol], 9CI, 8CI. Bithionol, BAN, INN. Actamer. Anafongine. Bacterostat CS I.

Bisoxypfen. Bitin. Loroithidol. Nobacter (obsol.). Prevenol [97-18-7]



C₁₂H₆Cl₄O₂S M 356.055

Bactericidal, anthelmintic, algicide, formerly used in soaps and cosmetics. Used for photometric detn. of Fe. Cryst. Sol. dil. alkalis. d 1.736. Mp 185.5-186.5°.

► Mod. toxic, causes photosensitivity and cross-sensitisation, banned in cosmetics by the FDA. SN0525000.

Di-Na salt: [6385-58-6]. *Bithionolate sodium, USAN. Sodium bithionolate, INN. Vancide BN*

► SN0700000.

S-Oxide: [844-26-8]. *Bithionoloxide, INN. Bitin S. Disto 5. Distobitin. Neodistol. Sulfene (soviet)*

C₁₂H₆Cl₄O₃S M 372.054

Anthelmintic. Needles. Mp 220°.

► SM8800000.

Adams, J.B., *J. Pharm. Pharmacol.*, 1958, **10**, 507, 516 (*synth, pharmacol*)

U.S. Pat., 2 849 494, (1958); *CA*, **53**, 4212e (*synth, props*)

Takubo, T. et al, *Yakugaku Zasshi*, 1958, **78**, 482; *CA*, **52**, 17268g (*synth, deriv*)

Anon, *CA*, 1968, **68**, 72211w (*tox*)

Fogg, A.G. et al, *Anal. Chim. Acta*, 1969, **45**, 196; **47**, 151 (*detn, Fe*)

Ivanova, T.M. et al, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1971, **435** (*ir*)

Denisova, L.I. et al, *Khim.-Farm. Zh.*, 1973, **7**, 33 (*pharmacol, synth*)

Guilhon, J. et al, *Bull. Acad. Vet. Fr.*, 1979, **52**, 225 (*rev, deriv*)

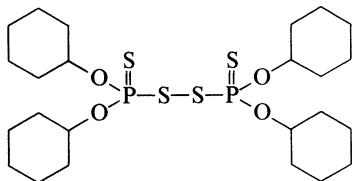
Virin, L.I. et al, *Zh. Org. Khim.*, 1979, **15**, 991 (*ms*)

Sakamoto, M. et al, *J. Toxicol. Sci.*, 1981, **6**, 307 (*metab*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,
Pharmaceutical Press, London, 1982/1989, 2210.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, TFD250.

Bis(dicyclohexyloxyphosphinothioyl) disulfide **B-00294**

Thioperoxydiphosphoric acid tetracyclohexylester, 9CI.
Tetracyclohexyl thioperoxydiphosphate
[7539-17-5]

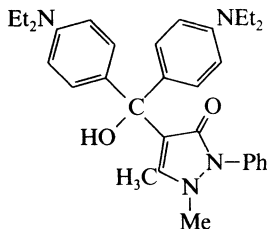


$C_{24}H_{44}O_4P_2S_4$ M 586.821
Used for extraction-photometric detn. of Cu, Pd. Cryst.
Sol. Me_2CO , EtOH, C_6H_6 .

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 136 (detn, Pd)
Shishlov, A.N. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 454 (detn, Cu)

4-[Bis[4-(diethylamino)phenyl] hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI **B-00295**

Chromethylpyrazole
[13153-59-8]

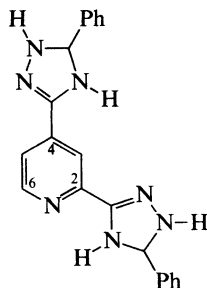


$C_{32}H_{40}N_4O_2$ M 512.694
Used as a 1mM soln. in 1N H_2SO_4 for extraction-
photometric detn. of Ta (λ_{max} 590 nm, ϵ 91000, C_6H_6),
Sn, Re (λ_{max} 635 nm, ϵ 44000). Cryst. Sol. C_6H_6 , hot
conc. H_2SO_4 ; insol. H_2O .

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 574 (detn, Re)
Zhivopistsev, V.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 761 (detn, Sn)
Freidenzon, L.N. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 1754.

2,4-Bis(4,5-dihydro-5-phenyl-1H-1,2,4-triazol-3-yl)pyridine, 9CI **B-00296**

2,4-Bis(5-phenyl-1,2,4-triazolin-3-yl)pyridine
[35171-30-3]



$C_{21}H_{19}N_7$ M 369.428

Used as a 5mM soln. in aq. EtOH for photometric detn.
of Fe(II) (λ_{max} 535 nm, ϵ 11500, EtOH aq.). Cryst.
(EtOH). Sol. common org. solvs. Mp 155-156°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 1043 (synth)
Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (use)

2,6-Bis(4,5-dihydro-5-phenyl-1H-1,2,4-triazol-3-yl)pyridine, 9CI **B-00297**

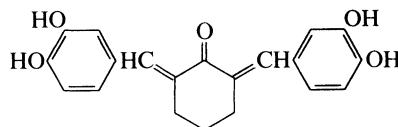
2,6-Bis(5-phenyl-1,2,4-triazolin-3-yl)pyridine
[26728-26-7]

$C_{21}H_{19}N_7$ M 369.428

Used as a 5mM soln. in aq. EtOH for photometric detn.
of Fe(II) (λ_{max} 560 nm, ϵ 1500, EtOH aq.). Cryst.
(EtOH). Sol. common org. solvs. Mp 172-173°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 1043 (synth)
Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (use)

2,6-Bis(3,4-dihydroxybenzylidene) cyclohexanone **B-00298**



$C_{20}H_{18}O_5$ M 338.359

Used as a soln. in EtOH as acid-base indicator ($pH_i =$
11.8; colour change: yellow \rightarrow violet). Yellow leaflets.
Spar. sol. EtOH. Mp 242-245°.

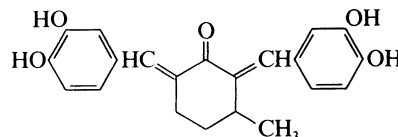
Di(3-Et ether): 2,6-Bis(3-ethoxy-4-hydroxybenzylidene) cyclohexanone

$C_{24}H_{26}O_5$ M 394.466

Used as soln. in EtOH as acid-base indicator (pH range:
8-10.4; colour change: yellow \rightarrow red). Yellow leaflets.
Spar. sol. EtOH. Mp 158°.

Samdahl, B., *J. Pharm. Chim.*, 1930, **11**, 8 (use, ind)

2,6-Bis(3,4-dihydroxybenzylidene)-3-methyl-1-cyclohexanone **B-00299**



$C_{21}H_{20}O_5$ M 352.386

Used as a soln. in EtOH as acid-base indicator ($pH_i =$
11.8; colour change: yellow \rightarrow violet). Yellow leaflets.
Sol. EtOH, Me_2CO ; insol. H_2O . Mp 242-245°.

Di(3-Et ether): 2,6-Bis(3-ethoxy-4-hydroxybenzylidene)-3-methyl-1-cyclohexanone

$C_{25}H_{28}O_5$ M 408.493

Used as a soln. in EtOH as acid-base indicator ($pH_i =$
11.8; colour change: yellow \rightarrow violet). Yellow leaflets.
Spar. sol. EtOH; insol. H_2O .

Samdahl, B., *J. Pharm. Chim.*, 1930, **11**, 8 (use, ind)

2,6-Bis(3,4-dihydroxybenzylidene)-4-methyl-1-cyclohexanone **B-00300**

$C_{21}H_{20}O_5$ M 352.386

Used as a soln. in EtOH as acid-base indicator ($pH_i =$
11.8; colour change: yellow \rightarrow violet). Yellow leaflets.
Sol. EtOH, Me_2CO ; insol. H_2O . Mp 221-223°.

Di(3-Et ether): 2,6-Bis(3-ethoxy-4-hydroxybenzylidene)-4-methyl-1-cyclohexanone

$C_{25}H_{26}O_5$ M 408.493

Used as a soln. in EtOH as acid-base indicator (pH range: 8-10.4; colour change: yellow → red). Yellow leaflets. Sl. sol. EtOH; insol. H_2O . Mp 148-149°.

Samdahl, B., *J. Pharm. Chim.*, 1930, **11**, 8 (use)

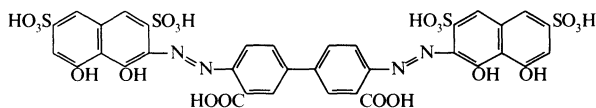
Turbidimetric acid-base indicator used as a 0.25-0.5% soln. in EtOH (pH range: 9.2-9.6). Cryst. Sol. Me_2CO , EtOH.

Korenmann, I.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1305 (use, ind)

4,4'-Bis[(1,8-dihydroxy-3,6-disulfo-2-naphthyl)azo]-3,3'-biphenyldicarboxylic acid, 9Cl B-00301

Bianthrazochrome

[3440-25-3]



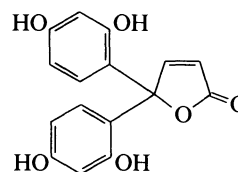
$C_{34}H_{22}N_4O_{20}S_4$ M 934.827

Used as a 1mM aq. soln. for photometric detn. of Co (λ_{max} 665 nm, ϵ 8800). Red cryst. (H_2O). Sol. alkalis; mod. sol. H_2O .

Basargin, N.N. *et al*, *Azerb. Khim. Zh.*, 1970, **3**, 126.

5,5-[Bis(2,4-dihydroxyphenyl)]-2(5H)-furanone B-00305

Resorcinmalein



$C_{16}H_{12}O_6$ M 300.267

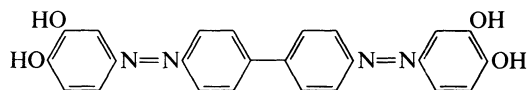
Used as acid-base indicator (pH range: 5.0-6.5; colour change: yellow → orange-red). Yellow cryst. (EtOH/ CCl_4). Mp 275-278°.

Webster, V.S. *et al*, *CA*, 1954, **48**, 11837g (synth)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

4,4'-Bis(3,4-dihydroxyphenylazo)biphenyl B-00302

4,4'-[[1,1'-Biphenyl]-4,4'-diylbis(azo)]bis-1,2-benzenediol, 9Cl [72220-05-4]



$C_{24}H_{18}N_4O_4$ M 426.431

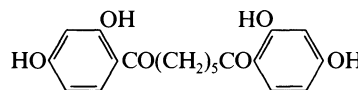
Used as a 0.5mM soln. in EtOH for photometric detn. of Ga (λ_{max} 560nm, ϵ 34000, pH 2.4-3.5), Hf, Zr, (λ_{max} 590 nm, ϵ 68000, pH 0.3). Yellow cryst. (EtOH). Sol. EtOH, Me_2CO , alkalis.

Savoskina, L.N. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1465; 1981, **36**, 1483; 1982, **37**, 845 (synth, detn, Ga, Zr)

1,7-Bis(2,4-dihydroxyphenyl)-1,7-heptanedione, 9Cl, 8Cl B-00306

1,5-Bis(2,4-dihydroxybenzoyl)pentane

[7658-30-2]



$C_{19}H_{20}O_6$ M 344.363

Turbidimetric acid-base indicator used as a 0.25-0.5% soln. in EtOH (pH range: 5.5-5.9). Needles (MeOH aq.). Sol. Me_2CO , EtOH. Mp 166°.

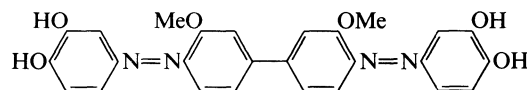
Rybakova, N.A. *et al*, *Zh. Obshch. Khim.*, 1961, **31**, 1272 (synth)

Korenman, I.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1305 (use, ind)

4,4'-Bis(3',4'-dihydroxyphenylazo)-3,3'-dimethoxybiphenyl B-00303

4,4'-[(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis-1,2-benzenediol, 9Cl. 4,4'-Bis(catecholylazo)-3,3'-dimethoxybiphenyl

[80495-39-2]



$C_{26}H_{22}N_4O_6$ M 486.483

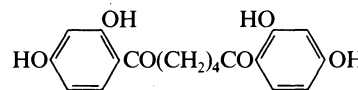
Used as 0.5mM EtOH soln. for photometric detn. of Zr (λ_{max} 600 nm, ϵ 68000, pH ~0.15). Yellow cryst. Sol. EtOH, Et_2O .

Savos'kina, L.N. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1483 (synth, detn, Zr)

1,6-Bis(2,4-dihydroxyphenyl)-1,6-hexanedione, 9Cl, 8Cl B-00307

1,4-Bis(2,4-dihydroxybenzoyl)butane

[19343-47-6]



$C_{18}H_{18}O_6$ M 330.337

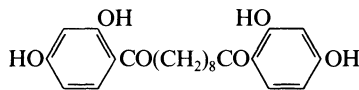
Turbidimetric acid-base indicator used as a 0.25-0.5% soln. in EtOH (pH range: 8.3-8.5). Cryst. Sol. Me_2CO , EtOH.

Korenmann, I.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1305 (use, ind)

1,10-Bis(2,4-dihydroxyphenyl)-1,10-decanedione, 9Cl, 8Cl B-00304

1,8-Bis(2,4-dihydroxybenzoyl)octane

[3088-14-0]

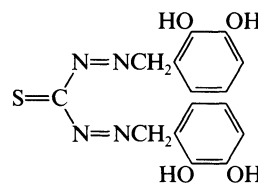


$C_{22}H_{26}O_6$ M 386.444

Bis[(2,3-dihydroxyphenyl)methylene]carbonothioic dihydrazide, 9Cl B-00308

1,5-Bis(2,3-dihydroxyphenylmethylene)thiocarboxyhydrazone

[114459-15-3]



$C_{15}H_{14}N_4O_4S$ M 346.366

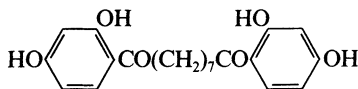
Used as 0.01M EtOH soln. for fluorimetric detn. of Zn (λ_{\max} 508 nm, 60% EtOH medium, pH 6.5) and Ga (λ_{\max} 493 nm). Yellow cryst. (EtOH aq.). Sol. EtOH, alkalis, acids. Mp 189-192°.

Afonso, A.M. *et al*, *Anal. Chim. Acta*, 1987, **202**, 207 (*synth, detn, Zn*)

Santana, J.J. *et al*, *Mikrochim. Acta*, 1990, **1**, 55 (*detn, Ga*)

1,9-Bis(2,4-dihydroxyphenyl)-1,9-nonanedione, 9Cl, 8Cl **B-00309**

1,7-Bis(2,4-dihydroxybenzoyl)heptane
[7640-25-7]



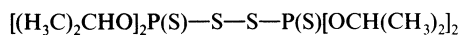
$C_{21}H_{24}O_6$ M 372.417

Turbidimetric acid-base indicator used as a 0.25-0.5% soln. in EtOH (pH range: 7.5-7.8). Cryst. Sol. Me_2CO , EtOH.

Korenmann, I.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1305 (*use, ind*)

Bis(diisopropoxyphosphinothioyl) disulfide **B-00310**

Tetrakis(1-methylethyl) thioperoxydiphosphate, 9Cl.
Tetraisopropyl thioperoxydiphosphate
[3031-21-8]



$C_{12}H_{28}O_4P_2S_4$ M 426.562

Antioxidant; heat stabilizer for synth. rubbers. Cu complex used in estimation of tocopherols. Used for extraction-photometric detn. of Cu, Pd. Cryst. (EtOH). Sol. Me_2CO , EtOH, C_6H_6 , Mp 91-92°.

Zemlyanskii, N.I. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 811), 1961, **31**, 880 (*synth*)

Vasil'ev, A.F. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 2333), 1964, **34**, 2322 (*ir*)

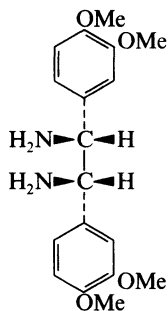
Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 136 (*detn, Pd*)

Yordanov, N.D. *et al*, *Inorg. Nucl. Chem. Lett.*, 1976, **12**, 527 (*props, use*)

Shishkov, A.N. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 454 (*detn, Cu*)

1,2-Bis(3,4-dimethoxyphenyl)-1,2-ethanediamine, 9Cl **B-00311**

[93913-15-6]



$C_{18}H_{24}N_2O_4$ M 332.399

(*RS,SR*)-form [93913-19-0]

meso-form

Fluorogenic reagent for catecholamines. Cryst. (EtOAc). Mp 189°.

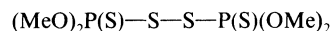
[93913-20-3]

Umegae, Y. *et al*, *Anal. Chim. Acta*, 1988, **208**, 59 (*synth, pmr, w, ir, use*)

Bis(dimethoxyphosphinothioyl) disulfide **B-00312**

Tetramethyl thioperoxydiphosphate, 9Cl

[5930-71-2]



$C_4H_{12}O_4P_2S_4$ M 314.348

Used for extraction-photometric detn. of Cu, Pd. Solid. Sol. Me_2CO , EtOH, C_6H_6 , Mp 49-51°. Forms Pt complex.

► Causes inflammation to eyes, corneal opacity, and swelling of eyelids (in rabbits).

Miller, B., *Tetrahedron*, 1964, **20**, 2069 (*synth*)

Vasil'ev, A.F. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 2333), 1964, **34**, 2322 (*ir*)

Lippman, A.E., *J. Org. Chem.*, 1966, **31**, 471 (*nmr*)

Wenzel, K.D. *et al*, *Z. Chem.*, 1971, **11**, 461 (*props, haz*)

Maekawa, K. *et al*, *CA*, 1974, **81**, 49205 (*props*)

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 136 (*detn, Pd*)

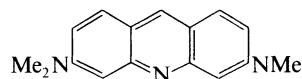
Shishkov, A.N. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 454 (*detn, Cu*)

3,6-Bis(dimethylamino)acridine, 8Cl **B-00313**

N,N,N',N'-Tetramethyl-3,6-acridinediamine, 9Cl. C.I.

Solvent orange 15. Acridine orange. Euchrysrine

[494-38-2]



$C_{17}H_{19}N_3$ M 265.357

Histochemical stain. Yellow needles (EtOH). Sol. EtOH, Me_2CO . Mp 180-181°.

► Exp. mutagen and carcinogen. AR7600000.

B, HCl: [65-61-2]. *C.I. Basic orange 14. C.I. 46005*

Used in extraction-photometric detn. of Re, Ta. Orange-yellow soln. with green fluorescence in H_2O and EtOH.

► AR7601000.

Biehringer, J., *J. Prakt. Chem.*, 1896, **54**, 243.

Miethke, E. *et al*, *Z. Phys. Chem.*, 1958, **18**, 375.

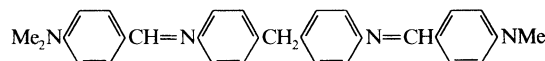
Tarayan, V.M. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 19 (*detn, Ta*)

Grigoryan, L.A. *et al*, *Zavod. Lab.*, 1974, **40**, 136 (*detn, Re*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BAQ250, BJF000.

Bis(4-dimethylaminobenzylidene)-4,4'-methylenedianiline **B-00314**

4,4'-Methylenebis[N-[[4-(dimethylamino)phenyl]methylene]benzenamine]



$C_{31}H_{32}N_4$ M 460.621

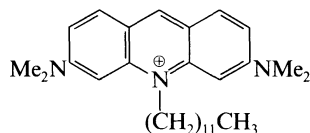
B, 4HCl: [54547-87-4].

Used as a 1% soln. in conc. H_2SO_4 for detn. of Cr(VI), V(V). Orange cryst. Sol. hot H_2O ; sl. sol. Me_2CO , cold H_2O ; insol. C_6H_6 , Et_2O , CS_2 . Mp 182-184°.

Johar, G. *et al*, *Mikrochim. Acta*, 1975, 61 (*synth, detn, Cr, V*)

3,6-Bis(dimethylamino)-10-dodecylacridinium(1+), 9CI

[61049-46-5]

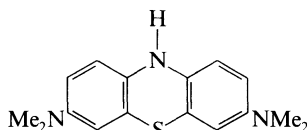
 $C_{29}H_{44}N_3^{\oplus}$ M 434.687 (ion)

Bromide: [41387-42-2]. 10-Dodecylacridine orange. AO-10-Dodecyl bromide. BDA

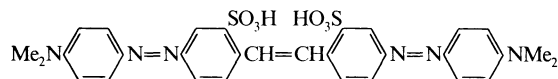
 $C_{29}H_{44}BrN_3$ M 514.591Used as a hydrophobic fluorescent probe. Cryst. (EtOH/Et₂O).Kubota, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 100 (*synth.*, *use*)Usui, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1982, **55**, 3302 (*use*)Higuchi, Y. *et al.*, *Chem. Lett.*, 1986, 1651 (*use*)**3,7-Bis(dimethylamino)phenothiazine, 8CI B-00316**

N,N,N',N'-Tetramethyl-10H-phenothiazine-3,7-diamine, 9CI. Leuco-methylene blue

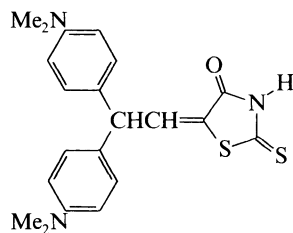
[613-11-6]

 $C_{16}H_{19}N_3S$ M 285.412

Leuco base of Methylene blue, M-00175-7. Reagent for the photometric detn. of org. peroxides. Must be stored in an oxygen-free atmosphere in total darkness.

Matiu, A.I. *et al.*, *Bull. Soc. Chim. Fr.*, 1937, **4**, 1230 (*synth.*)Ueberreiter, K. *et al.*, *Angew. Chem.*, 1956, **68**, 352 (*use*)Dulog, L., *Fresenius' Z. Anal. Chem.*, 1964, **202**, 192 (*use*)**4,4'-Bis(p-dimethylaminophenylazo) stilbene-2,2'-disulfonic acid B-00317** $C_{30}H_{30}N_6O_6S_2$ M 634.736Used as a 0.1% soln. in dil. NaOH as an acid-base indicator (pH range 4 - 5; colour change: blue → purple). Red cryst. (EtOH). Sol. EtOH, alkali; spar. sol. H₂O.Taras, M., *Anal. Chem.*, 1947, **19**, 339.**5-[2,2-Bis(4-dimethylaminophenyl)ethylene]rhodanine B-00318**

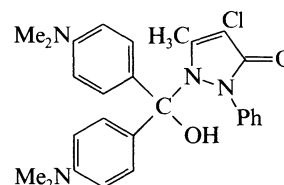
5-[2,2-Bis(4-dimethylaminophenyl)ethylene]-2-thioxo-4-thiazolidinone, 9CI

 $C_{21}H_{23}N_3OS_2$ M 397.564

B-00315

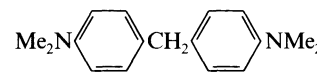
Used as a 0.2% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt. Orange-red cryst. Sol. H₂O.Kulberg, L.M. *et al.*, *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)**4-[Bis(p-(dimethylamino)phenyl)hydroxymethyl]-4-chloro-3-methyl-1-phenyl-2-pyrazolin-5-one, 8CI**

[20315-42-8]

 $C_{27}H_{29}ClN_4O_2$ M 477.004Used as 0.1% aq. soln. for extraction-photometric detn. of Re, Tl. Dark red cryst. powder. Sol. acids, EtOH, Me₂CO; mod. sol. H₂O.Busev, A.I. *et al.*, *Zh. Anal. Khim.*, 1966, **21**, 574 (*detn.*, *Re*)Lipchina, A.P., *CA*, 1971, **75**, 14635w (*detn.*, *Tl*)**Bis(4-dimethylaminophenyl)methane B-00320**

4,4'-Methylenebis[N,N-dimethylbenzenamine], 9CI. 4,4'-Methylenebis[N,N-dimethylaniline], 8CI. 4,4'-Tetramethyldiaminodiphenylmethane. Methane base. Michler's base. Tetra base. Arnold's base

[101-61-1]

 $C_{17}H_{22}N_2$ M 254.374Used as 2% soln. in Me₂CO to give colour reaction with [Fe(CN)₆]³⁻. Leaflets or plates (EtOH or ligroin). Sol. Me₂CO. Mp 91°. Bp 390°, Bp₃ 182-185°.

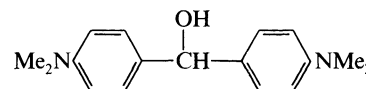
▷ BY5250000.

Dipicrate: Mp 178°.

B,2MeI: Yellow leaflets. Mp 214° dec. Becomes green at 193°.

Smith, L.N. *et al.*, *J. Chem. Soc.*, 1934, 1136 (*synth.*)Mangini, A. *et al.*, *J. Chem. Soc.*, 1956, 4954 (*w*)Kreshkov, A.P. *et al.*, *Zh. Anal. Khim.*, 1956, **11**, 212 (*use*)Gasparič, J. *et al.*, *Collect. Czech. Chem. Commun.*, 1959, **24**, 1943 (*chromatog*)Tupitsyn, I.F. *et al.*, *CA*, 1970, **75**, 34730b (*nmr*)Barluenga, J. *et al.*, *J. Chem. Soc., Chem. Commun.*, 1979, 339(*synth.*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MJN000.**Bis(4-dimethylaminophenyl)methanol B-00321**

4-(Dimethylamino)-α-[4-(dimethylamino)phenyl]benzenemethanol, 9CI. 4,4'-Bis(dimethylamino)benzhydrol, 8CI. 4,4'-Tetramethyldiaminobenzhydrol. Michler's hydrol [119-58-4]

 $C_{17}H_{22}N_2O$ M 270.374Intermediate for basic dyes. Reagent for anal. of thiol group in biomaterials. Green leaflets (C₆H₆) or pale yellow cryst. (EtOH). Mp 102-103°.

▷ DC7525000.

B,2MeI: Leaflets (EtOH). Mp 195°.

Me ether:

$C_{18}H_{24}N_2O$ M 284.400
Cryst. (ligroin). Mp 71-72°.

Cohen, W.D., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1919, **38**, 113 (*synth*)

Deno, J.C. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 3044.

Gasparič, J. *et al*, *Collect. Czech. Chem. Commun.*, 1959, **24**, 1943 (*chromatog*)

Hallas, G. *et al*, *J. Chem. Soc. B*, 1970, 979 (*uv, vis*)

Rohrbach, M.S. *et al*, *Anal. Biochem.*, 1973, **52**, 127 (*use*)

Humphries, B.A. *et al*, *Biochem. Biophys. Res. Commun.*, 1973, **50**, 493 (*use*)

U.K. Pat., 1 398 075, (1975); *CA*, **83**, 113933 (*synth*)

Burt, R.J. *et al*, *J. Chromatogr.*, 1976, **118**, 240 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TDO750.

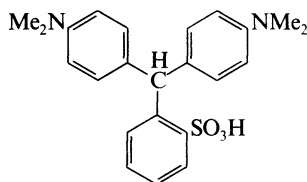
2-[Bis[4-(dimethylamino)phenyl]methyl]benzenesulfonic acid, 9CI

B-00322

4',4''-Bis(dimethylamino)triphenylmethane-2-sulfonic acid.

Berbelin blue. Leuco-berbelin blue I

[52748-86-4]



$C_{23}H_{26}N_2O_3S$ M 410.536

Used for photometric detn. of O_2 . Sol. H_2O , EtOH, Me_2CO .

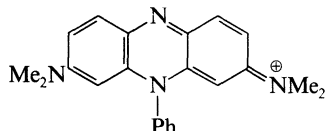
Altmann, H.J., *Fresenius' Z. Anal. Chem.*, 1972, **262**, 97.

3,7-Bis(dimethylamino)-5-phenylphenazinium(1+), 9CI

B-00323

Tetramethylphenosafranine

[52009-72-0]



$C_{22}H_{23}N_4^{\oplus}$ M 343.450 (ion)

Iodide:

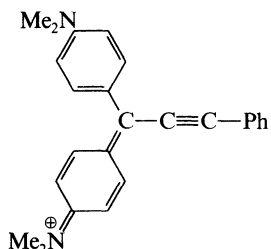
$C_{22}H_{23}IN_4$ M 470.355

Used as redox indicator. Cryst. (EtOH). $E^{\circ} + 0.288$ V (30°).

Stiehler, R.D. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 891 (*synth, use*)

1,1-Bis[4-(dimethylamino)phenyl-3-phenyl-2-propynyl]methyl(1+), 9CI

B-00324



$C_{25}H_{25}N_2^{\oplus}$ M 353.486 (ion)

Chloride: [85764-06-3].

$C_{25}H_{25}ClN_2$ M 388.939

Used as a 1mM aq. soln. for extraction-photometric detn. of ClO_4^{\ominus} (λ_{max} 690 nm, ϵ 40000, PhCl). Deep green cryst. (toluene). Sol. toluene. Mp 85°.

Akiyama, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1983, **56**, 947 (*synth, detn, ClO_4^{\ominus}*)

N,N'-Bis(3-dimethylaminopropyl)dithioamide

B-00325

$Me_2N(CH_2)_3HNCSCSNH(CH_2)_3NMe_2$

$C_{12}H_{26}N_4S_2$ M 290.496

Used as a 3mM soln. in EtOH for photometric detn. of Pd, Pt, Rh, Ru. Cryst. (EtOH). Sol. EtOH, Me_2CO ; spar. sol. H_2O .

Jacobs, W.D. *et al*, *Talanta*, 1959, **2**, 270 (*detn, Ru*)

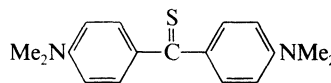
Jacobs, W.D. *et al*, *Anal. Chem.*, 1960, **32**, 512, 514; 1961, **33**, 1279 (*detn, Pd, Rh, Pt*)

4,4'-Bis(dimethylamino)thiobenzophenone

B-00326

Bis[4-(dimethylamino)phenylmethanethione], 9CI. Michler's thioketone. Thio-Michler's ketone

[1226-46-6]



$C_{17}H_{20}N_2S$ M 284.424

Used as a 0.03% soln. in 2-methoxyethanol (+ 0.02% aq. HCl) for photometric detn. of NO_2^{\ominus} ; as 1mM soln. in DMF or in EtOH for photometric detn. of Ag (λ_{max} 530 nm, ϵ 140000, DMF), Au (λ_{max} 525-560 nm, ϵ 50000), Hg, Pd, Pt. Dark red cryst. (EtOH). Sol. EtOH, C_6H_6 ; insol. H_2O . Mp 195-202° dec.

Gehauf, B. *et al*, *Anal. Chem.*, 1950, **22**, 498 (*synth, use*)

Dougherty, J.A. *et al*, *Anal. Chem.*, 1975, **47**, 1130.

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 425 (*use*)

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 375.

4,4'-Bis(dimethylamino)triphenylmethane

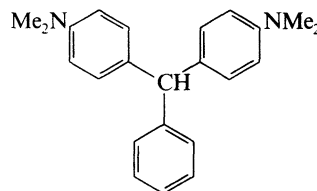
B-00327

4,4'-(Phenylmethylene)bis[N,N-dimethylbenzamine], 9CI.

4,4'-Benzylidenebis[N,N-dimethylaniline], 8CI. 4,4'-

Tetramethyldiaminotriphenylmethane. Leuco-malachite green. 4,4'-Di(dimethylamino)tritan. C.I. Basic green 4 leuco base

[129-73-7]



$C_{23}H_{26}N_2$ M 330.472

Cryst. in three forms: needles (C_6H_6); plates (EtOH); cryst. of lower indefinite Mp. Mp 102° (needles), Mp 93-94° (plates). Leuco-form of Malachite green, M-00006.

Fischer, E. *et al*, *Ber.*, 1879, **12**, 796 (*synth*)

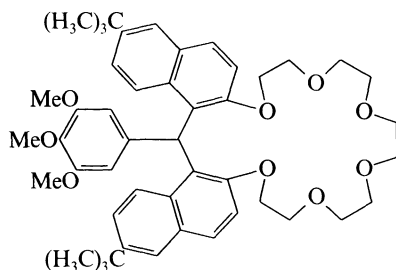
Bredereck, H. *et al*, *Chem. Ber.*, 1939, **72**, 1414 (*synth*)

Vartanyan, A.T., *Zh. Fiz. Khim.*, 1955, **29**, 1304 (*uv-vis*)

Gasparič, J. *et al*, *Collect. Czech. Chem. Commun.*, 1959, **24**, 1943 (*chromatog*)

Ritchie, C.D. *et al*, *J. Am. Chem. Soc.*, 1962, **84**, 2349 (*spectra*)

**3,26-Bis(1,1-dimethylethyl)-
8,9,11,12,14,15,17,18,20,21-decahydro-
29-(3,45-trimethoxyphenyl)-29H-
dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]
hexaoxacycloheneicosin, 9CI**
[97605-79-3]

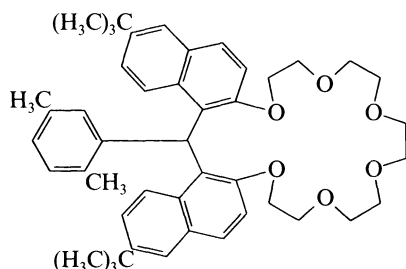


$C_{48}H_{60}O_9$ M 780.997

Used as THF soln. in PVC membrane ion-selective electrode (selective for K^{\oplus} over Na^{\oplus}). Cryst.

Covington, A.K. *et al*, *Analyst (London)*, 1988, **113**, 895 (*synth, use*)

**3,26-Bis(1,1-dimethylethyl)-29-(2,5-
dimethylphenyl)-
8,9,11,12,14,15,17,18,20,21-decahydro-
29H-dinaphtho[2,1-*q*:1',2'-
r][1,4,7,10,13,16]-
hexaoxacycloheneicosin, 9CI**
[117951-04-9]



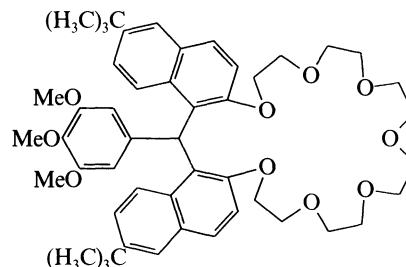
$C_{47}H_{58}O_6$ M 718.972

Used as THF soln. in PVC membrane ion-selective electrode (selective for K^{\oplus} over Na^{\oplus}). Cryst.

Covington, A.K. *et al*, *Analyst (London)*, 1988, **113**, 895 (*synth, use*)

B-00328

**3,29-Bis(1,1-dimethylethyl)-
8,9,11,12,14,15,17,18,20,21,21,23,24-
dodecahydro-32-(3,4,5-
trimethoxyphenyl)-32H-dinaphtho[2,1-
t:1',2'-*w*][1,4,7,10,13,16,19]
heptaoxacyclotetracosin, 9CI**
[112700-77-3]



$C_{50}H_{64}O_{10}$ M 825.050

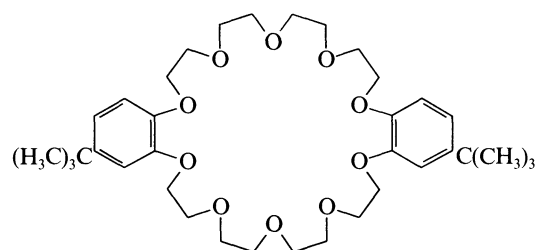
Used as THF soln. in PVC membrane ion-selective electrode (selective for Rb^{\oplus} over Na^{\oplus}). Cryst. Mp 204°.

Lockhart, J.C. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1987, 639 (*synth*)

Covington, A.K. *et al*, *Analyst (London)*, 1988, **113**, 895 (*use*)

B-00329

**2,19-Bis(1,1-dimethylethyl)-
6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,
33-hexadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]
decaoxacyclotriacontine, 9CI**
*Di-tert-butyl*dibenzo-30-crown-10
[54112-62-8]



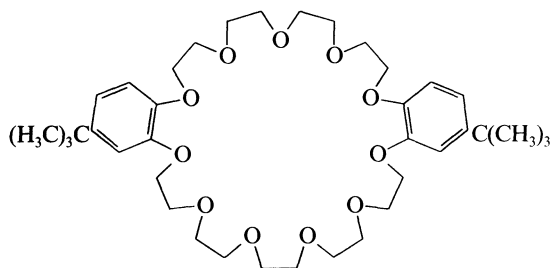
$C_{36}H_{56}O_{10}$ M 648.832

Obt. as an undefined isomer or regioisomeric mixture with the 2,20 isomer. CAS registry no. applies to this prepn. of undefined composition. Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. (hexane/ Et_2O). Sol. hexane, Et_2O . Mp 71-73°.

Ryba, O. *et al*, *J. Electroanal. Chem.*, 1973, **44**, 425 (*synth*)

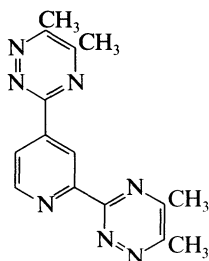
Petraneck, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

***ar,ar'*-Bis(1,1-dimethylethyl)-
6,7,9,10,12,13,15,16,18,19,26,27,29,30,32,33,35,
36-octadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28,
31]undecaaxacyclotriacontan, 9CI**
*Di-tert-butyl*dibenzo-33-crown-11
[54112-61-7]



$C_{38}H_{60}O_{11}$ M 692.885
Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Oil. Sol. hexane, Et₂O.
Ryba, O. *et al*, *J. Electroanal. Chem.*, 1973, **44**, 425 (*synth*)
Petranek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

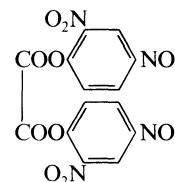
**2,4-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)
pyridine** B-00333
2,2'-(2,4-Pyridinediyl)bis[5,6-dimethyl-1,2,4-triazine], 9CI
[35171-25-6]



$C_{15}H_{15}N_7$ M 293.330
Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{max} 540 nm, ϵ 20600, EtOH aq.). Cryst. (EtOH). Sol. common org. solvs. Mp 193-194°.
Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 1043 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn. Fe*)

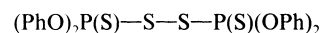
**2,6-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)
pyridine** B-00334
2,2'-(2,6-Pyridinediyl)bis[5,6-dimethyl-1,2,4-triazine], 9CI
[35171-27-8]
 $C_{15}H_{15}N_7$ M 293.330
Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{max} 552 nm, ϵ 11100, EtOH aq.). Cryst. (EtOH). Sol. common org. solvs. Mp 245-246°.
Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 1043 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn. Fe*)

Bis(2,4-dinitrophenyl) oxalate B-00332
Bis(2,4-dinitrophenyl) ethanedioate, 9CI
[16536-30-4]



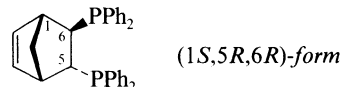
$C_{14}H_6N_4O_{12}$ M 422.221
Used for chemiluminescence detn. of H₂O₂ in hplc. Cryst. (PhNO₂ or EtOAc). Mp 192-194°.
Rauhut, M.M. *et al*, *J. Am. Chem. Soc.*, 1967, **89**, 6515 (*synth*)
Rauhut, M.M., *Acc. Chem. Res.*, 1969, **2**, 80 (*chemiluminescence*)
Honda, K. *et al*, *Anal. Chim. Acta*, 1985, **177**, 103, 117 (*use*)
De Jong, G.J. *et al*, *Analyst (London)*, 1987, **59**, 1458 (*use*)

Bis(diphenoxyphosphino)thioyl disulfide B-00336
Tetraphenyl thioperoxydiphosphate, 9CI
[36383-22-9]



$C_{24}H_{20}O_4P_2S_4$ M 562.631
Used for extraction-photometric detn. of Cu, Pd. Needles (heptane). Sol. Me₂CO, EtOH, C₆H₆. Mp 74.5-75°.
Miller, B., *Tetrahedron*, 1964, **20**, 2069 (*synth*)
Trdička, V. *et al*, *Collect. Czech. Chem. Commun.*, 1972, **37**, 896 (*synth*)
Khaskin, B.A. *et al*, *Zh. Obshch. Khim.*, 1973, **43**, 1916, 2083; (*Engl. transl.* pp. 93, 1901, 2065), 1974, **44**, 95 (*props*)
Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 136 (*detn. Pd*)
Shishkov, A.N. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 454 (*detn. Cu*)

**5,6-Bis(diphenylphosphino)bicyclo[2.2.1]
hept-2-ene** B-00337
Bicyclo[2.2.1]hept-5-ene-2,3-diylbis[diphenylphosphine], 10CI.
5,6-Bis(diphenylphosphino)norbornene. Norphos



$C_{31}H_{28}P_2$ M 462.510
(1*R*,5*R*,6*R*)-form [71042-54-1]
(+)-endo,exo-form
Cryst. (Me₂CO). Mp 129-130°. [α]_D²⁰ +45° (c, 1 in CHCl₃).
P,P'-Dioxide: [71075-23-5], *5,6-Bis(diphenylphosphinyl)bicyclo[2.2.1]hept-2-ene*
 $C_{31}H_{28}O_2P_2$ M 494.508
Solid. [α]_D²⁰ +58° (c, 1 in CHCl₃).
(1*S*,5*S*,6*S*)-form [71042-55-2]
(-)-endo,exo-form
Cryst. (Me₂CO). Mp 129-130°. [α]_D²⁰ -43.5° (c, 1 in CHCl₃).
P,P'-Dioxide: [71075-24-6].
[α]_D²⁰ -62° (c, 1 in CHCl₃).
5,6-Dihydro-2,3-Bis(diphenylphosphino)bicyclo[2.2.1]heptane
 $C_{31}H_{30}P_2$ M 464.525
Solid. Mp 95-97°. [α]_D²⁵ -42.6° (c, 0.713 in CHCl₃).
(1*R*,5*R*,6*R*S)-form [76740-45-9]
(±)-endo,exo-form
No phys. props. reported.
P,P'-Dioxide: [71075-22-4].

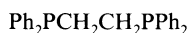
Used as a 0.025M soln. in CHCl₃ for extraction-separation of Am, Bk, Cf, Cm, Eu. Cryst. Sol. common org. solvs.

[51138-97-7, 51196-88-4, 56541-67-4]

- Kamin, G.J. *et al*, *J. Chromatogr.*, 1967, **31**, 292 (*use*)
 Nesterova, N.P. *et al*, *Izv. Akad. Nauk SSSR, Neorg. Mater.*, 1974, **10**, 2295 (*synth*)
 Khmutova, M.K. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1110 (*use*)
 Brunner, H. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1979, **18**, 620 (*synth, dioxide, resoln*)
 Brunner, H. *et al*, *Chem. Ber.*, 1981, **114**, 1137 (*abs config, complex, use*)
 Kyba, E.P. *et al*, *Inorg. Chem.*, 1981, **20**, 3616 (*synth, complexes*)
 Brunner, H. *et al*, *Inorg. Chim. Acta*, 1982, **61**, 129 (*pmr, dioxide*)

1,2-Bis(diphenylphosphino)ethane **B-00338**

1,2-Ethanediybis[diphenylphosphine], 9CI. Diphos†
 [1663-45-2]



C₂₆H₂₄P₂ M 398.423

The name Diphos is also used for the disodium salt of (1-Hydroxyethylidene)bisphosphonic acid, H-00178.

Ligand for metals of Groups IB, IIB, VIB, VIIB and VIII. Air-stable cryst. (C₆H₆). Mp 143-144°.

▷ Exhibits cytotoxic activity.

B,2MeI: 1,2-Ethanediybis[methyldiphenylphosphonium] diiodide

C₂₈H₃₀I₂P₂ M 682.301
 Cryst. (MeOH). Mp 305-307°.

Monooxide: Diphenyl[(2-diphenylphosphinyl)ethyl]phosphine

C₂₆H₂₄O₂P₂ M 414.422
 Cryst. Mp 190.5-193°.

Dioxide: [4141-50-8]. 1,2-Bis(diphenylphosphinyl)ethane. 1,2-Ethanediybis[diphenylphosphine oxide]

C₂₆H₂₄O₂P₂ M 430.422
 Used as a 0.025M soln. in CHCl₃ for extraction separation of Am, Bk, Cf, Cm, Eu. Needles (toluene or DMF), plates (C₆H₆). Mp 252-254°, Mp 276-278°.

Disulfide: 1,2-Bis(diphenylphosphinothiyl)ethane

C₂₆H₂₄P₂S₂ M 462.555
 Cryst. (Me₂CO). Insol. Et₂O. Mp 196-198°, Mp 219-221°.

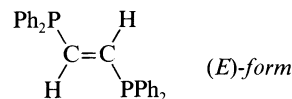
Diselenide: 1,2-Bis(diphenylphosphinoselenoyl)ethane

C₂₆H₂₄P₂Se₂ M 556.343
 Solid. Mp 192°.

- Issleib, K. *et al*, *Chem. Ber.*, 1959, **92**, 3175 (*synth, derivs*)
 Aguiar, A.M. *et al*, *J. Org. Chem.*, 1964, **29**, 1660; *J. Am. Chem. Soc.*, 1964, **86**, 5354 (*synth, pmr, monooxide*)
 Kosolapoff, G.M. *et al*, *J. Chem. Soc. C*, 1967, 1789 (*dioxide*)
 Kamin, G.J. *et al*, *J. Chromatogr.*, 1967, **31**, 292 (*dioxide, use*)
 Colton, R. *et al*, *Aust. J. Chem.*, 1968, **21**, 2215 (*ms*)
 Maier, L., *Helv. Chim. Acta*, 1968, **51**, 405 (*dioxide, ir, nmr*)
 Yakutina, C.A. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 1722), 1972, **42**, 1733 (*uv, raman*)
 Grim, S.O. *et al*, *Inorg. Chem.*, 1974, **13**, 1095 (*pmr, nmr, complexes*)
 Nesterova, N.P. *et al*, *Izv. Akad. Nauk SSSR*, 1974, **10**, 2295 (*synth, dioxide*)
 Swartz, W.E. *et al*, *Spectrochim. Acta, Part A*, 1974, **30**, 1561 (*pe*)
 Dubois, D.L. *et al*, *J. Chem. Soc., Dalton Trans.*, 1975, 1011 (*synth, pmr*)
 King, R.B. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1975, 938 (*cmr*)
 Khmutova, M.K. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1110 (*dioxide, use*)
 Sandhu, S.S. *et al*, *Transition Met. Chem. (London)*, 1976, **1**, 155 (*disulfide, diselenide, complexes*)
 Dean, P.A.W., *Can. J. Chem.*, 1979, **57**, 754 (*diselenide, nmr*)
 Bemil, L. *et al*, *J. Am. Chem. Soc.*, 1982, **104**, 438 (*nmr*)
 Gurusamy, N. *et al*, *J. Am. Chem. Soc.*, 1982, **104**, 3107 (*synth, derivs*)

1,2-Bis(diphenylphosphino)ethylene **B-00339**

1,2-Ethenediybis[diphenylphosphine], 9CI. 1,2-Vinylenebis[diphenylphosphine]
 [17427-91-7]



C₂₆H₂₂P₂ M 396.407

Ligand forming complexes contg. metals of groups IB, VIB, VIIB, and VIII.

(E)-form [983-81-3]

Air-stable cryst. Mp 125-126°.

P,P'-Dioxide: [40612-18-8].

C₂₆H₂₂O₂P₂ M 428.406

Used as a 0.025M soln. in CHCl₃ for extraction-separation of Am, Bk, Cf, Cm, Eu. Mp 310-311°. pK_{a1} 1.7 (conj. acid); pK_{a2} 1.7.

P,P'-Disulfide: [986-07-2].

C₂₆H₂₂P₂S₂ M 460.539

Cryst. (EtOH aq.). Mp 196-197°.

(Z)-form

Air-stable cryst. Mp 125-126°.

P,P'-Dioxide: [40468-55-1].

Mp 244-245°. pK_{a1} 7.8 (conj. acid) (MeNO₂).

P,P'-Disulfide: [986-06-1].

Cryst. (EtOH aq.). Mp 196-197°.

[40812-18-8]

Aguiar, A.M. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 2299, 5354 (*synth, ir, pmr, dioxide, disulfides*)

Brophy, J.J. *et al*, *Aust. J. Chem.*, 1967, **20**, 503 (*methiodides*)

Kamin, G.J. *et al*, *J. Chromatogr.*, 1967, **31**, 292.

King, R.B. *et al*, *J. Am. Chem. Soc.*, 1971, **93**, 4158 (*synth, pmr, nmr*)

Nesterova, N.P. *et al*, *Izv. Akad. Nauk SSSR, Neorg. Mater.*, 1974, **10**, 2295 (*synth, dioxide*)

Cauquis, G. *et al*, *Org. Mass Spectrom.*, 1975, **10**, 1021 (*disulfides, ms*)

Khmutova, M.K. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1110.

Lindsay, C.H. *et al*, *Inorg. Chem.*, 1980, **19**, 3503 (*complexes*)

Duncan, M. *et al*, *Org. Magn. Reson.*, 1981, **15**, 37 (*pmr, cmr, nmr*)

Bis(diphenylphosphino)methane **B-00340**

Methylenebis[diphenylphosphine], 9CI
 [2071-20-7]



C₂₅H₂₂P₂ M 384.396

Ligand for metals of Groups IB, VIB and VIII. Used as a 0.025M soln. in CHCl₃ for extraction sepn. of Am, Bk, Cf, Cm, Eu. Air-stable cryst. (EtOH or C₆H₆/Me₂CO). Sol. common org. solvs. Mp 122°. Cleaved by PhN₃.

Dioxide: [2071-21-8]. Bis(diphenylphosphinyl)methane

C₂₅H₂₂O₂P₂ M 416.395

Ni complex used in hydrosilylation of alkenes. Solid. Mp 178-179°. pK_a 6.23 (MeNO₂).

Disulfide: [14633-92-2]. Bis(diphenylphosphinothiyl)methane

C₂₅H₂₂P₂S₂ M 448.528

Cryst. (EtOH). Mp 147-148°, Mp 178-180°. Forms Cd, Hg, Pt and Pd complexes.

Monoselenide: Diphenyl[(diphenylphosphinoselenoyl)methyl]phosphine

C₂₅H₂₂P₂Se M 463.356

Cryst. (CH₂Cl₂/hexane). Mp 110-111°.

Diselenide: Bis(diphenylphosphinoselenoyl)methane

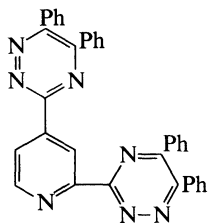
C₂₅H₂₂P₂Se₂ M 542.316

Cryst. (butanol). Mp 182-184°.

- Issleib, K. *et al*, *Chem. Ber.*, 1959, **92**, 3175 (*synth*)
 Richard, J.J. *et al*, *J. Am. Chem. Soc.*, 1961, **83**, 1722 (*dioxide*)
 Maier, L., *Helv. Chim. Acta*, 1965, **48**, 1034 (*synth, ir, nmr*)
 Kamin, G.J. *et al*, *J. Chromatogr.*, 1967, **31**, 292 (*dioxide, use*)
 Colton, R. *et al*, *Aust. J. Chem.*, 1968, **21**, 2215 (*ms*)
 Wheatland, D.A. *et al*, *Inorg. Chem.*, 1972, **11**, 2340 (*disulfide, complexes*)
 Marsmann, H. *et al*, *Z. Naturforsch., B*, 1972, **27**, 137 (*pmr, cmr, nmr*)
 Nesterova, N.P. *et al*, *Izv. Akad. Nauk SSSR*, 1974, **10**, 2295 (*dioxide, synth*)
 Cauguis, G. *et al*, *Org. Mass Spectrom.*, 1975, **10**, 1021 (*disulfide, ms*)
 Khmutova, M.K. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1110 (*dioxide, use*)
 Sanger, A.R., *J. Chem. Soc., Dalton Trans.*, 1977, 1971 (*ir, complexes*)
 Appel, R. *et al*, *Chem. Ber.*, 1979, **112**, 648 (*synth*)
 Grim, S.O. *et al*, *Inorg. Chem.*, 1980, **19**, 1982 (*synth, derivs, pmr, cmr, nmr, complexes*)
 Garusamy, N. *et al*, *J. Am. Chem. Soc.*, 1982, **104**, 3107 (*synth, use*)

2,4-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine **B-00341**
pyridine

2,2'-(2,4-Pyridinediyl)bis[5,6-diphenyl-1,2,4-triazine], 9CI
 [35171-26-7]



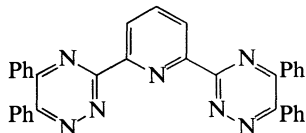
$C_{35}H_{23}N_7$ M 541.614

Used as a soln. in $CHCl_3$ for extraction-photometric detn. of Fe(II) (λ_{max} 563 nm, ϵ 32000), Cu(I) (λ_{max} 510 nm, ϵ 15000). Yellow cryst. (DMF). Sol. EtOH, DMF, $CHCl_3$; insol. H_2O . Mp 292-293°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 1043 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn, Fe*)

2,6-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine **B-00342**
pyridine

2,2'-(2,6-Pyridinediyl)bis[5,6-diphenyl-1,2,4-triazine], 9CI
 [35171-28-9]



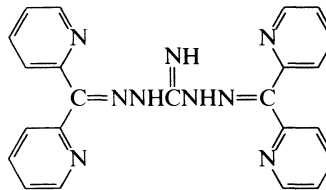
$C_{35}H_{23}N_7$ M 541.614

Used as a soln. in $CHCl_3$ for extraction-photometric detn. of Fe(II), Cu(I). Yellow cryst. (DMF). Sol. EtOH, DMF, $CHCl_3$; insol. H_2O . Mp 300-301°.

Case, F.H., *J. Med. Chem.*, 1971, **8**, 1043 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*use, synth*)

Bis(di-2-pyridinylmethylene)carbonimidic dihydrazide, 9CI **B-00343**

[82531-22-4]



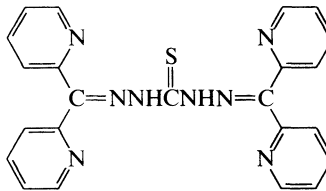
$C_{23}H_{19}N_9$ M 421.463

Used as 0.04M soln. in 4% EtOH for photometric detn. of Pd (λ_{max} 486 nm, ϵ 14000, pH 1), Mn (λ_{max} 490 nm, ϵ 43000, pH 9.5), Cu, Zn, Cd, Co, In. Yellow cryst. (EtOH). Sol. H_2O , EtOH. Mp 235-236°.

Gomez Ariza, J.L. *et al*, *Microchem. J.*, 1982, **27**, 290 (*synth, use*)

Bis(di-2-pyridinylmethylene)carbonothioic dihydrazide, 9CI **B-00344**

1,5-Bis(di-2-pyridinylmethylene)thiocarbonohydrazide
 [85191-43-1]



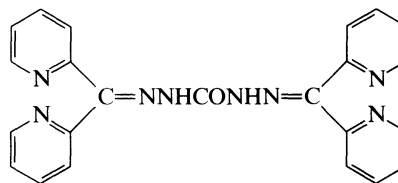
$C_{23}H_{18}N_8S$ M 438.515

Used as 0.05% soln. in DMF for photometric detn. of Co (λ_{max} 480 nm, ϵ 52000) and Ni (λ_{max} 410 nm, ϵ 50000). Yellow cryst. (EtOH). Sol. DMF. Mp 172-174°. pK_{a1} 3.07; pK_{a2} 9.85.

Bonilla Abascal, J.R. *et al*, *Microchem. J.*, 1983, **28**, 132 (*synth*)
 Cano Pavon, J.M. *et al*, *Analyst (London)*, 1985, **110**, 1137 (*synth, use*)
 Bosch Ojeda, C. *et al*, *Microchem. J.*, 1987, **35**, 164 (*detn, Cu*)

1,3-Bis[di(2-pyridyl)methyleneamino]urea **B-00345**

Bis(di-2-pyridinylmethylene)carbonic dihydrazide, 9CI
 [82531-21-3]

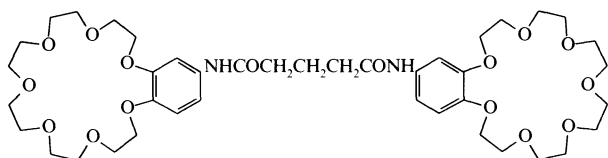


$C_{23}H_{18}N_8O$ M 422.448

Used as a 0.1% soln. in EtOH for photometric detn. of Cu (λ_{max} 400 nm, ϵ 15000), Zn (λ_{max} 475 nm, ϵ 43000), Mn, Fe, Co, Pd. Yellow cryst. (EtOH). Sol. EtOH, Me_2CO , C_6H_6 ; insol. H_2O . Mp 215-217°.

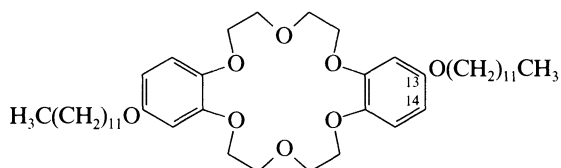
Gomez Ariza, J.L. *et al*, *Microchem. J.*, 1982, **27**, 290 (*synth, use*)
 Gómez Ariza, J.L. *et al*, *Mikrochim. Acta*, 1984, **2**, 407.

***N,N'*-Bis(2,3,5,6,8,9,11,12,14,15,17,18-dodecahydro-1,4,7,10,13,16,19-benzoheptaoxacyclohencosin-21-yl)pentanediamide, 9CI** **B-00346**
[84743-35-1]



$C_{41}H_{62}N_2O_{16}$ M 838.945
Used as 0.5mM $CHCl_3$ soln. for extraction-separation of Cs, Rb, K. Cryst. powder (Me_2CO). Sol. Me_2CO , $CHCl_3$. Mp 153.5-154.5°.
Kimura, K. *et al*, *Fresenius' Z. Anal. Chem.*, 1982, **313**, 132 (*synth, use*)

2,13-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI **B-00347**
2,13-Didodecyloxydibenzo-18-crown-6
[102530-22-3]



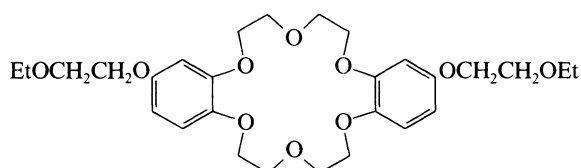
$C_{44}H_{72}O_8$ M 729.048
Used for detn. of Cs (membrane ion-selective electrode). Cryst. (toluene). Sol. toluene, MeOH, Me_2CO . Mp 117.5-119.5°.
Rieckemann, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1986, **323**, 241 (*synth, use*)

2,14-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI **B-00348**
2,14-Didodecyloxydibenzo-18-crown-6
[102530-21-2]

$C_{44}H_{72}O_8$ M 729.048
Used for extraction of Cs (membrane ion-selective electrode). Cryst. (Me_2CO aq.). Sol. MeOH, Me_2CO . Mp 96.5-98.5°.

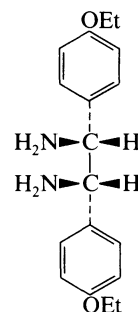
Rieckemann, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1986, **323**, 241 (*synth, use*)

2,14-Bis(2-ethoxyethoxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI **B-00349**
2,14-Di(β-ethoxyethoxy)dibenzo-18-crown-6
[102929-91-9]



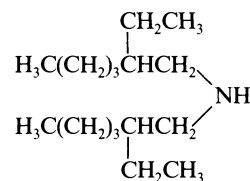
$C_{28}H_{40}O_{10}$ M 536.618
Used for detn. of Cs (membrane ion-selective electrode). Cryst. (EtOH aq.). Sol. EtOH, Me_2CO . Mp 101.5-105.5°.
Rieckemann, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1986, **323**, 241 (*synth, detn, Cs*)

1,2-Bis(4-ethoxyphenyl)-1,2-ethanediamine, 9CI **B-00350**



$C_{18}H_{24}N_2O_2$ M 300.400
(*RS,SR*)-form [117106-38-4]
meso-form
Fluorogenic reagent for catecholamines. Needles (C_6H_6). Mp 153-154°.
Umegae, Y. *et al*, *Anal. Chim. Acta*, 1988, **208**, 59 (*synth, pmr, uv, ir, use*)

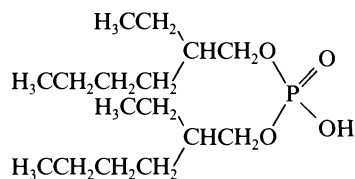
Bis(2-ethylhexyl)amine **B-00351**
2-Ethyl-N-(2-ethylhexyl)-1-hexanamine, 9CI
[106-20-7]



$C_{16}H_{35}N$ M 241.459
Liq. Sol. EtOH, Et_2O ; spar. sol. H_2O . Used as a soln. in $CHCl_3$ or 1,2-dichloroethane for photometric detn. of P.
▷ IH6825000.

Ivanov, N., *Zh. Anal. Khim.*, 1977, **32**, 1688.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DJA800.

Bis(2-ethylhexyl) phosphate **B-00352**
Di(2-ethylhexyl)phosphoric acid. HDEHP
[298-07-7]

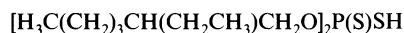


$C_{16}H_{35}O_4P$ M 322.424
Liquid cation-exchanger. Used as C_6H_6 or hexane soln. in extraction-separation of Au, Hg, Th, Ti, U; as solvating agent. Viscous liq. Sol. C_6H_6 , hexane, 4-methyl-2-pentanone; sl. sol. H_2O . $d^{25}_{0.975}$. $Bp_{0.015}$ 155°. pK_a 1.4.
Schmid, E.R. *et al*, *Mikrochim. Acta*, 1971, 434 (*detn, U*)
Onishi, H. *et al*, *Talanta*, 1972, **19**, 473 (*detn, Th*)

Yukhin, Y.M. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1091 (*detn*, Hg)
 Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals*,
 Wiley, New York, 1978 (*use*)
 Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC
 Press, Boca Raton, 1982, 435 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, BJR750.

O,O-Bis(2-ethylhexyl) phosphorodithioate, B-00353
9Cl, 8Cl

O,O-Bis(2-ethylhexyl) hydrogen phosphorodithioate. O,O-Bis(2-ethylhexyl) phosphorodithioic acid. O,O-Bis(2-ethylhexyl) dithiophosphate. Phosphorodithioic acid bis(2-ethylhexyl) ester, 9Cl
 [5810-88-8]



$\text{C}_{16}\text{H}_{35}\text{O}_2\text{PS}_2$ M 354.557

Zn salt is important lubricant oil additive. Used as 0.1M soln. in heptane in extraction sepn. of Sb, As, Bi, Rh, Sn; extraction of Mo, Pd, Zn; extraction sepn. of Ni from Co. Cryst. Sol. CHCl_3 , C_6H_6 , heptane. pK_a 1.25 (20°, H_2O).

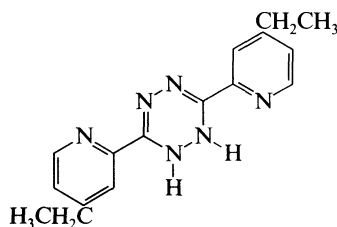
▷ TD5075000.

[41539-75-7]

Levin, I.S. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1341 (*detn*, Sn)
 Vorsina, I.A. *et al*, *Zh. Prikl. Spektrosk.*, (*Engl. transl.* p. 926), 1974, **21**, 110 (*ir*, raman)
 Yukhin, Y.M. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 99 (*detn*, Bi)
 Borshch, N.A. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1120 (*detn*, Rh)
 Yukhin, Y.M. *et al*, *Zavod. Lab.*, 1979, **45**, 798 (*detn*, As, Sb)
 Samoilov, Yu.M. *et al*, *Zh. Neorg. Khim.*, (*Engl. transl.* p. 1623), 1981, **26**, 3039 (*props*, use)
 Rozen, A.M. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 1086), 1982, **52**, 1235 (*props*, use)
 Rumpf, T. *et al*, *Fresenius' Z. Anal. Chem.*, 1983, **315**, 350 (*props*)
 Udalova, T.A. *et al*, *Zh. Neorg. Khim.*, (*Engl. transl.* p. 396), 1983, **28**, 702 (*props*, use)
 Kletenik, Yu.P. *et al*, *Zh. Prikl. Khim. (Leningrad)*, (*Engl. transl.* p. 1414), 1983, **56**, 1510 (*props*, use)
 Udalova, T.A. *et al*, *Zh. Anal. Khim.*, (*Engl. transl.* p. 530), 1984, **39**, 659 (*props*, use)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DJK400.

3,6-Bis(4-ethyl-2-pyridyl)-1,2-dihydro-1,2,4,5-tetrazine B-00354

[18818-53-6]



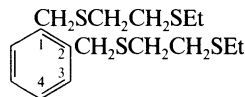
$\text{C}_{16}\text{H}_{18}\text{N}_6$ M 294.358

Used as a 5mM soln. in EtOH aq. to give colour reactions with Co, Cu(I), Fe(II). Cryst. (EtOH). Sol. common org. solvs. Mp 134-135°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, **5**, 431 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*use*)

1,2-Bis[[2-(ethylthio)ethyl]thio]methyl]benzene, 9Cl B-00355

1,2-Bis(2,5-dithiaheptyl)benzene
 [113305-25-2]



$\text{C}_{16}\text{H}_{26}\text{S}_4$ M 346.645

Used as 5mM soln. in 1,2-dichloroethane for extraction separation of Cu(I), Ag, Hg(II). Needles. Sol. CHCl_3 , EtOAc, 1,2-dichloroethane. Mp 29.3°.

Chayama, K. *et al*, *Anal. Sci.*, 1987, **3**, 535 (*synth*, use)

1,3-Bis[[2-(ethylthio)ethyl]thio]methyl]benzene, 9Cl B-00356

1,3-Bis(2,5-dithiaheptyl)benzene
 [113282-02-3]

$\text{C}_{16}\text{H}_{26}\text{S}_4$ M 346.645

Used as 5mM soln. in 1,2-dichloroethane for extraction separation of Cu(I), Ag, Pd(II), Hg(II). Oil. Sol. CHCl_3 , EtOAc, 1,2-dichloroethane.

Chayama, K. *et al*, *Anal. Sci.*, 1987, **3**, 535 (*synth*, use)

1,4-Bis[[2-(ethylthio)ethyl]thio]methyl]benzene, 9Cl B-00357

1,4-Bis(2,5-dithiaheptyl)benzene
 [113282-03-4]

$\text{C}_{16}\text{H}_{26}\text{S}_4$ M 346.645

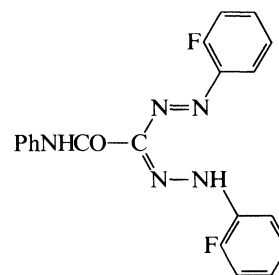
Used as 5mM soln. in 1,2-dichloroethane for extraction separation of Cu(I), Ag, Pd(II), Hg(II). Plates (EtOH). Sol. EtOH, 1,2-dichloroethane. Mp 46.5°.

Chayama, K. *et al*, *Anal. Sci.*, 1987, **3**, 535 (*synth*, use)

1,5-Bis(2-fluorophenyl)-N-phenyl-3-formazancarboxamide, 9Cl B-00358

Formazan F50

[112756-84-0]



$\text{C}_{20}\text{H}_{15}\text{F}_2\text{N}_5\text{O}$ M 379.368

Used as 4mM soln. in toluene for extraction separation of Ag. Cryst. Sol. toluene, CH_2Cl_2 , CHCl_3 .

Grote, M. *et al*, *Anal. Chim. Acta*, 1988, **207**, 171 (*synth*, *detn*, Ag)

1,2-Bis(hexylthio)ethane B-00359

1,1'-[1,2-Ethanediy]bis(thio)]bis(hexane

[60810-38-0]



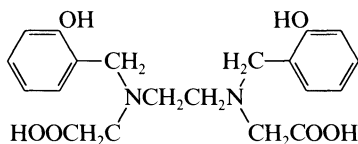
$\text{C}_{14}\text{H}_{30}\text{S}_2$ M 262.523

Used for extraction-photometric detn. of Cu(I), Ag, Au(I) (1,2-dichloroethane or toluene). Sol. 1,2-dichloroethane, C₆H₆, CHCl₃; insol. H₂O.

Ohki, A. *et al*, *Anal. Chim. Acta*, 1984, **159**, 245 (use)

N,N'-Bis(2-hydroxybenzyl) ethylenediamine-N,N'-diacetic acid

B-00360



C₂₀H₂₄N₂O₆ M 388.419
pK_{a1} 12.46; pK_{a2} 11.00; pK_{a3} 8.32; pK_{a4} 4.64 (0.1M KNO₃, 25°).

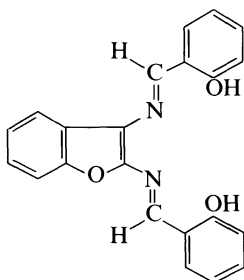
B,2HCl: Used as a 2mM aq. soln. as complexing agent for Fe(III). Cryst. (H₂O). Sol. H₂O. Mp 139°.

L'Éplattier, F.L. *et al*, *J. Am. Chem. Soc.*, 1967, **89**, 837.

2,3-Bis(2-hydroxybenzylideneamino) benzofuran

B-00361

2,2'-[2,3-Benzofurandiylbis(nitrilomethylidene)]diphenol, 9CI. N,N'-Bis(salicylidene)-2,3-benzofurandiamine. 2,3-Bis(salicylideneamino)benzofuran. Hydrocynalsalide [15108-19-7]



C₂₂H₁₆N₂O₃ M 356.380
Used as a 0.3% soln. in dioxan for photometric detn. of Cu (ε 15000), Ni and extraction-photometric detn. of Mg. Cryst. (C₆H₆/pet. ether or dioxan aq.). Sol. C₆H₆, dioxan; insol. H₂O. Mp 182-183°. λ_{max} 286 (ε 24 500), 344 (23 600), 431 nm (26 900) (EtOH).

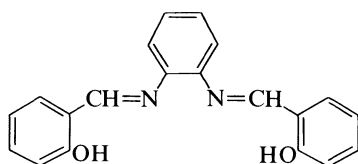
Dagnall, R.M. *et al*, *J. Chem. Soc. A*, 1966, 1595 (synth)
Dagnall, R.M. *et al*, *Analyst (London)*, 1967, **92**, 20 (synth, detn, Mg)

Ishii, H. *et al*, *Analyst (London)*, 1969, **94**, 1038 (detn, Cu)
Baldwin, J.E. *et al*, *J. Chem. Soc. C*, 1969, 735 (detn, Mg)
Ishii, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1970, **19**, 1351 (detn, Ni)

N,N'-Bis(2-hydroxybenzylidene)-1,2-benzenediamine

B-00362

2,2'-[1,2-Phenylenebis(nitrilomethylidene)]bisphenol, 9CI. α,α'-(o-Phenylenedinitrilo)di-o-cresol, 8CI. N,N'-(o-Phenylene)bis(salicylideneamine). N,N'-Disalicylidene-o-phenylenediamine. Salph-H₂ [3946-91-6]



C₂₀H₁₆N₂O₂ M 316.359
Used as a 0.01M soln. in toluene for photometric detn. of Ni (λ_{max} 490 nm, ε 8600). Orange cryst. (MeOH). Sol. EtOH, Me₂CO, C₆H₆ alkalis. Mp 162-164°.

McAllister, R.M. *et al*, *J. Organomet. Chem.*, 1974, **77**, 91 (synth, pmr)

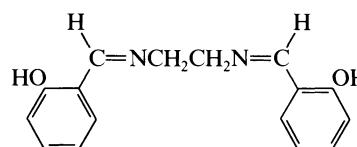
Pahor, N.B. *et al*, *J. Chem. Soc., Dalton Trans.*, 1976, 2478 (cryst struct)

Aggett, J. *et al*, *Analyst (London)*, 1980, **105**, 1118.

N,N'-Bis(2-hydroxybenzylidene)-1,2-ethanediamine

B-00363

2,2'-[1,2-Ethanediybis(nitrilomethylidene)]bisphenol, 9CI. α,α'-(Ethylenedinitrilo)di-o-cresol, 8CI. Bis(salicylidene) ethylenediamine. N,N'-Ethylenebis(salicylimine). BSED [94-93-9]



C₁₆H₁₆N₂O₂ M 268.315
Schiff base. Used for fluorimetric detn. of Mg, Be, Fe. Yellow cryst. Sol. C₆H₆, CHCl₃, Me₂CO, alkalis; mod. sol. EtOH; insol. Et₂O, CCl₄, NH₃ aq. Mp 127-128°.

White, C.E. *et al*, *Anal. Chem.*, 1959, **31**, 2083, 2087 (use)

Frost, A.E. *et al*, *J. Org. Chem.*, 1959, **24**, 1905 (synth)

Singh, B.R. *et al*, *Fresenius' Z. Anal. Chem.*, 1962, **185**, 211 (synth)

Singh, B.R. *et al*, *Indian J. Chem.*, 1972, **10**, 663 (detn, Be)

Dabrowska, D. *et al*, *Acta Pol. Pharm.*, 1975, **32**, 615 (detn, Fe)

Bresciani, P.N. *et al*, *Acta Crystallogr., Sect. B*, 1978, **34**, 1360 (cryst struct)

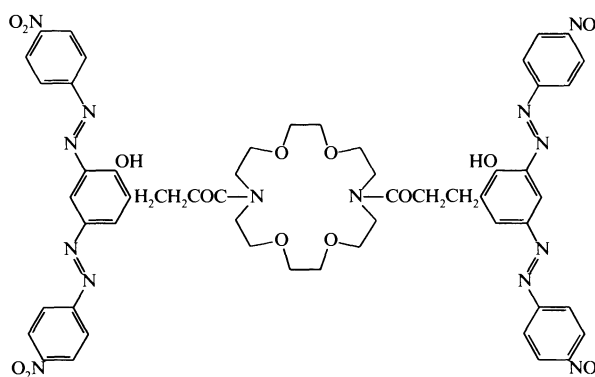
Brezina, F. *et al*, *Z. Chem.*, 1979, **19**, 72 (synth)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DWY200.

7,16-Bis[3-[2-hydroxy-3,5-bis(4-nitrophenyl)azo]phenyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane, 9CI

B-00364

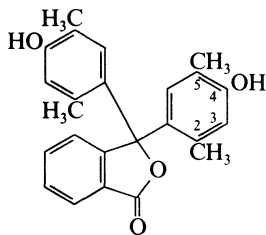
[74567-60-5]



C₅₄H₅₄N₁₄O₁₆ M 1155.105
Used as 0.01mM CHCl₃ soln. for extraction-photometric detn. of Ba (λ_{max} 500nm, pH 10.9). Blackish brown powder. Sol. CHCl₃. Mp 144° dec.

Yamashita, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1980, **53**, 1550 (synth, detn, Ba)

3,3-Bis(4-hydroxy-2,5-dimethylphenyl)-1(3H)-isobenzofuranone, 9CI
p-Xylenolphthalein
 [50984-88-8]



$C_{24}H_{22}O_4$ M 374.435

Used as a 0.1% soln. in EtOH as acid-base indicator (pH range 9.0-10.5; colour change: colourless → blue).
 Yellow cryst. powder. Sol. EtOH, Me₂CO. Mp 276°.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

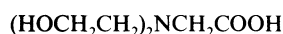
3,3-Bis(4-hydroxy-3,5-dimethylphenyl)-1(3H)-isobenzofuranone, 9CI
3',3'',5',5''-Tetramethylphenolphthalein

$C_{24}H_{22}O_4$ M 374.435

Used as a 0.1% soln. in EtOH as an acid-base indicator (pH range: 8.5-9.9; colour change: colourless → violet).
 Cryst.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

[Bis(2-hydroxyethyl)amino]acetic acid B-00367
N,N-Bis(2-hydroxyethyl)glycine, 9CI. Bicine
 [150-25-4]



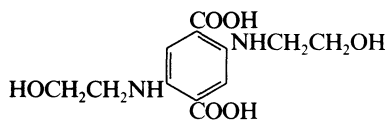
$C_6H_{13}NO_4$ M 163.173

Good's buffer with pH range 7.7-9.1. Sequestering agent.
 Used as a masking agent for metals (Tl, Ti Zr, Hf, Bi).
 Used as 0.012M aq. soln. for photometric detn. of Bi (λ_{max} 245 nm, ϵ 4400, pH 7-8.5). Cryst. (EtOH aq.). Sl. sol. H₂O. Mp 193-194° dec. pK_a 8.35 (20°).

▶ MB9700000.

Good, N.E. *et al*, *Biochemistry*, 1966, **5**, 467 (*synth, use*)
 Eagle, H., *Science (Washington, D.C.)*, 1971, **174**, 500 (*use*)
 McGlothlin, C.D. *et al*, *Anal. Lett.*, 1976, **9**, 245 (*props*)
 Cody, V. *et al*, *Acta Crystallogr., Sect. B*, 1977, **33**, 905 (*cryst struct*)
 Hutchens, T.W. *et al*, *J. Chromatogr.*, 1986, **359**, 157 (*use*)
 Botana Lopez, A. *et al*, *Microchem. J.*, 1988, **37**, 200 (*detn, Bi*)

2,5-Bis(2-hydroxyethylamino)-1,4-benzenedicarboxylic acid B-00368
2,5-Bis(2-hydroxyethylamino)terephthalic acid

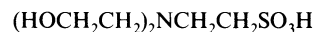


$C_{12}H_{16}N_2O_6$ M 284.268

Used as metal indicator for titrimetric detn. of Hg. CN[⊖] (colour change: pink → yellow, pH 5.5). Needles. Sol. alkalis; sl. sol. EtOH, Et₂O; insol. H₂O.

Uhling, E., *Fresenius' Z. Anal. Chem.*, 1964, **203**, 241.

2-[Bis(2-hydroxyethyl)amino]ethanesulfonic acid, 9CI B-00369
BES
 [10191-18-1]



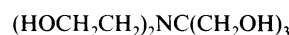
$C_6H_{15}NO_5S$ M 213.254

Good's buffer with pH range 6.6-6.8. Hygroscopic cryst. (EtOH aq.). Sol. H₂O. Mp 153-155°. pK_a 7.15 (20°).

[66992-27-6]

Good, N.E. *et al*, *Biochemistry*, 1966, **5**, 467.
 Eagle, H., *Science (Washington, D.C.)*, 1971, **174**, 500 (*use*)
 Roy, R.N. *et al*, *Anal. Chem.*, 1975, **47**, 1407 (*use*)
 Le Berre, A. *et al*, *Bull. Soc. Chim. Fr.*, 1975, 2531 (*synth*)
 Amaralis Vega, C. *et al*, *Anal. Chem.*, 1976, **48**, 1293 (*use*)

2-[Bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)-1,3-propanediol, 9CI B-00370
2,2-Bis(hydroxymethyl)-2,2',2''-nitrilotriethanol. Bis(2-hydroxyethylamino)tris(hydroxymethyl)methane. Bis-Tris
 [6976-37-0]

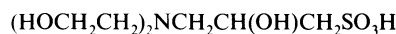


$C_8H_{19}NO_5$ M 209.242

Good's buffer with pH range 5.7-7.3. Cryst. V. sol. H₂O. Mp 104°. pK_a 6.46 (20°).

Lewis, J.C., *Anal. Biochem.*, 1966, **14**, 495 (*synth, use*)
 Paabo, M. *et al*, *J. Phys. Chem.*, 1970, **74**, 702 (*props*)
 Eagle, H., *Science (Washington, D.C.)*, 1971, **174**, 500 (*use*)
 Nealon, D.A. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1980, **26**, 1516 (*use*)
 Hutchens, T.W. *et al*, *J. Chromatogr.*, 1986, **359**, 157 (*use*)

3-[Bis(2-hydroxyethyl)amino]-2-hydroxy-1-propanesulfonic acid, 9CI B-00371
DIPSO
 [68399-80-4]

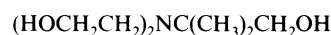


$C_7H_{17}NO_6S$ M 243.280

Good's buffer with pH range 6.9-8.1. Lustrous plates. Sl. sol. H₂O. Mp 189-190°. pK_a 7.6 (20°).

Ferguson, W.J. *et al*, *Anal. Biochem.*, 1980, **104**, 300 (*synth, use*)

2-[Bis(2-hydroxyethyl)amino]-2-methyl-1-propanol, 9CI B-00372
Bis-AMP
 [70787-41-6]



$C_8H_{19}NO_3$ M 177.243

Biological buffer. $Bp_{0.001}$ 158-160°. pK_a 8.4.

Bonningue, C. *et al*, *Phosphorus Sulfur Relat. Elem.*, 1979, **5**, 291 (*synth*)
 Labrude, P. *et al*, *J. Pharm. Pharmacol.*, 1980, **32**, 305 (*use*)

Bis(2-hydroxyethyl)carbomodithioic acid, 9CI B-00373
 [1528-72-9]



$C_5H_{11}NO_2S_2$ M 181.279

K salt: [23746-34-1].

Used in photometric detn. of Cu(II). Cryst. (MeOH).
Sol. H₂O, MeOH.

Zn salt (2:1): [19163-92-9].

C₁₀H₂₀N₂O₄S₄Zn M 425.933

Used as a 0.5% aq. soln. for extraction-photometric
dtn. of Bi, Co, Cu, Ni, Te. Cryst. (EtOH). Sol. EtOH,
CHCl₃; spar. sol. H₂O.

Yoshida, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1962, **11**, 197.

Tulyupa, F.M. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 783 (*synth. use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, PKX500.

**N,N'-Bis(2-hydroxyethyl)
ethanedithioamide**

B-00374

N,N'-Bis(2-hydroxyethyl)dithiooxamide, 8CI

[120-86-5]



C₆H₁₂N₂O₂S₂ M 208.305

Used as 0.5% soln. in Me₂CO as metal indicator for
titrimetric detn. of Cu, Ni. Cryst. Sol. EtOH, Me₂CO,

C₆H₆; spar. sol. H₂O. pK_{a1} 10.7; pK_{a2} 13.9.

▷ RO7875000.

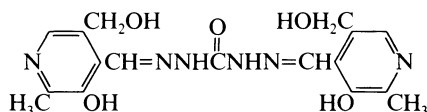
Wills, V. *et al*, *Anal. Chem.*, 1962, **34**, 224; 1963, **35**, 257.

**Bis[[3-hydroxy-5-(hydroxymethyl)-2-
methyl-4-pyridinyl]methylene]carbonic
dihydrazide, 9CI**

B-00375

1,3-Bis[[[3-hydroxy-5-hydroxymethyl-2-methyl-4-pyridyl]
methylene]amino]urea

[109731-58-0]



C₁₇H₂₀N₆O₅ M 388.382

Used as 0.05% aq. soln. for photometric detn. of Ga (λ_{max}
425 nm, ε 33000, pH 4-5). Yellow cryst. (EtOH aq. +
HCl). Sol. H₂O, EtOH. Mp 264-265°.

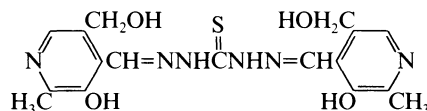
Barragan de la Rosa, F.J. *et al*, *Talanta*, 1988, **35**, 343 (*synth. detn.*
Ga)

**Bis[[3-hydroxy-5-(hydroxymethyl)-2-
methyl-4-pyridinyl]methylene]
carbothioic dihydrazide, 9CI**

B-00376

1,3-Bis[[[3-hydroxy-5-hydroxymethyl-2-methyl-4-pyridyl]
methylene]amino]thiourea

[117932-59-9]



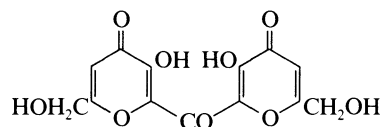
C₁₇H₂₀N₆O₄S M 404.449

Used as 0.05% aq. soln. for photometric detn. of Au(III)
(λ_{max} 415 nm, ε 51000, pH 2.1), Cu(II), Ga, Fe(III).
Yellow cryst. (EtOH aq. + HCl). Sol. H₂O, EtOH. Mp
255-257°.

Barragan de la Rosa, F.J. *et al*, *Talanta*, 1987, **35**, 343 (*synth. use*)

**Bis(3-hydroxy-6-hydroxymethyl-4-oxo-
4H-pyran-2-yl)methanone**

B-00377



C₁₃H₁₀O₉ M 310.217

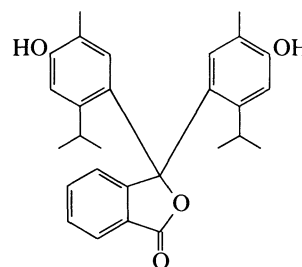
Used as a 2mM aq. soln. for photometric detn. of Fe(III).
Cryst. (subl.). Sol. EtOH, Me₂CO, H₂O. Mp 160.5°.

Wilson, R.F., *Fresenius' Z. Anal. Chem.*, 1963, **194**, 190 (*dtn. Fe*)

**3,3-Bis(4-hydroxy-2-isopropyl-5-
methylphenyl)-1(3H)-isobenzofuranone**

B-00378

3,3-Bis[4-hydroxy-5-methyl-2-(1-methylethyl)phenyl]-1(3H)-
isobenzofuranone, 9CI. Carvacrolphthalein
[6869-00-7]



C₂₈H₃₀O₄ M 430.543

Acid-base indicator (pH range 9.5-10.0; colour change:
colourless → blue). Cryst. (AcOH). Sol. EtOH, Me₂CO.
Mp 294°, Mp 246°.

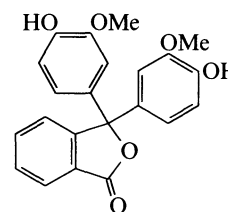
Hubacher, M.H. *et al*, *J. Am. Chem. Soc.*, 1942, **64**, 2538 (*use,*
indicator)

**3,3-Bis(4-hydroxy-3-methoxyphenyl)-
1(3H)-isobenzofuranone, 9CI**

B-00379

Guaiacolphthalein

[467-25-4]



C₂₂H₁₈O₆ M 378.381

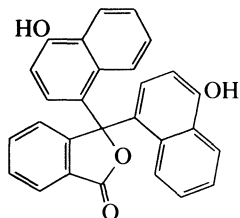
Used as a 1mM soln. in aq. EtOH as acid-base indicator
(pH range: 8.4-10.2; colour change: → violet). Cryst.
Sol. EtOH; spar. sol. H₂O. pK_{a1} 9.7. λ_{max} 602 nm.

Gronowska, J. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1960, **34**, 1799
(*use*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

3,3-Bis(4-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, 9CI **B-00380**

3,3-Bis(4-hydroxy-1-naphthyl)phthalide
[596-01-0]



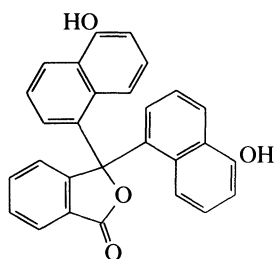
$C_{28}H_{18}O_4$ M 418.448

Used as collector in copptn. separation of Al. Reddish brown cryst. Sol. EtOH; spar. sol. H_2O .

Goshkov, V.V. *et al*, *CA*, 1974, **81**, 180677e (*detn. Al*)

3,3-Bis(5-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, 9CI **B-00381**

α -Naphtholphthalein
[1301-55-9]



$C_{28}H_{18}O_4$ M 418.448

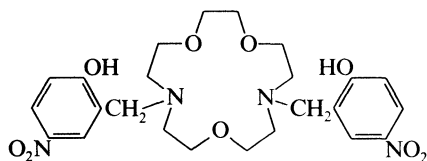
Acid-base indicator (pH range: 7.3–8.7; colour change: orange-yellow \rightarrow greenish-blue). Used as a 0.1% soln. in EtOH. Reddish brown cryst., colourless when pure. Sol. EtOH; spar. sol. H_2O . Mp 253–255°. pK_{a1} 5.26; pK_{a2} 8.00.

Werner, E.A., *J. Chem. Soc.*, 1918, **113**, 20 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 97.

***N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,10-diaza-4,7,13-trioxacyclopentadecane** **B-00382**

2,2'-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diylbis(methylene)]bis[4-nitrophenol], 9CI. 21-Kosh
[77857-34-2]



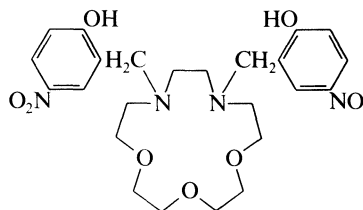
$C_{24}H_{32}N_4O_9$ M 520.538

Used as 0.25*M* soln. in 1,2-dichloroethane for extraction-photometric *detn.* of Ca. Pale yellow cryst. Sol. common org. solvs. Mp 146–147.5°.

Nishida, H. *et al*, *Mikrochim. Acta*, 1981, **1**, 281 (*synth, detn, Ca*)

***N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-10,13-diaza-1,4,7-trioxacyclopentadecane** **B-00383**

2,2'-[1,4,7-Trioxa-10,13-diazacyclopentadecane-10,13-diylbis(methylene)]bis[4-nitrophenol], 9CI
[115621-30-2]



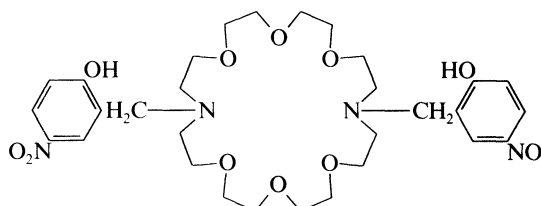
$C_{24}H_{32}N_4O_9$ M 520.538

Used as 1,2-dichloroethane soln. for extraction of Mg, Ca, Sr, Ba; separation of Sr from Ca. Yellow cryst. Sol. $CHCl_3$, 1,2-dichloroethane. Mp 124.5–125.5°.

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1988, **204**, 113 (*synth, use*)

***N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,13,16,19-hexaoxa-10,22-diazacyclotetracosane** **B-00384**

2,2'-[1,4,7,13,16,19-Hexaoxa-10,22-diazacyclotetracosane-10,22-diylbis(methylene)]bis[4-nitrophenol], 9CI
[115621-29-9]



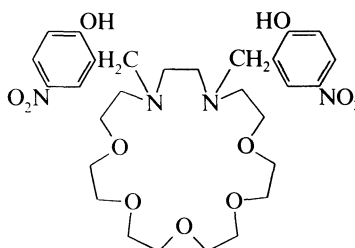
$C_{30}H_{44}N_4O_{12}$ M 652.697

Used as 1,2-dichloroethane soln. for extraction of Ca, Sr, Ba; separation of Ba from Ca and Sr. Yellow viscous oil. Sol. $CHCl_3$, 1,2-dichloroethane.

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1988, **204**, 113 (*synth, use*)

***N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-15,18-diazacycloheneicosane** **B-00385**

2,2'-[1,4,7,10,13-Pentaoxa-16,19-diazacycloheneicosane-16,19-diylbis(methylene)]bis[4-nitrophenol], 9CI
[115621-32-4]



$C_{28}H_{40}N_4O_{11}$ M 608.644

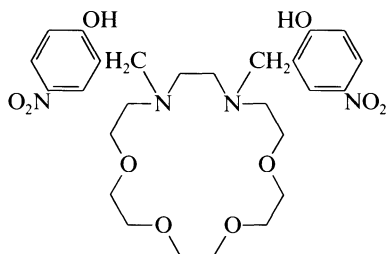
Used as 1,2-dichloroethane soln. for extraction of Ca, Sr, Ba; separation of Ba from Ca. Yellow cryst. Sol. $CHCl_3$, 1,2-dichloroethane.

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1988, **204**, 113 (*synth, use*)

***N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13,16-diazacyclooctadecane**

B-00386

2,2'-[1,4,7,10-Tetraoxa-13,16-diazacyclooctadecane-13,16-diylbis(methylene)]bis[4-nitrophenol], 9CI
[115621-31-3]



$C_{26}H_{36}N_4O_{10}$ M 564.591

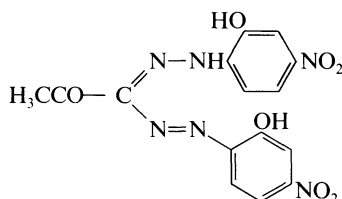
Used as 1,2-dichloroethane soln. for extraction of Ca, Sr, Ba; separation of Ca from Ba and Sr from Ba. Yellow cryst. Sol. $CHCl_3$, 1,2-dichloroethane.

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1988, **204**, 113 (*synth, use*)

1,5-Bis(2-hydroxy-4-nitrophenyl)-3-acetylformazan

B-00387

[1,5-Bis(2-hydroxy-4-nitrophenyl)formazanyl]ethanone, 9CI
[1565-69-1]



$C_{15}H_{12}N_6O_7$ M 388.296

Used as 0.05% Me_2CO soln. for photometric detn. of Cu (λ_{max} 640 nm, ϵ 30500, 60% Me_2CO , pH 1-3). Orange cryst. (EtOH) or dark violet cryst. (Me_2CO). Sol. EtOH, Me_2CO , alkalis, dioxan, DMF. Mp 232°.

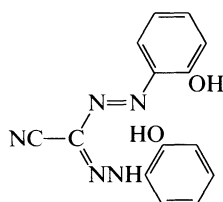
Bigma, V.V. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1290 (*synth, detn, Cu*)

Bigma, V.V. *et al*, *CA*, 1983, **98**, 10761m.

1,5-Bis(2-hydroxyphenyl)-3-cyanoformazan

B-00388

1,5-Bis(o-hydroxyphenyl)-3-formazan carbonitrile, 8CI
[14044-81-6]



$C_{14}H_{11}N_5O_2$ M 281.273

Used as 2.5 mM soln. in EtOH for photometric detn. of Ga (λ_{max} 630 nm), Al, Hf, Zn. Dark violet cryst. (EtOH). Sol. EtOH, C_6H_6 , Me_2CO , $CHCl_3$, Et_2O ; spar. sol. H_2O . Mp 187-188°.

Vasil'eva, N.L. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 43 (*detn, Ga*)

Malevnyani, V.A. *et al*, *CA*, 1976, **85**, 13286c (*detn, Al*)

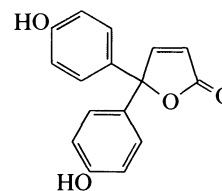
Vorontsova, L.N. *et al*, *CA*, 1976, **85**, 13287d (*detn, Zn*)

Mandzgaladze, O.V. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 1567 (*detn, Hf*)

5,5-Bis(4-hydroxyphenyl)-2(5H)-furanone, 9CI

B-00389

Phenolmalein
[1224-25-5]



$C_{16}H_{12}O_4$ M 268.268

Used as acid-base indicator (pH range: 5.5-7.2; colour change: yellow → red). Yellow cryst. Mp 301°.

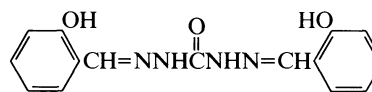
Webster, V.S. *et al*, *CA*, 1954, **48**, 11837g (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Bis(2-hydroxyphenyl)methylene]carbonic dihydrazide, 9CI

B-00390

1,5-Bis(salicylmethyleneamino)carbohydrazide
[6638-49-9]



$C_{15}H_{14}N_4O_3$ M 298.301

Used as 1mM EtOH soln. for fluorimetric detn. of Al (λ_{max} 440 nm, pH 2.6, 50% EtOH). Cryst. Sol. EtOH.

Montana Gonzalez, M.T. *et al*, *An. Quim., Ser. B*, 1984, **80**, 129 (*synth*)

Garcia de Torres, A. *et al*, *Analisis*, 1989, **17**, 592 (*detn, Al*)

Bis(2-hydroxyphenyl)methylene] carbonimidic dihydrazide, 9CI

B-00391

1,5-Bis(salicylmethyleneamino)diaminoguanidine
[91379-47-4]



$C_{15}H_{15}N_5O_2$ M 297.316

Used as 1mM EtOH soln. for fluorimetric detn. of Al (λ_{max} 434 nm, pH 3.7, 40% EtOH). Cryst. Sol. EtOH.

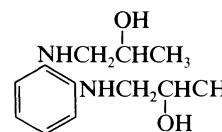
Montana Gonzalez, M.T. *et al*, *An. Quim., Ser. B*, 1984, **80**, 129 (*synth*)

Garcia de Torres, A. *et al*, *Analisis*, 1989, **17**, 592 (*detn, Al*)

***N,N'*-Bis(2-hydroxypropyl)-1,2-benzenediamine**

B-00392

1,1'-[(1,2-Phenylene)diimino]bis[2-propanol], 9CI. *N,N'*-Bis(β -hydroxypropyl)-o-phenylenediamine
[4408-48-4]

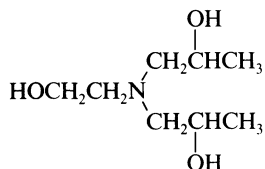


$C_{12}H_{20}N_2O_2$ M 224.302

Used as 0.1% soln. in MeOH for photometric detn. of Ce, Fe. Cryst. (EtOH). Sol. H₂O, EtOH, Me₂CO.

Diehl, H. *et al*, *Anal. Chem.*, 1956, **28**, 882 (*synth, indicator*)
 Ostrowski, S. *et al*, *Chem. Anal. (Warsaw)*, 1965, **10**, 43 (*detn, Fe*)
 Kasterka, B. *et al*, *Chem. Anal. (Warsaw)*, 1966, **11**, 1135 (*detn, Ce*)
 Robinson, C. *et al*, *Analyst (London)*, 1968, **93**, 722 (*detn, Ca*)
 Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982 (*pKa, rev*)

N,N-Bis(2-hydroxypropyl)ethanolamine **B-00393**
 1,1'-[(2-Hydroxyethyl)imino]bis[2-propanol], 9CI
 [10353-86-3]

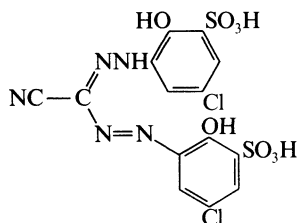


C₈H₁₉NO₃ M 177.243

Used for photometric detn. of V. Cryst. Sol. H₂O.

Hartkamp, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1964, **202**, 13 (*detn, V*)

1,5-Bis(2-hydroxy-3-sulfo-5-chlorophenyl)-3-cyanoformazan **B-00394**
 3,3'-(3-Cyano-1,5-formazandiyl)bis[5-chloro-2-hydroxybenzenesulfonic acid], 9CI. Chlorocyanoformazan

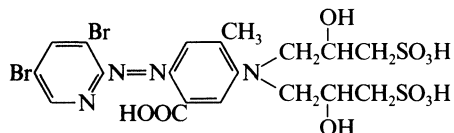


C₁₄H₉Cl₂N₅O₈S₂ M 510.291

Used as a 0.1% aq. soln. for photometric detn. of Al (λ_{\max} 670 nm, ϵ 30300). Red needles (EtOH aq.). Sol. H₂O. Mp 250°.

Malevannyi, V.A. *et al*, *Zavod. Lab.*, 1969, **35**, 414 (*detn, Al*)

5-[Bis(2-hydroxy-3-sulfopropyl)amino]-2-[(3,5-dibromo-2-pyridinyl)azo]-4-methylbenzoic acid **B-00395**
 [102362-77-6]

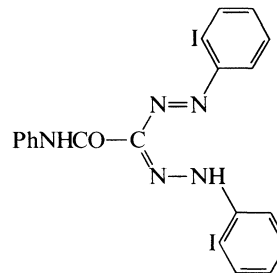


C₁₉H₂₂Br₂N₄O₁₀S₂ M 690.344

Tri-Na salt: Used as a 0.08mM aq. soln. for photometric detn. of Co, Cu, Ni, Zn. Dark red cryst. (H₂O). Sol. H₂O.

Horiguchi, D. *et al*, *Anal. Sci.*, 1985, **1**, 461 (*use*)

1,5-Bis(2-iodophenyl)-N-phenyl-3-formazancarboxamide, 9CI **B-00396**
 Formazan F49
 [112756-82-8]

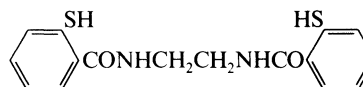


C₂₀H₁₅I₂N₅O M 595.180

Used as 4mM soln. in CH₂Cl₂ for extraction separation of Ag. Cryst. Sol. CH₂Cl₂, CHCl₃, toluene.

Grote, M. *et al*, *Anal. Chim. Acta*, 1988, **207**, 171 (*synth, detn, Ag*)

N,N'-Bis(2-mercaptobenzoyl)-1,2-ethanediamine **B-00397**
 1,2-Bis(2-mercaptobenzamido)ethane. N,N'-Ethylenebis[2-mercaptobenzamide]

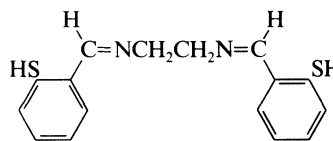


C₁₆H₁₆N₂O₂S₂ M 332.447

Used as 0.2% aq. soln. in 5% Na₂CO₃ soln. for photometric detn. of Co (λ_{\max} 620 nm, ϵ 9200). Cryst. Sol. H₂O, Me₂CO, EtOH. Mp 186-189°.

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1966, **18**, 327; **21**, 327 (*synth, detn, Co*)

1,2-Bis(2-mercaptobenzylideneamino)ethane **B-00398**
 2,2'-[1,2-Ethanediy]bis(nitrilomethylidene)]bisbenzenethiol, 9CI. N,N'-Bis(thiosalicylidene)ethylenediamine
 [35136-70-0]



C₁₆H₁₆N₂S₂ M 300.448

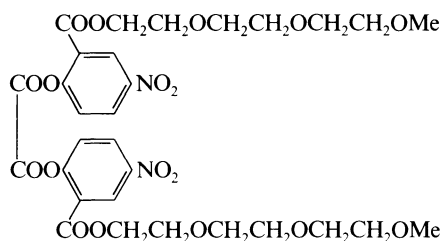
Used as a satd. soln. in CHCl₃ for extraction-photometric detn. of Co (λ_{\max} 470 nm, ϵ 6000). Air-sensitive cryst. (EtOH). Sol. EtOH, CHCl₃, C₆H₆; insol. H₂O.

Seki, J. *et al*, *CA*, 1972, **76**, 20935f.

Saple, A.R. *et al*, *J. Indian Chem. Soc.*, 1974, **51**, 738.

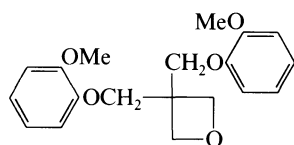
Bis[2-[[2-[2-(2-methoxyethoxy)ethoxy]ethoxy]carbonyl]-4-nitrophenyl]ethanedioate, 9CI

B-00399

Bis[4-nitro-2-(3,6,9-trioxadecyloxy carbonyl)phenyl] oxalate
[103638-91-1] $C_{30}H_{36}N_2O_{18}$ M 712.617Exhibits chemiluminescence in the presence of H_2O_2 . Used for chemiluminescence detn. in hplc. Cryst. V. sol. Me_2CO , MeCN, EtOAc. Mp 65-67°.Imai, K. *et al*, *Analyst (London)*, 1986, **111**, 209 (*synth*, use)
Imai, K. *et al*, *J. Chromatogr.*, 1987, **400**, 169 (*use*)**3,3-Bis[(2-methoxyphenoxy)methyl]oxetane, 9CI**

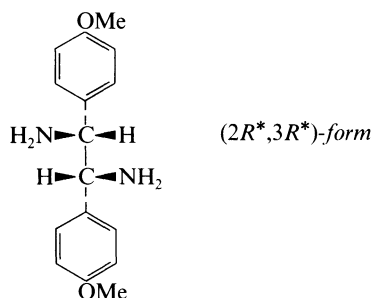
B-00400

[1238-91-1]

 $C_{19}H_{22}O_5$ M 330.380Used as MeOH soln. for fluorimetric detn. of Li (λ_{max} 307 nm). Cryst. (cyclohexane). Sol. MeOH, MeCN, cyclohexane.Hiratani, K. *et al*, *Chem. Lett.*, 1986, 197 (*synth*)
Hiratani, K. *et al*, *Analyst (London)*, 1988, **113**, 1065 (*detn*, Li)**1,2-Bis(4-methoxyphenyl)-1,2-ethanediamine, 9CI**

B-00401

[51208-43-6]

 $C_{16}H_{20}N_2O_2$ M 272.346**(1R-a,2R-a)-form** [58520-03-9]**(+)-form**Mp 89-91°. $[\alpha]_{347}^{25} + 138.57^\circ$ (c, 1.0 in MeOH).**(1S-a,2S-a)-form** [58520-04-0]**(-)-form**Mp 89-91°. $[\alpha]_{347}^{25} - 137.32^\circ$ (c, 1.0 in MeOH).**(1RS,2RS)-form** [58519-98-5]**(±)-form**Needles (Et₂O). Mp 114°.**(1RS,2SR)-form** [58520-45-9]

meso-form

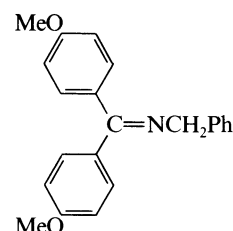
Fluorogenic reagent for anal. of reducing sugars. Cryst. (MeCN). Mp 151-152°.

Voegtle, F. *et al*, *Chem. Ber.*, 1976, **109**, 1 (*synth*)Von Angerer, E. *et al*, *J. Med. Chem.*, 1982, **25**, 832 (*synth*)Umegae, Y. *et al*, *Anal. Chim. Acta*, 1989, **217**, 263 (*use*)**N-[Bis(4-methoxyphenyl)methylene]benzenemethanamine, 9CI**

B-00402

Schonberg's reagent

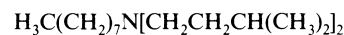
[524-96-9]

 $C_{22}H_{21}NO_2$ M 331.413Used as solid for photometric detn. of S. Yellowish cryst. Sol. Et₂O, CHCl₃, spar. sol. EtOH; insol. H₂O. Mp 93°.Ory, H.A. *et al*, *Analyst (London)*, 1957, **82**, 189 (*use*)**N,N-Bis(3-methylbutyl)-1-octanamine, 9CI**

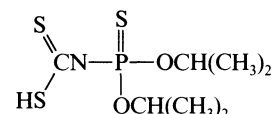
B-00403

Diisopentyl octylamine

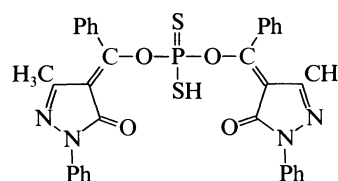
[31447-99-1]

 $C_{18}H_{39}N$ M 269.513Used as a soln. in CHCl₃ or 1,2-dichloroethane for extraction of molybdophosphoric acid. Sol. C₆H₆, CHCl₃; insol. H₂O.Ivanov, N., *Zh. Anal. Khim.*, 1977, **32**, 1688 (*use*)**[Bis(1-methylethoxy)phosphinothioyl] carbamodithioic acid, 9CI**

B-00404

 $C_7H_{16}NO_2PS_3$ M 273.381**S-Et ester:** [84549-14-4]. **S-Ethyl-N-(diisopropylthiophosphoryl)dithiocarbamate** $C_9H_{20}NO_2PS_3$ M 301.434Used as 0.01M CHCl₃ soln. for extraction separation of Ni, Hg(II), Ag. Bright-yellow cryst. (C₆H₆/Et₂O). Sol. CHCl₃, C₆H₆, Et₂O. Mp 43-44°.Toropova, V.F. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1574 (*synth*, use)**O,O-Bis[(3-methyl-5-oxo-1-phenyl-1H-pyrazol-4(5H)-ylidene)phenylmethyl]phosphorodithioate, 9CI**

B-00405

 $C_{34}H_{27}N_4O_4PS_2$ M 650.717

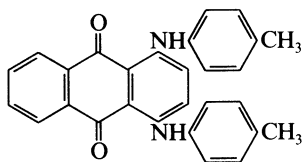
K salt: [64116-31-0].

Used as CCl_4 soln. for extraction-photometric detn. of Pd(II) (λ_{max} 295 nm, ϵ 33400, 0.3M HCl). Cryst. Sol. CCl_4 , CHCl_3 .

Busev, A.I. *et al*, *Anal. Chim. Acta*, 1977, **90**, 323 (*synth, detn, Pd*)

1,4-Bis[(4-methylphenylamino)]-9,10-anthracenedione, 9CI **B-00406**

1,4-Bis(4-methylanilino)anthraquinone. C.I. Solvent green 3. C.I. 61565
[128-80-3]



$\text{C}_{28}\text{H}_{22}\text{N}_2\text{O}_2$ M 418.494

Commercially available, used for photometric detn. of La, U(VI). Dark green cryst. powder. Sol. C_6H_6 , acids; sl. sol. Me_2CO ; insol. H_2O , EtOH.

▷ CB5775000.

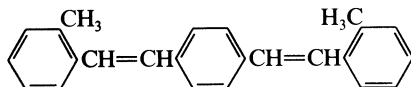
Idriss, K.A. *et al*, *Analyst (London)*, 1985, **110**, 709 (*detn, La*)

Idriss, K.A. *et al*, *Polyhedron*, 1985, **4**, 1521 (*detn, U*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BLK000.

1,4-Bis[2-(2-methylphenyl)ethenyl]benzene, 9CI **B-00407**

p-Bis(o-methylstyryl)benzene, 8CI. Bis-MSB
[13280-61-0]



$\text{C}_{24}\text{H}_{22}$ M 310.438

Laser dye. Organic liquid scintillator. Lemon yellow plates with blue green fluorescence (cyclohexane). Mp 178°.

Heller, A., *J. Chem. Phys.*, 1964, **40**, 2839 (*synth, use*)

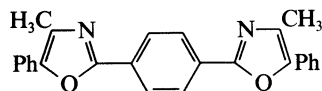
Furumoto, H.W. *et al*, *J. Appl. Phys.*, 1969, **40**, 4204 (*use*)

Bush, T.E. *et al*, *J. Phys. Chem.*, 1981, **85**, 144 (*props*)

Antonov, V.S. *et al*, *Appl. Phys. B*, 1983, **32**, 9 (*props*)

1,4-Bis(4-methyl-5-phenyl-2-oxazolyl)benzene **B-00408**

2,2'-(1,4-Phenylene)bis[4-methyl-5-phenyloxazole], 9CI. Dimethyl-POPOP
[3073-87-8]



$\text{C}_{26}\text{H}_{20}\text{N}_2\text{O}_2$ M 392.456

Laser dye. Solute for scintillation counting. Mp 232-233°.

Walker, D. *et al*, *J. Heterocycl. Chem.*, 1964, **1**, 72 (*synth*)

Broida, H.P. *et al*, *Appl. Phys. Lett.*, 1970, **16**, 142 (*use*)

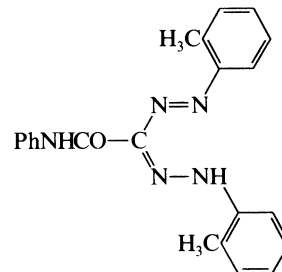
Maeda, M. *et al*, *Jpn. J. Appl. Phys.*, 1974, **13**, 827 (*use*)

Slomka, I. *et al*, *Opt. Appl.*, 1979, **9**, 25 (*use*)

Angiolini, F.E. *et al*, *Radiocarbon*, 1986, **28**, 597 (*use*)

1,5-Bis(2-methylphenyl)-N-phenyl-3-formazancarboxamide, 9CI **B-00409**

Formazan F55
[62526-05-0]



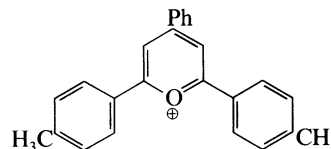
$\text{C}_{22}\text{H}_{21}\text{N}_5\text{O}$ M 371.441

Used as 0.004 % soln. in toluene for extraction separation of Ag. Cryst. Sol. toluene, CH_2Cl_2 , CHCl_3 .

Grote, M. *et al*, *Anal. Chim. Acta*, 1988, **207**, 171 (*synth, detn, Ag*)

2,6-Bis(4-methylphenyl)-4-phenylpyrylium(1+), 9CI **B-00410**

2,6-Di-p-tolyl-4-phenylpyrylium(1+)



$\text{C}_{25}\text{H}_{21}\text{O}^{\oplus}$ M 337.440 (ion)

Chloride: [103445-61-0].

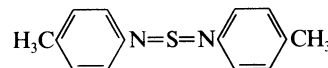
$\text{C}_{25}\text{H}_{21}\text{ClO}$ M 372.893

Used as 0.3mM soln. in 0.1M H_2SO_4 for extraction-fluorimetric detn. of ClO_4^{\ominus} (λ_{max} 495 nm, PhCl). Orange cryst. ($\text{Me}_2\text{CO}/\text{Et}_2\text{O}$). Sol. acids, EtOH, Me_2CO , Et_2O . Mp ca. 190°.

Nakashima, K. *et al*, *Talanta*, 1986, **33**, 274 (*synth, detn, ClO_4^{\ominus}*)

Bis(4-methylphenyl)sulfur diimide, 9CI **B-00411**

Di-p-tolylsulfur diimide, 8CI. Di-p-tolyldiimidosulfur
[3839-88-1]



$\text{C}_{14}\text{H}_{14}\text{N}_2\text{S}$ M 242.344

Reagent for the titrimetric detn. of organomagnesium and organolithium compds. Red prisms (hexane). Mp 48°.

Bp_{0.25} 125-128°.

[57083-05-3, 57083-06-4]

Hoerhold, H.H. *et al*, *J. Prakt. Chem.*, 1969, **311**, 621 (*synth*)

Leondri, G. *et al*, *J. Chem. Soc., Chem. Commun.*, 1970, 413 (*cryst struct*)

Kuyper, J. *et al*, *J. Chem. Soc., Chem. Commun.*, 1976, 64 (*use*)

Kresze, G. *et al*, *Org. Magn. Reson.*, 1976, **8**, 170.

Mayer, R. *et al*, *Z. Chem.*, 1976, **16**, 437 (*synth*)

Lengyel, I. *et al*, *Acta Chim. Acad. Sci. Hung.*, 1978, **96**, 275 (*ms*)

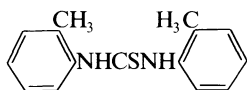
Meij, R. *et al*, *J. Mol. Struct.*, 1979, **51**, 37 (*ir, raman*)

Scienska, W. *et al*, *J. Mol. Struct.*, 1987, **158**, 57 (*pmr, N-15 nmr*)

Ding, Y.X. *et al*, *J. Org. Chem.*, 1987, **52**, 4625 (*synth*)

N,N'-Bis(2-methylphenyl)thiourea, 9CI **B-00412**

2,2'-Dimethylthiocarbaniide, 8CI. 1,3-Di-o-tolylthiourea
[137-97-3]



$C_{15}H_{16}N_2S$ M 256.371

Used for extraction-photometric detn. of Os, Ru, Pt, Rh (dichloroethane). Needles (EtOH). Sol. dichloroethane. Mp 165-166°. Steam-volatile.

▷ An allergen. FE0700000.

Dyson, G.M. *et al.*, *J. Chem. Soc.*, 1924, **125**, 1704 (*synth*)
Otterbacher, T. *et al.*, *J. Am. Chem. Soc.*, 1929, **51**, 1909 (*synth*)
Geilmann, W. *et al.*, *Fresenius' Z. Anal. Chem.*, 1956, **152**, 96 (*detn.*, Os, Ru)
Tripathyl, H., *J. Indian Chem. Soc.*, 1973, **50**, 135 (*use*)
Rakowskii, E.E. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 2263; 1975, **30**, 1775 (*detn.*, Rh, Pt)
Rahman, F.R., *J. Inorg. Nucl. Chem.*, 1977, **39**, 2089 (*ir*)
Ger. Pat., 2 716 897, (1978); *CA*, **90**, 22652 (*synth*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXP600.

O,O-Bis(2-methylpropyl) phosphorodithioate, 9CI **B-00413**

O,O-Diisobutyl phosphorodithioate, 8CI. O,O-Diisobutyl hydrogen dithiophosphate. O,O-Diisobutyl dithiophosphoric acid
[2253-52-3]



$C_8H_{19}O_2PS_2$ M 242.343

Oil. Sol. EtOH, C_6H_6 , CCl_4 , Me_2CO . d_4^{20} 1.06, d_4^{20} 1.04.
Bp_{1.5} 77.5-78°, Bp 89°. pK_{a1} 1.79 (7% EtOH aq.), pK_{a2} 2.65 (80% EtOH aq.). n_D^{20} 1.4921.

Na salt: [52797-94-1].

Used as a soln. in $CHCl_3$, C_6H_6 or CCl_4 for extraction of Cd, In, Ni, Pb, Tl, Zn. Cryst.

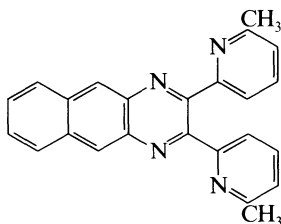
K salt: [3549-52-8].

Solid. Mp 189-190°.

Kabachnik, M.I. *et al.*, *Tetrahedron*, 1960, **9**, 10 (*synth*)
Busev, A.I. *et al.*, *Tr. Kom. Anal. Khim., Akad. Nauk SSSR*, 1960, **11**, 172 (*use*)
Almasi, L. *et al.*, *CA*, 1965, **62**, 2729 (*synth*)
Bolotova, G.L. *et al.*, *CA*, 1965, **63**, 6897 (*synth*)
Lefferts, J.L. *et al.*, *Inorg. Chem.*, 1980, **19**, 1662 (*synth.*, complexes)
Toropova, V.F. *et al.*, *Talanta*, 1987, **34**, 211 (*use*)

2,3-Bis(6-methyl-2-pyridyl)benzo[g] quinoxaline, 8CI **B-00414**

[17401-59-1]



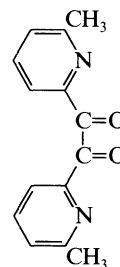
$C_{24}H_{18}N_4$ M 362.433

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 562 nm, ϵ 5460, pentanol). Cryst. (EtOH). Sol. pet. ether, EtOH.

Stephen, W.I. *et al.*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth.*, *detn.*, Cu)

Bis(6-methyl-2-pyridyl)ethanedione, 9CI **B-00415**

Bis(6-methyl-2-pyridyl)glyoxal. 6,6'-Dimethyl- α -pyridil
[6630-11-1]



$C_{14}H_{12}N_2O_2$ M 240.261

Yellow prisms turning green on exposure to light. Mp 173°.

Dihydrazone: [42188-48-7].

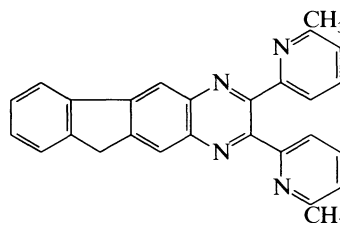
$C_{14}H_{16}N_6$ M 268.321

Used as a 0.1% soln. in EtOH for photometric detn. of Cu(I) (λ_{max} 440 nm, ϵ 8700), Pd(II). Cryst. (EtOH). Sol. EtOH, Me_2CO , C_6H_6 ; insol. H_2O . Mp 154-155°. pK_a 4.82.

Mathes, W. *et al.*, *Chem. Ber.*, 1951, **84**, 452 (*synth*)
Ishiguro, T. *et al.*, *Yakugaku Zasshi*, 1952, **72**, 861 (*synth*)
Valcarcel, M. *et al.*, *Analyst (London)*, 1973, **98**, 246 (*synth.*, *use.*, *hydrazone*)

2,3-Bis(6-methyl-2-pyridyl)-10H-indeno[1,2-g]quinoxaline, 8CI **B-00416**

[17401-77-3]



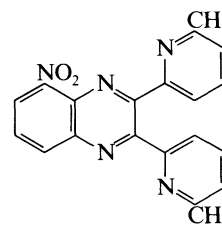
$C_{27}H_{20}N_4$ M 400.482

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 528 nm, ϵ 5150, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 221°.

Stephen, W.I. *et al.*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth.*, *detn.*, Cu)

2,3-Bis(6-methyl-2-pyridyl)-5-nitroquinoxaline, 8CI **B-00417**

[17401-67-1]



$C_{20}H_{15}N_5O_2$ M 357.371

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 547 nm, ϵ 4770, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 159°.

Stephen, W.I. *et al.*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth.*, *detn.*, Cu)

2,3-Bis(6-methyl-2-pyridyl)-6-nitroquinoxaline, 8CI

B-00418

[17401-65-9]

 $C_{20}H_{15}N_5O_2$ M 357.371

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{\max} 556 nm, ϵ 5150, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 195°.

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

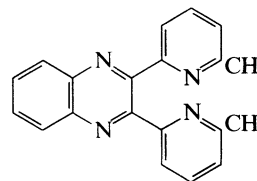
Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{\max} 568 nm, ϵ 5400, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 142°.

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

2,3-Bis(6-methyl-2-pyridyl)quinoxaline, 9CI

B-00422

[17401-58-0]

 $C_{20}H_{16}N_4$ M 312.373

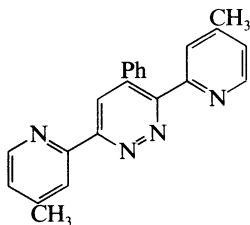
Used as 0.1% soln. in EtOH for photometric detn. of Cu (λ_{\max} 525 nm, ϵ 6100, pentanol). Yellow cryst. (EtOH). Insol. H_2O ; sol. EtOH, Me_2CO , C_6H_6 . Mp 114°.

Stephen, W.J. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

3,6-Bis(4-methyl-2-pyridyl)-4-phenylpyridazine, 8CI

B-00419

[18818-55-8]

 $C_{22}H_{18}N_4$ M 338.411

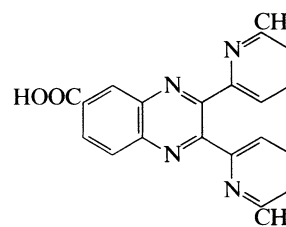
Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 553 nm, ϵ 18500), gives colour reactions with Co, Cu(I). Cryst. (C_6H_6 /pet. ether). Sol. common org. solvents. Mp 160-161°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, **5**, 431 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*use*)

2,3-Bis(6-methyl-2-pyridyl)-6-quinoxalinecarboxylic acid, 8CI

B-00423

[17601-27-3]

 $C_{21}H_{16}N_4O_2$ M 356.383

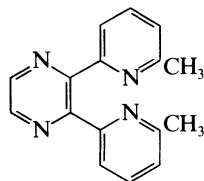
Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{\max} 538 nm, ϵ 5720, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 236°.

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

2,3-Bis(6-methyl-2-pyridyl)pyrazine, 8CI

B-00420

[25006-00-2]

 $C_{16}H_{14}N_4$ M 262.313

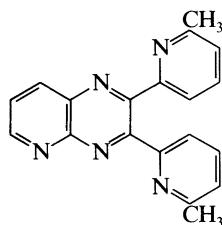
Gives colour reaction with Cu(I). Used as a 5mM soln. in aq. HCl. Pale yellow cryst. (hexane). Sol. EtOH, C_6H_6 ; sl. sol. dil. acids. Mp 132°.

Stephen, W., *Talanta*, 1969, **16**, 939 (*use*)

2,3-Bis(6-methyl-2-pyridyl)pyrido[2,3-b]pyrazine, 8CI

B-00421

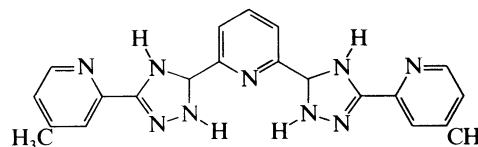
2,3-Bis(6-methyl-2-pyridyl)-8-azaquinoxaline
[17401-75-1]

 $C_{19}H_{15}N_5$ M 313.361**2,6-Bis[3-(4-methyl-2-pyridyl)-1,2,4-triazolin-5-yl]pyridine**

B-00424

2,6-Bis[4,5-dihydro-5-(4-methyl-2-pyridinyl)-1H-1,2,4-triazolin-3-yl]pyridine, 9CI

[35171-34-7]

 $C_{21}H_{21}N_9$ M 399.457

Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{\max} 630 nm, ϵ 3000, EtOH aq.). Cryst. (EtOH). Sol. common org. solvents. Mp 185°.

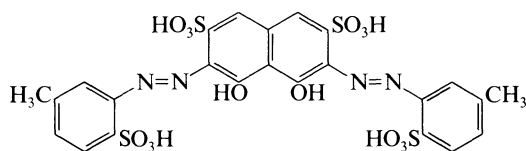
Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 1043 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*use*)

1,5-Bis(6-methyl-4-pyrimidyl)carbazone **B-00425***(6-Methyl-4-pyrimidinyl)diazene-carboxylic acid (6-methyl-4-pyrimidinyl)hydrazide, 9CI*

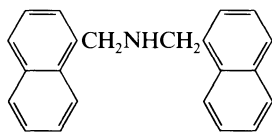
[102430-61-5]

 $C_{11}H_{12}N_8O$ M 272.269

Reagent for spectrophotometric anal. of organohalogen compds.

Ichiba, H. *et al*, *Chem. Pharm. Bull.*, 1986, **35**, 739; 1988, **36**, 5009 (use)**3,6-Bis[(5-methyl-2-sulphophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8CI** **B-00426** $C_{24}H_{20}N_4O_{14}S_4$ M 716.704Used for photometric detn. of Ba, Sr, $SO_4^{2\ominus}$. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**Bis(1-naphthylmethyl)amine, 8CI** **B-00427***N-(1-Naphthalenylmethyl)-1-naphthalenemethanamine, 9CI.**Di(1-naphthylmethyl)amine*

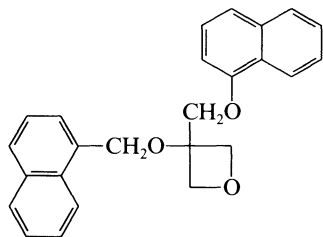
[5798-49-2]

 $C_{22}H_{19}N$ M 297.399Used as a 2.5% soln. in H_2SO_4 for gravimetric detn. of Re and NO_3^\ominus . Pale-yellow cryst. (pet. ether). Mp 62°.

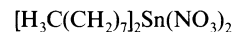
[17018-60-9, 17018-62-1]

Rupe, H. *et al*, *Helv. Chim. Acta*, 1923, **6**, 880 (synth)Morton, M.H.B. *et al*, *Anal. Chim. Acta*, 1969, **44**, 147 (detn, Re)**3,3-Bis(1-naphthylloxymethyl)oxetane** **B-00428***3,3-Bis[(1-naphthalenyloxy)methyl]oxetane, 9CI*

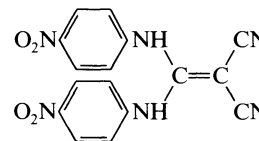
[106569-22-6]

 $C_{25}H_{22}O_3$ M 370.447Used as MeOH soln. for fluorimetric detn. of Li (λ_{max} 336 nm). Cryst. (cyclohexane). Sol. MeOH, MeCN, cyclohexane.Hiratani, K. *et al*, *Chem. Lett.*, 1986, 197 (synth)Hiratani, K. *et al*, *Analyst (London)*, 1988, **113**, 1065 (detn, Li)**Bis(nitrooxy)dioctylstannane, 9CI** **B-00429***Dioctyltin dinitrate*

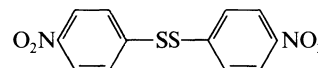
[58539-28-9]

 $C_{16}H_{34}N_2O_6Sn$ M 469.164Used as 0.1M $CHCl_3$ soln. for extraction separation of $AsO_4^{3\ominus}$, $PO_4^{3\ominus}$ and other oxygen containing anions.Cryst. Sol. $CHCl_3$, octanol, 4-methyl-2-pentanone; mod. sol. 1,2-dichloroethane, $PhNO_2$.Shkinev, V.M. *et al*, *Anal. Chim. Acta*, 1985, **167**, 145 (synth, use)**[[Bis(4-nitrophenyl)amino]methylene]propanedinitrile, 9CI** **B-00430***2-Cyano-3,3-bis(p-nitroanilino)acrylonitrile*

[42052-27-7]

 $C_{16}H_{10}N_6O_4$ M 350.293Acid-base indicator used as a 0.5% soln. in EtOH. pK_{a1} 7.72; pK_{a2} 13.21 ($\mu = 1.5$, 25°).Clark, G. *et al*, *Anal. Chem.*, 1973, **45**, 1751 (use)**Bis(4-nitrophenyl) disulfide, 9CI** **B-00431***4,4'-Dinitrodiphenyl disulfide*

[100-32-3]

 $C_{12}H_8N_2O_4S_2$ M 308.338

Anal. reagent for thiols. Needles (AcOH). Mp 182°.

▷ JO1550000.

Kubota, S. *et al*, *Yakugaku Zasshi*, 1951, **81**, 502; *CA*, **55**, 19926 (synth)Ellmann, G.L., *Arch. Biochem. Biophys.*, 1958, **74**, 443 (use)Saville, B., *Proc. Chem. Soc., London*, 1959, 160 (use)Chibisova, T.A. *et al*, *Zh. Org. Khim.*, 1971, **7**, 143 (ir)Pappalardo, G.C., *Spectrochim. Acta, Part A*, 1973, **29**, 2055 (pmr)Benati, L. *et al*, *J. Org. Chem.*, 1976, **41**, 2639.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BLA500.**Bis(4-nitrophenyl)ethanedione, 9CI** **B-00432***4,4'-Dinitrobenzil, 8CI*

[6067-45-4]

 $C_{14}H_8N_2O_6$ M 300.227Yellow plates (AcOH or Me_2CO). Mp 213°.*Monoxime:* $C_{14}H_9N_3O_6$ M 315.242

Mp 193-194° dec.

Dioxime: [43084-63-5].

$C_{14}H_{10}N_2O_6$ M 330.256

Used as 1mM EtOH soln. for extraction-photometric detn. of Ni (λ_{max} 412 nm, ϵ 13600, $CHCl_3$), Cu. Cryst. Sol. EtOH. Mp 254-256°.

Monophenylhydrazone: Orange hair-like cryst. (AcOH). Mp 257°.

Chattaway, F.D. *et al*, *J. Chem. Soc.*, 1928, 1363 (*synth*)
 Horner, L. *et al*, *Justus Liebigs Ann. Chem.*, 1970, **736**, 145 (*struct*)
 Kuse, S. *et al*, *Anal. Chim. Acta*, 1974, **70**, 65 (*synth*, *detn*, Ni, Cu)
 Le Goff, M.T. *et al*, *Bull. Soc. Chim. Fr.*, 1974, 2047 (*synth*)
 Juarez, M. *et al*, *An. Quim.*, 1976, **72**, 607 (*ir*)
 Kimura, M. *et al*, *Acta Crystallogr., Sect. B*, 1979, **35**, 483 (*struct*)
 Cremlyn, R.J. *et al*, *J. Heterocycl. Chem.*, 1987, **24**, 117 (*synth*)

***N,N*-Bis(2,3,5,6,8,9,11,12-octahydro-1,13,4,7,10-benzodioxatrithiacyclopentadecin-15-yl)pentanediamide, 9CI** B-00433

1,3-Bis[(2,3-benzo-1,4-dioxo-7,10,13-trithiacyclopentadecenyl)aminocarbonyl]propane [81810-64-2]



$C_{33}H_{46}N_2O_6S_6$ M 759.132

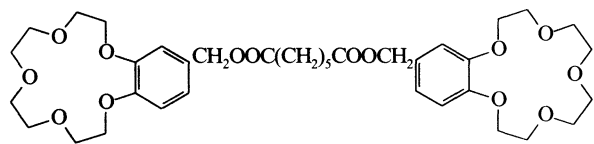
Used as 0.05mM soln. in $CHCl_3$ for selective extraction separation of Ag from Cu, Hg, Pb and other metals. Cryst. Sol. $CHCl_3$.

Oue, M. *et al*, *J. Polym. Sci., Polym. Chem. Ed.*, 1985, **23**, 2033 (*synth*)

Oue, M. *et al*, *Anal. Chim. Acta*, 1987, **194**, 293 (*use*)

Bis[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)methyl]heptanedioate, 9CI B-00434

Bis[(benzo-15-crown-5)-15-ylmethyl]pimelate [69271-98-3]



$C_{37}H_{52}O_{14}$ M 720.809

Used as a sensor for Na and K in ion-selective electrodes. Cryst. (THF/MeOH).

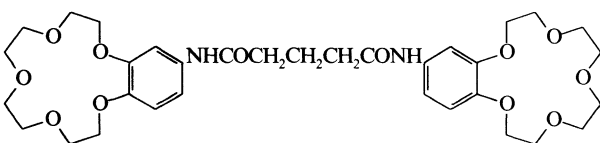
Kimura, K. *et al*, *J. Electroanal. Chem.*, 1979, **95**, 91 (*synth*)

Tamura, H. *et al*, *Mikrochim. Acta*, 1983, **2**, 287 (*use*)

Moody, G.J. *et al*, *Analyst (London)*, 1989, **114**, 15 (*use*)

***N,N'*-Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)pentanediamide, 9CI** B-00435

[69271-95-0]



$C_{33}H_{46}N_2O_{12}$ M 662.733

Used as 0.1-0.5mM $CHCl_3$ soln. for extraction of Ag, Tl(I), alkali and alkaline earth metals (in the presence of picrate). Cryst. Sol. $CHCl_3$.

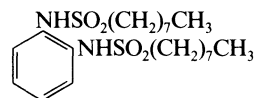
Kimura, K. *et al*, *Anal. Lett.*, 1978, **A11**, 821 (*synth*)

Maeda, T. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **298**, 363; 1982, **313**, 407 (*detn*, Ag, Tl, alkaline earth metals)

Kimura, K. *et al*, *Talanta*, 1979, **26**, 945 (*detn*, alkali metals)

1,2-Bis(octanesulfonamido)benzene B-00436

N,N'-1,2-Phenylenebis-1-octanesulfonamide, 9CI [74341-46-1]



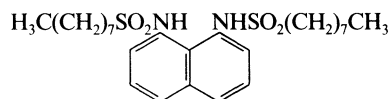
$C_{22}H_{40}N_2O_4S_2$ M 460.701

Used as 0.02M soln. in PhCl for extraction separation of Cu(II), Co, Zn, Cd, Pb, Hg(II). Cryst. (cyclohexane). Sol. PhCl, toluene, cyclohexane.

Ide, S. *et al*, *Anal. Chim. Acta*, 1983, **149**, 235 (*synth*, *use*)

1,8-Bis(octanesulfonamido)naphthalene B-00437

N,N'-1,8-Naphthalenediylbis-1-octanesulfonamide, 9CI. 1,8-Naphthalenediamine bis(octylsulfonate) [86252-93-9]



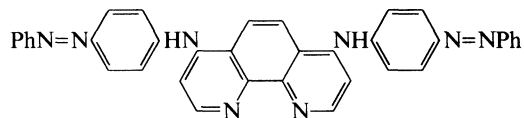
$C_{26}H_{42}N_2O_4S_2$ M 510.761

Used as 0.02M soln. in PhCl for extraction sepn. of Cu(II), Co, Zn, Cd, Pb, Hg(II). Cryst. (MeOH/cyclohexane). Sol. PhCl, cyclohexane, MeOH. Mp 77-78°.

Ide, S. *et al*, *Anal. Chim. Acta*, 1983, **149**, 235 (*synth*, *use*)

***N,N'*-Bis[4-(phenylazo)phenyl]-1,10-phenanthroline-4,7-diamine** B-00438

Bis(p-phenylazoanilino)-1,10-phenanthroline [58712-29-1]



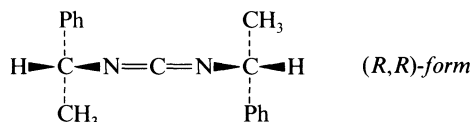
$C_{36}H_{26}N_8$ M 570.655

Used as a 0.2% soln. in 3-methyl-1-butanol for photometric detn. of Fe (λ_{max} 520 nm, ϵ 44000 pH 5.7-7). Orange cryst. (dioxan). Sol. EtOH, Me_2CO , C_6H_6 , isopentanol, dioxan. Mp 338-340°.

Pustovar, P.Y. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 511 (*synth*, *detn*, Fe)

***N,N'*-Bis(1-phenylethyl)carbodiimide** B-00439

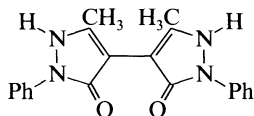
N,N'-Methanetetraylbis(α -methylbenzenemethanamine), 9CI [65370-31-2]



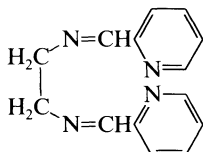
$C_{17}H_{18}N_2$ M 250.343

(R,R)-form [67277-79-6]Bp_{0.7} 105°. [α]_D²⁰ – 5.95° (c, 2 in C₆H₆).**(S,S)-form** [57122-22-2]Derivatisation reagent for the diastereomeric sepn. of α -amino acid derivs. [α]_D²⁰ + 5.76° (c, 4 in C₆H₆).

[67335-73-3]

Cervinka, O. *et al*, *Collect. Czech. Chem. Commun.*, 1978, **43**, 1087 (synth)Hiatt, R.R. *et al*, *J. Org. Chem.*, 1979, **44**, 3265 (synth)Kasimura, H. *et al*, *Anal. Chim. Acta*, 1990, **239**, 297 (use)**4,4'-Bis(1-phenyl-3-methyl-5-pyrazolone) B-00440**C₂₀H₁₈N₄O₂ M 346.388Used as 0.01M soln. in aq. Me₂CO/conc. HCl as a redox reagent; extraction-photometric (λ_{\max} 580 nm, CHCl₃) and potentiometric detn. of Ce(IV); extraction-photometric detn. of H₂O₂. Cryst. Sol. Me₂CO, acids.Trofimov, N.V. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1445 (use)**N,N'-Bis(pyridinylmethylene)-1,2-ethanediamine, 9CI B-00441***Bis*(pyridyl-2-methylidene)ethylenediamine. *Bis*(pyridine)ethylenediimine

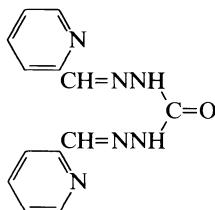
[98240-13-2]

C₁₄H₁₄N₄ M 238.291Used as 0.2% aq. soln. for photometric detn. of Cu(I) (λ_{\max} 470 nm, ϵ 5600, pH 9.5), Fe. Cryst. Sol. EtOH, acids, H₂O, Me₂CO, Et₂O. Mp 67-68°.

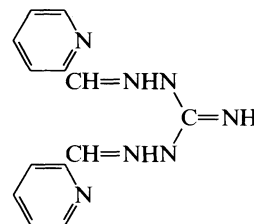
[2847-14-5]

Busch, D.H. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 1137 (synth)Munoz Leyva, J.A. *et al*, *Microchem. J.*, 1985, **31**, 332 (detn. Pd)**Bis(2-pyridylmethylene)carbonic acid dihydrazide, 9CI B-00442***1,3-Bis*(2-pyridylmethyleneamino)urea

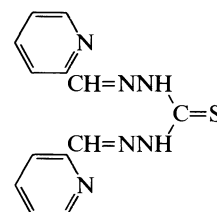
[89314-59-0]

C₁₃H₁₂N₆O M 268.277Used as a 0.1% soln. in EtOH for photometric detn. of Ca. Yellow cryst. (EtOH). Sol. EtOH, Me₂CO, C₆H₆; spar. sol. H₂O.Barragan de la Rosa, F.J. *et al*, *Mikrochim. Acta*, 1984, **1**, 171.**Bis(2-pyridylmethylene)carbonimidic acid dihydrazide, 9CI B-00443***1,3-Bis*(2-pyridylmethyleneamino)guanidine

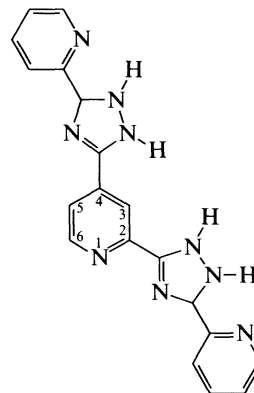
[87187-85-7]

C₁₃H₁₃N₇ M 267.293Used as a 0.1% soln. in EtOH for photometric detn. of Co (λ_{\max} 450 nm, ϵ 37500), Cu, Ni, Zn, Cd, Pd, Fe. Yellow cryst. (EtOH). Sol. EtOH, Me₂CO, C₆H₆; spar. sol. H₂O. Mp 208-209°.Barragan de la Rosa, F.J. *et al*, *Mikrochim. Acta*, 1983, **2**, 455 (use)Barragan de la Rosa, F.J. *et al*, *Talanta*, 1983, **30**, 555 (use)**Bis(2-pyridylmethylene)carbonothioic acid dihydrazide, 9CI B-00444***1,3-Bis*(2-pyridylmethyleneamino)thiourea

[87187-84-6]

C₁₃H₁₂N₆S M 284.344Used as a 0.1% soln. in EtOH for photometric detn. of Co. Yellow cryst. (EtOH). Sol. EtOH, Me₂CO, C₆H₆; spar. sol. H₂O. Mp 200-201°.Barragan de la Rosa, F.J. *et al*, *Mikrochim. Acta*, 1983, **2**, 455.**2,4-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine B-00445***2,4-Bis*[4,5-dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]pyridine, 9CI

[35171-31-4]

C₁₉H₁₇N₉ M 371.404

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 515 nm, ϵ 6400, EtOH aq.). Cryst. (2-methoxyethanol). Sol. common org. solvs. Mp 230-231°.

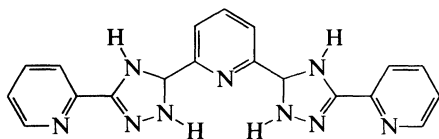
Case, F.H., *J. Heterocycl. Chem.*, 1971, 8, 1043 (synth)
Schilt, A.A. et al, *Talanta*, 1974, 21, 831 (detn, Fe(II))

Used as MeOH soln. for fluorimetric detn. of Li (λ_{\max} 396 nm). Cryst. (cyclohexane). Sol. MeOH, MeCN, cyclohexane.

Hiratani, K. et al, *Chem. Lett.*, 1986, 197 (synth)
Hiratani, K. et al, *Analyst (London)*, 1988, 113, 1065 (detn, Li)

2,6-Bis[3-(2-pyridyl)-1,2,4-triazolin-5-yl]pyridine **B-00446**

2,6-Bis[2,3-dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]pyridine, 9CI
[35221-89-7]



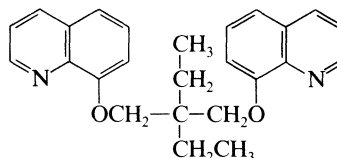
$C_{19}H_{17}N_9$ M 371.404

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 625 nm, EtOH aq.). Cryst. (EtOH). Sol. common org. solvs. Mp 210°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, 8, 1043 (synth)
Schilt, A.A. et al, *Talanta*, 1974, 21, 831 (detn, Fe)

1,3-Bis(8-quinolyloxy)-2,2-diethylpropane **B-00450**

8,8'-[(2,2-Diethyl-1,3-propanediyl)bis(oxy)]bisquinoline, 9CI.
3,3-Bis(8-quinolyloxymethyl)pentane
[106569-27-1]



$C_{25}H_{26}N_2O_2$ M 386.493

Used as MeOH soln. for fluorimetric detn. of Li (λ_{\max} 387 nm). Cryst. (cyclohexane). Sol. MeOH, MeCN, cyclohexane.

Hiratani, K. et al, *Chem. Lett.*, 1986, 197 (synth)
Hiratani, K. et al, *Analyst (London)*, 1988, 113, 1065 (detn, Li)

2,6-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine **B-00447**

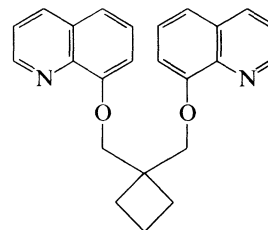
2,6-Bis[4,5-dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]pyridine, 9CI
[35171-33-6]

$C_{19}H_{17}N_9$ M 371.404

Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{\max} 580 nm, ϵ 5000, EtOH aq.). Cryst. (EtOH). Sol. common org. solvs. Mp 250-251°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, 8, 1043 (synth)
Schilt, A.A. et al, *Talanta*, 1974, 21, 831 (use, detn, Fe(II))

1,1-Bis(8-quinolyloxymethyl)cyclobutane **B-00451**



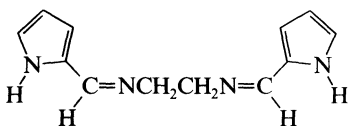
$C_{24}H_{22}N_2O_2$ M 370.450

Used as MeOH soln. for fluorimetric detn. of Li (λ_{\max} 389 nm). Cryst. (cyclohexane). Sol. MeOH, MeCN, cyclohexane.

Hiratani, K. et al, *Chem. Lett.*, 1986, 197 (synth)
Hiratani, K. et al, *Analyst (London)*, 1988, 113, 1065 (detn, Li)

N,N'-Bis(1H-pyrrol-2-ylmethylene)-1,2-ethanediamine, 9CI **B-00448**

N,N'-Di(2-pyrrolylmethylidene)-1,2-ethylenediamine
[4694-36-4]



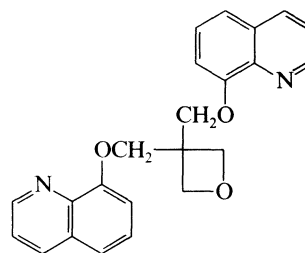
$C_{12}H_{14}N_4$ M 214.269

Used as a 2.5mM soln. in $CHCl_3$ for extraction-photometric detn. of Ni. Cryst. (EtOH). Sol. common org. solvs.; insol. H_2O . Mp 179°.

Wawschneck, O. et al, *Mikrochim. Acta*, 1964, 690 (detn, Ni)

3,3-Bis(8-quinolyloxymethyl)oxetane **B-00452**

8,8'-[3-Oxetanylidene(methyleneoxy)]bisquinoline, 9CI
[101021-61-8]



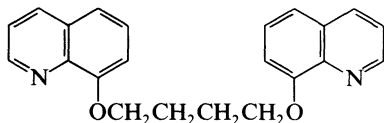
$C_{23}H_{20}N_2O_3$ M 372.423

Used as MeOH soln. for fluorimetric detn. of Li (λ_{\max} 386 nm). Cryst. (cyclohexane). Sol. MeOH, MeCN, cyclohexane.

Hiratani, K. et al, *Chem. Lett.*, 1986, 197 (synth)
Hiratani, K. et al, *Analyst (London)*, 1988, 113, 1065 (detn, Li)

1,4-Bis(8-quinolyloxy)butane **B-00449**

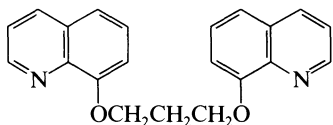
8,8'-[1,4-Butanediy]bis(oxy)]bisquinoline, 9CI
[71468-56-9]



$C_{22}H_{20}N_2O_2$ M 344.412

1,3-Bis(8-quinolyloxy)propane

8,8'-[1,3-Propanediylbis(oxy)]bisquinoline, 9CI
[71456-76-3]



$C_{21}H_{18}N_2O_2$ M 330.385

Used as MeOH soln. for fluorimetric detn. of Li (λ_{max} 388 nm). Cryst. (cyclohexane). Sol. MeOH, MeCN, cyclohexane.

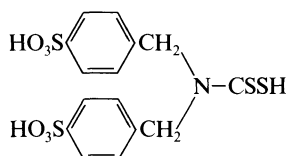
Hiratani, K. *et al*, *Chem. Lett.*, 1986, 197 (*synth*)

Hiratani, K. *et al*, *Analyst (London)*, 1988, **113**, 1065 (*detn, Li*)

Bis(4-sulfobenzyl)dithiocarbamic acid

B-00454

4,4'-[[Dithiocarboxy]imino]bis(methylene)bisbenzenesulfonic acid. Bis(4-sulfohenylmethyl)carbamo-dithioic acid



$C_{15}H_{15}NO_6S_4$ M 433.551

Tri-Na salt: [63425-09-2].

Used for photometric detn. of Hg (λ_{max} 433 nm, ϵ 15900) and titrimetric detn. of Hg. Cryst. Sol. H_2O .

Tanaka, Y. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1974, **23**, 1190; 1977, **26**, 60 (*use*)

N,N'-Bis(2-sulfoethyldithiooxamide)

B-00455

N,N'-(Thiooxalyld)ditaurine, 8CI

[21660-96-8]



$C_6H_{12}N_2O_6S_4$ M 336.435

Used as a 0.02M aq. soln. for photometric detn. of Pd.

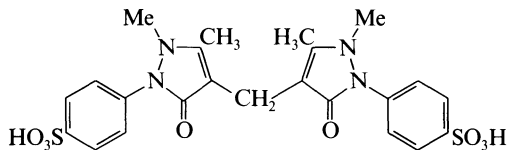
Cryst. Sol. H_2O .

Goeminne, A., *Anal. Chim. Acta*, 1963, **28**, 512 (*detn, Pd*)

Bis(1-p-sulfophenyl-2,3-dimethylpyrazol-5-on-4-yl)methane

B-00456

Disulfodiantipyrylmethane



$C_{23}H_{24}N_4O_8S_2$ M 548.597

Used as a 10% soln. of K salt for photometric detn. of Hf, Zr. Cryst. Sol. alkalis.

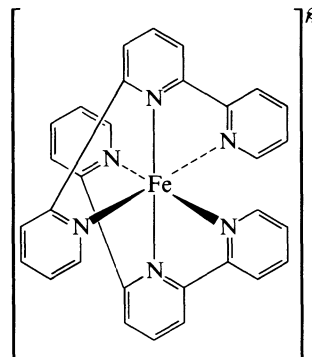
Zhivopistsev, V.P. *et al*, *CA*, 1966, **73**, 136843s.

Bis(2,2':6',2''-terpyridine-N,N',N'')iron(II) (2+)

B-00457

Bis(2,2',2''-terpyridyl)iron(II)(2+)

[17455-70-8]



$n = 2$

$C_{30}H_{22}FeN_6^{2+}$ M 522.391 (ion)

Colorimetric redox indicator; extractant for surfactants; photocatalyst; reducing agent. Used for photometric detn. of Fe, O_3 . Low spin. May be oxidised or reduced to +III, +I, 0, -I states.

Diperchlorate: [22079-98-7].

Red-purple cryst. + $1H_2O$.

Bis-hexafluorophosphate: [114320-90-0].

Convenient means of isolating terpy since oxidn. with NaOH/ H_2O_2 gives free ligand. Red-purple powder.

[94976-44-0]

Tomiyasu, H. *et al*, *Anal. Chem.*, 1984, **56**, 752 (*detn, O_3*)

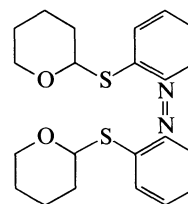
Baker, A.T. *et al*, *Aust. J. Chem.*, 1985, **38**, 207 (*cryst struct*)

Constable, E.C., *Adv. Inorg. Chem.*, 1986, **30**, 69 (*bibl, rev*)

Bis[2-[(tetrahydro-2H-pyran-2-yl)thio]phenyl]diazene, 9CI

B-00458

[74953-22-3]



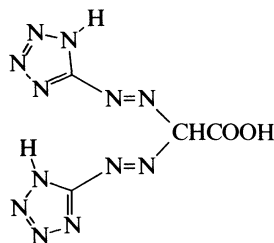
$C_{22}H_{26}N_2O_2S_2$ M 414.592

Used as 0.1 mM soln. in $CHCl_3$ for extraction-photometric detn. of Hg (λ_{max} 525nm, ϵ 3200). Orange needles (EtOH). Sl. sol. EtOH; mod. sol. Me_2CO ; sol. $CHCl_3$; insol. H_2O . Mp 185-186°.

Koch, R.V. *et al*, *Talanta*, 1980, **27**, 1001.

Bis(1*H*-tetrazol-5-ylazo)acetic acid, 9CI

B-00459

C₄H₄N₁₂O₂ M 252.155

Et ester:

C₆H₈N₁₂O₂ M 280.208

Et ester, di-Na salt: [6597-22-4].

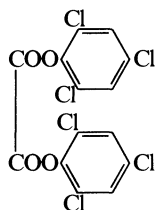
Used as 0.04% aq. soln. as a metallochromic indicator for titrimetric detn. of Cu; photometric detn. of Co (λ_{\max} 620 nm), Ni (λ_{\max} 505 nm, ϵ 12100); used as 1mM soln. for extraction-photometric detn. of Fe(II), Fe(III) (λ_{\max} 400 nm, CHCl₃). Yellow-orange cryst. Sol. H₂O, EtOH; insol. C₆H₆, CCl₄.

Jonassen, H.B. *et al*, *Anal. Chem.*, 1958, **30**, 1660 (detn, Ni, Co)
Mustafin, I.S. *et al*, *Zavod. Lab.*, 1965, **31**, 786 (detn, Cu)
Frumina, N.S. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 7; 1967, **22**, 1523;
1969, **24**, 1049 (detn, Co, Cu, Ni, Fe, Pd)
Batasheva, N.A. *et al*, *Zavod. Lab.*, 1973, **39**, 17 (detn, Co, Ni)

Bis(2,4,6-trichlorophenyl) oxalate

B-00460

Bis(2,4,6-trichlorophenyl) ethanedioate, 9CI. TCPO
[1165-91-9]

C₁₄H₄Cl₆O₄ M 448.899

Emits chemiluminescence in the presence of H₂O₂. Used for chemiluminescence detn. in hplc. Mp 196-198°.

Baker, J.W. *et al*, *J. Chem. Eng. Data*, 1964, **9**, 584 (synth)
Kobayashi, S. *et al*, *Anal. Chem.*, 1980, **52**, 424 (use)
Arakawa, H. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 3036 (use, bibl)
Honda, K. *et al*, *Anal. Chim. Acta*, 1985, **177**, 103, 117 (use)
Poulsen, J.R. *et al*, *J. Chromatogr.*, 1986, **360**, 371 (use)
Van Zoonen, P. *et al*, *J. Liq. Chromatogr.*, 1987, **10**, 819 (use)

Bis(trifluoroacetamide)

B-00461

2,2,2-Trifluoro-N-(trifluoroacetyl)acetamide, 9CI.
2,2,2,2',2',2'-Hexafluorodiacetamide, 8CI. BTFA
[407-24-9]

C₄HF₆NO₂ M 209.048

Trifluoroacetylation derivatisation reagent for gc anal.
Hygroscopic solid. Mp 86.5°. Bp₇₆₀ 145°.

N-Me: [685-27-8]. N-Methylbis(trifluoroacetamide). 2,2,2-Trifluoro-N-methyl-N-(trifluoroacetyl)acetamide, 9CI.
2,2,2,2',2',2'-Hexafluoro-N-methyldiacetamide, 8CI.
MBTFA

C₅H₃F₆NO₂ M 223.075

Trifluoroacetylation derivatisation reagent for gc anal.
Liq. Bp₇₆₀ 118°.

Young, J.A. *et al*, *J. Am. Chem. Soc.*, 1962, **84**, 2105 (synth)
Firth, W.C., *J. Org. Chem.*, 1968, **33**, 441 (synth)

Donike, M., *J. Chromatogr.*, 1973, **78**, 273 (use)
Donike, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1976, **279**, 128 (use)
Kremstadt, W. *et al*, *Chem. Ber.*, 1982, **115**, 919 (synth)
Englmaier, P., *Carbohydr. Res.*, 1985, **144**, 177 (use)

[Bis(trifluoroacetoxy)iodo]benzene

B-00462

Phenylbis(trifluoroacetato-O)iodine, 9CI. Iodobenzene 1,1-ditrifluoroacetate. Phenyliodosoditrifluoroacetate. Iodobenzene bis(trifluoroacetate). Phenyliodosyl bis(trifluoroacetate)
[2712-78-9]

C₁₀H₅F₆IO₄ M 430.042

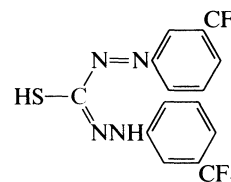
Reagent for effecting the Hofmann rearrangement of amides under mildly acidic conditions used esp. for peptides. Used in the spectrophotometric and densitometric anal. of amines and hydrazines. Mp 124-126°.

Alcock, N.W. *et al*, *J. Chem. Soc.*, 1963, 4103 (synth, ir)
Spyroudis, S. *et al*, *Synthesis*, 1975, 445 (synth, nmr)
Radhakrishna, A.S. *et al*, *J. Org. Chem.*, 1979, **44**, 1746 (synth)
Loudon, G.M. *et al*, *J. Org. Chem.*, 1984, **49**, 4272 (synth, use, bibl)
Bouton, R.H. *et al*, *J. Org. Chem.*, 1984, **49**, 4277 (use)
Papadayannis, I.N., *Microchem. J.*, 1985, **32**, 220 (use)

3,3'-Bis(trifluoromethyl)dithizone

B-00463

3-Trifluoromethylphenyldiazene-carbothioic acid 2-(3-trifluoromethylphenyl)hydrazide, 9CI. Di-m-trifluoromethylphenylcarbazone
[16341-11-0]

C₁₅H₁₀F₆N₄S M 392.327

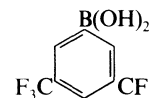
Used as a 0.01% soln. in CHCl₃ or CCl₄ for extraction-photometric detn. of Co, Ni, Zn. Greenish black cryst. powder. Sol. alkalis, Me₂CO, C₆H₆, CHCl₃, CCl₄; insol. H₂O. Mp 129-130°. p*K*_a 2.57 (dioxan aq., μ = 0.1, 25°).

Al-Salihy, A.R. *et al*, *Talanta*, 1970, **17**, 182 (detn, Co, Ni, Zn)

[3,5-Bis(trifluoromethyl)phenyl]boronic acid, 9CI

B-00464

[73852-19-4]

C₈H₅BF₆O₂ M 257.928

Anal. reagent for diols, hydroxyamines, diamines, aminophenols, hydroxyacids. Cryst. (hexane). Mp 212-215°.

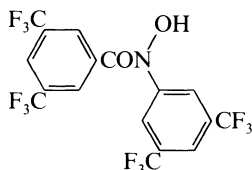
Poole, C.F. *et al*, *J. Chromatogr.*, 1979, **186**, 307 (synth, use)

N-[3,5-Bis(trifluoromethyl)phenyl]-N-hydroxy-3,5-bis(trifluoromethyl)benzamide, 9CI

B-00465

N-(3,5-Bis(trifluoromethyl)phenyl)-3,5-bis(trifluoromethyl)benzohydroxamic acid

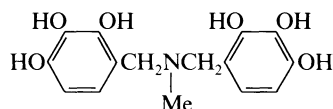
[113389-04-1]

C₁₇H₇F₁₂NO₂ M 485.229Used as 0.1M CHCl₃ soln. for extraction separation of Al, Cu, Fe(III), Mn, V. Cryst. (EtOH aq.). Sol. CHCl₃, EtOH. Mp 218-220°.Hojjatie, M. *et al*, *Anal. Chim. Acta*, 1987, **199**, 49 (*synth*, *use*)**Bis(2,3,4-trihydroxybenzyl)methylamine B-00466**

4,4'-[(Methylimino)bis(methylene)]bis(1,2,3-benzenetriol), 9CI. N-Methyl-N,N-bis(methylenepyrogallol)amine.

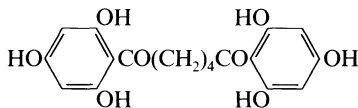
Tipyrogin

[32430-59-4]

C₁₅H₁₇NO₆ M 307.302Used as 0.03M acidified aq. soln. for photometric detn. of Nb (λ_{max} 385 nm, ε 14800). Cryst. Sol. alkalis.Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 746 (*synth*, *detn*, *Nb*)**1,6-Bis(2,4,6-trihydroxyphenyl)-1,6-hexanedione, 9CI**

B-00467

[19343-46-5]

C₁₈H₁₈O₈ M 362.335Used as a 0.25-0.5% soln. in EtOH as turbidimetric acid-base indicator (pH range: 7.9 - 8.4). Cryst. Sol. Me₂CO, EtOH.Korenmann, I.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1305 (*use*, *ind*)**Bis(2,4,4-trimethylpentyl)phosphinic acid, 9CI**

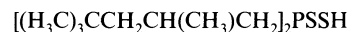
B-00468

Cyanex 272

[83411-71-6]

C₁₆H₃₅O₂P M 290.425Used as 0.1M CHCl₃ soln. for extraction separation of lanthanides (pH 2-3.5). Cryst. Sol. CHCl₃, hexane.Komatsu, Y. *et al*, *Anal. Chim. Acta*, 1989, **227**, 397 (*use*)**Bis(2,4,4-trimethylpentyl)phosphinodithioic acid**

B-00469

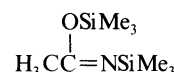
C₁₆H₃₅PS₂ M 322.558Used as satd. heptane or CHCl₃ soln. for extraction separation of Pd from Pt (0.1-0.25M HCl). Cryst. (C₆H₆/Me₂CO). Sol. CHCl₃, heptane, C₆H₆.Saito, K. *et al*, *Anal. Sci.*, 1989, **5**, 583 (*use*)**N,O-Bis(trimethylsilyl)acetamide**

B-00470

N-(Trimethylsilyl)ethanimidic acid trimethylsilyl ester, 9CI.

Trimethylsilyl N-(trimethylsilyl)ethanimidate. Trimethylsilyl N-(trimethylsilyl)acetamidate

[10416-59-8]

C₈H₂₁NOSi₂ M 203.431Silylating agent. Liq. Bp₃₀ 67.5°, Bp₃₅ 71-73°.

▷ Mod. toxic. AK3000000.

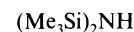
Klebe, J.F. *et al*, *J. Am. Chem. Soc.*, 1966, **88**, 3390 (*synth*)Itoh, K. *et al*, *J. Chem. Soc. B*, 1970, 302 (*synth*)Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1972, **3**, 23.Yoder, C.H. *et al*, *Inorg. Nucl. Chem. Lett.*, 1972, **8**, 1027 (*ir*, *nmr*)Kantlehner, W.H., *Justus Liebigs Ann. Chem.*, 1978, 512 (*nmr*)Rigandy, J. *et al*, *Tetrahedron Lett.*, 1980, 3367 (*spectra*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMF000.**Bis(trimethylsilyl)amine**

B-00471

1,1,1-Trimethyl-N-(trimethylsilyl)silanamine, 9CI.

1,1,1,3,3,3-Hexamethyldisilazane, 8CI. HMDS

[999-97-3]

C₆H₁₉NSi₂ M 161.394Commercially available. Silylating agent, e.g. for polysaccharides leaving no byproducts. Liq. d₄²⁰ 0.76. Bp 125°.

N-Me: [920-68-3]. N,1,1,1-Tetramethyl-N-(trimethylsilyl)silanamine, 9CI. Heptamethyldisilazane

C₇H₂₁NSi₂ M 175.421

Liq. Bp 150°.

Inorg. Synth., 1957, **5**, 58; 1966, **18**, 15, 19 (*synth*)Plazanet, J. *et al*, *Bull. Soc. Chim. Fr.*, 1967, 1920 (*ir*)Pitt, C.G. *et al*, *J. Am. Chem. Soc.*, 1967, **89**, 6792 (*uv*)Birkofer, L. *et al*, *Chem. Ber.*, 1971, **104**, 3831 (*synth*)Harmon, R.E., *Carbohydr. Res.*, 1973, **31**, 407 (*use*)Harris, R.K. *et al*, *J. Magn. Reson.*, 1975, **17**, 174 (*nmr*)Tamas, J. *et al*, *Org. Mass Spectrom.*, 1975, **10**, 859 (*ms*)Gruening, R. *et al*, *J. Organomet. Chem.*, 1977, **137**, 101 (*cryst struct*)Manzer, L.E., *Inorg. Chem.*, 1978, 1552 (*deriv*, *synth*)Le Goaller, R. *et al*, *Tetrahedron*, 1980, **36**, 237 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HED500.**N,N'-Bis(trimethylsilyl)urea, 9CI**

B-00472

BSU

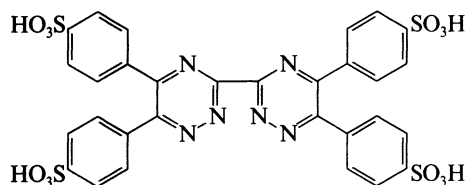
[18297-63-7]

C₇H₂₀N₂OSi₂ M 204.419

Silylating agent. Mp 222-223° (152°, 212-216°).

Wannagat, U. *et al*, *Z. Anorg. Allg. Chem.*, 1963, **321**, 198 (*synth*)
 Dankelman, W. *et al*, *Angew. Makromol. Chem.*, 1976, **54**, 187;
CA, **85**, 143934 (*use*)
 Raedler, K.P. *et al*, *J. Prakt. Chem.*, 1976, **318**, 697 (*synth*)
 Cooper, B.E., *Chem. Ind. (London)*, 1978, 794 (*synth, use*)
 Bruynes, C.A. *et al*, *J. Org. Chem.*, 1982, **47**, 3966 (*synth*)

**4,4',4'',4'''-[3,3'-Bi-1,2,4-triazine]-5,5',6,6'-
 tetrayltetrakisbenzenesulfonic acid, 9CI** **B-00473**
5,6,5',6'-Tetra(4-sulfophenyl)-3,3'-bis(1,2,4-triazine)



$C_{30}H_{20}N_6O_{12}S_4$ M 784.785
Tetra-NH₄ salt: [93372-17-9].
 Used as 0.1M aq. soln. for photometric detn. of Fe(II)
 (λ_{max} 550 nm, ϵ 28400, acidic medium). Light yellow
 powder. Sol. H₂O.

Kiss, E., *Anal. Chim. Acta*, 1984, **161**, 231 (*synth, detn, Fe*)

Biuret

B-00474

*Imidodicarbonic diamide, 9CI. Ureidoformamide.
 Allophanamide*
 [108-19-0]



$C_2H_5N_3O_2$ M 103.080

Cryst. from water as 5C₂H₅N₃O₂·4H₂O which dehydrates
 at 110°. Foaming agent for plastics, fireproofing for
 synthetic fibres. Used as a soln. in NaOH aq. for
 simultaneous detn. of Co, Cu, Ni. Cryst. (H₂O, EtOH).
 Sol. EtOH, Me₂CO, H₂O. Mp 193° dec. pK_a 13.2. Gives
 violet biuret reacn.

N-Ac:

$C_4H_7N_3O_3$ M 145.118
 Cryst. (EtOH). Mp 193-194°.

N-Benzoyl:

$C_9H_9N_3O_3$ M 207.188
 Cryst. (H₂O). Mp 223-224°.

N-Me: [6937-91-3].

$C_3H_7N_3O_2$ M 117.107
 Mp 167-168°.

1,3,5-Tri-Me: [816-00-2].

$C_5H_{11}N_3O_2$ M 145.161
 Solid. Mp 125-126°.

1,1,3,5-Tetra-Me: [54070-65-4].

$C_6H_{13}N_3O_2$ M 159.188
 Yellow oil.

Thiele, J. *et al*, *Justus Liebigs Ann. Chem.*, 1898, **303**, 93 (*synth*)

Biltz, H. *et al*, *Ber.*, 1923, **56**, 1914.

Kurzer, F., *Chem. Rev.*, 1956, **56**, 95 (*rev*)

Gustin, V.K. *et al*, *Anal. Chem.*, 1961, **33**, 1942 (*use*)

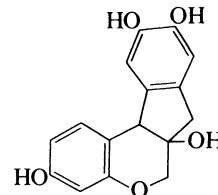
Piskala, A., *Tetrahedron Lett.*, 1964, 2587 (*derivs*)

D'Silva, T.D.J. *et al*, *J. Org. Chem.*, 1986, **51**, 3781 (*derivs, ir, pmr,
 cmr*)

Brazilin

B-00475

*7,11b-Dihydrobenz[b]indeno[1,2-d]pyran-3,6a,9,10(6H)-
 tetrol, 9CI. Brasilin*
 [474-07-7]



$C_{16}H_{14}O_5$ M 286.284

(+)-*form* [22562-62-5]

Occurs in brazilwood (*Caesalpinia* spp.). Acid base
 indicator (pH range: 5.8-7.7; colour change yellow →
 violet). White or pale-yellow cryst. (EtOH). Sol. EtOH,
 C₆H₆; spar. sol. Et₂O; mod. sol. H₂O. Mp 250°. $[\alpha]_D^{21.5}$
 +121.5° (c, 1.27 in MeOH).

▷ DE3124000.

Tri-Ac: [54089-27-9].

Needles. Mp 105-106°.

Robinson, R. *et al*, *Angew. Chem.*, 1955, **67**, 761 (*synth*)

Bitskei, J. *et al*, *Acta Chim. Hung.*, 1957, **11**, 359 (*use*)

Dann, O. *et al*, *Justus Liebigs Ann. Chem.*, 1963, **667**, 116 (*synth*)

Craig, J.C. *et al*, *J. Org. Chem.*, 1965, **30**, 1573 (*pmr*)

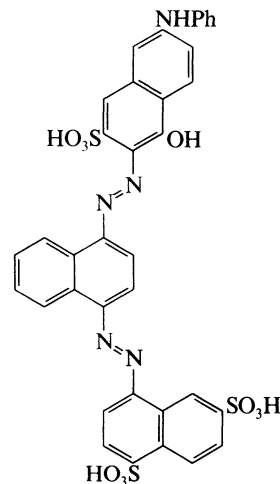
Morsingh, F. *et al*, *Tetrahedron*, 1970, **26**, 281 (*synth*)

Adjangba, M.K. *et al*, *Bull. Soc. Chim. Fr.*, 1975, 1770 (*synth*)

Brilliant congo blue BFL

B-00476

Benzo blue FBL. C.I. Direct blue 55. C.I. 27940



$C_{36}H_{25}N_5O_{10}S_3$ M 783.819

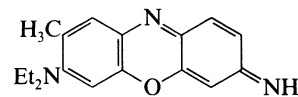
Tri-Na salt: Used as metal indicator for titrimetric detn. of
 Pb. Dark blue amorph. powder. Sol. H₂O; mod. sol.
 EtOH; insol. C₆H₆, CCl₄. λ_{max} 578 nm (H₂O).

Vrestal, J. *et al*, *Collect. Czech. Chem. Commun.*, 1957, **22**, 189.

Brilliant cresyl blue

B-00477

*N,N-Diethyl-3-imino-8-methyl-3H-phenoxazin-7-amine, 9CI.
 Cresyl blue. Brilliant blue C*



$C_{17}H_{19}N_3O$ M 281.357

Strictly the name Brilliant cresyl blue applies to the hydrochloride.

B, HCl: [4712-70-3]. *C.I.* 51010

Redox indicator. Used as a 0.4% aq. soln. for extraction-photometric detn. of In. Double salt with 0.5 ZnCl₂ used as a biological stain. Dark bluish cryst. powder. Sol. H₂O; insol. C₆H₆. E° + 0.583 V. ▶ SP7680000.

[81029-05-2]

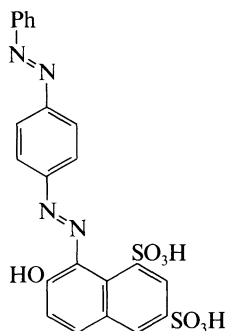
Meyer, H.W. *et al*, *Helv. Chim. Acta*, 1952, **35**, 1444.

Popa, G. *et al*, *Rev. Roum. Chim.*, 1967, **18**, 300 (*use*)

Brilliant croceine

B-00478

7-Hydroxy-8-[[4-(phenylazo)phenyl]azo]-1,3-naphthalenedisulfonic acid, 9CI. *Acid red 73*. *C.I.* 27290 [25317-39-9]



C₂₂H₁₆N₄O₇S₂ M 512.523

Strictly, the name Brilliant croceine applies to the disodium salt.

Di-Na salt: [5413-75-2].

Used for photometric detn. of Pd. Dark red cryst. powder. Sol. EtOH, H₂O; insol. C₆H₆; spar. sol. Me₂O.

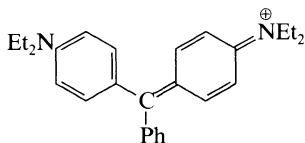
Popa, G. *et al*, *Zh. Anal. Khim.*, 1959, **14**, 322.

Colour Index, 3rd Ed., 1971, **4**, 4247 (*synth*)

Brilliant green

B-00479

N-[4-[[4-(Diethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium(1+), 9CI. *C.I.* Basic green 1. *C.I.* 42040. Malachite green G. Diamond green. Ethyl green. Emerald green



C₂₇H₃₃N₂ M 385.571

Triphenylmethane basic dye. Strictly the name Brilliant green applies to the sulfate.

Hydrogen sulfate: [633-03-4].

Commercially available. Used in extraction-photometric detn. of Sb, As, B, Bi, Sn, Ga, P, Ge, Re, Tl(III) (λ_{max} 630 nm, ε 110000), Ta, Au(III), U. Used mainly as 0.02M soln. in 0.15M HCl. Biological stain. Bright green powder. Sol. H₂O, EtOH, CHCl₃, Mp 210° dec.

▶ BP6825000.

Fogg, A.G. *et al*, *Analyst (London)*, 1969, **94**, 768; 1970, **95**, 1012 (*detn. Sb, Au*)

Kovalenko, P.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1979 (*detn. U*)

Marczenko, Z. *et al*, *Talanta*, 1974, **21**, 93 (*detn. Tl*)

Ganago, L.I. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1768 (*detn. As*)

Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York., 1986, 102; *Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York., 1989, 426.

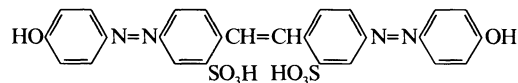
Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 103, 567.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BAY750.

Brilliant yellow

B-00480

2,2'-(1,2-Ethenediyl)bis[5-[(4-hydroxyphenyl)azo]benzenesulfonic acid], 9CI. *Direct yellow 4*



C₂₆H₂₀N₄O₈S₂ M 580.598

Strictly the name Brilliant yellow applies to the disodium salt.

Di-Na salt: [3051-11-4].

Used for gravimetric detn. of Mn. Yellow cryst. (H₂O).

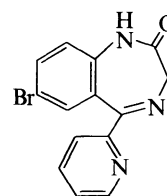
Sol. H₂O; mod. sol. EtOH; sl. sol. Me₂CO.

Pushinov, Y.V. *et al*, *CA*, 1974, **80**, 90720p.

Bromazepam, BAN, INN, JAN, USAN

B-00481

7-Bromo-1,3-dihydro-5-(2-pyridinyl)-2H-1,4-benzodiazepin-2-one, 9CI, 8CI. *Lectopam*. Numerous proprietary names [1812-30-2]



C₁₄H₁₀BrN₃O M 316.156

Tranquilliser. Prisms (Me₂CO). Sol. dil. acids, EtOH, Me₂CO. Mp 241-242° dec.

▶ DE9800000.

B, 2HCl: Used as a 0.01M soln. in MeOH for photometric detn. of Fe(II).

Korol, B. *et al*, *Pharmacology*, 1968, **1**, 115 (*pharmacol*)

Sabatino, J.D. *et al*, *Anal. Chem.*, 1969, **41**, 905 (*detn. Fe*)

Goldenthal, E.I., *Toxicol. Appl. Pharmacol.*, 1971, **18**, 185 (*tox*)

Schwartz, A.M. *et al*, *J. Pharm. Sci.*, 1973, **62**, 1776.

Schwartz, A.M. *et al*, *Drug Metab. Dispos.*, 1974, **2**, 31 (*metab*)

Inaba, S. *et al*, *Chem. Pharm. Bull.*, 1975, **23**, 3279 (*synth*)

Clarke, G.M. *et al*, *J. Chem. Res., Synop.*, 1980, 399, 400 (*synth*)

Kovar, K.A. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1981, **314**, 186 (*cmr*)

Kovac, T. *et al*, *J. Heterocycl. Chem.*, 1981, **18**, 59 (*synth*)

Hannoun, M. *et al*, *J. Heterocycl. Chem.*, 1981, **18**, 963 (*synth*)

Butcher, H. *et al*, *Acta Crystallogr., Sect. C*, 1982, **39**, 1469 (*cryst struct*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7008.

Finner, E. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1984, **317**, 79

(*pmr, conformn*)

Hassan, M.M.A. *et al*, *Anal. Profiles Drug Subst.*, 1987, **16**, 1 (*rev*)

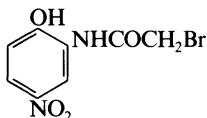
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,

Akademie-Verlag, Berlin, 1987, 2981 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BMN750.

2-(Bromoacetamido)-4-nitrophenol **B-00482**

2-Bromo-N-(2-hydroxy-5-nitrophenyl)acetamide, 9CI. 2-Bromo-2'-hydroxy-5'-nitroacetanilide. Koshland III reagent. Koshland's reagent III
[3947-58-8]



$C_8H_7BrN_2O_4$ M 275.058

Reacts with chymotrypsin to produce a reporter-labelled protein. Cryst. (EtOH aq.). Sol. MeOH, Me₂CO, C₆H₆. Mp 215-220° dec.

Burr, M. *et al*, *J. Am. Chem. Soc.*, 1967, **89**, 5945 (*synth, use*)
Horton, H.R. *et al*, *Methods Enzymol.*, 1967, **11**, 856 (*use*)
Lewis, S.D. *et al*, *Biochemistry*, 1974, **13**, 690 (*use*)
Sams, C.F. *et al*, *J. Biol. Chem.*, 1977, **252**, 3153 (*use*)

2-Bromoacetophenone **B-00483**

2-Bromo-1-phenylethanone, 9CI. Phenacyl bromide. Bromomethyl phenyl ketone
[70-11-1]



C_8H_7BrO M 199.047

Derivatisation reagent for carboxylic acids for hplc anal. Anal. reagent for thioureas and thiosemicarbazones. Prisms (EtOH aq.). Mp 51°. Bp₁₈ 135°.

▷ Irritant, TLV 0.3. AM5978400.

(E)-Oxime: [17082-14-3]. anti-Oxime

C_8H_8BrNO M 214.061
Mp 114-114.5°.

(Z)-Oxime: [17082-13-2]. syn-Oxime
Mp 97°.

Semicarbazone: Mp 146°.

2,4-Dinitrophenylhydrazone: [4880-96-0].
Yellow-orange cryst. Mp 220°.

Org. Synth., Coll. Vol., 2, 1943, 480 (*synth*)
Yanovskaya, L. *et al*, *Zh. Obshch. Khim.*, 1952, **22**, 1598; *CA*, **47**, 9258 (*synth*)

Gupta, M. *et al*, *Acta Crystallogr., Sect. B*, 1971, **27**, 1649 (*cryst struct*)

Kaiser, E. *et al*, *J. Am. Chem. Soc.*, 1972, **94**, 9274 (*nmr, uv, oxime*)

Wetherington, J. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 1520 (*cryst struct, oxime*)

Borch, R.F., *Anal. Chem.*, 1975, **47**, 2437 (*use*)

Pannell, K. *et al*, *Org. Mass Spectrom.*, 1975, **10**, 550 (*ms*)

Khanna, N. *et al*, *Talanta*, 1978, **25**, 591 (*use*)

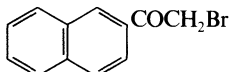
Talegaonkar, J. *et al*, *Talanta*, 1982, **29**, 327 (*use*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 432.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 435.

2-(Bromoacetyl)naphthalene **B-00484**

2-Bromo-1-(2-naphthalenyl)-1-ethanone, 9CI. 2-Bromo-2'-acetone naphthalene, 8CI. 2-Naphthacyl bromide
[613-54-7]



$C_{12}H_9BrO$ M 249.106

Reagent for esterification of fatty acids for hplc anal. Needles (EtOH). Mp 81-82°.

Picrate: Needles (EtOH). Mp 93°.

Oxime: Cryst. (MeOH). Mp 174°.

Radcliffe, C.B. *et al*, *J. Chem. Soc.*, 1931, 2293 (*synth*)

Immediata, T. *et al*, *J. Org. Chem.*, 1940, **5**, 512 (*synth*)

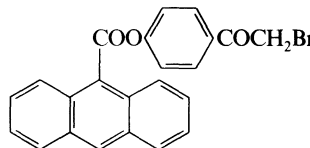
Cooper, M.J. *et al*, *Anal. Chem.*, 1974, **46**, 1849 (*use*)

Prasad, K.N., *Indian J. Pure Appl. Phys.*, 1982, **20**, 412; *CA*, **97**, 47699c (*cryst struct*)

Kihara, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1984, **33**, 647; *CA*, **102**, 1476249q (*use*)

4-(Bromoacetyl)phenyl 9-anthracenecarboxylate, 9CI **B-00485**

4-(9-Anthroyloxy)phenacyl bromide. Panacyl bromide
[94345-04-7]



$C_{23}H_{15}BrO_3$ M 419.274

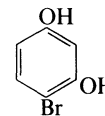
Used as hplc derivatisation reagent for prostaglandins. Deep yellow cryst. Mp 173.3-173.6°.

Cox, J.W. *et al*, *Anal. Chem.*, 1984, **56**, 1866 (*use*)

Salari, H. *et al*, *Anal. Biochem.*, 1987, **165**, 220 (*synth, use*)

4-Bromo-1,3-benzenediol, 9CI **B-00486**

4-Bromoresorcinol, 8CI
[6626-15-9]



$C_6H_5BrO_2$ M 189.008

Used as a 5% aq. soln. for photometric detn. of Zn (λ_{max} 630 nm). Cryst. (EtOH). Sol. H₂O. Mp 100-102°.

Di-Ac: [66417-41-2].

$C_{10}H_9BrO_4$ M 273.083
Mp 49-50°.

1-Me ether: [63604-94-4]. 2-Bromo-5-methoxyphenol

$C_7H_7BrO_2$ M 203.035
Oil. Bp₂₅ 152°.

3-Me ether: 4-Bromo-3-methoxyphenol

$C_7H_7BrO_2$ M 203.035
Needles (C₆H₆). Mp 84°.

Di-Me ether: [17715-69-4]. 1-Bromo-2,4-dimethoxybenzene

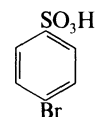
$C_8H_9BrO_2$ M 217.062
Oil. Bp₁₈ 135°.

Org. Synth., Coll. Vol., 2, 1943, 100 (*synth*)

Stewart, J.A. *et al*, *Anal. Chem.*, 1958, **30**, 404 (*detn. Zn*)

4-Bromobenzenesulfonic acid, 9CI **B-00487**

[138-36-3]



$C_6H_5BrO_3S$ M 237.074

Deliquescent needles (CHCl₃). Mp 102-103°. pK_a - 3.1 (H₂O).

Me ester: [6213-85-0].

$C_7H_7BrO_3S$ M 251.100

Platelets (MeOH). Mp 60°. Bp₁₅ 176°.

Et ester: [20846-02-0].

$C_8H_5BrO_2S$ M 265.127
Platelets (EtOH). Mp 39.5°. Bp₁₅ 181-182°, Bp_{0.15} 111-113°.

Chloride: [98-58-8].

$C_6H_4BrClO_2S$ M 255.519
Derivatisation reagent used in gc. anal. of carbamate pesticides. Cryst. (pet. ether). Mp 77°.

Bromide: [1950-71-6].

$C_6H_4Br_2O_2S$ M 299.970
Cryst. (Et₂O). Mp 77°.

Anhydride: [14248-47-6].

$C_{12}H_8Br_2O_5S_2$ M 456.132
Cryst. (Et₂O). Mp 164-167° dec.

Amide: [701-34-8].

$C_6H_6BrNO_2S$ M 236.089
Cryst. (H₂O). Mp 166.5°.

▷ DB0550000.

Anilide: [7454-54-8].

$C_{12}H_{10}BrNO_2S$ M 312.186
Mp 119°.

Rây, J.N. *et al.*, *J. Chem. Soc.*, 1920, **117**, 1405.

Jackson, G.R. *et al.*, *J. Am. Chem. Soc.*, 1955, **77**, 5625.

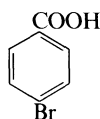
Moyer, H.A., *J. Agric. Food Chem.*, 1975, **23**, 415 (use)

Hamada, T. *et al.*, *Synthesis*, 1986, 852 (*deriv. synth, pmr, ms*)

4-Bromobenzoic acid, 9CI

B-00488

[586-76-5]



$C_7H_5BrO_2$ M 201.019

Used as a soln. in Me₂CO for ppn. sepn. of Ca and Sr.

Reference material used in elemental microanalysis.

Needles (Et₂O) or leaflets (H₂O). Sol. EtOH, Et₂O, Me₂CO. Mp 251-253°. pK_a 3.97 (25°, H₂O).

▷ DG4448050.

Me ester: [619-42-1].

$C_8H_7BrO_2$ M 215.046
Leaflets (EtOH aq.). Mp 81°.

Et ester: [5798-75-4].

$C_9H_9BrO_2$ M 229.073
Liq. Bp₇₃₇ 262°, Bp₁₃ 131°.

Chloride: [586-75-4].

C_7H_4BrClO M 219.465

Used to derivatise carbaryl for gc anal. Needles (pet. ether). Mp 42°. Bp 245-247°, Bp₂₀ 136-138°.

Bromide: [16331-47-8].

$C_7H_4Br_2O$ M 263.916

Derivatisation reagent for anilines in gc anal. Liq. Bp₁₈ 135-137°.

Anhydride: [1633-33-6].

$C_{14}H_8Br_2O_3$ M 384.023
Plates (CHCl₃). Mp 218-220°.

Amide: [698-67-9]. 4-Bromobenzamide

C_7H_6BrNO M 200.034
Needles (H₂O). Mp 191°.

▷ CV2365800.

Nitrile: [623-00-7]. 1-Bromo-4-cyanobenzene

C_7H_4BrN M 182.019
Needles (H₂O). Mp 113.5°. Bp 235-237°, Bp₁₃ 109°.

▷ DI2460000.

Azide: Mp 46°.

▷ Explodes above its Mp.

Sadtler Standard C-13 NMR Spectra, 7868 (cmr)

Sadtler Standard Ultraviolet Spectra, 3296 (uv)

Hale, W.J. *et al.*, *J. Am. Chem. Soc.*, 1913, **35**, 262 (*synth*)

Adams, R. *et al.*, *J. Am. Chem. Soc.*, 1920, **42**, 599 (*chloride, synth*)

Bailar, J., *Ind. Eng. Chem., Anal. Ed.*, 1931, **3**, 362 (*use*)

Tilden, R.L. *et al.*, *J. Agric. Food Chem.*, 1970, **18**, 154 (*chloride, use*)

Ohkura, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1971, **45**, 2651 (*cryst struct*)

Analyst (London), 1972, **97**, 740 (*microanal*)

Benoit, F., *Org. Mass Spectrom.*, 1973, **7**, 295 (*ms*)

Aldrich Library of NMR Spectra, 1974, **6**, 149D (*pmr*)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 841C (*ir*)

Bradway, D.E. *et al.*, *J. Chromatogr. Sci.*, 1977, **15**, 322 (*bromide, use*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 432.

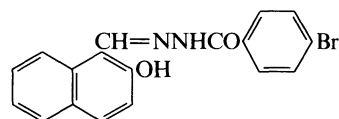
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 209.

4-Bromobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, 9CI

B-00489

2-Hydroxy-1-naphthalenecarboxaldehyde p-bromobenzoylhydrazone

[69733-98-8]



$C_{18}H_{13}BrN_2O_2$ M 369.217

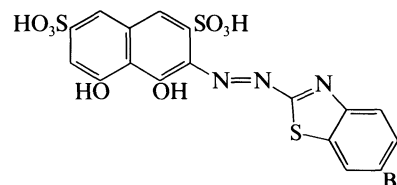
Used as 0.1mM Me₂CO soln. for fluorimetric detn. of Al (λ_{max} 482 nm, pH 3-4, 60% Me₂CO). Yellow cryst. (EtOH). Sol. EtOH, Me₂CO; sl. sol. H₂O.

Dolgorev, A.V. *et al.*, *Zh. Anal. Khim.*, 1978, **33**, 2357 (*synth, detn, Al*)

3-[(6-Bromo-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8CI

B-00490

[21468-92-8]



$C_{17}H_{10}BrN_3O_8S_3$ M 560.383

Used as a 0.1% aq. soln. for photometric detn. of Al (λ_{max} 600 nm, ε 30800), Th, Zr. Red cryst. Sol. H₂O, EtOH.

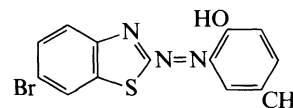
Savvin, S.B. *et al.*, *CA*, 1969, **70**, 68239k (*synth, detn, Th, Zr*)

Savvin, S.B. *et al.*, *Zh. Anal. Khim.*, 1970, **25**, 423 (*detn, Al*)

2-[(6-Bromo-2-benzothiazolyl)azo]-4-methylphenol, 9CI

B-00491

6-Bromo-2-(2-hydroxy-5-methylphenylazo)benzothiazole
[14607-06-8]



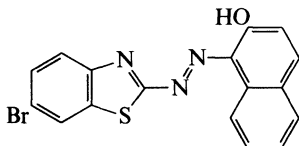
$C_{14}H_{10}BrN_3OS$ M 348.222

Used as a soln. in CHCl_3 for extraction-photometric detn. of Cd, Tl (λ_{max} 610 nm, ϵ 49000, CHCl_3), Ni (λ_{max} 620 nm, CHCl_3). Orange cryst. (EtOH) or red cryst. powder. Sol. EtOH, Me_2CO , C_6H_6 ; insol. H_2O .

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1493; 1975, **30**, 279 (detn. Cd, Tl)

1-[(6-Bromo-2-benzothiazolyl)azo]-2-naphthalenol, 9CI **B-00492**

6-Bromo-2-(2-hydroxy-1-naphthylazo)benzothiazole.
Bromobenzothiazole
[3566-95-8]



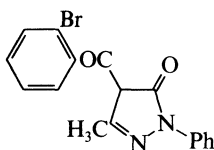
$\text{C}_{17}\text{H}_{10}\text{BrN}_3\text{OS}$ M 384.255

Used as 0.04% soln. in toluene for extraction-photometric detn. of Cd (λ_{max} 560 nm, ϵ 58000). Dark red cryst. powder. Sol. C_6H_6 , CHCl_3 ; sl. sol. Et_2O ; insol. H_2O , NH_3 aq.

Drabkina, D.A. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 940.
Shkrobot, E.P. *et al*, *Zavod. Lab.*, 1966, **32**, 1452.
Yakovleva, V.G. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 884.

4-(2-Bromobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one, 9CI **B-00493**

[78666-13-4]



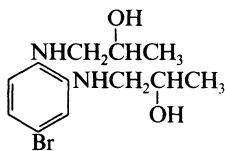
$\text{C}_{17}\text{H}_{13}\text{BrN}_2\text{O}_2$ M 357.206

Used as a 0.01M C_6H_6 soln. for extraction separation of Lu(III) (pH 1-2). Cryst. (dioxan aq.). Sol. C_6H_6 , 1,2-dichloroethane, dioxan. Mp 162°.

Mukai, H. *et al*, *Anal. Chim. Acta*, 1990, **239**, 277 (synth, use)

4-Bromo-N,N'-bis(2-hydroxypropyl)-1,2-benzenediamine **B-00494**

1,1'-[(4-Bromo-1,2-phenylene)diimino]bis-2-propanol, 9CI
[33141-12-7]



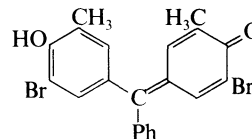
$\text{C}_{12}\text{H}_{19}\text{BrN}_2\text{O}_2$ M 303.198

Used as 0.3% aq. soln. for photometric detn. of I^\ominus , IO_3^\ominus , IO_4^\ominus (λ_{max} 530 nm); argentometric detn. of Cl^\ominus , Br^\ominus , I^\ominus . Cryst. (EtOH) or dark brown powder. Sol. H_2O , EtOH, Me_2CO .

Paslawska, S. *et al*, *Chem. Anal. (Warsaw)*, 1972, **17**, 1267.

2-Bromo-4-[(3-bromo-4-hydroxy-5-methylphenyl)phenylmethylene]-6-methyl-2,5-cyclohexadien-1-one **B-00495**

Dibromo-o-cresolbenzein



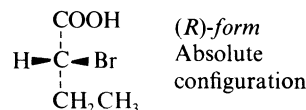
$\text{C}_{21}\text{H}_{16}\text{Br}_2\text{O}_2$ M 460.164

Acid-base indicator (pH range 5.2-6.8; colour change: yellow \rightarrow purple). Used as a 0.1% soln. in EtOH. Red cryst. (toluene). Sol. Me_2CO , Et_2O , EtOH, C_6H_6 ; spar. sol. pet. ether; insol. H_2O . Mp 238°.

Orndorff, W.R. *et al*, *J. Am. Chem. Soc.*, 1927, **49**, 992 (synth)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 122.

2-Bromobutanoic acid **B-00496**

[80-58-0]



$\text{C}_4\text{H}_7\text{BrO}_2$ M 167.002

▷ Highly toxic. ES7875000.

(R)-form

d_4^{25} 1.57. Bp₁₀ 90-93°. $[\alpha]_D^{25}$ +39.5°.

Isobutyl ester:

$\text{C}_8\text{H}_{15}\text{BrO}_2$ M 223.109
Bp 205°.

Me ester:

$\text{C}_5\text{H}_9\text{BrO}_2$ M 181.029
Bp₁₅ 48-51°. $[\alpha]_D^{25}$ +13.5°.

Chloride:

$\text{C}_4\text{H}_6\text{BrClO}$ M 185.447
Bp₁₅ 65-69°.

(S)-form

$[\alpha]_D^{25}$ -31.7°.

(±)-form [2385-70-8]

Used as a 0.4M soln. in CHCl_3 for extraction-photometric detn. of In. Pale yellow liq. Sol. H_2O (15 parts); misc. EtOH, H_2O , Et_2O . d_{20}^{20} 1.57. Fp -4°. Bp₁₂ 107°. pK_a 2.80 (25°).

Me ester: Liq. Bp 165-172°.

Bromide:

$\text{C}_4\text{H}_6\text{Br}_2\text{O}$ M 229.899
Liq. Bp 172-174°.

Anhydride:

$\text{C}_8\text{H}_{12}\text{Br}_2\text{O}_3$ M 315.989
Bp₁₀ 148-152°.

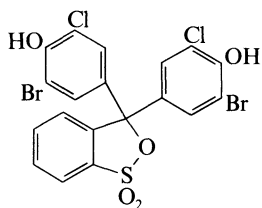
Amide:

$\text{C}_4\text{H}_8\text{BrNO}$ M 166.017
Cryst. Mp 112°.

Levene, P.A. *et al*, *J. Biol. Chem.*, 1941, **141**, 391 (synth)
Andrews, L.J. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 3582 (synth)
Stevens, C.L. *et al*, *J. Org. Chem.*, 1953, **18**, 1112 (amide)
Smisson, E.E., *J. Am. Chem. Soc.*, 1954, **76**, 5805.
Reinheckel, H., *J. Prakt. Chem.*, 1962, **15**, 260.
Graffield, W. *et al*, *Tetrahedron*, 1971, **27**, 915 (abs config)
Pyatnitskii, I.V. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2131 (use)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BMY250.

Bromochlorophenol blue**B-00497**

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2-bromo-6-chlorophenol] S,S-dioxide, 9CI. 3,3-Bis(3-bromo-5-chloro-4-hydroxyphenyl)-3H-2,1-benzoxathiole S,S-dioxide. 3,3'-Dibromo-5,5'-dichlorophenolsulfonephthalein
[2553-71-1]



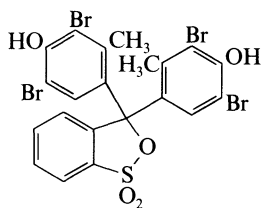
$C_{19}H_{10}Br_2Cl_2O_5S$ M 581.064

Acid-base indicator (pH range 3.0-4.6; colour change: yellow → purple) used as a soln. in EtOH. Violet-pink cryst. powder (EtOH). Sol. EtOH, alkalis; spar. sol. H_2O .

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 116.

Bromocresol green**B-00498**

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2,6-dibromo-3-methylphenol] S,S-dioxide. 3,3-Bis(3,5-dibromo-4-hydroxy-2-methylphenyl)-3H-2,1-benzoxathiole S,S-dioxide. 3,3',5,5'-Tetrabromo-m-cresolsulfonephthalein
[23778-59-8]



$C_{21}H_{14}Br_4O_5S$ M 698.021

Used as sodium salt. Anionic chromophoric reagent used as a 0.15% soln. in 20% EtOH or a 0.04% aq. soln. as counter-ion in photometric detn. of K, Cu with crown ethers. Acid-base indicator (pH range 3.8-5.4; colour change yellow → blue). Pink-brown cryst. powder. Sol. EtOH, Et_2O , dil. alkalis; spar. sol. $CHCl_3$, H_2O , C_6H_6 , glac. AcOH. Mp 218-219°. pK_a 4.9 (20°).

[76-60-8]

Orndorff, W.R. *et al*, *J. Am. Chem. Soc.*, 1926, **48**, 2216 (*synth*)

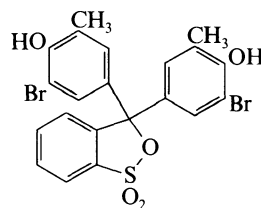
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 104.

Sumiyoshi, H. *et al*, *Talanta*, 1977, **24**, 763 (*detn*, K)

Saito, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1984, **57**, 189 (*detn*, Cu)

Bromocresol purple**B-00499**

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] S,S-dioxide, 9CI. 3,3-Bis(3-bromo-4-hydroxy-5-methylphenyl)-3H-2,1-benzoxathiole S,S-dioxide. 5',5''-Dibromo-o-cresolsulfonephthalein
[115-40-2]



$C_{21}H_{16}Br_2O_5S$ M 540.228

Commercially available. Used for photometric detn. of Ag; acid-base indicator (pH range 5.0-6.8; colour change: yellow-green → purple). Violet cryst. powder. Sol. EtOH, Me_2CO , alkalis; sl. sol. H_2O .

[62625-30-3]

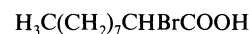
Tananaiko, M.M. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1974, **40**, 1191; 1981, **47**, 771 (*detn*, Ag)

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.

2-Bromodecanoic acid**B-00500**

2-Bromocaproic acid

[2623-95-2]



$C_{10}H_{19}BrO_2$ M 251.163

Used for extraction preconcentration of Pb. Needles. Sol. EtOH, Et_2O , Me_2CO , C_6H_6 , $CHCl_3$, alkalis.

(±)-form

Has fungicidal props. Sol. Et_2O . Mp 4°.

Me ester:

$C_{11}H_{21}BrO_2$ M 265.190

Bp_{0.5} 89°.

Bagard, P., *Bull. Soc. Chim. Fr.*, 1907, **1**, 307 (*synth*)

Katon, J.E. *et al*, *Appl. Spectrosc.*, 1971, **25**, 229 (*ir*)

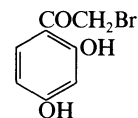
Gershon, H. *et al*, *Antimicrob. Agents Chemother.*, 1973, **4**, 435 (*use*)

Onishenko, T.A. *et al*, *Zh. Anal. Khim.*, 1987, **42**, 1616 (*use*, Pb)

2-Bromo-2',4'-dihydroxyacetophenone, 8CI**B-00501**

2-Bromo-1-(2,4-dihydroxyphenyl)ethanone, 9CI. 2,4-Dihydroxyphenacyl bromide

[2491-39-6]



$C_8H_7BrO_3$ M 231.045

Derivatisation reagent for hplc anal. of carboxylic acids.

Prisms (Et_2O /pet. ether). Mp 144-145° (127°).

Di-Me ether: [60965-26-6].

Cryst. (EtOH). Mp 103-104°.

Sonn, A., *Ber.*, 1919, **52**, 923; 1922, **55**, 2979 (*synth*)

King, I.C. *et al*, *J. Org. Chem.*, 1964, **29**, 3459 (*synth*)

Malik, M.L. *et al*, *Indian J. Chem., Sect. B*, 1976, **14**, 513 (*synth*, *pmr*)

Munns, R.K. *et al*, *J. Chromatogr.*, 1988, **442**, 209 (*use*)

2-Bromo-2',5'-dihydroxyacetophenone**B-00502**

2-Bromo-1-(2,5-dihydroxyphenyl)ethanone, 9CI. 2,5-Dihydroxyphenacyl bromide

[25015-91-2]

$C_8H_7BrO_3$ M 231.045

Derivatisation reagent for hplc anal. of carboxylic acids.

Yellow platelets. Mp 117.5-119° (112-113°).

Di-Me ether: [1204-21-3]. 2-Bromo-1-(2,5-dimethoxyphenyl)

ethanone, 9CI. 2-Bromo-2',5'-dimethoxyacetophenone,

8CI. 2,5-Dimethoxyphenacyl bromide

Needles (EtOH). Mp 91°.

Di-Ac:

$C_{12}H_{11}BrO_5$ M 315.120

Mp 72-73°.

Tambor, J., *Ber.*, 1911, **44**, 3215.

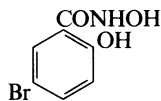
Rebstock, M.C. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 4054.

Kloetzel, M.C. *et al*, *J. Org. Chem.*, 1955, **20**, 38.
 King, I.C. *et al*, *J. Org. Chem.*, 1964, **29**, 3459.
 Munns, R.K. *et al*, *J. Chromatogr.*, 1988, **442**, 209 (*use*)

5-Bromo-*N*,2-dihydroxybenzamide, 9Cl **B-00503**

5-Bromosalicylhydroxamic acid

[5798-94-7]

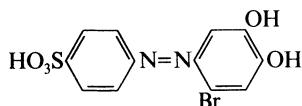
 $C_7H_6BrNO_3$ M 232.033

Used as aq. soln. for extraction-photometric detn. of V(*V*)
 (λ_{max} 620 nm, ϵ 31000). Cryst. (EtOH). Sol. EtOH,
 MeOH, Me₂CO; spar. sol. H₂O.

Capitan-Vallvey, L.F. *et al*, *Analisis*, 1989, **17**, 280 (*synth, use*)**4-[(2-Bromo-4,5-dihydroxyphenyl)azo] benzenesulfonic acid, 9Cl** **B-00504**

2'-Bromo-4',5'-dihydroxyazobenzene-4-sulfonic acid

[35495-39-7]

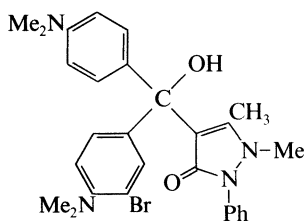
 $C_{12}H_9BrN_2O_5S$ M 373.183

Used as an aq. soln. for photometric detn. of Al, Ga, Hf,
 In, Pb (ϵ 45000), Zr. Orange cryst. (EtOH) or dark
 brown powder. Sol. EtOH, H₂O; insol. C₆H₆.

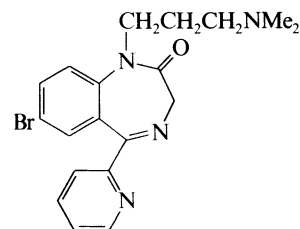
Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 1497; 1974, **29**, 275 (*detn, Al, Ga, Hf, In, Zr*)Wakamatsu, Y., *Bunseki Kagaku (Jpn. Anal.)*, 1982, **31**, 538 (*detn, Pb*)**4-[3-Bromo-4-(dimethylamino)- α -[*p*-(dimethylamino)phenyl]- α -hydroxybenzyl]antipyrine** **B-00505**

3-Bromo-4,4'-bis(dimethylaminophenyl)antipyrilcarbinol.

Bromochromopyrazole

 $C_{28}H_{31}BrN_4O_2$ M 535.482

Antipyrine basic dye. Used in photometric detn. of Re.
 Cryst.

Zhivopistsev, V.P., *Zh. Anal. Khim.*, 1963, **18**, 148 (*use*)Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 574; 1971, **26**, 1285, 1291 (*use*)Zhivopistsev, V.P., *Zavod. Lab.*, 1971, **37**, 1409 (*use*)**7-Bromo-1-[3-(dimethylamino)propyl]-1,3-dihydro-5-(2-pyridyl)-2*H*-1,4-benzodiazepin-2-one, 8Cl** **B-00506** $C_{19}H_{21}BrN_4O$ M 401.305

B,2HCl: [4466-96-0].

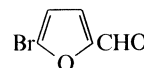
Used as a 0.01 *M* aq. soln. for photometric detn. of
 Fe(II). Sol. H₂O.

▷ DF2363600.

Sabatino, J.D. *et al*, *Anal. Chem.*, 1969, **41**, 905 (*detn, Fe*)**5-Bromo-2-furancarboxaldehyde** **B-00507**

2-Bromo-5-formylfuran. 5-Bromofurfural

[1899-24-7]

 $C_5H_3BrO_2$ M 174.981

Needles (EtOH aq.). Mp 82°.

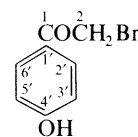
Thiosemicarbazone: [40104-44-7].

 $C_6H_6BrN_3OS$ M 248.103

Used as a 0.4mM soln. in EtOH for colorimetric detn.
 of Pd (λ_{max} 395 nm, ϵ 32000).

Nazarova, Z.N., *Zh. Obshch. Khim.*, (*Engl. transl.* p. 589), 1954, **24**, 575 (*synth*)Mas'ko, L.I. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1490; 1975, **30**, 315 (*deriv, detn, Pd*)**2-Bromo-4'-hydroxyacetophenone, 8Cl** **B-00508**2-Bromo-1-(4-hydroxyphenyl)ethanone, 9Cl. α -Bromo-4-hydroxyacetophenone. *p*-Hydroxyphenacyl bromide

[2491-38-5]

 $C_8H_7BrO_2$ M 215.046

Biocide, slimicide. Derivatisation reagent for hplc anal. of
 carboxylic acids. Needles (C₆H₆). Sol. CHCl₃. Mp 130°
 (124-126°).

▷ Lachrymatory and irritant.

Ac:

 $C_{10}H_9BrO_3$ M 257.083

Needles (MeOH aq.). Mp 67°.

Me ether: [2632-13-5]. 2-Bromo-4'-methoxyacetophenone.

2-Bromo-1-(4-methoxyphenyl)ethanone, 9Cl. *p*-

Methoxyphenacyl bromide

 $C_9H_9BrO_2$ M 229.073

Reagent for characterising and protecting carboxylic
 acids. Light-yellow cryst. Mp 75-76°.

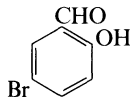
King, L.C. *et al*, *J. Org. Chem.*, 1964, **29**, 3459 (*synth*)Pasambu, S.J., *Aust. J. Chem.*, 1973, **26**, 1327 (*synth, pmr*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1975, **5**, 439.

Malik, M.L. *et al*, *Indian J. Chem., Sect. B*, 1976, **14**, 513 (*synth*, *pmr*, *deriv*)
 Reutrakul, V. *et al*, *Chem. Lett.*, 1979, 209 (*synth*)
 Mums, R.K. *et al*, *J. Chromatogr.*, 1988, **442**, 209 (*use*)

5-Bromo-2-hydroxybenzaldehyde, 9CI **B-00509**

5-Bromosalicylaldehyde, 8CI

[1761-61-1]

 $C_7H_5BrO_2$ M 201.019

Mp 105-106°.

Benzoyl: $C_{14}H_9BrO_3$ M 305.127

Mp 73-74°.

Me ether: [25016-01-7]. 5-Bromo-2-methoxybenzaldehyde, 9CI. 5-Bromo-*o*-anisaldehyde, 8CI $C_8H_7BrO_2$ M 215.046

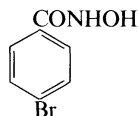
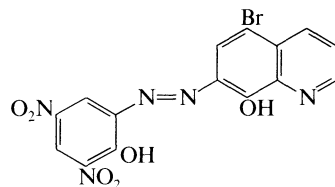
Prisms. Mp 116.4°.

Oxime: $C_7H_6BrNO_2$ M 216.034

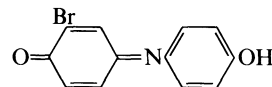
Mp 126°.

Semicarbazone: [54825-13-7]. $C_8H_8BrN_3O_2$ M 258.074Used as 0.1% DMF soln. for fluorimetric detn. of Sc (λ_{max} 455 nm, pH 6.0). Cryst. (EtOH). Sol. DMF, EtOH. Mp 297° dec.v. Auwers, K. *et al*, *Ber.*, 1904, **37**, 3929.Morishige, K., *Anal. Chim. Acta*, 1974, **73**, 245 (*semicarbazone*, *synth*, *detn*, Sc)**4-Bromo-N-hydroxybenzamide, 9CI** **B-00510***p*-Bromophenylhydroxamic acid

[1836-27-7]

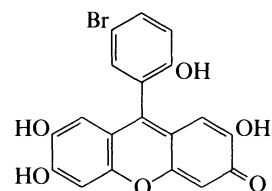
 $C_7H_6BrNO_2$ M 216.034Used for column separation of Cu, Ni from Co and U(VI) from Cr(VI). Cryst. (EtOH). Sol. EtOH, Me₂CO; sl. sol. H₂O.Shah, A. *et al*, *Talanta*, 1987, **34**, 547.**5-Bromo-8-hydroxy-7-[(2-hydroxy-3,5-dinitrophenyl)azo]quinoline** **B-00511***Picraminazo-5-bromo-8-hydroxyquinoline* $C_{15}H_8BrN_5O_6$ M 434.162Used as a 0.05% aq. soln. as metalochromic indicator for titrimetric detn. of Bi. Brown cryst. powder. Sol. EtOH, Me₂CO; insol. C₆H₆, CHCl₃.Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 568 (*use*)**2-Bromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, 9CI** **B-00512**

2-Bromoindophenol

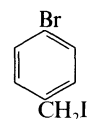
 $C_{12}H_8BrNO_2$ M 278.105Used as a 0.2% soln. in EtOH as redox indicator for titrimetric detn. of Cu(I). Dark green cryst. powder. Sol. EtOH, C₆H₆, Me₂CO, alkalis; spar. sol. H₂O. E° + 0.66 V.Misra, G.J. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **214**, 94.**9-(5-Bromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3H-xanthen-3-one, 9CI** **B-00513**

5-Bromosalicylfluorone

[6098-80-2]

 $C_{19}H_{11}BrO_6$ M 415.196Used as 1mM soln. in EtOH for extraction-photometric detn. of Sn (λ_{max} 530 nm, ϵ 120000); for photometric detn. of V(IV) (λ_{max} 530 nm, ϵ 40000, 30% EtOH, pH 4.0 - 6.5). Red cryst. (EtOH). Sol. EtOH, Me₂CO, alkalis; insol. H₂O.Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 289 (*detn*, V)Toporov, S.V. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1983, **26**, 803 (*detn*, Sn)Toporov, S.V. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 1641 (*detn*, Sn)**1-Bromo-4-(iodomethyl)benzene, 9CI** **B-00514***p*-Bromo- α -iodotoluene, 8CI. *p*-Bromobenzyl iodide

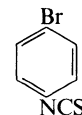
[55883-45-9]

 C_7H_6BrI M 296.933

Reagent for gc sepn. and detn. of carboxylic acids. Pale-yellow needles (pet. ether). Mp 74-75°.

Daub, G.H. *et al*, *J. Org. Chem.*, 1954, **19**, 1571 (*synth*)Zervas, L. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 5354 (*synth*)Watson, J.R. *et al*, *J. Chromatogr.*, 1970, **52**, 63 (*use*)**1-Bromo-4-isothiocyanatobenzene, 9CI** **B-00515***p*-Bromophenyl isothiocyanate, 8CI

[1985-12-2]

 C_7H_4BrNS M 214.085

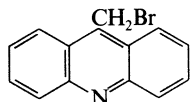
Reagent for sequence detn. of peptides. Yellow needles. Mp 60-61°.

▷ NX8400000.

Baxter, J.N. *et al*, *J. Chem. Soc.*, 1956, 659 (*synth*)
 Hodgkins, J.E. *et al*, *J. Org. Chem.*, 1964, **29**, 3098 (*synth*)
 Weygand, F. *et al*, *Eur. J. Biochem.*, 1971, **20**, 72 (*use*)
 Ottenbrite, R.M. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1972, 88 (*synth*)
 Murai, A. *et al*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 2911 (*use*)
 Schneider, M. *et al*, *Hoppe Seyler's Z. Physiol. Chem.*, 1976, **357**, 1339 (*use*)
 Molina, P. *et al*, *Synthesis*, 1982, 596 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BNW825.

9-(Bromomethyl)acridine**B-00516**

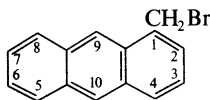
[1556-34-9]

 $C_{14}H_{10}BrN$ M 272.144Reagent for fluorimetric detn. of tertiary amines and of carboxylic acids. Cryst. (CCl₄). Mp 169-170°.

Campbell, A. *et al*, *J. Chem. Soc.*, 1958, 1145 (*synth*)
 Lehr, R.E. *et al*, *J. Pharm. Sci.*, 1975, **64**, 950 (*synth, use*)
 Akasaka, K. *et al*, *Analyst (London)*, 1987, 1581 (*use*)

1-(Bromomethyl)anthracene, 9CI**B-00517**

[24463-14-7]

 $C_{15}H_{11}Br$ M 271.156

Fluorescent labelling reagent for hplc of carboxylic acids. Mp 114-115°.

Akiyama, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1962, **35**, 1826 (*synth*)
 Bentley, M.D. *et al*, *J. Org. Chem.*, 1970, **35**, 2707 (*pmr*)
 Nakashima, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1989, **38**, 558 (*use*)

9-(Bromomethyl)anthracene, 9CI**B-00518**

[2417-77-8]

 $C_{15}H_{11}Br$ M 271.156Fluorescent labelling reagent for hplc of carboxylic acids. Cryst. (CHCl₃), yellow needles (pet. ether/C₆H₆). Mp 145-147° (137.5-142.5° dec.).

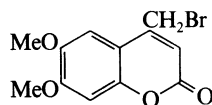
▷ Exp. carcinogen. CA9380000.

Akiyama, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 2231 (*synth*)
 Atkinson, R.S. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1973, 960 (*synth*)
 Bullpit, M. *et al*, *J. Org. Chem.*, 1976, **41**, 760 (*synth, pmr*)
 Nakashima, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1989, **38**, 558 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BNO500.

4-(Bromomethyl)-6,7-dimethoxy-2H-1-benzopyran-2-one, 9CI**B-00519**

4-Bromomethyl-6,7-dimethoxycoumarin. BDMC

[88404-25-5]

 $C_{12}H_{11}BrO_4$ M 299.120

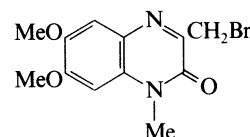
Fluorescent labelling reagent used for the reversed phase hplc sepn. and detn. of carboxylic acids. Mp 214-216°.

Farinotti, R. *et al*, *J. Chromatogr.*, 1983, **269**, 81 (*synth, use*)
 Hiratsuka, T., *J. Biochem. (Tokyo)*, 1987, **101**, 1457 (*use*)
 Yoshida, S. *et al*, *J. Chromatogr.*, 1988, **430**, 156 (*use*)

3-(Bromomethyl)-6,7-dimethoxy-1-methyl-2(1H)-quinoxalinone, 9CI**B-00520**

Br-DMEQ

[100595-07-1]

 $C_{12}H_{13}BrN_2O_3$ M 313.150

Fluorescent derivatisation reagent for carboxylic acids used in hplc. Yellow needles (hexane/EtOAc). Mp 161-163°.

Yamaguchi, M. *et al*, *Anal. Sci.*, 1985, **1**, 295; 1987, **3**, 75 (*use*)
 Yamaguchi, M. *et al*, *J. Chromatogr.*, 1985, **346**, 227; 1986, **375**, 27; 1986, **380**, 257; 1987, **414**, 275 (*synth, use, ir, pmr*)
 Yamaguchi, M. *et al*, *Anal. Biochem.*, 1986, **155**, 256 (*use*)
 Yamaguchi, M. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 3740 (*use*)

(Bromomethyl)dimethylchlorosilane**B-00521**

(Bromomethyl)chlorodimethylsilane, 9CI. BMDMCS

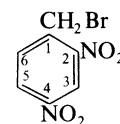
[16532-02-8]

BrCH₂SiMe₂Cl $C_3H_9BrClSi$ M 187.538Derivatizing agent for pesticide anal. by gc. Liq. d₄²⁰ 1.386. Bp 133-135°.

Kriegsmann, H. *et al*, *Z. Chem.*, 1962, **2**, 95 (*ir, raman*)
 Bache, C.A. *et al*, *Anal. Chem.*, 1968, **40**, 1241 (*use*)
 Engelhardt, G. *et al*, *Org. Magn. Reson.*, 1973, **5**, 561 (*nmr*)
 Fritz, G. *et al*, *Z. Anorg. Allg. Chem.*, 1976, **419**, 2, 249 (*synth*)
 Shen, Q., *J. Mol. Struct.*, 1984, **112**, 169 (*struct*)

1-Bromomethyl-2,4-dinitrobenzene, 9CI**B-00522**

α-Bromo-2,4-dinitrotoluene, 8CI. 2,4-Dinitrobenzyl bromide [3013-38-5]

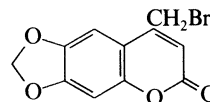
 $C_7H_5BrN_2O_4$ M 261.031Reagent for sepn. and identification of aliphatic alcohols. Needles (Et₂O). Mp 46-47°.

Kuffner, F., *Monatsh. Chem.*, 1960, **91**, 1152.
 Churacek, J. *et al*, *Collect. Czech. Chem. Commun.*, 1968, **33**, 3876 (*use*)

8-(Bromomethyl)-6H-1,3-dioxolo[4,5-g][1]benzopyran-6-one, 9CI**B-00523**

4-Bromomethyl-6,7-methylenedioxcoumarin

[97744-84-8]

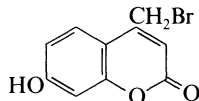
 $C_{11}H_7BrO_4$ M 283.078

Fluorescence labelling reagent for carboxylic acids. Yellow prisms (MeOH). Mp 241°.

Naganuma, H. *et al*, *J. Chromatogr.*, 1989, **478**, 149 (*synth, use*)

4-(Bromomethyl)-7-hydroxy-2H-1-benzopyran-2-one **B-00524**

4-(Bromomethyl)-7-hydroxycoumarin



$C_{10}H_7BrO_3$ M 255.067

Me ether: [35231-44-8]. 4-(Bromomethyl)-7-methoxy-2H-1-benzopyran-2-one. 9CI. 4-(Bromomethyl)-7-methoxycoumarin

$C_{11}H_9BrO_3$ M 269.094

Fluorimetric reagent for detn. of fatty acids. Pale yellow cryst. Mp 208-209°.

Ac: [2747-04-8]. 7-Acetoxy-4-(bromomethyl)coumarin

$C_{12}H_9BrO_4$ M 297.105

Fluorescent reagent for carboxylic acids in hplc. Cryst. (AcOH aq.). Mp 183°.

Ghiya, B.J. *et al*, *J. Indian Chem. Soc.*, 1965, **42**, 229 (*synth*)

Secrist, J.A. *et al*, *Biochem. Biophys. Res. Commun.*, 1971, **45**, 1262 (*synth*)

Dunges, W., *Anal. Chem.*, 1977, **49**, 442 (*use*)

Grushka, E. *et al*, *Anal. Chem.*, 1978, **50**, 1398 (*use*)

Zelenski, S.G. *et al*, *Chromatographia*, 1978, **11**, 645 (*use*)

Lam, S. *et al*, *J. Chromatogr.*, 1978, **158**, 207 (*use*)

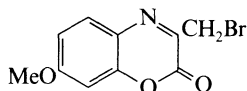
Tsuchiya, H. *et al*, *J. Chromatogr.*, 1982, **234**, 121; 1984, **309**, 43 (*use*)

Elbert, W. *et al*, *J. Chromatogr.*, 1985, **328**, 111 (*use*)

Ertel, K.J. *et al*, *J. Chromatogr.*, 1987, **411**, 502 (*use*)

3-(Bromomethyl)-7-methoxy-2H-1,4-benzoxazin-2-one, 9CI **B-00525**

[124522-09-4]



$C_{10}H_8BrNO_3$ M 270.082

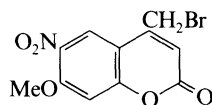
Fluorescent reagent for derivatisation of carboxylic acids.

Naganuma, H. *et al*, *Sankyo Kenkyusho Nenpo*, 1988, **40**, 51; *CA*, **112**, 30052S (*synth, use*)

4-(Bromomethyl)-7-methoxy-6-nitro-2H-benzopyran-2-one, 9CI **B-00526**

4-(Bromomethyl)-7-methoxy-6-nitrocoumarin

[103603-62-9]



$C_{11}H_8BrNO_5$ M 314.092

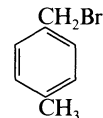
Electrochemical label for carboxylic acids in hplc chromatogr.

Kubab, N. *et al*, *Analisis*, 1986, **14**, 125; *CA*, **105**, 71832v (*use*)

1-(Bromomethyl)-4-methylbenzene, 9CI **B-00527**

α -Bromo-p-xylene, 8CI. p-Xylyl bromide. p-Methylbenzyl bromide

[104-81-4]



C_8H_9Br M 185.063

Reagent for esterification of acids for gc sepn. Cryst. (EtOH). Mp 36-37°. Bp₇₄₀ 218-220°.

► Highly toxic vapour, strong irritant.

[28258-59-5]

Haas, H.B. *et al*, *J. Am. Chem. Soc.*, 1949, **71**, 1767 (*synth*)

Watson, J.R. *et al*, *J. Chromatogr.*, 1970, **52**, 63 (*use*)

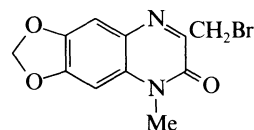
Ouertani, M. *et al*, *Bull. Soc. Chim. Fr.*, 1982, 327 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, XRS000.

3-(Bromomethyl)-6,7-(methylenedioxy)-1-methyl-2(1H)-quinoxalinone **B-00528**

7-(Bromomethyl)-5-methyl-1,3-dioxolo[4,5-g]quinoxalin-6(5H)-one, 9CI

[116381-11-4]



$C_{11}H_9BrN_2O_3$ M 297.108

Fluorescence derivatisation reagent for hplc of carboxylic acids and monosialogangliosides. Yellow needles. Mp 170° dec.

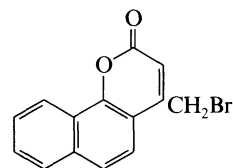
Yamaguchi, M. *et al*, *Chem. Pharm. Bull.*, 1988, **36**, 2263; 1989, **37**, 2846 (*synth, use*)

Yamaguchi, M. *et al*, *Anal. Sci.*, 1989, **5**, 35 (*use*)

4-(Bromomethyl)-2H-naphtho[1,2-b]pyran-2-one, 9CI **B-00529**

4-Bromomethyl-7,8-benzocoumarin

[87317-83-7]



$C_{14}H_9BrO_2$ M 289.128

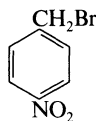
Reagent for fluorimetric detn. of fatty acids and prostaglandins.

Alekseev, S.M. *et al*, *Khim.-Farm. Zh.*, 1983, **17**, 619; *CA*, **99**, 154606h (*use*)

Zolotukhin, S.V. *et al*, *Ukr. Biokhim. Zh. (1946-1977)*, 1984, **56**, 171; *CA*, **100**, 185918e (*use*)

1-(Bromomethyl)-4-nitrobenzene**B-00530**

α-Bromo-4-nitrotoluene. *p*-Nitrobenzyl bromide
[100-11-8]



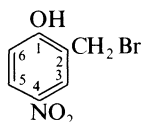
$C_7H_6BrNO_2$ M 216.034

Protecting reagent for carboxyl groups. Esterification reagent for carboxylic acids for hplc or ms. anal. Needles (EtOH).

Norris, J.F. *et al*, *J. Am. Chem. Soc.*, 1916, **38**, 1071 (*synth*)
Buu-Hoï, Ng.Ph., *Justus Liebigs Ann. Chem.*, 1944, **556**, 1 (*synth*)
Cavill, G.W.K., *J. Soc. Chem. Ind., London*, 1946, **65**, 124 (*synth*)
Shapiro, R.H. *et al*, *Org. Mass Spectrom.*, 1969, **2**, 533 (*ms*)
Grushka, E. *et al*, *J. Chromatogr.*, 1975, **112**, 673 (*use*)
Issa, R.M. *et al*, *Spectrochim. Acta, Part A*, 1975, **31**, 199 (*uv, ir*)
Hirata, Y. *et al*, *Anal. Chem.*, 1978, **50**, 1943 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 360.
Ouertani, M. *et al*, *Bull. Soc. Chim. Fr.*, 1982, 327 (*synth*)

2-(Bromomethyl)-4-nitrophenol**B-00531**

α-Bromo-4-nitro-*o*-cresol. 2-Hydroxy-5-nitrobenzyl bromide.
Koshland's reagent I. HNBB
[772-33-8]



$C_7H_6BrNO_3$ M 232.033

Chromogenic reagent for tryptophan residues in proteins. Leaflets (C_6H_6). Sol. MeOH, Me₂CO, C₆H₆, dioxan; sl. sol. H₂O. Mp 147°.

Me ether: [3913-23-3]. 2-(Bromomethyl)-1-methoxy-4-nitrobenzene, 9CI. 2-Methoxy-5-nitrobenzyl bromide. 2-Bromomethyl-4-nitroanisole. MNBB. *Koshland's reagent II*

$C_8H_8BrNO_3$ M 246.060

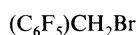
Polarity reporter of microenvironment in proteins. Reagent for sulfhydryl modification. Needles with sweet aromatic odour. Sol. MeOH, Me₂CO, C₆H₆; sl. sol. H₂O. Mp 77-78°.

▷ Skin irritant.

Koshland, D.E. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 1448.
Horton, H.R. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 1126.
Horton, H.R. *et al*, *J. Biol. Chem.*, 1965, **240**, 722 (*synth, use, Me ether*)
Horton, H.R. *et al*, *Methods Enzymol.*, 1967, **11**, 556 (*synth, use*)
Roustan, C. *et al*, *Eur. J. Biochem.*, 1973, **39**, 371 (*use*)
Sarma, T.V.K. *et al*, *Indian J. Phys., B*, 1985, **59**, 478 (*ir, raman*)

(Bromomethyl)pentafluorobenzene, 9CI**B-00532**

α-Bromo-2,3,4,5,6-pentafluorotoluene, 8CI.
Pentafluorobenzyl bromide
[1765-40-8]



$C_7H_2BrF_5$ M 260.989

Used as derivatising reagent for organic acids (electron capture gc). Liq. Bp 174-175°. n_D^{20} 1.4710.

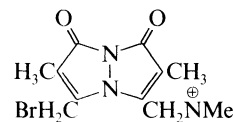
▷ Lachrymator.

Barbour, A.K. *et al*, *J. Chem. Soc.*, 1961, 808 (*synth*)
Birchall, J.M. *et al*, *J. Chem. Soc.*, 1961, 3719 (*synth*)
Kawahara, F.K., *Anal. Chem.*, 1968, **40**, 2073 (*use*)

Briggs, J.M. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1973, 1789 (*cmr*)
Netting, A.G. *et al*, *Biomed. Mass Spectrom.*, 1985, **12**, 668 (*use*)
Daneshvar, M.I. *et al*, *J. Chromatogr.*, 1988, **433**, 248 (*use*)

5-(Bromomethyl)-*N,N,N*,-2,6-pentamethyl-1,7-dioxo-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-3-methanaminium(1+), 9CI**B-00533**

Monobromotrimethylammoniumbimane
[75403-48-4]



$C_{13}H_{19}BrN_3O_2^+$ M 329.216 (ion)

Bromide: [71418-45-6].

$C_{13}H_{19}Br_2N_3O_2$ M 409.120

Fluorescent label for thiol groups. Derivatisation reagent for anal. of thiols. Yellow cryst. Mp 210-220° dec.

Kosower, N.S. *et al*, *Proc. Natl. Acad. Sci. U.S.A.*, 1979, **76**, 3382 (*use*)

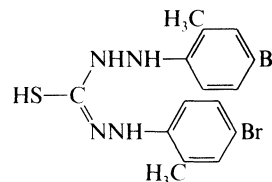
Fahey, R.C. *et al*, *Anal. Biochem.*, 1980, **107**, 1; 1981, **111**, 357 (*use*)

Kosower, E.M. *et al*, *J. Org. Chem.*, 1981, **46**, 1666 (*synth, ir, uv, pmr*)

Kosower, N.S. *et al*, *Methods Enzymol.*, 1987, **143**, 76 (*rev*)

4-Bromo-2-**B-00534****methylphenyldiazene-carbothioic acid 2-(4-bromo-2-methylphenyl)hydrazide, 9CI**

p,p'-Dibromo-*o,o'*-dimethyldithizonone. Bis(4-bromo-2-methylphenyl)thiocarbazone



$C_{15}H_{16}Br_2N_4S$ M 444.192

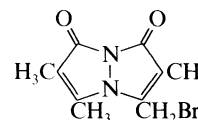
Used as a 0.01% soln. in CCl₄ or CHCl₃ for extraction-photometric detn. of Ag, Hg, Cd, Cu. Greenish-black cryst. powder. Sol. alkalis, Me₂CO, CCl₄, CHCl₃, EtOH; insol. H₂O.

Takei, S., *Bunseki Kagaku (Jpn. Anal.)*, 1960, **9**, 402.

3-(Bromomethyl)-2,5,6-trimethyl-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-1,7-dione, 9CI**B-00535**

Monobromobimane. Bromobimane

[71418-44-5]



$C_{10}H_{11}BrN_2O_2$ M 271.113

Fluorescent label for thiol groups. Anal. reagent for thiols. Yellow cryst. (EtOH). Mp 142°.

Kosower, E.M. *et al*, *J. Am. Chem. Soc.*, 1978, **100**, 6516; 1980, **102**, 4983 (*synth, ir, pmr, uv*)

Kosower, N.S. *et al*, *Proc. Natl. Acad. Sci. U.S.A.*, 1979, **76**, 3382 (*use*)

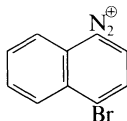
Fahey, R.C. *et al*, *Anal. Biochem.*, 1981, **111**, 357; **114**, 383 (*use*)

Kosower, N.S. *et al*, *Methods Enzymol.*, 1987, **143**, 76 (rev)
 Baeyens, W.R.G. *et al*, *Anal. Chim. Acta*, 1988, **205**, 43 (use)
 Velury, S. *et al*, *J. Chromatogr.*, 1988, **424**, 141 (use)

Toei, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1978, **27**, 31 (use, oxime)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BNS750.

4-Bromo-1-naphthalenediazonium(1+),**B-00536****9CI**

[46154-39-6]

 $C_{10}H_6BrN_2^{\oplus}$ M 234.075 (ion)

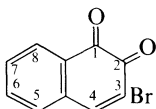
Chloride: [94098-92-7].

 $C_{10}H_6BrClN_2$ M 269.527

Titrant for detn. of aromatic hydroxy compds. and amines.

Vytras, K. *et al*, *Anal. Chim. Acta*, 1984, **162**, 141, 373; 1985, **175**, 309 (synth, use)**3-Bromo-1,2-naphthoquinone, 8CI****B-00537****3-Bromo-1,2-naphthalenedione, 9CI**

[7474-83-1]

 $C_{10}H_5BrO_2$ M 237.052

Red needles (EtOH). Mp 179°. Sublimes.

1-Oxime: [16761-05-0]. *3-Bromo-1-nitroso-2-naphthalenol*,**9CI** $C_{10}H_6BrNO_2$ M 252.067

Yellow needles (EtOH or AcOH). Mp 172°.

2-Oxime: [30922-52-2]. *3-Bromo-2-nitroso-1-naphthalenol*,**9CI** $C_{10}H_6BrNO_2$ M 252.067

Anal. reagent for aromatic amines and hydrazines.

Dark-brown cryst. (AcOH). Sol. EtOH, Et₂O, AcOH, C_6H_6 , CHCl₃, Mp 175°.Brömme, C., *Ber.*, 1888, **21**, 386.Fries, K. *et al*, *Justus Liebigs Ann. Chem.*, 1930, **484**, 265.Fieser, L.F. *et al*, *J. Am. Chem. Soc.*, 1937, **59**, 1016.Oliver, R.W.A. *et al*, *Tetrahedron*, 1968, **24**, 4067 (spectra)Courseille, C. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1970, **270**, 687 (cryst struct)Korenman, J.M. *et al*, *CA*, 1971, **80**, 9390n (use, oxime)Gaultier, J. *et al*, *Cryst. Struct. Commun.*, 1975, **4**, 211 (cryst struct)**6-Bromo-1,2-naphthoquinone****B-00538****6-Bromo-1,2-naphthalenedione, 9CI**

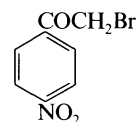
[6954-48-9]

 $C_{10}H_5BrO_2$ M 237.052Golden needles (H₂O), orange-red cryst. (C₆H₆). Mod. sol.EtOH, Et₂O, AcOH, ligroin. Mp 168° dec. (discolours at 145°, sinters at 150°).

▷ QL7400000.

Dioxime: [67106-47-2]. $C_{10}H_7BrN_2O_2$ M 267.081Used for extraction-photometric detn. of Ni. Orange-red needles (EtOH). Sol. EtOH, C₆H₆, Me₂CO.Claus, A. *et al*, *J. Prakt. Chem.*, 1891, **43**, 54.Fries, K. *et al*, *Justus Liebigs Ann. Chem.*, 1930, **484**, 271.Fieser, L.F. *et al*, *J. Am. Chem. Soc.*, 1935, **57**, 1481.Oliver, R.W.A. *et al*, *Tetrahedron*, 1968, **24**, 4067 (spectra, synth)**2-Bromo-4'-nitroacetophenone, 8CI****B-00539****2-Bromo-1-(4-nitrophenyl)ethanone, 9CI. p-Nitrophenacyl bromide**

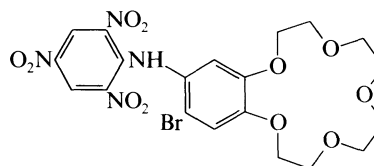
[99-81-0]

 $C_8H_6BrNO_3$ M 244.044

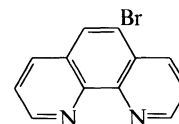
Derivatisation reagent for hplc anal. of prostaglandins.

Needles (C₆H₆/pet. ether or EtOAc/pet. ether). Mp 98°.*Oxime*: [14181-73-8]. $C_8H_7BrN_2O_3$ M 259.059Cryst. (C₆H₆). Mp 129-129.5°.Baker, J.W., *J. Chem. Soc.*, 1931, 2416.Sugimoto, N. *et al*, *Yakugaku Zasshi*, 1952, **72**, 195.Hajos, A. *et al*, *Acta Chim. Acad. Sci. Hung.*, 1972, **73**, 113.Exner, O. *et al*, *Collect. Czech. Chem. Commun.*, 1972, **37**, 2156 (ir)Merritt, M.V. *et al*, *Anal. Chem.*, 1976, **48**, 1851 (use)Naidir, F.B. *et al*, *Khim.-Farm. Zh.*, 1976, **10**, 117 (synth)Merritt, M.V., *Anal. Biochem.*, 1977, **80**, 392 (use)**16-Bromo-2,3,5,6,8,9,11,12-octahydro-N-****B-00540****(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-****amine, 9CI****3'-Bromo-4'-(picrylamino)benzo-15-crown-5**

[70758-90-6]

 $C_{20}H_{21}BrN_4O_{11}$ M 573.310Used as 1.8mM soln. in CHCl₃ for extraction-photometricdetn. of K (λ_{max} 560 nm, CHCl₃). Orange cryst.(CHCl₃/MeOH). Sol. CHCl₃, MeOH, C₆H₆, EtOH; sl.sol. H₂O. Mp 216-217°. pK_a 9.32 (0.1M LiCl).Nakamura, H. *et al*, *Talanta*, 1979, **26**, 921 (synth, detn, K)Nakamura, H. *et al*, *Anal. Chem.*, 1980, **52**, 1668 (detn, K)Bubris, B.P. *et al*, *Anal. Chim. Acta*, 1982, **139**, 307 (detn, K)**5-Bromo-1,10-phenanthroline, 9CI****B-00541**

[40000-20-2]

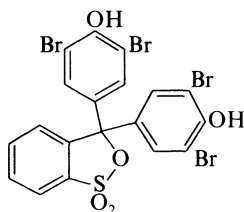
 $C_{12}H_7BrN_2$ M 259.105

Used as redox indicator for titrimetric detn. of Cu(I),

Fe(II). Cryst. (CHCl₃). Sol. EtOH, Me₂CO, C₆H₆; spar.sol. H₂O. Mp 119°. pK_a 4.20 ($\mu = 0.1$; 25°).Richter, F. *et al*, *J. Am. Chem. Soc.*, 1944, **66**, 396 (synth)Halcrow, B.E. *et al*, *J. Chem. Soc.*, 1946, 155 (synth)Banks, C.V. *et al*, *J. Am. Chem. Soc.*, 1959, **81**, 6153 (use)Denes, V. *et al*, *J. Prakt. Chem.*, 1978, **320**, 172 (pmr)

Bromophenol blue**B-00542**

4,4'-(3H-2,1-Benzoxathio-3-ylidene)bis[2,6-dibromophenol]-S,S-dioxide, 9CI, 8CI. α,α -Bis(3,5-dibromo-4-hydroxyphenyl)- α -hydroxy-o-toluenesulfonic acid γ -sultone.
Tetrabromosulfonephthalein
[115-39-9]



$C_{19}H_{10}Br_4O_5S$ M 669.967

Triphenylmethane acid dye. Commercially available. Used as 0.1% soln. in 20% EtOH or 0.04% aq. soln. in extraction-photometric detn. of Fe (II), Zn, Cu, Cd, Ag; acid-base indicator (pH range: 3-4.6; colour change: yellow \rightarrow purple); adsorption indicator. Blue cryst. (AcOH/Me₂CO). Sol. EtOH, alkalis; sl. sol. H₂O, Et₂O. Mp 279° dec. pK_a 3.89 (H₂O). Available as acid or monosodium salt.

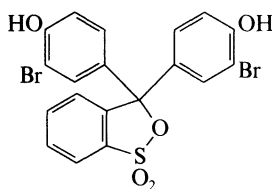
Na salt: [62625-28-9].

Sol. H₂O.

White, E.C. *et al*, *J. Am. Chem. Soc.*, 1919, **41**, 1190 (*synth*)
Freas, R. *et al*, *J. Am. Chem. Soc.*, 1928, **50**, 2014 (*synth*)
Colichman, E.L., *J. Am. Chem. Soc.*, 1951, **73**, 3385 (*uv*)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)
Skorobogatov, V.M. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 1450 (*use*)
Gnoneim, M.M. *et al*, *Indian J. Chem., Sect. A*, 1979, **18**, 349 (*ir*)
Tananaiko, M.M. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 589 (*use*)
Adamovich, L.P. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1782 (*use*)
Buhl, F. *et al*, *Chem. Anal. (Warsaw)*, 1983, **28**, 779; 1984, **29**, 343 (*use, Cd, Fe*)
Veerapandian, B. *et al*, *Acta Crystallogr., Sect. C*, 1984, **40**, 500 (*cryst struct*)

Bromophenol red**B-00543**

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2-bromophenol] S,S-dioxide, 9CI. 3,3'-Dibromophenolsulfonephthalein
[2800-80-8]



$C_{19}H_{12}Br_2O_5S$ M 512.175

Used as a soln. in EtOH as acid-base indicator (pH range 5.2 - 6.8; colour change: yellow \rightarrow red). Reddish-brown cryst. powder (EtOH). Sol. EtOH, alkalis; spar. sol. H₂O. Mp 230°.

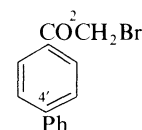
Cohen, B., *Public Health Rep.*, 1926, **41**, 3051; *CA*, **21**, 1111 (*synth, use, ind*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 116 (*use, ind*)

Chance, B. *et al*, *Methods Enzymol.*, 1972, **24**, 336 (*rev. use, ind*)

2-Bromo-4'-phenylacetophenone, 8CI**B-00544**

1-[(1,1'-Biphenyl-4-yl)-2-bromoethanone, 9CI. p-Phenylphenacyl bromide. 4-(Bromoacetyl)biphenyl
[135-73-9]



$C_{14}H_{11}BrO$ M 275.144

Reagent used for identifying acids. Mp 125.5°.

Drake, N.L. *et al*, *J. Am. Chem. Soc.*, 1930, **52**, 3715 (*synth*)

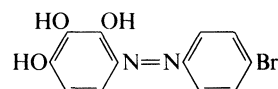
Buu-Hoi, Ng.Ph. *et al*, *Bull. Soc. Chim. Fr.*, 1950, 489 (*synth*)

Jart, A., *CA*, 1965, **63**, 14654 (*ir*)

Umeh, E.O., *J. Chromatogr.*, 1971, **56**, 29 (*use*)

4-[(4-Bromophenyl)azo]-1,2,3-benzenetriol, 9CI**B-00545**

2,3,4-Trihydroxy-4'-bromoazobenzene
[78447-94-6]



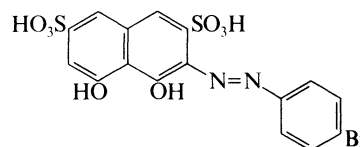
$C_{12}H_9BrN_2O_3$ M 309.119

Used as 1mM Me₂CO soln. for photometric detn. of Mo(VI) (λ_{max} 470 nm, ϵ 40000, 0.005-0.07M H₂SO₄). Dark brown powder. Sol. Me₂CO, EtOH.

Gambarov, D.G. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 2190 (*synth, detn. Mo*)

3-[(4-Bromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI**B-00546**

p-Bromophenylazochromotropic acid
[62869-76-5]



$C_{16}H_{11}BrN_2O_8S_2$ M 503.307

Used as a 0.01M aq. soln. for photometric detn. of Th (λ_{max} 585 nm, pH 3.5); metallochromic indicator in titrimetric detn. of Th; used as 1mM aq. soln. as an acid-base indicator. Dark red cryst. powder. Sol. H₂O, EtOH. pK_{a2} 3.42; pK_{a3} 7.65; pK_{a4} 9.84.

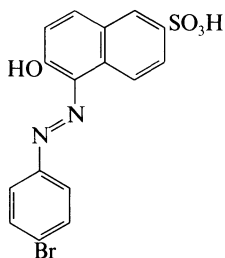
Khater, M.M. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 45 (*use, indicator*)

Khalifa, H. *et al*, *Microchem. J.*, 1977, **22**, 288 (*synth, use*)

Khater, M.M. *et al*, *Microchem. J.*, 1977, **22**, 299 (*detn. Th*)

5-[(4-Bromophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, 9CI

[62936-59-8]

 $C_{16}H_{11}BrN_2O_4S$ M 407.244

Used as a 0.1% soln. in 15% Me_2CO for photometric titrimetric detn. of Pd (λ_{max} 560 nm). Orange-red cryst. Sol. EtOH, Me_2CO .

Khalifa, H. et al, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 46 (detn, Pd)

1-(4-Bromophenyl)-1,3-butanedione

p-Bromobenzoylacetone

[4023-81-8]

 $C_{10}H_9BrO_2$ M 241.084

Cryst. (EtOH). Mp 94-96°.

3-Oxime:

 $C_{10}H_{10}BrNO_2$ M 256.098

Used as 0.1-2% soln. in EtOH for extraction-photometric detn. of Pd (λ_{max} 400 nm, ϵ 9300), Ru(III) ($CHCl_3$). Cryst. (MeOH). Sol. EtOH, Me_2CO ; insol. H_2O . Mp 164°.

Hanus, J. et al, *Collect. Czech. Chem. Commun.*, 1929, **1**, 392 (synth)

Yeole, V.V. et al, *Mikrochim. Acta*, 1980, **2**, 117 (use, oxime)

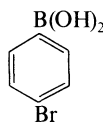
McKean, D.R. et al, *J. Org. Chem.*, 1987, **52**, 422 (synth)

(4-Bromophenyl)dihydroxyborane

B-00549

4-Bromophenylboronic acid, 10CI, 9CI. p-Bromophenylboronic acid. 4-Bromobenzeneboronic acid

[5467-74-3]

 $C_6H_6BBrO_2$ M 200.827

Reagent for derivatisation of bifunctional compds. for gc anal. Needles (EtOH). Sol. hot H_2O . Mp 191°, Mp 286-289°, 312-315°. pK_a 9.14 (25°, 25% EtOH aq.).

▷ CY8650000.

Bean, F. et al, *J. Am. Chem. Soc.*, 1932, **54**, 4415 (synth)

Zvonkova, Z.V., *Kristallografiya*, 1957, **2**, 408; *CA*, **52**, 3431 (struct)

Poole, C.F. et al, *J. Chromatogr.*, 1978, **158**, 33; 1979, **186**, 307 (use)

Nöth, H. et al, *NMR Spectroscopy of Boron Compounds (NMR Basic Principles and Progress)*, (Part 14), Springer, 1978 (nmr)

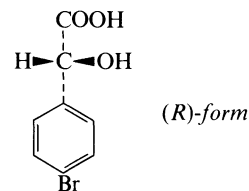
Kabalka, G.W. et al, *J. Organomet. Chem.*, 1983, **259**, 269 (synth)

2-(4-Bromophenyl)-2-hydroxyacetic acid

B-00550

4-Bromo- α -hydroxybenzeneacetic acid, 9CI. p-Bromophenylhydroxyacetic acid. p-Bromomandelic acid. p-Bromophenylglycolic acid

[6940-50-7]

 $C_8H_7BrO_3$ M 231.045**(R)-form** [32189-34-7]Cryst. ($CHCl_3$). Mp 131°.**(±)-form** [7021-04-7]Needles (C_6H_6). Mp 119°. pK_{a1} 3.15 (25°).

Na salt: [15460-75-0].

Used as a 0.1M aq. soln. in H_2O for gravimetric detn. of Zr. Sol. H_2O .

Me ester:

 $C_9H_9BrO_3$ M 245.072

Mp 61°.

Et ester: [30565-53-8].

 $C_{10}H_{11}BrO_3$ M 259.099Bp₃ 148-152°.

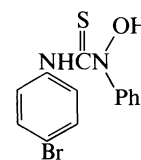
[63096-37-7]

Söderbaum, H.G., *Ber.*, 1892, **25**, 3459.Collet, M.A., *Bull. Soc. Chim. Fr.*, 1899, **21**, 67.Riebsomer, J.L. et al, *J. Am. Chem. Soc.*, 1938, **60**, 2974 (synth)Klingenberg, J.J. et al, *Anal. Chem.*, 1952, **24**, 1861 (detn, Zr)Papucci, D. et al, *Anal. Chem.*, 1953, **25**, 1758 (detn, Zr)*Org. Synth.*, *Coll. Vol.*, 4, 1963, 110 (synth)Su, Y. et al, *Anal. Chim. Acta*, 1971, **55**, 265 (detn, Zr)Collet, A. et al, *Bull. Soc. Chim. Fr.*, 1973, 3330 (synth)**N'-(4-Bromophenyl)-N-hydroxy-N-phenylthiourea, 8CI**

B-00551

N-(p-Bromophenyl)-N'-phenylthiocarbonylhydroxamic acid

[38420-87-0]

 $C_{13}H_{11}BrN_2OS$ M 323.213

Used as a 0.01M soln. in $CHCl_3$ for extraction-photometric detn. of Cu. Cryst. (C_6H_6). Sol. EtOH, C_6H_6 , $CHCl_3$, Me_2CO , AcOH, dioxan. Mp 112-114°.

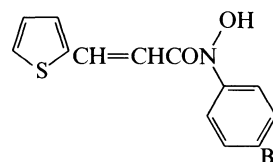
Maklakova, V.P. et al, *Zh. Anal. Khim.*, 1970, **25**, 257 (detn, Cu)

N-(4-Bromophenyl)-N-hydroxy-3-(2-thienyl)-2-propenamide, 9CI

B-00552

N-p-Bromophenyl-2-thenylacryloylhydroxamic acid

[119582-02-4]

 $C_{13}H_{10}BrNO_2S$ M 324.197

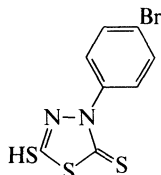
Used as 0.1M soln. in CHCl_3 for extraction-photometric detn. of V(V) (λ_{max} 530 nm, ϵ 6300). Cryst. (C_6H_6). Sol. CHCl_3 , C_6H_6 .

Abbasi, S.A. *et al.*, *Analyst (London)*, 1988, **113**, 1561 (*synth. detn.*)

3-(4-Bromophenyl)-5-mercapto-1,3,4-thiadiazole-2-thione **B-00553**

4-(*p*-Bromophenyl)-2-mercapto- Δ^2 -1,3,4-thiadiazoline-5-thione, 8Cl

[20316-43-2]



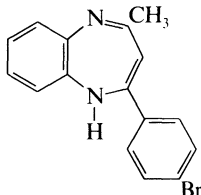
$\text{C}_6\text{H}_5\text{BrN}_2\text{S}_3$ M 305.243

Used as a 0.05M soln. in dil. KOH for extraction-photometric detn. of Bi (λ_{max} 350 nm, ϵ 25200, 2-propanol), Te. Yellow cryst. (C_6H_6). Sol. EtOH, hot C_6H_6 , alkalis; spar. sol. CHCl_3 ; insol. H_2O . Mp 151°.

Busev, A.I. *et al.*, *Zh. Anal. Khim.*, 1968, **23**, 59 (*synth. detn. Bi*)
Busev, A.I. *et al.*, *CA*, 1970, **72**, 128316m (*detn. Te*)

2-(4-Bromophenyl)-4-methyl-1H-1,5-benzodiazepine, 9Cl **B-00554**

[73980-67-3]



$\text{C}_{16}\text{H}_{13}\text{BrN}_2$ M 313.196

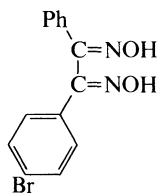
Used as 0.1% MeOH soln. as an acid-base indicator (colour change: pink \rightarrow yellow). Cryst. Sol. MeOH; sl. sol. H_2O . $\text{p}K_{a1}$ 6.15 (H_2O).

Omar, N.M., *Indian J. Chem.*, 1974, **12**, 498 (*synth.*)
El-Rabbat, N.A. *et al.*, *Analyst (London)*, 1980, **105**, 165 (*use*)

(4-Bromophenyl)phenylethanedione dioxime, 9Cl **B-00555**

4-Bromobenzil dioxime

[43084-61-3]



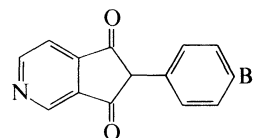
$\text{C}_{14}\text{H}_{11}\text{BrN}_2\text{O}_2$ M 319.157

Used as 1mM EtOH soln. for extraction-photometric detn. of Ni (λ_{max} 411 nm, ϵ 13300 CHCl_3), Fe(II), Cu. Cryst. Sol. EtOH. Mp 228-229°.

Kuse, S. *et al.*, *Anal. Chim. Acta*, 1974, **70**, 65 (*synth. detn. Ni, Fe, Cu*)

6-(4-Bromophenyl)-5H-2-pyridine-5,7(6H)-dione **B-00556**

2-(4-Bromophenyl)-5-azaindandione

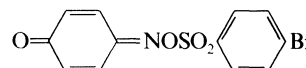


$\text{C}_{14}\text{H}_8\text{BrNO}_2$ M 302.127

Used as a 20% soln. in Me_2CO as acid-base indicator (pH range: 4.7-5.8). Cryst.

Hrnčiar, P. *et al.*, *Chem. Zvesti.*, 1966, **20**, 261 (*use*)

O-(p-Bromophenylsulfonyl)quinone monoxime **B-00557**



$\text{C}_{12}\text{H}_8\text{BrNO}_4\text{S}$ M 342.169

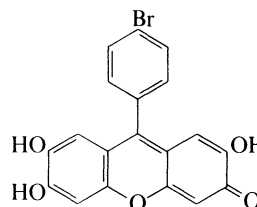
Used as a 0.34mM soln. in DMSO for fluorimetric detn. of CN^\ominus . Yellow cryst. (CCl_4). Sol. EtOH, CHCl_3 . Mp 151-152°.

Guilbault, G.G. *et al.*, *Anal. Chem.*, 1965, **37**, 1395 (*detn. CN[⊖]*)

9-(4-Bromophenyl)-2,6,7-trihydroxy-3H-xanthen-3-one, 9Cl **B-00558**

4-Bromophenylfluorone

[6098-79-9]



$\text{C}_{19}\text{H}_{11}\text{BrO}_5$ M 399.197

Used as a 0.01M soln. in EtOH for photometric detn. of B, Ga, Nb, W. Red cryst. Sol. EtOH, Me_2CO ; insol. H_2O . $\text{p}K_{a1}$ 3.68; $\text{p}K_{a2}$ 6.27 ($\mu = 0.1$, 25°).

Poluektova, E.N. *et al.*, *Zh. Anal. Khim.*, 1964, **19**, 856 (*detn. B, Ga, W*)

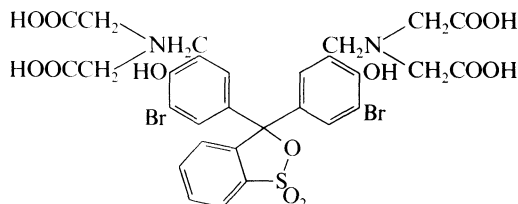
Nazarenko, V. *et al.*, *Zavod. Lab.*, 1972, **38**, 1427 (*detn. Nb*)
Shitareva, *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 1496 (*pKa*)

Bromophthalexon S **B-00559**

N,N'-[3H-2,1-Benzoxathiol-3-ylidenebis[(5-bromo-6-hydroxy-3,1-phenylene)methylene]]bis[N-(carboxymethyl)glycine] S,S-dioxide. 3,3-Bis[3-(aminomethyl)-5-bromo-4-hydroxyphenyl]-3H-2,1-benzoxathiazole-1,1-dioxide

N,N,N',N'-tetraacetic acid

[34352-52-8]



$\text{C}_{29}\text{H}_{26}\text{Br}_2\text{N}_2\text{O}_{13}\text{S}$ M 802.404

Used as a 0.01M aq. soln. for photometric detn. of Al, Fe, Ga, Sc, Th, Zr. Hygroscopic red cryst. powder. Sol. EtOH, H₂O; insol. C₆H₆.

Cherkesov, A.I. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1971, **14**, 999.

Cherkesov, A.I. *et al*, *Zh. Neorg. Khim.*, 1971, **16**, 1794.

2-Bromopropane, 9CI **B-00560**

Isopropyl bromide

[75-26-3]



C₃H₇Br M 122.992

Alkylation reagent for amines and amino acids for gc anal.

Liq. d₄²⁰ 1.31. Fp –89°. Bp 59.35°, 60-61°. n_D²⁰ 1.4250.

▷ TX4111000.

Org. Synth., Coll. Vol., 1, 1932, 36 (*synth*)

Werner, E.A., *J. Soc. Chem. Ind., London*, 1933, **52**, 285T (*synth*)

Org. Synth., Coll. Vol., 2, 1943, 359 (*synth*)

Pettitt, B.C. *et al*, *J. Chromatogr. Sci.*, 1970, **8**, 735 (*use*)

Blessington, B. *et al*, *J. Chromatogr.*, 1973, **78**, 343 (*use*)

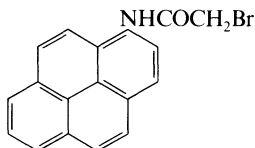
Kozlowski, R. *et al*, *Org. Prep. Proced. Int.*, 1988, **20**, 177 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BNY000.

2-Bromo-N-1-pyrenylacetamide, 9CI **B-00561**

N-(Bromoacetyl)-1-pyrenamine. 1-(Bromoacetylamino)pyrene

[126651-35-2]



C₁₈H₁₂BrNO M 338.203

Fluorescence derivatisation reagent for carboxylic acids.

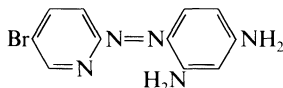
Light yellow cryst. (EtOAc). Mp 222-224°.

Allenmark, S. *et al*, *Chromatographia*, 1989, **28**, 367 (*synth, use*)

4-[(5-Bromo-2-pyridinyl)azo]-1,3-benzenediamine, 9CI **B-00562**

5-Bromo-2-(2,4-diaminophenylazo)pyridine. 5-Br-PADAB

[50768-75-7]



C₁₁H₁₀BrN₅ M 292.137

Used as a 1mM soln. in EtOH for photometric detn. of Co. Rusty brown cryst. (EtOH). Sol. EtOH, Me₂CO; spar. sol. H₂O. Mp 252-253°.

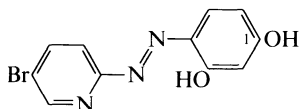
Kiss, E. *et al*, *Anal. Chim. Acta*, 1973, **66**, 395 (*synth*)

Bandino, O. *et al*, *Anal. Chim. Acta*, 1980, **119**, 393.

4-(5-Bromo-2-pyridinylazo)-1,3-benzenediol **B-00563**

5-Bromo-2-(2,4-dihydroxyphenylazo)pyridine

[17091-08-6]



C₁₁H₈BrN₃O₂ M 294.107

l-Me ether: [77350-01-7]. 2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, 9CI. 5-Bromo-2-(4-hydroxy-2-methoxyphenylazo)pyridine

C₁₂H₁₀BrN₃O₂ M 308.134

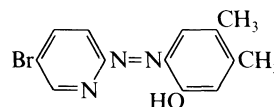
Used as 0.2% MeOH soln. for extraction-photometric detn. of Ni (λ_{max} 528 nm, ε 99000, CHCl₃), Cu, Co. Cryst. Sol. MeOH, EtOH, dioxan; sl. sol. H₂O. Mp 210°. pK_{a1} < 1; pK_{a2} 7.75 (aq. dioxan 4:1, 25°, 0.1M KNO₃).

Ohshita, K. *et al*, *Anal. Chim. Acta*, 1981, **124**, 193 (*synth, use*)

2-[(5-Bromo-2-pyridinyl)azo]-4,5-dimethylphenol, 9CI **B-00564**

5-Bromo-2-(2-hydroxy-4,5-dimethylphenylazo)pyridine

[126433-30-5]



C₁₃H₁₂BrN₃O M 306.161

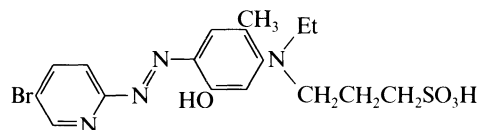
Used as 0.2mM *o*-xylene soln. for extraction-photometric detn. of Cd (λ_{max} 590 nm, ε 38000, pH 12.3). Dark red cryst. (EtOH aq.). Sol. EtOH, *o*-xylene, CHCl₃, Subl. 150°.

Grudpan, K. *et al*, *Talanta*, 1989, **36**, 1005 (*synth, detn. Cd*)

3-[[4-[(5-Bromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid, 9CI **B-00565**

2-(5-Bromo-2-pyridylazo)-5-[N-ethyl-N-(3-sulfopropyl)amino]-4-methylphenol

[86190-04-7]



C₁₇H₂₁BrN₄O₄S M 457.347

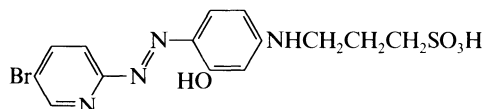
Used as 1mM aq. soln. for photometric detn. of U (λ_{max} 585 nm, ε 48000), Zn, Co, Ni, Cu. Brown cryst. Sol. H₂O, EtOH. pK_{a2} 3.60; pK_{a3} 9.6 (25°, μ = 0.1).

Ohshita, K. *et al*, *Anal. Chim. Acta*, 1983, **149**, 269 (*synth, use*)

3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, 9CI **B-00566**

2-(5-Bromo-2-pyridylazo)-5-[N-(3-sulfopropyl)amino]phenol

[86190-02-5]

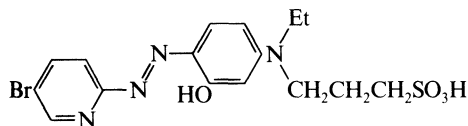


C₁₄H₁₅BrN₄O₄S M 415.267

Used as 1mM soln. for photometric detn. of U (λ_{max} 562 nm, ε 55000), Zn, Co, Ni, Cu. Brown cryst. Sol. H₂O, EtOH. pK_{a2} 2.70; pK_{a3} 10.8 (25°, μ = 0.1).

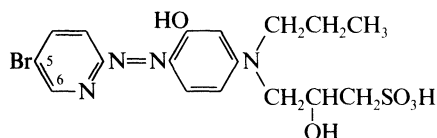
Ohshita, K. *et al*, *Anal. Chim. Acta*, 1983, **149**, 269 (*synth, use*)

3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, 9CI
2-(5-Bromo-2-pyridylazo)-5-[N-ethyl-N-(3-sulfopropyl)amino]phenol
[86190-05-8]



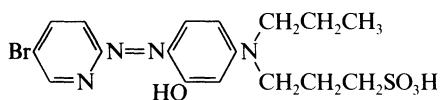
$C_{16}H_{19}BrN_4O_4S$ M 443.320
Used as 1mM aq. soln. for photometric detn. of U (λ_{max} 578 nm, ϵ 69000), Zn, Co, Ni, Cu. Brown cryst. Sol. H_2O , EtOH. pK_{a2} 2.90; pK_{a3} 10.8 (25°, $\mu = 0.1$).
Ohshita, K. *et al*, *Anal. Chim. Acta*, 1983, **149**, 269 (synth, use)

3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-2-hydroxy-1-propanesulfonic acid
[98311-71-8]



$C_{17}H_{21}BrN_4O_5S$ M 473.347
Di-Na salt: Used as a 0.08mM aq. soln. for photometric detn. of Co(III), Cu, Ni, Zn. Orange-red cryst. (H_2O). Sol. H_2O .
Horiguchi, D. *et al*, *Anal. Sci.*, 1985, **1**, 461 (use)

3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, 9CI
2-(5-Bromo-2-pyridylazo)-5-(N-propyl-N-sulfopropylamino)phenol
[81608-06-2]



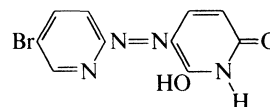
$C_{17}H_{21}BrN_4O_4S$ M 457.347
Used as a 5mM aq. soln. for photometric detn. of Co, Cu, Ni, UO_2^{2+} (λ_{max} 578 nm, ϵ 66000), Zn (λ_{max} 552 nm, ϵ 133000), V (λ_{max} 589 nm, ϵ 55000). Red-orange cryst. (H_2O). Sol. H_2O . Mp 245-248° (dec.).
Ti complex: [95069-72-0].
Used for photometric detn. of H_2O_2 (λ_{max} 539 nm, ϵ 57000).

Shijo, Y. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1984, **33**, 435E.
Matsubara, C. *et al*, *Anal. Chem.*, 1985, **57**, 1107 (*Ti complex*)
Horiguchi, D. *et al*, *Anal. Sci.*, 1985, **1**, 461.

3-[[4-[(6-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, 9CI
2-(6-Bromo-2-pyridylazo)-5-(N-propyl-N-sulfopropylamino)phenol
[112603-59-5]
 $C_{17}H_{21}BrN_4O_4S$ M 457.347

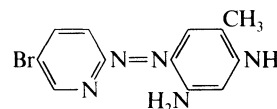
B-00567
Used as aq. soln. for flotation-photometric detn. of Zn (λ_{max} 556 nm, isopentanol/butylacetate). Cryst. Sol. H_2O , EtOH.
Kotsuji, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1987, **36**, 745 (synth, detn. Zn)

5-(5-Bromo-2-pyridinylazo)-6-hydroxy-2(1H)-pyridinone
5-(5-Bromo-2-pyridylazo)-2,6-dihydroxypyridine



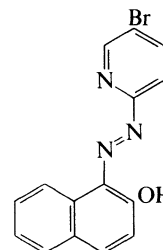
$C_{10}H_7BrN_4O_2$ M 295.095
Used for photometric detn. of Pd (λ_{max} 580 nm, ϵ 28400). Orange cryst. powder. Sol. EtOH, C_6H_6 , Me_2CO .
Ivanov, V.M. *et al*, *Vestn. Mosk. Univ.*, 1980, **21**, 196; *CA*, **93**, 87862z.

4-[(5-Bromo-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, 9CI
5-Bromo-2-(2,4-diamino-5-methylphenylazo)pyridine. 5-Br-PADAT
[51833-09-1]



$C_{12}H_{12}BrN_5$ M 306.164
Used as a 0.1% soln. in EtOH or H_2O for extraction-photometric detn. of Co (λ_{max} 574 nm, ϵ 130000). Brown needles (EtOH aq.). Sol. C_6H_6 , $CHCl_3$, EtOH, Me_2CO ; spar. sol. H_2O . Mp 216°.
Shibata, S. *et al*, *Anal. Chim. Acta*, 1974, **73**, 107 (detn. Co)

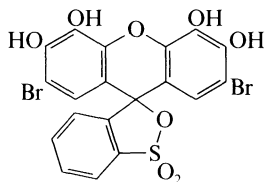
1-[(5-Bromo-2-pyridinyl)azo]-2-naphthalenol, 9CI
5-Bromo-2-(2-hydroxy-1-naphthylazo)pyridine. 5-Br- β -PAN
[22919-31-9]



$C_{15}H_{10}BrN_3O$ M 328.167
Used as 1mM soln. in MeOH for photometric detn. of many metals, e.g. Co, Pd, V. Orange-red cryst. Sol. MeOH. Mp 172-173°.
Shibata, S. *et al*, *Anal. Chim. Acta*, 1969, **45**, 279 (synth, use)

Bromopyrogallol red**B-00574**

2',7'-Dibromospiro[3H-2,1-benzoxathiole-3,9'-(9H)-xanthen]-3',4',5',6'-tetrol 1,1-dioxide, 9CI. 5,5'-Dibromopyrogallolsulfonephthalein
[16574-43-9]



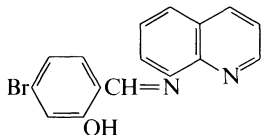
$C_{19}H_{10}Br_2O_8S$ M 558.157

Commercially available. Used in photometric detn. of In, Mo, Nb, Sb, Bi, Sn, Ge, Sc, Zr, Ag, Th, Ti, U; metal indicator in chelatometric detn. of Bi, Co, Ni, Pb. Reddish brown cryst. Sol. EtOH; sl. sol. H_2O . Mp 300°. pK_{a1} 0.16; pK_{a2} 4.39; pK_{a3} 9.13; pK_{a4} 11.29.

- Jeničkova, A. *et al.* *Collect. Czech. Chem. Commun.*, 1956, **21**, 1956 (*synth. use*)
 Christopher, D. *et al.* *Talanta*, 1966, **13**, 507 (*detn. Sb*)
 Sakai, T. *et al.* *Bull. Chem. Soc. Jpn.*, 1969, **42**, 2272 (*detn. Zr*)
 Nazarenko, V.A. *et al.* *Zh. Anal. Khim.*, 1969, **24**, 1694 (*detn. Ge*)
 Kirillov, A.I. *et al.* *Zavod. Lab.*, 1975, **41**, 523 (*detn. U*)
 Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Metals, Part I*, John Wiley, New York, 1978, 469.
 Ganago, L.I. *et al.* *Zh. Anal. Khim.*, 1980, **35**, 279 (*detn. Sc*)
 Cheng, K.L. *et al.* *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 45 (*use*)
 Marzenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 407.
 West, T.S. *et al.* *The Determination of Trace Metals in Natural Waters*, Blackwell, Oxford, 1988, 58.

8-N-(5-Bromosalicylidene)aminoquinoline **B-00575**

4-Bromo-2-[(8-quinolinylimino)methyl]phenol, 9CI. N-(8-Quinoly)-5-bromosalicylideneimine
[51728-10-0]



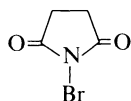
$C_{16}H_{11}BrN_2O$ M 327.180

Used as a 1mM soln. in EtOH for photometric detn. of Cu. Cryst. Mp 111.2°.

- Katuki, K. *et al.* *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1470 (*synth, detn, Cu*)

N-Bromosuccinimide, 8CI**B-00576**

1-Bromo-2,5-pyrrolidinedione, 9CI
[128-08-5]



$C_4H_4BrNO_2$ M 177.985

Used as a brominating agent for alkenes etc. and as an oxidising agent. Used as 0.1-0.01% aq. soln., as titrant in detn. of I^- (in the presence of methyl red as indicator). Orthorhombic cryst. (C_6H_6) with faint odour of Br_2 . Sol. Me_2CO , sl. sol. AcOH, spar. sol. H_2O , CCl_4 , prac. insol. hexane. Mp 173-175°.

▶ Highly irritant. WN2275000.

- Ziegler, K. *et al.* *Justus Liebigs Ann. Chem.*, 1942, **551**, 80 (*synth*)

- Barakat, M.Z. *et al.* *Microchem. J.*, 1968, **13**, 517 (*detn. I[⊖]*)
 Braeuniger, H. *et al.* *Pharmazie*, 1969, **24**, 140 (*use*)
 Pizey, J.F.S., *Synth. Reagents*, Ellis Horwood, 1974, **2**, 1 (*rev, bibl*)
 Jabay, O. *et al.* *Z. Naturforsch., B.* 1977, **32**, 1416 (*cryst struct*)
 Miyazaki, H., *CA*, 1978, **88**, 6506 (*synth*)
 Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1980, **8**, 54.
 Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 212.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BOF500.

Bromotetraphenylantimony, 9CI**B-00577**

Tetraphenylantimony bromide. Tetraphenylstibonium bromide

[21450-52-2]

 Ph_4SbBr

$C_{24}H_{20}BrSb$ M 510.076

Struct. intermediate between ionic and covalent tbp with the latter the more important contributor. Synth. from Ph_5Sb and HBr, or from Ph_3Sb , PhBr and $AlCl_3$. Used as a satd. aq. soln. for detn. of Bi, Co. Catalyst for reactions between isothiocyanates and aziridines to give 1,3-thiazolidine derivs. and between aziridines and CO_2 to give 1,3-oxazolidin-2-ones. Cryst. (EtOH). Mp 210-215°.

▶ Toxic.

Br_2 complex (1:1):

$C_{24}H_{20}Br_3Sb$ M 669.884

Orange cryst. (EtOH). Mp 130° dec.

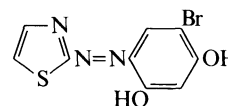
[16894-69-2, 16894-69-2]

- Chatt, J. *et al.* *J. Chem. Soc.*, 1940, 1192 (*synth*)
 Willard, H.H. *et al.* *J. Am. Chem. Soc.*, 1948, **70**, 737 (*synth*)
 Potratz, A.H. *et al.* *Anal. Chem.*, 1949, **21**, 1276 (*use*)
 Rao, C.N.R. *et al.* *Can. J. Chem.*, 1961, **39**, 171 (*ir, uv*)
 Schindlbauer, H., *Spectrochim. Acta*, 1964, **20**, 1143 (*uv*)
 Razuvaev, G.A. *et al.* *Izv. Akad. Nauk SSSR. Ser. Khim.*, 1969, 2234; *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Engl. Transl.)*, 1969, 2083 (*synth*)
 Goutermann, M. *et al.* *J. Mol. Spectrosc.*, 1974, **53**, 319 (*uv*)
 Hoste, S. *et al.* *J. Electron Spectrosc. Relat. Phenom.*, 1979, **17**, 191 (*pe*)
 Ferguson, G. *et al.* *J. Chem. Soc., Perkin Trans. 2*, 1988, 731 (*cryst struct*)

4-Bromo-6-(2-thiazolylazo)-1,3-**B-00578****benzenediol, 9CI**

4-(2-Thiazolylazo)-6-bromoresorcinol. 2-(5-Bromo-2,4-dihydroxyphenylazo)thiazole

[126739-36-4]



$C_9H_6BrN_3O_2S$ M 300.135

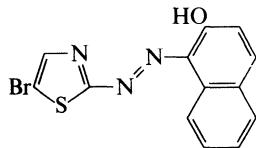
Used as 0.05% soln. in 0.01M NaOH soln. for photometric detn. of lanthanides (λ_{max} 553 nm, ϵ 60000, pH 6.8-8.7). Dark red cryst. powder (EtOH). Sol. H_2O , EtOH. pK_{a1} 0.85; pK_{a2} 5.20; pK_{a3} 9.25.

- Ueda, K. *et al.* *Anal. Sci.*, 1989, **5**, 725 (*synth, use*)

1-[(5-Bromo-2-thiazolyl)azo]-2-naphthalenol, 9CI

B-00579

5-Bromo-2-(2-hydroxy-1-naphthylazo)thiazole
[35431-80-2]



$C_{13}H_8BrN_3OS$ M 334.196

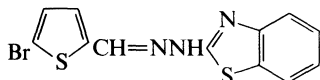
Used as a 1mM soln. in Me_2CO for extraction-photometric detn. of Pd (λ_{max} 690 nm; ϵ 14000, $CHCl_3$), Co. Dark red cryst. powder. Sol. alkalis, EtOH, Me_2CO ; insol. H_2O .

Ivanov, V.M. *et al*, *Vestn. Mosk. Univ., Ser. 2: Khim.*, 1971, **12**, 740; *CA*, **76**, 80706s (*detn Pd*)
Ershova, N.S. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 2220 (*detn Co*)

5-Bromo-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, 9CI

B-00580

[61317-28-0]



$C_{12}H_8BrN_3S_2$ M 338.251

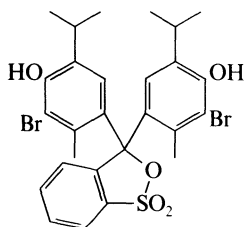
Used as a 2.5mM soln. in C_6H_6 for photometric detn. of Cu(II) (λ_{max} 432 nm, ϵ 47000), Ni(II) (λ_{max} 422 nm, ϵ 40000). Red cryst. (EtOH). Sol. EtOH, C_6H_6 ; insol. H_2O . pK_{a2} 11.1 (dioxan aq., 25°).

Odashima, T. *et al*, *Anal. Chim. Acta*, 1976, **86**, 231 (pK_a , use)

Bromothymol blue

B-00581

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2-bromo-3-methyl-6-(1-methylethyl)pheno] S,S-dioxide, 9CI. 3,3'-Bis(3-bromo-4-hydroxy-5-isopropyl-2-methylphenyl)-3H-2,1-benzoxathiazole S,S-dioxide. 3,3'-Dibromothymolsulfonephthalein
[76-59-5]



$C_{27}H_{28}Br_2O_5S$ M 624.389

Used as 0.1% soln. in 20% EtOH for photometric detn. of Ag; acid-base indicator (pH range 6.0-7.6; colour change: yellow → blue). Pink cryst. powder. Insol. H_2O ; sol. EtOH, Me_2CO , alkalis. Mp 200-202°. pK_{a1} 7.3. λ_{max} 420 nm (H_2O).

Tananaiko, M.M. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1974, **40**, 275 (*detn. Ag*)

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.

Bromotrimethylsilane, 9CI

B-00582

Trimethylsilyl bromide

[2857-97-8]



C_3H_9BrSi M 153.094

Trimethylsilylating agent. Liq. d_4^{20} 1.16. Bp 79°.

Schmidbaur, H., *J. Am. Chem. Soc.*, 1963, **85**, 2336 (*nmr*)

Hess, G.G. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 5327 (*ms*)

Birkofer, L. *et al*, *Chem. Ber.*, 1967, **100**, 2776 (*synth*)

Aringer, L. *et al*, *Steroids*, 1971, **17**, 377 (*use*)

Harris, R.K. *et al*, *J. Magn. Reson.*, 1975, **17**, 174 (*nmr*)

Flamini, A. *et al*, *J. Chem. Soc., Dalton Trans.*, 1976, 731.

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1981, **9**, 73; **10**, 59.

Weber, W.P., *Silicon Reagents for Org. Synth.*, Chapt. 3, Springer-Verlag, 1983.

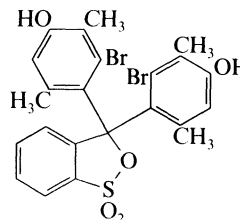
Aizpurua, J.M. *et al*, *Nouv. J. Chim.*, 1984, **8**, 51; *CA*, **101**, 72829 (*synth*)

Bellassoued, M. *et al*, *Synth. Commun.*, 1985, **15**, 973 (*synth*)

Bromoxylene blue

B-00583

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[3-bromo-2,5-dimethylphenol] S,S-dioxide, 9CI. Dibromoxylene blue. 3',3''-Dibromo-p-xylenolsulfonephthalein
[40070-59-5]



$C_{23}H_{20}Br_2O_5S$ M 568.282

Acid-base indicator (pH range: 6.0-7.6; colour change: yellow → blue). Dark violet cryst. powder. Sol. H_2O , dil. HCl.

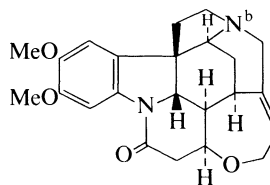
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 116.

Vatras, K., *Chem. Zvesti*, 1974, **28**, 252; *CA*, **81**, 72160x.

Brucine, 8CI

B-00584

2,3-Dimethoxystrychnidin-10-one, 9CI. 10,11-Dimethoxystrychnine
[357-57-3]



Absolute configuration

$C_{23}H_{26}N_2O_4$ M 394.469

Alkaloid from *Strychnos nux-vomica* and many other *S.* spp. (Strychnaceae). Resolving agent. Used in photometric detn. of ClO_3^- , NO_3^- , NO_2^- , NO_2 . Cryst. powder. Sol. EtOH, $CHCl_3$; sl. sol. C_6H_6 , Et_2O . Mp 105° (hydrate), Mp 78° (anhyd.). $[\alpha]_D^{25}$ -127° ($CHCl_3$), $[\alpha]_D^{25}$ -85° (EtOH). pK_{a1} 8.16; pK_{a2} 2.50 (15°).

▷ V. poisonous, less so than Strychnine. Lethal dose to humans ~200 mg. EH8925000.

B.HClO₄: Mp 208-210°.

B.MeI: Mp 295° dec.

N^b-Oxide: [17301-81-4]. **Brucine N-oxide**

$C_{23}H_{26}N_2O_5$ M 410.469

Alkaloid from *S. wallichiana* and *S. ligustrina*, also detected in *S. nux-vomica* leaves (Strychnaceae).

Pelletier, J. *et al*, *Ann. Chim. (Paris)*, 1820, **12**, 113 (*isol*)

Woodward, R.B. *et al*, *J. Am. Chem. Soc.*, 1948, **70**, 2107.

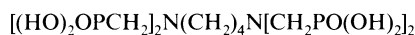
Robinson, R., *Prog. Org. Chem.*, 1952, **1**, 1 (*rev. struct*)

Eger, C., *Anal. Chem.*, 1955, **27**, 1199 (*detn. ClO₃⁻*)

Jenkins, D. *et al.*, *Anal. Chem.*, 1964, **36**, 610 (*detn.*, NO_3^\ominus)
 Smith, G.A. *et al.*, *Analyst (London)*, 1967, **92**, 456 (*detn.*, NO_2)
 Tedeschi, E. *et al.*, *Tetrahedron*, 1968, **24**, 4573 (*synth*)
 Fadrus, H. *et al.*, *Fresenius' Z. Anal. Chem.*, 1969, **246**, 239 (*detn.*, NO_2^\ominus)
 Bisset, N.G. *et al.*, *Phytochemistry*, 1974, **13**, 259 (*isol.*, *oxide*)
 Bose, A.K. *et al.*, *Anal. Biochem.*, 1978, **89**, 284 (*ms*)
 Snow, J.W. *et al.*, *Can. J. Chem.*, 1978, **56**, 1222 (*uv.*, *cd*)
 Wenkert, E. *et al.*, *J. Org. Chem.*, 1978, **43**, 1099 (*pmr.*, *cmr*)
 Glover, S.S.B. *et al.*, *Acta Crystallogr., Sect. C*, 1985, **41**, 990 (*cryst. struct.*)
 Bernstein, M.A. *et al.*, *Can. J. Chem.*, 1985, **63**, 483 (*pmr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BOL750.

1,4-Butanediamine-*N,N,N,N'*-tetrakis(methylphosphonic acid) **B-00585**

[1,4-Butanediylbis[nitrilobis(methylene)]]tetrakisphosphonic acid, 9CI. Butylenediaminetetramethylenetetraphosphonic acid
 [56399-18-9]



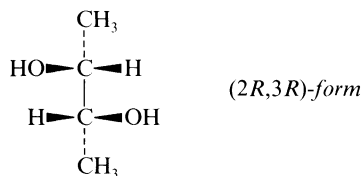
$\text{C}_8\text{H}_{24}\text{N}_2\text{O}_{12}\text{P}_4$ M 464.179

Used for photometric detn. of Co, Cu, Pb, Pd. Sol. H_2O .

Bermejo Barrera, A. *et al.*, *Acta Quim. Compostelana*, 1983, **7**, 108; *CA*, **102**, 124688z (*use*)

2,3-Butanediol, 9CI **B-00586**

Dimethylethylene glycol. 2,3-Butylene glycol
 [513-85-9]



$\text{C}_4\text{H}_{10}\text{O}_2$ M 90.122

Prod. by a variety of microorganisms. Isol from cocoa butter and roots of *Ruta graveolens*.

▷ EK0532000.

(2R,3R)-form [24347-58-8]

Used in the resolution of carbonyl compds. by gc.
 Hygroscopic cryst. Mp 19.7°. Bp₁₀ 77.5-77.6°. $[\alpha]_D^{25}$ -13.0° (neat).

Di-Ac:

$\text{C}_8\text{H}_{14}\text{O}_4$ M 174.196
 Liq. Bp₁₀ 82°.

(2S,3S)-form [19132-06-0]

Hygroscopic cryst. Mp 25°. Bp 179-182°. $[\alpha]_D^{22}$ +20.0° (c, 0.64 in CHCl_3) (opt. pure).

Bis-4-nitrobenzoyl: Mp 141-143°. $[\alpha]_D^{25}$ +52° (c, 4 in CHCl_3).

2,3-Isopropylidene deriv.:

$\text{C}_7\text{H}_{14}\text{O}_2$ M 130.186
 Bp₇₃₄ 109.7°. $[\alpha]_D^{25}$ +31.65° (c, 4.96 in CHCl_3).

(2RS,3RS)-form [6982-25-8]

(±)-form

Hygroscopic cryst. (diisopropyl ether). Mp 7.6°. Bp 182.5°, Bp₁₆ 86°.

Di-Ac: [22152-23-4].

Liq. Bp₁₀ 82°.

(2RS,3SR)-form [5341-95-7]

meso-form

Hygroscopic cryst. (diisopropyl ether). Mp 34.4°. Bp₇₄₂ 181.7°, Bp₁₆ 89°.

[1114-92-7, 5341-95-7, 17998-02-6]

Fulmer, L.M. *et al.*, *Ind. Eng. Chem.*, 1933, **25**, 789; *CA*, **27**, 4021 (*synth*)

Wilson, C.E. *et al.*, *J. Am. Chem. Soc.*, 1936, **58**, 2396 (*synth*)

Rubin, L.J. *et al.*, *J. Am. Chem. Soc.*, 1952, **74**, 425 (*synth*)

Casanova, J. *et al.*, *Chem. Ind. (London)*, 1961, 1664 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 81.

Plattner, J.J. *et al.*, *J. Am. Chem. Soc.*, 1971, **93**, 1758 (*abs config*)

Saucy, G. *et al.*, *J. Org. Chem.*, 1977, **42**, 3206 (*use*)

Enders, D. *et al.*, *Chem. Ber.*, 1991, **124**, 219 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BOT000.

2,3-Butanedione **B-00587**

Biacetyl. *Dimethyl diketone*. *2,3-Dioxobutane*. *Diacetyl*
 [431-03-8]



$\text{C}_4\text{H}_6\text{O}_2$ M 86.090

Constit. of butter; formed during fermentation. A common constit. of plant oils, prod. of breakdown of carbohydrates. Flavouring additive used in food industry. Sensitises photooxidation of alkenes to epoxides. Used in indirect photometric detn. of hydroxylamine. Yellowish-green liq. Sol. H_2O , EtOH, Et₂O. Bp 88°.

▷ Mod. toxic. Highly flammable, flash p. <21°. EK2625000.

Dimer:

$\text{C}_8\text{H}_{12}\text{O}_4$ M 172.180
 Mp 44-46°. Bp_{0.5} 100°.

Trimer:

$\text{C}_{12}\text{H}_{18}\text{O}_6$ M 258.271
 Mp 73-75°, Mp 102-103°. 2 forms known.

Monoxime: [57-71-6].

$\text{C}_4\text{H}_7\text{NO}_2$ M 101.105
 Used as a 2% aq. soln. for photometric detn. of Re (λ_{max} 500 nm, ϵ 19000). Prisms (CHCl_3), plates (H_2O). Sol. H_2O , EtOH, C_6H_6 , CHCl_3 , Me_2CO , Et₂O. Mp 77-78°. Bp₈ 83°.

▷ Has exploded during vac. distillation. EK3150000.

Monoxime, semicarbazone: [1982-99-6].

$\text{C}_5\text{H}_{10}\text{N}_4\text{O}_2$ M 158.160
 Used as a 0.05% soln. in EtOH for extraction-photometric detn. of Co (λ_{max} 330 nm, ϵ 6300), Cu (λ_{max} 335 nm, ϵ 10100), Ni (λ_{max} 340 nm, ϵ 19500), Pd (λ_{max} 390 nm, ϵ 2900). Cryst. (EtOH aq.). Sol. EtOH; insol. H_2O . Mp 212-215°.

Monoxime, thiosemicarbazone: [5012-80-6].

$\text{C}_5\text{H}_{10}\text{N}_4\text{OS}$ M 174.226
 Used as a 0.25% soln. in EtOH for photometric detn. of Bi, Cu, Mn, Ni, Co (λ_{max} 325 nm, ϵ 4900, pH 5). Cryst. Sol. DMF, EtOH.

Monoxime, (4-nitrophenyl)hydrazone: [62454-83-5].

$\text{C}_{10}\text{H}_{12}\text{N}_4\text{O}_3$ M 236.230
 Used as a 0.1% EtOH soln. for photometric detn. of Co. Pale yellow cryst. (EtOH). Sol. EtOH, Me_2CO ; spar. sol. H_2O .

Monoxime, phenylthiosemicarbazone: [56566-64-4].

$\text{C}_{11}\text{H}_{14}\text{N}_4\text{OS}$ M 250.324
 Used as 0.2% DMF soln. for photometric detn. of Co (λ_{max} 345 nm, ϵ 17700, pH 3.8-8), Mn(III) (λ_{max} 550 nm, ϵ 3600). Cryst. (EtOH). Sol. DMF, EtOH. Mp 210-212°. $\text{p}K_{\text{a}1}$ 10.40; $\text{p}K_{\text{a}2}$ 11.50.

Monoxime, 2-pyridylhydrazone: [55205-76-0].

$\text{C}_9\text{H}_{12}\text{N}_4\text{O}$ M 192.220

Used as 0.2% soln. in EtOH for extraction-photometric detn. of Co, Pd (λ_{\max} 556 nm, ϵ 7500, pH 1.2-1.8, CHCl_3). Cryst. Sol. EtOH.

Monoxime, 2-benzothiazolylhydrazone: see 2,3-Butanedione (2-benzothiazolyl)hydrazone, B-00588

Dioxime: see Dimethylglyoxime, D-00862

Dihydrazone: [3457-52-1]. 2,3-Butanedione dihydrazone, 9CI $\text{C}_4\text{H}_{10}\text{N}_4$ M 114.150

Used as 0.5mM EtOH soln. for fluorimetric detn. of Tc(VII). Long cryst. (EtOH aq.). Sol. EtOH, H_2O . Mp 159-160°.

Disemicarbazone: Mp 274°.

Bis-2,4-dinitrophenylhydrazone: Mp 314-315°.

Bis(2-pyridylhydrazone): [16042-70-9].

$\text{C}_{14}\text{H}_{16}\text{N}_6$ M 268.321

Used as a 0.2% soln. in EtOH or a 0.5% soln. in DMF to give colour reactions with Cu, Fe, Ni, Rh. Yellow cryst. (EtOH). Sol. EtOH, Me_2CO . Mp 212°.

Thiosemicarbazone: [7274-56-8].

$\text{C}_5\text{H}_9\text{N}_3\text{OS}$ M 159.212

Used as a 0.25% soln. in EtOH for photometric detn. of Cu, Ni. Red cryst. Sol. common org. solvs. Mp 176-178°.

Thiosemicarbazone, (2-pyridyl)hydrazone: [100556-76-1].

$\text{C}_{10}\text{H}_{14}\text{N}_6\text{S}$ M 250.327

Used as a 0.25% DMF soln. to give colour reactions with Cd, In, Zn, Fe(II), Ni, Co; simultaneous photometric detn. of Fe and Cu. Cryst. (EtOH). Sol. DMF, EtOH; spar. sol. H_2O , CHCl_3 . Mp 236-238°. pK_{a1} 5.6; pK_{a2} 12.0.

Rigby, J., *J. Chem. Soc.*, 1951, 793 (*synth*)

Lions, F. et al, *J. Am. Chem. Soc.*, 1958, **80**, 3858 (*bis(2-pyridylhydrazone)*, *synth*)

Cresswell, R.M. et al, *J. Chem. Soc.*, 1961, 4882 (*trimer*)

Nerdel, F. et al, *Chem. Ber.*, 1964, **97**, 124.

Narayanan, A. et al, *Indian J. Chem.*, 1967, **5**, 436 (*monoxime*)

Perez-Bendito, D. et al, *Inf. Quim. Anal.*, 1967, **21**, 31; 1968, **22**, 1 (*detn, Ni, Co*)

Partridge, M.W. et al, *J. Chem. Soc. C*, 1967, 1828.

Sanches Burgos, F. et al, *Inf. Quim. Anal.*, 1969, **23**, 17 (*thiosemicarbazone, use*)

Holzbecher, Z. et al, *CA*, 1970, **73**, 10393b (*detn, Mn*)

Valcarcel, M. et al, *Inf. Quim. Anal.*, 1970, **24**, 49 (*detn, Cu, Bi*)

Martinez Martinez, P. et al, *An. Quim.*, 1973, **69**, 747 (*monoxime semicarbazone, synth, ir*)

Hagen, K. et al, *J. Am. Chem. Soc.*, 1973, **93**, 8266 (*struct*)

Pavon, J.M. et al, *Anal. Chim. Acta*, 1975, **75**, 335 (*monoxime phenylthiosemicarbazone*)

Pitwell, L., *Mikrochim. Acta*, 1975, **2**, 425 (*detn, hydroxylamine*)

Tomchin, A.B. et al, *Zh. Org. Khim.*, 1976, **12**, 851 (*thiosemicarbazone, synth*)

Pearson, R.M. et al, *Anal. Chem.*, 1977, **49**, 580 (*use, deriv*)

Asuero, A.G., *Microchem. J.*, 1978, **23**, 390; 1983, **28**, 183 (*bis(2-pyridylhydrazone)*, *use, detn, Pd*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 21.

Flatt, S.J. et al, *Synthesis*, 1979, 815 (*synth*)

Singh, R.B. et al, *Talanta*, 1979, **26**, 425 (*monoxime semicarbazone, use*)

Grases, F. et al, *Anal. Chim. Acta*, 1984, **166**, 71 (*synth, Tc*)

De Pablos, F. et al, *Mikrochim. Acta*, 1985, **1**, 411; 1985, **3**, 327 (*thiosemicarbazone(2-pyridyl)hydrazone, synth, use*)

Navas, M.J. et al, *Microchem. J.*, 1986, **33**, 331 (*monoxime thiosemicarbazone, detn, Co*)

Hauer, C.R. et al, *J. Am. Chem. Soc.*, 1987, **109**, 5760 (*deriv, synth, cryst struct*)

Suszynski, N. et al, *J. Org. Chem.*, 1987, **52**, 2622 (*props*)

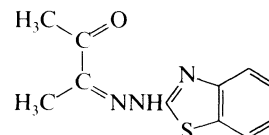
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 213.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BOT500.

2,3-Butanedione (2-benzothiazolyl)hydrazone

B-00588

[4595-00-0]



$\text{C}_{11}\text{H}_{11}\text{N}_3\text{OS}$ M 233.293

Pale yellow cryst. (EtOAc). Mp 193-194°.

Oxime: [28867-10-9].

$\text{C}_{11}\text{H}_{12}\text{N}_4\text{OS}$ M 248.308

Used as a 0.1% soln. in EtOH for extraction-photometric detn. of Pd (λ_{\max} 560 nm, CHCl_3). Cryst. (EtOH). Sol. EtOH, Me_2CO , C_6H_6 ; spar. sol. H_2O .

Japan. Pat., 69 23 992, (1969); *CA*, **72**, 56676d (*synth*)

Goldstein, D. et al, *Anal. Chim. Acta*, 1970, **51**, 126 (*synth, deriv, detn, Pd*)

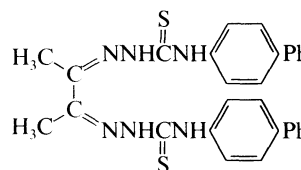
Aride, C.M.T. et al, *Anal. Chim. Acta*, 1971, **57**, 435 (*detn, Pd*)

2,3-Butanedione bis(4-biphenyl)thiosemicarbazone

B-00589

Diacetyl bis-4-biphenylthiosemicarbazone

[38901-44-9]



$\text{C}_{30}\text{H}_{28}\text{N}_6\text{S}_2$ M 536.723

Used as 0.01% soln. in EtOAc (with 5% Py) to give colour extracts (CHCl_3) with Ag, Bi, Cd, Cu, Hg(II), Pb, Zn. Yellow cryst. Sol. MeOH, CHCl_3 , EtOAc, 4-methyl-2-pentanone. Mp 244°.

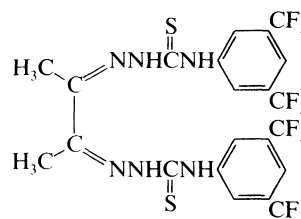
Niederschulte, U. et al, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (*synth, use*)

2,3-Butanedione bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone]

B-00590

Diacetyl bis[4-[3,5-bis(trifluoromethyl)]phenyl]thiosemicarbazone

[38901-41-6]



$\text{C}_{22}\text{H}_{16}\text{F}_{12}\text{N}_6\text{S}_2$ M 656.521

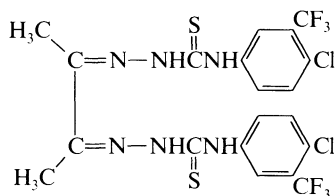
Used as 0.01% soln. in EtOAc (with 5% Py) to give colour extracts (CHCl_3) with Ag, Bi, Co, Cu, Hg(II). Yellow cryst. Sol. MeOH, CHCl_3 , EtOAc, 4-methyl-2-pentanone. Mp 220°.

Niederschulte, U. et al, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (*synth, use*)

2,3-Butanedione bis[4-(4-chloro-3-(trifluoromethyl)phenyl)thiosemicarbazone]

B-00591

2,2'-(1,2-Dimethyl-1,2-ethanediylidene)bis[4-(4-chloro)-3-(trifluoromethyl)phenyl]hydrazinecarbothioamide, 9CI
[39024-65-2]



$C_{20}H_{16}Cl_2F_6N_6S_2$ M 589.414

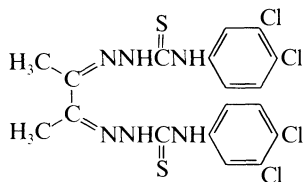
Used as 0.01% soln. in EtOAc to give colour extracts ($CHCl_3$) with Ag, Bi, Cd, Cu, Hg(II), Zn. Yellow cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 215°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

2,3-Butanedione bis[4-(3,4-dichlorophenyl)thiosemicarbazone]

B-00592

Diacetyl bis[4-(3,4-dichlorophenyl)]thiosemicarbazone
[38901-43-8]



$C_{18}H_{16}Cl_4N_6S_2$ M 522.307

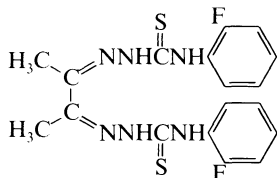
Used as 0.01% soln. in EtOAc (with 5% Py) to give colour extracts ($CHCl_3$) with Ag, Bi, Cu, Hg(II), Zn. Yellow cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 219°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

2,3-Butanedione bis[(2-fluorophenyl)thiosemicarbazone]

B-00593

Diacetyl bis[4-(2-fluorophenyl)]thiosemicarbazone
[38901-39-2]



$C_{18}H_{18}F_2N_6S_2$ M 420.509

Used as 0.01% soln. in EtOAc (with 5% Py) to give colour extracts ($CHCl_3$) with Ag, Bi, Cu, Hg(II), Mn. Cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 206°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

2,3-Butanedione bis[(4-fluorophenyl)thiosemicarbazone]

B-00594

Diacetyl bis[4-(4-fluorophenyl)]thiosemicarbazone
[38901-37-0]

$C_{18}H_{18}F_2N_6S_2$ M 420.509

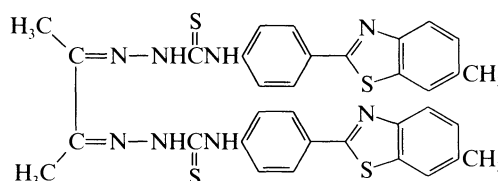
Used as 0.01% soln. in EtOAc (with 5% Py) to give colour extracts ($CHCl_3$) with Ag, Bi, Co, Cu, Hg(II). Yellow cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 218°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

2,3-Butanedione bis[[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone]

B-00595

2,2'-(1,2-Dimethyl-1,2-ethanediylidene)bis[N-[4-(6-methyl-2-benzothiazolyl)phenyl]hydrazinecarbothioamide], 9CI
[38901-46-1]



$C_{34}H_{30}N_8S_4$ M 678.929

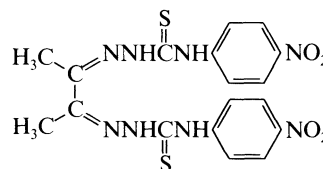
Used as 0.01% soln. in EtOAc (with 5% Py) to give colour extracts ($CHCl_3$) with Ag, Bi, Cu, Hg(II), Zn. Yellow cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 235°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

2,3-Butanedione bis[(4-nitrophenyl)thiosemicarbazone]

B-00596

Diacetyl bis[4-(4-nitrophenyl)]thiosemicarbazone
[38901-36-9]



$C_{18}H_{18}N_8O_4S_2$ M 474.523

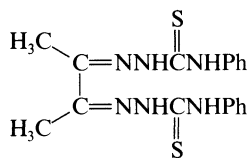
Used as 0.01% soln. in EtOAc (with 5% Py) to give colour extracts ($CHCl_3$) with Ag, Bi, Co, Cu, Hg(II), Mn, Zn. Yellow cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 213°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

2,3-Butanedione**bis(phenylthiosemicarbazone)**

2,2'-(1,2-Dimethyl-1,2-ethanediylidene)bis[N-phenylhydrazinecarbothioamide], 9CI. *Biacetyl bis(4-phenyl-3-thiosemicarbazone)*

[64501-90-2]



$C_{18}H_{20}N_6S_2$ M 384.528

Used as a 0.03% soln. in DMF for photometric detn. of Bi, Cu, Ni (λ_{max} 460 nm, ϵ 22800). Yellow cryst. powder. Sol. DMF; insol. EtOH, H_2O . Mp $>300^\circ$.

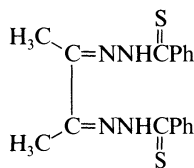
Asuero, A.G. *et al*, *Analyst (London)*, 1978, **103**, 140 (*detn. Cu, synth*)

Asuero, A.G. *et al*, *Microchem. J.*, 1980, **25**, 14; 1983, **28**, 198 (*detn. Bi, Ni*)

2,3-Butanedione bis((thiobenzoyl)hydrazone)

Benzenecarbothioic acid (1,2-dimethyl-1,2-ethanediylidene)dihydrazide, 9CI. *Diacetyl bis((thiobenzoyl)hydrazone)*

[37181-48-9]



$C_{18}H_{18}N_4S_2$ M 354.499

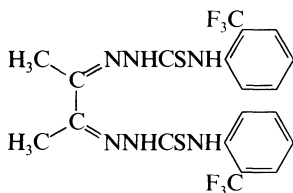
Used as a 0.006% soln. in dioxan for extraction-photometric detn. of Cd, Cu, Hg, Pd, Zn ($CHCl_3$). Yellowish plates (EtOH). Sol. Me_2CO , EtOH; insol. H_2O . Mp 176-178°.

Heizmann, P. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **259**, 110 (*use*)

2,3-Butanedione bis(2-**trifluoromethylphenyl)thiosemicarbazone**

2,2'-(1,2-Dimethyl-1,2-ethanediylidene)bis[N-[2-(trifluoromethyl)phenyl]hydrazinecarbothioamide], 9CI. *Diacetyl bis[4-(2-trifluoromethyl)phenyl]thiosemicarbazone*

[39024-64-1]



$C_{20}H_{18}F_6N_6S_2$ M 520.525

Used as 0.01% soln. in EtOAc for extraction-photometric detn. of Ag, Bi, Cu, Hg(II), Pb. Cryst. Sol. MeOH, $CHCl_3$, EtOAc. Mp 228°.

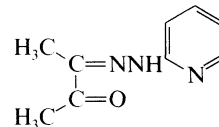
Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (*synth, use*)

B-00597

2,3-Butanedione mono(2-pyridinylhydrazone)

Biacetyl mono(2-pyridyl)hydrazone

[74158-10-4]



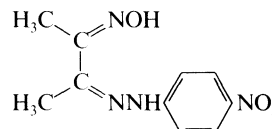
$C_9H_{11}N_3O$ M 177.205

Used as a 0.25% soln. in EtOH for photometric detn. of Co (λ_{max} 505 nm, ϵ 23000). Cryst. (EtOH). Sol. EtOH, Me_2O ; insol. H_2O .

Asuero, A.G. *et al*, *Analyst (London)*, 1980, **105**, 203; 1982, **107**, 1065.

2,3-Butanedione oxime 4-nitrophenylhydrazone

Biacetylmonoxime p-nitrophenylhydrazone. Cobaltone I



$C_{10}H_{12}N_4O_3$ M 236.230

Used as 0.1% soln. in EtOH in photometric detn. of Co (pH 11-12). Cryst. (EtOH). Sol. alkalis, EtOH.

Deshmukh, G.S. *et al*, *Fresenius' Z. Anal. Chem.*, 1961, **182**, 170.

1,4-Butanediylbis(triphenylphosphonium) (2+), 9CI

Tetramethylenebis(triphenylphosphonium)(2+), 8CI. *1,4-Bis(triphenylphosphonio)butane(2+)*



$C_{40}H_{38}P_2^{2\oplus}$ M 580.688 (ion)

Used in Wittig synth. of annulenes, fused heterocyclics and 1,3-cyclohexadienes.

Dibromide: [15546-42-6].

$C_{40}H_{38}Br_2P_2$ M 740.496

Source of ylide obt. with $NaNH_2/NH_3$ or PhLi. Used as 0.4% aq. soln. for extraction-photometric detn. of Cr(VI) and Bi; gravimetric detn. of $S_2O_8^{2\ominus}$. Cryst. (Me_2CO). Sol. H_2O . Mp 292-294°.

Perbromide:

$C_{40}H_{38}Br_6P_2$ M 1060.112

Dark-yellow cryst. Mp 216°.

Bisylide: [62486-05-9]. *1,4-*

Butanediylidenebis(triphenylphosphorane)

$C_{40}H_{36}P_2$ M 578.672

Wittig reagent.

Mondon, A., *Justus Liebigs Ann. Chem.*, 1957, **603**, 115 (*synth, use*)

Wittig, G. *et al*, *Justus Liebigs Ann. Chem.*, 1958, **619**, 10 (*synth, use*)

Behrends, K., *Fresenius' Z. Anal. Chem.*, 1967, **226**, 1 (*use*)

Cresp, T.M. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1974, 2145 (*use*)

Wood, G.W. *et al*, *J. Org. Chem.*, 1975, **40**, 636 (*ms*)

Nicolaides, D.N., *Synthesis*, 1977, 127 (*use*)

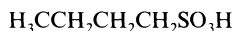
Booth, B.L. *et al*, *J. Organomet. Chem.*, 1981, **220**, 229 (*ylide, complexes*)

Burns, D.T. *et al*, *Anal. Chim. Acta*, 1989, **225**, 241, 449 (*detn. Cr, Bi*)

B-00599

1-Butanesulfonic acid, 9CI*1-Butylsulfonic acid*

[2386-47-2]

C₄H₁₀O₃S M 138.187Liq. d₄²⁵ 1.1906. Mp –15.2°. Bp_{0.5} 147°.*Na salt*: [2386-54-1].

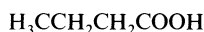
Ion-pairing reagent used for hplc.

Me ester: [2374-69-8].C₅H₁₂O₃S M 152.214Liq. d²⁰ 1.1264. Bp_{0.7} 62.0°. n_D²⁰ 1.4303.Vivian, D.L. *et al*, *J. Am. Chem. Soc.*, 1935, **57**, 2559 (*synth*)Lowe, O.G. *et al*, *J. Org. Chem.*, 1976, **41**, 2061 (*synth*)Bortha, A. *et al*, *J. Chromatogr.*, 1984, **303**, 29 (*use*)**B-00603**U.S. Pat., 2 039 722, (1936); *CA*, **30**, 4179 (*synth*)Pietsch, R. *et al*, *Mikrochim. Acta*, 1968, 1287 (*use*)Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1975, **5**, 88 (*anhydride*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 222, 223.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, BSV500, BSW000, BSX250, EHE000, MHY000.

Butanoic acid, 9CI*Butyric acid*

[107-92-6]

C₄H₈O₂ M 88.106

Acid and simple esters are flavour ingredients. Used as a

0.1 % soln. in CHCl₃ for extraction of Th. Liq. Misc.H₂O, EtOH, Et₂O. Fp –19°, Mp –8°. Bp 163.5°. n_D²⁰

1.3991. Steam-volatile.

▷ Irritant, causes burns. ES5425000.

Me ester: [623-42-7]. *Methyl butyrate*C₅H₁₀O₂ M 102.133Liq. d₄⁰ 0.919. Mp –95°. Bp 102.3°.

▷ Highly flammable, Fl. p. 14°. ET5500000.

Et ester: [105-54-4]. *Ethyl butyrate*C₆H₁₂O₂ M 116.160

Isol. from plant sources. Fragrance ingredient. Liq. with

pineapple odour. d₄⁰ 0.900. Fp –93.3°. Bp 119.9°.

▷ Irritant in high concs., flammable. ET1660000.

Anhydride: [106-31-0].C₈H₁₄O₃ M 158.197

Bp 198°.

▷ Irritant, causes burns. ET7090000.

Chloride: [141-75-3]. *Butyryl chloride*C₄H₇ClO M 106.551

Liq. Bp 1.028°, Bp 101-102°.

▷ Highly irritant, highly flammable, flash pt. <21°, giving toxic fumes. EU5523000.

Amide: [541-35-5]. *Butyramide*C₄H₉NO M 87.121

Leaflets. Mp 115-116°. Bp 216°.

Nitrile: [109-74-0]. *Butyronitrile*. *Propyl cyanide*C₄H₇N M 69.106Liq. d¹⁵ 0.796. Bp 117°.

▷ Toxic by skin absorption and inhalation. Flammable. ET8750000.

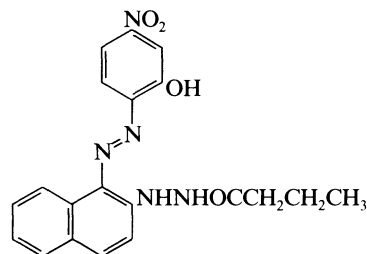
Anilide: [1129-50-6]. *Butyranilide*C₁₀H₁₃NO M 163.219

Mp 96°.

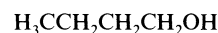
▷ ES5230000.

Hydrazide: [3538-65-6].C₄H₁₀N₂O M 102.136Sol. H₂O, EtOH, Et₂O. Mp 46-47°. Bp₂₀ 138° (120°).Hygroscopic. Reduces AgNO₃/NH₃ in the cold.Grillone, G.B., *Justus Liebigs Ann. Chem.*, 1873, **165**, 127.U.K. Pat., 271 254, (1928); *CA*, **22**, 1650 (*synth*)U.K. Pat., 276 617, (1928); *CA*, **22**, 2378 (*synth*)Mitchel, J.A., *J. Am. Chem. Soc.*, 1931, **53**, 321, 1879 (*synth*)Fr. Pat., 790 213, (1936); *CA*, **30**, 2992 (*synth*)**B-00604****Butanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azol]-2-naphthalenyl]hydrazide, 9CI****B-00605***1-(2-Butyrylhydrazidonaphthalene)azo-2-hydroxy-4-nitrobenzene*. *Hydrazidazol*

[39200-24-3]

C₂₀H₁₉N₅O₄ M 393.401Used as 0.2mM soln. in Me₂CO for photometric detn. of Zn (Me₂CO aq.); complexometric indicator for Zn. Red cryst. (DMF aq.). Sol. H₂O, DMF, Me₂CO. Mp 196°.Kamaeva, L.V. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1687 (*synth, detn, Zn*)Zhou Nan, *et al*, *Talanta*, 1983, **30**, 851; 1989, **36**, 739 (*detn, Zn*)**1-Butanol, 9CI***n-Butyl alcohol, 8CI*

[71-36-3]

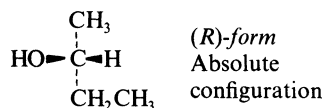
C₄H₁₀O M 74.122Occurs in essential oils and other plant sources e.g. *Thea sinensis*, *Ribes nigrum*. Industrial solvent, particularly for lacquer coatings. Used in brake fluids and in plasticiser manuf. Anal. derivatisation reagent for carboxylic and amino acids. Colourless liq. Mod. sol. H₂O. d¹⁵ 0.813. Fp –90°. Bp 117.4°. n_D²⁰ 1.3971. Forms constant-boiling mixt. with H₂O, Bp 92°, contg. 37% H₂O.

▷ Mod. toxic, irritant, TLV 150. Flammable. EO1400000.

Phenylurethane: Cryst. Mp 61°.Buchner, E. *et al*, *Ber.*, 1908, **41**, 1411 (*synth*)Kagan, M.Ya. *et al*, *CA*, 1935, **29**, 452 (*synth*)Chaikin, S.W. *et al*, *J. Am. Chem. Soc.*, 1949, **71**, 122 (*synth*)Zomzely, C. *et al*, *Anal. Chem.*, 1962, **34**, 1414 (*use*)Biddiscombe, D.P. *et al*, *J. Chem. Soc.*, 1963, 1954 (*purifn, props*)Andersson, J. *et al*, *Acta Chem. Scand.*, 1966, **20**, 522 (*isol*)Choudhary, G. *et al*, *J. Chromatogr.*, 1976, **128**, 261 (*use*)*Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978, **4**, 338 (*rev, props*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 214.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BPW500.

2-Butanol, 9CI**B-00607**

sec-Butyl alcohol. 2-Hydroxybutane
[78-92-2]



$\text{C}_4\text{H}_{10}\text{O}$ M 74.122

Isol. from fruit of *Ribes nigrum*. Reagent for the resolution of racemic amino acids by gc.

▷ EO1750000.

(*R*)-form [14898-79-4]

Liq. Bp 98-99°. $[\alpha]_{\text{D}}^{20} - 13.9^\circ$.

(*S*)-form [4221-99-2]

Liq. Mp 99°. $[\alpha]_{\text{D}}^{20} + 13.87^\circ$.

p-Toluenesulphonyl:

$\text{C}_{11}\text{H}_{16}\text{O}_3\text{S}$ M 228.312

Liq. Bp $<_{0.1}$ 95°. $[\alpha]_{\text{D}}^{20} + 12.98^\circ$.

(±)-form [15892-23-6]

Intermed. in industrial manuf. of butanone. Liq. Mod. sol. H_2O . d_4^{22} 0.819. Bp 100°. n_{D}^{20} 1.3924.

▷ Mod. toxic. Old samples may explode on dist.

Levene, P.A. *et al*, *J. Biol. Chem.*, 1927, **71**, 465 (*abs config*)

Kenyon, J. *et al*, *J. Chem. Soc.*, 1935, 1077 (*synth*)

Leroux, P.J. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 41 (*synth*)

Kantor, S.W. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 1744 (*resoln*)

Brown, H.C. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 397, 1071 (*synth*)

Pollock, G.E. *et al*, *J. Gas Chromatogr.*, 1965, **3**, 174 (*use*)

Andersson, J. *et al*, *Acta Chem. Scand.*, 1966, **20**, 522 (*isol*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 214.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BPW750.

2-Butanone, 9CI**B-00608**

Ethyl methyl ketone. 2-Oxobutane. Methyl ethyl ketone.
MEK

[78-93-3]



$\text{C}_4\text{H}_8\text{O}$ M 72.107

Isol. from tobacco (*Nicotiana tabacum*), hop oil (*Humulus lupulus*), clover (*Trifolium repens*), tea, tomatoes, various fruits and other vegetable sources. Industrial solvent, particularly for coating systems, used in the manuf. of resins and in lubricating oil refining. Reagent for sepn. of amines by glc. Used for extraction separation of Au. Liq. Part misc. H_2O . d_4^{20} 0.805. Fp -85.9° . Bp 79.6° . n_{D}^{15} 1.3814. Forms constant-boiling mixt. with H_2O , B.p. 73.4° , contg. 11.3% H_2O .

▷ Mod. toxic, irritant, TLV 590. Highly flammable, flash p. -7° . An exp. teratogen. Forms a highly toxic peroxide. EL6475000.

Di-Et acetal: [52752-16-6].

$\text{C}_8\text{H}_{18}\text{O}_2$ M 146.229

Liq. Bp 120° , Bp₁₀₀ 68° .

Oxime: [96-29-7].

$\text{C}_4\text{H}_9\text{NO}$ M 87.121

Used for extraction of Ag. Liq. d_4^{20} 0.9232. Mp -29.5° .

Bp 152° , Bp₁₅ $59-60^\circ$. n_{D}^{20} 1.4410.

▷ EL9275000.

Semicarbazone: Cryst. Mp 148° (139°).

2,4-Dinitrophenylhydrazone: Yellow cryst. Mp 115° .

[10341-59-0, 10341-63-6]

Schramm, J., *Ber.*, 1883, **16**, 1581 (*synth*)

Nef, J.U., *Justus Liebigs Ann. Chem.*, 1900, **310**, 323 (*synth*)

Senderens, J.-B., *Bull. Soc. Chim. Fr.*, 1909, **5**, 480.

Meerwein, H. *et al*, *Justus Liebigs Ann. Chem.*, 1913, **398**, 249 (*synth*)

Methyl Ethyl Ketone, Shell Chemical Co., 1950 (*rev*)

Takahashi, K., *Bull. Chem. Soc. Jpn.*, 1962, **35**, 1046 (*pmr*)

Brochmann-Hanssen, E. *et al*, *J. Pharm. Sci.*, 1962, **51**, 938 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 678.

Headridge, J.B. *et al*, *Analyst (London)*, 1969, **94**, 968 (*use*)

Beauprè, P.W. *et al*, *Mikrochim. Acta*, 1982, **2**, 485 (*use*)

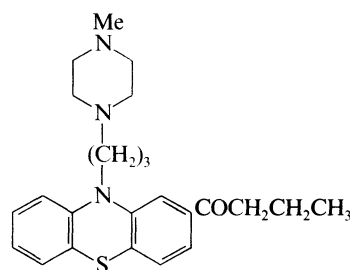
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 491.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 214, 215.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EMU500, MKA400.

Butaperazine, INN, USAN**B-00609**

1-[10-[3-(4-Methyl-1-piperazinyl)propyl]-10H-phenothiazin-2-yl]-1-butanone, 9CI, 8CI. Repoise. Tyrylen
[653-03-2]



$\text{C}_{24}\text{H}_{31}\text{N}_3\text{OS}$ M 409.594

Tranquilliser. Bp_{0.05} 270-280°.

▷ EL9190000.

Maleate: [10213-91-9].

Mp 180-182°.

Dimalate: [1063-55-4]. Butaperazine maleate, USAN.

Randolectil

Used as a 0.2% aq. soln. for photometric detn. of Rh

(λ_{max} 465 nm, ϵ 2440). Cryst. Mp 139-140°.

▷ LD₅₀ 63 mg/kg (rat, i.v.). EL9200000.

Wirth, W. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1958, **115**, 1; 1959, **123**, 78 (*pharmacol*)

Ger. Pat., 1 120 451, (1961); *CA*, **57**, 4677c (*synth*)

Janssen, P.A.J. *et al*, *Arzneim.-Forsch.*, 1966, **16**, 339 (*pharmacol*)

Kracmar, J. *et al*, *Pharmazie*, 1968, **23**, 651 (*uw*)

Davis, J.M. *et al*, *Adv. Biochem. Psychopharmacol.*, 1974, **9**, 433 (*metab*)

Blazek, J. *et al*, *Cesk. Farm.*, 1975, **24**, 174 (*ir*)

Pawelczyk, E. *et al*, *Pol. J. Pharmacol. Pharm.*, 1978, **30**, 731 (*ms*)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

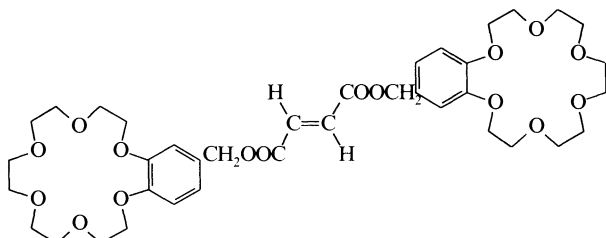
Pharmaceutical Press, London, 1982/1989, 7010, 7011.

Kesharan, B. *et al*, *Analyst (London)*, 1984, **109**, 835 (*detn, Rh*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 7145 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BS2000.

2-Butenedioic acid **B-00610**
bis[(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)methyl]ester, 9CI



$C_{38}H_{52}O_{16}$ M 764.819

Both isomers used as 1mM $CHCl_3$ soln. for extraction separation of Na, K, Rb, Ca (in the presence of picrate).

(*E*)-form [76107-36-3]

Bis(benzo-18-crown-6-ylmethyl)fumarate
 Oil. Sol. $CHCl_3$.

(*Z*)-form [76091-06-0]

Bis(benzo-18-crown-6-ylmethyl)maleate
 Cryst. Sol. $CHCl_3$. Mp 105-106°.

2,3-Dihydro: [76078-84-7]. *Bis(benzo-18-crown-6-ylmethyl)succinate*

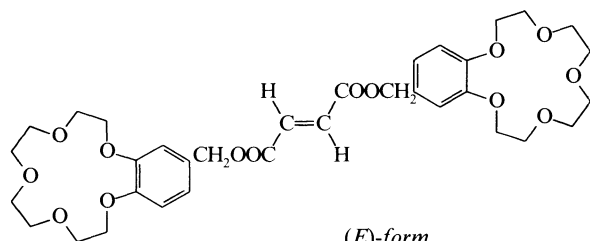
$C_{38}H_{54}O_{16}$ M 766.835

Used as 1mM $CHCl_3$ soln. for extraction separation of Na, K, Rb, Ca (in the presence of picrate). Cryst. Sol. $CHCl_3$.

Kimura, K. *et al.*, *J. Electroanal. Chem. Interfacial Electrochem.*, 1979, **95**, 91; **105**, 335 (*synth*)

Kimura, K. *et al.*, *Talanta*, 1980, **27**, 81 (*synth, use*)

2-Butenedioic acid bis[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)methyl]ester, 9CI **B-00611**



(*E*)-form

$C_{34}H_{44}O_{14}$ M 676.713

Both isomers used as 1mM $CHCl_3$ soln. for extraction separation of Na, K, Rb, Cs (in the presence of picrate).

(*E*)-form [70975-95-0]

Bis(benzo-15-crown-5-ylmethyl)fumarate
 Oil. Sol. $CHCl_3$.

(*Z*)-form [70975-94-9]

Bis(benzo-15-crown-5-ylmethyl)maleate
 Cryst. Sol. $CHCl_3$.

2,3-Dihydro: [76573-00-7]. *Bis(benzo-15-crown-5-ylmethyl)succinate*

$C_{34}H_{46}O_{14}$ M 678.729

Used as 1mM $CHCl_3$ soln. for extraction separation of Na, K, Rb, Cs (in the presence of picrate). Cryst. Sol. $CHCl_3$.

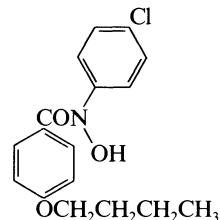
Kimura, K. *et al.*, *Chem. Lett.*, 1979, 611 (*synth*)

Kimura, K. *et al.*, *J. Electroanal. Chem. Interfacial Electrochem.*, 1979, **95**, 91; **105**, 335 (*synth*)

Kimura, K. *et al.*, *Talanta*, 1980, **27**, 801 (*use*)

4-Butoxy-N-(4-chlorophenyl)benzohydroxamic acid **B-00612**

4-Butoxy-N-(4-chlorophenyl)-N-hydroxybenzamide, 9CI
 [95333-99-6]



$C_{17}H_{18}ClNO_3$ M 319.787

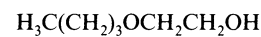
Used as 0.05-0.1% soln. in $CHCl_3$ or 1% soln. in EtOH for extraction-photometric detn. of Nb (λ_{max} 360 nm, ϵ 22000), Ta (λ_{max} 635 nm, ϵ 6300), Ti. Cryst. Sol. EtOH, $CHCl_3$.

Agrawal, Y.K. *et al.*, *J. Chem. Eng. Data*, 1971, **16**, 371, 495 (*synth*)

Agrawal, Y.K. *et al.*, *Analyst (London)*, 1984, **109**, 1509; 1985, **110**, 57, 1041 (*detn, Nb, Ti, Ta*)

2-Butoxyethanol, 9CI **B-00613**

Ethylene glycol butyl ether. Butyl 2-hydroxyethyl ether. Butylcellosolve
 [111-76-2]



$C_6H_{14}O_2$ M 118.175

Industrial solvent. Emulsifier for petroleum. Used for extraction-photometric detn. of Mg and to esterify carboxylic acids for gc anal. Liq. Fp -74.8° . Bp 171-172°.

► Mod. toxic, irritant, TLV 240. Flammable, may form explosive peroxides. KJ8575000.

Urethane:

$C_7H_{15}NO_3$ M 161.200
 Liq. Bp_{2.5} 132°.

Benzoyl:

$C_{13}H_{18}O_3$ M 222.283
 Liq. Bp_{14.5} 156.5-157°.

Cretcher, L.H. *et al.*, *J. Am. Chem. Soc.*, 1924, **46**, 1503 (*synth*)

Conn, R.C. *et al.*, *J. Am. Chem. Soc.*, 1932, **54**, 4370 (*deriv*)

Luke, C.L. *et al.*, *Anal. Chem.*, 1954, **26**, 1778; 1956, **28**, 1443.

Jankowski, S.J. *et al.*, *Anal. Chem.*, 1961, **33**, 776.

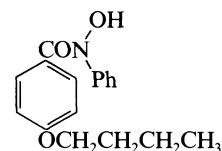
Meagher, W.R., *J. Agric. Food Chem.*, 1966, **14**, 374 (*use*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 216.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BPJ850.

4-Butoxy-N-hydroxy-N-phenylbenzamide, 9CI **B-00614**

N-Phenyl-4-butoxybenzohydroxamic acid
 [95334-00-2]



C₁₇H₁₉NO₃ M 285.342

Used as 0.05-0.1% soln. in CHCl₃ or 1% soln. in EtOH for extraction-photometric detn. of Nb (λ_{\max} 360 nm, ϵ 20000), Ta (λ_{\max} 635 nm, ϵ 6200), Ti. Cryst. Sol. EtOH, CHCl₃.

Agrawal, Y.K. *et al*, *J. Chem. Eng. Data*, 1971, **16**, 371, 495 (synth)

Agrawal, Y.K. *et al*, *Analyst (London)*, 1984, **109**, 1509; 1985, **110**, 57, 1041 (detn, Nb, Ti, Ta)

Butyl acetate, 9CI**B-00615**

[123-86-4]

C₆H₁₂O₂ M 116.160

Industrial solvent. Component of apple aroma. Used for extraction of Au, Ga, In, Ti (as bromide). Liq. Sol. EtOH, Et₂CO, Me₂CO; insol. H₂O. Fp -77°. Bp 125-126°.

▷ Mod. toxic, irritant. TLV 710. Flammable. AF7350000.

Turova, M.B. *et al*, *CA*, 1935, **29**, 5814 (synth)

Vogel, A.I., *J. Chem. Soc.*, 1948, 624 (synth)

Bock, R. *et al*, *Fresenius' Z. Anal. Chem.*, 1953, **138**, 167 (use)

Dorman, D.E. *et al*, *J. Org. Chem.*, 1975, **40**, 3729 (cmr)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 216.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BPU750.

Butylamine**B-00616**

1-Butanamine, 9CI. 1-Aminobutane

[109-73-9]

C₄H₁₁N M 73.138

Present in mulberry leaves. Intermed. in industrial syntheses. Used in forming extractable ion-pairs with anionic complexes (extraction-photometric methods). Liq. Sol. H₂O. d 0.740. Bp 78°.

▷ Irritant. Toxic by skin absorption and inhalation, TLV 15.

Highly flammable, flash p. -12°. EO2975000.

B,HCl: Leaflets. Sol. H₂O. Mp 195°.

Picrate: Needles (EtOAc/C₆H₆). Mp 151° (145°).

Picronolate: Needles (EtOAc). Mp 215-216° (219-220°).

N-Ac: [1119-49-9]. *N-Butylacetamide*, 9CI.

Acetylbutylamine. *Acetylbutylamide*

C₆H₁₃NO M 115.175

Liq. Bp 229°, Bp₇ 116°.

N-Me: [110-68-9].

C₅H₁₃N M 87.164

Bp 90.5-91.5°.

▷ Mod. toxic, highly flammable. EO5250000.

N-Me; *B,HCl*: Plates (Me₂CO). Mp 173-174°.

Org. Synth., *Coll. Vol.*, 2, 1943, 319 (synth)

Brown, R. *et al*, *J. Chem. Soc.*, 1946, 781 (synth)

Betteridge, D. *et al*, *Anal. Chim. Acta*, 1962, **26**, 101 (detn, Ag)

Newman, E.J. *et al*, *Analyst (London)*, 1963, **88**, 506 (detn, Mg)

Tani, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1964, **37**, 1245 (derivus)

Org. Synth., 1964, **44**, 72 (deriv)

Hendrickson, J.B. *et al*, *Tetrahedron Lett.*, 1970, 345 (deriv)

Miyajima, G. *et al*, *Org. Magn. Reson.*, 1974, **6**, 313 (cmr)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,

Butterworths, London and Boston, 1979, 218, 1185.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 218.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BPX750, MHV000.

N-Butylaniline, 8CI**B-00617**

N-Butylbenzenamine, 9CI

[1126-78-9]

C₁₀H₁₅N M 149.235

Used as a soln. in CHCl₃ for extraction-separation of Th, U. Liq. Sol. acids, EtOH, C₆H₆, CHCl₃; insol. H₂O. d₄²⁰ 0.936. Bp 240°, Bp₁₅ 115-120°. n_D²⁰ 1.5381.

▷ Mod. toxic. BW9450000.

B,HCl: Mp 114-115°.

N-Ac: [91-49-6]. *N-Butylacetanilide*

C₁₂H₁₇NO M 191.272

Liq. Bp₇₁₈ 273-275°.

▷ AD9800000.

N-Me: *N-Butyl-N-methylaniline*

C₁₁H₁₇N M 163.262

Bp₁₂ 114-116°.

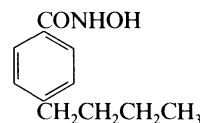
N-Me, *picrate*: Yellow needles (EtOH). Mp 141-142°.

Gagliardi, E. *et al*, *Mikrochim. Acta*, 1968, 1259 (detn, U)

Keil, R. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **286**, 54 (detn, Th)

Clark, J.H. *et al*, *J. Am. Chem. Soc.*, 1977, **99**, 498 (synth)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BPU500, BQH850.

4-Butylbenzohydroxamic acid**B-00618**C₁₁H₁₅NO₂ M 193.245

Parent compd. unknown.

N-Ph: [132520-38-8]. *N-(4-Butylbenzoyl)-N-phenylhydroxylamine*

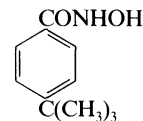
C₁₇H₁₉NO₂ M 269.343

Used as 0.1M CCl₄ soln. for extraction separation of lanthanides. Cryst. (Et₂O/hexane). Sol. Et₂O, EtOAc, CCl₄, hexane. Mp 98.5-99.5°.

Haraguchi, K. *et al*, *Anal. Sci.*, 1990, **6**, 877 (synth, use)

4-*tert*-Butylbenzohydroxamic acid**B-00619**4-*tert*-Butyl-N-hydroxybenzamide

[62034-73-5]

C₁₁H₁₅NO₂ M 193.245

N-Ph: [53253-03-5]. *4-(1,1-Dimethylethyl)-N-hydroxy-N-phenylbenzamide*, 9CI

C₁₇H₁₉NO₂ M 269.343

Used as 0.1M CHCl₃ soln. for extraction separation of Al, Cd, Cu, Fe(III), Mn, V. Cryst. (EtOH aq.). Sol. CHCl₃, EtOH. Mp 135-136°.

N-(4-Methylphenyl): [80220-10-6]. *4-(1,1-Dimethylethyl)-N-hydroxy-N-(2-methylphenyl)benzamide*, 9CI

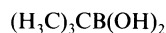
C₁₈H₂₁NO₂ M 283.369

Used as 0.1M CHCl₃ soln. for extraction of Al, Fe(III), Mn, V. Cryst. (EtOH aq.). Sol. CHCl₃, EtOH. Mp 140°.

Hojjat, M. *et al*, *Anal. Chim. Acta*, 1987, **199**, 49 (synth, use)

tert-Butylboronic acid**B-00620**

(1,1-Dimethylethyl)boronic acid, 9CI. 2-Methyl-2-propaneboronic acid, 8CI
[86253-12-5]



$C_4H_{11}BO_2$ M 101.941

Derivatisation reagent for gc anal. of corticosteroids. Mp 113-114°.

Di-Me ester:

$C_6H_{15}BO_2$ M 129.994

Bp₁₀₀ 60-62°.

Krause, E. *et al*, *Ber.*, 1931, **64**, 2112 (*synth*)

Brooks, C.J.W. *et al*, *J. Chromatogr.*, 1971, **54**, 193 (*use*)

Negishi, E. *et al*, *Synthesis*, 1972, 197 (*synth, ester*)

tert-Butylchlorodimethylsilane**B-00621**

Chloro(1,1-dimethylethyl)dimethylsilane, 9CI

[18162-48-6]



$C_6H_{15}ClSi$ M 150.723

Hydroxyl function protecting group (in particular for ribonucleotides). Reagent for oxid. decyanations.

Silylation reagent for use in chromatog. Mp 91.5°. Bp₇₃₃ 125°.

▷ VV2000000.

Corey, E.J. *et al*, *J. Am. Chem. Soc.*, 1972, **94**, 6190 (*synth*)

Kelly, R.W. *et al*, *Anal. Chem.*, 1976, **48**, 465 (*use*)

Ogilvie, K.K. *et al*, *Can. J. Chem.*, 1978, **56**, 2768 (*use*)

Harvey, D.J., *J. Chromatogr.*, 1978, **147**, 291 (*use*)

Nakata, T. *et al*, *J. Am. Chem. Soc.*, 1979, **101**, 4400 (*use*)

Olah, G. *et al*, *J. Org. Chem.*, 1979, **44**, 4272 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1982, **10**, 62 (*use*)

Butylchloromagnesium, 9CI, 8CI**B-00622**

Butylmagnesium chloride

[693-04-9]



C_4H_9ClMg M 116.873

Commercially available Grignard reagent. Used as 2M soln. in Et₂O or THF for derivatisation of ionic allylead compounds in gc analysis. Sol. ethers, spar. sol. Et₃N. pK (RH/RMgX) 28. Disproportionates in hydrocarbons.

▷ May ignite in heat or presence of powerful oxidising agent.

Kharasch, M.S. *et al*, *Grignard Reactions of Nonmetallic Substances*, Prentice Hall, New York, 1954 (*bibl*)

Bryce-Smith, D. *et al*, *Bull. Soc. Chim. Fr.*, 1963, 1418.

Leigh, T., *Chem. Ind. (London)*, 1963, 426 (*synth*)

Ashby, E.C. *et al*, *J. Org. Chem.*, 1966, **31**, 971 (*synth*)

Org. Synth., Coll. Vol., 5, 1973, 1141 (*synth*)

Chevrot, C. *et al*, *J. Electroanal. Chem. Interfacial Electrochem.*, 1974, **55**, 263 (*props*)

Ratanova, A.I. *et al*, *Zh. Prikl. Khim. (Leningrad)*, 1976, **49**, 1864 (*synth*)

Estes, S.A. *et al*, *J. Chromatogr.*, 1980, **196**, 265.

Chan, Y.K. *et al*, *Anal. Chim. Acta*, 1983, **176**, 211.

Chakrabarti, D. *et al*, *Anal. Chem.*, 1984, **56**, 2652.

Harrison, R.M. *et al*, *Environ. Technol. Lett.*, 1985, **6**, 129.

Radojević, M. *et al*, *Anal. Chem.*, 1986, **58**, 658.

Org. Synth., 1987, **65**, 61 (*synth*)

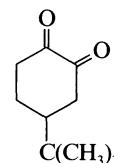
Lobinski, R. *et al*, *Anal. Chim. Acta*, 1992, **262**, 285 (*use*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed.,

Van Nostrand-Reinhold, 1979, 448.

4-tert-Butyl-1,2-cyclohexanedione**B-00623**

4-(1,1-Dimethylethyl)-1,2-cyclohexanedione
[4255-54-3]



$C_{10}H_{16}O_2$ M 168.235

Green-yellow oil. Bp_{1,2} 74-75°. n_D²⁵ 1.4996.

Dioxime: [1134-60-7]. 4-tert-Butylnoxime

$C_{10}H_{18}N_2O_2$ M 198.264

Used as a soln. in EtOH for extraction-photometric detn. of Bi, Ni, Pd; as 0.4mM aq. soln. for extraction-photometric detn. of Ni (λ_{max} 386 nm, ε 4100, xylene). Cryst. (C₆H₆). Sol. EtOH, C₆H₆; spar. sol. H₂O. Mp 196-199°, Mp 202°.

2-Oxime: [24858-30-8].

$C_{10}H_{17}NO_2$ M 183.250

Mp 118°.

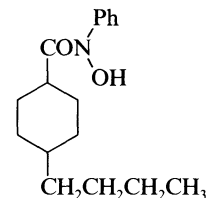
Leton, G.B., *Ph.D. Thesis*, London University, October, 1963 (*synth, deriv*)

Barling, M.M. *et al*, *Anal. Chem.*, 1964, **36**, 2359 (*synth, detn, Ni*)

Bordwell, F.G. *et al*, *J. Org. Chem.*, 1966, **31**, 351 (*synth*)

Bassed, J. *et al*, *Analyst (London)*, 1967, **92**, 279 (*detn, Bi, Ni, Pd*)

Bassett, J. *et al*, *J. Chem. Soc. A*, 1969, 2873 (*synth, oximes*)

N-(4-Butylcyclohexanoyl)-N-phenylhydroxylamine**B-00624**

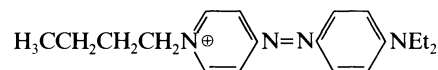
$C_{17}H_{25}NO_2$ M 275.390

Used as 0.01mM CCl₄ soln. for extraction separation of lanthanides. Cryst. (Et₂O/hexane). Sol. Et₂O, EtOAc, CCl₄, hexane. Mp 124-125°.

Haraguchi, K. *et al*, *Anal. Sci.*, 1990, **6**, 877 (*synth, use*)

1-Butyl-4-[[4-(diethylamino)phenyl]azo]pyridinium(1+), 9CI**B-00625**

[76749-68-3]



$C_{19}H_{27}N_4^{\oplus}$ M 311.449 (ion)

Cationic azo dye; occurs as salt with halide or other anion.

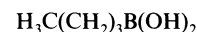
Forms extractable ion-pairs with Co, Ni and other metals (as anionic complexes) which are used in sensitive extraction-photometric detn. of metals (Co: λ_{max} 566 nm, ε 133000, CHCl₃). Cryst. Sol. H₂O (as salt).

Motomizu, S. *et al*, *Anal. Chim. Acta*, 1980, **120**, 267 (*synth, use*)

Butyldihydroxyborane**B-00626**

Butylboronic acid, 10CI, 9CI. Butylboric acid. Butaneboronic acid

[4426-47-5]



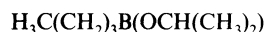
C₄H₁₁BO₂ M 101.941

Used for protection of diols and in GC/MS of bifunctional compds. Derivatisation reagent for anal. of bifunctional org. compds. Cryst. (toluene). Mp 92-94°.

Letsinger, R.L. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 864 (*synth*)
 Mirviss, S.B., *J. Org. Chem.*, 1967, **32**, 1713 (*synth*)
 Brown, H.C. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 1785, 1798 (*synth*)
Ger. Pat., 2 627 675, (1977); *CA*, **86**, 155254k (*use*)
 Mazurek, M. *et al*, *Org. Magn. Reson.*, 1977, **9**, 193 (*nmr*)
 Kossa, W.C., *Chem. Deriv. Anal. Chem.*, (Frei, R.W. *et al*, Ed.), Plenum, N.Y., 1981, 99 (*rev*)
 Frei, R.W. *et al*, *Chem. Deriv. Anal. Chem.*, Plenum, New York, 1981, 99 (*use*)

Butyldiisopropoxyborane**B-00627**

Bis(1-methylethyl) butylboronate, 9CI
 [86545-32-6]

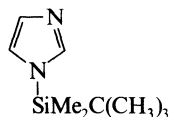
C₁₀H₂₃BO₂ M 186.101

Potential derivatisation reagent for difunctional compounds for gc and gc-ms analysis. Commercially available. Moisture sensitive colourless liq. d 0.794. Fp 29°. Bp₇₄₆ 145-147°. n_D²⁰ 1.3930.

Brown, H.C. *et al*, *Organometallics*, 1983, **2**, 1316; 1986, **5**, 2300 (*synth*)
Sigma-Aldrich Library of Chemical Safety Data, 1988, **1**, 627A.

N-(tert-Butyldimethylsilyl)imidazole**B-00628**

1-[(1,1-Dimethylethyl)dimethylsilyl]-1H-imidazole, 9CI. *tert-Butyl-1-imidazolyltrimethylsilane*
 [54925-64-3]

C₉H₁₈N₂Si M 182.340

Silylation reagent used in gc-ms anal. of steroids and nucleosides. Viscous liq. Bp_{0.7} 86-90°.

Quilliam, M.A. *et al*, *Anal. Chem.*, 1978, **50**, 59 (*use*)
 Blair, I.A. *et al*, *J. Chromatogr. Sci.*, 1978, **16**, 201 (*synth, use*)
 Janzen, A.F. *et al*, *Can. J. Chem.*, 1980, **58**, 60 (*synth, cmr*)

N-(tert-Butyldimethylsilyl)-N-methylacetamide**B-00629**

N-[(1,1-Dimethylethyl)dimethylsilyl]-N-methylacetamide, 9CI
 [82112-20-7]

C₉H₂₁NOSi M 187.356

Silylation reagent for alcohols, amino acids, etc. Liq. d₄²⁰ 0.8997. Bp 57-59°. Moisture-sensitive.

Mawhinney, T.P. *et al*, *J. Org. Chem.*, 1982, **47**, 3336 (*synth, use*)

N-(tert-Butyldimethylsilyl)-N-methyltrifluoroacetamide**B-00630**

N-[(1,1-Dimethylethyl)dimethylsilyl]-2,2,2-trifluoro-N-methylacetamide, 9CI. *MTBSTFA*
 [77377-52-7]

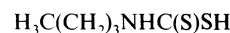
C₉H₁₈F₃NOSi M 241.328

Silylation reagent for amino acids and other org. compd. for gc anal. Liq. d₄²⁰ 1.121. Bp₇₆₀ 168-170°.

Mawhinney, T.P. *et al*, *J. Org. Chem.*, 1982, **47**, 3336 (*synth, use*)
 Schwenk, W.F. *et al*, *Anal. Biochem.*, 1984, **141**, 101 (*use*)
 Biermann, C.J. *et al*, *J. Chromatogr.*, 1986, **357**, 330 (*use*)
 Mawhinney, T.P. *et al*, *J. Chromatogr.*, 1986, **361**, 117 (*use*)
 Goh, C.J. *et al*, *Anal. Biochem.*, 1987, **163**, 175 (*use*)

Butyldithiocarbamic acid, 8CI**B-00631***Butylcarbamo-dithioic acid*, 9CI

[18879-99-7]

C₅H₁₁NS₂ M 149.281

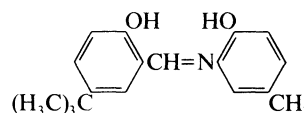
Used as 2% aq. soln. for extraction-photometric detn. of Nb. Cryst. (H₂O). Sol. H₂O, EtOH; spar. sol. C₆H₆.

Uvarova, K.A. *et al*, *Zavod. Lab.*, 1970, **36**, 909 (*detn, Nb*)

N-(5-tert-Butyl-2-hydroxybenzylidene)-2-hydroxy-5-methylaniline**B-00632**

4-(1,1-Dimethylethyl)-2-[(2-hydroxy-5-methylphenyl)imino]methylphenol, 9CI. *5-tert-Butyl-2-hydroxybenzaldehyde 2-hydroxy-5-methylanil*

[76950-25-9]

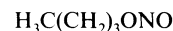
C₁₈H₂₁NO₂ M 283.369

Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 523 nm, pH 6.0), Ga (λ_{max} 533 nm, pH 4.0), Be (λ_{max} 450 nm, pH 8.5). Cryst. (EtOH). Sol. DMF, EtOH.

Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (*synth, detn, Al, Be, Ga*)

Butyl nitrite, 9CI**B-00633**

[544-16-1]

C₄H₉NO₂ M 103.121

Meat preservative, reagent for peptide synth. and nitrosation. Chemical ionisation reagent used in mass spectrometry. Liq. Bp 78°, Bp₄₃ 24-27°.

► Mod. toxic by inhalation, irritant, highly flammable, flash p. 10°. RA0780000.

Org. Synth., Coll. Vol., 2, 1943, 108 (*synth*)

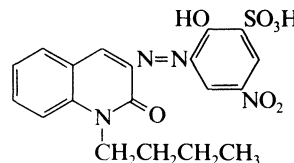
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 97.

Moncur, J.H. *et al*, *Rapid Commun. Mass Spectrom.*, 1988, **2**, 77; *CA*, **112**, 30037r (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BRV500.

3-[(1-Butyl-2-oxo-3-quinolinyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, 9CI**B-00634**

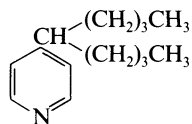
1-Butyl-3-(2-hydroxy-5-nitro-3-sulfophenylazo)-2(1H)-quinolinone

C₁₉H₁₈N₄O₇S M 446.440

Used as a 0.6mM aq. soln. for photometric detn. of Ga (λ_{\max} 480 nm, ϵ 11400). Orange-red cryst. Sol. H₂O. pK_{a2} 4.32; pK_{a3} 10.2.

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2350 (*detn. Ga*)

4-(1-Butylpentyl)pyridine, 9CI **B-00635**
4-(5-Nonyl)pyridine. 5-(4-Pyridyl)nonane
[2961-47-9]



C₁₄H₂₃N M 205.342

Liquid anion-exchanger. Used as 0.1M C₆H₆ or xylene soln. for extraction-separation of Cr(VI) (from HNO₃ medium), Tc(VII), Pt, Au. Yellow oil. Sol. C₆H₆, xylene; sl. sol. H₂O (0.12 g per 100 cm³). d 0.9208. Bp_{0.8} 94°.

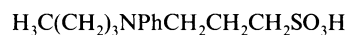
Iqbal, M. *et al*, *J. Radioanal. Chem.*, 1974, **23**, 51 (*detn. Tc*)

Iqbal, M. *et al*, *Anal. Chem.*, 1975, **47**, 936 (*detn. Cr*)

Iqbal, M. *et al*, *Radiochim. Acta*, 1975, **22**, 37 (*detn. Au*)

3-(Butylphenylamino)-1-propanesulfonic acid **B-00636**

N-Butyl-N-sulfopropylaniline



C₁₃H₂₁NO₃S M 271.380

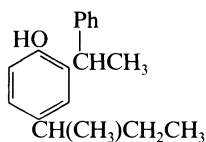
Mp 170° dec.

Na salt: [82611-86-7].

Used as a 0.01M aq. soln. for photometric detn. of H₂O₂. Cryst. (EtOH/Me₂CO). Sol. H₂O.

Tamaoku, K. *et al*, *Anal. Chim. Acta*, 1982, **136**, 121 (*synth. ir. detn. H₂O₂*)

4-sec-Butyl-2-(1-phenylethyl)phenol **B-00637**
4-(1-Methylpropyl)-2-(1-phenylethyl)phenol, 9CI. 4-sec-Butyl-2-(α -methylbenzyl)phenol
[2622-83-5]



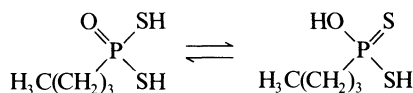
C₁₈H₂₂O M 254.371

Used as a soln. in octane for extraction-separation of Cs, Rb. Oily liq. Sol. alkalis, C₆H₆; insol. H₂O. d_4^{25} 1.004. Bp 180-185°.

Ross, W.J. *et al*, *Anal. Chem.*, 1964, **36**, 1998 (*use*)

Rais, J. *et al*, *Talanta*, 1971, **18**, 213 (*use*)

Butylphosphonodithioic acid, 9CI **B-00638**



C₄H₁₁OPS₂ M 170.236

O-Me ester: [13685-74-0]. O-Methyl butylphosphonodithioate

C₅H₁₃OPS₂ M 184.263

Liq. d_4^{20} 1.11. Bp_{0.02} 61.5°. n_D^{20} 1.5360.

O-Et ester: [5074-77-1]. O-Ethyl butylphosphonodithioate

C₆H₁₅OPS₂ M 198.290

Liq. d_4^{20} 1.09. Bp_{0.18} 66-67°. n_D^{20} 1.5281.

O-Isopropyl ester: [13685-75-1]. O-Isopropyl butylphosphonodithioate

C₇H₁₇OPS₂ M 212.316

Liq. d_4^{20} 1.05. Bp_{0.2} 74.5-75°. n_D^{20} 1.5100.

O-Hexyl ester: [5495-18-1]. O-

Hexylbutylphosphonodithioate

C₁₀H₂₃OPS₂ M 254.397

Used for extraction-photometric detn. of Cu. Sol. H₂O.

S,S-Dibutyl ester: [2797-54-8]. S,S-Dibutyl

butylphosphonodithioate

C₁₂H₂₇OPS₂ M 282.450

Defoliant. Liq. Bp_{0.02} 125°. n_D^{26} 1.5112.

S,S-Di-Ph ester: [29703-23-9]. S,S-Diphenyl

butylphosphonodithioate

C₁₆H₁₉OPS₂ M 322.431

Fungicide. Solid. Mp 50-53°.

Chupp, J.P. *et al.*, *J. Org. Chem.*, 1962, **27**, 3832 (*synth*)

Grishina, O.N. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl.* p. 2109), 1965, 2140 (*synth*)

U.S. Pat., 3 193 372, (1965); CA, **63**, 8976 (*dibutyl ester, synth. use*)

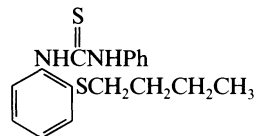
Grishina, O.N. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl.* p. 1558), 1966, 1617 (*O-esters*)

Ger. Pat., 1 902 928, (1970); CA, **73**, 119693 (*diphenyl ester, synth. use*)

Solozhenkin, P.M. *et al*, *Zh. Strukt. Khim.*, 1971, **12**, 167 (*hexyl ester*)

N-[2-(Butylthio)phenyl]-N'-phenylthiourea, 9CI **B-00639**

[131221-84-6]

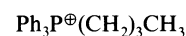


C₁₇H₂₀N₂S₂ M 316.490

Used as 0.01M soln. in PhCl for extraction-separation of Cu(II) from Zn, Cd, Co, Ni (acidic soln.). Cryst. (C₆H₆). Sol. C₆H₆, PhCl. Mp 120-121°.

Ide, S. *et al*, *Anal. Sci.*, 1990, **6**, 599 (*synth. use*)

Butyltriphenylphosphonium(1 +), 9CI **B-00640**
[22444-89-9]



C₂₂H₂₄P⁺ M 319.405 (ion)

With butyllithium, salts yield the ylide.

Chloride: [13371-17-0].

C₂₂H₂₄ClP M 354.858

Used as 1mM soln. in CHCl₃ for extraction-photometric detn. of Mo (CHCl₃). No phys. props. reported. Sol.

EtOH, Et₂O, CHCl₃, C₆H₆.

Bromide: [1779-51-7].

C₂₂H₂₄BrP M 399.309

Cryst. (butanol). Mp 249° (223°).

▷ TA1855200.

Iodide: [22949-84-4].

C₂₂H₂₄I₃P M 446.310

Solid. Mp 213-215°.

▷ TA1856000.

Triiodide: [76835-82-0].

C₂₂H₂₄I₃P M 700.119

Solid. Mp 139-141°.

Pentaiodide: [76835-83-1].

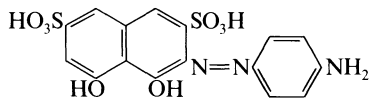
- $C_{22}H_{24}I_3P$ M 953.928
Solid. Mp 74-76°.
Heptaiodide: [76835-84-2].
- $C_{22}H_{24}I_7P$ M 1207.737
Solid. Mp 81-83°.
Ylide: [3728-50-5]. *Butylidenetriphenylphosphorane*
- $C_{22}H_{23}P$ M 318.397
Reactive Wittig reagent, prepd. *in situ*.
- Mechoulam, R. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 4386 (*ylide*)
Keough, P. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 3919 (*props*)
Greibenova, B. *et al*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 379
(*detn, Mo*)
Albright, T.A. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 2942, 2946 (*cmr, nmr*)
Makovetskii, Yu.P. *et al*, *Zh. Obshch. Khim.*, 1980, **50**, 2436 (*Engl. transl. p. 1967;1(Engl. transl., p. 1989), 1982, 52, 2235 (iodides, w)*)
Schlosser, M. *et al*, *Chimia*, 1982, **36**, 396 (*ylide*)

C

C.I. Acid violet 3

C-00001

3-[(4-Aminophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. Victoria violet. C.I. 16580. Pontacyl violet 4BSN



$C_{16}H_{13}N_3O_8S_2$ M 439.426

Strictly, the name Acid violet 3 applies to the disodium salt.

Di-Na salt: [1681-60-3].

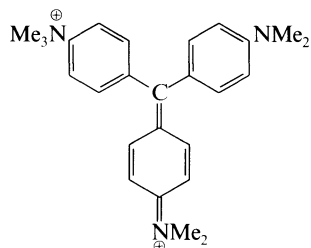
Used as aq. soln. for photometric detn. of Mg (λ_{max} 580 nm, pH 11), and B (pH 8.5-9.0). Dark blue cryst. powder. Sol. H_2O ; spar. sol. EtOH.

Reynolds, C.A., *Anal. Chem.*, 1959, **31**, 1102 (detn, B)
Useki, K., *Bull. Chem. Soc. Jpn.*, 1965, **38**, 37 (detn, Mg)

C.I. Basic blue 20

C-00002

4-[[4-(Dimethylamino)phenyl][4-(dimethylimino)-2,5-cyclohexadien-1-ylidene]methyl]-N,N,N-trimethylbenzenaminium(2+), 9CI. C.I. 42585



$C_{26}H_{33}N_3^{2\oplus}$ M 387.567 (ion)

Strictly, the name C.I. Basic blue 20 applies to the dichloride.

Dichloride: [38676-30-1].

$C_{26}H_{33}Cl_2N_3$ M 458.472

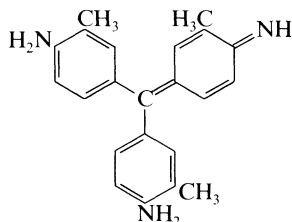
Used as a 0.1-0.5% aq. soln. for detn. of halides. Cryst. Sol. H_2O ; insol. EtOH, pentanol.

Rao, N. et al, *Fresenius' Z. Anal. Chem.*, 1971, **253**, 128 (use)

C.I. Basic violet 2, 8CI

C-00003

4-[(4-Amino-3-methylphenyl)(4-imino-3-methyl-2,5-cyclohexadien-1-ylidene)methyl]-2-methylbenzamine, 9CI. New fuchsin. C.I. 42520. Astrazon fuchsine GN. Leather ruby HF. Magenta ABN. New fuchsine G crystal. New magenta. Remacryl magenta B. Numerous other proprietary names



$C_{22}H_{23}N_3$ M 329.444

Strictly the name Basic violet 2 applies to the hydrochloride salt.

B, HCl: [3248-91-7].

Commercially available. Detn. agent used in tlc of fatty acids and pesticides. Green powder. λ_{max} 553 nm.

Sliwiok, J. et al, *Microchem. J.*, 1968, **13**, 113 (use)

Gregorowicz, Z. et al, *Microchem. J.*, 1970, **15**, 545 (use)

Kwapniewski, K. et al, *Microchem. J.*, 1979, **24**, 298 (use)

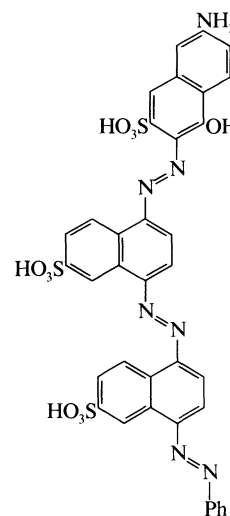
Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 2534B.

C.I. Direct blue 72

C-00004

C.I. 34145

[6717-34-6]



$C_{36}H_{25}N_7O_{10}S_3$ M 811.832

Strictly the name C.I. Direct blue 72 applies to the trisodium salt. Acid-base indicator (pH range: 14-15; colour change: blue \rightarrow reddish-violet). Dark green cryst. powder. Sol. H_2O , EtOH.

Colour Index, 3 Edn., 1971, **4**, 4318 (synth)

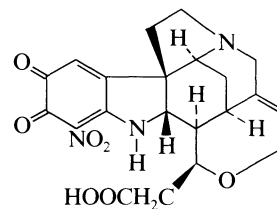
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 165.

Cacotheline

C-00005

2,3-Dihydro-4-nitro-2,3-dioxo-9,10-secostrychnidin-10-oic acid, 9CI

[561-20-6]



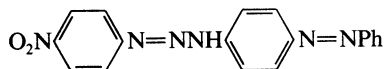
$C_{21}H_{21}N_3O_7$ M 427.413

Prod. by oxidn. and nitration of brucine. Indicator for $\text{Sn}^{2\oplus}$ titrations, used for photometric detn. of CO , Fe(III) , Sn(II) , V(III) . Yellow cryst. Spar. sol. H_2O . Used with $\text{PdCl}_4^{2\ominus}$ in a soln. containing 0.2mM cacotheline, 0.5mM H_2PdCl_4 , 0.01M aq. HCl.

Leuchs, H. *et al*, *Ber.*, 1910, **43**, 1042 (*synth*)
Beck, G., *Mikrochim. Acta*, 1938, **3**, 141, 143 (*detn. Fe, Sn, V*)
Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, Princeton, 1948, **4**.
Teuber, H.-J. *et al*, *Chem. Ber.*, 1953, **86**, 232 (*struct*)
Gopalo, G., *Fresenius Z. Anal. Chem.*, 1955, **148**, 278 (*detn. Fe*)
Lambert, J.L. *et al*, *Anal. Chem.*, 1983, **55**, 1829 (*detn. CO*)

Cation**C-00006**

1-(4-Nitrophenyl)-3-[4-(phenylazo)phenyl]-1-triazene, 9Cl. p-Nitrobenzenediazoaminobenzene-p-azobenzene. 4'-(p-Nitrophenyltriazeno)azobenzene
[5392-67-6]



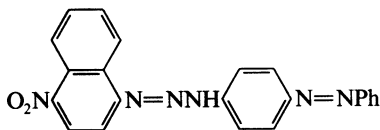
$\text{C}_{18}\text{H}_{14}\text{N}_6\text{O}_2$ M 346.348

Used in photometric detn. of Cd, Ni (use of Triton X-100 increases sensitivity). Dark cryst. powder. Sl. sol. EtOH. Mp 189°, Mp 198° dec.

Chavanne, P. *et al*, *Anal. Chim. Acta*, 1958, **19**, 377 (*detn. Cd*)
Popa, G. *et al*, *Talanta*, 1978, **25**, 546 (*detn. Hg*)
Watanabe, H. *et al*, *Talanta*, 1979, **26**, 959 (*detn. Cd*)
Shen Nai-Kui, *et al*, *Mikrochim. Acta*, 1983, **II**, 405 (*detn. Ni*)

Cation 2B**C-00007**

1-(4-Nitro-1-naphthalenyl)-3-[4-(phenylazo)phenyl]-1-triazene, 9Cl
[6708-61-8]



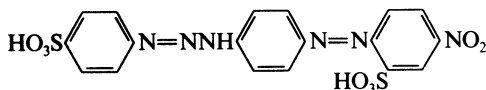
$\text{C}_{22}\text{H}_{16}\text{N}_6\text{O}_2$ M 396.407

Used as a 0.015-0.04% soln. in EtOH for extraction-photometric detn. of Ag, Cd, Hg, Pd, CN^\ominus . Dark red cryst. powder. Sol. C_6H_6 ; sl. sol. EtOH; insol. H_2O .

Dwyer, F.P., *Austr. Chem. Inst. J. Proc.*, 1938, **5**, 197 (*detn. Cd*)
Popa, G. *et al*, *Chim. Anal. (Bucharest)*, 1971, **1**, 86 (*detn. Pd*)
Popa, G. *et al*, *Talanta*, 1978, **25**, 546 (*detn. Hg*)
Wei Fu-Sheng, *et al*, *Talanta*, 1983, **30**, 190 (*detn. Ag*)
Wei Fu-Sheng, *et al*, *Analyst (London)*, 1984, **109**, 167 (*detn. CN[⊖]*)

Cation IREA**C-00008**

5-Nitro-2-[3-[4-[(4-sulfophenyl)azo]phenyl]-1-triazenyl]benzenesulfonic acid, 9Cl. 4'-[(4-Nitro-2-sulfophenyl)triazeno]-4-azobenzenesulfonic acid. Cation S. Cation II



$\text{C}_{18}\text{H}_{14}\text{N}_6\text{O}_8\text{S}_2$ M 506.476

Strictly the name Cation IREA applies to the disodium salt.

Di-Na salt: [28866-91-3].

Used as a 1mM aq. soln. for photometric detn. of Cd, Mg, Pb, Zn. Orange-brown cryst. powder. Sol. H_2O ; spar. sol. EtOH.

Lukin, A.M., *Zh. Anal. Khim.*, 1960, **15**, 295 (*detn. Pb*)

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use*)
Shestidesyatnaya, N.L. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 94 (*detn. Cd, Zn*)

Caesium tetraphenylborate(1-), 10Cl, 9Cl, 8Cl**C-00009**

[3087-82-9]



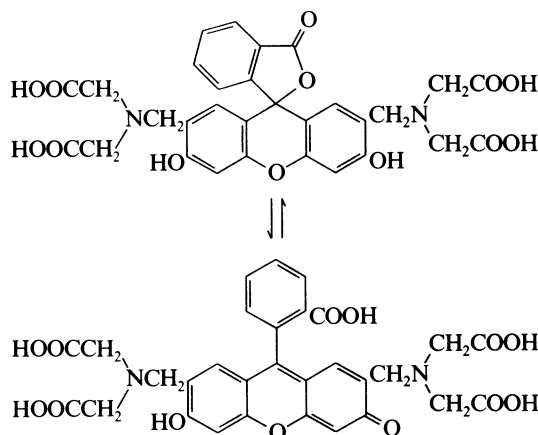
$\text{C}_{24}\text{H}_{20}\text{BCs}$ M 452.138

Nmr shift reagent. Used in Cs isotope sepn. Tetrahedral cryst. Sl. sol. H_2O at $(1.26 \times 10^{-3} \text{ g per } 100 \text{ cm}^3 \text{ at } 25^\circ)$.

Arnott, S. *et al*, *Acta Crystallogr.*, 1958, **11**, 449 (*struct*)
Fiedler, H.J. *et al*, *CA*, 1967, **66**, 90840p (*use*)
DeWitte, W.J. *et al*, *Inorg. Nucl. Chem. Lett.*, 1976, **12**, 251 (*nmr*)
Pacey, G. *et al*, *Talanta*, 1980, **27**, 1013 (*use*)
Popovych, O., *Solubility Data Ser.*, 1981, **18**, 52-71.

Calcein**C-00010**

$\text{N,N}'\text{-}[(3',6'\text{-Dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'\text{-[9H]xanthene]-2',7'\text{-diyl}]\text{bis(methylene)bis[N-(carboxymethyl)glycine]}]_2$, 9Cl. 2',7'-Bis[[bis(carboxymethyl)amino]methyl]fluorescein, 8Cl. Fluorexon. *Oftasceine*, INN
[1461-15-0]



$\text{C}_{30}\text{H}_{26}\text{N}_2\text{O}_{13}$ M 622.541

Diagnostic aid (calcium determination). Chelating agent used as an indicator in photometric detn. of Ca. Metallofluorescent indicator (Cu, Mn, Ca, Sr, Ba).

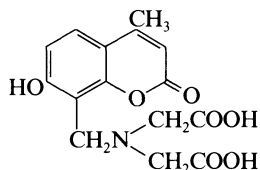
Di-Na salt: Orange cryst. powder. Sol. H_2O ; insol. EtOH, Et_2O . Mp 185° dec.

Diehl, H. *et al*, *Anal. Chem.*, 1956, **28**, 882 (*synth, indicator*)
Körbl, J. *et al*, *Chem. Ind. (London)*, 1957, 233 (*synth*)
Wallach, D.F.H. *et al*, *Anal. Chem.*, 1959, **31**, 456 (*use*)
Robinson, C. *et al*, *Analyst (London)*, 1968, **93**, 722 (*detn. Ca*)
Chaplin, A.J. *et al*, *Histochemistry*, 1976, **47**, 263 (*use*)
Martin, D.B., *Diss. Abstr. Int.*, **B**, 1977, 164 (*props*)
Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 225 (*pKa, rev*)
Furry, J.W., *Diss. Abstr. Int.*, **B**, 1986, **46**, 3029 (*synth, props*)

Calcein blue**C-00011**

N-(Carboxymethyl)-N-[(7-hydroxy-4-methyl-2-oxo-2H-1-benzopyran-8-yl)methyl]glycine, 9CI. 4-Methylumbelliferone-6-methyleneiminodiacetic acid. 8-(Aminomethyl)-7-hydroxy-4-methylcoumarin-N,N-diacetic acid

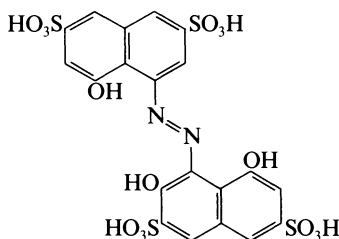
[54375-47-2]

 $C_{15}H_{15}NO_7$ M 321.286

Used as 0.1% aq. soln. as metallochromic fluorescent indicator for titrimetric detn. of Ba, Ca, Co, Cu, Fe(III), Ni, Sr (colour change: non fluoresc. → blue). Cryst. Sol. H_2O , alkalis, EtOH, Me_2CO ; insol. C_6H_6 .

Eggers, J.H. *et al*, *Talanta*, 1960, **4**, 38 (*use*)Wilkins, D.H. *et al*, *Talanta*, 1960, **4**, 182 (*use*)**Calcichrome****C-00012**

3,5-Dihydroxy-4-[(8-hydroxy-3,6-disulfo-1-naphthalenyl)-2,7-naphthalenedisulfonic acid], 9CI. 2,8,8'-Trihydroxy-1,1'-azonaphthalene-3,3',6,6'-tetrasulfonic acid. Calcion

 $C_{20}H_{14}N_2O_{15}S_4$ M 650.599

Strictly, the name Calcichrome applies to the tetrasodium salt.

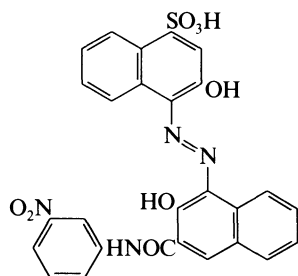
Tetra-Na salt: [123133-07-3].

Used as 0.1% aq. soln. for photometric detn. of Ca (in the presence of Sr, Ba) (λ_{max} 522 nm, ϵ 13700), Co, Cu, Mn, Mg. Dark red powder. Sol. H_2O .

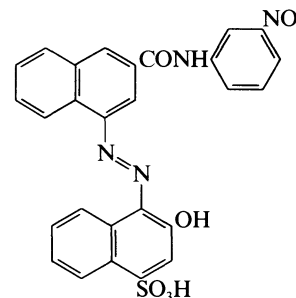
Close, R.A. *et al*, *Talanta*, 1960, **5**, 221 (*synth. detn. Ca*)West, T.S., *Analyst (London)*, 1962, **87**, 630 (*detn. Ca*)Lukin, A.M. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 444 (*struct*)Mendes-Bezerka, A.E. *et al*, *Analyst (London)*, 1969, **94**, 1117(*struct*)Chau Lai-Kwan, *et al*, *Anal. Chim. Acta*, 1989, **217**, 31 (*detn. Ca, struct*)**Calconalide I****C-00013**

3-Hydroxy-4-[[2-hydroxy-3-[(3-nitrophenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, 9CI

[15935-39-4]

 $C_{27}H_{18}N_4O_8S$ M 558.527

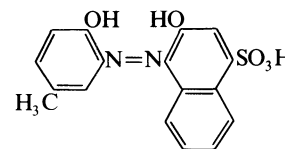
Used as a 0.1% soln. in MeOH as metallochromic indicator for titrimetric detn. of Ca, Mg. Green-blue cryst. powder. Sol. H_2O , EtOH, Me_2CO .

Neumann, J. *et al*, *Fresenius' Z. Anal. Chem.*, 1968, **239**, 167 (*use*)Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use*)**Calcon-m-nitroanilide****C-00014** $C_{27}H_{18}N_4O_8S$ M 542.528

Used as a 0.1% soln. in MeOH as metallochromic indicator in titrimetric detn. of Ca. Orange-red cryst.

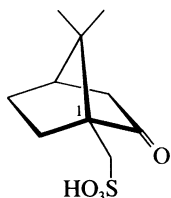
Neumann, J. *et al*, *Fresenius' Z. Anal. Chem.*, 1968, **239**, 167.**Calmagite****C-00015**

3-Hydroxy-4-[(2-hydroxy-5-methylphenyl)azo]-1-naphthalenesulfonic acid, 9CI. 3-Hydroxy-4-(6-hydroxy-m-tolylazo)-1-naphthalenesulfonic acid, 8CI. 1-(1-Hydroxy-4-methyl-2-phenylazo)-2-naphthol-4-sulfonic acid [3147-14-6]

 $C_{17}H_{14}N_2O_5S$ M 358.374

Analytical indicator, celluloid plasticiser; used in cosmetics and moth repellants. Used in photometric detn. of Mg (λ_{max} 540 nm, ϵ 20000), Al, Ca, Th, U, rare-earth elements, used in complexometric titrimetric detn. of Mg, Ca. Red cryst. (Me_2CO). Sol. H_2O .

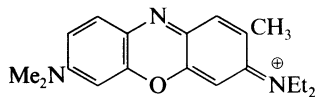
Lindstrom, F. *et al*, *Anal. Chem.*, 1960, **32**, 1123 (*synth*)Curcio, P.J. *et al*, *Anal. Chim. Acta*, 1962, **174**, 269 (*detn. Th*)Flaschka, H. *et al*, *Talanta*, 1962, **9**, 249 (*detn. Mg*)Meites, L., *Handbook of Analytical Chemistry*, McGraw-Hill, N.Y., 1963 (*use*)Diehl, H., *Titrimetric, Colorimetric and Fluorimetric Reagents for Ca and Mg*, G. Frederick Smith Co., Columbus, Ohio, 1964 (*use*)Ingman, F. *et al*, *Microchem. J.*, 1966, **10**, 545 (*detn. Mg, Ca*)Bokra, Y. *et al*, *Chim. Anal. (Bucharest)*, 1971, **1**, 44.Brittain, H.G., *Anal. Chim. Acta*, 1979, **106**, 401 (*detn. rare earth elements*)

Camphor-10-sulfonic acid**C-00016***Camphor-β-sulfonic acid. Camphor-ω-sulfonic acid* $C_{10}H_{16}O_4S$ M 232.300**(+)-form** [3144-16-9]Resolving agent. Cryst. (AcOH). Mp 193-195° dec. $[\alpha]_D^{20} + 21.5^\circ$ (c, 4.3 in H_2O).**Chloride:** $C_{10}H_{15}ClO_3S$ M 250.745

Resolving agent for alcohols, amines and amino acids.

Cryst. (Et_2O). Mp 67-68°. $[\alpha]_D^{20} + 32.2^\circ$ ($CHCl_3$).**(-)-form** [35963-20-3]Cryst. (AcOH). Mp 193-195° dec. $[\alpha]_D^{20} - 20.75^\circ$ (H_2O).**(±)-form**

Cryst. (AcOH). Mp 202° dec.

Chloride: Cryst. (pet. ether). Mp 83-84°.Pope, W.J. *et al.*, *J. Chem. Soc.*, 1914, **105**, 800 (*synth*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 109; 1974, **4**, 68.*Org. Synth.*, *Coll. Vol.*, **5**, 1973, 196 (*chloride*)Furukawa, H., *Chem. Pharm. Bull.*, 1975, **23**, 1625 (*chloride, use*)Mueller, D.M. *et al.*, *J. Prakt. Chem.*, 1975, **317**, 689 (*synth*)**Capri blue****C-00017***3-(Diethylamino)-7-(dimethylamino)-2-methylphenoxazin-5-ium(1+), 9CI* $C_{19}H_{24}N_3O^{\oplus}$ M 310.418 (ion)

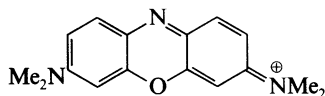
Strictly the name Capri blue applies to the chloride.

Chloride: [1787-57-1]. $C_{19}H_{24}ClN_3O$ M 345.871Used as a 1mM aq. soln. in extraction-photometric detn. of B, Ga, Pt, Ta (ϵ 11000); flotation-photometric detn. of Os and Ru (λ_{max} 630 nm, ϵ 270000). Dark cryst. powder. Sol. H_2O .

▷ BQ1160000.

Chloride, double salt with $xZnCl_2$: [7199-02-2]. *Capri blue GN†. Capri blue GON(L). C.I. 51015*Used as a redox indicator in aq. soln. Blue cryst. (dil. HCl aq.). Sol. H_2O , EtOH.Lecort, M., *C. R. Hebd. Seances Acad. Sci.*, 1932, **194**, 711 (*use*)Elinson, S.V. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 1234 (*detn, Ta*)Marczenko, Z. *et al.*, *Microchem. J.*, 1981, **26**, 453 (*detn, Ru*)Marczenko, Z. *et al.*, *Anal. Chim. Acta*, 1983, **153**, 219 (*detn, Pt*)**Capri blue GN****C-00018***3,7-Bis(dimethylamino)phenoxazin-5-ium(1+), 9CI. Methyl capri blue. C.I. 51000 Basic dye*

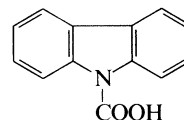
[52886-80-3]

 $C_{16}H_{18}N_3O$ M 268.338

Strictly, the name Capri blue GN applies to the chloride.

Chloride: [20161-55-1]. $C_{16}H_{18}ClN_3O$ M 303.790Used as a redox indicator. Cryst. Sol. H_2O , acids. $E^\circ + 0.477$ V (30°).Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)**S-Carbamidothioglycolic anilide****C-00019***Thiocarbamic acid S-ester with mercaptoacetanilide, 8CI*
[5428-95-5] $Ph^*NHCOCH_2SCONH_2$ $C_9H_{10}N_2O_2S$ M 210.256Used as 2% soln. in H_2O or EtOH for gravimetric detn. of Co, Pd. Cryst. (EtOH). Sol. H_2O , EtOH. Mp 146-150°. N^{α} -Me: S-Carbamidothioglycolic acid N-methylanilide $C_{10}H_{12}N_2O_2S$ M 224.283Used as 2% soln. in H_2O or EtOH for gravimetric detn. of Co. Cryst. (EtOH). Mp 138-140°.Bashar, A. *et al.*, *Analyst (London)*, 1968, **93**, 125 (*detn, Co*)Nacu, A. *et al.*, *Rev. Chim. (Bucharest)*, 1977, **28**, 1091 (*detn, Pd*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MCL500.**9H-Carbazole-9-carboxylic acid, 9CI****C-00020**

[56383-71-2]

 $C_{13}H_9NO_2$ M 211.220**Me ester:** [107624-52-2]. $C_{14}H_{11}NO_2$ M 225.246

Needles (EtOH). Mp 77°.

Et ester: [24650-61-1]. $C_{15}H_{13}NO_2$ M 239.273

Needles (EtOH). Mp 75-76°.

Chloride: [73500-82-0]. N-Chloroformylcarbazole $C_{13}H_8ClNO$ M 229.665

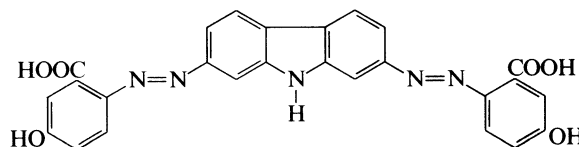
Reagent for fluorogenic labelling of amino acids. Long needles (toluene/hexane). Mp 102.5-103°.

Amide: [33988-01-1]. $C_{13}H_{10}N_2O$ M 210.235

Mp 250-251°.

Nitrile: [31892-44-1]. $C_{13}H_8N_2$ M 192.220

Cryst. Readily hydrolyses to carbazole.

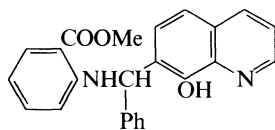
Fletcher, M.A. *et al.*, *J. Chem. Soc.*, 1953, 3898 (*esters, synth*)Lopatinskii, V.P. *et al.*, *CA*, 1971, **75**, 63541w (*amide, synth*)Zelent, B. *et al.*, *J. Org. Chem.*, 1981, **46**, 1496 (*nitrile, pmr, ms*)Allenmark, S., *Tetrahedron Lett.*, 1990, 1455 (*chloride, synth, use*)**Carbazol yellow B****C-00021***5,5'-[2,7-Carbazole-2,7-diylbis(azo)]bis[2-hydroxybenzoic acid]. 5,5'-[2,7-Carbazolediylbis(azo)]disalicylic acid, 8CI. 2,7-Bis(3-carboxy-4-hydroxyphenylazo)carbazole. C.I. 25700*
[6411-46-7] $C_{26}H_{17}N_5O_6$ M 495.450

Direct dye. Acid-base indicator used as an aq. soln. of disodium salt for high pH range (pH₁ 13.7; colour change: yellow → red). Orange cryst. Sol. H₂O.

Konopik, N. *et al*, *Monatsh. Chem.*, 1948, **79**, 586; 1949, **80**, 420 (use)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 165 (use)

7-[α -(Carbomethoxyanilino)benzyl]-8-hydroxyquinoline C-00022



C₂₄H₂₀N₂O₃ M 384.434

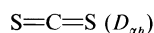
Used as 0.01M soln. in EtOH for photometric detn. of Mg and Pb. Cryst. Sol. EtOH.

Umland, F. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, **177**, 244; 1972, **185**, 362 (synth, detn, Pb, Mg)

Carbon disulfide C-00023

Carbon sulfide (CS₂). Carbon bisulfide. Dithiocarbonic anhydride

[75-15-0]



CS₂ M 76.143

C—S 155.3 pm. Has disinfectant and insecticidal props.; used in manuf. of rayon and CCl₄, electronic vacuum tubes, org. solv. for sulfur, phosphorus, iodine, bromine, rubber intermediates, etc. Fumigation insecticide.

Reagent in heterocyclic synth. Reagent for the gc and ms anal. of amines as isothiocyanates and for the anal. of thiols. Highly refracting colourless liq. Misc. EtOH, Et₂O, C₆H₆; spar. sol. H₂O. d₄²⁰ 1.293. Mp -111.6°. Bp 46.5°, Bp₂₉₇ 20°. n_D¹⁵ 1.6315. Forms hemihydrate, dec. at -3°. A black solid form has been prepd. at high press.

► Highly toxic by inhalation, TLV 30. Extremely flammable, flash p. -30°. FF6650000.

Bushell, W.J., *Chem. Ind. (London)*, 1961, 1465 (rev)

Namasimhachari, N. *et al*, *Anal. Biochem.*, 1972, **45**, 154 (use)

Jungen, C. *et al*, *Can. J. Phys.*, 1973, **51**, 1471 (struct)

Blanquet, G. *et al*, *Ann. Soc. Sci. Bruxelles*, 1974, **88**, 87 (struct)

Namasimhachari, N. *et al*, *Biomed. Mass Spectrom.*, 1974, **1**, 367 (use)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 94.

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **4**, 742 (rev)

Verma, B.C. *et al*, *Mikrochim. Acta*, 1982, **1**, 393 (use)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 6506.

Dunn, A.D. *et al*, *Carbon Disulphide in Organic Chemistry*, Ellis Horwood, 1989 (rev)

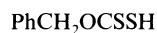
Tominaga, Y., *J. Heterocycl. Chem.*, 1989, **26**, 1167 (rev, use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 229.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CBV500.

Carbonodithioic acid O-(phenylmethyl) ester, 9CI C-00024

O-(Phenylmethyl)carbonodithioate, 9CI. Benzylxanthogenic acid. O-Benzyl dithiocarbonate



C₈H₈OS₂ M 184.283

K salt: [2720-79-8].

Used as a 1% soln. in CHCl₃ for extraction-photometric detn. of Pd (λ_{max} 460 nm). Yellow cryst. (H₂O). Sol.

H₂O, CHCl₃.

► FG1100000.

Paria, P.K. *et al*, *Anal. Chim. Acta*, 1975, **74**, 197.

Carbon tetrachloride C-00025

Tetrachloromethane, 9CI. Perchloromethane. R10. F10.

Tetra

[56-23-5]



CCl₄ M 153.822

Solv. for org. compds., formerly used in fire extinguishers, formerly dry-cleaning solv., formerly used as anthelmintic. Grain fumigant. Used in manuf. of chlorofluoromethanes. Chlorinating agent, source of :CCl₂. Reference material used in elemental microanalysis. Liq. Sol. EtOH, Et₂O, prac. insol. H₂O. d₄²⁰ 1.632. Bp 76.74°. Freezes to trimorphous solid having Mps. -28.6°, -23.8° and -21.2°. n_D¹⁵ 1.4631.

► Highly toxic by inhalation and skin contact, OES 65 mg m⁻³. Dec. to highly toxic COCl₂ if strongly heated in the presence of air. Production controlled by environmental legislation, to be illegal in EEC after 1996. FG4900000.

Analyst (London), 1972, **97**, 740 (microanal)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 69.

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **5**, 705, 707 (synth, props)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 767.

Occupational Exposure Limits 1991, Health and Safety Executive, HMSO, London, 1991, EH40/91,.

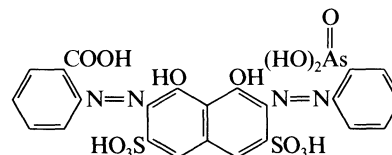
Stevenson, R., *Chem. Br.*, 1992, 208 (rev)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 231.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CBY000.

Carboxyarsenazo C-00026

2-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9CI. 3-(2-Arsonophenylazo)-6-(2-carboxyphenylazo)-2,7-naphthalenedisulfonic acid [3772-44-9]



C₂₃H₁₇AsN₄O₁₃S₂ M 696.460

Used in photometric detn. of Ba (ϵ 41000), Ca, Mg, F[⊖]; metal indicator for Ba; gives colour reaction with Dy, Lu, Th, Y; titrimetric detn. of SO₄^{2⊖}. Dark cryst. powder. Sol. H₂O. pK_{a1} 2.67.

Muk, A.A. *et al*, *Anal. Chim. Acta*, 1969, **44**, 59 (pKa)

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177 (detn, Ba, Ca, Mg)

Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 2320; 1971, **26**, 722 (detn, Ba, Dy, Lu, Th, Y)

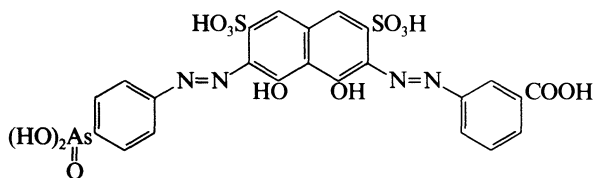
Basargin, N.N. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1974, **40**, 648 (detn, F[⊖])

Simonov, L.N. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 917 (detn, SO₄^{2⊖})

Carboxyarsenazo B

C-00027

3-[[7-(4-Arsenophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9CI. 3-(4-Arsenophenylazo)-6-(3-carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid
[34700-74-8]



$C_{23}H_{17}AsN_4O_{13}S_2$ M 696.460

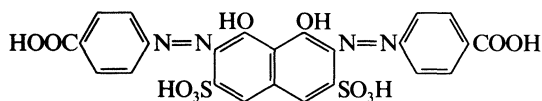
Used as a 0.02 mM aq. soln. for photometric detn. of Ba (λ_{max} 570 nm, ϵ 21500); gives colour reaction with Y. Dark red cryst. powder. Sol. H_2O .

Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 2320; 1971, **26**, 722 (detn, Ba, Y)

Carboxybenzene S

C-00028

4,4'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, 9CI. 3,6-Bis(4-carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. 2,7-Bis(4-carboxybenzeneazo)chromotropic acid
[24430-55-5]



$C_{24}H_{16}N_4O_{12}S_2$ M 616.542

Used as 0.05% aq. soln. for photometric detn. of Mn (λ_{max} 720 nm, ϵ 150000) Ni, Ba, Ca, La, Mg, Pd (λ_{max} 650 nm, ϵ 32000), Th (λ_{max} 620 nm, ϵ 26000), Yb; photometric detn. of H_2O in organic solvs. Dark red cryst. powder. Sol. alkalis; sl. sol. H_2O ; insol. C_6H_6 . pK_{a1} 9.25; pK_{a2} 14.16.

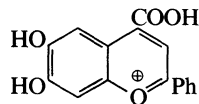
Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 490; 1971, **26**, 297; 1978, **33**, 516 (detn, Mn, Ba, Ca, La, Mg, Pd, Th, Yb)

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226; 1973, **28**, 1452; 1980, **35**, 695 (pK_a , detn, Ni)

Petrova, T.V. *et al*, *CA*, 1972, **77**, 147337p (detn, H_2O)

4-Carboxy-6,7-dihydroxy-2-phenyl-1-benzopyrylium(1+), 9CI

C-00029



$C_{16}H_{11}O_5^{\oplus}$ M 283.260 (ion)

Chloride: [66686-18-8].

$C_{16}H_{11}ClO_5$ M 318.713

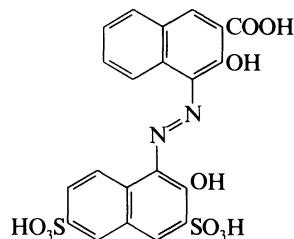
Used for photometric detn. of Mo(VI) (λ_{max} 510 nm, ϵ 40000, pH 3-4). Orange-red cryst. (EtOH/NaOAc). Sol. EtOH. Mp 220-222°.

Tantsyura, G.F. *et al*, *Zh. Anal. Khim.*, 1985, **40**, 228 (synth, detn, Mo)

1-(3-Carboxy-2-hydroxy-1-naphthylazo)-2-naphthol-3,6-disulfonic acid

C-00030

3-Hydroxy-4-[(2-hydroxy-3,6-disulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid, 9CI
[76882-03-6]



$C_{21}H_{14}N_2O_{10}S_2$ M 518.481

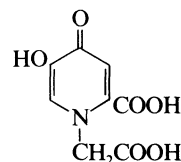
Used as a 0.1mM aq. soln. as an indicator for complexometric (EDTA) titration of Ca (λ_{max} 560 nm, pH 12). Dark violet cryst. Sol. H_2O . pK_{a1} 9.25; pK_{a2} 14 (25°, $\mu = 1$).

Wada, H. *et al*, *Anal. Chim. Acta*, 1980, **121**, 265 (synth, detn, Ca)

2-Carboxy-5-hydroxy-4-oxo-1(4H)-pyridineacetic acid, 9CI

C-00031

N-Glycylcomenamic acid
[42050-90-8]



$C_8H_7NO_6$ M 213.146

Used for photometric detn. of Fe(III) (λ_{max} 500 nm, ϵ 960). Cryst. Sol. H_2O . Mp 225-227°. pK_a 7.41.

Kleipool, J.C. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1950, **69**, 104 (synth)

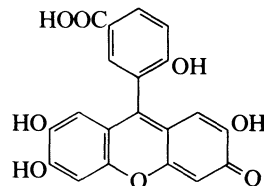
Atkinson, G.F. *et al*, *Anal. Chim. Acta*, 1973, **65**, 474 (detn, Fe)

9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxy-3H-xanthen-3-one

C-00032

9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxyfluorone. 4-Hydroxy-3-(2,6,7-trihydroxy-3-oxo-3H-xanthen-9-yl)benzoic acid, 9CI

[37682-28-3]



$C_{20}H_{12}O_8$ M 380.310

Used for photometric detn. of Ti (λ_{max} 570 nm), Nb (λ_{max} 535 nm, ϵ 64000), Ta (λ_{max} 525 nm, ϵ 94000). Dark red cryst. powder. Sol. alkalis; spar. sol. H_2O .

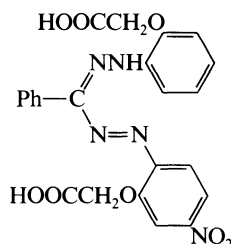
Vrbsky, J. *et al*, *CA*, 1971, **74**, 56871e; 1972, **77**, 109082u; 1975, **83**, 136210q; 1977, **86**, 133043p (detn, Ti, Nb, Ta)

Fogtl, J. *et al*, *CA*, 1981, **94**, 57418u (synth)

1-(2-Carboxymethoxy-4-nitrophenyl)-3-phenyl-5-(carboxymethoxyphenyl)formazan

C-00033

2-[1-[2-(Carboxymethoxy)-4-nitrophenyl]-3-phenyl-5-formazano]phenoxyacetic acid, 9CI
[60129-48-8]



$C_{23}H_{19}N_5O_8$ M 493.432

Used as 0.05% soln. in EtOH for photometric detn. of Ni (λ_{\max} 620 nm, ϵ 33000), Li (λ_{\max} 660 nm, ϵ 11600). Dark red cryst. with green lustre (EtOH). Sol. EtOH, Me_2CO , alkalis, DMF. Mp 206°.

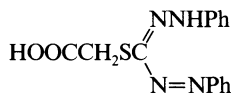
Zelichenko, S.L. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2311 (*synth, detn, Li*)

Ostrovskaya, V.M. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1548 (*detn, Ni*)

3-(Carboxymethylthio)-1,5-diphenylformazan

C-00034

[(1,5-Diphenylformazanyl)thio]acetic acid, 9CI
[71146-24-2]



$C_{15}H_{14}N_4O_2S$ M 314.367

Used as a 0.4mM soln. in EtOH for photometric detn. of Tl(III), Au(III) (λ_{\max} 420 nm). Brown-red needles (EtOH aq., C_6H_6 /hexane). Sol. EtOH, H_2O . Mp 143-145° dec. pK_{a1} -0.43; pK_{a2} 12.48 (1M NaCl).

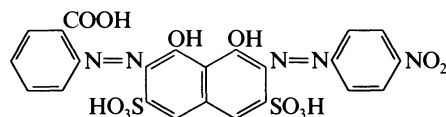
Hutton, A.T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 113 (*detn, Au, Tl*)

Carboxynitrazo

C-00035

2-[[1,8-Dihydro-7-[(2-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9CI. 3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(4-nitrophenylazo)-2,7-naphthalenedisulfonic acid

[26075-01-4]



$C_{23}H_{15}N_5O_{12}S_2$ M 617.530

Used as 0.5mM aq. soln. in photometric detn. of Ca, Sr, Ba, Mg, rare earth elements. Dark red cryst. powder. Sol. H_2O . pK_{a4} 9.91; pK_{a5} 14.25.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177, 1460; 1971, **26**, 297 (*synth, detn, rare earths, Ba, Ca, Mg*)

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226, 2110; 1973, **28**, 1452; 1975, **30**, 918 (*detn, Sr, Ba, Ca, La, pKa*)

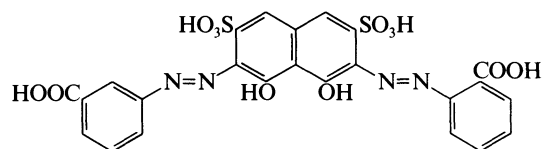
Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 722 (*detn, Dy, Lu, Th, Y*)

Savvin, S.B. *et al*, *Talanta*, 1972, **19**, 1437 (*detn, rare earth elements*)

2-[[7-[(3-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9CI

C-00036

3-(2-Carboxyphenylazo)-6-(3-carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid
[26075-06-9]



$C_{24}H_{16}N_4O_{12}S_2$ M 616.542

Used as a 0.05 or 0.1% aq. soln. for photometric detn. of Ba, Ca, La (λ_{\max} 720 nm), Sr, Yb (λ_{\max} 720 nm). Dark red cryst. powder. Sol. H_2O . pK_{a5} 9.83; pK_{a6} 14.61.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1460; 1971, **26**, 297

(*detn, Ba, Ca, Sr, La, Yb*)

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (pK_a)

2-[[7-[(4-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9CI

C-00037

3-(2-Carboxyphenylazo)-6-(4-carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid
[27963-21-9]

$C_{24}H_{16}N_4O_{12}S_2$ M 616.542

Used as a 0.1% aq. soln. in for photometric detn. of La (λ_{\max} 720 nm), Yb (λ_{\max} 720 nm). Dark red cryst. powder. Sol. H_2O . pK_{a5} 9.9; pK_{a6} 14.54.

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (pK_a)

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 297 (*detn, La, Yb*)

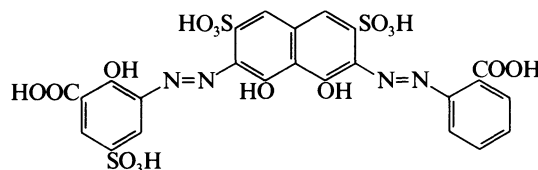
Perisic-Janic, N.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 208 (*spectra*)

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1452 (*detn, La*)

3-[[7-[(2-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfobenzoic acid

C-00038

3-[[7-[(o-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-5-sulfosalicylic acid, 8CI. 3-(2-Carboxyphenylazo)-6-(3-carboxy-2-hydroxy-5-sulfophenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid
[24921-21-9]



$C_{24}H_{16}N_4O_{16}S_3$ M 712.606

Used as a 0.1 or 0.05% aq. soln. for photometric detn. of Ba (λ_{\max} 630 nm, ϵ 37000), Ca (λ_{\max} 650 nm, ϵ 44000), Mg (λ_{\max} 645 nm, ϵ 50000). Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177 (*detn, Ba, Ca, Mg*)

(4-Carboxyphenyl)chloromercury, 9CI **C-00039**

4-Carboxyphenylmercury chloride. p-Chloromercuribenzoic acid
[59-85-8]



$C_7H_5ClHgO_2$ M 357.158

Reagent for detn. of thiol groups. Enzyme inhibitor. Used for photometric investigation of thiol function in enzyme catalysis, studies of mercaptide formation. Mp 273°.

▷ OV8050000.

Me ester: [20883-45-8]. (4-Carbomethoxyphenyl)chloromercury. Chloro[(4-methoxycarbonyl)phenyl]mercury

Cryst. (EtOH or EtOAc). Mp 259°, Mp 253.4-255.8°.

Nesmeyanov, A.N. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1931, **598**, 1162; *CA*, **26**, 4028, 5295 (*synth*)

Whitmore, F.C. *et al*, *Org. Synth., Coll. Vol.*, 1, 1941 (*synth*)

Boyer, P.D., *J. Am. Chem. Soc.*, 1954, **76**, 4331 (*use*)

Sipos, J.C. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 2579.

Wilson, N.K. *et al*, *J. Magn. Reson.*, 1976, **21**, 437 (*cmr*)

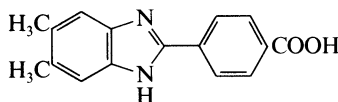
Fedorov, L.A. *et al*, *J. Struct. Chem. (Engl. Transl.)*, 1978, **19**, 549 (*pmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CHU500.

2-(4-Carboxyphenyl)-5,6-dimethylbenzimidazole **C-00040**

4-(5,6-Dimethyl-1H-benzimidazol-2-yl)benzoic acid, 9CI
CDB

[137856-09-8]



$C_{16}H_{14}N_2O_2$ M 266.299

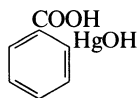
Pre-column derivatisation reagent for hplc anal. of alcohols. Amorph. Mp > 300°.

Katayama, M. *et al*, *J. Chromatogr.*, 1991, **585**, 219 (*synth, use*)

(2-Carboxyphenyl)hydroxymcury, 9CI **C-00041**

o-(Hydroxymercuri)benzoic acid

[14066-61-6]



$C_7H_6HgO_3$ M 338.713

Reagent used as the sodium salt for the mercurimetric detn. of thiols and other org. compds. Cryst. Sol. H_2O , alkalis.

▷ Highly toxic.

Haley, T.J. *et al*, *J. Am. Pharm. Assoc.*, 1946, **35**, 179 (*synth*)

Wroński, M., *Analyst (London)*, 1958, **83**, 314 (*detn, S²⁻*)

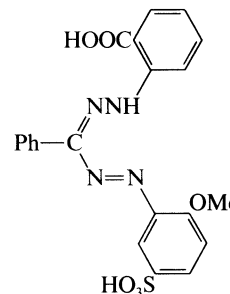
Wroński, M., *Fresenius' Z. Anal. Chem.*, 1964, **206**, 352 (*use*)

Wroński, M., *Talanta*, 1977, **24**, 347 (*use, rev*)

1-(2-Carboxyphenyl)-5-[1-(2-methoxy-5-sulfophenyl)]-3-phenylformazan **C-00042**

o-[1-(2-Methoxy-5-sulfophenyl)-3-phenyl-5-formazano]benzoic acid, 8CI

[21564-05-6]



$C_{21}H_{18}N_4O_6S$ M 454.462

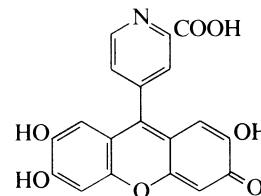
Used as EtOH soln. for photometric detn. of Cu (λ_{max} 580 nm, ϵ 21000), Co, Ni, Pb. Cryst. Sol. EtOH, DMF. pK_{a1} 3.6; pK_{a2} 14.4.

Uchiumi, A. *et al*, *Nippon Kagaku Kaishi, Pure. Chem. Sect.*, 1968, **89**, 776 (*synth, detn, Cu*)

9-(2-Carboxy-4-pyridyl)fluorone **C-00043**

4-(2,6,7-Trihydroxy-3-oxo-3H-xanthen-9-yl)-2-pyridinecarboxylic acid, 9CI

[58093-08-6]



$C_{19}H_{11}NO_7$ M 365.298

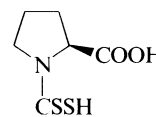
Used as 1mM EtOH soln. for photometric detn. of V(IV) (λ_{max} 595 nm, ϵ 17000, 30% EtOH, pH 4.7-5.2). Cryst. (EtOH). Sol. EtOH.

Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 289 (*detn, V*)

2-Carboxy-1-pyrrolidinecarbodithioic acid **C-00044**

l-(Dithiocarboxy)proline, 9CI. 1,1-Dithio-1,2-pyrrolidinedicarboxylic acid, 8CI

[15475-98-6]



$C_6H_9NO_2S_2$ M 191.275

(S)-form [7250-31-9]

L-form

Used for simultaneous photometric detn. of Co (λ_{max} 324 nm, ϵ 25000) and Ni (ϵ 35000). Cryst. (H_2O). Sol. H_2O , alkalis; insol. C_6H_6 .

K salt: Used as metallochromic indicator in titrimetric detn. of Hg. Hygroscopic cryst. (MeOH/2-methylpropanol).

[49540-66-1, 130671-44-2, 130792-64-2, 137476-43-8]

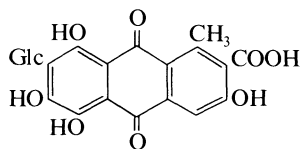
Bode, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1967, **226**, 49.

Kitagawa, T. *et al*, *CA*, 1978, **88**, 57938h (*detn, Co, Ni*)

Woon, T.C. *et al*, *Aust. J. Chem.*, 1981, **34**, 2039 (*synth*)

Carmine red

7-Glucopyranosyl-3,4,5,8-tetrahydroxy-1-methylanthraquinone-2-carboxylic acid. *Carminic acid*. Natural red 4. C. I. 75470. Cochineal [1260-17-9]



$C_{22}H_{20}O_{13}$ M 492.392

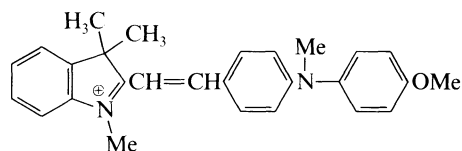
Isol. from cochineal, obt. from the dried female bodies of the insect *Dactylopius coccus*. Antitumour agent. Dyestuff. Used as 0.025% soln. in conc. H_2SO_4 for photometric and fluorimetric detn. of B; gives colour reactions with Mg, Ge, Pb, Zr, Th, Mo, U. Red cryst. Sol. H_2O , EtOH; sl. sol. Et_2O .

Octa-Ac: Cryst. Mp 189-190° dec.

Goriushina, V.G. *et al*, *Zavod. Lab.*, 1957, **23**, 781 (use)
 Callicoat, D.L. *et al*, *Anal. Chem.*, 1959, **31**, 1434 (detn, B)
 Nemodruk, A.A. *et al*, *Analytical Chemistry of Boron*, Nauka, Moscow, 1964 (detn, B)
 Bhatia, S.B. *et al*, *Indian J. Chem.*, 1965, **3**, 92.
 Mihail, N. *et al*, *Naturwissenschaften*, 1970, **57**, 500 (pharmacol)
 Flechon, J. *et al*, *Bull. Soc. Chim. Fr.*, 1976, 739 (use)
 Rosenfeld, H.J. *et al*, *Analyst (London)*, 1979, **104**, 983 (use)
 Lloyd, A.G., *Food Chem.*, 1980, **5**, 91 (rev)
 Eisner, T. *et al*, *Science (Washington, D.C.)*, 1980, **208**, 1039 (use)
 Fiecchi, A. *et al*, *J. Org. Chem.*, 1981, **46**, 1511 (config)
 Ishida, T. *et al*, *Acta Crystallogr., Sect. C*, 1987, **43**, 1541 (cryst struct, bibl)
 Allevi, P. *et al*, *J. Chem. Soc., Chem. Commun.*, 1991, 1319 (synth, bibl)

Cationic red violet

2-[2-[4-[(4-Methoxyphenyl)methylamino]phenyl]ethenyl]-1,3,3-trimethyl-3H-indolium(1+), 9CI [47644-41-7]



$C_{27}H_{29}N_2O^{\oplus}$ M 397.539 (ion)

Basic cyanine dye. The name Cationic red violet is also used for the ethoxy analogue.

Chloride:

$C_{27}H_{29}ClN_2O$ M 432.992

Used as 1mM aq. MeOH soln. for extraction-photometric detn. of Tl(III) (λ_{max} 540 nm, ϵ 85000, isopentyl acetate); as 1mM aq. soln. for photometric detn. of Pb (λ_{max} 536 nm, ϵ 35000). Brown-red cryst. (MeOH). Sol. H_2O , MeOH.

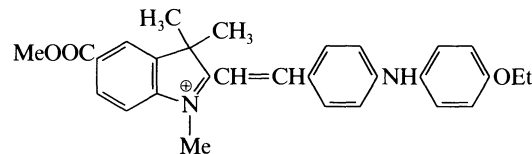
[72894-24-7, 125232-90-8]

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1636; 1989, **44**, 313 (detn, Tl, Pb)

C-00045

Cationic violet

2-[2-[4-[(4-Ethoxyphenyl)amino]phenyl]ethenyl]-5-(methoxycarbonyl)-1,3,3-trimethyl-3H-indolium(1+), 9CI [123865-13-4]



$C_{29}H_{31}N_2O_3^{\oplus}$ M 455.575 (ion)

Chloride:

$C_{29}H_{31}ClN_2O_3$ M 491.028

Used as 1mM aq. soln. for extraction-photometric detn. of Tl(III) (λ_{max} 560 nm, ϵ 128000). Brown red cryst. Sol. H_2O .

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1636 (detn, Tl)

Cellex P

[73413-02-2]

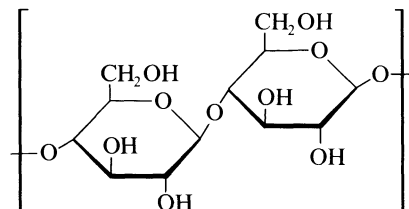
Cellulose ion-exchanger with phosphonic groups. Used for separation by cation-exchange chromatography of Bi, Fe, Mn, Pb from various accompanying elements. Amorph. powder.

Brajter, K. *et al*, *Fresenius' Z. Anal. Chem.*, 1985, **320**, 142 (use)

C-00048

Cellulose, 9CI, 8CI

[9004-34-6]



$C_6H_{10}O_5$ M 162.142

An unbranched polymer composed of 1,4 β -linked glucopyranose units. Polymeric. Minimum formula given. The most abundant organic material found in plants forming the principal constit. of their cell walls giving them structural strength. Cotton is almost pure cellulose. Wood is the most important industrial source. Basic material for textile and paper manuf. Used in the isoln. of heavy metals. Insol. H_2O , most solvs., but forms sol. complexes in conc. aq. $ZnCl_2$, copper-amine solutions and with Fe sodium tartrate solution.

Ac: [9004-35-7]. *Cellulose acetate*, 9CI

Used in manuf. of photographic film, gramophone discs, lacquers and fibres.

Nitrate: [9004-70-0]. *Nitrocellulose*. *Collodion cotton*. *Collodion wool*. *Colloxylin*

Used in explosives (propellants), lacquers, adhesives, plastics (e.g. Celluloid).

► Flammable solid. QW0975180.

Xanthate: [9032-37-5]. *Cellulose xanthate*

Used in manuf. of viscose rayon.

Per-Me: *Methyl cellulose*

Defoamer, adhesive, thickener, nontoxic food additive and veterinary laxative. Used as sensitising surfactant in photometric detn. of transition metal ions (with Bromopyrogallol Red).

Carboxymethyl ether: [9004-32-4]. *Carboxymethyl cellulose*

Surfactant. Used as Na salt to increase the sensitivity of the photometric detn. of Cd, Cu, Mn, Zn with Bromogallol Red. Amorph. powder. Sol. H₂O. Mp > 300°.

- Ott, E. *et al*, *Cellulose and Cellulose Derivatives*, Wiley Interscience, 1954.
 Whistler, R.L. *et al*, *Methods Carbohydr. Chem.*, 1963, **3**, 3.
 Timell, T.E., *Methods Carbohydr. Chem.*, 1965, **5**, 100 (*synth*)
 Ward, K. *et al*, *The Carbohydrates*, (Pigman, W. *et al*, Ed.), Academic Press, 1970, **2A**, 413.
 Baker, R.H. *et al*, *High Polym.*, 1971, **5**, 181.
 Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals. General Aspects*, Wiley, NY, 1978.
 Xu, Q. *et al*, *Fenxi Huaxue*, 1985, **13**, 170; *CA*, **103**, 204989j (*carboxymethyl ether*)
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 33.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 233.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CCU150, CCU250, CNH000, SFO500.

Chitosan**C-00050**

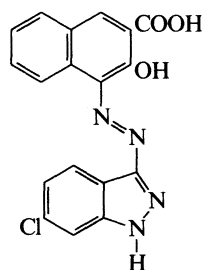
Poly(1,4-β-D-glucopyranosamine), 9CI
 [9012-76-4]

Polymer consisting of deacetylated chitin and *N*-acetylated chitan where the deacetylation or *N*-acetylation is partial or unspecified. Used as a collector for precipitation separation of trace metals. Leaflets. Sol. dil. formic acid, AcOH; insol. H₂O, mineral acids. Prepd. from chitin.

Muzzarelli, R.A.A., *Anal. Chim. Acta*, 1969, **44**, 234 (*use*)

Chlorindazon C**C-00051**

4-[(6-Chloro-1*H*-indazol-3-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, 9CI
 [27801-08-7]



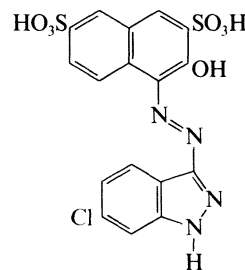
C₁₈H₁₁ClN₄O₃ M 366.763

Used as a 0.01% soln. in EtOH/dil. NH₃ for photometric detn. of Ca (λ_{max} 586nm, ε 18800). Orange cryst. Sol. alkalis.

Schwepe, Z., *Fresenius' Z. Anal. Chem.*, 1969, **244**, 310 (*synth*)
 Lau, O.W. *et al*, *Mikrochim. Acta*, 1980, **1**, 465 (*detn*, Ca)

Chlorindazon DS**C-00052**

4-[(6-Chloro-1*H*-indazol-3-yl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, 9CI
 [23287-85-6]



C₁₇H₁₁ClN₄O₇S₂ M 482.881

Used as a 0.1% soln. in aq. NH₃ for photometric detn. of Co (λ_{max} 638 nm, ε 32500) Cu, Ni. Orange cryst. (H₂O). Sol. H₂O, alkalis; spar. sol. EtOH, Me₂CO, Et₂O.

Molch, O. *et al*, *Z. Chem.*, 1974, **14**, 369, 408 (*detn*, Cu, Ni)
 Cham, S.F. *et al*, *Mikrochim. Acta*, 1979, **1**, 241 (*detn*, Co)

Chloroacetaldehyde, 9CI**C-00053**

Chloroethanal
 [107-20-0]

ClCH₂CHO

C₂H₃ClO M 78.498

Derivatisation reagent for adenosine and adenine giving fluorescent derivatives for anal. Fp -16.3° (40% soln.). Bp 85°. Polymerises on standing. Forms a hydrate.

▷ Highly irritant, TLV 3. AB2450000.

Di-Me acetal: [97-97-2]. *2-Chloro-1,1-dimethoxyethane. Dimethylchloroacetal*

C₄H₉ClO₂ M 124.567
 Bp 140°.

▷ Highly flammable.

Oxime: [51451-05-9].

C₂H₄ClNO M 93.512
 Bp₂₀ 61°.

▷ May explode on distillation.

Semicarbazone: Mp 148° (134-135°) dec.

Chanon, M. *et al*, *Bull. Soc. Chim. Fr.*, 1968, 2842 (*synth*)

Yasnitskii, B.G. *et al*, *CA*, 1972, **76**, 13737q (*synth*)

Zaitsev, A.P. *et al*, *CA*, 1972, **76**, 24659s (*synth*)

Gordon, J.L. *et al*, *Biochem. J.*, 1974, **138**, 165 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 106.

Ullmanns Encykl. Tech. Chem., 4. Aufl., 1975, **9**, 373 (*rev*)

Sonoki, S. *et al*, *J. Chromatogr.*, 1989, **475**, 311 (*use*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 237.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CDY500.

Chloroacetic acid, 9CI**C-00054**

Chloroethanoic acid
 [79-11-8]

ClCH₂COOH

C₂H₃ClO₂ M 94.497

Postemergence contact herbicide (usually as Na salt).

Cryst. in three forms. V. sol. H₂O, sol. org. solvs. Mp 61.3° (α-form), Mp 56.2° (β-form), Mp 52.5° (γ-form). Bp 189°. pK_a 2.87 (25°).

▷ Highly irritant, causes severe burns. AF8575000.

Me ester: Methyl chloroacetate

$C_3H_5ClO_2$ M 108.524
 d_4^{20} 1.234. Mp -32.1° . Bp 130° . n_D^{20} 1.4218.

▷ Irritant, flammable.

Ph ester: Phenyl chloroacetate

$C_8H_7ClO_2$ M 170.595
 Needles or plates (EtOH). Mp $44-45^\circ$. Bp $230-235^\circ$.

Chloride: see *Chloroacetyl chloride*, C-00056

Bromide: Chloroacetyl bromide

C_2H_2BrClO M 157.394
 d_4^9 1.913. Bp 127° , $133-135^\circ$.

Anhydride:

$C_4H_4Cl_2O_3$ M 170.979
 Reagent for *N*-acylation of aminoacids. Derivatisation reagent for gc anal. of phenols and steroids. Cryst. (C_6H_6). Mp 46° ($56-58^\circ$). Bp 203° , Bp₁₀ 110° .

Anilide: α -Chloroacetanilide

C_8H_8ClNO M 169.610
 Needles. Mp $136-137^\circ$. Sublimes.

Hydrazide:

$C_2H_5ClN_2O$ M 108.527
 Reagent for generation of diimide. Mp 150° dec.

Imide: N-Chloroacetylchloroacetamide. sym-

Dichlorodiacetamide
 $C_4H_5Cl_2NO_2$ M 169.994
 Needles (Me_2CO). Sol. hot H_2O . Mp 195° .

Pickering, S.U., *J. Chem. Soc.*, 1895, **67**, 664.

Simon, L.J. *et al.*, *C. R. Hebd. Seances Acad. Sci.*, 1923, **176**, 309.

Lyubarskii, L.D., *CA*, 1935, **29**, 2509 (*synth*)

Van der Molen, H.J. *et al.*, *Steroids*, 1965, **6**, 195 (*use, anhydride*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 129, 130.

Argauer, R.J., *Anal. Chem.*, 1968, **40**, 122 (*use, anhydride*)

Kanters, J.A. *et al.*, *Acta Crystallogr., Sect. B*, 1976, **32**, 3331 (*cryst struct*)

Kalyanaraman, B. *et al.*, *J. Chem. Soc., Chem. Commun.*, 1976, 715 (*cryst struct*)

Pesticide Manual, 6th Ed., 1979, 105.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 238.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CEA000.

2-Chloroacetophenone, 8CI

C-00055

2-Chloro-1-phenylethanone, 9CI. Phenacyl chloride.

Chloromethyl phenyl ketone. Benzoylchloromethane
 [532-27-4]



C_8H_7ClO M 154.595

Reagent for the detn. of nitro compds. Leaflets (pet. ether). Mp 54° . Bp₁₄ $139-141^\circ$.

▷ AM6300000.

Oxime: [21572-32-7].

C_8H_8ClNO M 169.610
 Mp $88.5-90^\circ$.

Semicarbazone: Mp 156° .

2,4-Dinitrophenylhydrazone: Mp $214-215^\circ$ dec.

Schaefer, J.P. *et al.*, *J. Org. Chem.*, 1963, **28**, 1128 (*synth*)

Duhamel, P. *et al.*, *C. R. Hebd. Seances Acad. Sci.*, 1964, **258**, 3872 (*synth*)

Legradi, L., *Mikrochim. Acta*, 1968, 739 (*use*)

Kajigaeshi, S. *et al.*, *Synthesis*, 1988, 545 (*synth, ir, pmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CEA750.

Chloroacetyl chloride, 9CI

C-00056

[79-04-9]



$C_2H_2Cl_2O$ M 112.943

Used for prep. of *N*-chloroacetyl protected aminoacid derivs.; intermed. in conversion of primary amines to aziridines. Derivatisation reagent for gc anal. of phenols. d_4^0 1.495. Bp $108-110^\circ$.

▷ Highly irritant, lachrymator, causes severe burns. TLV 0.2. Emits highly toxic fumes when heated to dec.. AO6475000.

Adams, R. *et al.*, *J. Am. Chem. Soc.*, 1920, **42**, 599 (*synth*)

Barnett, E. *et al.*, *Chem. News*, 1921, **122**, 220; *CA*, **15**, 2627 (*synth*)

Uspenskaya, I.N. *et al.*, *CA*, 1971, **74**, 12784z (*synth*)

Yasnitskii, B.G. *et al.*, *CA*, 1972, **76**, 13755u (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1972, **3**, 46.

McCallum, N.K. *et al.*, *J. Chromatogr.*, 1973, **78**, 303 (*use*)

Middleton, W.J., *J. Org. Chem.*, 1979, **44**, 2291 (*synth*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 239.

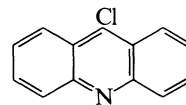
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CEC250.

9-Chloroacridine, 9CI

C-00057

ms-Chloroacridine

[1207-69-8]



$C_{13}H_8ClN$ M 213.666

Colorimetric reagent for aromatic amines, hydroxylamines and sulphonamides. Yellow needles (EtOH or C_6H_6). Mp 120° . Sublimes. Boiling $H_2O \rightarrow$ Acridone.

Org. Synth., Coll. Vol., 3, 1955, 53.

Stewart, J.T. *et al.*, *J. Pharm. Sci.*, 1969, **58**, 1261; 1970, **59**, 838 (*use*)

Gammons, R.E. *et al.*, *Anal. Chem.*, 1974, **46**, 620 (*use*)

Stewart, J.T. *et al.*, *J. Chromatogr.*, 1974, **92**, 182 (*use*)

Achari, A. *et al.*, *Acta Crystallogr., Sect. B*, 1977, **33**, 3269 (*cryst struct*)

Jaycox, G.D. *et al.*, *J. Heterocycl. Chem.*, 1987, **24**, 1405 (*synth, pmr, w*)

2-Chloroaniline

C-00058

2-Chlorobenzenamine, 9CI

[95-51-2]



C_6H_6ClN M 127.573

Liq. d_4^{20} 1.21. Fp -2° . Bp 208.8° . Steam-volatile.

▷ Highly toxic by inhalation and in contact with skin. BX0525000.

N-Formyl: [2596-93-2]. *o-Chloroformanilide*

Leaflets (ligroin). Mp 77° .

N-Ac: [533-17-5]. *o-Chloroacetanilide. N-(2-Chlorophenyl)acetamide, 9CI*

C_8H_8ClNO M 169.610

Used as 2% soln. in C_6H_6 for extraction-photometric detn. of W (with SCN^{\ominus} ; λ_{max} 405 nm, ϵ 9300). Needles ($AcOH$ aq.). Sol. C_6H_6 . Mp 88° .

N-Benzoyl:

$C_{13}H_{10}ClNO$ M 231.681

Needles. Mp 99° .

N-4-Methylbenzenesulfonyl: Mp 105°.

N-Benzylidene: [884-29-7].

Yellowish needles (pet. ether). Mp 34°.

N-Carboxy: o-Chlorophenylurethane. Ethyl 2-chlorocarbanilate

$C_9H_{10}ClNO_2$ M 199.636

Liq. Bp₄₂ 170-172°.

N-Me: [932-32-1].

C_7H_8ClN M 141.600

Bp 218°, Bp₁₂ 95-96°.

N-Di-Me: [698-01-1].

$C_8H_{10}ClN$ M 155.626

Bp 207-208°.

N-Et: [13519-74-9].

$C_8H_{10}ClN$ M 155.626

Bp 219°.

Chattaway, F.D. *et al.*, *Ber.*, 1900, **33**, 2396; *J. Chem. Soc.*, 1901, 465 (*derivs*)

Ho, T.-L. *et al.*, *Synthesis*, 1974, 45 (*synth*)

Červená, I. *et al.*, *Collect. Czech. Chem. Commun.*, 1976, **41**, 881 (*synth*)

Mishra, N. *et al.*, *Analyst (London)*, 1987, **112**, 1131 (*detn. W*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 239.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CEH670.

3-Chloroaniline

C-00059

3-Chlorobenzenamine, 9CI

[108-42-9]

C_6H_6ClN M 127.573

Reagent for the detn. of sulfonyl chlorides by indirect potentiometric titration. Liq. d_{15}^{25} 1.2225. Mp -10.4°. Bp 230.5°, Bp₂₁ 118.5°.

▶ Highly toxic by inhalation and in contact with skin. BX0350000.

N-Me: [7006-52-2].

C_7H_8ClN M 141.600

Liq. Bp 235°.

N-Di-Me: [6848-13-1].

$C_8H_{10}ClN$ M 155.626

Liq. Bp 234° (251-252°).

N-Et: [15258-44-3].

$C_8H_{10}ClN$ M 155.626

Liq. Bp 243-244°.

N-Di-Et: [6375-75-3].

$C_{10}H_{14}ClN$ M 183.680

Liq. Bp₇₄₀ 248-249°.

N-Formyl: [139-71-9]. m-Chloroformanilide

C_7H_6ClNO M 155.583

Cryst. Mp 57.8°.

N-Ac: [588-07-8]. m-Chloroacetanilide

C_8H_8ClNO M 169.610

Needles. Mp 79°.

▶ AE1000100.

N-Benzoyl:

$C_{13}H_{10}ClNO$ M 231.681

Mp 118°.

N-4-Methylbenzenesulfonyl: Mp 138°.

N-Carboxy: [13400-54-9]. m-Chlorophenylurethane.

Ethyl 3-chlorocarbanilate

Bp 200-201°.

N-Benzylidene: [780-21-2].

$C_{13}H_{10}ClN$ M 215.681

Viscous oil. Bp 338°.

Johnson, W.S. *et al.*, *J. Am. Chem. Soc.*, 1949, **71**, 1901 (*synth*)

Watanabe, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 1478 (*synth*)

Allan, D.W. *et al.*, *Anal. Chem.*, 1982, **54**, 349 (*use*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 239.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CEH675.

4-Chloroaniline

C-00060

4-Chlorobenzenamine, 9CI

[106-47-8]

C_6H_6ClN M 127.573

Prisms. Mp 70-71°. Bp 232°.

▶ Highly toxic by inhalation and in contact with skin.

BX0700000.

B,HCl: Mp 69-70°.

N-Formyl: [2617-79-0]. p-Chloroformanilide

C_7H_6ClNO M 155.583

Plates (H₂O). Mp 102°.

N-Ac: [539-03-7]. p-Chloroacetanilide. N-(4-Chlorophenyl)acetamide, 9CI

C_8H_8ClNO M 169.610

Used as 2% soln. in C₆H₆ for extraction-photometric detn. of W (with SCN⁻; λ_{max} 405 nm, ϵ 12400). Needles or plates. Sol. C₆H₆. Mp 178.4°, Mp 172-173°.

▶ AE1001000.

N-Benzoyl:

$C_{13}H_{10}ClNO$ M 231.681

Mp 192-193°.

N-(4-Methylbenzenesulfonyl): Mp 95°.

N-Benzylidene: [7519-65-5].

$C_{13}H_{10}ClN$ M 215.681

Mp 62°.

N-Carboxy: p-Chlorophenylurethane. Ethyl 4-chlorocarbanilate

Plates (EtOH). Mp 68°.

N-Me: [932-96-7].

C_7H_8ClN M 141.600

Bp 240°.

N-Di-Me: [698-69-1].

$C_8H_{10}ClN$ M 155.626

Mp 35.5°. Bp 231°.

N-Et:

$C_8H_{10}ClN$ M 155.626

Bp 247-250°, Bp₅ 108-110°.

Org. Synth., Coll. Vol., 4, 1963, 420 (*deriv*)

Trotter, J. *et al.*, *J. Chem. Soc. A*, 1966, 353 (*cryst struct*)

Watanabe, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 1478 (*synth*)

Des Abbayes, H. *et al.*, *J. Am. Chem. Soc.*, 1977, **99**, 98 (*synth*)

Ploug-Soerensen, E. *et al.*, *Acta Crystallogr., Sect. C*, 1985, **41**, 613 (*cryst struct*)

Mishra, N. *et al.*, *Analyst (London)*, 1987, **112**, 1131 (*detn. W*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 239.

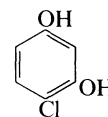
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CDZ100, CEH680.

4-Chloro-1,3-benzenediol, 9CI

C-00061

4-Chlororesorcinol, 8CI

[95-88-5]



$C_6H_5ClO_2$ M 144.557

Used as 5% aq. soln. for photometric detn. of Zn (λ_{max} 640 nm). Cryst. (C₆H₆). Mp 89°, Mp 105°. Bp₁₈ 147°.

▶ VH0450000.

Di-Ac: [25173-17-5].

$C_{10}H_9ClO_4$ M 228.631

Mp 46-47°.

3-Me ether: [18113-07-0]. 4-Chloro-3-methoxyphenol

$C_7H_7ClO_2$ M 158.584

Cryst. mass. Mp 79-80°. Bp₁₃ 141-152°.

Di-Me ether: [7051-13-0]. 1-Chloro-2,4-dimethoxybenzene

$C_8H_9ClO_2$ M 172.611

Bp₁₇ 135-137°.

v. Auwers, K. et al, *Justus Liebigs Ann. Chem.*, 1914, **405**, 243 (bibl)

Clark, B.F., *J. Am. Chem. Soc.*, 1933, **55**, 319 (synth)

Moore, M.L. et al, *J. Am. Chem. Soc.*, 1934, **56**, 2456.

Petyunin, P.A., *J. Gen. Chem. USSR (Engl. Transl.)*, 1944, **14**, 203; *CA*, **39**, 2285 (synth)

Stewart, J.A. et al, *Anal. Chem.*, 1958, **30**, 404 (detn, Zn)

Davonst, D. et al, *Org. Magn. Reson.*, 1978, **11**, 547 (nmr)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CLD750.

Cryst. Mp 156°.

N-(2-Methylphenyl): [34661-23-9]. 2-Chloro-N-hydroxy-N-(2-methylphenyl)benzamide, 9CI. N-o-Tolyl-o-chlorobenzohydroxamic acid

$C_{14}H_{12}ClNO_2$ M 261.707

Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 505 nm, ϵ 3800, 4M HCl). Cryst. Sol. CHCl₃, C₆H₆.

N-(3-Methylphenyl): [34661-32-0]. 2-Chloro-N-hydroxy-N-(3-methylphenyl)benzamide, 9CI

Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 530 nm, ϵ 4150, 4M HCl). Cryst. Sol. CHCl₃, C₆H₆.

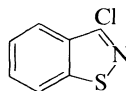
Gupta, V.K. et al, *J. Indian Chem. Soc.*, 1971, **48**, 753 (synth, oxime)

Gupta, V.K. et al, *Anal. Chim. Acta*, 1973, **66**, 39 (detn, V)

Konaje, A.C. et al, *Indian J. Chem., Sect. B*, 1979, **17**, 275 (synth)

3-Chloro-1,2-benzisothiazole, 9CI

[7716-66-7]



C_7H_4ClNS M 169.634

Cryst. (EtOH). Mp 40°.

S,S-Dioxide: [567-19-1]. γ -Saccharin chloride

$C_7H_4ClNO_2S$ M 201.633

Peptide condensing agent. Reagent for characterization of alcohols. Needles (Et₂O). Mp 143°.

Rieissert, A., *Ber.*, 1928, **61**, 1680 (synth)

Meadow, J.R. et al, *J. Am. Chem. Soc.*, 1943, **65**, 457 (dioxide, synth, use)

Bohme, H. et al, *Fresenius' Z. Anal. Chem.*, 1953, **139**, 255 (use)

Stephen, E. et al, *J. Chem. Soc.*, 1957, 490 (synth, dioxide)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 990 (use)

Hettler, H. et al, *Org. Mass Spectrom.*, 1969, **2**, 1117 (ms, dioxide)

Carrington, D.E.L. et al, *J. Chem. Soc. C*, 1971, 3262, 3903.

Selva, A., *Org. Mass Spectrom.*, 1973, **7**, 327 (ms)

Arya, V.P. et al, *Indian J. Chem., Sect. B*, 1977, **15**, 720 (synth, dioxide)

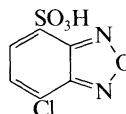
Yevich, J.P. et al, *J. Med. Chem.*, 1986, **29**, 359 (synth)

7-Chloro-4-benzofurazansulfonic acid, 9CI

C-00063

7-Chloro-2,1,3-benzoxadiazole-4-sulfonic acid

[81377-20-0]



$C_6H_3ClN_2O_4S$ M 234.619

NH₄ salt: [81377-14-2].

Fluorogenic reagent for thiols. Mp > 330° dec.

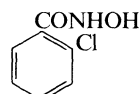
Andrews, J.L. et al, *Arch. Biochem. Biophys.*, 1982, **214**, 386 (synth, use)

2-Chlorobenzohydroxamic acid

C-00064

2-Chloro-N-hydroxybenzamide, 9CI

[17512-69-5]



$C_7H_6ClNO_2$ M 171.583

4-Chlorobenzohydroxamic acid

C-00065

4-Chloro-N-hydroxybenzamide, 9CI

[1613-88-3]

$C_7H_6ClNO_2$ M 171.583

Used as EtOH soln. for photometric detn. of V(V) (λ_{max} 450 nm). Cryst. (EtOH aq.). Sol. EtOH, Me₂CO, CHCl₃, Mp 186-187°.

N-(2-Methylphenyl): [34661-21-7]. 4-Chloro-N-hydroxy-N-(2-methylphenyl)benzamide, 9CI. N-o-Tolyl-p-chlorobenzohydroxamic acid

$C_{14}H_{12}ClNO_2$ M 261.707

Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 505 nm, ϵ 5200; 4M HCl). Cryst. Sol. CHCl₃, C₆H₆.

N-(3-Methylphenyl): [32939-57-4]. 4-Chloro-N-hydroxy-N-(3-methylphenyl)benzamide, 9CI. N-m-Tolyl-p-chlorobenzohydroxamic acid

Used as 2% CHCl₃ soln. for extraction-photometric detn. of Bi (λ_{max} 530 nm, ϵ 20000). Cryst. Sol. CHCl₃, C₆H₆.

N-(4-Methylphenyl): [29556-29-4]. 4-Chloro-N-hydroxy-N-(4-methylphenyl)benzamide, 9CI

Used as a 0.1% soln. in CHCl₃ for extraction-photometric detn. of Ce (λ_{max} 460 nm, ϵ 4500). Cryst. (C₆H₆/pet. ether). Sol. common org. solvs. Mp 166°.

Bass, V.C. et al, *Talanta*, 1966, **13**, 735 (detn, V)

Agrawal, Y.K. et al, *J. Chem. Eng. Data*, 1971, **16**, 371 (synth, deriv)

Gupta, V.K. et al, *J. Indian Chem. Soc.*, 1971, **48**, 753 (synth, deriv)

Gupta, V.K. et al, *Anal. Chim. Acta*, 1973, **66**, 39 (detn, V)

Agrawal, Y.K. et al, *Pol. J. Chem. (Rocz. Chem.)*, 1976, **50**, 795 (props)

Patel, S.A. et al, *Microchem. J.*, 1980, **25**, 48 (detn, Ce)

Agrawal, Y.K. et al, *Analyst (London)*, 1984, **109**, 1287 (detn, Bi)

Nagarajan, K. et al, *Indian J. Chem., Sect. B*, 1991, **30**, 222 (synth)

2-Chlorobenzoic acid

C-00066

[118-91-2]



$C_7H_5ClO_2$ M 156.568

Used for gravimetric detn. of Ga; used as 2-chlorobenzoate buffer (pH 4.5) for extraction-photometric detn. of U(VI) (λ_{max} 555 nm). Cryst. (toluene). Sol. H₂O, EtOH, Et₂O. Mp 142°. pK_a 2.90 (25°). Sublimes.

▷ DG4976000.

Me ester: [610-96-8].

$C_8H_7ClO_2$ M 170.595
Bp 234°.

Et ester: [7335-25-3].

$C_9H_9ClO_2$ M 184.622
Bp 243°, Bp₁₅ 122-125°.

Ph ester:

$C_{13}H_9ClO_2$ M 232.666
Mp 37°.

Chloride:

$C_7H_4Cl_2O$ M 175.013
Mp -4°. Bp 235-238°.

Anhydride:

$C_{14}H_8Cl_2O_3$ M 295.121
Needles (EtOH). Mp 78-79°.

Amide: [609-66-5]. 2-Chlorobenzamide

C_7H_6ClNO M 155.583
Mp 142°.

Hydrazide: [5814-05-1].

$C_7H_7ClN_2O$ M 170.598

Used as a 0.1M aq. soln. for extraction-photometric detn. of Ni (λ_{max} 520 nm, $CHCl_3$). Cryst. (Et₂O). Sol. H₂O, EtOH, Me₂CO. Mp 117-118°.

Nitrile: [873-32-5]. 1-Chloro-2-cyanobenzene

C_7H_4ClN M 137.568
Mp 42-43°. Bp 232°.

► Toxic. Gives toxic fumes in contact with water or acid. DI2625000.

Org. Synth., Coll. Vol., 2, 1943, 135 (*synth*)

Sims, P., *J. Chem. Soc.*, 1958, 44 (*synth*)

Agarwal, V.D. *et al*, *Indian J. Phys.*, 1974, 48, 297 (*pmr*)

Popel, A.A. *et al*, *Zh. Anal. Khim.*, 1974, 29, 1008 (*detn*, Ni)

Takai, Y. *et al*, *Acta Crystallogr., Sect. B*, 1975, 31, 2753 (*cryst struct*, amide)

Ho, T.-C. *et al*, *Synthesis*, 1976, 807 (*synth*)

Apak, R. *et al*, *Talanta*, 1989, 36, 993 (*detn*, U)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CEL250, CEM000.

4-Chlorobenzoic acid, 9CI

C-00067

[74-11-3]

$C_7H_5ClO_2$ M 156.568

Reference material used in elemental microanalysis.

Prisms. Mp 243°. pK_a 3.99 (25°). Sublimes.

► DG4976010.

Me ester: [1126-46-1].

$C_8H_7ClO_2$ M 170.595
Mp 44°.

Et ester: [7335-27-5].

$C_9H_9ClO_2$ M 184.622
Bp 238°.

Ph ester:

$C_{13}H_9ClO_2$ M 232.666
Mp 100°.

Chloride: [122-01-0].

$C_7H_4Cl_2O$ M 175.013
Mp 16°. Bp 220-222°.

Anhydride:

$C_{14}H_8Cl_2O_3$ M 295.121
Needles (C₆H₆). Mp 193-194°.

Amide: [619-56-7]. 4-Chlorobenzamide

C_7H_6ClNO M 155.583
Mp 179°.

Hydrazide: [536-40-3].

$C_7H_7ClN_2O$ M 170.598

Cryst. (H₂O). Mp 163°. pK_{a1} 3.02; pK_{a2} 12.09 (NH) (25°).

Nitrile: [623-03-0]. 1-Chloro-4-cyanobenzene

C_7H_4ClN M 137.568

Mp 94-96°. Bp 223°.

► Toxic. Gives toxic fumes on contact with water or acid. DI2800000.

Effenberger, F. *et al*, *Chem. Ber.*, 1964, 97, 480 (*synth*)

Analyst (London), 1972, 97, 740 (*microanal*)

Ho, T.-L. *et al*, *Synthesis*, 1972, 562 (*synth*)

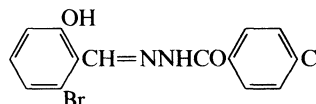
Brunet, J.-J. *et al*, *Tetrahedron Lett.*, 1981, 22, 1013 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CEM250.

4-Chlorobenzoic acid [(2-bromo-6-hydroxyphenyl)methylene]hydrazide, 9CI

C-00068

2-Bromo-6-hydroxybenzaldehyde p-chlorobenzoylhydrazide
[72220-06-5]



$C_{14}H_{10}BrClN_2O_2$ M 353.602

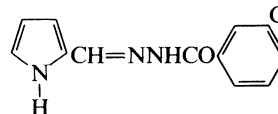
Used as a 1mM soln. in Me₂CO for chemiluminescence detn. of Cr, Ir, Mn, Ru, Os. Cryst. (EtOH). Sol. EtOH, Me₂CO, alkalis; insol. H₂O.

Terletskaya, A.V. *et al*, *Zh. Anal. Khim.*, 1979, 34, 1460 (*use*)

3-Chlorobenzoic acid (1H-pyrrol-2-ylmethylene)hydrazide, 9CI

C-00069

1H-Pyrrole-2-carboxaldehyde 3-chlorobenzoylhydrazide
[93418-23-6]



$C_{12}H_{10}ClN_3O$ M 247.683

Used as 0.01M soln. in 4-methyl-2-pentanone or xylene for extraction separation of Cd, Co, Cu, Ni, Zn (pH 5-9). Cryst. Sol. 4-methyl-2-pentanone, xylene.

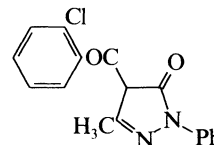
Tossidis, I.A. *et al*, *Chem. Chron.*, 1983, 12, 181 (*synth*)

Arpadjan, S. *et al*, *Analyst (London)*, 1988, 113, 1699 (*use*)

4-(2-Chlorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one, 9CI

C-00070

[73087-87-3]



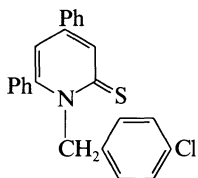
$C_{17}H_{13}ClN_2O_2$ M 312.755

Used as 0.01M C₆H₆ soln. for extraction separation of Lu(III) (pH 1-2). Cryst. (dioxan aq.). Sol. C₆H₆, 1,2-dichloroethane, dioxan. Mp 153°.

Mukai, H. *et al*, *Anal. Chim. Acta*, 1990, 239, 277 (*synth*, use)

1-(*p*-Chlorobenzyl)-4,6-diphenyl-2-pyridinethione

1-[(4-Chlorophenyl)methyl]-4,6-diphenyl-2(1H)-pyridinethione, 9CI
[76950-86-2]



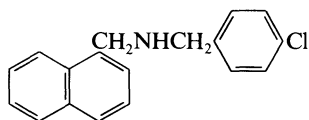
$C_{24}H_{18}ClNS$ M 387.932

Used as a 0.25mM soln. in EtOH for photometric detn. of Hg (λ_{max} 314 nm, ϵ 49000). Yellow cryst. (EtOH). Sol. EtOH, Me₂CO. pK_{a1} 10.58.

Lorenzo, A. *et al*, *Synthesis*, 1980, 853 (*synth*)
Perez Ruiz, T. *et al*, *Mikrochim. Acta*, 1984, 183 (*detn*, Hg)

***N*-(*p*-Chlorobenzyl)-1-naphthalenemethylamine, 8CI**

N-[(4-Chlorophenyl)methyl]-1-naphthalenemethanamine
[14393-17-0]



$C_{18}H_{16}ClN$ M 281.784

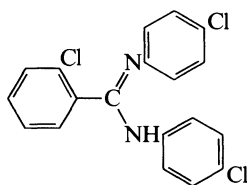
Used as 1% soln. in dil. HCl for gravimetric detn. of NO_3^- .

B, *HCl*: [17018-66-5].
Cryst. Mp 212°.

Hutton, R.C. *et al*, *J. Chem. Soc. A*, 1966, 1573 (*synth*, *detn*, NO_3^-)

2-Chloro-*N,N'*-bis(4-chlorophenyl)benzenecarboximidamide, 9CI

C-00073



$C_{19}H_{13}Cl_3N_2$ M 375.683

B, *HCl*: [113361-92-5].

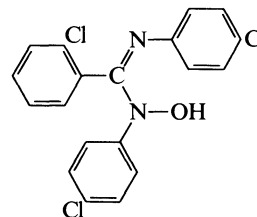
Used as 3mM C_6H_6 soln. for extraction-photometric detn. of Mo (λ_{max} 470 nm, ϵ 17600, 2.5-6.5M HCl). Cryst. (EtOH + HCl). Sol. C_6H_6 , EtOH.

Chandrakar, L.P. *et al*, *Analyst (London)*, 1987, **112**, 1511 (*synth*, *detn*, Mo)

2-Chloro-*N,N'*-bis(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, 9CI

C-00074

2-Chloro-*N,N'*-bis(4-chlorophenyl)-*N*-hydroxybenzamidide



$C_{19}H_{13}Cl_3N_2O$ M 391.683

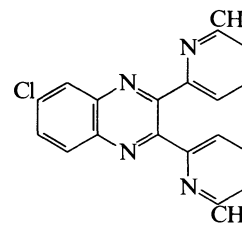
Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 620 nm, ϵ 5350, pH 1-3, in the presence of SCN^-). Cryst. (EtOH). Sol. $CHCl_3$, EtOH.

Chandrakar, L.P. *et al*, *J. Indian Chem. Soc.*, 1984, **61**, 446 (*synth*, *detn*, V)

6-Chloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, 8CI

C-00075

[17401-71-7]



$C_{20}H_{15}ClN_4$ M 346.818

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 529 nm, ϵ 4900, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 108°.

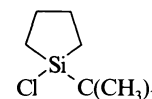
Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth*, *detn*, Cu)

1-Chloro-1-*tert*-butylsilacyclopentane

C-00076

1-Chloro-1-(1,1-dimethylethyl)silacyclopentane, 9CI.
*Cyclotetramethylene-*tert*-butylchlorosilane*

[54925-63-2]



$C_8H_{17}ClSi$ M 176.760

Reagent for derivatising steroids used in gc-ms. Liq. Bp 182-184°.

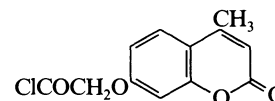
Quilliam, M.A. *et al*, *Steroids*, 1977, **29**, 579 (*synth*, *use*)
Quilliam, M.A. *et al*, *Anal. Chem.*, 1978, **50**, 59 (*use*)

7-(Chlorocarbonylmethoxy)-4-methylcoumarin

C-00077

[(4-Methyl-2-oxo-2H-1-benzopyran-7-yl)oxy]acetyl chloride, 9CI

[91454-65-8]

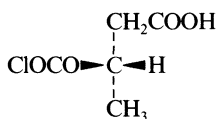


$C_{12}H_9ClO_4$ M 252.653

Fluorescent reagent for the derivatisation of hydroxy compds. Cryst. (EtOAc). Mp 129-130°.

Novotny, M. *et al*, *J. Chromatogr.*, 1984, **292**, 159 (*use*)
Karlsson, K.E. *et al*, *Anal. Chem.*, 1985, **57**, 229 (*synth, use*)

3-[[Chlorocarbonyl]oxy]butanoic acid, 9CI C-00078



$C_5H_7ClO_4$ M 166.561

(*S*)-form

tert-Butyl ester: [129164-62-1].

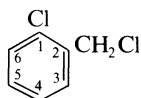
$C_9H_{15}ClO_4$ M 222.668

Derivatisation reagent for resoln. of metoprolol enantiomers.

Ahnoff, M. *et al*, *J. Chromatogr.*, 1990, **506**, 593 (*synth, use*)

1-Chloro-2-(chloromethyl)benzene C-00079

α ,2-Dichlorotoluene. *o*-Chlorobenzyl chloride
[611-19-8]



$C_7H_6Cl_2$ M 161.030

Reagent for gc anal. of ethylenethiourea in plants. Bp 213-214°.

Mayer, F. *et al*, *Justus Liebigs Ann. Chem.*, 1918, **417**, 78 (*synth*)

Olivier, S.C.J., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1922, **41**, 308 (*synth*)

Nash, R.G., *J. Assoc. Off. Anal. Chem.*, 1975, **58**, 566 (*use*)

Yoder, C.H. *et al*, *J. Org. Chem.*, 1976, **41**, 1511 (*cmr*)

Katritzsky, A.R., *Synthesis*, 1979, 437 (*synth*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed.,

Van Nostrand-Reinhold, 1979, 489.

1-Chloro-4-(chloromethyl)benzene C-00080

α ,4-Dichlorotoluene. *p*-Chlorobenzyl chloride
[104-83-6]

$C_7H_6Cl_2$ M 161.030

Used as reagent for spectrophotometric detn. of amines.

Needles. Mp 29°. Bp₆ 122-126°. Sublimes.

▷ XT0720000.

Olivier, S.C.J., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1922, **41**, 307 (*synth*)

Brown, H.C. *et al*, *J. Am. Chem. Soc.*, 1939, **61**, 2142 (*synth*)

Cattanach, C.J. *et al*, *Spectrochim. Acta, Part A*, 1968, **24**, 407 (*ir*)

Yokoyama, T. *et al*, *J. Org. Chem.*, 1969, **34**, 1859 (*nmr*)

Mitani, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1984, **33**, 257; *CA*,

101, 183171c (*use*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed.,

Van Nostrand-Reinhold, 1979, 490.

Chloro(chloromethyl)dimethylsilane, 9CI C-00081

[1719-57-9]



$C_3H_8Cl_2Si$ M 143.087

Reagent for preparing silylated derivs. for gc anal. of alcohols, steroids and cannabinoids. Liq. d_4^{20} 1.08. Bp 113.7-115.2°. n_D^{20} 1.4369.

Krieble, R.H. *et al*, *J. Am. Chem. Soc.*, 1945, **67**, 1810 (*synth*)

Nagai, Y. *et al*, *Tetrahedron*, 1970, **26**, 2791 (*nmr*)

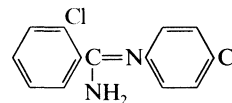
Grobe, J. *et al*, *J. Organomet. Chem.*, 1973, **61**, 133 (*ir, nmr*)

Harvey, D.J., *J. Chromatogr.*, 1978, **147**, 291 (*use*)

2-Chloro-*N*-(4-chlorophenyl)benzamidine C-00082

N-*p*-Chlorophenyl-*o*-chlorobenzamidine

[23564-71-8]



$C_{13}H_{10}Cl_2N_2$ M 265.141

Cryst. Mp 127°.

B, HCl: [27109-12-2].

Mp 197° dec.

N'-(2-Methylphenyl): [113361-89-0]. 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2-methylphenyl)

benzenecarboximidamide, 9CI

$C_{20}H_{16}Cl_2N_2$ M 355.265

Used as 3mM C_6H_6 soln. of HCl salt for extraction-photometric detn. of Mo (λ_{max} 470 nm, ϵ 16800, 1-5.5M HCl, C_6H_6). Cryst. + HCl (EtOH + HCl). Sol. C_6H_6 , EtOH.

N'-(3-Methylphenyl): [113361-88-9]. 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(3-methylphenyl)

benzenecarboximidamide, 9CI

Used as 3mM C_6H_6 soln. of HCl salt for extraction-photometric detn. of Mo (λ_{max} 470 nm, ϵ 18000, 1.5-5.5M HCl, C_6H_6). Cryst. + HCl (EtOH + HCl). Sol. C_6H_6 , EtOH.

N'-(4-Methylphenyl): [113361-90-3]. 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(4-methylphenyl)

benzenecarboximidamide, 9CI

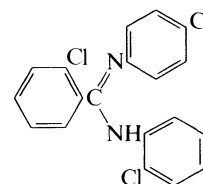
Used as 3mM C_6H_6 soln. of HCl salt for extraction-photometric detn. of Mo (λ_{max} 470 nm, ϵ 17800, 1.2-4.7M HCl, C_6H_6). Cryst. + HCl (EtOH + HCl). Sol. C_6H_6 , EtOH.

Gautier, J.A. *et al*, *Bull. Soc. Chim. Fr.*, 1970, 200 (*synth*)

Chandrakar, L.P. *et al*, *Analyst (London)*, 1987, **112**, 1511 (*synth, derivs, detn, Mo*)

2-Chloro-*N*-(2-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide, 9CI C-00083

[113340-91-3]



$C_{19}H_{13}Cl_3N_2$ M 375.683

B, HCl: [113340-91-3].

Used as 3mM C_6H_6 soln. for extraction-photometric

detn. of Mo (λ_{max} 465 nm, ϵ 16800, 2-6M HCl, C_6H_6).

Cryst. (EtOH + HCl). Sol. C_6H_6 , EtOH.

Chandrakar, L.P. *et al*, *Analyst (London)*, 1987, **112**, 1511 (*synth, detn, Mo*)

2-Chloro-*N*-(3-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide, 9CI C-00084

[113361-91-4]

$C_{19}H_{13}Cl_3N_2$ M 375.683

B, HCl: [113361-91-4].

Used as 3mM C₆H₆ soln. for extraction-photometric detn. of Mo (λ_{\max} 470 nm, ϵ 15500, 2.5-6M HCl). Cryst. (EtOH + HCl). Sol. C₆H₆, EtOH.

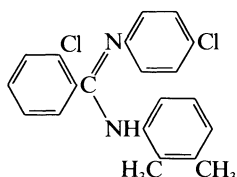
Chandrakar, L.P. *et al*, *Analyst (London)*, 1987, **112**, 1511 (*synth, detn, Mo*)

2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2,3-dimethylphenyl) C-00085

benzenecarboximidamide, 9CI

2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2,3-dimethylphenyl)benzamidide

[116967-85-2]



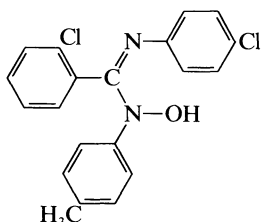
C₂₁H₁₈Cl₂N₂ M 369.292

Used as 0.3% C₆H₆ soln. (10% 1-pentanol) for extraction-photometric detn. of W(V) (λ_{\max} 405 nm, ϵ 17000, presence of SCN[⊖]). Cryst. Sol. C₆H₆, toluene.

Shukla, A. *et al*, *Anal. Chim. Acta*, 1988, **208**, 91 (*synth, detn, W*)

2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamidide C-00086

N-Hydroxy-*N*-p-tolyl-*N'*-p-chlorophenyl-*o*-chlorobenzamidide



C₂₀H₁₆Cl₂N₂O M 371.265

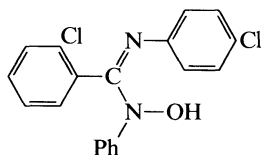
Used as 0.1% CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{\max} 620 nm, ϵ 5350, pH 1-3). Cryst. (EtOH). Sol. CHCl₃, EtOH.

Chandrakar, L.P. *et al*, *J. Indian Chem. Soc.*, 1984, **61**, 446 (*synth, detn, V*)

2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, 9CI C-00087

2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-phenylbenzamidide

[93376-74-0]



C₁₉H₁₄Cl₂N₂O M 357.238

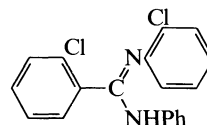
Used as 0.1% CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{\max} 620 nm, ϵ 4710, pH 1-3 in the presence of SCN[⊖]). Cryst. (EtOH). Sol. CHCl₃, EtOH.

Chandrakar, L.P. *et al*, *J. Indian Chem. Soc.*, 1984, **61**, 446 (*synth, detn, V*)

2-Chloro-*N*-(2-chlorophenyl)-*N'*-phenylbenzenecarboximidamide, 9CI C-00088

2-Chloro-*N*-(2-chlorophenyl)-*N'*-phenylbenzamidide

[117001-30-6]



C₁₉H₁₄Cl₂N₂ M 341.238

Used as 0.3% C₆H₆/pentanol soln. for extraction-photometric detn. of W(V) (λ_{\max} 405 nm, ϵ 15400). Cryst. Sol. C₆H₆, toluene.

Shukla, A. *et al*, *Anal. Chim. Acta*, 1988, **208**, 91 (*synth, detn, W*)

2-Chloro-*N*-(4-chlorophenyl)-*N'*-phenylbenzenecarboximidamide, 9CI C-00089

N-Phenyl-*N'*-(4-chlorophenyl)-2-chlorobenzamidide

[113340-90-2]

C₁₉H₁₄Cl₂N₂ M 341.238

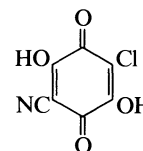
B, HCl: Used as 3mM C₆H₆ soln. for extraction-photometric detn. of Mo (λ_{\max} 465 nm, ϵ 17300, 1-5.6M HCl, C₆H₆). Cryst. (EtOH + HCl). Sol. C₆H₆, EtOH.

Chandrakar, L.P. *et al*, *Analyst (London)*, 1987, **112**, 1511 (*synth, detn, Mo*)

2-Chloro-5-cyano-3,6-dihydroxybenzoquinone C-00090

4-Chloro-2,5-dihydroxy-3,6-dioxocyclo-1,4-hexadiene-1-carbonitrile, 8CI

[14445-78-4]



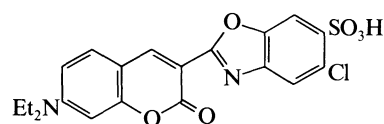
C₇H₂ClNO₄ M 199.550

Di-Na salt: [14445-79-5].

Used as a 0.1% aq. soln. for indirect photometric detn. of Ca (λ_{\max} 490 nm). Red-brown needles (hot H₂O). Sol. H₂O; insol. EtOH, Me₂CO. Mp 247-249° dec.

Rehowoldt, R.E. *et al*, *Anal. Chem.*, 1966, **38**, 1018 (*synth, ir, detn, Ca*)

5-Chloro-2-[7-(diethylamino)-2-oxo-2H-1-benzopyran-3-yl]-6-benzoxazolesulfonic acid, 9CI C-00091



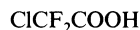
C₂₀H₁₇ClN₂O₆S M 448.883

Fluorescent reagent for anal. of tertiary-amino drugs. [126651-97-6]

Wintersteiger, R. *et al*, *Sci. Pharm.*, 1989, **57**, 407 (*synth, use*)

Chlorodifluoroacetic acid

[76-04-0]

C₂HClF₂O₂ M 130.478Mp 24-26°. Bp 122°. pK_a 0.46 (25°).

Me ester: [1514-87-0].

C₃H₃ClF₂O₂ M 144.505

Bp 81-82°.

Et ester: [383-62-0].

C₄H₅ClF₂O₂ M 158.532

Liq. Bp 96°.

Chloride: [354-24-5].

C₂Cl₂F₂O M 148.924

Liq. Bp 20-22°.

Amide: [354-28-9].

C₂H₂ClF₂NO M 129.493

Cryst. Mp 78-79°.

Nitrile: [421-05-6]. Chlorocyanodifluoromethane

C₂ClF₂N M 111.478

Liq. Bp 57-58°.

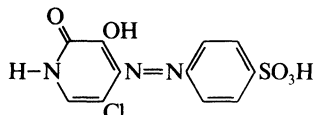
Anhydride: [2834-23-3].

C₄Cl₂F₄O₃ M 242.941

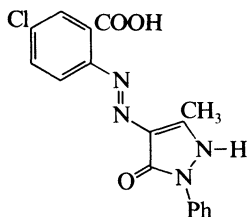
Derivatisation reagent used for gc with MIPAED atomic emission detn. Liq. Bp 92-93°.

Henne, A.L. *et al*, *J. Am. Chem. Soc.*, 1945, **67**, 918 (*synth*)Miller, W.T., *CA*, 1952, **46**, 7989a (*synth*)U.S. Pat., 2 853 524, (1958); *CA*, **53**, 5134b (*synth*)Haszeltine, R.N., *J. Chem. Soc.*, 1959, 1084 (*deriv*)Kalyanaraman, B. *et al*, *J. Cryst. Mol. Struct.*, 1976, **6**, 311 (*cryst struct, deriv*)Hagen, D.F. *et al*, *Spectrochim. Acta, Part B*, 1985, **40**, 335 (*anhydride, use*)**4-[(5-Chloro-1,2-dihydro-3-hydroxy-2-oxo-4-pyridinyl)azo]benzenesulfonic acid, 9Cl**

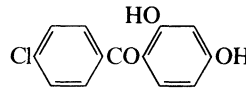
[65837-79-8]

C₁₁H₈ClN₃O₅S M 329.720Used as 0.25% aq. soln. for photometric detn. of Nb (λ_{\max} 485 nm, ϵ 5300), V (λ_{\max} 495 nm, ϵ 25000); as 0.5mM aq. soln. for photometric detn. of Co (λ_{\max} 550 nm), Cu (λ_{\max} 560 nm), Fe (λ_{\max} 580 nm), Ni (λ_{\max} 550 nm). Brown cryst. Sol. H₂O, EtOH.Chauhan, O. *et al*, *Ann. Chim. (Rome)*, 1979, **69**, 363.Sharma, Y., *Anal. Chim. Acta*, 1981, **126**, 233 (*detn, V*)Sharma, Y., *Talanta*, 1981, **28**, 59 (*detn, Nb*)**5-Chloro-2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoic acid, 9Cl**

[88112-57-6]

C₁₇H₁₃ClN₄O₃ M 356.767**C-00092**Used for photometric detn. of Na. Orange cryst. (DMF aq.). Spar. sol. Me₂CO, CHCl₃, EtOH. Mp 245-247°.Markovich, I.S. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1097 (*detn, Na*)**4'-Chloro-2,4-dihydroxybenzophenone****C-00095**

(4-Chloro-2-hydroxyphenyl)(4-hydroxyphenyl)methanone [126165-44-4]

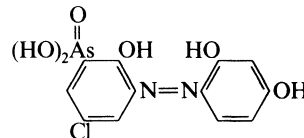
C₁₃H₉ClO₃ M 248.665

4-Me ether: [85-28-9]. 4'-Chloro-2-hydroxy-4-methoxybenzophenone

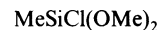
C₁₄H₁₁ClO₃ M 262.692Used as 0.01% soln. in conc. H₂SO₄ for specific fluorimetric detn. of B. Cryst. Sol. conc. H₂SO₄.Mercantonatos, M. *et al*, *Helv. Chim. Acta*, 1965, **48**, 194 (*synth*)Mercantonatos, M. *et al*, *Anal. Chim. Acta*, 1966, **35**, 309 (*detn, B*)Monnier, D. *et al*, *Anal. Chim. Acta*, 1966, **36**, 360; 1972, **60**, 233 (*detn, B*)Monnier, D. *et al*, *CA*, 1973, **78**, 52180p (*detn, B*)Rosenkranz, H.J. *et al*, *CA*, 1974, **80**, 3265c (*synth*)Mercantonatos, M. *et al*, *Inorg. Chim. Acta*, 1975, **14**, 227 (*detn, B*)**[5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxyphenyl]arsonic acid, 9Cl****C-00096**

Rezarson

[18299-04-2]

C₁₂H₁₀AsClN₂O₆ M 388.595Used as 0.5mM EtOH soln. for photometric detn. of Ge (λ_{\max} 500 nm, ϵ 24000), Sn (λ_{\max} 510 nm, ϵ 25000), Nb. Brown cryst. powder. Sol. EtOH, MeOH.Lukin, A.M. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 970; 1967, **22**, 1234; 1971, **26**, 1782 (*detn, Ge, Nb*)Kaslina, N.A. *et al*, *Zavod. Lab.*, 1978, **44**, 520 (*detn, Sn*)**Chlorodimethoxymethylsilane****C-00097**

[994-07-0]

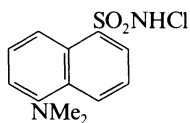
C₃H₉ClO₂Si M 140.641

Silylation reagent used for gc ms anal. of hydroxy steroids.

Liq. d₄²⁰ 1.049. Bp 93-94°. n_D²⁰ 1.3869.Andrianov, K.A. *et al*, *Zh. Obshch. Khim.*, 1959, **29**, 3754; *CA*, **54**, 19460i (*synth*)Calas, R. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1964, **259**, 3777 (*synth*)Van Wazer, J.R., *J. Inorg. Nucl. Chem.*, 1964, **26**, 737 (*pmr*)Barlos, K. *et al*, *Chem. Ber.*, 1980, **113**, 3716 (*chlorine-35 nmr*)Harvey, D.J., *J. Chromatogr.*, 1980, **196**, 156 (*use*)

N-Chloro-5-(dimethylamino)-1-naphthalenesulfonamide, 9Cl

[76587-46-7]

 $C_{12}H_{13}ClN_2O_2S$ M 284.766

Fluorescent reagent for anal. of amino acids and peptides. Yellow powder. Mp 209-212°.

Murayama, K. *et al.*, *J. Chromatogr.*, 1981, **205**, 349 (*synth, use*)Murayama, K. *et al.*, *Anal. Lett.*, 1982, **75**, 123 (*use*)

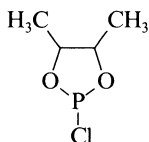
C-00098

Chlorodimethyl(pentafluorophenyl)silane, 9Cl*Flophemesyl chloride*

[20082-71-7]

 $(C_6F_5)_3SiClMe_2$ $C_8H_6ClF_5Si$ M 260.666Used as silylation reagent for alcohols, steroids and sterols (gc-photoionization detn.). Oil. Bp₃₀ 96°.Morgan, E.D. *et al.*, *J. Chromatogr.*, 1975, **104**, 351 (*synth*)Poole, C.F. *et al.*, *Org. Mass Spectrom.*, 1975, **10**, 1164; 1980, **15**, 486 (*ms*)Francis, A.J. *et al.*, *J. Chromatogr.*, 1978, **161**, 111 (*use*)Krull, I.S. *et al.*, *Anal. Lett.*, 1985, **18**, 2619 (*use*)

C-00100

2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, 9Cl*2-Chloro-4,5-dimethyl-1,3-dioxaphospholane. 2,3-Butylene chlorophosphite. 2,3-Butylene phosphorochloridite* [16352-28-6] $C_4H_8ClO_2P$ M 154.532**(4R,5R)-form** [89104-49-4]Fuming liq. d_4^{25} 1.20. Bp₁₀ 49°. $[\alpha]_D^{25}$ +97.12°. n_D^{25} 1.4604.*2-Oxide*: [89104-48-3]. *2,3-Butylene chlorophosphate. 2,3-Butylene phosphoryl chloride. 2,3-Butylene phosphorochloridate*Chiral derivatising agent for determining the enantiomeric purity of alcohols by P-31 nmr. Liq. d 1.534. Bp_{0.5} 105-110°.**(4RS,5RS)-form** [15479-16-0]*(±)-form*Fuming liq. Bp₂₂ 64.5°, Bp₁₇ 87°.*2-Sulfide*: O,O-2,3-Butylene chlorothiophosphate. O,O-2,3-Butylene thiophosphoryl chloride $C_4H_8ClO_2PS$ M 186.598Liq. Bp_{0.05} 55°.**(4RS,5SR)-form***meso-form. 4,5-cis-form*Fuming liq. d_4^{25} 1.22. Bp₁₇ 90°, Bp₂₅ 76°. n_D^{20} 1.4696.

Epimers at P characterised spectroscopically.

2-Sulfide: Liq. Bp_{0.08} 65.5-66°.

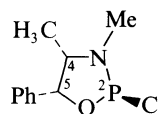
[4225-54-1, 4225-55-2, 15479-05-7, 15479-17-1, 38206-22-3, 38409-45-9, 60146-71-6, 60183-47-3, 64234-37-3, 66289-10-9, 66807-98-5, 89104-49-4]

Lucas, H.J. *et al.*, *J. Am. Chem. Soc.*, 1950, **72**, 5491 (*synth*)Garner, H.K. *et al.*, *J. Am. Chem. Soc.*, 1950, **72**, 5497 (*synth*)Oswold, A.A., *Can. J. Chem.*, 1959, **37**, 1498 (*synth*)Gagnaire, D. *et al.*, *Bull. Soc. Chim. Fr.*, 1966, 3719 (*synth, nmr*)Zwierzak, A., *Can. J. Chem.*, 1967, **45**, 2501 (*synth*)Bergesen, K. *et al.*, *Acta Chem. Scand.*, 1972, **26**, 2153 (*synth, pmr*)Anderson, B.A. *et al.*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl.* p. 523), 1972, **204**, 1349 (*sulfides, synth, P nmr*)Osokin, D.Ya. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl.* p. 1460), 1972, **21**, 1513 (*nqr*)Shagidullin, R.R. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 1235), 1975, **45**, 1257 (*ir, raman*)Shagidullin, R.R. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 1017), 1976, **46**, 1021 (*oxide, sulfide, ir, raman*)Anderson, R.C. *et al.*, *J. Org. Chem.*, 1984, **49**, 1304 (*oxide, synth, P nmr, use*)

C-00099

2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine, 9Cl, 8Cl*2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholane*

[64023-57-0]

*(2R,4S,5R)-form* $C_{10}H_{13}ClNOP$ M 229.645**(2R,4S,5R)-form** [61739-41-1]Bp_{0.05} 120-125°.*2-Oxide*: [54750-13-9]. $C_{10}H_{13}ClNO_2P$ M 245.645Cryst. (diisopropyl ether or pet. ether). Mp 88-89°. $[\alpha]_D$ -64° (CHCl₃). Has 2S-config.*2-Sulfide*: [57573-32-7]. $C_{10}H_{13}ClNOPS$ M 261.711

Reagent for synth. of chiral monothiophosphate esters.

Cryst. (CHCl₃/pet. ether or cyclohexane). Mp 58°. $[\alpha]_D$ -23° (CHCl₃), $[\alpha]_D$ -47° (C₆H₆). Has 2R-config.**(2S,4S,5R)-form***2-Oxide*: [54750-12-8].Cryst. (diisopropyl ether). Mp 111-113°. $[\alpha]_D$ -26°(CHCl₃). Has 2R-config.*2-Sulfide*: [57651-34-0].

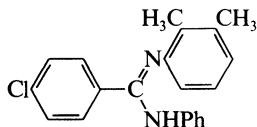
Reagent for synth. of chiral monothiophosphate esters

and for detn. of enantiomeric purity of alcohols and

amines by ³¹P nmr. Cryst. (diisopropyl ether orcyclohexane). Mp 125-128°. $[\alpha]_D$ -121° (CHCl₃), $[\alpha]_D$ -123° (C₆H₆). Has 2S-config.Larizza, A. *et al.*, *J. Med. Chem.*, 1966, **9**, 966 (*oxide*)Devillers, J., *Bull. Soc. Chim. Fr.*, 1970, 4341 (*oxide sulfide, synth, pmr*)Devillers, J. *et al.*, *Org. Magn. Reson.*, 1974, **6**, 211 (*derivs, conformn*)Hall, C.R. *et al.*, *Tetrahedron Lett.*, 1976, 3645 (*synth*)Prange, T. *et al.*, *Bull. Soc. Chim. Fr.*, Pt. 1, 1977, 185 (*cryst struct*)Cooper, D.B. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1977, 1969*(sulfide, synth)*Lesiák, K. *et al.*, *Z. Naturforsch., B*, 1978, **33**, 782 (*sulfide, pmr, P nmr*)Hall, C.R. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1979, 1104*(sulfide, use)*Bartczak, T. *et al.*, *Acta Crystallogr.*, 1983, **39**, 219, 222 (*sulfide, cryst struct*)Beer, P.D. *et al.*, *Phosphorus Sulfur Relat. Elem.*, 1983, **17**, 283 (*synth, pmr*)Johnson, C.R. *et al.*, *J. Am. Chem. Soc.*, 1984, **106**, 5019 (*sulfide, use*)

C-00101

4-Chloro-N-(2,3-dimethylphenyl)-N'-phenylbenzenecarboximidamide, 9CI **C-00102**
 4-Chloro-N-(2,3-dimethylphenyl)-N'-phenylbenzimidine
 [79458-86-9]



$C_{21}H_{19}ClN_2$ M 334.847
 Used as 0.1% soln. in C_6H_6 for extraction-photometric detn. of Mo (λ_{max} 470 nm, ϵ 18200, 3.5-7M HCl). Cryst. (EtOH + HCl). Sol. EtOH, C_6H_6 , $CHCl_3$.
 Patel, K.S. *et al*, *Anal. Chem.*, 1982, **54**, 52 (*synth, detn, Mo*)

Chlorodimethylphenylsilane, 9CI **C-00103**
 Dimethylphenylsilyl chloride
 [768-33-2]



$C_8H_{11}ClSi$ M 170.713
 Derivatisation reagent in hplc of carbohydrates. Liq. d_4^{20} 1.03. Bp 194-197°.
 Grenoble, M.E. *et al*, *Appl. Spectrosc.*, 1960, **14**, 85 (*ir*)
 Kriegsmann, H. *et al*, *Z. Anorg. Allg. Chem.*, 1961, **310**, 320 (*ir*)
 Chuy, N.D. *et al*, *Collect. Czech. Chem. Commun.*, 1975, **40**, 875 (*nmr*)
 White, C.A. *et al*, *Carbohydr. Res.*, 1983, **119**, 241 (*use*)
 White, C.A. *et al*, *J. Chromatogr.*, 1983, **264**, 99 (*use*)

Chlorodimethyl-2-propenylsilane, 9CI **C-00104**
 Allyldimethylchlorosilane
 [4028-23-3]



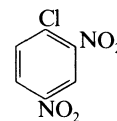
$C_5H_{11}ClSi$ M 134.680
 Derivatization reagent for steroids and cannabinoids for gc anal. Liq. Fp 5°. Bp 111-112°. n_D^{20} 1.4270; dec. by H_2O .
 Hurd, D.T., *J. Am. Chem. Soc.*, 1945, **67**, 1813 (*synth*)
 Mironov, V.F. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1962, **146**, 1117; *CA*, **58**, 2024 (*ir, raman*)
 Alberola, A. *et al*, *An. Quim.*, 1971, **67**, 417; *CA*, **75**, 156760 (*nmr*)
 Phillipou, G., *J. Chromatogr.*, 1976, **129**, 384 (*use*)
 Harvey, D.J., *Biomed. Mass Spectrom.*, 1977, **4**, 265 (*use*)
 Matsumoto, H. *et al*, *J. Organomet. Chem.*, 1978, **148**, 97 (*synth*)

Chlorodimethylsilane, 9CI **C-00105**
 Dimethylsilyl chloride. DMCS
 [1066-35-9]



C_2H_7ClSi M 94.616
 Hydrosilylating agent. d 0.852. Mp -111°. Bp 34.7°, 36-37°.
 Supina, W.R. *et al*, *J. Am. Oil Chem. Soc.*, 1967, **44**, 74 (*use*)
 Eaborn, C. *et al*, *J. Organomet. Chem.*, 1969, **18**, 371 (*synth*)
 Kriegsmann, H. *et al*, *Z. Phys. Chem. (Leipzig)*, 1969, **240**, 294 (*spectra*)
 Gadzhiev, S.N., *Ind. Eng. Chem. Process Des. Dev.*, 1970, **9**, 229; *CA*, **72**, 113221 (*purifn*)
 Ishikawa, M. *et al*, *J. Chem. Soc., Chem. Commun.*, 1971, 507 (*synth*)
 Drozdov, V.A. *et al*, *Plast. Massy*, 1973, **70**; *CA*, **79**, 19985 (*glc, pmr*)
 de Cooker, M.G.R.T. *et al*, *J. Organomet. Chem.*, 1975, **99**, 371 (*synth*)
 Harvey, D.J., *J. Chromatogr.*, 1978, **147**, 291 (*use*)

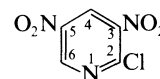
1-Chloro-2,4-dinitrobenzene, 9CI, 8CI **C-00106**
 2,4-Dinitrochlorobenzene
 [97-00-7]



$C_6H_3ClN_2O_4$ M 202.553
 Reagent for characterisation of amines and amino acids and for gc identification of thiols. Has been used as an explosive. Reference material used in elemental microanalysis. Yellow cryst. (Et₂O). Mp 51°. Bp 315° sl. dec. There are also two labile forms, Mps 27° and 43°.

▷ Strong skin sensitiser, causes severe dermatitis. Highly toxic. CZ0525000.
 Welsh, L.H., *J. Am. Chem. Soc.*, 1941, **63**, 3276 (*synth*)
 Brackman, W. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1966, **85**, 857 (*synth*)
 Gasco Sanchez, L. *et al*, *Anal. Chim. Acta*, 1972, **61**, 253 (*use*)
 Analyst (London), 1972, **97**, 740 (*microanal*)
 Wilkins, A. *et al*, *Acta Crystallogr., Sect. B*, 1990, **46**, 823 (*cryst struct, polymorphism*)
 Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 242.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CGM000.

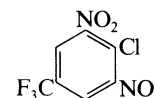
2-Chloro-3,5-dinitropyridine, 9CI **C-00107**
 [2578-45-2]



$C_5H_2ClN_3O_4$ M 203.541
 Condensing agent for esterifications. Derivatisation reagent for anal. of amines by liq. chromatog. Cryst. (pet. ether). Mp 64°.

Berrie, A.H. *et al*, *J. Chem. Soc.*, 1951, 2590 (*synth*)
 Ochiai, E. *et al*, *Chem. Pharm. Bull.*, 1960, **8**, 28 (*synth*)
 U.S. Pat., 3 574 841, (1971); *CA*, **74**, 141551 (*synth*)
 Bashkir, E.A., *CA*, 1973, **79**, 91945 (*synth*)
 Jacobs, W.A. *et al*, *J. Liq. Chromatogr.*, 1982, **5**, 881 (*use*)
 Takimoto, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1983, **56**, 639 (*use*)

2-Chloro-1,3-dinitro-5-(trifluoromethyl)benzene, 9CI **C-00108**
 4-Chloro- α,α,α -trifluoro-3,5-dinitrotoluene, 8CI. 4-Chloro-3,5-dinitrobenzotrifluoride. DNT-Cl
 [393-75-9]



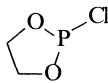
$C_7H_2ClF_3N_2O_4$ M 270.552
 Anal. reagent for amines and phenols. Yellow cryst. (EtOH). Mp 58° (53-57°).

▷ Acute oral toxin, mutagenic.
 Yagupolskii, L.M. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1955, **21**, 81; *CA*, **49**, 8867a (*synth*)
 Jurgens, H.R. *et al*, *J. Org. Chem.*, 1960, **25**, 1710 (*synth*)
 Malichenko, F. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1967, **33**, 717; *CA*, **69**, 95138n (*use*)
 Crosby, D.G. *et al*, *J. Agric. Food Chem.*, 1968, **16**, 839 (*use*)
 Hill, J.R. *et al*, *Org. Magn. Reson.*, 1977, **9**, 589 (C-13 *nmr*, F-19 *nmr*)
 Bucchi, A.R. *et al*, *Ann. Ist. Super. Sanita*, 1983, **19**, 351 (*tox*)

Schaefer, T. *et al*, *Can. J. Chem.*, 1983, **61**, 2779 (*F-19 nmr*)
 Stemmler, E.A. *et al*, *Biomed. Environ. Mass Spectrom.*, 1987, **14**, 417 (*ms*)
Sigma-Aldrich Library of Chemical Safety Data, 1988, **1**, 770D.

2-Chloro-1,3,2-dioxaphospholane, 9CI **C-00109**

Ethylene phosphorochloridite, 8CI. Ethylene chlorophosphite [822-39-9]



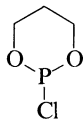
$C_2H_4ClO_2P$ M 126.479

Peptide coupling reagent, used for identification of asparaginyl and glutaminyl residues. Used as a derivatisation reagent for gc detn. of alcohols and for P-31 nmr anal. of hydroxy compds. Mobile fuming liq. d_4^{20} 1.42. Bp_{47} 66-68°, Bp_{10} 44-45°. n_D^{20} 1.4894. Rapidly hydrolysed.

Lucas, H.J. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 5491 (*synth*)
 Cason, J. *et al*, *J. Org. Chem.*, 1959, **24**, 247 (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 372.
 Efremov, Yu.Ya. *et al*, *Khim. Geterotsikl. Soedin.*, (*Engl. transl. p.* 1202), 1972, 1329 (*ms*)
 Vilcaunu, R. *et al*, *J. Chromatogr.*, 1973, **82**, 279 (*use*)
 Mathis, R. *et al*, *Spectrochim. Acta, Part A*, 1974, **30**, 357 (*ir*)
 Shagidullin, R.R. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 1235), 1975, **45**, 1257 (*ir, raman*)
 Nuretdinov, I.A. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl. p.* 824), 1978, 950 (*nqr*)
 Bessere, D. *et al*, *Org. Magn. Reson.*, 1980, **13**, 235, 313 (*cmr, nmr*)
 Vasil'ev, V.V. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 1836), 1981, **51**, 2134 (*O nmr*)
 Schiff, D.E. *et al*, *Appl. Spectrosc.*, 1986, **40**, 348 (*use*)

2-Chloro-1,3,2-dioxaphosphorinane, 9CI **C-00110**

2-Chloro-1,3,2-dioxaphosphinane. 2-Chloro-1,3-dioxaphosphacyclohexane. Trimethylene chlorophosphite. Trimethylene phosphorochloridite [6362-89-6]



$C_3H_6ClO_2P$ M 140.506

Used as a derivatisation reagent for gc. anal. of alcohols. Fuming liq. d_4^{25} 1.3489. Bp_0 54-55°. n_D^{25} 1.4884.

▷ Reacts violently with H_2O .

2-Selenide: [77585-91-2]. O,O-Trimethylene phosphorochloridoselenoate

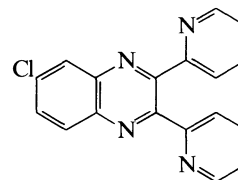
$C_3H_6ClO_2PSe$ M 219.466
 Solid. Mp 58-60°.

Lucas, H.J. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 5491 (*synth*)
 Zwierzak, A., *Can. J. Chem.*, 1967, **45**, 2501 (*synth*)
 Bergesen, K. *et al*, *Acta Chem. Scand.*, 1971, **25**, 2257 (*pmr*)
 Arbuzov, B.A. *et al*, *Khim. Geterotsikl. Soedin.*, (*Engl. transl. p.* 1237), 1971, **7**, 1324 (*struct*)
 Naumov, V.A. *et al*, *Zh. Strukt. Khim.*, (*Engl. transl. p.* 722), 1972, **13**, 768 (*ed*)
 Nifant'ev, E.E. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl. Phys. Chem. p.* 100), 1973, **208**, 651 (*cmr*)
 Vilcaanu, R. *et al*, *J. Chromatogr.*, 1973, **82**, 279 (*use*)

Efremov, Yu.Ya. *et al*, *Khim. Geterotsikl. Soedin.*, (*Engl. transl. p.* 1424), 1974, 1620 (*ms*)
 Fazliev, D.F. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 1776), 1976, **46**, 1832 (*ir*)
 Nuretdinov, I.A. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl. p.* 824), 1978, 950 (*nqr*)
 Shagidullin, R.R. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl. p.* 1234), 1981, 1535 (*selenide, synth, ir, raman*)
 Hacklin, H. *et al*, *Phosphorus Sulfur Relat. Elem.*, 1985, **25**, 79 (*synth, ms, pmr, P nmr*)

6-Chloro-2,3-di-pyridylquinoxaline, 8CI **C-00111**

2,3-Bis(2-pyridyl)-6-chloroquinoxaline [17401-70-6]



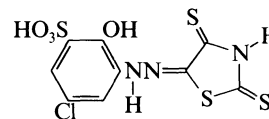
$C_{18}H_{11}ClN_4$ M 318.764

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 524 nm, ϵ 3240, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 111°.

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

5-Chloro-3-[(2,4-dithioxo-5-thiazolidinyl)azo]-2-hydroxybenzenesulfonic acid, 9CI **C-00112**

Sulfochlorophenolazothiorhodanine [32041-51-3]



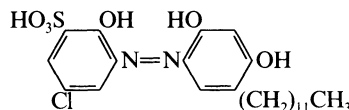
$C_9H_6ClN_3O_4S_4$ M 383.881

Several tautomers possible. Used as 0.1% soln. in 50% EtOH for photometric detn. of Pt, Ag, Au (λ_{max} 620 nm, ϵ 45000). Dark red cryst. powder. Sol. H_2O , EtOH, DMF.

Propistsova, R.F. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2424 (*synth, use*)
 Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1554 (*detn, Au*)
 Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*rev*)

5-Chloro-3-[(5-dodecyl-2,4-dihydroxyphenyl)azo]-2-hydroxybenzenesulfonic acid, 9CI **C-00113**

5-Chloro-5'-dodecyl-2,2',4'-trihydroxyazobenzene-3-sulfonic acid. Dodecylmugallion [65185-44-6]



$C_{24}H_{33}ClN_2O_6S$ M 513.053

Used for extraction-fluorimetric detn. of Ga (4-methyl-2-pentanone). Sol. EtOH.

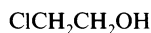
Na salt: [65144-71-0].

Sol. H_2O .

Kina, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1977, **26**, 246 (*use*)

2-Chloroethanol, 9CI

Ethylene chlorohydrin. Glycol chlorohydrin
[107-07-3]



$\text{C}_2\text{H}_5\text{ClO}$ M 80.514

Reagent for esterification of carboxylic acids for gc anal.
Misc. H_2O . Fp -67.5° . Bp 128.6° , Bp₂₂ $51-52^\circ$. $\text{p}K_{\text{a}1}$
14.31 (25°, H_2O). Forms azeotrope with H_2O , Bp₇₃₅ $95-8^\circ$.

▷ Highly toxic by inhalation and skin absorption, TLV (skin) 3. KK0875000.

Benzoyl:

$\text{C}_9\text{H}_9\text{ClO}_2$ M 184.622
Bp₁₋₂ $100-102^\circ$.

Methanesulfonyl: [3570-58-9].

Bp₉ $125-126^\circ$. n_{D}^{20} 1.4562 (1.4590).

▷ KK1960000.

4-Methylbenzenesulfonate: [80-41-1].

$\text{C}_9\text{H}_{11}\text{ClO}_3\text{S}$ M 234.703

Bp_{0,3} 153° , Bp_{0,2} $130-135^\circ$.

▷ XT6475000.

Gomberg, M., *J. Am. Chem. Soc.*, 1919, **41**, 1414 (*synth*)

Shilov, E.A., *Zh. Khim. Promsti*, 1928, **5**, 1273.

Zapadinskii, M.B., *Zh. Khim. Promsti*, 1928, **5**, 1426.

Kobe, K.A. *et al.*, *Ind. Eng. Chem.*, 1954, **46**, 680.

Woodham, D.W. *et al.*, *J. Agric. Food Chem.*, 1971, **19**, 186 (*use*)

Rudling, L., *Water Res.*, 1971, **5**, 831 (*use*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1975, **5**, 117.

Reisser, G.H. *et al.*, *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **5**, 848 (*rev*)

Hahn, R.C. *et al.*, *J. Org. Chem.*, 1988, **53**, 5783 (*tosylate*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 244.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CHC750, CHI125, EIU800.

Chloroethylmagnesium, 10CI, 9CI, 8CI

Ethylmagnesium chloride

[2386-64-3]



$\text{C}_2\text{H}_5\text{ClMg}$ M 88.819

Grignard reagent. Commercially available as 2M Et_2O soln. Used for derivatisation of ionic alkylltin compounds in gc analysis. Sol. ethers.

MgCl₂, THF complex: [33519-48-1]. *Tetra-μ-chlorodi-μ₃-chlorodiethylhexakis(tetrahydrofuran)tetramagnesium*, 8CI

$\text{C}_{28}\text{H}_{58}\text{Cl}_4\text{Mg}_4\text{O}_6$ M 800.699

Cryst. (THF).

Kharasch, M.S. *et al.*, *Grignard Reactions of Nonmetallic Substances*, Prentice Hall, New York, 1954 (*rev*)

Ducom, J. *et al.*, *Bull. Soc. Chim. Fr.*, 1971, 3518.

Toney, J. *et al.*, *J. Organomet. Chem.*, 1971, **28**, 5 (*struct*)

Chevrot, C. *et al.*, *Bull. Soc. Chim. Fr.*, 1976, 1388.

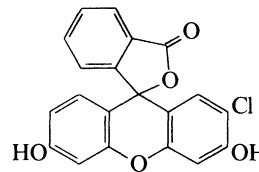
Wilkinson, G., *Compr. Organomet. Chem.*, (Ed.), Pergamon, Oxford, 1982, **1**, 156 (*rev*)

Müller, M.D., *Anal. Chem.*, 1987, **59**, 617.

Scott, B.F. *et al.*, *Appl. Organomet. Chem.*, 1991, **5**, 151.

C-00114**2'-Chlorofluorescein****C-00116**

2'-Chloro-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9CI
[2321-03-1]



$\text{C}_{20}\text{H}_{11}\text{ClO}_5$ M 366.757

Used for photometric and fluorimetric detn. of Ag (λ_{max} 540 nm) as a 1mM soln. in MeOH. Orange cryst. (EtOH). Sol. EtOH, Me_2CO , alkalis.

Mori, I. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1202 (*detn. Ag*)

4'-Chlorofluorescein**C-00117**

4'-Chloro-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9CI
[2320-95-8]

$\text{C}_{20}\text{H}_{11}\text{ClO}_5$ M 366.757

Used as a 1mM soln. in MeOH for photometric and fluorimetric detn. of Ag (λ_{max} 530nm). Orange cryst. (EtOH). Sol. EtOH, Me_2CO , alkalis.

Mori, I. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1202 (*use*)

Chloroform**C-00118**

Trichloromethane, 9CI. R20

[67-66-3]



CHCl_3 M 119.377

Manuf. by direct chlorination of CH_4 or by reacn. of EtOH or Me_2CO with Cl_2 + NaOH. Solvent, intermediate for manuf. of CHClF_2 , plastics intermediate. U.S. prodn. 136 000 t/a in 1976. Formerly used as anaesthetic. Used in the detn. of phenols and as an extraction solv. Liq. Spar. sol. H_2O . d_4^{25} 1.481. Mp -63.2° . Bp 61.3° . n_{D}^{20} 1.4467. Nonflammable. Slowly dec. in air and light forming *inter alia* COCl_2 (toxic). Forms hydrate with $18\text{H}_2\text{O}$, dec. at 1.6° . Forms azeotrope contg. 2.5% H_2O , Bp 56° .

▷ Toxic vapour, OES 50 mg m^{-3} , eye irritant, suspected carcinogen. Vigorous reaction with Me_2CO and base, explosive reaction with some materials. FS9100000.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 130; **8**, 92.

Dykes, M.H.M., *Int. Anesthesiol. Clin.*, 1970, **8**, 357 (*rev. pharmacol*)

Legradi, L., *Mikrochim. Acta*, 1972, 369 (*use*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **5**, 693 (*rev*)

Davidson, I.W.F. *et al.*, *Drug Chem. Toxicol.*, 1982, **5**, 87 (*rev. metab, tox*)

Martindale. The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 3104.

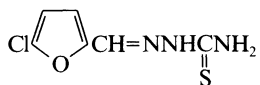
Occupational Exposure Limits 1991, Health and Safety Executive, HMSO, London, 1991, EH40/91.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 245.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CHJ500.

5-Chloro-2-furancarboxaldehyde thiosemicarbazone**C-00119**

2-[(5-Chloro-2-furanyl)methylene]hydrazinecarbothioamide,
9CI
[53652-12-3]



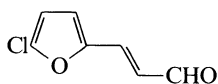
$C_6H_6ClN_3OS$ M 203.652

Used as 0.4mM aq. soln. for photometric detn. of Pd (λ_{max} 396 nm, ϵ 36000). Cryst.

Mas'ko, L.I. et al, *Zh. Anal. Khim.*, 1975, **30**, 315 (detn, Pd)

3-(5-Chloro-2-furanoyl)-2-propenal, 9CI**C-00120**

5-Chloro-2-furanacrolein, 8CI
[61633-21-4]



$C_7H_5ClO_2$ M 156.568

Thiosemicarbazone: [23499-73-2].

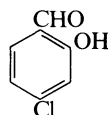
$C_8H_8ClN_3OS$ M 229.689

Used as a 0.4mM soln. in EtOH for photometric detn. of Pd (λ_{max} 390 nm, ϵ 39500), Pt (λ_{max} 390 nm, ϵ 57500). Cryst. (EtOH).

Kerentseva, V.P. et al, *Zh. Anal. Khim.*, 1971, **26**, 1144; 1972, **27**, 719 (synth, pKa, detn, Pd, Pt)

4-Chloro-2-hydroxybenzaldehyde, 9CI**C-00121**

4-Chlorosalicylaldehyde, 8CI
[2420-26-0]



$C_7H_5ClO_2$ M 156.568

Cryst. (EtOH or AcOH aq.). Mp 52-53°. pK_a 7.18 (25°, 0.1M NaClO₄).

Me ether: [53581-86-5]. 4-Chloro-2-methoxybenzaldehyde

$C_8H_7ClO_2$ M 170.595

Cryst. Mp 74°.

Semicarbazone: [54825-12-6].

$C_8H_8ClN_3O_2$ M 213.623

Used as 0.1% DMF soln. for fluorimetric detn. of Sc (λ_{max} 435 nm, pH 6.5). Cryst. (EtOH). Sol. DMF, EtOH. Mp 212-214°.

Postmus, C. et al, *J. Org. Chem.*, 1964, **29**, 2693 (synth)

Casey, M.L. et al, *J. Org. Chem.*, 1973, **38**, 2294 (synth)

Morishige, K., *Anal. Chim. Acta*, 1974, **73**, 245 (semicarbazone, synth, detn, Sc)

Casiraghi, G. et al, *J. Chem. Soc., Perkin Trans. 1*, 1978, 318 (synth)

Pochini, A. et al, *Synthesis*, 1978, 617 (synth)

5-Chloro-2-hydroxybenzaldehyde, 9CI**C-00122**

5-Chlorosalicylaldehyde, 8CI
[635-93-8]

$C_7H_5ClO_2$ M 156.568

Forms stable yellow Schiff's bases with amines, has been used as a protecting group in peptide synth. Cryst. (EtOH or pet. ether). Mp 99-100°. pK_a 7.41 (25°, 0.1M NaClO₄).

▷ VN5450000.

Oxime: [1595-14-8].

$C_7H_6ClNO_2$ M 171.583

Used as 2% soln. in aq. EtOH for detn. of Bi, Cu, Fe, Pb, Ni. Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 128°.

Semicarbazone: [20576-99-2].

$C_8H_8ClN_3O_2$ M 213.623

Used as 0.1% DMF soln. for fluorimetric detn. of Sc (λ_{max} 455 nm, pH 6.5). Cryst. (EtOH). Sol. DMF, EtOH. Mp 286-287°.

Thiosemicarbazone: [20234-13-3].

$C_8H_8ClN_3OS$ M 229.689

Used as 0.1% DMF soln. for fluorimetric detn. of Ga (λ_{max} 450 nm, pH 4.5). Cryst. (EtOH). Sol. DMF, EtOH.

Flagg, J.F. et al, *Ind. Eng. Chem., Anal. Ed.*, 1940, **12**, 529 (use)

Ginsburg, D., *J. Am. Chem. Soc.*, 1951, **73**, 702 (synth)

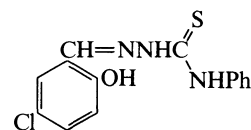
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 139.

Morishige, K., *Anal. Chim. Acta*, 1974, **72**, 295; **73**, 245 (synth, detn, Sc)

5-Chloro-2-hydroxybenzaldehyde**C-00123****phenylthiosemicarbazone**

5-Chlorosalicylaldehyde phenylthiosemicarbazone

[13377-21-4]



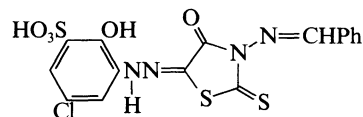
$C_{14}H_{12}ClN_3OS$ M 305.787

Used as 0.25mM in CHCl₃ for extraction-photometric detn. of Pd (λ_{max} 410 nm, ϵ 10900). Cryst. (EtOH). Sol. CHCl₃, EtOH.

Yamaguchi, S. et al, *Analyst (London)*, 1985, **110**, 1241 (synth, detn, Pd)

5-Chloro-2-hydroxy-3-[(3-**C-00124****benzylideneamino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid**

Sulfochlorophenolazo-N-(benzylidene)-3-aminorhodanine



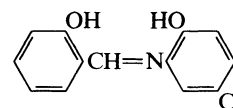
$C_{16}H_{11}ClN_4O_5S_3$ M 470.937

Various tautomers possible. Used as EtOH soln. for photometric detn. of Ag, Au, Pd, Pt. Red cryst. powder. Sol. H₂O, EtOH, DMF.

Savvin, S.B. et al, *Talanta*, 1987, **34**, 87 (synth, use)

4-Chloro-2-(2-hydroxybenzylideneamino) phenol**C-00125**

5-Chloro-2-hydroxy-N-salicylideneaniline. 2-Hydroxybenzaldehyde 5-chloro-2-hydroxyanil



$C_{13}H_{10}ClNO_2$ M 247.680

Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.
Cryst. (EtOH). Sol. EtOH, sl. sol. H₂O. Mp 156.0-156.5°.

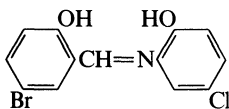
Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)

Used as a 0.1% DMF soln. for fluorimetric detn. of Al
(λ_{\max} 490 nm, pH 5.3), Ga (λ_{\max} 500 nm, pH 3.8). Cryst.
(EtOH). Sol. DMF, EtOH.

Morishige, K., *Anal. Chim. Acta*, 1974, **72**, 295 (*synth, detn, Al, Ga*)

5-Chloro-N-(2-hydroxy-5-bromobenzylidene)-2-hydroxyaniline C-00126

4-Bromo[[2-(5-chloro-2-hydroxyphenyl)imino]methyl]phenol.
5-Bromo-2-hydroxybenzaldehyde 5-chloro-2-hydroxyanil



C₁₃H₉BrClNO₂ M 326.576

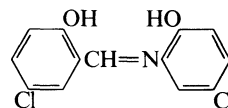
Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.
Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 200-200.5°.

Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)

5-Chloro-2-hydroxy-N-(2-hydroxy-5-chlorobenzylidene)aniline C-00130

4-Chloro-2-[[[(5-chloro-2-hydroxyphenyl)imino]methyl]phenol,
9Cl. 5-Chloro-2-hydroxybenzaldehyde 5-chloro-2-hydroxyanil

[1761-48-4]



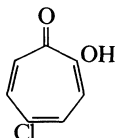
C₁₃H₉Cl₂NO₂ M 282.125

Used as a 0.1% DMF soln. for fluorimetric detn. of Be
(λ_{\max} 445 nm, pH 9.5) and Al. Cryst. (EtOH). Sol.
DMF, EtOH; sl. sol. H₂O. Mp 201°.

Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)
Morishige, K., *Anal. Chim. Acta*, 1974, **73**, 245 (*synth, detn, Be*)

5-Chloro-2-hydroxy-2,4,6-cycloheptatrien-1-one, 9Cl C-00127

5-Chlorotropolone
[3084-17-1]



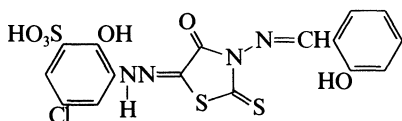
C₇H₅ClO₂ M 156.568

Used as complexing agent for Fe(III). Cryst. pK_{a1} 5.62.

Dutt, Y. *et al*, *Talanta*, 1969, **16**, 1369 (*pKa, use*)

5-Chloro-2-hydroxy-3-[(3-(2-hydroxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid C-00128

Sulfochlorophenolazo-N-(2'-hydroxybenzylidene)-3-aminorhodanine



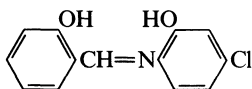
C₁₆H₁₁ClN₄O₆S₃ M 486.937

Various tautomers possible. Used as EtOH soln. for
photometric detn. of Ag, Au, Pd, Pt. Red cryst. powder.
Sol. EtOH, H₂O, DMF.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)

4-Chloro-2-hydroxy-N-(2-hydroxybenzylidene)aniline C-00129

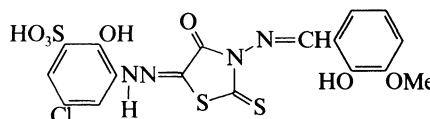
5-Chloro-2-[[[(2-hydroxyphenyl)methylene]amino]phenol, 9Cl.
4-Chloro-2-hydroxy-N-salicylideneaniline. 2-Hydroxybenzaldehyde 4-chloro-2-hydroxyanil
[31367-08-5]



C₁₃H₁₀ClNO₂ M 247.680

5-Chloro-2-hydroxy-3-[(3-(2-hydroxy-3-methoxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid C-00131

Sulfochlorophenolazo-N-(2'-hydroxy-3'-methoxybenzylidene)-3-aminorhodanine



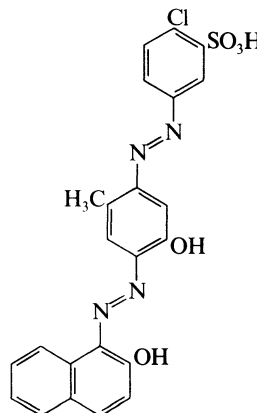
C₁₇H₁₃ClN₄O₇S₃ M 516.963

Various tautomers possible. Used as EtOH soln. for
photometric detn. of Ag, Au, Pd, Pt. Red cryst. powder.
Sol. EtOH, H₂O, DMF.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)

2-Chloro-5-[[5-hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-2-methylphenyl]azo]benzenesulfonic acid, 9Cl C-00132

C.I. Mordant green 15. C.I. 26925. Solochrome green V.
Chrome green V. Alazarol verdone S. Chrome green S.
Eriochrome verdone S



C₂₃H₁₇ClN₄O₅S M 496.930

Strictly the name C.I. Mordant green refers to the sodium salt.

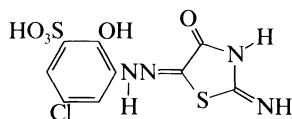
Na salt: [6406-61-7].

Used as a 0.1% aq. soln. as metallochromic indicator in titrimetric detn. of Mn(II), Zn. Orange-red cryst. Sol. H₂O; mod. sol. EtOH.

Amin, A.M. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, **173**, 138.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

5-Chloro-2-hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]benzenesulfonic acid **C-00133**
Sulfochlorophenolazopseudothiohydantoin

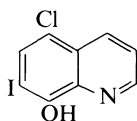


C₉H₇ClN₄O₅S₂ M 350.763

Several tautomers possible. Used as EtOH soln. for photometric detn. of Ag, Au, Pd, Pt. Yellow cryst. powder. Sol. H₂O, EtOH, DMF.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)

5-Chloro-8-hydroxy-7-iodoquinoline **C-00134**
5-Chloro-7-iodo-8-quinolinol, 9CI, 8CI. Clioquinol, BAN, INN. Barquinol. Chinoform. Quin-o-creme. Vioformo. Iodochlorhydroxyquin. Numerous proprietary names
[130-26-7]



C₉H₅ClINO M 305.502

Antiinfective, antiamoebic. Used in photometric detn. of Mo, Nb, Ta. Brownish-yellow powder, darkens when exp. to light. Spar. sol. Et₂O. Dec. at ca. 178-179°.

Constit. of Enterovioform. Can cause nerve damage.

▷ VC5075000.

Das, A. *et al*, *J. Org. Chem.*, 1957, **22**, 1111 (*synth*)

Sharma, Y. *et al*, *Fresenius' Z. Anal. Chem.*, 1959, **165**, 16 (*detn, Ta*)

Stelzl, G. *et al*, *Arzneim.-Forsch.*, 1973, **23**, 1470 (*pharmacol*)

Kashino, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 1094 (*cryst struct*)

Kracmar, J. *et al*, *Pharmazie*, 1974, **29**, 733 (*w*)

Urakubo, G. *et al*, *Radioisotopes*, 1975, **24**, 500 (*synth*)

Sharma, Y., *Mikrochim. Acta*, 1982, **2**, 297 (*detn, Nb*)

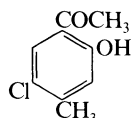
Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 4770.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1071 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CHR500.

5-Chloro-2-hydroxy-4-methylacetophenone **C-00135**
1-(5-Chloro-2-hydroxy-4-methylphenyl)ethanone, 9CI
[28480-70-8]



C₉H₉ClO₂ M 184.622

Needles (EtOH). Mp 71-72°. Bp₁₅ 137°.

Oxime: [38589-71-8].

C₉H₁₀ClNO₂ M 199.636

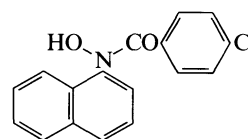
Used for gravimetric and extraction-photometric detn. of V(V) (λ_{max} 400 nm, ε 3150, CHCl₃). Cryst. (EtOH). Sol. EtOH, Me₂CO, C₆H₆; spar. sol. H₂O.

Rosenmund, K.W. *et al*, *Justus Liebigs Ann. Chem.*, 1928, **460**, 56 (*synth*)

Saksena, R.N. *et al*, *J. Indian Chem. Soc.*, 1972, **49**, 779 (*synth, oxime*)

Lal, K. *et al*, *Chim. Acta Turc.*, 1978, **6**, 11; *CA*, **89**, 225634x (*detn, V*)

4-Chloro-N-hydroxy-N-1-naphthalenylbenzamide, 9CI **C-00136**
N-1-Naphthyl-p-chlorobenzohydroxamic acid
[36237-41-9]



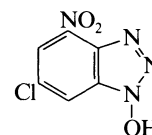
C₁₇H₁₂ClNO₂ M 297.740

Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 510 nm, ε 4350, 4M HCl). Cryst. Sol. CHCl₃, C₆H₆.

Gupta, V.K. *et al*, *J. Chem. Eng. Data*, 1972, **17**, 248 (*synth*)

Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

6-Chloro-1-hydroxy-4-nitro-1H-benzotriazole, 9CI **C-00137**
[29394-76-1]



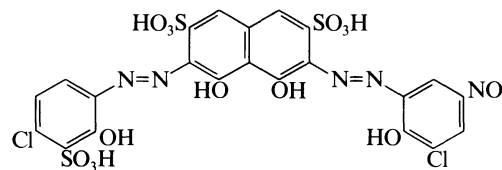
C₆H₃ClN₄O₃ M 214.567

Used for gravimetric detn. of Cd, Cu, Zn. Pale yellow cryst. Sol. EtOH.

Maheshwari, G.L. *et al*, *J. Sci. Ind. Res.*, 1969, **1**, 46; *CA*, **72**, 139297g (*detn, Cd*)

Saxena, R.C. *et al*, *J. Sci. Ind. Res.*, 1970, **2**, 25; 1973, **5**, 30; *CA*, **74**, 119699c; **83**, 21687h (*detn, Cu, Zn*)

3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI **C-00138**
[14041-37-3]



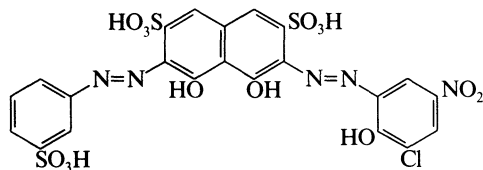
C₂₂H₁₃Cl₂N₅O₁₅S₃ M 754.473

Used for photometric detn. of Pu(IV). Dark red cryst. powder. Mod. sol. H₂O.

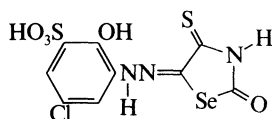
Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 1075 (*detn, Pu*)

3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9Cl

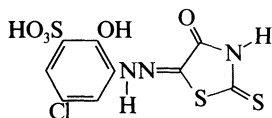
C-00139

C₂₂H₁₄ClN₅O₁₄S₃ M 704.028Used for photometric detn. of Cu, Sc, Th, Zr. Dark red cryst. powder. Mod. sol. H₂O.Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**5-Chloro-2-hydroxy-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid**
Sulfochlorophenolazosenoisorhodanine

C-00140

C₉H₆ClN₃O₅S₂Se M 414.708Several tautomers possible. Used as EtOH soln. for photometric detn. of Ag, Au, Pd, Pt. Brown cryst. powder. Sol. H₂O, EtOH.Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (synth, use)**5-Chloro-2-hydroxy-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, 9Cl**

C-00141

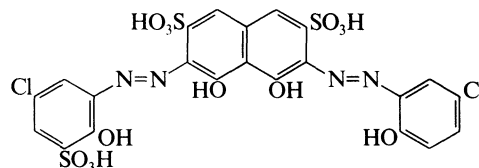
Sulfochlorophenolazorhodanine. Rhodazol KhS
[32041-50-2]C₉H₆ClN₃O₅S₃ M 367.814Several tautomers possible. Used as 0.1% soln. in 50% EtOH or 0.3% aq. soln. for photometric detn. of Pt(II) (λ_{max} 500 nm, ε 100000), Rh (λ_{max} 510 nm, ε 35000), Pd, Ir, Ru, Au, Ag. Red cryst. powder. Sol. H₂O, EtOH, DMF, dioxan.N-NH₂: 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]-5-chloro-2-hydroxy-benzenesulfonic acidC₉H₇ClN₄O₅S₃ M 382.829

Used as EtOH soln. for photometric detn. of Ag, Pu, Pd, Pt. Orange cryst. powder.

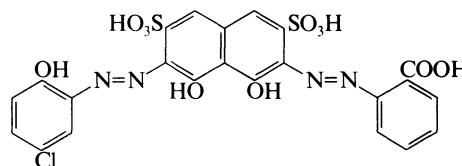
Propistsova, R.F. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2424; 1973, **27**, 1768; 1974, **29**, 2097; 1975, **30**, 250 (detn, Pt, Rh, tautom)Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1554 (use)Basargin, N.N. *et al*, *Zavod. Lab.*, 1973, **39**, 3 (detn, Pd)Gur'eva, R.F. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 914; 1976, **31**, 660; 1982, **37**, 654 (detn, Ir, Ag, Ru)Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (rev)**3-[(5-Chloro-2-hydroxyphenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8Cl**

C-00142

[26069-51-2]

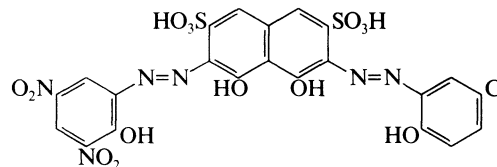
C₂₂H₁₄Cl₂N₄O₁₃S₃ M 709.475Used for photometric detn. of Nb, Zr. Dark red cryst. powder. Mod. sol. H₂O.Alimarin, I.P. *et al*, *Talanta*, 1968, **15**, 601 (detn, Nb)Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (detn, Zr)**2-[[7-[(5-Chloro-2-hydroxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid**

C-00143

3-(2-Carboxyphenyl)-6-(5-chloro-2-hydroxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid
[24921-22-0]C₂₃H₁₅ClN₄O₁₁S₂ M 622.976Used as a 0.1 or 0.05% aq. soln. for photometric detn. of Ca (λ_{max} 650 nm, ε 55000, 75% EtOH), Mg (λ_{max} 660 nm, ε 59000, 75% EtOH). Dark red cryst. powder. Mod. sol. H₂O.Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177 (detn, Ca, Mg)**3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 8Cl**

C-00144

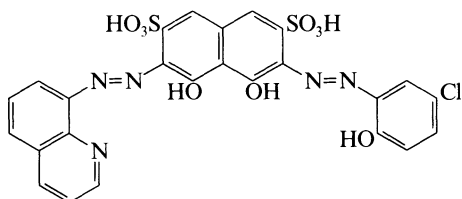
[26069-60-3]

C₂₂H₁₃ClN₆O₁₄S₂ M 684.961Used for photometric detn. of Nb, Zr. Dark red cryst. powder. Mod. sol. H₂O.Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)

3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-(8-quinolyazo)-2,7-naphthalenedisulfonic acid, 9CI

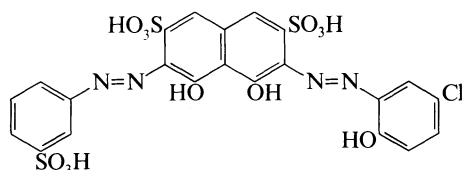
C-00145

[22106-83-8]

C₂₅H₁₆ClN₅O₉S₂ M 630.014Used for photometric detn. of Cu; extraction-photometric detn. of Cu (butanol). Dark red cryst. Sol. H₂O, EtOH.Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562.**3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI**

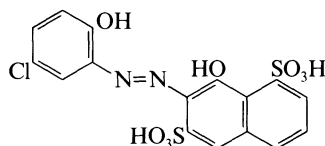
C-00146

[14155-12-5]

C₂₂H₁₅ClN₄O₁₂S₃ M 659.031Used for photometric detn. of Nb. Dark red cryst. powder. Mod. sol. H₂O.Alimarin, I.P. *et al*, *Talanta*, 1966, **13**, 689 (*detn*, Nb)**7-[(5-Chloro-2-hydroxyphenyl)azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, 9CI**

C-00147

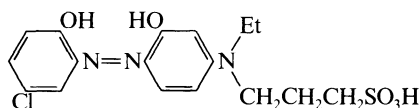
[33683-74-8]

C₁₆H₁₁ClN₂O₈S₂ M 458.856Used for photometric detn. of Al (λ_{\max} 570 nm, ϵ 13600), Ga (λ_{\max} 570 nm, ϵ 16600), In (λ_{\max} 570 nm, ϵ 8800).Cryst. pK_{a1} 7.62.Tiutiunnikova, P.D. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 508 (*use*)**3-[[4-[(5-Chloro-2-hydroxyphenyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, 9CI**

C-00148

2-(2-Hydroxy-5-chlorophenylazo)-5-[N-ethyl-N-(3-sulfopropyl)amino]phenol

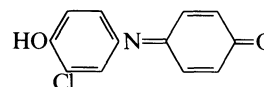
[91999-90-5]

C₁₇H₂₀ClN₃O₅S M 413.881Used as 0.05mM aq. soln. for photometric detn. of Mg, Ca (λ_{\max} 506 nm, pH ~10). Cryst. (EtOH/aq. HCl). Sol. H₂O, EtOH. pK_{a1} 2.80; pK_{a2} 8.05; pK_{a3} 12.6 (μ = 0.1, 25°).Wada, H. *et al*, *Anal. Chim. Acta*, 1984, **159**, 289 (*synth*, *detn*, Ca, Mg)**4-[(3-Chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, 9CI**

C-00149

3'-Chloroindophenol, 8CI

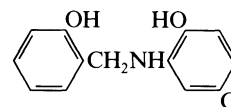
[2701-88-4]

C₁₂H₈ClNO₂ M 233.653Used as a 0.02% aq. soln. of Na as acid-base indicator (pH range 4-12.3; colour change: red → blue); redox indicator. Dark green cryst. powder. Sol. alkalis, EtOH, Me₂CO. pK_a 7.1. E° + 0.663 V.Cohen, B. *et al*, *Public Health Rep.*, 1924, **39**, 381.Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 484 (*use*)**4-Chloro-2-[[[(2-hydroxyphenyl)methylene]amino]phenol, 9CI**

C-00150

2-[[[(2-Hydroxy-5-chlorophenyl)imino]methyl]phenol

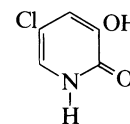
[1761-31-5]

C₁₃H₁₂ClNO₂ M 249.696Used for photometric detn. of Au, Ni, Pt, IO₃[⊖]. Cryst. Sol. EtOH, Et₂O.Aznarez, A.J. *et al*, *CA*, 1983, **99**, 81641d (*use*)**5-Chloro-3-hydroxy-2(1H)-pyridinone, 9CI**

C-00151

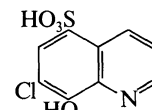
5-Chloro-2,3-dihydroxypyridine

[53233-89-9]

C₅H₄ClNO₂ M 145.545Used as a 0.5% soln. in EtOH for spot test for NO₂[⊖]. Cryst.Mehta, Y.L. *et al*, *Indian J. Chem., Sect. A*, 1976, **14**, 1004 (*use*)Garg, B.S. *et al*, *Talanta*, 1976, **23**, 71 (*use*)**7-Chloro-8-hydroxy-5-quinolinesulfonic acid, 9CI**

C-00152

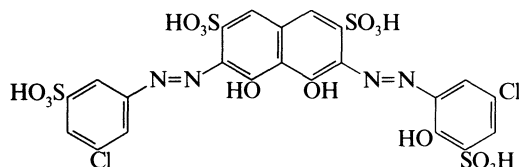
[3062-36-0]

C₉H₆ClNO₄S M 259.669

Used as a 1% aq. soln. for photometric detn. of U (λ_{\max} 355 nm, ϵ 6580); redox indicator. Yellow needles (EtOH). Sol. alkalis; mod. sol. H₂O; sl. sol. EtOH; insol. Et₂O, C₆H₆. pK_{a1} 6.8; pK_{a2} 11.1.

Feldman, H.B. *et al.* *J. Am. Chem. Soc.*, 1940, **62**, 3107 (*synth*)
Avinashi, B.K. *et al.* *Microchem. J.*, 1973, **18**, 543 (*use*)

3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-6-[(3-chloro-5-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8Cl **C-00153**



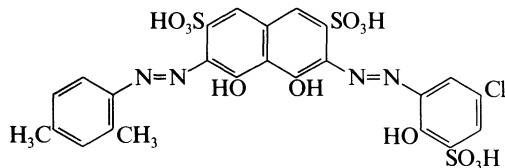
C₂₂H₁₄Cl₂N₄O₁₅S₄ M 773.540

Used as 0.1% aq. soln. for photometric detn. of V (λ_{\max} 600 nm, ϵ 24100). Dark red cryst. powder. Mod. sol. H₂O.

Savvin, S.B. *et al.* *Zh. Anal. Khim.*, 1971, **26**, 2364 (*use*)

3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2,4-dimethylphenyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl **C-00154**

[14041-35-1]



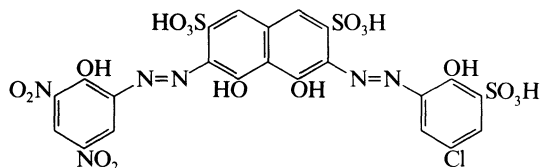
C₂₄H₁₉ClN₄O₁₂S₃ M 687.084

Used for photometric detn. of Pu(IV). Dark red cryst. powder. Mod. sol. H₂O.

Savvin, S.B. *et al.* *Zh. Anal. Khim.*, 1966, **21**, 1075 (*detn.*, Pu)

3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl **C-00155**

[22106-91-8]



C₂₂H₁₃ClN₆O₁₇S₃ M 765.025

Used for photometric detn. of Cu, Zr; extraction-photometric detn. of Cu (BuOH), Nb. Dark red cryst. Sol. H₂O, EtOH.

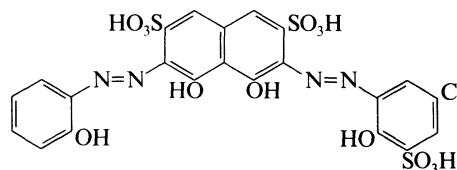
Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (*detn.*, Cu)

Savvin, S.B. *et al.* *CA*, 1970, **72**, 27979z (*detn.*, Nb)

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)

3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl **C-00156**

[26069-54-5]



C₂₂H₁₅ClN₄O₁₃S₃ M 675.030

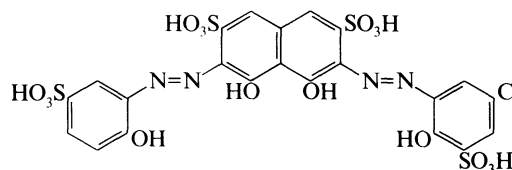
Used for photometric detn. of Nb, Pu, Zr. Dark red cryst. powder. Mod. sol. H₂O.

Savvin, S.B. *et al.* *Zh. Anal. Khim.*, 1966, **21**, 1075 (*detn.*, Pu)

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*detn.*, Nb, Zr)

3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl **C-00157**

[26069-48-7]



C₂₂H₁₅ClN₄O₁₆S₄ M 755.094

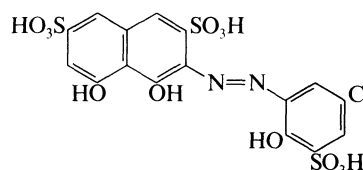
Used for photometric detn. of Nb, Zr. Dark red cryst. powder. Mod. sol. H₂O.

Alimarin, I.P. *et al.* *Talanta*, 1968, **15**, 601 (*detn.*, Nb)

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*detn.*, Zr)

3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9Cl **C-00158**

3-(5-Chloro-2-hydroxy-3-sulfobenzeneazo)chromotropic acid
[16606-33-0]



C₁₆H₁₁ClN₂O₁₂S₃ M 554.920

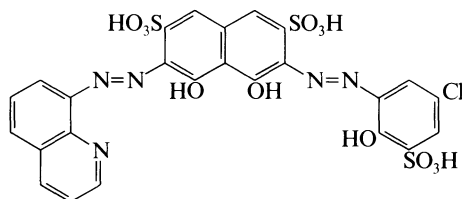
Used as 0.1% aq. soln. for fluorimetric detn. of Al (pH 5-6, 20% EtOH). Cryst. (H₂O). Sol. H₂O, EtOH.

Savvin, S.B. *et al.* *Zh. Anal. Khim.*, 1981, **36**, 1945 (*synth.*, *detn.*, Al)

3-[(5-Chloro-2-hydroxy-3-sulfohenyl)azo]-4,5-dihydroxy-6-(8-quinolylozo)-2,7-naphthalenedisulfonic acid, 9Cl

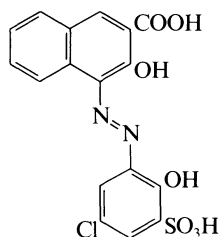
C-00159

[22106-85-0]

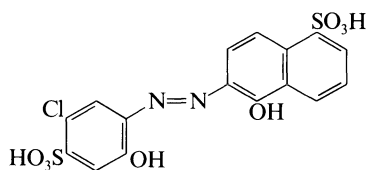
 $C_{25}H_{16}ClN_5O_{12}S_3$ M 710.078Used for photometric detn. of Cu; extraction-photometric detn. of Cu (butanol). Dark red cryst. Sol. H_2O , EtOH.Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (detn, Cu)**4-[(5-Chloro-2-hydroxy-3-sulfohenyl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, 9Cl**

C-00160

[76877-40-2]

 $C_{17}H_{11}ClN_3O_7S$ M 422.802Used as 0.1mM aq. soln. as an indicator for compleximetric titration of Ca (λ_{max} 535 nm, pH 13). Dark violet cryst. (11M HCl). Sol. H_2O .Wada, H. *et al*, *Anal. Chim. Acta*, 1980, **121**, 265 (synth, detn, Ca)**6-(5-Chloro-2-hydroxy-4-sulfohenylazo)-5-hydroxy-1-naphthalenesulfonic acid, 9Cl**

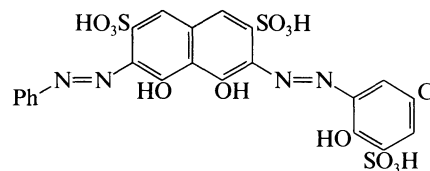
C-00161

Fast navy 2R. C.I. Mordant blue 9. Acid chrome blue RRA. Calcochrome blue RRL. Chrome blue 2R. Eriochrome violet SB. Omega chrome blue 2R. C.I. 14855 $C_{16}H_{11}ClN_2O_8S_2$ M 458.856

Strictly, the name Fast navy 2R applies to the disodium salt.

Di-Na salt: [3624-68-8].Used as 0.1% aq. soln. as a metallochromic indicator for titrimetric detn. of Ca, Cd, Mg, Mn, Ni, Pb, Zn. Brown-black cryst. powder. Sol. H_2O ; sl. sol. EtOH; insol. Me_2CO , Et_2O , $CHCl_3$.Abd El Raheem, A.A. *et al*, *Fresenius' Z. Anal. Chem.*, 1961, **180**, 339.Bishop, E., *Indicators*, Pergamon, Oxford, 1972.**3-[(5-Chloro-2-hydroxy-3-sulfohenyl)azo]-6-phenylazo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9Cl**

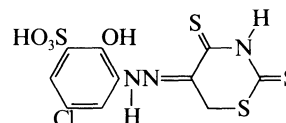
C-00162

 $C_{22}H_{15}ClN_4O_{12}S_3$ M 659.031Used for photometric detn. of Cu, Ga, In, Sc Th, Zr. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**5-Chloro-2-hydroxy-3-[(tetrahydro-2,4-dithioxo-2H-1,3-thiazin-5-yl)azo]benzenesulfonic acid, 9Cl**

C-00163

Sulfochlorophenolazothioproiorhodanine. Thioridine. Thiorhodine

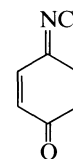
[64736-31-8]

 $C_{10}H_8ClN_3O_4S_4$ M 397.908Several tautomers possible. Used as 0.1% aq. soln. for photometric detn. of Ag (λ_{max} 535 nm, ϵ 53000, AcOH), Pt, Pd, Rh, Ir, Au, Pb. Dark red cryst. powder (H_2O , pH 6-7). Sol. H_2O , alkalis, EtOH. pK_a 6.2.Gur'eva, R.F. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 632; 1979, **34**, 1493; 1983, **38**, 881 (synth, detn, Ag, Pt)Shvedova, O.P. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 221 (detn, Pb) Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (synth, use)**4-(Chloroimino)-2,5-cyclohexadien-1-one, 9Cl**

C-00164

1,4-Benzoquinone chloroimine

[637-61-6]

 C_6H_4ClNO M 141.556Reagent for the photometric detn. of drugs; used as a 0.34mM soln. in DMSO for fluorimetric detn. of CN^\ominus . Yellow cryst. (pet. ether). Spar. sol. cold H_2O ; sol. hot H_2O , EtOH, Et_2O , C_6H_6 , $CHCl_3$, Mp 86°.

▷ GU5434000.

Bamberger, E. *et al*, *Ber.*, 1898, **31**, 1522 (synth)Willstatter, R. *et al*, *Ber.*, 1904, **37**, 1494 (synth)Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (detn, CN^\ominus)Artemchenko, S.S. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 1684; *CA*, **112**, 25788g (use)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CHQ500.

Chloro(iodomethyl)dimethylsilane, 9CI**C-00165**

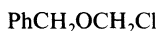
[62141-84-8]

 $\text{C}_3\text{H}_8\text{ClISi}$ M 234.539Derivatisation reagent for gc anal. of steroids. Liq. Bp₁₁ 43-45°. n_D^{25} 1.5115.Eaborn, C. *et al.*, *J. Chem. Soc. C*, 1969, 575 (*synth, use*)Exley, D. *et al.*, *Steroids*, 1969, **14**, 575 (*use*)Voronkov, M.V. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1978, 2366; *CA*, **90**, 72263u (*synth*)**Chloromethoxydimethylsilane, 9CI****C-00166**

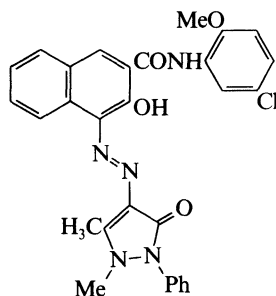
[1825-68-9]

 $\text{C}_3\text{H}_7\text{ClOSi}$ M 124.642Reagent for gc anal. of steroids. Liq. d^{20} 1.387. Bp₇₄₀ 77°. n_D^{20} 1.3865.Van Wazer, J.R. *et al.*, *J. Inorg. Nucl. Chem.*, 1964, **26**, 737 (*nmr*)Prey, V. *et al.*, *Ann. Chim. (Paris)*, 1965, **682**, 228; *CA*, **62**, 16353 (*synth*)Kelly, R.W., *Steroids*, 1969, **13**, 507 (*use*)Dube, G. *et al.*, *Z. Anorg. Allg. Chem.*, 1974, **405**, 46 (*ms*)**[(Chloromethoxy)methyl]benzene, 9CI****C-00167***Benzyl chloromethyl ether*

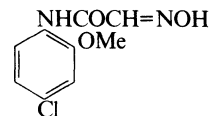
[3587-60-8]

 $\text{C}_8\text{H}_9\text{ClO}$ M 156.611Reagent for the protection and anal. of carboxylic acids as benzyloxymethyl esters. Bp_{1.5} 53-56°.Hill, A.J. *et al.*, *J. Am. Chem. Soc.*, 1926, **48**, 257.Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 52.*Org. Synth.*, 1972, **52**, 16.Zoretic, P.A. *et al.*, *J. Org. Chem.*, 1975, **40**, 2962 (*use*)Benneche, T. *et al.*, *Synthesis*, 1983, 762 (*synth, pmr*)**N-(5-Chloro-2-methoxyphenyl)-4-[(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxamide, 9CI****C-00168**

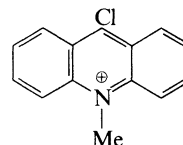
[59104-69-7]

 $\text{C}_{29}\text{H}_{24}\text{ClN}_5\text{O}_4$ M 541.992Used for photometric detn. of Fe(III) (λ_{max} 650 nm, ϵ 1500). Orange-red cryst. Mp 172°. pK_{a1} -0.30; pK_{a2} 9.54.Smaglyuk, N.G. *et al.*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn, Fe*)**N-(4-Chloro-2-methoxyphenyl)-2-(hydroxyimino)acetamide, 9CI****C-00169**

[30535-27-4]

 $\text{C}_9\text{H}_9\text{ClN}_2\text{O}_3$ M 228.634Gives colour reactions with Co, Cu, Pd. Cryst. Sol. EtOH; mod. sol. H_2O , Et_2O , C_6H_6 , CHCl_3 . Mp 189°.Buscaróns, F. *et al.*, *Inf. Quim. Anal.*, 1970, **24**, 93 (*synth, ir, use*)**9-Chloro-10-methylacridinium(1+), 9CI****C-00170**

[46492-10-8]

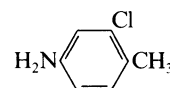
 $\text{C}_{14}\text{H}_{11}\text{ClN}^{\oplus}$ M 228.700 (ion)*Trifluoromethanesulfonate*: [95256-43-2]. $\text{C}_{15}\text{H}_{11}\text{ClF}_3\text{NO}_3\text{S}$ M 377.771

Reagent for hplc post-column derivatisation of aromatic amines. Yellow powder. Mp 226° dec.

[55203-19-5, 75586-67-3]

Singer, B. *et al.*, *Z. Naturforsch., B*, 1984, **39**, 1399; 1985, **40**, 90 (*synth, nmr*)Kim, M. *et al.*, *Mikrochim. Acta*, 1990, **3**, 221 (*use*)Dunning, J.W. *et al.*, *Talanta*, 1991, **38**, 631.**3-Chloro-4-methylaniline****C-00171***3-Chloro-4-methylbenzenamine, 9CI. 3-Chloro-p-toluidine. 4-Amino-2-chlorotoluene*

[95-74-9]

 $\text{C}_7\text{H}_8\text{ClN}$ M 141.600Mp 26°. Bp 237-238.5°, Bp₁₂ 113-114°.

▷ XU5111000.

N-Ac: [7149-79-3]. *N*-(3-Chloro-4-methylphenyl)acetamide, 9CI. 3-Chloro-4-methylacetanilide. 4-Acetamido-2-chlorotoluene $\text{C}_9\text{H}_{10}\text{ClNO}$ M 183.637Used as 2% soln. in C_6H_6 for extraction photometric detn. of W (with SCN^{\ominus} ; λ_{max} 405 nm, ϵ 9200). Cryst. (EtOH or hexane). Sol. C_6H_6 . Mp 85° (from EtOH), Mp 104-105° (from hexane).

▷ AN3325000.

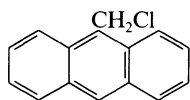
N-Benzoyl: [10286-78-9]. $\text{C}_{14}\text{H}_{12}\text{ClNO}$ M 245.708

Needles. Mp 122°.

Hazlet, S.E. *et al.*, *J. Am. Chem. Soc.*, 1944, **66**, 1781 (*synth*)Lambooy, J.P. *et al.*, *J. Am. Chem. Soc.*, 1952, **74**, 1087 (*synth*)Epstein, E. *et al.*, *J. Pharm. Sci.*, 1960, **49**, 80 (*derivs*)Sharma, S.N. *et al.*, *Indian J. Phys.*, 1976, **50**, 25 (*ir*)Schimelpfenig, C.W., *J. Chem. Soc., Perkin Trans. 1*, 1977, 1129 (*synth*)Mishra, N. *et al.*, *Analyst (London)*, 1987, **112**, 1131 (*detn, W*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CEB750, CLK215.

9-(Chloromethyl)anthracene

[24463-19-2]

C₁₅H₁₁Cl M 226.705Reagent for uv and fluorescence detn. of carboxylic acids in liq. chromatogr. Yellow needles (C₆H₆/hexane).

▷ CA9600000.

Hunter, W.T. *et al*, *J. Org. Chem.*, 1956, **21**, 1512 (*synth*)Korte, W.D., *J. Chromatogr.*, 1982, **243**, 153 (*use*)Bouas-Laurent, H. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1983, 109 (*synth*)**Chloromethylbenzene, 9CI***α*-Chlorotoluene, 8CI. Benzyl chloride

[100-44-7]

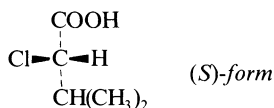
C₇H₇Cl M 126.585Used in gc. anal. of ethylenethiourea. d₄²⁰ 1.11. Mp –48°, Mp –43°. Bp₆₂ 99°. Steam-volatile.

▷ Highly irritant, lachrymator, causes burns. TLV 5. XS8925000.

East Ger. Pat., 478 084, (1923); *CA*, **23**, 4228 (*synth*)Kharasch, M.S. *et al*, *J. Am. Chem. Soc.*, 1939, **61**, 2142 (*synth*)Shorygin, P.P. *et al*, *Zh. Fiz. Khim.*, 1968, **42**, 1057; *CA*, **69**, 47866 (*uv*)Reynolds, W.F. *et al*, *Can. J. Chem.*, 1973, **51**, 1857 (*cmr*)Nash, R.G., *J. Assoc. Off. Anal. Chem.*, 1974, **57**, 1015 (*use*)Tupitsyn, I.F. *et al*, *Reaktiv. Sposobn. Org. Soedin.*, 1974, **11**, 417; *CA*, **84**, 4225 (*ir, pmr*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 195.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BEE375.**2-Chloro-3-methylbutanoic acid, 9CI**

2-Chloroisovaleric acid

[921-08-4]

C₅H₉ClO₂ M 136.578**(S)-form**Bp₁₋₂ 76-80°. [α]_D²⁷ +1.0° (MeOH), [α]_D –0.4° (hexane).*Chloride*: [68107-06-2].

Reagent for gc separation of amino and hydroxy compds.

(±)-formd_{13.2}²⁰ 1.14. Mp 25-28°. Bp 210-212°, Bp₃₂ 126°.*Me ester*: [55905-13-0].

Bp 152-153°.

Et ester:C₇H₁₃ClO₂ M 164.631

Bp 178-179°.

Chloride: [35383-59-6].C₅H₈Cl₂O M 155.023Bp 149°, Bp₂₀ 56-57°.*Nitrile*: [70477-21-3].C₅H₈ClN M 117.578**C-00172**

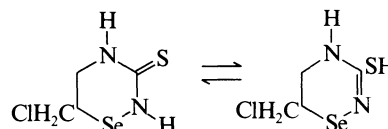
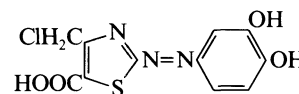
Bp 154-155°.

[68107-06-2]

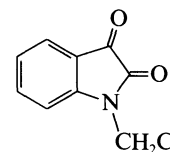
Bruylants, A. *et al*, *Bull. Soc. Chim. Belg.*, 1952, **61**, 366 (*synth*)Halpern, B. *et al*, *J. Chem. Soc. C*, 1965, 246 (*use, chloride*)Gaffield, W. *et al*, *Tetrahedron*, 1971, **27**, 915 (*abs config*)Brook, P.R. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1974, 927 (*synth*)Ogata, Y. *et al*, *J. Org. Chem.*, 1975, **40**, 2960 (*synth*)**6-(Chloromethyl)dihydro-2H-1,2,4-selenodiazine-3(4H)-thione, 9CI****C-00175**

5-(Chloromethyl)-4-selenohexahydropyrimidine-2-thione

[54820-44-9]

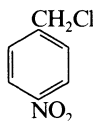
C₄H₇ClN₂SSe M 229.591Used as a 0.4M aq. soln. for photometric detn. of Pd (λ_{max} 340 nm, ε 10000). Cryst. (H₂O). Sol. H₂O, EtOH, Me₂CO.Apostolescu, M. *et al*, *Rev. Chim. (Bucharest)*, 1978, **29**, 1077; *CA*, **90**, 179514d (*detn, Pd*)**4-(Chloromethyl)-2-[(3,4-dihydroxyphenyl)azo]-5-thiazolecarboxylic acid****C-00176**C₁₁H₈ClN₃O₄S M 313.721*Me ester*: [57471-92-8].C₁₂H₁₀ClN₃O₄S M 327.747Used as 1mM soln. in Me₂CO for photometric detn. of W (λ_{max} 540 nm, ε 41000); extraction-photometric detn. of Ti(IV). Orange red cryst. Sol. EtOH, Me₂CO, alkalis. pK_{a1} 6.04; pK_{a2} 9.96, pK_{a1} 5.7; pK_{a2} 10.4 (0.1M LiCl).Purmale, V. *et al*, *CA*, 1975, **83**, 198525e (*pKa*)M'asoedova, A.S., *Zh. Anal. Khim.*, 1975, **30**, 2398 (*detn, W*)Barkane, V. *et al*, *CA*, 1977, **86**, 171310f (*synth*)Ivanov, V.M. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 2124 (*detn, Ti*)**1-(Chloromethyl)-1H-indole-2,3-dione, 9CI****C-00177***N*-Chloromethylisatin

[31704-42-4]

C₉H₆ClNO₂ M 195.605Reagent for derivatisation and labelling of carboxylic acids. Fine light-yellow cryst. (C₆H₆/cyclohexane). Mp 126°.Wendelin, W. *et al*, *Monatsh. Chem.*, 1972, **103**, 1632 (*synth, use*)Guebitz, G. *et al*, *Anal. Chem.*, 1979, **51**, 1690 (*use*)Guebitz, G. *et al*, *J. Chromatogr.*, 1980, **187**, 208 (*use*)Wendelin, W. *et al*, *J. Heterocycl. Chem.*, 1987, **24**, 1381 (*bibl*)

1-Chloromethyl-4-nitrobenzene

α-Chloro-4-nitrotoluene. *p*-Nitrobenzyl chloride
[100-14-1]



$C_7H_6ClNO_2$ M 171.583

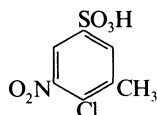
Reagent for the characterisation of carboxylic acids. Plates or needles (EtOH). Mp 71°.

▷ XS9093000.

Alway, F.J., *J. Am. Chem. Soc.*, 1902, **24**, 1062 (*synth*)
Norris, J.F. *et al*, *J. Am. Chem. Soc.*, 1924, **46**, 753 (*synth*)
Kelly, T.L. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 2497 (*use*)
Smith, G.W., *J. Mol. Spectrosc.*, 1964, **12**, 146 (*pmr*)
Issa, R.M. *et al*, *Spectrochim. Acta, Part A*, 1975, **31**, 199 (*ir, uv*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NFN400.

4-Chloro-3-methyl-5-nitrobenzenesulfonic acid, 9Cl

[96-92-4]



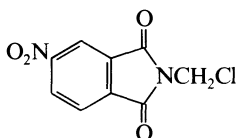
$C_7H_6ClNO_5S$ M 251.647

Used as a 5% aq. soln. for detn. of sulfonamides, Cs.
Cryst. Sol. H_2O .

Zakrzewski, Z., *CA*, 1973, **78**, 102069g (*use*)
Burns, D.T. *et al*, *Reactions of the Elements and their Compounds*, Ellis Horwood, 1981 (*use*)

2-(Chloromethyl)-5-nitro-1H-isoindole-1,3(2H)-dione, 9Cl

N-Chloromethyl-4-nitrophthalimide
[54455-37-7]



$C_9H_5ClN_2O_4$ M 240.602

Uv-sensitive reagent for derivatisation of acids in hplc.
Cryst. (pet. ether). Mp 147°.

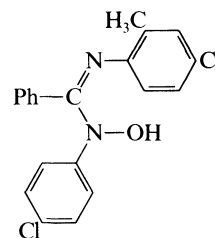
Bohme, H. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1974, **307**, 775 (*synth*)
Lincher, W. *et al*, *J. Chromatogr.*, 1979, **176**, 55 (*use*)

C-00178

N'-(4-Chloro-2-methylphenyl)-N-(4-chlorophenyl)-N-hydroxybenzenecarboximidamide, 9Cl

C-00181

N-Hydroxy-*N*-4-chlorophenyl-*N'*-(2-methyl-4-chlorophenyl)benzamidine
[70709-59-0]



$C_{20}H_{16}Cl_2N_2O$ M 371.265

Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 580 nm, ϵ 5600, in the presence of azide). Yellow cryst. (EtOH). Sol. $CHCl_3$, C_6H_6 , EtOH. Mp 188°.

B, HCl: [70709-60-3].

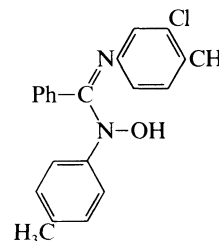
Used as 1% aq. soln. for gravimetric detn. of Cu and Ni (pH 4.5-11). Cryst. Sol. H_2O , acids.

Kharsan, R.S. *et al*, *Talanta*, 1979, **26**, 254 (*synth, detn, V*)
Kharsan, R.N.S. *et al*, *Mikrochim. Acta*, 1983, **1**, 37 (*synth, use*)

N'-(3-Chloro-4-methylphenyl)-N-hydroxy-N-(4-methylphenyl)benzamidine

C-00182

N'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-4-methyl-*N*-phenylbenzenecarboximidamide, 9Cl
[70424-52-1]



$C_{21}H_{19}ClN_2O$ M 350.847

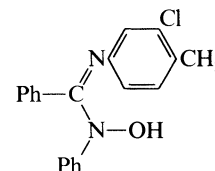
Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 610 nm, ϵ 5000, in the presence of anisaldehyde, pH 1-4). Yellow cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 .

Kharsan, R.S. *et al*, *Talanta*, 1979, **26**, 50 (*synth, detn, V*)

N'-(3-Chloro-4-methylphenyl)-N-hydroxy-N-phenylbenzamidine

C-00183

N'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide. *N'*-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-phenyl-4-toluamidine



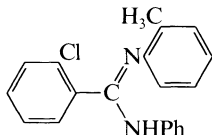
$C_{20}H_{17}ClN_2O$ M 336.820

Used as 0.1% CHCl₃ soln. for extraction-photometric detn. of V(*V*) (λ_{\max} 610 nm, ϵ 5300, in the presence of anisaldehyde, pH 1-4.5). Yellow cryst. (C₆H₆/pet. ether). Sol. CHCl₃, C₆H₆.

Kharsan, R.S. *et al*, *Talanta*, 1979, **26**, 50 (*synth, detn, V*)

2-Chloro-*N*-(2-methylphenyl)-*N'*-phenylbenzenecarboximidamide, 9CI
2-Chloro-*N*-phenyl-*N'*-*o*-tolylbenzamidine
[117001-31-7]

C-00184



C₂₀H₁₇ClN₂ M 320.820

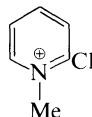
Used as 0.3% C₆H₆/pentanol soln. for extraction-photometric detn. of W(*V*) (λ_{\max} 405 nm, ϵ 14300).

Cryst. Sol. C₆H₆, toluene.

Shukla, A. *et al*, *Anal. Chim. Acta*, 1988, **208**, 91 (*synth, detn, W*)

2-Chloro-1-methylpyridinium(1+)

C-00185



C₆H₇ClN[⊕] M 128.581 (ion)

Iodide: [14338-32-0].

C₆H₇ClIN M 255.485

Mediates a large number of synthetically useful transformns. (in the presence of base) particularly of carboxylic acids. Also acts as a thiol detecting agent. Yellow cryst. (Me₂CO). Mp 204-206°. Hygroscopic.

Bald, E., *Chem. Scr.*, 1979, **13**, 108 (*use*)

Drewes, S.E. *et al*, *Hoppe Seyler's Z. Physiol. Chem.*, 1979, **360**, 987 (*use*)

Amin, S.G. *et al*, *Synthesis*, 1979, 210 (*synth, use*)

Furukawa, M. *et al*, *Chem. Pharm. Bull.*, 1980, **28**, 134 (*use*)

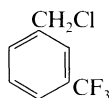
Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1980, **8**, 95 (*use*)

Bald, E., *Talanta*, 1980, **27**, 281 (*use*)

1-(Chloromethyl)-3-(trifluoromethyl)benzene, 9CI

C-00186

α' -Chloro- α,α,α -trifluoro-*m*-xylene, 8CI. 3-Trifluoromethylbenzyl chloride. α,α,α -Trifluoro-*m*-tolyl chloride
[705-29-3]



C₈H₆ClF₃ M 194.583

Reagent for gc anal. of ethylenethiourea. Liq. Bp₂₀ 75-76°, Bp₁₁ 70-71°. n_D^{25} 1.4622.

Yokoyama, T. *et al*, *J. Org. Chem.*, 1969, **34**, 1859 (*synth, pmr*)

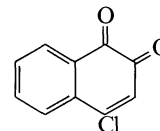
King, R.R., *J. Agric. Food Chem.*, 1977, **25**, 73 (*use*)

Blanco, F.E. *et al*, *J. Org. Chem.*, 1977, **42**, 868 (*synth*)

4-Chloro-1,2-naphthoquinone

C-00187

4-Chloro-1,2-naphthalenedione, 9CI. 4-Chloro- β -naphthoquinone
[6655-90-9]



C₁₀H₅ClO₂ M 192.601

Orange-red needles (C₆H₆/ligroin). Mp 135-136°. Dec. during recryst.

2-Oxime: [39825-03-1]. 4-Chloro-2-nitroso-1-naphthol
C₁₀H₆ClNO₂ M 207.616

Reagent for Fe(II). Used as 1mM alkaline aq. soln. for extraction-photometric detn. of Ni (λ_{\max} 611 nm, ϵ 82000, toluene). Cryst. Sol. spar. H₂O; sol. in alkalis.

Dioxime: [67106-48-3].

C₁₀H₇ClN₂O₂ M 222.630

Used for extraction-photometric detn. of Ni. Orange-red needles (EtOH). Sol. EtOH, C₆H₆, Me₂CO.

Fieser, L. *et al*, *J. Am. Chem. Soc.*, 1937, **59**, 1016 (*synth*)

Oliver, R.W.A. *et al*, *Tetrahedron*, 1968, **24**, 4067 (*synth, ir, nmr*)

Korenaga, M. *et al*, *Nippon Kagaku Kaishi*, 1972, 2445; *CA*, **78**, 52076 (*synth, use*)

Tôei, K. *et al*, *Analyst (London)*, 1975, **100**, 629 (*use*)

Tôei, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1978, **27**, 31 (*detn, Ni*)

Tôei, K. *et al*, *Anal. Chim. Acta*, 1979, **110**, 329 (*use*)

Krohn, K. *et al*, *Chem. Ber.*, 1989, **122**, 2323 (*synth, uv, pmr, cmr, ms*)

6-Chloro-1,2-naphthoquinone

C-00188

6-Chloro-1,2-naphthalenedione, 9CI
[18099-98-4]

C₁₀H₅ClO₂ M 192.601

Cryst. (EtOH). Mp 161°.

Dioxime: [67106-49-4].

C₁₀H₇ClN₂O₂ M 222.630

Used for extraction-photometric detn. of Ni. Orange-red needles (EtOH). Sol. EtOH, Me₂CO, C₆H₆.

Oliver, R.W.A. *et al*, *J. Chem. Soc. B*, 1968, 1141 (*ms*)

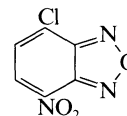
Oliver, R.W.A. *et al*, *Tetrahedron*, 1968, **24**, 4067 (*synth, uv, ir, pmr*)

Tôei, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1978, **27**, 31 (*detn, Ni*)

4-Chloro-7-nitrobenzofurazan, 9CI

C-00189

[10199-89-0]



C₆H₂ClN₃O₃ M 199.553

Used for fluorimetric detn. of amino groups. Pale-yellow needles (EtOH aq.). Mp 96.5-97°.

▷ DF8002400.

1-Oxide: [51860-46-9].

C₆H₂ClN₃O₄ M 215.552

Mp 138-138.5°.

Ghosh, P.B., *J. Chem. Soc. B*, 1966, 1004; 1968, 334 (*synth, pmr*)

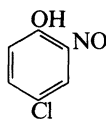
Ghosh, P.B. *et al*, *Biochem. J.*, 1968, **108**, 155 (*use*)

Klimish, H.J. *et al*, *J. Chromatogr.*, 1974, **90**, 141 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NFS550.

4-Chloro-2-nitrosophenol, 9CI

[39825-15-5]

 $C_6H_4ClNO_2$ M 157.556

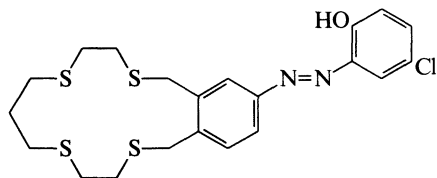
Used as 2mM soln. in toluene for extraction-photometric detn. of Fe(III) (ϵ 90000, toluene). Yellow cryst. (EtOH). Sol. alcohols, Et₂O, CHCl₃, toluene; sl. sol. H₂O. Mp 88-89°.

Korenaga, T. *et al*, *Anal. Chim. Acta*, 1973, **65**, 335 (*synth, use*)Korenaga, T. *et al*, *Talanta*, 1974, **21**, 645 (*use*)Tōei, K. *et al*, *Analyst (London)*, 1976, **101**, 974 (*use*)**C-00190**

Meinwald, J. *et al*, *J. Org. Chem.*, 1964, **29**, 2914 (*use*)
 Kishi, Y. *et al*, *J. Am. Chem. Soc.*, 1972, **94**, 9217 (*use*)
 Anderson, W.K. *et al*, *J. Org. Chem.*, 1973, **38**, 226 (*use*)
 Concannon, R.W. *et al*, *J. Org. Chem.*, 1973, **95**, 3284 (*use*)
Org. Synth., Coll. Vol., 5, 1973, 467 (*synth*)
 Tumlinson, J.H. *et al*, *Anal. Chem.*, 1974, **46**, 1309 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 120; **6**, 110.
 Urbański, J. *et al*, *Chem. Anal. (Warsaw)*, 1983, **28**, 259; *CA*, **100**, 95837y (*use*)
 Barili, P.L. *et al*, *Tetrahedron*, 1990, **46**, 5365 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CJI750.

4-Chloro-2-[(1,3,4,7,8,10,11,13-octahydro-6H-2,5,9,12-benzotetrathiacyclopentadecin-15-yl)azo]phenol, 9CI

4'-(2-Hydroxy-5-chlorophenylazo)benzo-1,4,8,11-tetrathiacyclopentadec-13-ene
 [104928-17-8]

 $C_{21}H_{25}ClN_2OS_4$ M 485.158

Used as 0.06mM soln. in 1,2-dichloroethane for extraction-photometric detn. of Ag (λ_{max} 537 nm, ϵ 10300), Cu(I). Orange cryst. (EtOH). Sol. EtOH, 1,2-dichloroethane. Mp 133-134°.

Muroi, M. *et al*, *Anal. Sci.*, 1986, **2**, 351 (*synth, detn, Ag*)**C-00191****1-Chloro-1,1,3,3,3-pentafluoro-2-propanol, 9CI**

[24332-19-2]

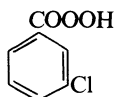
 $C_3H_2ClF_5O$ M 184.493

Derivatisation reagent for gc anal. of acids.

Watson, E. *et al*, *Anal. Biochem.*, 1974, **59**, 441 (*use*)Watson, E. *et al*, *Life Sci.*, 1974, **15**, 2167 (*use*)**C-00192****3-Chloroperbenzoic acid**

3-Chlorobenzenecarboxylic acid, 9CI. m-Chloroperoxybenzoic acid, 8CI

[937-14-4]

 $C_7H_5ClO_3$ M 172.567

Reagent for the detn. of carbon-carbon double bonds.

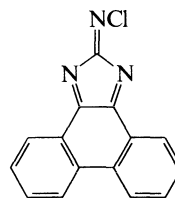
Reagent for oxidations, esp. Baeyer-Villiger

peroxidations. Also a selective reagent for removal of O-propenyl protecting groups. Cryst. Mp 94°. pK_a 7.57 (25°).

▷ SD9480000.

Schwartz, N.N., *J. Org. Chem.*, 1964, **29**, 1976 (*synth, purifn*)**C-00193****N-Chloro-2H-phenanthro[9,10-d]imidazol-2-imine, 9CI**

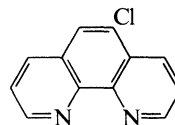
Phenanthro[9,10-d]imidazole-2-N-chloroimide
 [123430-91-1]

 $C_{15}H_8ClN_3$ M 265.701

Gives colour reactions with phenols. Brown needles (MeCN). Mp 191-193°.

Tanabe, S. *et al*, *Anal. Sci.*, 1989, **5**, 43, 513 (*synth, use*)**C-00194****5-Chloro-1,10-phenanthroline, 9CI**

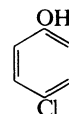
[4199-89-7]

 $C_{12}H_7ClN_2$ M 214.653

Used as redox indicator. Needles (C₆H₆/pet. ether). Sol. EtOH, Me₂CO, C₆H₆; spar. sol. H₂O. Mp 123°. pK_{a1} 4.26 ($\mu = 0.002$).

Richter, F. *et al*, *J. Am. Chem. Soc.*, 1944, **66**, 396 (*synth*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)**C-00195****4-Chlorophenol, 9CI***Parachlorophenol*, USAN

[106-48-9]

 C_6H_5ClO M 128.558

Topical antibacterial agent. Used in photometric detn. of V. White to straw coloured needles. Mp 37°. Bp 220°, Bp₂₅ 113.6°. pK_a 9.41 (25°).

▷ Irritant, causes burns. SK2800000.

Ac: [876-27-7].

 $C_8H_7ClO_2$ M 170.595

Liq. Mp 7-8°. Bp 226-228°.

▷ AG0875000.

Benzoyl:

 $C_{13}H_9ClO_2$ M 232.666

Leaflets. Mp 88°.

C-00196

Me ether: [623-12-1]. 1-Chloro-4-methoxybenzene. 4-Chloroanisole

C_7H_7ClO M 142.584
Liq. Bp₉ 71.5°. n_D^{20} 1.5351.

Et ether: [622-61-7]. 1-Chloro-4-ethoxybenzene, 9CI. 4-Chlorophenetole

C_8H_9ClO M 156.611
Cryst. Mp 21°. Bp_{11,2} 87.5°.

Ph ether:

$C_{12}H_9ClO$ M 204.655
Bp_{0,25} 87-90°.

Holleman, M.A.F. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1911, **30**, 48 (*synth*)

U.S. Pat., 2 725 402, (1955); *CA*, 2911 (*synth*)

Dearden, J.C., *Can. J. Chem.*, 1957, **37**, 1294, 1305 (*w*)

Kosower, E.M., *J. Org. Chem.*, 1963, **28**, 630.

Šlosar, J. *et al*, *Chem. Prum.*, 1965, **15**, 206; *CA*, **63**, 4195 (*synth*)

Perrin, M., *Acta Crystallogr., Sect. B*, 1973, **29**, 253, 258.

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2265.

Alem, Y. *et al*, *Anal. Chim. Acta*, 1983, **151**, 491 (*detn, V*)

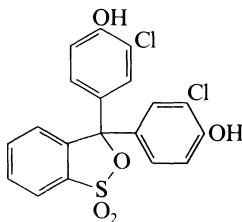
Olah, G.A. *et al*, *Synthesis*, 1986, 868 (*deriv*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CJK750.

Chlorophenol red

C-00197

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2-chlorophenol], 9CI.
3,3'-Bis(3-chloro-4-hydroxyphenyl)3H-2,1-benzoxathiole S,S-dioxide. 3,3'-Dichlorophenolsulfonephthalein
[4430-20-0]



$C_{19}H_{12}Cl_2O_2S$ M 423.272

Used as a 0.1% soln. in 20% EtOH as acid-base indicator (pH range: 4.8-6.4; colour change: yellow → purple); adsorption indicator in mercurometric titration of Cl^- , Br^- . Also used in the frozen food industry for monitoring storage temperature changes. Greenish-brown cryst. Sol. EtOH; spar. sol. H_2O . Mp 261-262°. Available as sodium salt.

Harden, W.C., *J. Am. Chem. Soc.*, 1930, **52**, 4611 (*synth*)

Zombory, L. *et al*, *Z. Anorg. Allg. Chem.*, 1933, **215**, 255 (*adsorption indicator*)

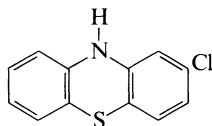
U.S. Pat., 2 850 393, (1958); *CA*, 1959, **53**, 607a (*use*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 111 (*use*)

2-Chloro-10H-phenothiazine, 9CI

C-00198

[92-39-7]



$C_{12}H_8ClNS$ M 233.721

Used as a 0.1% soln. in 80% EtOH for photometric detn. of Pd (λ_{max} 525 nm, ϵ 4630). Yellow cryst. (xylene). Sol. EtOH, Me_2CO , Et_2O , C_6H_6 ; spar. sol. H_2O . Mp 196-197°.

Galbreath, R.J. *et al*, *J. Org. Chem.*, 1958, **23**, 1804 (*synth, ir*)

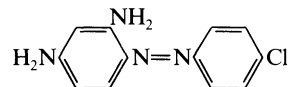
Gowda, H.S. *et al*, *Fresenius' Z. Anal. Chem.*, 1976, **279**, 208 (*detn, Pd*)

4-[(4-Chlorophenyl)azo]-1,3-benzenediamine, 9CI

C-00199

2,4-Diamino-4'-chloroazobenzene

[18371-09-0]



$C_{12}H_{11}ClN_4$ M 246.698

Used for photometric detn. of Co (λ_{max} 550 nm, ϵ 20300).

Dark red cryst. (EtOH aq.). Sol. Et_2O ; spar. sol. H_2O .

pK_{a1} 4.60.

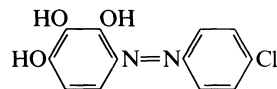
Maksudov, N.K. *et al*, *Uzb. Khim. Zh.*, 1976, **2**, 14; *CA*, **85**, 201516b (*detn, Co*)

4-[(4-Chlorophenyl)azo]-1,2,3-benzenetriol, 9CI

C-00200

2,3,4-Trihydroxy-4'-chloroazobenzene

[76260-35-0]



$C_{12}H_9ClN_2O_3$ M 264.667

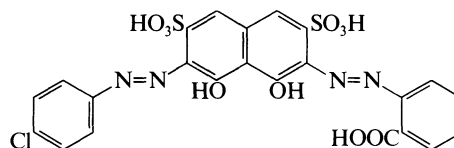
Used as 1mM Me_2CO soln. for photometric detn. of Mo(V) (λ_{max} 470 nm, ϵ 32000, 0.005-0.07M H_2SO_4). Dark brown powder. Sol. Me_2CO , EtOH.

Gambarov, D.G. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 2190 (*synth, detn, Mo*)

3-[[7-[4-Chlorophenylazo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]benzoic acid, 8CI

C-00201

3-(2-Carboxyphenylazo)-6-(4-chlorophenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. 2-(o-Carboxyphenylazo)-7-(p-chlorophenylazo)chromotropic acid



$C_{23}H_{15}ClN_4O_{10}S_2$ M 606.977

Used for photometric detn. of Ba, Ca, Sr, SO_4^{2-} . Dark red cryst. powder. Mod. sol. H_2O .

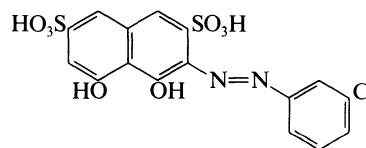
Petrova, T.V. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1970, 259 (*use*)

3-[(3-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI

C-00202

2-(3-Chlorophenylazo)chromotropic acid

[62106-14-3]



$C_{16}H_{11}ClN_2O_8S_2$ M 458.856

Di-Na salt: [68504-28-9].

Used as a 0.01M aq. soln. as metallochromic indicator in titrimetric detn. of Zr. Dark red cryst. powder. Sol. H₂O.

Khater, M.M. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 45 (detn. Zr)

3-[(4-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9Cl C-00203

2-(4-Chlorophenylazo)chromotropic acid
[37678-84-5]

C₁₆H₁₁ClN₂O₈S₂ M 458.856
pK_{a2} 3.57; pK_{a3} 7.11; pK_{a4} 9.92.

Di-Na salt: [68504-29-0].

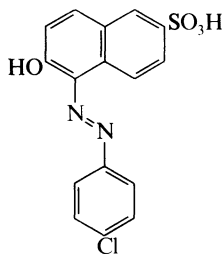
Used as a 0.01M aq. soln. as metallochromic indicator for titrimetric detn. of Zr; as 1mM aq. soln. as an acid-base indicator. Dark red cryst. powder. Sol. H₂O.

Khater, M.M. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 45 (detn. Zr)

Khalifa, H. *et al*, *Microchem. J.*, 1977, **22**, 288 (synth, indicator)

5-[(4-Chlorophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, 9Cl C-00204

[4531-71-9]



C₁₆H₁₁ClN₂O₄S M 362.793

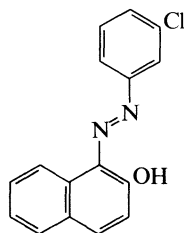
Used as a 0.1% soln. in 2-propanol for photometric titrimetric detn. of Pd (λ_{max} 560 nm). Orange-red cryst.

[5858-89-9]

Khalifa, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 46 (detn. Pd)

1-[(3-Chlorophenyl)azo]-2-naphthalenol, 9Cl C-00205

[3010-45-5]



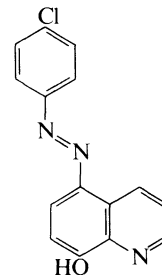
C₁₆H₁₁ClN₂O M 282.728

Used for photometric detn. of Pd. Orange-red cryst. Sol. Me₂CO, EtOH.

Baliuta, I.G. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 2346, 2348 (detn. Pd)

5-[(4-Chlorophenyl)azo]-8-quinolinol, 9Cl C-00206

5-(p-Chlorophenylazo)-8-hydroxyquinoline
[16195-35-0]



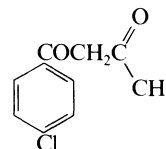
C₁₅H₁₀ClN₃O M 283.716

Used a 1mM EtOH soln. for photometric detn. of Al, Ga, In (λ_{max} 450 nm, ε 22000, pH 3), Tl(III); as an indicator in EDTA titration of Al, In, Ga. Cryst. Sol. EtOH.

Khater, M.M. *et al*, *Anal. Chim. Acta*, 1978, **98**, 127 (use)

1-(4-Chlorophenyl)-1,3-butanedione, 9Cl C-00207

p-Chlorobenzoylacetone



C₁₀H₉ClO₂ M 196.633

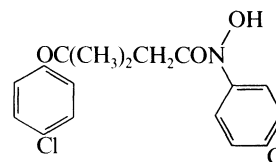
3-Oxime: [76201-79-1].

C₁₀H₁₀ClNO₂ M 211.647

Used as 0.1-2% soln. in EtOH for extraction-photometric detn. of Pd, Ru(III) (λ_{max} 400 nm, CHCl₃). Cryst. (MeOH). Sol. EtOH, Me₂CO, C₆H₆, toluene, CHCl₃. Mp 160°.

Yeole, V.V. *et al*, *Mikrochim. Acta*, 1980, **2**, 117 (synth, detn. Pd, Ru)

N-(4-Chlorophenyl)-4-chlorophenoxyisobutyrohydroxamic acid C-00208



C₁₇H₁₇Cl₂NO₃ M 354.232

Used as 0.05-0.1% solns. in CHCl₃ or 1% soln. in EtOH for extraction-photometric detn. of Nb (λ_{max} 355 nm, ε 7400), Ta (λ_{max} 635 nm, ε 4500), Ti. Cryst. Sol. EtOH, CHCl₃.

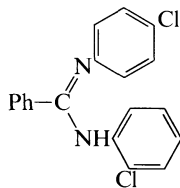
Agrawal, Y.K. *et al*, *J. Chem. Eng. Data*, 1971, **16**, 371, 495 (synth)

Agrawal, Y.K. *et al*, *Analyst (London)*, 1984, **109**, 1509; 1985, **110**, 57, 1041 (detn. Nb, Ti, Ta)

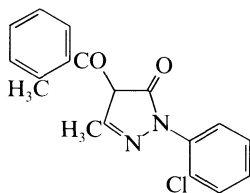
N-(2-Chlorophenyl)-N'-(4-chlorophenyl)benzenecarboximidamide, 9CI

C-00209

[116489-11-3]

C₁₉H₁₄Cl₂N₂ M 341.238Used as 0.3% C₆H₆ soln. (10% pentanol) for extraction-photometric detn. of W(V) (λ_{\max} 405 nm, ϵ 13000). Cryst. Sol. C₆H₆, toluene.Shukla, A. *et al*, *Anal. Chim. Acta*, 1988, **208**, 91 (*synth, detn, W*)**2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-methylbenzoyl)-3H-pyrazol-3-one, 9CI**

C-00210

1-(2-Chlorophenyl)-3-methyl-4-(o-toluoyl)-5-pyrazolone
[125670-56-6]C₁₈H₁₅ClN₂O₂ M 326.781Used as 0.01M cyclohexane soln. for extraction separation of Zn. Cryst. (dioxan aq., MeOH). Sol. cyclohexane, MeOH, dioxan. Mp 128°. pK_{a1} 3.38.Ozaki, T. *et al*, *Anal. Chim. Acta*, 1989, **226**, 187 (*synth, detn, Zn*)**2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(3-methylbenzoyl)-3H-pyrazol-3-one, 9CI**

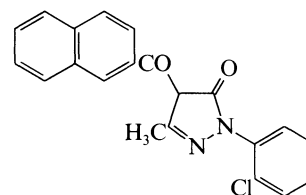
C-00211

1-(2-Chlorophenyl)-3-methyl-4-(m-toluoyl)-5-pyrazolone
[125670-57-7]C₁₈H₁₅ClN₂O₂ M 326.781Used as 0.01M cyclohexane soln. for extraction separation of Zn. Cryst. (dioxan aq. or MeOH). Sol. cyclohexane, MeOH, dioxan. Mp 129°. pK_{a1} 3.62.Ozaki, T. *et al*, *Anal. Chim. Acta*, 1989, **226**, 187 (*synth, detn, Zn*)**2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(4-methylbenzoyl)-3H-pyrazol-3-one, 9CI**

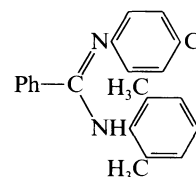
C-00212

1-(2-Chlorophenyl)-3-methyl-4-(p-toluoyl)-5-pyrazolone
[125670-58-8]C₁₈H₁₅ClN₂O₂ M 326.781Used as 0.01M cyclohexane soln. for extraction separation of Zn. Cryst. (dioxan aq. or MeOH). Sol. cyclohexane, MeOH, dioxan. Mp 167°. pK_{a1} 3.74.Ozaki, T. *et al*, *Anal. Chim. Acta*, 1989, **226**, 187 (*synth, detn, Zn*)**2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-naphthalenylcarbonyl)-3H-pyrazol-3-one, 9CI**

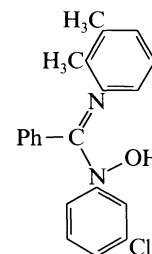
C-00213

1-(2-Chlorophenyl)-3-methyl-4-(2-naphthoyl)-5-pyrazolone
[125670-59-9]C₂₁H₁₅ClN₂O₂ M 362.814Used as 0.01M cyclohexane soln. for extraction separation of Zn. Cryst. (dioxan aq. or MeOH). Sol. cyclohexane, MeOH, dioxan. Mp 180°. pK_{a1} 4.16.Ozaki, T. *et al*, *Anal. Chim. Acta*, 1989, **226**, 187 (*synth, detn, Zn*)**N-(4-Chlorophenyl)-N'-(2,6-dimethylphenyl)benzenecarboximidamide, 9CI**

C-00214

N-(4-Chlorophenyl)-N'-(2,6-dimethylphenyl)benzamide
[79458-85-8]C₂₁H₁₉ClN₂ M 334.847Used as 0.3% C₆H₆ soln. (10% 1-pentanol) for extraction-photometric detn. of W(V) (λ_{\max} 405 nm, ϵ 13300, presence of SCN[⊖]), Mo (λ_{\max} 470 nm, ϵ 18000, 2.5-6.5M HCl). Cryst. (EtOH/HCl). Sol. C₆H₆, toluene, EtOH, CHCl₃.Patel, K.S. *et al*, *Anal. Chem.*, 1982, **54**, 52 (*synth, detn, Mo*)Shukla, A. *et al*, *Anal. Chim. Acta*, 1988, **208**, 91 (*synth, detn, W*)**N-(3-Chlorophenyl)-N'-(2,3-dimethylphenyl)-N-hydroxybenzenecarboximidamide, 9CI**

C-00215

N-(3-Chlorophenyl)-N'-(2,3-dimethylphenyl)-N-hydroxybenzamide
[85224-06-2]C₂₁H₁₉ClN₂O M 350.847Used as 0.1% CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{\max} 590 nm, ϵ 5350, in the presence of azide), Fe(III) (λ_{\max} 460 nm, ϵ 12000). Cryst. (C₆H₆/pet. ether). Sol. CHCl₃, C₆H₆, CCl₄.Deb, K.K. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (*synth*)

Jha, A.R. *et al*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (detn, Fe, V)
 Jha, A.R. *et al*, *J. Indian Chem. Soc.*, 1982, **59**, 694, 1177 (synth, detn, Fe, V)

N-(3-Chlorophenyl)-N'-(2,5-dimethylphenyl)-N-hydroxybenzenecarboximidamide, 9CI **C-00216**

N-(3-Chlorophenyl)-N'-(2,5-dimethylphenyl)-N-hydroxybenzamidine

[85224-04-0]

$C_{21}H_{19}ClN_2O$ M 350.847

Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 590 nm, ϵ 5250, in the presence of azide), Fe(III). Cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 , CCl_4 .

Deb, K.K. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (synth)
 Jha, A.R. *et al*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (detn, Fe, V)
 Jha, A.R. *et al*, *J. Indian Chem. Soc.*, 1982, **59**, 1177 (synth, detn, V)

N-(3-Chlorophenyl)-N'-(2,6-dimethylphenyl)-N-hydroxybenzenecarboximidamide, 9CI **C-00217**

N-Hydroxy-N-3-chlorophenyl-N'-(2,6-dimethylphenyl)benzamidine

[85224-05-1]

$C_{21}H_{19}ClN_2O$ M 350.847

Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 600 nm, ϵ 3300, pH 1.7-3 in the presence of SCN^{\ominus}). Cryst. Sol. $CHCl_3$, CCl_4 , C_6H_6 .

Jha, A.R. *et al*, *J. Indian Chem. Soc.*, 1982, **59**, 1177 (synth, detn, V)

N-(4-Chlorophenyl)-N'-(2,3-dimethylphenyl)-N-hydroxybenzenecarboximidamide, 9CI **C-00218**

N-(4-Chlorophenyl)-N'-(2,3-dimethylphenyl)-N-hydroxybenzamidine

[85224-09-5]

$C_{21}H_{19}ClN_2O$ M 350.847

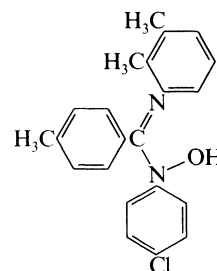
Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 590 nm, ϵ 5350, in the presence of azide), Fe(III). Cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 , CCl_4 .

Deb, K.K. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (synth)
 Jha, A.R. *et al*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (detn, V, Fe)
 Jha, A.R. *et al*, *J. Indian Chem. Soc.*, 1982, **59**, 1177 (synth, detn, V)

N-(4-Chlorophenyl)-N'-(2,3-dimethylphenyl)-N-hydroxy-4-methylbenzenecarboximidamide, 9CI **C-00219**

N-(4-Chlorophenyl)-N'-(2,3-dimethylphenyl)-N-hydroxy-4-toluamidine

[71410-76-9]



$C_{22}H_{21}ClN_2O$ M 364.873

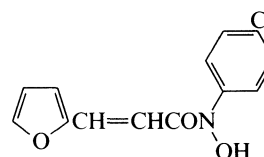
Used as 0.1% C_6H_6 soln. for extraction-photometric detn. of Fe(III), V(V), Mo(V). Cryst. (EtOH). Sol. EtOH, C_6H_6 . Mp 182°.

Kharsan, R.S. *et al*, *Mikrochim. Acta*, 1979, **1**, 353 (synth, use)

N-(4-Chlorophenyl)-3-(2-furanyl)-N-hydroxy-2-propenamide **C-00220**

N-(p-Chlorophenyl)-2-furanacrylohydroxamic acid, 8CI

[23006-05-5]



$C_{13}H_{10}ClNO_3$ M 263.680

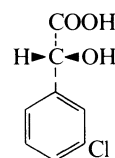
Used as 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 570 nm, ϵ 6100). Cryst. Sol. $CHCl_3$.

Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 278 (synth)
 Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (detn, V)

2-(3-Chlorophenyl)-2-hydroxyacetic acid **C-00221**

3-Chloro- α -hydroxybenzeneacetic acid, 9CI. m-Chloromandelic acid, 8CI

[16273-37-3]



(R)-form

$C_8H_7ClO_3$ M 186.594

(R)-form [61008-98-8]

Cryst. Mp 103-105°. $[\alpha]_D^{25} - 113^\circ$ (c, 4 in EtOH).

(S)-form [32222-43-8]

Cryst. (C_6H_6). Mp 107°. $[\alpha]_D^{25} + 122^\circ$ (c, 0.9 in Me_2CO).

(±)-form [52950-16-0]

Cryst. (C_6H_6 or $CHCl_3$). Mp 106.5-107°, Mp 115-115.5°.

Me ether: [21660-66-2]. (3-Chlorophenyl)methoxyacetic acid.

α -Methoxy-3-chlorophenylacetic acid

$C_9H_9ClO_3$ M 200.621

Used as a soln. in EtOH for gravimetric detn. of Na. Oil.

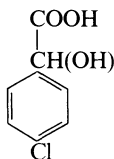
Me ester: [13305-18-5].

Cryst. (C_6H_6 /pet. ether). Mp 84°.

Jenkins, S.S., *J. Am. Chem. Soc.*, 1931, **53**, 2341 (*synth*)
 Reeve, W. *et al*, *J. Am. Chem. Soc.*, 1961, **83**, 2755 (*synth, deriv*)
 Reeve, W. *et al*, *Anal. Chim. Acta*, 1968, **43**, 150 (*synth, detn, Na*)
 Compere, E.L., *J. Org. Chem.*, 1968, **33**, 2565 (*synth*)
 Collet, A. *et al*, *Bull. Soc. Chim. Fr.*, 1973, 3330 (*resolution*)
 Colon, D.F. *et al*, *J. Org. Chem.*, 1991, **56**, 2322 (*configuration*)

2-(4-Chlorophenyl)-2-hydroxyacetic acid C-00222

4-Chloro- α -hydroxybenzeneacetic acid, 9CI. p-Chloromandelic acid, 8CI. p-Chlorophenylglycollic acid [492-86-4]



$C_8H_7ClO_3$ M 186.594

(*R*)-form [32189-36-9]

Cryst. (C_6H_6 or $CHCl_3$). Mp 121°. $[\alpha]_D^{25} -136^\circ$ (c, 0.7 in Me_2CO).

(\pm)-form [7138-34-3]

Used as a 1mM aq. soln. for photometric detn. of Zr (λ_{max} 266 nm), Mo(VI) (λ_{max} 630 nm, ϵ 106000, $CHCl_3$). Cryst. ($CHCl_3$ /pet. ether). Sol. H_2O . Mp 119-120°. pK_{a1} 3.15 (25°).

Me ether: [4674-24-2].

$C_9H_9ClO_3$ M 200.621

Cryst. (C_6H_6 /pet. ether). Mp 85-88°.

Amide:

$C_8H_8ClNO_2$ M 185.609

Cryst. (EtOH). Mp 122-123°.

Nitrile: [13312-83-9]. p-Chloromandelonitrile

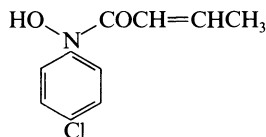
C_8H_6ClNO M 167.594

Yellow cryst. Mp 43°.

Buck, J.S., *J. Am. Chem. Soc.*, 1933, **55**, 2595 (*synth*)
 Ernst, J.M., *Ohio J. Sci.*, 1967, **67**, 35; *CA*, **67**, 17583y (*detn, Zr*)
 Compere, E.L. *et al*, *J. Org. Chem.*, 1968, **33**, 2565 (*synth*)
 Moersch, G.W. *et al*, *Synthesis*, 1971, 647 (*synth*)
 Collet, A. *et al*, *Bull. Soc. Chim. Fr.*, 1973, 3330 (*synth*)
 Sato, S. *et al*, *Talanta*, 1987, **34**, 419 (*detn, Mo*)

N-(4-Chlorophenyl)-N-hydroxy-2-butenamide C-00223

N-(p-Chlorophenyl)crotonohydroxamic acid, 8CI [22861-55-8]



$C_{10}H_{10}ClNO_2$ M 211.647

Used as 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 530 nm, ϵ 4400). Cryst. Sol. $CHCl_3$.

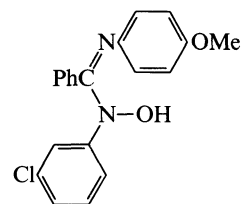
Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 278 (*synth*)

Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn, V*)

N-(3-Chlorophenyl)-N-hydroxy-N'-(4-methoxyphenyl)benzenecarboximidamide, 9CI C-00224

N-(3-Chlorophenyl)-N-hydroxy-N'-(4-methoxyphenyl)benzamidine

[85224-03-9]



$C_{20}H_{17}ClN_2O_2$ M 352.819

Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 590 nm, ϵ 4000, in the presence of azide), Fe(III). Cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 , CCl_4 .

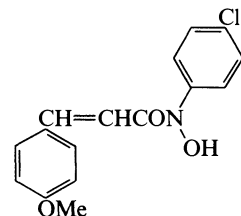
Deb, K.K. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (*synth*)

Jha, A.R. *et al*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (*detn, V, Fe*)

Jha, A.R. *et al*, *J. Indian Chem. Soc.*, 1982, **59**, 1177 (*synth, detn, V*)

N-(4-Chlorophenyl)-N-hydroxy-3-(4-methoxyphenyl)-2-propenamide C-00225

N-(p-Chlorophenyl)-p-methoxycinnamohydroxamic acid, 8CI [30859-93-9]



$C_{16}H_{14}ClNO_3$ M 303.744

Used as 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 570 nm, ϵ 7400). Cryst. Sol. $CHCl_3$.

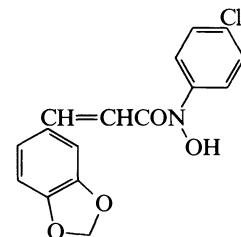
Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 278 (*synth*)

Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn, V*)

N-(4-Chlorophenyl)-N-hydroxy-3-(3,4-methylenedioxyphenyl)-2-propenamide C-00226

N-(p-Chlorophenyl)-3,4-(methylenedioxy)cinnamohydroxamic acid, 8CI

[30859-97-3]



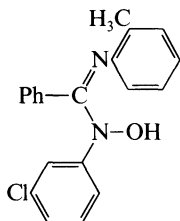
$C_{16}H_{12}ClNO_4$ M 317.728

Used as 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 570 nm, ϵ 7400). Cryst. Sol. $CHCl_3$.

Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 278 (*synth*)

Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn, V*)

N-(3-Chlorophenyl)-N-hydroxy-N'-(2-methylphenyl)benzenecarboximidamide, 9CI
N-(3-Chlorophenyl)-N-hydroxy-N'-(2-methylphenyl)benzamidine
[85224-00-6]



$C_{20}H_{17}ClN_2O$ M 336.820
Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 595 nm, ϵ 5150, in the presence of azide), Fe. Cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 , CCl_4 .

Deb, K.K. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (*synth*)
Jha, A.R. *et al.*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (*detn.*, V, Fe)
Jha, A.R. *et al.*, *J. Indian Chem. Soc.*, 1982, **59**, 1177 (*synth.*, *detn.*, V)

N-(3-Chlorophenyl)-N-hydroxy-N'-(3-methylphenyl)benzenecarboximidamide, 9CI
N-(3-Chlorophenyl)-N-hydroxy-N'-(3-methylphenyl)benzamidine
[85224-01-7]

$C_{20}H_{17}ClN_2O$ M 336.820
Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 585 nm, ϵ 4400, in the presence of azide), Fe. Cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 , CCl_4 .

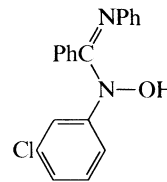
Deb, K.K. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (*synth*)
Jha, A.R. *et al.*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (*detn.*, V, Fe)
Jha, A.R. *et al.*, *J. Indian Chem. Soc.*, 1982, **59**, 1177 (*synth.*, *detn.*, V)

N-(3-Chlorophenyl)-N-hydroxy-N'-(4-methylphenyl)benzenecarboximidamide, 9CI
N-(3-Chlorophenyl)-N-hydroxy-N'-(4-methylphenyl)benzamidine
[85224-02-8]

$C_{20}H_{17}ClN_2O$ M 336.820
Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 585 nm, ϵ 4900, in the presence of azide), Fe(III). Cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 , CCl_4 .

Deb, K.K. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (*synth*)
Jha, A.R. *et al.*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (*detn.*, V, Fe)
Jha, A.R. *et al.*, *J. Indian Chem. Soc.*, 1982, **59**, 1177 (*synth.*, *detn.*, V)

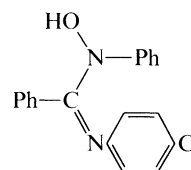
C-00227 N-(3-Chlorophenyl)-N-hydroxy-N'-phenylbenzenecarboximidamide, 9CI
N-(3-Chlorophenyl)-N-hydroxy-N'-phenylbenzamidine
[82670-55-1]



$C_{19}H_{15}ClN_2O$ M 322.793
Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 585 nm, ϵ 4400, in the presence of azide), Fe(III). Cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 , CCl_4 .

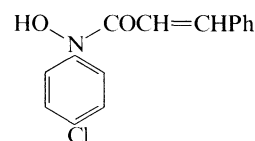
Deb, K.K. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (*synth*)
Jha, A.R. *et al.*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (*detn.*, V, Fe)
Jha, A.R. *et al.*, *J. Indian Chem. Soc.*, 1982, **59**, 1177 (*synth.*, *detn.*, V)

C-00231 N'-(4-Chlorophenyl)-N-hydroxy-N-phenylbenzenecarboximidamide, 9CI
N'-(4-Chlorophenyl)-N-hydroxy-N-phenylbenzamidine
[59387-26-7]



$C_{19}H_{15}ClN_2O$ M 322.793
Used for gravimetric detn. of Ni. Cryst. (pet. ether/ C_6H_6).
Deb, K. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (*synth.*, *detn.*, Ni)

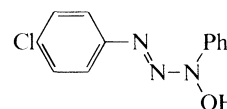
C-00232 N-(4-Chlorophenyl)-N-hydroxy-3-phenyl-2-propenamide, 9CI
N-(p-Chlorophenyl)cinnamohydroxamic acid, 8CI
[22861-52-5]

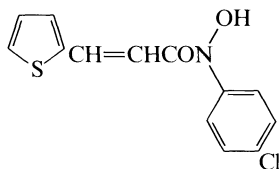
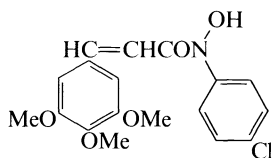


$C_{15}H_{12}ClNO_2$ M 273.718
Used as 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 535 nm, ϵ 6300), Ce(IV). Cryst. Sol. $CHCl_3$, CCl_4 , C_6H_6 .

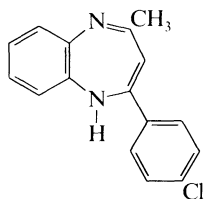
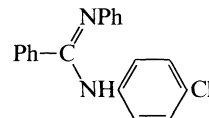
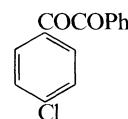
Bhura, D.C. *et al.*, *J. Chem. Eng. Data*, 1969, **14**, 278 (*synth*)
Bhura, D.C. *et al.*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn.*, V)
Chandravanshi, B.S. *et al.*, *Croat. Chem. Acta*, 1984, **57**, 243 (*detn.*, Ce)

C-00233 3-(4-Chlorophenyl)-3-hydroxy-1-phenyltriazeno
[5756-87-6]



C₁₂H₁₀ClN₃O M 247.683Used as 1% MeOH soln. for gravimetric detn. of Ti.
Yellow needles. Sol. MeOH, EtOH, Me₂CO. Mp 140-140.5° dec.Sogani, N.C. *et al.*, *Anal. Chem.*, 1956, **28**, 1616 (*synth, detn, Ti*)
Purohit, D.N., *Talanta*, 1967, **14**, 353 (*rev*)**N-(4-Chlorophenyl)-N-hydroxy-3-(2-thienyl)-2-propenamide, 9CI** C-00234N-p-Chlorophenyl-2-thienylacryloylhydroxamic acid
[119582-01-3]C₁₃H₁₀ClNO₂S M 279.746Used as 0.1M soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{max} 530 nm, ε 6600; 3.5-7.5M HCl).
Cryst. (C₆H₆). Sol. CHCl₃, C₆H₆.Abbasi, S.A. *et al.*, *Analyst (London)*, 1988, **113**, 1561 (*synth, detn, V*)**N-(4-Chlorophenyl)-N-hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamide, 9CI** C-00235N-(4-Chlorophenyl)-3,4,5-trimethoxycinnamoylhydroxamic acid
[91097-78-8]C₁₈H₁₈ClNO₅ M 363.797Used as 0.05-0.1% soln. in CHCl₃ or 1% soln. in EtOH for extraction-photometric detn. of Nb (λ_{max} 380 nm, ε 64000), Ta (λ_{max} 635 nm, ε 23000), Ti. Cryst. Sol. CHCl₃, EtOH.Agrawal, Y.K. *et al.*, *J. Chem. Eng. Data*, 1971, **16**, 371, 495 (*synth*)Agrawal, Y.K. *et al.*, *Analyst (London)*, 1984, **109**, 1509; 1985, **110**, 57, 1041 (*detn, Nb, Ti, Ta*)**2-(4-Chlorophenyl)-4-methyl-1H-1,5-benzodiazepine, 9CI** C-00236

[73980-66-2]

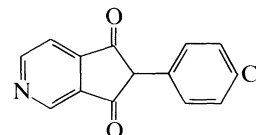
C₁₆H₁₃ClN₂ M 268.745Used as 0.1% MeOH soln. as an acid-base indicator (colour change: violet → yellow). Cryst. Sol. MeOH; sl. sol. H₂O. pK_a 6.20 (H₂O).Omar, N.M., *Indian J. Chem.*, 1974, **12**, 498 (*synth*)
El-Rabbat, N.A. *et al.*, *Analyst (London)*, 1980, **105**, 165 (*indicator*)**N-(4-Chlorophenyl)-N'-phenylbenzenecarboximidamide, 9CI** C-00237N-p-Chlorophenyl-N'-phenylbenzamidine
[56722-36-2]C₁₉H₁₅ClN₂ M 306.794Used as 0.1% soln. in C₆H₆ for extraction-photometric detn. of Mo (λ_{max} 465 nm, ε 17300, 3.0-5.2M HCl).
Cryst. (EtOH + HCl). Sol. EtOH, C₆H₆, CHCl₃.Patel, K.S. *et al.*, *Anal. Chem.*, 1982, **54**, 52 (*synth, detn, Mo*)**(4-Chlorophenyl)phenylethanedione, 9CI** C-00238p-Chlorobenzil
[22711-23-5]C₁₄H₉ClO₂ M 244.677

Yellow needles (EtOH). Mp 73-74°.

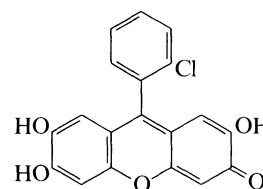
Dioxime: [43084-60-2].

C₁₄H₁₁ClN₂O₂ M 274.706Used as 0.01-0.001M EtOH solns. for extraction-photometric detn. of Ni (λ_{max} 410 nm, ε 13000, CHCl₃), Fe(II) (1,2-dichloroethane), Cu (C₆H₆). Cryst. Sol. EtOH. Mp 229-231°.Hatt, H.H. *et al.*, *J. Chem. Soc.*, 1936, 93 (*synth*)Kuse, S. *et al.*, *Anal. Chim. Acta*, 1974, **70**, 65 (*synth, use, deriv*)Armesto, D. *et al.*, *Synthesis*, 1988, 799 (*synth*)**6-(4-Chlorophenyl)-5H-2-pyridine-5,7(6H)-dione** C-00239

2-(4-Chlorophenyl)-5-azaindandione

C₁₄H₈ClNO₂ M 257.675Used as a 20% soln. in Me₂CO as acid-base indicator (pH range: 4.7-5.8). Cryst. pK_{a1} 4.97 (6% Me₂CO aq.).Hrnčiar, P. *et al.*, *Chem. Zvesti*, 1966, **20**, 261 (*use*)**9-(2-Chlorophenyl)-2,6,7-trihydroxy-3H-xanthen-3-one, 9CI** C-00240

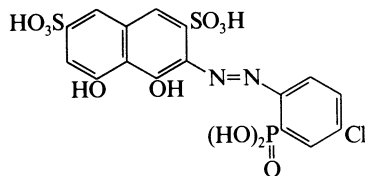
2-Chlorophenylfluorone

C₁₉H₁₁ClO₅ M 354.746Used for photometric detn. of Sb, Mo. Cryst. Sol. EtOH, Me₂CO, alkalis; spar. sol. H₂O.Lu, M.L. *et al.*, *CA*, 1960, **54**, 18181i (*use*)

Chlorophosphonazo I

C-00241

3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8Cl. 2-(2'-Phosphono-4'-chlorophenylazo)chromotropic acid
[1938-82-5]



$C_{16}H_{12}ClN_2O_{11}PS_2$ M 538.836

Used as 0.1% aq. soln. in photometric detn. of Al, Ca, Ti, U. Brown powder. Sol. H_2O .

Nemodruk, A. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 292 (detn, U)

Qui, X.C. *et al*, *Analyst (London)*, 1983, **108**, 641 (detn, Ti)

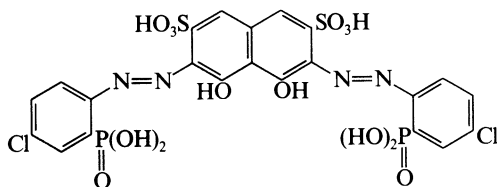
Qui, X.C. *et al*, *Mikrochim. Acta*, 1983, **3**, 1 (detn, Ca)

Zhu, Y.Q. *et al*, *Talanta*, 1983, **30**, 291 (detn, Al)

Chlorophosphonazo III

C-00242

3,6-Bis(4-chloro-2-phosphonophenyl)azo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9Cl
[1914-99-4]



$C_{22}H_{16}Cl_2N_4O_{14}P_2S_2$ M 757.372

Used for photometric detn. of Ba, Zr, Mg, Sc, Sr, Ti, Th (λ_{max} 620 nm, ϵ 120000), U, Ca (λ_{max} 668 nm, ϵ 54000). Dark violet cryst. powder. Sol. H_2O ; sl. sol. EtOH. Usually supplied as disodium salt.

Dianilide: [16782-24-4]. *Chlorophosphonazo DAL*. [(1,8-Dihydroxy-3,6-bis[(phenylamino)sulfonyl]-2,7-naphthalenediyl]bis[azo(5-chloro-2,1-phenylene)]] diphosphonic acid, 9Cl. 3,6-Bis(p-chloro-o-phosphonophenylazo)chromotropic acid dianilide

$C_{34}H_{26}Cl_2N_6O_{12}P_2S_2$ M 907.597

Used as a 0.01% soln. in butanol for photometric detn. of lanthanides. Dark cryst. powder. Sol. H_2O , butanol.

Buděšinský, B. *et al*, *Talanta*, 1967, **14**, 688 (deriv, use)

Buděšinský, B., *Chelates Anal. Chem.*, Dekker, New York, 1969, 2 (synth)

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971.

Yamamoto, T., *Anal. Chim. Acta*, 1973, **63**, 65 (detn, Th)

Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Metals Part II*, John Wiley, New York, 1978, 1367.

Kaneko, K. *et al*, *Anal. Chim. Acta*, 1981, **132**, 165 (detn, Mg)

Bykhovtsova, T.T. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 624 (detn, Sc)

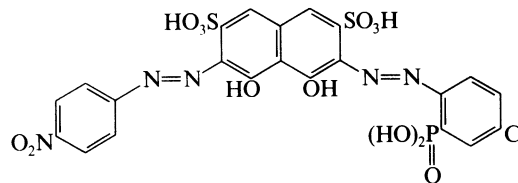
Burba, P. *et al*, *Fresenius' Z. Anal. Chem.*, 1984, **318**, 1 (detn, U)

Marozenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 207.

Chlorophosphonazo mN

C-00243

3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl
[77350-04-0]



$C_{22}H_{15}ClN_5O_{13}PS_2$ M 687.945

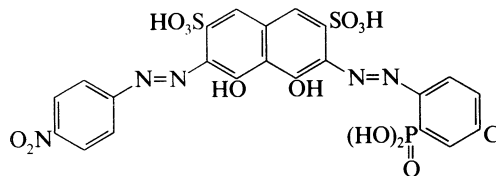
Used for photometric detn. of rare earth elements (λ_{max} 670 nm). Red-orange cryst. Sol. H_2O .

Hu, Y. *et al*, *CA*, 1983, **99**, 32331u (detn, rare earths)

Chlorophosphonazo pN

C-00244

3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl. p-Nitrochlorophosphonazo
[81138-76-3]



$C_{22}H_{15}ClN_5O_{13}PS_2$ M 687.945

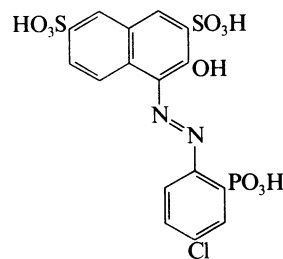
Used as 0.03% aq. soln. for photometric detn. of Y (λ_{max} 731 nm, ϵ 85000). Cryst. Sol. H_2O .

Hsu Chung-Gin, *et al*, *Analyst (London)*, 1985, **110**, 1245 (synth, detn, Y)

Chlorophosphonazo R

C-00245

4-[(4-Chloro-2-phosphonophenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, 9Cl
[3627-07-4]



$C_{16}H_{12}ClN_2O_{10}PS_2$ M 522.837

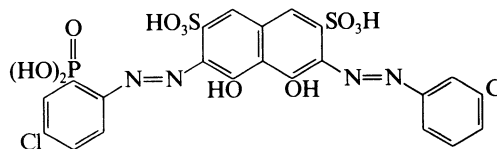
Used as 0.1% aq. soln. in photometric detn. of Be. Dark blue cryst. Sol. H_2O , Me_2CO .

Luk'yanov, V.F. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 562.

Chlorophosphonazo-*m*-sulfonic acid

C-00246

3-[(3-Chlorophenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9Cl
[89819-06-7]



$C_{22}H_{15}Cl_2N_4O_{11}PS_2$ M 677.392

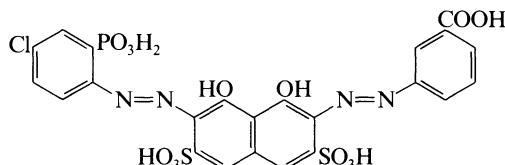
Used as an aq. soln. for photometric detn. of Ce, Th (λ_{max} 670 nm, ϵ 100000), U, Sc (λ_{max} 549 nm, ϵ 39500).

Orange-red cryst. (H_2O). Sol. H_2O .

Pan, J. *et al*, *CA*, 1984, **100**, 167320z (detn. Ce, Th, U)

Chen, W.R. *et al*, *Mikrochim. Acta*, 1985, **3**, 417 (synth, detn, Sc)

3-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9Cl C-00247
m-Carboxychlorophosphonazo
[77350-05-1]

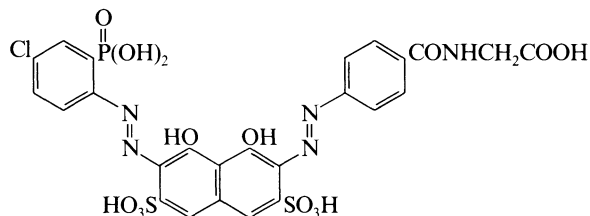


$C_{23}H_{16}ClN_4O_{13}PS_2$ M 686.957

Used as 0.02% aq. soln. for photometric detn. of Th (λ_{max} 676 nm, ϵ 103000). Cryst. Sol. H_2O .

Pan, J.M. *et al*, *Microchem. J.*, 1987, **35**, 218.

N-[4-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoyl]glycine, 9Cl C-00248
[102771-42-6]

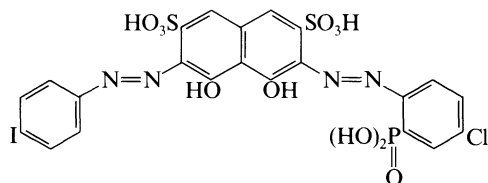


$C_{25}H_{19}ClN_5O_{14}PS_2$ M 744.009

Used as aq. soln. for photometric detn. of rare earth elements (λ_{max} 680 nm, ϵ 73000-102000). Cryst. Sol. H_2O .

Dai, H. *et al*, *Fenxi Huaxue*, 1986, **14**, 677; *CA*, **107**, 211083v.

3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl C-00249
p-Iodochlorophosphonazo
[85308-79-8]

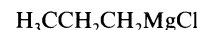


$C_{22}H_{15}ClIN_4O_{11}PS_2$ M 768.844

Used for photometric detn. of rare earth elements. Dark red cryst. powder. Sol. H_2O .

Shi, G. *et al*, *CA*, 1986, **104**, 199013a (detn, rare earths)

Chloropropylmagnesium, 11Cl, 10Cl, 9Cl, 8Cl C-00250
Propylmagnesium chloride
[2234-82-4]



C_3H_7ClMg M 102.846

Not isol. Grignard reagent. Commercially available as 2M soln. in Et_2O . Used for derivatization of ionic alkyl lead compounds in gc analysis.

Kharasch, M.S. *et al*, *Grignard Reactions of Nonmetallic Substances*, Constable, London, 1954 (rev)

Evans, D.F. *et al*, *J. Chem. Soc.*, 1962, 5125 (pmr)

Tuulmets, A., *CA*, 1966, **65**, 8730f (props)

Koppel, I. *et al*, *CA*, 1969, **71**, 101152x (props)

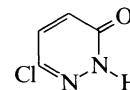
Chevrot, C. *et al*, *J. Electroanal. Chem. Interfacial Electrochem.*, 1974, **54**, 135, 263 (props)

Radojević, M. *et al*, *Anal. Chem.*, 1986, **58**, 658.

Sobota, P. *et al*, *J. Organomet. Chem.*, 1987, **332**, 239 (props)

Lobiński, R. *et al*, *Anal. Chim. Acta*, 1992, **262**, 285.

6-Chloro-3(2H)-pyridazinone C-00251
3-Chloro-6-hydroxypyridazine. 6-Chloro-3-pyridazinol
[19064-67-6]



$C_4H_4ClN_2O$ M 130.533

Cryst. (EtOAc). Mp 138-139°.

Hydrazone: [17284-97-8]. *6-Chloro-3-hydrazinopyridazine*

$C_4H_5ClN_4$ M 144.563

Used for extraction-photometric detn. of Ni (λ_{max} 715 nm, ϵ 18600, dioxan). Cryst. (EtOH). Sol. EtOH, Me_2CO , H_2O . Mp 141°.

Tsukasa, K., *Chem. Pharm. Bull.*, 1957, **5**, 376 (synth)

Norishita, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1981, **30**, 460 (detn, Ni)

Heinisch, G. *et al*, *Can. J. Chem.*, 1991, **69**, 972 (cmr)

2-Chloropyridine C-00252
 α -Chloropyridine
[109-09-1]



C_5H_4ClN M 113.546

Used in extraction-photometric detn. of Pd and Pt (iodide medium). Cryst. Sol. EtOH, Et_2O ; sl. sol. H_2O . d^{15} 1.205. Mp 65°. Bp 170°. Bp₁₀ 54-58°. n_D^{25} 1.5300. Steam-volatile.

▷ Highly toxic. US5950000.

Fischer, E., *Ber.*, 1899, **32**, 1298.

Ger. Pat., 489 183, (1930); *CA*, **24**, 2146.

Rath, J., *Justus Liebigs Ann. Chem.*, 1931, **486**, 76.

Wibaut, J.P. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1939, **58**, 709.

Takeda, O. *et al*, *Yakugaku Zasshi*, 1953, **73**, 1158; *CA*, **48**, 12748.

Chapman, N.B. *et al*, *J. Chem. Soc.*, 1956, 1563.

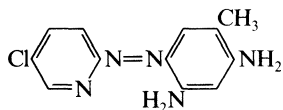
Egli, R.A., *Fresenius' Z. Anal. Chem.*, 1963, **194**, 401 (use)

Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (cmr)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CKW000.

4-[(5-Chloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, 9CI C-00253

5-Chloro-2-(2,4-diamino-5-methylphenylazo)pyridine. 5-Cl-PADAT
[51833-08-0]



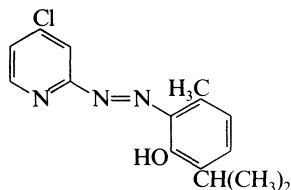
$C_{12}H_{12}ClN_5$ M 261.713

Used for extraction-photometric detn. of Co (λ_{max} 573 nm, ϵ 126000) as a 0.1% soln. in EtOH. Orange-red needles (EtOH aq.). Sol. C_6H_6 , $CHCl_3$, EtOH, Me_2CO ; spar. sol. H_2O . Mp 219°.

Shibata, S. *et al*, *Anal. Chim. Acta*, 1974, **73**, 107 (use)

2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, 9CI C-00254

[67520-58-5]



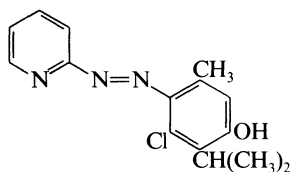
$C_{15}H_{16}ClN_3O$ M 289.764

Used as 1mM EtOH soln. for extraction-photometric detn. of Pd, Co, Ni (λ_{max} 620 nm, ϵ 26000, 0.02-3M NH_3 , $CHCl_3$). Cryst. (EtOH aq.). Sol. pet. ether, EtOH. Mp 196°.

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 734 (synth, use)

4-[3-Chloro-4-(pyridinylazo)-5-methyl-2-(1-methylethyl)]phenol, 9CI C-00255

2-(2-Chloro-3-isopropyl-4-hydroxy-6-methylphenylazo)pyridine
[64340-05-2]



$C_{15}H_{16}ClN_3O$ M 289.764

Used as 1mM EtOH soln. for extraction-photometric detn. of Pd (λ_{max} 560 nm, ϵ 27000, pH 4.2-7, $CHCl_3$). Cryst. (EtOH aq.). Sol. EtOH. Mp 106°.

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 734 (synth, detn, Pd)

4-Chloro-N-(2-pyridinyl)benzamide, 9CI C-00256

2-(p-Chlorobenzamido)pyridine
[14547-82-1]



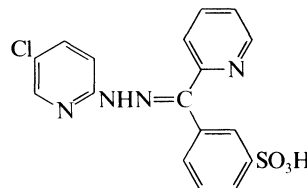
$C_{12}H_9ClN_2O$ M 232.669

Used as 1% soln. in C_6H_6 for photometric detn. of Mo(*V*) (λ_{max} 470 nm, ϵ 19000). Cryst. Insol. H_2O ; sol. acids, alkalis (with hydrol.), C_6H_6 .

Patel, K.S. *et al*, *Talanta*, 1982, **29**, 791 (detn, Mo)

3-[[5-Chloro-2-pyridinyl]hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, 9CI C-00257

(2-Pyridyl)(3-sulfohenyl)methanone 2-(5-chloropyridyl)hydrazone
[106314-88-9]



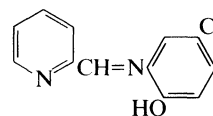
$C_{17}H_{13}ClN_4O_3S$ M 388.833

Used as 2mM soln. in 0.01M NaOH for photometric detn. of Co (λ_{max} 490 nm, ϵ 34000, pH 4), Fe(II,III), Pd, Pb, Zn. Cryst. (EtOH aq.). Sol. alkalis, H_2O , EtOH. pK_{a1} 2.62; pK_{a2} 4.77 ($\mu = 0.2$, 25°).

Odashima, T. *et al*, *Analyst (London)*, 1986, **111**, 1983 (synth, use)

4-Chloro-2-[(2-pyridinylmethylene)amino]phenol, 9CI C-00258

Picolinaldehyde 2-hydroxy-5-chloroanil
[20211-18-1]



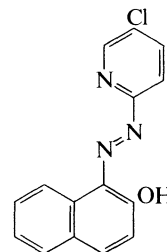
$C_{12}H_9ClN_2O$ M 232.669

Used as 1mM $CHCl_3$ soln. for extraction-photometric detn. of Pd (λ_{max} 603 nm, ϵ 4730). Yellow-orange needles (pet. ether). Sol. $CHCl_3$, 1,2-dichloroethane, 1,2-dichlorobenzene. Mp 138°.

Otomo, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 2421 (synth, use)
Otomo, M. *et al*, *Anal. Chim. Acta*, 1976, **83**, 275 (detn, Pd)

1-(5-Chloro-2-pyridylazo)-2-naphthol, 9CI C-00259

1-[(5-Chloro-2-pyridinyl)azo]-2-naphthalenol, 9CI. 5-Chloro-2-(2-hydroxy-1-naphthylazo)pyridine
[28832-58-8]



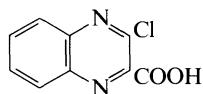
$C_{15}H_{10}ClN_3O$ M 283.716

Used in photometric detn. of Cd (ϵ 65000). Cryst. Sol. EtOH, MeOH.

Shibata, M. *et al*, *Mikrochim. Acta*, 1972, 721 (use)

3-Chloro-2-quinoxalinecarboxylic acid, 8Cl C-002602-Chloro-3-quinoxalinecarboxylic acid (*incorr.*)

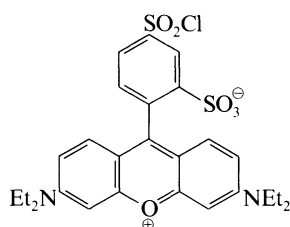
[20254-76-6]

C₉H₅ClN₂O₂ M 208.603Used as aq. soln. for specific gravimetric detn. of Pd. Pale-yellow prisms (H₂O). Sl. sol. conc. HCl forming yellow soln., sol. H₂O, MeOH. Mp 146-147° dec.*Et ester*: [49679-45-0].C₁₁H₉ClN₂O₂ M 236.657Pinkish needles. Mp 42.5°. Bp_{0.01} 170-180° (bath).

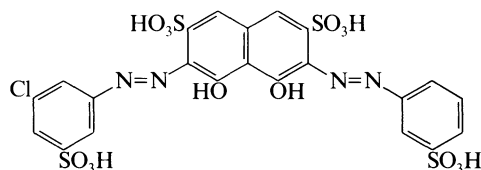
Becomes pink in air.

Amide:C₉H₆ClN₃O M 207.619Long needles. Sl. sol. hot Et₂O, sol. hot CHCl₃, C₆H₆, H₂O.Gowenlock, A.H. *et al*, *J. Chem. Soc.*, 1945, 622 (*synth*)Elena, A.J. *et al*, *Zh. Obshch. Khim.*, 1955, **25**, 161; *CA*, **50**, 1839g.Dutt, N.K. *et al*, *Anal. Chim. Acta*, 1968, **41**, 331 (*synth, detn, Pd*)**9-[4-(Chlorosulfonyl)-2-sulfonylphenyl]-3,6-** C-00261**bis(diethylamino)xanthylum***Laryl chloride. Lissamine rhodamine B sulfonyl chloride*

[62796-29-6]

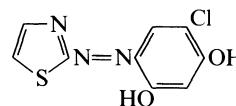
C₂₇H₂₉ClN₂O₆S₂ M 577.121

Fluorescent label for amino groups. Used as a pre-column labelling reagent for the peroxyoxalate chemiluminescence detn. of phenols.

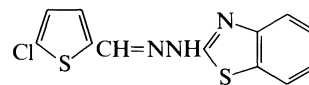
Chadwick, C.S. *et al*, *Lancet*, 1958, **1**, 412 (*use*)McKay, I.C. *et al*, *Immunology*, 1981, **43**, 591 (*use*)Mettrione, R.M., *J. Chromatogr.*, 1986, **363**, 337 (*use*)Kwakman, P.J.M. *et al*, *J. Chromatogr.*, 1988, **459**, 139 (*use*)**3-[(5-Chloro-3-sulfonylphenyl)azo]-4,5-** C-00262**dihydroxy-6-[(3-sulfonylphenyl)azo]-2,7-****naphthalenedisulfonic acid, 8Cl**C₂₂H₁₅ClN₄O₁₄S₄ M 723.096Used as 0.1% aq. soln. for photometric detn. of V (λ_{max} 620 nm, ε 44100). Dark red cryst. powder. Mod. sol. H₂O.Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2364 (*use*)**4-Chloro-6-(2-thiazolylazo)-1,3-** C-00263**benzenediol, 9Cl**

4-(2-Thiazolylazo)-6-chlororesorcinol. 2-(5-Chloro-2,4-dihydroxyphenylazo)thiazole

[97839-24-2]

C₉H₆ClN₃O₂S M 255.684Used as 0.05% soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 741 nm, ε 31300, pH 9.5). Dark red powder cryst. (HCl). Sol. EtOH; sl. sol. H₂O. pK_{a2} 4.71; pK_{a3} 9.13.Ueda, K. *et al*, *Microchem. J.*, 1985, **31**, 403 (*synth, detn, Fe*)**5-Chloro-2-thiophenecarboxaldehyde 2-** C-00264**benzothiazolyldiazone, 9Cl**

[61293-48-9]

C₁₂H₈ClN₃S₂ M 293.800Used as a 0.082% soln. in EtOH for extraction-photometric detn. of Co (C₆H₆, λ_{max} 423 nm, ε 75000), Cu (λ_{max} 433 nm, ε 45000), Ni (λ_{max} 420 nm). Orange-red cryst. (EtOH). Sol. EtOH, dioxan, C₆H₆; insol. H₂O. pK_{a2} 11.0 (dioxan, 25°).Odashima, T. *et al*, *Anal. Chim. Acta*, 1976, **86**, 231 (*detn, Co, Cu, Ni*)Odashima, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1977, **26**, 678 (*detn, Co*)**Chlorotriethylsilane, 9Cl, 8Cl** C-00265

[994-30-9]

Et₃SiClC₆H₁₅ClSi M 150.723Silylation reagent for use in gc and ms. d₄²⁰ 0.898. Bp 145-147°.Volkov, V.F. *et al*, *Izv. Akad. Nauk SSSR, Ser. Fiz.*, 1962, **26**, 1282 (*ir*)Semlyen, J.A. *et al*, *J. Chem. Soc.*, 1964, 4948 (*synth, glc*)Sommer, L.H. *et al*, *J. Org. Chem.*, 1967, **32**, 2470 (*synth*)Coutant, J.E. *et al*, *Arch. Mass Spectral Data*, 1971, **2**, 542; *CA*, **75**, 139914 (*ms*)Andronov, V.F. *et al*, *Tr. Inst. - Mosk. Khim.-Tekhnol. Inst. im.**D.I. Mendeleeva*, 1972, **71**, 285; *CA*, **80**, 95036 (*pmr*)Harvey, D.J. *et al*, *J. Chromatogr.*, 1975, **109**, 73 (*use*)Mueller, H. *et al*, *J. Organomet. Chem.*, 1977, **140**, C17 (*nmr*)Harvey, D.J., *Org. Mass Spectrom.*, 1977, **12**, 473 (*use*)**Chlorotrihexylsilane, 9Cl** C-00266

[3634-67-1]

[H₃C(CH₂)₅]₃SiClC₁₈H₃₉ClSi M 319.044Reagent for characterisation of cannabinoids by gc-ms. d₄²⁰ 0.8710. Bp₅ 153.5-154°. n_D²⁰ 1.4556.Petrov, A.D. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1952, **86**, 737 (*synth*)Harvey, D.J. *et al*, *J. Chromatogr.*, 1975, **109**, 73 (*use*)Chadha, R.K. *et al*, *J. Organomet. Chem.*, 1984, **277**, 47 (*synth*)

Chlorotrimethylsilane, 9CI**C-00267**

Trimethylsilyl chloride

[75-77-4]

C₃H₉ClSi M 108.642

Silylating agent. Used to prepare volatile derivs. for glc.

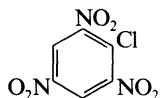
Liq. d₄²⁰ 0.86. Mp –40°. Bp 57°.

- ▷ Suspected carcinogen. Irritant, causes burns. Highly flammable, fl.p. –18°. VV2710000.

Schmidbaur, H., *J. Am. Chem. Soc.*, 1963, **85**, 2336 (*nmr*)Hess, G.G. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 5327 (*ms*)Harris, R.K. *et al*, *J. Magn. Reson.*, 1975, **17**, 174 (*nmr*)Harvey, D.J., *J. Chromatogr.*, 1978, **147**, 291 (*use*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1980, **8**, 107.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TLN250.**2-Chloro-1,3,5-trinitrobenzene, 9CI, 8CI****C-00268**

1-Chloro-2,4,6-trinitrobenzene. Picryl chloride

[88-88-0]

C₆H₂ClN₃O₆ M 247.551Used as EtOH soln. for photometric detn. of hydrazine (λ_{max} 494 nm) and for the gc detn. of amines. Needles or plates (CHCl₃, EtOH/ligroin or MeOH). Mp 83-85°. Bp P525°.

- ▷ CZ1225900.

Desvergnès, L., *CA*, 1931, **25**, 2699 (*synth*)Boyer, R. *et al*, *Can. J. Res., Sect. B*, 1946, **24**, 200 (*synth*)Riley, J.P., *Analyst (London)*, 1954, **79**, 76 (*detn.*, N₂H₄)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 885; **4**, 391.Sharin, G.P. *et al*, *Zh. Org. Khim.*, 1967, **3**, 82 (*synth*)Gunner, S.W. *et al*, *J. Assoc. Off. Anal. Chem.*, 1969, **52**, 1200 (*use*)Zittrin, S. *et al*, *Org. Mass Spectrom.*, 1976, **11**, 388 (*ms*)Rawat, J.P., *Indian J. Technol.*, 1986, **24**, 157; *CA*, **105**, 53711a (*use*)Lyčka, A. *et al*, *Collect. Czech. Chem. Commun.*, 1987, **52**, 2946 (*pmr*, *cmr*, *N nmr*)Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 915.**Chlorotriphenylmethane, 8CI****C-00269**

1,1',1''-(Chloromethylidene)trisbenzene, 9CI. Triphenylmethyl chloride. Trityl chloride. α-Chlorotritane

[76-83-5]

C₁₉H₁₅Cl M 278.780Reagent for the characterisation and hplc anal. of alcohols. Cryst. (C₆H₆ or pet. ether). Mp 111-112°, Mp 108-112°.

- ▷ PA6450000.

Gomberg, M., *Ber.*, 1900, **33**, 3147 (*synth*)*Org. Synth.*, 1943, **23**, 100 (*synth*)Gerdil, R. *et al*, *Acta Crystallogr., Sect. B*, 1975, **31**, 936 (*cryst struct*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1977, **6**, 656.Suzuki, Y. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1979, **28**, 610; *CA*, **92**, 14889h (*use*)Dunand, A. *et al*, *Acta Crystallogr., Sect. B*, 1982, **38**, 570 (*cryst struct*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CLT500.**Chlorotriphenylsilane, 9CI****C-00270**

Triphenylsilyl chloride

[76-86-8]

C₁₈H₁₅ClSi M 294.855

Catalyst for epoxy resin manuf. Reagent for gc anal. of nucleosides. Cryst. Mp 94°.

- ▷ VV2720000.

Maire, J.C. *et al*, *Bull. Soc. Chim. Fr.*, 1963, 2785 (*pmr*)Maire, J.C. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1965, **260**, 5290 (*ir*)Turetskaya, R.A. *et al*, *Plast. Massy*, 1966, **36**; *CA*, **64**, 17626 (*synth*)Smith, A.L., *Spectrochim. Acta, Part A*, 1967, **23**, 1075 (*ir*)Hancock, R.L., *J. Gas Chromatogr.*, 1968, **6**, 431 (*use*)Rakita, P.E. *et al*, *J. Organomet. Chem.*, 1976, **104**, 27 (*cmr*)**Chlorotriphenylstannane, 9CI****C-00271**

Triphenyltin chloride

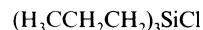
[639-58-7]

C₁₈H₁₅ClSn M 385.479Antifouling agent, pesticide. Used as aq. soln. for gravimetric detn. of F[⊖]. Cryst. (EtOH). Sol. H₂O. Mp 106°. Bp_{13.5} 249°.

- ▷ WH6860000.

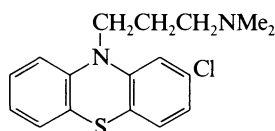
Kozeschkow, K.A. *et al*, *Ber.*, 1934, **67**, 1348 (*synth*)Chambers, D.B. *et al*, *J. Chem. Soc. A*, 1967, 1759 (*ms*)Davies, A.G. *et al*, *J. Chem. Soc. C*, 1969, 1136 (*nmr*)Srivastava, T.S., *J. Organomet. Chem.*, 1969, **16**, P53 (*ir*)Smith, P.J., *Organomet. Chem. Rev., Sect. A*, 1970, **5**, 373 (*mössbauer*)Bokii, N.T. *et al*, *Zh. Strukt. Khim.*, 1970, **11**, 895 (*cryst struct*)McFarlane, W. *et al*, *J. Organomet. Chem.*, 1972, **40**, C17 (*nmr*)Mitchell, T.N., *J. Organomet. Chem.*, 1973, **59**, 189 (*cmr*)Kennedy, J.D. *et al*, *Rev. Silicon, Germanium, Tin, Lead Compd.*, 1974, **1**, 235 (*nmr*)Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976, 540 (*detn.*, F[⊖])Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CLU000.**Chlorotripropylsilane, 9CI****C-00272**

[995-25-5]

C₉H₂₁ClSi M 192.803Silylation reagent for use in gc and ms. Bp 197-200°, Bp₁₆ 86°.George, P.D. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 6647 (*synth*)Valade, J. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1959, **249**, 1769 (*synth*)Semlyen, J.A. *et al*, *J. Chem. Soc.*, 1964, 4948 (*synth*)Khudobin, Y.I. *et al*, *CA*, 1974, **81**, 49728 (*synth*)Harvey, D.J. *et al*, *J. Chromatogr.*, 1975, **109**, 73 (*use*)Harvey, D.J., *Org. Mass Spectrom.*, 1977, **12**, 473 (*use*)

Chlorpromazine, BAN, INN, USAN**C-00273**

2-Chloro-N,N-dimethyl-10H-phenothiazine-10-propanamine, 9CI. 2-Chloro-10-(3-dimethylaminopropyl)phenothiazine, 8CI. Thorazine. Numerous proprietary names [50-53-3]

C₁₇H₁₉ClN₂S M 318.869

Tranquilliser, antiemetic. Used in treatment of schizophrenia and in photometric detn. of Au(III). Oily liq. Insol. H₂O. Bp_{0.8} 200-205°.

▷ Highly toxic. SN8925000.

B,HCl: Chlorpromazine hydrochloride, USAN. Chloractil. Largactil

Used as 5% aq. soln. for photometric detn. of Au (λ_{\max} 530 nm). Dark bluish cryst. (dil. HCl). Sol. H₂O. Mp 179-180°.

Picrate: Mp 172-173°.

[14923-91-2]

Charpentier, P. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1952, **235**, 59 (*synth*)

Lee, K.T., *Anal. Chim. Acta*, 1962, **26**, 285, 478 (*detn. Au*)

McDowell, J.J.H., *Acta Crystallogr., Sect. B*, 1969, **25**, 2175 (*cryst. struct*)

Fales, H.M. *et al*, *Arch. Mass Spectral Data*, 1971, **2**, 754 (*ms*)

Rappaport, M. *et al*, *Science (Washington, D.C.)*, 1971, **174**, 723 (*pharmacol*)

Forrest, I.S. *et al*, *Adv. Biochem. Psychopharmacol.*, (Ed.), Vol. 9, Raven Press, N.Y., 1974 (*rev*)

Day, C.R., *M & B Pharm. Bull.*, 1979, **26**, 50 (*rev*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7021-7023.

Jovanovic, M.V. *et al*, *J. Heterocycl. Chem.*, 1984, **21**, 1589 (*cmr*)

Schmolka, S.J. *et al*, *Synthesis*, 1984, 29 (*synth*)

Galons, H. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 5108 (*synth, pmr*)

Klein, C.L. *et al*, *Acta Crystallogr., Sect. C*, 1986, **42**, 1083 (*cryst. struct*)

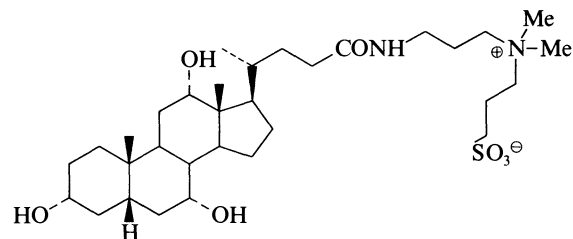
Kracmar, J. *et al*, *Pharmazie*, 1986, **41**, 571 (*w*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 4370 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CKP250.

3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate**C-00274**

N,N-Dimethyl-N-(3-sulfopropyl)-3-[[3,7,12-trihydroxy-24-oxo-5 β -cholan-24-yl]amino]-1-propanaminium, 9CI. CHAPS [75621-03-3]

C₃₂H₅₈N₂O₇S M 614.885

Commercially available as dihydrate. Nondenaturing detergent used in membrane biochemistry. Cryst. (MeOH). Mp 157° dec.

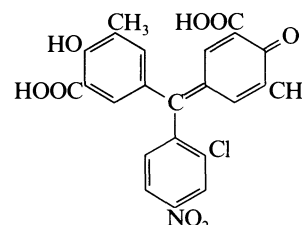
▷ Irritant.

Hjelmeland, L.M., *Proc. Natl. Acad. Sci. U.S.A.*, 1980, **77**, 4623, 6368 (*synth, use*)

Moriyama, R. *et al*, *Biochim. Biophys. Acta*, 1985, **832**, 135 (*use*)
Block, M.R. *et al*, *Biochemistry*, 1986, **25**, 374 (*use*)
Kitamura, Y. *et al*, *Eur. J. Pharmacol.*, 1986, **123**, 263 (*use*)
Galle, A.M. *et al*, *J. Chromatogr.*, 1986, **366**, 422 (*use*)
Sigma-Aldrich Library of Chemical Safety Data, 1988, **1**, 872A.

Chromal blue G**C-00275**

5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2-chloro-4-nitrophenyl)methyl]-2-hydroxy-3-methylbenzoic acid, 9CI

C₂₃H₁₆ClNO₈ M 469.834

Strictly, the name Chromal blue G applies to the disodium salt.

Di-Na salt: [10143-02-9].

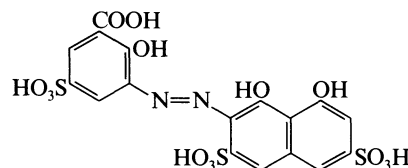
Used as 0.1% soln. in EtOH in photometric detn. of Be (ϵ 31000), Sc, Ga, Pd, U (ϵ 130000). Dark cryst. (EtOH). Sol. EtOH.

Uesugi, K., *Bull. Chem. Soc. Jpn.*, 1969, **42**, 2051, 2398, 2998 (*detn. Sc, Be*)

Uesugi, K. *et al*, *Anal. Chim. Acta*, 1983, **148**, 315 (*detn. U*)

Chromazol KS**C-00276**

3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-hydroxy-5-sulfobenzoic acid, 9CI

C₁₇H₁₂N₂O₁₄S₃ M 564.485

Tri-Na salt: [55306-09-7].

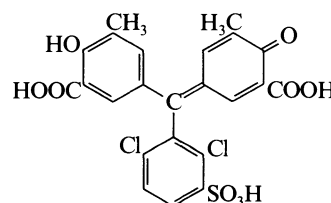
Used as a 0.1% aq. soln. for photometric detn. of Al (λ_{\max} 625 nm, ϵ 102000). Red cryst. (H₂O). Sol. H₂O; insol. C₆H₆. pK_{a1} 3.28; pK_{a2} 3.92; pK_{a3} 9.70; pK_{a4} 12.59.

Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1938 (*synth*)

Shao-pu, L. *et al*, *Analyst (London)*, 1982, **107**, 428 (*detn. Al*)

Chromazurol S**C-00277**

5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulfophenyl)methyl]-2-hydroxy-3-methylbenzoic acid, 9CI. Chrome azurol S. Solochrome brilliant blue. Alberon. C.I. Mordant blue 29. C.I. 43825. CAS

C₂₃H₁₆Cl₂O₉S M 539.345

Strictly, the name Chromazurol S applies to the trisodium salt.

Tri-Na salt: [1667-99-8].

Used as 0.05-0.1% soln. in photometric detn. of Al, Be, Co, Cr, Cu, Fe, Ga, In, Mo, Ni, Sc, Th, Ti, U, V, Zr (pH 3-8); metal indicator in chelatometric titration. Use of surfactants increases sensitivity. Red-brown cryst. powder. Sol. H₂O. Available as dihydrate.

Malat, M., *Anal. Chim. Acta*, 1961, **25**, 289 (*dissoc*)

Malanik, V. *et al*, *Anal. Chim. Acta*, 1975, **76**, 464 (*purifn*)

Moukova, N. *et al*, *Collect. Czech. Chem. Commun.*, 1981, **46**, 354 (*acid-base props*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 53 (*use*)

Tikhonov, V.N., *Zh. Anal. Khim.*, 1984, **39**, 1796 (*use*)

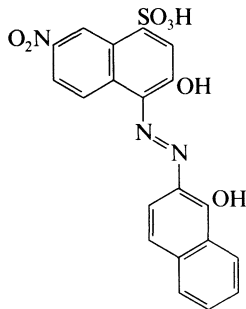
Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 26.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 2nd Ed., 1986, 100, 163.

Chrome black special

C-00278

3-Hydroxy-4-[(1-hydroxy-2-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid. C.I. Mordant black 11. C.I. 14645. Eriochrome black T. Solochrome black W DFA [25747-08-4]



C₂₀H₁₃N₃O₇S M 439.405

Dark red cryst. powder. Sol. H₂O; mod. sol. EtOH; sl. sol. Me₂CO.

Mono-Na salt: [1787-61-7].

Used as 0.02% MeOH soln. for photometric detn. of Mg (λ_{\max} 525 nm, ϵ 18000), Al, Be, Ca, Ga, In, lanthanides, Th, Zn; indicator in EDTA titrations. Greyish black powder. Sol. H₂O, EtOH, MeOH. pK_{a1} 1.6; pK_{a2} 6.3; pK_{a3} 11.5.

Lott, P.F. *et al*, *Anal. Chem.*, 1960, **32**, 1702 (*detn, Th*)

Schwarzenbach, G. *et al*, *Complexometric Titrations*, Methuen, London, 1969.

Korenman, I.M., *Khim. Khim. Tekhnol. (Minsk)*, 1970, **2**, 60; *CA*, **77**, 42762v (*detn, Ti*)

Impedovo, S. *et al*, *Talanta*, 1971, **19**, 97 (*detn, Ca*)

Alimarin, I.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2383 (*detn, Mo*)

Slegers, G. *et al*, *Analyst (London)*, 1974, **99**, 471 (*detn, Mg*)

Akhmedli, M.K. *et al*, *CA*, 1974, **80**, 103477s (*detn, rare earths*)

Davydova, R.T. *et al*, *CA*, 1974, **80**, 103521b (*detn, Zr*)

Mushran, S.P. *et al*, *Analysis*, 1975, **3**, 339 (*detn, Mo, W*)

Basargin, N.N. *et al*, *Zavod. Lab.*, 1984, **30**, 14 (*detn, Al*)

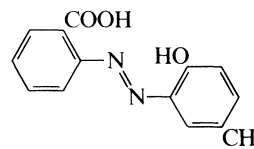
Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 355.

Onishi, H., *Photometric Determination of Traces of Metals. Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 13.

Chrome bordeaux B

C-00279

o-(6-Hydroxy-m-tolylazo)benzoic acid. 2-[(2-Hydroxy-5-methylphenyl)azo]benzoic acid. 2'-Hydroxy-5'-methylazobenzene-2-carboxylic acid. C.I. Mordant red 32. C.I. 14210 [4870-46-6]



C₁₄H₁₂N₂O₃ M 256.260

Strictly, the name Chrome bordeaux B applies to the disodium salt. Reddish violet cryst. Sol. MeOH, EtOH. Mp 191°.

Di-Na salt: Used as a 0.01% aq. soln. as metallochromic indicator for titrimetric detn. of Mg, Zn; used as 0.04% MeOH soln. for extraction sepn. of Be from Fe(III) and Al; photometric detn. of Be; polarographic detn. of Be. Orange cryst. (H₂O). Sol. H₂O; mod. sol. EtOH, Me₂CO.

Bognar, J. *et al*, *CA*, 1959, **53**, 10603 (*detn, Zn, Mg*)

Blasius, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1971, **255**, 10; 1972,

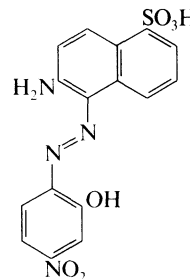
258, 257 (*detn, Be*)

Blasius, E. *et al*, *Talanta*, 1971, **18**, 273 (*polarog*)

Chrome dark BLN

C-00280

6-Amino-5-[(2-hydroxy-4-nitrophenyl)azo]-1-naphthalenesulfonic acid, 9CI



C₁₆H₁₂N₄O₆S M 388.360

Strictly, the name Chrome dark BLN applies to the sodium salt.

Na salt: [15792-61-7].

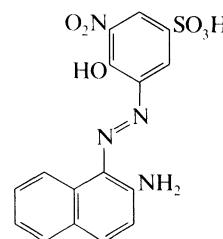
Used as a 0.02% aq. soln. for photometric detn. of Ga (λ_{\max} 595 nm, ϵ 29500). Green cryst. (MeOH). Sol. H₂O, MeOH; insol. C₆H₆.

Likussar, W. *et al*, *Mikrochim. Acta*, 1974, 475 (*detn, Ga*)

Chrome dark green BGN

C-00281

3-[(2-Amino-1-naphthalenyl)azo]-4-hydroxy-5-nitrobenzenesulfonic acid, 9CI



C₁₆H₁₂N₄O₆S M 388.360

Strictly, the name Chrome dark green BGN applies to the sodium salt.

Na salt: [53258-72-3].

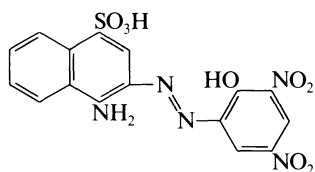
Used as a 0.02% aq. soln. for photometric detn. of Ga (λ_{\max} 575 nm, ϵ 22400). Green cryst. (MeOH). Sol. H₂O, MeOH; insol. C₆H₆.

Likussar, W. *et al*, *Mikrochim. Acta*, 1974, 475 (*detn*, Ga)

Chrome dark green BN

C-00282

4-Amino-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-1-naphthalenesulfonic acid, 9CI



C₁₆H₁₁N₅O₈S M 433.358

Strictly, the name Chrome dark green BN applies to the sodium salt.

Na salt: [10214-05-8].

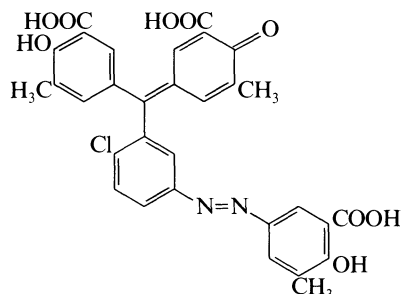
Used as a 0.02% aq. soln. for photometric detn. of Ga (λ_{\max} 575 nm, ϵ 21000). Green cryst. (MeOH). Sol. H₂O, MeOH; insol. C₆H₆.

Likussar, W. *et al*, *Mikrochim. Acta*, 1974, 475 (*detn*, Ga)

Chrome green G

C-00283

Chromoxan green GG. C.I. 43840



C₃₁H₂₃ClN₂O₉ M 602.983

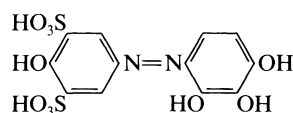
Mordant dye. Used as a soln. in H₂O or EtOH as metallochromic indicator in titrimetric detn. of Ca, Cu, Mg, Ni, Th, V(IV). Dark cryst. powder. Sol. EtOH, H₂O.

Mustafin, L.S. *et al*, *Zavod. Lab.*, 1957, 23, 519 (*use*)

Chrome red brown 5RD

C-00284

4-[(3,5-Disulfo-4-hydroxyphenyl)azo]pyrogallol. 2-Hydroxy-5-[(2,3,4-trihydroxyphenyl)azo]-1,3-benzenedisulfonic acid. Gallochrome brown 5RD. C.I. Mordant brown 41. C.I. 14340. Chrome brown RR



C₁₂H₁₀N₂O₁₀S₂ M 406.350

Strictly the name Chrome red brown 5RD refers to the disodium salt.

Di-Na salt: [6409-06-9].

Used as 0.1% aq. soln. as metal indicator for EDTA titrimetric detn. of Th. Dark orange cryst. powder. Sol. H₂O; insol. EtOH, C₆H₆.

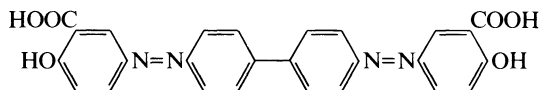
Zaki, M.R. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, 177, 196 (*detn*, Th)

Colour Index, 3rd Ed., 1971, 4, 4065 (*synth*)

Chromocitromin BH

C-00285

3,3'-[[1,1'-Biphenyl]-4,4'-diylbis(azo)]bis[6-hydroxybenzoic acid]. C.I. Direct yellow 1. C.I. 22250 [494-77-9]



C₂₆H₁₈N₄O₆ M 482.451

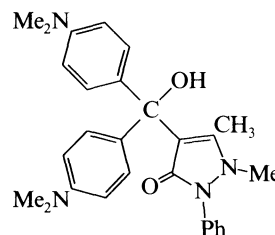
Used as a 0.1% aq. soln. for photometric detn. of Be. Yellow cryst. (H₂O). Mod. sol. H₂O; sl. sol. EtOH.

Baiulescu, G.E. *et al*, *Rev. Chim. (Bucharest)*, 1974, 25, 322; *CA*, 83, 52743c (*detn*, Be)

Chromopyrazole

C-00286

4-[Bis[4-(dimethylamino)phenyl]hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI [1433-81-4]



C₂₈H₃₂N₄O₂ M 456.586

Antipyrene basic dye. Used as 0.1% soln. in 1 M HCl in extraction-photometric detn. of P(V) (λ_{\max} 620 nm, ϵ 58000), Si, Zn. Cryst. Sol. acids.

Ginzburg, O.F., *Zh. Obshch. Khim.*, 1947, 17, 1752 (*synth*)

Zhivopistsev, V.P. *et al*, *Zh. Anal. Khim.*, 1966, 21, 28; 1970, 25, 1166 (*detn*, Zn, P)

Zhivopistsev, V.P. *et al*, *Zavod. Lab.*, 1971, 37, 1409 (*detn*, Si)

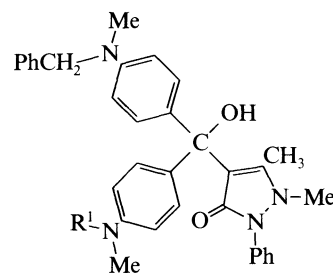
Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1971, 26, 1285, 1291.

Chelukhova, M.N., *Zh. Anal. Khim.*, 1982, 37, 1008.

Chromopyrazole I

C-00287

4-[[[(Dimethylamino)phenyl]hydroxy[4-[methyl(phenylmethyl)amino]phenyl]methyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI [3897-09-4]



R¹ = Me

C₃₄H₃₆N₄O₂ M 532.684

Antipyrene basic dye. Used in extraction-photometric detn. of AuBr₄[⊖], ReO₄[⊖], PO₄^{3⊖}, P—W anion. Cryst. Sol. acids.

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1971, 26, 1285, 1291.

Constantinescu, C. *et al*, *Rev. Chim. (Bucharest)*, 1981, **32**, 160

(*detn, Re*)

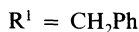
Nesterenko, P.N. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1977 (*detn, Au*)

Dorokhova, F.N. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1439 (*detn, P*)

Chromopyrazole II**C-00288**

1,2-Dihydro-4-[hydroxybis[4-[methyl(phenylmethyl)-amino]phenyl]methyl]1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI. Bis(4-methylbenzylaminophenyl)antipyrinylcarbinol. n-[Bis(p-(benzylmethylamino)phenyl)hydroxymethyl]antipyrine, 8CI [1433-79-0]

As Chromopyrazole I, C-00287 with



$C_{40}H_{40}N_4O_2$ M 608.782

Antipyrine basic dye. Used in extraction-photometric detn. of B (as BF_4^-) and Hg (as $HgCl_3^-$) (λ_{max} 585 nm, ϵ 47000), Re. Dark red cryst. Sol. acids, EtOH, Me_2CO ; mod. sol. H_2O .

Zhivopistsev, V.P. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 148 (*synth*)

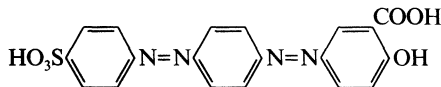
Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 205, 857, 1227; 1971,

26, 1285, 1291 (*detn, Hg, B, Re*)

Chelukhova, M.N., *Zh. Anal. Khim.*, 1982, **37**, 1008.

Chromorange GR**C-00289**

2-Hydroxy-5-[[4-[(4-sulfophenyl)azo]phenyl]azo]benzoic acid. Mordant orange 6. C.I. 26520. 5-[p-(p-Sulfophenylazo)phenylazo]salicylic acid. Alizarine chrome orange GR. C.I. Mordant orange 44. Eriochrome orange G. Solochrome orange RS. Wool fast orange GA-CF. Numerous other proprietary names



$C_{19}H_{14}N_4O_6S$ M 426.409

The name Chromorange GR strictly refers to the disodium salt.

Di-Na salt: [3564-27-0].

Used as a aq. soln. as acid-base indicator for high pH ranges (pH_i 11.7; colour change: yellow → red).

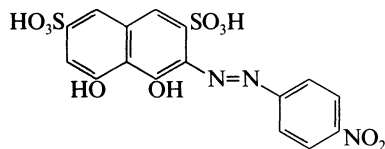
Commercially available. Orange cryst. (H_2O). Sol. H_2O ; sl. sol. EtOH, Me_2CO ; insol. C_6H_6 .

Colour Index, 3rd Edn., 1971, **4**, 4233 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Chromotrope 2B**C-00290**

4,5-Dihydroxy-3-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid. 2-(4-Nitrophenylazo)chromotropic acid. C.I. 16575. C.I. Acid red 176



$C_{16}H_{11}N_3O_{10}S_2$ M 469.409

Strictly, the name Chromotrope 2B applies to the disodium salt.

Di-Na salt: [548-80-1].

Used in photometric detn. of Th, Zr, B, Br_2 . Dark cryst. powder. Sol. H_2O . Mp > 300°.

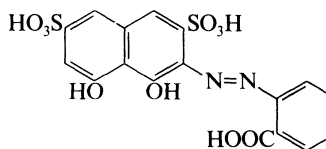
Sangal, S.P., *Bull. Chem. Soc. Jpn.*, 1965, **38**, 141 (*detn, Th*)

Elbeih, I.I. *et al*, *Chemist-Analyst*, 1965, **54**, 8 (*detn, Br₂*)

Tôei, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1967, **40**, 2085 (*detn, Th, Zr*)

Chromotrope 2C**C-00291**

2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, 9CI. 3-(2-Carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. 2-(2-Carboxyphenylazo)chromotropic acid. Anthrazochrome [3440-26-4]



$C_{17}H_{12}N_2O_{10}S_2$ M 468.421

Used as 0.025% aq. soln. for photometric detn. of Al, Th and U. Dark red cryst. powder. Sol. H_2O , alkalis; spar. sol. EtOH.

[5693-20-9]

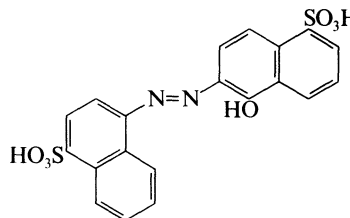
Majumdar, A.K. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, **174**, 269 (*detn, Al, Th*)

Akhmedli, M.K. *et al*, *Zavod. Lab.*, 1972, **38**, 263 (*detn, Al*)

Khalifa, H. *et al*, *Mikrochim. Acta*, 1976, 451.

Chromotrope F4B**C-00292**

5-Hydroxy-6-[(4-sulfo-1-naphthalenyl)azo]-1-naphthalenesulfonic acid, 9CI. 1'-Hydroxy-1,2'-binaphthyl-4,5'-disulfonic acid. C.I. Acid red 12. C.I. 14835. C.I. Mordant blue 78. Eniacromo blue R. Fast red VR. Omega chrome blue F4B. Carmoisine BL. Azochromol blue F4B [25317-25-3]



$C_{20}H_{14}N_2O_7S_2$ M 458.472

The name Chromotrope F4B strictly applies to the disodium salt.

Di-Na salt: [3746-79-0].

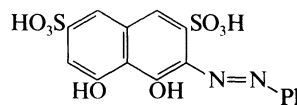
Used as 0.1% aq. soln. as adsorption indicator for titrimetric detn. of Br^- , I^- . Red cryst. (H_2O). Sol. H_2O ; sl. sol. EtOH, Me_2CO ; insol. C_6H_6 .

Colour Index, 3rd Edn., 1971, **4**, 4071 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 441 (*use*)

Chromotrope 2R**C-00293**

4,5-Dihydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid, 9CI. 2-Phenyl-4'-azochromotropic acid. C.I. Acid red 29. C.I. 16570. Acid phloxine GR. Brazilian fast fuchsine G. Hispacid fuchsin G



$C_{16}H_{14}N_2O_8S_2$ M 426.427

Strictly, the name Chromotrope 2R applies to the disodium salt.

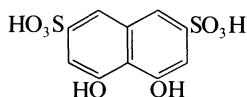
Di-Na salt: [4197-07-3].

Used as 1mM aq. soln. in photometric detn. of Mg (ϵ 37000), Ce and Pd. Commercially available. Dark cryst. powder. Sol. H_2O .

Shibata, S. *et al*, *Anal. Chim. Acta*, 1969, **44**, 345 (*use, Mg*)
 Shah, V.L. *et al*, *Microchem. J.*, 1970, **15**, 548 (*use, Ce*)
 Khalifa, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1974, **272**, 366 (*use, Pd*)

Chromotropic acid **C-00294**

4,5-Dihydroxy-2,7-naphthalenedisulfonic acid, 9CI, 8CI
 [148-25-4]

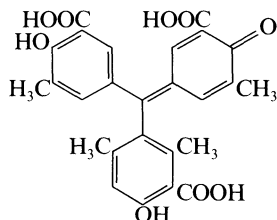


$C_{10}H_8O_8S_2$ M 320.300
 Anal. reagent, azo dye intermed. Used as 1% aq. soln. of di-Na salt (in the presence of ascorbic acid) in photometric detn. of Ti (ϵ 17000, pH 3-5), F^{\ominus} , NO_3^{\ominus} , Cr. Cryst. + $2H_2O$. Sol. H_2O . Mp $>300^{\circ}$.

Ger. Pat., 69 190, (1891); *Ber.*, 1893, **26**, 733 (*synth*)
Ger. Pat., 75 153, (1892); *Ber.*, 1894, **27**, 820 (*synth*)
 Sommer, L., *Talanta*, 1962, **9**, 439 (*detn, use, Ti*)
Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **13**, 723 (*rev*)
 Biryuk, E.A. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 1018 (*detn, Ti*)
 Robinson, J.W. *et al*, *Anal. Chim. Acta*, 1969, **44**, 51 (*detn, NO₃[⊖]*)
 Burger, K., *Organic Reagents in Metal Analysis*, Pergamon, Oxford, 1973 (*detn, Ti, Cr*)
 Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*detn, Cr, Ti*)
 Röhl, K. *et al*, *Talanta*, 1978, **25**, 535 (*detn, NO₃[⊖]*)
 Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Non-Metals*, John Wiley, New York, 1981, 548.

Chromoxan violet 5B **C-00295**

3-[(3-Carboxy-4-hydroxy-5-methyl phenyl)(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)methyl]-6-hydroxy-2,4-dimethylbenzoic acid, 9CI. C.I. Mordant violet 33. C.I. 43870
 [2305-53-5]

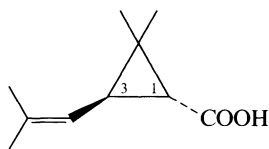


$C_{26}H_{22}O_9$ M 478.454
 Used as metallochromic indicator for titrimetric detn. of Ca, Cu, Mg, Ni, Th, V(IV). Dark red cryst. Sol. EtOH, H_2O .

Mustafin, L.S. *et al*, *Zavod. Lab.*, 1957, **23**, 519 (*use*)

Chrysanthemic acid **C-00296**

2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylic acid, 9CI. 3-Isobutenyl-2,2-dimethyl-1-cyclopropanecarboxylic acid. Chrysanthemumic acid
 [10453-89-1]



$C_{10}H_{16}O_2$ M 168.235

Esters of both *cis*- and *trans*-forms are widely used in commercial insecticide preparations.

▷ GZ1270000.

(1R,3R)-form [4638-92-0]

(+)-*trans*-form

Occurs as pyrethrolone ester as one of the pyrethrins. Cryst. or liq. Mp 17-21°. $[\alpha]_D^{20} +14.2^{\circ}$ (EtOH).

Chloride: [4489-14-9].

$C_{10}H_{15}ClO$ M 186.681

Resolving agent for alcohols and amines.

(1S,3S)-form [2259-14-5]

(-)-*trans*-form

Cryst. Mp 17-21°. $[\alpha]_D -14^{\circ}$ (EtOH).

(1RS,3SR)-form [15259-78-6]

(±)-*cis*-form

Cryst. (EtOAc). Mp 115-116°.

Murano, A. *et al*, *Agric. Biol. Chem.*, 1973, **37**, 1977 (*use, chloride*)

Brooks, C.J.W. *et al*, *Anal. Chem.*, 1973, **45**, 896 (*use, chloride*)

Pattenden, G. *et al*, *Tetrahedron Lett.*, 1973, 133 (*biosynth*)

Cameron, A.F. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1975, 1567

(*cryst struct, abs config*)

Arlt, D. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1981, **20**, 703 (*rev*)

Franck-Neumann, M. *et al*, *Tetrahedron Lett.*, 1982, **23**, 1409

(*synth*)

Mukaiyama, T. *et al*, *Chem. Lett.*, 1983, 385 (*synth*)

Torii, S. *et al*, *J. Org. Chem.*, 1983, **48**, 1944 (*synth, bibl*)

De Vos, M.J. *et al*, *Tetrahedron Lett.*, 1983, **24**, 103 (*synth*)

d'Angelo, J. *et al*, *Tetrahedron Lett.*, 1983, **24**, 2103 (*synth*)

Buisson, D. *et al*, *Tetrahedron Lett.*, 1984, **25**, 6005 (*synth*)

Funk, R.L. *et al*, *J. Org. Chem.*, 1985, **50**, 707 (*synth*)

Cameron, A.G. *et al*, *Tetrahedron Lett.*, 1985, **26**, 3503 (*synth*)

d'Angelo, J. *et al*, *J. Org. Chem.*, 1986, **51**, 40 (*synth*)

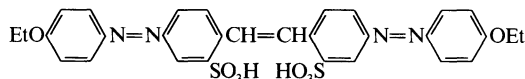
Mann, J. *et al*, *Tetrahedron Lett.*, 1986, **27**, 3533 (*synth*)

Dhillon, R.S. *et al*, *Indian J. Chem., Sect. B*, 1991, **30**, 574 (*synth*)

Chrysophenine G

C-00297

2,2'-(1,2-Ethenediyl)bis[5-[(4-ethoxyphenyl)azo]benzenesulfonic acid], 9CI. 4',4'-Bis(4-ethoxyphenylazo)stilbene-2,2'-disulfonic acid



$C_{30}H_{28}N_4O_8S_2$ M 636.705

Di-Na salt: [2870-32-8].

Used as an aq. soln. for photometric detn. of Pd. Cryst. powder. Sol. H_2O , EtOH.

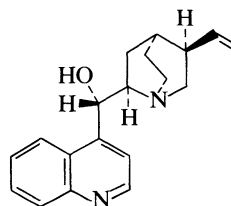
Croitoru, V. *et al*, *An. Univ. Bucuresti, Chim.*, 1967, **16**, 9; *CA*, **71**, 18562k (*detn, Pd*)

Cinchonine

C-00298

9S-Cinchonan-9-ol, 9CI

[118-10-5]



Absolute configuration

$C_{19}H_{22}N_2O$ M 294.396

Alkaloid from *Cinchona officinalis* and all *C. spp.* and from some *Remijia spp.*, e.g. *R. pedunculata* and *R. purdieana*, and from leaves of *Olea europaea* and *Ligustrum vulgare* (Rubiaceae, Oleaceae). Antimalarial;

resolving agent, chiral cocatalyst. Used in precipitation and separation of W(VI) and as a 1% soln. in dil. HNO₃ for detn. of Bi. Cryst. Mp 264°, Mp 255°. [α]_D²⁰ +229° (EtOH).

▷ LD₅₀ 152 mg/kg (rat, i.p.). GD3500000.

B,HCl: Mp 217-218°.

B,H₂SO₄: [5949-16-6].
Mp 206°.

B,MeI: Mp 269-270°.

O-Benzoyl: Mp 106-107°.

10,11-Dihydro: [485-65-4]. **Hydrocinchonine**. (9*S*)-10,11-Dihydrocinchonan-9-ol, 9*Cl*. 10,11-Dihydrocinchonine. Cinchotinine. *ψ*-Cinchonine. Pseudocinchonine. Cinchonifine
C₁₉H₂₄N₂O M 296.411

Minor congener of Cinchonine from *C. spp.*, *R. spp.* and *O. europaea* (Rubiaceae, Oleaceae). Antimalarial. Prisms. Mp 268-269°. [α]_D¹⁴ +204.5° (EtOH).

10,11-Dihydro; *B,HCl*: Mp 220-221°.

Hesse, O., *Ber.*, 1871, 4, 818; 1883, 16, 58 (*isol*)

Rabe, P., *Ber.*, 1908, 41, 62 (*struct*)

Potratz, A.H. *et al*, *Anal. Chem.*, 1949, 21, 1276 (*detn, Bi*)

Goutarel, R. *et al*, *Helv. Chim. Acta*, 1950, 33, 150 (*ir*)

Lyle, G.G. *et al*, *Tetrahedron*, 1967, 23, 51, 3253 (*uv, ord, config, pmr*)

Kamath, B.R. *et al*, *Indian J. Chem.*, 1968, 6, 510 (*uv*)

Battersby, A.R. *et al*, *J. Chem. Soc., Chem. Commun.*, 1971, 30, 31 (*biosynth*)

Schneider, G. *et al*, *Planta Med.*, 1972, 22, 109 (*isol, uv, deriv*)

Norwitz, G. *et al*, *Anal. Chim. Acta*, 1974, 69, 59 (*use*)

Moreland, C.G. *et al*, *J. Org. Chem.*, 1974, 39, 2413 (*cmr*)

Oleksyn, B., *Acta Crystallogr., Sect. B*, 1979, 35, 440 (*cryst struct*)

Ihara, M. *et al*, *J. Chem. Soc., Chem. Commun.*, 1986, 573 (*synth, deriv*)

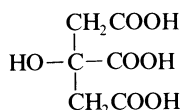
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CMP925.

Citric acid

C-00299

2-Hydroxy-1,2,3-propanetricarboxylic acid, 9*Cl*. 2-Hydroxytricarballic acid

[77-92-9]



C₆H₈O₇ M 192.125

Occurs in the free state in lemons, currants, beetroot etc. and the seeds and juices of many flowers and plants. Constit. of fruit drinks, pharmaceutical syrups, for adjusting pH of foods etc. Component of anticoagulant citrate solns. Used as masking agent for many polyvalent metals and as a component of buffers. Commercially available. Cryst. + 1H₂O (H₂O), losing H₂O at 70-5°. V. sol. H₂O, EtOH, mod. sol. Et₂O. Mp 135° (monohydrate), Mp 153° (anhydrous). p*K*_{a1} 3.13; p*K*_{a2} 4.78; p*K*_{a3} 6.43 (25°).

▷ GE7350000.

2-*Ac*: [17140-33-9]. 2-Acetoxytricarballic acid

C₈H₁₀O₈ M 234.162

Sol. H₂O. Mp 138-140°.

Tri-*Me ester*: [1587-20-8]. Trimethyl citrate. Methyl citrate

C₉H₁₄O₇ M 234.205

Solid. Mp 78-79°. Bp 283-287° dec. (dehydrates).

Tri-*Et ester*: [77-93-0].

C₁₂H₂₀O₇ M 276.286

Oil. Bp 294°, Bp₁ 127°.

▷ GE8050000.

Triphenyl ester:

C₂₄H₂₀O₇ M 420.418

Needles. Sol. hot EtOH, insol. H₂O. Mp 124°.

Triamide: Citramide

C₆H₁₁N₃O₄ M 189.171

Sol. hot H₂O, insol. EtOH, Et₂O. Mp 210-215°.

Trianilide:

C₂₄H₂₃N₃O₄ M 417.463

Needles (EtOH, H₂O). Mp 192°.

Tri-*Me ester, Ac*:

C₁₁H₁₆O₈ M 276.243

Bp₁₅ 171°.

Tri-*Me ester, Me ether*:

C₁₀H₁₆O₇ M 248.232

Bp₁₂ 159-160°.

Tri-*Et ester, Ac*: [77-89-4].

C₁₄H₂₂O₈ M 318.323

Bp₁₅ 197°.

▷ GE8225000.

v. Pechmann, H., *Justus Liebig's Ann. Chem.*, 1891, 261, 162 (*synth*)

Anschütz, R., *Justus Liebig's Ann. Chem.*, 1903, 327, 228 (*ester*)

Bülow, C., *Ber.*, 1918, 51, 1247 (*synth*)

Challenger, F., *Ind. Chem.*, 1929, 5, 181 (*bibl*)

U.S. Pat., 2 047 669, (1936); CA, 30, 6128 (*synth*)

U.S. Pat., 2 066 892, (1937); CA, 31, 1045 (*isol*)

Cheng, K.L., *Anal. Chem.*, 1961, 33, 783 (*use*)

Hulanicki, A., *Talanta*, 1962, 9, 549 (*use*)

Gilbert, D.J. *et al*, *Chemistry*, 1968, 41, 29 (*ester*)

Perrin, D., *Masking and Demasking of Chemical Reactions*, Interscience, New York, 1970 (*use*)

Food Chemicals Codex, 2nd Ed., Vol. II, 1972, 204 (*anal*)

Karrer, W. *et al*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 877 (*occur*)

Schulz, G. *et al*, *Ullmanns Encykl. Tech. Chem.*, 4. Aufl., 1975, 9, 624 (*rev*)

Bouchard, E.F. *et al*, *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, 6, 150 (*rev*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1037, 1038.

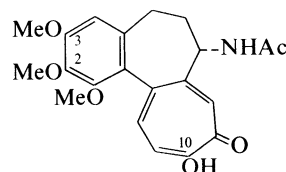
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 464 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ADD750, CMS750, TJP750.

Colchicine

C-00300

10-Demethylcolchicine



(*S*)-form

C₂₁H₂₃NO₆ M 385.416

(*R*)-form

Synthetic. Cryst. (H₂O). Mp 156-161° (152°). [α]_D²⁰ +250.5° (c, 1 in CHCl₃).

(*S*)-form [477-27-0]

Alkaloid from *Colchicum autumnale*, *C. kesselringii*, *C. luteum*, *Merendera robusta* and *M. jolantae* (Liliaceae). Used as 0.02*M* CHCl₃ soln. as an extractive indicator in the EDTA titration of Cu(II) (pH 4.5). Needles (EtOAc). Sol. CHCl₃. Mp 175-177°. [α]_D²⁰ -256° (c, 1.005 in CHCl₃).

▷ GH0520000.

Ac: Mp 122-124°. $[\alpha]_D^{20}$ – 260° (c, 0.759 in CHCl₃). Exists in soln. as a mixt. of tautomers.

O²⁻-De-Me: [33530-04-0]. **2-Demethylcolchicine**

C₂₀H₂₁NO₆ M 371.389

Alkaloid from the corms of *Gloriosa superba* (Liliaceae).

O³⁻-De-Me: [7336-34-7]. **3-Demethylcolchicine**. Alkaloid L5

C₂₀H₂₁NO₆ M 371.389

Alkaloid from *C. luteum* and from the corms of *G. superba* (Liliaceae). Amorph. Mp 179-183°.

O³⁻-De-Me, di-Ac: Cryst. (EtOAc/Et₂O). Mp 119-122°. $[\alpha]_D$ – 170° (c, 0.64 in CHCl₃).

Šantavý, F. *et al*, *Collect. Czech. Chem. Commun.*, 1954, **19**, 805 (isol)

Cross, A.D. *et al*, *Collect. Czech. Chem. Commun.*, 1966, **31**, 374 (pmr)

Chommadov, B. *et al*, *Khim. Prir. Soedin.*, 1970, **6**, 82; *CA*, **73**, 45635j (3-Demethylcolchicine)

Schönharting, M. *et al*, *Hoppe Seyler's Z. Physiol. Chem.*, 1973, **354**, 421 (uv, pmr, ms)

Thakur, R.S. *et al*, *Planta Med.*, 1975, **28**, 201 (2- and 3-Demethylcolchicine)

Potěšilová, H. *et al*, *Collect. Czech. Chem. Commun.*, 1976, **41**, 3146 (2- and 3-Demethylcolchicine, uv)

Silverton, J.V., *Acta Crystallogr., Sect. B*, 1979, **35**, 2800 (cryst struct)

Hufford, C.D. *et al*, *J. Pharm. Sci.*, 1979, **68**, 1239 (cmr)

Rösner, M. *et al*, *J. Med. Chem.*, 1981, **24**, 257 (synth)

Miravittles, C. *et al*, *Acta Crystallogr., Sect. B*, 1982, **38**, 1782 (cryst struct)

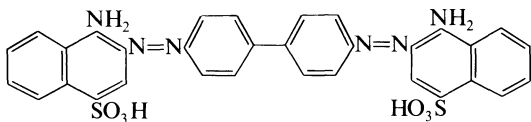
Kaushik, N.K. *et al*, *Microchem. J.*, 1985, **31**, 329 (detn, Cu)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ADE000.

Congo red

C-00301

3,3'-[(1,1'-Biphenyl)-4,4'-diylbis(azo)]bis[4-amino-1-naphthalenesulfonic acid], 9CI. C.I. Direct red 28. Direct red. Haemomedi. Haemonorm. Hemorrhagyl. Solucongo. C.I. 22120



C₃₂H₂₄N₆O₆S₂ M 652.710

Strictly, the name Congo red applies to the disodium salt.

Indicator used for diagnosis of amyloidosis. Acid-base indicator (pH range: 3.0-5.2). Biological stain.

Di-Na salt: [573-58-0].

Brown-red powder. Sol. H₂O.

▷ QK1400000.

Whitehead, G., *Chem. Trade J. Chem. Eng.*, 1925, **77**, 386 (manuf)

Kline, E.R., *J. Chem. Educ.*, 1938, **15**, 129 (synth)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)

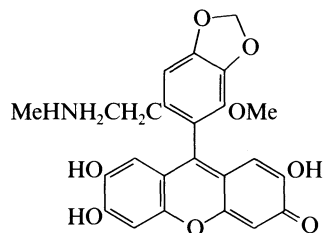
Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2125.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SGQ500.

Cotarnilfluorone

C-00302

9-(6'-Methoxy-4',5'-methylenedioxy-2'-ethyl-β-methylaminophenyl)-2,3,7-trihydroxy-6-fluorone



C₂₄H₂₁NO₈ M 451.432

Used as a 0.05% aq. soln. for photometric detn. of Ga, Sb, Sn. Dark red cryst. powder. Sol. EtOH.

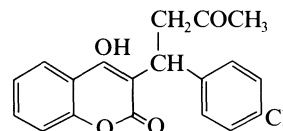
Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1955, **10**, 289 (synth, use)

Coumachlor, BSI

C-00303

3-[1-(4-Chlorophenyl)-3-oxobutyl]-4-hydroxy-2H-1-benzopyran-2-one, 9CI. 3-[1-(4-Chlorophenyl)-3-oxobutyl]-4-hydroxycoumarin. Tomorin. Ratilan

[81-82-3]



C₁₉H₁₅ClO₄ M 342.778

Rodenticide. Internal standard in the analysis of rodenticide warfarin. Commercially available. Cryst. Mp 169-171°.

▷ GN4830000.

U.K. Pat., 701 111, (1950); *CA*, **49**, 2522d.

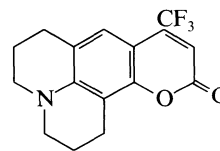
Pesticide Manual, 6th Ed., 1979, 127.

Coumarin 153

C-00304

2,3,6,7-Tetrahydro-9-(trifluoromethyl)-1H,5H,11H-[1]benzopyrano[6,7,8-ij]quinolizin-11-one, 9CI

[53518-18-6]



C₁₆H₁₄F₃NO₂ M 309.287

Laser dye (480 nm).

Schimitschek, E.J. *et al*, *Opt. Commun.*, 1974, **11**, 352 (use)

Fletcher, A.N., *Appl. Phys.*, 1977, **14**, 295 (use)

Basov, N.G. *et al*, *J. Mol. Struct.*, 1982, **79**, 119 (use)

Grandberg, I.L. *et al*, *CA*, 1985, **102**, 78675t (synth)

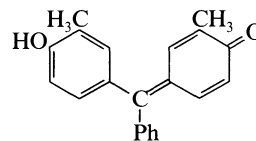
Chen, C.H. *et al*, *Proc. Int. Conf. Lasers*, 1987, 995 (synth)

***o*-Cresolbenzein**

C-00305

4-[(4-Hydroxy-3-methylphenyl)phenylmethylene]-2-methyl-2,5-cyclohexadien-1-one, 9CI

[5664-07-3]



$C_{21}H_{18}O_2$ M 302.372

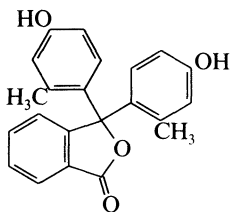
Used as a 0.1% soln. in EtOH as acid-base indicator (pH range: 7.2-8.8; colour change: yellow → red). Red-orange cryst. (EtOH). Sol. EtOH, Me_2CO , C_6H_6 ; insol. H_2O . Mp 260-262°.

Orndorff, W.R. *et al*, *J. Am. Chem. Soc.*, 1927, **49**, 992 (*use*)

***m*-Cresolphthalein**

C-00306

3,3'-Bis(4-hydroxy-2-methylphenyl)-1(3H)-isobenzofuranone



$C_{22}H_{18}O_4$ M 346.382

Used as a soln. in EtOH as acid-base indicator (pH₁ 9.74; colour change: colourless → violet-red). Yellowish cryst. powder. Sol. EtOH, Me_2CO , AcOH. Mp 145°.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

***o*-Cresolphthalein**

C-00307

3,3'-Bis(4-hydroxy-3-methylphenyl)-1(3H)-isobenzofuranone, 9CI

[596-27-0]

$C_{22}H_{18}O_4$ M 346.382

Used as acid-base indicator (pH range 8.2-9.8; colour change: colourless → red-violet). White or reddish-yellow powder. Mp 223-225°.

▷ SM8390000.

Thiel, A. *et al*, *Z. Anorg. Allg. Chem.*, 1929, **178**, 49.

Uzumasa, Y. *et al*, *Nippon Kagaku Kaishi*, 1934, **55**, 627.

Mikhailov, G.I., *Zh. Anal. Khim.*, 1955, **10**, 352.

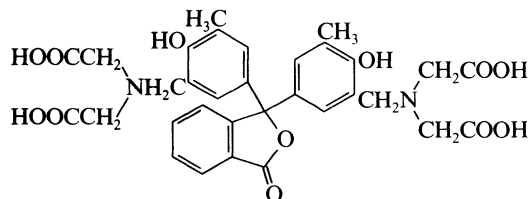
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 99.

***o*-Cresolphthalexon**

C-00308

N,N' -[(3-Oxo-1(3H)-isobenzofuranylidene)bis(6-hydroxy-5-methyl-3,1-phenylene)methylene]bis[N-(carboxymethyl)glycine], 9CI. 3,3'-Bis[N,N'-di(carboxymethyl)aminomethyl]-*o*-cresolphthalein. Phthalein complexone. Metal phthalein. *o*-Cresolphthalein complexone. Phthalein purple

[2411-89-4]



$C_{32}H_{32}N_2O_{12}$ M 636.611

Used as indicator for titrimetric detn. of Ca, Mg, Sr, SO_4^{2-} ; photometric detn. of Ba, Ca, Mg. Pale yellow cryst. powder. Sol. EtOH, Me_2CO , alkalis; insol. H_2O . Mp 186°. pK_{a1} 2.2; pK_{a2} 2.9; pK_{a3} 7.0; pK_{a4} 7.8; pK_{a5} 11.4; pK_{a6} 12.0 ($\mu = 0.1$, 20°). Aq. solns. unstable.

Anderegg, G. *et al*, *Helv. Chim. Acta*, 1954, **72**, 113 (*use*)

Pollard, F.H. *et al*, *Analyst (London)*, 1956, **81**, 348 (*detn. Ba*)

Bolsholn, J., *Anal. Chim. Acta*, 1966, **34**, 71 (*detn. Ca*)

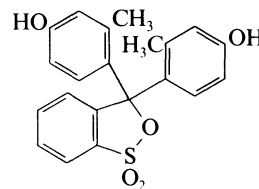
Tikhonov, V.N. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1976, **19**, 1868 (*detn. Mg*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 221 (*use*)

***m*-Cresol purple**

C-00309

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[3-methylphenol] S,S-dioxide, 9CI. *m*-Cresolsulfonephthalein [2303-01-7]



$C_{21}H_{18}O_5S$ M 382.436

Used as acid-base indicator (pH range 1.2-2.8; colour change: red → yellow; pH range: 7.4-9.0; colour change: yellow → purple). Dark brown glittering cryst. (EtOH). Sol. EtOH, Me_2CO , alkalis; spar. sol. H_2O .

Na salt: [62625-31-4].

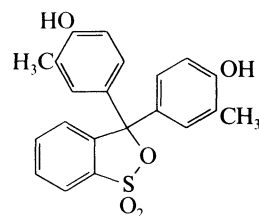
Sol. H_2O .

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Cresol red

C-00310

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2-methylphenol] S,S-dioxide, 9CI. *o*-Cresolsulfthalein. *o*-Cresolsulfonephthalein [1733-12-6]



$C_{21}H_{18}O_5S$ M 382.436

Acid-base indicator used as 0.1% EtOH soln. in titrimetric detn. (pH range 0.2-1.8; colour change: red → yellow; pH range 7.0-8.8; colour change: yellow → purple), spectrophotometric detn. of SO_4^{2-} . Used in mixtures with other indicators for detn. of plant seed viability, and in the estimation of soil reaction. Dark red cryst. powder or green cryst. (AcOH). Sol. EtOH, alkalis; sl. sol. H_2O . Mp 250° dec.

Na salt: [62625-29-0].

Sol. H_2O .

Sohon, M.D., *Am. Chem. J.*, 1898, **20**, 265 (*synth*)

Ramart-Lucas, P., *Bull. Soc. Chim. Fr.*, 1943, **10**, 282 (*struct*)

Peng, C. *et al*, *Soil Sci. Soc. Am. Proc.*, 1944, **57**, 367 (*use*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 112.

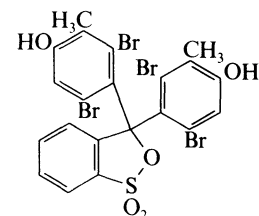
Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*acid-base indicator*)

Flynn, W.W., *Anal. Chim. Acta*, 1977, **90**, 343 (*detn. SO₄²⁻*)

***o*-Cresoltetrabromosulfonephthalein**

C-00311

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[3,5-dibromo-2-methylphenol] S,S-dioxide



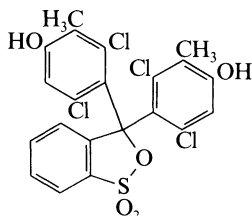
$C_{21}H_{14}Br_4O_5S$ M 698.021

Used as acid-base indicator (pH range 6.6-8.3; colour change: yellow → purple). Greenish-red iridescent plates (C₆H₆). Sol. EtOH, Me₂CO, C₆H₆, alkalis; spar. sol. H₂O. p*K*_{a1} 7.53 (25°).

Harden, W.C. *et al.*, *J. Am. Chem. Soc.*, 1929, **51**, 562 (*synth*)
Haring, M.M. *et al.*, *J. Am. Chem. Soc.*, 1941, **63**, 1024 (*use*)

***o*-Cresoltetrachlorosulfonephthalein C-00312**

4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[3,5-dichloro-2-methylphenol] S,S-dioxide



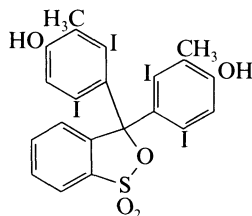
C₂₁H₁₄Cl₄O₅S M 520.215

Used as acid-base indicator (pH range 6.6-8.3; colour change: yellow → purple). Greenish-red iridescent plates (C₆H₆). Sol. EtOH, Me₂CO, C₆H₆, alkalis; spar. sol. H₂O. p*K*_{a1} 7.5 (25°).

Harden, W.C. *et al.*, *J. Am. Chem. Soc.*, 1929, **51**, 562 (*synth*)
Haring, M.M. *et al.*, *J. Am. Chem. Soc.*, 1941, **63**, 1024 (*use*)

***o*-Cresoltetraiodosulfonephthalein C-00313**

4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[3,5-diiodo-2-methylphenol] S,S-dioxide



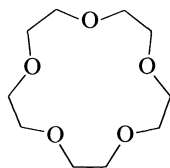
C₂₁H₁₄I₄O₅S M 886.023

Used as a 0.04% soln. of Na salt as acid-base indicator (pH range 7.0-8.6; colour change: yellow → purple). Greenish-red iridescent plates (C₆H₆). Sol. EtOH, Me₂CO, C₆H₆, alkalis; spar. sol. H₂O.

Harden, W.C. *et al.*, *J. Am. Chem. Soc.*, 1929, **51**, 562 (*synth*)
Haring, M.M. *et al.*, *J. Am. Chem. Soc.*, 1941, **63**, 1024 (*use*)

15-Crown-5 C-00314

1,4,7,10,13-Pentaoxacyclopentadecane, 9*CI*, 8*CI*
[33100-27-5]



C₁₀H₂₀O₅ M 220.265

Complexing agent for metal salts, enhancing reactivity and solubility of the metal ion. Used as a complexing agent for Na and other alkali metals. Viscous liq. Misc. H₂O. d₄²⁵ 1.10. Bp_{1,8} 115-116°. Hygroscopic.

▷ SB0200000.

Christensen, J.J. *et al.*, *Chem. Rev.*, 1974, **74**, 351 (*rev*)

Cook, F.L. *et al.*, *Tetrahedron Lett.*, 1974, 4029 (*synth, ir, pmr, cmr, ms, bibl*)

Izatt, R.M. *et al.*, *J. Am. Chem. Soc.*, 1976, **98**, 7620 (*synth, ir, pmr, purifn, bibl*)

Johns, G. *et al.*, *Synthesis*, 1976, 515 (*synth, cmr, ir, ms*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 134; **8**, 128.

Pacey, G.E. *et al.*, *Synth. Commun.*, 1981, **11**, 323 (*synth*)

Effenberger, F. *et al.*, *Synthesis*, 1981, 70 (*synth, props*)

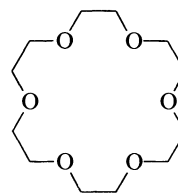
Pacey, G.E. *et al.*, *Talanta*, 1984, **31**, 165 (*use*)

Ganboa, J. *et al.*, *Synthesis*, 1986, 52 (*synth, props*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PBO000.

18-Crown-6 C-00315

1,4,7,10,13,16-Hexaoxacyclooctadecane, 9*CI*
[17455-13-9]



C₁₂H₂₄O₆ M 264.318

Forms extractable complexes with alkali metal ions. Used for extraction-photometric detn. of Pb (as ion-pair with acid dye). Cryst. Sol. H₂O. Mp 38-39.5°. Bp_{0,2} 116°.

▷ Has exploded during purifn.. MP4500000.

Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 7017 (*synth*)

Anon, *Chem. Eng. News*, 1976, 5 (*haz*)

Johns, G. *et al.*, *Synthesis*, 1976, 515 (*synth, pmr, cmr, ir*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 133.

Org. Synth., 1977, **57**, 30 (*synth*)

Ping-Lin, K. *et al.*, *J. Chem. Soc., Chem. Commun.*, 1978, 504 (*synth*)

Tananaiko, M.M. *et al.*, *Zh. Anal. Khim.*, 1979, **34**, 1899 (*detn, Pb*)

de Jong, F. *et al.*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1981, **100**, 449, 453 (*purifn*)

Szczepaniak, W. *et al.*, *Anal. Chim. Acta*, 1982, **140**, 261 (*detn, Pb*)

Ganin, E.V. *et al.*, *CA*, 1984, **101**, 191874 (*synth*)

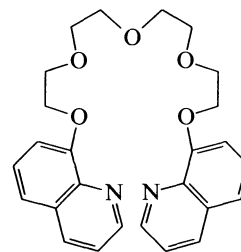
Deguire, S. *et al.*, *Can. J. Chem.*, 1986, **64**, 142 (*synth, cryst struct*)

Gamboa, J. *et al.*, *Synthesis*, 1986, 52.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, COD500.

Cryptand 5 C-00316

8,8'-[Oxybis(2,1-ethanediyloxy-2,1-ethanediyloxy)] bisquinoline, 9*CI*. 1,13-Bis(8-quinoliny)l-1,4,7,10,13-pentaoxatridecane. 8,8'-(1,4,7,10,13-Pentaoxatridecylene) biquinoline. Kryptofix 5
[57310-75-5]



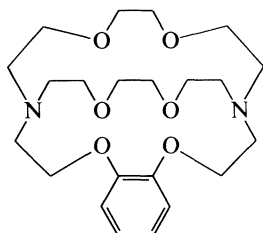
C₂₆H₂₈N₂O₅ M 448.518

Used for complexing and extraction-separation of alkali and alkaline earth metal ions. Cryst. Sol. C_6H_6 , toluene; insol. H_2O . Mp 71-74°.

Vögtle, F.M., *Tetrahedron Lett.*, 1975, 2415.
Vögtle, F.M. *et al*, *Top. Curr. Chem.*, 1981, **98**, 163 (rev)

Cryptand 2.2.2 B C-00317

5,6-Benzo-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, 9CI
[31250-18-7]



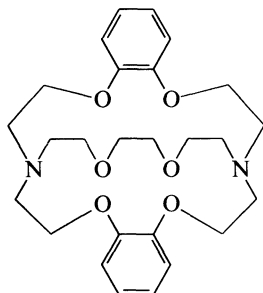
$C_{22}H_{36}N_2O_6$ M 424.536

Used as 50% soln. in toluene for complexing alkali and alkaline earth metal ions; used for extraction-photometric detn. of Na. Liq. Sol. C_6H_6 , toluene; insol. H_2O . d 0.995.

Dietrich, B. *et al*, *J. Chem. Soc., Chem. Commun.*, 1973, 15.
Takagi, M. *et al*, *Anal. Chim. Acta*, 1981, **126**, 185 (detn, Na)

Cryptand 2.2.2 BB C-00318

6,7,9,10,17,18,20,21-Octahydro-8,19-(ethanoxyethanoxyethano)-8H,19H-dibenzo[b,k][1,4,10,13,7,16]tetraoxadiazacyclooctadecine, 9CI. Kryptofix 222 BB. Dibenzocryptand 222
[40471-97-4]



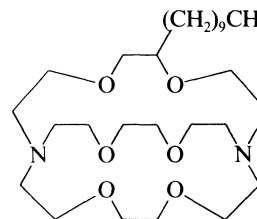
$C_{26}H_{36}N_2O_6$ M 472.580

Cryst. (toluene). Used as complexing agent for alkali metal ions; used for detn. of K (membrane ion-selective electrode). Sol. C_6H_6 , toluene; insol. H_2O . Mp 72-75°.

Lehn, I.M., *Struct. Bonding (Berlin)*, 1973, **16**, 1 (use)
Blasius, E. *et al*, *Makromol. Chem.*, 1977, **178**, 648 (synth)
Gajewski, J. *et al*, *Fresenius' Z. Anal. Chem.*, 1981, **309**, 343 (synth, use)
Cox, B.G. *et al*, *Inorg. Chim. Acta*, 1981, **49**, 153 (use)

Cryptand 2.2.2 D C-00319

5-Decyl-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, 9CI. Kryptofix 222 D
[69878-46-2]



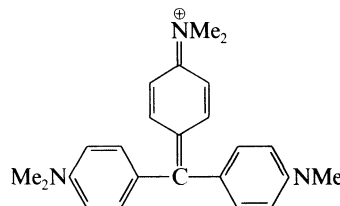
$C_{28}H_{56}N_2O_6$ M 516.760

Used as complexing agent for extraction of alkali metal ions. Liq. Sol. C_6H_6 , toluene; insol. H_2O . d 0.940.

Stoff, P.E. *et al*, *J. Am. Chem. Soc.*, 1980, **102**, 4810 (use)
Cox, B.G. *et al*, *Inorg. Chim. Acta*, 1981, **49**, 153 (use)

Crystal violet C-00320

N-[4-Bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+). *Gentian violet*. *Methylrosaniline*. *Methyl violet 10B*. C.I. *Basic violet 3*. *Aniline violet*. C.I. 42555. Numerous proprietary names



$C_{25}H_{30}N_3^+$ M 372.532 (ion)

▷ BO9000000.

Chloride: [548-62-9].

$C_{25}H_{30}ClN_3$ M 407.985

Topical antiinfective, anthelmintic, biological stain. Used as 0.02-0.05% soln. in EtOH in photometric detn. of Ag, As, B, Cd, Ga, Hg, I, Mo, P, Pt, Re, Sb, Tl, V (λ_{max} 580 nm, ϵ 130000). Dark-green powder or bright blue-violet cryst. Sol. H_2O , EtOH, $CHCl_3$. Mp 215° dec. ▷ Experimental teratogen. LD₅₀ 96 mg/kg (mouse, oral).

Courtot-coupez, J. *et al*, *Bull. Soc. Chim. Fr.*, 1961, 1942 (detn, Cd)

Markham, J.J., *Anal. Chem.*, 1967, **39**, 241 (detn, Ag)

Adams, E., *J. Pharm. Pharmacol.*, 1967, **19**, 821 (pharmacol)

Nouchi, G. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. B*, 1969, **268**, 546 (ir)

Barker, C.C. *et al*, *J. Chem. Soc. B*, 1969, 1068 (uw)

Hodge, H.C. *et al*, *Toxicol. Appl. Pharmacol.*, 1972, **22**, 1 (tox)

Minczewski, J. *et al*, *Analyst (London)*, 1975, **100**, 708 (detn, V)

Burns, D.T. *et al*, *Anal. Chim. Acta*, 1981, **128**, 257 (detn, PO_4^{3-})

Martindale. The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2232.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AOR500.

Cuprizone C-00321

Ethanedioic acid bis(cyclohexylidenehydrazide), 9CI. *Bis(cyclohexanone)oxalyldiazone*. *Oxalic acid bis(cyclohexylidenehydrazide)*

[370-81-0]



$C_{14}H_{22}N_4O_2$ M 278.353

Used as 0.1% soln. in EtOH for photometric detn. of Cu (λ_{max} 600 nm, ϵ 16000). Cryst. powder. Sol. hot EtOH; insol. H_2O . Mp 214-216°.

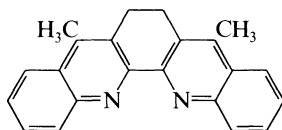
▷ RO2520000.

Peterson, R.E. *et al*, *Anal. Chem.*, 1955, **27**, 1195.
Haywood, L.J. *et al*, *Analyst (London)*, 1956, **81**, 651.
Jacobsen, E. *et al*, *Anal. Chim. Acta*, 1961, **24**, 579.
Lambdin, C.E. *et al*, *Anal. Chem.*, 1968, **40**, 2196.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, COF675.

Cuprotest

C-00322

6,7-Dihydro-5,8-dimethyldibenzo[b,j][1,10]phenanthroline, 9CI. 2,3,8,9-Dibenzo-4,7-dimethyl-5,6-dihydro-1,10-phenanthroline
[5298-71-5]



$C_{22}H_{18}N_2$ M 310.398

Used as 0.005% soln. in $CHCl_3$ in extraction-photometric detn. of Cu(I) (λ_{max} 554 nm, ϵ 7800, $CHCl_3$). Commercially available. Beige cryst. Sol. $CHCl_3$. Mp 283-285°.

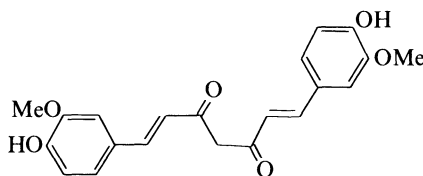
▷ Eye and skin irritant.

Uhlemann, E. *et al*, *J. Prakt. Chem.*, 1965, **30**, 273 (synth)
Ackermann, G. *et al*, *Talanta*, 1968, **15**, 79.
Sigma-Aldrich Library of Chemical Safety Data, 1988, **1**, 1259B.

Curcumin

C-00323

1,7-Bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione, 9CI. *Curcuma* yellow. *Diferuloylmethane*
[458-37-7]



$C_{21}H_{20}O_6$ M 368.385

Isol. from *Curcuma* spp. (turmeric). Natural colouring matter used extensively in Indian curries etc. Used as 0.1% soln. in AcOH for photometric detn. of B (λ_{max} 550 nm, ϵ 180000) and of Ni (indirectly). Orange prisms. Mp 183°.

Di-Ac: Cryst. Mp 170-171°.

Dibenzoyl: Cryst. Mp 210°.

Demethoxy: [22608-11-3]. 1-(4-Hydroxy-3-methoxyphenyl)-7-(4-hydroxyphenyl)-1,6-heptadiene-3,5-dione, 9CI. *p-Hydroxycinnamoylferuloylmethane*. **Demethoxycurcumin**

$C_{20}H_{18}O_5$ M 338.359

Isol. from *C. longa*, *C. domestica*, *C. xanthorrhiza*. Orange-yellow powder. Mp 168°.

Bis-demethoxy: [22608-12-4]. 1,7-Bis(4-hydroxyphenyl)-1,6-heptadiene-3,5-dione, 9CI. *p,p'*-

Dihydroxydicinnamoylmethane. **Bisdemethoxycurcumin**

$C_{19}H_{16}O_4$ M 308.333

Isol. from *C. longa*, *C. domestica* and *C. aromatica*. Absent in some *C. spp.* Yellow plates + H_2O (EtOH). Mp 224°.

5'-Methoxy: **5'-Methoxycurcumin**

$C_{22}H_{22}O_7$ M 398.412

Constit. of *C. xanthorrhiza*. Yellow powder. Mp 145-146°.

[24939-16-0, 33171-05-0]

Lampe, V., *Ber.*, 1918, **51**, 1347 (synth)

Srinivasan, K.R., *J. Pharm. Pharmacol.*, 1953, **5**, 448 (derivs)

Spicer, G.S. *et al*, *Anal. Chim. Acta*, 1958, **18**, 231 (detn, B)

Umland, F. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **197**, 151 (detn, Ni)

Jentzsch, K. *et al*, *Sci. Pharm.*, 1968, **36**, 251; *CA*, **70**, 90793h (isol)

Sastry, B.S., *Res. Ind.*, 1970, **15**, 258; *CA*, **75**, 75063e (isol)

Kuroyagi, M. *et al*, *Yakugaku Zasshi*, 1970, **90**, 1467; *CA*, **74**, 61612a (isol)

Dyrssen, D.W. *et al*, *Anal. Chim. Acta*, 1972, **60**, 139 (detn, B)

Roughley, P.J. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1973, 2379 (biosynth)

Karig, F., *Dtsch. Apoth. -Ztg.*, 1975, **115**, 325; *CA*, **83**, 65372f (derivs)

Quint, P. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **285**, 356; 1979, **295**, 269 (detn, B)

Kashina, C. *et al*, *Heterocycles*, 1977, **7**, 241 (synth)

Wahlstrom, B. *et al*, *Acta Pharmacol. Toxicol.*, 1978, **43**, 86 (metab)

Holder, G.M. *et al*, *Xenobiotica*, 1978, **8**, 761 (metab)

Toennesen, H.H. *et al*, *Acta Chem. Scand., Ser. B*, 1982, **36**, 475 (cryst struct, bibl)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 511 (use)

Masudo, T. *et al*, *Phytochemistry*, 1992, **31**, 3645 (*5'-Methoxycurcumin*)

Cyanoacetic acid, 9CI

C-00324

Malonic acid mononitrile

[372-09-8]

$NCCH_2COOH$

$C_3H_3NO_2$ M 85.062

Sol. H_2O , EtOH, Et₂O. Mp 66°. Bp 108°. pK_a 2.43 (25°).

▷ Toxic. Explosive reaction with furfuryl alcohol. AG3675000.

Me ester: [105-34-0]. *Methyl cyanoacetate*

$C_4H_5NO_2$ M 99.089

Bp 200°, Bp₃₆ 115°.

▷ Highly toxic. AG4375000.

Et ester: [105-56-6]. *Ethyl cyanoacetate*

$C_5H_7NO_2$ M 113.116

Reagent for condensations. Insol. H_2O , sol. NH_3 aq. Bp 207°, Bp₁₆ 97°.

▷ AG4110000.

tert-Butyl ester: [1116-98-9]. *tert-Butyl cyanoacetate*

$C_7H_{11}NO_2$ M 141.169

Condensing agent with some advantages over the Et ester. Bp_{1,5} 67-68°.

Amide: [107-91-5]. *Cyanoacetamide*. *Malonic amide nitrile*

$C_3H_4N_2O$ M 84.077

Anal. reagent for carbohydrates. Sol. H_2O , mod. sol. EtOH. Mp 119-120°.

▷ Mod. toxic. AB5950000.

Anilide: [621-03-4]. *Cyanoacetanilide*

$C_9H_8N_2O$ M 160.175

Mp 198-199°.

Phenylhydrazide: Mp 105-106°.

Org. Synth., Coll. Vol., 1, 1932, 254 (synth)

Org. Synth., Coll. Vol., 3, 1955, 535 (synth)

Bowie, J.H. *et al*, *J. Am. Chem. Soc.*, 1966, **88**, 1699 (ms)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 87.

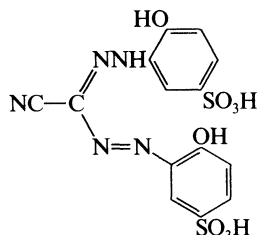
Org. Synth., 1977, **56**, 59 (synth)

Kanters, J.A. *et al*, *Acta Crystallogr., Sect. B*, 1978, **34**, 1393 (cryst struct)

Honda, S. *et al*, *Anal. Biochem.*, 1981, **118**, 162; 1982, **119**, 194 (amide, use)
 Schlabach, J.D. *et al*, *J. Chromatogr.*, 1983, **282**, 169 (amide, use)
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 425.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, COJ250, COJ500, EHP500, MIQ000.

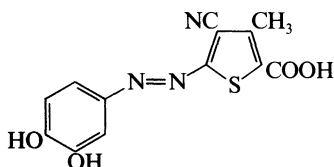
3-Cyano-1,5-bis(2-hydroxy-5-sulfophenyl) formazan C-00325

3,3'-(3-Cyano-1,5-formazandiyl)bis[4-hydroxybenzenesulfonic acid], 9CI. Cyanformazan 2
 [1105-53-9]



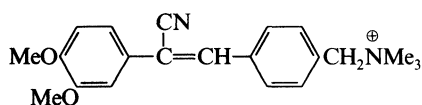
$C_{14}H_{11}N_5O_8S_2$ M 441.402
 Orange cryst. pK_{a1} 6.65; pK_{a2} 8.28; pK_{a3} 11.8.
Di-Na salt: Used in photometric detn. of U, Sc, Ga (λ_{max} 634 nm, ϵ 25000), Zr, Ge, Nb, V, Mn, Th, Zn, Y.
 Hygroscopic red-brown needles. Sol. H_2O , EtOH; insol. Et_2O , Me_2CO . Mp 290°.
 Ermakova, M.I. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 8 (detn, Ga)
 Oposova, S.P. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1469 (detn, Zr, Ge, Nb, V, Sc)
 Ermakova, M.I. *et al*, *Zh. Obshch. Khim.*, 1968, **38**, 2390 (detn, Mn, Th, Zn)
 Serovskaya, V.V. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 2216 (detn, U)

4-Cyano-5-[(3,4-dihydroxyphenyl)azo]-3-methyl-2-thiophenecarboxylic acid C-00326



$C_{13}H_9N_3O_4S$ M 303.298
Et ester: [82083-97-4]. 2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxycarbonylthiophene
 $C_{15}H_{13}N_3O_4S$ M 331.351
 Used as 0.5 mM Me_2CO soln. for photometric detn. of Ge (λ_{max} 560 nm, ϵ 52000), Zr (λ_{max} 540 nm, ϵ 32000), Al. Red cryst. powder. Sol. EtOH, Me_2CO . pK_{a1} 6.56; pK_{a2} 10.71 ($\mu = 0.1$, Me_2CO aq.).
 Drille, M. *et al*, *Latv. PSR Zinat. Akad. Vestis, Khim. Ser.*, 1983, **604**, 610; *CA*, **99**, 224309n (detn, Ge, Zr, Al)

4-[2-Cyano-2-(3,4-dimethoxyphenyl)ethenyl]-N,N,N-trimethylbenzenemethanaminium(1 +), 9CI C-00327

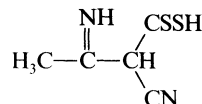


$C_{21}H_{25}N_2O_2^{\oplus}$ M 337.441 (ion)

Trifluoromethanesulfonate: [108472-65-7].
 Green cryst. (EtOH aq.). Mp 197-198.5°.
Methosulfate: [128032-73-5].
 Fluorescent ion-pair reagent for anal. of carboxylic acid drugs. Cryst. ($CHCl_3$ /EtOH aq.). Mp 212-215°.
Iodide: [128032-75-7].
 Cryst.(aq. EtOH). Mp 203-204°.
 Stewart, J.T. *et al*, *J. Chem. Eng. Data*, 1987, **32**, 387 (synth, uv, ir, pmr, fluorescence)
 Kim, M. *et al*, *J. Liq. Chromatogr.*, 1990, **13**, 213 (use)

2-Cyano-3-iminodithiobutyric acid C-00328

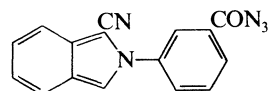
2-Cyano-3-iminobutane(dithioic) acid, 9CI
 [64247-47-8]



$C_5H_6N_2S_2$ M 158.248
 Sol. alkalis; insol. H_2O .
NH4 salt: [71081-51-1].
 Used as a 0.05% aq. soln. for photometric detn. of Ag (λ_{max} 565 nm, ϵ 12700). Yellow cryst. (Me_2CO aq.). Sol. H_2O . Mp 97-99°.
 Muraoka, M. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1977, 1273 (synth)
 Muraoka, M. *et al*, *Analyst (London)*, 1979, **104**, 87 (use)

3-(1-Cyano-2H-isoindol-2-yl)benzoyl azide, 9CI C-00329

[127171-82-8]



$C_{16}H_9N_5O$ M 287.280
 Fluorescence labelling reagent for glc anal. of steroidal alcohols. Dark yellow solid.
 Gamoh, K. *et al*, *Anal. Chim. Acta*, 1990, **228**, 307 (synth, use)

(Cyano-C)triphenylborate(1 –), 10CI, 9CI C-00330

Triphenylcyanoborate
 [47107-21-1]

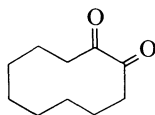


$C_{19}H_{15}BN^{\ominus}$ M 268.145 (ion)
Na salt: [14568-16-2]. *Cesignost*
 $C_{19}H_{15}BNNa$ M 291.135
 Used to separate Cs-137 and Be-7 in radioactive fallout and to detect Cs-137 in feed. Used in solvent extraction of alkali metals. Monohydrate. Used as 7% aq. soln. for gravimetric detn. of Cs. Cryst. Commercially available.
Cs salt: [52337-56-1].
 $C_{19}H_{15}BCsN$ M 401.051
 Nmr shift reagent. Analytical reagent for mechanistic studies.
 Witting, G. *et al*, *Justus Liebig's Ann. Chem.*, 1951, **573**, 195 (synth)
 Havir, S., *Collect. Czech. Chem. Commun.*, 1961, **26**, 1775 (detn, Cs)
 Baumn, A., *Talanta*, 1968, **15**, 185 (detn, Cs)
 Lee, D.A., *J. Inorg. Nucl. Chem.*, 1972, **34**, 2895 (use)
 Bunge, M. *et al*, *Eur. Polym. J.*, 1977, **13**, 283 (use)
 Stankovic, S. *et al*, *CA*, 1980, **92**, 36885f (use)
 Selig, W., *Microchem. J.*, 1980, **25**, 200.
 Pacey, G. *et al*, *Talanta*, 1980, **27**, 1013 (use)

1,2-Cyclodecanedione

Sebacil

[96-01-5]

 $C_{10}H_{16}O_2$ M 168.235Liq. Mp 42°. Bp₁₀ 104-105°, Bp₁ 69-70°.

Dihydrazone: Mp 126-130° dec.

Dioxime: [18486-81-2].

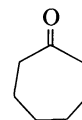
 $C_{10}H_{18}N_2O_2$ M 198.264

Used as a satd. soln. in H₂O, EtOH or Me₂CO for extraction-photometric detn. of Ni (isopentanol); gravimetric detn. of Bi, Co, Cu, Pd. Cryst. (C₆H₆ or H₂O). Sol. C₆H₆, Me₂CO; sl. sol. H₂O (0.05 g per 100 cm³). Mp 189-190°, Mp 190°.

Prelog, V. *et al*, *Helv. Chim. Acta*, 1952, **35**, 1598 (*synth, config*)Org. Synth., 1956, **36**, 77 (*synth*)Collins, P. *et al*, *Anal. Chim. Acta*, 1958, **18**, 384 (*detn, Ni*)Org. Synth., Coll. Vol., 4, 1963, 838 (*synth*)Cumper, C.W.N. *et al*, *J. Chem. Soc.*, 1965, 2067 (*synth*)Bassed, J. *et al*, *Analyst (London)*, 1967, **92**, 279 (*detn, Bi, Co, Cu, Pd*)Caubere, P. *et al*, *J. Org. Chem.*, 1986, **51**, 1419 (*synth*)**C-00331**Cook, J.W. *et al*, *J. Chem. Soc.*, 1952, 4416 (*synth*)Belcher, R. *et al*, *J. Chem. Soc.*, 1958, 2743.Bassed, J. *et al*, *Analyst (London)*, 1967, **92**, 279 (*detn, Bi, Ni, Pd*)Valasquez, J.A. *et al*, *Talanta*, 1970, **17**, 623 (*use, deriv*)Hanna, J.D. *et al*, *Can. J. Chem.*, 1972, **50**, 2859 (*use, deriv*)Caubere, P. *et al*, *J. Org. Chem.*, 1986, **51**, 1419 (*synth*)**Cycloheptanone**

Suberone

[502-42-1]

 $C_7H_{12}O$ M 112.171

Forms Schiff bases with amines useful for gc anal. Liq.

Prac. insol. H₂O; sol. EtOH. d₄²⁰ 0.951. Bp 179-180°. n_D²⁰ 1.4608.

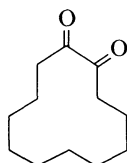
▷ GU3325000.

Semicarbazone: Mp 163-164°.

2,4-Dinitrophenylhydrazone: Mp 148°.

Blicke, F.F. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 2924 (*synth*)Org. Synth., Coll. Vol., 4, 1963, 221, 225 (*synth*)Vanden Heuvel, W.J.A. *et al*, *Anal. Chem.*, 1964, **36**, 1550 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SMV000.**C-00334****1,2-Cyclododecanedione, 9CI**

[3008-41-1]

 $C_{12}H_{20}O_2$ M 196.289Mp 43°. Bp_{1.5} 99-101°.

Dioxime: [18310-17-3].

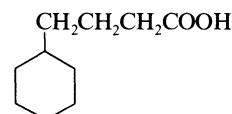
 $C_{12}H_{22}N_2O_2$ M 226.318

Used as a soln. in EtOH for gravimetric detn. of Bi, Ni, Pd. Cryst. (C₆H₆). Sol. EtOH, C₆H₆; spar. sol. H₂O. Mp 214°.

Cumper, C.W.N. *et al*, *J. Chem. Soc.*, 1965, 2067 (*synth*)Bassed, J. *et al*, *Analyst (London)*, 1967, **92**, 279 (*detn, Bi, Ni, Pd*)Sharpless, K.B. *et al*, *J. Am. Chem. Soc.*, 1971, **93**, 3303 (*synth*)Gregoire, B. *et al*, *J. Org. Chem.*, 1986, **51**, 1419 (*synth*)Kawada, K. *et al*, *Synth. Commun.*, 1989, **19**, 777 (*synth*)**C-00332****Cyclohexanebutanoic acid, 9CI**

4-Cyclohexylbutyric acid

[4441-63-8]

 $C_{10}H_{18}O_2$ M 170.251

Salts used as atomic absorption spectrophotometry standards, as cocatalysts for polymerisation reactions and as stabilisers in photographic solns. Insol. H₂O. Mp 31°. Bp₂₀ 169°, Bp₄ 136-139°. Metal salts sol. many org. solvs.

Me ester: [15972-01-7].

 $C_{11}H_{20}O_2$ M 184.278Bp₂₄ 124°.

Et ester: [50934-62-8].

 $C_{12}H_{22}O_2$ M 198.305Bp_{0.6} 86-87°.

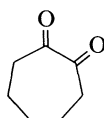
Anhydride:

 $C_{20}H_{34}O_3$ M 322.487Bp_{0.5} 169-172°.

Chloride:

 $C_{10}H_{17}ClO$ M 188.696Bp₂ 115-120°.Hiers, G.S. *et al*, *J. Am. Chem. Soc.*, 1926, **48**, 2391, 2392 (*synth*)Cairns, T.L. *et al*, *J. Am. Chem. Soc.*, 1948, **70**, 1689 (*synth*)Zikan, V. *et al*, *Collect. Czech. Chem. Commun.*, 1962, **27**, 2704 (*synth*)Isbell, H.S., *NBS Monogr. (U.S.)*, No. 54, 1962; *CA*, **58**, 2305 (*use*)Niyazov, A.N. *et al*, *CA*, 1974, **81**, 11328 (*glc, pmr, ir*)*Ger. Pat.*, 2 437 382, (1975); *CA*, **83**, 19056 (*use*)*U.S. Pat.*, 3 957 514, (1976); *CA*, **85**, 184868 (*use*)**C-00335****1,2-Cycloheptanedione**

[3008-39-7]

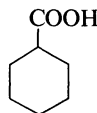
 $C_7H_{10}O_2$ M 126.155Liq. d₂₂²² 1.061. Bp₁₇ 107-109°. n_D²² 1.4689.Bis-2,4-dinitrophenylhydrazone: Red needles + C₆H₆ (C₆H₆). Mp 213° (dried).

Dioxime: [530-97-2]. Heptoxime

 $C_7H_{12}N_2O_2$ M 156.184

Used as a soln. in EtOH for gravimetric detn. of Ni, Bi, Pd. Cryst. (C₆H₆). Mp 181-182°. pK_{a1} 10.7; pK_{a2} 12.3.

Godchot, M. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1936, **202**, 326 (*synth*)**C-00333**

Cyclohexanecarboxylic acid, 9CI**C-00336**Hexahydrobenzoic acid. Naphthenoic acid. Naphthenic acid
[98-89-5] $C_7H_{12}O_2$ M 128.171Isol. from the tail gland secretion of the red deer *Cervus elaphus*. Used as a soln. in 4-methyl-2-pentanone for extraction separation of Ca. Prisms. V. sol. EtOH, Et₂O, CHCl₃, C₆H₆, spar. Sol. H₂O. Bp₁₃ 120-121°.

▷ GU8370000.

4-Bromophenacyl ester: $C_{15}H_{17}BrO_3$ M 325.201

Mp 91-92°.

Me ester: [4630-82-4]. $C_8H_{14}O_2$ M 142.197Bp 183°, Bp₁₅ 73°.

▷ GU8599000.

Chloride: [2719-27-9]. $C_7H_{11}ClO$ M 146.616Bp 179-180°, Bp 184°, Bp₁₇ 76°. n_D^{15} 1.4766.**Anhydride:** $C_{14}H_{22}O_3$ M 238.326

Mp 25°. Bp 280-283°.

Amide: [1122-56-1]. $C_7H_{13}NO$ M 127.186Prisms (H₂O). V. sol. EtOH, Et₂O. Mp 185-186°.

▷ GU7875500.

Nitrile: [766-05-2]. Cyclohexanecarbonitrile.

Cyanocyclohexane. Cyclohexyl cyanide

 $C_7H_{11}N$ M 109.171Bp 184-185°, Bp₁₆ 75-77°.

[3198-23-0]

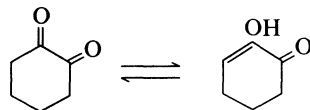
Lumsden, J.S., *J. Chem. Soc.*, 1905, **87**, 90.Hiers, G.S. *et al*, *J. Am. Chem. Soc.*, 1926, **48**, 2392 (*synth*)*Org. Synth.*, *Coll. Vol.*, 1, 1932, 364 (*synth*)Szego, L. *et al*, *Anal. Chim. Acta*, 1968, **42**, 1 (*detn*, Ca)Gurski, R.N., *CA*, 1972, **76**, 59039s (*synth*)Schoellkopf, U. *et al*, *Justus Liebig's Ann. Chem.*, 1972, **766**, 130 (*synth*)White, D.R. *et al*, *J. Chem. Soc., Chem. Commun.*, 1974, 988 (*synth*)Souma, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1976, **49**, 3335 (*synth*)Morita, T. *et al*, *J. Chem. Soc., Chem. Commun.*, 1978, **20**, 874 (*synth*)Williamson, K.L. *et al*, *J. Magn. Reson.*, 1978, **30**, 367 (*cmr*)Corey, E.J. *et al*, *Tetrahedron Lett.*, 1979, 399 (*synth*)Bakke, J.M. *et al*, *J. Chem. Ecol.*, 1983, **9**, 513.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, CPB050.

1,2-Cyclohexanedione, 9CI**C-00337**

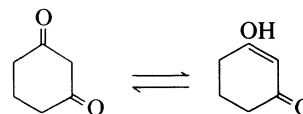
1,2-Dioxocyclohexane

[765-87-7]

 $C_6H_8O_2$ M 112.128Flavour material for food and perfumes. Reagent for sequence anal. of arginyl peptides by ms. Cryst. (pet. ether). Mod. sol. H₂O. Mp 38-40°. Bp 193-195°, Bp₁₇ 85°. pK_a 10.30 (20°, 40% enol form).▷ Explosion has resulted when prepd. by HNO₃ oxidn. of cyclohexanol. GV0340000.**Dioxime:** [492-99-9]. **Nioxime** $C_6H_{10}N_2O_2$ M 142.157Used as 0.01M soln. in EtOH, for extraction-photometric detn. of Ni, Fe(II) (λ_{max} 450 nm, ϵ 18000, CHCl₃). Needles (H₂O), cryst. (dioxan). Sol. EtOH, dioxan, sl. sol. H₂O. Mp 187-188° dec. pK_{a1} 10.70; pK_{a2} 12.16 (25°).**Bis-2,4-dinitrophenylhydrazone:** Mp 233-234°.**Bisthiosemicarbazone:** see 1,2-Cyclohexanedione bis(thiosemicarbazone), C-00344**Bis(2-pyridylhydrazone):** see 1,2-Cyclohexanedione bis(2-pyridylhydrazone), C-00343**Bisbenzoylhydrazone:** see 1,2-Cyclohexanedione bisbenzoylhydrazone, C-00340Wallach, O., *Justus Liebig's Ann. Chem.*, 1924, **437**, 148 (*synth*)Rauh, E.G. *et al*, *J. Org. Chem.*, 1945, **10**, 199 (*synth*)Monnier, D. *et al*, *Anal. Chim. Acta*, 1959, **20**, 444 (*detn*, Ni)*Org. Synth.*, *Coll. Vol.*, 4, 1963, 229 (*synth*)Lenard, J. *et al*, *Anal. Biochem.*, 1969, **29**, 203 (*use*)Rao, D.V. *et al*, *J. Org. Chem.*, 1979, **44**, 456 (*synth*)Nazarenko, A.Yu. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1469 (*detn*, Fe)Caubere, P. *et al*, *J. Org. Chem.*, 1986, **51**, 1419 (*synth*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 261.**1,3-Cyclohexanedione, 9CI****C-00338**

Dihydroresorcinol. 1,3-Dioxocyclohexane

[504-02-9]

 $C_6H_8O_2$ M 112.128Fluorogenic derivatising reagent for hplc anal. of aldehydes. Prisms (C₆H₆). Sol. H₂O, EtOH, Me₂CO, CHCl₃, spar. sol. Et₂O. pK_{a1} 5.25 (25°).

▷ GV0350000.

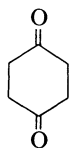
Dioxime: [2802-07-5]. $C_6H_{10}N_2O_2$ M 142.157

Mp 155-156°.

Phenylhydrazone: Needles (EtOH aq.). Mp 176-177°.**Bis(phenylthiosemicarbazone):** [77783-17-6]. $C_{20}H_{22}N_6S_2$ M 410.566Used as 0.1% soln. in DMF for photometric detn. of U(VI) (λ_{max} 640 nm, ϵ 18200). Yellow cryst. (EtOH). Mp 216-218°.Merling, G., *Justus Liebig's Ann. Chem.*, 1894, **278**, 20 (*synth*)*Org. Synth.*, *Coll. Vol.*, 3, 1955, 278 (*synth*)Sircar, J.C. *et al*, *J. Org. Chem.*, 1965, **30**, 3206.Vanderwalle, M. *et al*, *Bull. Soc. Chim. Belg.*, 1967, **76**, 111 (*ms*)Rodriguez, J. *et al*, *Talanta*, 1981, **28**, 131 (*deriv*, *synth*)Stahovec, W.L. *et al*, *J. Chromatogr.*, 1984, **298**, 399 (*use*)Rodriguez, J. *et al*, *Quim. Anal. (Madrid)*, 1984, **3**, 66 (*deriv*, *detn*, U)Suzuki, Y., *Bunseki Kagaku (Jpn. Anal.)*, 1985, **34**, 314; *CA*, **103**, 115363h (*use*)

1,4-Cyclohexanedione, 9CI

[637-88-7]



$C_6H_8O_2$ M 112.128
Plates (H₂O). Mp 78°.

Dioxime: [10220-83-4].

$C_6H_{10}N_2O_2$ M 142.157

Cryst. (H₂O). Mp 188°.

Disemicarbazone: Mp 231°.

Dithiosemicarbazone: [83454-03-9]. 2,2'-(1,4-

Cyclohexanediylidene)bishydrazinecarbothioamide, 9CI

$C_8H_{14}N_6S_2$ M 258.371

Used as 0.1% DMF soln. for photometric detn. of Cu

(λ_{max} 410 nm, pH 6, DMF aq.). Cryst. (DMF). Sol.

DMF; spar. sol. H₂O, EtOH, 4-methyl-2-pentanone,

CHCl₃. Mp 213-214° dec. pK_{a1} 11.3.

Bis-2,4-dinitrophenylhydrazones: Yellow cryst. (PhNO₂). Mp 240°.

Ethylene monoketal: 1,4-Dioxaspiro[4.5]decan-8-one

$C_8H_{12}O_3$ M 156.181

Mp 71-72°.

2,2-Dimethylpropylene monoketal: 4,4-Dimethyl-2,6-dioxaspiro[6.6]undecan-9-one

$C_{11}H_{18}O_3$ M 198.261

Useful synthetic intermediate. Cryst. (hexane). Mp 48-49.5°.

Meerwein, H., *Justus Liebigs Ann. Chem.*, 1913, **398**, 248 (*synth*)

Liebermann, H., *Justus Liebigs Ann. Chem.*, 1914, **404**, 272 (*synth*)

Org. Synth., 1965, **45**, 25 (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 93.

Dowd, P. *et al*, *J. Am. Chem. Soc.*, 1970, **92**, 6327 (*conformn*)

Olah, G.A. *et al*, *J. Org. Chem.*, 1975, **40**, 2102 (*cmr*)

Mussini, P. *et al*, *Synth. Commun.*, 1975, **5**, 283 (*synth*)

Marshall, J. *et al*, *Synth. Commun.*, 1979, **9**, 123 (*deriv*)

Roman Ceba, M. *et al*, *Microchem. J.*, 1982, **27**, 380 (*synth, detn, Cu*)

Kamenka, J.-M. *et al*, *Bull. Soc. Chim. Fr.*, Part II, 1983, 87 (*acetal*)

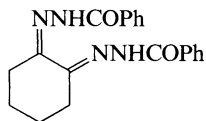
Hyatt, J.A. *et al*, *J. Org. Chem.*, 1983, **48**, 129 (*deriv*)

1,2-Cyclohexanedione bis(benzoylhydrazone)

C-00340

Benzoic acid 1,2-cyclohexanediylidenedihydrazide, 9CI

[65158-90-9]



$C_{20}H_{20}N_4O_2$ M 348.404

Used as EtOH soln. for photometric detn. of Ti (λ_{max} 477 nm, ϵ 10500). Cryst. (EtOH). Sol. EtOH, DMF, CHCl₃, Mp 209°.

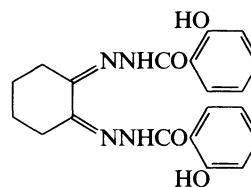
Garcia-Vargas, M. *et al*, *Talanta*, 1986, **33**, 209 (*synth, detn, Ti*)

1,2-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone

C-00341

2-Hydroxybenzoic acid 1,2-cyclohexanediylidenedihydrazide, 9CI

[94616-63-4]



$C_{20}H_{20}N_4O_4$ M 380.402

Used as 0.1% DMF soln. for photometric detn. of Mn

(λ_{max} 435 nm, ϵ 30400), Fe, Co, Zn, Cu; and in kinetic

analysis (Mn, Fe). Bright yellow cryst. (EtOH). Sol.

DMF, EtOH, Me₂CO. Mp 243°. pK_{a1} 6.3; pK_{a2} 10.8.

Gallego, M. *et al*, *Talanta*, 1984, **31**, 1075 (*synth, use*)

1,3-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone

C-00342

2-Hydroxybenzoic acid 1,3-cyclohexanediylidenedihydrazide, 9CI

[94616-64-5]

$C_{20}H_{20}N_4O_4$ M 380.402

Used as 0.1% DMF soln. for photometric detn. of Ni

(λ_{max} 485 nm, ϵ 13200); in kinetic analysis (Mn, Fe).

Bright yellow cryst. (EtOH). Sol. DMF, EtOH, Me₂CO.

Mp 253°. pK_{a1} 5.6; pK_{a2} 10.1.

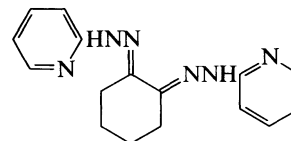
Gallego, M. *et al*, *Talanta*, 1984, **31**, 1075 (*detn, Ni, Mn, Fe*)

1,2-Cyclohexanedione bis(2-pyridyl)hydrazone

C-00343

1,2-Cyclohexanedione bis(2-pyridinylhydrazone), 9CI

[94413-93-1]



$C_{16}H_{18}N_6$ M 294.358

Used as a 0.25% soln. in DMF for photometric detn. of

Bi, Cd (λ_{max} 420 nm, ϵ 33700), Co (λ_{max} 525 nm, ϵ

13700), Fe(II) (λ_{max} 430 nm, ϵ 28000), Fe(III), Mn, Ni,

Pb, Pd, Zn (λ_{max} 450 nm, ϵ 24800). Yellow cryst. Sol.

H₂O, EtOH, CCl₄, CHCl₃, DMF. Mp 218-220°. pK_{a1}

4.95; pK_{a2} 6.47 ($\mu = 0.1$).

Rosales, D. *et al*, *Quim. Anal. (Madrid)*, 1983, **2**, 277 (*synth, use*)

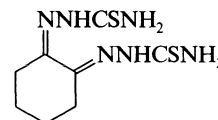
Rosales, D. *et al*, *Analyst (London)*, 1984, **109**, 1047 (*detn, Co*)

1,2-Cyclohexanedione bis(thiosemicarbazone)

C-00344

2,2'-(1,2-Cyclohexanediylidene)bishydrazinecarbothioamide, 9CI

[19901-06-5]



$C_8H_{14}N_6S_2$ M 258.371

Used as soln. in EtOH for extraction-photometric detn. of Pd (λ_{\max} 590 nm, ϵ 5300, CHCl_3). Cryst. (EtOH). Sol. DMF, EtOH, CHCl_3 .

Lopez, P.J. *et al*, *Quim. Anal. (Barcelona)*, 1984, 3, 226; *CA*, 103, 47421y (detn, Pd)

1,3-Cyclohexanedione bis(thiosemicarbazone) C-00345

2,2'-(1,3-Cyclohexanediylidene)bishydrazinecarbothioamide, 9CI

$\text{C}_8\text{H}_{14}\text{N}_6\text{S}_2$ M 258.371

Cryst. (EtOH aq.). Mp 240-242°. $\text{p}K_{a1}$ 4.7; $\text{p}K_{a2}$ 10.5.

B, HCl: [59871-52-2].

Used as a 0.2% aq. soln. for photometric detn. of $\text{Cr}_2\text{O}_7^{2-}$ (λ_{\max} 370 nm, ϵ 12000), ClO_3^- (λ_{\max} 402 nm, ϵ 17000), IO_4^- (λ_{\max} 415 nm, ϵ 15600), IO_3^- , BrO_3^- , Ni, Cr(VI), Pd, Pt, Os, Cu, Zn, Co; photometric indirect detn. of glycerol and glucose. Yellow cryst. (EtOH aq.). Mp 175-177°.

Berzas Nevado, J.J. *et al*, *Talanta*, 1976, 23, 257 (synth)

Román Ceba, M. *et al*, *An. Quim.*, 1978, 74, 620, 1075 (detn, BrO_3^- , IO_3^-)

Román Ceba, M. *et al*, *Analyst (London)*, 1978, 103, 969 (detn, ClO_3^-)

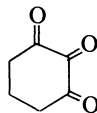
Reddy, K.H. *et al*, *Analyst (London)*, 1983, 108, 1247 (detn, ClO_3^-)

Reddy, K.H. *et al*, *Anal. Lett.*, 1984, 17, 1275 (detn, Os)

Callejon Mochon, M. *et al*, *Analyst (London)*, 1984, 109, 951 (detn, IO_4^- , glycerol, glucose)

1,2,3-Cyclohexanetrione C-00346

[4322-62-7]



$\text{C}_6\text{H}_6\text{O}_3$ M 126.112

Has antiviral and antidiabetic activity. Mp 103-105°.

Forms a dihydrate.

1,3-Bis(phenylhydrazone): Bronze-red cryst. (MeOH). Mp 131-132.5°.

Tris(phenylhydrazone): Yellow cryst. (EtOH). Mp 182-183°.

Trioxime: [3570-93-2]. *Niconoxime*. *Nicon*

$\text{C}_6\text{H}_9\text{N}_3\text{O}_3$ M 171.155

Used as 8-15mM soln. in EtOH for photometric detn. of Co (λ_{\max} 400 nm) and Ni (λ_{\max} 560 nm). Pale yellow cryst. Sol. Me_2CO , EtOH, MeOH.

Pecherer, B. *et al*, *J. Am. Chem. Soc.*, 1948, 70, 2587.

Tiffany, B.D. *et al*, *J. Am. Chem. Soc.*, 1957, 79, 1682.

Frierson, W.J. *et al*, *Anal. Chem.*, 1961, 33, 1096; 1962, 34, 210 (detn, Co, Ni)

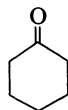
Fatiadi, A.J. *et al*, *Carbohydr. Res.*, 1967, 5, 302 (nmr)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CPB650.

Cyclohexanone, 9CI C-00347

Ketocyclohexane. *Oxocyclohexane*
[108-94-1]



$\text{C}_6\text{H}_{10}\text{O}$ M 98.144

Solvent, swelling agent for PVC, synthetic intermediate.

Feedstock for nylon 6 and nylon 66. H acceptor in Oppenauer oxidns. Used as a solvent in extraction-photometric detns. and in extraction separation of Ga, In, Hg, Bi. Oily liq. Mod. sol. H_2O . d_4^{20} 0.948. Mp -45° (-32°). Bp 155°, Bp₁₅ 47°. $\text{p}K_a$ 16.7.

▷ Toxic vapour, irritant, TLV 200. Forms explosive peroxide with H_2O_2 . GW1050000.

Oxime:

$\text{C}_6\text{H}_{11}\text{NO}$ M 113.159

Prisms. Sol. H_2O , EtOH. Mp 89-90°. Bp 206-210°.

Semicarbazone: Mp 166-167°.

Cyanhydrin: see 1-Hydroxycyclohexanecarboxylic acid, H-00146

Baeyer, A., *Ber.*, 1893, 26, 231 (synth)

Org. Synth., 1931, 11, 54 (synth)

Hartkamp, H. *et al*, *Talanta*, 1959, 2, 67 (detn, Ga, In)

Jackwerth, E., *Fresenius' Z. Anal. Chem.*, 1964, 202, 81; 206, 269; 1965, 211, 254 (detn, Hg, Bi)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, 1, 178.

Frechet, J.M.J., *J. Org. Chem.*, 1978, 43, 2618 (synth)

Fry, A.J. *et al*, *J. Org. Chem.*, 1979, 44, 349 (synth)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 262.

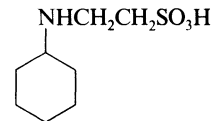
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CPC000.

2-(Cyclohexylamino)ethanesulfonic acid, C-00348

9CI

N-Cyclohexyltaurine. *CHES*

[103-47-9]



$\text{C}_8\text{H}_{17}\text{NO}_3\text{S}$ M 207.293

Good's buffer with pH range 8.6-10.0. Cryst. Sol. H_2O .

Mp 320°. $\text{p}K_a$ 9.3 (20°).

[3076-05-9]

Syverstsen, C. *et al*, *Eur. J. Biochem.*, 1981, 117, 165 (use)

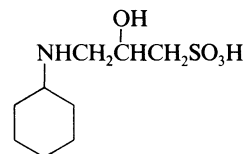
Champseix, A. *et al*, *Bull. Soc. Chim. Fr.*, 1985, 463 (synth)

Hutchens, T.W. *et al*, *J. Chromatogr.*, 1986, 359, 157 (use)

3-(Cyclohexylamino)-2-hydroxy-1-propanesulfonic acid, 9CI C-00349

CAPSO

[73463-39-5]



$\text{C}_9\text{H}_{19}\text{NO}_4\text{S}$ M 237.319

Good's buffer with pH range 9.3-10.7. Scale and corrosion inhibitor. Cryst. Sol. H_2O . Mp 166-170°. $\text{p}K_a$ 10.0 (20°).

[102601-34-3]

U.S. Pat., 4 187 245, (1980); *CA*, 93, 8290k (synth)

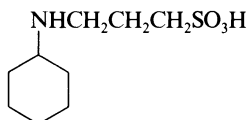
Szewczyk, B. *et al*, *Anal. Biochem.*, 1985, 150, 403 (use)

Geisthardt, D. *et al*, *Anal. Biochem.*, 1987, 160, 184 (use)

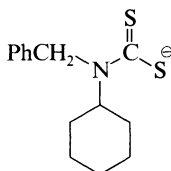
Irgum, K., *Anal. Chem.*, 1987, 59, 358 (use)

3-(Cyclohexylamino)-1-propanesulfonic acid, 9CI

C-00350

CAPS
[1135-40-6] $C_9H_{19}NO_3S$ M 221.320Commercially available. Good's buffer with pH range 9.7-11.1. Needles (MeOH). Sol. H_2O . Mp 302-303°. pK_a 10.4 (20°).Dorn, H. *et al*, *Z. Chem.*, 1967, **7**, 151 (*synth*)
Robinson, D.M., *Naturwissenschaften*, 1978, **65**, 438 (*props*)
Vega, C.A. *et al*, *Bull. Soc. Chim. Fr.*, 1979, 124 (*use*)
Kaushal, V. *et al*, *Anal. Biochem.*, 1986, **157**, 291 (*use*)**Cyclohexylbenzylthiocarbamate(1 –)**

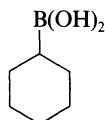
C-00351

 $C_{14}H_{18}NS_2^-$ M 264.435 (ion)

Triethylammonium salt:

 $C_{20}H_{34}N_2S_2$ M 366.634Used as 0.05M $CHCl_3$ soln. for extraction separation of Hg(II), Cd, Mn, Pb, Tl (pH 6-7). Cryst. Sol. $CHCl_3$, CCl_4 , 1,2-dichloroethane, 4-methyl-2-pentanone. Mp 87° dec. Bp 123°. n_D^{20} 1.5290.El'nazarov, S. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 1374 (*synth, use*)**Cyclohexylboronic acid, 9CI**

C-00352

Cyclohexyldihydroxyborane
[4441-56-9] $C_6H_{13}BO_2$ M 127.978

Derivatisation reagent for bifunctional compds. for gc anal. Cryst. Mp 119-120°.

▷ GU7171000.

Dicyclohexyl ester: Dicyclohexyl cyclohexylboronate

 $C_{18}H_{33}BO_2$ M 292.268 d_{70} 0.9206. Bp_{0.4} 134-135°.

Di-Et ester: [86595-45-1]. Diethyl cyclohexylboronate, 9CI

 $C_{10}H_{21}BO_2$ M 184.086Oil. Bp₁₆ 91-92°.

Di-Me ester: [37981-94-5]. Dimethyl cyclohexylboronate, 9CI

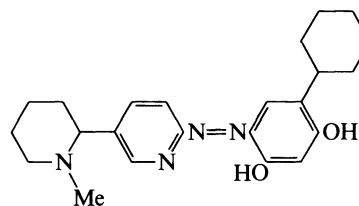
 $C_8H_{17}BO_2$ M 156.032Bp₁₅ 72-73°. n_D^{20} 1.4375.

Di-Ph ester: Diphenyl cyclohexylboronate

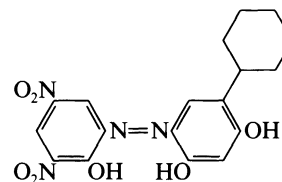
 $C_{18}H_{21}BO_2$ M 280.174 d_{20} 1.0908. Bp_{0.5} 147-148°. n_D^{20} 1.541.McCusker, P.A. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 5179 (*synth*)Hartmann, H. *et al*, *Z. Anorg. Allg. Chem.*, 1959, **299**, 174 (*synth*)Laurent, J.P. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1961, **253**, 1812; 1962, **254**, 866 (*synth*)Anthony, G.M. *et al*, *J. Chromatogr. Sci.*, 1969, **7**, 623 (*use*)Brooks, C.J.W. *et al*, *J. Chromatogr.*, 1971, **54**, 193 (*use*)Brown, H.C. *et al*, *J. Organomet. Chem.*, 1977, **135**, C10 (*synth, ester*)Brown, H.C. *et al*, *Organometallics*, 1983, **2**, 1311 (*synth, ester*)**6'-[(5-Cyclohexyl-2,4-dihydroxyphenyl)azo]-1-methylanabesine, 8CI**

C-00353

[25349-54-6]

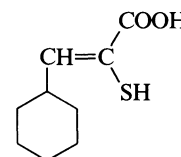
 $C_{23}H_{30}N_4O_2$ M 394.516Gives colour reaction with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Orange-red cryst. Sol. H_2O , Me_2CO .Kagramanova, N.G. *et al*, *CA*, 1969, **71**, 56314p.**4-Cyclohexyl-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, 9CI**

C-00354

5'-Cyclohexyl-2,2',4'-trihydroxy-3,5-dinitroazobenzene.
Picraminazo-4-cyclohexylresorcinol
[53077-67-1] $C_{18}H_{18}N_4O_7$ M 402.363Used as 0.05% EtOH soln. for extraction-photometric detn. of Co (λ_{max} 555 nm, ϵ 28000, $CHCl_3$ /isopentanol). Cryst. Sol. EtOH, alkalis.Chaprasova, L.V. *et al*, *Zavod. Lab.*, 1974, **40**, 1327 (*synth, detn, Co*)**3-Cyclohexyl-2-mercapto-2-propenoic acid, 9CI**

C-00355

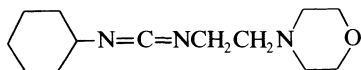
[98213-15-1]

 $C_9H_{14}O_2S$ M 186.274Used as EtOH soln. for colour reactions with Cu, Pd, Mo, Fe, Co, Ni, Mn, Ti. Cryst. (C_6H_6). Sol. C_6H_6 , pet. ether. Mp 139-140°. pK_{a1} 4.12; pK_{a2} 9.71 ($\mu = 0.1$, 25°).Campaigne, E. *et al*, *J. Org. Chem.*, 1956, **21**, 32 (*synth*)Izquierdo, A. *et al*, *Talanta*, 1985, **32**, 669 (*use*)

Cyclohexyl(2-morpholinoethyl) carbodiimide, 8CI

C-00356

N-(Cyclohexylcarbonimidoyl)-4-morpholineethanamine, 9CI
[15580-20-8]



$C_{13}H_{23}N_3O$ M 237.344

Coupling agent for peptide synth. Bp_{0.2} 145°.

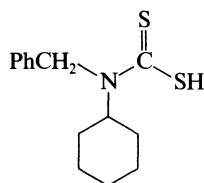
Metho-p-toluenesulfonate: [2491-17-0].

Reagent for peptide coupling; also for spectrophotometric anal. of carboxylic acids by ferric hydroxamate formation. Cryst. (C_6H_6). Sol. H_2O . Mp 113-115°.

Sheehan, J.C. *et al*, *J. Org. Chem.*, 1956, **21**, 439 (*synth, use*)
Ondetti, M.A. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 4373 (*use*)
Losse, G. *et al*, *Z. Chem.*, 1967, **7**, 234 (*synth*)
Mumma, R.O. *et al*, *J. Chem. Eng. Data*, 1971, **16**, 492 (*synth, use*)
Takeuchi, T. *et al*, *Anal. Lett.*, 1980, **13**, 603 (*use*)
Jaszay, Z.M. *et al*, *Synthesis*, 1987, 520; 1988, 397 (*synth*)

Cyclohexyl(phenylmethyl)carbamdithioic acid

C-00357



$C_{14}H_{19}NS_2$ M 265.443

Et₃N salt: [92744-65-5].

$C_{20}H_{34}N_2S_2$ M 366.634

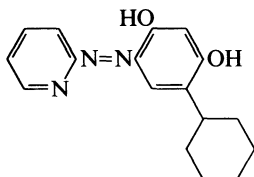
Used as 5mM $CHCl_3$ soln. for extraction separation of Zn, Cd, Hg(II), Tl, Mn, Pb. Cryst. Sol. $CHCl_3$, CCl_4 , C_6H_6 , 4-methyl-2-pentanone; sl. sol. EtOH. Mp 87° dec.

El'nazarov, S. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 1374 (*synth, use*)

4-Cyclohexyl-6-(2-pyridinylazo)-1,3-benzenediol, 9CI

C-00358

6-(2-Pyridylazo-4-cyclohexyl)resorcinol. 2-(2,4-Dihydroxy-5-cyclohexylphenylazo)pyridine. 1',2',3',4',5',6'-Hexahydro-5-(2-pyridylphenylazo)-2,4-biphenyldiol
[53799-77-2]



$C_{17}H_{19}N_3O_2$ M 297.356

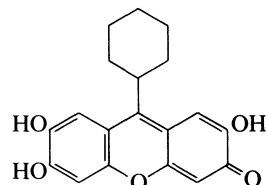
Used as $CHCl_3$ soln. for extraction-photometric detn. of Ti ($CHCl_3$ /isopentanol pH 2.9-4.5). Cryst.

Chaprasova, L.V. *et al*, *Uzb. Khim. Zh.*, 1974, **18**, 28; *CA*, **81**, 44915d (*synth, detn, Ti*)

9-Cyclohexyl-2,6,7-trihydroxy-3H-xanthen-3-one, 9CI

C-00359

Cyclohexylfluorone
[72007-67-1]



$C_{19}H_{18}O_5$ M 326.348

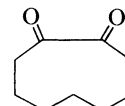
Used in photometric detn. of Cu (ϵ 190000). Dark cryst. Sol. EtOH.

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **298**, 150 (*synth, use*)

1,2-Cyclononanedione

C-00360

[3008-36-4]



$C_9H_{14}O_2$ M 154.208

Liq. Bp₃ 80-85°.

Dioxime: [18310-15-1].

$C_9H_{16}N_2O_2$ M 184.238

Used as a soln. in EtOH for gravimetric detn. of Bi, Ni, Pd. Cryst. (C_6H_6). Sol. EtOH, C_6H_6 ; spar. sol. H_2O . Mp 178°. Bp_{0.6} 57-59°.

Dihydrazone:

$C_9H_{18}N_4$ M 182.268

Cryst. (EtOH). Mp 106-107°.

Cumper, C.W.N. *et al*, *J. Chem. Soc.*, 1965, 2067 (*synth*)

Bassed, J. *et al*, *Analyst (London)*, 1967, **92**, 279 (*use*)

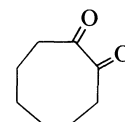
Caubere, P. *et al*, *J. Org. Chem.*, 1986, **51**, 1419 (*synth*)

1,2-Cyclooctanedione

C-00361

Suberil

[3008-37-5]



$C_8H_{12}O_2$ M 140.182

Liq. Bp₃ 68.8-69.5°.

Dioxime: [18310-14-0]. *Octoxime*

$C_8H_{14}N_2O_2$ M 170.211

Used as a soln. in EtOH for gravimetric detn. of Bi, Ni, Pd. Cryst. (C_6H_6). Sol. EtOH, C_6H_6 ; spar. sol. H_2O . Mp 170°.

Monophenylhydrazone: Yellow needles (EtOH). Mp 80-81°.

Dihydrazone:

$C_8H_{16}N_4$ M 168.241

Cryst. (C_6H_6). Mp 105-106.5°.

Witkop, B. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 2641 (*synth*)

Blomquist, A.T. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 2153 (*synth*)

Cumper, C.W.N. *et al*, *J. Chem. Soc.*, 1965, 2067 (*synth*)

Bassed, J. *et al*, *Analyst (London)*, 1967, **92**, 279 (*detn, Bi, Ni, Pd*)

Bauer, D.P. *et al*, *J. Org. Chem.*, 1975, **40**, 1990 (*synth*)

Caubere, P. *et al*, *J. Org. Chem.*, 1986, **51**, 1419 (*synth*)

1,2-Cyclopentanedione, 9CI

[3008-40-0]

C₅H₆O₂ M 98.101

Cryst. with a feeble quinine odour. Sol. H₂O, EtOH, Et₂O, spar. sol. CS₂, ligroin. Mp 55-56°. Bp₂₀ 105°. Spar. steam-volatile. Stored at -30° in the dark.

Monoanil:C₁₁H₁₁NO M 173.214

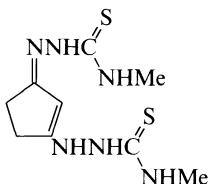
Mp 112-113°.

Oxime: [31579-37-0].C₅H₇NO₂ M 113.116Cryst. (H₂O). Mp 210° dec.**Dioxime:** [6635-29-6]. 1,2-Cyclopentanedione dioximeC₅H₈N₂O₂ M 128.130

Used as a 0.01M aq. soln. for gravimetric detn. of Ni.

Cryst. (H₂O). Sl. sol. H₂O, EtOH. Mp 210°.**Phenylhydrazine:** Mp 203°.**Bisphenylhydrazine:** Mp 146°.Dieckmann, W., *Ber.*, 1897, **30**, 1471 (*synth*)Voter, R.C. *et al.* *Anal. Chem.*, 1949, **21**, 1320 (*use, dioxime*)Hesse, G. *et al.* *Justus Liebigs Ann. Chem.*, 1949, **563**, 31 (*synth*)Rao, D.V. *et al.* *J. Org. Chem.*, 1979, **44**, 456 (*synth, cmr*)Grégoire, B. *et al.* *J. Org. Chem.*, 1986, **51**, 1419 (*pmr*)Fadel, A. *et al.* *Synthesis*, 1987, 37 (*synth*)Quast, H. *et al.* *Chem. Ber.*, 1989, **122**, 523 (*synth*)**1,3-Cyclopentanedione bis(4-methylthiosemicarbazone)**

2,2'-(1,3-Cyclopentanediyliidene)bis[N-methylhydrazinecarbothioamide], 9CI

C₉H₁₆N₆S₂ M 272.398**B, HCl:** [86946-90-9].

Used as soln. in 1M HClO₄ for photometric detn. of ClO₃[⊖], BrO₃[⊖], IO₃[⊖], (λ_{max} 415 nm, ε 20500) Cu. Cryst. (EtOH). Sol. EtOH, DMF; spar. sol. H₂O.

Roman Ceba, M. *et al.* *Anal. Lett.*, 1983, **16**, 593 (*detn, BrO₃[⊖]*)Roman Ceba, M. *et al.* *Microchem. J.*, 1985, **31**, 256, 340; **32**, 64 (*detn, IO₃[⊖], Cu, ClO₃[⊖]*)**Cyclopentanone, 9CI***Adipic ketone. Dumasine*

[120-92-3]

C₅H₈O M 84.118

Forms Schiff bases with amines useful for gc anal. Liq. with pleasant odour. Spar. sol. H₂O. Fp -58°. Bp 130°. pK_a 16.7 (25°). n_D²⁰ 1.4366.

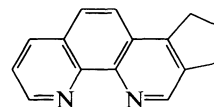
▷ Mod. toxic. Mixtures with HNO₃ and H₂O₂ may explode. GY4725000.

Oxime: [1192-28-5].**C-00362**C₅H₉NO M 99.132Prisms. Mp 56.5°. Bp 196°, Bp₄₅ 120-121°.

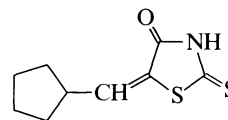
▷ GY5150000.

2,4-Dinitrophenylhydrazine: Mp 145.5-146.5°.**Semicarbazone:** Mp 224°.**Ethylene ketal:** [176-32-9]. 1,4-Dioxaspiro[4.4]nonaneC₇H₁₂O₂ M 128.171

Mp 153°.

Vavon, G. *et al.* *Bull. Soc. Chim. Fr.*, 1928, **43**, 668.*Org. Synth., Coll. Vol.*, 1, 1932, 192 (*synth*)Micovic, V.M. *et al.* *Tetrahedron*, 1958, **4**, 186 (*ketal*)Vanden Heuvel, W.J.A. *et al.* *Anal. Chem.*, 1964, **36**, 1550 (*use*)Girard, C. *et al.* *Tetrahedron Lett.*, 1974, 3329 (*synth*)Cortese, N.A. *et al.* *J. Org. Chem.*, 1978, **43**, 3985 (*synth*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 265.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CPW500, CPW750.**3,4-Cyclopenteno-1,10-phenanthroline****C-00365**C₁₅H₁₂N₂ M 220.273

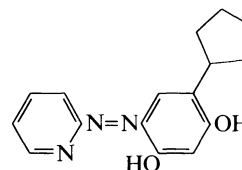
Used as redox indicator. Cryst. (C₆H₆). Sol. EtOH, C₆H₆; spar. sol. H₂O. Mp 207-208°. pK_{al} 5.78 (μ = 0.002, 25°).

Case, F.H., *J. Org. Chem.*, 1956, **21**, 1069 (*synth*)Schilt, A.A. *et al.* *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 650 (*use*)**5-(Cyclopentylmethylene)-2-thioxo-4-thiazolidinone, 9CI****C-00366***5-Cyclopentylmethylenetherhodanine*C₉H₁₁NOS₂ M 213.324

Used as a 0.2% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt. Orange cryst. Sol. Et₂O, Me₂CO, EtOH. Mp 193°.

Kulberg, L.M. *et al.* *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)**4-Cyclopentyl-6-(2-pyridinylazo)-1,3-benzenediol, 9CI****C-00367***1-(2-Pyridylazo)-4-cyclopentylresorcinol. 2-[(5-Cyclopentyl)-2,4-dihydroxyphenylazo]pyridine*

[108491-56-1]

C₁₆H₁₇N₃O₂ M 283.329

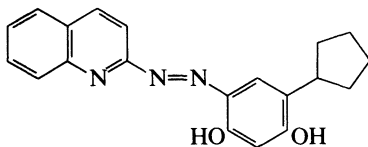
Used as 0.075% EtOH soln. for photometric detn. of Cu (λ_{max} 520 nm, ε 49000, pH ~ 7). Red-brown cryst. Sol. EtOH, Me₂CO, toluene, CCl₄.

Babaev, N.B. *et al.* *Zavod. Lab.*, 1987, **53**, 14 (*synth, detn, Cu*)

4-Cyclopentyl-6-(2-quinolinylazo)-1,3-benzenediol, 9CI

C-00368

2-(5-Cyclopentyl-2,4-dihydroxyphenylazo)quinoline. 6-(2-Quinolylazo)-4-cyclopentylresorcinol
[109173-46-8]



$C_{20}H_{19}N_3O_2$ M 333.389

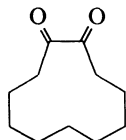
Used as EtOH soln. for photometric detn. of In (ϵ 44600, pH 5.3-6.5). Brown cryst. powder. Sol. EtOH.

Ibraimov, C. *et al*, *Uzb. Khim. Zh.*, 1986, 6, 19; *CA*, **107**, 50872j (detn, In)

1,2-Cycloundecanedione

C-00369

[3008-34-2]



$C_{11}H_{18}O_2$ M 182.262

Liq. Bp₁ 73-74°.

Dioxime: [18310-16-2].

$C_{11}H_{20}N_2O_2$ M 212.291

Used as a soln. in EtOH for gravimetric detn. of Bi, Ni, Pd. Cryst. (C_6H_6). Sol. EtOH, C_6H_6 ; spar. sol. H_2O . Mp 207°.

Cumper, C.W.N. *et al*, *J. Chem. Soc.*, 1965, 2067 (*synth*)

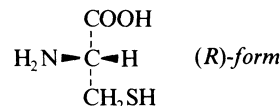
Bassed, J. *et al*, *Analyst (London)*, 1967, **92**, 279 (*use*)

Caubere, P. *et al*, *J. Org. Chem.*, 1986, **51**, 1419 (*synth*)

Cysteine

C-00370

2-Amino-3-mercaptopropanoic acid, 9CI. Thioserine (*obsol.*).
NSC 8746



$C_3H_7NO_2S$ M 121.160

(*R*)-*form* [52-90-4]

L-*form*

Found in hydrolysates of proteins. Used as a detoxicant. Sol. H_2O , AcOH, NH_3 , Mp 178°. $[\alpha]_D^{25} -16.5^\circ$ (c, 2 in H_2O), $[\alpha]_D +26.5^\circ$ (5M HCl). pK_{a1} 1.92; pK_{a2} 8.35; pK_{a3} 10.46 (SH). Oxid. rapidly to Cystine. *N*-Protected derivs. useful in peptide synthesis have been listed alphabetically elsewhere.

▷ HA1600000.

B,HCl: [52-89-1].

Mp 175-178° dec.

▷ HA2275000.

Me ester: [2485-62-3]. **Methyl cysteine**, BAN. **Mecysteine**, INN

$C_4H_9NO_2S$ M 135.187

Mucolytic. Vasoconstrictor.

(±)-*form* [3374-22-9]

Used for photometric detn. of Co, Cu, K.

▷ HA1595000.

B,HCl: Mp 140-141°.

du Vigneaud, V. *et al*, *J. Am. Chem. Soc.*, 1930, **52**, 4500.

Arnstein, H.R.V. *et al*, *Biochem. J.*, 1954, **57**, 360.

Greenstein, J.P. *et al*, *Chemistry of the Amino Acids*, Wiley, N.Y., Vol. 3, 1961, 1879 (*rev*)

Tominga, T. *et al*, *J. Biochem. (Tokyo)*, 1963, **54**, 220.

Fowden, L., *Annu. Rev. Biochem.*, 1964, **33**, 173 (*occur, derivs*)

Martin, R.B. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 1065 (*pmr*)

Martin, T.A. *et al*, *J. Org. Chem.*, 1965, **30**, 2839.

Saggers, B.A. *et al*, *J. Clin. Pathol.*, 1966, **19**, 313; *CA*, **65**, 9533b.

Burger, K., *Organic Reagents in Metal Analysis*, Akademiai Kiado, Budapest, 1973, 148 (*detn, Co, Cu, K*)

Kerr, K.A. *et al*, *Acta Crystallogr., Sect. B*, 1975, **31**, 2022.

Martens, J. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1981, **20**, 668 (*synth*)

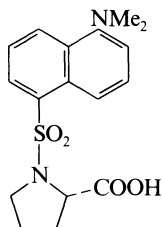
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CQK000, CQK250, MBX800.

D

Dansylproline

D-00001

1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]proline, 9CI



$C_{17}H_{20}N_2O_4S$ M 348.422

(S)-form [1239-94-7]

L-form

Fluorescent dye. Reagent for the resolution of enantiomeric amines. Yellow powder.

Schoellmann, G., *Hoppe Seyler's Z. Physiol. Chem.*, 1967, **348**, 1629 (synth)

Seiler, N. et al, *Anal. Biochem.*, 1971, **44**, 451 (ms)

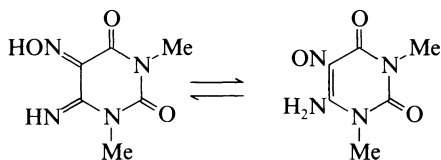
Gamoh, K. et al, *Anal. Chim. Acta*, 1991, **243**, 251 (use)

Daxime

D-00002

6-Amino-1,3-dimethyl-5-nitroso-2,4(1H,3H)-pyrimidinedione, 9CI

[6632-68-4]



$C_6H_8N_4O_3$ M 184.154

Used as a 1% aq. soln. of Na salt for photometric detn. of Cu (λ_{max} 382 nm, ϵ 5050). Violet cryst. Sol. alkalis; spar. sol. H_2O , Me_2CO ; insol. EtOH, $CHCl_3$, dioxan, Et_2O .

▷ YQ8780000.

Burger, K., *Organic Reagents in Metal Analysis*, Akadémiai Kiadó, Budapest, 1973 (detn. Cu)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DPN400.

1,1,1,2,2,6,6,7,7,7-Decafluoro-3,5-heptanedione

D-00003

[38007-33-9]

$F_3CCF_2COCH_2COCF_2CF_3$

$C_7H_2F_{10}O_2$ M 308.076

Used for gc separation of lanthanides. Liq. Sol. EtOH, Me_2CO . Bp 96-98°.

Burgett, C.A., *Anal. Chem.*, 1972, **44**, 1738 (synth)

Burgett, C.A. et al, *Talanta*, 1973, **20**, 363.

1,1,1,5,5,6,6,7,7,7-Decafluoro-2,4-heptanedione, 9CI

D-00004

[20583-66-8]

$F_3CCOCH_2COCF_2CF_2CF_3$

$C_7H_2F_{10}O_2$ M 308.076

Used as NMR shift reagent; for extraction of lanthanides. Liq. Sol. EtOH, Me_2CO , Et_2O .

Scribner, W.G. et al, *CA*, 1970, **73**, 92153k (use)

Mitchell, J.W. et al, *Talanta*, 1972, **19**, 1157 (use)

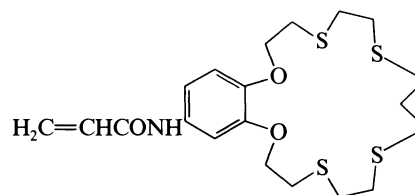
Sievers, R.E., *NMR Shift Reagents*, New York, Academic Press, 1973 (use)

N-(2,3,5,6,9,10,12,13,15,16-Decahydro-8H-1,17,4,7,11,14-benzodioxatetrathiacyclonadecin-19-yl)-2-propenamide, 9CI

D-00005

2,3-(4-Acryloylaminobenzo)-1,4-dioxa-7,10,14,17-tetrathiadioxacyclonadec-2-ene

[81810-61-9]



$C_{20}H_{29}NO_3S_4$ M 459.718

Used as 0.05mM soln. in $CHCl_3$ for selective extraction-separation of Ag from Cu, Hg, Pb and other metals. Cryst. Sol. $CHCl_3$.

Homopolymer: [81848-81-9]. Poly[2,3-(4'-acryloylaminobenzo)-1,4-dioxa-7,10,14,17-tetrathiacyclonadeca-2-ene]

Used as 0.05mM $CHCl_3$ soln. for extraction separation of Ag.

Oue, M. et al, *J. Polym. Sci., Polym. Chem. Ed.*, 1985, **23**, 2033 (synth)

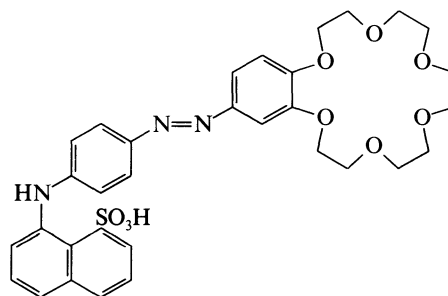
Oue, M. et al, *Anal. Chim. Acta*, 1987, **194**, 293 (sepn, Ag)

8-[[4-[(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)azo]phenyl]amino]-1-naphthalenesulfonic acid, 9CI

D-00006

4'-[N-(8-Sulfo-1-naphthyl)-4-aminophenylazo]benzo-18-crown-6

[106029-97-4]

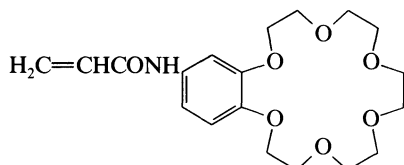


$C_{32}H_{35}N_3O_9S$ M 637.709

Used as 0.01% EtOH soln. for extraction-photometric detn. of K (λ_{\max} 520 nm, ϵ 21000, CHCl₃). Cryst. Sol. EtOH.

Iwachido, T. *et al.* *Bunseki Kagaku (Jpn. Anal.)*, 1986, **35**, 892 (synth, detn, K)

N-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)-2-propenamide, 9CI
[68865-32-7]



C₁₉H₂₇NO₇ M 381.425

Used as 0.01-0.05mM CHCl₃ soln. for extraction of Ag, Tl(I), alkali and alkaline earth metals (in the presence of picrate). Cryst. Sol. CHCl₃, DMF.

Homopolymer: [68865-33-8].

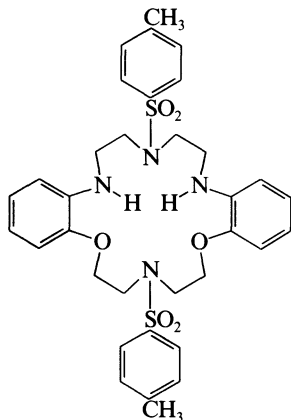
Used as 0.01-0.05mM CHCl₃ soln. for extraction of Ag, Tl(I), alkali and alkaline earth metals (in the presence of picrate). Sol. CHCl₃. Exact formulation unknown.

Kimura, K. *et al.* *Anal. Lett.*, 1978, **A11**, 821 (synth)

Maeda, T. *et al.* *Fresenius' Z. Anal. Chem.*, 1979, **298**, 363; 1982, **313**, 407 (detn, Ag, Tl, alkaline earth, metals)

Kimura, K. *et al.* *Talanta*, 1979, **26**, 945 (alkali, metals)

7,8,9,10,17,18,19,20,21,22-Decahydro-8,19-bis[(4-methylphenyl)sulfonyl]-6H,16H-dibenzo-[h,q][1,7,4,10,13,16]dioxatetraazacyclooctadecine, 9CI
[109888-84-8]



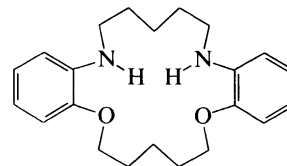
C₃₄H₄₀N₄O₆S₂ M 664.845

Used as 1mM 1,2-dichloroethane soln., for extraction-kinetic detn. of Os(IV). Cryst. Sol. CHCl₃, 1,2-dichloroethane, CCl₄.

Beklemishev, M.K. *et al.* *Zh. Neorg. Khim.*, 1986, **31**, 2617 (synth)

Beklemishev, M.K. *et al.* *Zh. Anal. Khim.*, 1989, **44**, 356 (detn, Os)

7,8,9,10,17,18,19,20,21,22-Decahydro-6H,16H-dibenzo[b,k][1,13,4,10]dioxadiazacyclooctadecine, 9CI
[109888-79-1]



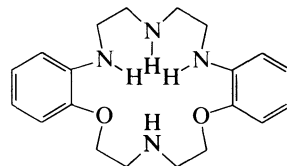
C₂₂H₃₀N₂O₂ M 354.491

Used as 1mM 1,2-dichloroethane soln. for extraction-kinetic detn. of Os(IV). Cryst. Sol. CHCl₃, 1,2-dichloroethane, CCl₄.

Beklemishev, M.K. *et al.* *Zh. Neorg. Khim.*, 1986, **31**, 2617 (synth)

Beklemishev, M.K. *et al.* *Zh. Anal. Khim.*, 1989, **44**, 356 (detn, Os)

7,8,9,10,17,18,19,20,21,22-Decahydro-6H,16H-dibenzo[h,q][1,7,4,10,13,16]dioxatetraazacyclooctadecine, 9CI
[54533-77-6]



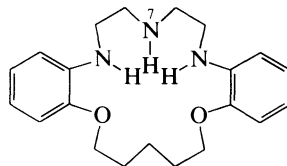
C₂₀H₂₈N₄O₂ M 356.467

Used as 1mM 1,2-dichloroethane soln. for extraction-kinetic detn. of Os(IV). Cryst. Sol. CHCl₃, 1,2-dichloroethane, CCl₄.

Beklemishev, M.K. *et al.* *Zh. Neorg. Khim.*, 1986, **31**, 2617 (synth)

Beklemishev, M.K. *et al.* *Zh. Anal. Khim.*, 1989, **44**, 356 (detn, Os)

6,7,8,9,10,11,18,19,20,21-Decahydro-5H,17H-dibenzo[b,k][1,13,4,7,10]dioxatriazacyclooctadecine, 9CI
[109904-91-8]



C₂₁H₂₉N₃O₂ M 355.479

Used as 1mM 1,2-dichloroethane soln. for extraction-kinetic detn. of Os(IV). Cryst. Sol. CHCl₃, 1,2-dichloroethane, CCl₄.

N⁷-[(4-Methylphenyl)sulfonyl]: [109888-85-9].

6,7,8,9,10,11,18,19,20,21-Decahydro-8-[(4-methylphenyl)sulfonyl]-5H,17H-dibenzo[b,k][1,13,4,7,10]

dioxatriazacyclooctadecine, 9CI

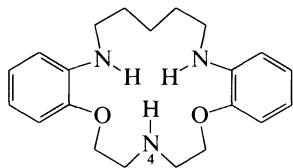
C₂₈H₃₅N₃O₄S M 509.668

Used as 1mM 1,2-dichloroethane soln. for extraction-kinetic detn. of Os(IV). Cryst. Sol. CHCl₃, 1,2-dichloroethane, CCl₄.

Beklemishev, M.K. *et al.* *Zh. Neorg. Khim.*, 1986, **31**, 2617 (synth)

Beklemishev, M.K. *et al.* *Zh. Anal. Khim.*, 1989, **44**, 356 (detn, Os)

7,8,9,10,17,18,19,20,21,22-Decahydro-6H,16H-dibenzo[h,q][1,7,4,10,16]dioxatriazacyclooctadecine, 9CI
[109888-86-0]



$C_{21}H_{29}N_3O_2$ M 355.479

Used as 1mM 1,2-dichloroethane soln. for extraction-kinetic detn. of Os(IV). Cryst. Sol. $CHCl_3$, 1,2-dichloroethane, CCl_4 .

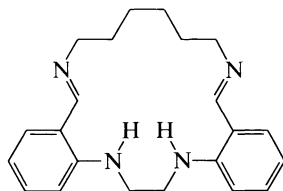
N^4 -[(4-Methylphenyl)sulfonyl]: [109888-87-1].
7,8,9,10,17,18,19,20,21,22-Decahydro-8-[(4-methylphenyl)sulfonyl]-6H,16H-dibenzo[h,q][1,7,4,10,16]dioxatriazacyclooctadecine, 9CI

$C_{28}H_{35}N_3O_4S$ M 509.668

Used as 1mM 1,2-dichloroethane soln. for extraction-kinetic detn. of Os(IV). Cryst. Sol. $CHCl_3$, 1,2-dichloroethane, CCl_4 .

Beklemishev, M.K. *et al.* Zh. Neorg. Khim., 1986, **31**, 2617 (synth)
Beklemishev, M.K. *et al.* Zh. Anal. Khim., 1989, **44**, 356 (detn, Os)

7,8,9,10,11,12,19,20,21,22-Decahydrodibenzo[e,q][1,4,8,15]tetraazacyclooctadecine, 9CI
Macrocyclic schiff's base IV
[94390-11-1]



$C_{22}H_{28}N_4$ M 348.490

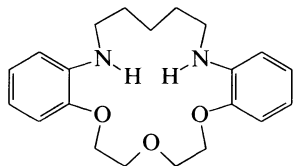
Used as 1mM soln. in $CHCl_3$ for selective extraction sepn. of Cu(II) (pH 7-9). Cryst. Sol. $CHCl_3$.

Owston, P.G. *et al.* J. Chem. Soc., Chem. Commun., 1980, 1218 (synth)

Zolotov, Yu.A. *et al.* Dokl. Akad. Nauk SSSR, 1984, **277**, 1145 (sepn, Cu)

Isakova, N.V. *et al.* Zh. Anal. Khim., 1989, **44**, 859 (detn, Cu)

6,7,9,10,17,18,19,20,21,22-Decahydro-6H,16H-dibenzo[h,q][1,4,7,10,16]trioxadiazacyclooctadecine, 9CI
[109888-81-5]

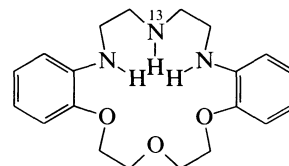


$C_{21}H_{28}N_2O_3$ M 356.464

Used as 1mM 1,2-dichloroethane soln. for extraction-kinetic detn. of Os(IV). Cryst. Sol. $CHCl_3$, 1,2-dichloroethane, CCl_4 .

Beklemishev, M.K. *et al.* Zh. Neorg. Khim., 1986, **31**, 2617 (synth)
Beklemishev, M.K. *et al.* Zh. Anal. Khim., 1989, **44**, 356 (detn, Os)

6,7,9,10,17,18,19,20,21,22-Decahydro-6H,16H-dibenzo[h,q][1,4,7,10,13,16]trioxatriazacyclooctadecine, 9CI
8,9:17,18-Dibenzo-1,4,7-trioxa-10,13,16-triaza-18-crown-6
[120367-88-6]



$C_{20}H_{27}N_3O_3$ M 357.452

Used as 1mM 1,2-dichloroethane or $CHCl_3$ soln. for extraction-kinetic detn. of Os(IV); extraction-fluorescence detn. of Tl(I). Cryst. Sol. $CHCl_3$, 1,2-dichloroethane, CCl_4 .

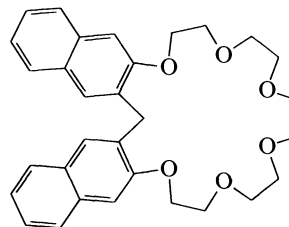
N^{13} -[(4-Methylphenyl)sulfonyl]: [109888-80-4].
6,7,9,10,17,18,19,20,21,22-Decahydro-19-[(4-methylphenyl)sulfonyl]-16H-dibenzo[h,q][1,4,7,10,13,16]trioxatriazacyclooctadecine, 9CI

$C_{27}H_{33}N_3O_5S$ M 511.641

Used as 1mM 1,2-dichloroethane or $CHCl_3$ soln. for extraction-kinetic detn. of Os(IV); extraction-fluorescence detn. of Tl(I). Cryst. Sol. $CHCl_3$, 1,2-dichloroethane, CCl_4 .

Beklemishev, M.K. *et al.* Zh. Neorg. Khim., 1986, **31**, 2617 (synth)
Beklemishev, M.K. *et al.* Zh. Anal. Khim., 1989, **44**, 356, 1058 (detn, Os, Tl)

8,9,11,12,14,15,17,18,20,21-Decahydro-29H-dinaphtho[2,1-q':1',2'-r][1,4,7,10,13,16]hexaoxacycloheneicosine, 9CI
[88047-11-4]

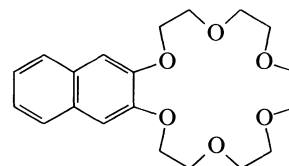


$C_{31}H_{34}O_6$ M 502.606

Used as soln. in THF for selective extraction of K^+ over Na^+ (PVC membrane ion-selective electrode). Cryst.

Covington, A.K. *et al.* Analyst (London), 1988, **113**, 895 (synth, use)

2,3,5,6,8,9,11,12,14,15-Decahydranaphtho[2,3-b]-1,4,7,10,13,16-hexaoxacyclooctadecine, 9CI
Naphtho-18-crown-6
[17454-52-3]



$C_{20}H_{26}O_6$ M 362.422

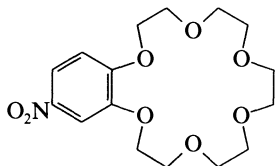
Used as an ionophore in ion-selective electrodes (selective for K over Na). Cryst.

Blair, T.L. *et al*, *Anal. Chim. Acta*, 1989, **222**, 252 (*detn*, K)

2,3,5,6,8,9,11,12,14,15-Decahydro-18-nitro-1,4,7,10,13,16-benzohexaoxacyclooctadecine, 9CI **D-00018**

4-Nitrobenzo-18-crown-6

[53408-96-1]



$C_{16}H_{23}NO_8$ M 357.360

Used as 1% soln. in dipentyl phthalate in K selective electrode (PVC membrane). Yellowish leaflets (C_6H_6 /hexane). Sol. C_6H_6 , hexane.

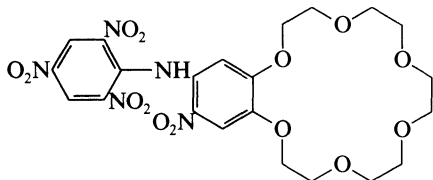
Petránek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

Petránek, J. *et al*, *Collect. Czech. Chem. Commun.*, 1974, **39**, 2033 (*synth*)

2,3,5,6,8,9,11,12,14,15-Decahydro-19-nitro-N-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-amine, 9CI **D-00019**

4'-Picrylamino-19-nitrobenzo-18-crown-6

[74305-50-3]



$C_{22}H_{25}N_5O_{14}$ M 583.465

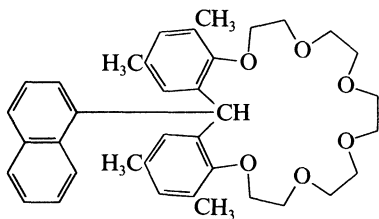
Used as 0.2mM soln. in $CHCl_3$ for extraction-photometric detn. of K (λ_{max} 457 nm, ϵ 21000); extraction of K, Rb, Cs, Na. Orange cryst. (Me_2CO aq.). Sol. Me_2CO , $CHCl_3$. Mp 160-161°. pK_a 8.8 (dioxan aq., 25°).

Nakamura, H. *et al*, *Anal. Chem.*, 1980, **52**, 1668 (*use*)

Yamashita, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1980, **53**, 1550 (*synth*)

6,7,9,10,12,13,15,16,18,19-Decahydro-2,4,21,23-tetramethyl-25-(1-naphthalenyl)-25H-dibenzo[*q*,*t*][1,4,7,10,13,16]hexaoxacycloheneicosine, 9CI **D-00020**

[116921-74-5]



$C_{37}H_{44}O_6$ M 584.751

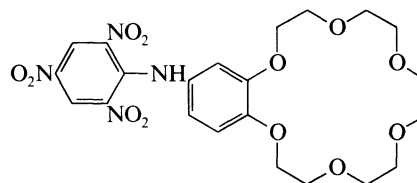
Used as soln. in THF for selective extraction of K^{\oplus} over Na^{\oplus} (PVC membrane ion-selective electrode). Prisms. Sol. THF. Mp 125.4°.

Covington, A.K. *et al*, *Analyst (London)*, 1988, **113**, 895 (*synth*, *use*)

2,3,5,6,8,9,11,12,14,15-Decahydro-N-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-amine, 9CI **D-00021**

4'-Picrylamino-18-crown-6

[74044-87-4]



$C_{22}H_{26}N_4O_{12}$ M 538.467

Used as 0.2mM soln. in $CHCl_3$ for extraction-photometric detn. of K (λ_{max} 490 nm, ϵ 25000), Rb, Cs, Na. Dark red needles (Me_2CO aq.). Sol. Me_2CO , $CHCl_3$, MeOH. Mp 55-56°. pK_a 10.6 (1% dioxan, 25°).

Nakamura, H. *et al*, *Anal. Chem.*, 1980, **52**, 1668 (*use*)

Yamashita, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1980, **53**, 1550 (*synth*)

Decanedioic acid, 9CI **D-00022**

Sebacic acid. Octane-1,8-dicarboxylic acid. Ipomic acid [111-20-6]



$C_{10}H_{18}O_4$ M 202.250

Isol. from yeasts. Used as a cross-linking agent for epoxy resins and for pptn. separation of Th from lanthanides (pH 2.5). Leaflets. Spar. sol. H_2O . Mp 134.5°. Bp₁₀₀ 294.5°, Bp₁₅ 243.5°. pK_a 5.59 (100°).

▷ VS0875000.

Mono-Me ester: [818-88-2].

$C_{11}H_{20}O_4$ M 216.277

Mp 40-41°. Bp₂₀ 208°.

Boedtke, E., *CA*, 1924, **18**, 3043 (*synth*)

Montonna, R.E., *J. Am. Chem. Soc.*, 1927, **49**, 2114 (*synth*)

Landa, S. *et al*, *CA*, 1932, **26**, 78 (*synth*)

Stoll, M. *et al*, *Helv. Chim. Acta*, 1936, **19**, 253 (*synth*)

Morgan, G.T. *et al*, *J. Chem. Soc.*, 1936, 903 (*synth*)

Carron, M.K. *et al*, *Anal. Chem.*, 1955, **27**, 1058 (*detn*, Th)

Holmes, J.L. *et al*, *Org. Mass Spectrom.*, 1970, **3**, 1505 (*ms*)

Ger. Pat., 2 826 065, (1977); *CA*, **90**, 151587f (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, SBJ500.

Decanediperoxic acid, 9CI **D-00023**

Diperoxysebacic acid

[5796-85-0]



$C_{10}H_{18}O_6$ M 234.249

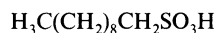
Used as a 1-10mM EtOH soln. as oxidant (Ni(II) → Ni(IV)) in photometric detn. of Ni with dimethylglyoxime. Cryst. Sol. H_2O , EtOH.

Parker, W.E. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 4037 (*synth*)

Zinchuk, V.K. *et al*, *Zh. Anal. Khim.*, 1987, **42**, 1088 (*use*)

1-Decanesulfonic acid, 9CI**D-00024***1-Decylsulfonic acid*

[13419-61-9]

 $\text{C}_{10}\text{H}_{22}\text{O}_3\text{S}$ M 222.348

Na salt: Ion-pairing reagent used in hplc. Sl. hygroscopic cryst. (EtOH). Forms a quarter-hydrate and a hemihydrate.

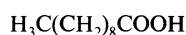
Me ester: [67779-44-6]. $\text{C}_{11}\text{H}_{24}\text{O}_3\text{S}$ M 236.375Liq. Bp_{0.3} 120°.Reed, R.M. *et al.*, *J. Am. Chem. Soc.*, 1935, **57**, 570 (*synth*)Jensen, L.H. *et al.*, *J. Am. Chem. Soc.*, 1944, **66**, 1946; 1946, **68**, 2730 (*cryst struct, salt*)Johnson, T.J. *et al.*, *Tetrahedron*, 1978, **34**, 547 (*synth*)Walker, T.A. *et al.*, *J. Liq. Chromatogr.*, 1987, **10**, 161 (*use*)

surface active agents and solvents. Alcohol and esters are perfume and flavour ingredients. Anal. reagent for esterification of fatty acids for glc anal. Oil. Fp 7°. Bp₇₀₀ 232-239°, Bp₇ 107-108°.

▷ Mod. toxic. HE4375000.

4-Nitrobenzoyl: Mp 57°.*3,5-Dinitrobenzoyl*: Mp 52°.Schrauth, W. *et al.*, *Ber.*, 1931, **64**, 1314 (*synth*)Komppa, G. *et al.*, *J. Prakt. Chem.*, 1932, **135**, 193.Craig, B.M. *et al.*, *J. Am. Oil Chem. Soc.*, 1963, **40**, 61 (*use*)Hoshino, H., *Bull. Chem. Soc. Jpn.*, 1973, **46**, 3043 (*ms*)Morris, M.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DAI600.**Decanoic acid****D-00025***Capric acid. Caprinic acid*

[334-48-5]

 $\text{C}_{10}\text{H}_{20}\text{O}_2$ M 172.267

Widespread in plant oils, esp. leaf oils and as glycerides in seed oils. Used in corrosion inhibitors and surfactants.

Simple esters have perfumery and flavour uses. Used for extraction-preconcentration of Pb. Needles. Sol. EtOH, Et₂O, Me₂CO, C₆H₆, CHCl₃, alkalis. d₄₀⁴⁰ 0.8858. Mp 31.5°. Bp 268-270°, Bp₁₁ 148-150°. n_D⁴⁰ 1.4288.

▷ HD9100000.

Me ester: [110-42-9]. $\text{C}_{11}\text{H}_{22}\text{O}_2$ M 186.294Constit. of many plants. Bp 224°, Bp₁₅ 114°.*Et ester*: [110-38-3]. $\text{C}_{12}\text{H}_{24}\text{O}_2$ M 200.320Constit. of many plants. Bp 243-245°, Bp₁₃ 122-124°.

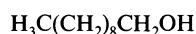
▷ HD9420000.

Chloride: [112-13-0]. $\text{C}_{10}\text{H}_{19}\text{ClO}$ M 190.712Bp₁₅ 114°.*Amide*: [2319-29-1]. $\text{C}_{10}\text{H}_{21}\text{NO}$ M 171.282

Mp 108°, Mp 98°.

Kao, C.H. *et al.*, *J. Chem. Soc.*, 1931, 2046 (*synth*)Karrer, W. *et al.*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 697 (*occur*)Tsang, C.W. *et al.*, *J. Chem. Soc., Perkin Trans. 2*, 1975, 1718 (*ms*)Leovey, E.M.K. *et al.*, *Prostaglandins*, 1975, **10**, 789 (*pmr*)Gunstone, F.D., *Chem. Phys. Lipids*, 1976, **17**, 1 (*cmr*)Umemura, J., *J. Chem. Phys.*, 1978, **48**, 42 (*ir, cryst struct*)Onishenko, T.A. *et al.*, *Zh. Anal. Khim.*, 1987, **42**, 1616 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DAH400, EHE500.**1-Decanol****D-00026***Decyl alcohol*

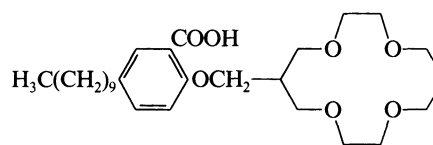
[112-30-1]

 $\text{C}_{10}\text{H}_{22}\text{O}$ M 158.283

Isol. from plant sources, eg. citrus oils. Has moderate antifoam activity. Used in manuf. of plasticizers, synthetic lubricants, petroleum additives, herbicides,

5-Decyl-2-(1,4,8,11-tetraoxacyclotetradec-6-yl-methoxy)benzoic acid, 9CI**D-00027**

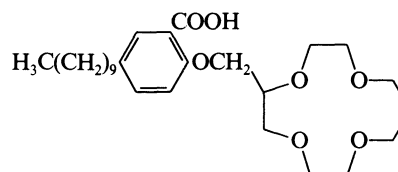
[97431-13-5]

 $\text{C}_{28}\text{H}_{46}\text{O}_7$ M 494.667

Ionophore for Li used in ion selective microelectrodes (Ag wire coated with PVC membrane containing crown ether ionophore). Cryst.

Lee, H.K. *et al.*, *J. Heterocycl. Chem.*, 1986, **23**, 465 (*synth*)Attiyat, A.S. *et al.*, *Anal. Chem.*, 1988, **60**, 2561 (*use*)**5-Decyl-2-(1,4,7,10-tetraoxacyclotridec-5-ylmethoxy)benzoic acid, 9CI****D-00028**

[97431-10-2]

 $\text{C}_{27}\text{H}_{44}\text{O}_7$ M 480.640

Ionophore for Li used in ion selective microelectrodes (Ag wire coated with PVC membrane containing crown ether ionophore). Cryst.

Lee, H.K. *et al.*, *J. Heterocycl. Chem.*, 1986, **23**, 465 (*synth*)Attiyat, A.S. *et al.*, *Anal. Chem.*, 1988, **60**, 2561 (*use*)**Desferrioxamine, BAN****D-00029**

N'-[5-[[4-[[5-(Acetylhydroxyamino)pentyl]amino]-1,4-dioxobutyl]hydroxyamino]pentyl]-N-(5-aminopentyl)-N-hydroxybutanediamide, 9CI. *Deferoxamine*, INN, USAN. *Desferrin*. NSC 527604

[70-51-9]

 $\text{C}_{25}\text{H}_{48}\text{N}_6\text{O}_8$ M 560.690

Isol. from *Streptomyces pilosus*. Siderophore. Chelating agent for iron mobilization; used as antidote to iron poisoning; also chelates aluminium, of interest with respect to treatment of Alzheimer's disease. Used as 4mM aq. soln. for photometric detn. of V(V) (λ_{max} 480 nm, ϵ 3150, pH 1.3), Fe(III). Cryst. + 1H₂O (EtOH aq.). Mp 138-140°.

▷ UG5300000.

B.HCl: [1950-39-6]. *Deferoxamine hydrochloride, USAN. Ba 29837*

Mp 172-175°.

B.MeSO₃H: [138-14-7]. *Desferrioxamine mesilate, BAN, JAN. Desferal. Ba 33112*

Cryst. (EtOH aq.). Mp 148-149°.

▷ UG5310000.

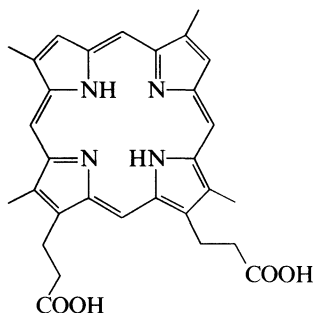
N-Ac: Mp 180-182°.

Bickel, H. *et al, Helv. Chim. Acta*, 1960, **43**, 2118, 2129; 1963, **46**, 1385 (*isol, synth*)Prelog, V. *et al, Helv. Chim. Acta*, 1962, **45**, 631 (*synth*)*Martindale, The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1034.

Luterotti, S. *et al, Acta Pharm. Jugosl.*, 1986, **36**, 341; *CA*, **105**, 237518z (*detn, Fe*)Luterotti, S. *et al, Analyst (London)*, 1986, **111**, 1163 (*detn, V*)Bergeron, R.J. *et al, J. Org. Chem.*, 1988, **53**, 3131 (*synth, bibl*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DAK200, DAK300.**Deuteroporphyrin IX****D-00030**

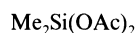
[448-65-7]

 $C_{30}H_{30}N_4O_4$ M 510.591

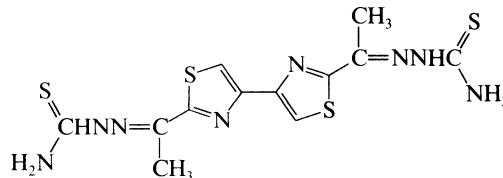
Trace amounts found in faeces and putrefied blood; also formed by resorcinol fusion of Haemin or Protoporphyrin IX. Key intermed. in synth. of Protoporphyrin IX and related porphyrins. Used as 0.25mM DMF soln. for fluorimetric detn. of Zn (λ_{max} 578 nm, EtOH). Violet cryst. (AcOH/Et₂O). Sol. DMF, EtOH, Me₂CO, dioxan, CHCl₃.

Di-Me ester: [10589-94-3]. $C_{32}H_{34}N_4O_4$ M 538.645Violet cryst. (CHCl₃/MeOH). Mp 223°. λ_{max} 400, 497, 530, 566, 593, 621 nm.*Di-Me ester, Cu complex*: Reddish-purple cryst.(CHCl₃/MeOH). Mp 234°.Fischer, H. *et al, Justus Liebigs Ann. Chem.*, 1929, **468**, 98 (*struct, synth*)Bamfield, P. *et al, J. Chem. Soc. C*, 1968, 1259 (*synth*)Janson, T.R. *et al, The Porphyrins*, (Dolphin, D., Ed.), Academic Press, N.Y., Vol. IV, 1979, 1 (*pmr, cmr*)Dinello, R.K. *et al, The Porphyrins*, (Dolphin, D., Ed.), Academic Press, N.Y., Vol. I, 1979, 294 (*synth*)Fakeeva, O.A. *et al, Zh. Anal. Khim.*, 1988, **43**, 827 (*synth, detn, Zn*)**Diacetoxymethylsilane****D-00031***Dimethylsilanediol diacetate, 9CI. Dimethyldiacetoxysilane*

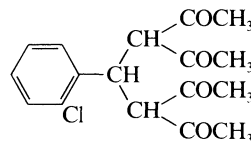
[2182-66-3]

 $C_6H_{12}O_4Si$ M 176.244Silylating agent for *cis*-diols. Liq. Bp 164-166°.Mehrotra, R.C. *et al, Tetrahedron Lett.*, 1963, 321 (*synth*)Kelly, R.W., *J. Chromatogr.*, 1969, **43**, 229 (*synth, use*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1972, **3**, 113 (*synth, use*)McFarlane, W. *et al, J. Chem. Soc., Perkin Trans. 2*, 1972, 1561 (*nmr*)Pola, J. *et al, Collect. Czech. Chem. Commun.*, 1974, **39**, 1169 (*ir, synth*)**1,2-Diacetylbenzene****D-00032***1,1'-(1,2-Phenylene)bisethanone, 9CI. o-Acetylacetophenone* [704-00-7] $C_{10}H_{10}O_2$ M 162.188Colorimetric reagent for amino acids and primary amines. Needles (Et₂O/pet. ether). Mp 39-40°.*Dioxime*: $C_{10}H_{12}N_2O_2$ M 192.217

Cryst. Mp 183-185°.

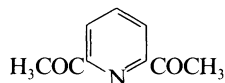
Bis-2,4-dinitrophenylhydrazone: Orange solid(C₆H₆/dioxan). Mp 210°.Goldschmidt, S. *et al, Chem. Ber.*, 1961, **94**, 169 (*synth*)Cooper, M.A. *et al, J. Am. Chem. Soc.*, 1970, **92**, 1605 (*nmr*)Krauss, G.J., *J. Chromatogr.*, 1972, **74**, 152 (*use*)**2,2'-Diacetyl-4,4'-****D-00033****bithiazolebis(thiosemicarbazone)***4,4'-Bisthiazol-2,2'-diacetyldithiosemicarbazone* $C_{12}H_{14}N_8S_4$ M 398.560

Used as chelating agent for heavy metals (Ag, Au, Bi, Co, Cu, Ga, Hg, Hn, Ni, Pb, Pd, Tl, Zn). Yellow cryst.

Uno, T. *et al, Bunseki Kagaku (Jpn. Anal.)*, 1960, **10**, 756.Ballschmiter, K., *Fresenius' Z. Anal. Chem.*, 1973, **263**, 203.**3,5-Diacetyl-4-(2-chlorophenyl)-2,6-heptanedione, 9CI****D-00034***1,1,3,3-Tetraacetyl-2-(o-chlorophenyl)propane* [101583-43-1] $C_{17}H_{19}ClO_4$ M 322.787Used for photometric detn. of Nb (λ_{max} 374 nm, MeOH). Sol. EtOH, C₆H₆; insol. H₂O.Sharma, R.K. *et al, CA*, 1986, **105**, 90298s (*detn, Nb*)

2,6-Diacetylpyridine

1,1'-(2,6-Pyridinediyl)bis[ethanone], 9CI
[1129-30-2]



$C_9H_9NO_2$ M 163.176
Cryst. Mp 79°.

Dioxime: [36408-72-7].

$C_9H_{11}N_3O_2$ M 193.205

Used as a 1% soln. in MeOH or Me₂CO for photometric detn. of Cu(II) (λ_{max} 360 nm), Fe(II) (λ_{max} 490 nm). Cryst. Mp 233.5° dec.

Lukes, R. *et al*, *Chem. Listy*, 1958, **52**, 68 (*synth*)

Gagliardi, E. *et al*, *Mikrochim. Acta*, 1965, 1047 (*use*)

D-00035

$C_{23}H_{21}N_5O_4$ M 431.450

Used as 0.5% soln. in DMF for extraction-photometric detn. of Sb(III). Cryst. Sol. DMF; sl. sol. EtOH, H₂O.

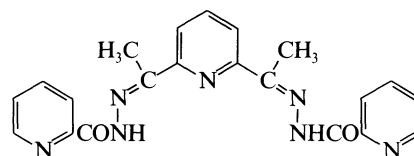
Garcia-Vargas, M. *et al*, *Analyst (London)*, 1985, **110**, 51 (*synth, detn, Sb*)

2,6-Diacetylpyridine bis(2-pyridylhydrazone)

D-00039

2-Pyridinecarboxylic acid (2,6-pyridinediyl)diethylidene dihydrazide, 9CI

[64221-33-6]



$C_{21}H_{19}N_7O_2$ M 401.427

Used as a 2mM soln. in MeOH for photometric detn. of U(VI) (λ_{max} 350 nm, ϵ 35000). Cryst. (MeOH). Sol. EtOH, Me₂CO, Et₂O. Mp 194-195°.

Curry, J. *et al*, *Inorg. Chem.*, 1967, **6**, 1570 (*synth*)

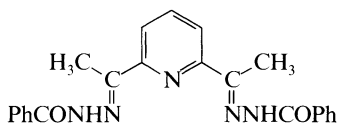
Bonilla-Alvarez, M. *et al*, *Talanta*, 1987, **34**, 473 (*use*)

2,6-Diacetylpyridine**bis(benzoylhydrazone)**

D-00036

Benzoic acid (2,6-pyridinediyl)diethylidene dihydrazide, 9CI

[73818-26-5]



$C_{23}H_{21}N_5O_2$ M 399.451

Used as 0.05% soln. in DMF for extraction-photometric detn. of Sb(III) (λ_{max} 405 nm, ϵ 11300, 3-methylbutan-1-ol), U(VI) (λ_{max} 420 nm, ϵ 11000). Cryst. (MeOH). Sol. MeOH, EtOH, DMF, CH₂Cl₂.

Lorenzini, C. *et al*, *J. Chem. Soc., Dalton Trans.*, 1983, 721 (*synth*)

Garcia-Vargas, M. *et al*, *Analyst (London)*, 1985, **110**, 51 (*detn, Sb*)

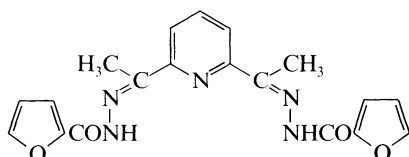
Casoli, A. *et al*, *Anal. Chim. Acta*, 1986, **186**, 283 (*detn, U*)

2,6-Diacetylpyridine bis(2-furoylhydrazone)

D-00037

2-Furancarboxylic acid (2,6-pyridinediyl)diethylidene dihydrazide, 9CI

[109632-04-4]



$C_{19}H_{17}N_5O_4$ M 379.374

Used as a 2mM soln. in MeOH for photometric detn. of U(VI) (λ_{max} 400 nm, ϵ 15000). Cryst. (MeOH). Sol. EtOH, Me₂CO, Et₂O.

Bonilla-Alvarez, M. *et al*, *Talanta*, 1987, **34**, 473 (*synth, detn, U*)

1,6-Diallyl-2,5-dithiobiurea, 8CI

D-00040

N,N'-Di-2-propenyl-1,2-hydrazinedicarbothioamide, 9CI.

Diallyldithiocarbamidohydrazine. Dalzin

[539-97-9]



$C_8H_{14}N_4S_2$ M 230.357

Used in gravimetric detn. of Cu, Zn, Ni, Pb. Leaflets (EtOH). Mp 186°.

Busch, M. *et al*, *J. Prakt. Chem.*, 1914, **90**, 265 (*synth*)

Dutt, N.K. *et al*, *Anal. Chim. Acta*, 1956, **15**, 21, 102 (*use*)

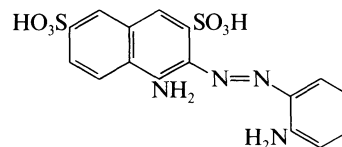
Eberhardt, U. *et al*, *Pharmazie*, 1977, **32**, 458.

Nikolaeva, I.V. *et al*, *Zh. Prikl. Khim. (Leningrad)*, 1985, **58**, 1189 (*synth*)

Diaminazo

D-00041

4-Amino-3-[(2-aminophenyl)azo]-2,7-naphthalenedisulfonic acid



$C_{16}H_{14}N_4O_6S_2$ M 422.442

Used as a 0.1% aq. soln. for photometric detn. of Pd (λ_{max} 566 nm, ϵ 15200). Dark red cryst. powder. Sol. H₂O.

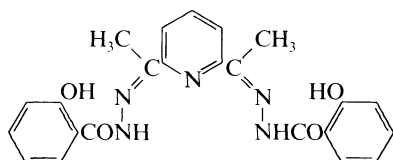
Dechkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 558 (*detn, Pd*)

2,6-Diacetylpyridine bis(2-hydroxybenzoylhydrazone)

D-00038

2-Hydroxybenzoic acid (2,6-pyridinediyl)diethylidene dihydrazide, 9CI

[76115-25-8]

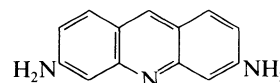
**3,6-Diaminoacridine**

D-00042

3,6-Acridinediamine, 9CI. 2,8-Diaminoacridine (*obsol.*)

Proflavine, INN. Isoflav. Pancredine. Sanoflavin

[92-62-6]



$C_{13}H_{11}N_3$ M 209.250

Derivs. are antiseptics. Yellow cryst. Mp 284-286°. Green fluor. in EtOH, blue in H₂SO₄.

▷ Potent mutagen. AR8670000.

B, H_2SO_4 : [553-30-0].

Antiseptic. Red or red-brown cryst. + $1H_2O$. Spar. sol. H_2O .

▷ AR9065000.

$B, MeCl$: [8063-24-9]. 3,6-Diamino-10-methylacridinium chloride, 9CI. Acriflavinium chloride, INN. Acriflavine. Numerous proprietary names

$C_{14}H_{14}ClN_3$ M 259.737

Antiinfective. Used in extraction-separation of Re; forms ion-pair with ReO_4^- . Redox indicator. Red needles or prisms (H_2O); orange needles (EtOH). Sol. H_2O , EtOH. Commercial Acriflavine is normally a mixt. of $B, MeCl.HCl$ and $B, 2HCl$. Dil. aq. soln. shows green fluorescence.

N^3, N^6 -Tetra-Me: see 3,6-Bis(dimethylamino)acridine, B-00313

[86-40-8]

Scherlin, S.M. et al, *Justus Liebigs Ann. Chem.*, 1935, **516**, 218 (synth)

Albert, A. et al, *J. Chem. Soc.*, 1936, 93 (synth)

Goldberg, A.A. et al, *J. Chem. Soc.*, 1946, 102 (synth)

Albert, A., *The Acridines*, (Ed.), 2nd Ed., St. Martins Press, N.Y., 1966 (rev)

Acheson, R.M., *Acridines*, (Ed.), 2nd Ed., Interscience, N.Y., 1973 (rev)

Tarayan, V.M. et al, *Arm. Khim. Zh.*, 1973, **26**, 812; *CA*, **80**, 90824a (sepn, Re)

Achari, A. et al, *Acta Crystallogr., Sect. B*, 1976, **32**, 2537 (cryst struct)

Holzbecher, Z. et al, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976, 340.

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2201, 2271.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 3124 (synonyms)

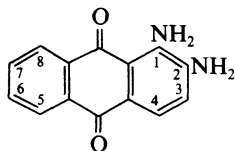
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DBN400, DBN600, XAK000.

1,2-Diaminoanthraquinone, 8CI

D-00043

1,2-Diamino-9,10-anthracenedione, 9CI

[1758-68-5]



$C_{14}H_{10}N_2O_2$ M 238.245

Gives colour reactions with $Fe(III)$, Co, Ni, Cu. Violet cryst. with bronze lustre ($PhNO_2$). Mp 303° . pK_{a1} 5.68 ($MeNO_2$).

▷ CB6200000.

1,2-N-Dibenzoyl:

$C_{28}H_{18}N_2O_4$ M 446.461

Mp 355° .

Groggins, P.H. et al, *Ind. Eng. Chem.*, 1933, **25**, 1030.

Kuznetsov, V.I., *Zh. Anal. Khim.*, 1946, **1**, 259; 1947, **2**, 67 (use)

Aldrich Atlas of IR Spectra, 2nd Ed., 1957, 789A (ir)

Gorelik, M.V. et al, *Zh. Obshch. Khim.*, 1960, **30**, 2949; *J. Gen. Chem. USSR (Engl. Transl.)*, 1960, **30**, 2923.

Zaitsev, B.E. et al, *Zh. Fiz. Khim.*, 1971, **45**, 1333 (w)

Aldrich Atlas of NMR Spectra, 1974, **6**, 71B (pmr)

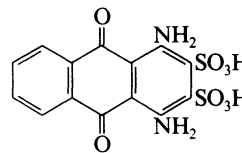
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DBO800.

1,4-Diaminoanthraquinone-2,3-disulfonic acid

D-00044

1,4-Diamino-9,10-dihydro-9,10-dioxo-2,3-anthracenedisulfonic acid, 9CI

[65596-11-4]



$C_{14}H_{10}N_2O_8S_2$ M 398.374

Cryst. Mp $> 300^\circ$.

Di-Na salt: [18936-06-6].

Used as 0.1% aq. soln. for photometric detn. of $Au(III)$.

Cryst.

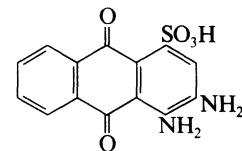
Capitan, F. et al, *Afinidad*, 1977, **34**, 467 (detn, Au)

3,4-Diaminoanthraquinone-1-sulfonic acid

D-00045

3,4-Diamino-9,10-dihydro-9,10-dioxo-1-anthracenesulfonic acid, 9CI

[15087-53-3]



$C_{14}H_{10}N_2O_5S$ M 318.309

Used for photometric detn. of Cu. Cryst.

[22518-95-2]

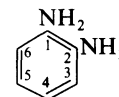
Burger, K., *Organic Reagents in Metal Analysis*, Akadémiai Kiadó, Budapest, 1973 (use)

1,2-Diaminobenzene

D-00046

1,2-Benzenediamine, 9CI. o-Phenylenediamine, 8CI

[95-54-5]



$C_6H_8N_2$ M 108.143

Used as 0.2% aq. soln. for photometric detn. of Br^- , Se, Pt, V. Intermed. for heterocyclic synth., esp. of quinoxalines. Used in manuf. of antioxidants, photographic chemicals and fibres. Leaflets (H_2O). Mp 104° . Bp $256-258^\circ$. pK_{a1} 4.65; pK_{a2} 1.86 (20° , H_2O).

▷ Highly toxic by inhalation and skin absorption. SS7875000.

Sadtler Standard C-13 NMR Spectra, 231 (cmr)

Sadtler Standard Ultraviolet Spectra, 460 (uv)

Org. Synth., Coll. Vol., 2, 1943, 501 (synth)

Ariyoshi, H. et al, *Talanta*, 1960, **5**, 112 (detn, Se)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 293; **8**, 393.

Golla, E.D. et al, *Talanta*, 1973, **20**, 199 (detn, Pt)

Aldrich Library of NMR Spectra, 1974, **5**, 80c (synth)

Hendrick, K. et al, *Aust. J. Chem.*, 1974, **27**, 727 (ms)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 650H (ir)

Benerjee, S. et al, *Analyst (London)*, 1975, **100**, 182 (detn, V)

Stålhandske, C., *Acta Crystallogr., Sect. B*, 1976, **32**, 2806 (cryst struct)

Weigert, F.J., *J. Org. Chem.*, 1981, **46**, 1936 (synth)

Rao, S.B. et al, *Acta Cienc. Indica*, 1982, **7**, 57 (detn, Br^-)

Kasterka, B., *Mikrochim. Acta*, 1989, **1**, 337 (detn, Se)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 438.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PEY250, TDT000.

1,3-Diaminobenzene**D-00047**

1,3-Benzenediamine, 9CI. *m-Phenylenediamine*, 8CI
[108-45-2]

$C_6H_8N_2$ M 108.143

Used for photometric detn. of NO_2^{\ominus} . Cryst.
(C_6H_6 /hexane). d 1.139. Mp 65°. Bp 287°, Bp₅ 135-140°.
p*K*_a 1.89 (20°, H₂O).

▶ Highly toxic by inhalation and skin absorption.
SS7700000.

N-*Ac*: [102-28-3].

$C_8H_{10}N_2O$ M 150.180

Needles (C_6H_6). Mp 86.5-87.5°.

▶ AD8050000.

N,N'-*Di-Ac*: [10268-78-7].

$C_{10}H_{12}N_2O_2$ M 192.217

Prisms (EtOH aq.). Mp 191°.

N-*Benzoyl*: [16091-26-2].

$C_{13}H_{12}N_2O$ M 212.251

Cryst. Mp 125°.

N,N'-*Dibenzoyl*: [17223-18-6].

$C_{20}H_{16}N_2O_2$ M 316.359

Needles (AcOH). Mp 241-242°.

N-*Me*: [50617-73-7].

$C_7H_{10}N_2$ M 122.169

Liq. Bp 265-270°, Bp₁₀ 160-163°.

N,N-*Di-Me*: [2836-04-6].

$C_8H_{12}N_2$ M 136.196

Liq. Mp <20°. Bp 268-270°, Bp₁₃ 146°.

N,N'-*Di-Me*:

$C_8H_{12}N_2$ M 136.196

Oil. Bp 275-280°, Bp₁₀ 165-170°.

N,N,N'-*Tri-Me*:

$C_9H_{14}N_2$ M 150.223

Liq. Bp 280°.

N,N,N',N'-*Tetra-Me*: [22440-93-3].

$C_{10}H_{16}N_2$ M 164.250

Mp 58°. Bp 266-267°, Bp₁₈ 144-145°.

N-*Et*: [50617-74-8].

$C_8H_{12}N_2$ M 136.196

Liq. Bp 276°.

N,N-*Di-Et*: [26513-20-2].

$C_{10}H_{16}N_2$ M 164.250

Bp 276-278°.

N,N'-*Di-Et*: [5857-99-8].

$C_{10}H_{16}N_2$ M 164.250

Bp_{1.5} 115°.

N,N,N',N'-*Tetra-Et*: [64287-26-9].

$C_{14}H_{24}N_2$ M 220.357

Bp₉ 148°.

Sadtler Standard C-13 NMR Spectra, 6632 (cmr)

Sadtler Standard Ultraviolet Spectra, 1813 (uv)

Druce, J.G.F., *J. Chem. Soc.*, 1918, **113**, 715 (synth, bibl)

Aldrich Library of NMR Spectra, 1974, **5**, 82C (pmr)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 652C (ir)

Holzbecher, Z. et al, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976, 491 (use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 438.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AHQ000, PEY000.

1,4-Diaminobenzene**D-00048**

1,4-Benzenediamine, 9CI. *p-Phenylenediamine*, 8CI
[106-50-3]

$C_6H_8N_2$ M 108.143

Used as 0.2% aq. soln. for photometric detn. of CN^{\ominus} ,
Au(III). Leaflets (Et₂O). Mp 147°. Bp 267°. p*K*_{a1} 6.31;
p*K*_{a2} 2.97 (20°).

▶ Highly toxic by inhalation and skin absorption, TLV 0.1.
SS8050000.

N,N'-*Di-Me*: [105-10-2].

$C_8H_{12}N_2$ M 136.196

Cryst. (pet. ether). Mp 53°. Bp₁₇ 149-150°.

▶ ST0875000.

N,N-*Di-Me*: [99-98-9]. N,N-*Dimethyl-1,4-phenylenediamine*.
4-(Dimethylamino)aniline. *p-Aminodimethylaniline*

$C_8H_{12}N_2$ M 136.196

Anal. reagent for phenols, arom. amines, etc. Used for
photometric detn. of $SO_4^{2\ominus}$, $S^{2\ominus}$; as indicator in
titrimetric detn. of V. Needles. Sol. EtOH, Me₂CO,
 C_6H_6 , Et₂O, aq. HCl, CHCl₃; insol. H₂O. Mp 41°. Bp
262°, Bp₁₄ 136°.

▶ ST0874000.

N,N,N',N'-*Tetra-Me*: [100-22-1].

$C_{10}H_{16}N_2$ M 164.250

Used as a 0.25% soln. in aq. soln. of citric acid for
photometric detn. of O₃ (λ_{max} 565 nm). Cryst. Mp 49-
51°. Bp 260°.

▶ ST4200000.

N-*Et*: [5840-09-5].

$C_8H_{12}N_2$ M 136.196

Liq. Bp 261-262°.

N,N'-*Di-Et*: [3010-30-8].

$C_{10}H_{16}N_2$ M 164.250

Cryst. (pet. ether). Mp 47°. Bp_{1,2} 120°.

▶ SS9450000.

N,N-*Di-Et*: [93-05-0]. N,N-*Diethyl-1,4-phenylenediamine*. *4-*
(Diethylamino)aniline

$C_{10}H_{16}N_2$ M 164.250

Used as a soln. in 50% H₂SO₄ for photometric detn. of
 $S^{2\ominus}$, Cl₂. Liq. Bp 260-262°.

▶ SS9275000.

N-*Isopropyl*, N'-*Ph*: [101-72-4]. N-(*1-Methylethyl*)-N'-
phenyl-1,4-benzenediamine, 9CI. N-*Isopropyl-N'-phenyl-*
1,4-phenylenediamine. *Accinox ZA*

$C_{15}H_{18}N_2$ M 226.321

Antioxidant stabilizer for rubbers and other polymers.
Mp 79.5-80°.

▶ ST2650000.

N-*Isopropyl*, N'-*Ph*; *B,HCl*: Mp 191-192°.

Registry of Mass Spectral Data, Wiley-Interscience, 119 (ms)

Sadtler Standard C-13 NMR Spectra, 6466 (cmr)

Sadtler Standard Ultraviolet Spectra, 1187 (uv)

Hazlet, S.E. et al, *J. Am. Chem. Soc.*, 1944, **66**, 1781 (synth)

UK Pat., 817 142, (1959); *CA*, **54**, 2252 (*Accinox ZA*)

Galster, H., *Fresenius' Z. Anal. Chem.*, 1962, **186**, 359 (detn, ozone)

Dovell, F.S. et al, *J. Org. Chem.*, 1964, **29**, 1265 (*Accinox ZA*)

Bark, K.S. et al, *Talanta*, 1964, **11**, 471, 621 (detn, CN^{\ominus})

Zutshi, P.K. et al, *Talanta*, 1970, **17**, 1014 (use, N,N-*di-Me*)

Kramer, D.N. et al, *Anal. Chem.*, 1971, **43**, 834 (deriv, use)

Shkrobot, E.P. et al, *Zavod. Lab.*, 1971, **37**, 1296 (detn, Au)

Aldrich Library of NMR Spectra, 1974, **5**, 83D (pmr)

Matheson, N.A., *Analyst (London)*, 1974, **99**, 577 (use, N,N-*di-Me*)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 653A (ir)

Domenicano, A. et al, *Acta Crystallogr., Sect. B*, 1977, **33**, 1664

(cryst struct)

Siemer, D.D. et al, *Anal. Chem.*, 1980, **52**, 1971 (use, N,N-*di-Me*)

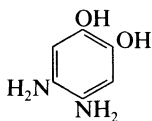
Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Non-Metals*, John Wiley, New York, 1981, 225, 400 (*detn*, Cl_2 , S^{2-})

Weller, H. *et al*, *J. Am. Chem. Soc.*, 1983, **105**, 6268 (*deriv*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 438.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AHQ250, BJF500, DJV200, DTL600, DTL800, PEY500, PFL000.

4,5-Diamino-1,2-benzenediol, 9CI **D-00049**

4,5-Diaminopyrocatechol, 8CI. 4,5-Dihydroxy- α -phenylenediamine. 4,5-Diaminocatechol



$C_6H_8N_2O_2$ M 140.141

Prisms.

Di-Ac:

$C_{10}H_{12}N_2O_4$ M 224.216
Mp 204-205°.

Di-Me ether: [27841-33-4]. 4,5-Dimethoxy-1,2-benzenediamine. 1,2-Diamino-4,5-dimethoxybenzene. 4,5-Diaminoveratrole

$C_8H_{12}N_2O_2$ M 168.195

Fluorimetric reagent for aromatic aldehydes and α -ketoacids. Prisms. Mp 131-132°.

Di-Me ether; *B,HCl*: Sl. pink needles (EtOH). Mp 240° dec. Stable on storage in a desiccator.

Heinisch, W., *Monatsh. Chem.*, 1894, **15**, 229.

Iorio, M.A., *Ann. Chim. (Rome)*, 1959, **49**, 370.

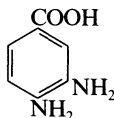
Nakamura, M. *et al*, *Anal. Chim. Acta*, 1982, **134**, 39 (*synth, deriv*)

Hara, S. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 3493 (*use, deriv*)

Nakamura, M. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 687 (*use, deriv*)

3,4-Diaminobenzoic acid **D-00050**

[619-05-6]



$C_7H_8N_2O_2$ M 152.152

Used as 0.6% aq. DMF or 0.1M HCl soln. for photometric detn. of Ru (λ_{max} 550 nm, ϵ 4200), Pt (λ_{max} 715 nm, ϵ 11400). Leaflets. Sl. sol. H_2O ; sol. DMF, acids. Mp 207°, Mp 210-211° dec., Mp 215-218°. pK_a 7.77 (80% 2-methoxyethanol).

Me ester: [36692-49-6].

$C_8H_{10}N_2O_2$ M 166.179
Needles (H_2O). Mp 108-109°.

Et ester: [37466-90-3].

$C_9H_{12}N_2O_2$ M 180.206
Needles (H_2O). Mp 112-113°.

3,4-N-*Di-Ac*:

$C_{11}H_{12}N_2O_4$ M 236.227
Mp 218° dec.

Johnson, L.D. *et al*, *Anal. Chem.*, 1966, **38**, 1218 (*detn, Pt*)

Keil, R., *Fresenius' Z. Anal. Chem.*, 1971, **254**, 191 (*detn, Pt*)

Ayres, G.H. *et al*, *Talanta*, 1971, **18**, 411 (*detn, Ru*)

Ceré, V. *et al*, *Tetrahedron*, 1972, **28**, 3271 (*synth*)

Aldrich Library of NMR Spectra, 1974, **6**, 168D (*pmr*)

Lepri, L. *et al*, *J. Chromatogr.*, 1974, **88**, 331 (*tlc*)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 852H (*ir*)

Kalfus, K. *et al*, *Collect. Czech. Chem. Commun.*, 1975, **40**, 3009.

3,5-Diaminobenzoic acid **D-00051**

[535-87-5]

$C_7H_8N_2O_2$ M 152.152

Used in the fluorimetric determination of DNA. Needles.

Mp 228° (slow heat), Mp 240° (rapid heat). pK_a 5.30 (25°). Forms a monohydrate.

▷ Mod. toxic.

B,2HCl: [618-56-4].

Mp > 300°.

▷ DG6240000.

Et ester: [1949-51-5].

$C_9H_{12}N_2O_2$ M 180.206

Mp 84°.

Kailan, A. *et al*, *Monatsh. Chem.*, 1903, **56**, 407.

Robertson, F.W. *et al*, *Anal. Biochem.*, 1971, **41**, 477.

U.S.S.R. Pat., 311 903, (1971); *CA*, **75**, 140498s (*synth*)

Aldrich Library of NMR Spectra, 1974, **6**, 174D, 175A (*pmr*)

Lepri, L. *et al*, *J. Chromatogr.*, 1974, **88**, 331 (*tlc*)

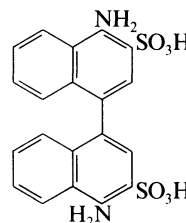
Aldrich Library of IR Spectra, 2nd Ed., 1975, 856D, 856E (*ir*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed.,

Van Nostrand-Reinhold, 1979, 541.

4,4'-Diamino-1,1'-binaphthalene-3,3'-disulfonic acid **D-00052**

Naphthidine-3,3'-disulfonic acid



$C_{20}H_{16}N_2O_6S_2$ M 444.488

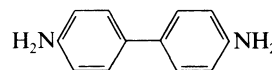
Redox indicator. Cryst. Mod. sol. H_2O .

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 590.

4,4'-Diaminobiphenyl **D-00053**

[1,1'-Biphenyl]-4,4'-diamine, 9CI. Benzidine, 8CI. p,p'-Bianiline

[92-87-5]



$C_{12}H_{12}N_2$ M 184.240

Used for precipitation of SO_4^{2-} , WO_4^{2-} ; gives colour reactions with Au(III), Tl(III), Cl_2 ; used for photometric detn. of CN^- , NO_2^- , ClO_3^- , SO_4^{2-} (indirectly). Cryst. (H_2O or EtOH). Sol. EtOH, H_2O . Mp 128°. Bp_{740} 400°. There are also two metastable forms, Mps 122° and 125°.

▷ Potent carcinogen. Use prohibited in the UK under the Carcinogenic Substances Regulations 1968. DC9625000.

B,2HCl: [531-85-1].

Leaflets. Sol. H_2O .

▷ DD0600000.

B,H_2SO_4: Scales. Prac. insol. H_2O , EtOH.

N-Ac: [3366-61-8].

$C_{14}H_{14}N_2O$ M 226.277

Needles (EtOH aq.). Mp 199°.

▷ AD8585000.

4,4'-*Di-N-Ac*: [613-35-4].

$C_{16}H_{16}N_2O_2$ M 268.315

Mp 317°.

▷ Carcinogen. DT2800000.

Tetra-N-Ac:

$C_{20}H_{20}N_2O_4$ M 352.389
Needles (EtOH/ C_6H_6). Mp 214-215°.

N-Benzoyl:

$C_{19}H_{16}N_2O$ M 288.348
Mp 203-205°.

4,4'-Di-N-benzoyl: [4471-10-7].

$C_{26}H_{20}N_2O_2$ M 392.456
Needles. Mp 352°.

N-Et: *N-Ethylbenzidine*. *N-Ethyl-[1,1'-biphenyl]-4,4'-diamine*

$C_{14}H_{16}N_2$ M 212.294
Redox indicator. Used as 1% soln. in 5% AcOH. Pale yellow prisms (MeOH). Mp 85°.

N,N'-Di-Et: [6290-86-4]. *N,N'-Diethylbenzidine*

$C_{16}H_{20}N_2$ M 240.347
Redox indicator. Used as a 0.01% soln. in 1M H_2SO_4 . Plates or needles (EtOH). Sol. Et_2O , $CHCl_3$, EtOH, C_6H_6 ; insol. H_2O . Mp 115.5-116°.

N,N'-Diphenyl: [531-91-9]. *4,4'-Dianilinobiphenyl*. *N,N'-Diphenyl-[1,1'-biphenyl]-4,4'-diamine*, 9Cl. *N,N'-Diphenylbenzidine*. *3,3'-Diphenylbenzidine*

$C_{24}H_{20}N_2$ M 336.435
Used as 0.1% soln. in conc. H_2SO_4 or in conc. H_2SO_4 /AcOH as redox indicator; photometric detn. of V(I). Plates (xylene). Sol. conc. H_2SO_4 , CCl_4 , AcOH; spar. sol. EtOH. Mp 244-245°, Mp 251-252°. $E^\circ +0.76V$ (20°, pH 0).

N,N'-Di-Me: [2810-74-4]. *N,N'-Dimethylbenzidine*

$C_{14}H_{16}N_2$ M 212.294
Redox indicator. Used as a 0.01% soln. in 1M H_2SO_4 . Needles (EtOH aq.). Sol. Et_2O , $CHCl_3$, EtOH, C_6H_6 ; insol. H_2O . Mp 74-76°.

N-Tetra-Me: [366-29-0]. *N,N,N',N'-Tetramethylbenzidine*
Used as a 0.2% soln. in 1M HCl as redox indicator. Needles. Sol. dil. HCl. Mp 198°. $E^\circ 0.86V$ (1M H_2SO_4); $E^\circ 0.90$ (1M $HClO_4$).

N-Tetra-Et: [6860-63-5]. *N,N,N',N'-Tetraethylbenzidine*
Used as redox indicator. Cryst. ($CHCl_3$). Mp 90.2°.

N,N'-Di-Me, *N,N'-di-Ph*: [27164-41-6]. *N,N'-Dimethyldiphenylbenzidine*. *N,N'-Dimethyl-N,N'-diphenyl-1,1'-biphenyl-4,4'-diamine*

$C_{26}H_{24}N_2$ M 364.489
Used as 0.1% soln. in conc. H_2SO_4 as redox indicator (colour change; colourless → blue); used for photometric detn. of V (λ_{max} 529 nm, ϵ 45000). Cryst. (toluene). Sol. hot toluene, AcOH, conc. H_2SO_4 ; sp. sol. EtOH, C_6H_6 .

Ullmann, F. *et al*, *Ber.*, 1904, **37**, 23 (*synth*, *N,N,N',N'-tetra Me*)
Eegriwe, E., *Fresenius' Z. Anal. Chem.*, 1924, **65**, 183 (*use*, *precipn*)

Busch, M. *et al*, *J. Prakt. Chem.*, 1936, **146**, 1 (*synth*)

Williamson, B. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 3018 (*uw*)

Fomin, V.V. *et al*, *Zavod. Lab.*, 1947, **13**, 679 (*use*)

Stockdale, D., *Analyst (London)*, 1950, **75**, 150 (*N,N-diPh*, *use*)

Adams, R.N. *et al*, *Anal. Chem.*, 1951, **23**, 744 (*use*, *N,N,N',N'-tetra Me*)

Belcher, R. *et al*, *J. Chem. Soc.*, 1954, 2543 (*synth*, *use*, *N-Et*, *N,N-diEt*)

Vogel, A.I., *Textbook of Practical Organic Chemistry*, London, 3rd Ed., 1956, 633 (*synth*)

Burns, E.A., *Anal. Chem.*, 1960, **32**, 1800 (*detn*, ClO_3^\ominus)

Arony, M. *et al*, *J. Chem. Soc.*, 1960, 3600 (*struct*)

Agazzi, E.J. *et al*, *Anal. Chem.*, 1963, **35**, 332 (*use*, *N,N'-diphenyl*)
Org. Synth., *Coll. Vol.*, 4, 1963, 283 (*deriv*)

Dieteren, H.M.L. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1963, **82**, 5 (*synth*, *uw*)

Smejtek, P. *et al*, *Collect. Czech. Chem. Commun.*, 1965, **30**, 3875 (*pmr*)

Frumina, N.S. *et al*, *Talanta*, 1969, **16**, 138 (*detn*, *V*)

Friedmann, G. *et al*, *Bull. Soc. Chim. Fr.*, 1970, 706 (*synth*, *tetra-Et*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 583 (*use*)

Royer, J.L. *et al*, *Anal. Lett.*, 1973, **6**, 619 (*detn*, CN^\ominus)

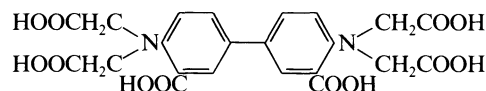
Mroczkowski, W. *et al*, *Chem. Anal. (Warsaw)*, 1981, **26**, 861 (*detn*, $SO_4^{2\ominus}$)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 192.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ACC000, BBX000, BBX750, BFX000.

4,4'-Diaminobiphenyl-3,3'-dicarboxylic acid-*N,N,N',N'*-tetraacetic acid D-00054

N,N'-(3,3'-Dicarboxy[1,1'-biphenyl]-4,4'-diyl)bis[N-(carboxymethyl)glycine]. *3,3'-Dicarboxybenzidine-N,N,N',N'-tetraacetic acid*



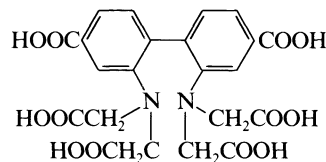
$C_{22}H_{20}N_2O_{12}$ M 504.406
Unstable.

Hexa-Na salt: Used as a 1% dispersion in pulverised KNO_3 . Fluorescent indicator used for titrimetric detn. of Ca (colour change: no fluorescence → green). Cryst. (H_2O). Sol. H_2O .

Belcher, R. *et al*, *Talanta*, 1960, **4**, 78.

Rees, D.I. *et al*, *J. Chem. Soc.*, 1961, 5101 (*synth*)

2,2'-Diaminobiphenyl-4,4'-dicarboxylic acid-*N,N,N',N'*-tetraacetic acid D-00055



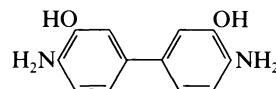
$C_{22}H_{20}N_2O_{12}$ M 504.406

Hexa-Na salt: Used as an aq. 0.01M soln. as a fluorescent indicator for titrimetric detn. of Cu, Ni. Flakes. Sol. H_2O .

Kirkbright, G.F. *et al*, *Anal. Chim. Acta*, 1965, **32**, 544 (*synth*, *detn*, *Cu*, *Ni*)

4,4'-Diamino-3,3'-biphenyldiol, 8Cl D-00056

4,4'-Diamino-3,3'-dihydroxybiphenyl. *3,3'-Dihydroxybenzidine*
[2373-98-0]



$C_{12}H_{12}N_2O_2$ M 216.239
Plates (Me_2CO). Mp 160°.

▷ Exp. carcinogen. DV4900000.

B,2HCl: Plates. Mp 144°.

Tetrabenzoyl:

$C_{40}H_{28}N_2O_6$ M 632.671
Microcryst. ($CHCl_3$). Mp 180°.

Di-Me ether: [119-90-4]. *4,4'-Diamino-3,3'-dimethoxybiphenyl*. *3,3'-Dimethoxybenzidine*. *o-Dianisidine*

$C_{14}H_{16}N_2O_2$ M 244.293

Used in photometric detn. of $\text{Fe}(\text{CN})_3^{3\ominus}$, $\text{Ce}(\text{IV})$, $\text{V}(\text{V})$, $\text{Cr}(\text{VI})$, IO_4^\ominus , H_2O_2 (redox reactions) and as a soln. in glac. AcOH as redox indicator for titrimetric detn. of $\text{Ce}(\text{IV})$, $\text{Cr}_2\text{O}_7^{2\ominus}$. Leaflets. Sol. C_6H_6 , AcOH ; spar. sol. H_2O . Mp 137-138°.

► Toxic by inhalation and skin contact, carcinogen, irritant. Use controlled in UK by Carcinogenic Substances Regulations 1967. DD0875000.

Di-Et ether: [6264-77-3]. 4,4'-Diamino-3,3'-diethoxybiphenyl. 3,3'-Diethoxybenzidine. *Di-o-phenetidine*

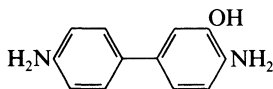
$\text{C}_{16}\text{H}_{20}\text{N}_2\text{O}_2$ M 272.346

Used as a redox indicator. Cryst. Mp 117°. $E^\circ + 0.75 \text{ V}$ (19°, 1M H_2SO_4).

Burkhardt, G.N. *et al*, *J. Chem. Soc.*, 1929, 141 (*synth*)
 Sen, R.N. *et al*, *J. Indian Chem. Soc.*, 1932, 9, 403 (*synth*)
 Popa, G. *et al*, *Fresenius' Z. Anal. Chem.*, 1959, 167, 329 (*detn*, *Ce*)
 Rees, D.I. *et al*, *Talanta*, 1959, 2, 361 (*use*, *di-Et ether*)
 Ariel, M. *et al*, *Anal. Chim. Acta*, 1961, 25, 248 (*detn*, *V(V)*)
 Cheng, K.L. *et al*, *Chemist-Analyst*, 1963, 52, 73 (*detn*, *Cr*)
 Guernet, M., *Bull. Soc. Chim. Fr.*, 1964, 478 (*detn*, IO_4^\ominus)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 585, 593 (*use*, *di-Et ether*, *di-Me ether*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 296.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DCJ200, DMI400.

4,4'-Diamino-3-biphenylol, 8CI D-00057

4,4'-Diamino-3-hydroxybiphenyl. 3-Hydroxybenzidine
 [3366-54-9]



$\text{C}_{12}\text{H}_{12}\text{N}_2\text{O}$ M 200.240
 Plates (H_2O). Mp 185°.

3-Me ether: [3365-87-5]. 3-Methoxybenzidine

$\text{C}_{13}\text{H}_{14}\text{N}_2\text{O}$ M 214.266

Used as a redox indicator. Cryst. (H_2O). Mod. sol. H_2O ; sol. dil. alkalis.

3-Et ether: 4,4'-Diamino-3-ethoxybiphenyl. 3-Ethoxybenzidine

$\text{C}_{14}\text{H}_{16}\text{N}_2\text{O}$ M 228.293

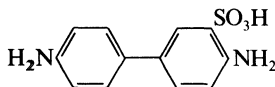
Used as 0.5% soln. in AcOH as redox indicator.
 Needles (H_2O). Mp 139°, Mp 134-135°. $E^\circ + 0.80\text{V}$, (1M H_2SO_4 19°).

[29263-55-6]

Weinberg, A., *Ber.*, 1887, 20, 3171 (*synth*)
 Jacobson, P. *et al*, *Ber.*, 1903, 36, 4069 (*synth*)
 Rees, D.I. *et al*, *Talanta*, 1959, 2, 361 (*use*, *3-Me ether*, *3-Et ether*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 585 (*use*, *3-Et ether*)

4,4'-Diaminobiphenyl-3-sulfonic acid D-00058

Benzidine-3-sulfonic acid
 [2051-89-0]



$\text{C}_{12}\text{H}_{12}\text{N}_2\text{O}_3\text{S}$ M 264.304
 Azo-dye intermediate. Cryst. Mp > 300°.

N,N,N',N'-Tetra-Me: [81503-68-6]. *N,N,N',N'-Tetramethylbenzidine-3-sulfonic acid*

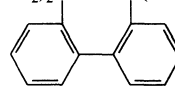
$\text{C}_{16}\text{H}_{20}\text{N}_2\text{O}_3\text{S}$ M 320.412

Used as a 0.2% soln. in HCl as redox indicator. Cryst. $E^\circ + 0.880 \text{ V}$ (1M H_2SO_4), $E^\circ + 0.910 \text{ V}$ (1M HClO_4).

Finzi, C. *et al*, *Ann. Chim. (Rome)*, 1950, 40, 334 (*synth*)
 Adams, R.N. *et al*, *Anal. Chem.*, 1951, 23, 744 (*use*, *ind*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBY250.

2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid D-00059

$(\text{HOOCCH}_2)_2\text{N}$ $\text{N}(\text{CH}_2\text{COOH})_2$



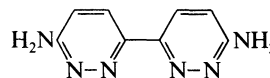
$\text{C}_{20}\text{H}_{20}\text{N}_2\text{O}_8$ M 416.387

Tetra-Na salt: Used as metallofluorescent indicator in titrimetric detn. of Co , Cr , Cu , Mn , Zn . Cryst.

Kirkbright, G. *et al*, *Anal. Chim. Acta*, 1965, 32, 544 (*use*)

6,6'-Diamino-3,3'-bipyridazine D-00060

[3,3'-Bipyridazine]-6,6'-diamine
 [24049-47-6]



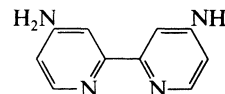
$\text{C}_8\text{H}_8\text{N}_6$ M 188.191

Used as MeOH soln. for photometric detn. of $\text{Fe}(\text{II})$. Cryst. (MeOH). Sol. Et_2O , C_6H_6 , EtOH ; insol. H_2O . Mp 320°.

Igata, H. *et al*, *Tetrahedron Lett.*, 1969, 2359 (*synth*)
 Maeda, M. *et al*, *Chem. Pharm. Bull.*, 1970, 18, 1548 (*detn*, *Fe*)

4,4'-Diamino-2,2'-bipyridine, 8CI D-00061

[2,2'-Bipyridine]-4,4'-diamine, 9CI
 [18511-69-8]



$\text{C}_{10}\text{H}_{10}\text{N}_4$ M 186.216

Used in photometric detn. of $\text{Fe}(\text{II})$, Cu , Co , Ni . Mp 277-278°. pK_a 5.85 (40% v/v EtOH aq.).

N,N'-Di-Ac: [52597-40-7].

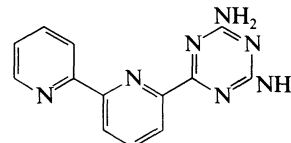
$\text{C}_{14}\text{H}_{14}\text{N}_4\text{O}_2$ M 270.290

Cryst. (H_2O). Mp 320°.

Maerker, G. *et al*, *J. Am. Chem. Soc.*, 1958, 80, 2745 (*synth*)
 Tsai, C.S., *Can. J. Chem.*, 1967, 45, 2862 (*uv*)
 Schilt, A., *Analytical Applications of 1,10-Phenanthroline and Related Compounds*, Pergamon, Oxford, 1969 (*use*)
 Cook, M.J. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1984, 1293 (*synth*)

2,4-Diamino-6-(2,2'-bipyridyl)-1,3,5-triazine D-00062

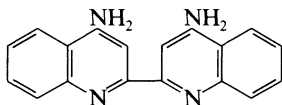
[10495-74-6]



$\text{C}_{13}\text{H}_{11}\text{N}_7$ M 265.277

Used as a 5mM soln. in 50% EtOH aq. for photometric detn. of Co (λ_{\max} 440 nm), Cu(I) (λ_{\max} 427 nm, ϵ 2500), Fe(II) (λ_{\max} 557 nm, ϵ 9100). Cryst. (DMF aq.). Sol. common org. solvs. Mp 284-285° (as hydrate).

Case, F.H., *J. Org. Chem.*, 1966, **31**, 2398 (synth)
Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 475 (detn. Co, Cu, Fe)

4,4'-Diamino-2,2'-biquinoline**D-00063**C₁₈H₁₄N₄ M 286.335

N,N,N',N'-Tetra-Et: [29197-25-9]. 4,4'-Bis(diethylamino)-2,2'-biquinoline, 8CI

C₂₆H₃₀N₄ M 398.550

Used as a soln. in butanol for photometric detn. of Cu (λ_{\max} 560 nm, ϵ 9700). Cryst. (dioxan). Sol. hot EtOH, DMF, dioxan; spar. sol. EtOH; insol. H₂. Mp 199-202°.

N,N'-Bisbenzyl: 4,4'-Bis(benzylamino)-2,2'-biquinoline

C₃₂H₂₆N₄ M 466.584

Used as a soln. in butanol for photometric detn. of Cu (λ_{\max} 550 nm, ϵ 10200). Cryst. (EtOH). Sol. hot EtOH, DMF, dioxan; insol. H₂O. Mp 235-238°.

N,N'-Bisphenyl: [29197-26-0]. 4,4'-Dianilino-2,2'-biquinoline, 8CI

C₃₀H₂₂N₄ M 438.531

Used as a soln. in butanol for photometric detn. of Cu (λ_{\max} 550 nm, ϵ 14000). Yellow cryst. (EtOH). Sol. hot EtOH, DMF, dioxan; insol. H₂O. Mp 285-287°.

N,N'-Bis(4-diethylaminophenyl): [29197-34-0]. 4,4'-Di(p-diethylamino)anilino]-2,2'-biquinoline, 8CI

C₃₈H₄₀N₆ M 580.774

Used as a soln. in butanol for photometric detn. of Cu (λ_{\max} 556 nm, ϵ 15000). Cryst. (dioxan). Mp 260-262°.

N,N'-Bis(4-chlorophenyl): [29197-33-9]. 4,4'-Di(p-chloroanilino)-2,2'-biquinoline, 8CI

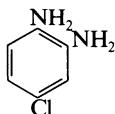
C₃₀H₂₀Cl₂N₄ M 507.420

Used as a soln. in butanol for photometric detn. of Cu (λ_{\max} 550 nm, ϵ 15200). Yellow cryst. (EtOH). Mp 320-323°.

Gershuns, A.L. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 595; *CA*, **73**, 98771 (detn. Cu)

1,2-Diamino-4-chlorobenzene**D-00064**

4-Chloro-1,2-benzenediamine, 9CI. 4-Chloro-*o*-phenylenediamine, 8CI
[95-83-0]

C₆H₇ClN₂ M 142.587

Leaflets (H₂O). Mp 76°.

▷ SS8850000.

B,2HCl: [57803-83-5].

Used as a 0.3% aq. soln. in gc detn. of Se; extraction of Se. Cryst. Sol. H₂O, acids, EtOH, C₆H₆. Mp 72-74°. pK_{a1} -0.11; pK_{a2} 4.16 (μ = 0.1, 20°).

1,2-N-Di-Ac:

C₁₀H₁₁ClN₂O₂ M 226.662

Leaflets. Mp 208°.

1,2-N-Dibenzoyl: [19614-04-1].

C₂₀H₁₅ClN₂O₂ M 350.803

Silky needles (EtOH). Mp 230°.

1,2-N-Di-Me:

C₈H₁₁ClN₂ M 170.641

Mp 61°.

Ullmann, F. *et al*, *Ber.*, 1903, **36**, 4026 (synth)

Mangini, A. *et al*, *Gazz. Chim. Ital.*, 1933, **63**, 612 (synth)

Popov, A.M., *CA*, 1934, **28**, 1671 (synth)

Knobloch, W., *Chem. Ber.*, 1958, **91**, 2557 (synth)

Bassl, A. *et al*, *J. Prakt. Chem.*, 1967, **36**, 265, 274 (tlc)

Nakamuro, K. *et al*, *CA*, 1973, **78**, 67735x (chromatog)

Akiba, M. *et al*, *Analyst (London)*, 1975, **100**, 648 (use)

Neve, J. *et al*, *Anal. Lett.*, 1977, **10**, 133 (w)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CFK125.

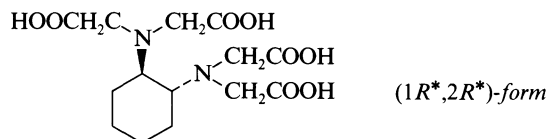
1,2-Diaminocyclohexane-*N,N,N',N'*-tetraacetic acid**D-00065**

N,N'-1,2-Cyclohexanediylbis[*N*-carboxymethylglycine], 9CI.

(1,2-Cyclohexylenedinitrilo)tetraacetic acid, 8CI. 1,2-Cyclohexanediamine-*N,N,N',N'*-tetraacetic acid.

Complexone IV. DCTA. CDTA. CyDTA

[482-54-2]

C₁₄H₂₂N₂O₈ M 346.336

▷ Irritant.

(1*R**,2*R**)-form

(+)-trans-form

Cryst. (AcOH). Mp 237°. [α]_D +53° (c, 0.5 in H₂O).

(1*S**,2*S**)-form

(-)-trans-form

Cryst. (AcOH). [α]_D -53° (c, 0.5 in H₂O).

(1*R**S*,2*R**S*)-form [13291-61-7]

(±)-trans-form

Powerful chelating agent. Complexometric titrant, masking agent; used for ion-exchange sepn. of Sr and Ba, for extraction sepn. of Cr (as anionic complex). Monohydrate. Mp 213-216°. pK_{a1} 2.43; pK_{a2} 3.52; pK_{a3} 6.12; pK_{a4} 11.70. Could not be resolved.

Tetra-Na salt: [18763-65-0].

Cryst. powder.

[7307-88-2, 18763-65-0, 28684-63-1, 121310-47-2]

Aldrich Library of NMR Spectra, **1**, 503 (nmr)

U.S. Pat., 2 519 708, (1950); *CA*, **45**, 6218f (synth)

Pribil, R., *Collect. Czech. Chem. Commun.*, 1955, **20**, 162

(complexes)

Dwyer, F.P. *et al*, *J. Am. Chem. Soc.*, 1961, **83**, 2610 (synth)

Fuhrman, D.L. *et al*, *Talanta*, 1967, **14**, 1199 (detn. Cr)

Anderson, N.R. *et al*, *Anal. Chim. Acta*, 1968, **40**, 207 (detn. Sr, Ba)

Carr, J.D. *et al*, *Anal. Chem.*, 1970, **42**, 1238 (use)

Howarth, O.W. *et al*, *J. Chem. Soc., Chem. Commun.*, 1974, 664

(cmr, complexes)

Adam, J. *et al*, *Talanta*, 1974, **21**, 1205 (detn. Cr)

Strelow, F.W. *et al*, *Talanta*, 1979, **26**, 538 (masking)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982 (rev)

Merciny, E. *et al*, *Anal. Chim. Acta*, 1984, **160**, 87 (synth)

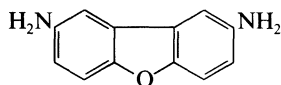
Aldrich Library of FT-IR Spectra, 1st Ed., 1985, **1**, 569 (ir)

2,7-Diaminodibenzofuran

D-00066

2,7-Dibenzofurandiamine, 9CI

[24229-85-4]

 $C_{12}H_{10}N_2O$ M 198.224Used as a 0.65% soln. in glac. AcOH for spot test detn. of oxidising ions. Cryst. (EtOH) or needles (H₂O). Sol. dil. acids, C₆H₆, EtOH, Et₂O. Mp 152°.

N,N'-Di-Ac:

 $C_{16}H_{14}N_2O_3$ M 282.298

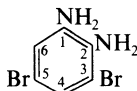
Cryst. (EtOH). Mp 290° dec.

Cullinane, N.M., *J. Chem. Soc.*, 1932, 2366 (*synth*)Gilman, H. *et al.*, *J. Chem. Soc. C*, 1934, 56, 2473 (*synth*)Cullinane, N.M. *et al.*, *Analyst (London)*, 1948, 73, 95 (*synth, use*)Oshima, Y. *et al.*, *CA*, 1968, 71, 112712f (*synth*)**1,2-Diamino-3,5-dibromobenzene**

D-00067

3,5-Dibromo-1,2-benzenediamine, 9CI

[1575-38-8]

 $C_6H_6Br_2N_2$ M 265.935

Used as 0.12% soln. in conc. HCl for detn. of Se(IV) in river water. Prisms. Sol. acids, toluene. Mp 83°, Mp 75°.

1,2-N-Di-Ac:

 $C_{10}H_{10}Br_2N_2O_2$ M 350.009

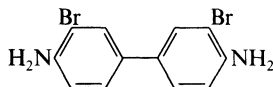
Needles. Mp 227-228°.

Scott, R.M. *et al.*, *J. Chem. Soc.*, 1959, 417 (*synth*)Samuel, E.L., *Aust. J. Chem.*, 1972, 25, 2725 (*synth, pmr*)Shimoishi, Y. *et al.*, *Anal. Chim. Acta*, 1978, 100, 65 (*synth, detn, Se*)**4,4'-Diamino-3,3'-dibromobiphenyl**

D-00068

3,3'-Dibromo[1,1'-biphenyl]-4,4'-diamine, 9CI. 3,3'-Dibromobenzidine, 8CI

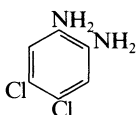
[34237-98-4]

 $C_{12}H_{10}Br_2N_2$ M 342.032Used as soln. in dil. H₂SO₄ as redox indicator (oxidized form yellow). Cryst. (C₆H₆). Sol. conc. acids, C₆H₆; insol. H₂O. Mp 127-129°. E° + 0.94 V (1M H₂SO₄).Snyder, H.R. *et al.*, *J. Am. Chem. Soc.*, 1948, 71, 289 (*synth*)Belcher, R. *et al.*, *J. Chem. Soc.*, 1958, 2336 (*use*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 585 (*use*)**1,2-Diamino-4,5-dichlorobenzene**

D-00069

4,5-Dichloro-o-phenylenediamine. 4,5-Dichloro-1,2-benzenediamine

[5348-42-5]

 $C_6H_6Cl_2N_2$ M 177.032Used as 0.4mM soln. in MeOH for photometric detn. of Se. Needles (H₂O). Sol. MeOH. Mp 162-163°. pK_{a1} 3.39; pK_{a2} -0.82 (25°, μ 2.0M).B,HCl: Plates (EtOH/Et₂O). Mp 200-220° dec. Subl._{0,2} 100°.

B,2HCl: [72435-64-4].

Plates. Mp 205-220° dec.

1,2-N-Dibenzoyl:

 $C_{20}H_{14}Cl_2N_2O_2$ M 385.248

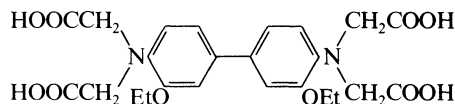
Needles or prisms. Mp 257°.

Adams, R. *et al.*, *J. Am. Chem. Soc.*, 1951, 73, 5687 (*synth*)Davis, W. *et al.*, *J. Chem. Soc.*, 1951, 3258 (*synth*)Knobloch, W., *Chem. Ber.*, 1958, 91, 2557 (*synth*)Acheson, R.M. *et al.*, *J. Chem. Soc.*, 1958, 3750 (*synth, bibl*)Neve, J. *et al.*, *Anal. Lett.*, 1977, 10, 133 (*detn, Se*)Neve, J. *et al.*, *Talanta*, 1979, 26, 15 (*synth, acidity const*)**4,4'-Diamino-3,3'-diethoxybiphenyl-**

D-00070

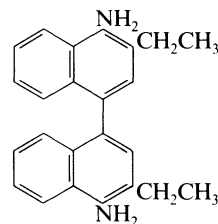
N,N,N',N'-tetraacetic acid

N,N'-(3,3'-Diethoxy[1,1'-biphenyl]-4,4'-diyl)bis[N-(carboxymethyl)glycine]. o-Diphenetidine-N,N,N',N'-tetraacetic acid

 $C_{24}H_{28}N_2O_{10}$ M 504.493Tetra-Na salt: Used as 1% dispersion in pulverized KNO₃ as metal fluorescent indicator for titrimetric detn. of Cu, Hg (colour change: no fluorescence → blue). Cryst. (H₂O). Sol. H₂O.Belcher, R. *et al.*, *Talanta*, 1960, 4, 78.Rees, D.I. *et al.*, *J. Chem. Soc.*, 1961, 5101 (*synth*)**4,4'-Diamino-3,3'-diethyl-1,1'-binaphthyl**

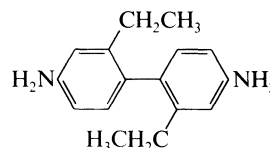
D-00071

3,3'-Diethyl[1,1'-binaphthyl]-4,4'-diamine. 3,3'-Diethylnaphthidine

 $C_{24}H_{24}N_2$ M 340.467Redox indicator (colour change: colourless → blue). Used as a 0.2% soln. in glac. AcOH. Cryst. (ligroin). Sol. acids, AcOH, C₆H₆; insol. H₂O. Mp 103°.Hydrate: Red-purple needles. Mp 110-116°. E° +0.7 V (0.1M H₂SO₄, 20°).Belcher, R. *et al.*, *J. Chem. Soc.*, 1958, 3243, 4454 (*synth*)**4,4'-Diamino-2,2'-diethylbiphenyl**

D-00072

3,3'-Diethylbenzidine

 $C_{16}H_{20}N_2$ M 240.347

Redox indicator used as the sulfate salt. Cryst. Sol. C_6H_6 , acids; insol. H_2O .

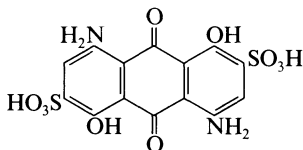
Belcher, R. *et al*, *J. Chem. Soc.*, 1951, 547, 550 (*use*)

4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, 9CI **D-00073**

4,8-Diamino-1,5-dihydroxyanthraquinone-2,6-disulfonic acid.

C.I. Acid blue 45. C.I. 63010

[128-86-9]



$C_{14}H_{10}N_2O_{10}S_2$ M 430.372

Used as 1mM aq. soln. for photometric and kinetic fluorimetric detn. of Ce(IV), Mn(VII) (λ_{max} 585 nm, 7-22 ng/ml), Be (λ_{max} 645 nm). Also used as sodium salt.

Dark blue cryst. Sol. H_2O .

Na salt: [2861-02-1].

Sol. H_2O ; sl. sol. EtOH, Me_2CO ; insol. C_6H_6 , CCl_4 .

Navas, A. *et al*, *An. Quim.*, 1979, **75**, 514; *CA*, **92**, 14768t (*detn*, Be)

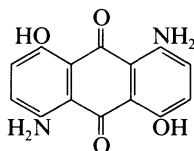
Navas, A. *et al*, *Mikrochim. Acta*, 1982, **1**, 175 (*detn*, Ce)

Navas, A. *et al*, *Talanta*, 1984, **31**, 437 (*detn*, Mn)

1,5-Diamino-4,8-dihydroxyanthraquinone **D-00074**

1,5-Diamino-4,8-dihydroxy-9,10-anthracenedione. 4,8-Diaminoanthrarufin

[145-49-3]



$C_{14}H_{10}N_2O_4$ M 270.244

Used as a 0.1% soln. in conc. H_2SO_4 for photometric detn. of B. Dark red cryst. powder. Sol. conc. H_2SO_4 ; spar. sol. H_2O , EtOH.

Wuensch, G. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **258**, 30.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DBP909.

1,8-Diamino-4,5-dihydroxyanthraquinone **D-00075**

1,8-Diamino-4,5-dihydroxy-9,10-anthracenedione, 9CI. 4,5-Diaminochryszazin

[128-94-9]

$C_{14}H_{10}N_2O_4$ M 270.244

Used in photometric detn. of B, Se(IV). Blue needles (xylene). Sol. C_6H_6 , xylene, EtOH; spar. sol. alkalis; insol. H_2O .

▷ CB6482000.

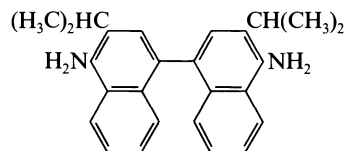
Cogbill, E.C. *et al*, *Anal. Chem.*, 1957, **29**, 1251.

Eberle, A.R. *et al*, *Anal. Chem.*, 1960, **32**, 146 (*detn*, B)

Brown, R.S., *Anal. Chim. Acta*, 1975, **74**, 441 (*detn*, Se)

4,4'-Diamino-3,3'-diisopropyl-1,1'-binaphthyl **D-00076**

3,3'-Bis(1-methylethyl)-[1,1'-binaphthalene]-4,4'-diamine, 9CI. 3,3'-Diisopropyl-naphthidine



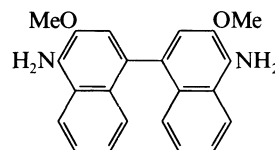
$C_{26}H_{28}N_2$ M 368.521

Used as a 0.2% soln. in AcOH as redox indicator (colour change: colourless → blue). Cubes (ligroin). Sol. acids, AcOH, C_6H_6 ; insol. H_2O . Mp 260°. $E^\ominus + 0.73$ V (0.1 M H_2SO_4 , 20°).

Belcher, R. *et al*, *J. Chem. Soc.*, 1958, 3243, 4454 (*synth*)

4,4'-Diamino-3,3'-dimethoxy-1,1'-binaphthyl **D-00077**

3,3'-Dimethoxy-[1,1'-binaphthalene]-4,4'-diamine, 9CI. 3,3'-Dimethoxynaphthidine



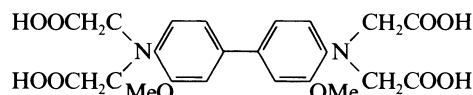
$C_{22}H_{20}N_2O_2$ M 344.412

Used as redox indicator (colour change: colourless → blue). Pale yellow flakes (ligroin). Sol. acids, AcOH, C_6H_6 ; insol. H_2O . Mp 218°. $E^\ominus + 0.69$ V (0.1M H_2SO_4 , 20°).

Belcher, D. *et al*, *J. Chem. Soc.*, 1958, 3243, 4454 (*synth*)

4,4'-Diamino-3,3'-dimethoxybiphenyl-N,N,N',N'-tetraacetic acid **D-00078**

N,N'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[N-(carboxymethyl)glycine], 9CI. o-Dianisidine-N,N,N',N'-tetraacetic acid. Anisidine blue



$C_{22}H_{24}N_2O_{10}$ M 476.439

Tetra-Na salt: [60683-89-8].

Used as a 1% dispersion in pulverized KNO_3 as metal fluorescent indicator for titrimetric detn. of Bi, Cd, Ce(III), Cu, Fe(II), Cl^\ominus (colour change: no fluorescence → blue), Ni. Cryst. (H_2O). Sol. H_2O .

Belcher, R. *et al*, *Talanta*, 1960, **4**, 78 (*detn*, metals)

Rees, D.I. *et al*, *J. Chem. Soc.*, 1961, 5101 (*synth*)

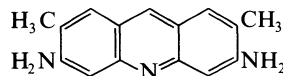
Kirkbright, C.F. *et al*, *Anal. Chim. Acta*, 1965, **32**, 544 (*synth*, *use*, *ind*)

Konobu, K., *CA*, 1976, **85**, 19383a (*detn*, Cl^\ominus)

3,6-Diamino-2,7-dimethylacridine **D-00079**

2,7-Dimethyl-3,6-acridinediamine, 9CI

[92-26-2]



$C_{15}H_{15}N_3$ M 237.304

Cryst. ($PhNH_2$). Mp 325°.

▷ AR8750000.

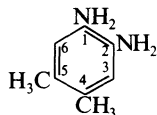
B.HCl: [135-49-9]. *Acridine yellow*. C.I. 46025. *Aurazine* Dyestuff. Used as 1mM aq. soln. in extraction. photometric detn. of Re (λ_{\max} 455 nm, ϵ 35000), Tl(III) (λ_{\max} 460 nm, ϵ 50000); adsorption fluorescent indicator for titrimetric detn. of Ag; detn. of substituted aromatic carboxylic acids. Red cryst. powder. Sol. hot H₂O, EtOH. Orange-yellow soln. with green fluor. in H₂O.

▷ AR8790000.

Albert, A., *J. Chem. Soc.*, 1947, 248 (*synth*)
 Kokko, J.P. *et al*, *Spectrochim. Acta*, 1963, **19**, 1119 (*pmr*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*detn*, Ag)
 Artsruni, V.Z. *et al*, *Arm. Khim. Zh.*, 1974, **27**, 106; *CA*, **81**, 44961 (*detn*, Tl)
 Tarayan, V.M. *et al*, *Arm. Khim. Zh.*, 1974, **27**, 934; *CA*, **83**, 21525d (*detn*, Re)
 Obtemperanskaya, S.I. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 349 (*detn*, carboxylic acids)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DBT200, DBT400.

1,2-Diamino-4,5-dimethylbenzene **D-00080**

4,5-Dimethyl-1,2-benzenediamine, 9CI. 4,5-Dimethyl-o-phenylenediamine. 4,5-Diamino-o-xylene
 [3171-45-7]



C₈H₁₂N₂ M 136.196

Prod. by a mutant of *Aspergillus nidulans*. Reagent for the spectrophotometric detn. of 21-hydroxycorticosteroids and ascorbic acid and extraction-photometric detn. of NO₂[⊖] (λ_{\max} 405 nm, ϵ 1050, butanol). Leaflets. Sol. H₂O. Mp 127-129°.

▷ Irritant.

1,2-N-Di-Ac:

C₁₂H₁₆N₂O₂ M 220.271
 Needles. Mp 227-228°.

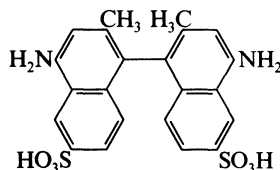
Nölting, E. *et al*, *Ber.*, 1901, **34**, 2251 (*synth*)
 Sadique, J. *et al*, *Curr. Sci.*, 1966, **35**, 336 (*isol*)
 Braeuniger, H. *et al*, *Pharmazie*, 1969, **24**, 24 (*synth*)
 Lin, E. *et al*, *Mikrochim. Acta*, 1970, 652 (*detn*, NO₂[⊖])
 Gorog, S. *et al*, *Anal. Chem.*, 1972, **44**, 1079.
 Ceré, V. *et al*, *Tetrahedron*, 1972, **28**, 3271 (*w*)
 Szepesi, G., *Fresenius' Z. Anal. Chem.*, 1973, **265**, 334 (*use*)
Aldrich Library of NMR Spectra, 1974, **5**, 82A (*pmr*)
Aldrich Library of IR Spectra, 2nd Ed., 1975, 651G (*ir*)

4,4'-Diamino-3,3'-dimethyl-[1,1'-

binaphthalene]-6,6'-disulfonic acid, 9CI

3,3'-Dimethylnaphthidenedisulfonic acid

[55802-03-4]



C₂₂H₂₀N₂O₆S₂ M 472.542

Used as 0.1% aq. soln. as redox indicator, photometric detn. of V (8-13M H₃PO₄) and Cl₂ (λ_{\max} 555 nm, ϵ 19400). Cryst. Sol. H₂O.

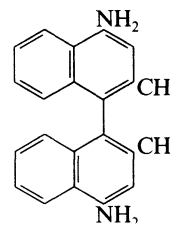
Belcher, R. *et al*, *J. Chem. Soc.*, 1952, 1269 (*synth*, indicator)

Frumina, N.S. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1974, **17**, 1422; *CA*, **82**, 89911m (*detn*, Cl₂)
 Sanke Gowda, H. *et al*, *Analyst (London)*, 1978, **103**, 1215 (*detn*, V)

4,4'-Diamino-3,3'-dimethyl-1,1'-binaphthyl **D-00082**

2,2'-Dimethyl-[1,1'-binaphthyl]-4,4'-diamine. 3,3'-Dimethylnaphthidine

[13138-48-2]



C₂₂H₂₀N₂ M 312.413

Used as a 0.1-0.2% soln. in glac. AcOH as redox indicator; titrimetric detn. of Zn. Commercially available. Prisms (EtOH or ligroin). Sol. C₆H₆, AcOH, EtOH; sol. sol. H₂O, pet. ether. Mp 213°.

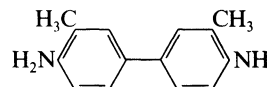
Belcher, R. *et al*, *J. Chem. Soc.*, 1951, 1520; 1952, 3857; 1958, 4454 (*detn*, Zn, ind)

Brown, E.G. *et al*, *Anal. Chim. Acta*, 1953, **9**, 6 (*detn*, Zn)

4,4'-Diamino-3,3'-dimethylbiphenyl **D-00083**

3,3'-Dimethyl-[1,1'-biphenyl]-4,4'-diamine, 9CI. 3,3'-Dimethylbenzidine, 8CI. p, p'-Diamino-m,m'-bitolyl. o-Tolidine

[119-93-7]



C₁₄H₁₆N₂ M 212.294

Used as 0.05% MeOH soln. for photometric detn. of Cl₂ (ϵ 34000), Br₂, Ce(IV), Mn(IV). Leaflets. Sol. MeOH, EtOH, Et₂O; sl. sol. H₂O. Mp 131-132°.

▷ Suspected human carcinogen. Use controlled in the UK by the Carcinogenic Substances Regulations 1967.

DD1225000.

4,4'-Di-N-Ac:

C₁₈H₂₀N₂O₂ M 296.368
 Mp 318-319°.

4,4'-Di-N-benzoyl:

C₂₈H₂₄N₂O₂ M 420.510
 Mp 268-270°.

N,N,N',N'-Tetra-Me: 4,4'-Bis(dimethylamino)-3,3'-dimethylbiphenyl. N,N,N',N'-Tetramethyl-3,3'-dimethylbenzidine. Tetron

C₁₈H₂₄N₂ M 268.401

Used as a 0.1% soln. in 5% H₂SO₄ for photometric detn. of Au (λ_{\max} 480 nm), Ce (λ_{\max} 470 nm, ϵ 25300); redox indicator. Cryst. E_o + 0.948 V.

Schultz, G. *et al*, *Ber.*, 1884, **17**, 467; 1904, **37**, 1401 (*synth*)

Carlin, R.B. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 100 (*w*)

Badger, G.M. *et al*, *Aust. J. Chem.*, 1963, **16**, 1042 (*derivs*)

Jordanov, N. *et al*, *Talanta*, 1963, **10**, 163; 1966, **13**, 1459; 1968, **15**, 963 (*ind*, *detn*, Ce, Au)

Daiev, C. *et al*, *Talanta*, 1964, **11**, 501 (*detn*, Au)

Blazejak-Ditges, D., *Fresenius' Z. Anal. Chem.*, 1970, **251**, 11 (*detn*, Ce)

Maly, J. *et al*, *Analyst (London)*, 1974, **99**, 128 (*detn*, Mn)

Scheubeck, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **249**, 370; 1971, **254**, 185 (*detn*, Cl₂, Br₂)

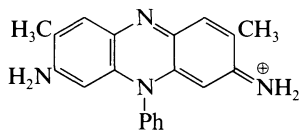
Powell, R. *et al*, *CA*, 1980, **92**, 7831 (*manuf*, use)

Leggett, D.J. *et al*, *Analyst (London)*, 1982, **107**, 433 (*detn*, Cl_2)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,
 Royal Society of Chemistry, London, 1981, 507.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, TGJ750.

3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+), 9CI

D-00084

Safranin T. *Safranin O*. *C.I. Basic red 2*. *C.I. 50240*.
Gossypimine. *Cotton red*



$C_{20}H_{19}N_4^{\oplus}$ M 315.397 (ion)

The reagent is reduced to colourless leuco-safranin.

Chloride: [477-73-6].

$C_{20}H_{19}ClN_4$ M 350.850

Used as 0.2% aq. soln. for extraction-photometric detn. of Sb (λ_{max} 530 nm, ϵ 40000), Bi, P(V), Re(VII), Au(III), Tl(III), Si(IV). Biological stain. Blue-violet powder. Sol. H_2O , EtOH.

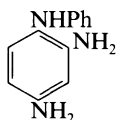
▷ SG1623000.

Ducret, L. *et al*, *Anal. Chim. Acta*, 1959, **21**, 86 (*detn*, P)
 Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1968, **34**, 1286;
 1976, **42**, 1183 (*detn*, Sb, Si)
 Burgess, C. *et al*, *Analyst (London)*, 1973, **98**, 605 (*detn*, Sb)
 Flyantikova, C.V. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1452 (*detn*, Bi)

2,4-Diaminodiphenylamine

D-00085

*N*¹-Phenyl-1,2,4-benzenetriamine, 9CI, 8CI
 [136-17-4]



$C_{12}H_{13}N_3$ M 199.255

Starting prod. for many polymers; rubber antioxidant.

Used as a redox indicator. Needles. Sol. dil. acids; mod. sol. H_2O . Mp 130°. $E^{\circ} + 0.7$ V (1M H_2SO_4).

▷ DC1954000.

2,4-N-Di-Ac:

$C_{16}H_{17}N_3O_2$ M 283.329

Mp 188°.

2-N-Benzoyl:

$C_{19}H_{17}N_3O$ M 303.363

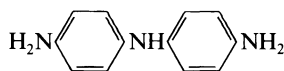
Mp 213-214°.

Nietzki, R. *et al*, *Ber.*, 1895, **28**, 2970 (*synth*)
 Hammett, L.P. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 1092 (*use*,
indicator)
U.S. Pat., 1 948 330, (1934); *CA*, **28**, 2724 (*synth*)
 Kraft, K., *Pharmazie*, 1950, **5**, 257 (*pharmacol*)
 Brown, J.C., *J. Soc. Dyers Colour.*, 1964, **80**, 185; *CA*, **61**, 9623
 (*tlc*)
U.S.S.R. Pat., 164 294, (1964); *CA*, **61**, 16011 (*synth*)

4,4'-Diaminodiphenylamine, 8CI

D-00086

N-(4-Aminophenyl)-1,4-benzenediamine, 9CI
 [537-65-5]



$C_{12}H_{13}N_3$ M 199.255

Starting prod. for many polymers. Used as soln. in dil. H_2SO_4 as a redox indicator. Leaflets (H_2O). Sol. acids.
 Mp 158°. $E^{\circ} + 0.75$ V.

B,2HCl: [51589-08-3].

Antistatic agent in photography.

4-N-Di-Me: [17913-63-2].

$C_{14}H_{17}N_3$ M 227.308

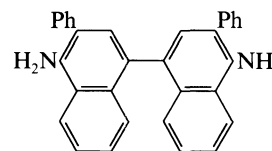
Needles. Mp 116°.

Nietzki, R., *Ber.*, 1883, **16**, 474 (*synth*)
 Oldfield, L.F. *et al*, *J. Phys. Colloid Chem.*, 1951, **55**, 1255 (*use*)
 Erdey, L. *et al*, *Acta Chim. Acad. Sci. Hung.*, 1961, **26**, 53 (*synth*)
 Dvorak, V. *et al*, *Microchem. J.*, 1967, **12**, 350 (*polarog*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)
 Popov, A.F., *CA*, 1973, **79**, 114932 (*ir*)
 Lepri, L. *et al*, *J. Chromatogr.*, 1974, **90**, 331 (*tlc*)

4,4'-Diamino-3,3'-diphenyl-1,1'-binaphthyl

D-00087

3,3'-Diphenyl[1,1'-binaphthalene]-4,4'-diamine, 9CI. *3,3'-Diphenyl-naphthidine*



$C_{32}H_{24}N_2$ M 436.555

Redox indicator (colour change: colourless → blue). Used as a 0.2% soln. in AcOH. Needles (ligroin). Sol. acids, AcOH, C_6H_6 ; insol. H_2O . Mp 219°. $E^{\circ} + 0.75$ V (0.1M H_2SO_4 , 20°).

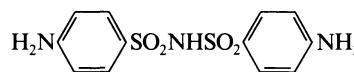
Belcher, R. *et al*, *J. Chem. Soc.*, 1958, 3243, 4454 (*synth*)

4,4'-Diaminodiphenyldisulfimide

D-00088

4-Amino-N-[(4-aminophenyl)sulfonyl]benzenesulfonamide, 9CI

[6402-89-7]



$C_{12}H_{13}N_3O_4S_2$ M 327.384

Used as acidimetric standard. Cryst. Sol. H_2O .

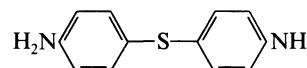
Runge, F. *et al*, *Fresenius' Z. Anal. Chem.*, 1957, **158**, 266 (*use*)

4,4'-Diaminodiphenyl sulfide

D-00089

4,4'-Thiobisbenzenamine, 9CI. *4,4'-Thiodianiline*, 8CI. *Bis(4-aminophenyl) sulfide*. *Thioaniline*

[139-65-1]



$C_{12}H_{12}N_2S$ M 216.306

Used in polymerisations. Used as 0.015M soln. in 0.8M HCl for photometric detn. of Re (λ_{max} 390 nm, ϵ 13000). Needles (H_2O). Sol. aq. HCl; insol. H_2O . Mp 108-109°.

▷ Suspected carcinogen. BY9625000.

4,4'-N-Di-Ac:

$C_{16}H_{16}N_2O_2S$ M 300.381

Needles. Mp 220-221°, Mp 275-278°.

v. Arendok, A.M. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 3521 (*synth*)
 Fuson, R.C. *et al*, *J. Org. Chem.*, 1948, **13**, 690 (*synth*)
 Lazarev, A.I. *et al*, *CA*, 1971, **71**, 108808z (*detn*, Re)
 Pappalardo, G.C., *Spectrochim. Acta, Part A*, 1973, **29**, 2055 (*pmr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, TFI000.

4,4'-Diaminodiphenyl sulfone **D-00090**

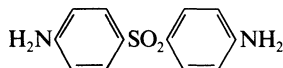
4,4'-Sulfonylbisbenzenamine, 9CI. 4,4'-Sulfonyldianiline, 8CI.

Bis(4-aminophenyl) sulfone. **Dapsone**, BAN, USAN, INN.

Avlosulfon. Diaphenylsulfone. Metabolite C. NSC 6091.

Other proprietary names

[80-08-0]

C₁₂H₁₂N₂O₂S M 248.305

Dimorphic. Antileprotic drug. Used in polymerisation.

Used as 0.2% soln. in conc. H₂SO₄ for photometric detn. of NO₃[⊖] (λ_{max} 600 nm, ε 3000). Cryst. (EtOH aq.). Sol. dil. acids. Mp 175-176°, Mp 180.5°.

▷ BY8925000.

N,N'-Di-Ac: [77-46-3]. Bis(4-acetamidophenyl)sulfone.

Acedapson, BAN, INN, USAN. Acetyldiphenasone.

Other proprietary names

C₁₆H₁₆N₂O₄S M 332.379

Antimalarial and antileprotic drug. Mp 289-292°.

▷ AE7175000.

N,N'-Di-Me: [7324-96-1].

C₁₄H₁₆N₂O₂S M 276.359

Leaflets (1,2-dichlorobenzene). Mp 276°.

N,N,N',N'-Tetra-Me:

C₁₆H₂₀N₂O₂S M 304.412

Leaflets (1,2-dichlorobenzene). Mp 304°.

Heymann, H. et al, *J. Am. Chem. Soc.*, 1945, **67**, 1979 (*synth, derivs*)*Org. Synth.*, *Coll. Vol.*, 3, 1955, 239 (*synth*)Szekely, E., *Talanta*, 1967, **14**, 941; 1968, **15**, 795 (*use*)Elslager, E.F. et al, *J. Med. Chem.*, 1969, **12**, 357, 591

(Acedapson)

Dickinson, C. et al, *J. Chem. Soc., Chem. Commun.*, 1970, 920 (*cryst struct*)Bass, A.D., *Drill's Pharmacol. Med.*, 4th Ed., 1971, 1674 (*rev, derivs*)Popoff, I.C. et al, *J. Med. Chem.*, 1971, **14**, 550 (*Acedapson*)Orzech, C.A. et al, *Anal. Profiles Drug Subst.*, 1976, **5**, 87 (*rev*)Ayyangar, N.R. et al, *Synthesis*, 1981, 640 (*synth, ir, pmr, ms*)Kulkarni, M.S. et al, *Indian J. Phys.*, A, 1982, **56**, 420 (*cryst struct*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

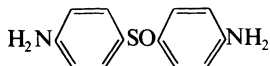
Pharmaceutical Press, London, 1982/1989, 6551, 6554, 6559.

Zuidema, J. et al, *Clin. Pharmacokinet.*, 1986, **11**, 299 (*rev*)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,Akademie-Verlag, Berlin, 1987, 2261, 3939 (*synonyms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SNY500, SOA500.**4,4'-Diaminodiphenyl sulfoxide** **D-00091**

4,4'-Sulfinylbisbenzenamine, 9CI. 4,4'-Sulfinyldianiline, 8CI.

Bis(4-aminophenyl) sulfoxide. **Medapsol**

[119-59-5]

C₁₂H₁₂N₂O₂S M 232.306Used in photometric detn. of NO₃[⊖]. Prisms (EtOH or H₂O). Sol. conc. H₂SO₄. Mp 175°, Mp 184°.

▷ BY8440000.

4,4'-N-Di-Ac:

C₁₆H₁₆N₂O₃S M 316.380

Mp 278°.

Gadzar, M. et al, *J. Chem. Soc.*, 1908, **93**, 1835 (*synth*)Buu-Hoi, Ng.Ph. et al, *J. Org. Chem.*, 1956, **21**, 415 (*synth*)Khosla, M.C. et al, *J. Sci. Ind. Res.*, Sect. B, 1957, **16**, 69 (*synth*)Szekely, E., *Talanta*, 1967, **14**, 941 (*detn. NO₃[⊖]*)Lepape, P., *Ann. Pharm. Fr.*, 1970, **28**, 181 (*synth*)**3,3'-Diaminodipropylamine, 8CI** **D-00092**

N-(3-Aminopropyl)-1,3-propanediamine, 9CI. Bis(3-aminopropyl)amine

[56-18-8]

(H₂NCH₂CH₂CH₂)₂NHC₆H₁₇N₃ M 131.220Colorimetric reagent for nitro compds. Liq. Bp₂ 100°.

▷ Mod. toxic. JL9450000.

B,3HCl: Cryst. (MeOH aq. or EtOH/Et₂O). Mp 259°, Mp 270°.Tripicrate: Cryst. (H₂O). Mp 226-227°.

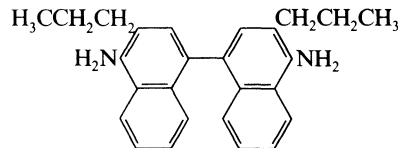
N-Me: [105-83-9]. N,N-Bis(3-aminopropyl)methylamine

C₇H₁₉N₃ M 145.247Liq. Bp₁₂ 112-114°.

▷ Mod. toxic. JL9625000.

Wiedeman, D.F. et al, *J. Am. Chem. Soc.*, 1945, **67**, 1994 (*synth*)Terent'ev, A.P. et al, *Zh. Obshch. Khim.*, 1950, **20**, 1073; *CA*, **44**, 9350a (*synth*)Israel, M. et al, *J. Med. Chem.*, 1964, **7**, 710 (*synth*)Schrier, M. et al, *Mikrochim. Acta*, 1965, 1091; 1967, 218 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AIX250, BGU750.**4,4'-Diamino-3,3'-dipropyl-1,1'-binaphthyl** **D-00093**

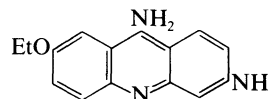
3,3'-Dipropyl[1,1'-binaphthalene]-4,4'-diamine. 3,3'-Dipropylnaphthidine

C₂₆H₂₈N₂ M 368.521

Used as redox indicator (colour change: colourless → blue). Used as a 0.2% soln. in AcOH. Needles (ligroin).

Sol. acids, AcOH, C₆H₆; insol. H₂O. Mp 100°. E° +0.70 V (0.1 M H₂SO₄, 20°).Belcher, R. et al, *J. Chem. Soc.*, 1958, 3243, 4454 (*synth*)**3,9-Diamino-7-ethoxyacridine** **D-00094**7-Ethoxy-3,9-acridinediamine, 9CI. **Ethacridine**, INN

[442-16-0]

C₁₅H₁₅N₃O M 253.303

Orange-yellow cryst. (EtOH aq.). Mp 226°.

3,9-Di-N-Ac:

C₁₉H₁₉N₃O₃ M 337.377

Cryst. (Py aq.). Mp 296-297° dec.

Lactate: [1837-57-6]. *Rivanol. Antidiar 200. Acrinolium*Antiseptic, disinfectant. Used for indirect photometric detn. of P(V); photometric detn. of Cl₂ and ClO[⊖]. Pale-yellow cryst. + 1H₂O (EtOH/Et₂O). Mp 235°. Darkens at 200°.

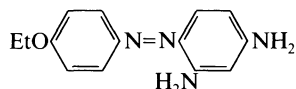
▷ OD4725000.

Albert, A. et al, *Chem. Ind. (London)*, 1942, 159 (*synth*)

Sasa, T., *Yuki Gosei Kagaku Kyokaiishi*, 1954, **12**, 24; *CA*, **51**, 2780 (synth)
 Gabler, K. *et al*, *Pharmazie*, 1957, **12**, 79 (rev)
 Khaletskii, A.M. *et al*, *Zh. Obshch. Khim.*, 1958, **28**, 2821; *CA*, **53**, 9224.
 Florea, I., *Rev. Roum. Chim.*, 1972, **17**, 1457 (detn, P)
 U.S.S.R. Pat., 433 332, (1974); *CA*, 1975, **82**, 51103m (detn, Cl₂, ClO[⊖])
 Rising, T.J. *et al*, *Arzneim.-Forsch.*, 1977, **27**, 872; 1978, **28**, 631 (metab)
 Neidle, S. *et al*, *Acta Crystallogr., Sect. B*, 1982, **38**, 2420 (cryst struct)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2243.
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 3536 (synonyms)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EDW500.

2,4-Diamino-4'-ethoxyazobenzene **D-00095**

4-[(4-Ethoxyphenyl)azo]-1,3-benzenediamine, 9CI. 4-[(p-Ethoxyphenyl)azo]-m-phenylenediamine, 8CI. **Etozazene**, INN. Carmurit. Cystural. Ethoxazene. p-Ethoxychrysoidine
 [94-10-0]

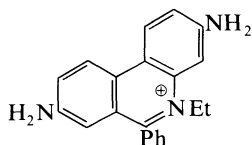


C₁₄H₁₆N₄O M 256.307
 Analgesic, acid/base indicator (pH range: 3.5-5.5; colour change: red → yellow); redox indicator in bromatometric arsenite detn.; adsorption indicator in argentometry. Used as 0.2% soln. in H₂O or EtOH.
 Orange needles. Sol. H₂O, EtOH, Me₂CO. Mp 116-117°.
 ▶ ST2500000.

B,HCl: [2313-87-3]. *Ethoxazene hydrochloride*, USAN. Serenium. SQ 2128. NSC 7214. SN 612
 Red powder. Sol. boiling H₂O, EtOH.
 Lott, W.A. *et al*, *J. Am. Pharm. Assoc.*, 1934, **23**, 785 (pharmacol)
 Belcher, R., *Anal. Chim. Acta*, 1949, **3**, 578; 1950, **4**, 580 (bromatometry, arsenite detn)
 Schulek, E. *et al*, *Anal. Chim. Acta*, 1952, **7**, 446 (ind)
 Czech. Pat., 90 620, (1959); *CA*, **55**, 7767f (synth)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 86 (argentometric ind)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2643.
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 3161 (synonyms)

3,8-Diamino-5-ethyl-6-phenylphenanthridinium(1+), 9CI, 8CI **D-00096**

Homidium. Ethidium. Babidium. Novidium
 [3546-21-2]



C₂₁H₂₀N₃[⊕] M 314.409 (ion)
 ▶ SF7949800.
Bromide: [1239-45-8]. *Homidium bromide*, BAN, INN. *Dromilac*. *Ethidium bromide*. RD 1572
 C₂₁H₂₀BrN₃ M 394.313

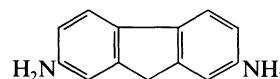
Reagent used for spectrofluorimetric anal. of nucleic acids. Antimetab., antitrypanosomiac. Dyestuff. DNA intercalator. Fluorescent stain for nucleic acids in electropherograms. Dark-red cryst. (EtOH). Mp 238-240°.

▶ Potent mutagen to yeast DNA. LD₅₀ 20 mg/kg (mouse, i.p.). Potent mutagen to yeast DNA. SF7950000.

Walls, L.P. *et al*, *J. Chem. Soc.*, 1950, 41 (synth)
 Le Pecq, J.B. *et al*, *Anal. Biochem.*, 1966, **17**, 100 (use, bromide)
 Slonimski, P.P. *et al*, *Biochem. Biophys. Res. Commun.*, 1968, **30**, 232 (tox)
 Bauer, W. *et al*, *J. Mol. Biol.*, 1970, **47**, 419 (use)
 Thomas, G. *et al*, *FEBS Lett.*, 1972, **26**, 169 (pmr)
 Nathans, D. *et al*, *Annu. Rev. Biochem.*, 1975, **44**, 273 (use)
 Waring, M., *Antibiotics*, 1975, **3**, 141 (rev, pharmacol)
 Shabanowitz, J. *et al*, *Biomed. Mass Spectrom.*, 1975, **2**, 164 (ms)
 Hudson, B. *et al*, *Biopolymers*, 1975, **14**, 1309 (uw)
 Griggs, B.G. *et al*, *Org. Magn. Reson.*, 1980, **14**, 371 (cmr)
 Fraire, C. *et al*, *Drug Metab. Dispos.*, 1981, **9**, 156 (metab)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 12826.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DBV400.

2,7-Diaminofluorene **D-00097**

9H-Fluorene-2,7-diamine, 9CI
 [525-64-4]



C₁₃H₁₂N₂ M 196.251
 Used as 1mM soln. in conc. H₂SO₄ or in dil. HCl for photometric detn. of NO₃[⊖] and NO₂[⊖]. Plates (C₆H₆ or Et₂O). Sol. acids. Mp 164-165°. pK_a 4.97 (70% EtOH).
 ▶ Carcinogenic. LL6980000.

2-N-Ac:
 C₁₅H₁₄N₂O M 238.288
 Mp 200-202°.

Di-N-Ac:
 C₁₇H₁₆N₂O₂ M 280.326
 Plates (C₆H₆). Mp 281°.

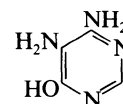
Tri-N-Ac:
 C₁₉H₁₈N₂O₃ M 322.363
 Needles (C₆H₆). Mp 234°.

Tetra-N-Ac:
 C₂₁H₂₀N₂O₄ M 364.400
 Needles (pet. ether). Mp 179-181°.

Morgan, G.T. *et al*, *J. Chem. Soc.*, 1926, 2691 (synth, deriv)
 Eitel, M., *Fresenius' Z. Anal. Chem.*, 1934, **98**, 227 (synth, detn, NO₂[⊖], NO₃[⊖])
 Mangini, A. *et al*, *Gazz. Chim. Ital.*, 1954, **84**, 606 (uw)
 Fletcher, T.L. *et al*, *J. Org. Chem.*, 1958, **23**, 680.
 Mathieu, A. *et al*, *Bull. Soc. Chim. Fr.*, 1974, 299 (pmr)
 Hainberger, L. *et al*, *Mikrochim. Acta*, 1979, **1**, 75; **2**, 187 (detn, NO₂[⊖], NO₃[⊖])
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FDM000.

4,5-Diamino-6-hydroxypyrimidine, 9CI **D-00098**

[1672-50-0]



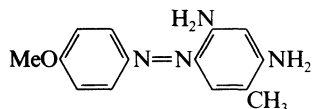
C₄H₆N₄O M 126.118
 Cryst. Sol. dil. acids. Mp 300° dec.
Sulfate: [102783-18-6].

Used as a 0.3% aq. soln. for photometric detn. of Ru (λ_{\max} 530 nm, ϵ 65000). Cryst. Sol. H₂O. Mp 270°.

Landauer, P. *et al*, *J. Chem. Soc.*, 1953, 3721 (*synth*)
Kostolansky, A. *et al*, *Chem. Zvesti*, 1956, **10**, 170 (*synth*)
Veer, C.G.R. *et al*, *Mikrochim. Acta*, 1974, 611 (*detn*, Ru)

2,4-Diamino-4'-methoxy-5-methylazobenzene **D-00099**

4-[(4-Methoxyphenyl)azo]-6-methyl-1,3-benzenediamine



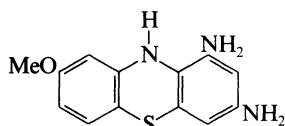
C₁₄H₁₆N₄O M 256.307

Used as acid-base indicator (pH range: 4.9-6.7; colour change: red → yellow). Orange cryst. Sol. EtOH, C₆H₆, Et₂O.

Schulek, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1948, **128**, 398 (*use*, *ind*)

1,3-Diamino-8-methoxyphenothiazine **D-00100**

8-Methoxy-10H-phenothiazine-1,3-diamine, 9CI [63082-84-8]



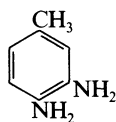
C₁₃H₁₃N₃OS M 259.331

Used for extraction-photometric detn. of Ag (λ_{\max} 480 nm, ϵ 14600, CCl₄). Yellow cryst. powder. Sol. acids.

Soni, K.P. *et al*, *Ann. Soc. Sci. Bruxelles*, Ser. I, 1976, **90**, 337; *CA*, **87**, 15460v (*detn*, Ag)

1,2-Diamino-4-methylbenzene **D-00101**

4-Methyl-1,2-benzenediamine, 9CI. Toluene-3,4-diamine, 8CI. 4-Methyl-o-phenylenediamine. 3,4-Diaminotoluene. 3,4-Tolylenediamine [496-72-0]



C₇H₁₀N₂ M 122.169

Used in rubber manuf. and hair dyes. Used as a 1% aq. soln. for extraction-photometric detn. of Se(IV) (λ_{\max} 337 nm, CHCl₃), NO₂[⊖] (λ_{\max} 373 nm, ϵ 2900). Plates (pet. ether). Sol. H₂O, acids. Mp 89-90°. Bp 265°, Bp₁₈ 155-156°.

► XS9820000.

1,2-N-Di-Ac: [5433-07-8].

C₁₁H₁₄N₂O₂ M 206.244
Needles (H₂O). Mp 210°.

1-N-Me:

C₈H₁₂N₂ M 136.196
Plates (Et₂O). Mp 43-44°. Bp₇₅₂ 260°.

1,2-N-Di-Me:

C₉H₁₄N₂ M 150.223
Oil. Bp₇₄₀ 259-260°.

1-N-Di-Me:

C₉H₁₄N₂ M 150.223
Oil. Bp 234°.

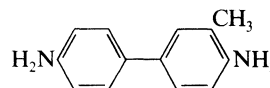
1,2-N-Tetra-Me:

C₁₁H₁₈N₂ M 178.277
Oil. Bp₇₁₇ 244.5-225.5°.

Noelting, E. *et al*, *Ber.*, 1891, **24**, 565 (*synth*)
Bamberger, E. *et al*, *Ber.*, 1891, **24**, 2082 (*synth*)
Cavagnol, J.C. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 795 (*synth*)
Tanaka, M. *et al*, *Talanta*, 1965, **12**, 211 (*detn*, Se)
Lin, E. *et al*, *Mikrochim. Acta*, 1970, 652 (*use*)
Kawashima, T. *et al*, *Anal. Chim. Acta*, 1972, **58**, 219 (*use*)
Ceré, V. *et al*, *Tetrahedron*, 1972, **28**, 3271 (*uv*)
Ast, T. *et al*, *Org. Mass Spectrom.*, 1973, **7**, 503 (*ms*)
Lepri, L. *et al*, *J. Chromatogr.*, 1974, **90**, 331 (*tlc*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TGM250.

4,4'-Diamino-3-methylbiphenyl **D-00102**

3-Methyl[1,1'-biphenyl]-4,4'-diamine, 9CI. 3-Methylbenzidine, 8CI [67683-35-6]



C₁₃H₁₄N₂ M 198.267
Syrup. Bp₄ 225°.

B, HCl: [76787-88-7].

Used as a 1% soln. in glac. AcOH as redox indicator; titrimetric detn. of Ag, Au. Cryst. (H₂O). Sol. acids.

EtOH, C₆H₆.

Picrate: Yellow solid. Mp 204°.

4,4'-Di-N-benzylidene:

C₂₇H₂₂N₂ M 374.484
Mp 134.5-135°.

Jacobson, P. *et al*, *Ber.*, 1895, **28**, 2544.

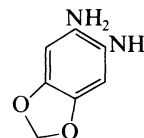
v. Braun, J. *et al*, *Ber.*, 1917, **50**, 1651.

Belcher, R. *et al*, *J. Chem. Soc.*, 1951, 546, 547, 550 (*detn*, Ag, Au)

Badger, G.M. *et al*, *Aust. J. Chem.*, 1963, **16**, 1042.

1,2-Diamino-4,5-methylenedioxybenzene **D-00103**

1,3-Benzodioxole-5,6-diamine, 9CI [38608-07-0]



C₇H₈N₂O₂ M 152.152

Fluorogenic reagent for α -keto acids and other α -dicarbonyl compds.

B,2HCl: Needles (EtOH). Mp 176-179° dec.

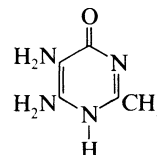
Nakamura, M. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 687 (*synth*, *use*)

Hara, S. *et al*, *Anal. Chim. Acta*, 1988, **215**, 267 (*use*)

Wang, Z. *et al*, *J. Chromatogr.*, 1988, **430**, 223 (*use*)

5,6-Diamino-2-methyl-4(1H)-pyrimidinone **D-00104**

9CI 4,5-Diamino-2-methylpyrimidinol [45741-61-5]



C₅H₈N₄O M 140.144

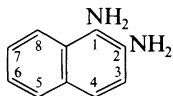
Used for photometric detn. of Os (λ_{\max} 480 nm, ϵ 25300).
Cryst. Sol. dil. acids.

Jain, P. *et al*, *Sci. Cult.*, 1978, **44**, 85; *CA*, **89**, 122466q (*detn*, Os)

1,2-Diaminonaphthalene**D-00105**

1,2-Naphthalenediamine, 9CI

[938-25-0]

 $C_{10}H_{10}N_2$ M 158.202

Used in detn. of NO_3^- , NO_2^- . Fluorimetric reagent for aromatic aldehydes. Spar. sol. hot H_2O . Mp 198°. Bp₁₃ 214°, Bp_{0.5} 150°.

▷ QJ3360000.

N,N'-Di-Ac:

 $C_{14}H_{14}N_2O_2$ M 242.277

Mp 234°.

Bamberger, E. *et al*, *Ber.*, 1889, **22**, 1374 (*synth*)Reilly, J. *et al*, *J. Soc. Chem. Ind., London*, 1927, **46**, 436T (*synth*)Ohkura, Y. *et al*, *Talanta*, 1974, **21**, 547 (*use*)**2,3-Diaminonaphthalene****D-00106**

2,3-Naphthalenediamine, 9CI

[771-97-1]

 $C_{10}H_{10}N_2$ M 158.202

Used as a 0.1% soln. in 0.1M HCl for photometric, fluorimetric detn. of Se. Leaflets (Et_2O or H_2O). Spar. sol. H_2O ; sol. EtOH, Et_2O . Mp 199°. pK_a 3.90.

N,N'-Di-Ph: [69905-74-4]. 2,3-Dianilinonaphthalene

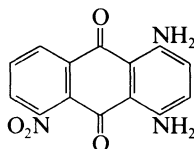
 $C_{22}H_{18}N_2$ M 310.398

Needles (AcOH). Mp 143°.

Knoevenagel, E., *J. Prakt. Chem.*, 1914, **89**, 37 (*deriv*)Goldstein, H. *et al*, *Helv. Chim. Acta*, 1937, **20**, 520 (*synth*)Lott, P.F. *et al*, *Anal. Chem.*, 1963, **35**, 1159 (*detn*, Se)Smith, J.L. *et al*, *Org. Mass Spectrom.*, 1971, **5**, 473 (*ms*)**1,4-Diamino-5-nitroanthraquinone****D-00107**

1,4-Diamino-5-nitro-9,10-anthracenedione, 9CI

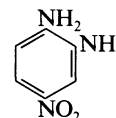
[82-33-7]

 $C_{14}H_9N_3O_4$ M 283.243

Used as a 0.1% soln. in EtOH as metallochromic indicator in titrimetric detn. of urea, thiourea, photometric detn. of Pd. Violet needles (EtOH). Mp 278°.

Capitan, F. *et al*, *Quim. Anal. (Madrid)*, 1975, **29**, 27 (*detn*, urea, thiourea)Roman, M. *et al*, *Afinidad*, 1977, **34**, 118 (*detn*, Pd)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DBY700.**1,2-Diamino-4-nitrobenzene****D-00108**4-Nitro-1,2-benzenediamine, 9CI. 4-Nitro-*o*-phenylenediamine, 8CI

[99-56-9]

 $C_6H_7N_3O_2$ M 153.140

Used as a 0.6-1% soln. in 1M HCl for extraction-photometric detn. of Se (toluene), SO_2 (λ_{\max} 475 nm), g detn. of Se. Reagent for α -keto acids. Dark-red needles (H_2O). Sol. EtOH, Me_2CO , C_6H_6 , $CHCl_3$; mod. sol. dil. acids. Mp 201°.

▷ ST2975000.

1-N-Ac: [53987-32-9]. 2-Amino-4-nitroacetanilide

 $C_8H_9N_3O_3$ M 195.177

Cryst. (EtOH). Mp 205°.

2-N-Ac: 2-Amino-5-nitroacetanilide

 $C_8H_9N_3O_3$ M 195.177

Cryst. (EtOH). Mp 195°.

1,2-N-Di-Ac: [30152-85-3].

 $C_{10}H_{11}N_3O_4$ M 237.215

Prisms (AcOH aq.). Mp 255°.

1,2-N-Dibenzoyl:

 $C_{20}H_{15}N_3O_4$ M 361.356

Needles (EtOH). Mp 235-236°.

1-N-Me: [41939-61-1].

 $C_7H_9N_3O_2$ M 167.167

Red-brown needles with blue reflex. Mp 177-178°.

2-N-Me:

 $C_7H_9N_3O_2$ M 167.167Yellow plates (C_6H_6). Mp 184°.

1-N-Di-Me: [5367-52-2]. 2-Amino-N-dimethyl-4-nitroaniline

 $C_8H_{11}N_3O_2$ M 181.194Orange-yellow needles (H_2O). Mp 63°.

1,2-N-Di-Me: [1457-55-2].

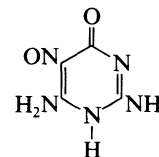
 $C_8H_{11}N_3O_2$ M 181.194

Red prisms (AcOH). Mp 172°.

Rabinowitz, J.L. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 3030.Hockenhull, D.J.D. *et al*, *Biochem. J.*, 1952, **52**, 38 (*use*)Taylor, K.W. *et al*, *Analyst (London)*, 1955, **80**, 607 (*use*)*Org. Synth., Coll. Vol.*, 3, 1955, 242.Toei, K. *et al*, *Talanta*, 1965, **12**, 211 (*detn*, Se)Corbett, J., *Spectrochim. Acta, Part A*, 1967, **23**, 2315 (*uv*)Bil, M., *Chem. Ind. (London)*, 1969, 198.Shimoishi, Y. *et al*, *Analyst (London)*, 1976, **101**, 298 (*detn*, Se)Akiba, M. *et al*, *Analyst (London)*, 1976, **101**, 644 (*chromatog*, Se)Lambert, J.L. *et al*, *Anal. Chim. Acta*, 1978, **99**, 379 (*detn*, SO_2)Neve, J. *et al*, *Talanta*, 1979, **26**, 15 (*ir*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALL500.**2,6-Diamino-5-nitroso-4(1H)-pyrimidinone, 9CI****D-00109**

2,6-Diamino-4-hydroxy-5-nitrosopyrimidine

[2387-48-6]

 $C_4H_5N_5O_2$ M 155.116

Used as a soln. in 0.02M KOH for photometric detn. of Co (λ_{\max} 370 nm), Fe (λ_{\max} 653 nm, ϵ 20000). Pink cryst. Sol. alkalis; spar. sol. H₂O.

*N*²-*Di-Et*: [131734-09-3], 6-Amino-2-(diethylamino)-5-nitroso-4(1*H*)-pyrimidinone, 9CI. 2-Diethylamino-4-hydroxy-5-nitroso-6-aminopyrimidine

C₈H₁₃N₅O₂ M 211.223

Used as 0.2% aq. soln. for photometric detn. of Fe(II) (λ_{\max} 660 nm, ϵ 30000, pH 10.2). Pink needles (EtOH aq.). Sol. EtOH; mod. sol. H₂O. Mp 198°.

Landauer, P.D. *et al*, *J. Chem. Soc.*, 1953, 3721 (*synth*)
McDonald, C.W. *et al*, *Mikrochim. Acta*, 1971, 767 (*detn. Fe*)
Jimenez, R.M. *et al*, *Afinidad*, 1983, **40**, 342; *CA*, **99**, 186537c (*detn. Co*)

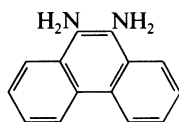
Tsuchiya, M. *et al*, *Anal. Sci.*, 1990, **6**, 701 (*synth, deriv, detn, Fe*)

9,10-Diaminophenanthrene

D-00110

9,10-Phenanthrenediamine, 9CI

[53348-04-2]



C₁₄H₁₂N₂ M 208.262

Fluorescence derivatisation reagent used in hplc of fatty acids. Pale-yellow leaflets (C₆H₆). Mp 160-166°.

Di-N-Ac:

C₁₈H₁₆N₂O₂ M 292.337

Cryst. (H₂O). Mp 330° dec.

Pschorr, R., *Ber.*, 1902, **35**, 2729.

Buu-Hoï, Ng.Ph. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1948, **228**, 2155.

Dornow, A. *et al*, *Chem. Ber.*, 1957, **90**, 2124.

Lloyd, J.B.F., *J. Chromatogr.*, 1980, **189**, 359 (*use*)

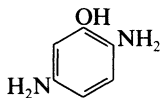
Manoharan, R. *et al*, *Bull. Chem. Soc. Jpn.*, 1989, **62**, 1292 (*uv*)

2,5-Diaminophenol, 9CI, 8CI

D-00111

2-Hydroxy-*p*-phenylenediamine

[636-25-9]



C₆H₈N₂O M 124.142

2,5-*N-Di-Ac*: [59997-00-1].

C₁₀H₁₂N₂O₃ M 208.216

Needles. Mp 265°. Turns brown in air.

1,2,5-*Tri-Ac*:

C₁₂H₁₄N₂O₄ M 250.254

Mp 234°.

5-*N-Di-Me*: [15103-39-6].

C₈H₁₂N₂O M 152.196

Used for detn. of diketones. Grey cryst. (dihydrochloride). Mp 230° dec. (dihydrochloride). Readily oxidised in air to 3,7-bis(dimethylamino)phenoxazine (blue).

[14703-85-6]

Kehrmann, F. *et al*, *Ber.*, 1897, **30**, 2096 (*synth*)

Ishidate, M., *Mikrochim. Acta*, 1938, **3**, 284 (*use*)

Amery, G.W. *et al*, *J. Chem. Soc. C*, 1967, 1053 (*synth*)

U.S.S.R. *Pat.*, 1 863 033, (1972); *CA*, **82**, 139631t (*synth*)

Japan. Pat., 75 84 537, (1975); *CA*, **85**, 123554w (*synth*)

Le Bris, M.T., *J. Heterocycl. Chem.*, 1985, **22**, 1275 (*synth*)

Trebaul, C. *et al*, *Bull. Chem. Soc. Jpn.*, 1987, **60**, 2657 (*synth*)

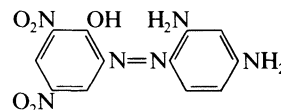
2-[(2,4-Diaminophenyl)azo]-4,6-dinitrophenol, 9CI

D-00112

2',4'-Diamino-2-hydroxy-3,5-dinitroazobenzene.

Picraminazo-*m*-phenylenediamine

[6364-36-9]



C₁₂H₁₀N₆O₅ M 318.248

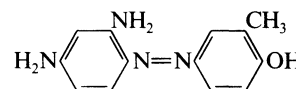
Used as a 0.63mM soln. in DMF for photometric detn. of Co. Cryst.

Nasyrova, Z.B. *et al*, *Uzb. Khim. Zh.*, 1973, **17**, 26; *CA*, **80**, 43695z (*use*)

4-[(2,4-Diaminophenyl)azo]-2-methylphenol

D-00113

2,4-Diamino-4'-hydroxy-3'-methylazobenzene



C₁₃H₁₄N₄O M 242.280

Used as acid-base indicator (colour change: red → yellow; pH range: 3.8-5.8). Orange cryst. (H₂O). Sol. EtOH, Me₂CO; mod. sol. H₂O.

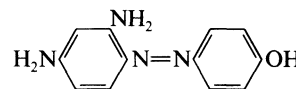
Schulek, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1948, **128**, 398.

4-[(2,4-Diaminophenyl)azo]phenol, 9CI

D-00114

2,4-Diamino-4'-hydroxyazobenzene

[53685-81-7]



C₁₂H₁₂N₄O M 228.253

Used as acid-base indicator (colour change: red → yellow; pH range: 3.4-5.4). Orange cryst. (H₂O). Sol. EtOH, Me₂CO; mod. sol. H₂O.

Schulek, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1948, **128**, 398.

1,2-Diaminopropane-*N,N,N',N'*-tetraacetic acid

D-00115

(Propylenedinitrilo)tetraacetic acid. *N,N'*-(1-Methyl-1,2-ethanediy)bis[N-(carboxymethyl)glycine], 9CI. 1,2-Propylenediaminetetraacetic acid. PDTA. MEDTA

[4408-81-5]

(HOOCCH₂)₂NCH(CH₃)CH₂N(CH₂COOH)₂

C₁₁H₁₈N₂O₈ M 306.272

Used as aq. soln. for pptn. separation of Ba from Sr and Pb; for photometric detn. of V(V) (λ_{\max} 260 nm, ϵ 3500), Cr (λ_{\max} 540 nm), Cu (λ_{\max} 730 nm), Fe(III) (λ_{\max} 258 nm), Mo(V) (λ_{\max} 296 nm); masking agent for multivalent cations. Cryst. Sol. H₂O. Mp 241-243° dec.

▷ AJ3500000.

d-form [15456-17-4]

Cryst. (H₂O). Mp 198° (monohydrate). $[\alpha]_D$ -47° (monohydrate).

[15250-41-6, 22991-67-9]

Dwyer, F.P. *et al*, *J. Am. Chem. Soc.*, 1959, **81**, 2955 (*synth, resoln*)

Wing, R.M. *et al*, *Inorg. Chem.*, 1969, **8**, 2303 (*synth*)

Palma, R.J. *et al*, *Anal. Chem.*, 1970, **42**, 47, 416 (*use*)
 Caldwell, D.L. *et al*, *Anal. Chim. Acta*, 1970, **49**, 497, 505 (*use*)
 Carr, J.D. *et al*, *Anal. Chem.*, 1971, **43**, 583 (*use*)
 Firsching, F.H. *et al*, *Talanta*, 1972, **19**, 790 (*detn*, *Ba*)
 Vincente-Perez, S. *et al*, *Quim. Anal. (Barcelona)*, 1974, **28**, 283;
 1975, **29**, 83 (*detn*, *Cr*, *Cu*, *V*)
 Fernandez Solis, J.M. *et al*, *CA*, 1982, **96**, 154639j (*detn*, *Fe*)
 Vincente-Perez, D. *et al*, *Afinidad*, 1983, **40**, 262 (*detn*, *Mo*)

1,3-Diamino-2-propanol-*N,N,N'*-tetraacetic acid D-00116

N,N'-(2-Hydroxy-1,3-propanediyl)bis[*N*-(carboxymethyl)glycine], 9CI
 [3148-72-9]



$\text{C}_{11}\text{H}_{18}\text{N}_2\text{O}_9$ M 322.271

Used as 2mM aq. soln. as complexing agent for for Al, Fe(III), V. Cryst. (H_2O). Sol. H_2O . $\text{p}K_{a1}$ 1.6; $\text{p}K_{a2}$ 2.52; $\text{p}K_{a3}$ 6.96; $\text{p}K_{a4}$ 9.48 (0.1M KNO_3 , 25°).

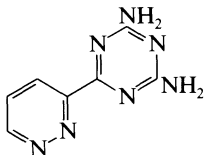
▶ AI2930000.

[29463-09-0]

Smith, R. *et al*, *J. Org. Chem.*, 1949, **14**, 355 (*synth*)
 Hoyle, W. *et al*, *Talanta*, 1959, **2**, 158; **3**, 47 (*use*)
 Grimes, J.H. *et al*, *J. Inorg. Nucl. Chem.*, 1963, **25**, 1225 (*use*)
 Thompson, L.C. *et al*, *J. Inorg. Nucl. Chem.*, 1966, **28**, 2945 (*detn*, *V*, *use*)
 Klausen, K.S. *et al*, *Anal. Chim. Acta*, 1971, **57**, 351 ($\text{p}K_a$, *use*)

2,4-Diamino-6-(3-pyridazinyl)-1,3,5-triazine D-00117

[18211-92-2]



$\text{C}_7\text{H}_7\text{N}_7$ M 189.179

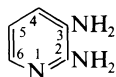
Used as a 5mM soln. in 50% EtOH aq. for photometric detn. of Cu(I) (λ_{max} 457 nm, ϵ 3600). Cryst. (DMF aq.). Sol. C_6H_6 , dil. HCl; mod. sol. H_2O . Mp 310-311°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn*, *Cu*)

2,3-Diaminopyridine D-00118

2,3-Pyridinediamine, 9CI

[452-58-4]



$\text{C}_5\text{H}_7\text{N}_3$ M 109.130

Used in photometric detn. of Ru. Cryst. (C_6H_6). Mp 116°. $\text{p}K_a$ 6.84. Sublimes.

▶ US7548000.

Org. Synth., 1964, **44**, 34 (*synth*)
 Streef, J.W. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1966, **85**, 803 (*synth*)
 Ayres, G.H. *et al*, *Anal. Chim. Acta*, 1969, **44**, 67 (*detn*, *Ru*)
 Essassi, E.M. *et al*, *Tetrahedron*, 1977, **33**, 2807 (*synth*)
 Zecchini, G.P. *et al*, *J. Heterocycl. Chem.*, 1985, **22**, 313 (*derivs*)
 Campbell, J.B. *et al*, *J. Heterocycl. Chem.*, 1986, **23**, 669 (*synth*, *pmr*)

2,6-Diaminopyridine D-00119

2,6-Pyridinediamine, 9CI

[141-86-6]

$\text{C}_5\text{H}_7\text{N}_3$ M 109.130

Reagent for the fluorimetric detn. of primary aromatic amines. Leaflets. Mp 121.5°. Bp₅ 148-150°.

▶ Toxic. Emits highly toxic fumes when heated to dec. US7570000.

B,HCl: [26878-34-2].

Cryst. (EtOH) in 2 forms. Mp 81-83°, Mp 156-157° (dimorph.).

N-Ac:

$\text{C}_7\text{H}_9\text{N}_3\text{O}$ M 151.168

Mp 156-157°.

2,6-*N-Di-Ac*: [5441-02-1].

$\text{C}_9\text{H}_{11}\text{N}_3\text{O}_2$ M 193.205

Used as a 1% soln. in conc. H_2SO_4 for photometric detn. of NO_3^- (λ_{max} 385 nm, ϵ 12000). Cryst. (H_2O). Sol. acids. Mp 203°.

2,6-*N-Di-Ac*, 1-oxide:

$\text{C}_9\text{H}_{11}\text{N}_3\text{O}_3$ M 209.204

Mp 212-213°.

2,6-*N-Dibenzoyl*: [74305-33-2].

$\text{C}_{19}\text{H}_{15}\text{N}_3\text{O}_2$ M 317.346

Mp 176°.

1-*Oxide*:

$\text{C}_5\text{H}_7\text{N}_3\text{O}$ M 125.130

Mp 206-207°.

N^2, N^6 -*Di-Me*: [40263-64-7]. 2,6-Bis(methylamino)pyridine

$\text{C}_7\text{H}_{11}\text{N}_3$ M 137.184

Cryst. (hexane). Mp 70-71°.

Plazek, E., *Pol. J. Chem. (Rocz. Chem.)*, 1936, **16**, 403 (*synth*)
 den Hertog, H.J. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1936, **55**, 122 (*synth*)

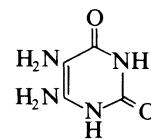
Bergstrom, F.W. *et al*, *J. Org. Chem.*, 1946, **11**, 239 (*synth*)
 Bernstein, J. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 1151 (*derivs*)
 Dombrowski, L.J. *et al*, *Anal. Chem.*, 1971, **43**, 1042 (*use*)
 Luk'yanov, V.F. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 2175 (*synth*, *use*)
 Inuzuka, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1990, **63**, 216 (*uv*, *tautom*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DCC800.

5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedione, D-00120

9CI

5,6-Diaminouracil

[3240-72-0]



$\text{C}_4\text{H}_6\text{N}_4\text{O}_2$ M 142.117

Prod. by a riboflavin-free mutant of *Aspergillus nidulans*.

B,2HCl: Cryst. Mp 300-305°.

1,3-*Di-Me*: [5440-00-6].

$\text{C}_6\text{H}_{10}\text{N}_4\text{O}_2$ M 170.171

Used as 0.1M aq. soln. for photometric detn. of Co. Long needles (H_2O). Hydrol on standing; turns yellow. Mp 209°, Mp 275° dec.

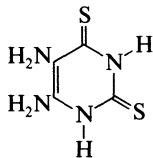
1-*Phenyl*:

$\text{C}_{10}\text{H}_{10}\text{N}_4\text{O}_2$ M 218.215

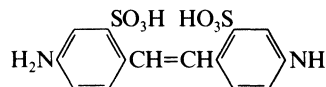
Yellow-brownish cryst. (Py aq.). Mp 232-233°.

[50787-05-8, 50996-16-2]

Org. Synth., *Coll. Vol.*, 4, 1963, 247.
 Sadique, J. *et al*, *Naturwissenschaften*, 1966, **53**, 282 (*isol*)
 Ruzička, E. *et al*, *Mikrochim. Acta*, 1968, 938 (*detn*, *Co*)
 Khmel'nitskii, R.A. *et al*, *CA*, 1974, **81**, 62685h (*ms*, *struct*)

5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedithione, 9CI4,5-Diamino-2,6-dimercaptopyrimidine
[31295-41-7]C₄H₆N₄S₂ M 174.250Used as a 0.1% soln. in 10% glycol/EtOH soln. for photometric detn. of Se (λ_{\max} 495 nm, ϵ 19000). Gold needles (H₂O). Sol. EtOH, Me₂CO. Mp 310°.N¹-Me: Yellow prismatic needles. Dec. > 300°.Levin, G. *et al*, *J. Org. Chem.*, 1960, **25**, 1753 (*synth*)
Izquierdo, A. *et al*, *Analyst (London)*, 1981, **106**, 720 (*detn, Se*)

D-00121

Used as a 5mM soln. in 50% EtOH aq. for photometric detn. of Cu(I) (λ_{\max} 450 nm, ϵ 2700). Cryst. (H₂O). Sol. C₆H₆, dil. HCl; mod. sol. H₂O. Mp 298-299°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn, Cu*)**4,4'-Diaminostilbene-2,2'-disulfonic acid, 8CI**2,2'-(1,2-Ethenediyl)bis[5-aminobenzenesulfonic acid], 9CI.
Amsonic acid
[81-11-8]C₁₄H₁₄N₂O₆S₂ M 370.406

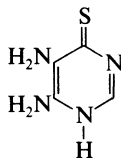
Anal. reagent for pyridine derivs. Fine yellow needles. Mp > 300°.

▷ WJ6603000.

Di-Na salt: [7336-20-1].

Fluorescent whitening agent.

[28096-93-7, 38151-69-8, 38151-70-1, 98367-20-5]

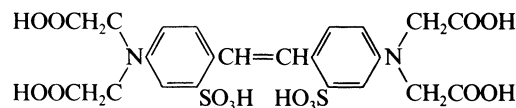
Huang-Minlon, *J. Am. Chem. Soc.*, 1948, **70**, 2802 (*synth*)Cassasas, E. *et al*, *CA*, 1972, **76**, 94336h (*use*)Rauret, G. *et al*, *An. Quim., Ser. B*, 1988, **84**, 325; *CA*, **111**, 89544m (*use*)**5,6-Diamino-4(1*H*)-pyrimidinethione, 9CI**5,6-Diamino-4-pyrimidinethiol
[2846-89-1]C₄H₆N₄S M 142.184Gives colour reactions with many metal ions; used for photometric detn. of Se (λ_{\max} 380 nm, ϵ 19000). Cryst. (EtOH). Sol. EtOH.Brown, D.J., *The Pyrimidines*, Interscience, New York, 1962 (*synth*)Chan, F.L., *Talanta*, 1964, **11**, 1019 (*detn, Se*)

D-00122

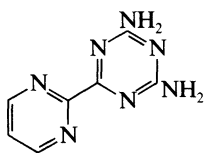
4,4'-Diamino-2,2'-stilbenedisulfonic acid, 8CI

N,N,N',N'-tetraacetic acid

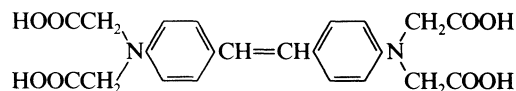
2,2'-Disulfo-4,4'-diaminostilbene-N,N,N',N'-tetraacetic acid

C₂₂H₂₂N₂O₁₄S₂ M 602.553Used as a 0.1% dispersion of tetra-Na salt in KNO₃ as fluorescent indicator for titrimetric detn. of Bi, Cu, Fe(III), Ni, Pb, V(IV) (colour change: blue → no fluorescence). Pale brown cryst. powder. Sol. H₂O; insol. C₆H₆, EtOH.Kirkbright, G.F. *et al*, *Anal. Chim. Acta*, 1962, **27**, 558.**2,4-Diamino-6-(2-pyrimidinyl)-1,3,5-triazine**

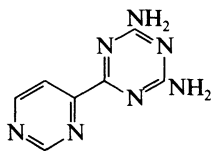
[18106-98-4]

C₇H₇N₇ M 189.179Used as a 5mM soln. in 50% EtOH aq. for photometric detn. of Cu(I) (λ_{\max} 430 nm, ϵ 3640). Cryst. (H₂O). Sol. C₆H₆, dil. HCl; mod. sol. H₂O. Mp 355-356°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn, Cu*)

D-00123

4,4'-Diaminostilbene-N,N,N',N'-tetraacetic acid, 8CIC₂₂H₂₂N₂O₈ M 442.424Tetra-Na salt: Used as 0.1% dispersion in KNO₃ as fluorescence indicator for titrimetric detn. of Bi, Co, Cu, Fe, Ni (colour change: no fluorescence → blue). Brown powder. Sol. alkalis.Kirkbright, G.F. *et al*, *Anal. Chim. Acta*, 1962, **27**, 558.**2,4-Diamino-6-(4-pyrimidinyl)-1,3,5-triazine**

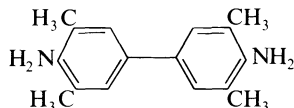
[18106-99-5]

C₇H₇N₇ M 189.179

D-00124

4,4'-Diamino-3,3',5,5'-tetramethylbiphenyl D-001283,3',5,5'-Tetramethyl[1,1'-biphenyl]-4,4'-diamine. 3,3',5,5'-Tetramethylbenzidine. *TMBZ*

[54827-17-7]

 $C_{16}H_{20}N_2$ M 240.347

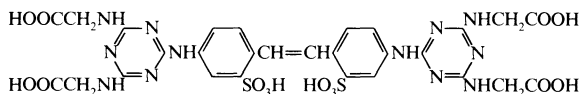
Reagent for the detn. of blood. More sensitive and less carcinogenic than benzidine. Fine needles (MeOH).

Prac. insol. H_2O ; v. sol. MeOH. Mp 168-169.5°.

▷ DV2300000.

Holland, V.R. *et al*, *Tetrahedron*, 1974, **30**, 3299 (*synth. uv, ir, pmr*)Thomas, P.E. *et al*, *Anal. Biochem.*, 1976, **75**, 168 (*use*)Pinkus, J.L. *et al*, *J. Chem. Educ.*, 1977, **54**, 380 (*synth. use*)Bomfield, P. *et al*, *Synthesis*, 1978, 537 (*synth*)Jaffe, R.M. *et al*, *J. Lab. Clin. Med.*, 1979, **93**, 879 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TDM800.**4,4'-[(4,6-Diamino-1,3,5-triazin-2-yl)amino]-2,2'-stilbenedisulfonic acid-*N,N',N'',N'''*-tetraacetic acid** D-00129*N,N',N'',N'''*-[Vinylenebis(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triyl]]tetraglycine, 8CI

[18299-08-6]

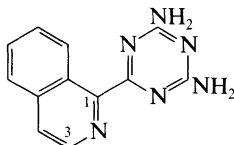
 $C_{28}H_{28}N_{12}O_{14}S_2$ M 820.733*Hexa-Na salt*: [10130-11-7].

Used as a 0.1% aq. soln. for lumimetric detn. of Cr; fluorescent acid-base indicator.

Lastovskii, R.P. *et al*, *CA*, 1967, **66**, 91423s (*detn. Cr*)Tiemkina, V.Y. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 632, 1830 (*ind*)**1-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline** D-00130

2,4-Diamino-6-(1-isoquinolylyl)-1,3,5-triazine

[17583-57-2]

 $C_{12}H_{10}N_6$ M 238.251

Used as a 5mM soln. in aq. EtOH to give colour reaction with Cu(I). Cryst. (2-methoxyethanol). Sol. common org. solvents. Mp 251-253°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*use*)**3-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, 8CI** D-00131

2,4-Diamino-6-(3-isoquinolylyl)-1,3,5-triazine

[17583-58-3]

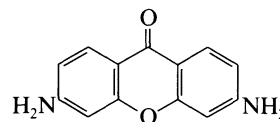
 $C_{12}H_{10}N_6$ M 238.251

Used as a 5mM soln. in EtOH aq. to give colour reaction with Cu(I). Cryst. (2-methoxyethanol). Sol. common org. solvents. Mp 354°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*use*)**3,6-Diaminoxanthone** D-00132

3,6-Diamino-9H-xanthen-9-one, 9CI

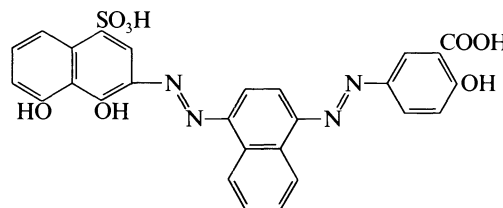
[71641-67-3]

 $C_{13}H_{10}N_2O_2$ M 226.234

Cryst. (Py aq.). Mp 324-326°.

N,N,N',N'-Tetra-Me: [56860-23-2]. 3,6-Bis(dimethylamino)-9H-xanthen-9-one, 9CI $C_{17}H_{18}N_2O_2$ M 282.341

Used as a 1% soln. in EtOH as a fluorescent acid-base indicator (pH range: 1.2 - 3.4; colour change: green → blue). Bluish red cryst. Sol. dil. acids, EtOH. Mp 240-242°.

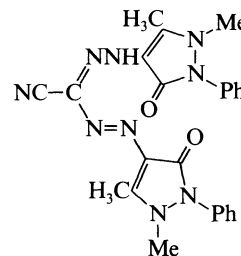
Biehringer, J., *J. Prakt. Chem.*, 1896, **54**, 217 (*synth. deriv*)Goldberg, A.A. *et al*, *J. Chem. Soc.*, 1953, 1348 (*synth*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972.**Diamond green BW** D-00133*C.I. Acid green 34. C.I. Mordant green 12. C.I. 27520.**Diamond green 3G. Diamond green SSA* $C_{27}H_{18}N_4O_8S$ M 558.527

Strictly the name Diamond green BW applies to the disodium salt.

Di-Na salt: [8015-02-9].Used as metallochromic indicator for titrimetric detn. of Ca, Sr. Dark green cryst. powder. Sol. H_2O ; mod. sol. EtOH.Belcher, R. *et al*, *Chemist-Analyst*, 1957, **46**, 86 (*detn. Ca, Sr*)**1,5-Diantipyrinyl-3-formazancarbonitrile, 8CI** D-00134

1,5-Diantipyrinyl-3-cyanoformazan

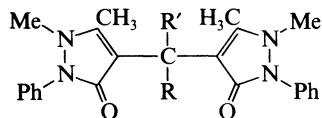
[30842-86-5]

 $C_{24}H_{23}N_9O_2$ M 469.505Used in photometric detn. of Sc. Cryst. Sol. $CHCl_3$.Budešinsky, B. *et al*, *Microchem. J.*, 1971, **16**, 253.

1,1-Diantiprylbutane**D-00135**

4,4'-Butylidenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one], 9CI. DAPM

[1461-17-2]

R = CH₂CH₂CH₂, R' = HC₂₆H₃₀N₄O₂ M 430.549Forms extractable ion-pairs with many anionic metal complexes. Cryst. Sol. EtOH; sl. sol. H₂O. Mp 155-156°.Shendrikar, A.D. *et al*, *Anal. Chim. Acta*, 1969, **47**, 299 (*detn*, Pt)Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 1324 (*detn*, Ti)Akimov, V.K. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 118 (*detn*, Re)Alexandrov, A. *et al*, *J. Radioanal. Chem.*, 1984, **83**, 247 (*detn*, Nb)**1,1-Diantiprylethane****D-00136**

4,4'-(Ethylidene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one], 9CI. DAMM

[1606-56-0]

As 1,1-Diantiprylbutane, D-00135 with

R = CH₃, R' = HC₂₄H₂₆N₄O₂ M 402.495Forms extractable ion-pairs with anionic complexes of Bi, Sb, Pd, Pt. Cryst. Sol. EtOH, Me₂CO; spar. sol. H₂O.Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 1346; 1970, **25**, 918 (*detn*, Sb, Bi)Akimov, V.K. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1792; 1974, **29**, 2112 (*detn*, Pd, Pt)**1,1-Diantiprylheptane****D-00137**

4,4'-(1,7-Heptanediy)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one], 9CI. 1,7-Bis(1,2-dihydro-2,3-dimethyl-4-oxo-5-phenyl-3-pyrazolyl)heptane

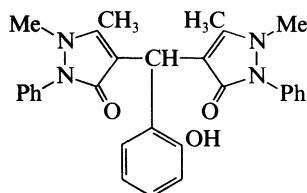
[6667-84-1]

As 1,1-Diantiprylbutane, D-00135 with

R = (CH₂)₇, R' = HC₂₉H₃₆N₄O₂ M 472.629Used as 0.01-0.1M solns. in CHCl₃ or dichloroethane for extraction sepn. of Ag from Pb, U from Th, Zr. Cryst. Sol. CHCl₃, dichloroethane.Petrov, B.I. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1722; 1983, **38**, 80 (*sepn*, Ag, U)**1,1-Diantipryl-2-hydroxyphenylmethane****D-00138**

1,2-Dihydro-4,4'-[(2-hydroxyphenyl)methylene]bis[1,5-dimethyl-2-phenyl-3H-pyrazol-3-one], 9CI

[1606-55-9]

C₂₉H₂₈N₄O₃ M 480.565Used as a 0.7% soln. in MeOH for extraction-photometric detn. of Ti(IV) (λ_{max} 347 nm, ε 9100). Cryst. Sol. EtOH, Me₂CO; spar. sol. H₂O.Ishii, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1974, **23**, 1344 (*detn*, Ti)**1,1-Diantiprylmethane****D-00139**

4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one], 9CI. DAM

[1251-85-0]

As 1,1-Diantiprylbutane, D-00135 with

R = R' = H

C₂₃H₂₄N₄O₂ M 388.468Forms extractable ion-pairs with many anionic metal complexes; used in photometric detn. of Ti (ε 14500), Fe(III), Mo, U(VI), Nb. Cryst. Sol. CHCl₃, C₆H₆; insol. H₂O. Mp 155-157° dec.Jeffery, P.C. *et al*, *Analyst (London)*, 1965, **90**, 177 (*detn*, Ti)Zhivopistsev, V.P., *Zavod. Lab.*, 1965, **31**, 1043 (*rev*)Ganago, L.I. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 2186 (*detn*, Nb)Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 495 (*use*)Petrov, B.I. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 80 (*detn*, U)Onishi, H., *Photometric Determination of Traces of Metals, Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 545.**1,1-Diantiprylphenylmethane****D-00140**

4,4'-(Phenylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one], 9CI. Diantiprylbenzomethane. α,α'-Diantipryltoluene

[1861-84-3]

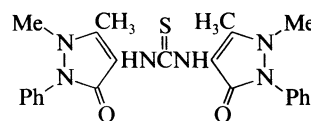
As 1,1-Diantiprylbutane, D-00135 with

R = Ph, R' = H

C₂₉H₂₈N₄O₂ M 464.566Forms extractable ion-pairs with anionic complexes of Ti, V(V), Pd, Mo. Cryst. Sol. EtOH, Me₂CO; spar. sol. H₂O.Podchainova, V.N. *et al*, *CA*, 1966, **68**, 18286 (*detn*, V, Ti)Akimov, V.K. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 2112 (*detn*, Pd)Akimov, V.K. *et al*, *Zavod. Lab.*, 1975, **41**, 391 (*detn*, Mo)**Diantiprylthiourea****D-00141**

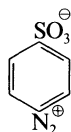
N,N'-Bis(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)thiourea, 9CI

[26084-35-5]

C₂₃H₂₄N₆O₂S M 448.548Used as 0.025-0.05 M solns. in CHCl₃ in extraction and separation of Cd (from 0.2M NH₃); extraction-photometric detn. of Cu(I). Cryst. Sol. CHCl₃.Degtev, M.I. *et al*, *Zavod. Lab.*, 1983, **49**, 7; 1984, **50**, 9 (*detn*, Cd, Cu)

4-Diazobenzenesulfonic acid, 9CI*Diazosulfanilic acid*

[305-80-6]

 $C_6H_4N_2O_3S$ M 184.175Used as aq. soln. for photometric detn. of Al, Mg. Needles (H_2O). Sol. H_2O .

▷ Explosive when dry.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, Princeton, 1947, **4**, 276 (*detn. Al, Mg, synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBO250.**1-Diazobutane, 9CI**

[764-43-2]

 $C_4H_8N_2$ M 84.121Prepd. from various *N*-nitroso-*N*-butyl compds. Butylating agent. Used for esterifying amino acids for gc sepn.Wilds, A.L. *et al*, *J. Org. Chem.*, 1948, **13**, 763 (*synth*)Mussini, E. *et al*, *J. Chromatogr.*, 1967, **26**, 481 (*synth, use*)Sekiya, M. *et al*, *Chem. Pharm. Bull.*, 1976, **24**, 369 (*synth*)Yamashita, H. *et al*, *Chem. Pharm. Bull.*, 1979, **27**, 682 (*synth*)**Diazoethane, 9CI**

[1117-96-0]

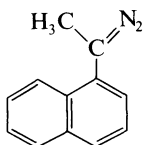
 $C_2H_4N_2$ M 56.067Prepd. from various *N*-nitroso-*N*-ethyl amino compds.

Powerful ethylating agent. Can be used to esterify carboxylic acids for gc anal.

▷ Poses severe toxic and explosive hazards.

Adamson, D.W. *et al*, *J. Chem. Soc.*, 1935, 286 (*synth*)Stanley, C.W., *J. Agric. Food Chem.*, 1966, **14**, 321 (*use*)Sekiya, M. *et al*, *Chem. Pharm. Bull.*, 1976, **24**, 369 (*synth*)Yamashita, H. *et al*, *Chem. Pharm. Bull.*, 1979, **27**, 682 (*synth*)Emmanuel, J.A.O. *et al*, *Ind. Eng. Chem. Prod. Res. Dev.*, 1984, **23**, 172 (*synth, hazard*)**1-(1-Diazoethyl)naphthalene, 9CI***1-α-Naphthyldiazoethane. 1-Diazo-1-α-naphthylethane*

[102421-45-4]

 $C_{12}H_{10}N_2$ M 182.224

Used as derivatising reagent for gc detn. of carboxylic acids. Red oil.

Corina, D.L. *et al*, *J. Chromatogr.*, 1983, **260**, 51 (*synth, use*)Barcus, R.L. *et al*, *J. Am. Chem. Soc.*, 1986, **108**, 3928 (*synth, pmr*)**D-00142****2-(1-Diazoethyl)naphthalene, 9CI***1-(2-Naphthyl)diazoethane*

[31490-17-2]

 $C_{12}H_{10}N_2$ M 182.224

Derivatisation reagent for hplc anal. of fatty acids.

Matthewes, D.P. *et al*, *Anal. Chim. Acta*, 1979, **109**, 61 (*use*)**D-00146****(1-Diazoethyl)pentaffluorobenzene, 9CI***1-(Pentafluorophenyl)diazoethane*

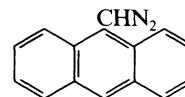
[98670-02-1]

 $C_8H_3F_5N_2$ M 222.117

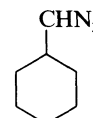
Derivatisation reagent for carboxylic acids. Red-orange oil.

Fp -31° to -28° . $n_D^{22.2}$ 1.5007.Meese, C.O., *Justus Liebig's Ann. Chem.*, 1985, 1711 (*synth, ir, uv, pmr*)Hofmann, U. *et al*, *J. Chromatogr.*, 1990, **508**, 349 (*use*)**D-00147****9-(Diazomethyl)anthracene, 9CI***9-Anthryldiazomethane*

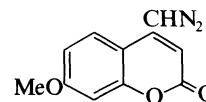
[10401-59-9]

 $C_{15}H_{10}N_2$ M 218.257Used as hplc reagent for fluorescent labelling of carboxylic acids. Red cryst. Mp $65-67^\circ$.Nakaya, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1967, **40**, 691 (*synth*)Barker, S.A. *et al*, *Anal. Biochem.*, 1980, **107**, 116; 1983, **132**, 456 (*use, synth*)Yoshida, T. *et al*, *J. Chromatogr.*, 1985, **348**, 425 (*use*)Yoshida, T. *et al*, *Anal. Biochem.*, 1988, **173**, 70 (*synth, use*)**D-00148****D-00144****(Diazomethyl)cyclohexane, 9CI***Cyclohexyldiazomethane*

[86328-83-8]

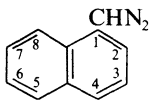
 $C_7H_{12}N_2$ M 124.185Used as a soln. in THF/Et₂O (1:1) as a derivatisation reagent used in gc of carboxylic acids.Corina, D.L. *et al*, *J. Chromatogr.*, 1983, **260**, 51 (*synth, use*)**D-00149****D-00145****4-(Diazomethyl)-7-methoxy-2H-1-****benzopyran-2-one, 9CI***4-Diazomethyl-7-methoxycoumarin*

[84471-16-9]

 $C_{11}H_8N_2O_3$ M 216.196Fluorescent labelling probe for alcohols and carboxylic acids. Yellow needles. Mp 160° dec.Takadate, A. *et al*, *Chem. Pharm. Bull.*, 1982, **36**, 4120 (*synth, use*)**D-00150**

1-(Diazomethyl)naphthalene*1-Naphthyl*diazomethane

[10378-55-9]

 $C_{11}H_8N_2$ M 168.198

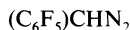
Derivatisation reagent used in anal. of carboxylic acids.

Red cryst. Mp 40-41° dec.

▷ Explosive.

Nakaya, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1967, **40**, 690 (*synth*)Matthees, D.P. *et al*, *Anal. Chim. Acta*, 1979, **109**, 161 (*use*)Corina, D.L. *et al*, *J. Chromatogr.*, 1983, **51**, 260 (*synth, use*)Chapman, O.L. *et al*, *J. Org. Chem.*, 1986, **51**, 1316 (*synth, ir*)**(Diazomethyl)pentafluorobenzene, 9CI***(Pentafluorophenyl)*diazomethane. α -Diazo-2,3,4,5,6-pentafluorotoluene

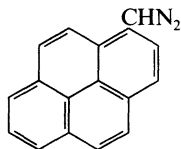
[7651-11-8]

 $C_7HF_5N_2$ M 208.090

Derivatisation reagent for carboxylic acids. Orange oil. Mp

2-4°. $n_D^{21.8}$ 1.5080.Meese, C.O., *Justus Liebigs Ann. Chem.*, 1985, 1711 (*synth, ir, uv, pmr*)Hofmann, U. *et al*, *J. Chromatogr.*, 1990, **508**, 349 (*use*)**1-(Diazomethyl)pyrene, 9CI***1-Pyrenyl*diazomethane

[78377-23-8]

 $C_{17}H_{10}N_2$ M 242.279

Reagent for prepn. of 1-pyrenylmethyl esters, photolabile protecting group. Fluorescent labelling reagent for anal. of carboxylic acids. Dark-red cryst. Mp 112°. Stable in dark at 0°.

Iwamura, M. *et al*, *Tetrahedron Lett.*, 1987, **28**, 679 (*synth, use*)Nimura, N. *et al*, *Anal. Chem.*, 1988, **60**, 2067 (*use*)**1-Diazopropane, 9CI**

[764-02-3]

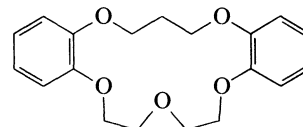
 $C_3H_6N_2$ M 70.094Prepd. from various *N*-nitroso-*N*-propylamino compds.

Propylating agent. Used for esterifying amino acids for gc sepn.

Adamson, D.W. *et al*, *J. Chem. Soc.*, 1935, 286; 1937, 1551 (*synth*)Dyer, J.R. *et al*, *J. Org. Chem.*, 1964, **29**, 3423 (*synth*)Mussini, E. *et al*, *J. Chromatogr.*, 1967, **26**, 481 (*synth, use*)Yamashita, H. *et al*, *Chem. Pharm. Bull.*, 1979, **27**, 682 (*synth*)**D-00151****Dibenzo-16-crown-5**

6,7,9,10,18,19-Hexahydro-17H-dibenzo[b,k][1,4,7,10,13]pentaoxacyclohexadecin, 9CI

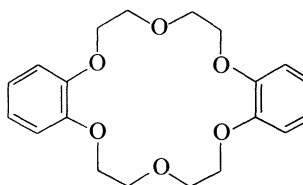
[14696-06-1]

 $C_{19}H_{22}O_5$ M 330.380Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Oil. Sol. hexane, Et₂O.Ryba, O. *et al*, *J. Electroanal. Chem.*, 1973, **44**, 425 (*synth*)Petranek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)**Dibenzo-18-crown-6**

6,7,9,10,17,18,20,21-Octahydrodibenzo[b,k][1,4,7,10,13,16]

hexaoxacyclooctadecine, 9CI, 8CI. 2,3,11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene

[14187-32-7]

 $C_{20}H_{24}O_6$ M 360.406Used for extraction, separation of alkali and alkaline-earth metals. Fibrous needles (C₆H₆). Sol. C₆H₆, CHCl₃, dioxan, Py; sl. sol. H₂O, EtOH. Mp 162.5-163.5°. Bp ca. 380-384°.

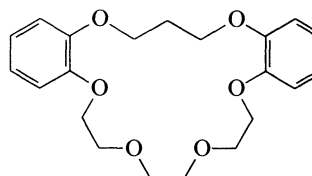
▷ Irritant.

Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 2495 (*synth, uv, ir, pmr*)*Org. Synth.*, 1972, **52**, 66 (*synth, uv, pmr, ms, tox, bibl*)Christensen, J.J. *et al*, *Chem. Rev.*, 1974, **74**, 351 (*rev*)Kyba, P. *et al*, *J. Am. Chem. Soc.*, 1977, **99**, 2564 (*synth*)Kolthoff, I.M., *Anal. Chem.*, 1979, **51**, IR (*rev*)Torizuka, K. *et al*, *Org. Magn. Reson.*, 1979, **12**, 190 (*cmr*)Zolotov, Y.A., *Zh. Anal. Khim.*, 1982, **37**, 1543 (*rev*)Krasnushkina, E.A. *et al*, *TrAC, Trends Anal. Chem. (Pers. Ed.)*, 1983, **2**, 158.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, COD575.**D-00153****Dibenzo-19-crown-6**

6,7,9,10,12,13,21,22-Octahydro-20H-

dibenzo[b,n][1,4,7,10,13,16]hexaoxacyclononadecine, 9CI

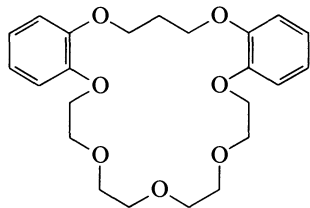
[14098-39-6]

 $C_{21}H_{26}O_6$ M 374.433Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Oil. Sol. hexane, Et₂O.Ryba, O. *et al*, *J. Electroanal. Chem.*, 1973, **44**, 425 (*synth*)Petranek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)**D-00154****D-00157**

Dibenzo-22-crown-7

D-00158

6,7,9,10,12,13,15,16,24,25-Decahydro-23H-dibenzo[b,q][1,4,7,10,13,16,19]heptaoxacyclodocosin, 9CI
[54160-01-9]



$C_{23}H_{30}O_7$ M 418.486

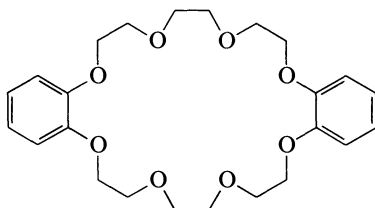
Used in 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Oil. Sol. hexane, Et₂O.

Ryba, O. *et al*, *J. Electroanal. Chem.*, 1973, **44**, 425 (*synth*)
Petranek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

Dibenzo-24-crown-8

D-00159

6,7,9,10,12,13,20,21,23,24,26,27-Dodecahydro-dibenz[b,n][1,4,7,10,13,16,19,22]octaoxacyclotetracosin, 9CI
[14174-09-5]



$C_{24}H_{32}O_8$ M 448.512

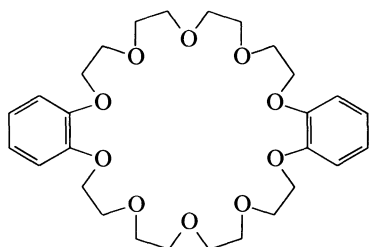
Used for extraction and separation of alkali and alkaline-earth metals. Cryst. Sl. sol. H₂O, EtOH; sol. C₆H₆, CHCl₃, dioxan. Mp 103-105°, Mp 113-114°.

Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 7017 (*synth*)
Dietrich, B. *et al*, *Tetrahedron Lett.*, 1969, **34**, 2885.
Kolthoff, I.M., *Anal. Chem.*, 1979, **51**, 1R (*rev*)

Dibenzo-30-crown-10

D-00160

6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-Hexadecahydrodibenzo[b,q][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, 9CI
[17455-25-3]



$C_{28}H_{40}O_{10}$ M 536.618

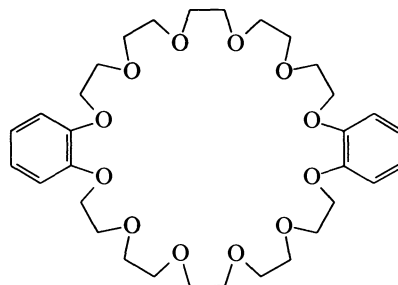
Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. (hexane/Et₂O). Sol. hexane, Et₂O. Mp 104-105°.

Ryba, O. *et al*, *J. Electroanal. Chem.*, 1973, **44**, 425 (*synth*)
Petranek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

Dibenzo-36-crown-12

D-00161

6,7,9,10,12,13,15,16,18,19,26,27,29,30,32,33,35,36,38,39-Eicosahydrodibenzo[b,t][1,4,7,10,13,16,19,22,25,28,31,34]dodecaoxacyclohexatriacontin, 9CI
[54159-98-7]



$C_{32}H_{48}O_{12}$ M 624.724

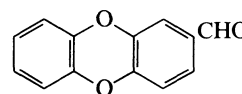
Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. (hexane/Et₂O). Sol. hexane, Et₂O. Mp 73-74°.

Ryba, O. *et al*, *J. Electroanal. Chem.*, 1973, **44**, 425 (*synth*)
Petranek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

Dibenzo[b,e][1,4]dioxin-2-carboxaldehyde

D-00162

2-Formyldibenzo[b,e][1,4]dioxin
[17054-71-6]



$C_{13}H_8O_3$ M 212.204

Cryst. Mp 91-93°.

Oxime: [17054-73-8].

$C_{13}H_9NO_3$ M 227.219

Used as a 0.2% soln. in EtOH for extraction-photometric detn. of Pd (λ_{max} 318 nm, ϵ 17000, C₆H₆). Cryst. Sol. common org. solvs. Mp 192-193°.

2,4-Dinitrophenylhydrazone: Cryst. (Py/EtOH). Mp 300-301°.

Gilman, H. *et al*, *J. Org. Chem.*, 1957, **22**, 1403 (*synth*)

Vasiliu, G. *et al*, *CA*, 1968, **68**, 59509e (*synth*)

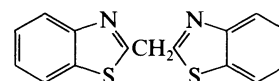
Popa, G. *et al*, *Rev. Chim. (Bucharest)*, 1974, **25**, 573 (*detn*, Pd)

Singh, R.B. *et al*, *Talanta*, 1979, **26**, 425 (*detn*, Pd)

Di-2-benzothiazolymethane

D-00163

2,2'-Methylenebisbenzothiazole, 8CI
[1945-78-4]



$C_{15}H_{10}N_2S_2$ M 282.389

Used as a 0.1mM soln. in dioxan for fluorimetric detn. of Zn, Li. Yellowish cryst. Sol. EtOH, dioxan; insol. H₂O. Mp 96-97°.

Rai, C. *et al*, *J. Org. Chem.*, 1961, **26**, 3434 (*synth*)

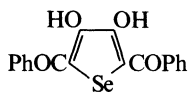
Trenholm, R.R. *et al*, *Anal. Chim. Acta*, 1965, **32**, 317 (*detn*, Zn)

Pitts, A.E. *et al*, *Anal. Chim. Acta*, 1967, **37**, 460 (*detn*, Li)

Ryan, R.E. *et al*, *Anal. Chim. Acta*, 1969, **44**, 115 (*detn*, Zn)

2,5-Dibenzoyl-3,4-dihydroxyselenophene **D-00164**

2,5-Dibenzoyl-3,4-selenophenediol, 8CI
[16303-98-3]



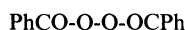
$C_{18}H_{12}O_4Se$ M 371.250

Used as a 0.1mM soln. in EtOH for photometric detn. of Bi (λ_{max} 490 nm, ϵ 4600). Bright orange prisms (Me_2CO). Sol. EtOH, Me_2CO ; sl. sol. H_2O . Mp 165°. Subl._{0.02} 140°. λ_{max} 360 nm (EtOH).

Balenović, K. *et al*, *J. Org. Chem.*, 1954, **10**, 1556 (*synth*)
Balenović-Solter, A. *et al*, *Mikrochim. Acta*, 1968, 344.

Dibenzoyl peroxide, 9CI **D-00165**

Benzoyl peroxide, USAN. *Benzoyl superoxide*. *Benoxyl*. *Benzac*. *Eloxyl*. *Persadox*. Numerous proprietary names
[94-36-0]



$C_{14}H_{10}O_4$ M 242.231

Catalyst for radical reactions. Added to bread as bleaching agent. Keratolytic agent. Reagent for anal. of amines by chemiluminescence. Prisms. Mp 106-108° dec. Component of Benzamycin and Vanoxide.

▷ Toxic, irritant, TLV 5. Explodes on heating. Can explode spontaneously when dry. DM8576200.

Food Chemicals Codex, 2nd Ed., **2**, 82 (*anal*)
Gambarjan, S., *Chem. Ber.*, 1909, **42**, 4003 (*synth*)
Hey, D.H. *et al*, *J. Chem. Soc.*, 1948, 2213 (*synth*)
Cadogan, J.I.G., *J. Chem. Soc.*, 1959, 2844 (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 89.
Burguera, J.L. *et al*, *Talanta*, 1979, **26**, 795 (*use*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 270.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BDS000.

Dibenzylamine, 8CI **D-00166**

N-(Phenylmethyl)benzenemethanamine, 9CI
[103-49-1]



$C_{14}H_{15}N$ M 197.279

Corrosion inhibitor, antioxidant. Used in detn. of Co, Fe, CN^\ominus . Oil. Sol. EtOH, Et_2O ; insol. H_2O . d 1.0256. Mp -26°. Bp₂₅₀ 270°.

▷ Causes burns.

N-Me: [102-05-6].

$C_{15}H_{17}N$ M 211.306

Liq. Bp₁ 143°, Bp_{0.7} 125°.

N-Me; B,MeI: Cryst. Mp 189-191°.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **2**, 344.

Aihara, A. *et al*, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 1942 (*nmr*)

Donetti, A. *et al*, *J. Org. Chem.*, 1972, **37**, 3352 (*synth*)

Vora, J.C. *et al*, *Werkst. Korros.*, 1974, **25**, 753 (*use*)

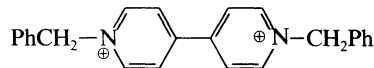
Gribble, G.W. *et al*, *Synthesis*, 1987, 709 (*deriv*, *synth*, *pmr*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 547.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 271.

1,1'-Dibenzyl-4,4'-bipyridinium(2+) **D-00167**

N,N'-Dibenzylviologen. 1,1'-Bis(phenylmethyl)-4,4'-bipyridinium(2+), 9CI
[13096-46-3]



$C_{24}H_{22}N_2^{2\oplus}$ M 338.451 (ion)

Dichloride: [1102-19-8].

$C_{24}H_{22}Cl_2N_2$ M 409.357

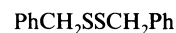
Redox indicator (reduced form blue). Used as a soln. in dil. AcOH. Extremely air-sensitive needles (C_6H_6 /EtOH). Sol. EtOH; spar. sol. C_6H_6 . E^\ominus -0.359 V (30°).

▷ DW1930000.

Michaelis, L. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 1481 (*synth*)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 521.

Dibenzyl disulfide **D-00168**

Bis(phenylmethyl) disulfide, 9CI. Benzyl disulfide, 8CI
[150-60-7]



$C_{14}H_{14}S_2$ M 246.397

Lubricating oil additive, corrosion inhibitor. Reference material used in elemental microanalysis. Mp 71-72°. Exp. to sunlight causes conversion to a second form, Mp 69-70°.

▷ JO1750000.

Cumper, C.W.N. *et al*, *J. Chem. Soc.*, 1965, 5323 (*synth*)

Bowie, J.H. *et al*, *J. Chem. Soc. B*, 1966, 946 (*ms*)

Voronkov, M.G. *et al*, *Zh. Strukt. Khim.*, 1968, **9**, 627 (*pmr*)

Reiter, G.F., *J. Appl. Phys.*, 1970, **41**, 1368 (*uv*)

Srinivasan, R. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 2615 (*cryst struct*)

Analyst (London), 1972, **97**, 740 (*microanal*)

Subrahmanyam, B. *et al*, *Chem. Age India*, 1975, **26**, 333 (*synth*, *use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXH200.

Dibenzyl dithioamide **D-00169**

N,N'-Bis(phenylmethyl)ethanedithioamide, 9CI
[122-65-6]



$C_{16}H_{16}N_2S_2$ M 300.448

Used as 1% Me_2CO soln. in extraction-photometric detn. of Pt (λ_{max} 737 nm, ϵ 26000), Pd (λ_{max} 450 nm, ϵ 19000). Cryst. Sol. Me_2CO .

▷ RO9100000.

Pyle, J.T. *et al*, *Talanta*, 1962, **9**, 761.

Dibenzyl selenide **D-00170**

1,1'-[Selenobis(methylene)]bisbenzene, 9CI. Benzyl selenide
[1842-38-2]



$C_{14}H_{14}Se$ M 261.225

Used as a 2% soln. in C_6H_6 for extraction-photometric detn. of Pd (λ_{max} 342 nm, ϵ 27000, C_6H_6). Cryst. (EtOH). Sol. EtOH, Me_2CO , C_6H_6 ; insol. H_2O . Mp 45°.

Pitombo, L., *Anal. Chim. Acta*, 1969, **46**, 158; 1972, **62**, 103 (*detn*, *Pd*)

Pitombo, L.K.M. *et al*, *Talanta*, 1974, **21**, 965 (*synth*)

Tamagaki, S. *et al*, *Chem. Lett.*, 1976, 301 (*synth*)

Dibenzyl sulfide**D-00171**

1,1'-[Thiobis(methylene)]bisbenzene, 9CI. Benzyl sulfide, 8CI.
Dibenzyl thioether
[538-74-9]



$\text{C}_{14}\text{H}_{14}\text{S}$ M 214.331

Corrosion inhibitor. Used for extraction-photometric detn. of Pd. Plates (Et_2O or CHCl_3). Sol. Me_2CO , EtOH , C_6H_6 . Mp 49°.

Trabanelli, G. *et al*, *Werkst. Korros.*, 1969, **20**, 1012 (use)
Wladislaw, B. *et al*, *Ann. Acad. Bras. Cienc.*, 1970, **42**, 691 (ir)
Wahl, G.H., *Org. Mass Spectrom.*, 1970, **3**, 1349 (ms)
Pitombo, L., *Anal. Chim. Acta*, 1972, **62**, 103 (detn, Pd)
Zetta, L. *et al*, *Org. Magn. Reson.*, 1972, **4**, 585 (pmr)
Ho, T.-L. *et al*, *Synthesis*, 1973, 206 (synth)

Dibenzyl sulfoxide**D-00172**

1,1'-[Sulfinylbis(methylene)]bisbenzene, 9CI. Benzyl sulfoxide, 8CI
[621-08-9]



$\text{C}_{14}\text{H}_{14}\text{OS}$ M 230.330

Corrosion inhibitor. Used as 8% soln. in CH_2Cl_2 for extraction separation of Fe(III) (as SCN complex). Leaflets (EtOH or H_2O). Sol. CHCl_3 , CH_2Cl_2 . Mp 133-135°.

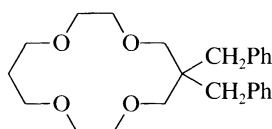
▷ DA9275000.

Bowie, J.H. *et al*, *Tetrahedron*, 1966, **22**, 3515 (ms)
Hardy, F.E. *et al*, *J. Chem. Soc. C*, 1969, 2334 (synth)
Ziegler, M. *et al*, *Mikrochim. Acta*, 1970, 1270 (sepn, Fe)
Horner, L. *et al*, *Werkst. Korros.*, 1971, **22**, 867 (use)
Dhingra, M.M. *et al*, *Chem. Phys. Lett.*, 1975, **30**, 83 (nmr)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DDH800.

6,6-Dibenzyl-1,4,8,11-tetraoxacyclotetradecane**D-00173**

Dibenzyl-14-crown-4

[106868-21-7]



$\text{C}_{24}\text{H}_{32}\text{O}_4$ M 384.514

Used as ionophore in the ion-selective electrode for Li.
Cryst. Sol. CHCl_3 . Mp 102-103°.

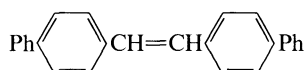
Kimura, K. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1986, 1945 (synth)

Kimura, K. *et al*, *Anal. Chem.*, 1987, **59**, 2331 (detn, Li)

1,2-Di-4-biphenylethylene**D-00174**

4,4'-(1,2-Ethenediyl)bis-1,1'-biphenyl, 9CI. p,p'-Diphenylstilbene

[2039-68-1]



$\text{C}_{26}\text{H}_{20}$ M 332.444

(E)-form [1657-71-2]

DPS

Laser dye. Used in liquid scintillation spectrometry. Mp 300-302° dec.

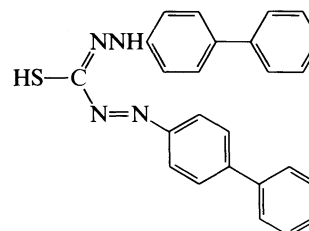
(Z)-form [1657-73-4]

Mp 222-223°.

Basile, L.J., *J. Chem. Phys.*, 1957, **27**, 801 (props)
Drefahl, G. *et al*, *Chem. Ber.*, 1960, **93**, 472 (synth)
Amata, C.D. *et al*, *J. Chem. Phys.*, 1968, **48**, 2374 (use)
Maeda, M. *et al*, *Jpn. J. Appl. Phys.*, 1974, **13**, 827 (use)
Goedicke, C. *et al*, *Z. Phys. Chem. (Munich)*, 1976, **101**, 181 (spectra)

Di-4-biphenylthiocarbazono**D-00175**

4,4'-Diphenylthiozone



$\text{C}_{25}\text{H}_{20}\text{N}_4\text{S}$ M 408.526

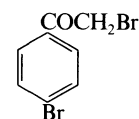
Used as a 0.01% soln. in CCl_4 or CHCl_3 for extraction-photometric detn. of Ag, Hg, Cd, Cu. Greenish-black cryst. powder. Sol. alkalis, Me_2CO , CCl_4 , CHCl_3 , EtOH ; insol. H_2O .

Takei, S., *Bunseki Kagaku (Jpn. Anal.)*, 1960, **9**, 409 (use)

2,4'-Dibromoacetophenone, 8CI**D-00176**

2-Bromo-1-(4-bromophenyl)ethanone, 9CI. p-Bromophenacyl bromide

[99-73-0]



$\text{C}_8\text{H}_6\text{Br}_2\text{O}$ M 277.943

Pepsin inhibitor. Reagent for characterisation of alcohols.

Derivatisation reagent for carboxylic acids for chromatogr. Needles (EtOH). Mp 110-111°.

▷ AM6950000.

Oxime: [57342-22-0].

$\text{C}_8\text{H}_7\text{Br}_2\text{NO}$ M 292.957

Mp 115°.

Shevchuk, M.I. *et al*, *Zh. Obshch. Khim.*, 1963, **33**, 1135 (synth)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 77.

Umeh, E.O., *J. Chromatogr.*, 1971, **56**, 29 (use)

Lokshina, L.A. *et al*, *Biokhimiya (Moscow)*, 1972, **37**, 275 (pharmacol)

Pannell, K.H. *et al*, *Org. Mass Spectrom.*, 1975, **10**, 550 (ms)

Lau, B.W. *et al*, *J. Korean Phys. Soc.*, 1976, **9**, 29 (cryst struct)

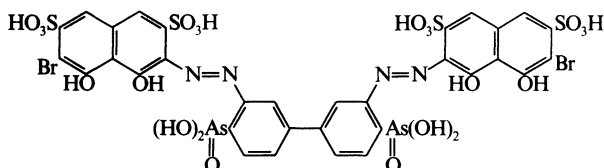
Pei, P.T.S. *et al*, *Lipids*, 1976, **11**, 814 (use)

Patience, R.L. *et al*, *J. Chromatogr.*, 1982, **249**, 183 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DDJ600.

Dibromoarsenazo II**D-00177**

3,3'-[(4,4'-Diarsono[1,1'-biphenyl]-3,3'-diyl)-bis(azo)]bis[6-bromo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid], 9CI.
7,7'-Dibromoarsenazo II
[42342-70-1]



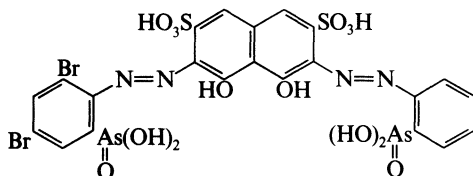
$C_{32}H_{22}As_2Br_2N_4O_{22}S_4$ M 1252.455

Used as 0.2% soln. in dil. HCl for photometric detn. of Th (1M HCl). Dark blue cryst. Used as 0.2% soln. in diluted HCl.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 61.

Dibromoarsenazo III**D-00178**

3-[(2-Arsonophenyl)azo]-6-[(2-arsono-4,6-dibromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI



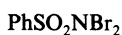
$C_{22}H_{16}As_2Br_2N_4O_{14}S_2$ M 934.170

Used for photometric detn. of Be, Th, U(VI), Zr. Dark red cryst. powder. Mod. sol. H₂O.

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)

N,N-Dibromobenzenesulfonamide, 9CI**D-00179***Dibromamine B*

[938-05-6]



$C_6H_5Br_2NO_2S$ M 314.985

Used as 0.025M soln. in glacial AcOH for indirect titrimetric detn. of CN[⊖] and SCN[⊖] (with I[⊖] and S₂O₃^{2⊖}). Yellow cryst. Sol. AcOH. Mp 110-111° dec.

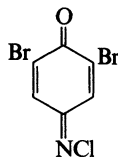
Mahadevappa, D.S. *et al*, *Talanta*, 1979, **26**, 590 (synth, use)

Mahadevappa, D.S. *et al*, *Microchem. J.*, 1983, **28**, 314 (use)

2,6-Dibromo-4-(chloroimino)-2,5-cyclohexadien-1-one, 9CI**D-00180**

2,6-Dibromo-p-benzoquinone-4-chloroimine. 2,6-Dibromo-N-chloro-p-benzoquinone imine

[537-45-1]



$C_6H_2Br_2ClNO$ M 299.349

Reagent for the detn. of phenols. Used as a 0.34mM soln. in DMSO for fluorimetric detn. of CN[⊖]. Yellow cryst. (pet. ether). Sol. EtOH, CHCl₃, Me₂CO, Et₂O. Mp 85-86°.

► Can decompose violently; explodes on heating above 50°. LD₅₀ 63 mg/kg (mouse, i.p.). GU5435000.

Gibbs, H.D., *J. Biol. Chem.*, 1927, **72**, 649 (synth, use)

Hartmann, W.W. *et al*, *Org. Synth.*, 1935, **15**, 8 (synth)

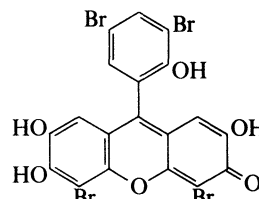
Feigl, F. *et al*, *Talanta*, 1964, **11**, 662 (use)

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (detn, CN[⊖])

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CHQ750.

4,5-Dibromo-9-(3,5-dibromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3H-xanthen-3-one, 8CI**D-00181***Tetrabromosalicylfluorone*

[90457-25-3]



$C_{19}H_8Br_4O_6$ M 651.885

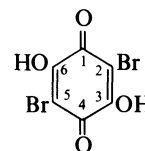
Used as a 0.5mM soln. in aq. EtOH for photometric detn. of W (λ_{max} 564 nm, ϵ 77000). Cryst.

Nazarenko, V.A. *et al*, *Talanta*, 1987, **34**, 215 (detn, W)

2,5-Dibromo-3,6-dihydroxy-1,4-benzoquinone**D-00182**

2,5-Dibromo-3,6-dihydroxy-2,5-cyclohexadiene-1,4-dione, 9CI. *Bromamilic acid*

[4370-59-6]



$C_6H_2Br_2O_4$ M 297.887

Used for photometric detn. of Mo(VI), W. Dark-red needles or bronze leaflets by subl. Sol. EtOH, alkalis, Et₂O. pK_{a1} 0.80; pK_{a2} 3.10 (25°).

Di-Ac:

$C_{10}H_6Br_2O_6$ M 381.962

Yellow plates (CCl₄). Mp 205°.

Di-Me ether: [57998-72-8]. 2,5-Dibromo-3,6-dimethoxy-1,4-benzoquinone

$C_8H_6Br_2O_4$ M 325.941

Mp 158°.

Graebe, C. *et al*, *Justus Liebigs Ann. Chem.*, 1891, **263**, 31 (struct, synth)

Jackson, C. *et al*, *J. Am. Chem. Soc.*, 1914, **36**, 1478 (synth)

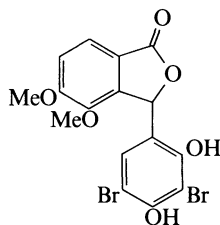
Bucsis, L. *et al*, *Chem. Ber.*, 1976, **109**, 2462 (ether)

Poirier, J.M. *et al*, *Talanta*, 1979, **26**, 341, 349 (detn, Mo, W)

3-(3,5-Dibromo-2,4-dihydroxyphenyl)-4,5-dimethoxy-1(3H)-isobenzofuranone, 9CI

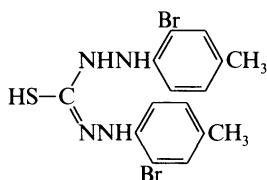
3-(3,5-Dibromo-2,4-dihydroxyphenyl)-4,5-dimethoxyphthalide

[52301-59-4]

 $C_{16}H_{12}Br_2O_6$ M 460.075Used as a 0.2% soln. in EtOH as adsorption indicator in argentometric titrimetric detn. of halides, SCN^{\ominus} . Red cryst. Sol. EtOH, Me_2CO , C_6H_6 . Mp $>300^{\circ}$.Singh, E. *et al*, *J. Indian Chem. Soc.*, 1973, **50**, 676 (synth)Singh, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1975, **276**, 71 (use)**o,o'-Dibromo-p,p'-dimethyldithizone**

D-00184

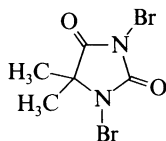
2-Bromo-4-methylphenyldiazene-carbothioic acid 2-(2-bromo-4-methylphenyl)hydrazide, 9CI. Di-(o-dibromo-p-tolyl)thiocarbazon

 $C_{15}H_{16}Br_2N_4S$ M 444.192Used a 0.01% soln. in CCl_4 or $CHCl_3$ for extraction-photometric detn. of Ag, Hg, Cd, Cu. Greenish black cryst. powder. Sol. alkalis, Me_2CO , CCl_4 , $CHCl_3$, EtOH; insol. H_2O .Takei, S., *Bunseki Kagaku (Jpn. Anal.)*, 1960, **9**, 402.**1,3-Dibromo-5,5-dimethyl-2,4-imidazolidinedione, 9CI**

D-00185

1,3-Dibromo-5,5-dimethylhydantoin. DDH

[77-48-5]

 $C_5H_6Br_2N_2O_2$ M 285.923

Selective brominating agent. Used in detn. of alkenes.

Used as 0.25M soln. in glacial AcOH for photometric detn. of As(III), Sb(III), Sn(II). White powder. Sol.

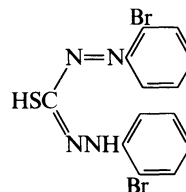
AcOH, $CHCl_3$, EtOH. Mp 187-190°, Mp 197-199° dec.

▷ Severe irritant.

Orazi, O.O. *et al*, *CA*, 1951, **45**, 561c (synth, use)Okada, T. *et al*, *CA*, 1957, **51**, 13852 (synth)Oakes, V. *et al*, *J. Chem. Soc.*, 1962, 4678 (use)Kopecky, K.R. *et al*, *Can. J. Chem.*, 1975, **53**, 1103 (use)Adam, W. *et al*, *J. Org. Chem.*, 1978, **43**, 1154 (use)Radhamma, M.P. *et al*, *Talanta*, 1983, **30**, 49 (use)*Sigma-Aldrich Library of Chemical Safety Data*, 1988, **1**, 1077A.**2,2'-Dibromodithizone**

D-00186

2-Bromophenyldiazene-carbothioic acid 2-(2-bromophenyl)hydrazide, 9CI

 $C_{13}H_{10}Br_2N_4S$ M 414.123Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Ag, Cd, Cu, Hg, Ni, Pb, Zn. Greenish black cryst. powder. Sol. alkalis, Me_2CO , C_6H_6 , $CHCl_3$, CCl_4 ; insol. H_2O .Takei, S., *Bunseki Kagaku (Jpn. Anal.)*, 1960, **9**, 402 (use)**4,4'-Dibromodithizone**

D-00187

[(p-Bromophenyl)azo]thiosulfonic acid 2-(p-bromophenyl)hydrazide, 8CI. 4-Bromophenyldiazene-carbothioic acid 2-(4-bromophenyl)hydrazide, 9CI

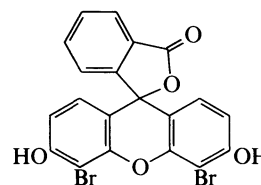
[1643-06-7]

 $C_{13}H_{10}Br_2N_4S$ M 414.123Used as 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Co, Cu, Hg, Ni, Zn. Greenish black cryst. powder with coppery reflex. Sol. alkalis, Me_2CO , C_6H_6 , $CHCl_3$, CCl_4 ; insol. H_2O . Mp 150-151° (145-147°). pK_a 4.4 (50% dioxan aq. $\mu = 0.1$, 25°).Irving, H. *et al*, *J. Chem. Soc.*, 1953, 3538 (synth)Takei, S., *Bunseki Kagaku (Jpn. Anal.)*, 1960, **9**, 402 (use)Busev, A.I. *et al*, *Zh. Neorg. Khim.*, 1961, **6**, 2805.Al-Salihy, A.R. *et al*, *Talanta*, 1970, **17**, 182 (detn. Co, use, Zn)**4',5'-Dibromofluorescein**

D-00188

4',5'-Dibromo-3',6'-dihydroxyspiro[isobenzofuran-1(13H),9'-[9H]xanthen]-3-one, 9CI. C.I. Acid orange 11. C.I. 45370. D & C Orange No. 6. C.I. Solvent red 72

[596-03-2]

 $C_{20}H_{10}Br_2O_5$ M 490.104

▷ LM5200000.

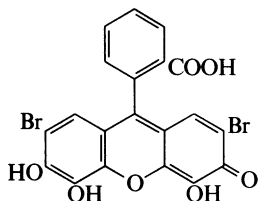
Di-Na salt: [56136-34-6].

Used as a 1mM soln. in EtOH as adsorption indicator for titrimetric detn. of Br^{\ominus} , I^{\ominus} . Red cryst. (EtOH). Sol. EtOH, Me_2CO , alkalis. Mp 285°.Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 440.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DDO200.

2,7-Dibromogallein

D-00189

2',7'-Dibromo-3',4',5',6'-tetrahydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9CI. 2,7-Dibromo-3,4,5-trihydroxy-9-(2-carboxyphenyl)-6-fluorone
[35236-70-5]



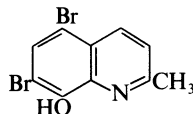
$C_{20}H_{10}Br_2O_7$ M 522.103

Used in photometric detn. of Mo, W, Nb, Ta. Red-brown cryst. powder. Sol. hot AcOH.

Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 81 (*synth, use*)

5,7-Dibromo-8-hydroxy-2-methylquinoline D-00190

5,7-Dibromo-2-methyl-8-quinolinol. 5,7-Dibromo-8-hydroxyquinaldine. *Broquinaldol*, INN
[15599-52-7]



$C_{10}H_7Br_2NO$ M 316.979

Shows fungistatic props. Used as complexing agent for Co, Ni. Cryst. (EtOH). Mp 127°.

Benzoyl: [3684-46-6]. *Broxaldine*, INN. AL 307

$C_{17}H_{11}Br_2NO_2$ M 421.087

Antiseptic. Mp 130-132°.

Irving, H. *et al*, *J. Chem. Soc.*, 1957, 285 (*synth*)

Fiedler, H., *Arch. Pharm. (Weinheim, Ger.)*, 1960, **293**, 609 (*synth*)

Zsolani, T., *Biochem. Pharmacol.*, 1961, **7**, 195 (*props*)

Bourquin, J.P. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1962, **295**, 383 (*Broxaldine*)

U.S. Pat., 3 136 768, (1964); CA, **61**, 6998b (*Broxaldine*)

Gershon, H. *et al*, *Antimicrob. Agents Chemother.*, 1972, **1**, 373 (*pharmacol*)

Gomez-Beltran, F. *et al*, CA, 1973, **78**, 131535m (*use*)

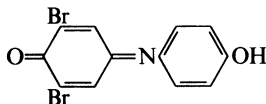
Hartmann, V., *Pharm. Technol.*, 1975, **21**, 215 (*glc*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 4760 (*Broxaldine*)

2,6-Dibromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one D-00191

2,6-Dibromoindophenol

[2582-33-4]



$C_{12}H_7Br_2NO_2$ M 357.001

Acid-base indicator (colour change: red → blue); redox indicator. Used as 0.02% aq. soln. of Na salt. Dark green cryst. powder. Sol. H₂O, EtOH, Me₂CO. pK_a 5.7. E° +0.668 V (30°).

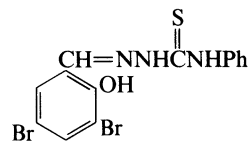
Misra, G.J. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **214**, 94 (*use*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 133, 483.

2-[(3,5-Dibromo-2-hydroxyphenyl)methylene]-N-phenylhydrazinecarbothioamide, 9CI

D-00192

3,5-Dibromosalicylaldehyde phenylthiosemicarbazone
[1713-69-5]



$C_{14}H_{11}Br_2N_3OS$ M 429.134

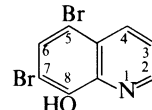
Used for extraction-photometric detn. of Cu (λ_{max} 400 nm, ϵ 21000). Cryst. Sol. EtOH, Et₂O, Me₂CO.

Kato, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1982, **31**, 579 (*detn, Cu*)

5,7-Dibromo-8-hydroxyquinoline

D-00193

5,7-Dibromo-8-quinolinol, 9CI. *Broxyquinoline*, INN, JAN. *Dibromooxine*. *Bromooxine*. *Brodiar*. *Broxykinolin*. *Colepur*. *Fenilor*. *Dibromoquin*. Numerous proprietary names
[521-74-4]



$C_9H_5Br_2NO$ M 302.953

Fungicide; amoebicide. Used as 0.1% CHCl₃ soln. for photometric detn. of In (λ_{max} 415 nm, ϵ 8800), Ca, Mg. Needles (EtOH). Insol. dil. acids; sol. CHCl₃, AcOH, EtOH. Mp 196° (190°). Sublimes.

▷ VC5300000.

B,HBr: Yellow needles. Mp 250°.

Me ether: 5,7-Dibromo-8-methoxyquinoline

$C_{10}H_7Br_2NO$ M 316.979

Needles (EtOH aq.). Mp 99°.

N-Oxide: [16846-41-6].

$C_9H_5Br_2NO_2$ M 318.952

Used as freshly prepared Me₂CO soln. for photometric detn. of Ru(III) (λ_{max} 420 nm, ϵ 3800); as 1mM EtOH soln. for photometric detn. of Fe(III), U(VI); pptn. sepn. and gravimetric detn. of Ce, Th. Yellow cryst. Sol. Me₂CO.

Irving, H. *et al*, *J. Chem. Soc.*, 1957, 285 (*synth*)

Cawthorne, M.A., *J. Chromatogr.*, 1966, **25**, 164 (*tlc*)

Bhat, A.N. *et al*, *Indian J. Appl. Chem.*, 1967, **30**, 110 (*detn, U*)

Bhat, A.N. *et al*, *J. Indian Chem. Soc.*, 1967, **44**, 187 (*detn, Fe*)

Berggren, L. *et al*, *Clin. Pharmacol. Ther. (St. Louis)*, 1968, **9**, 67

(*metab, tox*)

Gupta, R.D. *et al*, *J. Less-Common Met.*, 1969, **18**, 139 (*synth*)

Gupta, R.D. *et al*, *Anal. Chim. Acta*, 1970, **50**, 109 (*detn, Ru*)

Nguen Shi Zueng, *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**,

1159, 1273 (*detn, In*)

Belt'yukova, S.V., *Zh. Anal. Khim.*, 1970, **25**, 1714 (*detn, Ca, Mg*)

Bathia, P.G. *et al*, *Anal. Chim. Acta*, 1972, **62**, 481 (*detn, Ce, Th*)

Gershon, H. *et al*, *J. Org. Chem.*, 1972, **37**, 4078 (*deriv*)

Kashino, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 1094 (*cryst*

struct)

Hartmann, V. *et al*, *Pharm. Ind.*, 1974, **36**, 202 (*glc*)

Corsini, A. *et al*, *Talanta*, 1974, **21**, 252 (*pmr*)

Barsode, C.D. *et al*, *J. Indian Chem. Soc.*, 1975, **52**, 942 (*ms*)

Stankovic, S. *et al*, *Cryst. Struct. Commun.*, 1976, **5**, 645 (*cryst*

struct)

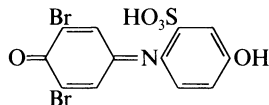
Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 4761.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1070 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DDS600.

2,6-Dibromo-4-[(4-hydroxy-2-sulfophenyl)imino]-2,5-cyclohexadien-1-one **D-00194**

2,6-Dibromoindophenol-2'-sulfonic acid



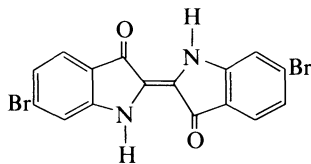
$C_{12}H_7Br_2NO_5S$ M 437.065
 pK_a 7.4.

Na salt: Redox indicator (pH range 3.8-11.5). Dark green cryst. powder. Sol. H_2O . $E^\circ + 0.691$ V (30°).

Gibbs, H.D. *et al*, *Public Health Rep.*, *Suppl.* 69, 1928.
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 133, 483.

6,6'-Dibromoindigotin **D-00195**

6-Bromo-2-(6-Bromo-1,3-dihydro-3-oxo-2H-indol-2-ylidene)-1,2-dihydro-3H-indol-3-one, 9CI. 6,6'-Dibromoindigo [19201-53-7]



$C_{16}H_8Br_2N_2O_2$ M 420.059

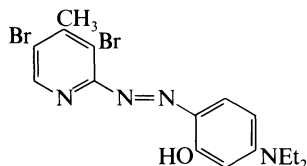
Major component of Tyrian Purple obt. from *Murex brandaris* and other molluscs. Important dyestuff in ancient times, but which has never been produced commercially. Violet cryst. (1,2-dichlorobenzene).

N,N'-Di-Ac: Mp 306°.

Sachs, F. *et al*, *Ber.*, 1904, **37**, 1868 (*synth*)
 Friedländer, P., *Ber.*, 1909, **42**, 765 (*struct*)
 Baker, J.T. *et al*, *Tetrahedron Lett.*, 1968, 43 (*biosynth*)
Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **8**, 364 (*bibl*)
 Süsse, P. *et al*, *Naturwissenschaften*, 1979, **66**, 110 (*cryst struct*)
 Larsen, S. *et al*, *Acta Chem. Scand., Ser. A*, 1980, **34**, 171 (*cryst struct*)
 Voss, G. *et al*, *Chem. Ber.*, 1989, **122**, 1199 (*synth, ir, bibl*)

2-[(3,5-Dibromo-4-methyl-2-pyridinyl)azo]-5-(diethylamino)phenol, 9CI **D-00196**

3,5-Dibromo-2-(4-diethylamino-2-hydroxyphenylazo)-4-methylpyridine. 3,5-Dibromo-MePADAP [57074-63-2]



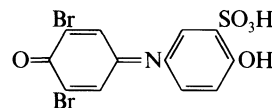
$C_{16}H_{18}Br_2N_4O$ M 442.152

Used as a 2mM soln. in EtOH for extraction-photometric detn. of V(V) (λ_{max} 615 nm, ϵ 54300). Blackish red needles with a metallic lustre. Sol. EtOH, Me_2CO ; spar. sol. H_2O .

Kiss, E., *Anal. Chim. Acta*, 1975, **77**, 205 (*detn, V*)

5-[(3,5-Dibromo-4-oxo-2,5-cyclohexylidene)amino]-2-hydroxybenzenesulfonic acid **D-00197**

2,6-Dibromo-4-[(4-hydroxy-3-sulfophenyl)imino]-2,5-cyclohexadien-1-one. 2,6-Dibromoindophenol-3'-sulfonic acid



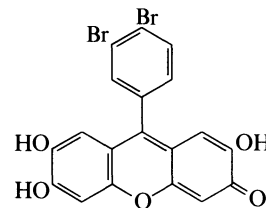
$C_{12}H_7Br_2NO_5S$ M 437.065

Azobase indicator (pH range 1.1-11.5; colour change: red → blue), redox indicator. Used as 0.02% aq. soln. of Na salt. Dark green cryst. powder. Sol. H_2O , alkalis. pK_a 6.1. $E^\circ + 0.669$ V (30°).

Gibbs, H.D. *et al*, *Public Health Rep.*, *Suppl.* 69, 1928.
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 133, 483.

9-(3,4-Dibromophenyl)-2,6,7-trihydroxy-3H-xanthen-3-one **D-00198**

3',4'-Dibromophenylfluorone [73008-85-2]



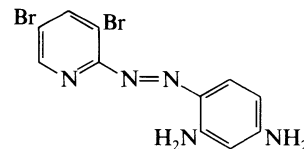
$C_{19}H_{10}Br_2O_5$ M 478.093

Used as EtOH soln. in photometric detn. of Sb (λ_{max} 540 nm, ϵ 57000), Bi, Sn. Brown cryst. powder. Sol. EtOH, EtOAc.

Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 458; 1982, **37**, 429 (*synth, detn, Sb, Bi, Sn*)

4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediamine, 9CI **D-00199**

3,5-Dibromo-2-(2,4-diaminophenylazo)pyridine. 3,5-Dibromo-PADAB [50768-79-1]



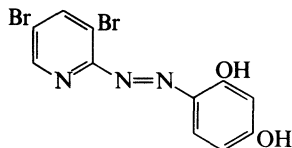
$C_{11}H_9Br_2N_5$ M 371.034

Used as a 1mM soln. in EtOH for extraction-photometric detn. of Co (λ_{max} 590 nm, ϵ 120000). Pink cryst. (EtOH aq.). Sol. EtOH, Me_2CO ; spar. sol. H_2O . Mp 231-233°.

Kiss, E., *Anal. Chim. Acta*, 1973, **66**, 385; 1975, **77**, 320 (*detn, Co*)

4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediol

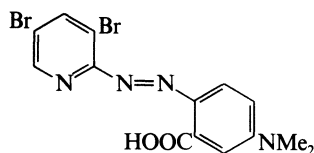
D-00200

3,5-Dibromo-2-(2,4-dihydroxyphenylazo)pyridine
[26075-14-9] $C_{11}H_7Br_2N_3O_2$ M 373.003

1-Me ether: [77350-02-8]. 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-methoxyphenol, 9CI. 3,5-Dibromo-2-(4-hydroxy-2-methoxyphenylazo)pyridine

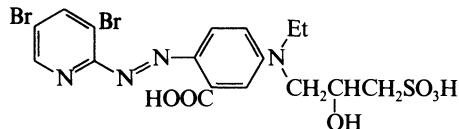
 $C_{12}H_9Br_2N_3O_2$ M 387.030Used as 0.02% MeOH soln. for extraction-photometric detn. of Ni (λ_{max} 552 nm, ϵ 57000, $CHCl_3$), Cu, Co.Cryst. Sol. MeOH, EtOH, dioxan; sl. sol. H_2O . Mp 231°. $pK_{a1} < 1$; pK_{a2} 9.55 (aq. dioxan, 25°, 0.1M KNO_3).Ohshita, K. *et al*, *Anal. Chim. Acta*, 1981, **124**, 193 (*synth, use*)**2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(dimethylamino)benzoic acid, 9CI**

D-00201

3,5-diBr-PAMB
[72833-87-5] $C_{14}H_{12}Br_2N_4O_2$ M 428.082Used as a 0.05% soln. in DMF for photometric detn. of V (λ_{max} 640 nm, ϵ 59500, Me_2CO aq.), Co (λ_{max} 673 nm, ϵ 155000, CH_2Cl_2), Ni (λ_{max} 618 nm, ϵ 145000, $CHCl_3$).Brown cryst. Sol. CH_2Cl_2 , $CHCl_3$, DMF.Furukawa, M. *et al*, *Anal. Chim. Acta*, 1982, **140**, 301 (*detn, Ni, synth*)Katami, T. *et al*, *Analyst (London)*, 1983, **108**, 864; 1984, **109**, 461, 731 (*detn, Co, V, Ni*)**2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(2-hydroxy-3-sulfopropyl)amino]benzoic acid, 9CI**

D-00202

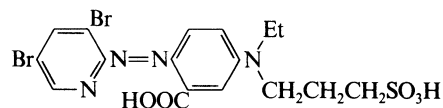
[102387-13-3]

 $C_{17}H_{18}Br_2N_4O_6S$ M 566.226*Di-Na salt*: Used as a 0.08mM aq. soln. for photometric detn. of Co(III), Cu, Ni, Zn. Dark red cryst. (H_2O). Sol. H_2O .Horiguchi, D. *et al*, *Anal. Sci.*, 1985, **1**, 461 (*detn, Co, Cu, Ni, Zn*)**2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(3-sulfopropyl)amino]benzoic acid, 9CI**

D-00203

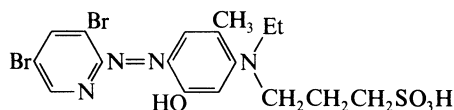
DSAB

[102387-15-5]

 $C_{17}H_{18}Br_2N_4O_5S$ M 550.227*Di-Na salt*: Used as a 0.08mM aq. soln. for photometric detn. of Co(III) (λ_{max} 670 nm, ϵ 152000), Cu, Ni (λ_{max} 620 nm, ϵ 137000), Zn. Dark red cryst. (H_2O). Sol. H_2O .Horiguchi, D. *et al*, *Anal. Sci.*, 1985, **1**, 461 (*synth, detn, Co*)**3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid**

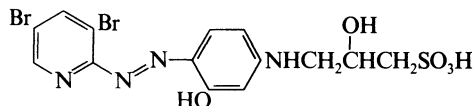
D-00204

[98311-73-0]

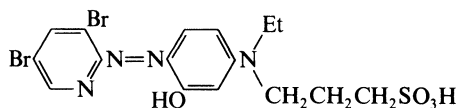
 $C_{17}H_{20}Br_2N_4O_4S$ M 536.243*Di-Na salt*: Used as a 0.08mM aq. soln. for photometric detn. of Co(III), Cu, Ni, Zn. Orange-red cryst. (H_2O). Sol. H_2O .Horiguchi, D. *et al*, *Anal. Sci.*, 1985, **1**, 461 (*use*)**3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-2-hydroxy-1-propanesulfonic acid**

D-00205

[102362-78-7]

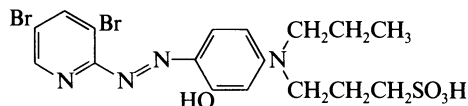
 $C_{14}H_{14}Br_2N_4O_5S$ M 510.162*Di-Na salt*: Used as a 0.08mM aq. soln. for photometric detn. of Co(III), Cu, Ni, Zn. Orange-red cryst. (H_2O). Sol. H_2O .Horiguchi, D. *et al*, *Anal. Sci.*, 1985, **1**, 461 (*detn, Co, Cu, Ni, Zn*)**3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid**

D-00206

2-(3,5-Dibromo-2-pyridylazo)-5-(N-ethyl-N-sulfopropylamino)phenol
[86190-06-9] $C_{16}H_{18}Br_2N_4O_4S$ M 522.217*Di-Na salt*: Used as a 0.08mM aq. soln. for photometric detn. of Co, Cu, Fe(II), Ni, Zn, UO_2^{2+} . Orange-red cryst. (H_2O). Sol. H_2O .Ohshita, K. *et al*, *Anal. Chim. Acta*, 1983, **149**, 269 (*synth, detn, U*)
Horiguchi, D. *et al*, *Anal. Sci.*, 1985, **1**, 461 (*use*)

3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid

[98311-72-9]

 $C_{17}H_{20}Br_2N_4O_4S$ M 536.243

Di-Na salt: Used as a 0.08mM aq. soln. for photometric detn. of Co, Cu, Fe(II), Ni, Zn, $UO_2^{2\oplus}$. Orange-red cryst. (H_2O). Sol. H_2O .

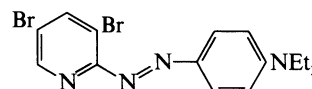
Horiguchi, D. *et al*, *Anal. Sci.*, 1985, 1, 461 (use)

D-00207

4-(3,5-Dibromo-2-pyridylazo)-N,N-diethylaniline

4-[(3,5-Dibromo-2-pyridinyl)azo]-N,N-diethylbenzenamine, 9CI. 3,5-DiBr-PAEA

[100743-66-6]

 $C_{15}H_{16}Br_2N_4$ M 412.126

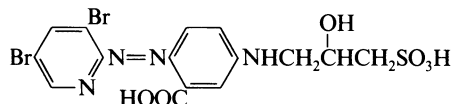
Used as 0.04mM EtOH soln. for photometric detn. of Ag, Cu (λ_{max} 638 nm, ϵ 110000). Cryst. (EtOH). Sol. EtOH, MeOH. pK_{a2} 2.75 (20% EtOH).

Ohshita, K. *et al*, *Anal. Chim. Acta*, 1985, 176, 41 (synth, detn, Ag, Cu)

D-00211

2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(2-hydroxy-3-sulfopropyl)amino]benzoic acid, 9CI

[102387-12-2]

 $C_{15}H_{14}Br_2N_4O_6S$ M 538.173

Di-Na salt: Used as a 0.08mM aq. soln. for photometric detn. of Co(III), Cu, Ni, Zn. Dark red cryst. (H_2O). Sol. H_2O .

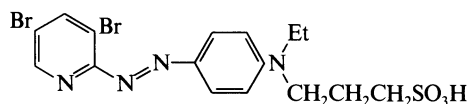
Horiguchi, D. *et al*, *Anal. Sci.*, 1985, 1, 461 (use)

D-00208

4-(3,5-Dibromo-2-pyridylazo)-N-ethyl-N-(3-sulfopropyl)aniline

3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]phenyl]ethylamino]-1-propanesulfonic acid, 9CI. 3,5-DiBr-PAESA

[100743-65-5]

 $C_{16}H_{18}Br_2N_4O_3S$ M 506.217

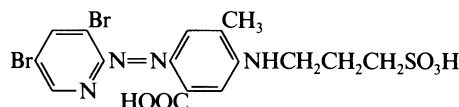
Used as 0.04mM aq. soln. for photometric detn. of Ag, Cu (λ_{max} 638 nm, ϵ 124000). Cryst. (EtOH). Sol. H_2O , EtOH. pK_{a2} 2.45 (H_2O).

Ohshita, K. *et al*, *Anal. Chim. Acta*, 1985, 176, 41 (synth, detn, Ag, Cu)

D-00212

2-[(3,5-Dibromo-2-pyridinyl)azo]-4-methyl-5-[(3-sulfopropyl)amino]benzoic acid

[102387-14-4]

 $C_{16}H_{16}Br_2N_4O_5S$ M 536.200

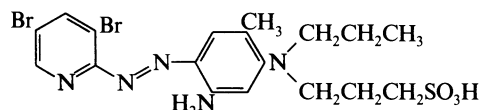
Di-Na salt: Used as a 0.08mM aq. soln. for photometric detn. of Co(III), Cu, Ni, Zn. Dark red cryst. (H_2O). Sol. H_2O .

Horiguchi, D. *et al*, *Anal. Sci.*, 1985, 1, 461 (use)

D-00209

2-(3,5-Dibromo-2-pyridylazo)-4-methyl-5-(N-propyl-N-sulfopropylamino)aniline

3-[[3-Amino-4-[(3,5-dibromo-2-pyridinyl)azo]-6-methylphenyl]propylamino]-1-propanesulfonic acid

 $C_{18}H_{23}Br_2N_5O_3S$ M 549.285

Na salt: Used as a 1mM aq. soln. for photometric detn. of Fe(II), Co, Cu, Ni. Cryst. (H_2O). Sol. H_2O . Mp 262-264°.

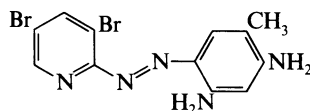
Horiguchi, D. *et al*, *Anal. Chim. Acta*, 1983, 151, 457 (use)

D-00213

5-(3,5-Dibromo-2-pyridylazo)-2,4-diaminotoluene

4-[(3,5-Dibromo-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, 9CI. 3,5-Dibromo-PADAT

[54776-50-0]

 $C_{12}H_{11}Br_2N_5$ M 385.060

Used as a 0.1% soln. in EtOH for extraction-photometric detn. of Co (λ_{max} 591 nm, ϵ 142000). Purplish black lustrous needles (EtOH aq.). Sol. EtOH, Me_2CO ; spar. sol. H_2O . Mp 230°.

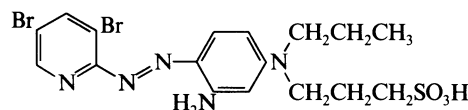
Shibata, S. *et al*, *Anal. Chim. Acta*, 1974, 73, 107 (synth, detn, Co)

D-00210

2-(3,5-Dibromo-2-pyridylazo)-5-(N-propyl-N-sulfopropylamino)aniline

3-[[3-Amino-4-[(3,5-dibromo-2-pyridinyl)azo]phenyl]propylamino]-1-propanesulfonic acid, 9CI

[87035-62-9]

 $C_{17}H_{21}Br_2N_5O_3S$ M 535.259*Na salt:* [87035-63-0].

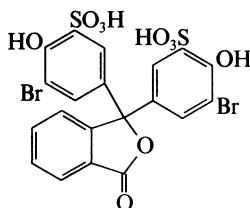
Used as a 1mM aq. soln. for photometric detn. of Fe(II), Co, Cu, Ni. Cryst. (H_2O). Sol. H_2O . Mp 240-260° dec.

Horiguchi, D. *et al*, *Anal. Chim. Acta*, 1983, 151, 457 (use)

D-00214

Dibromosulfonephthalein**D-00215**

3,3'-(4,7-Dibromo-3-oxo-1(3H)-isobenzofuranylidene)bis[6-hydroxybenzenesulfonic acid], 9CI. Dibromsulfalein [17199-35-8]



$C_{20}H_{12}Br_2O_{10}S_2$ M 636.249

Used as adsorption indicator in titrimetric detn. of Br^- , Cl^- , I^- , SCN^- . Sol. H_2O .

▷ DB6000000.

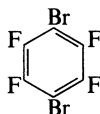
[20971-73-7]

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use).

1,4-Dibromo-2,3,5,6-tetrafluorobenzene,**D-00216**

9CI

[344-03-6]



$C_6Br_2F_4$ M 307.868

Standard for F-19 nmr. Cryst. (MeOH aq.). Mp 76-77°.

Aldrich Library of FT-IR Spectra, 1st Ed., 1, 1015B (ir)

Hellman, M. et al, *J. Am. Chem. Soc.*, 1953, **75**, 4590 (synth)

Bruce, M.I., *J. Chem. Soc. A*, 1968, 1459 (F nmr)

Smithson, L.D. et al, *Org. Mass Spectrom.*, 1970, **4**, 1 (ms)

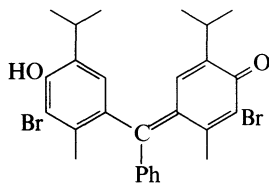
Jameson, A.K. et al, *J. Am. Chem. Soc.*, 1973, **95**, 8555 (use)

Pawley, G.S. et al, *Acta Crystallogr., Sect. A*, 1977, **33**, 142 (struct)

Green, J.H.S. et al, *Spectrochim. Acta, Part A*, 1977, **33**, 193 (ir, raman)

3,3'-Dibromothymolbenzein**D-00217**

2-Bromo-4-[[3-bromo-4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]phenylmethylene]-3-methyl-6-(1-methylethyl)-2,5-cyclohexadien-1-one, 9CI



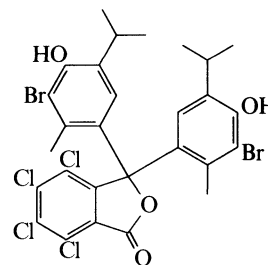
$C_{27}H_{28}Br_2O_2$ M 544.325

Used as a 0.1% soln. in EtOH as acid-base indicator (pH range: 5.6-7.2; colour change: yellow → blue). Red cryst. (C_6H_6). Sol. Me_2CO , Et_2O , EtOH, C_6H_6 ; spar. sol. pet. ether; insol. H_2O . Mp 89-90°.

Orndorff, W.R. et al, *J. Am. Chem. Soc.*, 1929, **51**, 818.

3,3'-Dibromothymoltetrachlorophthalein**D-00218**

3,3-Bis[3-bromo-4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-4,5,6,7-tetrachloro-1(3H)-isobenzofuranone, 9CI



$C_{28}H_{24}Br_2Cl_4O_4$ M 726.114

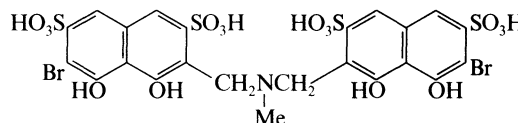
Used as acid-base indicator (pH range: 8.4-8.8; colour change: colourless → blue). Colourless cryst. (AcOH). Sol. Me_2CO , C_6H_6 , Et_2O , EtOH; insol. H_2O . Mp 223-225°.

Cornwall, R.T. et al, *J. Am. Chem. Soc.*, 1927, **49**, 826.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 100.

Dibromotichromin**D-00219**

3,3'-[(Methylimino)bis(methylene)]bis[6-bromo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid], 9CI. N-Methylene-N,N-bismonobromochromotropic acid [52025-70-4]



$C_{23}H_{19}Br_2NO_{16}S_4$ M 853.472

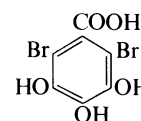
Used as a 0.5% soln. in 3% Na_2SO_3 for photometric detn. of Ti (λ_{max} 480 nm, ϵ 10300, butanol). Cryst. Sol. H_2O .

Basargin, N.N. et al, *Zavod. Lab.*, 1973, **39**, 1043, 1305 (detn, Ti)

2,6-Dibromo-3,4,5-trihydroxybenzoic acid**D-00220**

Dibromogallic acid

[602-92-6]



$C_7H_4Br_2O_5$ M 327.914

Used as 10% aq. soln. in photometric detn. of Nb and Ta. Cryst.

Tri-Me ether: [6307-91-1]. 2,6-Dibromo-3,4,5-trimethoxybenzoic acid

$C_{10}H_{10}Br_2O_5$ M 369.994

Needles (H_2O). Mp 144-145°.

Tri-Me ether, amide:

$C_{10}H_{11}Br_2NO_4$ M 369.009

Mp 183-185°.

Friedrich, K. et al, *Chem. Ber.*, 1959, **92**, 2574.

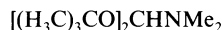
Ackermann, G. et al, *Talanta*, 1969, **16**, 95, 284, 288; 1970, **17**, 757.

1,1-Dibutoxytrimethylamine, 8CI**D-00221**

1,1-Dibutoxy-N,N-dimethylmethanamine, 9CI. Dimethylformamide dibutyl acetal

[18503-90-7]



C₁₁H₂₅NO₂ M 203.324Alkylating reagent used for derivatisation of fatty acids and amino acids for gc anal. Oil. Bp₂₀ 96-98°, Bp₁₂ 93°. n_D^{20} 1.4142.Meerwein, H. *et al*, *Justus Liebigs Ann. Chem.*, 1961, **641**, 1 (*synth*)
Bredereck, H. *et al*, *Chem. Ber.*, 1968, **101**, 41 (*synth*)
Thenot, J.P. *et al*, *Anal. Lett.*, 1972, **5**, 217, 519 (*use*)
Kantlehner, W. *et al*, *Chem. Ber.*, 1972, **105**, 1340 (*synth*)**1,1-Di-*tert*-butoxytrimethylamine, 8CI** **D-00222**N,N-Dimethyl-1,1-bis(1,1-dimethylethoxy)methanamine, 9CI. Dimethylformamide di-*tert*-butyl acetal [36805-97-7]C₁₁H₂₅NO₂ M 203.324Alkylating reagent used for derivatisation of fatty acids and amino acids for gc anal. Oil. Bp₂₅ 75-78°, Bp₈ 56-57°. n_D^{20} 1.4140.Arnold, Z. *et al*, *Collect. Czech. Chem. Commun.*, 1964, **29**, 645 (*synth*)Thenot, J.P. *et al*, *Anal. Lett.*, 1972, **5**, 217, 519 (*use*)
Kantlehner, W. *et al*, *Chem. Ber.*, 1972, **105**, 1340 (*synth*)
Mohacsi, E., *Synth. Commun.*, 1985, **15**, 723 (*synth*)**Dibutylamine** **D-00223**

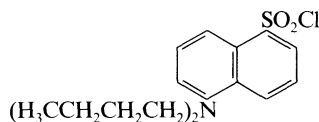
N-Butyl-1-butanamine, 9CI [111-92-2]

C₈H₁₉N M 129.245Used for purifn. of Abietic and related acids by salt formn. Anal. reagent for org. isothiocyanates. Sol. H₂O, EtOH. Fp -61.9°. Bp 159°.

▷ Toxic, irritant, TLV 15. HR7780000.

Picrate: Mp 59° (98-99°).N-Me: [3405-45-6]. *Dibutylmethylamine*C₉H₂₁N M 143.272Liq. d_4^{20} 0.761. Fp -62°. Bp 159.6°.

▷ Highly toxic, flammable. HR8225000.

Werner, E.A., *J. Chem. Soc.*, 1919, **115**, 1010 (*synth*)Vliet, E.B., *J. Am. Chem. Soc.*, 1924, **46**, 1307 (*synth*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 209.Verma, B.C. *et al*, *Talanta*, 1986, **33**, 704 (*use*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 218.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DDT800, DEE400.**5-(Dibutylamino)-1-naphthalenesulfonyl chloride, 9CI** **D-00224***Bansyl chloride*. BANS-Cl [43040-76-2]C₁₈H₂₄ClNO₂S M 353.912

Used as derivatisation reagent for tlc analysis of dopamine derivs. with electron impact and field desorption ms detection. Orange-red oil.

Seiter, N. *et al*, *J. Chromatogr.*, 1973, **84**, 95; 1973, **97**, 286 (*synth*, *use*)Lehmann, W.D. *et al*, *Anal. Chem.*, 1976, **48**, 1572 (*use*)**N-[(Dibutylamino)thioxomethyl] benzamide, 9CI** **D-00225**

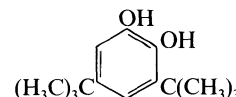
N,N-Di-n-butyl-N'-benzoylthiourea. 1,1-Dibutyl-3-benzoylthiourea [68141-55-9]

C₁₆H₂₄N₂OS M 292.444Used as 0.1mM soln. in toluene for extraction separation of platinum group metals; as 5mM soln. in 0.1M NaOH for extraction separation of Ir(III), Ir(IV) (CHCl₃, sl. acidic media). Cryst. (EtOH). Sol. toluene, CHCl₃, decane, alkalis, EtOH. Mp 93°.Beyer, L. *et al*, *J. Prakt. Chem.*, 1975, **317**, 829 (*synth*)
Röbisch, G. *et al*, *Anal. Chim. Acta*, 1983, **151**, 255 (*detn*, *Ir*)
Koenig, K.H. *et al*, *Fresenius' Z. Anal. Chem.*, 1985, **321**, 457 (*synth*, *use*)**Dibutylarsinic acid** **D-00226***Dibutylhydroxyarsine oxide*, 8CI [2850-61-5]C₈H₁₉AsO₂ M 222.158Synth. from C₄H₉Br with C₄H₉AsCl₂ and 10M NaOH aq. Used for extraction separation of U (CHCl₃, pH 2-2.5). Prisms (H₂O) or cryst. (Me₂CO). Sol. EtOH; sl. sol. H₂O. Mp 138°. pK_a 14.4 (DMF).

▷ CH7280000.

Et ester: [64448-13-1]. *Ethyl dibutylarsinate*.*Dibutylethoxyarsine oxide*C₁₀H₂₃AsO₂ M 250.212Liq. d_4^{20} 1.11. Bp_{0.02} 99-100°. n_D^{20} 1.4624.*Propyl ester*: [64448-12-0]. *Propyl dibutylarsinate*.*Dibutylpropoxyarsine oxide*C₁₁H₂₅AsO₂ M 264.239Solid. Mp 34-35°. Bp_{0.015} 118-120°.*Butyl ester*: [56269-03-5]. *Butyl dibutylarsinate*.*Butoxydibutylarsinate*C₁₂H₂₇AsO₂ M 278.266Liq. d_4^{20} 1.09. Bp_{0.01} 102-104°. n_D^{20} 1.4685.Quick, A.J. *et al*, *J. Am. Chem. Soc.*, 1922, **44**, 805 (*synth*)Pietsch, R. *et al*, *Fresenius' Z. Anal. Chem.*, 1962, **190**, 319 (*sepn*, *U*)Iordolic, K. *et al*, *J. Organomet. Chem.*, 1966, **6**, 17 (*synth*)Smith, M.R. *et al*, *J. Organomet. Chem.*, 1969, **20**, 105 (*cryst**struct*)Smith, M.R. *et al*, *Thermochim. Acta*, 1970, **1**, 51, 555 (*dta*, *cryst**struct*)Gamayurova, V.S. *et al*, *Zh. Obshch. Khim.*, 1976, **46**, 2073; 1979,**49**, 174; *J. Gen. Chem. USSR (Engl. Transl.)*, 1976, **46**, 1995;1979, **49**, 153 (*synth*, *derivs*, *pmr*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

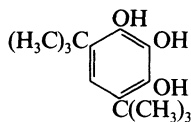
Ed., Van Nostrand-Reinhold, 1992, DDD250.

3,5-Di-*tert*-butyl-1,2-benzenediol **D-00227**3,5-Bis(1,1-dimethylethyl)-1,2-benzenediol, 9CI. 3,5-Di-*tert*-butylcatechol [1020-31-1]C₁₄H₂₂O₂ M 222.327

Used as 0.017 *M* soln. in toluene for extraction-photometric detn. of B (λ_{\max} 610 nm, ϵ 105000). Cryst. Sol. C₆H₆, toluene, CHCl₃, Mp 96-99°.

Schulze, H. *et al*, *Justus Liebigs Ann. Chem.*, 1952, **575**, 231 (*synth*)
Oshima, M. *et al*, *Anal. Chem.*, 1984, **56**, 984 (*detn*, B)

4,6-Di-*tert*-butyl-1,2,3-benzenetriol **D-00228**
[3934-77-8]



C₁₄H₂₂O₃ M 238.326
Cryst. (pet. ether). Mp 122-123°.

l-Me ether: [4055-71-4]. 4,6-Di-*tert*-butyl-3-methoxy-1,2-benzenediol. 4,6-Bis(1,1-dimethylethyl)-3-methoxy-1,2-benzenediol, 9CI. 4,6-Di-*tert*-butyl-3-methoxycatechol

C₁₅H₂₄O₃ M 252.353

Used as 0.035*M* soln. in toluene for extraction photometric detn. of B (λ_{\max} 610 nm, ϵ 100000). Cryst. (pet. ether). Sol. toluene, pet. ether. Mp 129-131°.

l-Me ether, di-Ac: [49746-14-7].

C₁₉H₂₈O₅ M 336.427

Cryst. (hexane). Mp 130-132°.

Tri-Ac:

C₂₀H₂₈O₆ M 364.438

Cryst. (EtOH or pet. ether). Mp 166°.

Schulze, H. *et al*, *Justus Liebigs Ann. Chem.*, 1952, **575**, 231 (*synth*)

Salfeld, J.C., *Chem. Ber.*, 1960, **93**, 737, 745 (*synth*)

Eckert, R.C. *et al*, *J. Org. Chem.*, 1974, **39**, 718 (*synth*, *deriv*)

Oshima, M. *et al*, *Talanta*, 1988, **35**, 351 (*l*-Me ether, *synth*, *detn*, B)

Dibutyl carbonate **D-00229**
[542-52-9]



C₉H₁₈O₃ M 174.239

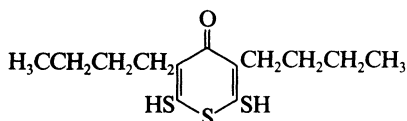
Reagent for the preparation of butyl esters for glc. Liq. d_4^{20} 0.924. Bp₇₄₀ 207°, Bp₄ 118-122°.

Sampugna, J. *et al*, *J. Dairy Sci.*, 1966, **49**, 1462 (*use*)

Bondar, S. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1972, 308 (*synth*)

Kondo, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 108 (*synth*)

3,5-Dibutyl-2,6-dimercapto-4*H*-thiopyran-4-one, 9CI **D-00230**

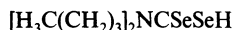


C₁₃H₂₀OS₃ M 288.498

Used as 0.1*mM* aq. soln. for photometric detn. of Bi (λ_{\max} 425 nm, ϵ 31000), Sn (λ_{\max} 410 nm, ϵ 21900). Cryst.

Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn*, Sn, Bi)

Dibutyldiselenocarbamic acid **D-00231**
Dibutylcarbamodiselenoic acid
[45016-22-6]



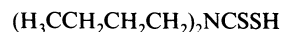
C₉H₁₉NSe₂ M 299.176

Na salt: [18938-33-5].

Used as a 0.03*mM* soln. in CH₂Cl₂ for extraction-photometric detn. of Cu(II) (λ_{\max} 440 nm, ϵ 15000, CH₂Cl₂), Na, Ag(I), Au(III), Co(II), Hg(II), Ni(II), Pd(II), Zn. Unstable orange-red oily solid (CH₂Cl₂). Sol. H₂O, CH₂Cl₂.

Honjo, T., *Bull. Chem. Soc. Jpn.*, 1984, **57**, 591 (*synth*, *detn*, Cu)

***N*-Dibutylthiocarbamic acid** **D-00232**
[150-11-8]



C₉H₁₉NS₂ M 205.388

Esters are used as plasticisers. Used as 0.01-0.1*M* aq. soln. of Na salt in extraction of numerous elements.

Vinyl ester: [15351-45-8].

Liq. Bp₅ 148°.

Butyl ester:

C₁₃H₂₇NS₂ M 261.495

Liq. Bp₁ 163°.

2-Dimethylaminoethyl ester: Animal growth-promoting substance, tuberculostatic. Light-yellow oil. Bp_{0.2} 163°.

Damiens, R., *Ann. Chim. (Paris)*, 1951, **6**, 835 (*synth*)

U.S. Pat., 2 579 384, (1951); *CA*, **46**, 6149 (*synth*)

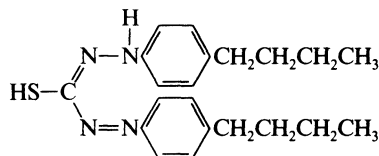
Campbell, A.W. *et al*, *Ind. Eng. Chem.*, 1953, **45**, 125 (*synth*)

U.K. Pat., 687 701, (1954); *CA*, **48**, 2769 (*synth*, *use*)

Tulyupa, F.M. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 1844 (*use*)

4,4'-Dibutylthiizone **D-00233**

*4-Butylphenyldiazene*carbothioic acid 2-(4-butylphenyl)hydrazide. Bis(4-butylphenyl)thiocarbazone. Di(p-butylphenyl)thiocarbazone. *Butylthiizone*
[65388-10-5]



C₂₁H₂₈N₄S M 368.545

Used as a 0.01% soln. in CHCl₃ or CCl₄ for extraction-photometric detn. of Co, Cu, Hg, Ni, Zn. Greenish black cryst. powder. Sol. alkalis, Me₂CO, C₆H₆, CHCl₃, CCl₄; insol. H₂O. Mp 118-120°.

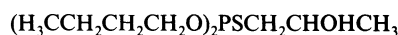
Uesugi, K. *et al*, *Essays Anal. Chem.*, Pergamon Press, Oxford, 1977 (*use*)

Hutton, A.T., *Polyhedron*, 1987, **6**, 13 (*synth*, *pmr*)

Dibutyl-(2-hydroxypropyl)thiophosphonic acid **D-00234**

(2-Hydroxypropyl)phosphonothioic acid O,O-dibutyl ester, 9CI

[35734-59-9]



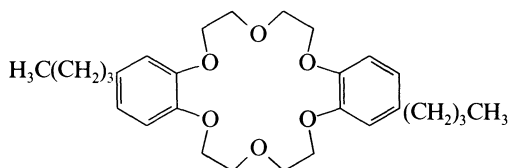
C₁₁H₂₅O₃PS M 268.356

Used as a soln. in CCl₄ for extraction sepn. of Hg from Zn and Cd. Cryst. Sol. CHCl₃, CCl₄, C₆H₆.

Pudovik, A.N. *et al*, *Izv. Akad. Nauk SSSR*, 1952, 932 (*synth*)

Sevdič, D. *et al*, *Mikrochim. Acta*, 1972, 1 (*use*)

2,13-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, 9CI
2,13-Dibutyldibenzo-18-crown-6
[68725-68-8]



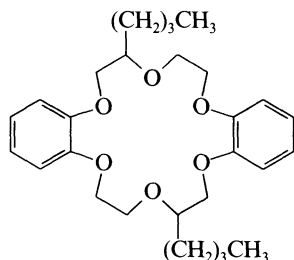
$C_{28}H_{40}O_6$ M 472.620

Used for detn. of K (membrane ion-selective electrode).

Cryst. Sol. $CHCl_3$.

Norov, S.K. *et al.*, *Zh. Anal. Khim.*, 1984, **39**, 613; 1987, **42**, 429 (synth, use)

7,18-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo-*[b,k]*[1,4,7,10,13,16]hexaoxacyclooctadecin, 9CI
7,18-Dibutyldibenzo-18-crown-6
[87834-23-9]

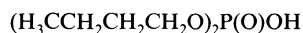


$C_{28}H_{40}O_6$ M 472.620

Used as 0.2mM $CHCl_3$ soln. for extraction separation of Li, Na, K (pH 8-9). Cryst. Sol. $CHCl_3$.

Mamedova, Yu.G. *et al.*, *Zh. Anal. Khim.*, 1983, **38**, 1578 (synth, use)

Dibutyl phosphate, 9CI, 8CI D-00237
Dibutyl hydrogen phosphate. Dibutyl phosphoric acid
[107-66-4]



$C_8H_{19}O_4P$ M 210.209

Metal extractant used in regeneration of irradiated nuclear fuels. Metabolite of tributyl phosphate. Used for extraction separation of In, Ga, Mo, Ti. Oil. Sol. butanol, CCl_4 . d_4^{20} 1.06. $Bp_{0.05}$ 135-138°. pK_a 1.75 (H_2O), pK_a 3.00 (75% EtOH aq.), pK_a 6.97 (EtOH), pK_a 10.49 ($MeNO_2$). n_D^{20} 1.4288.

▷ TB9605000.

Cook, H.G. *et al.*, *J. Chem. Soc.*, 1949, 635 (fluoride, synth, tox)
Grosse-Ruyken, H. *et al.*, *J. Prakt. Chem.*, 1962, **18**, 287 (synth)
Kiss, A.B. *et al.*, *Acta Chim. Hung.*, 1965, **44**, 357 (use, In)
Mitsunobu, O. *et al.*, *J. Org. Chem.*, 1965, **30**, 1071 (synth)
Kiss, A.B. *et al.*, *Mikrochim. Acta*, 1966, 771 (use, Mo)
Bliznyuk, N.K. *et al.*, *Zh. Obshch. Khim.*, (Engl. transl. p. 1061), 1967, **37**, 1119 (synth)

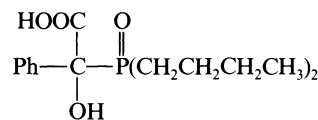
D-00235

Solovkin, A.S., *Radiokhimiya*, (Engl. transl. p. 49), 1982, **24**, 56 (use, rev)

Krejzler, J. *et al.*, *J. Radioanal. Nucl. Chem.*, 1984, **85**, 57 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DEG700.

α -(Dibutylphosphinyl)- α -hydroxybenzeneacetic acid, 9CI
[33313-45-0]

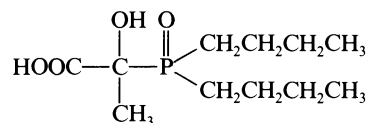


$C_{16}H_{25}O_4P$ M 312.345

Used as a 0.1M soln. in isopentanol or $CHCl_3$ for extraction of Al, Cd, Co, Cu, Ga, Hg, In; extraction sepn. of Al, Zn ($CHCl_3$, isopentanol). Cryst. Sol. isopentanol, $CHCl_3$, dioxan. pK_{a1} 4.22 ($\mu = 0.1$, 25°).

Pupovik, A.N. *et al.*, *Zh. Obshch. Khim.*, 1971, **41**, 1222 (synth)
Miftakhova, A.K. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 1771 (use)

2-(Dibutylphosphinyl)-2-hydroxypropanoic acid, 9CI D-00239
[30980-88-2]



$C_{11}H_{23}O_4P$ M 250.274

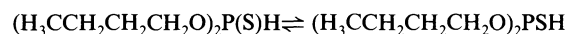
Used as a 0.1M aq. soln. for extraction-photometric detn. of Al (λ_{max} 575 nm, ϵ 3150, $CHCl_3$), extraction of Cu, Fe, Ti, Cd, Co, Ga, In, Ni, Zn. Cryst. (EtOH/hexane). Sol. H_2O . Mp 105°. pK_{a1} 3.0; pK_{a2} 11.6 ($\mu = 0.1$, 25°).

Toropova, V.F. *et al.*, *Zh. Obshch. Khim.*, 1970, **40**, 2172 (synth, detn, Cu)

Toropova, V.F. *et al.*, *Zh. Anal. Khim.*, 1972, **27**, 1836 (detn, Fe, Ti)

Miftakhova, A.K. *et al.*, *Zavod. Lab.*, 1976, **42**, 262 (detn, Al)

O,O-Dibutyl phosphonothioate, 9CI D-00240
O,O-Dibutyl thiophosphite
[17529-47-4]



$C_8H_{19}O_2PS$ M 210.277

Tautomeric but exists almost completely in the thiophosphoryl form. Used in extraction, separation of Hg from Cd and Zn. Liq. with strong, sickly odour. Bp_3 88-89°. n_D^{20} 1.4535.

Murav'ev, I.V. *et al.*, *Zh. Obshch. Khim.*, (Engl. transl. p. 133), 1968, **38**, 133 (synth)

Sedivic, D. *et al.*, *Mikrochim. Acta*, 1972, 1 (use)

O,O-Dibutyl phosphorodithioate, 9CI, 8CI D-00241
O,O-Dibutyl hydrogen dithiophosphate. O,O-Dibutyl dithiophosphoric acid
[2253-44-3]



$C_8H_{19}O_2PS_2$ M 242.343

Oil. Sol. EtOH, C_6H_6 , CCl_4 , Me_2CO , $CHCl_3$, d_4^{20} 1.06. Bp_2 99-99.5°, $Bp_{0.8-1.0}$ 120°. pK_a 2.64 (80% EtOH aq.). n_D^{20} 1.4971.

K salt: [3549-51-7].

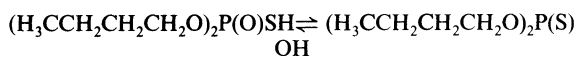
Flotation agent for Cu and Ni sulfide ores. Used as a soln. in CHCl_3 , C_6H_6 or CCl_4 for extraction of Cd, In, Ni, Pb, Tl, Zn, Zr. Zr complex used as lubricant additive. Solid. Mp 147-147.5°.

McIver, R.A. *et al*, *Can. J. Chem.*, 1958, **36**, 820 (*ir*)
Kabachnik, M.I. *et al*, *Tetrahedron*, 1960, **9**, 10 (*synth*)
Busev, A.I. *et al*, *Tr. Kom. Anal. Khim., Akad. Nauk SSSR*, 1960, **11**, 172 (*use*)

Almasi, L. *et al*, *CA*, 1965, **62**, 2729 (*synth*)
Bolotova, G.L. *et al*, *CA*, 1965, **63**, 6897 (*synth*)
Lefferts, J.L. *et al*, *Inorg. Chem.*, 1980, **19**, 1662 (*synth, complexes*)
Toropova, V.F. *et al*, *Talanta*, 1987, **34**, 211 (*use*)
Sasaki, Y. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1988, **38**, 707 (*use*)

O,O-Dibutyl phosphorothioate, 9Cl, 8Cl D-00242

O,O-Dibutyl hydrogen phosphorothioate. O,O-Dibutylphosphorothioic acid. O,O-Dibutyl hydrogen thiophosphate. O,O-Dibutyl thiophosphoric acid [10163-62-9]



$\text{C}_8\text{H}_{19}\text{O}_3\text{PS}$ M 226.276

Conveniently isol. and stored as K or NH_4 salt; 38% thiol form (7% EtOH aq.), 11% thiol form (80% EtOH aq.) at r.t. Used as solns. in nonpolar solvs. for extraction separation of Ni, Zn, Cd, Tl(I), In. Oil. Sol. CHCl_3 , CCl_4 , C_6H_6 , heptane. d_4^{20} 1.07. Bp_{0.08} 88-89°. n_D^{20} 1.4654.

NH₄ salt: [35329-22-7].

Solid. Mp 147-150°.

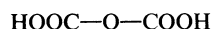
K salt: [51825-87-7].

Cryst. (CHCl_3).

Foss, O., *Acta Chem. Scand.*, 1947, **1**, 8 (*synth*)
Kabachnik, M.I. *et al*, *Tetrahedron*, 1960, **9**, 10 (*synth, struct*)
Pesin, V.G. *et al*, *Zh. Obshch. Khim.*, (Engl. transl. p. 2337), 1961, **31**, 2508 (*synth*)
Mastryukova, T.A. *et al*, *Zh. Obshch. Khim.*, 1974, **44**, 1001 (*Engl. transl. p. 963; hPhosphorus Sulfur Relat. Elem.*, 1976, **1**, 211 (*props*))
Toropova, V.F. *et al*, *Talanta*, 1987, **34**, 211 (*use*)

Dicarboxylic acid, 9Cl D-00243

Oxydiformic acid, 8Cl. Pyrocarbonic acid [503-81-1]



$\text{C}_2\text{H}_2\text{O}_5$ M 106.035

Di-Me ester: [4525-33-1]. Dimethyl dicarbonate. Dimethyl pyrocarbonate. Velcorin

$\text{C}_4\text{H}_6\text{O}_5$ M 134.088

Yeast inhibitor and preservative for alcoholic beverages. Bp₅ 44-47°. n_D^{20} 1.3948.

Di-Et ester: [1609-47-8]. Diethyl dicarbonate. Diethyl pyrocarbonate. Baycovin

$\text{C}_6\text{H}_{10}\text{O}_5$ M 162.142

Preservative for beverages, food additive. Reagent for the gc sepn. of amines as urethanes. d_4^{20} 1.12. Bp₃ 58.5-62°. n_D^{25} 1.3975.

► Poss. prototocarcinogen. Irritant. LQ9350000.

Di-tert-butyl ester: [4525-32-0]. Di-tert-butyl dicarbonate.

Di-tert-butyl pyrocarbonate

$\text{C}_{10}\text{H}_{18}\text{O}_5$ M 218.249

Coupling reagent in organic synthesis. Liq. Mp 21-22°. Bp₃ 73-75°. n_D^{25} 1.4071, 1.4085.

Dibenzyl ester: [31139-36-3]. Dibenzyl dicarbonate. Dibenzyl pyrocarbonate

$\text{C}_{16}\text{H}_{14}\text{O}_5$ M 286.284

Reagent for prepn. of *N*-benzyloxycarbonyl protected amino acids. Cryst. (hexane). Mp 28°.

Di(2-propenyl) ester: [115491-93-5]. Diallyl dicarbonate.

Diallyl pyrocarbonate

$\text{C}_8\text{H}_{10}\text{O}_5$ M 186.164

Reagent for protection of amino-sugars, aminoacids and nucleosides. Bp_{0.05} 65°. Stable at r.t.

Rosnati, L., *Chem. Ber.*, 1963, **96**, 3098 (*synth, diethyl ester*)

Fr. Pat., 1 542 382, (1968); *CA*, **71**, 123555h (*manuf, dimethyl ester*)

Gejvall, T., *J. Chromatogr.*, 1974, **90**, 157 (*use, ethyl ester*)

Brysova, V.P. *et al*, *J. Org. Chem., USSR*, 1974, **10**, 2551 (*synth, dimethyl ester*)

Turczan, J.W. *et al*, *J. Agric. Food Chem.*, 1977, **25**, 594 (*pmr, diethyl ester*)

Org. Synth., 1977, **57**, 45 (*di-tert-butyl ester*)

Pauli, G.H., *J. Chem. Educ.*, 1984, **61**, 332 (*rev, diethyl ester*)

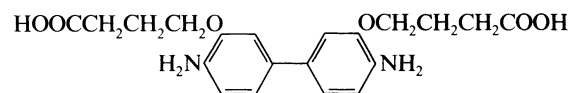
Sennyey, G. *et al*, *Tetrahedron Lett.*, 1986, **27**, 5375; 1987, **28**, 5809 (*Diallyl, dibenzyl esters*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DIZ100, DRJ850.

Dicarboxidine D-00244

4,4'-[[4,4'-Diamino[1,1'-biphenyl]-3,3'-diyl]bis(oxy)] bisbutanoic acid, 9Cl. γ,γ' -(4,4'-Diamino-3,3'-biphenylenedioxy)dibutyric acid

[34915-18-9]



$\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_6$ M 388.419

Used as a 1.25% aq. soln. for photometric detn. of CN^- , Cl_2 . Mod. sol. H_2O , dil. alkalis.

B,2HCl: [56455-90-4].

Peroxidase substrate; used in TLC detn. of amino acids, peptides and barbiturates.

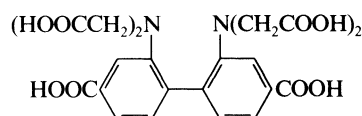
Gröningsson, K., *Analyst (London)*, 1979, **104**, 367.

Svahn, C.M. *et al*, *J. Chromatogr.*, 1979, **170**, 292, 294 (*tlc*)

Paul, K.G. *et al*, *Anal. Biochem.*, 1982, **124**, 102 (*peroxidase*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DEK000.

4,4-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid D-00245



$\text{C}_{22}\text{H}_{20}\text{N}_2\text{O}_{12}$ M 504.406

Used as metallofluorescent indicator in titrimetric detn. of Co, Cr, Cu, Mn, Zn. Flakes.

Kirkbright, G. *et al*, *Anal. Chim. Acta*, 1965, **32**, 544 (*use*)

Dichloroacetic acid, 9Cl D-00246

Dichloroethanoic acid

[79-43-6]



$\text{C}_2\text{H}_2\text{Cl}_2\text{O}_2$ M 128.942

Has fungicidal props. Corrosive liq. d_4^{20} 1.563. Mp 5-6° (11°). Bp 194°, Bp₂₀ 102°. n_D^{25} 1.4659.

► Highly irritant, causes severe burns. AG6125000.

Me ester: [116-54-1].

$\text{C}_3\text{H}_4\text{Cl}_2\text{O}_2$ M 142.969

Liq. Bp 143-144°.

▷ Highly irritant. Emits highly toxic fumes when heated to dec.. AG6625000.

Chloride: [79-36-7].

C_2HCl_3O M 147.387

Derivatisation reagent used in gc anal. of diethylstilbestrol. Liq. Bp 108-111°.

▷ Causes severe burns. AO6650000.

Amide: [683-72-7]. Dichloroacetamide

$C_2H_3Cl_2NO$ M 127.957

Constit. of the red alga *Marginisporum aberrans*.

Preservative. Shows antimicrobial props. Cryst. Mp 98°.

Bp₇₄₅ 234°. Steam-volatile, subl.

▷ AB6475000.

Anhydride: [4124-30-5].

$C_4H_2Cl_4O_3$ M 239.869

Liq. Bp 215-216° dec., Bp₃₅ 140°.

▷ AG6300000.

Nitrile: [3018-12-0]. Dichlorocyanomethane

C_2HCl_2N M 109.942

Liq. d^{11.5} 1.374. Bp 113°.

▷ AL8465000.

Doughty, H.W., *J. Am. Chem. Soc.*, 1931, **53**, 1594 (*synth, bibl*)

Liston, T.R. *et al*, *J. Am. Chem. Soc.*, 1938, **60**, 1264 (*ester*)

Org. Synth., Coll. Vol., 2, 1943, 181 (*synth*)

Org. Synth., Coll. Vol., 3, 1955, 260 (*amide*)

Donoho, A.L. *et al*, *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 785 (*use, chloride*)

Matsumura, K. *et al*, *Chem. Pharm. Bull.*, 1976, **24**, 912.

Fritz, H. *et al*, *Org. Magn. Reson.*, 1977, **9**, 108 (*cmr*)

Ohta, K. *et al*, *Phytochemistry*, 1977, **16**, 1085 (*isol, amide*)

Pellegata, R. *et al*, *Synthesis*, 1985, 517 (*amide*)

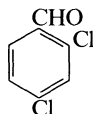
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 275, 278.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DEL000, DEM800, DEM825, DEN000, DEN400.

2,4-Dichlorobenzaldehyde

D-00247

[874-42-0]



$C_7H_4Cl_2O$ M 175.013

Anal. reagent for carboxylic acid hydrazides. Prisms (hexane). Mp 74.5°, Mp 72°.

Oxime: [56843-28-8].

$C_7H_5Cl_2NO$ M 190.028

Needles. Mp 136-137°.

▷ CU5610500.

2,4-Dinitrophenylhydrazone: Mp 224-227°.

Anil: N-(2,4-Dichlorobenzylidene)aniline

$C_{13}H_9Cl_2N$ M 250.126

Yellow needles (methylcyclohexane). Mp 88-89°.

Gindraux, L., *Helv. Chim. Acta*, 1929, **12**, 933.

Lock, G. *et al*, *Ber.*, 1937, **70**, 923.

Latour, A.A. *et al*, *Anal. Chem.*, 1964, **36**, 2479 (*use*)

Bernstein, J., *J. Chem. Soc., Perkin Trans. 2*, 1972, 946 (*cryst struct, deriv*)

Aldrich Library of NMR Spectra, 1974, **6**, 88C (*pmr*)

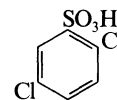
Aldrich Library of IR Spectra, 2nd Ed., 1975, 803E (*ir*)

Bell, R.P. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1976, 1594 (*uv*)

2,5-Dichlorobenzenesulfonic acid

D-00248

[88-42-6]



$C_6H_4Cl_2O_3S$ M 227.067

Needles (H₂O). Mp 92-93°, Mp 104-105°. pK_a 6.23. Forms mono-, di-, and trihydrates and cryst. metal salts.

Chloride: [5402-73-3].

$C_6H_3Cl_3O_2S$ M 245.513

Derivatisation reagent for gc analysis of carbamate pesticides. Needles (EtOH). Mp 39°.

Amide: [7720-45-8].

$C_6H_5Cl_2NO_2S$ M 226.082

Mp 182°, Mp 185-186°.

van der Linden, M.T. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1911, **30**, 334.

Stewart, J., *J. Chem. Soc.*, 1922, **121**, 2555 (*synth, chloride*)

de Crauw, Th., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1931, **50**, 766.

Kolthoff, I.M. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 4428.

Eriksson, A., *Acta Chem. Scand.*, 1972, **26**, 1591 (*ir*)

Lundgren, J.O., *Acta Crystallogr., Sect. B*, 1972, **28**, 486 (*cryst struct*)

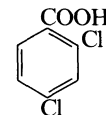
Moye, H.A., *J. Agric. Food Chem.*, 1975, **23**, 415 (*use, chloride*)

Roziere, J. *et al*, *J. Chem. Phys.*, 1978, **68**, 2896.

2,4-Dichlorobenzoic acid

D-00249

[50-84-0]



$C_7H_4Cl_2O_2$ M 191.013

Used for extraction-photometric detn. of U(VI). Needles (H₂O or C₆H₆). Sol. H₂O, EtOH, Et₂O. Mp 164° (160°). pK_a 2.68 (25°). λ_{max} 282 nm (MeOH).

▷ DG6650000.

Me ester: [35112-28-8].

$C_8H_6Cl_2O_2$ M 205.040

d₂₀²⁰ 1.572. Bp₁₅ 132°.

Chloride: [89-75-8].

$C_7H_3Cl_3O$ M 209.458

Bp₂₈ 146-149°, Bp_{1.5} 91.9-92.2°.

Amide: [2447-79-2].

$C_7H_5Cl_2NO$ M 190.028

Cryst. (EtOH). Mp 193-194°.

Nitrile: [6574-98-7]. 2,4-Dichloro-1-cyanobenzene

$C_7H_3Cl_2N$ M 172.013

Mp 61°.

[56882-52-1]

Norris, J.F., *J. Am. Chem. Soc.*, 1939, **61**, 1418.

Lutz, R.E. *et al*, *J. Org. Chem.*, 1947, **12**, 678.

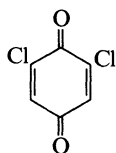
Ross, S.D., *J. Am. Chem. Soc.*, 1948, **70**, 4039 (*synth, uv*)

Aldrich Library of NMR Spectra, 1974, **6**, 160B (*pmr*)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 848A (*ir*)

Georgieva, M., *Anal. Chim. Acta*, 1978, **101**, 139.

Apak, R. *et al*, *Talanta*, 1989, **36**, 993 (*detn, U*)

2,5-Dichloro-1,4-benzoquinone**D-00250**2,5-Dichloro-2,5-cyclohexadiene-1,4-dione, 9Cl
[615-93-0]C₆H₂Cl₂O₂ M 176.986

Reagent for the spectrophotometric anal. of morpholine and piperazine. Yellow prisms (EtOH). Mp 161-162°.

Monoxime: [35421-04-6]. 2,5-Dichloro-4-nitrosophenolC₆H₃Cl₂NO₂ M 192.001Yellow cryst. (C₆H₆). Mp 155-156° dec.*Dioxime*:C₆H₄Cl₂N₂O₂ M 207.015Yellow cryst. (C₆H₆).*Benzenesulfonimide*: Yellow needles (AcOH). Mp 234-235°.Kohn, M. *et al*, *Monatsh. Chem.*, 1930, **56**, 135 (*synth*)Adams, R. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 2608 (*deriv*)Cain, B.F., *J. Chem. Soc.*, 1961, 936 (*synth*)Rees, B., *Acta Crystallogr., Sect. B*, 1970, **26**, 1304 (*cryst struct*)Berger, S. *et al*, *Tetrahedron*, 1972, **28**, 3123 (*cmr*)Girlando, A. *et al*, *Spectrochim. Acta, Part A*, 1975, **31**, 1187 (*ir*)Muralikrishna, U. *et al*, *Indian J. Chem., Sect. A*, 1983, **22**, 904*(use)*Muralikrishna, U. *et al*, *Analyst (London)*, 1984, **109**, 1277 (*use*)**2,6-Dichloro-1,4-benzoquinone****D-00251**2,6-Dichloro-2,5-cyclohexadiene-1,4-dione, 9Cl
[697-91-6]C₆H₂Cl₂O₂ M 176.986Reagent for the spectrophotometric anal. of morpholine and piperazine. Used as 0.3mM soln. in DMSO for photometric detn. of CN[⊖]. Yellow prisms (EtOH). Sol. EtOH, CHCl₃, Me₂CO, C₆H₆, Et₂O. Mp 121°.

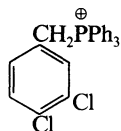
▷ DK4000000.

4-Oxime: [17277-19-9]. 2,6-Dichloro-4-nitrosophenolC₆H₃Cl₂NO₂ M 192.001

Yellow leaflets. Mp 140° dec.

4-Semicarbazone: Orange needles. Mp 218° dec.Ling, A.R., *J. Chem. Soc.*, 1892, 558 (*synth*)v. Erp, H., *Ber.*, 1925, **58**, 663 (*synth*)Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn*, CN[⊖])Rees, B., *Acta Crystallogr., Sect. B*, 1970, **26**, 1298.Girlando, A. *et al*, *Spectrochim. Acta, Part A*, 1975, **31**, 1187 (*ir*)Höfle, G., *Tetrahedron*, 1976, **32**, 1431 (*cmr*)Muralikrishna, U. *et al*, *Indian J. Chem., Sect. A*, 1983, **22**, 904*(use)*Muralikrishna, U. *et al*, *Analyst (London)*, 1984, **109**, 1277 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DES400.**(3,4-Dichlorobenzyl)****D-00252****triphenylphosphonium(1+)**

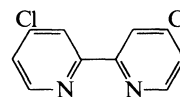
[(2,4-Dichlorophenyl)methyl]triphenylphosphonium(1+), 9Cl

C₂₅H₂₀Cl₂P[⊕] M 422.312 (ion)*Chloride*: [2492-23-1].C₂₅H₂₀Cl₃P M 457.765Used as 5mM soln. in Me₂CO/1,2-dichloroethane for extraction-photometric detn. of Co (λ_{max} 328 nm, ε 11000); fluorimetric detn. of Co. Sol. EtOH, Me₂CO, C₆H₆, CHCl₃.

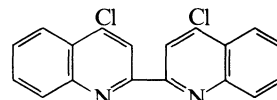
▷ TA2200000.

Burns, D.T. *et al*, *Anal. Chim. Acta*, 1982, **134**, 397 (*detn*, Co)**4,4'-Dichloro-2,2'-bipyridine****D-00253**

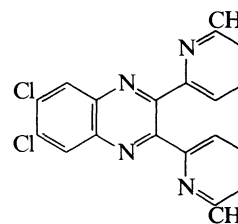
[1762-41-0]

C₁₀H₆Cl₂N₂ M 225.076Used as a 0.1% soln. in EtOH as redox indicator. Needles (pet. ether). Sol. EtOH, C₆H₆, pet. ether; spar. sol. H₂O. Mp 131-132°.Maerker, G. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 2745 (*synth*)Schilt, A.A., *Analytical Applications of 1,10-Phenanthroline and Related Compounds*, Pergamon, Oxford, 1969 (*use*, *ind*)**4,4'-Dichloro-2,2'-biquinoline, 8Cl****D-00254**

[6495-84-7]

C₁₈H₁₀Cl₂N₂ M 325.196Used as a soln. in butanol for photometric detn. of Cu (λ_{max} 555 nm, ε 3700). Yellow-brown needles (C₆H₆). Sol. hot EtOH, DMF, dioxan; insol. H₂O. Mp 288-290° (297°).Nakano, S. *et al*, *CA*, 19, **68**, 104943e.Gershuns, A.L. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 595; *CA*, **73**, 98771 (*detn*, Cu)**6,7-Dichloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, 8Cl****D-00255**

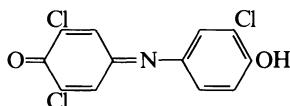
[17401-73-9]

C₂₀H₁₄Cl₂N₄ M 381.263Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 550 nm, ε 4190, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 129°.Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth*, *detn*, Cu)

2,6-Dichloro-4-[(3-chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, 9CI

2,6,3'-Trichloroindophenol

[2582-42-5]

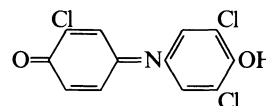
C₁₂H₆Cl₃NO₂ M 302.543Used as a redox indicator. Cryst. pK_{a1} 5.8. E° +0.668 V (30°).Koch, D., *Chem.-Ztg.*, 1925, **49**, 479.Russo, C., *Gazz. Chim. Ital.*, 1964, **44**, 1.Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 484.

D-00256

2,6-Dichloro-4-[(3-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, 9CI

2,3',5'-Trichloroindophenol

[6038-83-1]

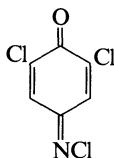
C₁₂H₆Cl₃NO₂ M 302.543Acid-base indicator (pH range: 5.7-11.4; colour change: red → blue). Used as a 0.02% soln. of Na salt. Dark green cryst. powder. Sol. alkalis, H₂O, EtOH, Me₂CO. pK_a 5.8.Gibbs, H.D. *et al*, *Public Health Rep., Suppl.* 69, 1928.Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 133.

D-00259

2,6-Dichloro-4-(chloroimino)-2,5-cyclohexadien-1-one, 9CI

2,6-Dichloro-p-benzoquinone-4-chloroimine. N-2,6-Trichloro-1,4-benzoquinone imine. Gibbs reagent

[101-38-2]

C₆H₂Cl₃NO M 210.446

Reagent for the detn. of phenols. Spray reagent for org. compds. used in tlc. Yellow needles (EtOH). Mp 66.5-66.7°.

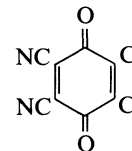
▷ Can decompose violently; LD₅₀ 20 mg/kg (mouse, i.p.). GU5470000.Gibbs, H.D., *J. Biol. Chem.*, 1927, **72**, 649 (*synth, use*)Feigl, F. *et al*, *Talanta*, 1964, **11**, 662 (*use*)Ross, J.H., *Anal. Chem.*, 1968, **40**, 2138 (*use*)Dacre, J.C. *et al*, *Anal. Chem.*, 1971, **43**, 589.Turney, T.A., *N.Z. J. Sci.*, 1974, **17**, 381; *CA*, **82**, 105986x (*use*)Vinson, J.A. *et al*, *J. Chromatogr.*, 1975, **105**, 415 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CHR000.

D-00257

2,3-Dichloro-5,6-dicyano-1,4-benzoquinone D-00260

4,5-Dichloro-3,6-dioxo-1,4-cyclohexadiene-1,2-dicarbonitrile, 9CI. DDQ

[84-58-2]

C₈Cl₂N₂O₂ M 227.006

High-potential quinone used as dehydrogenating agent.

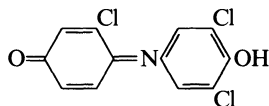
Reagent for the spectrophotometric anal. of alkaloids, and other amines. Amber needles (CHCl₃). Mp 215-217°. Dec. by H₂O. The hydroquinone produced as a byprod. of oxidns. using DOQ can be readily reoxidised and reused.

▷ GU4825000.

Mitchell, P.W.D., *Can. J. Chem.*, 1963, **41**, 550 (*synth, ir, uv*)Matsunaga, Y., *J. Chem. Phys.*, 1964, **41**, 1609 (*ir*)Berger, S. *et al*, *Tetrahedron*, 1972, **28**, 3123 (*cmr*)Brinker, U.H. *et al*, *Synthesis*, 1975, **10**, 671 (*synth*)Lane, C.F., *Synth. Reagents*, (Pizey, J.S., Ed.), Ellis Horwood, 1977, **3**, 1 (*rev*)Ohki, A. *et al*, *Tetrahedron*, 1979, **35**, 1737 (*use*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1980, **8**, 153 (*use*)Lott, R.S. *et al*, *J. Org. Chem.*, 1980, **45**, 1151 (*use*)Becker, H.D. *et al*, *J. Org. Chem.*, 1980, **45**, 1596 (*use*)Lee, H. *et al*, *J. Org. Chem.*, 1983, **48**, 749 (*use*)Bartos, J. *et al*, *Pure Appl. Chem.*, 1984, **56**, 467 (*use*)Newman, M.S. *et al*, *Org. Prep. Proced. Int.*, 1985, **17**, 422 (*reuse*)Abdel-Homid, M.E. *et al*, *Talanta*, 1985, **32**, 1002 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DEX400.**2,6-Dichloro-4-[(2-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, 9CI**

3,3',5'-Trichloroindophenol, 8CI

[30168-88-8]

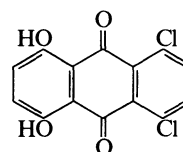
C₁₂H₆Cl₃NO₂ M 302.543Acid-base indicator (colour change: red → blue) used as a 0.02% aq. soln. Dark green cryst. powder. Sol. H₂O, alkalis, EtOH, Me₂CO. pK_a 6.2.Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 133, 483.

D-00258

1,4-Dichloro-5,8-dihydroxyanthraquinone D-00261

1,4-Dichloro-5,8-dihydroxy-9,10-anthracenedione, 9CI. 5,8-Dichloroquinisarine

[2832-30-6]

C₁₄H₆Cl₂O₄ M 309.104

Used for fluorimetric detn. of Ba. Red needles (EtOH).
Sol. EtOH, Et₂O, C₆H₆.

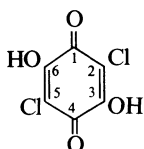
Goto, H. *et al*, *Nippon Kagaku Kaishi*, 1959, **80**, 1448 (*detn*, Ba)

2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone

D-00262

2,5-Dichloro-3,6-dihydroxy-2,5-cyclohexadiene-1,4-dione,
9CI. Chloranilic acid

[87-88-7]



C₆H₂Cl₂O₄ M 208.985

Used in photometric detn. of CN[⊖], F[⊖], Pb, Ba, Ca.

Reddish leaflets + 2H₂O (H₂O). Mp 283-284°. pK_{a1}
0.76; pK_{a2} 2.58 (25°, 0.5M NaClO₄). Forms stable Na,
K, Ba salts.

Di-Me ether: [7210-71-1]. 2,5-Dichloro-3,6-dimethoxy-1,4-benzoquinone

C₈H₆Cl₂O₄ M 237.038

Dark-red prisms (AcOH). Mp 141-142°.

Di-Et ether: [20764-96-9]. 2,5-Dichloro-3,6-diethoxy-1,4-benzoquinone

C₁₀H₁₀Cl₂O₄ M 265.092

Reddish prisms. Mp 107°.

Di-Ac:

C₁₀H₆Cl₂O₆ M 293.059

Yellow needles. Mp 182.5°.

Ba salt: [13435-46-6]. Barium chloroanilate

C₆BaCl₂O₄ M 344.296

Reagent for photometric detn. of SO₄^{2⊖}. Insol. H₂O.

La salt: [32607-23-1]. Lanthanum chloroanilate

C₁₈Cl₆La₂O₁₂ M 898.718

Reagent for photometric detn. of PO₄^{3⊖}.

Hg^{2⊕} salt: [33770-60-4]. Mercury chloroanilate

C₆Cl₂HgO₄ M 407.559

Reagent for photometric detn. of CN[⊖], SO₄^{2⊖}, SO₃^{2⊖}
and Cl[⊖].

Th salt: Thorium chloroanilate

Reagent for photometric detn. of F[⊖].

Graebe, C., *Justus Liebigs Ann. Chem.*, 1891, **263**, 16 (*synth*)

Lucchesi, P.J. *et al*, *Anal. Chem.*, 1954, **26**, 521 (*detn*, Ba)

Bertolacini, R.J. *et al*, *Anal. Chem.*, 1957, **29**, 281 (*use*, Ba salt)

Wallenfels, K. *et al*, *Chem. Ber.*, 1957, **90**, 2819 (*deriv*)

Hayashi, K. *et al*, *Talanta*, 1960, **4**, 244 (*use*, La salt)

Wynne, E.A. *et al*, *Anal. Chem.*, 1961, **33**, 807 (*detn*, Pb)

Nardozzi, J. *et al*, *Anal. Chem.*, 1961, **33**, 1261 (*use*, Th salt)

Bode, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1966, **216**, 30 (*use*)

Bowie, J.H. *et al*, *J. Chem. Soc. B*, 1966, 335 (*ms*)

Kikot, B.S. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1968, **38**,
883 (*deriv*, *ir*)

Papay, M.K. *et al*, *Acta Chim. Acad. Sci. Hung.*, 1970, **66**, 13
(*detn*, F[⊖])

Humphrey, R.E. *et al*, *Anal. Chem.*, 1971, **43**, 1100, 1101 (*use*, Hg
salt, *detn*, CN[⊖])

Novacek, L. *et al*, *Cesk. Farm.*, 1974, **23**, 366; *CA*, **83**, 4137m (*use*,
Hg salt)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC
Press, Boca Raton, 1982, 77 (*use*)

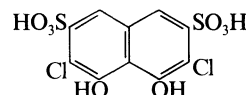
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, DFC800.

3,6-Dichloro-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI

D-00263

2,7-Dichlorochromotropic acid

[55778-38-6]



C₁₀H₆Cl₂O₈S₂ M 389.190

Used as 1mM aq. soln. in photometric detn. of Al (ε
11200) and Fe(III). Needles (H₂O). Sol. H₂O; sl. sol.
Et₂OH.

Kusnetsov, V.I. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 573 (*detn*, Ti)

Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 966 (*detn*, Fe)

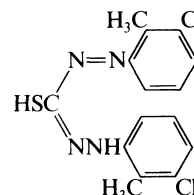
Kovaleva, L.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 388 (*detn*, Ti)

3,3'-Dichloro-2,2'-dimethyldithizone

D-00264

(3-Chloro-2-methylphenyl)diazene-carbothioic acid 2-(3-chloro-2-methylphenyl)hydrazide, 9CI

[104170-14-1]



C₁₅H₁₄Cl₂N₄S M 353.274

Used as a 0.01% soln. in CCl₄ or CHCl₃ for extraction-
photometric detn. of Bi, Cd, Co, Hg, Ni, Pb, Tl(III), Zn
(CCl₄, CHCl₃). Greenish-black cryst. Sol. CHCl₃, CCl₄,
EtOH, Me₂CO, alkalis; insol. H₂O. Mp 156°. pK_{a1} 5.49.

Kiwan, A.M. *et al*, *Anal. Chim. Acta*, 1986, **182**, 245 (*use*)

4,4'-Dichloro-2,2'-dimethyldithizone

D-00265

(4-Chloro-2-methylphenyl)diazene-carbothioic acid 2-(4-chloro-2-methylphenyl)hydrazide

[104170-13-0]

C₁₅H₁₄Cl₂N₄S M 353.274

Used as a 0.01% soln. in CHCl₄ or CHCl₃ for extraction-
photometric detn. of Bi, Cd, Co, Hg, Ni, Pb, Tl(III), Zn
(CCl₄, CHCl₃). Greenish black cryst. Sol. CHCl₃, CCl₄,
EtOH, Me₂CO, alkalis; insol. H₂O. Mp 153°. pK_{a1} 5.87.

Kiwan, A.M. *et al*, *Anal. Chim. Acta*, 1986, **182**, 245 (*use*)

5,5'-Dichloro-2,2'-dimethyldithizone

D-00266

(5-Chloro-2-methylphenyl)diazene-carbothioic acid 2-(5-chloro-2-methylphenyl)hydrazide, 9CI

[104170-12-9]

C₁₅H₁₄Cl₂N₄S M 353.274

Used as a 0.01% soln. in CCl₄ or CHCl₃ for extraction-
photometric detn. of Bi, Cd, Co, Hg, Ni, Pb, Tl(III), Zn,
(CCl₄, CHCl₃). Greenish-black cryst. Sol. CHCl₃,
CCl₄, EtOH, Me₂CO, alkalis; insol. H₂O. Mp 166°. pK_a
5.2.

Kiwan, A.M. *et al*, *Anal. Chim. Acta*, 1986, **182**, 245.

Dichlorodimethylsilane, 9CI

D-00267

[75-78-5]

Me₂SiCl₂

C₂H₆Cl₂Si M 129.060

Pinacol cyclisation agent. Forms siliconides with *cis*-diols suitable for gc anal. Liq. d_4^{20} 1.06. Mp -16° . Bp 70° .

▷ VV3150000.

Inorg. Synth., 1950, 3, 56 (*synth*)

Hirt, C.A., *Anal. Chem.*, 1961, 33, 1786 (*ms*)

Kelly, R.W., *Steroids*, 1967, 13, 507 (*use*)

Hunter, B.K. *et al*, *Can. J. Chem.*, 1968, 46, 1399 (*nmr*)

Marchand, A. *et al*, *J. Organomet. Chem.*, 1968, 12, 305 (*ir*)

Kelly, R.W., *Tetrahedron Lett.*, 1969, 967 (*use*)

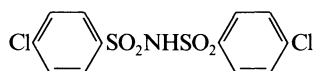
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, 4, 183.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DFE259.

4,4'-Dichlorodiphenyldisulfimide D-00268

4-Chloro-N-[(4-chlorophenyl)sulfonyl]benzenesulfonamide, 9Cl

[2725-55-5]



$C_{12}H_9Cl_2NO_4S_2$ M 366.245

Used as acidimetric standard. Cryst. Sol. H_2O .

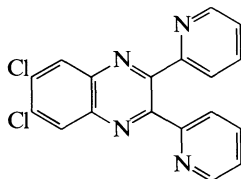
Runge, F. *et al*, *Fresenius' Z. Anal. Chem.*, 1957, 158, 266 (*use*)

6,7-Dichloro-2,3-di-2-pyridylquinoxaline, D-00269

8Cl

2,3-Bis(2-pyridyl)-6,7-dichloroquinoxaline

[17401-72-8]



$C_{18}H_{10}Cl_2N_4$ M 353.209

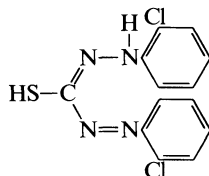
Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 526 nm, ϵ 2670, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 194° .

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, 39, 357 (*synth, detn, Cu*)

2,2'-Dichlorodithizone D-00270

2-Chlorophenyldiazene-carbothioic acid 2-(2-chlorophenyl)hydrazide, 9Cl

[19403-31-7]



$C_{13}H_{10}Cl_2N_4S$ M 325.220

Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Bi, Cd, Co, Cu, Hg, Ni, Pb, Zn ($CHCl_3$). Greenish-black cryst. powder. Sol. $CHCl_3$, CCl_4 , EtOH, alkalis; insol. H_2O . pK_a 4.75.

Kiwan, A.M. *et al*, *Talanta*, 1975, 22, 931.

4,4'-Dichlorodithizone D-00271

4-Chlorophenyldiazene-carbothioic acid 2-(4-chlorophenyl)hydrazide, 9Cl. [(p-Chlorophenyl)azo]thiosulfonic acid 2-(p-chlorophenyl)hydrazide, 8Cl

[1643-05-6]

$C_{13}H_{10}Cl_2N_4S$ M 325.220

Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Bi, Co, Ni, Zn. Greenish black cryst. powder. Sol. alkalis, Me_2CO , C_6H_6 , $CHCl_3$, CCl_4 ; insol. H_2O . Mp $72-73^\circ$ ($173-174^\circ$). pK_{a1} 4.63 (dioxan aq., $\mu = 0.1$, 25°).

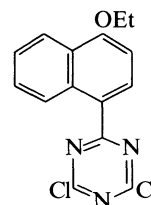
Busev, A.I. *et al*, *Zh. Neorg. Khim.*, 1961, 6, 2805 (*detn, Bi*)

Al-Salihy, A.R. *et al*, *Talanta*, 1970, 17, 182 (*detn, Co, Ni, Zn*)

2,4-Dichloro-6-(4-ethoxy-1-naphthalenyl)-1,3,5-triazine, 9Cl D-00272

2,4-Dichloro-6-(4-ethoxy-1-naphthyl)-s-triazine, 8Cl. 1-(2,4-Dichloro-1,3,5-triazinyl)-4-ethoxynaphthalene

[21614-17-5]



$C_{15}H_{11}Cl_2N_3O$ M 320.177

Used in fluorimetric assay of corticosteroids. Mp $107-107.5^\circ$.

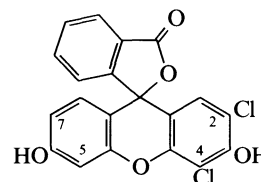
Shaw, R.A. *et al*, *J. Chem. Soc. B*, 1968, 1431 (*synth*)

Chayen, R. *et al*, *Anal. Biochem.*, 1971, 39, 533 (*use*)

2',4'-Dichlorofluorescein D-00273

2',4'-Dichloro-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9Cl

[2320-99-2]



$C_{20}H_{10}Cl_2O_5$ M 401.201

Used as a 1mM soln. in MeOH for photometric and fluorimetric detn. of Ag (λ_{max} 540 nm); fluorimetric detn. of cetylpyridinium chloride, thiourea. Orange cryst. (EtOH). Sol. EtOH, Me_2CO , alkalis.

Mori, I. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, 22, 1202; 1974, 23, 610 (*detn, Ag, cetylpyridinium chloride, thiourea*)

2',5'-Dichlorofluorescein D-00274

2',5'-Dichloro-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9Cl

[2320-97-0]

$C_{20}H_{10}Cl_2O_5$ M 401.201

Used as a 1mM soln. in MeOH for photometric and fluorimetric detn. of Ag (λ_{max} 545nm). Orange cryst. (EtOH). Sol. EtOH, Me_2CO , alkalis.

Mori, I. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, 22, 1202 (*detn, Ag*)

2',7'-Dichlorofluorescein **D-00275**

2',7'-Dichloro-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-(9H)xanthen]-3-one, 9CI. Dichloro(R)fluorescein [76-54-0]

C₂₀H₁₀Cl₂O₅ M 401.201

Used as a 1mM soln. in MeOH for photometric and fluorimetric detn. of Ag (λ_{\max} 540nm); fluorimetric detn. of cetylpyridinium, thiourea, chloride; spray reagent for detn. of saturated and unsaturated lipids. Orange cryst. (EtOH). Sol. EtOH, Me₂CO, alkalis.

Mori, I. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1202; 1974, **23**, 610 (use)

4',5'-Dichlorofluorescein **D-00276**

4',5'-Dichloro-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-(9H)xanthen]-3-one, 9CI. C.I. Solvent orange 32 [2320-96-9]

C₂₀H₁₀Cl₂O₅ M 401.201

Di-Na salt: [3474-67-7].

Used as a 1mM soln. in MeOH for photometric and fluorimetric detn. of Ag (λ_{\max} 545nm), fluorescence indicator. Yellow-orange cryst. (EtOH). Sol. H₂O.

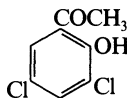
Katoh, K., *Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 1377 (indicator)

Mori, I. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1202 (detn., Ag)

3',5'-Dichloro-2'-hydroxyacetophenone **D-00277**

1-(3,5-Dichloro-2-hydroxyphenyl)ethanone, 9CI

[3321-92-4]



C₈H₆Cl₂O₂ M 205.040

Cryst. (C₆H₆). Mp 97°.

Oxime: [55779-51-6].

C₈H₇Cl₂NO₂ M 220.054

Used as a 0.01M soln. in EtOH for extraction-photometric detn. of V(V) (λ_{\max} 400 nm), Co (λ_{\max} 400 nm, ϵ 1400, CHCl₃); photometric detn. of Mo, U; gravimetric detn. of Pd; complexing agent for Be, Cd, Co, Mn, Ni, U, V, Zn. Cryst. Sol. common org. solvs.

Jha, B.C. *et al.*, *Tetrahedron*, 1958, **2**, 241 (synth)

Givens, E.N. *et al.*, *J. Chem. Eng. Data*, 1969, **14**, 392 (ms, pmr)

Lal, K. *et al.*, *Curr. Sci.*, 1975, **44**, 178, 652; 1976, **45**, 84 (detn., Co, Cu, Ni, Mo, U)

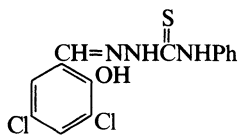
Gupta, S.P. *et al.*, *Indian J. Chem.*, 1975, **13**, 297 (complexing agent for Co, Cu, Ni)

Lal, K. *et al.*, *Indian J. Chem., Sect. A*, 1975, **13**, 973; 1976, **14**, 260 (detn., Be, Cd, Co, Mn, Ni, U, V, Zn)

Lal, K. *et al.*, *Chem. Era*, 1976, **12**, 414 (detn., V)

3,5-Dichloro-2-hydroxybenzaldehyde phenylthiosemicarbazone **D-00278**

2-[(3,5-Dichloro-2-hydroxyphenyl)methylene]-N-phenylhydrazinecarbothioamide, 9CI. 3,5-Dichlorosalicylaldehyde phenylthiosemicarbazone [1713-68-4]



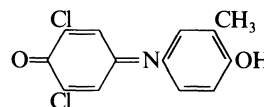
C₁₄H₁₁Cl₂N₃OS M 340.232

Used as 0.25mM soln. in CHCl₃ for extraction-photometric detn. of Pd (λ_{\max} 410 nm, ϵ 14300). Cryst. (EtOH). Sol. CHCl₃, EtOH.

Yamaguchi, S. *et al.*, *Analyst (London)*, 1985, **110**, 1241 (synth, detn., Pd)

2,6-Dichloro-4-[(4-hydroxy-3-methylphenyl)imino]-2,5-cyclohexadien-1-one, 9CI **D-00279**

2,6-Dichloro-3'-methylindophenol



C₁₃H₉Cl₂NO₂ M 282.125

Redox indicator; acid-base indicator (pH range: 5.7-11.4; colour change: red → blue), used as a 0.02% aq. soln. of Na salt. Dark green cryst. powder. Sol. H₂O, alkalis, EtOH, Me₂CO. pK_a 5.5. E° +0.639V (30°).

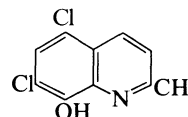
Gibbs, H.D. *et al.*, *Public Health Rep., Suppl.* 69, 1928.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

5,7-Dichloro-8-hydroxy-2-methylquinoline **D-00280**

5,7-Dichloro-2-methyl-8-quinolinol, 9CI, 8CI. Chlorquinaldol, BAN, INN. Steroxin. Sterosan. Numerous proprietary names

[72-80-0]



C₁₀H₇Cl₂NO M 228.077

Antibacterial agent, fungicide. Used as CHCl₃ soln. for extraction separation of Co and Ni (pH 7-8). Yellow needles (EtOH). Insol. H₂O; sol. CHCl₃, EtOH, C₆H₆, hexane. Mp 111-111.5°, Mp 114-115° dec.

▷ VC5600000.

Fiedler, H., *J. Prakt. Chem.*, 1961, **13**, 86 (synth)

Vaidya, M.G. *et al.*, *J. Med. Chem.*, 1962, **5**, 389 (synth)

Silberg, A. *et al.*, *CA*, 1967, **67**, 54015 (synth)

Ellenrieder, M. *et al.*, *Arzneim.-Forsch.*, 1970, **20**, 821 (pharmacol)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1601.

Izquierdo, A. *et al.*, *Mikrochim. Acta*, 1983, **1**, 371; 1984, **2**, 343

(detn., Co, Ni)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,

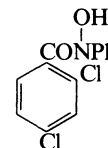
Akademie-Verlag, Berlin, 1987, 1400 (synonyms)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CLC500.

2,4-Dichloro-*N*-hydroxy-*N*-phenylbenzamide, 9CI **D-00281**

N-(2,4-Dichlorobenzoyl)phenylhydroxylamine

[16845-41-3]



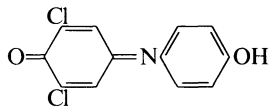
C₁₃H₉Cl₂NO₂ M 282.125

Used for pptn. of Al, Cu, Fe, Hf, Mn, Pb, Sn(II), Sn(IV), Ti, Zr. Cryst. Sol. common org. solvs.; spar. sol. H₂O. Mp 137°.

Lutwick, G.D. *et al*, *Can. J. Chem.*, 1954, **32**, 949 (*use*)
Shendrikar, A.D. *et al*, *Talanta*, 1969, **16**, 51 (*use*)

**2,6-Dichloro-4-[(4-hydroxyphenyl)imino]-
2,5-cyclohexadien-1-one, 9CI** **D-00282**

2,6-Dichloroindophenol
[956-48-9]



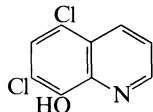
C₁₂H₇Cl₂NO₂ M 268.098

Redox indicator. Used in detn. of [Fe(CN)₆]³⁻ (III) (with ascorbic acid) and many other anions. Dark green cryst. powder. Fairly unstable in aq. soln. Sol. H₂O, EtOH, Me₂CO. pK_a 5.7. E° +0.668 V (30°).

Gibbs, H.D. *et al*, *Public Health Rep., Suppl. no. 69*, 1928.
Erdey, L. *et al*, *Anal. Chim. Acta*, 1962, **27**, 164, 363, 498; 1963, **28**, 398 (*detn. Fe(CN)₆³⁻*)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 133.

5,7-Dichloro-8-hydroxyquinoline **D-00283**

5,7-Dichloro-8-quinolinol, 9CI. Chloroxine, USAN.
Chlorquinol. Halquinol. Capitrol. Endiaron. Halquivet.
Olinkol. Permin. Quinolol. Quixalin. Quixalud. SQ 16401
[773-76-2]



C₉H₅Cl₂NO M 214.050

Bactericide, fungicide, antiseborrheic, used, e.g., in shampoos. Used in extraction separation of Cd; for photometric detn. of Ni (complex associated with basic dyes). Needles (EtOH). Sol. pet. ether, spar. sol. EtOH, AcOH, CHCl₃. Mp 180-181°.

B,HCl: Mp 215°.

O-Ac: [52174-94-4].

C₁₁H₇Cl₂NO₂ M 256.087
Cryst. (pet. ether). Mp 97-98°.

O-Benzoyl: [18193-10-7].

C₁₆H₉Cl₂NO₂ M 318.158
Mp 188-189°.

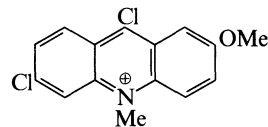
l-Oxide: [21168-33-2].

C₉H₅Cl₂NO₂ M 230.049

Used as freshly prepd. Me₂CO soln. for photometric detn. of Ru(III) (λ_{max} 430 nm, ε 3200). Cryst. (C₆H₆). Sol. Me₂CO. Mp 206-207°.

Hebebrand, A., *Ber.*, 1888, **21**, 2977 (*synth*)
Schweitzer, G.K. *et al*, *Anal. Chim. Acta*, 1962, **26**, 567 (*detn. Cd*)
Gupta, R.D. *et al*, *J. Less-Common Met.*, 1969, **18**, 139 (*synth, oxide*)
Gupta, R.D. *et al*, *Anal. Chim. Acta*, 1970, **50**, 109 (*detn. Ru*)
Corsini, A. *et al*, *Talanta*, 1974, **21**, 252 (*pmr*)
Sawada, Y. *et al*, *Chem. Pharm. Bull.*, 1978, **26**, 1357 (*metab*)
Chwastowska, J. *et al*, *Chem. Anal. (Warsaw)*, 1979, **24**, 369 (*detn. Ni*)
Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 4785.

6,9-Dichloro-2-methoxy-10-methylacridinium(1+), 9CI **D-00284**



C₁₅H₁₂Cl₂NO⁺ M 293.171 (ion)

Trifluoromethanesulfonate: [133393-23-4].

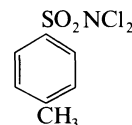
C₁₆H₁₂Cl₂F₃NO₄S M 442.242

Spectrophotometric derivatisation reagent for primary amines. Yellow cryst. Mp 238-241°.

Dunning, J.W. *et al*, *Talanta*, 1991, **38**, 631 (*synth, use, uv, ir, pmr*)

N,N-Dichloro-4-methylbenzenesulfonamide, 9CI **D-00285**

N,N-Dichloro-p-toluenesulphonamide. Dichloramine T. Peraktivin
[473-34-7]



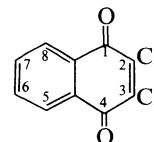
C₇H₇Cl₂NO₂S M 240.109

Germicide. Used as 0.1M soln. in AcOH as titrant in titrimetric detn. of I⁻, As(III), Sn(II), Sb(III), Tl(I), Fe(II), ascorbic acid, hydrazine, hydroquinone. Prisms (CHCl₃/pet. ether). Cryst. Sol. AcOH. Mp 83°, Mp 71-72°.

Krauss, R.B. *et al*, *J. Am. Chem. Soc.*, 1917, **39**, 2720 (*synth*)
Soper, F.G., *J. Chem. Soc.*, 1924, **125**, 1899 (*synth*)
Pettersson, R.C. *et al*, *J. Org. Chem.*, 1960, **25**, 1595 (*ir*)
Boberg, F. *et al*, *Justus Liebigs Ann. Chem.*, 1969, **728**, 36 (*synth*)
Jacob, T.J. *et al*, *Talanta*, 1972, **19**, 347 (*synth, use*)
Nair, C.G. *et al*, *Talanta*, 1973, **20**, 696 (*use*)
Heintzelman, R.W. *et al*, *Synthesis*, 1976, 731 (*synth*)

2,3-Dichloro-1,4-naphthoquinone, 8CI **D-00286**

2,3-Dichloro-1,4-naphthalenedione, 9CI. Dichlone. Phygon
[117-80-6]



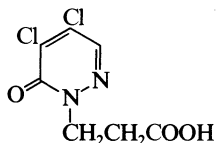
C₁₀H₄Cl₂O₂ M 227.046

Fungicide. Used for photometric detn. of amines, thioureas, hydrazides, thiosemicarbazides and semicarbazones. Yellow needles (EtOH). Mp 194-195°.

▶ Irritant. QL7525000.

Ter Horst, W.P. *et al*, *Ind. Eng. Chem.*, 1943, **35**, 1255 (*use*)
Fieser, L.F., *J. Am. Chem. Soc.*, 1948, **70**, 3151 (*synth*)
Gaertner, R., *J. Am. Chem. Soc.*, 1954, **76**, 6150 (*synth*)
Crecely, R.W. *et al*, *J. Mol. Spectrosc.*, 1969, **32**, 407 (*nmr*)
Hutzinger, O. *et al*, *J. Assoc. Off. Anal. Chem.*, 1971, **54**, 178 (*ms*)
Gore, R.C. *et al*, *J. Assoc. Off. Anal. Chem.*, 1971, **54**, 1040 (*uv, ir*)
Devani, M.B. *et al*, *Analyst (London)*, 1973, **98**, 759 (*use*)
Abou-Ouf, A.A. *et al*, *J. Pharm. Sci.*, 1973, **62**, 1700 (*use*)
Plauzier, J.A. *et al*, *Anal. Chem.*, 1976, **48**, 1536 (*detn, hydrazides*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DFT000.

4,5-Dichloro-6-oxo-1(6H)-pyridazinepropanoic acid, 9CI
1-(2-Carboxyethyl)-4,5-dichloro-6-pyridazone
 [2496-71-1]



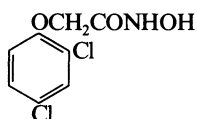
$C_7H_6Cl_2N_2O_3$ M 237.041

Anal. reagent for thiols.

Schreiber, W., *Hoppe Seyler's Z. Physiol. Chem.*, 1967, **348**, 371 (use)

Schreiber, W., *Fresenius' Z. Anal. Chem.*, 1971, **254**, 345 (use)

2,4-Dichlorophenoxyacetohydroxamic acid D-00288



$C_8H_7Cl_2NO_3$ M 236.054

N-Ph: [25310-26-3]. 2-(2,4-Dichlorophenoxy)-*N*-phenylacetohydroxamic acid, 8CI. *N*-Phenyl-2,4-dichlorophenoxyacetohydroxamic acid

$C_{14}H_{11}Cl_2NO_3$ M 312.151

Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of $V(V)$ (λ_{max} 505 nm, ϵ 3050, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

N-(4-Methylphenyl): [25310-27-4]. 2-(2,4-Dichlorophenoxy)-*N*-(4-methylphenyl)acetohydroxamic acid

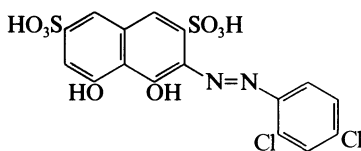
$C_{15}H_{13}Cl_2NO_3$ M 326.178

Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of $V(V)$ (λ_{max} 500 nm, ϵ 3250, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

Gupta, V.K. et al, *J. Indian Chem. Soc.*, 1969, **66**, 831 (synth)

Gupta, V.K. et al, *Anal. Chim. Acta*, 1973, **66**, 39 (detn, V)

3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI
2,4-Dichlorophenylazochromotropic acid
 [62106-16-5]



$C_{16}H_{10}Cl_2N_2O_8S_2$ M 493.301

Cryst. Sol. H_2O , EtOH. pK_{a2} 4.08; pK_{a3} 7.41; pK_{a4} 9.50.

Di-Na salt: [68504-32-5].

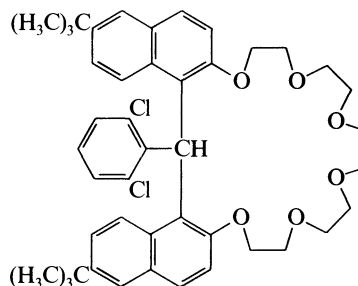
Used as a 0.01M aq. soln. for photometric detn. of Th; metallochromic indicator in titrimetric detn. of Th; acid-base indicator. Dark red cryst. powder. Sol. H_2O .

Khater, M.M. et al, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 45 (use, ind)

Khalifa, H. et al, *Microchem. J.*, 1977, **22**, 288 (synth, ind)

Khater, M.M. et al, *Microchem. J.*, 1977, **22**, 299 (detn, Th)

D-00287 29-(2,6-Dichlorophenyl)-3,26-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29H-dinaphtho[2,1-*q*:1',2'-*t*][1,4,7,10,13,16]hexaoxacycloheneicosin, 9CI
 [112700-82-0]



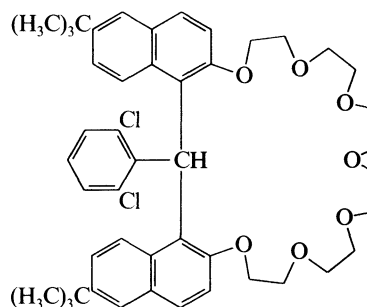
$C_{45}H_{52}Cl_2O_6$ M 759.808

Used as soln. in THF as ionophore for the PVC membrane ion-selective electrode (selective for K^+ over Na^+). Cryst. Mp 293°.

Lockhart, J.C. et al, *J. Chem. Soc., Perkin Trans. 2*, 1987, 639 (synth)

Covington, A.K. et al, *Analyst (London)*, 1988, **113**, 895 (use)

D-00291 32-(2,6-Dichlorophenyl)-3,29-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,23,24-dodecahydro-32H-dinaphtho[2,1-*t*:1',2'-*w*][1,4,7,10,13,16,19]-heptaoxacyclotetracosin, 9CI
 [112700-83-1]



$C_{47}H_{56}Cl_2O_7$ M 803.861

Used as soln. in THF as ionophore for the PVC membrane ion-selective electrode (selective for Rb^+ over Na^+). Cryst. Mp 265°.

Lockhart, J.C. et al, *J. Chem. Soc., Perkin Trans. 2*, 1987, 639 (synth)

Covington, A.K. et al, *Analyst (London)*, 1988, **113**, 895 (use)

Dichlorophenylbismuthine, 9CI D-00292
Phenylbismuthine dichloride. Phenylbismuth dichloride
 [7205-00-7]

$PhBiCl_2$

$C_6H_5BiCl_2$ M 356.991

Unstable in pure form. Synth. from Ph_3Bi and $BiCl_3$. Used to convert H_2O into HCl in detn. of H in org. compds. Solid. Mp 72°. With $IF_5 \rightarrow PhBiF_2 + BiF_3$.

Bis-Py complex:

$C_{16}H_{15}BiCl_2N_2$ M 515.194

Solid. Mp 136-137°.

Bipy complex:

$C_{16}H_{13}BiCl_2N_2$ M 513.178

Solid. Mp 244-247°.

Phen complex:

$C_{18}H_{13}BiCl_2N_2$ M 537.200

Solid. Mp > 275°.

Klimova, V.A. *et al*, *CA*, 1962, **36**, 8003g (use)

Okawara, R. *et al*, *Bull. Chem. Soc. Jpn.*, 1965, **39**, 1823 (props)

Smith, B.C. *et al*, *J. Organomet. Chem.*, 1971, **32**, C11 (pmr)

Faleschini, S. *et al*, *J. Organomet. Chem.*, 1972, **44**, 317 (props, complexes)

Singh, A., *Talanta*, 1975, **22**, 551 (monothiosemicarbazone, synth, use)

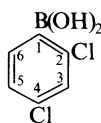
Ali, M. *et al*, *J. Organomet. Chem.*, 1989, **371**, 11 (synth)

(2,4-Dichlorophenyl)dihydroxyborane

D-00293

(2,4-Dichlorophenyl)boronic acid, 10Cl. 2,4-Dichlorobenzeneboronic acid

[68716-47-2]



$C_6H_5BCl_2O_2$ M 190.821

Used as derivatisation reagent in gc of diols, hydroxyamines, hydroxyacids. Cryst. (toluene). Mp 242-245°. Commercially available.

Poole, C.F. *et al*, *J. Chromatogr.*, 1978, **158**, 33 (use, synth, props)

Poole, C.F. *et al*, *Analyst (London)*, 1979, **104**, 82 (props)

Singhawangcha, S. *et al*, *HRC & CC, J. High Resolut.*

Chromatogr. Chromatogr. Commun., 1979, **2**, 77 (props, use)

Poole, C.F. *et al*, *J. Chromatogr.*, 1979, **186**, 307 (props)

(2,6-Dichlorophenyl)dihydroxyborane

D-00294

(2,6-Dichlorophenyl)boronic acid, 10Cl. 2,6-Dichlorobenzeneboronic acid

[73852-17-2]

$C_6H_5BCl_2O_2$ M 190.821

Used as derivatisation reagent for gc of diols, hydroxyamines, hydroxyacids. Cryst. (MeOH). Mp 149-151°.

Poole, C.F. *et al*, *J. Chromatogr.*, 1979, **186**, 307 (synth, props, use)

(3,5-Dichlorophenyl)dihydroxyborane

D-00295

(3,5-Dichlorophenyl)boronic acid, 10Cl. 3,5-Dichlorobenzeneboronic acid

[67492-50-6]

$C_6H_5BCl_2O_2$ M 190.821

Used as derivatisation reagent in gc detn. of diols, hydroxyamines and hydroxyacids. Cryst. (toluene). Mp 310-315°.

Poole, C.F. *et al*, *Chromatographia*, 1978, **11**, 347 (use)

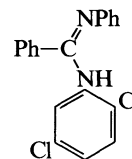
Poole, C.F. *et al*, *J. Chromatogr.*, 1978, **158**, 33 (synth, props, use)

N-2,5-Dichlorophenyl-N'-phenylbenzamidine

D-00296

N-(2,5-Dichlorophenyl)-N'-phenylbenzenecarboximidamide, 9CI

[79458-83-6]



$C_{19}H_{14}Cl_2N_2$ M 341.238

Used as 0.1% soln. in C_6H_6 for extraction-photometric detn. of Mo (λ_{max} 470 nm, ϵ 16800; 1-5M HCl, in the presence of SCN^- and ascorbic acid). Cryst. (EtOH + HCl). Sol. EtOH, C_6H_6 , $CHCl_3$.

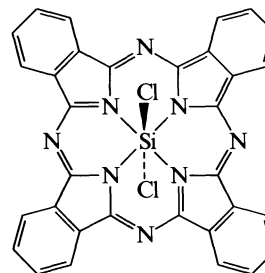
Patel, K.S. *et al*, *Anal. Chem.*, 1982, **54**, 52 (synth, detn, Mo)

Dichloro[29H,31H-phthalocyaninato(2-)]silicon

D-00297

(Phthalocyaninato)dichlorosilicon

[19333-10-9]



$C_{32}H_{16}Cl_2N_8Si$ M 611.523

Prepd. from reaction of $SiCl_4$ with 1,3-diiminoisindoline in refluxing quinoline. Commercially available nmr shift reagent. Purple cryst. (1-chloronaphthalene).

Lowery, M.K. *et al*, *Inorg. Chem.*, 1965, **4**, 128 (synth)

Shaulov, Yu.Kh. *et al*, *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1971, **16**, 75 (synth, ir, uv)

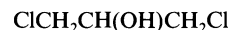
Dirk, C.W. *et al*, *J. Am. Chem. Soc.*, 1983, **105**, 1539 (synth)

1,3-Dichloro-2-propanol, 9CI

D-00298

Glycerol 1,3-dichlorohydrin. α -Dichlorohydrin

[96-23-1]



$C_3H_6Cl_2O$ M 128.985

Solv. for hard resins and nitrocellulose; binder for water colours. Reagent for Vitamin A detn. Liq. Sol. H_2O , Et_2O . d_4^{20} 1.351, d_4^{25} 1.367. Bp 174-175°. n_D^{20} 1.4802.

► Toxic by inhalation and skin absorption. Irritant.

UB1400000.

Ac: [3674-10-0].

$C_5H_8Cl_2O_2$ M 171.022

Bp₁₅ 81°.

Phenylurethane: Mp 73°.

Hill, A.J. *et al*, *J. Am. Chem. Soc.*, 1922, **44**, 2582 (synth)

Fairbourne, A., *J. Chem. Soc.*, 1930, 369 (synth)

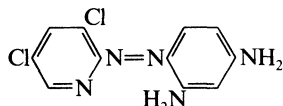
Org. Synth., Coll. Vol., 1, 1932, 292.

Oliver, L.K. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1976, **22**, 1541 (use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 282.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DGG400.

4-[(3,5-Dichloro-2-pyridinyl)azo]-1,3-benzenediamine, 9CI **D-00299**

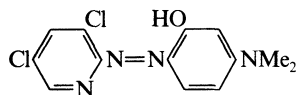
4-[(3,5-Dichloro-2-pyridinyl)azo]-1,3-diaminobenzene. 3,5-Dichloro-2-(2,4-diaminophenylazo)pyridine. 3,5-Dichloro-PADAB
[50768-78-0]



$C_{11}H_9Cl_2N_5$ M 282.131
Used as a 1mM soln. in EtOH for extraction-photometric detn. of Co (λ_{max} 588 nm, ϵ 150000). Red cryst. (EtOH aq.). Sol. EtOH, Me₂CO; spar. sol. H₂O. Mp 237-239°.
Kiss, E., *Anal. Chim. Acta*, 1973, **66**, 385 (*synth, use*)

2-[(3,5-Dichloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, 9CI **D-00300**

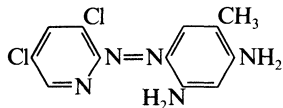
3,5-Dichloro-2-(4-dimethylamino-2-hydroxyphenylazo)pyridine
[108609-82-1]



$C_{13}H_{12}Cl_2N_4O$ M 311.169
Used as a 1mM soln. in EtOH for photometric detn. of Co (λ_{max} 590 nm, ϵ 84000), La (ϵ 145000, pH 9.8). Red needles (CHCl₃). Sol. EtOH, CHCl₃. Mp 189-191°. pK_{a2} 1.1; pK_{a3} 10.9 (0.1M KNO₃, 30% dioxan aq., 25°).
Nakamura, M. *et al*, *Talanta*, 1987, **34**, 369 (*synth, detn, Co*)
Fernandez, L. *et al*, *Talanta*, 1991, **38**, 339 (*synth, detn, La*)

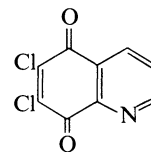
4-[(3,5-Dichloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, 9CI **D-00301**

5-(3,5-Dichloro-2-pyridylazo)-2,4-diaminotoluene. 3,5-Dichloro-2-(2,4-diamino-5-methylphenylazo)pyridine. 3,5-Dichloro-PADAT
[51833-10-4]



$C_{12}H_{11}Cl_2N_5$ M 296.158
Used as a 0.1% soln. in EtOH for extraction-photometric detn. of Co (λ_{max} 590 nm, ϵ 138000). Purplish black lustrous needles (EtOH). Sol. EtOH, Me₂CO; spar. sol. H₂O. Mp 183°.
Shibata, S. *et al*, *Anal. Chim. Acta*, 1974, **73**, 107 (*detn, Co*)

6,7-Dichloro-5,8-quinolinedione, 9CI **D-00302**
[6541-19-1]



$C_9H_3Cl_2NO_2$ M 228.034
Used for photometric detn. of isoniazid. Bright-yellow cryst. (CH₂Cl₂/MeOH). Mp 221-223°.

N-Oxide: [84289-01-0].
 $C_9H_3Cl_2NO_3$ M 244.033
Bright-orange cryst. (CH₂Cl₂). Mp 209-210°.

Shaikh, I.A. *et al*, *J. Med. Chem.*, 1986, **29**, 1329 (*synth, ir, pmr, ms*)
El-Kommos, M.E. *et al*, *Analyst (London)*, 1988, **113**, 1091 (*use*)

1,3-Dichloro-1,1,3,3-tetrafluoro-2-propanone, 9CI **D-00303**
[127-21-9]



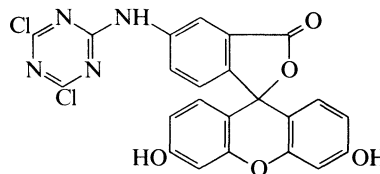
$C_3Cl_2F_4O$ M 198.931
Used to derivatise amino acids for gc anal. Liq. d_4^{20} 1.52. Bp 44°.

▷ UC1575000.

Miller, C.B. *et al*, *CA*, 1959, **53**, 4137i; 5133i (*synth*)
Husek, P. *et al*, *J. Chromatogr.*, 1974, **91**, 475; 1979, **180**, 53; 1982, **234**, 381 (*use*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DGL400.

5-[(4,6-Dichloro-1,3,5-triazin-2-yl)amino]-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9CI **D-00304**

5-[(4,6-Dichloro-1,3,5-triazin-2-yl)amino]fluorescein. DTAF
[51306-35-5]

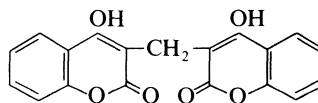


$C_{23}H_{12}Cl_2N_4O_5$ M 495.277
Fluorescent label. Used as a derivatisation reagent for the anal. of secondary amines. Yellow solid.

Barskii, V.E. *et al*, *Izv. Akad. Nauk SSSR, Ser. Biol.*, 1968, 744 (*synth*)
Blakeslee, D. *et al*, *J. Immunol. Methods*, 1976, **13**, 305 (*synth, use*)
Siegler, R. *et al*, *J. Pharm. Biomed. Anal.*, 1989, **7**, 45 (*use*)

Dicoumarol, INN **D-00305**

3,3'-Methylenebis[4-hydroxy-2H-1-benzopyran-2-one], 9CI.
3,3'-Methylenebis-4-hydroxycoumarin, 8CI. Dicoumarin.
Dufalone. Melitoxin. Dicoumarol. Numerous proprietary names
[66-76-2]



$C_{19}H_{12}O_6$ M 336.300

Isol. from *Melilotus alba* and *Anthoxanthum* spp.
Haemorrhagic agent causing "sweet clover" disease in cattle; vitamin K antagonist. Used as a 0.25-0.5% soln. in EtOH as turbidimetric acid-base indicator (pH range: 5.4-5.7). Cryst. (cyclohexanone). Mp 288-289°.

► Mod. toxic. GN7875000.

Di-Ac: Cryst. (C₆H₆). Mp 250-252° dec.

Stahmann, M.A. *et al*, *J. Biol. Chem.*, 1941, **138**, 21, 513, 529 (*isol, synth, w*)

Wittmann, H. *et al*, *Monatsh. Chem.*, 1965, **96**, 1200 (*synth*)

Korenmann, I.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1305 (*use*)

Hutchinson, D.W. *et al*, *Tetrahedron*, 1969, **25**, 2531 (*ir, pmr, struct*)

Levy, G., *J. Pharmacokinet. Biopharm.*, 1973, **1**, 541 (*rev*)

Owen, C.A., *Mayo Clin. Proc.*, 1974, **49**, 912 (*rev, pharmacol*)

Kirkiacharian, B.S. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1977, **284**, 697 (*cmr*)

Alcock, N.W. *et al*, *Acta Crystallogr., Sect. B*, 1978, **28**, 1957 (*cryst struct*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 4811.

Hayward, R.C., *J. Chem. Educ.*, 1984, **61**, 87 (*synth*)

Griminger, P., *J. Nutr.*, 1987, **117**, 1325 (*rev*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 5099.

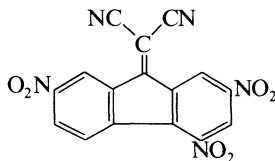
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BJZ000.

9-Dicyanomethylene-2,4,7-trinitrofluorene D-00306

(2,4,7-Trinitro-9H-fluoren-9-ylidene)propanedinitrile, 9CI.

DTF

[1172-02-7]



C₁₆H₅N₅O₆ M 363.245

Forms stable charge-transfer complexes. Chromogenic agent for the detection of aromatic ethers, etc. Large yellow cryst. (MeCN). Mp 266-268°.

Mukherjee, T.K. *et al*, *J. Org. Chem.*, 1965, **30**, 644 (*synth, use*)

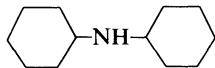
Forrest, J.E. *et al*, *J. Chromatogr.*, 1972, **65**, 439 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 206 (*use*)

Dicyclohexylamine, 8CI D-00307

N-Cyclohexylcyclohexanamine, 9CI.

Dodecahydrodiphenylamine. Perhydrodiphenylamine. DCHA [101-83-7]



C₁₂H₂₃N M 181.320

Corrosion inhibitor, industrial solvent. Forms cryst. salts with many N-protected aminoacids. Reagent for the titrimetric detn. of isocyanates. Liq. Mp 20°, Fp -0.1°. Bp₁₃ 87-93°, Bp 256°.

► Highly toxic orally. Causes exp. neoplasms. Skin irritant, sensitiser. HY4025000.

B,HCl: Needles (H₂O). Mp °ca.350, Mp 334-335° (sealed tube).

N-Ac:

C₁₄H₂₅NO M 223.358

Prisms (Et₂O). Mp 103°.

N-Et: Base used for amine alkylations, dehydrohalogenations and esterifications. Bp₁₀ 132-134°.

Carswell, T.S. *et al*, *Ind. Eng. Chem.*, 1937, **29**, 1247 (*rev*)

Dovell, F.S. *et al*, *J. Org. Chem.*, 1964, **29**, 1265 (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 231; **2**, 195.

Takehima, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1968, **41**, 506 (*synth*)

Beazley, P.M., *Anal. Chem.*, 1971, **43**, 148 (*use*)

Watanabe, Y. *et al*, *Tetrahedron Lett.*, 1974, 1879 (*synth*)

Brown, H.C. *et al*, *J. Am. Chem. Soc.*, 1975, **95**, 2394 (*synth*)

Bose, A.K. *et al*, *Tetrahedron*, 1975, **31**, 3025 (*cmr*)

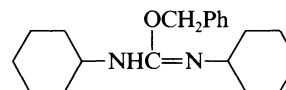
De Angelis, F. *et al*, *Synthesis*, 1979, 70 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DGT600.

N,N'-Dicyclohexyl-O-benzylisourea D-00308

Phenylmethyl N,N'-dicyclohexylcarbamimidate, 9CI

[6738-17-6]



C₂₀H₃₀N₂O M 314.470

Used as benzylating derivatisation reagent for gc analysis of fatty acids. Bp_{0.0001} 130°. n_D²⁰ 1.5325.

Vowinkel, E., *Chem. Ber.*, 1966, **99**, 1479 (*synth*)

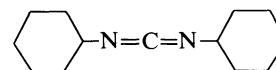
Klemm, H.P. *et al*, *J. Chromatogr.*, 1973, **75**, 19 (*use*)

Mathias, L.J., *Synthesis*, 1979, 561 (*synth, use*)

Dicyclohexylcarbodiimide, 8CI D-00309

N,N'-Methanetetraylbiscyclohexanamine, 9CI. DCC

[538-75-0]



C₁₃H₂₂N₂ M 206.330

Dehydrating agent esp. as coupling agent in peptide synth. Used for photometric detn. of carboxylic acids; detn. of carboxylic acids in tlc. Cryst. Mp 35-36°. Bp₁₁ 154-156°, Bp_{0.5} 98-100°.

► Highly toxic by inhalation, sensitiser, irritant.

Schmidt, E. *et al*, *Chem. Ber.*, 1938, **71**, 1933 (*synth*)

Stevens, C.L. *et al*, *J. Org. Chem.*, 1967, **32**, 2895 (*synth*)

Bestmann, H.J. *et al*, *Justus Liebigs Ann. Chem.*, 1968, **718**, 24 (*synth, bibl*)

Bushweller, C.H. *et al*, *J. Org. Chem.*, 1970, **35**, 276 (*pmr*)

Tanimura, T. *et al*, *Chem. Pharm. Bull.*, 1972, **20**, 1845 (*use, tlc*)

Pesez, M. *et al*, *Talanta*, 1974, **21**, 1306 (*use*)

Kasai, Y. *et al*, *Anal. Chem.*, 1975, **47**, 34 (*use*)

Anet, F.A.L. *et al*, *Org. Magn. Reson.*, 1976, **8**, 327 (*cmr*)

Rich, D.H. *et al*, *Pept., Proc. Eur. Pept. Symp., 14th*, 1976, **1**, 241 (*rev, use*)

Mogul, P.H. *et al*, *Spectrosc. Lett.*, 1977, **10**, 959 (*ir, w*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1982, **10**, 142.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 283.

N,N'-Didodecylethanedithioamide, 9CI D-00310

Didodecylidithiooxamide

[120-88-7]



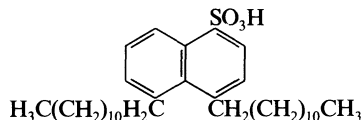
C₂₆H₅₂N₂S₂ M 456.842

Used as soln. in Me₂CO for extn.-photometric detn. of Pd (λ_{max} 450 nm, CHCl₃). Cryst. Sol. Me₂CO, EtOH.

► RO9450000.

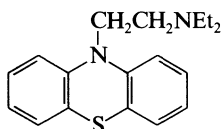
Jacobs, W.D. *et al*, *Talanta*, 1962, **9**, 243 (*synth, detn, Pd*)

4,5-Didodecyl-1-naphthalenesulfonic acid, D-00311
 9CI
 HDDNS
 [40038-00-4]



$C_{34}H_{56}O_3S$ M 544.881
 Liq.-liq. cation exchanger. Used as 0.5M aq. soln in the extraction of lanthanides (in the presence of crown ether, toluene, pH 2). Cryst. Sol. H_2O .
 Ensor, D.D. *et al*, *Anal. Chem.*, 1986, **58**, 1814 (use)

Diethazine, BAN, INN D-00312
 N,N-Diethyl-10H-phenothiazine-10-ethanamine, 9CI. 10-(2-Diethylaminoethyl)phenothiazine, 8CI. Antipar. Diparcol. Other proprietary names
 [60-91-3]



$C_{18}H_{22}N_2S$ M 298.451
 Anticholinergic agent used for treatment of Parkinson's disease. Oily liq. Sol. EtOH, C_6H_6 , $CHCl_3$, acids, insol. H_2O . Bp_{4.5} 195-208°. E° +0.76 V (0.5M H_2SO_4 at 25°).
 ▶ SO4200000.

B,HCl: [341-70-8].

Used for extraction-photometric detn. of Mo, W, V; photometric detn. of Os (λ_{max} 515 nm, ϵ 12200), Pt; redox indicator. Insol. Et_2O . Sol. H_2O . Mp 184-186°.
 ▶ SO4375000.

Heymans, C. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1949, **79**, 123 (pharmacol)

Friebel, H. *et al*, *Arzneim.-Forsch.*, 1954, **4**, 171 (pharmacol)
 Cavallito, C.J. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 1862 (synth)
 Wassermann, N. *et al*, *Rev. Chim. (Bucharest)*, 1959, **10**, 81 (synth)
 Gilbert, J.N.T. *et al*, *Org. Mass Spectrom.*, 1969, **2**, 17 (ms)
 Marsau, P., *Acta Crystallogr., Sect. B*, 1971, **27**, 42 (cryst struct)
 Poltorakov, A.P. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1973, 2106 (pharmacol)

De Leenheer, A., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 105 (w)

Rylski, L. *et al*, *Acta Pol. Pharm.*, 1974, **31**, 711 (synth)

Gowda, H.S. *et al*, *Anal. Chim. Acta*, 1974, **84**, 189 (detn, Os)

Blazek, J. *et al*, *Cesk. Farm.*, 1975, **24**, 174 (ir)

Puzanowska-Tarasiewicz, H. *et al*, *Anal. Chem.*, 1977, **94**, 435 (detn, Mo)

Puzanowska-Tarasiewicz, H. *et al*, *Talanta*, 1977, **25**, 609 (detn, U)

Szabo, W.A. *et al*, *J. Org. Chem.*, 1980, **45**, 744 (synth)

Puzanowska-Tarasiewicz, H. *et al*, *Mikrochim. Acta*, 1981, **1**, 19 (detn, W)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

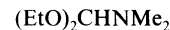
Pharmaceutical Press, London, 1982/1989, 361.

Kojlo, A. *et al*, *Talanta*, 1983, **30**, 529 (detn, Pt)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 4867 (synonyms)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DHF600, DII200.

(Diethoxymethyl)dimethylamine D-00313
 1,1-Diethoxy-N,N-dimethylmethanamine, 9CI. 1,1-Diethoxytrimethylamine, 8CI. Dimethylformamide diethyl acetal
 [1188-33-6]



$C_7H_{17}NO_2$ M 147.217

Alkylating reagent used for derivatisation of fatty acids and amino acids for gc anal. Oil. Bp 135-136°. n_D^{20} 1.4000.

Meerwein, H. *et al*, *Justus Liebigs Ann. Chem.*, 1961, **641**, 1 (synth)
 Arnold, Z. *et al*, *Collect. Czech. Chem. Commun.*, 1964, **29**, 645 (synth)

Bredereck, H. *et al*, *Chem. Ber.*, 1968, **101**, 41 (synth)
 Thenot, J.P. *et al*, *Anal. Lett.*, 1972, **5**, 217, 519 (use)

Diethylamine D-00314
 N-Ethylethanamine, 9CI
 [109-89-7]



$C_4H_{11}N$ M 73.138

Base used in org. synth. Used in indirect photometric detn. of CS_2 . Liq. with powerful amine odour. Misc. H_2O . d_4^{18} 0.711. Fp -50°. Bp 55.5°. pK_a 11.1. n_D^{18} 1.3873. Usually encountered as aq. soln. Forms a dihydrate, Fp -19°.

▶ Mod. toxic, irritant, TLV 15. Extremely flammable, flash p. -26°. HZ8750000.

B,HCl: Diethylammonium chloride

Leaflets. Sol. H_2O , EtOH, $CHCl_3$; insol. Et_2O . Mp 223.5°. Bp 320-330°.

Garner, W.E. *et al*, *J. Chem. Soc.*, 1916, **109**, 174 (synth)

Watt, G.W. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 836 (synth)

Hunt, E.C. *et al*, *Analyst (London)*, 1973, **98**, 585 (use)

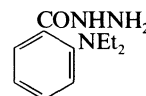
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 148.

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 572.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 285.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DHJ200.

2-(Diethylamino)benzoic acid hydrazide, D-00315
 9CI
 Deayl hydrazide
 [100343-97-3]



$C_{11}H_{17}N_3O$ M 207.275

Fluorescent reagent for hplc anal. of carbonyl compds.

Anderson, J.M., *Anal. Biochem.*, 1986, **152**, 146 (use)

(Diethylamino)dimethyl(pentafluorophenyl) silane D-00316
 N,N-Diethyl-1,1-dimethyl-1-(pentafluorophenyl)silanamine, 9CI. Flophemesyldiethylamine
 [55485-74-0]



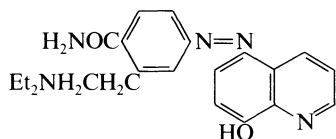
$C_{12}H_{16}F_5NSi$ M 297.343

Silylation derivatising reagent for gc anal. of alcohols, acids, amines etc. Oil. Bp₁₀ 81°.

Morgan, E.D. *et al*, *J. Chromatogr.*, 1975, **104**, 351 (*synth, use*)
 Poole, C.F. *et al*, *Org. Mass Spectrom.*, 1975, **10**, 1164 (*ms*)
 Francis, A.J. *et al*, *J. Chromatogr.*, 1978, **161**, 111 (*use*)

N-[2-(Diethylamino)ethyl]-4-[(8-hydroxy-5-quinolinyl)azo]benzamide, 9CI **D-00317**

[61925-21-1]



C₂₂H₂₅N₅O₂ M 391.472

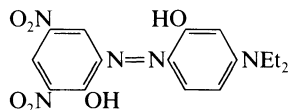
Used as a 0.1mM soln. in CHCl₃/butanol for extraction-photometric detn. of V(V) (λ_{max} 460 nm, ε 31000). Red-brown cryst. powder. Sol. EtOH, Me₂CO, CHCl₃; insol. H₂O.

Mishcheryakova, N.G. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1979, **22**, 1210; *CA*, **93**, 18446e.

2-[4-(Diethylamino)-2-hydroxyphenylazo]-4,6-dinitrophenol, 9CI **D-00318**

Picraminazo-5-diethylaminophenol. 4'-(Diethylamino)-2,2'-dihydroxy-3,5-dinitroazobenzene

[54723-29-4]



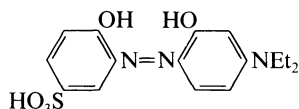
C₁₆H₁₇N₅O₆ M 375.340

Used as a 1mM aq. soln. for photometric detn. of Zr; trimeric detn. of Bi. Dark cryst. powder. Spar. sol. H₂O, EtOH, DMF, Me₂CO, CHCl₃, ethane.

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 568 (*use*)

[3-(4-Diethylamino-2-hydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid **D-00319**

4'-(Diethylamino)-2',6'-dihydroxyazobenzene-3-sulfonic acid



C₁₆H₁₉N₃O₅S M 365.409

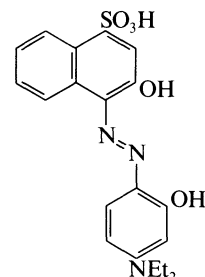
Used as sl. ammoniacal 0.03% aq. soln. for photometric detn. of Al (λ_{max} 540 nm, ε 41000). Yellow-orange cryst. Sol. H₂O, EtOH, alkalis.

Florence, T.M., *Anal. Chem.*, 1965, **37**, 704 (*synth, detn, Al*)

4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, 9CI **D-00320**

2-(2-Hydroxy-4-sulfo-1-naphthylazo)-5-(N,N-diethylamino)phenol

[23204-21-9]



C₂₀H₂₁N₃O₅S M 415.469

Used as 0.05mM aq. soln. for photometric detn. of Mg (λ_{max} 563 nm), Ca (λ_{max}, pH ~10). Used as a 0.1% soln. in aq. EtOH as metallochromic indicator in titrimetric detn. of water hardness; photometric detn. of Ga (λ_{max} 580 nm, ε 40000). Dark brown cryst. (EtOH/HCl aq.). Sol. H₂O, EtOH, alkalis; sl. sol. Me₂CO. Mp 226°. pK_{a1} 3.65; pK_{a2} 8.50; pK_{a3} 12.6 (μ = 0.1, 25°).

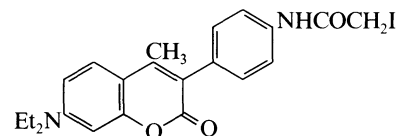
Gusev, S.I., *Zh. Anal. Khim.*, 1969, **24**, 585 (*synth, use*)

Wada, H. *et al*, *Anal. Chim. Acta*, 1984, **159**, 289 (*synth, detn, Ca, Mg*)

N-[4-[7-(Diethylamino)-4-methyl-2-oxo-2H-1-benzopyran-3-yl]phenyl]-2-iodoacetamide, 9CI **D-00321**

7-(Diethylamino)-3-[4-[(iodoacetyl)amino]phenyl]-4-methylcoumarin

[76877-34-4]



C₂₂H₂₃IN₂O₃ M 490.340

Used as derivatising agent for carboxylic acid detn., using peroxyoxalate chemiluminescence in liquid chromatography. Yellow needles. Mp 215-216° dec.

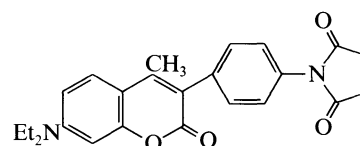
Sippel, T.O., *J. Histochem. Cytochem.*, 1981, **29**, 314 (*synth*)

Grayeski, M.L. *et al*, *Anal. Chem.*, 1987, **59**, 1203 (*use*)

1-[4-[7-(Diethylamino)-4-methyl-2-oxo-2H-1-benzopyran-3-yl]phenyl]-1H-pyrrole-2,5-dione, 9CI **D-00322**

7-(Diethylamino)-3-(4-maleimidylphenyl)-4-methylcoumarin. N-[4-(7-Diethylamino-4-methylcoumarin-3-yl)phenyl]maleimide. CPM

[76877-33-3]



C₂₄H₂₂N₂O₄ M 402.449

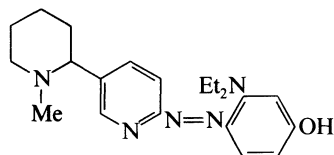
Fluorescent label for thiols. Orange needles (EtOH). Mp 159-161°.

Sippel, T.O., *J. Histochem. Cytochem.*, 1981, **29**, 314, 1377 (*synth, use*)

3-Diethylamino-4-[5-(1-methyl-2-piperidiny)-2-pyridyl]phenol

D-00323

6'-[[2-(Diethylamino)-4-hydroxyphenyl]azo]-1-methylanabasine, 8CI
[25349-56-8]



$C_{21}H_{29}N_5O$ M 367.493

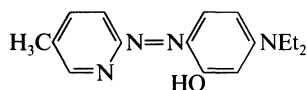
Gives colour reactions with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Orange-red cryst. Sol. EtOH, Me₂CO.

Kagramanova, N.G. *et al, CA*, 1969, **71**, 56314p (*use*)

5-(Diethylamino)-2-[(5-methyl-2-pyridinyl)azo]phenol, 9CI

D-00324

2-(4-Diethylamino-2-hydroxyphenylazo)-5-methylpyridine. 5-Me-PADAP
[56808-92-5]



$C_{16}H_{20}N_4O$ M 284.360

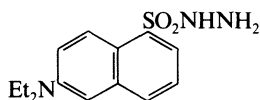
Used as 2.5mM soln. in 0.1M H₂SO₄ for extraction-photometric detn. of Pd (λ_{max} 553 nm, ϵ 38000, in the presence of Br⁻, toluene). Red needles (EtOH aq.). Sol. acids, EtOH. Mp 164-165°. pK_{a1} 1.8; pK_{a2} 3.9; pK_{a3} 11.3.

Kasahara, I. *et al, Analyst (London)*, 1989, **114**, 1479 (*synth, detn, Pd*)

6-(Diethylamino)-2-naphthalenesulfonic acid hydrazide, 9CI

D-00325

[100344-00-1]



$C_{14}H_{19}N_3O_2S$ M 293.389

Fluorescent reagent for hplc anal. of carbonyl compds.

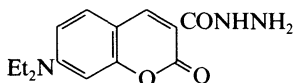
Anderson, J.M., *Anal. Biochem.*, 1986, **152**, 146 (*use*)

7-(Diethylamino)-2-oxo-2H-1-benzopyran-3-carboxylic acid hydrazide, 9CI

D-00326

7-(Diethylamino)coumarin-3-carbohydrazide. DCCH. Decyl hydrazide

[100343-98-4]



$C_{14}H_{17}N_3O_3$ M 275.307

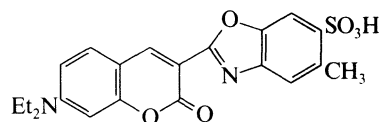
Used as derivatising agent for carboxylic acid detn., using peroxyoxalate chemiluminescence in liquid chromatography.

Anderson, J.M., *Anal. Biochem.*, 1986, **152**, 146 (*use*)

Grayesi, M.L. *et al, Anal. Chem.*, 1987, **59**, 1203 (*use*)

2-[7-(Diethylamino)-2-oxo-2H-1-benzopyran-3-yl]-5-methyl-6-benzoxazolesulfonic acid, 9CI

D-00327



$C_{21}H_{20}N_2O_6S$ M 428.465

Fluorescent reagent for anal. of tertiary-amine drugs.

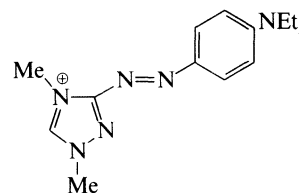
[35773-53-6]

Wintersteiger, R. *et al, Sci. Pharm.*, 1989, **57**, 407 (*synth, use*)

3-[[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1H-1,2,4-triazolium(1+)

D-00328

4-[3-(1,4-Dimethyl-1,2,4-triazolyl)azo]-N,N-diethylaniline
[47083-56-7]



$C_{14}H_{21}N_6^{\oplus}$ M 273.360 (ion)

Chloride: [29120-27-2].

$C_{14}H_{21}ClN_6$ M 308.813

Used as a 0.1% aq soln. for extraction-photometric detn. of Bi (ϵ 96000), In, Sb, Tl, Pb (iodide and bromide complexes extracted as ion-pairs with azo dye). Orange-red cryst. Sol. H₂O, EtOH, dil. acids.

Kish, P.P. *et al, Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **25**, 112, 500;

1973, **28**, 1923; 1974, **29**, 1741 (*detn, Sb, In, Tl*)

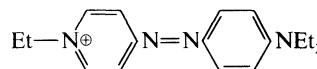
Busev, A.I. *et al, Zh. Anal. Khim.*, 1972, **27**, 298 (*detn, Bi*)

Kish, P.P. *et al, Ukr. Khim. Zh. (Russ. Ed.)*, 1982, **48**, 969 (*detn, Pb*)

4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+), 9CI

D-00329

[76749-76-3]



$C_{17}H_{23}N_4^{\oplus}$ M 283.395 (ion)

Cationic azo dye; occurs as salt with halide or other anion.

Chloride:

$C_{17}H_{23}ClN_4$ M 318.848

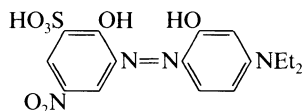
Forms extractable ion-pairs with Cu, Co, Ni and other metals (as ionic complexes) which are used in sensitive extraction-photometric detn. of metals e.g. Co (λ_{max} 564 nm, ϵ 168000, CHCl₃). Cryst. Sol. H₂O.

Motomizu, S. *et al, Anal. Chim. Acta*, 1980, **120**, 267 (*synth, use*)

Motomizu, S. *et al, Anal. Sci.*, 1987, **3**, 265 (*synth*)

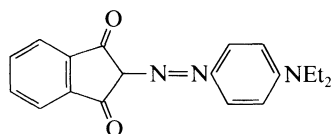
Yamamoto, K. *et al, Anal. Sci.*, 1989, **5**, 195 (*detn, Cu*)

3-[2-(5-Diethylaminophenyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid **D-00330**
4'-Diethylamino-2,2'-dihydroxy-5-nitroazobenzene-3-sulfonic acid. Sulfonitrazo DAF



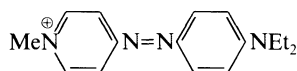
$C_{16}H_{18}N_4O_7S$ M 410.407
 Used as 0.1% aq. soln. for photometric detn. of Al (λ_{max} 545 nm, ϵ 54000, pH 2.5-4). Yellow cryst. Sol. H_2O , EtOH. pK_{a2} 4.7; pK_{a3} 11.5.
 Ermolenko, L.V. *et al. Zh. Anal. Khim.*, 1988, **43**, 1030 (*synth, detn, Al*)

2-[[4-(Diethylamino)phenyl]azo]-1,3-indanedione, 8CI **D-00331**
 [13059-73-9]



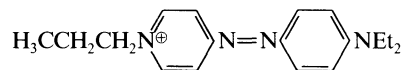
$C_{19}H_{19}N_3O_2$ M 321.378
 Cryst. (Py). Mp 215-216.5°.
Monooxime: [13059-70-6].
 $C_{19}H_{20}N_4O_2$ M 336.393
 Used as a 0.01M soln. in aq. Me_2CO as acid-base indicator (pH range: 4.8 - 6.2; colour change: yellow → red-violet). Yellow needles. Sol. EtOH; sl. sol. H_2O . Mp 211-213°. pK_{a1} 5.74.
 Kuchar, E. *et al. Chem. Zvesti*, 1966, **20**, 423 (*use, oxime*)
 Kuchar, E. *et al. CA*, 1969, **71**, 38612e (*synth*)

4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+), 9CI **D-00332**
 [76749-75-2]



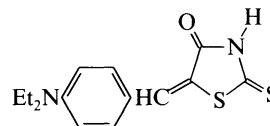
$C_{16}H_{21}N_4^{\oplus}$ M 269.369 (ion)
 Cationic azo dye; used as salt with halide or other anion.
Chloride:
 $C_{16}H_{21}ClN_4$ M 304.821
 Used as aq. soln. for extraction-photometric detn. of Cu(I) (λ_{max} 575 nm, ϵ 15000). Forms extractable ion-pairs with Co, Ni and other metals (as anionic complexes) used in sensitive extraction-photometric detn. of metals (e.g. Co, λ_{max} 564 nm, ϵ 99000, $CHCl_3$). Orange red cryst. (dil. HCl). Sol. H_2O . Mp 182-184°.
Iodide: [74920-80-2].
 $C_{16}H_{21}IN_4$ M 396.273
 Used for the photometric detn. of anionic surfactants.
 Motomizu, S. *et al. Anal. Chim. Acta*, 1980, **120**, 267 (*synth, detn, Co, Ni*)
 Huang, Z. *et al. CA*, 1985, **103**, 8010u (*synth*)
 Motomizu, S. *et al. Anal. Sci.*, 1987, **3**, 265 (*detn, surfactants*)
 Yamamoto, K. *et al. Anal. Sci.*, 1989, **5**, 195 (*detn, Cu*)

4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+), 9CI **D-00333**
 [76749-59-2]



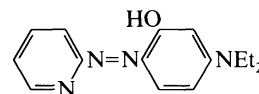
$C_{18}H_{25}N_4$ M 297.422
 Cationic azo dye; occurs as salt with halide or other anion.
Chloride:
 $C_{18}H_{25}ClN_4$ M 332.875
 Used as aq. soln. Forms extractable ion-pairs with Co, Ni and other metals (as anionic complexes). Used in sensitive extraction-photometric detn. of metals (for Co λ_{max} 566 nm, ϵ 166000, $CHCl_3$; Cu(I): λ_{max} 575 nm, ϵ 30000). Cryst. Sol. H_2O .
 Motomizu, S. *et al. Anal. Chim. Acta*, 1980, **120**, 267 (*synth, use*)
 Motomizu, S. *et al. Anal. Sci.*, 1987, **3**, 265 (*synth*)
 Yamamoto, K. *et al. Anal. Sci.*, 1989, **5**, 195 (*detn, Cu*)

5-[[4-(Diethylamino)phenyl]methylene]-2-thioxo-4-thiazolidinone, 9CI **D-00334**
p-Diethylaminobenzylidenerhodanine
 [35778-58-6]



$C_{14}H_{16}N_2OS_2$ M 292.425
 Several tautomers possible. Used as 0.05% soln. in EtOH for photometric detn. of Ag, Au, Cu, Hg, Pd, Pt. Red-orange needles (EtOH). Sol. EtOH, Et_2O , Me_2CO . Mp 161-164°.
 Sandell, E.B. *et al. Anal. Chem.*, 1951, **23**, 1863.
 Sandell, E.B. *et al. Anal. Chim. Acta*, 1951, **5**, 445.
 Kulberg, L.M. *et al. Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)
 Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 631.

2-(Diethylamino)-6-(2-pyridinylazo)phenol, 9CI **D-00335**
2-(4-Diethylamino-2-hydroxyphenylazo)pyridine
 [14337-52-1]



$C_{15}H_{18}N_4O$ M 270.333
 Used as 0.1% soln. in propanol for photometric detn. of Ir (λ_{max} 560 nm, ϵ 43000), Rh (λ_{max} 560 nm, ϵ 65000); as 0.03% soln. in EtOH for photometric detn. of Co (λ_{max} 570 nm, ϵ 86000). Orange-red cryst. Sol. EtOH, Me_2CO , alkalis. Mp 109°.
 Gusev, S.I. *et al. Zh. Anal. Khim.*, 1966, **21**, 1042; 1969, **24**, 210 (*synth, detn, Co*)
 Goroshko, G.G. *et al. Zh. Anal. Khim.*, 1978, **33**, 1114 (*detn, Ir, Rh*)

(Diethylamino)trimethylsilane **D-00336**
N,N-Diethyl-1,1,1-trimethylsilanamine, 9CI. Trimethylsilyldiethylamine. TMSDEA
 [996-50-9]



C₇H₁₉NSi M 145.319

Derivatisation reagent for amino acids, steroids, etc., for gc/ms anal. Liq. d 0.767. Bp 125-126°.

▷ Lachrymator.

Smith, E.D. *et al*, *Nature (London)*, 1965, **208**, 878 (*use*)Chan, S. *et al*, *Inorg. Chem.*, 1973, **12**, 51 (*pmr*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1977, **6**, 634 (*use*)*Org. Synth.*, 1977, **57**, 51 (*synth*)Bassindale, A.R. *et al*, *J. Organomet. Chem.*, 1979, **175**, 273 (*nmr*)Filleux-Blanchard, M.L. *et al*, *Org. Magn. Reson.*, 1979, **12**, 12 (*nmr*)Hung, L. *et al*, *Org. Mass Spectrom.*, 1986, **21**, 726 (*use*)

N,N-Diethylaniline, 8CI

D-00337

N,N-Diethylbenzenamine, 9CI

[91-66-7]

C₁₀H₁₅N M 149.235Gives colour reactions with Mn, Zn. Liq. Sol. acids; sl. sol. EtOH, Et₂O, CHCl₃. d 0.938. Mp –38.8°. Bp 215.5°, Bp₁₀₀ 147°, Bp₁₀ 92°.

▷ Highly toxic by inhalation and skin absorption, if swallowed danger of cumulative effects. Irritant. BX3400000.

B,2HBr: Cryst. Mp 37.3°.

Picrate: Yellow prisms. Mp 142°.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **2**, 347.Brownlee, R.T.C. *et al*, *J. Am. Chem. Soc.*, 1968, **90**, 1757 (*ir*)Baker, A.D. *et al*, *J. Chem. Soc. B*, 1968, 22.Suhr, H., *J. Mol. Struct.*, 1968, **1**, 295 (*nmr*)Schmid, E.D. *et al*, *CA*, 1972, **76**, 33451 (*raman*)Gribble, G.W. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 7812 (*synth*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1975, **5**, 212.Rudenko, B.A. *et al*, *J. Chromatogr.*, 1975, **112**, 373 (*synth, glc*)Kuehne, M.E. *et al*, *J. Org. Chem.*, 1977, **42**, 2082 (*synth*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 286.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DIS700.

N,N-Diethyl-N'-benzoylthiourea

D-00338

N-[(Diethylamino)thioxomethyl]benzamide, 9CI

[58328-36-2]

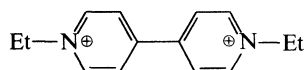
C₁₂H₁₆N₂OS M 236.337Used as 0.1M soln. in toluene for extraction separation of platinum group metals. Cryst. (EtOH). Sol. toluene, CHCl₃, decane. Mp 98°.Koenig, K.H. *et al*, *Fresenius' Z. Anal. Chem.*, 1985, **321**, 457 (*synth, use*)

1,1'-Diethyl-4,4'-bipyridinium(2+), 9CI

D-00339

N,N'-Diethylbiologen

[46713-38-6]

C₁₄H₁₈N₂²⁺ M 214.310 (ion)

Dichloride: [3688-18-4].

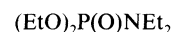
C₁₄H₁₈Cl₂N₂ M 285.215Redox indicator (reduced form is blue). Used as a soln. in aq. AcOH. V. air-sensitive needles (C₆H₆/EtOH). E° –0.449 V (30°).Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Diethyl diethylphosphoramidate, 9CI, 8CI

D-00340

Diethyl diethylamidophosphate

[3167-69-9]

C₈H₂₀NO₃P M 209.225Used as a 0.02M soln. in C₆H₆ for extraction separation of Zr. Liq. d₄²⁰ 1.01-1.04. Bp₂₅ 116-119°, Bp₁ 60°. n_D²⁰ 1.4318 (1.4214).Petrov, K.A. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 3761), 1956, **26**, 3378 (*synth*)Alimarin, I.P. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1386 (*sepn, Zr*)Abramov, V.S. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 2180), 1969, **39**, 2234 (*synth*)Zwierzak, A., *Synthesis*, 1975, 507 (*synth, P nmr*)Appel, R. *et al*, *Z. Anorg. Allg. Chem.*, 1975, **414**, 241 (*synth*)Zverev, V.V. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl.* p. 74), 1979, 84 (*pe*)

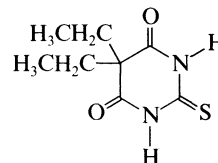
5,5-Diethyldihydro-2-thioxo-4,6(1H,5H)-pyrimidinedione, 9CI

D-00341

5,5-Diethylthiobarbituric acid. Certodorm. Ibition.

Sedothyron. Thiobaral. Thiobarbital. Thiothy. Thyreosedine

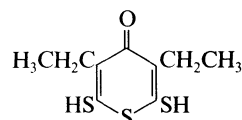
[77-32-7]

C₈H₁₂N₂O₂S M 200.261Thyroid inhibitor and hypnotic. Reagent for the colorimetric anal. of nicotine metabolites. Pale yellow needles (H₂O). Insol. C₆H₆; sol. EtOH, CHCl₃, Et₂O, Me₂CO, alkalis. Mp 180°.Fischer, E. *et al*, *Justus Liebigs Ann. Chem.*, 1904, **335**, 350 (*synth*)Carrington, H.C., *J. Chem. Soc.*, 1944, 124 (*synth*)Bartels, E.C., *N. Engl. J. Med.*, 1948, **238**, 6 (*pharmacol*)Bush, M.T. *et al*, *J. Pharmacol. Exp. Ther.*, 1960, **19**, 30 (*metab*)Gruetzmacher, H.F. *et al*, *Tetrahedron Lett.*, 1966, 1365 (*ms*)Poupaert, J. *et al*, *J. Pharm. Sci.*, 1976, **65**, 1258 (*ir*)Smith, C.L. *et al*, *Anal. Proc. (London)*, 1989, **26**, 358 (*use*)

3,5-Diethyl-2,6-dimercapto-4H-thiopyran-4-one, 8CI

D-00342

[1913-89-9]

C₆H₁₂OS₃ M 232.391Used as a 0.01M soln. in 0.3M aq. KOH for photometric detn. of Bi (λ_{max} 360 nm), Sn(IV) (λ_{max} 430 nm, ε 30400); titrimetric amperometric detn. of Bi, Cu, Hg. Yellow cryst. powder. Sol. alkalis EtOH, CHCl₃; spar. sol. H₂O.Usatenko, Y.I. *et al*, *J. Anal. Chem. USSR (Engl. Transl.)*, 1965, **20**, 429 (*detn, Bi*)

Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1823 (*detn*, Sn)
 Akhmetshin, A.G. *et al*, *CA*, 1972, **76**, 10021r, 10057g (*detn*, Bi,
 Hg, Tl, Cu)

Diethyldiselenocarbamic acid**D-00343**

Diethylcarbomodiselenoic acid, 9CI
 [44640-72-4]



$\text{C}_5\text{H}_{11}\text{NSe}_2$ M 243.069

Insol. H_2O .

Na salt: [30611-89-3].

Sol. H_2O .

K salt: [18820-71-8].

Used for extraction-photometric *detn.* of Bi (λ_{max} 412 nm, ϵ 9800, CHCl_3), Co (λ_{max} 407 nm, ϵ 16400, CHCl_3), Cu (λ_{max} 494 nm, ϵ 12300, CHCl_3), Ni (λ_{max} 427 nm, ϵ 89000, CHCl_3). Cryst. Sol. H_2O .

Zn salt: Pale yellow cryst. (Me_2CO). Mp 154.5-155°.

Barnard, D. *et al*, *J. Chem. Soc.*, 1961, 2922 (*synth*)

Kirspuu, K.K. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 354 (*use*)

Diethyldithiocarbamic acid**D-00344**

Diethylcarbomodithioic acid, 9CI

[147-84-2]



$\text{C}_5\text{H}_{11}\text{NS}_2$ M 149.281

Free acid unstable. Salts used as vulcanisation accelerators, esters as plasticisers. Na and K salts sol. H_2O .

▷ Salts emit highly toxic fumes when heated.

Zn salt: Vulcanisation accelerator. Mp 180°.

Na salt: Sodium diethyldithiocarbamate. Dithiocarb sodium, INN. Dithiocarb. Cupral. Imuthiol. DTC

$\text{C}_5\text{H}_{10}\text{NNaS}_2$ M 171.262

Antidote (in Wilson's disease). Immunopotentiator.

Chelating agent. Used as 0.1% aq. soln. (pH \approx 8.5) in photometric *detn.* of Cu(II) (ϵ 14000), Te, Bi, Mn, As (with Ag-DDTC); for preciptn. and extraction separation of many heavy metals; extraction separation of ionic organotin and organolead compds. Cryst. Sol. H_2O ; insol. CHCl_3 . Mp 94-96° (when anhydr.). pK_a 3.95. Used as trihydrate. Dec. by acid solns.

Diethylamine salt (1:1): [1518-58-7]. *Contramine*

Antidote. Antibacterial. Used for photometric *detn.* of Cu. Cryst. (Et_2O). Mp 83-84°.

▷ EZ5425000.

Ag salt: [38351-46-1]. *Silver diethyldithiocarbamate*. *SDDC*

Photometric reagent for As, Sb.

Diethylammonium salt: [2391-78-8]. *Diethylammonium diethyldithiocarbamate*

$\text{C}_9\text{H}_{22}\text{N}_2\text{S}_2$ M 222.418

Used as 1% soln. in CHCl_3 as chelating agent for Cu, Hg, Bi, Mn; extraction separation of Cu, Bi, As. Cryst. Sol. CHCl_3 , CCl_4 . Mp 82-83°.

Me ester: [686-07-7].

$\text{C}_6\text{H}_{13}\text{NS}_2$ M 163.307

d_4^{20} 1.098. Mp 2°. Bp 256°.

▷ EZ5700000.

S-Oxide:

$\text{C}_5\text{H}_{11}\text{NOS}_2$ M 165.280

New class of sulfine.

[38351-46-1]

Grodzki, M., *Ber.*, 1881, **14**, 2754 (*synth*)

Clifford, A.M. *et al*, *J. Am. Chem. Soc.*, 1932, **54**, 1163 (*synth*)

Wyatt, P.F., *Analyst (London)*, 1945, **70**, 232; 1953, **78**, 624, 656; 1955, **80**, 368 (*detn*, As)

Vasak, V. *et al*, *Collect. Czech. Chem. Commun.*, 1953, **18**, 64 (*use*, Ag salt)

Campbell, A.W. *et al*, *Ind. Eng. Chem.*, 1953, **45**, 125 (*use*)

Cluley, H.J., *Analyst (London)*, 1954, **79**, 561 (*detn*, Cu)

Malissa, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1959, **105**, 281 (*use*)

Bode, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1959, **169**, 440; 1960, **172**, 1; 1967, **222**, 261; 1968, **241**, 18 (*detn*, As)

Hulanicki, A., *Talanta*, 1967, **14**, 1371 (*use*)

Wahlberg, A., *Acta Crystallogr., Sect. B*, 1978, **34**, 3822 (*cryst struct*)

Van Gaal, H.L.M. *et al*, *Inorg. Chem.*, 1979, **18**, 3251 (*cmr*)

Cavell, K.J. *et al*, *J. Inorg. Nucl. Chem.*, 1979, **41**, 1277 (*Et}_2\text{NH salt, synth, ir}*)

Honjo, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1980, **53**, 1753.

Braun, T. *et al*, *Anal. Chim. Acta*, 1981, **131**, 311 (*detn*, Hg)

Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Non-Metals*, John Wiley, New York, 1981, 533.

Renoux, G. *et al*, *Dev. Immunol.*, 1982, **17**, 575 (*pharmacol*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 395 (*use*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1053-1054 (*oxide*)

Mereiter, K. *et al*, *Inorg. Chim. Acta*, 1985, **98**, 71 (*struct*)

Renoux, G., *Int. Encycl. Pharmacol. Ther.*, 1985, **115**, 393 (*rev*)

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 153.

Watanabe, Y. *et al*, *J. Org. Chem.*, 1988, **53**, 2119 (*oxide*)

Lobinski, R. *et al*, *Anal. Chem.*, 1992, **64**, 159 (*organotin*)

Lobinski, R. *et al*, *Anal. Chim. Acta*, 1992, **262**, 285 (*detn, organolead*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DJC800, DJD000.

Diethylenetriamine**D-00345**

N-(2-Aminoethyl)-1,2-ethanediamine, 9CI. *Di(2-aminoethyl)amine*. *2,2'-Diaminodiethylamine*. *Bis(2-aminoethyl)amine*
 [111-40-0]



$\text{C}_4\text{H}_{13}\text{N}_3$ M 103.167

Used in manuf. of chelating agents, wet strength resins, epoxy resin curing agents, surfactants and corrosion inhibitors. Used in photometric *detn.* of Ni. Yellow viscous liq. Misc. H_2O , EtOH. Mp -39° . Bp 208° .

▷ Irritant, causes burns TLV 4. IE1225000.

Tripicrate: Prisms (H_2O). Mp 210-212° dec.

Tri-Ac:

$\text{C}_{10}\text{H}_{19}\text{N}_3\text{O}_3$ M 229.278

Felted needles (EtOH). Mp 220°.

N,N',N''-Tris(4-methylbenzenesulfonyl): [87555-93-9].

Cryst. (DMF aq.). Mp 176-177°.

Copolymer with epichlorohydrin: [50925-79-6]. *Colestipol*, INN. *Colestid*

Antihyperlipoproteinaemic.

Copolymer with epichlorohydrin; B,HCl: [37296-80-3].

Colestipol hydrochloride, USAN. U 26597A

Pale-yellow granules.

Ger. Pat., 2 053 585; *CA*, **75**, 49997 (*synth, Colestipol*)

Hofmann, A.W., *Proc. R. Soc. London*, 1862, **11**, 420.

Fargher, R.G., *J. Chem. Soc.*, 1920, **117**, 1351 (*synth*)

Mann, F.G., *J. Chem. Soc.*, 1934, 461.

v. Braun, J., *Ber.*, 1937, **70**, 979 (*synth*)

Whealy, R.D. *et al*, *Anal. Chem.*, 1956, **28**, 1897 (*use*)

Alhadeff, M. *et al*, *Med. Actual.*, 1978, **14**, 65 (*rev, Colestipol*)

Heel, R.C. *et al*, *Drugs*, 1980, **19**, 161 (*rev, Colestipol*)

Denney, D.B. *et al*, *J. Am. Chem. Soc.*, 1980, **102**, 7072.

Newkome, G.R. *et al*, *J. Org. Chem.*, 1983, **48**, 4848 (*pmr, ms*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 288.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DJG600.

Diethyl ether**D-00346**1,1'-Oxybisethane, 9CI. Ether. Ethyl ether. Diethyl oxide
[60-29-7]

EtOEt

 $C_4H_{10}O$ M 74.122Detected in hop oil (*Humulus lupulus*). Widely used solvent dissolves P, S, Br₂, I. Formerly used as anaesthetic.Often used in extraction separation. Volatile liq. with characteristic odour. Sol. H₂SO₄, spar. sol. H₂O, misc. most org. solvs. d_4^{20} 0.714, d^{25} 0.712. Mp -116.2°. Bp 34.6°. n_D^{25} 1.3542.

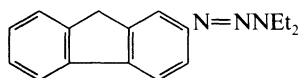
▷ Narcotic, TLV 1200. Extremely flammable flash p -45°. Forms explosive peroxides; powerful oxidants produce explosions. KI5775000.

Krafft, F., *Ber.*, 1893, **26**, 2831 (*synth, props*)Bruhl, J.W., *Ber.*, 1897, **30**, 158 (*props*)Buttery, R.G. *et al*, *Nature (London)*, 1963, **200**, 435 (*isol*)André, D. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 2389 (*cryst struct*)Price, H.L., *Pharmacol. Basis Ther.*, 5th Ed. 1975, 1975, 89 (*pharmacol*)Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals*, Wiley, New York, 1978 (*use*)Keeley, D.E., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **9**, 381 (*rev*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 3107.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 289.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EJU000.**3,3-Diethyl-1-(9H-fluoren-2-yl)-1-triazene, 9CI****D-00347**

[123852-79-9]

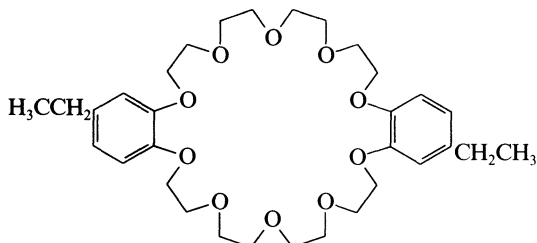
 $C_{17}H_{19}N_3$ M 265.357

Used for photometric detn. of phenols.

Kupletskaya, N.B. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 2070 (*use*)**2,19-Diethyl-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzo[b,q][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, 9CI****D-00348**

2,19-Diethyldibenzo-30-crown-10

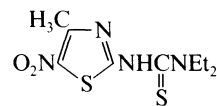
[90043-70-2]

 $C_{32}H_{48}O_{10}$ M 592.725

Used for detn. of K (membrane ion-selective electrode).

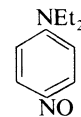
Cryst. Sol. CHCl₃.Norov, S.K. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 222; 1987, **42**, 429 (*synth, use*)**N,N-Diethyl-N'-(4-methyl-5-nitro-2-thiazolyl)thiourea, 9CI****D-00349**

[86107-98-4]

 $C_9H_{14}N_4O_2S_2$ M 274.367Used as 1mM soln. in MeOH or 2mM soln. in Me₂CO for extraction-photometric detn. of Pd (λ_{max} 415 nm, ϵ 42800, CHCl₃). Orange cryst. (EtOH aq.). Sol. MeOH, EtOH, CHCl₃, Me₂CO; spar. sol. H₂O. Mp 194°.Yoda, R. *et al*, *Mikrochim. Acta*, 1983, **2**, 75 (*synth, detn, Pd*)**N,N-Diethyl-4-nitrosoaniline****D-00350**

N,N-Diethyl-4-nitrosobenzeneamine, 9CI. p-Nitrosodiethylaniline

[120-22-9]

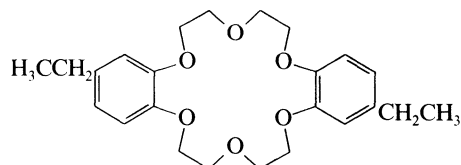
 $C_{10}H_{14}N_2O$ M 178.233Used as 0.5% soln. in EtOH for photometric detn. of Pd. Pt. Green prisms (Et₂O); green leaflets (Me₂CO). Sol. EtOH, Et₂O; sl. sol. H₂O. d^{15} 1.24. Mp 87-88°, Mp 82-84°. pK_a 4.25.

B,HCl: Mp 128-129° dec.

Overholser, L.H. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 3224 (*synth*)Hodgson, H. *et al*, *J. Chem. Soc.*, 1941, 470 (*synth*)Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3** (*use*)Schroll, G. *et al*, *Ark. Kemi*, 1967, **28**, 413; *CA*, **69**, 26600 (*ms*)Yasuda, K. *et al*, *CA*, 1968, **69**, 64478 (*tlc*)Marczenko, Z. *et al*, *Chem. Anal. (Warsaw)*, 1970, **15**, 1233 (*detn. Pd, Pt*)Talberg, H.J., *Acta Chem. Scand., Ser. A*, 1977, **31**, 743 (*cryst struct*)Carreira, L.A. *et al*, *J. Chem. Phys.*, 1977, **66**, 4360 (*raman*)Shapiro, B.L. *et al*, *J. Phys. Chem. Ref. Data*, 1977, **6**, 919 (*nmr*)**2,13-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[b,k][1,4,7,10,13,16]hexaoxacyclooctadecin, 9CI****D-00351**

2,13-Diethyldibenzo-18-crown-6

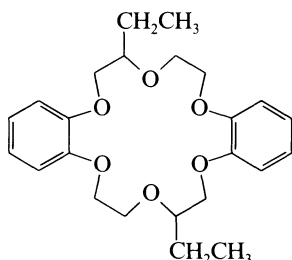
[68726-12-5]

 $C_{24}H_{32}O_6$ M 416.513

Used for detn. of K (membrane ion-selective electrode).

Cryst. Sol. CHCl₃.Norov, S.K. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 613; 1987, **42**, 429 (*synth, use*)

7,18-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, 9CI
7,18-Diethyldibenzo-18-crown-6
[87834-22-8]



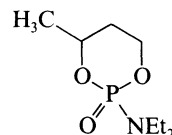
$C_{24}H_{32}O_6$ M 416.513
Used as 0.2mM $CHCl_3$ soln. for extraction separation of Li, Na, K (in the presence of picrate, pH 8-9). Cryst. Sol. $CHCl_3$.
Mamedova, Yu.G. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1578 (*synth. use*)

Diethylphosphoramidic acid, 9CI, 8CI **D-00353**
Phosphoric acid diethylamide



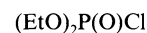
$C_4H_{12}NO_3P$ M 153.117
Di-Me ester: [65659-19-0]. *Dimethyl diethylphosphoramidate*
 $C_6H_{16}NO_3P$ M 181.171
Liq. d_4^{20} 1.07. Bp_8 82.5-83°. n_D^{20} 1.4265.
Di-Et ester: see *Diethyl diethylphosphoramidate*, D-00340
Diisopropyl ester: [74124-48-4]. *Diisopropyl diethylphosphoramidate. Bis(1-methylethyl) diethylphosphoramidate*
 $C_{10}H_{24}NO_3P$ M 237.278
Liq. Bp_{20} 115°. n_D^{20} 1.4205.
Dibutyl ester: [6626-39-7]. *Dibutyl diethylphosphoramidate*
 $C_{12}H_{28}NO_3P$ M 265.332
Liq. d_4^{20} 0.97. Bp_2 124-126°. n_D^{20} 1.4380.
Di-Ph ester: [6214-04-6]. *Diphenyl diethylphosphoramidate*
 $C_{16}H_{20}NO_3P$ M 305.313
Cryst. (C_6H_6 , pet. ether or EtOH aq.). Mp 61-62°. *Dibenzyl ester*: [3881-20-7]. *Dibenzyl diethylphosphoramidate. Bis(phenylmethyl) diethylphosphoramidate*
 $C_{18}H_{24}NO_3P$ M 333.366
Liq. n_D^{20} 1.5317.
Diheptyl ester: [26084-40-2].
 $C_{18}H_{40}NO_3P$ M 349.493
Used as a 0.02M soln. in C_6H_6 for extraction-separation of Th, Zr. Oil. Bp_5 165°. n_D^{20} 1.4450.
Cyclic 1-methyltrimethylene ester: see *Diethylphosphoramidic acid cyclic 1-methyltrimethylene ester*, D-00354
Kamai, G. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 3093), 1957, **27**, 3064 (*esters*)
Cheymol, J. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1959, **249**, 1240 (*esters*)
Stock, J.A. *et al*, *J. Chem. Soc. C*, 1966, 637 (*diphenyl ester*)
Alimarin, I.P. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1386 (*detn.*, Zr)
Abramov, V.S. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 2596), 1969, **39**, 2658 (*dibutyl ester*)
Alimarin, I.P. *et al*, *CA*, 1975, **83**, 33456v (*detn.*, Th, Zr)
Zwierzak, A., *Synthesis*, 1975, 507 (*dibenzyl ester*)

Diethylphosphoramidic acid cyclic 1-methyltrimethylene ester, 8CI **D-00354**
N,N-Diethyl-4-methyl-1,3,2-dioxaphosphorinan-2-amine 2-oxide, 9CI
[20726-64-1]



$C_8H_{18}NO_3P$ M 207.209
Used as a 0.02M soln. in C_6H_6 for extraction-separation of Zr. Oily liq. Bp_7 142°. n_D^{20} 1.4548.
Alimarin, I.P. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1386 (*use*)

Diethyl phosphorochloridate, 9CI, 8CI **D-00355**
Diethyl phosphoryl chloride. Diethyl chlorophosphate. Diethyl chlorophosphonate
[814-49-3]

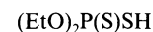


$C_4H_{10}ClO_3P$ M 172.548
Phosphorylating agent. Assists reduction of phenols and enols. Reagent for conversion of phenols to amines. Derivatisation reagent for gc anal. of phenols. Liq. with irritating, unpleasant odour. d_4^{20} 1.21. Bp_{15} 88-89°, $Bp_{0.4}$ 39°. Fumes in moist air.

► Highly toxic. TD1400000.

Inorg. Synth., 1953, **4**, 78 (*synth. bibl*)
Bliznyaks, N.K. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 1279), 1967, **37**, 1353 (*synth*)
Williamson, M.P. *et al*, *J. Phys. Chem.*, 1968, **72**, 4043 (*pmr, bibl*)
Potenza, J.A. *et al*, *J. Am. Chem. Soc.*, 1969, **91**, 4356 (*epr, nmr*)
Sosnovsky, G. *et al*, *J. Org. Chem.*, 1969, **34**, 968 (*synth*)
Ireland, R. *et al*, *Tetrahedron Lett.*, 1969, 2145 (*use*)
Pritchard, J.G., *Org. Mass Spectrom.*, 1970, **3**, 163 (*ms*)
Heenan, M.P. *et al*, *J. Chromatogr. Sci.*, 1974, **12**, 89 (*use*)
Zverev, V.V. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl.* p. 74), 1979, **28**, 84 (*pe*)
Chattopadhyay, S. *et al*, *J. Electron Spectrosc. Relat. Phenom.*, 1981, **24**, 27 (*pe*)
Gloede, J., *Z. Anorg. Allg. Chem.*, 1982, **484**, 231 (*synth*)
Araki, S. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1984, 969 (*use*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, D1Y000.

O,O-Diethyl phosphorodithioate, 9CI, 8CI **D-00356**
O,O-Diethyl dithiophosphate. O,O-Diethyl dithiophosphoric acid. Diethoxo(hydrogensulfido)thiophosphorus(V)
[298-06-6]



$C_4H_{11}O_2PS_2$ M 186.235
Extractant for As(III) or Sb(III) in hexane from acid soln.; and also Bi(III) and Sb(III) in EtOAc/1M $HClO_4$ in the presence of Sn(II), Cu(II), Pb(II), Cd(II), Zn(II) and Tl(I). Used as 1% aq. soln. for extraction-photometric detn. of Re; potentiometric detn. of Cu(II). Liq. Sol. H_2O . d_4^{20} 1.17. Bp_9 92-94°, Bp_1 60°. pK_{a1} 2.84 (EtOH), pK_{a1} 1.62 (7% EtOH aq., 20°). n_D^{20} 1.5120, 1.5070.

► TD7350000.

Na salt: [3338-24-7]. *Hostaflot*
Used in flotation of U and Cd ores.

► TD8550000.

K salt: [3454-66-8].

Cryst. (EtOH/Et₂O). Mp 152-153°, Mp 195°.

NH_4 salt: [1068-22-0].

Employed for detn. of Ni in presence of other metals.

Cryst. Mp 164-166°.

▷ BP8145000.

Et_2NH_2 salt: [39857-88-0].

Cryst. (C_6H_6 /pet. ether). Mp 83-85°.

Morpholinium salt: Solid. Mp 79-81°.

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1956, **11**, 523 (detn, Cu)

Kabachnik, M.I. *et al*, *Tetrahedron*, 1960, **9**, 10 (synth)

Zemlyanskii, N.I. *et al*, *Zh. Obshch. Khim.*, 1960, **30**, 4056; 1972,

42, 54; *J. Gen. Chem. USSR (Engl. Transl.)*, 1960, **30**, 4018;

1972, **42**, 50 (raman, synth)

Lazarev, A.I. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 243 (detn, Re)

Nyquist, R.A., *Spectrochim. Acta, Part A*, 1969, **25**, 47 (ir)

Jowitt, R.N. *et al*, *J. Chem. Soc. A*, 1970, 1702 (ir, pmr,

complexes)

Khaskin, B.A. *et al*, *Zh. Obshch. Khim.*, 1973, **43**, 1916; 1974, **44**,

95; *J. Gen. Chem. USSR (Engl. Transl.)*, 1973, **43**, 1901; 1974,

44, 93 (salts)

Olah, G.A. *et al*, *J. Org. Chem.*, 1975, **40**, 2582 (props, P-31 nmr)

Lefferts, J.L. *et al*, *Inorg. Chem.*, 1980, **19**, 1662 (synth, complexes)

Chattopadhyay, S. *et al*, *J. Electron Spectrosc. Relat. Phenom.*,

1981, **24**, 27 (pe)

Toropova, V.F. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 1238; *J. Anal.*

Chem. USSR (Engl. Transl.), 1984, **39**, 988 (props, use)

Hayashi, K. *et al*, *Anal. Sci.*, 1986, **2**, 347 (props, use)

Fillippova, E.A. *et al*, *Zh. Prikl. Spektrosk.*, 1988, **49**, 454; *J. Appl.*

Spectrosc. (Engl. Transl.), 1988, **49**, 952 (ir, raman)

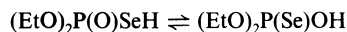
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, DJW875, PHG500,

PHG750.

O,O-Diethylphosphoroselenic acid, 9CI, D-00357
8CI

O,O-Diethyl hydrogen phosphoroselenoate



$C_4H_{11}O_3PSe$ M 217.063

Exists mainly as the OH-tautomer. Used for deoxygenation of sulphoxides. Free acid known in soln. only.

Na salt: [7452-29-1].

$C_4H_{10}NaO_3PSe$ M 239.045

Used for extraction of metals, esp. Pd and Cu from acid solns. Needles. Mp 146°.

Foss, O. *et al*, *Acta Chem. Scand.*, 1947, **1**, 8 (synth)

Michalski, J. *et al*, *Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1966, **14**,

303; *CA*, **65**, 10450d (synth)

Stec, W.J. *et al*, *Phosphorus Relat. Group V Elem.*, 1972, **2**, 97

(tautomer)

Clive, D.J. *et al*, *J. Chem. Soc., Chem. Commun.*, 1977, 657 (use)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1980, **8**,

169.

Diethyl sulfate D-00358

Sulfuric acid diethyl ester, 9CI. Ethyl sulfate

[64-67-5]



$C_4H_{10}O_4S$ M 154.187

Ethylating agent. Reagent for derivatising phenols and carboxylic acids for gc anal. Oily liq. Insol. H_2O . d_4^{18} 1.180. Mp -24.5°. Bp 208° sl. dec., Bp_{15} 96°. n_D^{18} 1.4010.

▷ Highly toxic by inhalation and skin absorption. Exp. carcinogen. WS7875000.

Suter, C.M., *The Organic Chemistry of Sulphur*, Wiley, N.Y., 1944 (rev)

Kraft, M.Y. *et al*, *CA*, 1963, **58**, 12407 (synth)

Gilbert, E.E., *Sulfonation and Related Reactions*, Interscience, N.Y., 1965 (rev)

Ladhabhoy, M.E., *Indian J. Chem.*, 1970, **5**, 24 (rev)

Tanaka, M. *et al*, *J. Chromatogr.*, 1982, **234**, 373 (use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

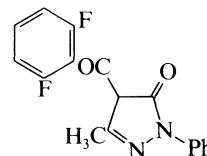
Royal Society of Chemistry, London, 1981, 291.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, DKB110.

4-(2,6-Difluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one, 9CI D-00359

[132915-90-3]



$C_{17}H_{12}F_2N_2O_2$ M 314.291

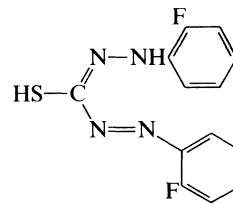
Used as 0.01M C_6H_6 soln. for extraction separation of Lu(III) (pH 1-2). Cryst. (dioxan aq.). Sol. C_6H_6 , 1,2-dichloroethane, dioxan. Mp 172°.

Mukai, H. *et al*, *Anal. Chim. Acta*, 1990, **239**, 277 (synth, use)

2,2'-Difluorodithizone D-00360

1,5-Bis(2-fluorophenyl)-3-mercaptoformazan. (2-Fluorophenyl)diazene-carbothioic acid 2-(2-fluorophenyl)hydrazide

[64712-91-0]



$C_{13}H_{10}F_2N_4S$ M 292.312

Used as $CHCl_3$ or CCl_4 soln. for extraction separation of Cu(I), Zn, Ni, Co. Cryst. Sol. $CHCl_3$, CCl_4 , C_6H_6 . Mp 120°.

Kiwan, A.M. *et al*, *Anal. Chim. Acta*, 1977, **88**, 177 (synth, use)

4,4'-Difluorodithizone D-00361

[(p-Fluorophenyl)azo]thioformic acid 2-(p-fluorophenyl)hydrazide. Di-p-fluorophenylthiocarbazon

[2805-80-3]

$C_{13}H_{10}F_2N_4S$ M 292.312

Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Co, Ni, Zn ($CHCl_3$). Dark green cryst. powder. Sol. $CHCl_3$, CCl_4 , EtOH, alkalis; insol. H_2O . Mp 149-150°. pK_{a1} 4.99 (25°, $\mu = 0.1$).

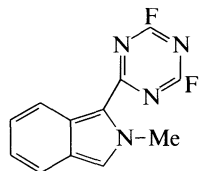
Pupko, L.S. *et al*, *Zh. Org. Khim.*, 1965, **1**, 735 (use)

Salihy, A.R. *et al*, *Talanta*, 1970, **17**, 182 (use)

1-(4,6-Difluoro-1,3,5-triazin-2-yl)-2-methyl-2H-isoindole, 9CI

D-00362

[122855-66-7]

C₁₂H₈F₂N₄ M 246.219

Fluorescent derivatisation reagent for corticosteroids. Mp 152-154°.

Fujino, H. *et al*, *Yakugaku Zasshi*, 1989, **109**, 195 (*synth, use*)**1,5-Di-2-furanyl-1,4-pentadien-3-one, 9CI**

D-00363

1,5-Difuryl-1,4-pentadien-3-one. Difurfurylideneacetone [886-77-1]

C₁₃H₁₀O₃ M 214.220Used as 1mM soln. in dry AcOH as an acid-base indicator. Yellow prisms (ligroin). Sol. EtOH, Et₂O, CHCl₃, AcOH, mod. sol. pet. ether. Mp 60-61°. Bp₄ 181-184°. pK_a 2.26. Dec. on standing in air.*Phenylhydrazone*: Mp 121-122°. Fluor. in soln.*2,4-Dinitrophenylhydrazone*: Mp 175°.Kasiwagi, I., *Bull. Chem. Soc. Jpn.*, 1926, **1**, 90; *CA*, **20**, 3005.Maxim, N. *et al*, *CA*, 1935, **29**, 4355.Kamenskii, I.V. *et al*, *CA*, 1961, **55**, 11907d.deJongh, H.A.P. *et al*, *Tetrahedron*, 1965, **21**, 515.Isacescu, D.A. *et al*, *CA*, 1968, **68**, 49378x (*purifn*)Sarbar, M. *et al*, *Talanta*, 1986, **33**, 907 (*synth, use, ind*)**Di(2-furyl)ethanedione, 9CI**

D-00364

Furil, 8CI. Di-2-furylglyoxal. α,α-Furil. Di-α-furoyl. Di-α-furyl diketone

[492-94-4]

C₁₀H₆O₄ M 190.155Yellow needles (C₆H₆ or EtOH). Mp 165-166°.

▷ LV0580000.

Monoxime: [4339-69-9].C₁₀H₇NO₄ M 205.170

Used as 10% soln. in Py for photometric detn. of Co, Ru. Yellow cryst. Mp 97-98°.

▷ LV0592000.

Dioxime: [522-27-0]. α-Furildioxime. NeonickeloneC₁₀H₈N₂O₄ M 220.184Used as 0.5% EtOH soln. for extraction-photometric detn. of Ni (λ_{max} 435 nm, ε 20000, CHCl₃), Pd (ε 23000, CHCl₃), Re (λ_{max} 530 nm, ε 41000, Me₂CO aq.), Co. Cryst. + 1H₂O (H₂O). Sol. EtOH, Et₂O, hot H₂O. Mp 84-85° (hydrate), Mp 166-168° (anhyd.). Forms metal complexes.

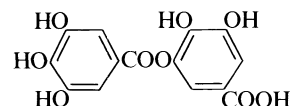
▷ LV0590000.

Corson, B.B. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 2822.Hartman, W.W. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 1228.Reed, S.A. *et al*, *J. Org. Chem.*, 1947, **12**, 792 (*deriv*)Gahler, A.R. *et al*, *Anal. Chem.*, 1951, **23**, 500 (*dioxime, detn, Ni*)Martinek, J. *et al*, *Chem. Listy*, 1956, **50**, 1450 (*monoxime, synth, detn, Co*)Fryer, F.A. *et al*, *Analyst (London)*, 1963, **88**, 188, 191 (*dioxime, detn, Re*)Sterk, H., *Monatsh. Chem.*, 1968, **99**, 999.Bodart, D.E. *et al*, *Fresenius' Z. Anal. Chem.*, 1969, **247**, 32 (*dioxime, detn, Ni*)Jones, J.L. *et al*, *Anal. Chim. Acta*, 1970, **51**, 130 (*dioxime, detn, Co*)Vlačil, F. *et al*, *Collect. Czech. Chem. Commun.*, 1975, **40**, 539; 1976, **41**, 3749 (*monoxime, detn, Co*)Pennanen, S.I., *Heterocycles*, 1977, **6**, 701 (*synth, spectra*)Savostina, V.M. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 607 (*monoxime, detn, Ru*)Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, C Press, Boca Raton, 1982 (*dioxime, use*)Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 396, 481 (*use, dioxime*)Onishi, H., *Photometric Determination of Traces of Metals, Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 288.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FPZ000, FQB000.**Digallic acid**

D-00365

3,4-Dihydroxy-5-[(3,4,5-trihydroxybenzoyl)oxy]benzoic acid, 9CI

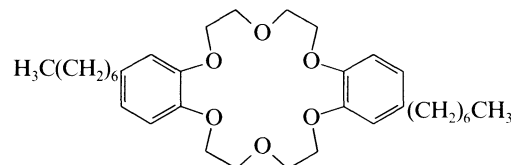
[536-08-3]

C₁₄H₁₀O₉ M 322.228Isol. from *Acacia farnesia* and *A. arabica*, *Metasequoia glyptostroboides* and *Castanopsis* spp. Used to ppt. W(VI), Nb, Ta. Hydrated cryst. (EtOH aq.), cryst. (Me₂CO aq.). Mp 261°.Schoeller, R., *Analyst (London)*, 1927, **52**, 702 (*use*)Crabtree, P.W. *et al*, *J. Chem. Soc.*, 1965, 6888 (*synth*)Sato, A. *et al*, *CA*, 1968, **68**, 41228c (*isol*)Arthur, H.R. *et al*, *Aust. J. Chem.*, 1969, **22**, 597 (*isol*)El Sissi, H.I. *et al*, *Phytochemistry*, 1973, **12**, 2303 (*isol*)**2,13-Diheptyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, 9CI**

D-00366

2,13-Diheptyldibenzo-18-crown-6

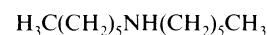
[68725-71-3]

C₃₄H₅₂O₆ M 556.781Used for detn. of K (membrane ion-selective electrode). Cryst. Sol. CHCl₃.Norov, S.K. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 613 (*synth, detn, K*)**Dihexylamine, 8CI**

D-00367

N-Hexyl-1-hexanamine, 9CI

[143-16-8]

C₁₂H₂₇N M 185.352

Used for extraction sepn. of Be (from SCN^-) and Nb (from HCl). Cryst. d 0.795. Mp 193-195°. Bp₂₄ 124-130°, Bp₁ 75°.

▷ Highly toxic by skin absorption. LD₅₀ 10 mg/kg (mouse, i.v.). IH6600000.

B,HCl: Mp 268-270°.

3-Nitrobenzenesulfonyl:

$\text{C}_{18}\text{H}_{30}\text{N}_2\text{O}_4\text{S}$ M 370.512

Mp 119-120°.

King, H. *et al*, *J. Chem. Soc.*, 1940, 1314 (*synth*)

Closson, R.D. *et al*, *J. Org. Chem.*, 1957, **22**, 646 (*synth*)

Novoselova, A.V. *et al*, *Vestn. Mosk. Univ., Ser. 2: Khim.*, 1969,

24, **44**; *CA*, **71**, 85108 (*use, Be*)

Ivanov, N.A. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1970, 2664;

CA, **74**, 103692 (*use, Nb*)

de Angelis, F. *et al*, *Synthesis*, 1979, 70 (*synth*)

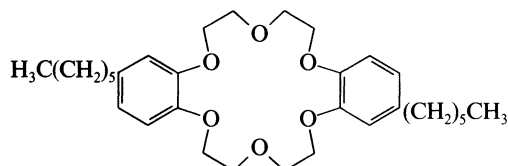
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DKO600.

2,13-Dihexyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, 9CI

D-00368

2,13-Dihexyldibenzo-18-crown-6

[68725-70-2]



$\text{C}_{32}\text{H}_{48}\text{O}_6$ M 528.728

Used for detn. of K (membrane ion-selective electrode).

Cryst. Sol. CHCl_3 .

Norov, S.K. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 613; 1987, **42**, 429

(*synth, detn, K*)

O,O-Dihexyl phosphorodithioate, 9CI, 8CI **D-00369**

O,O-Dihexyl hydrogen dithiophosphate. O,O-Dihexyl dithiophosphoric acid

[78-64-8]

$[\text{H}_3\text{C}(\text{CH}_2)_5\text{O}]_2\text{P}(\text{S})\text{SH}$

$\text{C}_{12}\text{H}_{27}\text{O}_2\text{PS}_2$ M 298.450

Ni and Pb complexes used as lubricant additives. Used as a soln. in EtOH, CHCl_3 , C_6H_6 for extraction of Cd, In, Ni, Pb, Tl, Zn, Zr. Sol. Me_2CO , EtOH, CHCl_3 , C_6H_6 .

K salt: [3287-87-4].

Solid. Mp 154-155.5°.

Busev, A.I. *et al*, *Tr. Kom. Anal. Khim., Akad. Nauk SSSR*, 1960, **11**, 172 (*use*)

Bolotova, G.L. *et al*, *CA*, 1965, **63**, 6897.

Toropova, V.F. *et al*, *Talanta*, 1987, **34**, 211 (*use*)

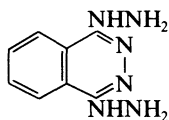
Sasaki, Y. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1988, **38**, 707 (*use*)

Dihydralazine, BAN, INN

D-00370

2,3-Dihydro-1,4-phthalazinedione dihydrazone, 9CI. 1,4-Dihydrazinophthalazine, 8CI. Dihydrallazine

[484-23-1]



$\text{C}_8\text{H}_{10}\text{N}_6$ M 190.207

Antihypertensive agent. Orange cryst. (H_2O). Mp 180° (dec.).

▷ TH8849900.

B,H_2SO_4: [7327-87-9]. *Nepresol*. Other proprietary names

Used for photometric detn. of Fe(III) (λ_{max} 546 nm);

reducing agent used in potentiometric detn. in the

presence of Ce^{4+} , reducing agent for picric and

phosphomolybdic acids. Needles. Cryst. Mp 233° dec.

▷ TH8880000.

[69467-96-5]

Druey, J. *et al*, *Helv. Chim. Acta*, 1951, **34**, 195 (*synth*)

Ruggieri, R., *Anal. Chim. Acta*, 1957, **16**, 241 (*detn, Fe*)

Reynolds, G.A. *et al*, *J. Org. Chem.*, 1959, **24**, 1205 (*synth*)

Greco, I. *et al*, *Farmacia (Bucharest)*, 1967, **15**, 193 (*ir*)

van Zwieten, P.A., *Arzneim.-Forsch.*, 1968, **18**, 79 (*pharmacol*)

Curea, E. *et al*, *CA*, 1972, **77**, 39345f (*reducing agent*)

Modras, Z., *Chem. Anal. (Warsaw)*, 1973, **17**, 1349 (*stability*)

Stadnicka, K. *et al*, *Acta Crystallogr., Sect. B*, 1979, **35**, 770 (*cryst struct*)

Herrnstadt, C. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1979, 735

(*cryst struct*)

Gao, S. *et al*, *CA*, 1984, **100**, 156556 (*synth*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,

Akademie-Verlag, Berlin, 1987, 925.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

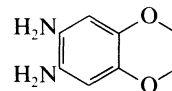
Ed., Van Nostrand-Reinhold, 1992, DKQ600, OJD300.

2,3-Dihydro-1,4-benzodioxin-6,7-diamine, D-00371

9CI

1,2-Diamino-4,5-ethylenedioxybenzene

[81927-47-1]



$\text{C}_8\text{H}_{10}\text{N}_2\text{O}_2$ M 166.179

Fluorogenic reagent for keto acids and for aromatic aldehydes.

B,2HCl: [73448-02-9].

Needles. Mp 215-218° dec.

Nakamura, M. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 687 (*synth, use*)

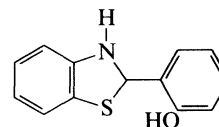
Chao, W.F. *et al*, *Anal. Chim. Acta*, 1988, **215**, 289 (*use*)

2-(2,3-Dihydro-2-benzothiazolyl)phenol, D-00372

9CI

2-(*o*-Hydroxyphenyl)benzothiazoline

[7361-94-6]

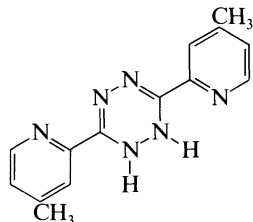


$\text{C}_{13}\text{H}_{11}\text{NOS}$ M 229.302

Used as 0.2% soln. in EtOH for photometric detn. of Pb, Sn (ϵ 17000). Cryst. EtOH, CHCl_3 . Mp 132-133°.

Uhlemann, E. *et al*, *Anal. Chim. Acta*, 1973, **65**, 319 (*synth, use, detn, Pb, Sn*)

1,2-Dihydro-3,6-bis(4-methyl-2-pyridinyl)-1,2,4,5-tetrazine, 9CI **D-00373**
 3,6-Bis(4-methyl-2-pyridyl)-1,2-dihydro-1,2,4,5-tetrazine
 [18818-52-5]

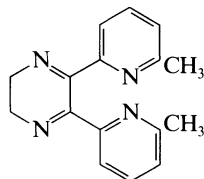


$C_{14}H_{14}N_6$ M 266.305

Used as a 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(I), Fe(II). Cryst. (DMF). Sol. common org. solvs. Mp 210-211°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, 5, 431 (synth)
 Schilt, A.A. *et al, Talanta*, 1970, 17, 649 (use)

2,3-Dihydro-5,6-bis(6-methyl-2-pyridyl)pyrazine, 8CI **D-00374**
 [25005-99-6]

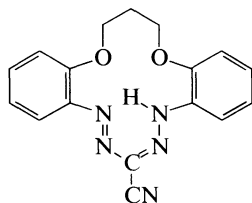


$C_{16}H_{16}N_4$ M 264.329

Used as a 5mM soln. in HCl aq. to give colour reaction with Fe(II). Cream cryst. (hexane). Sol. EtOH, C_6H_6 ; sl. sol. dil. acids. Mp 109°.

Stephen, W., *Talanta*, 1969, 16, 939 (detn, Fe)

16,17-Dihydro-5H,15H-dibenzo[b,i][1,11,4,5,7,8]dioxatetraazacyclotetradecine-7-carbonitrile, 9CI **D-00375**
 16,17-Dihydro-7-cyano-5H,15H-dibenzo[b,i]-1,11,4,5,7,8-dioxatetraazacyclotetradecine. TMC-crownformazan
 [71997-58-5]



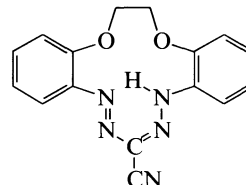
$C_{17}H_{15}N_5O_2$ M 321.338

Used as 2mM soln. in Me_2CO as a selective chelating reagent for alkali metals; photometric detn. of Li; ionophore in ion selective electrode for Cs. Dark red cryst. Sol. C_6H_6 , $CHCl_3$, Py, DMF; spar. sol. EtOH, Me_2CO . Mp 250-251°.

Dziomko, V.M. *et al, Zh. Obshch. Khim.*, 1981, 51, 2324 (synth, use)

Attiyat, A.S. *et al, Microchem. J.*, 1988, 37, 114, 122 (synth, detn, Li, Cs)

15,16-Dihydro-5H-dibenzo[b,i][1,11,4,5,7,8]dioxatetraazacyclotridecine-7-carbonitrile, 9CI **D-00376**
 15,16-Dihydro-7-cyano-5H-dibenzo[e,l]-1,4,7,8,10,11-dioxatetraazacyclotridecine
 [80473-45-6]

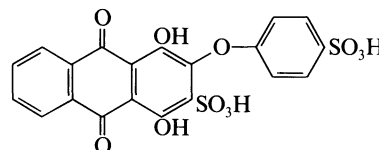


$C_{16}H_{13}N_5O_2$ M 307.311

Used as Me_2CO soln. as a selective chelating reagent for alkali metals. Dark red cryst. Sol. C_6H_6 , $CHCl_3$, DMF; spar. sol. EtOH. Mp 243-244°.

Dziomko, V.M. *et al, Zh. Obshch. Khim.*, 1981, 51, 2324 (synth, use)

9,10-Dihydro-1,4-dihydroxy-9,10-dioxo-3-(4-sulfophenoxy)-2-anthracenesulfonic acid, 9CI **D-00377**
 2-Phenoxyquinizarin-3,4'-disulfonic acid. C.I. 58225. Helio fast rubine FF. Alizarine fast pink B. C.I. Pigment violet 20. Pyrolux maroon lake 10411
 [6486-92-6]

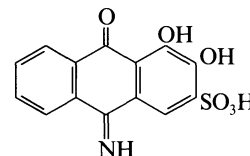


$C_{20}H_{12}O_{11}S_2$ M 492.440

Used as metallochromic indicator in titrimetric detn. of Th. Cryst.

Owens, E.G. *et al, Anal. Chim. Acta*, 1960, 23, 321 (detn, Th)

9,10-Dihydro-3,4-dihydroxy-10-imino-9-oxo-2-anthracenesulfonic acid, 9CI **D-00378**
 3-Sulfoalizarin-9-imine
 [74475-23-3]



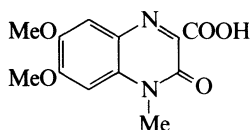
$C_{14}H_9NO_6S$ M 319.294

Used as 0.1% aq. soln. to give colour reactions with Al, Be, Cu, V, Th, Ga. Cryst. (Me_2CO). Sol. H_2O , Me_2CO . pK_{a2} 5.74; pK_{a3} 9.05.

Blanco, M. *et al, Talanta*, 1980, 27, 371 (use)

3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarboxylic acid

[1222-43-1]

C₁₂H₁₂N₂O₅ M 264.237

Yellow needles (dioxan aq.). Mp 222°.

Me ester: [104077-14-7].C₁₃H₁₄N₂O₅ M 278.264

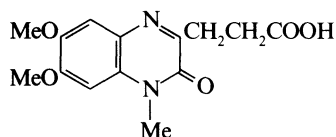
Yellow needles. Mp 164°.

Azide: [110926-94-8]. 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl azide, 9CIC₁₂H₁₁N₅O₄ M 289.250

Fluorescence hplc derivatisation reagent for alcohols.

Cryst. (C₆H₆/hexane). Mp 272°.*Chloride*: [104077-15-8]. 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl chloride, 9CI.*DMEQ-COCl*C₁₂H₁₁ClN₂O₄ M 282.683Fluorescence hplc derivatisation reagent for alcohols and amines. Orange needles (C₆H₆/pet. ether). Mp 261°.Iwata, T. *et al*, *J. Chromatogr.*, 1986, **362**, 209; 1987, **421**, 43 (*synth, use*)Yamaguchi, M. *et al*, *Anal. Chim. Acta*, 1987, **193**, 209 (*synth, use, azide*)Ishida, J. *et al*, *Anal. Chim. Acta*, 1989, **223**, 319 (*use, chloride*)Iwata, T. *et al*, *Anal. Sci.*, 1989, **5**, 671 (*use, azide*)Dave, K.J. *et al*, *J. Pharm. Biomed. Anal.*, 1990, **8**, 307 (*synth*)**3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinepropanoic acid, 9CI**

[132788-56-8]

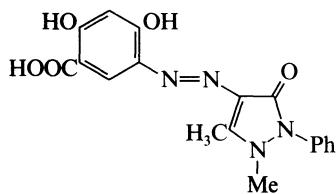
C₁₄H₁₆N₂O₅ M 292.291Cryst. (MeOH/CHCl₃). Mp 239-241°.*Hydrazide*: [131426-28-3].C₁₄H₁₈N₄O₄ M 306.321

Fluorescent derivatisation reagent for carboxylic acids.

Needles (EtOH). Mp 205-206°.

Yamaguchi, M. *et al*, *Analyst (London)*, 1990, **115**, 1363 (*synth, use, deriv*)Shimizu, M. *et al*, *Anal. Biochem.*, 1991, **194**, 77 (*synth*)**5-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-2,4-dihydroxybenzoic acid, 9CI**

[74606-81-8]

C₁₈H₁₆N₄O₅ M 368.348

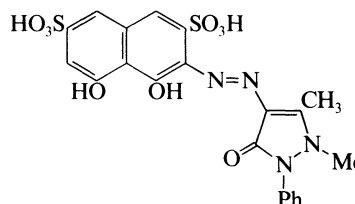
D-00379

Used as a 1mM soln. in aq. KOH for photometric detn. of Zn (λ_{\max} 600 nm, ϵ 27500). Dark red cryst. powder. Sol. alkalis; spar. sol. H₂O. pK_{a1} 3.90 (μ = 0.1).Demchenko, V.Ya. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1980, **46**, 650 (*detn, Zn*)**3-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI**

D-00382

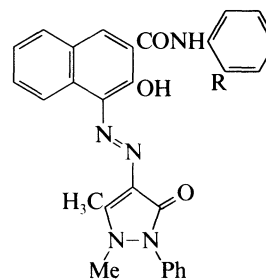
1,8-Dihydroxy-2-(1-phenyl-4-antipyrilazo)-3,6-naphthalenedisulfonic acid

[53013-55-1]

C₂₁H₁₈N₄O₉S₂ M 534.527Used for photometric detn. of Zn (λ_{\max} 490 nm, ϵ 31200).Orange-red cryst. Sol. H₂O. pK_{a1} 0.15; pK_{a2} 8.41.Bezhaeva, N.M. *et al*, *CA*, 1977, **87**, 123480k.**4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-3-hydroxy-N-(2-methoxyphenyl)-2-naphthalenecarboxamide, 9CI**

D-00383

[59104-67-5]



R = OMe

C₂₉H₂₅N₅O₄ M 507.548Used for photometric detn. of Fe(III) (λ_{\max} 655 nm, ϵ 2100). Orange-red cryst. Mp 151°. pK_{a1} 0.24; pK_{a2} 8.54.Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn, Fe*)**4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-3-hydroxy-N-(2-methylphenyl)-2-naphthalenecarboxamide, 9CI**

D-00384

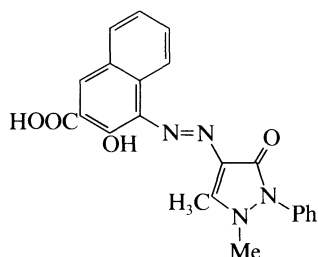
[59104-68-6]

As 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-3-hydroxy-N-(2-methoxyphenyl)-2-naphthalenecarboxamide, D-00383 with

R = CH₃C₂₉H₂₅N₅O₃ M 491.548

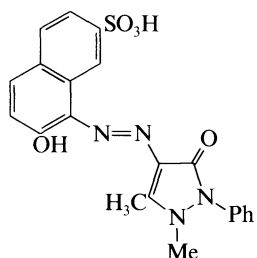
Used for photometric detn. of Fe(III) (λ_{\max} 655 nm, ϵ 1600). Orange-red cryst. Mp 180°. pK_{a1} 0.50; pK_{a2} 9.06.
Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn*, Fe)

4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, 9CI **D-00385**
[51359-17-2]



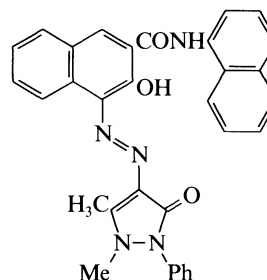
$C_{22}H_{18}N_4O_4$ M 402.409
Used as a 1mM soln. in EtOH/AcOH for extraction-photometric detn. of Au, Fe, In, Mn, Mo, Re (3-methylbutyl acetate). Orange-red cryst. Sol. alkalis, acids, EtOH. λ_{\max} 410 nm (EtOH); λ_{\max} 510 nm (1M HCl).
Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1973, **39**, 601 (*use*)

8-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-7-hydroxy-2-naphthalenesulfonic acid, 9CI **D-00386**
[51359-16-1]



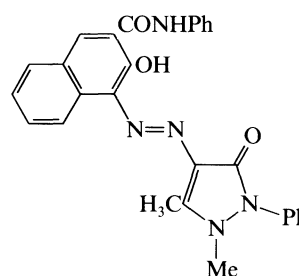
$C_{21}H_{18}N_4O_5S$ M 438.463
Used as 1mM soln. in dil. NaOH for extraction-photometric detn. of Au, Mo; flotation sepn. of Au, Mo (1,2-dichloroethane). Orange-red cryst. Sol. alkalis, acids, EtOH. λ_{\max} 560 nm (EtOH); λ_{\max} 500 nm (1M KOH).
Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1973, **39**, 601 (*use*)

4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-3-hydroxy-N-1-naphthalenyl-2-naphthalenecarboxamide, 9CI **D-00387**
[59104-70-0]



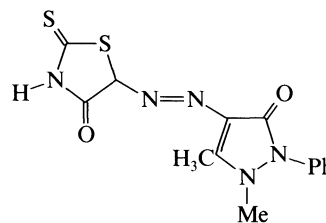
$C_{32}H_{25}N_5O_3$ M 527.581
Used for photometric detn. of Fe(III) (λ_{\max} 365 nm, ϵ 1700). Orange-red cryst. Mp 197°. pK_{a1} 0.22; pK_{a2} 10.88.
Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn*, Fe)

4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-3-hydroxy-N-phenyl-2-naphthalenecarboxamide, 9CI **D-00388**
[59104-66-4]



$C_{28}H_{23}N_5O_3$ M 477.521
Used for photometric detn. of Fe(III) (λ_{\max} 660 nm, ϵ 4300). Orange red cryst. Mp 179°. pK_{a1} 0.50; pK_{a2} 9.06.
Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn*, Fe)

1,2-Dihydro-1,5-dimethyl-4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-phenyl-3H-pyrazol-3-one, 9CI **D-00389**
[36575-98-1]

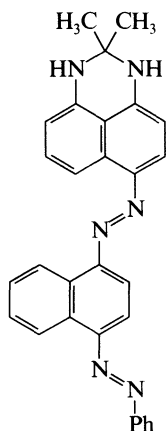


$C_{14}H_{13}N_5O_2S_2$ M 347.421
Various tautomers possible. Used as EtOH soln. for photometric detn. of Pt(II) (λ_{\max} 500 nm, ϵ 5000). Red cryst. powder. Sol. DMF, EtOH.
Basargin, N.N. *et al*, *Zavod. Lab.*, 1972, **38**, 260 (*synth*, *detn*, Pt)

2,3-Dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]-1H-perimidine, 9CI

C.I. Solvent black 3, 8CI

[4197-25-5]

 $C_{29}H_{24}N_6$ M 456.549

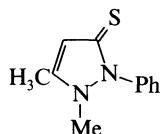
The main component of the dye Sudan Black B. Stain for lipids. Mp 120-124°.

▷ SD4431500.

Ikegami, H. *et al*, *CA*, 1955, **49**, 12836g (*synth*)Pfueller, U. *et al*, *Histochemistry*, 1977, **54**, 237 (*struct*, *synth*, *ir*, *ms*, *nmr*)Frederiks, W.M. *et al*, *Acta Histochem., Suppl.*, 1981, **24**, 259 (*use*)**1,2-Dihydro-1,5-dimethyl-2-phenyl-3H-pyrazole-3-thione, 9CI**

Thiopyrine

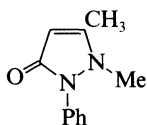
[5702-69-2]

 $C_{11}H_{12}N_2S$ M 204.295Used as a 0.5% soln. in AcOH or a 0.2% aq. soln. for photometric detn. of Pd (λ_{max} 330 nm, ϵ 36500), Os (λ_{max} 735 nm, ϵ 870000); extraction-photometric detn. of Os (λ_{max} 590 nm, $CHCl_3$). Prisms (EtOH). Mp 169-170°.Akimov, V.K. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 1004 (*synth*, *detn*, *Os*)Tanaki, T., *Bunseki Kagaku (Jpn. Anal.)*, 1978, **27**, 148 (*detn*, Pd)**1,2-Dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI**

1,5-Dimethyl-2-phenyl-3-pyrazolone. 2,3-Dimethyl-1-phenyl-5-pyrazolone. Dimethyloxyquinazine. Antipyrene, USAN.

Phenazone, BAN, INN. Other proprietary names

[60-80-0]

 $C_{11}H_{12}N_2O$ M 188.229

Analgesic, antipyretic; parent substance of a large group of compds. with similar props. Also used as protonated form (in acid solns.) which serves as counter-ion in

D-00390

extraction of anionic complexes. Used as 1% soln. in $CHCl_3$ for extraction-photometric detn. of Mo (λ_{max} 455 nm, ϵ 22000). Used in the detn. of BrO_3^- , urea, citrulline and NO_3^- . Leaflets or scales (Et_2O , C_6H_6 or H_2O). V. sol. H_2O , EtOH; spar. sol. Et_2O . Mp 114°. Bp₁₇₅ 319°. pK_a 1.10 (20°, H_2O). Weak base; aq. soln. neut. to litmus. Component of Auralgan and Larylgan.

▷ Mod. toxic, exp. carcinogen. CD2450000.

Compd. with 2-Acetoxybenzoic acid (1:1): [569-84-6].

Antipyrene acetylsalicylate. Acetasol. Acetopyrene.

Acopyrene

Antipyretic and antirheumatic. Mp 63-65°.

Compd. with 2-Hydroxybenzoic acid (1:1): [520-07-0].

Antipyrene salicylate. Salazolon. Saldoren. Salizol.

Saliphenazone. Salipyrazolon. Salipyrene

Antipyretic, analgesic and antineuralgic. Mp 91-92°.

▷ VO1740000.

Compd. with 2-Hydroxy-2-methylbutanoic acid (1:1): [5794-

16-1]. Antipyrene methylethylglycolate. Astrolin

Analgesic. Mp 64-65.5°.

Compd. with α -Hydroxyphenylacetic acid (1:1): [603-64-5].

Antipyrene mandelate. Antipyrene amygdalate. Tussol

Antitussive. Mp 52-55°.

Picrate: Yellow needles. Mp 188°.

Sadler Standard C-13 NMR Spectra, 8046 (cmr)

Sadler Standard Ultraviolet Spectra, 1503 (w)

Pfeiffer, P., *Hoppe Seyler's Z. Physiol. Chem.*, 1928, **178**, 97 (*deriv*)Klebanskii, A.L. *et al*, *J. Appl. Chem.*, 1935, **8**, 269; *CA*, **29**, 6891 (*synth*)U.S. Pat., 2 005 505, (1935); *CA*, **29**, 5130 (*synth*)Vogel, A.I., *Textbook of Practical Organic Chemistry*, 3rd Ed., Longman, 1957, 998 (*synth*)Müller, A. *et al*, *Monatsh. Chem.*, 1958, **89**, 23 (*synth*)Siest, G. *et al*, *Clin. Chim. Acta*, 1968, **20**, 373 (*detn*, urea, citrulline)Qureshi, M., *Mikrochim. Acta*, 1970, 831 (*detn*, BrO_3^-)Weiss, K.G. *et al*, *Anal. Chim. Acta*, 1971, **55**, 77 (*detn*, NO_3^-)Akimov, V.K. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 134, 964 (*use*)Singh, T.P. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 714; 1974, **30**, 557 (*cryst struct*)Aldrich Library of NMR Spectra, 1974, **7**, 94C (*pmr*)Aldrich Library of IR Spectra, 2nd Ed., 1975, 956C (*ir*)Borsub, L. *et al*, *Tetrahedron Lett.*, 1976, 105.Stevenson, I.H., *Br. J. Clin. Pharmacol.*, 1977, **4**, 261 (*rev*)Moroshkina, T.M. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 872 (*use*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

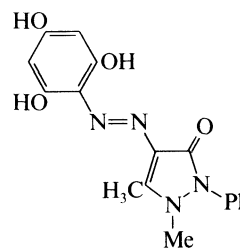
Pharmaceutical Press, London, 1982/1989, 2682.

Danhof, M. *et al*, *Pharm. Int.*, 1984, **5**, 11 (*rev*, *metab*)Goya, P. *et al*, *Magn. Reson. Chem.*, 1986, **24**, 444 (*N-15 nmr*)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1911.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AQN000, AQN250.

D-00391

1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(2,4,6-trihydroxyphenyl)azo]-3H-pyrazol-3-one, 9CI

[51359-19-4]



D-00393

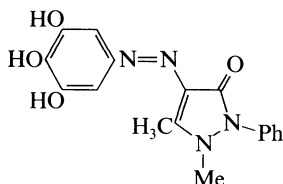
C₁₇H₁₆N₄O₄ M 340.338

Used as 1mM soln. in dil. NaOH for photometric detn. of Bi, Co(III), Cu, Fe(II), Ga, In, Ni, Pd; extraction-photometric detn. of Au, Cd, Cr, Cu, Fe, Hg, In, Mn, Pb, Ni, Re, Te, Zn. Orange-red cryst. Sol. alkalis, EtOH. Mp 300° dec. p*K*_{a1} 1.03. λ_{max} 425 nm (EtOH); λ_{max} 480 nm (1M HCl); λ_{max} 420 nm (1M KOH).

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1973, **39**, 601 (*detn. Au, Cd, Cr, Cu, Fe, Hg, In, Mn, Pb, Ni, Re, Te, Zn*)

Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn. Bi, Co(III), Cu, Fe(II), Ga, In, Pd*)

1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[5-(1,2,3-trihydroxyphenyl)azo]-3H-pyrazol-3-one, 9CI D-00394
[57125-58-3]

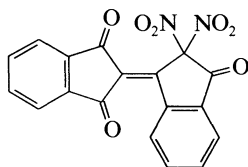
C₁₇H₁₆N₄O₄ M 340.338

Used as a 1mM soln. in aq. EtOH for photometric detn. of Ga (λ_{max} 460 nm); In (λ_{max} 460 nm ε 36000); metallochromic indicator for titrimetric detn. of Ga, In. Orange-red cryst.

Gambarov, D.G. *et al*, *Azerb. Khim. Zh.*, 1975, 23; 1978, 99 (*detn. In, Ga*)

Gambarov, D.G. *et al*, *CA*, 1979, **90**, 97010x (*indicator*)

2-(2,3-Dihydro-2,2-dinitro-3-oxo-1H-inden-1-ylidene)-1H-indene-1,3(2H)-dione, 9CI D-00395
Dinitrobindone
[98742-60-0]

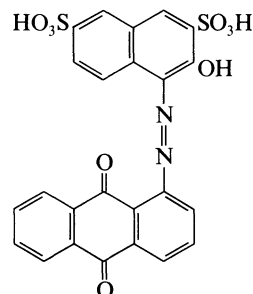
C₁₈H₈N₂O₇ M 364.270

Reagent for spectrophotometric anal. of nitrogen-containing drugs. Mp 178-181°.

[86166-64-5]

Zorya, B.P. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1987, **53**, 421 (*synth. use*)

4-[(9,10-Dihydro-9,10-dioxo-1-anthracenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid D-00396
1-Anthraquinoneazo R

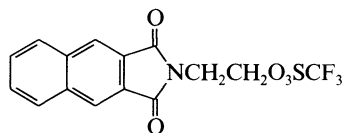
C₂₄H₁₄N₂O₉S₂ M 538.515

Ba salt: [74716-93-1].

Used for indirect photometric detn. of SO₄²⁻. Orange-red cryst. Sol. H₂O; insol. EtOH, C₆H₆.

Koita, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1980, **29**, 176 (*detn. SO₄²⁻*)

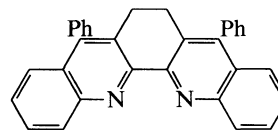
2-(1,3-Dihydro-1,3-dioxo-2H-benz[*f*]isoindol-2-yl)ethyltrifluoromethanesulfonate, 9CI D-00397
2-(2,3-Naphthalimino)ethyl trifluoromethanesulfonate
[128651-50-3]

C₁₅H₁₀F₃NO₅S M 373.309

Uv and fluorescent labelling reagent for hplc of carboxylic acids. Flakes (CH₂Cl₂/CCl₄). Mp 138-140°.

Yasuta, Y. *et al*, *J. Chromatogr.*, 1990, **508**, 133 (*synth. use*)

6,7-Dihydro-5,8-diphenyldibenzo[*b,j*][1,10]phenanthroline, 9CI D-00398
3,3'-Dimethylene-4,4'-diphenyl-2,2'-bisquinoline
[5951-01-9]

C₃₂H₂₂N₂ M 434.539

Used as 0.25mM soln. in isopentanol for photometric detn. of Cu(I) (λ_{max} 555 nm, ε 9800). Needles (EtOH aq.). Sol. EtOH, CHCl₃, C₆H₆; spar. sol. H₂O. Mp 365°.

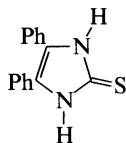
Uhlemann, P.T. *et al*, *Z. Anorg. Allg. Chem.*, 1965, **341**, 11 (*synth*)

Uhlemann, P.T. *et al*, *Anal. Chim. Acta*, 1968, **41**, 161 (*detn. Cu*)

1,3-Dihydro-4,5-diphenyl-2H-imidazole-2-thione, 9CI **D-00399**

4,5-Diphenyl-2(3H)-imidazolethione. 2-Mercapto-4,5-diphenylglyoxaline. Diphenylthioglyoxalone. 4,5-Diphenyl-4-imidazole-2-thiol, 8CI

[2349-58-8]



$C_{15}H_{12}N_2S$ M 252.339

Used as a 0.01M soln. in pentanol for extraction-photometric detn. of Pd (λ_{max} 440 nm, ϵ 6500). Cryst. (AcOH). Sol. H_2O , EtOH. Mp $> 260^\circ$.

Disulfide: [16116-44-2]. 2,2'-Dithiobis(4,5-diphenyl-1H-imidazole), 9CI

$C_{30}H_{22}N_4S_2$ M 502.663

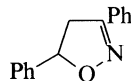
Cryst. Mp 222-225° dec.

Biltz, H. *et al*, *Justus Liebigs Ann. Chem.*, 1912, **391**, 191 (*synth*)
 Willems, J.F. *et al*, *Bull. Soc. Chim. Belg.*, 1961, **70**, 745 (*synth*)
 Tserkasevich, K.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 532 (*use, detn, Pd*)
 Freeman, F. *et al*, *Synthesis*, 1989, 714 (*disulfide, synth, pmr, cmr, ms*)

4,5-Dihydro-3,5-diphenylisoxazole, 9CI **D-00400**

3,5-Diphenyl-2-isoxazoline

[4894-23-9]



$C_{15}H_{13}NO$ M 223.274

(±)-*form*

Used as 0.01% EtOH soln. for kinetic-fluorimetric detn. of V(V) (λ_{max} 465 nm). Cryst. (EtOH). Mod. sol. EtOH. Mp 75-76° (71-73°).

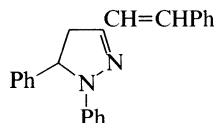
Stagno d'Alcontres, G. *et al*, *Gazz. Chim. Ital.*, 1950, **80**, 831 (*synth*)

Perold, G.W. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 462 (*synth*)
 Grases, F. *et al*, *Anal. Chim. Acta*, 1983, **148**, 245 (*synth, use*)
 Shono, T. *et al*, *J. Org. Chem.*, 1989, **54**, 2249 (*synth, pmr, ir*)

4,5-Dihydro-1,5-diphenyl-3-(2-phenylethenyl)-1H-pyrazole, 9CI **D-00401**

1,5-Diphenyl-3-styryl- Δ^2 -pyrazoline

[2515-62-0]



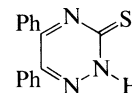
$C_{23}H_{20}N_2$ M 324.424

Used as 0.01% EtOH soln. for kinetic-fluorimetric detn. of V(V) (λ_{max} 510 nm; oxidation to pyrazole). Cryst. Sol. EtOH.

Grases, F. *et al*, *Anal. Chim. Acta*, 1983, **148**, 245 (*synth, detn, V*)

2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione **D-00402**

[37469-24-2]



$C_{15}H_{11}N_3S$ M 265.338

Used as a 0.2% soln. in Me_2CO or 0.01M soln. in NaOH aq. for photometric detn. of Hg and gravimetric detn. of Pd, Re, Tl. Yellow cryst. (EtOH/ Et_2O). Sol. EtOH, alkalis, C_6H_6 , Me_2CO ; insol. H_2O . Mp 240° dec. (217°).

Polonovski, M. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1951, **232**, 1260 (*synth*)

Edrissi, M. *et al*, *Talanta*, 1972, **19**, 814 (*detn, Pd, Tl*)

Smagin, S.S. *et al*, *CA*, 1975, **83**, 108311e (*synth*)

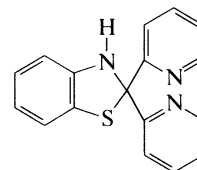
Majumdar, *et al*, *Anal. Chim. Acta*, 1978, **97**, 129 (*detn, Re*)

Edrissi, M. *et al*, *Microchem. J.*, 1982, **27**, 323 (*detn, Hg*)

2,3-Dihydro-2,2-di-(2-pyridinyl)benzothiazole, 9CI **D-00403**

2,2'-Di-2-pyridylbenzothiazoline

[31231-08-0]



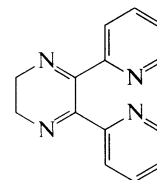
$C_{17}H_{13}N_3S$ M 291.376

Used as a 0.1% soln. in EtOH for photometric detn. of Os (λ_{max} 490 nm, ϵ 10000). Needles (EtOH). Sol. EtOH, Me_2CO , C_6H_6 . Mp 132°.

Bag, S.P. *et al*, *J. Indian Chem. Soc.*, 1978, **55**, 615.

2,3-Dihydro-5,6-di-(2-pyridyl)pyrazine, 8CI **D-00404**

[25005-95-2]



$C_{14}H_{12}N_4$ M 236.276

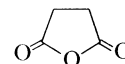
Used as a 5mM soln. in HCl/EtOH aq. to give colour reaction with Fe(II). Pale yellow cryst. (EtOH). Sol. EtOH, C_6H_6 ; sl. sol. dil. acids. Mp 188°.

Stephen, W., *Talanta*, 1969, **16**, 939 (*detn, Fe*)

Dihydro-2,5-furandione, 9CI **D-00405**

Succinic anhydride, 8CI. 2,5-Dioxotetrahydrofuran

[108-30-5]



$C_4H_4O_3$ M 100.074

Used for derivatisation of amino acids and peptides for ms anal. Cryst. ($CHCl_3$). Mp 119-120°. Bp 261°, Bp₅₀ 169°.

▷ WN0875000.

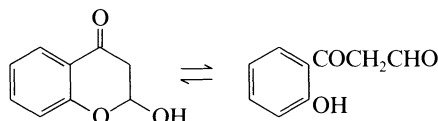
Jeffery, G.H. *et al*, *J. Chem. Soc.*, 1934, 1103 (*synth*)

Leffler, M.T. *et al*, *J. Am. Chem. Soc.*, 1936, **58**, 1551 (*synth*)

Org. Synth., Coll. Vol., 2, 1943, 560 (synth)
 Mori, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1969, **42**, 777 (synth)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 468.
 De Jongh, D.C. *et al*, *Biomed. Mass Spectrom.*, 1976, **3**, 191 (use)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SNC000.

2,3-Dihydro-2-hydroxy-4H-1-benzopyran-4-one, 9CI **D-00406**

2-Hydroxy- β -oxobenzenepranal, 9CI.
 Salicyloylacetalddehyde, 8CI. ω -Formyl-*o*-hydroxyacetophenone. 2-Hydroxy-4-chromanone
 [57669-32-6]



$C_9H_8O_3$ M 164.160
 Exhibits ring-chain tautomerism. Ring form predominates.
 Used for photometric detn. of amines. Cryst. (C_6H_6 /pet. ether). Mp 105°. [14386-66-4]

Schonberg, A. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 3397 (synth)
 Dean, F.M. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1975, 1706 (synth)
 Kostka, K. *et al*, *Chem. Anal. (Warsaw)*, 1979, **24**, 103; 1980, **25**, 77; *CA*, **91**, 49011x; **93**, 125201t (use)
 Borbely, J. *et al*, *Tetrahedron Lett.*, 1984, **25**, 5813 (pmr, tautom)
 Soni, R.K. *et al*, *Indian J. Chem., Sect. B*, 1988, **27**, 811 (synth)

2,3-Dihydro-3-hydroxy-4H-1-benzopyran-4-one, 9CI **D-00407**

3-Hydroxychromanone
 [74736-89-3]
 $C_9H_8O_3$ M 164.160
 Used as a 0.02M soln. in MeOH for fluorimetric detn. of Zr. Light yellow cryst. Sol. Et_2O , MeOH, EtOH. Mp 61-62°, Mp 178.5°. pK_{a1} 8.37.

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1966, **15**, 143; 1974, **23**, 1274 (detn, Zr)
 Moriarty, R.M. *et al*, *Synth. Commun.*, 1984, **14**, 1373 (synth)

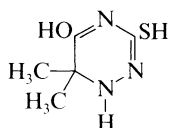
2,3-Dihydro-5-hydroxy-4H-1-benzopyran-4-one, 8CI **D-00408**

5-Hydroxychromanone. 5-Hydroxyhydrocoumarin
 [19816-15-0]
 $C_9H_8O_3$ M 164.160
 Used for extraction-photometric detn. of Be, Fe, Pd. Pale yellow cryst. Sol. EtOH, Et_2O , C_6H_6 . Mp 125.5-127.5°. pK_a 10.75.

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1965, **14**, 630; 1967, **16**, 248; 1969, **18**, 1471 (pK_a , detn, Be, Fe, Pd)

1,6-Dihydro-5-hydroxy-3-mercapto-6,6-dimethyl-1,2,4-triazine **D-00409**

Dihydro-6,6-dimethyl-3-thio-1,2,4-triazine-3,5(2H,4H)-dione, 9CI
 [16992-40-8]

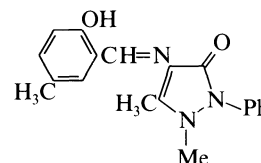


$C_5H_9N_3OS$ M 159.212
 Used as 0.2% soln. in 1% NaOH for photometric detn. of Os. Cryst.

Bainlescu, G. *et al*, *Anal. Chim. Acta*, 1961, **24**, 463 (detn, Os)

1,2-Dihydro-4-[(2-hydroxy-5-methylphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI **D-00410**

4-(2-Hydroxy-5-methylbenzylideneamino)antipyrine
 [65144-68-5]

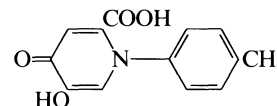


$C_{19}H_{19}N_3O_2$ M 321.378
 Used as a 0.05mM soln. in EtOH for fluorimetric detn. of Ga. Cryst. (EtOH). Sol. common org. solvs.

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1977, **43**, 536 (detn, Ga)

1,4-Dihydro-5-hydroxy-1-(4-methylphenyl)-4-oxo-2-pyridinecarboxylic acid, 9CI **D-00411**

[91901-49-4]



$C_{13}H_{11}NO_4$ M 245.234
 Cryst. (EtOH aq.). Mp 176-177°.

Et ester: [10299-10-2].

$C_{15}H_{15}NO_4$ M 273.288
 Used as a 5mM soln. in aq. EtOH for extraction-photometric detn. of Fe(III) (λ_{max} 432 nm, ϵ 7450, $CHCl_3$), V (λ_{max} 615 nm, ϵ 5100, $CHCl_3$); extraction separation of Ga, Nb, Pa, Ta, Th, Zr. Cryst. (EtOH aq.). Sol. EtOH, C_6H_6 , $CHCl_3$; sl. sol. H_2O . Mp 178-181°. pK_{a1} 8.53 (50% EtOH).

Hahn, V. *et al*, *Croat. Chem. Acta*, 1961, **33**, 137; 1966, **38**, 113 (synth)

Blazevic, K. *et al*, *Croat. Chem. Acta*, 1966, **38**, 113 (detn, Fe)

Janko, M. *et al*, *CA*, 1972, **76**, 132116w (pK_a , w)

Herak, M.J. *et al*, *J. Inorg. Nucl. Chem.*, 1972, **34**, 2627; 1973, **35**, 1665 (detn, Ga, Pa, Th)

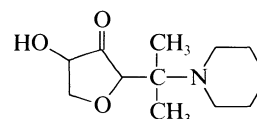
Janko, M. *et al*, *Mikrochim. Acta*, 1972, 198 (detn, Nb, Ta, Zr)

Herak, M.K. *et al*, *Mikrochim. Acta*, 1973, 783; 1975, 45 (detn, V, Fe)

Jancevska-Nikolovska, M. *et al*, *J. Serb. Chem. Soc.*, 1989, **54**, 127 (synth)

Dihydro-4-hydroxy-2-(1-methyl-1-piperidinoethyl)-3(2H)-furanone, 8CI **D-00412**

[27644-20-8]



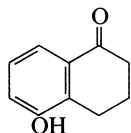
$C_{12}H_{21}NO_3$ M 227.303

Used as satd. soln. in EtOH for photometric detn. of Mo(VI), Ti, V(V), U(IV), W(VI). pK_{a1} 3.8; pK_{a4} 10.4; pK_{a5} 11.5 (1M KCl).

Skorokhod, O.R. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 426 (*detn.*, Ti)
Tishchenko, I.G. *et al*, *Zh. Obshch. Khim.*, 1962, **32**, 3808 (*detn.*, Mo, V, U, W)
Gruchnikov, R.G. *et al*, *Zh. Obshch. Khim.*, 1970, **40**, 171 (*pKa*)

3,4-Dihydro-5-hydroxy-1(2H)-naphthalenone, 9CI
5-Hydroxy-1-tetralone
[28315-93-7]

D-00413



$C_{10}H_{10}O_2$ M 162.188

Fluorimetric reagent for hexoses; used in detn. of blood sugar. Light yellow cryst. Mp 209-211°.

Hydrazone: Cryst. (H₂O). Mp 188-189°.

Me ether: [33892-75-0]. 3,4-Dihydroxy-5-methoxy-1(2H)-naphthalenone, 9CI. 5-Methoxy-1-tetralone

$C_{11}H_{12}O_2$ M 176.215

White plates (pet. ether). Mp 92-93°.

▷ QK4800000.

Me ether, semicarbazone: Mp 249-250°.

Lockett, J. *et al*, *J. Chem. Soc.*, 1939, 787 (*synth*)

Papa, D. *et al*, *J. Org. Chem.*, 1949, 366 (*synth*)

Momose, T. *et al*, *Chem. Pharm. Bull.*, 1956, **4**, 209; 1958, **6**, 412 (*use*)

Momose, T. *et al*, *Talanta*, 1959, **3**, 151 (*use*)

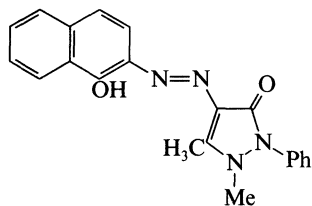
Ohkura, Y. *et al*, *Chem. Pharm. Bull.*, 1971, **19**, 1842 (*use*)

Schneider, H.J. *et al*, *Org. Magn. Reson.*, 1984, **22**, 180 (*cmr*)

1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI

D-00414

[59104-62-0]



$C_{21}H_{18}N_4O_2$ M 358.399

Used for photometric detn. of Bi (λ_{max} 530 nm, ϵ 41500),

Ga (λ_{max} 525 nm, ϵ 45500), In (λ_{max} 530 nm, ϵ 32300).

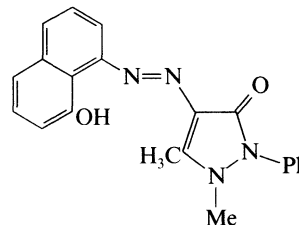
Orange-red cryst. Mp 170° dec. pK_{a1} 2.22; pK_{a2} 8.39.

Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*use*)

1,2-Dihydro-4-[(2-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI

D-00415

[51359-15-0]



$C_{21}H_{18}N_4O_2$ M 358.399

Used as a 1mM soln. in dil. NaOH for extraction-photometric detn. of Au, Mo, Te (3-methylbutyl acetate). Orange-red cryst. Sol. alkalis, acids, EtOH. λ_{max} 450 nm (EtOH); λ_{max} 540 nm (1M HCl); λ_{max} 480 nm (1M KOH).

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1973, **39**, 601 (*detn.*, Au, Mo, Te)

1,2-Dihydro-4-[(4-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI

D-00416

[51359-18-3]

$C_{21}H_{18}N_4O_2$ M 358.399

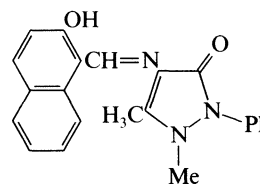
Used as a 1mM soln. in dil. NaOH for extraction-photometric detn. of Au, Cd, Co, Cu, Fe, Hg, In, Mo, Pd, Ni, Zn (3-methylbutyl acetate). Orange-red cryst. Sol. alkalis, acids, EtOH. λ_{max} 410 nm (EtOH); λ_{max} 520 nm (1M HCl); λ_{max} 485 nm (1M KOH).

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1973, **39**, 601 (*use*)

1,2-Dihydro-4-[(2-hydroxy-1-naphthalenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI

D-00417

4-(2-Hydroxy-1-naphthylideneamino)antipyrine
[58732-04-0]



$C_{22}H_{19}N_3O_2$ M 357.411

Used as a 0.05mM soln. in EtOH for fluorimetric detn. of Ga; gives colour reaction with Cu. Cryst. (EtOH). Sol. common org. solvs. Mp 209°.

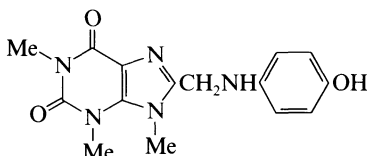
Radhakrishnan, T. *et al*, *J. Inorg. Nucl. Chem.*, 1976, **38**, 2217 (*synth*, *detn.*, Cu)

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1977, **43**, 536 (*detn.*, Ga)

3,7-Dihydro-8-[[4-hydroxyphenyl]amino]methyl]-1,3,7-trimethyl-1*H*-purine-2,6-dione, 9CI

D-00418

8-(*p*-Hydroxyanilinomethyl)-1,3,7-trimethylisocaffeine.
Xanthaminol yellow
[108602-37-5]



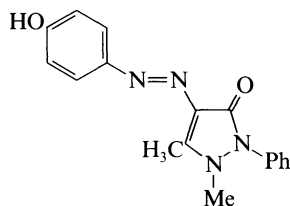
$C_{15}H_{17}N_5O_3$ M 315.331
Acid-base indicator.

Abdel-Moety, E.M. *et al*, *Egypt. J. Pharm. Sci.*, 1984, **25**, 267;
CA, **107**, 12986s.

1,2-Dihydro-4-[(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, 9CI

D-00419

[29474-20-2]



$C_{17}H_{16}N_4O_2$ M 308.339

Used for photometric detn. of Bi (λ_{max} 485 nm, ϵ 13800),
Ga (λ_{max} 500 nm, ϵ 25600), In (λ_{max} 500 nm, ϵ 11300).
Orange-red cryst. Mp 87°. pK_{a1} 2.90; pK_{a2} 8.51.

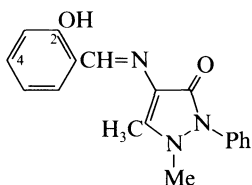
Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (*detn. Bi, Ga, In*)

1,2-Dihydro-4-[(2-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, 9CI

D-00420

N-Salicylidene-4-aminoantipyrine

[30957-66-5]



$C_{18}H_{17}N_3O_2$ M 307.351

Used as a 0.05*M* soln. in EtOH for fluorimetric detn. of
Ga; luminescence analysis of Ga, Al, In, Zr, Hf. Gives
colour reaction with Cu. Cryst. (EtOH). Sol. common
org. solvs. Mp 199°.

Talipov, S.T. *et al*, *CA*, 1972, **77**, 132699j (*detn. Ga*)

Tashkhodzhayev, A.T. *et al*, *Uzb. Khim. Zh.*, 1972, **16**, 22; *CA*, **77**,
96589n (*detn. Zr*)

Radhakrishnan, T. *et al*, *J. Inorg. Nucl. Chem.*, 1976, **38**, 2217
(*synth. detn. Cu*)

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1977, **43**, 536
(*detn. Ga*)

Zel'tser, L.E. *et al*, *Talanta*, 1987, **34**, 873 (*synth. use*)

1,2-Dihydro-4-[(4-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, 9CI

D-00421

4-(4-Hydroxybenzylideneamino)antipyrine

[65144-69-6]

 $C_{18}H_{17}N_3O_2$ M 307.351

Used as a 0.05*M* soln. in EtOH for fluorimetric detn. of
Ga. Cryst. (EtOH). Sol. common org. solvs.

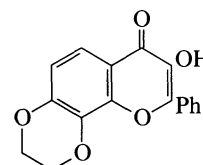
Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1977, **43**, 536
(*detn. Ga*)

2,3-Dihydro-8-hydroxy-9-phenyl-7*H*-pyrano[2,3-*f*]-1,4-benzodioxin-7-one, 8CI

D-00422

7,8-Ethylenedioxyflavonol

[26190-56-7]



$C_{17}H_{12}O_5$ M 296.279

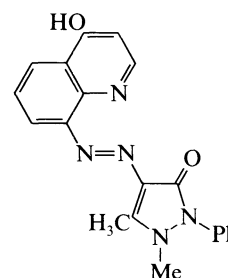
Used as 0.7*mM* soln. in Me_2CO for photometric detn. of
Ti (λ_{max} 415 nm, ϵ 15000, pH 2.8-3.5). Cryst. (dil. HCl).
Sol. Me_2CO , 1,2-dichloroethane. Mp 280-281.5°.

Abromaityte, D. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1512 (*synth. detn. Ti*)

1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azol]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, 9CI

D-00423

[51289-07-7]



$C_{20}H_{17}N_5O_2$ M 359.387

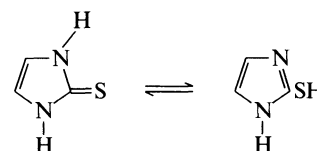
Used as 1*mM* soln. in dil. HCl for extraction-photometric
detn. of Au, Mo, Pd; extraction separation of Au, Mo,
Pd. Orange-red cryst. Sol. alkalis, acids, EtOH. λ_{max} 395
nm (EtOH); λ_{max} 465 nm (1*M* HCl); λ_{max} 480 nm (1*M*
KOH).

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1973, **39**, 601
(*use*)

1,3-Dihydro-2*H*-imidazole-2-thione, 9CI

D-00424

[872-35-5]



$C_3H_4N_2S$ M 100.144Used for extraction-photometric detn. of Pd. Cryst. (H_2O).

Mp 226-228°.

▷ NI8515000.

S-Me: [7666-04-8]. 2-(Methylthio)-1H-imidazole, 9CI

 $C_4H_6N_2S$ M 114.171

Mp 142°.

Disulfide: [89418-44-0]. 2,2'-Dithiobis-1H-imidazole, 9CI

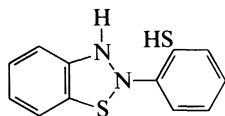
 $C_6H_6N_4S_2$ M 198.272

Cryst. Mp 152-155° dec.

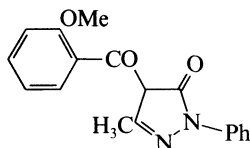
[29797-34-0]

Marckwald, W., *Ber.*, 1892, **25**, 2354 (*synth*)Akobori, S., *Ber.*, 1933, **66**, 151 (*synth*)Simon, I.B. *et al.*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1955, **25**, 1173 (*synth, deriv*)Tserkasevich, K.V. *et al.*, *Zh. Anal. Khim.*, 1970, **25**, 532 (*use*)Freeman, F. *et al.*, *J. Am. Chem. Soc.*, 1988, **110**, 2586 (*ir, pmr, cmr, uv, ms, cryst struct*)Freeman, F. *et al.*, *Synthesis*, 1989, 714 (*disulfide, synth, pmr, cmr, ms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IAO000.**2,3-Dihydro-2-(2-mercaptophenyl)-1,2,3-benzothiadiazole** **D-00425**

2-(2-Mercaptophenyl)-1,2,3-benzothiadiazoline

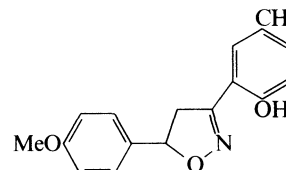
 $C_{12}H_{10}N_2S_2$ M 246.356Used as 0.01% MeOH soln. for extraction-photometric detn. of Pd (λ_{max} 788 nm, ϵ 29000). Cryst. (H_2O). Mp 90-91°.Watanabe, K. *et al.*, *Anal. Sci.*, 1989, **5**, 419 (*synth, detn, Pd*)**2,4-Dihydro-4-(2-methoxybenzoyl)-5-methyl-2-phenyl-3H-pyrazol-3-one, 9CI** **D-00426**

[132915-88-9]

 $C_{18}H_{16}N_2O_3$ M 308.336Used as 0.01M C_6H_6 soln. for extraction separation of Lu(III) (pH 1-2). Cryst. (dioxan aq.). Sol. C_6H_6 , 1,2-dichloroethane, dioxan. Mp 115°.Mukai, H. *et al.*, *Anal. Chim. Acta*, 1990, **239**, 277 (*synth, use*)**2-[4,5-Dihydro-5-(4-methoxyphenyl)-3-isoxazolyl]-4-methylphenol, 9CI** **D-00427**

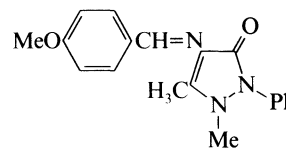
3-(2-Hydroxy-5-methylphenyl)-5-(p-methoxyphenyl)isoxazoline

[29976-88-3]

 $C_{17}H_{17}NO_3$ M 283.326Used as a 2mM soln. in butan-2-ol for extraction-photometric detn. of Pd. Cryst. (EtOH). Sol. EtOH, Et_2O .Desmukh, B.K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1978, **52**, 584 (*detn, Pd*)**1,2-Dihydro-4-[(4-methoxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI** **D-00428**

4-(4-Methoxyphenylmethyleneamino)antipyrine

[32061-14-6]

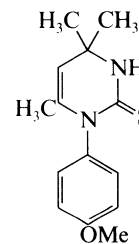
 $C_{19}H_{19}N_3O_2$ M 321.378

Used as a 0.05mM soln. in EtOH for fluorimetric detn. of Ga. Cryst. (EtOH). Sol. common org. solvs.

Piliipenko, A.T. *et al.*, *Uzb. Khim. Zh.*, 1977, **43**, 536 (*detn, Ga*)**3,4-Dihydro-1-(4-methoxyphenyl)-4,4,6-trimethyl-2(1H)-pyrimidinethione, 9CI** **D-00429**

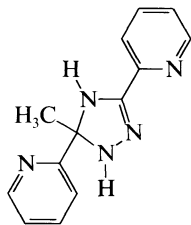
1-Anisyl-4,4,6-trimethyl-(1H,4H)-2-pyrimidinethiol

[18957-56-7]

 $C_{14}H_{18}N_2OS$ M 262.375Used as 0.01M $CHCl_3$ soln. for extraction-photometric detn. of Pd(II) (λ_{max} 430 nm, ϵ 4400, 1-10M HCl).Cryst. Sol. $CHCl_3$, C_6H_6 , dioxan.Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1747 (*synth*)Singh, A.K. *et al.*, *Talanta*, 1976, **23**, 337 (*detn, Pd*)

4,5-Dihydro-5-methyl-3,5-di-2-pyridyl-1H-1,2,4-triazole D-00430

2,2'-(4,5-Dihydro-5-methyl-1H-1,2,4-triazole-3,5-diyl)bispyridine, 9CI
[42838-21-1]



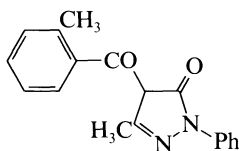
$C_{13}H_{13}N_5$ M 239.279

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 484 nm, ϵ 6900). Cryst. (MeOH). Sol. common org. solvents. Mp 107-108°.

Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (synth)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (detn. Fe)

2,4-Dihydro-5-methyl-4-(2-methylbenzoyl)-2-phenyl-3H-pyrazol-3-one, 9CI D-00431

[73087-94-2]



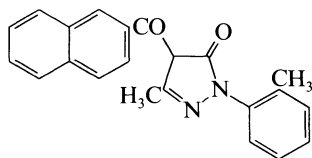
$C_{18}H_{16}N_2O_2$ M 292.337

Used as 0.01M C_6H_6 soln. for extraction separation of Lu(III) (pH 1-2). Cryst. (dioxan aq.). Sol. C_6H_6 , 1,2-dichloroethane, dioxan. Mp 114°.

Mukai, H. *et al*, *Anal. Chim. Acta*, 1990, **239**, 277 (synth, use)

2,4-Dihydro-5-methyl-2-(2-methylphenyl)-4-(2-naphthalenylcarbonyl)-3H-pyrazol-3-one, 9CI D-00432

3-Methyl-4-(2-naphthoyl)-1-o-tolyl-5-pyrazolone
[123035-89-2]



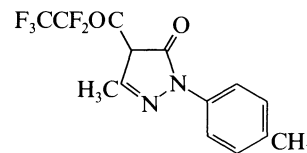
$C_{22}H_{18}N_2O_2$ M 342.396

Used as 0.01M C_6H_6 soln. for extraction separation of Li and Na. Cryst. (dioxan aq.). Sol. dioxan, cyclohexane, C_6H_6 , $CHCl_3$. Mp 129°.

Mukai, H. *et al*, *Anal. Chim. Acta*, 1989, **220**, 111 (synth, use)

2,4-Dihydro-5-methyl-2-(4-methylphenyl)-4-(2,2,3,3,3-pentafluoro-1-oxopropyl)-3H-pyrazol-3-one, 9CI D-00433

3-Methyl-4-(perfluoropropyl)-1-p-tolyl-5-pyrazolone
[111278-71-8]



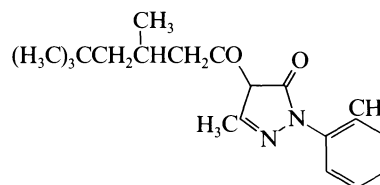
$C_{14}H_{11}F_5N_2O_2$ M 334.245

Used as a 0.05M soln. in C_6H_6 or cyclohexane for extraction separation of Li, Na. Cryst. (EtOH aq.). Sol. cyclohexane, C_6H_6 . Mp 115°.

Jensen, B.S., *Acta Chem. Scand.*, 1959, **13**, 1668 (synth)
Umetani, S. *et al*, *Talanta*, 1987, **34**, 779 (sepn, Li, Na)

2,4-Dihydro-5-methyl-2-(2-methylphenyl)-4-(3,5,5-trimethyl-1-oxohexyl)-3H-pyrazol-3-one, 9CI D-00434

3-Methyl-1-o-tolyl-4-(3,5,5-trimethylhexanoyl)-5-pyrazolone
[123035-92-7]



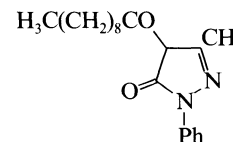
$C_{20}H_{28}N_2O_2$ M 328.453

Used as 0.01M C_6H_6 soln. for extraction separation of Li and Na. Cryst. (dioxan aq.). Sol. dioxan, cyclohexane, C_6H_6 , $CHCl_3$. Mp 47°.

Mukai, H. *et al*, *Anal. Chim. Acta*, 1989, **220**, 111 (synth, use)

2,4-Dihydro-5-methyl-4-(1-oxodecyl)-2-phenyl-3H-pyrazol-3-one, 9CI D-00435

3-Methyl-1-phenyl-4-caproyl-5-pyrazolone
[18199-28-5]



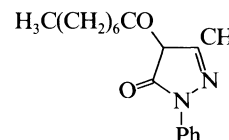
$C_{20}H_{28}N_2O_2$ M 328.453

Used as a 0.1% butanol soln. for extraction-photometric detn. of V. Cryst. Sol. EtOH, Et_2O .

Kawamura, F. *et al*, *CA*, 1978, **88**, 15478c (detn, V)

2,4-Dihydro-5-methyl-4-(1-oxooctyl)-2-phenyl-3H-pyrazol-3-one, 9CI D-00436

3-Methyl-4-octanoyl-1-phenyl-5-pyrazolone
[18664-71-6]



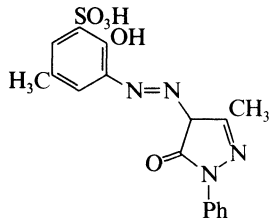
$C_{18}H_{24}N_2O_2$ M 300.400

Used as CHCl_3 soln. for extraction-separation of rare earth elements. Golden needles. Sol. CHCl_3 , C_6H_6 . Mp 72.1-72.5°. $\text{p}K_a \sim 4.5$.

Jensen, B.S., *Acta Chem. Scand.*, 1959, **13**, 1668 (*synth*)
Tochiyama, O. *et al*, *Anal. Chim. Acta*, 1981, **131**, 233 (*use, sepn, rare earth elements*)

3-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]-2-hydroxy-5-methylbenzenesulfonic acid, 9CI **D-00437**

Geigy red dye. C.I. Mordant red 17. Eriochrome red G. Acid alizarin red G. Chrome fast red G. Monochrome red G. Omega chrome red G. C.I. 18750



$\text{C}_{17}\text{H}_{16}\text{N}_4\text{O}_5\text{S}$ M 388.403

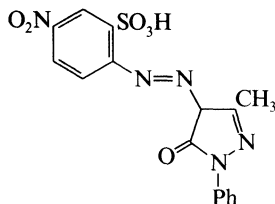
Strictly, the trade names apply to the sodium salt.

Na salt: [6232-55-9].

Used as metallochromic indicator for titrimetric detn. of Zn. Orange-yellow cryst. powder. Sol. H_2O .

Belcher, R. *et al*, *Chemist-Analyst*, 1958, **47**, 2 (*detn, Zn*)
Colour Index, 3rd Edn., 1971, **4**, 4123 (*synth*)

2-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]-5-nitrobenzenesulfonic acid, 9CI **D-00438**



$\text{C}_{16}\text{H}_{13}\text{N}_5\text{O}_6\text{S}$ M 403.375

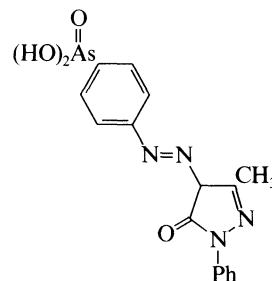
K salt: [41364-41-4].

Used as a 4mM soln. in DMF for photometric detn. of Na (λ_{max} 550 nm). Orange cryst. Sol. DMF; spar. sol. H_2O .

Markovich, I.S., *Zh. Anal. Khim.*, 1973, **28**, 227 (*detn, Na*)
Zelichenok, S.L. *et al*, *CA*, 1975, **83**, 125656p (*detn, Na*)

[4-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]phenyl]arsonic acid, 9CI **D-00439**

4-(4-Arsonophenylazo)-3-methyl-1-phenyl-5-pyrazolone [42459-24-5]



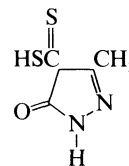
$\text{C}_{16}\text{H}_{15}\text{AsN}_4\text{O}_4$ M 402.240

Various tautomers possible. Struct. corresp. to 9CI name shown. Used for amperometric detn. of Zr. Dark red cryst. powder.

Popa, G. *et al*, *CA*, 1973, **79**, 48905g (*detn, Zr*)

4,5-Dihydro-3-methyl-5-oxo-1H-pyrazole-4-carbodithioic acid, 9CI **D-00440**

3-Methyl-5-pyrazolone-4-dithiocarboxylic acid [71310-44-6]



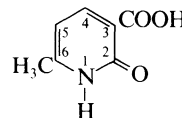
$\text{C}_2\text{H}_6\text{N}_2\text{OS}_2$ M 174.247

Used as a 0.1mM aq. soln. for indirect photometric detn. of Hg. Cryst. (H_2O). Sol. H_2O .

Papini, P. *et al*, *Gazz. Chim. Ital.*, 1959, **89**, 539 (*detn, Hg*)
Janik, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **296**, 414 (*detn, Hg*)

1,2-Dihydro-6-methyl-2-oxo-3-pyridinecarboxylic acid, 9CI **D-00441**

6-Methyl-2(1H)-pyridone-3-carboxylic acid. 2-Hydroxy-6-methyl-3-pyridinecarboxylic acid [38116-61-9]



$\text{C}_7\text{H}_7\text{NO}_3$ M 153.137

Used for photometric detn. of Fe (λ_{max} 410 nm, ϵ 5000). Cryst. (H_2O). Sol. H_2O , EtOH. Mp 230-232°.

tert-Butyl ester: [81450-67-1].

$\text{C}_{11}\text{H}_{15}\text{NO}_3$ M 209.244

Solid. Mp 121-122°.

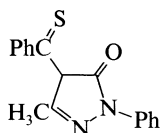
Kushwaha, V. *et al*, *Talanta*, 1973, **20**, 431.

Showalter, H.D.H. *et al*, *J. Heterocycl. Chem.*, 1981, **18**, 1609 (*ester*)

DeJohn, D. *et al*, *J. Heterocycl. Chem.*, 1983, **20**, 1295 (*synth, ir, pmr*)

2,4-Dihydro-5-methyl-2-phenyl-4-(phenylthioxomethyl)-3H-pyrazol-3-one, 9CI*3-Methyl-1-phenyl-4-thiobenzoyl-5-pyrazolone*

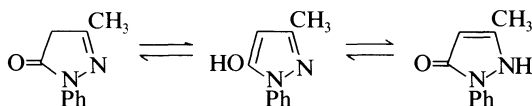
[62574-31-6]

 $C_{17}H_{14}N_2OS$ M 294.376

Used for photometric detn. of Co, Cu, Ni, Pb, U, Zn. Cryst.

Rao, G.N. *et al*, *Chem. Era*, 1978, **14**, 395 (*use*)**2,4-Dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one, 9CI***3-Methyl-1-phenyl-2-pyrazolin-5-one, 8CI. 5-Hydroxy-3-methyl-1-phenylpyrazole. Monopyrazolone*

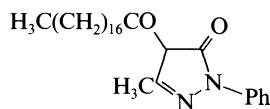
[89-25-8]

 $C_{10}H_{10}N_2O$ M 174.202Three tautomers exist in solv.-dependent equilib. Used for photometric detn. of Ag, Co, Cu, Fe, CN^\ominus , SCN^\ominus , OCN^\ominus . Widely-used intermediate. Couples with diazonium salts. Massive prisms (H_2O or C_6H_6). Sol. hot EtOH, $CHCl_3$, acids; insol. H_2O . Mp 127°, Mp 128-130°.

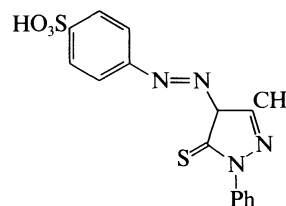
▷ UQ9625000.

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, (*detn. Ag, Cu, Fe*)Knorr, L., *Justus Liebigs Ann. Chem.*, 1887, **238**, 137 (*synth*)Katritzky, A.R. *et al*, *Tetrahedron*, 1964, **20**, 299 (*ir, uv, pmr, struct, bibl*)Bechtel, F. *et al*, *Cryst. Struct. Commun.*, 1973, **2**, 469 (*cryst struct*)Larsen, E. *et al*, *Org. Mass Spectrom.*, 1973, **7**, 89 (*ms*)Hawkes, G.E. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1977, 1024 (*nmr*)Boltz, D.F. *et al*, *Colorimetric Determination of Nonmetals*, Wiley, New York, 1978 (*detn. CN[⊖], SCN[⊖], OCN[⊖]*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NNT000.**3,4-Dihydro-3-methyl-1-phenyl-4-stearoyl-5-pyrazolone D-00444***3-Methyl-1-phenyl-4-stearoyl-5-pyrazolone*

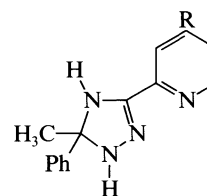
[84356-27-4]

 $C_{28}H_{44}N_2O_2$ M 440.668Used as 0.02M soln. in C_6H_6 for extraction-separation of Ca and Sr. Cryst. (MeOH). Sol. MeOH, C_6H_6 .Jensen, B.S., *Acta Chem. Scand.*, 1959, **13**, 1668 (*synth*)Akama, Y. *et al*, *Anal. Sci.*, 1987, **3**, 141 (*use*)**4-[(4,5-Dihydro-3-methyl-1-phenyl-5-thioxo-1H-pyrazol-4-yl)azo] benzenesulfonic acid, 9CI***Azothiopyrinesulfonic acid*

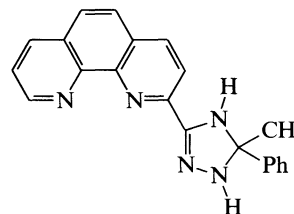
[77958-62-4]

 $C_{16}H_{14}N_4O_3S_2$ M 374.444The tautomer illus. to which the 9CI name refers, is improbable (hydrazone or azo-thiol tautomers more probable). pK_{a1} 7.05.*Na salt*: Used as 0.1% soln. in MeOH for photometric detn. of Ni, Co, Cd, Pb, Zn (alkaline media), Ag, Cu, Hg, Pd (acid media). Dark red needles (MeOH). Sol. H_2O , EtOH, Me_2CO ; insol. C_6H_6 . Mp 270°.Tanaka, T. *et al*, *Chem. Pharm. Bull.*, 1981, **29**, 165.**2-(4,5-Dihydro-5-methyl-5-phenyl-1H-1,2,4-triazol-3-yl)-4-methylpyridine, 9CI**

[42838-18-6]

R = CH₃ $C_{15}H_{16}N_4$ M 252.318Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 493 nm, ϵ 8000). Cryst. (MeOH). Sol. common org. solvs. Mp 82°.Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn. Fe*)**2-(4,5-Dihydro-5-methyl-5-phenyl-1H-1,2,4-triazol-3-yl)-1,10-phenanthroline, 9CI**

[42838-20-0]

 $C_{21}H_{17}N_5$ M 339.399Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 555 nm, ϵ 13500). Cryst. (EtOH aq.). Sol. common org. solvs. Mp 217-218°.Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (*detn. Fe*)Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*use*)

2-(4,5-Dihydro-5-methyl-5-phenyl-1H-1,2,4-triazol-3-yl)-4-phenylpyridine, 9CI

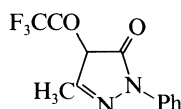
D-00448

[42838-19-7]

As 2-(4,5-Dihydro-5-methyl-5-phenyl-1H-1,2,4-triazol-3-yl)-4-methylpyridine, D-00446 with

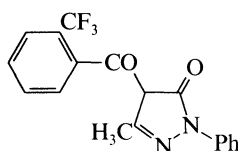
 $C_{20}H_{18}N_4$ M 314.389Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 526 nm, ϵ 14600). Cryst. (EtOH). Sol. common org. solvs. Mp 130°.Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (synth)
Schilt, A.A. *et al, Talanta*, 1977, **24**, 685 (detn, Fe)**2,4-Dihydro-5-methyl-2-phenyl-4-(trifluoroacetyl)-3H-pyrazol-3-one, 9CI**

D-00449

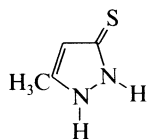
3-Methyl-1-phenyl-4-trifluoroacetyl-5-pyrazolone
[1691-93-6] $C_{12}H_9F_3N_2O_2$ M 270.210Enolised. Used as C_6H_6 or cyclohexane soln. for synergic extraction-separation of Li. Cryst. (dioxan aq.). Sol. dioxan, EtOH, cyclohexane, C_6H_6 . Mp 146°.Umetani, S. *et al, Talanta*, 1987, **34**, 779 (synth, sepn, Li)**2,4-Dihydro-5-methyl-2-phenyl-4-[2-(trifluoromethyl)benzoyl]-3H-pyrazol-3-one, 9CI**

D-00450

[132915-89-0]

 $C_{18}H_{13}F_3N_2O_2$ M 346.308Used as 0.01M C_6H_6 soln. for extraction separation of Lu(III) (pH 1-2). Cryst. (dioxan aq.). Sol. C_6H_6 , 1,2-dichloroethane, dioxan. Mp 163°.Mukai, H. *et al, Anal. Chim. Acta*, 1990, **239**, 277 (synth, use)**1,2-Dihydro-5-methyl-3H-pyrazole-3-thione**

D-00451

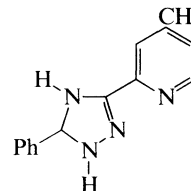
 $C_4H_6N_2S$ M 114.171

Parent compd. not known.

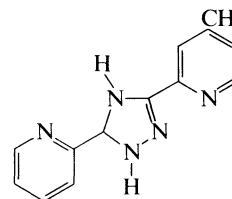
1,2-Di-Me: [32323-27-6]. 1,2,3-Trimethyl-3-pyrazoline-5-thione, 8CI

 $C_6H_{10}N_2S$ M 142.224Used for gravimetric detn. of Se. Cryst. Sol. H_2O , Me_2CO , EtOH. Mp 110°.Tanaka, T. *et al, Bunseki Kagaku (Jpn. Anal.)*, 1971, **20**, 163.**4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-phenyl-1H-1,2,4-triazole**

D-00452

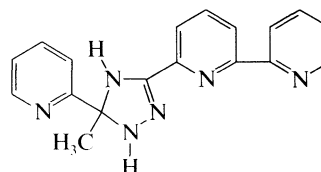
2-(5-Phenyl- Δ^2 -1,2,4-triazolin-3-yl)-4-picoline, 8CI. 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazoline $C_{14}H_{14}N_4$ M 238.291Used as a 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 490 nm, ϵ 15000). Cryst. (EtOH). Sol. common org. solvs. Mp 115°.Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (synth)
Schilt, A.A. *et al, Talanta*, 1974, **21**, 831 (detn, Fe)**4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-(2-pyridinyl)-1,2,4-triazole**

D-00453

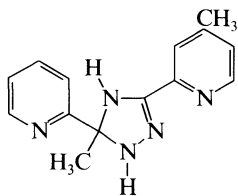
3-(4-Methyl-2-pyridinyl)-5-(2-pyridinyl)-1,2,4-triazoline. 2-[4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-4-methylpyridine. 2-[(5-(2-Pyridyl)- Δ^2 -1,2,4-triazolin-3-yl)]-4-picoline, 8CI $C_{13}H_{13}N_5$ M 239.279Used as a 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 520 nm, ϵ 9900). Cryst. (EtOH). Sol. common org. solvs. Mp 152-153°.Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (synth)
Schilt, A.A. *et al, Talanta*, 1974, **21**, 831 (detn, Fe)**6-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-2,2'-bipyridine, 9CI**

D-00454

[42838-25-5]

 $C_{18}H_{16}N_6$ M 316.365Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{max} 550 nm, ϵ 8900). Cryst. (EtOH aq.). Sol. common org. solvs. Mp 92-93° (as monohydrate).Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (synth)
Schilt, A.A. *et al, Talanta*, 1977, **24**, 685 (detn, Fe)

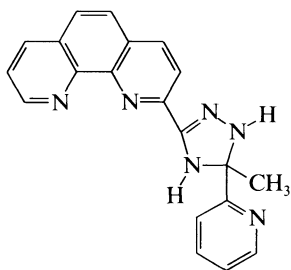
2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-4-methylpyridine, 9CI
 4,5-Dihydro-5-methyl-3-(4-methyl-2-pyridyl)-5-(2-pyridyl)-1H-1,2,4-triazole
 [42838-22-2]



$C_{14}H_{15}N_5$ M 253.306
 Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{max} 490 nm, ϵ 6700). Cryst. (EtOH). Sol. common org. solvs. Mp 172-173°.

Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn*, Fe)

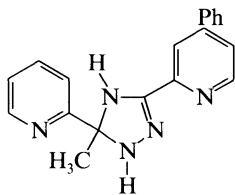
2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-1,10-phenanthroline, 9CI
 4,5-Dihydro-5-methyl-3-(1,10-phenanthrolin-2-yl)-5-(2-pyridyl)-1H-1,2,4-triazole
 [42838-24-4]



$C_{20}H_{16}N_6$ M 340.387
 Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{max} 495 nm, ϵ 10000). Cryst. (EtOH aq.). Sol. common org. solvs. Mp 180-181°.

Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn*, Fe)

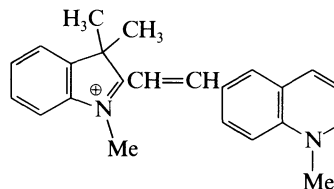
2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-4-phenylpyridine, 9CI
 4,5-Dihydro-5-methyl-3-(4-phenyl-2-pyridyl)-5-(2-pyridyl)-1H-1,2,4-triazole
 [42838-23-3]



$C_{19}H_{17}N_5$ M 315.377
 Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{max} 484 nm, ϵ 7700). Cryst. (EtOH). Sol. common org. solvs. Mp 134°.

Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn*, Fe)

2-[2-(1,2-Dihydro-1-methyl-6-quinolinyl)ethenyl]-1,3,3-trimethyl-3H-indolinium(1+), 9CI
 2-(1-Methyl-6-quinolinyl)vinyl-1,3,3-trimethyl-3H-indolinium(1+)



$C_{23}H_{25}N_2^{\oplus}$ M 329.464 (ion)
 Basic cyanine dye.

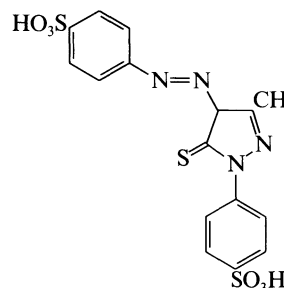
Chloride:

$C_{23}H_{25}ClN_2$ M 364.917
 Used as 1mM aq. soln. for photometric detn. of Pb (λ_{max} 560 nm, ϵ 110000). Cryst. Sol. H₂O, EtOH; insol. CHCl₃.

[125232-89-5]

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 313 (*detn*, Pb)

4-[4,5-Dihydro-3-methyl-4-[(4-sulphophenyl)azo]-5-thioxo-1H-pyrazol-1-yl]benzenesulfonic acid
 Azothiopyrinedisulfonic acid



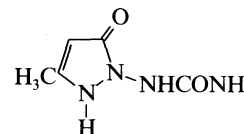
$C_{16}H_{14}N_4O_6S_3$ M 454.508
 The tautomer illus. to which the 9CI name refers is unlikely (hydrazone or thiol-azo tautomers more probable). pK_{a1} 7.08.

Di-Na salt: [77958-63-5].

Used as 0.1% son. in MeOH for photometric detn. of Ni, Co, Cd, Pb, Zn (alkaline media), Ag, Cu, Hg, Pd (acid media); as 0.01M aq. soln. for separation and fluorimetric detn. of Se(IV). Dark reddish violet needles (isopropanol aq.). Sol. H₂O, EtOH, Me₂CO; insol. C₆H₆.

Tanaka, T. *et al*, *Chem. Pharm. Bull.*, 1981, **29**, 165 (*synth*)
 Nakayama, M. *et al*, *Talanta*, 1983, **30**, 455 (*detn*, Se)

2,3-Dihydro-5-methyl-2-ureido-3H-pyrazol-3-one
 1-Carbamido-3-methyl-5-pyrazolone

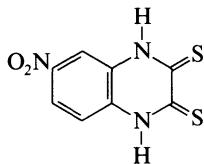


$C_5H_8N_4O_2$ M 156.144
 Used for photometric detn. of OsO₄²⁻, Fe(III). Cryst. Sol. EtOH, Me₂CO; sl. sol. cold H₂O.

Poddar, S.N., *Fresenius' Z. Anal. Chem.*, 1964, **203**, 333.

1,4-Dihydro-6-nitro-2,3-quinoxalinedithione, 9CI

6-Nitro-2,3-quinoxalinedithiol. 2,3-Dimercapto-6-nitroquinoxaline
[32830-09-4]



$C_8H_5N_3O_2S_2$ M 239.278

Used as a 0.5% soln. in aq. NH_3 for photometric detn. of Co, Ni. Yellow-orange cryst. Sol. dil. alkalis.

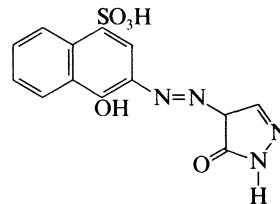
Bhaskare, C.K. *et al*, *Fresenius' Z. Anal. Chem.*, 1976, **278**, 127 (detn, Co)

Bhaskare, C.K. *et al*, *Anal. Chim. Acta*, 1977, **93**, 335 (use)

D-00461

3-[(4,5-Dihydro-5-oxo-1*H*-pyrazol-4-yl)azo]-4-hydroxy-1-naphthalenesulfonic acid, 9CI

[65593-06-8]



$C_{13}H_{10}N_4O_5S$ M 334.312

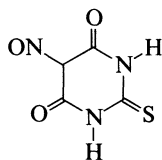
Used as 1mM soln. in 2mM NaOH for photometric detn. of Rh (λ_{max} 490 nm, ϵ 19400, pH 3.5). Cryst. Sol. alkalis, EtOH.

Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1822 (synth, detn, Rh)

D-00464

Dihydro-5-nitroso-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, 9CI

[63681-88-9]



$C_4H_3N_3O_3S$ M 173.152

Used as aq. soln. for photometric detn. of Fe(II) (λ_{max} 660 nm, ϵ 26600). Cryst.

N^1, N^3 -Di-Et: [75356-78-4]. 1,3-Diethyldihydro-5-nitroso-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, 9CI

$C_8H_{11}N_3O_3S$ M 229.259

Used as a soln. in EtOH for extraction-photometric detn. of Fe(II) (λ_{max} 640 nm, isopentanol). Cryst.

Tsuchiya, M., *CA*, 1979, **90**, 114417e (use)

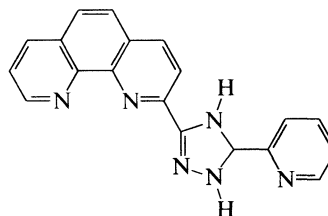
Tsuchiya, M. *et al*, *CA*, 1980, **93**, 197084e (use)

D-00462

4,5-Dihydro-3-(1,10-phenanthrolin-2-yl)-5-(2-pyridinyl)-1,2,4-triazole

D-00465

3-[(1,10-Phenanthrolin-2-yl)]-5-(2-pyridyl)-1,2,4-triazoline



$C_{19}H_{14}N_6$ M 326.360

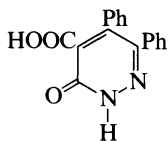
Used as a 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 552 nm, ϵ 12600). Cryst. + 2H₂O. Mp 151-152° (as dihydrate).

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (synth)

Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (detn, Fe)

2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid, 9CI

6-Oxo-3,4-diphenyl-1*H*-pyridazine-5-carboxylic acid
[82231-91-2]



$C_{17}H_{12}N_2O_3$ M 292.293

Cryst. (EtOH). Mp 233-234° dec.

Amide:

$C_{17}H_{13}N_3O_2$ M 291.309

Used as the Et₄N salt for detn. of Na.

Et ester: [54108-26-8].

$C_{19}H_{16}N_2O_3$ M 320.347

Cryst. Mp 218-219°.

Nitrile: [79225-55-1].

$C_{17}H_{11}N_3O$ M 273.293

Cryst. Mp 272-273°.

[51649-27-5]

Schmidt, P. *et al*, *Helv. Chim. Acta*, 1954, **37**, 134 (synth)

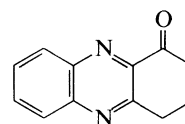
Knotz, F. *et al*, *Mikrochim. Acta*, 1974, 81 (use)

D-00463

3,4-Dihydro-1(2*H*)-phenazinone, 9CI

[119426-78-7]

D-00466



$C_{12}H_{10}N_2O$ M 198.224

Oxime: [42272-79-7]. 1,2,3,4-Tetrahydro-1-hydroxyiminophenazine

$C_{12}H_{11}N_3O$ M 213.238

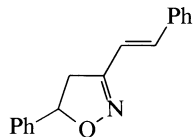
Used as 0.05% soln. in dil. NaOH aq. for photometric detn. of Cu(I). Yellow plates (Py). Sol. alkalis, Et₂O. Mp 213°. pK_{a1} 1.7; pK_{a2} 10.25 (25°, μ = 0.1).

Cookson, G.H., *J. Chem. Soc.*, 1953, 1328 (synth)

Riolo, C.B. *et al*, *Talanta*, 1973, **20**, 684 (detn, Cu)

4,5-Dihydro-5-phenyl-3-(2-phenylethenyl) isoxazole, 9CI

5-Phenyl-3-styryl- Δ^2 -isoxaline
[17819-43-1]



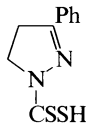
$C_{17}H_{15}NO$ M 249.312

Used as 0.01% EtOH soln. for kinetic-fluorimetric detn. of V(I) (λ_{max} 530 nm). Cryst. Sol. mod. EtOH.

Grases, F. *et al*, *Anal. Chim. Acta*, 1983, **148**, 245 (*synth, detn, V*)

4,5-Dihydro-3-phenyl-1*H*-pyrazole-1-carbodithioic acid, 9CI

3-Phenylpyrazoline-1-dithiocarbamic acid
[38567-24-7]



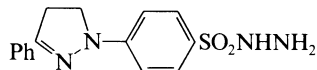
$C_{10}H_{10}N_2S_2$ M 222.334

Used as 0.5% soln. in $CHCl_3$ /isopentanol for photometric detn. of Re (λ_{max} 370 nm, ϵ 45000, $CHCl_3$). Yellow cryst. (H_2O). Sol. alkalis, $CHCl_3$.

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1028 (*synth, detn, Re*)

4-(4,5-Dihydro-3-phenyl-1*H*-pyrazol-1-yl) benzenesulfonic acid hydrazide, 9CI

Darpsyl hydrazide
[100343-99-5]



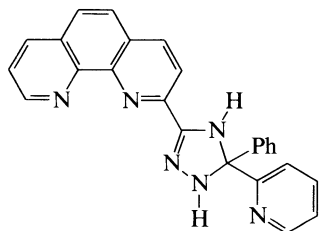
$C_{15}H_{16}N_4O_2S$ M 316.383

Fluorescent reagent for hplc anal. of carbonyl compds.

Anderson, J.M., *Anal. Biochem.*, 1986, **152**, 146 (*use*)

2-(4,5-Dihydro-5-phenyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl)-1,10-phenanthroline, 9CI

5-Phenyl-5-(2-pyridyl)-3-[2-(1,10-phenanthrolyl)]- Δ^2 -1,2,4-triazoline
[42838-26-6]



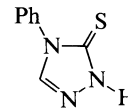
$C_{25}H_{18}N_6$ M 402.457

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 515 nm, ϵ 4200). Cryst. (EtOH). Sol. common org. solvs. Mp 176-177°.

Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*use*)

2,4-Dihydro-4-phenyl-3*H*-1,2,4-triazole-3-thione

[5373-72-8]



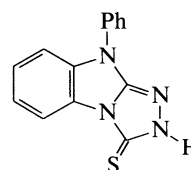
$C_8H_7N_3S$ M 177.229

Used as 0.02% AcOH soln. for extraction-photometric detn. of Pt, Rh, Os, Ru (1*M* HCl, pH 5, $CHCl_3$, isopentanol). Yellowish cryst. Sol. AcOH, EtOH.

Radushev, A.V. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 742 (*synth, use*)

2,9-Dihydro-9-phenyl-3*H*-1,2,4-triazolo[4,3-*a*]benzimidazole-3-thione, 9CI

[4502-97-0]



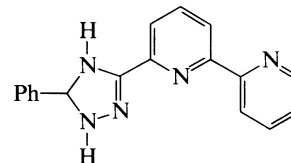
$C_{14}H_{10}N_4S$ M 266.326

Used as 0.2% AcOH soln. for extraction-photometric detn. of Pd, Pt, Au, Os, Ru (6-7*M* HCl, $CHCl_3$). Yellowish cryst. Sol. AcOH, EtOH (hot).

Radushev, A.V. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 742 (*synth, use*)

6-(2,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)-2,2'-bipyridine, 9CI

3-(2,2'-Bipyridin-6-yl)-5-phenyl- Δ^2 -1,2,4-triazoline
[31696-97-6]



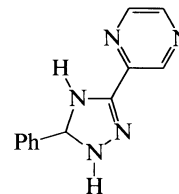
$C_{18}H_{15}N_5$ M 301.350

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 548 nm, ϵ 9200). Cryst. (EtOH). Sol. common org. solvs. Mp 135°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn, Fe*)

2-(4,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyrazine, 9CI

5-Phenyl-3-pyrazinyl-2-pyrazoline
[31696-91-0]



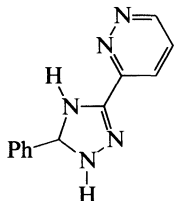
$C_{12}H_{11}N_5$ M 225.252

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 530 nm, ϵ 7400). Cryst. (EtOH). Sol. common org. solvs. Mp 164°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (synth)
Schilt, A.A. et al, *Talanta*, 1977, **24**, 685 (detn. Fe)

3-(4,5-Dihydro-5-phenyl-1H-1,2,4-triazol-3-yl)pyridazine, 9CI **D-00475**

5-Phenyl-2-(3-pyridazinyl)-2-pyrazoline
[31696-93-2]



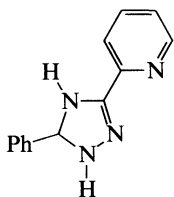
$C_{12}H_{11}N_5$ M 225.252

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 523 nm, ϵ 12300). Cryst. (EtOH). Sol. common org. solvs. Mp 173°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (synth)
Schilt, A.A. et al, *Talanta*, 1977, **24**, 685 (use)

2-(4,5-Dihydro-4-phenyl-1H-1,2,4-triazol-3-yl)pyridine **D-00476**

2-(5-Phenyl- Δ^2 -1,2,4-triazolin-3-yl)pyridine, 8CI. 5-Phenyl-3-(2-pyridyl)-1,2,4-triazoline
[26728-25-6]



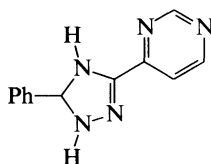
$C_{13}H_{12}N_4$ M 224.265

Used as 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 500 nm, ϵ 9200). Cryst. (EtOH). Sol. common org. solvs. Mp 111°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (synth)
Schilt, A.A. et al, *Talanta*, 1974, **21**, 831 (detn. Fe)

4-(2,5-Dihydro-5-phenyl-1H-1,2,4-triazol-3-yl)pyrimidine, 9CI **D-00477**

3-(4-Pyrimidyl)-5-phenyl- Δ^2 -1,2,4-triazoline
[31696-95-4]



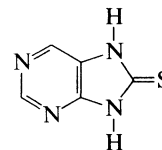
$C_{12}H_{11}N_5$ M 225.252

Used as 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 530 nm, ϵ 3000). Cryst. (EtOH). Sol. common org. solvs. Mp 155°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (synth)
Schilt, A.A. et al, *Talanta*, 1977, **24**, 685 (detn. Fe)

1,3-Dihydro-2H-purine-2-thione, 9CI **D-00478**

2-Mercaptopurine
[28128-19-0]



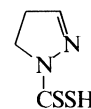
$C_5H_4N_4S$ M 152.179

Tautomeric with enol form. Used as 0.005% aq. soln. for photometric detn. of Au. Yellow cryst. (H_2O). Mod. sol. H_2O .

Kurzawa, Z. et al, *Chem. Anal. (Warsaw)*, 1976, **21**, 797 (detn. Au)

4,5-Dihydro-1H-pyrazole-1-carbodithioic acid **D-00479**

Pyrazoline-1-dithiocarbamic acid



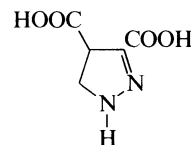
$C_4H_6N_2S_2$ M 146.237

Used as $CHCl_3$ soln. for extraction-separation of heavy metals, e.g. Bi, Pd, Re, Mo, Cu, Cd. Cryst. Sol. alkalis, $CHCl_3$.

Byr'ko, V.M., *Tr. Kom. Anal. Khim., Akad. Nauk SSSR*, 1963, **14**, 191; *CA*, **59**, 14929g (synth, use)

4,5-Dihydro-1H-pyrazole-3,4-dicarboxylic acid **D-00480**

Δ^2 -Pyrazoline-3,4-dicarboxylic acid



$C_5H_6N_2O_4$ M 158.113

Cryst. Mp 233° dec.

Diamide, N-di-Me:

$C_7H_{12}N_4O_2$ M 184.197

Used for photometric detn. of phosphoric (λ_{\max} 815 nm, ϵ 24800), arsenic, silicic and germanic acids. Cryst. Mp 175°.

Di-Me ester: [87387-81-3].

$C_7H_{10}N_2O_4$ M 186.167

Cryst. Mp 98°.

Di-Et ester:

$C_9H_{14}N_2O_4$ M 214.221

Cryst. Mp 87-88°.

Von Auwers, K. et al, *Justus Liebigs Ann. Chem.*, 1932, **496**, 27 (synth, ester)

Fischer, H. et al, *Z. Physiol. Chem.*, 1935, **234**, 97 (synth)

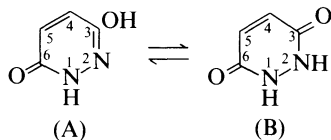
Grandberg, I.I. et al, *Zh. Obshch. Khim.*, 1961, **31**, 544; *CA*, **55**, 23497b (synth, ester)

Vinogradova, N.B. et al, *Zh. Anal. Khim.*, 1964, **19**, 997 (deriv, synth, use)

Zhukovsky, Y.G., *Zh. Anal. Khim.*, 1964, **19**, 1361 (deriv, use)

1,2-Dihydro-3,6-pyridazinedione, 9CI*Maleic hydrazide*

[123-33-1]

 $C_4H_4N_2O_2$ M 112.088

▶ Mod. toxic. Emits highly toxic fumes when heated to dec.
UR5950000.

A-form

Plant growth inhibitor. Used for photometric detn. of Fe(III) (λ_{max} 480 nm). Cryst. (H₂O). Mp 260° dec., > 300°. Major tautomer.

l-Me: [5436-01-1]. $C_5H_6N_2O_2$ M 126.115

Mp 210-211°.

l-Me, Me ether: [7154-81-6]. 6-Methoxy-2-methyl-3(2H)-pyridazinone, 9CI $C_6H_8N_2O_2$ M 140.141

Mp 65-66°.

l-Phenyl: [1698-54-0]. $C_{10}H_8N_2O_2$ M 188.185

Cryst. (AcOH). Mp 255-256°.

l-Phenyl, Me ether: [14634-50-5]. 6-Methoxy-2-phenyl-1(2H)-pyridazinone, 9CI $C_{11}H_{10}N_2O_2$ M 202.212

Cryst. (diisopropyl ether). Mp 76-77°.

B-form

Minor tautomer.

l,2-Di-Me: [7685-97-4]. $C_6H_8N_2O_2$ M 140.141Cryst. (Me₂CO/hexane). Mp 137-138°.Schoene, D.L. *et al*, *Science* (Washington, D.C.), 1949, **109**, 588.Eichenberger, K. *et al*, *Helv. Chim. Acta*, 1954, **37**, 510, 837 (derivs)Feuer, H. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 3890.Ohashi, O. *et al*, *Can. J. Chem.*, 1964, **42**, 970.Katritzky, A.R. *et al*, *J. Chem. Soc.*, 1964, 1523 (tautom)Rubenstein, H. *et al*, *J. Org. Chem.*, 1971, **36**, 3372 (pmr)Hashmi, M.M. *et al*, *Microchem. J.*, 1971, **16**, 626 (detn, Fe)Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed.,

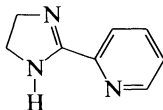
Van Nostrand-Reinhold, 1979, 785.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, DMC600.

2,3-Dihydro-5-(2-pyridinyl)-1H-imidazole

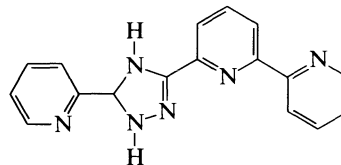
D-00482

2-(2-Pyridinyl)imidazoline $C_8H_9N_3$ M 147.179

Used as 2% EtOH soln. for photometric detn. of Fe(II) (λ_{max} 560 nm, ϵ 7800, pH 5.7). Cryst. (pet. ether). Sol. EtOH, Me₂CO, CHCl₃; sl. sol. H₂O. Mp 96-98°.

Walter, J.L. *et al*, *Anal. Chem.*, 1954, **26**, 217 (synth, detn, Fe)**6-[4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-2,2'-bipyridine, 9CI**

D-00483

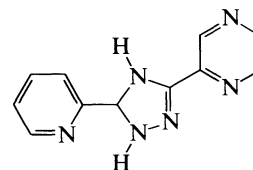
3-(2,2'-Bipyridin-6-yl)-5-(2-pyridyl)- Δ^2 -1,2,4-triazoline [31892-84-9] $C_{17}H_{14}N_6$ M 302.338

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 551 nm, ϵ 9000). Cryst. (EtOH). Sol. common org. solvents. Mp 181°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (synth) Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (detn, Fe)**[4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]pyrazine, 9CI**

D-00484

[31696-92-1]

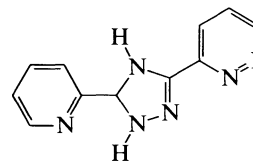
 $C_{11}H_{10}N_6$ M 226.240

Used as 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 424 nm, ϵ 10400), Fe(II) (λ_{max} 512 nm, ϵ 7200). Cryst. (EtOH). Sol. common org. solvs. Mp 190°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (synth) Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (use)**3-[4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]pyridazine, 9CI**

D-00485

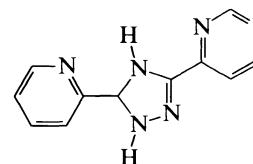
[31696-94-3]

 $C_{11}H_{10}N_6$ M 226.240

Used as 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 514 nm, ϵ 9400). Cryst. (EtOH). Sol. common org. solvs. Mp 204°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (synth) Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (detn, Fe)**4-[4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]pyrimidine, 9CI**

D-00486

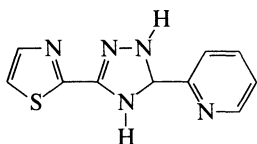
3-(4-Pyrimidyl)-5-(2-pyridyl)- Δ^2 -1,2,4-triazoline [31696-96-5] $C_{11}H_{10}N_6$ M 226.240

Used as 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 510 nm, ϵ 7100). Cryst. (EtOH). Sol. common org. solvs. Mp 179°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (synth)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (use)

4,5-Dihydro-5-(2-pyridyl)-3-(2-thiazolyl)-1H-1,2,4-triazole D-00487

2-[3-(2-Thiazolyl)- Δ^2 -1,2,4-triazolin-5-yl]pyridine, 8Cl. 5-(2-Pyridyl)-3-(2-thiazolyl)-1,2,4-triazoline. 2-[4,5-Dihydro-3-(2-thiazolyl)-1H-1,2,4-triazol-5-yl]pyridine



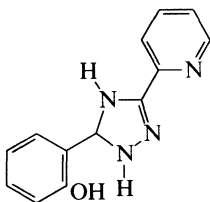
$C_{10}H_9N_5S$ M 231.281

Used as a 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 635 nm, ϵ 4800). Cryst. (EtOH). Sol. common org. solvs. Mp 180-181°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (synth)
Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (detrn, Fe)

2-[4,5-Dihydro-3-(2-pyridyl)-1H-1,2,4-triazolyl]phenol D-00488

o-[3-(2-Pyridyl)- Δ^2 -1,2,4-triazolin-5-yl]phenol, 8Cl. 4,5-Dihydro-5-(2-hydroxyphenyl)-3-(2-pyridyl)-1,2,4-triazole



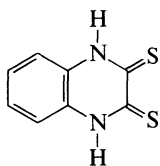
$C_{13}H_{12}N_4O$ M 240.264

Used as 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 520 nm, ϵ 5000). Cryst. (EtOH). Sol. common org. solvs. Mp 127°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (synth)
Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (detrn, Fe)

1,4-Dihydro-2,3-quinoxalinedithione, 9Cl D-00489

Quinoxaline-2,3-dithiol. 2,3-Dimercaptoquinoline [1199-03-7]



$C_8H_6N_2S_2$ M 194.281

Used as 5mM soln. in EtOH/DMF for photometric detn. of Ni (λ_{\max} 660 nm ϵ 18000), Co, Cu, Bi, Pd, Pt. Cryst. Sol. EtOH, DMF, Me₂CO.

Ayres, G.H. *et al*, *Anal. Chem.*, 1964, **36**, 133, 138 (detrn, Pt, Pd)
Dalziel, J.A. *et al*, *Talanta*, 1968, **15**, 367 (detrn, Co, Ni)

Burke, R.W. *et al*, *Talanta*, 1970, **17**, 255 (detrn, Co, Cu, Ni)
Chernomorchenko, L.I. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 2262 (detrn, Co)

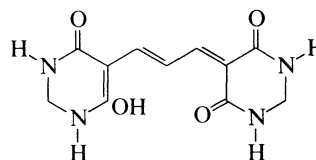
Chernomorchenko, L.I. *et al*, *Zavod. Lab.*, 1973, **39**, 1448 (detrn, Bi)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 407 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, QJ3000.

Dihydro-5-[3-(1,2,3,4-tetrahydro-6-hydroxy-4-oxo-5-pyrimidinyl)-2-propenylidene]-4,6(1H,5H)-pyrimidinedione, 9Cl D-00490

[52748-90-0]



$C_{11}H_{12}N_4O_4$ M 264.240

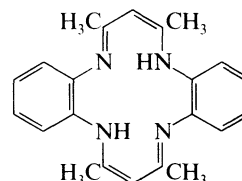
Used as 0.015% soln. in aq. Me₂CO for photometric detn. of Mg (λ_{\max} 546 nm). Cryst. Sol. H₂O, Me₂CO, EtOH.

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1969, **248**, 291; 1973, **266**, 343 (synth, detn, Mg)

5,14-Dihydro-6,8,15,17-tetramethyldibenzo[b,i][1,4,8,11]tetraazacyclotetradecine, 9Cl D-00491

6,8,15,17-Tetramethyldibenzo-5,9,14,18-tetraazacyclotetradecene

[56276-51-8]



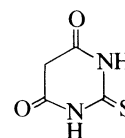
$C_{22}H_{24}N_4$ M 344.458

Used as a 0.1mM aq. soln. for photometric detn. of Cu (λ_{\max} 381 nm, ϵ 43500).

Toda, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1979, **28**, 440 (detrn, Cu)

Dihydro-2-thioxo-4,6(1H,5H)-pyrimidinedione, 9Cl D-00492

Thiobarbituric acid. Malonylthiourea. Bathyran [504-17-6]



$C_4H_4N_2O_2S$ M 144.154

Bactericide, thyroid inhibitor. Used as 0.03M aq. soln. for photometric detn. of Bi, Cu, Pd, Ru(III) (λ_{\max} 338 nm, ϵ 11000). Plates (H₂O). Sol. H₂O, alkalis. Mp 235° dec. (rapid heating).

▷ CQ7700000.

N,N'-Di-Ph: [35221-12-6]. 1,3-Diphenyl-2-thiobarbituric acid. Dihydro-1,3-diphenyl-2-thioxo-4,6-(1H,5H)-pyrimidinedione, 9Cl

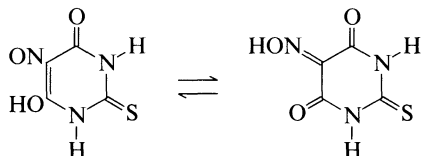
$C_{16}H_{12}N_2O_2S$ M 296.349

Fluorescence labelling reagent used in hplc anal. of lipoperoxides. Cryst. (EtOH). Mp 216°, 245°.

Michael, A., *J. Prakt. Chem.*, 1894, **49**, 38 (*synth*)
 Harwood, H.J., *CA*, 1933, **27**, 1676 (*synth*)
 Dass, I.N.D. *et al*, *Proc. - Indian Acad. Sci., Sect. A*, 1938, **8**, 145 (*deriv, synth*)
Japan. Pat., 77 07 054, (1977); *CA*, **87**, 128882c (*use*)
 Gupta, S.P. *et al*, *Indian J. Chem., Sect. B*, 1979, **18**, 463 (*deriv, synth*)
 Morelli, B., *Analyst (London)*, 1982, **107**, 282; 1983, **108**, 386, 870, 1506; 1984, **109**, 47 (*detn, Bi, Cu, Pd, Ru*)
 Ohsawa, K., *Anal. Sci.*, 1985, **1**, 473 (*deriv, synth*)
 Nakashima, K. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 5380 (*deriv, use*)
 Das, P.K. *et al*, *Indian J. Chem., Sect. B*, 1985, **24**, 437 (*deriv, synth*)
 Katritzky, A.R. *et al*, *Can. J. Chem.*, 1986, **64**, 2087 (*synth, cmr*)
 Gotthardt, H. *et al*, *Chem. Ber.*, 1986, **119**, 2094 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MCK500.

Dihydro-2-thioxo-4,5,6(1H)-**D-00493****pyrimidinetrione 5-oxime, 9CI**

5-Nitrosothiobarbituric acid. Thioviouric acid
 [23036-77-3]



$C_4H_3N_3O_3S$ M 173.152

Used as a 7.5mM aq. soln. for photometric detn. of Co, Fe(II). Cryst. (Me₂CO/pet. ether). pK_{a1} 4.14.

N,N'-Di-Ph: [35778-69-9]. Diphenylthioviouric acid

$C_{16}H_{11}N_3O_3S$ M 325.347

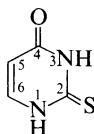
Used as 0.2% Me₂CO soln. for extraction-photometric detn. of Co, Ru. Cryst.

Chawla, R.S. *et al*, *Talanta*, 1971, **18**, 1245 (*deriv, detn, Ru*)
 Toropova, V.F. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1545 (*detn, Fe*)
 Ershova, L.V. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1367 (*detn, Co*)

2,3-Dihydro-2-thioxo-4(1H)-pyrimidinone,**D-00494****9CI**

2-Thiouracil

[141-90-2]



$C_4H_4N_2OS$ M 128.154

6 Tautomers theoretically possible; NH-form (illus.) prob. predominates. Present in *E. coli* t-RNA. Shows antibacterial and antiviral props. by alterations to protein synth. Antithyroid agent. Antidote for Hg poisoning. Used as 0.3% soln. in Me₂CO/HCl (pH 1) for photometric detn. of Pd(II) (λ_{max} 428 nm). Prisms (H₂O or EtOH). Sol. Me₂CO, EtOH, H₂O. Mp 340° dec.

▷ Exp. carcinogen. YR1575000.

NH-form

1-Me: [615-78-1].

$C_5H_6N_2OS$ M 142.181

Cryst. (EtOH). Mp 226°.

3-Me: [576-28-3].

$C_5H_6N_2OS$ M 142.181

Cryst. (EtOH). Mp 207°.

1,3-Di-Me:

$C_6H_8N_2OS$ M 156.208

Cryst. (EtOH). Mp 109°.

SH-form

Minor tautomer.

Me thioether: [5751-20-2]. 2-(Methylthio)-4(1H)-pyrimidinone

$C_5H_6N_2OS$ M 142.181

Cryst. Mp 199-201°.

Et thioether: [6965-19-1]. 2-(Ethylthio)-4(1H)-pyrimidinone

$C_6H_8N_2OS$ M 156.208

Cryst. Mp 151-152°.

Warrener, R.N. *et al*, *Chem. Ind. (London)*, 1964, 1989 (*deriv*)

Croitoru, V. *et al*, *CA*, 1968, **68**, 9076r (*detn, Pd*)

Yoshimura, M. *et al*, *Yakugaku Zasshi*, 1976, **96**, 1094 (*synth*)

Maruizumi, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1978, **51**, 978 (*nmr*)

Still, I.W.J. *et al*, *Can. J. Chem.*, 1978, **56**, 725 (*cmr*)

Hirota, K. *et al*, *J. Org. Chem.*, 1978, **43**, 1193 (*synth*)

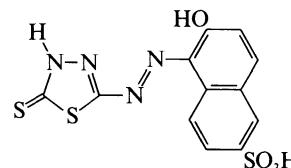
Katritzky, A.R. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1989, 1499, 1507 (*tautom, bibl*)

Katritzky, A.R. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1990, 871 (*pe, tautom*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TFR250.

5-[(4,5-Dihydro-5-thioxo-1,3,4-thiadiazol-2-yl)azol]-6-hydroxy-2-naphthalenesulfonic acid, 9CI**D-00495**

Mebidom 6S



$C_{12}H_8N_4O_4S_3$ M 368.418

pK_{a1} 4.78; pK_{a2} 7.85.

Na salt: [60593-00-2].

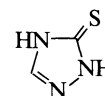
Used as 0.1-0.3mM soln. in MeOH or buffer (acetate, borate) to give colour reactions with Cd, Co, Cu, Fe, Ni. Dark red needles. Sol. EtOH.

Domagalina, E., *Chem. Anal. (Warsaw)*, 1976, **21**, 105, 411 (*synth, pKa, use*)

1,2-Dihydro-3H-1,2,4-triazole-3-thione,**D-00496****9CI**

s-Triazole-3-thiol, 8CI. 3-Mercapto-1,2,4-triazole

[3179-31-5]



$C_2H_3N_3S$ M 101.132

Thione-form (illus.) is most probable. Mp 214-216°.

▷ XZ5267500.

K salt: [39751-89-8].

Used as 0.05M aq. soln. for photometric detn. of Rh(III) (λ_{max} 300 nm, ϵ 32000), Pt(IV), Pd(II). Cryst. Sol. H₂O, acids.

Freund, M., *Ber.*, 1896, **29**, 2483 (*synth*)

Goerdeler, J. *et al*, *Chem. Ber.*, 1957, **90**, 202 (*synth*)

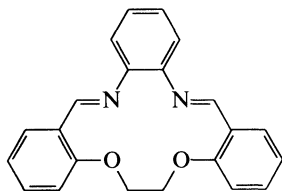
Radushev, A.V. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 2209 (*detn, Rh, Pt*)

Romanenko, L.P. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1908 (*detn, Pd*)

Singh, H. *et al*, *Tetrahedron*, 1986, **42**, 1449 (*synth, ir, pmr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, THT000.

6,7-Dihydrotribenzo[*e,i,m*][1,4,8,11]dioxadiazacyclotetradecine, 9CI **D-00497**

3,4:9,10:13,14-Tribenzo-1,12-diaza-5,8-dioxacyclotetradeca-1,11-diene
 [78972-98-2]

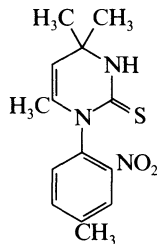


$C_{22}H_{18}N_2O_2$ M 342.396
 Used as 1-10mM soln. in $CHCl_3$ for selective extraction separation of $Cu(II)$ (pH 4-6). Cryst. Sol. $CHCl_3$.

Zolotov, Yu.A. *et al*, *Dokl. Akad. Nauk SSSR*, 1981, **258**, 889 (*synth, sepn, Cu*)
 Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1543 (*sepn, Cu*)

3,4-Dihydro-4,4,6-trimethyl-1-(4-methyl-2-nitrophenyl)-2(1H)-pyrimidinethione, 9CI **D-00498**

4,4,6-Trimethyl-1-(4-methyl-2-nitrophenyl)-2(1H,4H)-pyrimidinethiol
 [37951-55-6]

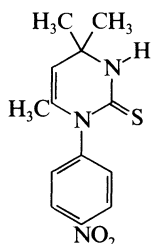


$C_{14}H_{17}N_3O_2S$ M 291.373
 Used as 0.01M $CHCl_3$ soln. for extraction separation of Pt metals and Au; photometric detn. of Pd, Os, Ru. Cryst. Sol. $CHCl_3$, C_6H_6 , DMF, dioxan.

Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1747 (*derivs, synth*)
 Anuse, M.A. *et al*, *Talanta*, 1983, **30**, 323 (*use*)

3,4-Dihydro-4,4,6-trimethyl-1-(4-nitrophenyl)-2(1H)-pyrimidinethione, 9CI **D-00499**

[21038-75-5]



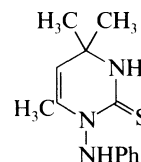
$C_{13}H_{15}N_3O_2S$ M 277.346

Used as 0.01M $CHCl_3$ soln. for extraction-photometric detn. of $Pd(II)$ (λ_{max} 430 nm, ϵ 5000, 1-10M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 , dioxan.

Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1747 (*synth*)
 Singh, A.K. *et al*, *Talanta*, 1976, **23**, 337 (*detn, Pd*)

3,4-Dihydro-4,4,6-trimethyl-1-(phenylamino)-2(1H)-pyrimidinethione, 9CI **D-00500**

1-Anilino-4,4,6-trimethyl-1H,4H-2-pyrimidinethiol
 [55111-84-7]

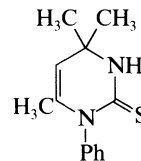


$C_{13}H_{17}N_3S$ M 247.363
 Used as 0.01M $CHCl_3$ soln. for extraction-photometric detn. of $Pd(II)$ and Os (λ_{max} 525 nm, ϵ 14400, 0.8-1.8M HCl). Cryst. Sol. $CHCl_3$, Mp 170-171°.

Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1747 (*synth*)
 Singh, A.K. *et al*, *Talanta*, 1976, **23**, 851 (*detn, Pd, Os*)

3,4-Dihydro-4,4,6-trimethyl-1-phenyl-2(1H)-pyrimidinethione, 9CI **D-00501**

1-Phenyl-4,4,6-trimethyl-2-pyrimidinethiol. 1,4-Dihydro-2-mercapto-4,4,6-trimethyl-1-phenylpyrimidine
 [16325-43-2]



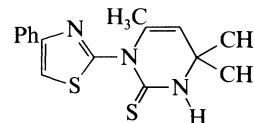
$C_{13}H_{16}N_2S$ M 232.349
 Used as 1mM soln. in DMF for photometric detn. of Os (λ_{max} 525nm, ϵ 13300); as 0.01M $CHCl_3$ soln. for extraction-photometric detn. of $Pd(II)$ (λ_{max} 430 nm, ϵ 3850, 1-10M HCl). Cryst. Sol. DMF, $CHCl_3$, C_6H_6 .

▷ UW4980000.

Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1747 (*synth*)
 Singh, A.K. *et al*, *Talanta*, 1976, **23**, 337 (*detn, Pd*)
 Wasey, A. *et al*, *Talanta*, 1984, **31**, 205 (*detn, Os*)

3,4-Dihydro-4,4,6-trimethyl-1-(4-phenyl-2-thiazolyl)-2(1H)-pyrimidinethione, 9CI **D-00502**

4,4,6-Trimethyl-1-(4-phenylthiazolyl)-1H,4H-pyrimidine-2-thiol
 [100111-29-3]



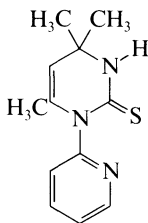
$C_{16}H_{17}N_3S_2$ M 315.462
 Used as 0.01M $CHCl_3$ soln. for extraction-photometric detn. of $Pd(II)$ (λ_{max} 340 nm, ϵ 25000, 1-2.5M HCl), Os (λ_{max} 400 nm, ϵ 20000, pH 10-11.5). Cryst. Sol. $CHCl_3$, butanol, Me_2CO .

Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1947 (*synth*)
 Singh, A.K. *et al*, *J. Indian Chem. Soc.*, 1985, **62**, 316 (*detn, Os, Pd*)

3,4-Dihydro-4,4,6-trimethyl-1-(2-pyridinyl)-2(1H)-pyrimidinethione, 9CI

D-00503

1,4-Dihydro-2-mercapto-4,4,6-trimethyl-1-(2-pyridyl)pyrimidine
[80500-90-9]



$C_{12}H_{15}N_3S$ M 233.337

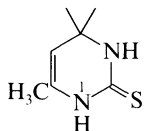
Used as 0.01M EtOH soln. for photometric detn. of Pt(IV) (λ_{max} 430 nm, ϵ 5000); as 0.01M butanol soln. for extraction-photometric detn. of Pd(II) (λ_{max} 430 nm, ϵ 52000, 0.1-1.8M HCl), Os. Cryst. (C_6H_6). Sol. EtOH, C_6H_6 , butanol, $CHCl_3$, Me_2CO .

Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1747 (*synth*)
Singh, A.K. *et al*, *J. Indian Chem. Soc.*, 1985, **62**, 316 (*use*)
Roy, B. *et al*, *Microchem. J.*, 1985, **31**, 326 (*detn*, Pt)

3,4-Dihydro-4,4,6-trimethyl-2(1H)-pyrimidinethione, 9CI

D-00504

4,4,6-Trimethyl-1H,4H-pyrimidine-2-thiol
[5392-23-4]



$C_7H_{12}N_2S$ M 156.251

Used as a soln. in 0.2M $HClO_4$ for photometric detn. of Bi (λ_{max} 500 nm, ϵ 12700), Te (λ_{max} 385 nm, ϵ 12600); as 0.01M EtOH soln. for extraction-photometric detn. of Pd (λ_{max} 420 nm, ϵ 39000, pH ~ 5.5, $CHCl_3$). Cryst. (EtOH). Sol. EtOH, Me_2CO , acids, $CHCl_3$, C_6H_6 , dioxan. Mp 266-267° dec., Mp 274-276° dec.

N^1 -Propyl: 3,4-Dihydro-4,4,6-trimethyl-1-propyl-2(1H)-pyrimidinethione, 9CI

$C_{10}H_{18}N_2S$ M 198.332

Used as 0.01M soln. in 0.02M HCl for extraction-photometric detn. of Os (λ_{max} 510 nm, ϵ 8200, 0.5-3.5M HCl, butanol). Cryst. Sol. acids, MeOH.

N^1 -Butyl: [37929-28-5]. 1-Butyl-3,4-dihydro-4,4,6-trimethyl-2(1H)-pyrimidinethione, 9CI

$C_{11}H_{20}N_2S$ M 212.358

Used as 0.01M $CHCl_3$ soln. for extraction-photometric detn. of Pd(II) (λ_{max} 430 nm, ϵ 4600, 1-10M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 , dioxan.

N^1 - NH_2 : 1-Amino-3,4-dihydro-4,4,6-trimethyl-2(1H)-pyrimidinethione, 9CI

$C_7H_{13}N_3S$ M 171.266

Used as a 0.01M DMSO soln. for photometric detn. of Pd(II) and Os (λ_{max} 525 nm, ϵ 4000). Cryst. Sol. DMSO.

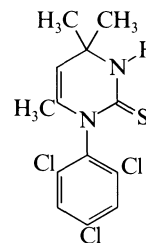
[5778-17-6, 18957-53-4]

Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1747 (*synth*)
Takeshima, T. *et al*, *J. Org. Chem.*, 1968, **33**, 2877 (*synth*)
Singh, A.K. *et al*, *Talanta*, 1976, **23**, 337 (*detn*, Pd)
Singh, A. *et al*, *Indian J. Chem., Sect. A*, 1977, **15**, 257 (*use*)
Singh, A.K. *et al*, *J. Indian Chem. Soc.*, 1979, **56**, 423 (*detn*, Os)
Safavi, A. *et al*, *Microchem. J.*, 1990, **42**, 314 (*detn*, Pd)

3,4-Dihydro-4,4,6-trimethyl-1-(2,4,6-trichlorophenyl)-2(1H)-pyrimidinethione, 9CI

D-00505

[99796-49-3]



$C_{13}H_{13}Cl_3N_2S$ M 335.683

Used as a 0.01M soln. in $CHCl_3$ for extraction-photometric detn. of Au(III) (λ_{max} 480 nm, ϵ 4600, $CHCl_3$). Cryst. Sol. common org. solvs. Mp 243°.

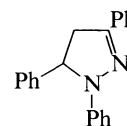
Anuse, M.A. *et al*, *Talanta*, 1985, **32**, 1008 (*detn*, Au)

4,5-Dihydro-1,3,5-triphenyl-1H-pyrazole, 9CI

D-00506

1,3,5-Triphenyl- Δ^2 -pyrazoline

[742-01-8]



$C_{21}H_{18}N_2$ M 298.387

Used as 0.01% EtOH soln. for kinetic-fluorimetric detn. of V(V) (λ_{max} 465 nm). Cryst. Sol. EtOH.

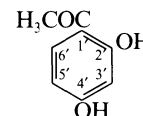
Grases, F. *et al*, *Anal. Chim. Acta*, 1983, **148**, 245 (*synth*, *detn*, V)

2',4'-Dihydroxyacetophenone, 8CI

D-00507

1-(2,4-Dihydroxyphenyl)ethanone, 9CI. Resacetophenone. 4-Acetylresorcinol

[89-84-9]



$C_8H_8O_3$ M 152.149

Used as 1% soln. in EtOH for fluorimetric detn. of Bi; used as a metallochromic indicator in titration of Fe(III) with CyDTA (pH 1-2); photometric detn. of F^{\ominus} . Leaflets or needles. Mp 147°. pK_a - 5.11, pK_{a1} 7.42; pK_{a2} 12.0 (25°).

▶ AM7525000.

Semicarbazone: [56644-47-4].

$C_9H_{11}N_3O_3$ M 209.204

Used as EtOH soln. for photometric detn. of Cu(II), Fe(III) (λ_{max} 355 nm, ϵ 10000, acetate buffer). Cryst. (EtOH). Sol. EtOH, DMF.

Thiosemicarbazone: [57872-20-5].

$C_9H_{11}N_3O_2S$ M 225.271

Used as 8mM soln. in EtOAc for extraction-photometric detn. of Cu (λ_{max} 360 nm, ϵ 14000), Ni, Co, Ag. Cryst. (EtOH). Sol. EtOAc, EtOH, butanol. pK_{a1} 9.6; pK_{a2} 11.2.

Phenylhydrazone: [7327-79-9].

$C_{14}H_{14}N_2O_2$ M 242.277

Used for gravimetric and amperometric detn. of Cu. Cryst.

2,4-Dinitrophenylhydrazone: Maroon cryst. Mp 242-245°.

Oxime: [6134-79-8].

$C_8H_9NO_3$ M 167.164

Used as a 1% soln. in EtOH as metallochromic indicator in titrimetric detn. of Fe; photometric detn. of Fe(III); amperometric detn. of Cu, Ni. Mp 198-200° dec.

Di-Ac:

$C_{12}H_{12}O_5$ M 236.224

Mp 38°.

2'-Me ether: [493-33-4]. **4'-Hydroxy-2'-methoxyacetophenone, 8CI. Isopeanol**

$C_9H_{10}O_3$ M 166.176

Needles (H₂O). Mp 139-140°.

4'-Me ether: [552-41-0]. **2'-Hydroxy-4'-methoxyacetophenone. Paeonol. Peonol**

$C_9H_{10}O_3$ M 166.176

Constit. of *Paeonia moutan*, *Xanthorrhoea arborea*, *X. reflexa* and *Primula auricula*. Needles (EtOH). Mp 52-53°. Steam-volatile.

▷ RT1215000.

Di-Me ether: [829-20-9]. **2',4'-Dimethoxyacetophenone.**

Peonol methyl ether. Isopeanol methyl ether

$C_{10}H_{12}O_3$ M 180.203

Mp 44°.

4'-Me ether, glucoside: Glucopaeonol

$C_{15}H_{20}O_8$ M 328.318

Isol. from *Paeonia arborea* seeds. Mp 82-83°.

Robinson, R. et al, *J. Chem. Soc.*, 1934, 1491 (synth)

Nichols, M.L. et al, *Anal. Chem.*, 1954, 26, 703 (use)

Mather, K.B.L. et al, *J. Am. Chem. Soc.*, 1957, 79, 3582 (derivs)

Umapathy, P. et al, *Indian J. Chem.*, 1964, 2, 248 (detn. Cu)

Huisgen, R. et al, *Justus Liebigs Ann. Chem.*, 1964, 677, 21 (derivs)

Arnaud, R., *Bull. Soc. Chim. Fr.*, 1967, 4541.

Gumprecht, D.L., *J. Chromatogr.*, 1967, 30, 528 (chromatog)

Kristalev, P.V. et al, *CA*, 1970, 77, 13584h (detn. B)

Lutsikii, A.E. et al, *Zh. Prikl. Spektrosk.*, 1970, 13, 298 (uv)

Desai, M.N. et al, *J. Indian Chem. Soc.*, 1973, 50, 369 (detn. Fe)

Aydin, A. et al, *Chim. Acta Turc.*, 1975, 3, 51 (synth, detn. Co, Cu)

Chowdray, G.S. et al, *Curr. Sci.*, 1975, 44, 343 (detn. Fe)

Rao, K.V.K. et al, *Curr. Sci.*, 1975, 44, 547; *CA*, 83, 130838d

(props)

Ingle, D.B. et al, *Indian J. Chem.*, 1975, 13, 605 (pKa)

Reddy, Y.K. et al, *Talanta*, 1975, 22, 545 (oxime, Cu, Ni)

Reddy, Y.K. et al, *CA*, 1976, 85, 201672z (detn. Cu)

Gupta, V.P. et al, *Indian J. Pure Appl. Phys.*, 1976, 14, 846 (ir)

Lutsikii, A.E. et al, *Zh. Obshch. Khim.*, 1977, 47, 905 (nmr)

Pelter, A. et al, *J. Chem. Soc., Perkin Trans. 1*, 1978, 668 (cmr)

Reddy, K.H., *J. Indian Chem. Soc., Sect. A*, 1984, 23, 535 (synth, use)

Reddy, A.V. et al, *J. Radioanal. Nucl. Chem.*, 1984, 86, 391; 1985, 93, 279; 1986, 103, 169 (detn. Co, Ag)

Lau, C.K. et al, *J. Org. Chem.*, 1987, 52, 1670 (deriv, synth, pmr)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMG400, PAC250.

2',5'-Dihydroxyacetophenone, 8CI

D-00508

1-(2,5-Dihydroxyphenyl)ethanone, 9CI. Acetylquinol.

Acetylhydroquinone. Quinacetophenone

[490-78-8]

$C_8H_8O_3$ M 152.149

Green needles (H₂O). Mp 202-203°. pK_{a1} 9.48; pK_{a2} 12.9 (25°).

▷ AM7700000.

2,5-Di-Ac: [31405-72-8].

$C_{12}H_{12}O_5$ M 236.224

Needles (AcOH). Mp 68°.

Oxime: [24558-42-7].

$C_8H_9NO_3$ M 167.164

Used as 40% EtOH aq. soln. for amperometric detn. of Cu, Ni, Pd. Plates (toluene). Mp 149-150°.

5-Me ether: [705-15-7]. **2'-Hydroxy-5'-methoxyacetophenone**

$C_9H_{10}O_3$ M 166.176

Isol. from rhizomes of *Primula acaulis*. Green cryst. or yellow prisms. Mp 52° (48-50°).

5-Me ether, 2-O-β-D-glucopyranoside:

$C_{15}H_{20}O_8$ M 328.318

Prob. occurs in *P. acaulis*. Fine needles (EtOAc). Mp 139-140° (synthetic).

Di-Me ether: [1201-38-3]. **2',5'-Dimethoxyacetophenone**

$C_{10}H_{12}O_3$ M 180.203

Cryst. Mp 20-22°. Bp₁₄ 155-158°.

Klinger, H. et al, *Ber.*, 1898, 31, 1214 (synth)

Goris, A. et al, *C. R. Hebd. Seances Acad. Sci.*, 1935, 200, 1990 (isol, deriv)

Org. Synth., 1948, 28, 42 (synth)

Eugster, C.H. et al, *Helv. Chim. Acta*, 1963, 46, 815 (uv)

Bartram, C.A. et al, *J. Chem. Soc.*, 1963, 4691 (deriv)

Gupta, B.D. et al, *Mikrochim. Acta*, 1969, 634 (use, oxime)

Kamat, P.V. et al, *J. Indian Chem. Soc.*, 1970, 47, 493 (ir)

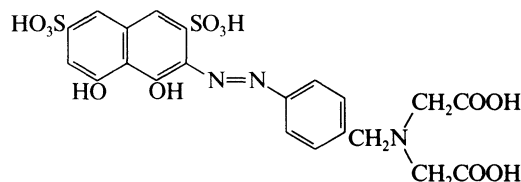
Shulgin, A.T. et al, *J. Med. Chem.*, 1975, 18, 1201 (deriv)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMG600.

4,5-Dihydroxy-3-[4-(aminomethyl)phenylazo]-2,7-naphthalenedisulfonic acid N,N-diacetic acid

D-00509

N-(Carboxymethyl)-N-[[4-[(1,8-dihydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]methyl]glycine, 9CI. Chromazo BRZ
[76268-67-2]



$C_{21}H_{19}N_3O_{12}S_2$ M 569.526

Used as 0.5% aq. soln. for photometric detn. of Al (λ_{max} 540 nm, ϵ 8300, pH 4.5-5.0). Cryst. Sol. H₂O.

Basargin, N.N. et al, *Zavod. Lab.*, 1988, 54, 22 (detn. Al)

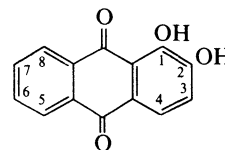
1,2-Dihydroxyanthraquinone

D-00510

1,2-Dihydroxy-9,10-anthracenedione, 9CI. Alizarin. Madder.

Lizarinic acid. C.I. Mordant red 11. Numerous proprietary names

[72-48-0]



$C_{14}H_8O_4$ M 240.215

Found in madder root (*Rubia tinctorum*) as the glycoside, Ruberythric acid. Also found in *R. iberica*, *R. cordifolia* and in tissue cultures of *Galium mollugo*, *Morinda citrifolia*, *Cinchona ledgeriana* and *C. pubescens*. Bonds with calcifying tissues and has been used in studies of bone formation. Used in photometric detn. of B, Al, Ge, F⁻, SO₄²⁻; acid-base indicator (pH range 5.8-7.2 and 11.0-13.0). Orange or red needles or prisms (EtOH or by subl.). V. spar. sol. H₂O. Mp 288-289°. Bp 430°. pK_{a1} 7.45; pK_{a2} 11.80. Sublimes.

▷ CB6580000.

2-O-Ac: [40975-46-0].

C₁₆H₁₀O₅ M 282.252

Yellow needles. Mp 204-205°.

Di-Ac: [1629-51-2].

C₁₈H₁₂O₆ M 324.289

Mp 203-205°.

1-Me ether: [6170-06-5]. 2-Hydroxy-1-methoxyanthraquinone

C₁₅H₁₀O₄ M 254.242

Found in *M. lucida*, *M. parvifolia*, *Plocama pendula*, *Relbunium hypocarpium*, *C. ledgeriana* and *C. pubescens*. Orange needles (MeOH aq.). Mp 176-177°.

2-Me ether: [6003-11-8]. 1-Hydroxy-2-methoxyanthraquinone

C₁₅H₁₀O₄ M 254.242

Found in roots of *Rubia cordifolia*. Orange-yellow needles (EtOH). Mp 229-230°.

Di-Me ether: [6003-12-9]. 1,2-Dimethoxyanthraquinone

C₁₆H₁₂O₄ M 268.268

Yellow needles (C₆H₆). Mp 212-214°.

2-O-β-Primeveroside: [152-84-1]. Ruberythric acid.

Ruberythric acid. Rubian. Rubianic acid

C₂₅H₂₆O₁₃ M 534.473

Isol. from madder, from *Oldenlandia umbellata* and other plants. Yellow prisms or needles (H₂O). Mp 258-261°.

9-Imine: see 3,4-Dihydroxy-10-imino-9(10H)-anthracenone, D-00634

Kido, H. *et al*, *Anal. Chim. Acta*, 1960, **23**, 116 (ir)

Kuhn, R. *et al*, *Chem. Ber.*, 1961, **94**, 2258.

Davies, D.G. *et al*, *J. Chem. Soc., Chem. Commun.*, 1968, 953.

Adesida, G.A. *et al*, *J. Chem. Soc., Chem. Commun.*, 1972, 405 (isol, deriv)

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 2369 (detn, Ge)

Idris, K.A. *et al*, *Egypt. J. Chem.*, 1973, 67 (w)

Leistner, G., *Phytochemistry*, 1973, **12**, 1669; *Planta Med.*, Suppl., 1975, 214 (biosynth)

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (use)

McEwan, C.N. *et al*, *Anal. Chem.*, 1977, **49**, 922 (ms)

Parham, W.E. *et al*, *J. Org. Chem.*, 1981, **46**, 1057 (synth)

Khanapure, S.P. *et al*, *J. Org. Chem.*, 1987, **52**, 5685 (deriv, synth, pmr, ir)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMG800.

1,4-Dihydroxyanthraquinone, 8CI D-00511

1,4-Dihydroxy-9,10-anthracenedione, 9CI. Quinizarin

[81-64-1]

C₁₄H₈O₄ M 240.215

Used as soln. in conc. H₂SO₄ for fluorimetric detn. of B (λ_{max} 595 nm). Red cryst. (AcOH). Mp 194°, Mp 200-202°. pK_{a1} 9.90; pK_{a2} 11.18 (25°, H₂O), pK_{a1} 12.23; pK_{a2} 13.92 (25°, dioxan aq.).

▷ CB6600000.

Ac: [52869-29-1].

C₁₆H₁₀O₅ M 282.252

Orange-yellow needles (C₆H₆). Mp 186°.

Di-Ac: [2289-36-3].

C₁₈H₁₂O₆ M 324.289

Orange-yellow cryst. (AcOH). Mp 198°, Mp 207-208°.

Mono-Me ether: [7336-64-3]. 1-Hydroxy-4-methoxyanthraquinone

C₁₅H₁₀O₄ M 254.242

Yellow needles (MeOH). Mp 189°, Mp 167-168°.

Di-Me ether: [6119-74-0]. 1,4-Dimethoxyanthraquinone

C₁₆H₁₂O₄ M 268.268

Cryst. (C₆H₆). Mp 143°, Mp 170-171°.

Green, A., *J. Chem. Soc.*, 1926, 1428.

Org. Synth., Coll. Vol., 1, 1932, 464.

Kozlov, V.V. *et al*, *Zh. Org. Khim.*, 1959, **29**, 3450.

Kido, H. *et al*, *Anal. Chim. Acta*, 1960, **23**, 116 (ir)

Bloom, S.M. *et al*, *Tetrahedron Lett.*, 1963, 1993 (pmr)

Holme, A., *Acta Chem. Scand.*, 1967, **21**, 1679 (detn, B)

Idris, K.A. *et al*, *Egypt. J. Chem.*, 1973, 67 (w)

Khanapure, S.P. *et al*, *J. Org. Chem.*, 1987, **52**, 5685 (deriv, synth, pmr, cmr, ir)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMH000.

1,8-Dihydroxyanthraquinone, 8CI D-00512

1,8-Dihydroxy-9,10-anthracenedione, 9CI. Chrysazin.

Danthron, BAN. Dorbane. Istizin. Danivac. Dantron,

INN. Other proprietary names

[117-10-2]

C₁₄H₈O₄ M 240.215

Occurs in roots of *Rheum palmatum*, leaves and stems of *Xyris semifuscata*, tissue culture of *Cinchona ledgeriana* and leaves of *Pyrrhalta luteola*. Cathartic. Used in photometric detn. of B; fluorimetric detn. of Mg (λ_{max} 600 nm). Reddish-yellow needles or leaflets. Sol. EtOH, alkalis. Mp 193°. pK_{a1} 8.30; pK_{a2} 12.46 (25°).

▷ CB6650000.

Di-Ac: [1963-82-2].

C₁₈H₁₂O₆ M 324.289

Yellow needles. Mp 231-232°.

▷ CB6690000.

Me ether: [5539-66-2]. 1-Hydroxy-8-methoxyanthraquinone

C₁₅H₁₀O₄ M 254.242

Orange-red needles (EtOH). Mp 197-198°.

Di-Me ether: [6407-55-2]. 1,8-Dimethoxyanthraquinone

C₁₆H₁₂O₄ M 268.268

Yellow cryst. Mp 219°.

Naylor, C.A. *et al*, *J. Am. Chem. Soc.*, 1931, **53**, 4112.

Aoyama, S. *et al*, *Yakugaku Zasshi*, 1932, **52**, 17.

Lish, P.M. *et al*, *J. Am. Pharm. Assoc.*, 1958, **47**, 371 (pharmacol)

Kido, H. *et al*, *Anal. Chim. Acta*, 1960, **23**, 116 (ir)

Benyon, J.H. *et al*, *Appl. Spectrosc.*, 1960, **14**, 156 (ms)

Ruggieri, R., *Anal. Chim. Acta*, 1961, **25**, 145 (use)

Prakesh, A., *Z. Kristallogr., Kristallgeom., Kristallphys., Kristallchem.*, 1965, **122**, 272 (cryst struct)

Fairbairn, J.W. *et al*, *J. Pharm. Pharmacol.*, 1970, **22**, 584 (pharmacol)

Idris, K.A. *et al*, *Egypt. J. Chem.*, 1973, 67 (w)

Morley, J.O. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1973, 1626 (pmr)

Fournier, G. *et al*, *Phytochemistry*, 1975, **14**, 2099 (isol)

Breimer, D.D. *et al*, *Pharmacology*, 1976, **14**, 30 (metab)

Case, M.T. *et al*, *Drug Chem. Toxicol.*, 1978, **1**, 89 (tox)

Berger, Y. *et al*, *Org. Magn. Reson.*, 1978, **11**, 375 (cmr)

Cameron, A.W. *et al*, *Aust. J. Chem.*, 1982, **35**, 2095 (synth)

Howard, D.F. *et al*, *Naturwissenschaften*, 1982, **69**, 91 (isol)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7510.

Roman Ceba, M. *et al*, *Mikrochim. Acta*, 1983, **2**, 85 (detn, Mg)

Mueller, K. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1984, **317**, 120 (synth)

Khanapure, S.P. *et al*, *J. Org. Chem.*, 1987, **52**, 5685 (deriv, synth, pmr, ir)

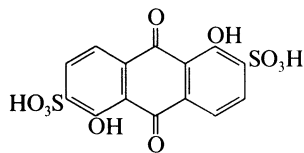
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 2970 (synonyms)

Grunwell, J.R. *et al*, *J. Org. Chem.*, 1991, **56**, 91 (synth, pmr)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMH400.

1,5-Dihydroxyanthraquinone-2,6-disulfonic acid **D-00513**

9,10-Dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid. Anthrarufin-2,6-disulfonic acid [6492-85-9]



$C_{14}H_8O_{10}S_2$ M 400.343

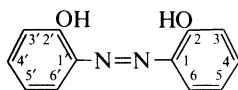
Used as 1mM aq. soln. for photometric detn. of Sc.

Orange-red cryst. (H_2O), clear red soln. in H_2O . Sol. H_2O , alkalis, EtOH; insol. C_6H_6 , CCl_4 .

MacDonald, J.C. *et al*, *Anal. Chim. Acta*, 1963, **28**, 264.

2,2'-Dihydroxyazobenzene**D-00514**

2,2'-Azobisphenol, 9CI. 2,2'-Azodiphenol, 8CI [2050-14-8]



$C_{12}H_{10}N_2O_2$ M 214.223

Used in photometric detn. of Mg, U and also for titrimetric detn. of Ca, Mg. Yellow leaflets (C_6H_6 , EtOH). Mp 172°. pK_{a1} 7.8; pK_{a2} 11.5 (μ 0.1).

Di-Ac:

$C_{16}H_{14}N_2O_4$ M 298.298

Orange-red cryst. Mp 150°.

Di-Me ether: [613-55-8]. 2,2'-Dimethoxyazobenzene. 2,2'-

Azodianisole. o,o'-Azoanisole

$C_{14}H_{14}N_2O_2$ M 242.277

Orange leaflets. Mp 153°.

Di-Et ether: 2,2'-Azodiphenetole

$C_{16}H_{18}N_2O_2$ M 270.330

Reddish prisms. Mp 131°.

Willstätter, R. *et al*, *Ber.*, 1906, **39**, 3492 (*synth*)

Diehl, H. *et al*, *Anal. Chem.*, 1960, **32**, 1120; 1963, **35**, 1144 (*synth*, *detn*, Mg)

Kirby, J.R. *et al*, *Anal. Chim. Acta*, 1962, **26**, 458 (*detn*, Ca)

Gumprecht, D.L. *et al*, *J. Chromatogr.*, 1968, **37**, 268 (*chromatog*)

Dedkov, Yu.M. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1973, 1334 (*ir*)

Simon, D. *et al*, *J. Mol. Struct.*, 1973, **19**, 255 (*w*)

Kotov, A.V. *et al*, *Zh. Fiz. Khim.*, 1978, **52**, 1879 (*struct*)

Taketatsu, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1980, **29**, 78 (*detn*, U)

Crank, G. *et al*, *Aust. J. Chem.*, 1984, **37**, 845 (*synth*)

3,4-Dihydroxyazobenzene**D-00515**

4-(Phenylazo)-1,2-benzenediol, 9CI. 4-(Phenylazo)pyrocatechol, 8CI

[6833-64-3]

$C_{12}H_{10}N_2O_2$ M 214.223

Used in photometric detn. of Zr, Mo, Sb(III), Ti(IV); gives colour reactions with Ga. Deep-red needles or prisms with blue reflex (EtOH). Mp 165° dec.

Di-Na salt: [35033-43-3].

Cryst.

3-Me ether: [25538-77-6]. 4-Hydroxy-3-methoxyazobenzene

$C_{13}H_{12}N_2O_2$ M 228.250

Red prisms (ligroin). Mp 70-71°.

Di-Me ether: 3,4-Dimethoxyazobenzene

$C_{14}H_{14}N_2O_2$ M 242.277

Red needles (ligroin). Mp 53-54°.

Witt, O.N. *et al*, *Ber.*, 1893, **26**, 1072 (*synth*)

Barton, D.H.R. *et al*, *Q. J. Pharm. Pharmacol.*, 1945, **18**, 41 (*synth*)

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 181.

Gen, L.I. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2097 (*detn*, Ga)

Kazlauskas, R. *et al*, *CA*, 1972, **76**, 67684p (*detn*, Sb)

Vilkova, O.M. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1785; 1979, **34**, 720 (*detn*, Zr)

Wakamatsu, Y., *Bunseki Kagaku (Jpn. Anal.)*, 1980, **29**, 472 (*detn*, Mo)

Ivanov, V.M. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 2124 (*detn*, Ti)

4,4'-Dihydroxyazobenzene**D-00516**

4,4'-Azobisphenol, 9CI. 4,4'-Azodiphenol, 8CI. p-Azophenol. 4-[(4-Hydroxyphenyl)azo]phenol

[2050-16-0]

$C_{12}H_{10}N_2O_2$ M 214.223

Two forms known which may be tautomers. Green powder or deep-red powder. Mp 216° (both forms).

Di-Ac:

$C_{16}H_{14}N_2O_4$ M 298.298

Yellow prisms and needles (AcOH). Mp 198-199°.

Di-Me ether: [501-58-6]. 4,4'-Dimethoxyazobenzene. 4,4'-Azodianisole. p,p'-Azoanisole

$C_{14}H_{14}N_2O_2$ M 242.277

Yellow leaflets and prisms (MeOH). Mp 165°.

Et ether: [2496-26-6]. 4'-Ethoxy-4-hydroxyazobenzene. 4-[(4-Ethoxyphenyl)azo]phenol, 9CI

$C_{14}H_{14}N_2O_2$ M 242.277

Used as 0.1% EtOH soln. as an acid-base indicator (pH 6.0-8.0; colour change: pale yellow → yellow). Orange needles (EtOH). Sol. EtOH, Et₂O, C₆H₆, CHCl₃; insol. H₂O.

[588-52-3]

Willstätter, R. *et al*, *Ber.*, 1906, **39**, 3492 (*synth*)

Cook, A.H. *et al*, *J. Chem. Soc.*, 1939, 1309 (*synth*)

Schulek, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1944, **128**, 398 (*use*)

Brode, W.R. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 2762 (*synth*, *w*)

Fatiadi, A.J., *J. Res. Natl. Bur. Stand., Sect. A*, 1967, **71**, 227 (*ir*)

Gumprecht, D.L. *et al*, *J. Chromatogr.*, 1968, **37**, 268 (*chromatog*)

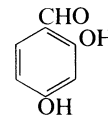
Simon, D. *et al*, *J. Mol. Struct.*, 1973, **19**, 255 (*w*)

Crank, G. *et al*, *Aust. J. Chem.*, 1984, **37**, 845 (*synth*)

2,4-Dihydroxybenzaldehyde, 9CI**D-00517**

β -Resorcylaldehyde, 8CI

[95-01-2]



$C_7H_6O_3$ M 138.123

Used for photometric detn. of Fe(III). Needles

(Et₂O/ligroin). Sol. H₂O, EtOH, CHCl₃, Et₂O. Mp 135-136°, Mp 201-202°. Bp₂₂ 220-228°. pK_{a1} 7.10; pK_{a2} 9.42 (20°, 0.15M NaClO₄, 4% EtOH).

Formylhydrazone:

$C_8H_8N_2O_3$ M 180.163

Used as EtOH soln. for fluorimetric detn. of Sc and Ga.

Pale yellow cryst. Sol. EtOH, AcOH; sl. sol. H₂O. Mp 200-240° dec. pK_{a1} 8.8; pK_{a2} 10.4 (20°, 50% EtOH).

Semicarbazone: [3030-93-1].

$C_8H_9N_3O_3$ M 195.177

Used as 0.1% DMF or EtOH soln. for fluorimetric detn. of Sc (λ_{\max} 455 nm, pH 6) and Ga (λ_{\max} 425 nm, pH 2.4-2.5), Zr. Cryst. (EtOH). Sol. DMF, EtOH.

Thiosemicarbazone:

$C_8H_9N_3O_2S$ M 211.244

Used as a 1mM EtOH soln. for photometric detn. of Cu (λ_{\max} 374 nm, ϵ 12400). Cryst. Sol. MeOH, EtOH.

Oxime: [5399-68-8]. *Resorcyldaldoxime*

$C_7H_7NO_3$ M 153.137

Used as 0.2-1% EtOH soln. as a metallochromic indicator for titrimetric detn. of Fe(III) (purple colour). Cryst. (H₂O). Sol. EtOH, Et₂O, H₂O. Mp 192°, Mp 198-199°.

Di-Ac: [41777-08-6].

$C_{11}H_{10}O_5$ M 222.197

Mp 69°.

2-Me ether: [18278-34-7]. *4-Hydroxy-2-methoxybenzaldehyde*

$C_8H_8O_3$ M 152.149

Leaflets (C₆H₆). Mp 153°.

4-Me ether: [673-22-3]. *2-Hydroxy-4-methoxybenzaldehyde*.*2-Hydroxyanisaldehyde. 4-Methoxysalicylaldehyde*

$C_8H_8O_3$ M 152.149

Mp 40-42°, p*K*_{a1} 8.89 (25°).

Di-Me ether: [613-45-6]. *2,4-Dimethoxybenzaldehyde. 2-Methoxyanisaldehyde*

$C_9H_{10}O_3$ M 166.176

Needles (pet. ether). Mp 71°. Bp₁₀ 165°.

Di-Me ether, oxime: [31874-34-7].

$C_9H_{11}NO_3$ M 181.191

Needles (H₂O). Mp 106°.

Shoosmith, J.B. *et al.*, *J. Chem. Soc.*, 1923, 2704 (*synth*)

Hinkel, L.E. *et al.*, *J. Chem. Soc.*, 1932, 2793; 1936, 184 (*synth*)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, 3, 258 (*synth, use, oxime*)

Raju, N., *Nature (London)*, 1955, 175, 167 (*use*)

Holzbecher, Z. *et al.*, *Collect. Czech. Chem. Commun.*, 1961, 20, 1204 (*use*)

Gross, H. *et al.*, *Chem. Ber.*, 1963, 96, 308 (*synth*)

Holzbecher, Z., *Microchem. J.*, 1965, 9, 288 (*use*)

de Ropp, R.S. *et al.*, *Arch. Int. Pharmacodyn. Ther.*, 1969, 181, 127 (*pharmacol*)

Stankoviansky, S. *et al.*, *Chem. Zvesti*, 1971, 25, 123

(*thiosemicarbazone, use*)

Santavy, F. *et al.*, *Collect. Czech. Chem. Commun.*, 1972, 37, 1825 (*uv*)

Desai, M. *et al.*, *Fresenius' Z. Anal. Chem.*, 1972, 259, 367 (*detn, Fe*)

Desai, M. *et al.*, *Indian J. Appl. Chem.*, 1972, 35, 142 (*use*)

Steinogger, E. *et al.*, *Pharm. Acta Helv.*, 1972, 47, 133 (*tlc*)

de Kowalewski, D.G. *et al.*, *J. Mol. Struct.*, 1973, 16, 451 (*nmr*)

Morishige, K., *Anal. Chim. Acta*, 1974, 73, 245 (*synth, detn, Sc*)

Kiyotoshi, M. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1975, 24, 321 (*detn, Sc*)

Deguchi, M. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1983, 32, 507; *CA*, 99, 186547p (*synth, detn, Ga*)

Karl, J. *et al.*, *J. Med. Chem.*, 1988, 31, 72 (*Di-Me ether*)

2,5-Dihydroxybenzaldehyde, 9CI**D-00518**

Gentisaldehyde, 8CI. Gentisic aldehyde. 5-

Hydroxysalicylaldehyde

[1194-98-5]

$C_7H_6O_3$ M 138.123

Obt. by oxidn. of beechwood lignin. Used as a 1% soln. in EtOH as indicator for ascorbimetric detn. of Fe(III).

Yellow needles (C₆H₆). Sol. EtOH. Mp 99°. p*K*_{a1} 8.28;

p*K*_{a2} 10.29 (20°, 0.15M NaClO₄, 4% EtOH).

Di-Ac:

$C_{11}H_{10}O_5$ M 222.197

Mp 71-72°.

5-Me ether: [672-13-9]. *2-Hydroxy-5-methoxybenzaldehyde, 9CI. 5-Methoxysalicylaldehyde*

$C_8H_8O_3$ M 152.149

Mp 4°. Bp 247-248°, Bp_{0.5} 80°.

▷ BZ2800000.

5-Me ether, oxime: [17580-69-7]. *2-Hydroxy-5-anisaldoxime*

$C_8H_9NO_3$ M 167.164

Used for photometric detn. of Mo; gravimetric detn. of Cu, Ni, Pd. Yellow cryst. (H₂O). Sol. EtOH, Et₂O; mod. sol. H₂O.

Di-Me ether: [93-02-7]. *2,5-Dimethoxybenzaldehyde, 9CI, 8CI*

$C_9H_{10}O_3$ M 166.176

Needles. Mp 53°. Bp 270°, Bp₁₀ 146°.

Di-Me ether, semicarbazone: Needles (EtOH). Mp 208°.

Semicarbazone: [54825-14-8].

$C_8H_9N_3O_3$ M 195.177

Used as 0.1% DMF soln. for fluorimetric detn. of Sc (λ_{\max} 507 nm, pH 2.5). Cryst. (EtOH). Sol. DMF, EtOH. Mp 249°.

Oxime: [37110-11-5].

$C_7H_7NO_3$ M 153.137

Used as a soln. in aq. EtOH for gravimetric detn. of Cu, Ni, Pd. Sol. H₂O, Me₂CO, Et₂O.

[34967-19-6, 37110-11-5]

Hodgson, H.H. *et al.*, *J. Chem. Soc.*, 1927, 2340 (*synth*)

Amakasu, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1967, 40, 1428 (*synth*)

Desai, B.M. *et al.*, *Indian J. Chem.*, 1970, 8, 305.

Santavy, F. *et al.*, *Collect. Czech. Chem. Commun.*, 1972, 37, 1825 (*uv*)

Ryabokolkov, Yu.S. *et al.*, *Zh. Strukt. Khim.*, 1972, 47, 133 (*ir, nmr*)

de Kowalewski, D.G. *et al.*, *J. Mol. Struct.*, 1973, 16, 451 (*nmr*)

Gumprecht, D.L., *Anal. Chim. Acta*, 1974, 73, 245 (*semicarbazone, synth, detn, Sc*)

Morishige, K., *Anal. Chim. Acta*, 1974, 73, 245 (*semicarbazone, synth, detn, Sc*)

Blanco, M., *Ion (Madrid)*, 1975, 35, 507; *CA*, 84, 25489p.

Buscarons, F. *et al.*, *Quim. Anal. (Barcelona)*, 1975, 29, 99 (*use*)

Casiraghi, G. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1978, 318 (*synth*)

Baker, R. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1990, 47 (*Me ether, synth*)

3,4-Dihydroxybenzaldehyde**D-00519**

Protocatechualdehyde, 8CI. Protocatechuic aldehyde.

Rancinamycin IV

[139-85-5]

$C_7H_6O_3$ M 138.123

Used as 0.1% aq. soln. for photometric detn. of Mo.

Cryst. (toluene). Sol. EtOH, H₂O, Et₂O. Mp 153-154°.

p*K*_{a1} 7.27; p*K*_{a2} 11.4 (25°).

▷ UL0380000.

Guanyldrazone: see 2-[(3,4-Dihydroxyphenyl)methylene]hydrazinecarboximidamide, D-00712

Oxime: [3343-59-7].

$C_7H_7NO_3$ M 153.137

Mp 157° dec.

Di-Ac: [67727-64-4].

$C_{11}H_{10}O_5$ M 222.197

Cryst. (EtOH). Mp 54°.

3-Me ether: [121-33-5]. *4-Hydroxy-3-methoxybenzaldehyde.*

Vanillin, USAN. Zimco

$C_8H_8O_3$ M 152.149

Constit. of vanilla (*Vanilla* spp.) and many other plants, obt. from spent wood-pulp liquors. Constit. of wing gland and abdominal hairpencils of the male African sugarcane borer *Eldana saccharina*. Used as a 1% aq. soln. for separation and gravimetric detn. of Zr. Used in flavours and perfumes. Anal. reagent for amines and

other org. compds. Reference material used in elemental microanalysis. Needles or tetragonal cryst. with characteristic pleasant odour (H₂O). Spar. sol. cold H₂O; mod. sol. hot. Mp 81-82°, Mp 77-79° (dimorph.). Bp₁₅ 170°. pK_{a1} 7.40 (25°). Slowly oxid. in air.

▷ YW5775000.

3-Me ether, oxime: [2874-33-1].

C₈H₉NO₃ M 167.164

Used for pptn. sepn. and gravimetric detn. of Ni, Pd. Cryst. Mp 121-122°.

3-Me ether, 2,4-dinitrophenylhydrazone: Orange-red microprisms (AcOH). Mp 267-268°.

3-Et ether: [121-32-4]. 3-Ethoxy-4-hydroxybenzaldehyde.

Vanillal. Bourbonal. Ethyl vanillin, USAN†.

Aethylvanillin. Homovanillin. Vanirom

C₉H₁₀O₃ M 166.176

Used extensively in perfumery and flavour industries, hydrazone derivs. as tuberculostatics. Cryst. (EtOH). Mp 76-78°.

▷ CU6125000.

[2169-98-4]

Org. Synth., 1938, 18, 75 (synth)

Weijlard, J., J. Am. Chem. Soc., 1947, 69, 2070 (synth, deriv)

Shapiro, M.J., Zh. Anal. Khim., 1951, 6, 371.

Deeb, E.N., Drug Stand., 1958, 26, 175; CA, 53, 8918h (deriv, use)

Kratzl, K. et al, Monatsh. Chem., 1960, 91, 219 (synth, deriv)

Pichat, L. et al, Bull. Soc. Chim. Fr., 1961, 2255 (synth)

Jain, B.D., Proc. - Indian Acad. Sci., Sect. A, 1966, 64, 182 (detn, Zr)

Goel, D.P. et al, Curr. Sci., 1967, 36, 517 (detn, Ni, Pd)

Froment, P., Chromatographia, 1971, 4, 173 (tlc)

Analyst (London), 1972, 97, 740 (microanal)

Santavy, F. et al, Collect. Czech. Chem. Commun., 1972, 37, 1825 (w)

Iwasaki, F., Chem. Lett., 1973, 277 (cryst struct, deriv)

de Kowalewski, D.G. et al, J. Mol. Struct., 1973, 16, 451 (nmr)

Slabbert, N.P., Tetrahedron, 1977, 37, 821.

Ger. Pat., 2 804 063, (1978); CA, 90, 22595 (synth)

Maggioni, P. et al, Chim. Ind. (Milan), 1979, 61, 101 (synth)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2417.

Ramage, R. et al, J. Chem. Soc., Perkin Trans. 1, 1984, 1539 (deriv)

Blanchflower, W.J. et al, Analyst (London), 1985, 110, 1283 (deriv, use)

Burger, B.V. et al, Z. Naturforsch., C, 1985, 40, 847.

Gannett, P.M. et al, J. Org. Chem., 1988, 53, 1064 (deriv, synth, ir, pmr, cmr, ms, w)

Loupy, A. et al, Org. Prep. Proced. Int., 1990, 22, 99 (synth, derivs)

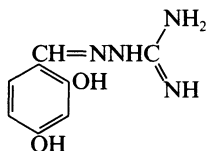
Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, EQF000, VFK000.

2,4-Dihydroxybenzaldehyde guanylhydrazone

D-00520

2-[(2,4-Dihydroxyphenyl)methylene]
hydrazinecarboximidamide, 9CI

[46322-73-0]



C₈H₁₀N₄O₂ M 194.193

Used for photometric detn. of Cu. Cryst.

Carsky, J. et al, CA, 1980, 83, 234305a (detn, Cu)

α,N-Dihydroxybenzeneacetamide, 9CI

D-00521

Mandelohydroxamic acid, 8CI

[2292-53-7]

PhCH(OH)CONHOH

C₈H₉NO₃ M 167.164

(±)-form

Used as 0.01 M aq. soln. for photometric detn. of Fe (λ_{max} 440 nm, pH 9.7). Plates (EtOH). Sol. MeOH; spar. sol. C₆H₆. Mp 147° dec.

Benzoyl:

C₁₅H₁₃NO₄ M 271.272

Cryst. (EtOH). Mp 101-102°. Dec. by H₂O.

Jones, L.W. et al, J. Am. Chem. Soc., 1917, 39, 659 (synth)

Winternitz, F. et al, Bull. Soc. Chim. Fr., 1960, 509 (synth)

Stankovic, B. et al, Pharmazie, 1977, 32, 414 (synth, detn, Fe)

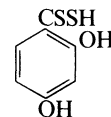
Salinas, F. et al, Anal. Lett., 1989, 22, 187.

2,4-Dihydroxybenzenecarbodithioic acid, 9CI

D-00522

2,4-Dihydroxydithiobenzoic acid

[32361-58-3]



C₇H₆O₂S₂ M 186.255

Used for extraction-photometric detn. of Pd (λ_{max} 322 nm, CHCl₃); extraction separation of Cu, Fe: chelating agent for transition metals. Cryst.

Kulikova, L.D. et al, Latv. PSR Zinat. Akad. Vestis, Fiz. Teh. Zinat. Ser., 1970, 6, 741 (detn, Pd)

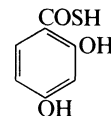
Rudzitis, G. et al, CA, 1972, 76, 37921w, 153288u (synth, detn, transition metals)

Bockans, P. et al, CA, 1972, 76, 77178r, 107373v (detn, Cu, Fe)

2,4-Dihydroxybenzenecarbothioic acid

D-00523

Thio-β-resorcylic acid



C₇H₆O₃S M 170.189

S-Me ester:

C₈H₈O₃S M 184.215

Cryst. (C₆H₆ or CHCl₃). Mp 97-98°. Forms a monohydrate (Mp 70-71°).

S-Propyl ester: [19343-44-3].

C₁₀H₁₂O₃S M 212.269

Used as a 0.25-0.5% soln. in EtOH as acid-base turbidimetric indicator (pH range: 6.0-7.0). Cryst. Mp 66°.

Kaufmann, R.J. et al, J. Am. Chem. Soc., 1923, 45, 1744 (synth)

Zil'berman, E.N. et al, CA, 1964, 60, 9192c (synth)

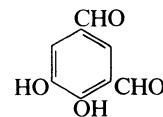
Korenman, I.M. et al, Zh. Anal. Khim., 1967, 22, 1305 (use)

4,5-Dihydroxy-1,3-

D-00524

benzenedicarboxaldehyde, 9CI

4,5-Dihydroxyisophthalaldehyde, 8CI



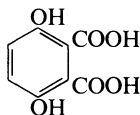
C₈H₆O₄ M 166.1335-*Me ether*: [2931-90-0]. 4-Hydroxy-5-methoxy-1,3-benzenedicarboxaldehyde. 4-Hydroxy-5-methoxyisophthalaldehydeC₉H₈O₄ M 180.160Found in deciduous and coniferous tree barks. Reagent for the detn. of Me₂CO. Yellow needles (EtOH or H₂O). Mp 119-121°.*Di-Me ether*: [10536-24-0]. 4,5-Dimethoxy-1,3-benzenedicarboxaldehydeC₁₀H₁₀O₄ M 194.187

Cryst. (EtOH aq.). Mp 125°.

Koetschet, J. *et al*, *Helv. Chim. Acta*, 1930, **13**, 485 (*synth, deriv*)
Egriwe, E., *Fresenius' Z. Anal. Chem.*, 1943, **126**, 134 (*deriv, use*)
Schill, G. *et al*, *Chem. Ber.*, 1966, **99**, 2689; 1978, **111**, 2615 (*synth*)
Giesscke, H. *et al*, *Justus Liebigs Ann. Chem.*, 1978, 345 (*synth, derivs*)**3,6-Dihydroxy-1,2-benzenedicarboxylic acid, 9CI** D-00525

3,6-Dihydroxyphthalic acid, 8CI. Hydroquinone-2,3-dicarboxylic acid

[3786-46-7]

C₈H₆O₆ M 198.132Yellow-green needles (H₂O). Mp 224-225° dec.*Di-Me ester*: [7474-92-2].C₁₀H₁₀O₆ M 226.185Needles (H₂O). Mp 141-142°.*Di-Et ester*:C₁₂H₁₄O₆ M 254.239

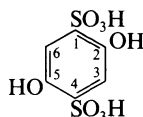
Mp 89°.

Dinitrile: [4733-50-0]. 2,3-Dicyano-1,4-benzenediol. 2,3-Dicyanohydroquinone. 3,6-Dihydroxy-1,2-benzenedicarbonitrile, 9CIC₈H₄N₂O₂ M 160.132Used as 1% EtOH soln. as fluorescent acid-base indicator (pH range: 5.8-8.2; colour change: blue → green). Yellow leaflets + 2H₂O. Sol. alkalis, EtOH, Et₂O, Me₂CO; spar. sol. H₂O, C₆H₆, CHCl₃. Blackens at 230°.*Di-Me ether*: [64019-77-8]. 3,6-Dimethoxy-1,2-benzenedicarboxylic acid. 3,6-Dimethoxyphthalic acidC₁₀H₁₀O₆ M 226.185Yellow prisms + 1H₂O (H₂O). Mp 183-186° dec.*Di-Me ether, di-Me ester*: [65489-47-6].C₁₂H₁₄O₆ M 254.239

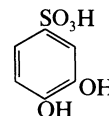
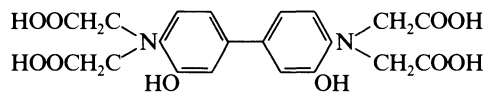
Prisms. Mp 102-103°.

Brunner, K., *Monatsh. Chem.*, 1913, **34**, 913 (*synth*)
Helferich, B., *Ber.*, 1921, **54**, 155 (*synth*)
Jensen, K.A., *Fresenius' Z. Anal. Chem.*, 1933, **94**, 177 (*use*)
Ansell, M.F. *et al*, *J. Chem. Soc.*, 1963, 3028 (*synth*)**2,5-Dihydroxy-1,4-benzenedisulfonic acid, 9CI** D-00526*Persilic acid*, INN

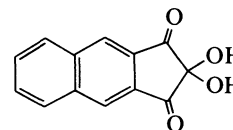
[4444-23-9]

C₆H₆O₈S₂ M 270.241Virucide, haemostatic, capillary protective agent. Used a 0.1% aq. soln. of K salt as fluorescent acid-base indicator (pH range: 6-7; colour change non-fluorescent → blue). Needles (H₂O). Sol. hot H₂O; mod. sol. cold H₂O; spar. sol. EtOH; insol. C₆H₆.*Di-NH₄ salt*: Cryst. Dec. >300.*Diethylamine salt (1:2)*: [57775-25-4]. *Dietilan*. 263-ESeyda, A., *Ber.*, 1883, **16**, 690 (*synth*)Kauffman, H., *Ber.*, 1907, 838 (*synth*)Quilico, A., *Gazz. Chim. Ital.*, 1927, **57**, 793 (*synth*)Kostir, J.V., *Nature (London)*, 1946, **157**, 586 (*use*)Heymann, H. *et al*, *Arch. Biochem. Biophys.*, 1958, **73**, 366 (*pharmacol*)Sim, A. *et al*, *Arzneim.-Forsch.*, 1981, **31**, 962 (*pharmacol*)Solans, X. *et al*, *Acta Crystallogr., Sect. B*, 1982, **38**, 651 (*cryst struct*)**3,4-Dihydroxybenzenesulfonic acid, 9CI** D-00527*Pyrocatechol-4-sulfonic acid*

[7134-09-0]

C₆H₆O₅S M 190.176Used for extraction-photometric detn. of Fe(III) (λ_{max} 480 nm). Cryst. Sol. H₂O.Kohara, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 616.**3,3'-Dihydroxybenzidine-*N,N,N',N'*-tetraacetic acid** D-00528*Bis[N-carboxymethyl-N-(2-hydroxyphenyl)glycine]*C₂₀H₂₀N₂O₁₀ M 448.385Used as fluorescent indicator for titrimetric detn. of Cu, Pb (colour change: blue → no fluorescence); Cd, Co, Mn, Zn (colour change: pink → blue). Used as a 0.1% dispersion of tetra-Na salt in KNO₃. Pale brown cryst. powder. Sol. alkalis; insol. C₆H₆, EtOH.Kirkbright, G.F. *et al*, *Anal. Chim. Acta*, 1963, **28**, 327.**2,2-Dihydroxy-1*H*-benz[*f*]indene-1,3(2*H*) dione, 9CI** D-00529*Benzo[*f*]ninhydrin*

[38627-57-5]

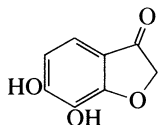
C₁₃H₈O₄ M 228.204

Colour reagent for α-amino acids, used in fingerprint detection. Plates (dioxan aq.). Mp 276-280°.

Jones, D.W. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1972, 2722 (*synth*)Heffler, R. *et al*, *Tetrahedron Lett.*, 1987, 6539 (*synth, bibl*)

6,7-Dihydroxy-3(2H)-benzofuranone, 8CI **D-00530***6,7-Dihydroxy-3-coumaranone*

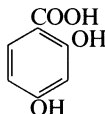
[6272-27-1]

 $C_8H_6O_4$ M 166.133

Used as a 0.15% aq. soln. for photometric detn. of Ge (λ_{max} 330 nm, ϵ 167000). Pale yellow cryst. (dioxan aq.). Sol. EtOH, Me₂CO, H₂O; insol. Et₂O. Mp 226°. pK_{a1} 6.7; pK_{a2} 11 (25°).

Feuerstein, W. *et al*, *Ber.*, 1904, **37**, 817 (*synth*)Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 895 (*detn*, Ge)**2,4-Dihydroxybenzoic acid, 9CI** **D-00531** *β -Resorcylic acid, 8CI. Resorcinol-4-carboxylic acid*

[89-86-1]

 $C_7H_6O_4$ M 154.122

Gives colour reaction with Fe; fluorescence reaction with B. Cryst. (H₂O). Mp 218-219° (213° rapid heat). pK_a 3.22.

▷ VH3708050.

Di-Ac: [51-01-4]. $C_{11}H_{10}O_6$ M 238.196

Mp 136-138°.

Me ester: [2150-47-2]. $C_8H_8O_4$ M 168.149Cryst. + 1H₂O. Mp 78-80° (anhyd. 118-119°). pK_{a1} 8.02; pK_{a2} 11.73 (20°).*Amide*: [3147-45-3]. *β -Resorcylamide* $C_7H_7NO_3$ M 153.137

Used as a 1% soln. in EtOH as a metallochromic indicator in titrimetric detn. of Fe. Mp 228-229°. pK_{a1} 7.5 (20°, 1-4% EtOH).

Org. Synth., 1930, **10**, 94 (*synth*)Robinson, R. *et al*, *J. Chem. Soc.*, 1934, 1491 (*synth*)King, L.C. *et al*, *J. Am. Chem. Soc.*, 1945, **67**, 2089 (*synth*)Dean, M. *et al*, *J. Chem. Soc.*, 1957, 3112.Idris Jones, J., *Chem. Ind. (London)*, 1958, 228 (*synth*)Tocuo, C., *Bunseki Kagaku (Jpn. Anal.)*, 1963, **12**, 385 (*detn*, B)Coward, R.F. *et al*, *J. Chromatogr.*, 1969, **45**, 311 (*glc*)Desai, M.N. *et al*, *Microchem. J.*, 1969, **14**, 503 (*amide*, *detn*, Fe)Desai, M.N. *et al*, *Mikrochim. Acta*, 1970, 190 (*detn*, Fe)Desai, M.N. *et al*, *CA*, 1972, **77**, 172256u (*amide*, *detn*, Fe)Scott, K.N., *J. Am. Chem. Soc.*, 1972, **92**, 8564 (*cmr*)Kamath, B.V. *et al*, *J. Appl. Chem. Biotechnol.*, 1975, **25**, 743 (*uv*)Lutskii, A.E. *et al*, *Zh. Obshch. Khim.*, 1977, **47**, 905 (*nmr*)Scriven, F.M. *et al*, *J. Liq. Chromatogr.*, 1979, **2**, 125 (*hplc*)Robertson, D.W. *et al*, *J. Med. Chem.*, 1985, **28**, 717 (*deriv*, *synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HOE600.**2,5-Dihydroxybenzoic acid, 9CI** **D-00532***Gentisic acid, INN, 8CI. Hydroquinonecarboxylic acid. 5-**Hydroxysalicylic acid. Gentisinic acid.**Hydroxyquinonecarboxylic acid*

[490-79-9]

 $C_7H_6O_4$ M 154.122

Widely distributed in higher plants. Metab. of *Penicillium* spp. Analgesic, antirheumatic, antiarthritic. Used for photometric detn. of MoO₄²⁻. Needles or prisms (H₂O). Sol. H₂O, Et₂O, EtOH. Mp 204.5-205°.

▷ LY3850000.

Na salt: [4955-90-2]. *Sodium gentisate. Gentinatrate.**Gentisod. Legential. Other synonyms*Cryst. + 5½H₂O (H₂O).

▷ LY3860000.

Me ester: [2150-46-1]. $C_8H_8O_4$ M 168.149Counterirritant, antirheumatic. Mp 88°. pK_{a1} 9.63; pK_{a2} 12.02 (20°).*Et ester*: [3943-91-7]. $C_9H_{10}O_4$ M 182.176

Mp 77°.

[1084-96-4, 6245-34-7, 21715-15-1, 52405-73-9]

Puxeddu, E., *Gazz. Chim. Ital.*, 1929, **59**, 10 (*synth*)Raistrick, H. *et al*, *Biochem. J.*, 1933, **27**, 628 (*synth*)Meyer, K. *et al*, *Science (Washington, D.C.)*, 1948, **108**, 281 (*pharmacol*)Lowenthal, J. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 3292 (*synth*)Forrest, J. *et al*, *J. Chem. Soc.*, 1950, 2340 (*synth*, *Me ester*)U.S. Pat., 2 782 232, (1957); *CA*, **51**, 10578a (*synth*)Griffiths, L.A., *Nature (London)*, 1958, **182**, 733 (*isol*, *occur*)Ibrahim, R.K. *et al*, *Arch. Biochem. Biophys.*, 1960, **87**, 125 (*isol*, *2-hydroxy-5-methoxybenzoic acid*)Kaarlo, J.V. *et al*, *Acta Chem. Scand.*, 1963, **17**, 62 (*metab*)Meek, W.H. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 388 (*deriv*)Scott, K.N., *J. Magn. Reson.*, 1970, **2**, 361 (*pmr*)Šantavý, F. *et al*, *Collect. Czech. Chem. Commun.*, 1972, **37**, 1825 (*uv*)Scott, K.N., *J. Am. Chem. Soc.*, 1972, **94**, 8564 (*cmr*)Dukanović, A.B. *et al*, *CA*, 1977, **86**, 82932t.Haisa, M. *et al*, *Acta Crystallogr., Sect. B*, 1982, **38**, 1480 (*cryst struct*)Kung, H.F. *et al*, *J. Med. Chem.*, 1988, **31**, 1039 (*deriv*, *synth*, *pmr*, *ir*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, GCU000.**2,6-Dihydroxybenzoic acid, 9CI** **D-00533** *γ -Resorcylic acid, 8CI. Resorcinol-2-carboxylic acid*

[303-07-1]

 $C_7H_6O_4$ M 154.122Used in photometric detn. of B. Cryst. + 1H₂O (H₂O).Mp 150° to 170° (variable acc. to rate of heating). pK_a 1.08.*Me ester*: [2150-45-0]. $C_8H_8O_4$ M 168.149Mp 67-68°. pK_{a1} 8.96; pK_{a2} 11.56 (20°).*Mono-Me ether*: [3147-64-6]. *2-Hydroxy-6-methoxybenzoic acid* $C_8H_8O_4$ M 168.149Isol. from *Gloria superba* tubers and bulbs of *Colchicum* spp. Cryst. (CHCl₃/C₆H₆). Mp 135°.*Me ether, benzyl ester*: $C_{15}H_{14}O_4$ M 258.273Constit. of *Aster ptarmicoides*. Cryst. (Et₂O/pet. ether). Mp 40°.*Me ether, 2-methoxybenzyl ester*: $C_{16}H_{16}O_5$ M 288.299Constit. of *A. ptarmicoides*. Cryst. (Et₂O/pet. ether). Mp 35°.

p-Bromoanilide: [20788-07-2]. *N-(4-Bromophenyl)-2,6-dihydroxybenzamide, 9CI. Resorantel, INN. 4'-Bromo- γ -resorcylamide, 8CI. Terenol. Hoe 296V*

 $C_{13}H_{10}BrNO_3$ M 308.131

Veterinary anthelmintic, teniacide. Mp 221-230°.

[3144-59-0, 3147-50-0, 57764-46-2]

Mauthner, F., *J. Prakt. Chem.*, 1930, **124**, 319 (*synth*)
 Shah, L.G. *et al.*, *J. Sci. Ind. Res., Sect. B*, 1956, **15**, 159 (*synth*)
 Doyle, F.P. *et al.*, *J. Chem. Soc.*, 1962, 1453.
U.K. Pat., 916 548, (1963); *CA*, **59**, 3840 (*manuf*)
 Dell, H.D. *et al.*, *Justus Liebig's Ann. Chem.*, 1967, **709**, 70 (*ir, uv*)
U.K. Pat., 1 124 613, (1968); *CA*, **70**, 3574w (*Resorantel, synth, pharmacol*)
 Bohlmann, F. *et al.*, *Chem. Ber.*, 1969, **102**, 1682 (*isol, derivs*)
 Coward, R.F. *et al.*, *J. Chromatogr.*, 1969, **45**, 311 (*glc*)
 Scott, K.N., *J. Magn. Reson.*, 1970, **2**, 361 (*nmr*)
 Scott, K.N., *J. Am. Chem. Soc.*, 1972, **92**, 8564 (*cmr*)
 Steinegger, E. *et al.*, *Pharm. Acta Helv.*, 1972, **47**, 133 (*tlc*)
 Ruschig, H. *et al.*, *Arzneim.-Forsch.*, 1973, **23**, 1745 (*Resorantel*)
 Williams, S.G. *et al.*, *J. Am. Chem. Soc.*, 1976, **98**, 508.
 Oshima, M. *et al.*, *Anal. Chim. Acta*, 1982, **134**, 73 (*detn, B*)
 Kung, H.F. *et al.*, *J. Med. Chem.*, 1988, **31**, 1039 (*deriv, synth, pmr, ir*)

3,5-Dihydroxybenzoic acid, 9CI **D-00534**

α -Resorcylic acid, 8CI. Resorcinol-5-carboxylic acid
 [99-10-5]

C₇H₆O₄ M 154.122

Used as 1% soln. in EtOH as metallochromic indicator in titrimetric detn. of Fe(III). Cryst. + 1½ H₂O (H₂O). Sol. H₂O. Mp 232-233° (anhyd.). pK_a 4.04.

▷ VH3708000.

Me ester: [2150-44-9].

C₈H₈O₄ M 168.149Leaflets. Mp 163-165°. pK_{a1} 8.71; pK_{a2} 10.66 (20°).

Di-Ac: [35354-29-1].

C₁₁H₁₀O₆ M 238.196

Mp 161-162°.

Mono-Me ether: [19520-75-3]. 3-Hydroxy-5-methoxybenzoic acid

C₈H₈O₄ M 168.149Cryst. (CHCl₃/pet. ether). Mp 202°.

Ph ester: [133551-50-5].

C₁₃H₁₀O₄ M 230.220

Cryst. (MeOH aq.). Mp 174-176°.

Dibenzyl ether: [28917-43-3]. 3,5-Dibenzoyloxybenzoic acid

C₂₁H₁₈O₄ M 334.371

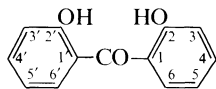
Cryst. (EtOH). Mp 210-211°.

[3147-62-4, 41696-97-3]

Suter, C.M. *et al.*, *J. Am. Chem. Soc.*, 1939, **61**, 232 (*synth*)
 Birkenshaw, J.H. *et al.*, *J. Chem. Soc.*, 1942, 368 (*synth*)
 Witiak, D.T. *et al.*, *J. Am. Chem. Soc.*, 1967, **89**, 1908 (*nmr*)
 Curtis, R.F. *et al.*, *J. Chem. Soc. C*, 1968, 1807 (*deriv*)
 Coward, R.F. *et al.*, *J. Chromatogr.*, 1969, **45**, 311 (*glc*)
 Desai, M.N. *et al.*, *Mikrochim. Acta*, 1970, 190 (*detn, Fe*)
 Scott, K.N., *J. Am. Chem. Soc.*, 1972, **92**, 8564 (*cmr*)
Belg. Pat., 833 181, (1975); *CA*, **86**, 72210 (*manuf*)
 Kamath, B.V. *et al.*, *J. Appl. Chem. Biotechnol.*, 1975, **25**, 743 (*uv*)
 Williams, S.G. *et al.*, *J. Am. Chem. Soc.*, 1976, **98**, 508.
 Hawker, C.J. *et al.*, *J. Am. Chem. Soc.*, 1991, **113**, 4583 (*deriv, synth, ir, pmr, cmr, ms*)

2,2'-Dihydroxybenzophenone, 8CI **D-00535**

Bis(2-hydroxyphenyl)methanone, 9CI
 [835-11-0]

C₁₃H₁₀O₃ M 214.220

Leaflets or prisms (ligroin). Mp 59-60°.

Di-Ac: [65594-66-3].

C₁₇H₁₄O₅ M 298.295

Plates (EtOH). Mp 96°.

Di-Me ether: [13102-33-5]. 2,2'-Dimethoxybenzophenone.

Di-o-anisylketone

C₁₅H₁₄O₃ M 242.274

Mp 104°.

Phenylhydrazone: Mp 152°.

Thiosemicarbazone: [70384-39-3].

C₁₄H₁₃N₃O₂S M 287.342

Used as 0.2% soln. in EtOH for photometric detn. of Mo (λ_{max} 500 nm, ε 3300). Cryst. (EtOH aq.). Sol. Et₂O. Mp 163°.

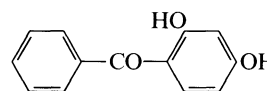
[21147-18-2]

Graebe, C. *et al.*, *Ber.*, 1886, **19**, 2607 (*synth*)
 Merrill, J., *J. Phys. Chem.*, 1961, **65**, 2023 (*nmr*)
 Gumprecht, D.L. *et al.*, *J. Chromatogr.*, 1968, **37**, 268 (*chromatog*)
 Ballantine, J.A. *et al.*, *Org. Mass Spectrom.*, 1968, **1**, 425 (*ms*)
 López-Fernandez, J.M., *Analyst (London)*, 1978, **103**, 1210 (*synth, detn, Mo*)
 v. Duuren, B.L. *et al.*, *J. Med. Chem.*, 1978, **21**, 26 (*tox*)
 Stocklinski, A.W. *et al.*, *J. Chromatogr.*, 1979, **170**, 495 (*tlc*)
 Schlemper, E.O., *Acta Crystallogr., Sect. B*, 1982, **38**, 1619 (*cryst struct*)
 Faerman, C. *et al.*, *Can. J. Chem.*, 1985, **63**, 3374 (*cryst struct, deriv*)

2,4-Dihydroxybenzophenone, 8CI **D-00536**

(2,4-Dihydroxyphenyl)phenylmethanone, 9CI. 4-Benzoylresorcinol

[131-56-6]

C₁₃H₁₀O₃ M 214.220

Polymer stabiliser, antioxidant; sunscreen agent. Used as 0.006% soln. in conc. H₂SO₄ for fluorimetric detn. of B (λ_{max} 503 nm). Needles (H₂O). Sol. conc. H₂SO₄. Mp 142.6-144.6°.

▷ DJ0700000.

Di-Ac: [75697-71-1].

C₁₇H₁₄O₅ M 298.295

Prisms. Mp 78°.

4-Me ether: [131-57-7]. (2-Hydroxy-4-methoxyphenyl)methanone, 9CI. 2-Hydroxy-4-methoxybenzophenone.

Oxybenzone, INN, USAN. Anuvex. Cyasorb UV 9 (*obsol.*). Eusolex 4360. Spectra-Sorb UV. Uvinul M40. MOB. NSC 7778

C₁₄H₁₂O₃ M 228.247

Ultraviolet sunscreen. Cryst. (2-propanol). Mp 66°.

▷ DJ1575000.

Di-Me ether: [3555-84-8]. 2,4-Dimethoxybenzophenone

C₁₅H₁₄O₃ M 242.274

Prisms (EtOH aq.). Mp 87-88°.

Semicarbazone: [106538-73-2].

C₁₄H₁₃N₃O₃ M 271.275

Used as EtOH soln. for photometric detn. of Cu(II) (λ_{max} 355 nm, ε 11400, acetate buffer medium). Cryst. (EtOH). Sol. DMF, EtOH.

[131-57-7]

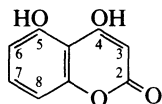
König, B. *et al.*, *Ber.*, 1906, **39**, 4027 (*synth*)
 Cox, E.H., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1931, **50**, 848 (*synth*)
 Zilberman, E.N., *Zh. Obshch. Khim.*, 1960, **30**, 1992 (*synth*)
 Monnier, D. *et al.*, *Helv. Chim. Acta*, 1964, **47**, 1980 (*detn, B*)
 Marcantonatos, M. *et al.*, *Anal. Chim. Acta*, 1966, **35**, 309 (*detn, B*)
 Ledger, M.B. *et al.*, *Spectrochim. Acta, Part A*, 1967, **23**, 641 (*uv*)
 Homrowski, S., *CA*, 1968, **69**, 50613 (*tox*)
 Liebich, B.W. *et al.*, *Acta Crystallogr., Sect. B*, 1974, **30**, 2522 (*cryst struct, deriv*)

Kristalev, P.V. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1650 (*detn*, B) *South African Pat.*, 7 602 667, (1977); *CA*, **87**, 201102 (*synth*)
Stocklinski, A.W. *et al*, *J. Chromatogr.*, 1979, **170**, 495 (*tlc*)
Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,
Pharmaceutical Press, London, 1982/1989, 9312, 9320.
Reddy, K.G. *et al*, *Indian J. Chem., Sect. A*, 1986, **25**, 982.
Piccolo, O. *et al*, *Tetrahedron*, 1986, **42**, 885 (*synth*, *Oxybenzone*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, DMI600, MES000.

4,5-Dihydroxy-2H-1-benzopyran-2-one, D-00537**9CI**

4,5-Dihydroxycoumarin

[30992-74-6]

 $C_9H_6O_4$ M 178.144

Tautomeric with 2,5-dihydroxy-4H-1-benzopyran-4-one.

Used in photometric detn. of NO_2^- , NO_3^- . Cryst.
(EtOH). Mp 221°.

4-O-Me: [65692-19-5].

 $C_{10}H_8O_4$ M 192.171

Needles (MeOH). Mp 248°.

5-O-Me: [53666-76-5].

 $C_{10}H_8O_4$ M 192.171

Cryst. (EtOH aq.). Mp 155°.

Di-O-Me: [53666-77-6].

 $C_{11}H_{10}O_4$ M 206.198

Mp 179-180°.

Barker, W.M. *et al*, *J. Med. Chem.*, 1971, **14**, 167 (*synth*)Masrani, K.V. *et al*, *J. Appl. Chem. Biotechnol.*, 1974, **24**, 331 (*uv*)Nakamura, M. *et al*, *Analyst (London)*, 1979, **104**, 985; 1981, **106**,
483 (*detn*, NO_2^-)Nakamura, M., *Mikrochim. Acta*, 1983, **2**, 69 (*detn*, NO_3^-)**6,7-Dihydroxy-2H-1-benzopyran-2-one, D-00538****9CI**

6,7-Dihydroxycoumarin, 8CI. Aesculetin. Esculetin.

Cichorigenin. Esculetol

[305-01-1]

 $C_9H_6O_4$ M 178.144Metab. of infected sweet potato also found in *Aesculus*,*Atropa*, *Datura*, *Digitalis* and other plants; found in
some ferns. Used in photometric detn. of Nb, U.

Antifungal agent. Cryst. (EtOH). Mp 270°.

Di-Ac: [14894-87-2].

Prisms (EtOH). Mp 134-135°.

Head, F.S.H. *et al*, *J. Chem. Soc.*, 1939, 1266 (*synth*)Bohlmann, F. *et al*, *Chem. Ber.*, 1957, **90**, 1512 (*synth*)Jain, B.D., *Anal. Chim. Acta*, 1967, **37**, 1358 (*detn*, Nb, U)Burse, M.M. *et al*, *J. Chem. Soc., Chem. Commun.*, 1967, 712
(*ms*)Khan, M.A.S. *et al*, *Anal. Chim. Acta*, 1968, **43**, 153 (*pmr*)Sato, M. *et al*, *Phytochemistry*, 1972, **11**, 657 (*biosynth*)Günther, H. *et al*, *Org. Magn. Reson.*, 1975, **7**, 339 (*cmr*, *deriv*)Cussans, N.J. *et al*, *Tetrahedron*, 1975, **31**, 2719 (*cmr*)Kelkar, S.L. *et al*, *Indian J. Chem., Sect. B*, 1984, **23**, 458 (*synth*)Joseph-Nathan, P. *et al*, *J. Heterocycl. Chem.*, 1984, **21**, 1141 (*pmr*,
deriv)Abu-Eittah, R.H. *et al*, *Can. J. Chem.*, 1985, **63**, 1173 (*uv*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, DRS800.**7,8-Dihydroxy-2H-1-benzopyran-2-one D-00539**

7,8-Dihydroxycoumarin, 8CI. Daphnetin. Daphnetol

[486-35-1]

 $C_9H_6O_4$ M 178.144Isol. from *Daphne odora* (as glucoside) and from other
plants. Used in photometric detn. of Nb, U. Pale-yellow
needles (MeOH). Mp 253-255°.

Di-Ac: [21784-71-4].

 $C_{13}H_{10}O_6$ M 262.218

Mp 137° (128-130°).

Bohm, B.A. *et al*, *Can. J. Biochem.*, 1961, **39**, 1389 (*struct*)Barnes, C.S. *et al*, *Aust. J. Chem.*, 1964, **17**, 975 (*ms*)Jain, B.D., *Anal. Chim. Acta*, 1967, **37**, 1358 (*use*)Mendéz, J. *et al*, *Microchem. J.*, 1969, **14**, 567 (*uv*)Jurd, L. *et al*, *Aust. J. Chem.*, 1974, **27**, 2697 (*synth*)Abyshiev, A.Z., *Khim. Prir. Soedin.*, 1974, **10**, 568 (*isol*)Cussans, N.J. *et al*, *Tetrahedron*, 1975, **31**, 2719 (*cmr*)Ueno, K. *et al*, *Acta Crystallogr., Sect. B*, 1976, **31**, 946 (*cryst*
struct)MacLeod, J.K. *et al*, *Aust. J. Chem.*, 1978, **31**, 1545 (*synth*)Joseph-Nathan, P. *et al*, *J. Heterocycl. Chem.*, 1984, **21**, 1141 (*pmr*,
deriv)**2,5-Dihydroxy-1,4-benzoquinone D-00540**

2,5-Dihydroxy-2,5-cyclohexadiene-1,4-dione, 9CI

[615-94-1]

 $C_6H_4O_4$ M 140.095

Used as a satd. aq. soln. for photometric detn. of Sc, Th,

Zr. Golden-orange cryst. (EtOH), dark-yellow needles

(EtOAc). Sol. EtOH, Me_2CO ; sl. sol. H_2O . Mp 210° dec.(215-220° subl.). pK_{a1} 2.73; pK_{a2} 5.18 (25°).

Di-Ac:

 $C_{10}H_8O_6$ M 224.170Yellow plates or prisms (C_6H_6). Mp 150-152°.

Dibenzoyl:

 $C_{20}H_{12}O_6$ M 348.311

Gold plates (AcOH). Mp 174°.

Di-Me ether: [3117-03-1]. 2,5-Dimethoxy-1,4-benzoquinone.

Thermophyllin. *Thermophyllin* $C_8H_8O_4$ M 168.149Prod. by *Polyporus fumosus*; also isol. from cultures of*Lenzites thermophila*, *Trichoderma pseudokoningis* and*Glocophyllum sepiarum*. Also isol. from higher plants*Acorus calamus*, *Cassia obtusifolia*, *Dalbergia**melanoxylon*. Mildly active against gram-positive

bacteria and mycobacteria. Yellow prisms (MeOH). Mp

250° dec. (300° dec.).

Di-Et ether: [20765-04-2]. 2,5-Diethoxy-1,4-benzoquinone

 $C_{10}H_{12}O_4$ M 196.202

Cryst. (EtOH). Mp 184°.

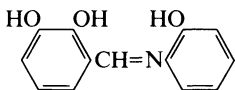
Knoevenagel, E. *et al*, *Ber.*, 1901, **34**, 3993 (*synth*)Jones, R.G. *et al*, *J. Am. Chem. Soc.*, 1945, **67**, 1034 (*synth*)Huisman, H.O., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem.*
Soc.), 1950, **69**, 1133 (*isol*)Ungnade, H.E. *et al*, *J. Org. Chem.*, 1951, **16**, 64 (*deriv*)Davidge, H. *et al*, *J. Chem. Soc.*, 1958, 4569 (*synth*)Singhal, S.P. *et al*, *Anal. Chim. Acta*, 1966, **35**, 195 (*use*)Bowie, J.H. *et al*, *J. Chem. Soc. B*, 1966, 335 (*ms*)Wanzlick, H.W. *et al*, *Chem. Ber.*, 1968, **101**, 3744 (*synth*)Donnelly, B.J. *et al*, *Tetrahedron*, 1969, **25**, 4409 (*isol*)Le Blanc, G.D. *et al*, *Can. J. Microbiol.*, 1972, **18**, 261 (*isol*)Nakajima, S. *et al*, *Agric. Biol. Chem.*, 1976, **40**, 811 (*isol*)Höfle, G., *Tetrahedron*, 1976, **32**, 1431 (*cmr*)Semmingsen, D., *Acta Chem. Scand., Ser. B*, 1977, **31**, 11 (*cryst*
struct)Patra, A. *et al*, *Indian J. Chem., Sect. B*, 1979, **17**, 412 (*isol*)Tindale, C.R., *Aust. J. Chem.*, 1984, **37**, 611 (*synth*, *ir*)

Matsumoto, M. *et al*, *Synth. Commun.*, 1985, **15**, 515 (*synth*)
 Kitanaka, S. *et al*, *Yakugaku Zasshi*, 1986, **106**, 302 (*isol*)
 Orita, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1989, **62**, 1652 (*synth*)

N-(2,3-Dihydroxybenzylidene)-2-hydroxyaniline

D-00541

2,3-Dihydroxybenzaldehyde 2-hydroxyanil
 [1761-58-6]



$C_{13}H_{11}NO_3$ M 229.235

Gives colour reactions with Ag, Cd, Co, Cu, Fe(III), Hg, Mn, Ni, Zn. Yellow cryst. Sol. EtOH, dil. alkalis. pK_{a2} 7.75 (4% EtOH aq., 20°).

3-Me ether: [1761-30-4]. N-(2-Hydroxy-3-methoxybenzylidene)-2-hydroxyaniline. 2-[[[(2-Hydroxyphenyl)imino]methyl]-6-methoxyphenol, 9CI. 2-Hydroxy-3-methoxybenzaldehyde 2-hydroxyanil
 $C_{14}H_{13}NO_3$ M 243.262

Used as a 1mM soln. in EtOH for fluorimetric detn. of Al. Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 194-195°.

Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)
 Fiedler, H., *Arch. Pharm. (Weinheim, Ger.)*, 1964, **297**, 226 (*synth, deriv*)

Kábre, L. *et al*, *Collect. Czech. Chem. Commun.*, 1968, **33**, 3734 (*synth, pKa*)

N-(2,4-Dihydroxybenzylidene)-2-hydroxyaniline

D-00542

4-[N-(o-Hydroxyphenyl)formimidoyl]resorcinol, 8CI. 2,4-Dihydroxybenzaldehyde 2-hydroxyanil
 [1761-59-7]

$C_{13}H_{11}NO_3$ M 229.235

Gives colour reactions with Ag, Cd, Co, Cu, Fe(III), Hg, Mn, Ni, Zn. Yellow cryst. Sol. EtOH, dil. alkalis. pK_{a2} 7.01; pK_{a3} 9.67 (4% EtOH aq., 20°).

Kábrt, L. *et al*, *Collect. Czech. Chem. Commun.*, 1968, **33**, 3734 (*synth, pKa, use*)

N-(2,5-Dihydroxybenzylidene)-2-hydroxyaniline

D-00543

2,5-Dihydroxybenzaldehyde 2-hydroxyanil
 [1761-55-3]

$C_{13}H_{11}NO_3$ M 229.235

Gives colour reactions with Ag, Cd, Co, Cu, Fe(III), Hg, Mn, Ni, Zn. Yellow cryst. pK_{a2} 8.41; pK_{a3} 10.42 (4% EtOH, 20°).

5-Me ether: [1761-44-0]. N-2-Hydroxy-5-methoxybenzylidene-2-hydroxyaniline. 2-[[[(2-Hydroxyphenyl)imino]methyl]-4-methoxyphenol, 9CI. 2-Hydroxy-5-methoxybenzaldehyde 2-hydroxyanil
 $C_{14}H_{13}NO_3$ M 243.262

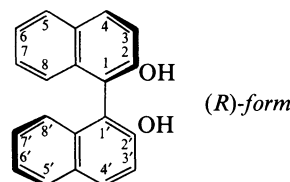
Used as a 1mM soln. in EtOH for fluorimetric detn. of Al. Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 155.0-155.6°.

Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)
 Kábre, L. *et al*, *Collect. Czech. Chem. Commun.*, 1968, **33**, 3734 (*synth, pKa, use*)

2,2'-Dihydroxy-1,1'-binaphthyl

D-00544

[1,1'-Binaphthalene]-2,2'-diol, 9CI, 8CI. β -Dinaphthol
 [602-09-5]



$C_{20}H_{14}O_2$ M 286.329

Chiral auxiliary.

(R)-form [18531-94-7]

Reagent for resolu. of racemic sulphoxides. Cryst. Mp 206-207°. $[\alpha]_D^{20} + 35.2^\circ$ (c, 1 in THF).

Di-Me ether: [35294-28-1]. 2,2'-Dimethoxy-1,1'-binaphthyl

$C_{22}H_{18}O_2$ M 314.383

Cryst. $[\alpha]_D + 135^\circ$ (89% o.p.).

(S)-form [18531-99-2]

Cryst. (EtOH aq.). Mp 206-207°. $[\alpha]_D^{20} - 35.2^\circ$ (c, 1 in THF).

(±)-form

Cryst. (EtOH or toluene). Mp 218°.

Di-Me ether: Mp 190°.

[75640-87-8, 75685-01-7]

Pummerer, R. *et al*, *Ber.*, 1926, **59**, 2159 (*synth*)

Korczynski, A. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1931, **2**, 655; *CA*, **26**, 4044 (*synth*)

Akimoto, H. *et al*, *Tetrahedron*, 1971, **27**, 5999 (*synth, config*)

Brussee, J. *et al*, *Tetrahedron*, 1985, **41**, 3313 (*synth, props*)

Wu, S.-H. *et al*, *Tetrahedron Lett.*, 1985, **26**, 4323 (*synth, resolu*)

Toda, F. *et al*, *J. Org. Chem.*, 1988, **53**, 3607 (*resolu*)

Tamai, Y. *et al*, *Synthesis*, 1990, 222 (*resolu*)

Gong, B. *et al*, *J. Org. Chem.*, 1991, **56**, 423 (*resolu*)

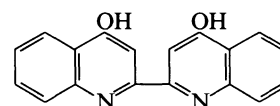
Gottarelli, G. *et al*, *J. Org. Chem.*, 1991, **56**, 2096 (*Di-Me ether, resolu*)

4,4'-Dihydroxy-2,2'-biquinoline

D-00545

[2,2'-Biquinoline]-4,4'-diol, 9CI

[6495-85-8]



$C_{18}H_{12}N_2O_2$ M 288.305

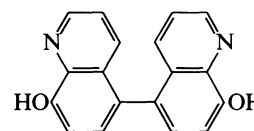
Used in specific photometric detn. of Cu(I) (λ_{max} 525 nm, ϵ 6900, isopentanol). Cryst. Sol. EtOH.

Schilt, A.A. *et al*, *Anal. Chem.*, 1969, **41**, 344 (*synth, use*)

8,8'-Dihydroxy-5,5'-biquinoline

D-00546

[5,5'-Biquinoline]-8,8'-diol



$C_{18}H_{12}N_2O_2$ M 288.305

Used as a satd. soln. in dil. HCl aq. for extraction-photometric detn. of Al, Cu, Fe, Ni, Zn. Cryst. powder. Sol. EtOH; spar. sol. H₂O, HCl aq. (0.49mg per 100cm³). Mp > 310° dec. pK_{a1} 3.6; pK_{a2} 10.1 (20% EtOH).

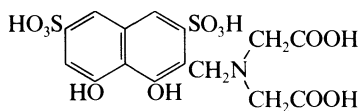
Philips, J.P. *et al*, *Anal. Chim. Acta*, 1960, **23**, 131 (*synth, use*)

4,5-Dihydroxy-3-[N,N-bis(carboxymethyl)aminomethyl]-2,7-naphthalenedisulfonic acid

D-00547

N-(Carboxymethyl)-N-[(1,8-dihydroxy-3,6-disulfo-2-naphthalenyl)methyl]glycine, 9CI. Khimdu

[23101-11-3]

 $C_{15}H_{15}NO_{12}S_2$ M 465.415

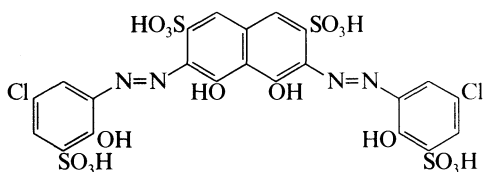
Strictly, the name Khimdu applies to the disodium salt.

 pK_{a1} 2.35; pK_{a2} 5.60; pK_{a3} 8.70; pK_{a4} 10.30 ($\mu = 0.1$).

Di-Na salt: [7543-56-8].

Used as a 1mM aq. soln. for photometric detn. of Ti (λ_{max} 510 nm, ϵ 7800). Brown cryst. powder (Me₂CO aq.). Sol. alkalis; sl. sol. H₂O; insol. EtOH.Lee, Y.K. *et al.*, *Talanta*, 1972, **19**, 1665 (detn. Ti)Basargin, N.N. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 979; 1986, **23**, 1813 (synth)**4,5-Dihydroxy-3,6-bis[(5-chloro-2-hydroxy-3-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, 9CI**

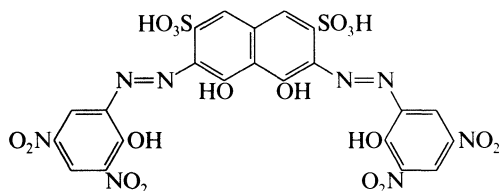
D-00548

 $C_{22}H_{14}Cl_2N_4O_{16}S_4$ M 789.539Used for photometric detn. of Be, Cu, Nb, Zr. Dark red cryst. powder. Mod. sol. H₂O.Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**4,5-Dihydroxy-3,6-bis[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI**

D-00549

Picramine S. Picraminazochrome

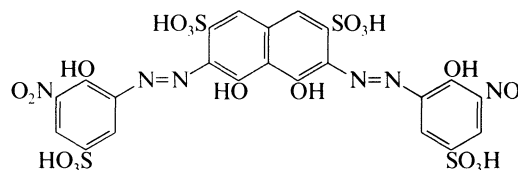
[20650-52-6]

 $C_{22}H_{12}N_8O_{18}S_2$ M 740.512Used as a 0.1% aq. soln. for photometric detn. of V (λ_{max} 620 nm, ϵ 10700). Dark red cryst. powder. Sol. H₂O. pK_{a1} 2.55; pK_{a2} 10.2.Savvin, S.B. *et al.*, *Zh. Anal. Khim.*, 1968, **23**, 653; 1971, **26**, 2364.Muk, A.A. *et al.*, *Anal. Chim. Acta*, 1969, **44**, 59; **45**, 534 (pK_a)**4,5-Dihydroxy-3,6-bis[(2-hydroxy-3-nitro-5-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, 9CI**

D-00550

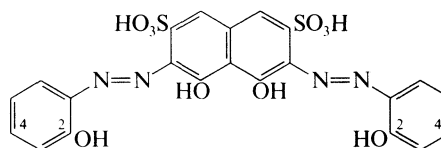
2,4-Nitrosulfophenol C

[5177-68-4]

 $C_{22}H_{14}N_6O_{20}S_4$ M 810.645Used as 0.1% aq. soln. for photometric detn. of Zr (λ_{max} 625 nm, ϵ 75000, pH 3.7-4.1). Cryst. Sol. H₂O.Dedkov, Y.M. *et al.*, *Zh. Anal. Khim.*, 1965, **20**, 574 (synth. detn. Zr)**4,5-Dihydroxy-3,6-bis[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid**

D-00551

[21668-02-0]

 $C_{22}H_{16}N_4O_{10}S_2$ M 560.521

Bis(2'-Me ether): [32736-63-3]. 4,5-Dihydroxy-3,6-bis[(o-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI

 $C_{24}H_{20}N_4O_{10}S_2$ M 588.575Used for photometric detn. of rare earth elements. Dark red cryst. powder. Mod. sol. H₂O.Savvin, S.B. *et al.*, *Zh. Anal. Khim.*, 1971, **26**, 297 (use)**4,5-Dihydroxy-3,6-bis[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI**

D-00552

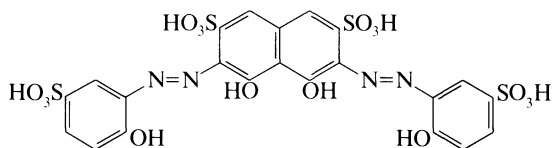
[23157-01-9]

 $C_{22}H_{16}N_4O_{10}S_2$ M 560.521Used as a 0.05% or 0.1% aq. soln. for photometric detn. of Ba, Ca (λ_{max} 650 nm, ϵ 30000), Cu, Mg (λ_{max} 640 nm, ϵ 37000), La, Pd, Sr, Th, U(VI), Yb; photometric detn. of H₂O in organic solvents. Dark red cryst. powder. Mod. sol. H₂O. pK_{a3} 10.42.

4,4'-Di-Me ether: [27963-16-2]. 4,5-Dihydroxy-3,6-bis[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI

 $C_{24}H_{20}N_4O_{10}S_2$ M 588.575Used as a 0.1% aq. soln. for photometric detn. of La (λ_{max} 800 nm), Yb (λ_{max} 790 nm); photometric detn. of H₂O in organic solvs. Dark red cryst. powder. pK_{a3} 9.44; pK_{a4} 14.55.Savvin, S.B. *et al.*, *Zh. Anal. Khim.*, 1969, **24**, 177, 490; 1971, **26**, 297 (detn. Ba, Ca, Cu, Mg, La, Pd, Sr, Th, U, Yb)Petrova, T.V. *et al.*, *Zh. Anal. Khim.*, 1970, **25**, 226; 1973, **28**, 436, 1452 (detn. H₂O, pK_a)Petrova, T.V. *et al.*, *CA*, 1972, **77**, 147337p (detn. H₂O)Perisic-Janic, N.U. *et al.*, *Zh. Anal. Khim.*, 1973, **28**, 208 (spectra)

4,5-Dihydroxy-3,6-bis[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI **D-00553**



$C_{22}H_{16}N_4O_{16}S_4$ M 720.650

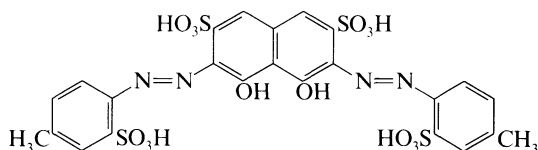
Used for photometric detn. of Ca, La, Th, Zr. Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)

4,5-Dihydroxy-3,6-bis[(4-methyl-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00554**

Dimethylsulfonazo III

[14979-11-4]



$C_{24}H_{20}N_4O_{14}S_4$ M 716.704

Strictly, the name Dimethylsulfonazo III applies to the tetrasodium salt.

Tetra-Na salt: [65271-28-5].

Used in photometric detn. of SO_4^{2-} and Sr. Dark red cryst. Sol. H_2O , EtOH.

Budeřinsky, B. *et al*, *Acta Chim. Acad. Sci. Hung.*, 1967, **52**, 37 (detn. Sr)

Reijnders, H.F. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **295**, 122; 1980, **300**, 273.

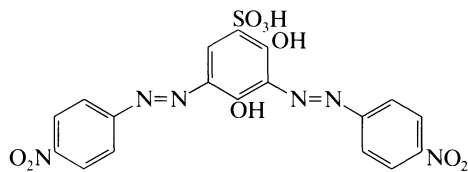
Bartels, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1982, **310**, 13.

Nakashima, S. *et al*, *Fresenius' Z. Anal. Chem.*, 1984, **317**, 29 (synth)

2,4-Dihydroxy-3,5-bis[(4-nitrophenyl)azo] benzenesulfonic acid, 8CI **D-00555**

2,4-Bis(4-nitrophenylazo)resorcinol-6-sulfonic acid

[27831-63-6]



$C_{18}H_{12}N_6O_9S$ M 488.394

Acid-base indicator used as 0.1% aq. soln. of Na salt.

Red-brown cryst. powder. Sol. alkalis. pK_{a1} 7.64; pK_{a2} 11.64.

[17716-26-6]

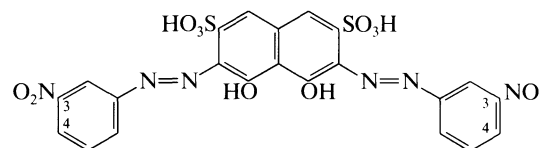
Podstata, J. *et al*, *Collect. Czech. Chem. Commun.*, 1967, **12**, 3020 (use)

Janik, J. *et al*, *Talanta*, 1970, **17**, 231 (use)

4,5-Dihydroxy-3,6-bis[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00556**

3,6-Bis-[(3,3'-Dinitrophenyl)azo]chromotropic acid

[24430-49-7]



$C_{22}H_{14}N_6O_{12}S_2$ M 618.518

Used as a 0.05 or 0.1% aq. soln. for photometric detn. of Ba, Ca (λ_{max} 600 nm, ϵ 28000), Li (λ_{max} 580 nm, ϵ 27000), Sr, Th (λ_{max} 620 nm, ϵ 22000). Dark red cryst. powder. Mod. sol. H_2O . pK_{a3} 8.44; pK_{a4} 13.72.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177, 490 (detn. Ba, Ca, Sr, Li, Th)

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (pK_a)

4,5-Dihydroxy-3,6-bis[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI **D-00557**

*4,4'-Dinitrobisphenylazo*chromotropic acid

[23156-95-8]

$C_{22}H_{14}N_6O_{12}S_2$ M 618.518

Used as a 0.05 or 0.1% aq. soln. for photometric detn. of Ba, Ca, La, Th (λ_{max} 660 nm, ϵ 15000); gives colour reactions with Co, Cu, Fe(III), Mn, Ni, Zn (dioxan aq., Me_2CO aq.); photometric detn. of H_2O in organic solvents. Dark red cryst. powder. Mod. sol. H_2O . pK_{a3} 8.1; pK_{a4} 13.

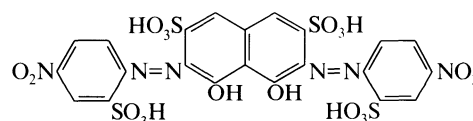
Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177, 490 (detn. Ba, Ca, Th)

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226; 1973, **28**, 208, 1452, 1888 (detn. H_2O , La, Co, Cu, Fe, Mn, Ni, Zn)

4,5-Dihydroxy-3,6-bis[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00558**

Dinitrosulfonazo III. Nitrochromazo. Nitrosoorhanilic S

[1964-89-2]



$C_{22}H_{12}N_6O_{18}S_4$ M 776.630

Used as 0.1M aq. soln. as indicator for titrimetric detn. of Ba, S; as 0.1% aq. soln. for photometric detn. of Sr (Me_2CO aq., pH 2.8), Ba. Dark green cryst. powder. Sol. H_2O , EtOH; insol. C_6H_6 , $CHCl_3$, Mp 222°. pK_{a1} 14.5; pK_{a2} 9.7; pK_{a3} 2.6; pK_{a4} 2.1; pK_{a5} 1.8; pK_{a6} 0.7; pK_{a7} 0.3; pK_{a8} -2.3.

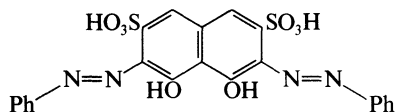
Kuznetsov, V.I. *et al*, *Zavod. Lab.*, 1965, **31**, 538.

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 440 (synth, detn. Sr)

Budeřinsky, B. *et al*, *Acta Chim. Acad. Sci. Hung.*, 1967, **52**, 37; *C.A.* **68**, 45935d.

Kreshkov, A.P. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 49, 874 (detn. Sr, Ba)

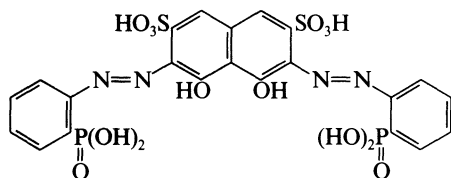
4,5-Dihydroxy-3,6-bis(phenylazo)-2,7-naphthalenedisulfonic acid, 8CI **D-00559**
3,6-Bisphenylazochromotropic acid
 [7525-08-8]



$C_{22}H_{16}N_4O_8S_2$ M 528.522
 Used as a 0.05% or 0.1% aq. soln. for photometric detn. of Ba, Ca (λ_{max} 560 nm, ϵ 26000), Sr, Th (λ_{max} 590 nm, ϵ 30000); gives colour reactions with Co, Cu, Fe(III), Mn, Ni, Zn. Dark red cryst. powder. Mod. sol. H_2O . pK_{a1} 0.32; pK_{a3} 8.94; pK_{a4} 14.34.

Muk, A.A. *et al*, *Anal. Chim. Acta*, 1969, **44**, 59 (*pKa*)
 Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177, 490, 1460 (*detn. Th, Sr, Ba, Ca*)
 Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226; 1973, **28**, 1888 (*pKa, detn. Co, Cu, Fe(III), Mn, Ni, Zn*)

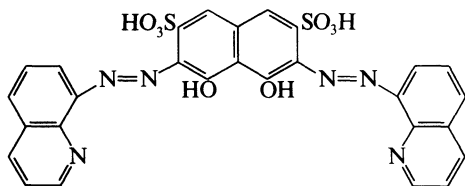
4,5-Dihydroxy-3,6-bis[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00560**
Phosphonazo III
 [16017-11-1]



$C_{22}H_{18}N_4O_{14}P_2S_2$ M 688.482
 Used as 0.05% aq. soln. for photometric detn. of U (ϵ 60000, 3M HCl). Dark red cryst. powder. Sol. H_2O , EtOH.

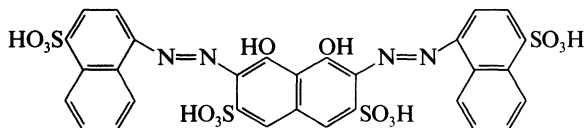
Luk'yanov, V.F. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 772 (*detn. U*)

4,5-Dihydroxy-3,6-bis(8-quinolyazo)-2,7-naphthalenedisulfonic acid, 9CI **D-00561**
 [22106-89-4]



$C_{28}H_{18}N_6O_8S_2$ M 630.618
 Used for extraction-photometric detn. of Cu (butanol). Dark red cryst. Sol. H_2O , EtOH.
 Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (*detn. Cu*)

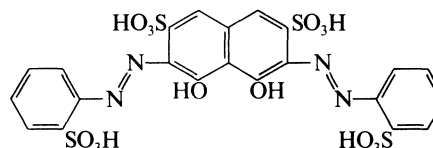
4,5-Dihydroxy-3,6-bis[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid **D-00562**



$C_{30}H_{20}N_4O_{14}S_4$ M 788.770
 Used as a 0.05% aq. soln. for extraction-photometric detn. of Th; metal indicator for titrimetric detn. of Th. Dark violet cryst. powder. Sol. H_2O . Available as tetrasodium salt.

Datta, S.K., *Fresenius' Z. Anal. Chem.*, 1956, **149**, 270, 328; **150**, 347 (*detn. Th, Tb*)

4,5-Dihydroxy-3,6-bis[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00563**
Sulfonazo III. Orthanilic S
 [1738-02-9]



$C_{22}H_{16}N_4O_{14}S_4$ M 688.651
 Used as 1mM aq. soln. for photometric detn. of Ba (λ_{max} 642 nm, ϵ 64500), Sr, rare earth elements, SO_4^{2-} , K, Na, Pb. Dark purple cryst. powder. Sol. H_2O , EtOH, acids. Mp 222° dec. pK_{a1} 10.92; pK_{a2} 14.97.

Budešinsky, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **210**, 161 (*synth. detn. Ba, SO_4^{2-}*)
 Slovak, Z. *et al*, *Talanta*, 1968, **15**, 831 (*detn. Ba*)
 Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 653; 1971, **26**, 1677 (*pKa*)
 Savvin, S.B. *et al*, *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)
 Kemp, P.J. *et al*, *Anal. Chem.*, 1973, **45**, 124 (*detn. Sr, Ba*)
 Kharzeeva, S.E. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1022 (*detn. rare earths*)
 Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 202.

4,5-Dihydroxy-3,6-bis[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid **D-00564**
3,6-Bis(m-sulfophenylazo)chromotropic acid
 [7572-33-0]

$C_{22}H_{16}N_4O_{14}S_4$ M 688.651
 Used for photometric detn. of Al; gives colour reactions with Co, Cu, Fe(III), Mn, Ni, Zn. Dark red cryst. powder. Sol. H_2O . pK_{a5} 8.51; pK_{a6} 13.90.

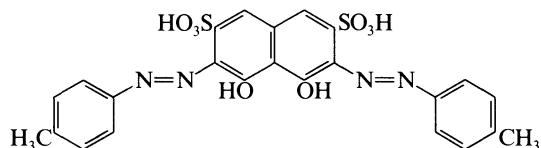
Alykov, N.M. *et al*, *CA*, 1968, **69**, 113200h (*detn. Al*)
 Nikolic, V.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1677 (*pKa*)
 Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1888 (*detn. Co, Cu, Fe(III), Mn, Ni, Zn*)

4,5-Dihydroxy-3,6-bis[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI **D-00565**
3,6-Bis(p-sulfophenylazo)chromotropic acid
 [7525-18-0]

$C_{22}H_{16}N_4O_{14}S_4$ M 688.651
 Used as a 0.05% or 0.1% aq. soln. for photometric detn. of Al, Ba, Ca (λ_{max} 610 nm, ϵ 38000), Li (λ_{max} 570 nm, ϵ 33000), Mg, Th (λ_{max} 580 nm, ϵ 40000); photometric detn. of H_2O in organic solvents; gives colour reactions with K, La, Li, Mn, Na, Ni, Sr. Dark red cryst. powder. Mod. sol. H_2O . pK_{a5} 9.50; pK_{a6} 13.95, pK_{a5} 8.34; pK_{a6} 14.12.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177, 490 (*detn. Al, Li, Th, Ba, Ca, Mg*)
 Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 266; 1973, **28**, 436, 1888 (*pKa, detn. H_2O, K, La, Li, Mn, Na, Ni, Sr*)
 Nikolic, V.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1677 (*pKa*)

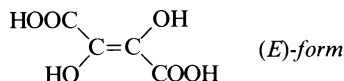
4,5-Dihydroxy-3,6-bis(*p*-tolylazo)-2,7-naphthalenedisulfonic acid, 8CI **D-00566**
[23156-94-7]



$C_{24}H_{20}N_4O_8S_2$ M 556.576
Used as a 0.05% or 0.1% aq. soln. for photometric detn. of Ca (λ_{\max} 600 nm, ϵ 28000), La, Pd (λ_{\max} 640 nm, ϵ 23000), Th (λ_{\max} 640 nm, ϵ 33000); photometric detn. of H_2O in organic solvents. Dark red cryst. powder. Mod. sol. H_2O . pK_{a3} 9.15; pK_{a4} 14.34.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 490 (*detn. Ca, La, Pd, Th*)
Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226; 1973, **28**, 436, 1452 (*pKa, detn. H₂O, La*)
Petrova, T.V. *et al*, *CA*, 1972, **77**, 147337p (*detn. H₂O*)

Dihydroxybutenedioic acid, 9CI **D-00567**



$C_4H_4O_6$ M 148.072
Used as saturated soln. in MeOH for gravimetric detn. of rare earth elements; photometric detn. of U(VI).

(E)-form [133-38-0]

Dihydroxyfumaric acid

Prisms + 2 H_2O (H_2O). Mp 154° dec. pK_a 7.09.

▷ LT1500000.

Di-Me ester: [133-47-1].

$C_6H_8O_6$ M 176.126
Mp 162-162.5°.

(Z)-form [526-84-1]

Dihydroxymaleic acid

Occurs in *Glaucium luteum*. Plates + 2 H_2O (H_2O). pK_a 7.14. Loses 2 H_2O *in vacuo*. Dec. at ca. 155° without melting. Aq. solns. dec. on standing.

Biochem. Prep., 1953, **3**, 56 (*synth*)

Hartree, E.F., *J. Am. Chem. Soc.*, 1953, **75**, 6244 (*synth*)

Goodwin, S. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 5599 (*rev*)

Gault, H. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1955, **240**, 536 (*synth*)

Spacu, P. *et al*, *Rev. Roum. Chim.*, 1965, **10**, 421 (*detn. rare earths*)

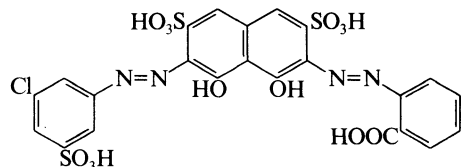
Gupta, M.P. *et al*, *Acta Crystallogr.*, 1968, **24**, 631 (*cryst struct*)

Popea, P. *et al*, *Rev. Roum. Chim.*, 1968, **13**, 591 (*detn. U*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMW200.

2-[[1,8-Dihydroxy-7-[(5-chloro-3-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, 8CI **D-00568**

3-(2-Carboxyphenylazo)-6-(3-chloro-5-sulfohenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid



$C_{23}H_{15}ClN_4O_{13}S_3$ M 687.041

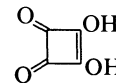
Used as a 0.1% aq. soln. for photometric detn. of V (λ_{\max} 630 nm, ϵ 52300). Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2364 (*use, detn. V*)

3,4-Dihydroxy-3-cyclobutene-1,2-dione, 9CI **D-00569**

Squaric acid. 1,2-Dihydroxycyclobutenedione. Quadratic acid. Diketocyclobutenediol

[2892-51-5]



$C_4H_2O_4$ M 114.057

Used for photometric detn. of Cu, Fe(III), U(VI) (λ_{\max} 400 nm, ϵ 1450). Cryst. (H_2O). Sol. H_2O . Mp 293° dec. approx. pK_{a1} 0.55-1.2; pK_{a2} 3.48 (25°). λ_{\max} 269.5 nm (ϵ 37000).

▷ GU1800000.

Mono-Me ester: [5231-86-7]. *1-Hydroxy-2-methoxycyclobutenedione*

$C_5H_4O_4$ M 128.084

Solid. Mp 132-134°.

Di-Me ester: [5222-73-1]. *1,2-Dimethoxycyclobutenedione*

$C_6H_6O_4$ M 142.111

Fluffy-white cryst. (Et_2O). Mp 56.7-56.8°.

Di-Et ester: [5231-87-8]. *1,2-Diethoxycyclobutenedione*

$C_8H_{10}O_4$ M 170.165

Has fungicidal props. Bp_{0.4} 88-91°.

Diisopropyl ether:

$C_{10}H_{14}O_4$ M 198.218

Cryst. Mp 43-44°.

Cohen, S. *et al*, *J. Am. Chem. Soc.*, 1959, **81**, 3480 (*synth*)

Maahs, G. *et al*, *Angew. Chem.*, 1966, **78**, 927 (*rev*)

Tedesco, P.H. *et al*, *Inorg. Chem.*, 1969, **8**, 932 (*use*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1974, **4**, 466.

Stevens, R.E., *Am. Lab. (Fairfield, Conn.)*, 1975, **7**, 57.

Japan. Pat., 77 156 836, (1977); *CA*, **89**, 42570d (*synth*)

Pericas, M.A. *et al*, *Tetrahedron Lett.*, 1977, 4437 (*synth*)

Schmidt, A.H., *Synthesis*, 1980, 961 (*rev*)

Law, K.-L. *et al*, *Can. J. Chem.*, 1986, **64**, 2267 (*derivs*)

Reed, M.W. *et al*, *J. Org. Chem.*, 1988, **53**, 2477 (*ether synth*)

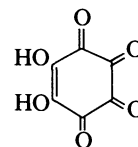
Liebeskind, L.S. *et al*, *J. Org. Chem.*, 1988, **53**, 2482 (*ether synth, ir, pmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMJ600.

5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone, 9CI **D-00570**

Dihydroxydiquinone. Rhodizonic acid

[118-76-3]



$C_6H_2O_6$ M 170.078

Deep-orange needles. Mp 155-160°. Salt solns. have no carbonyl abs. in IR suggesting a delocalized struct.

Di-Na salt: [523-21-7].

Black-green solid.

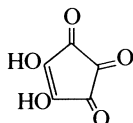
Di-K salt: [13021-40-4].

Used as aq. soln. for photometric detn. of Ca (λ_{\max} 570 nm, pH ~12); indirect detn. of SO_4^{2-} ; pptn. sepn. of Sr. Dark-purple prisms. Fairly sol. H_2O giving deep-yellow soln. Partially dec. on recryst. Solns. rapidly oxidised.

Feigl, F. *et al*, *Ind. Eng. Chem., Anal. Ed.*, 1942, **14**, 840 (use)
 Preisler, P.W. *et al*, *J. Am. Chem. Soc.*, 1942, **64**, 67 (synth)
 Weiss, H.V. *et al*, *Anal. Chem.*, 1957, **29**, 1764 (detn, Ca)
 Eistert, B. *et al*, *Angew. Chem.*, 1958, **70**, 595 (synth)
 West, R. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 6204 (struct)
 Boni, A.L., *Anal. Chem.*, 1963, **35**, 744 (detn, Sr)
 Babko, A.K. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 237 (detn, SO_4^{2-})
 Chalmers, R.A. *et al*, *Mikrochim. Acta*, 1967, 1126 (use)
 Moeckel, P. *et al*, *Z. Chem.*, 1967, **7**, 62 (synth, bibl)
 Skujins, S. *et al*, *Tetrahedron*, 1968, **24**, 4805 (ms)
 West, R. *et al*, *Chem. Carbonyl Group 1966*, 1970, **2**, 241 (rev)
 Bailey, R.T., *J. Chem. Soc. B*, 1971, 627 (struct, ir, raman)
 Prokopov, T.S., *Mikrochim. Acta*, 1973, 429 (detn, Ca)
 Aihara, J., *Bull. Chem. Soc. Jpn.*, 1974, **47**, 2899 (uv)
 Staedeli, W. *et al*, *Helv. Chim. Acta*, 1977, **60**, 948 (cmr)
 Douglas, K.T. *et al*, *FEBS Lett.*, 1979, **106**, 393 (props)

4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571 9CI

Croconic acid
[488-86-8]



$\text{C}_5\text{H}_2\text{O}_5$ M 142.068

One of the very first cyclic compounds to be synthesised.
 Used as a 4mM aq. soln. for photometric detn. of Fe; gravimetric detn. of Ba; detn. of K, Na. Cryst. Mp 150° dec., 120° dec. (trihydrate). $\text{p}K_{a1}$ 0.89; $\text{p}K_{a2}$ 3.06. λ_{\max} 231, 298 nm.

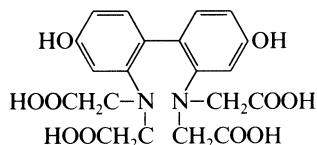
K salt: Orange cryst. (H_2O).

Di-Me ether: [36394-33-9]. 4,5-Dimethoxy-4-cyclopentene-1,2,3-trione

$\text{C}_7\text{H}_6\text{O}_5$ M 170.121
Cryst. Mp 113°.

Gmelin, L., *Ann. Phys. (Leipzig)*, 1825, **4**, 31.
 Prebendowski, S., *Chem. Anal. (Warsaw)*, 1957, **31**, 329 (detn, K, Na)
 Fatiadi, A.J. *et al*, *J. Res. Natl. Bur. Stand., Sect. A*, 1963, **67**, 153 (synth)
 Adamovich, L.P. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 782; 1970, **25**, 1668; 1971, **26**, 545; 1972, **27**, 1726 (synth, detn, Na, Fe, Ba, $\text{p}K_a$)
 Städeli, W. *et al*, *Helv. Chim. Acta*, 1977, **60**, 948 (cmr)
 Gelb, R.I. *et al*, *J. Phys. Chem.*, 1977, **81**, 1268 (struct)
 Fatiadi, A.J., *J. Am. Chem. Soc.*, 1978, **100**, 2586.
 Bauer, H., *Naturwissenschaften*, 1978, **65**, 487 (rev)

4,4'-Dihydroxy-2,2'-diaminobiphenyl- N,N,N',N'-tetraacetic acid D-00572



$\text{C}_{20}\text{H}_{20}\text{N}_2\text{O}_{10}$ M 448.385

Tetra-Na salt: Used as a 0.01M aq. soln. as a fluorescent indicator for titrimetric detn. of Cu, Ni. Grey cryst. Sol. H_2O .

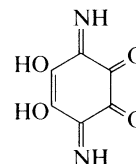
4,4'-Di-Me ether: 4,4'-Dimethoxy-2,2'-diaminobiphenyl-N,N,N',N'-tetraacetic acid

$\text{C}_{22}\text{H}_{24}\text{N}_2\text{O}_{10}$ M 476.439

Tetrasodium salt used as metallofluorescent indicator in titrimetric detn. of Co, Cr, Cu, Mn, Zn. Cryst. (as Na salt).

Kirkbright, G.F. *et al*, *Anal. Chim. Acta*, 1965, **32**, 544 (synth, detn, Cu, Ni)

4,5-Dihydroxy-3,6-diimino-1,2- benzoquinone D-00573



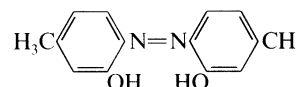
$\text{C}_6\text{H}_4\text{N}_2\text{O}_4$ M 168.109

Used for detn. of Hg(II). Greenish black cryst. Spar. sol. Na_3PO_4 , NaOAc; insol. Et_2O , H_2O , EtOH, CHCl_3 .

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1946, **1**, 322 (use)

2,2'-Dihydroxy-4,4'-dimethylazobenzene D-00574

2,2'-Azobis[5-methylphenol], 9CI
[55041-49-1]



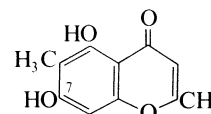
$\text{C}_{14}\text{H}_{14}\text{N}_2\text{O}_2$ M 242.277

Used as 0.02% soln. in dioxan for fluorimetric detn. of Al (λ_{\max} 575 nm, pH 6.9-7.6, aq. dioxan). Cryst. Sol. dioxan, MeOH.

Aoki, I. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1990, **39**, 419; *CA*, **113**, 144454c (detn, Al)

5,7-Dihydroxy-2,6-dimethyl-4H-1- benzopyran-4-one, 9CI D-00575

5,7-Dihydroxy-2,6-dimethylchromone. *Eugenitol*
[491-48-5]



$\text{C}_{11}\text{H}_{10}\text{O}_4$ M 206.198

Constit. of the flowers of *Eugenia caryophyllata*. Prisms (EtOH or Me_2CO). Mp 290-292°.

7-Me ether: [480-12-6]. 5-Hydroxy-7-methoxy-2,6-dimethyl-4H-1-benzopyran-4-one. *Eugenitin*

$\text{C}_{12}\text{H}_{12}\text{O}_4$ M 220.224

From *E. caryophyllata*, *Leconora rupicola*, *Chaetomium thielavioideum*, and *Cylindrocarpon* spp. Used as a 0.02M MeOH soln. for extraction-photometric detn. of Ti (λ_{\max} 515 nm). Prisms (EtOH or Me_2CO). Sol. MeOH. Mp 162°.

7-Me ether, 5-Ac:

$\text{C}_{14}\text{H}_{14}\text{O}_5$ M 262.262

Cryst. (EtOH). Mp 176-177°.

Schmid, H., *Helv. Chim. Acta*, 1949, **32**, 813; 1950, **33**, 917 (isol, synth)

Schönberg, A. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 4992 (synth)
 Mukerjee, S.K. *et al*, *Proc. - Indian Acad. Sci., Sect. A*, 1953, **38**, 207 (synth)

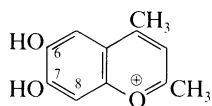
Mukerjee, S.K. *et al*, *Chem. Ind. (London)*, 1955, 1009.

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1970, **119**, 1346 (synth)

Coombe, R.G. *et al.*, *Aust. J. Chem.*, 1972, **25**, 875 (*isol*)
 Ito, T. *et al.*, *Anal. Chim. Acta*, 1980, **113**, 343 (*detn.*, *Ti*)
 Sekita, K. *et al.*, *Chem. Pharm. Bull.*, 1980, **28**, 2428 (*deriv*)

6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+), 9Cl

D-00576



$C_{11}H_{11}O_3^{\oplus}$ M 191.206 (ion)

Chloride: [51833-03-5].

$C_{11}H_{11}ClO_3$ M 226.659

Used as a 0.01 M aq. soln. for extraction-photometric detn. of Ga, Ge, In, Mo. Dark red cryst. Sol. H_2O , EtOH, Me_2CO .

Kononenko, L.I., *Zh. Anal. Khim.*, 1960, **15**, 61 (*synth*)
 Busev, A.I. *et al.*, *Zh. Anal. Khim.*, 1961, **16**, 578 (*detn.*, *Mo*)
 Nazarenko, V.A. *et al.*, *Zh. Anal. Khim.*, 1970, **25**, 719; 1974, **29**, 2287 (*detn.*, *In.*, *Ge*)
 Bazilevich, A.A. *et al.*, *Zh. Anal. Khim.*, 1973, **28**, 2047 (*Detn.*, *Ga*)

7,8-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+), 9Cl

D-00577

$C_{11}H_{11}O_3^{\oplus}$ M 191.206 (ion)

Chloride: [1658-62-4].

$C_{11}H_{11}ClO_3$ M 226.659

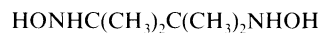
Used as a 0.01 M aq. soln. for extraction-photometric detn. of Ga, Mo. Dark red cryst. powder. Sol. H_2O , EtOH, Me_2CO .

Kononenko, L.I., *Zh. Anal. Khim.*, 1960, **15**, 61 (*synth*)
 Busev, A.I. *et al.*, *Zh. Anal. Khim.*, 1961, **16**, 578 (*detn.*, *Mo*)
 Bazilevich, A.A. *et al.*, *Zh. Anal. Khim.*, 1973, **28**, 2047 (*detn.*, *Ga*)

N,N'-Dihydroxy-2,3-dimethyl-2,3-butanediamine, 9Cl

D-00578

2,3-Dimethyl-2,3-bis(hydroxylamino)butane
 [14384-45-3]



$C_6H_{16}N_2O_2$ M 148.205

Used for photometric detn. of aldehydes and ketones by free radical formation. Cryst. (pet. ether). Mp 157-159° (149-150°).

Monosulfate: [14538-51-3].

Cryst. (EtOH aq.). Mp 172-174°; Mp 194-195°.

Tripicrate: [14384-46-4].

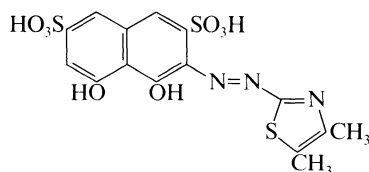
Yellow cryst. (H_2O). Mp 104-106°.

Lanchen, M. *et al.*, *J. Chem. Soc. C*, 1966, 2300 (*synth*)
 Munsen, J.W. *et al.*, *J. Pharm. Sci.*, 1975, **64**, 1043 (*use*)
 Munsen, J.W. *et al.*, *Microchem. J.*, 1975, **20**, 39 (*use*)

4,5-Dihydroxy-3-[4,5-(dimethyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl

D-00579

[21468-90-6]



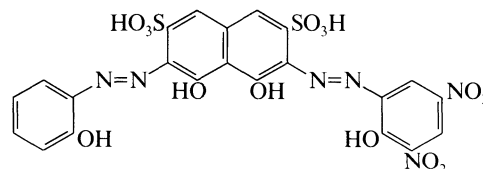
$C_{15}H_{13}N_3O_8S_3$ M 459.481

Used as a 0.1% aq. soln. for photometric detn. of Al (λ_{max} 630 nm, ϵ 45000), Th, Zr. Red cryst. Sol. H_2O , EtOH. Mp 224-225°.

Savvin, S.B. *et al.*, *CA*, 1969, **70**, 68239k (*synth.*, *detn.*, *Th*, *Zr*)
 Rozovskii, Y.T. *et al.*, *CA*, 1969, **71**, 4491z (*synth*)
 Savvin, S.B. *et al.*, *Zh. Anal. Khim.*, 1970, **25**, 423 (*detn.*, *Al*)

4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 8Cl

D-00580



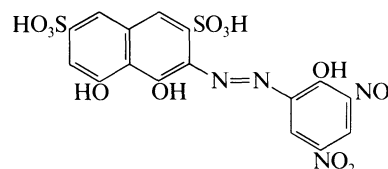
$C_{22}H_{14}N_6O_{14}S_2$ M 650.516

Used for photometric detn. of Nb, Zr. Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)

4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid

D-00581



$C_{16}H_{10}N_4O_{13}S_2$ M 530.406

Used as a 0.1% soln. in EtOH to give colour reaction with Al, Ga, Zn. Orange-red cryst.

Poluektov, N.S. *et al.*, *Zh. Anal. Khim.*, 1958, **13**, 555 (*use*)

1,8-Dihydroxy-2,4-dinitronaphthalene

D-00582

2,4-Dinitro-1,8-naphthalenediol, 9Cl

[67708-10-5]

$C_{10}H_6N_2O_6$ M 250.167

Used in extraction-photometric detn. of B (anionic complex associated with basic dye). Red prisms ($MeOH$ or H_2O). Mp 180-182° dec.

▷ Sternutatory.

l-Ac:

$C_{12}H_8N_2O_7$ M 292.204

Pale-yellow plates ($MeOH$ or EtOH). Mp 115-117°.

8-Ac:

$C_{12}H_8N_2O_7$ M 292.204

Pale-yellow plates or prisms ($AcOH$). Mp 200° dec.

l-Me ether: 8-Methoxy-5,7-dinitro-1-naphthol

$C_{11}H_8N_2O_6$ M 264.194

Yellow needles (EtOH). Mp 170-171°.

8-Me ether: 8-Methoxy-2,4-dinitro-1-naphthol

$C_{11}H_8N_2O_6$ M 264.194

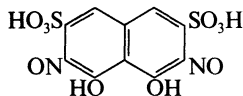
Yellow plates (EtOH). Mp 179-180°.

Di-Me ether: 1,8-Dimethoxy-2,4-dinitronaphthalene

$C_{12}H_{10}N_2O_6$ M 278.221

Yellow prisms or needles ($MeOH$). Mp 137-139°.

Calvert, F. *et al.*, *J. Chem. Soc.*, 1936, 556 (*synth*)
 Tôei, K. *et al.*, *Analyst (London)*, 1981, **106**, 776 (*detn.*, *B*)
 Fogg, T.R. *et al.*, *Anal. Chem.*, 1983, **55**, 2179 (*detn.*, *B*)

4,5-Dihydroxy-3,6-dinitroso-2,7-naphthalenedisulfonic acid*Dinitrosochromotropic acid* $C_{10}H_6N_2O_{10}S_2$ M 378.297Used as 0.025% aq. soln. as metal indicator for titrimetric detn. of Cu, Th. Red-brown cryst. powder. Sol. H_2O ; insol. EtOH, C_6H_6 .Datta, S.K. *et al*, *Anal. Chim. Acta*, 1956, **15**, 415; 1957, **16**, 115 (synth, detn, Th)Sen, A.B. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **193**, 412 (detn, Cu)

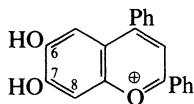
D-00583

***N,N'*-Dihydroxy-*N,N'*-diphenylheptanediamide, 9Cl**

[28484-25-5]

 $C_{19}H_{22}N_2O_4$ M 342.394Used as a 0.4% soln. in $CHCl_3$ for extraction-photometric detn. of Ti(IV) (λ_{max} 410 nm, $CHCl_3$). Cryst. Sol. common org. solvents. Mp 131°.Ghosh, N.N. *et al*, *J. Indian Chem. Soc.*, 1970, **47**, 562 (synth)Ghosh, N.N. *et al*, *Fresenius' Z. Anal. Chem.*, 1973, **266**, 364 (detn, Ti)

D-00587

6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+), 9Cl*6,7-Dihydroxyphenylchromenol* $C_{21}H_{15}O_3^{\oplus}$ M 315.348 (ion)

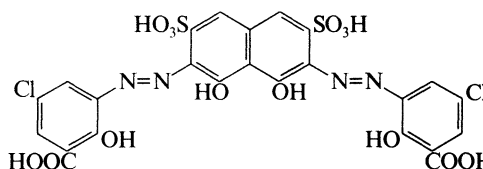
Chloride: [55927-42-9].

 $C_{21}H_{15}ClO_3$ M 350.800Used as a 0.2% soln. in EtOH for extraction-photometric detn. of In, Ge (λ_{max} 420 nm), Mo (λ_{max} 535 nm, ϵ 50400, $CHCl_3$), W (ϵ 93000). Dark violet cryst. Sol. EtOH, Me_2CO ; spar. sol. H_2O .Kononenko, L.I. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 61 (synth, detn, Ge)Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 578 (detn, Mo)Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 1161, 1658; 1970, **25**, 719; 1974, **29**, 2287 (detn, Ge, W, In)Bazilevich, A.A. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 2047 (detn, Ga)Olenovich, N.L. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 2120; 1977, **32**, 2346 (detn, Ga, In)

D-00584

3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-chlorosalicylic acid]*3,6-Bis(3-carboxy-5-chloro-2-hydroxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid*

[14041-34-0]

 $C_{24}H_{14}Cl_2N_4O_{14}S_2$ M 717.430Used for photometric detn. of Pu. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 1075 (detn, Pu)Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (detn, use)

D-00588

7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+), 9Cl $C_{21}H_{15}O_3^{\oplus}$ M 315.348 (ion)

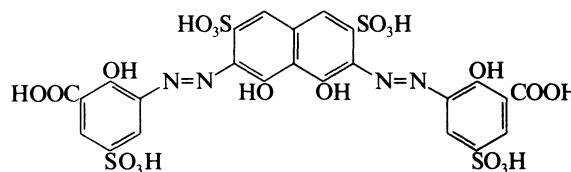
Chloride: [22640-19-3].

 $C_{21}H_{15}ClO_3$ M 350.800Used as a 0.01M soln. in EtOH for extraction-photometric detn. of Ga, Mo. Dark red cryst. powder. Sol. H_2O , EtOH, Me_2CO .Kononenko, L.I., *Zh. Anal. Khim.*, 1960, **15**, 61 (synth)Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 578 (detn, Mo)Bazilevich, A.A. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 2047 (Ga)

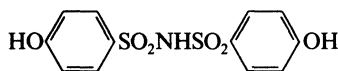
D-00585

3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[2-hydroxy-5-sulfobenzoic acid]*3,6-Bis(3-carboxy-2-hydroxy-5-sulfophenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfosalicylic acid], 8Cl*

[21549-84-8]

 $C_{24}H_{16}N_4O_{20}S_4$ M 808.669Used for photometric detn. of rare earth elements, Th, Zr. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)

D-00589

4,4'-Dihydroxydiphenyl disulfimide*4,4'-Dihydroxydibenzenesulfonamide* $C_{12}H_{11}NO_6S_2$ M 329.354Used as acidimetric standard. Cryst. Sol. H_2O .Runge, F. *et al*, *Z. Anorg. Allg. Chem.*, 1957, **158**, 266 (use)

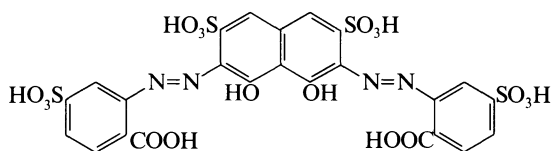
D-00586

2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfobenzoic acid], 8CI

D-00590

3,6-Bis-(2-carboxy-5-sulfo-phenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid

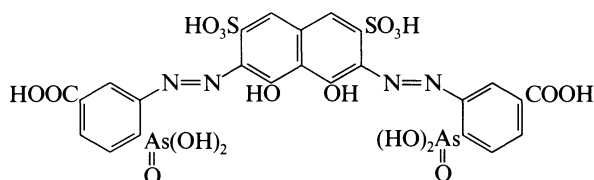
[21549-83-7]

 $C_{24}H_{16}N_4O_{18}S_4$ M 776.670Used for photometric detn. of Al, In, rare earth elements, Th. Dark red cryst. powder. Mod. sol. H₂O.Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bis[4-arsonobenzoic acid], 9CI**

D-00591

3,6-Bis(2-arsono-5-carboxyphenylazo)-4,5-dihydroxy-2,7-benzenedisulfonic acid. Dicarboxyarsenazo III

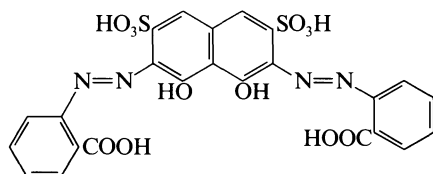
[2604-69-5]

 $C_{24}H_{18}As_2N_4O_{18}S_2$ M 864.397Used as 2mM aq. soln. in photometric detn. of Y, Th, U, Zr and rare earth elements. Dark red cryst. powder. Sol. H₂O.Budešinsky, B. *et al*, *Collect. Czech. Chem. Commun.*, 1965, **30**, 2373 (synth)Budešinsky, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **210**, 263 (use)Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, 8CI**

D-00592

2,2'-Dicarboxybisphenylazochromotropic acid

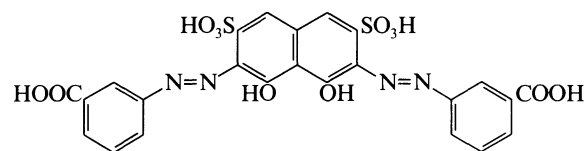
[7451-57-2]

 $C_{24}H_{16}N_4O_{12}S_2$ M 616.542Used as a 0.05% or 0.1% aq. soln. for photometric detn. of Ba, Ca, La, Sr (EtOH aq.). Dark red cryst. powder. Mod. sol. H₂O. pK_{a1} 0.30; pK_{a5} 10.60; pK_{a6} 15.13.Muk, A.A. *et al*, *Anal. Chim. Acta*, 1969, **44**, 59 (pKa)Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177, 1460; 1971, **26**, 297 (detn, La, Ba, Ca, Sr)Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (pKa)**3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, 8CI**

D-00593

3,6-Bis(3-carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid

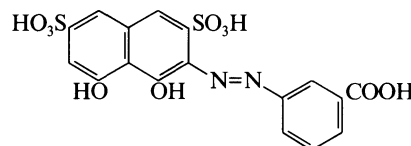
[21577-69-5]

 $C_{24}H_{16}N_4O_{12}S_2$ M 616.542Used as a 0.05 or 0.1% aq. soln. for photometric detn. of Ca, La, Pd (λ_{max} 650 nm, ϵ 12000), Th (λ_{max} 600 nm, ϵ 22000), Yb. Dark red cryst. powder. Mod. sol. H₂O. pK_{a1} 9.70; pK_{a2} 14.28.Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 490; 1971, **26**, 297 (detn, Ca, Pd, Th, La, Yb)Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226; 1973, **28**, 1452 (pK_s, detn, La)**3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, 9CI**

D-00594

3-(3-Carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. m-Carboxyphenylazochromotropic acid

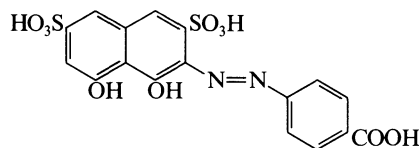
[52788-87-1]

 $C_{17}H_{12}N_2O_{10}S_2$ M 468.421Used as a 1mM aq. soln. for photometric detn. of U. Orange-red cryst. (H₂O). Sol. H₂O; insol. C₆H₆.Khalifa, H. *et al*, *Mikrochim. Acta*, 1976, **1**, 451 (detn, U)**4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, 9CI**

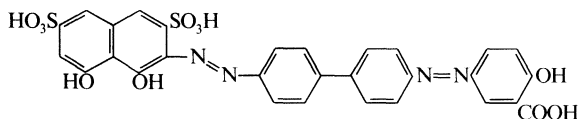
D-00595

3-(4-Carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. p-Carboxyphenylazochromotropic acid

[15475-86-2]

 $C_{17}H_{12}N_2O_{10}S_2$ M 468.421Used as a 1mM aq. soln. for photometric detn. of U (λ_{max} 595 nm, ϵ 13000). Orange red cryst. (H₂O). Sol. H₂O; insol. C₆H₆.Khalifa, H. *et al*, *Mikrochim. Acta*, 1976, **1**, 451 (detn, U)

5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo][1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid, 9CI
[61695-98-5]



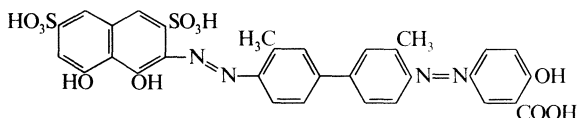
$C_{29}H_{20}N_4O_{11}S_2$ M 664.629

Tri-Na salt: [61695-97-4].

Used as a 0.1% aq. soln. for photometric detn. of Be. Cryst.

Nistreanu, V. *et al*, *Rev. Roum. Chim.*, 1976, **27**, 709 (use)

5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid, 9CI



$C_{31}H_{24}N_4O_{11}S_2$ M 692.683

Tri-Na salt: [61696-00-2].

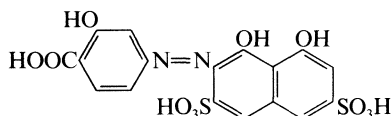
$C_{31}H_{21}N_4Na_3O_{11}S_2$ M 758.628

Used as a 0.1% aq. soln. for photometric detn. of Be. Cryst.

Nistreanu, V. *et al*, *Rev. Roum. Chim.*, 1976, **27**, 709 (use)

4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-hydroxybenzoic acid

3-(4-Carboxy-3-hydroxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. 2-(4-Carboxy-3-hydroxyphenylazo)chromotropic acid

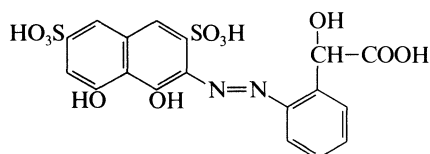


$C_{17}H_{12}N_2O_{11}S_2$ M 484.421

Used as a 0.05% aq. soln. as metallochromic indicator for titrimetric detn. of Th (colour change: pink violet → deep red). Dark red cryst. powder. Sol. H_2O .

Datta, S.K., *J. Sci. Ind. Res., Sect. B*, 1960, **19**, 168; *CA*, **54**, 24124 (detn. Th)

[2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]-2-hydroxyacetic acid
[2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl] mandelic acid, 8CI
[1571-46-6]



$C_{18}H_{14}N_2O_{11}S_2$ M 498.447

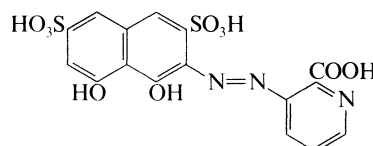
Gives colour reactions with Ba, Ca, Mg, Sr. Orange cryst. Sol. H_2O .

Katayama, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 2712 (use)

3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-pyridinecarboxylic acid

3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]picolinic acid, 8CI. 3-(2-Carboxy-3-pyridylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. 2-(2-Carboxy-3-pyridylazo)chromotropic acid

[34334-90-2]



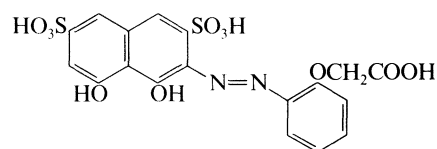
$C_{16}H_{11}N_3O_{10}S_2$ M 469.409

Used as a 0.05% aq. soln. for photometric detn. of Al. Orange cryst. (H_2O). Sol. H_2O ; insol. C_6H_6 .

Majumdar, A.K. *et al*, *Mikrochim. Acta*, 1967, 663 (detn. Al)

2-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenoxyacetic acid

[17120-09-1]



$C_{18}H_{14}N_2O_{11}S_2$ M 498.447

Dark cryst. powder.

Di-Na salt: Used for photometric detn. of Th, indirect photometric detn. of F^{\ominus} . Greenish needles (H_2O). Sol. H_2O . pK_{a1} 2.9; pK_{a2} 9.7 ($\mu = 0.1$, 25°).

[23292-23-1]

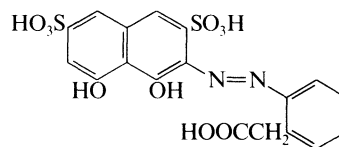
Tōei, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1965, **38**, 334; 1966, **39**, 638; 1967, **40**, 1875; 1971, **44**, 2721 (detn. Th, F^{\ominus})

Shimoishi, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1967, **40**, 1139.

[o-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]acetic acid, 8CI

3-[2-(Carboxymethyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid

[34353-08-7]



$C_{18}H_{14}N_2O_{10}S_2$ M 482.448

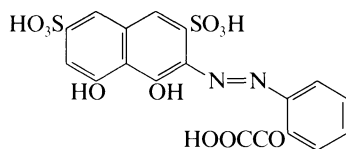
Gives colour reactions with Ba, Ca, Mg, Sr. Orange cryst. Sol. H_2O .

Katayama, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 2712.

2-[[1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenyl]-2-oxoacetic acid **D-00603**

[o-[[1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl] glyoxylic acid, 8Cl. 3-(2-Oxaloylphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid

[34353-10-1]



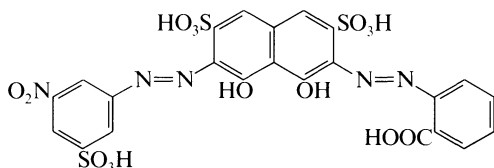
$C_{18}H_{12}N_2O_{11}S_2$ M 496.432

Gives colour reactions with Ba, Ca, Mg, Sr. Orange cryst. Sol. H_2O .

Katayama, T. *et al.* *Bull. Chem. Soc. Jpn.*, 1971, **44**, 2712.

2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-nitro-5-sulfophenyl)azo]-2-naphthalenyl]azo] benzoic acid **D-00604**

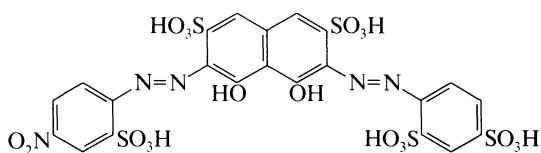
2-(2-Carboxyphenylazo)-7-[(3-nitro-5-sulfophenyl)azo] chromotropic acid. 3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(3-nitro-5-sulfophenylazo)-2,7-naphthalenedisulfonic acid



$C_{23}H_{15}N_5O_{15}S_3$ M 697.594

Used as a 0.1% aq. soln. for photometric detn. of V. Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B. *et al.* *Zh. Anal. Khim.*, 1968, **23**, 653; 1971, **26**, 2364 (*detn.* V)

4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8Cl **D-00605**

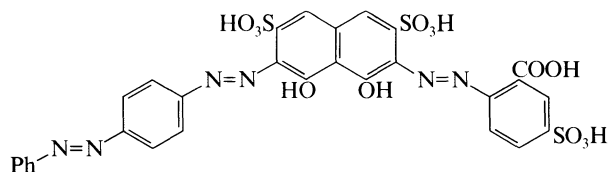
$C_{22}H_{15}N_5O_{19}S_5$ M 813.713

Used for photometric detn. of Ba, Sr. Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)

2-[[[1,8-Dihydroxy-3,6-disulfo-7-[(4-phenylazo)phenyl]azo]-2-naphthyl]azo]-5-sulfobenzoic acid **D-00606**

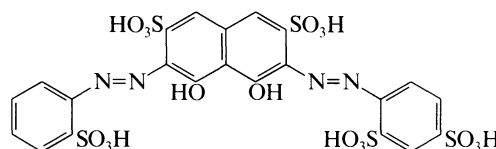
3-(2-Carboxy-4-sulfophenylazo)-4,5-dihydroxy-6-[4-(phenylazo)phenylazo]-2,7-naphthalenedisulfonic acid



$C_{29}H_{20}N_6O_{13}S_3$ M 756.707

Used for photometric detn. of Ba, Pb, rare earth elements, Th, Zn. Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)

4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8Cl **D-00607**

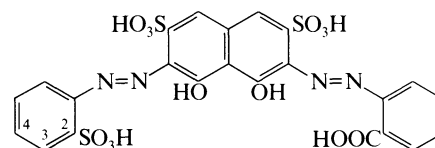
$C_{22}H_{16}N_4O_{17}S_5$ M 768.715

Used for photometric detn. of Ba, Cu, Sr. Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)

2-[[1,8-Dihydroxy-3,6-disulfo-7-[(2-sulfophenyl)azo]-2-naphthalenyl]azo] benzoic acid, 9Cl **D-00608**

Orthanil K. 2-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(2-sulfophenylazo)-2,7-naphthalenedisulfonic acid [4568-04-1]



$C_{23}H_{16}N_4O_{13}S_3$ M 652.596

Used as a 0.05% aq. soln. for photometric detn. of Al (λ_{max} 590 nm, ϵ 20000), Ba, Ga (λ_{max} 610 nm, ϵ 20000), In (λ_{max} 580 nm, ϵ 11000), Sr, Th; titrimetric detn. of SO_4^{2-} . Dark red cryst. Mod. sol. H_2O . pK_{a1} 11.6; pK_{a2} 14.5.

[56732-35-5]

Savvin, S.V. *et al.* *Zh. Anal. Khim.*, 1962, **17**, 43; 1968, **23**, 653 (*pKa*, *detn.* SO_4^{2-})

Karalova, Z.K. *et al.* *Zh. Anal. Khim.*, 1964, **19**, 258 (*detn.* SO_4^{2-})

Savvin, S.B. *et al.* *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*detn.* Al, Ga, In)

Simonova, L.N. *et al.* *Zh. Anal. Khim.*, 1976, **31**, 917 (*detn.* SO_3^{2-})

Dedkova, V.M. *et al.* *Zh. Anal. Khim.*, 1981, **36**, 1358 (*detn.* SO_4^{2-})

2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-sulfophenyl)azo]-2-naphthalenyl]azo] benzoic acid, 9Cl **D-00609**

[20650-49-1]

$C_{23}H_{16}N_4O_{13}S_3$ M 652.596

Used as a 0.05% or 0.1% aq. soln. for photometric detn. of Ba, Ca, Mg (EtOH aq), La, Yb. Dark red cryst. powder. Mod. sol. H_2O . pK_{a2} 0.63; pK_{a5} 10.43; pK_{a6} 14.33.

Muk, A.A. *et al.* *Anal. Chim. Acta*, 1969, **44**, 59 (*pKa*)

Savvin, S.B. *et al.* *Zh. Anal. Khim.*, 1969, **24**, 177, 1460; 1971, **26**, 297 (*detn.* Ba, Ca, Mg, La, Yb)

Petrova, T.V. *et al.* *Zh. Anal. Khim.*, 1970, **25**, 226 (*pKa*)

2-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfo-phenyl)azo]-2-naphthalenyl]azo]benzoic acid, 8CI

D-00610

[26190-39-6]

 $C_{23}H_{16}N_4O_{13}S_3$ M 652.596

Used as a 0.1% aq. soln. for photometric detn. of La (λ_{max} 650 nm, 80% EtOH). Gives colour reactions with Ce, Cu, Dy, Lu, Nd, Ni, Sm, Th. Dark red cryst. powder. Sol. H_2O . pK_{a4} 10.55; pK_{a5} 14.36.

Petrova, T.V. et al, *Izv. Akad. Nauk Kaz. SSR, Ser. Khim.*, 1970, 259; *CA*, 73, 31191z (detn, Cu, La, Th)

Petrova, T.V. et al, *Zh. Anal. Khim.*, 1970, 25, 226; 1973, 28, 1888 (*pKa*, use)

Savvin, S.B. et al, *Zh. Anal. Khim.*, 1971, 26, 297 (detn, La)

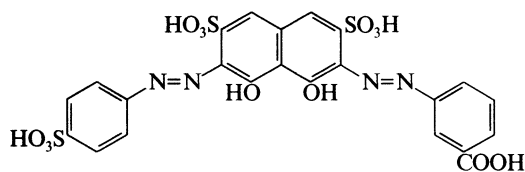
Basargin, N.N. et al, *Zh. Anal. Khim.*, 1971, 26, 722 (detn, Cu, Dy, Th, Y)

Basargin, N.N. et al, *CA*, 1974, 81, 180649x (detn, Ce, La, Nd, Sm)

3-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfo-phenyl)azo]-2-naphthalenyl]azo]benzoic acid

D-00611

3-(3-Carboxyphenylazo)-4,5-dihydroxy-6-(4-sulfo-phenylazo)-2,7-naphthalenedisulfonic acid. 2-(m-Carboxyphenylazo)-7-(p-sulfo-phenylazo)chromotropic acid

 $C_{23}H_{16}N_4O_{13}S_3$ M 652.596

Gives colour reactions with Ce, La, Nd, Sm. Dark red cryst. powder. Mod. sol. H_2O .

Basargin, N.N. et al, *CA*, 1974, 81, 180649x (use)

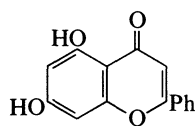
5,7-Dihydroxyflavone

D-00612

5,7-Dihydroxy-2-phenyl-4H-1-benzopyran-4-one, 9CI.

Chrysin. *Chrysinic acid*

[480-40-0]

 $C_{15}H_{10}O_4$ M 254.242

Isol. from *Ulmus sieboldiana*, *Flourensia resinosa*, *Oroxylon indicum* (bark), *Pinus* and *Scutellaria* spp. and others.

Used as EtOH soln. for photometric detn. of Th (λ_{max} 380 nm, pH 2.8); reactions with Al, Th. Used as complexing agent for Cu. Yellowish plates. Sol. EtOH. Mp 285-286°, Mp 290° (275°). pK_{a1} 9.05; pK_{a2} 7.42 (50% EtOH, 20°), pK_{a1} 12.37; pK_{a2} 8.37 (50% dioxan, 25°). λ_{max} 348 nm.

Di-Ac: [6665-78-7].

 $C_{19}H_{14}O_6$ M 338.316

Needles (EtOH). Mp 198-200° (192°).

7-Me ether: [520-28-5]. 5-Hydroxy-7-methoxyflavone.

Tectochrysin $C_{16}H_{12}O_4$ M 268.268

Isol. from wood of *Pinus* spp. and *Alnus sieboldiana* and other plants. Used as 1mM soln. in EtOH for photometric detn. of U(VI) (λ_{max} 405 nm, pH 5.5-9.5). Yellow prisms (EtOH). Sol. MeOH, EtOH. Mp 163°.

Nadkarni, D.R. et al, *J. Chem. Soc.*, 1938, 1320 (synth)

Katyal, M. et al, *Proc. - Indian Acad. Sci., Sect. A*, 1962, 56, 125; *CA*, 58, 3884c (detn, Th)

Dev, B. et al, *Fresenius' Z. Anal. Chem.*, 1963, 196, 178 (synth, use, deriv)

Batterham, T.J. et al, *Aust. J. Chem.*, 1964, 17, 428 (pmr)

Katyal, M. et al, *Talanta*, 1968, 15, 95 (detn, U)

Bowie, J.H. et al, *J. Chem. Soc. B*, 1969, 89 (ms)

Nevskaya, E.M. et al, *Usp. Khim.*, 1972, 27, 1699 (*pKa*)

Thompson, M. et al, *Anal. Chim. Acta*, 1976, 85, 375 (detn, Cu)

Davoust, D. et al, *Org. Magn. Reson.*, 1978, 11, 547 (pmr)

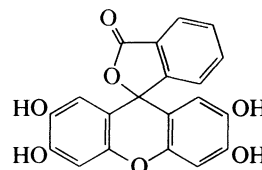
Agrawal, P.K. et al, *Tetrahedron Lett.*, 1983, 177 (cmr)

Saxena, S. et al, *Synthesis*, 1985, 697 (synth)

2',7'-Dihydroxyfluorescein

D-00613

2',3',6',7'-Tetrahydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthene]-3-one, 9CI. *Hydroxyhydroquinonephthalein* [2320-44-7]

 $C_{20}H_{12}O_7$ M 364.311

Used as 0.2% soln. in EtOH as metal indicator for titrimetric detn. of Bi, Cd, Hg, Mg, Pb, Sn, Th, Zn, Zr, rare earth elements, Cr, Mn. Orange cryst. (EtOH). Sol. EtOH, alkalis. pK_a 6.0 ($\mu = 0.1$).

Palaty, V., *Chem. Ind. (London)*, 1961, 211.

Ackermann, G. et al, *Talanta*, 1974, 21, 431 (detn, Sn)

Antonovich, V.P. et al, *Zh. Anal. Khim.*, 1974, 29, 2341, 2348 (*pKa*)

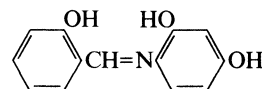
Fujita, Y. et al, *Bunseki Kagaku (Jpn. Anal.)*, 1975, 25, 253 (detn, Fe(III), Al)

Mori, I. et al, *Bussei Kenkyu.*, 1979, 28, 707; 1982, 31, E239 (detn, Cr, Mn)

2,4-Dihydroxy-N-(2-hydroxybenzylidene)aniline

D-00614

2-[[[(2,4-Dihydroxyphenyl)imino]methyl]phenol], 9CI. 2,4-Dihydroxy-N-salicylideneaniline. 2-Hydroxybenzaldehyde 2,4-dihydroxyanil

 $C_{13}H_{11}NO_3$ M 229.235

4-Me ether: [79319-41-8]. 2-Hydroxy-4-methoxy-N-salicylideneaniline

 $C_{14}H_{13}NO_3$ M 243.262

Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 505 nm, pH 5.0), Ga (λ_{max} 510 nm, pH 3.3). Cryst. (EtOH). Sol. DMF, EtOH.

4-Et ether: 4-Ethoxy-2-hydroxy-N-salicylideneaniline

 $C_{15}H_{15}NO_3$ M 257.288

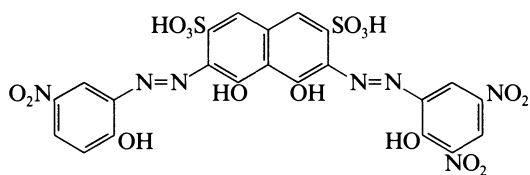
Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 495 nm, pH 5.5), Ga (λ_{max} 510 nm, pH 3.7). Cryst. (EtOH). Sol. DMF, EtOH.

Morishige, K., *Anal. Chim. Acta*, 1974, 72, 295 (synth, detn, Al, Ga)

4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI

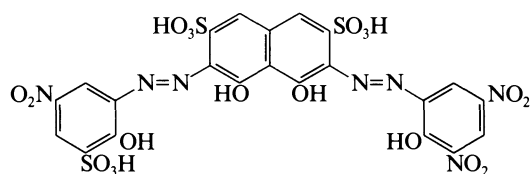
D-00615

[26069-59-0]

 $C_{22}H_{13}N_7O_{16}S_2$ M 695.514Used for photometric detn. of Nb, Zr. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI**

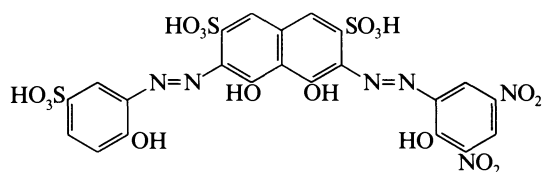
D-00616

[26069-53-4]

 $C_{22}H_{13}N_7O_{19}S_3$ M 775.578Used for photometric detn. of Ba, Ca, Nb, Sr, Zr. Dark red cryst. powder. Mod. sol. H_2O .Alimarin, I.P. et al, *Talanta*, 1968, **15**, 601 (detn, Nb)
Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (detn, Ba, Ca, Sr, Zr)**4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI**

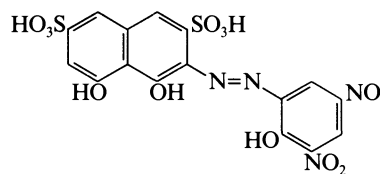
D-00617

[26069-52-3]

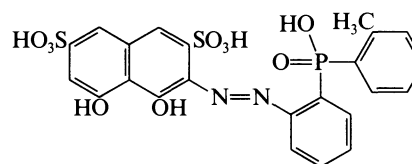
 $C_{22}H_{14}N_6O_{17}S_3$ M 730.581Used for photometric detn. of Nb, Zr. Dark red cryst. powder. Mod. sol. H_2O .Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (use)**4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI**

D-00618

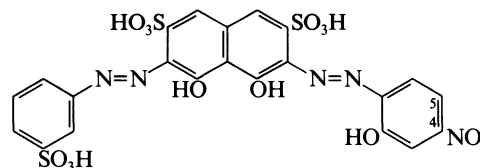
[16606-34-1]

 $C_{16}H_{10}N_4O_{13}S_2$ M 530.406*Di-Na salt*: [21701-18-8].Used as 0.05-1mM aq. soln. as a metallochromic indicator for titrimetric detn. of Bi; photometric detn. of Cu (λ_{max} 560 nm). Brown cryst. powder. Sol. EtOH, H_2O . pK_{a1} 6.36.Gusev, S.I. et al, *Zh. Anal. Khim.*, 1966, **21**, 568 (detn, Bi)
Muk, A.A. et al, *Anal. Chim. Acta*, 1969, **44**, 59 (pK_a)
Goyal, S.S. et al, *Mikrochim. Acta*, 1969, 237 (detn, Cu)**4,5-Dihydroxy-3-[[2-[hydroxy(2-methylphenyl)phosphinyl]phenyl]azo]-2,7-naphthalenedisulfonic acid, 9CI**

D-00619

 $C_{23}H_{19}N_2O_{10}PS_2$ M 578.516*Di-Na salt*: [70566-23-3].Used as 2mM aq. soln. for photometric detn. of Be (λ_{max} 580 nm, ϵ 21000, pH 6.8-7.5). Dark red cryst. powder. Sol. H_2O , EtOH, Me_2CO .Lisenko, N.F. et al, *Zh. Anal. Khim.*, 1979, **34**, 256 (synth, detn, Be)**4,5-Dihydroxy-3-[(2-hydroxy-4-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid**

D-00620

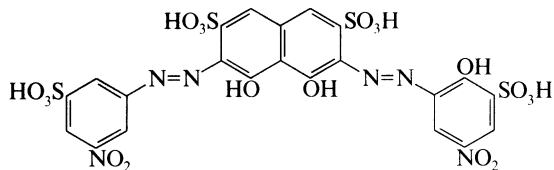
 $C_{22}H_{15}N_5O_{14}S_3$ M 669.584Used for photometric detn. of Nb. Dark red cryst. powder. Mod. sol. H_2O .Alimarin, I.P. et al, *Talanta*, 1966, **13**, 689 (detn, Nb)**4,5-Dihydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI**

D-00621

[29873-00-5]

 $C_{22}H_{15}N_5O_{14}S_3$ M 669.584Used for photometric detn. of Nb. Dark red cryst. powder. Mod. sol. H_2O .Alimarin, I.P. et al, *Talanta*, 1966, **13**, 689 (detn, Nb)

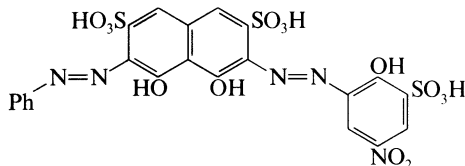
4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-[(3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI **D-00622**



$C_{22}H_{14}N_6O_{19}S_4$ M 794.645
Used as a 0.1% aq. soln. for photometric detn. of V (λ_{max} 625 nm, ϵ 14000). Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2364 (*detn.*, V)

4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, 8CI **D-00623**



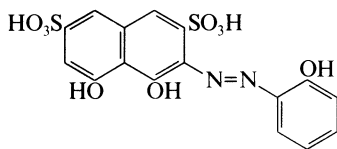
$C_{22}H_{15}N_5O_{14}S_3$ M 669.584
Used for photometric detn. of Nb, Zr. Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)

4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00624**

2-(2-Hydroxyphenylazo)chromotropic acid. Acid chrome blue T. Fast mordant blue R. C.I. 16670

[26197-92-2]



$C_{16}H_{12}N_2O_9S_2$ M 440.411

Di-Na salt: [5850-65-7].

Used as a 0.1% soln. in EtOH as metallochromic indicator for titrimetric detn. of Ca (pH 12; colour change: red \rightarrow blue), Mg, Pb, Zn (pH 10; colour change: red \rightarrow blue); for photometric detn. of Be; used as a 0.1% aq. soln. to give colour reactions with Al, Ga. Blue cryst. Sol. EtOH, H_2O ; spar. sol. Me_2CO ; insol; C_6H_6 , CCl_4 . pK_{a1} 7.56; pK_{a2} 9.30; pK_{a3} 12.4.

Styunkel, T.B. *et al*, *Zh. Anal. Khim.*, 1953, **8**, 163 (*detn.*, Ca, Mg, Zn)

Lazarov, A.I. *et al*, *Zavod. Lab.*, 1959, **25**, 542 (*detn.*, Pb)

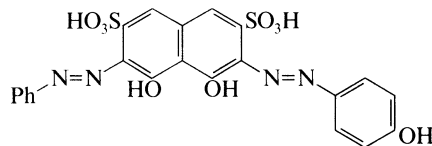
Korenman, I.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 36 (*use*)

Colour Index, 3rd Ed., 1971, **4**, 4099 (*synth*)

Anisimova, L.G. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 1302 (*detn.*, Be)

4,5-Dihydroxy-3-[(4-hydroxyphenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, 8CI **D-00625**

[27963-15-1]



$C_{22}H_{16}N_4O_9S_2$ M 544.522

Used for photometric detn. of H_2O in organic solvents.

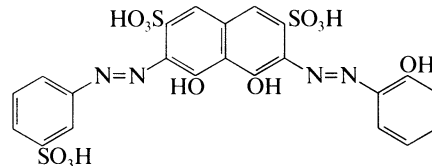
Dark red cryst. powder. Mod. sol. H_2O . pK_{a1} 10.32.

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226; 1973, **28**, 436 (*pKa*, *use*)

Perisic-Janic, N.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 208 (*spectra*)

4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid **D-00626**

[26069-62-5]



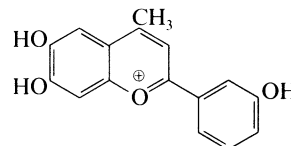
$C_{22}H_{16}N_4O_{12}S_3$ M 624.586

Used for photometric detn. of Nb. Dark red cryst. powder. Mod. sol. H_2O .

Alimarin, I.P. *et al*, *Talanta*, 1966, **13**, 689 (*detn.*, Nb)

6,7-Dihydroxy-2-(3-hydroxyphenyl)-4-methyl-1-benzopyrylium(1+), 9CI **D-00627**

[96487-39-7]



$C_{16}H_{13}O_4^{\oplus}$ M 269.276 (ion)

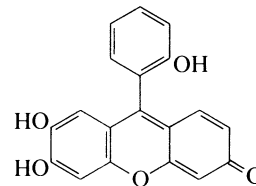
Chloride:

$C_{16}H_{13}ClO_4$ M 304.729

Used for photometric detn. of polyvalent metals. Yellow cryst. (40% EtOH acidified with HCl). Sol. EtOH. Mp 182-184°.

Tantsyura, G.F. *et al*, *Zh. Anal. Khim.*, 1985, **40**, 228 (*synth.*, *use*)

6,7-Dihydroxy-9-(2-hydroxyphenyl)-3H-xanthen-3-one, 9CI **D-00628**

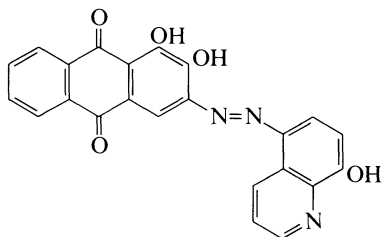


$C_{19}H_{12}O_5$ M 320.301

Used as a 0.05% soln. in EtOH for photometric detn. of W (λ_{\max} 560 nm, ϵ 25500). Cryst. Spar. sol. H₂O.

Poluektova, E.N. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 859 (*detn*, W)

1,2-Dihydroxy-3-[5-(8-hydroxyquinolinyl)azo]anthraquinone **D-00629**



C₂₃H₁₃N₃O₅ M 411.373

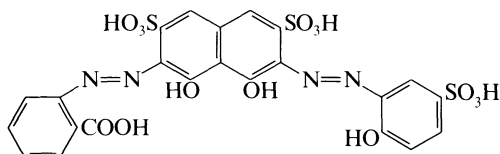
Used as a Hg complex for photometric detn. of Cl[⊖]. Cryst.

Mustafin, I.S. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1962, **5**, 875 (*synth*, *use*)

***o*-[[1,8-Dihydroxy-7-[(2-hydroxy-5-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, 8Cl** **D-00630**

3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid

[24921-23-1]

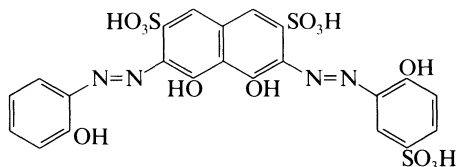


C₂₃H₁₆N₄O₁₄S₃ M 668.596

Used as a 0.05 or 0.1% aq. soln. for photometric detn. of Ba, Ca, Mg (EtOH aq.). Dark red cryst. powder. Mod. sol. H₂O.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177 (*detn*, Ba, Ca, Mg)

4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid **D-00631**



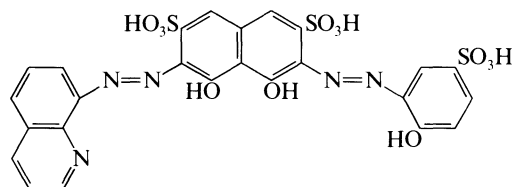
C₂₂H₁₆N₄O₁₃S₃ M 640.585

Used for photometric detn. of Nb. Dark red cryst. powder. Mod. sol. H₂O.

Alimarin, I.P. *et al*, *Talanta*, 1966, **13**, 689 (*detn*, Nb)

4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, 8Cl **D-00632**

[22106-82-7]



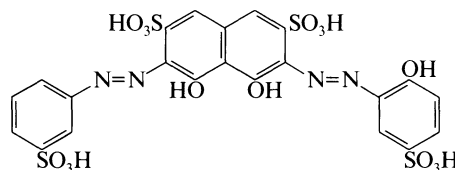
C₂₅H₁₇N₅O₁₂S₃ M 675.634

Used for extraction-photometric detn. of Cu (butanol). Dark red cryst. Sol. H₂O, EtOH.

Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (*detn*, Cu)

4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid **D-00633**

[26069-61-4]



C₂₂H₁₆N₄O₁₅S₄ M 704.650

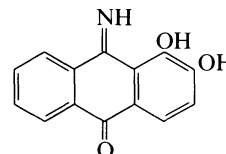
Used for photometric detn. of Nb. Dark red cryst. powder. Mod. sol. H₂O.

Alimarin, I.P. *et al*, *Talanta*, 1966, **13**, 689 (*detn*, Nb)

3,4-Dihydroxy-10-imino-9(10H)-anthracenone, 9Cl **D-00634**

9-Iminoalizarine

[22516-80-9]



C₁₄H₉NO₃ M 239.230

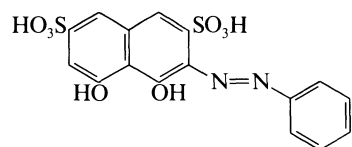
Used as acid-base indicator (pH 0.6 - yellow; pH 4.3 - red; pH 8.7 - violet); used as 0.1% soln. in Me₂CO for pptn. of Al, Ti, V(V), Cu, Mo. Cryst. (MeOH). Sol. MeOH, Me₂CO. pK_{a1} 1.72; pK_{a2} 6.85; pK_{a3} 12.76.

Barbosa, J. *et al*, *Quim. Anal. (Barcelona)*, 1976, **30**, 203 (*use*, *indicator*)

Blanco, M. *et al*, *Talanta*, 1980, **27**, 371 (*use*, *pptn*)

4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, 9Cl **D-00635**

[62869-77-6]



C₁₆H₁₁IN₂O₈S₂ M 550.308

Used as a 0.01*M* aq. soln. for photometric detn. of Th (λ_{\max} 590 nm, pH₄); metallochromic indicator in titrimetric detn. of Th, Zr; as an acid-base indicator. Dark red cryst. powder. Sol. H₂O, EtOH. p*K*_{a2} 3.34; p*K*_{a3} 7.61; p*K*_{a4} 9.77.

Khater, M.M. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 45 (*use*)

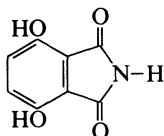
Khalifa, H., *Microchem. J.*, 1977, **22**, 288 (*synth, use*)

Khater, M.M. *et al*, *Microchem. J.*, 1977, **22**, 299 (*detn, Th*)

4,7-Dihydroxy-1*H*-isoindole-1,3 (2*H*)-dione, 9CI **D-00636**

4,7-Dihydroxyphthalimide

[51674-11-4]



C₈H₅NO₄ M 179.132

Used as a 1% soln. in EtOH as acid-base indicator (pH₁ = 1.2; colour change: blue → green; pH₂ = 7.0; colour change: green → yellow). Yellow needles (H₂O). Sol. EtOH, Me₂CO, alkalis; spar. sol. H₂O. Mp 273-274°.

Dithiosemicarbazone: [66341-33-1].

C₁₀H₁₁N₇O₂S₂ M 325.375

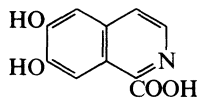
Used as a 0.03-0.1% soln. in DMF for extraction-photometric detn. of Mo (*i*-PeOH); photometric detn. of Mn (λ_{\max} 435 nm, ϵ 91400); indicator in catalytic detn. of Mn(II). Yellow cryst. (EtOH aq.). Sol. alkalis, DMF; spar. sol. EtOH, Me₂CO, PhNO₂; insol. H₂O. Mp 297°. p*K*_{a1} 7.5; p*K*_{a2} 11.5 (DMF aq.).

Thiele, J. *et al*, *Ber.*, 1900, **33**, 675 (*synth*)

Jensen, K.A., *Fresenius' Z. Anal. Chem.*, 1933, **94**, 177; 1939, **117**, 50 (*use*)

Pere-Bendito, D. *et al*, *Anal. Chim. Acta*, 1977, **94**, 405 (*synth, detn, Mn*)

6,7-Dihydroxy-1-isoquinolinecarboxylic acid **D-00637**



C₁₀H₇NO₄ M 205.170

Di-Me ether: 6,7-Dimethoxy-1-isoquinolinecarboxylic acid

C₁₂H₁₁NO₄ M 233.223

Used as a 0.01% soln. in EtOH as fluorescent pH indicator (pH range: 9.5-11.0; colour change: yellow → blue). Needles (Et₂O). Sol. alkalis, EtOH. Mp 204-205° (dec.).

Szebelledy, L. *et al*, *Fresenius' Z. Anal. Chem.*, 1938, **113**, 326 (*use*)

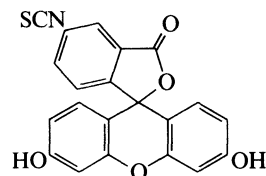
Battersby, A.R. *et al*, *J. Chem. Soc.*, 1961, 3899 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

3',6'-Dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, 9CI **D-00638**

Fluorescein-5-isothiocyanate

[3326-32-7]



C₂₁H₁₁NO₅S M 389.388

Fluorescent label for proteins and amino acids. Orange-yellow cryst. Mp > 160° dec. Diacetate also available.

[118378-76-0]

Maeda, H. *et al*, *J. Biochem. (Tokyo)*, 1969, **65**, 777; **66**, 783 (*use*)

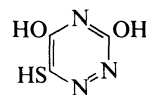
Steinbach, G., *Acta Histochem.*, 1974, **50**, 19 (*synth*)

Sinsheimer, J.E. *et al*, *Anal. Biochem.*, 1974, **57**, 227 (*synth, ir, nmr*)

3,5-Dihydroxy-6-mercapto-1,2,4-triazine **D-00639**

6-Mercapto-1,2,4-triazine-3,5(2*H*,4*H*)-dione

[4956-13-2]



C₃H₃N₃O₂S M 145.142

Di-Na salt: [24168-35-2].

Used as a 0.2% aq. soln. for photometric detn. of Os.

[20029-35-0]

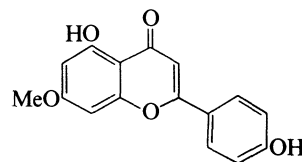
Baiulescu, G., *Anal. Chim. Acta*, 1961, **24**, 463 (*detn, Os*)

4',5-Dihydroxy-7-methoxyflavone **D-00640**

5-Hydroxy-2-(4-hydroxyphenyl)-7-methoxy-4*H*-1-benzopyran-4-one. *Genkwanin*. Apigenin 7-methyl ether.

Puddumetin

[437-64-9]



C₁₆H₁₂O₅ M 284.268

Widespread flavonoid isol. from the Asteraceae, Cistaceae,

Eupomataceae, Lamiaceae, Pteridaceae and

Saxifragaceae. Used as EtOH soln. for analytical

reactions with some metals. Yellow needles (MeOH).

Mp 286°.

Mahal, H.S. *et al*, *J. Chem. Soc.*, 1936, 569.

Narasimhachari, N. *et al*, *Proc. - Indian Acad. Sci., Sect. A*, 1950, **32**, 17 (*synth*)

Dawson, R.M. *et al*, *Aust. J. Chem.*, 1965, **18**, 1871 (*isol*)

Kawano, N. *et al*, *Chem. Pharm. Bull.*, 1966, **14**, 299 (*synth*)

Korkuć, A., *Wiad. Chem.*, 1969, **23**, 345; *CA*, **71**, 56224j (*use*)

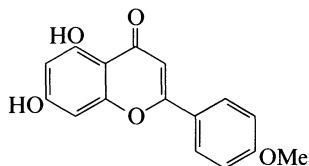
Wagner, H. *et al*, *Tetrahedron Lett.*, 1976, 1799 (*nmr*)

Markham, K.R. *et al*, *Tetrahedron*, 1978, **34**, 1389 (*cmr*)

Hauteville, M. *et al*, *Tetrahedron*, 1981, **37**, 377 (*synth*)

5,7-Dihydroxy-4'-methoxyflavone, 8CI **D-00641**

5,7-Dihydroxy-2-(4-methoxyphenyl)-4H-1-benzopyran-4-one, 9CI. Apigenin 4'-methyl ether. **Acacetin**. Linarigenin. Buddleoflavonol
[480-44-4]



$C_{16}H_{12}O_5$ M 284.268

Constit. of *Robina pseudoacacia* (common acacia) and *Ammi visnaga*. Also isol. from many other plants incl. Asteraceae, Cistaceae, Clusiaceae, Fabaceae, Liliaceae etc. Used for photometric detn. of Zr. Antiinflammatory, capillary protective and spasmolytic agent. Pale-yellow needles (EtOH). Mp 263°.

▷ DJ3002000.

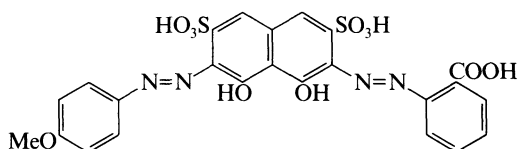
Di-Ac: [5892-39-7].

Needles (EtOH). Mp 203°.

Robinson, R. *et al*, *J. Chem. Soc.*, 1926, **128**, 2344 (*synth*)
Bowie, J.H. *et al*, *J. Chem. Soc. B*, 1969, **2**, 89 (*ms*)
Nevskaya, E.M. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1699 (*use*)
Wagner, H. *et al*, *Tetrahedron Lett.*, 1976, 1799 (*nmr*)
Calvert, D.J. *et al*, *Org. Magn. Reson.*, 1979, **12**, 583 (*cmr*)
Saxena, S. *et al*, *Synthesis*, 1985, 597 (*synth*)

2-[[1,8-Dihydroxy-7-[(4-methoxyphenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, 8CI **D-00642**

3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(4-methoxyphenylazo)-2,7-naphthalenedicarboxylic acid
[28008-00-6]



$C_{24}H_{18}N_4O_{11}S_2$ M 602.558

Used for photometric detn. of Ba, Ca, Sr, SO_4^{2-} . Dark red cryst. powder. Mod. sol. H_2O . pK_{a1} 10.47; pK_{a2} 14.93.

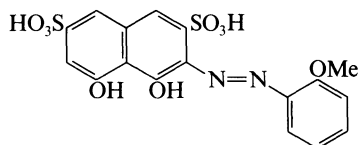
Petrova, T.V. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1970, 259; *CA*, **73**, 31191z (*use*)

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (*pKa*)

Perisic-Janic, N.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 208 (*spectra*)

4,5-Dihydroxy-3-[(2-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00643**

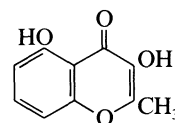
[34353-07-6]



$C_{17}H_{14}N_2O_9S_2$ M 454.438

Gives colour reactions with Ba, Ca, Mg, Sr. Orange cryst. Sol. H_2O .

Katayama, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 2712 (*use*)

3,5-Dihydroxy-2-methyl-4H-1-benzopyran-4-one, 9CI **D-00644**

$C_{10}H_8O_4$ M 192.171

3-O-Ac: [26239-18-9]. 3-Acetyl-5-hydroxy-2-methyl-4H-1-benzopyran-4-one, 9CI. 2-Methyl-3-acetyl-5-hydroxychromone

$C_{12}H_{10}O_5$ M 234.208

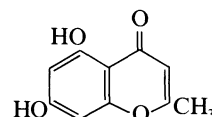
Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 526 nm, 40% MeOH medium, CCl_4). Yellow cryst. Sol. MeOH.

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1970, **19**, 1346 (*synth*)

Ito, T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 343 (*detn. Ti*)

5,7-Dihydroxy-2-methyl-4H-1-benzopyran-4-one, 9CI **D-00645**

5,7-Dihydroxy-2-methylchromone. **Noreugenin**
[1013-69-0]



$C_{10}H_8O_4$ M 192.171

Constit. of *Adina rubescens*, *A. racemosa* and *Amoora rohituka*. Needles (MeOH). Mp 275-280°.

5-O- β -D-Glucopyranoside: [128396-15-6]. **Schumanniofoside A**

$C_{16}H_{18}O_9$ M 354.313

Constit. of *Schumanniophyton magnificum*. Granules (MeOH). Mp 162-163°.

7-O- β -D-Glucopyranoside:

$C_{16}H_{18}O_9$ M 354.313

Constit. of *Adina rubescens*. Needles (MeOH) or hygroscopic solid. Mp 245-248°. $[\alpha]_D^{25}$ -50° (Py).

7-O- $[\beta$ -D-Glucopyranosyl-(1-2)-apiofuranoside]: [128396-16-7]. **Schumanniofoside B**

$C_{21}H_{26}O_{13}$ M 486.429

Constit. of *S. magnificum*. Cryst. (MeOH). Mp 251-252°.

7-Me ether: [480-34-2]. 5-Hydroxy-7-methoxy-2-methyl-4H-1-benzopyran-4-one. 5-Hydroxy-7-methoxy-2-methylchromone. **Eugenin**

$C_{11}H_{10}O_4$ M 206.198

Constit. of *Eugenia aromatica* and *Seseli* spp. Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 486 nm, 40% MeOH medium, CCl_4). Cryst. (EtOH). Sol. MeOH. Mp 119-120°.

Meijer, T.M. *et al*, *Helv. Chim. Acta*, 1948, **31**, 1603 (*isol, struct, synth, eugenin*)

Dorofeenko, G.N. *et al*, *Khim. Geterotsikl. Soedin.*, 1971, **7**, 1703; *CA*, **76**, 153503k (*synth*)

Brown, R.T. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1975, 1776 (*isol, struct*)

Stoessl, A. *et al*, *Can. J. Bot.*, 1978, **56**, 2589 (*cmr, biosynth*)

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1979, **119**, 1346

(*Me ether, synth*)

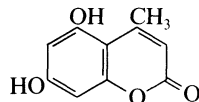
Gujral, V.K. *et al*, *Phytochemistry*, 1979, **18**, 181 (*glucoside*)

Ito, T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 343 (*Me ether, detn. Ti*)

Ghosal, S. *et al*, *Phytochemistry*, 1982, **21**, 2943 (*isol*)

Tane, P. *et al*, *Phytochemistry*, 1990, **29**, 1004 (*glycosides*)

5,7-Dihydroxy-4-methyl-2H-1-benzopyran-2-one, 9CI **D-00646**
 5,7-Dihydroxy-4-methylcoumarin
 [2107-76-8]



$C_{10}H_8O_4$ M 192.171
 Used for photometric detn. of Fe(III), Co, Th; fluorescent acid-base indicator. Mp 282°.
 Zolotavin, V.L., *Zavod. Lab.*, 1951, **17**, 680 (*use, ind*)
 Trivedi, K.N., *J. Indian Chem. Soc.*, 1965, **42**, 273 (*synth*)
 Manku, G., *Mikrochim. Acta*, 1970, 1101; 1972, 811 (*detn, Fe*)
 Manku, G., *Fresenius' Z. Anal. Chem.*, 1972, **258**, 365 (*detn, Fe, Co, Th*)
 Mital, R. *et al*, *J. Chem. Eng. Data*, 1972, **17**, 383 (*nmr*)
 Masrani, K.V. *et al*, *J. Appl. Chem. Biotechnol.*, 1974, **24**, 331 (*uv*)

6,7-Dihydroxy-4-methyl-2H-1-benzopyran-2-one, 9CI **D-00647**
 6,7-Dihydroxy-4-methylcoumarin. 4-Methylaesculetin
 [529-84-0]

$C_{10}H_8O_4$ M 192.171
 Used as 1% soln. in EtOH as a redox fluorescent indicator. Used as 1mM soln. in EtOH for photometric detn. of Mo(VI), Nb(V), Ti(IV). Yellow cryst. (EtOH aq.). Mp 272-274°. pK_{a1} 7.44; pK_{a2} 8.12.

Bis(hydrogen sulfate): [29334-07-4]. **Sulmarin**, INN. 4-Methyl-6,7-bis(sulfooxy)-2H-1-benzopyran-2-one, 9CI. *MG-143*. *Idro P₂*
 $C_{10}H_8O_{10}S_2$ M 352.299
 Haemostatic drug, used as di-Na salt.
 6-(Carboxymethyl) ether: [52814-39-8]. [(7-Hydroxy-4-methyl-2-oxo-2H-1-benzopyran-6-yl)oxy]acetic acid, 9CI. *Methylesculetylethanoic acid*. **Metexuletol**, INN
 $C_{12}H_{10}O_6$ M 250.207
 Antiinflammatory agent. Cryst. (EtOH). Mp 272-274°.
 6-(Carboxymethyl) ether, Na salt: [53285-61-3]. *Permethol*. *Metesculetol sodium*
 6-(Carboxymethyl)ether; compd. with 7-[2-(Diethylamino)ethyl]theophylline: [15518-82-8]. **Metescufylline**, INN. *Etamiphyllin*. *Methescutol*. *Veinartan*. *Venarterin*
 $C_{25}H_{31}N_5O_8$ M 529.549
 Capillary protectant. Mp 124°.
 ▶ PC9450000.

[1040-23-9]

v. Pechmann, H. *et al*, *Ber.*, 1901, **34**, 423 (*synth*)
Org. Synth., Coll. Vol., 1, 1932, 360.
 Jensen, K.A. *et al*, *Fresenius' Z. Anal. Chem.*, 1933, **94**, 177 (*use, ind*)
 Maggiorelli, E., *CA*, 1953, **47**, 6412d (*synth*)
 Cortesi, R. *et al*, *Bull. Soc. Pharm. Bordeaux*, 1961, **100**, 133 (*Metexuletol*)
 Jain, B.D. *et al*, *Indian J. Chem.*, 1963, **1**, 369 (*detn, Mo*)
 Jain, B.D. *et al*, *J. Indian Chem. Soc.*, 1964, **41**, 29 (*detn, Ti*)
 Jain, B.D. *et al*, *Anal. Chim. Acta*, 1967, **37**, 135 (*detn, Nb*)
 Radouco-Thomas, S. *et al*, *Life Sci.*, 1967, **3**, 465 (*Sulmarin*)
 Khan, M.A.S. *et al*, *Anal. Chim. Acta*, 1968, **43**, 153 (*pmr*)
 Katyal, M. *et al*, *Talanta*, 1968, **15**, 1043 (*synth, pKa, use*)
 Cussans, N.J. *et al*, *Tetrahedron*, 1975, **31**, 2719 (*cmr*)
 Ahluwalia, V.K. *et al*, *Indian J. Chem., Sect. B*, 1977, **15**, 514 (*deriv*)
Fr. Pat., (1972), 2 377 201,, (1978) (1978;CA, **81**, 13389f, CA, (*Metexuletol*)
 Sankar, S.S. *et al*, *Org. Magn. Reson.*, 1982, **19**, 222 (*cmr*)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,
 Pharmaceutical Press, London, 1982/1989, 12934, 13284 (6,7-Dihydroxy-4-methyl-2H-1-benzopyran-2-one)

7,8-Dihydroxy-4-methyl-2H-1-benzopyran-2-one, 9CI **D-00648**
 7,8-Dihydroxy-4-methylcoumarin. 4-Methyldaphnetin
 [2107-77-9]

$C_{10}H_8O_4$ M 192.171

Used as a 0.1M soln. in EtOH for simultaneous photometric detn. of U (λ_{max} 450 nm, ϵ 2700) and V (λ_{max} 600 nm, ϵ 900); metallochromic indicator in titrimetric detn. of Nb. Cryst. Sol. common org. solvs. Mp 232°.

▶ GN6385000.

Trivedi, K.N., *J. Indian Chem. Soc.*, 1965, **42**, 273 (*synth*)
 Kingo, M., *Bunseki Kagaku (Jpn. Anal.)*, 1971, **20**, 806 (*detn, Nb*)
 Masrani, K.V. *et al*, *J. Appl. Chem. Biotechnol.*, 1974, **24**, 331.
 Cussans, N.J. *et al*, *Tetrahedron*, 1975, **31**, 2719.
 Chauhan, Y.S. *et al*, *Indian J. Chem., Sect. B*, 1978, **16**, 292 (*synth*)
 Sane, R.T. *et al*, *J. Indian Chem. Soc.*, 1978, **55**, 290 (*detn, U, V*)

Dihydroxy(methyl)borane **D-00649**
Methylboronic acid, 10CI, 9CI. *Methylboric acid*.
Methaneboric acid. *Methyldihydroxyborane*
 [13061-96-6]

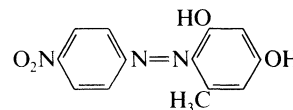
$MeB(OH)_2$

CH_3BO_2 M 59.860

Derivatisation reagent for anal. of bifunctional org. compds. Solid. Pale yellow needles (H₂O). Mp 95-100° dec. (freshly prepared). Readily dehydrates to trimethylboroxin.

Burg, A.B., *J. Am. Chem. Soc.*, 1940, **62**, 2228 (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, 1, 1231.
 de Moor, J.E. *et al*, *J. Organomet. Chem.*, 1967, **9**, 31 (*ir, raman*)
 Nöth, H. *et al*, *J. Organomet. Chem.*, 1968, **12**, 23 (*pmr*)
 McFarlane, W. *et al*, *Chem. Ber.*, 1975, **108**, 2112 (*nmr*)
 Rensch, H. *et al*, *Chem. Ber.*, 1977, **110**, 2189 (*synth*)
 Kossa, W.C., *Chem. Deriv. Anal. Chem.*, (Frei, R.W. *et al*, Ed.), Plenum, N.Y., 1981, 99 (*rev*)
 Frei, R.W. *et al*, *Chem. Deriv. Anal. Chem.*, Plenum, New York, 1981, 99 (*use*)

2,4-Dihydroxy-6-methyl-4'-nitroazobenzene **D-00650**
 5-Methyl-4-(4-nitrophenylazo)-1,3-benzenediol. 4-(p-Nitrophenylazo)resorcinol



$C_{13}H_{11}N_3O_4$ M 273.248

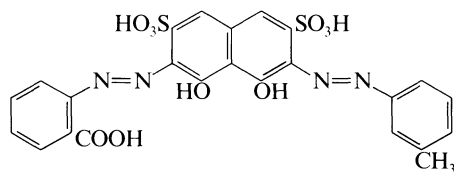
Used as 0.025% soln. in 1M NaOH for photometric detn. of Be (alkaline medium). Reddish-brown cryst. powder. Sol. alkalis.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4**, 383 (*synth*)
 Vinci, F.A., *Anal. Chem.*, 1953, **25**, 1580 (*detn, Be*)
 White, J.C. *et al*, *Anal. Chem.*, 1956, **28**, 956 (*detn, Be*)

2-[[1,8-Dihydroxy-7-[(3-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9CI

D-00651

[26075-07-0]

 $C_{24}H_{18}N_4O_{10}S_2$ M 586.559

Used as a 0.1% aq. soln. for photometric detn. of Ba, Ca, La, Sr, $SO_4^{2\ominus}$. Dark red cryst. powder. Sol. H_2O . pK_{a3} 10.33; pK_{a4} 14.82.

Petrova, T.V. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1970, 259 (*detn. Ba, Ca, La, Sr, SO_4^{2\ominus}*)

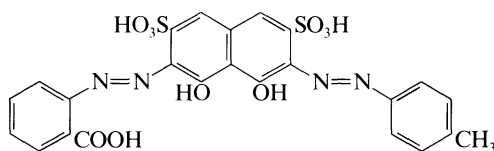
Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, 25, 226 (*pKa*)

Perisic-Janic, N.U. *et al*, *Zh. Anal. Khim.*, 1973, 28, 208 (*spectra*)

2-[[1,8-Dihydroxy-7-[(4-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid

D-00652

[26190-37-4]

 $C_{24}H_{18}N_4O_{10}S_2$ M 586.559

Used as a 0.1% aq. soln. for photometric detn. of Ba, Ca, Dy, La (λ_{max} 740 nm), Lu, Sr, Y, $SO_4^{2\ominus}$. Dark red cryst. powder. Sol. H_2O . pK_{a4} 10.34; pK_{a5} 14.67.

Petrova, T.V. *et al*, *Izv. Akad. Nauk Kaz. SSR, Ser. Khim.*, 1970, 259 (*detn. Ba, Ca, Sr, SO_4^{2\ominus}*)

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, 25, 226 (*pKa*)

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1971, 26, 297 (*detn. La*)

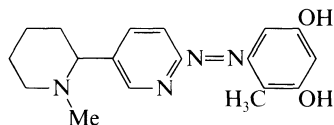
Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1971, 26, 722 (*detn. Dy, Lu, Y*)

Perisic-Janic, N.U. *et al*, *Zh. Anal. Khim.*, 1973, 28, 208 (*spectra*)

2-[(3,5-Dihydroxy-2-methylphenyl)azo]-5-(1-methyl-2-piperidinyl)pyridine

D-00653

6'-[(4,6-Dihydroxy-o-tolyl)azo]-1-methylanabasine, 8CI
[23333-80-4]

 $C_{18}H_{22}N_4O_2$ M 326.397

Gives colour reactions with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Yellow-orange cryst. Sol. EtOH, Me_2CO .

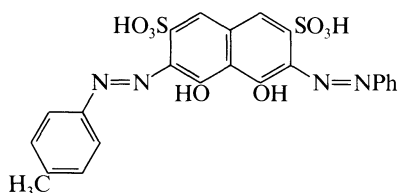
Dzhiyanbaeva, R.K. *et al*, *CA*, 1968, 69, 60029a (*synth, use*)

4,5-Dihydroxy-3-(3-methylphenylazo)-6-phenylazo-2,7-naphthalenedisulfonic acid

D-00654

4,5-Dihydroxy-3-(phenylazo)-6-(p-tolylazo)-2,7-naphthalenedisulfonic acid, 8CI

[32748-05-3]

 $C_{23}H_{18}N_4O_8S_2$ M 542.549

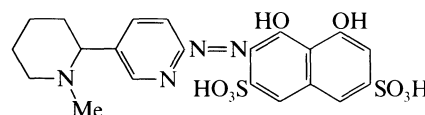
Gives colour reactions with Dy, Lu, Th, Y. Dark red cryst. powder. Mod. sol. H_2O .

Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1971, 26, 722 (*use*)

4,5-Dihydroxy-3-[(5-(1-methyl-2-piperidinyl)-2-pyridyl)azo]-2,7-naphthalenedisulfonic acid

D-00655

6'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]-1-methylanabasine, 8CI

 $C_{21}H_{22}N_4O_8S_2$ M 522.559

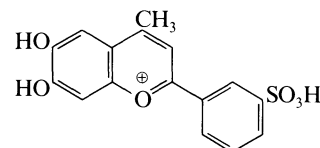
Di-Na salt: [23397-05-9].

Gives colour reactions with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Violet cryst. Sol. H_2O .

Dzhiyanbaeva, R.K. *et al*, *CA*, 1968, 69, 60029a (*synth, use*)

6,7-Dihydroxy-4-methyl-2-(3-sulfophenyl)-1-benzopyrylium(1+), 9CI

D-00656

 $C_{16}H_{13}O_6S^{\oplus}$ M 333.341 (ion)

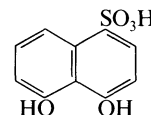
Chloride: [96487-38-6].

Used for photometric detn. of polyvalent metals. Yellow cryst. (EtOH + HCl). Sol. EtOH, H_2O . Mp 186-188°.

Tantsyura, G.F. *et al*, *Zh. Anal. Khim.*, 1985, 40, 228 (*synth, use*)

4,5-Dihydroxy-1-naphthalenesulfonic acid

D-00657

 $C_{10}H_8O_5S$ M 240.236

Na salt: [54179-01-0].

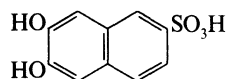
Used as a 0.01M aq. soln. for extraction-photometric detn. of B (λ_{max} 341 nm, ϵ 24500, 1,2-dichloroethane). Plates. Sol. H_2O ; insol. C_6H_6 .

Korenaga, T. *et al*, *Anal. Chim. Acta*, 1980, 120, 321 (*detn. B*)

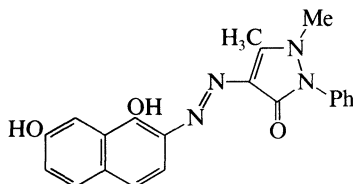
Korenaga, T. *et al*, *Analyst (London)*, 1980, 105, 955 (*detn. B*)

6,7-Dihydroxy-2-naphthalenesulfonic acid D-00658

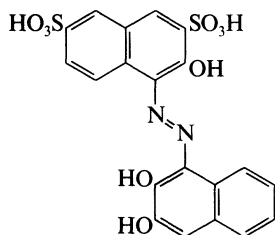
[92-27-3]

 $C_{10}H_8O_5S$ M 240.236Used as a 1% aq. soln. for photometric detn. of Mo. Cryst. Sol. H_2O .Buchwald, H., *Talanta*, 1962, **9**, 631 (detn. Mo)Used as sat. soln. in Py for gravimetric detn. of Cu (blue ppt.). Cryst. Spar. sol. Py; insol. H_2O , EtOH, Me_2CO .Feigl, F. *et al*, *Anal. Chim. Acta*, 1953, **8**, 117, 339 (synth, use) *Colour Index*, 3rd Ed., 1971, **4**, 4567 (synth, rev)**4-[(1,7-Dihydroxy-2-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI** D-00659

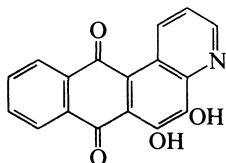
[59297-31-3]

 $C_{21}H_{18}N_4O_3$ M 374.398Used for photometric detn. of Ga (λ_{max} 510 nm, ϵ 41100), In (λ_{max} 510 nm, ϵ 30800). Orange-red cryst. Mp 193°. pK_{a1} 1.80; pK_{a2} 9.01; pK_{a3} 11.44.Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (detn. Ga, Tu)**4-[(2,3-Dihydroxy-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, 9CI** D-00660

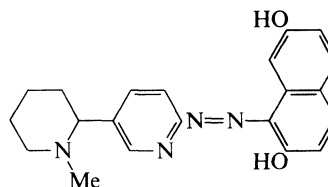
2,2',3'-Trihydroxy-1,1'-azonaphthalene-3,6-disulfonic acid [76877-42-4]

 $C_{20}H_{14}N_2O_9S_2$ M 490.471Used as 0.1mM soln. as an indicator for compleximetric (EDTA) titration of Ca (λ_{max} 560 nm, pH 12). Dark violet cryst. Sol. H_2O . pK_{a1} 5.99 (25°, $\mu = 1$).Wada, H. *et al*, *Anal. Chim. Acta*, 1980, **121**, 265 (synth, detn. Ca)**5,6-Dihydroxynaphtho[2,3-f]quinoline-7,12-dione, 9CI** D-00661

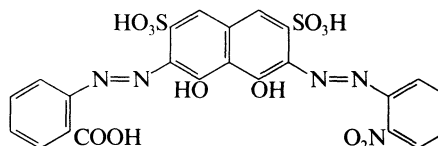
Alizarine blue. Gallomide blue. C.I. 67410 [568-02-5]

 $C_{17}H_9NO_4$ M 291.262**2-[(2,7-Dihydroxy-1-naphthyl)azo]-5-(1-methyl-2-piperidiny)pyridine** D-00662

6'-[(2,7-Dihydroxy-1-naphthyl)azo]-1-methylanabasine, 8CI [25349-59-1]

 $C_{21}H_{22}N_4O_2$ M 362.430Gives colour reactions with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Orange-red cryst. Sol. EtOH, Me_2CO . pK_{a1} 1.69; pK_{a2} 7.88; pK_{a3} 8.88 (2mM KCl, EtOH, 18°).Kagramonova, N.G. *et al*, *CA*, 1969, **71**, 56314p (use)Smaglyuk, N.G. *et al*, *Uzb. Khim. Zh.*, 1970, **14**, 24; *CA*, 73, 39313m (pKa)**2-[[1,8-Dihydroxy-7-[(2-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9CI** D-00663

[23156-98-1]

 $C_{23}H_{15}N_5O_{12}S_2$ M 617.530

Used as a 0.1% aq. soln. for photometric detn. of Ba, Ca.

Dark red cryst. powder. Sol. H_2O . pK_{a4} 11.03; pK_{a5} 14.54.Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1460; 1971, **26**, 297 (detn. Ca)Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (pKa)**2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9CI, 8CI** D-00664

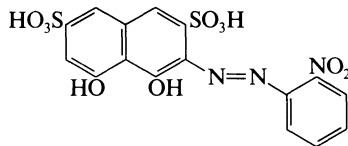
[26075-08-1]

 $C_{23}H_{15}N_5O_{12}S_2$ M 617.530

Used as a 0.1% aq. soln. for photometric detn. of Ba, Ca,

La (λ_{max} 720 nm), $SO_4^{2\ominus}$. Dark red cryst. powder. Sol. H_2O . pK_{a4} 9.78; pK_{a5} 14.38.Petrova, T.V. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1970, 259 (synth, detn. Ba, Ca, $SO_4^{2\ominus}$)Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (pKa)Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 297 (detn. La)

4,5-Dihydroxy-3-[(2-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00665**
o-Nitrophenylazochromotropic acid
 [18338-22-2]

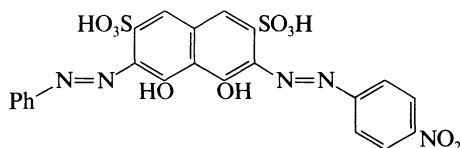


$C_{16}H_{11}N_3O_{10}S_2$ M 469.409
 Used for photometric detn. of Th. Dark red cryst. Sol.
 H_2O . Mp $> 300^\circ$. pK_{a1} 8.96 ($\mu = 0.1$, 25°).
 Toei, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1966, **39**, 638; 1967, **40**, 2085
 (detn, Th)

4,5-Dihydroxy-3-[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00666**
m-Nitrophenylazochromotropic acid
 [18338-23-3]

$C_{16}H_{11}N_3O_{10}S_2$ M 469.409
 Used for photometric detn. of Th. Dark red cryst. Sol.
 H_2O . pK_{a1} 8.6 ($\mu = 0.1$, 25°).
 Toei, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1967, **40**, 2085 (detn, Th, pK_a)

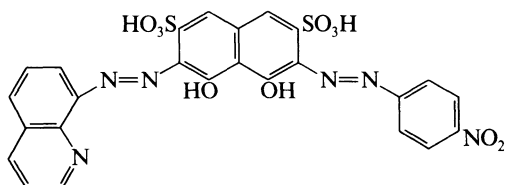
4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, 8CI **D-00667**
 [22514-54-1]



$C_{22}H_{15}N_5O_{10}S_2$ M 573.520
 Used as a 0.05% or 0.1% aq. soln. for photometric detn.
 of Ba, Ca, Dy, La, Lu, Th (λ_{max} 620 nm, ϵ 21000), Y.
 Dark red cryst. powder. Mod. sol. H_2O . pK_{a1} 0.93; pK_{a3}
 8.89; pK_{a4} 13.67.

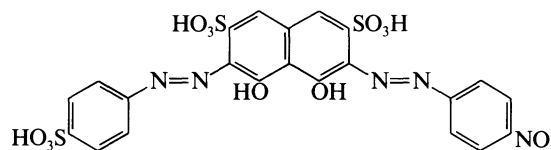
Muk, A.A. *et al*, *Anal. Chim. Acta*, 1969, **44**, 59 (pK_a)
 Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177, 490 (detn, Ba,
 Ca, Th)
 Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (pK_a)
 Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 722 (detn, Dy, Lu,
 Th, Y)

4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, 8CI **D-00668**
 [22106-88-3]



$C_{25}H_{16}N_6O_{10}S_2$ M 624.568
 Used for extraction-photometric detn. of Cu (butanol).
 Dark red cryst. Sol. H_2O , EtOH.
 Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (detn, Cu)

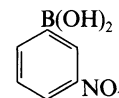
4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-[(*p*-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI **D-00669**
 [23156-96-9]



$C_{22}H_{15}N_5O_{13}S_3$ M 653.584
 Used as a 0.05% or 0.1% aq. soln. for photometric detn.
 of Ba, Ca (λ_{max} 640 nm, ϵ 33000), La, Li (λ_{max} 610 nm, ϵ
 35000), Sr, Th (λ_{max} 600 nm, ϵ 29000). Dark red cryst.
 powder. Mod. sol. H_2O . pK_{a4} 8.5.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177, 490 (detn, Ba,
 Ca, Sr, La, Li, Th)
 Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (pK_a)

Dihydroxy(3-nitrophenyl)borane **D-00670**
 (3-Nitrophenyl)boronic acid, 10CI. *m*-Nitrobenzeneboronic
 acid
 [13331-27-6]

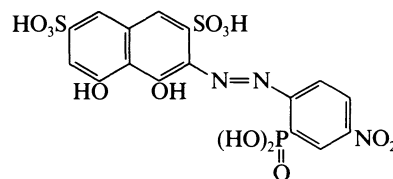


$C_6H_6BNO_4$ M 166.929
 Used as derivatisation reagent in gc detn. of diols,
 hydroxyamines and hydroxyacids; enzyme inhibitor and
 chemosterilant for insects. Yellow cryst. (H_2O). Mod.
 sol. hot H_2O ; sol. EtOH, Et₂O. Mp 275° , Mp 285° ,
 319° .

▷ CY8980000.

Torsell, K., *CA*, 1958, **52**, 1455f (synth)
 Skowronska-Serafinowa, B. *et al*, *Pol. J. Chem. (Rocz. Chem.)*,
 1961, **35**, 937 (ir)
 Ramsey, B.G., *J. Phys. Chem.*, 1970, **74**, 2464 (props)
 Barker, S.A. *et al*, *Carbohydr. Res.*, 1973, **26**, 33 (use, props)
 Brown, B.J. *et al*, *Aust. J. Chem.*, 1976, **29**, 941 (props)
 Poole, C.F. *et al*, *J. Chromatogr.*, 1978, **158**, 33 (use)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, NEY500.

4,5-Dihydroxy-3-[(4-nitro-2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00671**
 Nitrophosphonazo I
 [18029-36-2]

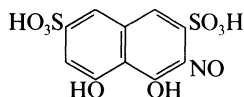


$C_{16}H_{12}N_3O_{13}PS_2$ M 549.389
 Used as 0.04% aq. soln. for photometric detn. of Mg (λ_{max}
 584 nm, ϵ 12200). Cryst. Sol. H_2O .

Qui Xing-chu, *et al*, *Chem. Anal. (Warsaw)*, 1987, **32**, 285; *CA*,
108, 209866e (detn, Mg)

4,5-Dihydroxy-3-nitroso-2,7-naphthalenedisulfonic acid, 8CI*Nitrosochromotropic acid*

[32446-22-3]

 $C_{10}H_7NO_5S_2$ M 349.299

Used as a 0.04% aq. soln. as metallochromic indicator for titrimetric detn. of Cu; gives colour reactions with Ca, Cd, Co, Cu, Fe, Mg, Ni, Pb, Zn. Hygroscopic orange-brown amorph. powder. Mp 130°, Mp 140-180°. pK_{a1} 6.6; pK_{a2} 11.6.

Pande, C.S. *et al*, *Fresenius' Z. Anal. Chem.*, 1961, **184**, 248 (*detn. Cu*)

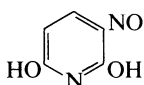
Sen, A.B. *et al*, *Fresenius' Z. Anal. Chem.*, 1962, **187**, 401 (*detn. Cu*)

Sommer, L. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, 260.

Toei, K. *et al*, *CA*, 1971, **74**, 150682r (*colour reactions*)

2,6-Dihydroxy-3-nitrosopyridine*3-Nitroso-2,6-pyridinediol, 9CI*

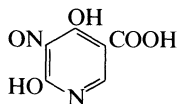
[25954-90-9]

 $C_5H_4N_2O_3$ M 140.098

Used as 0.1% soln. in EtOH for photometric detn. of Os (λ_{max} 550 nm, ϵ 24000), Pd, Ru, Co. Cryst. Sol. EtOH.

McDonald, C.W. *et al*, *Anal. Chem.*, 1969, **41**, 1478 (*synth, detn. Os*)

McDonald, C.W. *et al*, *Mikrochim. Acta*, 1970, 474, 612; 1972, 208 (*detn. Pd, Ru, Co*)

4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid*4,6-Dihydroxy-5-nitrosocotinic acid* $C_6H_4N_2O_5$ M 184.108*Et ester*: [18288-40-9]. $C_8H_8N_2O_5$ M 212.162

Used as a 0.1% EtOH soln. for photometric detn. of Fe (λ_{max} 653 nm, ϵ 13000, pH 3.5). Cryst. Sol. EtOH, Et₂O, Me₂CO, C₆H₆.

Pentyl ester: [63347-25-1].

Used as 0.6% EtOH soln. for photometric detn. of Ru (λ_{max} 435 nm, ϵ 42000), Os (λ_{max} 560 nm, ϵ 34000). Cryst. Sol. EtOH.

McDonald, C.W. *et al*, *Anal. Chem.*, 1967, **39**, 1476; 1969, **41**, 1478 (*synth, detn. Fe*)

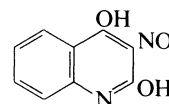
McDonald, C.W., *Mikrochim. Acta*, 1970, 474, 612 (*use*)

Reeves, R.R. *et al*, *Mikrochim. Acta*, 1977, **1**, 489 (*synth, detn. Ru, Os*)

D-00672

2,4-Dihydroxy-3-nitrosoquinoline*4-Hydroxy-3-nitroso-2(1H)-quinolinone*

D-00675

 $C_9H_6N_2O_3$ M 190.158

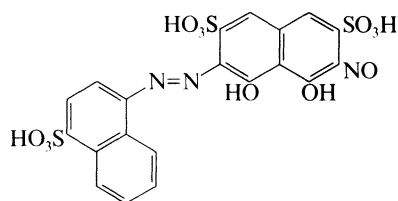
Used as 1.5mM soln. in 3% DMF for photometric detn. of Fe(II). Orange cryst. (AcOH). Sol. DMF; spar. sol. EtOH. Mp 209-210°.

Hardmann, R. *et al*, *J. Chem. Soc.*, 1954, 3881 (*synth*)

Ayres, G.H. *et al*, *Anal. Chim. Acta*, 1962, **26**, 332 (*detn. Fe*)

4,5-Dihydroxy-3-nitroso-6-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid*2-(4-Sulfo-1-naphthylazo)-7-nitrosochromotropic acid. 7-Nitroso-SNANDS*

D-00676

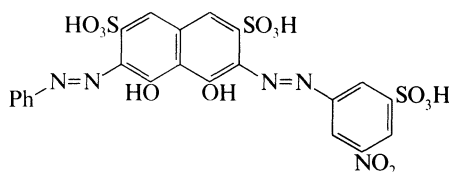
 $C_{20}H_{13}N_3O_{12}S_3$ M 583.534

Used as a 0.05% aq. soln. as metallochromic indicator for titrimetric detn. of Th. Orange-red cryst. Sol. H₂O.

Datta, S.K., *Fresenius' Z. Anal. Chem.*, 1956, **149**, 270, 328.

4,5-Dihydroxy-3-[(5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, 8CI

D-00677

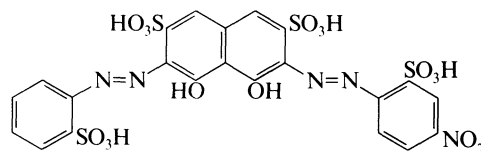
 $C_{22}H_{15}N_5O_{13}S_3$ M 653.584

Used as a 0.1% aq. soln. for photometric detn. of V (λ_{max} 650 nm, ϵ 36000). Dark red cryst. powder. Mod. sol. H₂O.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2364 (*detn. V*)

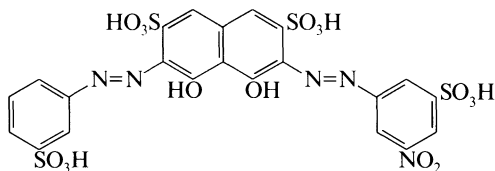
4,5-Dihydroxy-3-[(4-nitro-2-sulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI

D-00678

 $C_{22}H_{15}N_5O_{16}S_4$ M 733.648

Used for photometric detn. of Ba, Sr. Dark red cryst. powder. Mod. sol. H₂O.

Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*use*)

4,5-Dihydroxy-3-[(5-nitro-3-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI **D-00679**

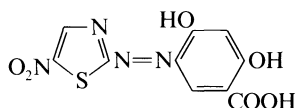
$C_{22}H_{15}N_5O_{16}S_4$ M 733.648

Used as a 0.1% aq. soln. for photometric detn. of V (λ_{max} 650 nm, ϵ 36000). Dark red cryst. powder. Mod. sol. H_2O .

Savvin, S.B. *et al.*, *Zh. Anal. Khim.*, 1971, **26**, 2364 (*detn.*, V)

2,4-Dihydroxy-5-[(5-nitro-2-thiazolyl)azo]benzoic acid, 9CI **D-00680**

4-(5-Nitrothiazolyl-2-azo)resorcinic acid
[60602-35-9]



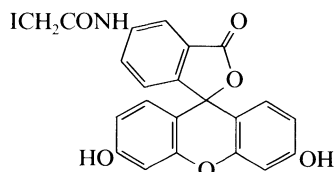
$C_{10}H_6N_4O_6S$ M 310.247

Used as 0.02mM soln. in dioxan for photometric detn. of Pd (λ_{max} 630 nm, ϵ 19300). Red cryst. (H_2O). Sol. H_2O , dioxan, EtOH.

Yusupov, M.Yu. *et al.*, *Zh. Anal. Khim.*, 1985, **40**, 844 (*synth.*, *detn.*, Pd)

N-(3',6'-Dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'[9H]xanthen]-5-yl)-2-iodoacetamide, 9CI **D-00681**

Fluorescein-5-iodoacetamide. 5-(Iodoacetamido)fluorescein
[63368-54-7]



$C_{22}H_{14}INO_6$ M 515.260

Fluorescent label for thiol groups. Used in DNA sequencing.

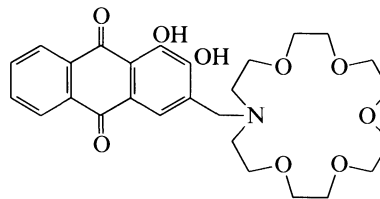
Hartig, P.R. *et al.*, *Biochemistry*, 1977, **16**, 4275 (*use*)

Chen, R.F. *et al.*, *Anal. Lett.*, 1985, **18**, 393 (*use*)

Ansorge, W. *et al.*, *Nucleic Acids Res.*, 1987, **15**, 4593 (*use*)

1,2-Dihydroxy-3-(1,4,7,10,13-pentaoxa-16-azacyclooctadecylmethyl)-9,10-anthracenedione, 9CI **D-00682**

N-(1,2-Dihydroxyanthraquinone-3-ylmethyl)monoaza-18-crown-6
[100443-52-5]



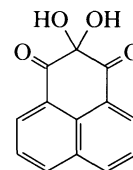
$C_{27}H_{33}NO_9$ M 515.559

Used as 1,2-dichloroethane soln. for extraction separation of Li and Rb from Na and K. Violet cryst. powder. Sol. $CHCl_3$, 1,2-dichloroethane, dioxan. Mp 90.2-91.1°. pK_{a1} 4.91; pK_{a2} 10.3 (aq. 10% dioxan, 25°).

Katayama, Y. *et al.*, *Anal. Chim. Acta*, 1985, **173**, 193 (*synth.*, *sepn.*, Li, Rb)

2,2-Dihydroxy-1H-phenalene-1,3(2H)-dione **D-00683**

[18931-20-9]



$C_{13}H_8O_4$ M 228.204

Used as a 0.01-0.1% aq. soln. for photometric detn. of N_2H_4 (λ_{max} 460 nm, ϵ 3600). Cryst. Sol. H_2O .

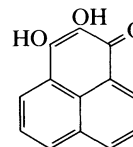
Errera, G., *Gazz. Chim. Ital.*, 1913, **43**, 593 (*synth*)

Hassan, S.S.M., *Anal. Chim. Acta*, 1972, **59**, 159 (*use*, *detn.*, N_2H_4)

Hassan, S.S.M., *Mikrochim. Acta*, 1974, 51 (*use*, *detn.*, N_2H_4)

2,3-Dihydroxy-1H-phenalen-1-one, 9CI **D-00684**

peri-Dihydroxynaphthindenone
[18931-22-1]



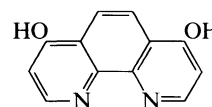
$C_{13}H_8O_3$ M 212.204

Used as 5mM EtOH soln. for potentiometric, gravimetric and photometric detn. of lanthanides. Red cryst. (AcOH aq.). Sol. EtOH, AcOH. Mp 258°.

Hassan, S.S. *et al.*, *Anal. Chem.*, 1982, **54**, 228 (*synth.*, *use*)

4,7-Dihydroxy-1,10-phenanthroline **D-00685**

1,10-Phenanthroline-4,7-diol, 9CI
[3922-40-5]



$C_{12}H_8N_2O_2$ M 212.207

Sol. alkalis, HCl aq.; insol. H₂O, EtOH, C₆H₆, CHCl₃.
Free acid does not crystallize.

B.HCl: Pale yellow cryst. Used as 0.01 M soln. in aq. NH₃ for photometric detn. of Fe(II).

Di-Me ether: 4,7-Dimethoxy-1,10-phenanthroline

C₁₄H₁₂N₂O₂ M 240.261

Used for photometric detn. of Cu(I), Fe(II). Cryst. (C₆H₆). Sol. EtOH, C₆H₆; insol. H₂O. pK_{a1} 6.45 (dioxan, 25°).

Snyder, H.R. *et al*, *J. Am. Chem. Soc.*, 1946, **68**, 1320 (*di-Me ether, synth*)

Wilkins, D.H. *et al*, *Anal. Chem.*, 1955, **27**, 1574 (*detn. Cu, Fe*)

Schilt, A.A. *et al*, *Anal. Chem.*, 1956, **28**, 809 (*detn. Fe*)

Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*di-Me ether, pKa*)

5,6-Dihydroxy-1,10-phenanthroline

D-00686

1,10-Phenanthroline-5,6-diol, 9CI

[54258-43-4]

C₁₂H₈N₂O₂ M 212.207

Yellow prisms (DMF). Mp 390° (dec. after sintering).

Di-Me ether: 5,6-Dimethoxy-1,10-phenanthroline

C₁₄H₁₂N₂O₂ M 240.261

Used for photometric detn. of Cu(I), Fe(II). Cryst. (C₆H₆). Sol. EtOH, C₆H₆; insol. H₂O. Mp 125-126°. pK_{a1} 4.42 (25°, dioxan).

[85565-50-0]

Wilkins, D.H. *et al*, *Anal. Chem.*, 1955, **27**, 1574 (*detn. Cu, Fe*)

Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)

Zacharias, D.E. *et al*, *J. Org. Chem.*, 1962, **27**, 3878 (*synth*)

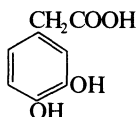
Gillard, R.D. *et al*, *J. Chem. Soc., Dalton Trans.*, 1974, 1217 (*synth*)

(3,4-Dihydroxyphenyl)acetic acid, 8CI

D-00687

3,4-Dihydroxybenzeneacetic acid, 9CI. Homoprotocatechuic acid

[102-32-9]



C₈H₈O₄ M 168.149

Metab. of *Polyporus tumulosus* and *Pseudomonas ovalis*. Cryst. (C₆H₆). Mp 127°.

▷ AH0590000.

3-Me ether: [306-08-1]. 4-Hydroxy-3-methoxyphenylacetic acid. Homovanillic acid

C₉H₁₀O₄ M 182.176

Used for fluorimetric detn. of glucose oxidase and other oxidative enzymes. Prisms (H₂O or C₆H₆). Mp 142°. pK_{a1} 4.41; pK_{a2} 10.53 (25°).

3,4-Di-Me ether: [93-40-3]. (3,4-Dimethoxyphenyl)acetic acid. Homoveratric acid. Homoveratric acid

C₁₀H₁₂O₄ M 196.202

Needles + 1H₂O (H₂O), anhyd. cryst. (C₆H₆/pet. ether). Sol. H₂O. Mp 82° (hydrate), Mp 98-99° (anhyd.).

▷ AH0675000.

Di-Me ether, Me ester: [15964-79-1].

C₁₁H₁₄O₄ M 210.229

Bp₁₅ 175°.

Di-Me ether, Et ester: [18066-68-7].

C₁₂H₁₆O₄ M 224.256

Bp₂₅ 191°.

Di-Me ether, amide:

C₁₀H₁₃NO₃ M 195.218

Mp 145-147°.

Di-Me ether, nitrile: [93-17-4]. 3,4-

Dimethoxyphenylacetoneitrile

C₁₀H₁₁NO₂ M 177.202

Mp 64-65°. Bp₁₀ 171-178°.

▷ AL9325000.

[25379-88-8, 26691-28-1]

Pictet, A. *et al*, *Ber.*, 1909, **42**, 2943.

Trave, R., *Gazz. Chim. Ital.*, 1950, **80**, 502 (*synth*)

Ralph, B.J. *et al*, *J. Chem. Soc.*, 1950, 3380 (*isol*)

Shaw, K.N.F. *et al*, *J. Org. Chem.*, 1958, **23**, 27 (*synth*)

Guilbault, G.G. *et al*, *Anal. Chem.*, 1968, **40**, 190 (*use, 3-Me ether*)

Scott, K.N., *J. Magn. Reson.*, 1972, **6**, 55 (*pmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, VIK100.

4-[(2,4-Dihydroxyphenyl)azo]

D-00688

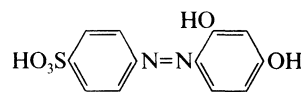
benzenesulfonic acid, 9CI

2',4'-Dihydroxyazobenzene-4-sulfonic acid. Resorcinol

yellow. C.I. Acid orange 6. C.I. Food yellow 8. Tropaeolin

O. C.I. 14270

[2050-34-2]



C₁₂H₁₀N₂O₅S M 294.287

The name Resorcinol yellow strictly applies to the sodium salt.

Na salt: [547-57-9].

Used as acid-base indicator (pH range: 11.1-12.7); complexing agent for Ni. Sol. H₂O, EtOH, 2-ethoxyethanol; insol. C₆H₆, Me₂CO, CHCl₃. λ_{max} 490 nm.

[57303-52-3]

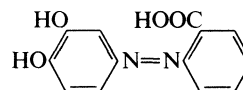
Perlmutter-Hayman, B. *et al*, *Inorg. Chem.*, 1976, **15**, 2932 (*use*)

2-[(3,4-Dihydroxyphenyl)azo]benzoic acid,

D-00689

9CI

[18299-02-0]



C₁₃H₁₀N₂O₄ M 258.233

Used as Zr complex for photometric detn. of C₂O₄²⁻; for photometric detn. of Ga. Yellow cryst. (EtOH). Sol. alkalis, EtOH, Me₂CO.

Oskotskaya, E.R. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 1307 (*detn. Ga*)

Oskotskaya, E.R., *CA*, 1969, **71**, 453344 (*detn. Ga*)

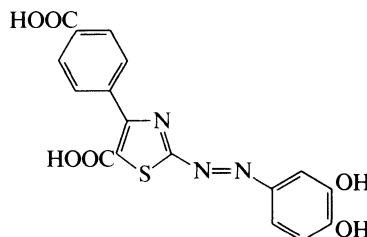
Cooke, D.T. *et al*, *J. Sci. Food Agric.*, 1976, **27**, 883; *CA*, **86**, 154046g (*detn. C₂O₄²⁻*)

2-[(3,4-Dihydroxyphenyl)azo]-4-(4-

D-00690

carboxyphenyl)-5-thiazolecarboxylic

acid, 9CI



$C_{17}H_{11}N_3O_6S$ M 385.356

4'-Me ester, 5-Et ester: [60129-45-5].

$C_{20}H_{17}N_3O_6S$ M 427.437

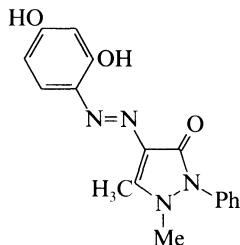
Used as 1mM soln. in Me_2CO for photometric detn. of W (λ_{max} 540 nm, ϵ 46000). Cryst. pK_{a1} 6.1; pK_{a2} 10.5 (0.1M LiCl).

M'asoedova, A.S., *Zh. Anal. Khim.*, 1975, **30**, 2398 (detn, W)

4-[(2,4-Dihydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI **D-00691**

Antipyrilazoresorcine

[51359-20-7]



$C_{17}H_{16}N_4O_3$ M 324.338

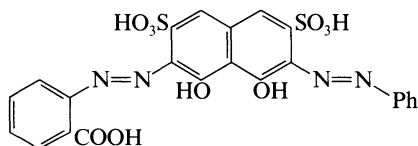
Used as 1mM soln. in EtOH for extraction-photometric detn. of Fe(III), Co, Bi (λ_{max} 495 nm, ϵ 39800), Ga (λ_{max} 485 nm, ϵ 47400), In (λ_{max} 485 nm, ϵ 30200), Cu, Ni, Pd, Au; flotation sepn. of Fe, In, Mo, Pd, Pt. Orange-red cryst. Sol. alcohols. Mp 255°. pK_{a1} 2.73; pK_{a2} 8.00; pK_{a3} 11.01.

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1973, **39**, 601 (synth, detn, Au, Fe, In, Mo, Pd, Pt)

Smaglyuk, N.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1680 (detn, Bi, Ga, In)

2-[[1,8-Dihydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 8CI **D-00692**

[23156-97-0]



$C_{23}H_{16}N_4O_{10}S_2$ M 572.532

Used as a 0.05% or 0.1% aq. soln. for photometric detn. of Ba, Ca, Mg, SO_4^{2-} (EtOH aq.); gives colour reactions with Ce, Dy, La, Lu, Nd, Sm, Th, Y. Dark red cryst. powder. Sol. H_2O . pK_{a4} 10.19; pK_{a5} 15.15.

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177 (detn, Ba, Ca, Mg)

Petrova, T.V. *et al*, *Izv. Akad. Nauk Kaz. SSR, Ser. Khim.*, 1970, 259; *CA*, **73**, 31991z (Ba, Ca, Sr, SO_4^{2-})

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 226 (pKa)

Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 722 (detn, Dy, Lu, Th, Y)

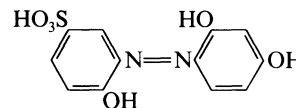
Perisic-Janic, N.U. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 208.

Basargin, N.N. *et al*, *CA*, 1974, **81**, 180649x (detn, Ce, La, Nd, Sm)

3-[(2,4-Dihydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, 9CI **D-00693**

2',4',6-Trihydroxyazobenzene-3-sulfonic acid. Superchrome garnet Y

[2918-80-1]



$C_{12}H_{10}N_2O_6S$ M 310.287

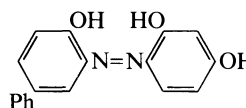
Used as a 0.01% aq. soln. for fluorimetric detn. of Al, Ga, Zr (λ_{max} 490 nm). Dark red cryst. Mp 292-295° dec. pK_{a2} 6.14; pK_{a3} 7.72.

Fletcher, M.H. *et al*, *Anal. Chem.*, 1960, **32**, 1822, 1827 (props, detn, Zr)

Hiraki, K., *Bull. Chem. Soc. Jpn.*, 1972, **45**, 1395 (detn, Al, Ga)

3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl **D-00694**

2,2',4-Trihydroxy-5-phenylazobenzene



$C_{18}H_{14}N_2O_3$ M 306.320

Used as metallochromic indicator in titrimetric detn. of Ca, Mg; fluorimetric detn. of Mg. Orange-red cryst. (C_6H_6). Sol. alkalis, C_6H_6 . Mp 123.5°. pK_{a1} 6.7; pK_{a2} 8.1 ($\mu = 0.1$).

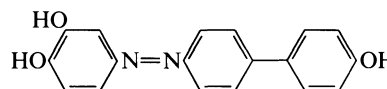
Diehl, N. *et al*, *Anal. Chem.*, 1960, **32**, 1120 (detn, Ca, Mg)

Olsen, R. *et al*, *Anal. Chem.*, 1963, **35**, 1142 (detn, Mg)

4-(3,4-Dihydroxyphenylazo)-4'-hydroxybiphenyl **D-00695**

4-[(4'-Hydroxy-(1,1'-biphenyl)-4-yl)azo]-1,2-benzenediol, 9CI. 4-Catecholylazo-4'-hydroxybiphenyl

[80495-42-7]

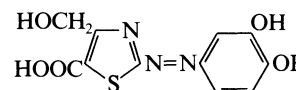


$C_{18}H_{14}N_2O_3$ M 306.320

Used as 0.5mM EtOH soln. for photometric detn. of Zr (λ_{max} 570 nm, ϵ 58000, $\sim 1M$ HCl). Yellow cryst. Sol. EtOH, Et_2O .

Savos'kina, L.N. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1483 (synth, detn, Zr)

2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid, 9CI **D-00696**



$C_{11}H_9N_3O_5S$ M 295.275

Me ester: [25039-82-1].

$C_{12}H_{11}N_3O_5S$ M 309.302

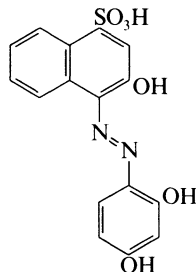
Used as a 1mM dioxan soln. for photometric detn. of W (λ_{max} 530 nm, ϵ 42000), Zr (λ_{max} 440 nm, ϵ 22000, pH 2-3). Orange-red cryst. Sol. EtOH, Me_2CO , alkalis, dioxan. Mp 220° dec. pK_{a1} 6.10; pK_{a2} 10.03.

[40472-04-6]

Gudriniece, E. *et al*, *Latv. PSR Zinat. Akad. Vestis, Khim. Ser.*, 1969, 476; *CA*, **72**, 55312v (synth)
 Purmele, V. *et al*, *Latv. PSR Zinat. Akad. Vestis, Khim. Ser.*, 1975, 373; *CA*, **83**, 198525e (pKa)
 Myasoedova, A.S. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2398 (detn. W)
 Vilkova, O.M. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 716 (synth. detn. Zr)

4-[(2,4-Dihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, 9CI **D-00697**

1-(2,4-Dihydroxyphenylazo)-2-naphthol-4-sulfonic acid.
Sulfonaphthylazoresorcin
 [16623-47-5]

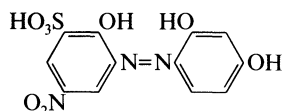
C₁₆H₁₂N₂O₆S M 360.347

Used as 0.01M aq. soln. as metal indicator for titrimetric detn. of Zr. Used as a 0.1% soln. in EtOH for fluorimetric detn. of Ga, Nb, Ta; gives colour reactions with Al, Ga, Zn; extraction-photometric detn. of Sn(IV) (λ_{\max} 560 nm, CHCl₃) and W (λ_{\max} 540 nm, ϵ 17000, isobutanol). Red cryst. (H₂O). Sol. H₂O; insol. C₆H₆.

Poluektov, N.S. *et al*, *Zh. Anal. Khim.*, 1958, **13**, 555; 1977, **32**, 101 (detn. Al, Ga, Zn, W)
 Kononenko, L.J. *et al*, *Zavod. Lab.*, 1962, **28**, 794.
 Chang, T.L. *et al*, *Anal. Chim. Acta*, 1963, **29**, 344.
 Kononenko, L.J. *et al*, *Fresenius' Z. Anal. Chem.*, 1964, **201**, 151.
 Hung, S. *et al*, *CA*, 1965, **62**, 5891.
 Matveets, M.A. *et al*, *CA*, 1972, **77**, 159840k (detn. Ga)
 Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1972, **38**, 606; *CA*, **78**, 37468v (detn. Ta)
 Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 84 (detn. Nb)
 Olenovich, N.L. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1365 (detn. Sn)

3-[2,4-Dihydroxyphenylazo]-2-hydroxy-5-nitrobenzenesulfonic acid, 9CI **D-00698**

2,2',4'-Trihydroxy-5-nitroazobenzene-3-sulfonic acid
 [49588-81-0]

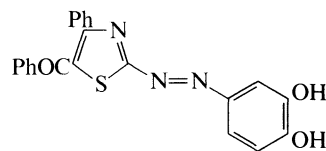
C₁₂H₉N₃O₈S M 355.284

Used as 0.1% aq. soln. for photometric detn. of Al (λ_{\max} 480 nm, ϵ 21600, pH 2.5-4). Yellow cryst. Sol. H₂O, EtOH.

Ermolenko, L.V. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1030 (synth. detn. Al)

2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole **D-00699**

2-[(3,4-Dihydroxyphenyl)azo]-4-phenyl-5-thiazolylphenyl ketone, 8CI. Dihydroxythiazole
 [16082-55-6]

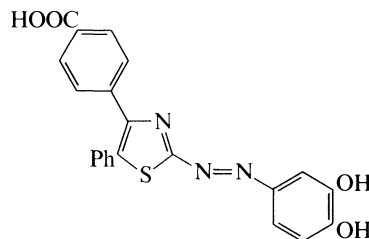
C₂₂H₁₅N₃O₃S M 401.445

Used as a 0.5mM soln. in EtOH for photometric detn. of Al, Ga, Ge, W. Red-brown cryst. (MeOH/dioxan). Sol. alkalis, hot EtOH; insol. H₂O. pK_{a1} 6.24; pK_{a2} 10.26 (EtOH aq.).

Korolkova, V.S. *et al*, *CA*, 1967, **67**, 121948g (synth. detn. Al, Ga, Ge, W)

4-[2-[(3,4-Dihydroxyphenyl)azo]-5-phenyl-4-thiazolyl]benzoic acid, 9CI **D-00700**

4-(4-Carboxyphenyl)-2-(3,4-dihydroxyphenylazo)-5-phenylthiazole

C₂₂H₁₅N₃O₄S M 417.444

Me ester: [60129-46-6].

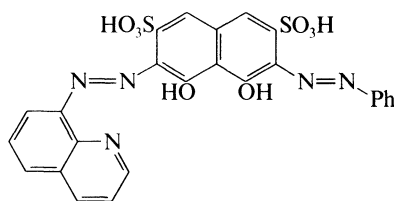
C₂₃H₁₇N₃O₄S M 431.471

Used as 1mM soln. in Me₂CO for photometric detn. of W (λ_{\max} 490 nm, ϵ 51000). Cryst. pK_{a1} 7.0; pK_{a2} 12.1 (0.1M LiCl).

M'asoedova, A.S., *Zh. Anal. Khim.*, 1975, **30**, 2398 (detn. W)

4,5-Dihydroxy-3-(phenylazo)-6-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, 9CI **D-00701**

2-(8-Quinolylazo)-7-phenylazochromotropic acid
 [90895-52-6]

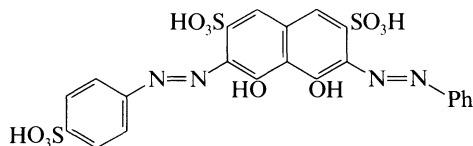
C₂₅H₁₇N₅O₈S₂ M 579.570

Used as aq. soln. for photometric detn. of Ca (λ_{\max} 726 nm, ϵ 24600, pH 4.5), Sr, La, V, Cu, Pd. Dark purple powder. Sol. DMF, acids, alkalis; sl. sol. H₂O, EtOH.

Yu Ru-Qin, *et al*, *Talanta*, 1984, **31**, 1041 (synth. use)

4,5-Dihydroxy-3-(phenylazo)-6-[(4-sulfophenyl)azol]-2,7-naphthalenedisulfonic acid, 8CI

[24430-51-1]

 $C_{22}H_{16}N_4O_{11}S_3$ M 608.587

Used as a 0.05 or 0.1% aq. soln. for photometric detn. of Ca (λ_{max} 580 nm, ϵ 29000), Li (λ_{max} 590 nm, ϵ 29000), Th (λ_{max} 590 nm, ϵ 20000); gives colour reactions with Ce, Dy, La, Lu, Nd, Sm, Th, Y. Dark red cryst. powder. Mod. sol. H_2O . pK_{a1} 9.60 (8.61); pK_{a2} 14.17.

Savvin, S.B. *et al.* *Zh. Anal. Khim.*, 1969, **24**, 177, 490 (*detn.*, Th, Ba, Ca)

Petrova, T.V. *et al.* *Zh. Anal. Khim.*, 1970, **25**, 226 (*pKa*)

Basargin, N.N. *et al.* *Zh. Anal. Khim.*, 1971, **26**, 722 (*detn.*, Dy, Lu, Th, Y)

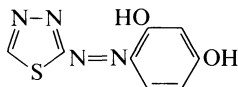
Nikolic, V.N. *et al.* *Zh. Anal. Khim.*, 1971, **26**, 1677 (*pKa*)

Basargin, N.N. *et al.* *CA*, 1974, **81**, 180649x (*detn.*, Ce, La, Nd, Sm)

2-(2,4-Dihydroxyphenylazo)-1,3,4-thiadiazole

D-00703

4-(1,3,4-Thiadiazol-2-ylazo)-1,3-benzenediol, 9CI
[60593-01-3]

 $C_8H_6N_4O_2S$ M 222.227

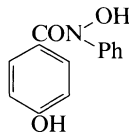
Used as a 0.1-0.3mM soln. in MeOH in acetate or borate buffers to give colour reactions with Co, Fe, Ru. Orange prisms (MeOH). Sol. EtOH. Mp 235-238° dec. pK_{a1} 6.28; pK_{a2} 10.54.

Pollard, F.H. *et al.* *Talanta*, 1967, **14**, 123 (*detn.*, Ru)

Domagalina, E., *Chem. Anal. (Warsaw)*, 1976, **21**, 105, 411 (*synth.*, *pKa*, *detn.*, Co, Fe)

N,4-Dihydroxy-N-phenylbenzamide

D-00704

 $C_{13}H_{11}NO_3$ M 229.235

4-Me ether: [13664-49-8]. N-Hydroxy-4-methoxy-N-phenylbenzamide, 9CI. N-Phenyl-p-anisohydroxamic acid, 8CI

 $C_{14}H_{13}NO_3$ M 243.262

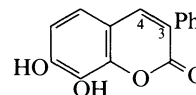
Used as 0.1M $CHCl_3$ soln. for extraction separation of Al, Fe(III), Cu, Mn, V. Cryst. (EtOH aq.). Sol. $CHCl_3$, EtOH. Mp 130°.

Priyadarshini, U. *et al.* *J. Chem. Eng. Data*, 1967, **12**, 143 (*synth.*, *deriv*)

Hojjat, M. *et al.* *Anal. Chem.*, 1987, **199**, 49 (*synth.*, *use*)

7,8-Dihydroxy-3-phenyl-2H-1-benzopyran-2-one, 9CI

7,8-Dihydroxy-3-phenylcoumarin, 8CI. 3-Phenyldaphnetin
[14426-24-5]

 $C_{15}H_{10}O_4$ M 254.242

Used for photometric detn. of Mo(VI), U(VI). Cryst. (EtOH). Mp 213-215°.

Katyal, M. *et al.* *Talanta*, 1968, **15**, 1043 (*synth.*, *use*, *pKa*)

7,8-Dihydroxy-4-phenyl-2H-1-benzopyran-2-one, 9CI

7,8-Dihydroxy-4-phenylcoumarin. 4-Phenyldaphnetin
[842-01-3]

 $C_{15}H_{10}O_4$ M 254.242

Used for gravimetric detn. of Nb, Ta, Ti, Zr; photometric detn. of Mo(VI). Needles (C_6H_6). Mp 190-192°. pK_{a1} 7.40; pK_{a2} 8.20.

Von Kostanecki, S. *et al.* *Ber.*, 1893, **26**, 2906 (*synth*)

Jain, B.D. *et al.* *Indian J. Chem.*, 1963, **1**, 317 (*use*)

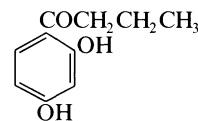
Katyal, M. *et al.* *Talanta*, 1968, **15**, 1043 (*synth.*, *use*, *pKa*)

Starkov, S.P. *et al.* *Khim. Khim. Tekhnol. (Minsk)*, 1974, **17**, 1665 (*synth*)

1-(2,4-Dihydroxyphenyl)-1-butanone, 9CI

D-00707

2,4-Dihydroxybutyrophenone. 4-Butyrylresorcinol
[4390-92-5]

 $C_{10}H_{12}O_3$ M 180.203

Preservative for food. Antiseptic. Used for spot test for Fe. Needles ($CHCl_3/C_6H_6$). Mp 73°.

Oxime: [22919-59-1].

 $C_{10}H_{13}NO_3$ M 195.218

Used as a 1% soln. in EtOH as metallochromic indicator in titrimetric detn. of Fe(III); photometric detn. of Fe(III) (λ_{max} 510 nm). Pale-yellow needles. Mp 188-189°.

Brewster, C.M. *et al.* *J. Am. Chem. Soc.*, 1930, **52**, 4866 (*synth*)

Price, P. *et al.* *J. Org. Chem.*, 1964, **29**, 2800 (*synth*)

Desai, M.N. *et al.* *Microchem. J.*, 1968, **13**, 500 (*use*)

Gandhi, M.H. *et al.* *Indian J. Appl. Chem.*, 1969, **32**, 360 (*photometric detn*)

Gandhi, M.H. *et al.* *J. Prakt. Chem.*, 1969, **311**, 171 (*spot test*)

Desai, M.N. *et al.* *J. Indian Chem. Soc.*, 1973, **50**, 369 (*titrim*)

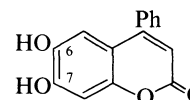
Gandhi, R.B. *et al.* *Talanta*, 1979, **26**, 425 (*use*)

6,7-Dihydroxy-4-phenylcoumarin

D-00708

6,7-Dihydroxy-4-phenyl-2H-1-benzopyran-2-one.
Nordalbergin

[482-82-6]

 $C_{15}H_{10}O_4$ M 254.242

Isol. from *Dalbergia sissoo*. Used for photometric detn. of Mo(VI); gravimetric detn. of Ti, Zr. Cryst. (EtOAc). Mp 274-276°. pK_{a1} 7.27; pK_{a2} 8.01.

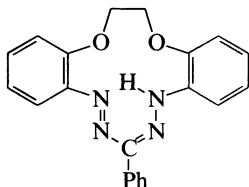
Jain, B.D. *et al*, *Indian J. Chem.*, 1963, **1**, 369; 1964, **2**, 246 (detn. Mo, Ti, Zr)

Ganguly, A.K. *et al*, *Tetrahedron*, 1967, **23**, 4777 (synth)

Katyal, M. *et al*, *Talanta*, 1968, **15**, 1043 (synth. use, pK_a)

Chatterjee, A. *et al*, *Tetrahedron*, 1976, **32**, 2407 (synth)

15,16-Dihydroxy-7-phenyl-5H-dibenzo[*b,i*][1,11,4,5,7,8]dioxatetraazacyclotridecine, 9CI
Macrocyclic formazan IV
[90906-69-7]



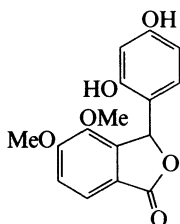
$C_{21}H_{18}N_4O_2$ M 358.399

Used as 1mM soln. in $CHCl_3$ for selective extraction of Cu and Hg (in the presence of picrate). Cryst. Sol. $CHCl_3$, 4-methyl-2-butanone, EtOH.

Niz'eva, N.V. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1984, **274**, 611 (synth. sepn. Cu, Hg)

Isakova, N.V. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 1045 (detn. Cu, Hg)

3-(2,4-Dihydroxyphenyl)-4,5-dimethoxy-1(3H)-isobenzofuranone, 9CI
3-(2',4'-Dihydroxyphenyl)-4,5-dimethoxyphthalide
[52357-13-8]

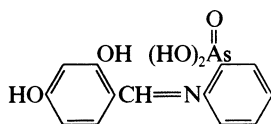


$C_{16}H_{14}O_6$ M 302.283

Used as a 0.1% soln. in EtOH as adsorption indicator for argentimetric titrimetric detn. of Cl^- , Br^- , I^- , SCN^- . Cryst.

Singh, E. *et al*, *J. Indian Chem. Soc.*, 1974, **51**, 822 (use)

[2-[(2,4-Dihydroxyphenyl)methylene]amino]phenyl]arsonic acid, 9CI
N-Resorcylicidene-2-aminophenylarsonic acid
[58732-06-2]

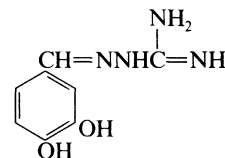


$C_{13}H_{12}AsNO_5$ M 337.163

Used as 0.1% soln. in Me_2CO or DMF for luminescence analysis for Al, Ga, In, Zr, Hf. Cryst. (Me_2CO). Sol. Me_2CO , DMF.

Zel'tser, L.E. *et al*, *Talanta*, 1987, **34**, 873 (synth. use)

2-[(3,4-Dihydroxyphenyl)methylene]hydrazinecarboximidamide, 9CI
3,4-Dihydroxybenzaldehyde guanylhydrazone
[106694-40-0]



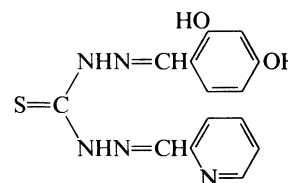
$C_8H_{10}N_4O_2$ M 194.193

Used as 0.01M aq. soln. for photometric detn. of Co, Fe(III), Mo, W, V. IO_4^- (λ_{max} 420 nm). Cryst. (EtOH aq.). Sol. acids. Mp 279-281°.

Kavlentis, E., *Mikrochim. Acta*, 1986, **1**, 27 (synth. use)

Kavlentis, E., *Analisis*, 1988, **16**, 253 (use)

[(2,4-Dihydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, 9CI
1-(2-Pyridylmethylideneamino)-3-(2,4-dihydroxybenzylideneamino)thiourea
[117345-80-9]

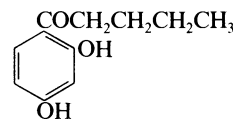


$C_{14}H_{13}N_5O_2S$ M 315.355

Used as DMF soln. for photometric detn. of In, Bi, Cd, Pd (40% DMF). Yellow cryst. (50% EtOH). Sol. DMF; sl. sol. H_2O , EtOH. Mp 209-210°. pK_{a1} 3.5; pK_{a2} 7.1; pK_{a3} 8.4.

Alvarez, F. *et al*, *Talanta*, 1988, **35**, 493 (synth. use)

1-(2,4-Dihydroxyphenyl)-1-pentanone, 9CI
2',4'-Dihydroxyvalerophenone, 8CI
[15116-13-9]



$C_{11}H_{14}O_3$ M 194.230

Used for extraction-photometric detn. of Co (λ_{max} 400 nm, $CHCl_3$), photometric detn. of Fe(III) (λ_{max} 470 nm), U (λ_{max} 400 nm); metallochromic indicator in titrimetric detn. of Fe(III). Cryst. ($CHCl_3$ /hexane). Sol. EtOH, Me_2CO . Mp 63°.

Oxime: [57991-55-6].

$C_{11}H_{15}NO_3$ M 209.244

Used as 0.5% soln. in EtOH for gravimetric detn. of Cu, Ni. Cryst.

Gupta, S.P. *et al*, *J. Indian Chem. Soc.*, 1975, **52**, 656 (detn. Cu, Ni)

Singh, J. *et al*, *S. Afr. J. Sci.*, 1976, **72**, 378 (detn. Fe)

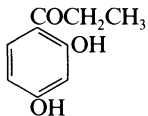
Singh, J. *et al*, *Curr. Sci.*, 1976, **45**, 505 (detn. U)

Singh, J. *et al*, *Acta Cienc. Indica*, 1977, **3**, 112 (detn. Co)

Mizobuchi, S. *et al*, *Agric. Biol. Chem.*, 1985, **49**, 1327 (synth)

1-(2,4-Dihydroxyphenyl)-1-propanone, 9CI D-00715

2',4'-Dihydroxypropiophenone, 8CI. 4-Propionylresorcinol.
Respropiophenone
[5792-36-9]



$C_9H_{10}O_3$ M 166.176

Used as 1% soln. in EtOH as metallochromic indicator in titrimetric detn. of Fe; spot test for Fe. Yellow needles (EtOH). Mp 98-100°.

4-Me ether: [6270-44-6].

$C_{10}H_{12}O_3$ M 180.203

Plates (EtOH). Mp 58°.

Di-Me ether: [831-00-5].

$C_{11}H_{14}O_3$ M 194.230

Cryst. (EtOH aq.). Mp 67°.

Oxime: [22919-58-0].

$C_9H_{11}NO_3$ M 181.191

Used as soln. in aq. EtOH for photometric detn. of Fe(III) (λ_{max} 510 nm, ϵ 2300); metallochromic indicator in titrimetric detn. of Fe(III). Yellow needles. Mp 186-187°.

Gandhi, M.H. et al, *Anal. Chem.*, 1967, **39**, 1643 (detn, Fe)

Széll, T., *J. Chem. Soc. C*, 1967, 2041 (synth, pmr)

Desai, M.N. et al, *Microchem. J.*, 1968, **18**, 500 (spot test)

Mezheritskii, V.V. et al, *Zh. Org. Khim.*, 1969, **5**, 515; *CA*, **71**, 12750 (synth)

Desai, M.N. et al, *Fresenius' Z. Anal. Chem.*, 1972, **258**, 127 (detn, Fe)

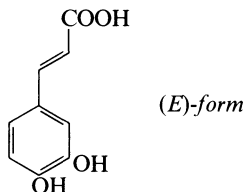
Desai, M.N. et al, *CA*, 1973, **79**, 13100p (detn, Fe)

Desai, M.N. et al, *J. Indian Chem. Soc.*, 1973, **50**, 369 (detn, Fe)

3-(3,4-Dihydroxyphenyl)-2-propenoic acid D-00716

3,4-Dihydroxycinnamic acid

[331-39-5]



$C_9H_8O_4$ M 180.160

Used for spot detn. of Fe.

▷ GD8950000.

(E)-form [501-16-6] **Caffeic acid**

Widespread in plants. Yellow cryst. Mp 223-225° dec.

pK_{a1} 4.62; pK_{a2} 9.07 (25°). Forms a monohydrate.

▷ Mod. allergen.

Di-Ac:

$C_{13}H_{12}O_6$ M 264.234

Cryst. Mp 198°.

Me ester:

$C_{10}H_{10}O_4$ M 194.187

Isol. from plants. Light yellow needles (EtOH aq.). Mp 158-160°.

Et ester:

$C_{11}H_{12}O_4$ M 208.213

Cryst. (MeOH aq.). Mp 149-150°.

4'-O- β -D-Glucopyranoside: **Linocaffein**. *Glucocaffeic acid*

$C_{15}H_{18}O_9$ M 342.302

Isol. from flax (*Linum usitatissimum*) and from *Polypodium vulgare*. Needles (MeOH). Mp 208°, Mp 133-135°. $[\alpha]_D^{25}$ -87.3° (MeOH). Some doubt about the identity of Linocaffein and Glucocaffeic acid in view of the widely differing Mp's reported.

4-Me ether: [537-73-5]. 3-(3-Hydroxy-4-methoxyphenyl)-2-propenoic acid, 9CI. 3-Hydroxy-4-methoxycinnamic acid.

Isoferulic acid. *Hesperetic acid*. *Hesperetic acid*

$C_{10}H_{10}O_4$ M 194.187

Isol. from *Cimicifuga racemosa*, *Catalpa ovata* and other plants. Plates. Mp 233-234°.

Di-Me ether: 3-(3,4-Dimethoxyphenyl)-2-propenoic acid, 9CI. 3,4-Dimethoxycinnamic acid, 8CI. **Dimethylcaffeic acid**

Isol. from *Piper methysticum* and *Veronica virginica*.

Cryst. (EtOH aq.). Mp 180-181.5°.

4-Me ether, octacosyl ester: [102607-46-5]. **Octacosyl (E)-isoferulate**. **Erythrasinate**

$C_{38}H_{66}O_4$ M 586.937

Isol. from the stem bark of *Erythrina glauca*, *E. mildbaedii* and *E. senegalensis*. Cryst. (CH₂Cl₂/hexane). Mp 75-76°.

(Z)-form [4361-87-9] **Isocaffeic acid**

Found in olive oil, peanuts and other plant sources.

Hermann, F.X., *Pharmazie*, 1956, **11**, 433 (rev)

Klosterman, H.J. et al, *J. Am. Chem. Soc.*, 1959, **81**, 2188

(*Linocaffein*)

Jizba, J. et al, *Collect. Czech. Chem. Commun.*, 1967, **32**, 2867

(*Glucocaffeic acid*)

Dewick, P.M. et al, *J. Chem. Soc., Chem. Commun.*, 1968, 673

(*biosynth*)

Swain, T. et al, *Phytochemistry*, 1970, **9**, 2115 (*biosynth*)

Achenbach, H. et al, *Chem. Ber.*, 1971, **104**, 1468 (*isol, deriv*)

Karrer, W. et al, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985,

no. 957.

Desai, M.N. et al, *CA*, 1973, **79**, 111369c (*detn, Fe*)

Bowden, B.F. et al, *Aust. J. Chem.*, 1975, **28**, 91 (*derivs*)

Kelley, C.J. et al, *J. Org. Chem.*, 1976, **41**, 449 (*cmr*)

de Silva, S.O. et al, *Can. J. Chem.*, 1979, **57**, 1598 (*synth, deriv*)

Fomum, Z.T. et al, *Phytochemistry*, 1986, **25**, 757 (*Erythrasinate*)

García-Granda, S. et al, *Acta Crystallogr., Sect. C*, 1987, **43**, 683

(*cryst struct*)

Stuart, J.G. et al, *J. Heterocycl. Chem.*, 1987, **24**, 1589 (*synth, ir,*

pmr, deriv)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, CAK375.

2-(3,4-Dihydroxyphenyl)-3,5,6,7-

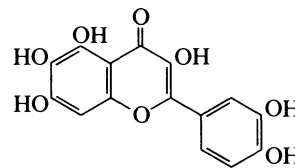
tetrahydroxy-4H-1-benzopyran-4-one,

9CI

3,3',4',5,6,7-Hexahydroxyflavone. 3',4',5,6,7-

Pentahydroxyflavonol. **Quercetagenin**. 6-Hydroxyquercetin

[90-18-6]



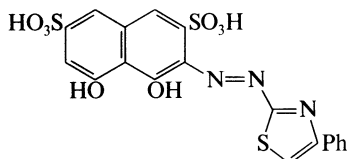
$C_{15}H_{10}O_8$ M 318.239

Isol. from *Tagetes*, *Artemisia*, *Achillea*, *Eupatorium* and other genera. Used as 2mM soln. in EtOH for photometric detn. of Zr (λ_{max} 415 nm). Pale-yellow cryst. + 2H₂O (EtOH aq.). Sol. EtOH, alkalis; sl. sol. H₂O. Mp 325°, Mp 318-320°.

[100363-98-2]

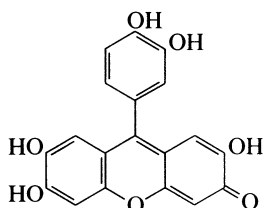
Baker, W. *et al*, *J. Chem. Soc.*, 1929, 74 (*struct, synth*)
 Jain, A.C. *et al*, *J. Chem. Soc.*, 1955, 3908 (*synth*)
 Katyal, M. *et al*, *Anal. Chim. Acta*, 1968, **42**, 173 (*detn, Zr*)
 Nakayama, M. *et al*, *Nippon Kagaku Zasshi*, 1970, **91**, 739 (*uv*)
 Bhardwaj, D.K. *et al*, *Indian J. Chem., Sect. B*, 1977, **15**, 860 (*synth*)

4,5-Dihydroxy-3-[(4-phenyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, 8CI **D-00718**
 [21468-89-3]



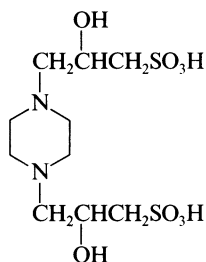
$C_{19}H_{13}N_3O_8S_3$ M 507.525
 Used as a 0.1% aq. soln. for photometric detn. of Al (λ_{max} 630 nm, ϵ 45000), Th, Zr. Red cryst. Sol. H_2O , EtOH.
 Savvin, S.B. *et al*, *CA*, 1969, **70**, 68239k (*synth, Th, Zr*)
 Rozovskii, Y.T. *et al*, *CA*, 1969, **71**, 4491z (*synth*)
 Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 423 (*detn, Al*)

9-(3,4-Dihydroxyphenyl)-2,6,7-trihydroxy-3H-xanthen-3-one **D-00719**
 2,3',4',6,7-Pentahydroxy-9-phenylfluorone



$C_{19}H_{12}O_7$ M 352.300
 Gives colour reactions with some metals; used for photometric detn. of Ti. Dark red cryst. powder. Sol. EtOH.
 Gillis, J., *Anal. Chim. Acta*, 1947, **1**, 421; 1953, **8**, 97 (*colour reaction*)
 Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **197**, 413; 1964, **199**, 249 (*synth, detn, Ti*)
 Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Nauka, Moscow, 1973.

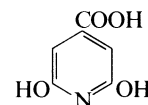
β,β' -Dihydroxy-1,4-piperazinedipropanesulfonic acid, 9CI **D-00720**
 Piperazine-N,N'-bis(2-hydroxypropanesulfonic acid). POPSO
 [68189-43-5]



$C_{10}H_{22}N_2O_8S_2$ M 362.424
 Good's buffer with pH range 7.2-8.5. Cryst. +2 H_2O . Sl. sol. H_2O . Mp 320° dec. pK_a 7.85 (20°).

Ferguson, W.J. *et al*, *Anal. Biochem.*, 1980, **104**, 300 (*synth, use*)
 Hutchens, T.W. *et al*, *J. Chromatogr.*, 1986, **359**, 157 (*use*)
 Coetzee, J. *et al*, *J. Microsc. (Oxford)*, 1987, **146**, 143 (*use*)

2,6-Dihydroxy-4-pyridinecarboxylic acid **D-00721**
 1,2-Dihydro-6-hydroxy-2-oxo-4-pyridinecarboxylic acid, 9CI.
 2,6-Dihydroxyisonicotinic acid. Citrazinic acid
 [99-11-6]



$C_6H_5NO_4$ M 155.110
 Used as 0.1M aq. soln. for kinetic photometric detn. of Cu, Fe, V. Microscopic plates ($CHCl_3$) or cryst. (H_2O). Sol. H_2O . Does not melt but chars >300°.

► Mod. irritant. NS1400000.

Me ester: [56055-56-2].
 $C_7H_7NO_4$ M 169.137
 Mp 232°.

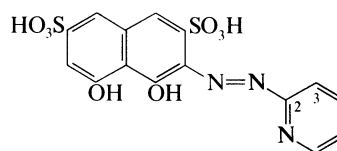
Hydrazide: [35584-25-9].
 $C_6H_7N_3O_3$ M 169.140
 Mp 202°.

Di-Ac:
 $C_{10}H_9NO_6$ M 239.184
 Mp 183-185° dec.

Di-Ac, Me ester:
 $C_{11}H_{11}NO_6$ M 253.211
 Mp 78-80°.

Baize, M.M. *et al*, *J. Am. Pharm. Assoc.*, 1956, **45**, 478 (*synth*)
 Foo Pan, *et al*, *CA*, 1959, **53**, 2086 (*synth*)
 Pitha, J., *Collect. Czech. Chem. Commun.*, 1963, **28**, 1408 (*synth, tautom*)
 Kavlentis, E., *Analysis*, 1989, **17**, 217 (*detn, Cu, Fe, V*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMV400.

4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, 9CI **D-00722**
 2-(2-Pyridylazo)chromotropic acid
 [34334-91-3]



$C_{15}H_{11}N_3O_8S_2$ M 425.399
 Used as a 0.05 or 0.1% aq. soln. for photometric detn. of Fe(III), La, Th; as an indicator in titrimetric detn. of Cu. Orange-red cryst. Sol. H_2O .

Sommer, L. *et al*, *Naturwissenschaften*, 1958, **45**, 544 (*detn, Cu*)
 Majumdar, A.K. *et al*, *Talanta*, 1971, **18**, 968 (*detn, Fe(III), La, Th*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

4,5-Dihydroxy-3-[(3-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, 8CI **D-00723**
 2-(3-Pyridylazo)chromotropic acid
 [34334-92-4]

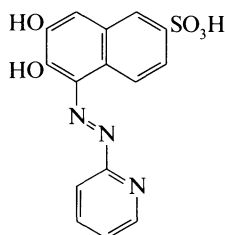
$C_{15}H_{11}N_3O_8S_2$ M 425.399
 Used as 0.05% aq. soln. for photometric detn. of La, Th, Fe(III), Be, Ni, Co (λ_{max} 640 nm, ϵ 33600). Cryst. (H_2O). Sol. H_2O .

Majumdar, A.K. *et al.* *Fresenius' Z. Anal. Chem.*, 1964, **202**, 323
(*synth, detn, Be*)
Majumdar, A.K. *et al.* *Talanta*, 1966, **13**, 821; 1971, **18**, 968 (*dem,*
Ni, Co, La, Th, Fe)

6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid, 9CI

PADNS

[80079-70-5]



$C_{15}H_{11}N_3O_5S$ M 345.335

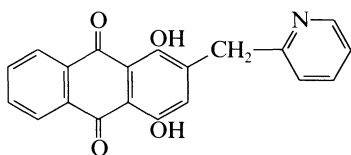
Na salt: Used as 0.1% aq. soln. as a metal indicator in EDTA titrations of Cu, Cd, Zn, Pb. Brown powder. Sol. H_2O , EtOH.

Hniličková, M. *et al.* *Fresenius' Z. Anal. Chem.*, 1960, **177**, 425
(*synth, use*)

Handbook of Analytical Chemistry, (Ed. Meites, L.), McGraw and Hill, New York, 1963 (*use*)

1,4-Dihydroxy-2-(2-pyridylmethyl)anthraquinone

D-00725



$C_{20}H_{13}NO_4$ M 331.327

Used as 0.25mM soln. in EtOH for photometric detn. of V(IV) (λ_{max} 605 nm, ϵ 9000). Pale yellow cryst. Sol. EtOH, Me_2CO , C_6H_6 .

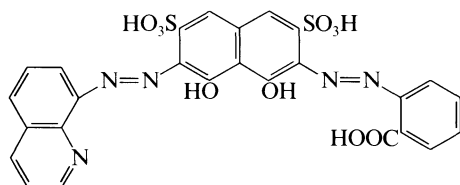
Al-Ani, K. *et al.* *Proc. Soc. Anal. Chem.*, 1971, **8**, 190 (*detn, V*)

o-[[1,8-Dihydroxy-7-(8-quinolyloazo)-3,6-disulfo-2-naphthyl]azo]benzoic acid, 9CI

D-00726

3-(2-Carboxyphenylazo)-4,5-dihydroxy-7-(8-quinolyloazo)-2,7-naphthalenedisulfonic acid

[21594-01-4]



$C_{26}H_{17}N_5O_{10}S_2$ M 623.580

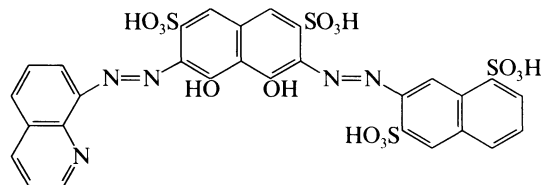
Used for extraction-photometric detn. of Cu (butanol). Dark red cryst. Sol. H_2O , EtOH.

Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (*detn, Cu*)

8-[[1,8-Dihydroxy-7-(8-quinolyloazo)-3,6-disulfo-2-naphthyl]azo]-1,6-naphthalenedisulfonic acid, 8CI

D-00727

[22138-11-0]



$C_{29}H_{19}N_5O_{14}S_4$ M 789.758

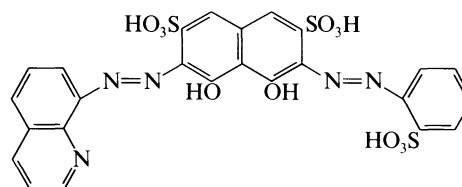
Used for extraction-photometric detn. of Cu (butanol). Dark red cryst. Sol. H_2O , EtOH.

Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (*detn, Cu*)

4,5-Dihydroxy-3-(8-quinolyloazo)-6-[(2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, 8CI

D-00728

[22106-81-6]



$C_{25}H_{17}N_5O_{11}S_3$ M 659.634

Used for extraction-photometric detn. of Cu (butanol). Dark red cryst. Sol. H_2O , EtOH.

Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (*detn, Cu*)

4,5-Dihydroxy-3-(8-quinolyloazo)-6-[(3-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, 8CI

D-00729

[22106-86-1]

$C_{25}H_{17}N_5O_{11}S_3$ M 659.634

Used for extraction-photometric detn. of Cu (butanol). Dark red cryst. Sol. H_2O , EtOH.

Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (*detn, Cu*)

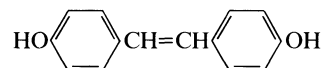
4,4'-Dihydroxystilbene

D-00730

4,4'-(1,2-Ethenediyl)bisphenol, 9CI. 4,4'-Stilbenediol, 8CI.

1,2-Bis(4-hydroxyphenyl)ethylene

[659-22-3]



$C_{14}H_{12}O_2$ M 212.248

Needles (AcOH). Mp 293-294° (284°).

Di-Ac:

$C_{18}H_{16}O_4$ M 296.322

Mp 213°.

Di-Me ether: [4705-34-4]. 4,4'-Dimethoxystilbene, 8CI

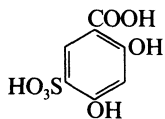
$C_{16}H_{16}O_2$ M 240.301

Used as 0.01% soln. in tetrachloroethane for photometric detn. of ozone (ϵ 35000). Cryst. Mp 214-215°. Sublimes.

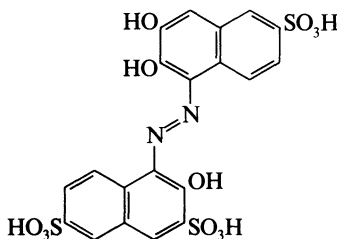
Laarhoven, W.H., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1961, **80**, 775 (*synth*)

Bravo, H.A. *et al.* *Anal. Chem.*, 1964, **36**, 671 (*detn, O_3*)

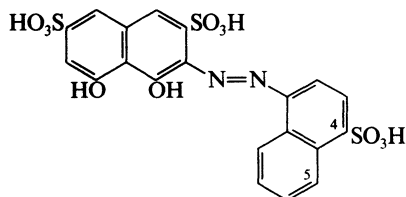
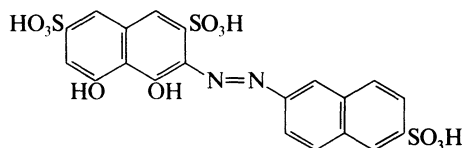
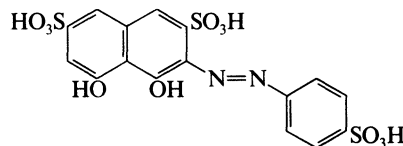
Sieber, R.W., *Justus Liebig's Ann. Chem.*, 1969, **730**, 31 (*synth*)

2,4-Dihydroxy-5-sulfobenzoic acid, 9CI **D-00731**
[36458-42-1]C₇H₆O₇S M 234.186*Di-Na salt*: Used as a 1% aq. soln. for photometric detn. of Fe(III); acid-base indicator. Brown cryst. Sol. H₂O.Shivahare, G. *et al*, *Anal. Chim. Acta*, 1971, **57**, 457 (*synth, indicator*)Shivahare, G. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 126 (*detn, Fe*)**4-[(2,3-Dihydroxy-6-sulfo-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, 9CI** **D-00732***1-(2,3-Dihydroxy-6-sulfo-1-naphthylazo)-2-naphthol-3,6-disulfonic acid*

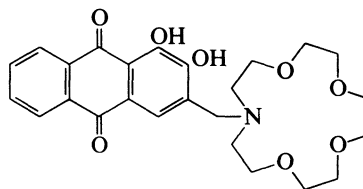
[76877-43-5]

C₂₀H₁₄N₂O₁₂S₃ M 570.535Used as 0.1mM aq. soln. as an indicator for complexometric (EDTA) titration of Ca (λ_{\max} 540 nm, pH 13). Dark violet cryst. Sol. H₂O. pK_{a1} 5.80 (25°, $\mu = 1$).Wada, H. *et al*, *Anal. Chim. Acta*, 1980, **121**, 265 (*synth, detn, Ca*)**4,5-Dihydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI** **D-00733***1',8'-Dihydroxy-1,2'-azonaphthalene-3',4,6'-trisulfonic acid. 2-(4-Sulfo-1-naphthylazo)chromotropic acid. C.I. Acid red 60. C.I. 16645. SNADNS-4*

[611-39-2]

C₂₀H₁₄N₂O₁₁S₃ M 554.535Used as 0.05% aq. soln. as metal indicator in chelometric detn. of Th, Zr, Fe(III). Bluish red cryst. powder. Sol. H₂O; sl. sol. EtOH.Datta, S.K., *Fresenius' Z. Anal. Chem.*, 1956, **149**, 270, 328; 1959, **167**, 105 (*synth, use*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)**4,5-Dihydroxy-3-[(5-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI** **D-00734***1',8'-Dihydroxy-1,2'-azonaphthalene-3',5,6'-trisulfonic acid. 2-(5-Sulfo-1-naphthylazo)chromotropic acid. SNADNS-5*C₂₀H₁₄N₂O₁₁S₃ M 554.535Used as 0.05% aq. soln. as metal indicator in chelometry of Ti (pH 3); photometric detn. of Th. Brown cryst. powder. Sol. H₂O; sl. sol. EtOH.Datta, S.K., *Fresenius' Z. Anal. Chem.*, 1960, **173**, 369 (*detn, Th*)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)**4,5-Dihydroxy-3-[(6-sulfo-2-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI** **D-00735***1,8-Dihydroxy-2,2'-azonaphthalene-3,6,6'-trisulfonic acid. 2-(6-Sulfo-2-naphthylazo)chromotropic acid. SNADNS-6*C₂₀H₁₄N₂O₁₁S₃ M 554.535Used as 0.05% aq. soln. as metal indicator in chelometry of Th (pH 2.5-3). Brown cryst. powder. Sol. H₂O; sl. sol. EtOH.Datta, S.K. *et al*, *Chemist-Analyst*, 1962, **51**, 43 (*detn, Th*)Datta, S.K. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **195**, 22 (*detn, Th*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)**4,5-Dihydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid** **D-00736***2-(4-Sulfophenylazo)chromotropic acid. SPADNS*C₁₆H₁₂N₂O₁₁S₃ M 504.476*Tri-Na salt*: [23647-14-5].Used as 0.02% aq. soln. for photometric detn. of Al, B, Th, Zr, Sc, F[⊖] (with Zr). Brown cryst. powder. Sol. H₂O, EtOH.Banerjee, G., *Fresenius' Z. Anal. Chem.*, 1955, **146**, 417; **147**, 105 (*synth, detn, Th, Zr*)Cooper, J.A. *et al*, *Anal. Chim. Acta*, 1960, **23**, 351 (*detn, Th*)Kelso, F.S. *et al*, *Anal. Chem.*, 1964, **36**, 577 (*detn, F*)Truhaut, R. *et al*, *Bull. Soc. Chim. Fr.*, 1966, 2551 (*detn, B*)**1,2-Dihydroxy-3-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)-9,10-anthracenedione, 9CI** **D-00737***N-(1,2-Dihydroxyanthraquinon-3-ylmethyl)monoaza-15-crown-5*

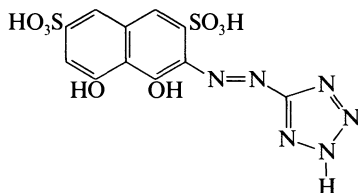
[100443-51-4]

C₂₅H₂₉NO₈ M 471.506

Used as 1,2-dichloroethane soln. for extraction separation of Li and Na from K. Violet cryst. Sol. CHCl_3 , 1,2-dichloroethane, dioxan. Mp 104.2-104.6°. $\text{p}K_{\text{a}1}$ 4.80; $\text{p}K_{\text{a}2}$ 9.86 (aq. 10% dioxan, 25°).

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1985, **173**, 193 (*synth, sepn, Li, Na*)

4,5-Dihydroxy-3-(1*H*-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, 9CI **D-00738**
[74385-48-1]



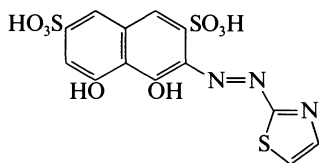
$\text{C}_{11}\text{H}_8\text{N}_6\text{O}_8\text{S}_2$ M 416.352

Used as 1mM aq. soln. for photometric detn. of Pd (λ_{max} 640 nm, ϵ 15000). Orange cryst. Sol. H_2O .

Pesavento, M. *et al*, *Ann. Chim. (Rome)*, 1979, **69**, 649 (*synth*)

Pesavento, M. *et al*, *Analyst (London)*, 1985, **110**, 801 (*detn, Pd*)

4,5-Dihydroxy-3-[(2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, 8CI **D-00739**
2-(2-Thiazolylazo)chromotropic acid
[28467-51-8]



$\text{C}_{13}\text{H}_9\text{N}_3\text{O}_8\text{S}_3$ M 431.427

Used as a 0.1% aq. soln. for photometric detn. of Al (λ_{max} 630 nm, ϵ 45000) Th, Zr, Pd (λ_{max} 650 nm, ϵ 25000); used as metallochromic indicator in titrimetric detn. of Cu, Th, Zr. Red cryst. Sol. H_2O , EtOH, MeOH; sl. sol. Me_2CO . $\text{p}K_{\text{a}2}$ 5.14; $\text{p}K_{\text{a}3}$ 13.1 ($\mu = 0.1$).

Savvin, S.B. *et al*, *CA*, 1969, **70**, 68239k (*synth, detn, Th, Zr*)

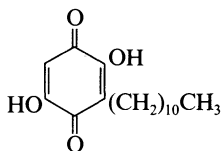
Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 423 (*detn, Al*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Bertoglia Riolo, C. *et al*, *Gazz. Chim. Ital.*, 1975, **105**, 221 (*synth*)

Pesavento, M. *et al*, *Analyst (London)*, 1985, **110**, 801 (*detn, Pd*)

2,5-Dihydroxy-3-undecyl-1,4-benzoquinone **D-00740**
2,5-Dihydroxy-3-undecyl-2,5-cyclohexadiene-1,4-dione, 9CI.
Embelin. Embelic acid. Embeliaquinone. Oxaloxanthin
[550-24-3]



$\text{C}_{17}\text{H}_{26}\text{O}_4$ M 294.390

Constit. of *Embelia ribes*, *E. tsjersium-cottam*, *Ardisia humilis*, *Rapanea umbellata* and *Conarus ritchiei*. Also from *E. robusta*, *E. kilimandscharica*, *Myrsine africana*, *M. semiserrata*, *M. capitellata*, *Rapanea neurophylla* and

E. barbeyana. Anthelmintic, potent oral contraceptive. Used as a 1% soln. in EtOH for photometric detn. of Al, Be, Ba, Ca, Mg, Sr, Th, U. Orange cryst. (MeOH or hexane/EtOH). Insol. H_2O . Mp 145-146°.

▷ DK4230000.

Di-Ac:

$\text{C}_{21}\text{H}_{30}\text{O}_6$ M 378.464

Yellow cryst. (MeOH aq.). Mp 54°, Mp 59°.

Di-Me ether:

$\text{C}_{19}\text{H}_{30}\text{O}_4$ M 322.444

Cryst. (MeOH aq.). Mp 58°.

Merian, M. *et al*, *Helv. Chim. Acta*, 1948, **31**, 2237 (*isol*)

Fieser, L.F. *et al*, *J. Am. Chem. Soc.*, 1948, **70**, 71 (*synth*)

Rao, C.B., *Fresenius' Z. Anal. Chem.*, 1960, **175**, 114; 1961, **178**,

277; 1963, **198**, 183 (*detn, Th, U, Al, Be, Ba, Ca, Mg, Sr*)

Natori, S. *et al*, *Chem. Pharm. Bull.*, 1964, **12**, 236 (*ir, uv*)

Dallacker, F. *et al*, *Chem. Ber.*, 1972, **105**, 614 (*synth*)

Desai, H.K. *et al*, *Indian J. Chem., Sect. B*, 1975, **13**, 97; 1977, **15**, 291 (*isol*)

Joshi, B.S. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1975, 327 (*isol, ms, pmr*)

Thappa, R.K. *et al*, *Indian J. Pharm.*, 1976, **38**, 17 (*synth, pharmacol*)

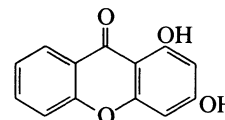
Gupta, O.P. *et al*, *Indian J. Physiol. Pharmacol.*, 1977, **21**, 31 (*pharmacol*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 777.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EAJ600.

1,3-Dihydroxyxanthone **D-00741**
1,3-Dihydroxy-9H-xanthen-9-one, 9CI
[3875-68-1]



$\text{C}_{13}\text{H}_8\text{O}_4$ M 228.204

Used for spot test for Ba. Needles (EtOH aq.). Mp 259°. Sublimes.

3-Ac:

$\text{C}_{15}\text{H}_{10}\text{O}_5$ M 270.241

Mp 145-146°.

Di-Ac: [5688-87-9].

$\text{C}_{17}\text{H}_{12}\text{O}_6$ M 312.278

Mp 149° (145°).

3-Me ether: [18799-43-4]. 1-Hydroxy-3-methoxyxanthone

$\text{C}_{14}\text{H}_{10}\text{O}_4$ M 242.231

Needles (AcOH). Mp 245°.

Di-Me ether: [3722-53-0]. 1,3-Dimethoxyxanthone

$\text{C}_{15}\text{H}_{12}\text{O}_4$ M 256.257

Mp 167-169°.

Grover, P.K. *et al*, *J. Chem. Soc.*, 1955, 3982 (*synth*)

Guyot, M. *et al*, *Bull. Soc. Chim. Fr.*, 1965, 2558 (*synth*)

Dhar, M.L. *et al*, *Curr. Sci.*, 1972, **41**, 563; *CA*, **77**, 121704f (*use*)

Davoust, D. *et al*, *Org. Magn. Reson.*, 1978, **11**, 547 (*nmr*)

3,6-Dihydroxyxanthone **D-00742**
3,6-Dihydroxy-9H-xanthen-9-one, 9CI
[1214-24-0]

$\text{C}_{13}\text{H}_8\text{O}_4$ M 228.204

Acid-base fluorescent indicator (pH 5.4-7.6), used as 1% soln. in EtOH. Fine needles (EtOH aq.). Sol. EtOH, CHCl_3 , Mp >300°.

Di-Ac:

$\text{C}_{17}\text{H}_{12}\text{O}_6$ M 312.278

Pale-yellow needles (EtOH). Mp 204°.

Di-Me ether: [15007-07-5]. 3,6-Dimethoxyxanthone

$C_{15}H_{12}O_4$ M 256.257
Mp 182-183°.

Meyer, R. *et al*, *Ber.*, 1897, **30**, 969.

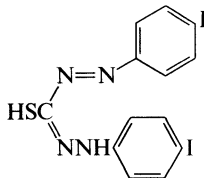
Jensen, K.A., *Fresenius' Z. Anal. Chem.*, 1933, **94**, 177 (*use, ind*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Carr, A.A. *et al*, *J. Med. Chem.*, 1976, **19**, 1142 (*synth*)

4,4'-Diiododithizone**D-00743**

[(p-Iodophenyl)azo]thioformic acid 2-(p-iodophenyl)hydrazide, 8CI. 4-Iodophenyldiazene-carbothioic acid 2-(4-iodophenyl)hydrazide, 9CI
[2059-71-4]



$C_{13}H_{10}I_2N_4S$ M 508.124

Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Co, Cu, Hg, Ni, Zn. Greenish black cryst. powder. Sol. alkalis, Me_2CO , C_6H_6 , $CHCl_3$, CCl_4 ; insol. H_2O . Mp 159-160°. pK_a 4.03 (50% dioxan aq., $\mu = 0.1$, 25°).

Takei, S., *Bunseki Kagaku (Jpn. Anal.)*, 1961, **10**, 715 (*detn. Cu, Hg*)

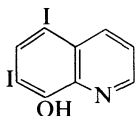
Joon, S.O. *et al*, *Anal. Chem.*, 1967, **39**, 295 (*detn. Zn*)

Al-Salihy, A.R. *et al*, *Talanta*, 1970, **17**, 182 (*detn. Co, Ni, Zn*)

5,7-Diiodo-8-quinolinol, 9CI, 8CI**D-00744**

8-Hydroxy-5,7-diiodoquinoline. *Diiodohydroxyquinoline*, INN, BAN. *Iodoquinol*, USAN. *Diodoquin. Embequin. Floraquin. Diiodoxine. Iodoxine. Numerous proprietary names*

[83-73-8]



$C_9H_5I_2NO$ M 396.954

Used as 0.2% soln. in heptanol in photometric detn. of V and Mg. Cryst. (xylene). Mp ca. 214° dec.

▶ Suspected carcinogen. LD_{50} 56mg/kg (mouse, i.v.). VC5775000.

Papesch, V. *et al*, *J. Am. Chem. Soc.*, 1936, **58**, 1314 (*synth*)

Goodwin, L.G. *et al*, *Br. J. Pharmacol.*, 1948, **3**, 44 (*pharmacol*)

Das, A. *et al*, *J. Org. Chem.*, 1957, **22**, 1111 (*synth*)

Urbanyi, T. *et al*, *J. Pharm. Sci.*, 1966, **55**, 730 (*ir*)

Heitner-Wirguin, C. *et al*, *Talanta*, 1967, **14**, 671 (*detn. V*)

Berggren, L. *et al*, *Clin. Pharmacol. Ther. (St. Louis)*, 1968, **9**, 67 (*metab, tox*)

Barsode, C.D. *et al*, *J. Indian Chem. Soc.*, 1975, **52**, 942; 1976, **53**, 761 (*ms, pmr, ir*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 4777.

Röbisch, G. *et al*, *Anal. Chim. Acta*, 1983, **153**, 281 (*detn. Mg*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1075 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DNF600.

3,5-Diiodosalicylic acid, 8CI**D-00745**

2-Hydroxy-3,5-diiodobenzoic acid, 9CI
[133-91-5]



$C_7H_4I_2O_3$ M 389.916

Used for photometric detn. of rare earth elements. Needles (EtOH). Mp 228-230° dec., (326-327°). pK_{a1} 2.30 (25°).

▶ VO2800000.

Me ester: [18071-50-6].

$C_8H_6I_2O_3$ M 403.943

Needles. Mp 110°. Bp₁₇ 221°.

Et ester:

$C_9H_8I_2O_3$ M 417.969

Leaflets (EtOH). Mp 133°.

Chloride: [42016-91-1].

$C_7H_3ClI_2O_2$ M 408.361

Yellow needles (pet. ether). Mp 97-98°.

Cofman, V., *Gazz. Chim. Ital.*, 1920, **50**, 296.

Brenan, P., *C. R. Hebd. Seances Acad. Sci.*, 1923, **176**, 1626.

Dezani, S., *CA*, 1927, **21**, 475.

Tselik, E.I. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1979, **45**, 1120; 1982, **48**, 303 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DNH000.

O,O-Diisopentyl phosphorodithioate**D-00746**

O,O-Diisopentyl hydrogen phosphorodithioate. Phosphorodithioic acid O,O-diisopentyl ester, 9CI
[32650-55-8]

$[H_3CCH_2CH_2CH(CH_3)O]_2PSSH$

$C_{10}H_{23}O_2PS_2$ M 270.396

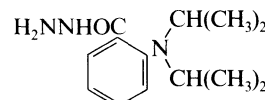
Used as a soln. in C_6H_6 , CCl_4 or $CHCl_3$ for extraction of Cd, In, Ni, Pb, Tl, Zn. Oily liq. Sol. EtOH, Me_2CO , C_6H_6 , CCl_4 , $CHCl_3$.

Busev, A.I. *et al*, *Tr. Kom. Anal. Khim., Akad. Nauk SSSR*, 1960, **11**, 172 (*use*)

Toporova, V.F. *et al*, *Talanta*, 1987, **34**, 211 (*use*)

2-(Diisopropylamino)benzoic acid hydrazide**D-00747**

2-[Bis(1-methylethyl)amino]benzoic acid hydrazide, 9CI. Diaryl hydrazide
[100343-96-2]



$C_{13}H_{21}N_3O$ M 235.328

Fluorescent reagent for hplc anal. of carbonyl compds.

Anderson, J.M., *Anal. Biochem.*, 1986, **152**, 146.

Diisopropyl ether**D-00748**

2,2'-Oxybispropane, 9CI. Isopropyl ether, 8CI
[108-20-3]

$(H_3C)_2CHOCH(CH_3)_2$

$C_6H_{14}O$ M 102.176

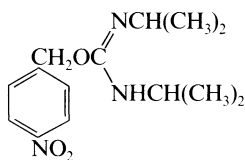
Used for extraction of Cl^\ominus or Br^\ominus complexes of As(III), Au(III), Fe(III), Ga, In, Tl(III), Sb(V) (from 6-8M HCl media); fltn. of Pt metals ion-associates. Liq. d_4^{20} 0.725. Mp -60° . Bp 69° .

▷ Irritant, TLV 1050. Highly flammable, flash pt. -28° , readily forms explosive peroxides. TZ5425000.

Pohl, F.A. *et al.*, *Fresenius' Z. Anal. Chem.*, 1958, **161**, 108.
Howard, W.L. *et al.*, *J. Org. Chem.*, 1961, **26**, 1026 (*synth*)
Jackson, H. *et al.*, *Analyst (London)*, 1962, **87**, 712, 718 (*use*)
Verzele, M. *et al.*, *J. Chem. Soc.*, 1963, 5598 (*synth*)
Sugawara, T. *et al.*, *Chem. Lett.*, 1978, 1371 (*nmr*)
Lewis, E.S. *et al.*, *J. Chem. Soc., Chem. Commun.*, 1978, 424 (*synth*)
Sandell, E.B. *et al.*, *Photometric Determination of Traces of Metals, General Aspects*. Wiley, New York, 1978.
Saloman, M.F. *et al.*, *J. Am. Chem. Soc.*, 1979, **101**, 4290 (*synth*)
Marczenko, Z., *Pure Appl. Chem.*, 1985, **57**, 849 (*fltn*)
Hazards in the Chemical Laboratory. (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 294.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IOZ750.

N,N'-Diisopropyl-O-p-nitrobenzylisourea D-00749

(4-Nitrophenyl)methyl N,N'-bis(1-methylethyl) carbamimidate, 9CI
[2978-11-2]



$\text{C}_{14}\text{H}_{21}\text{N}_3\text{O}_3$ M 279.338

Used as derivatisation chromogenic reagent for hplc analysis of carboxylic acids. Cryst. Mp 42° .

Schmidt, E. *et al.*, *Anal. Chem.*, 1965, **685**, 161 (*synth*)
Knapp, D.R. *et al.*, *Anal. Lett.*, 1975, **8**, 603 (*use*)
Zou, A. *et al.*, *J. Chromatogr.*, 1987, **410**, 217 (*use*)

O,O-Diisopropyl phosphorodithioate, 8CI D-00750

O,O-Bis(1-methylethyl) phosphorodithioate, 9CI. O,O-Diisopropyl dithiophosphate. O,O-Diisopropyl hydrogen dithiophosphate
[107-56-2]



$\text{C}_6\text{H}_{15}\text{O}_2\text{PS}_2$ M 214.289

Used as a soln. of K salt in CHCl_3 , C_6H_6 or CCl_4 for extraction of Ag, Cd, In, Ni, Pb, Tl, Zn. Liq. Sol. EtOH, C_6H_6 , CCl_4 , Me_2CO , CHCl_3 , d_4^{20} 1.09. Bp₃ $71-72^\circ$. pK_a 1.82 (7% EtOH aq.), pK_a 2.65 (80% EtOH aq.). n_D^{20} 1.4918.

K salt: [3419-34-9].

Solid. Mp 193° .

Dimethylammonium salt: [70723-42-1].

Solid.

Anilinium salt: [32997-75-4].

Solid. Mp $102-103.5^\circ$.

Cyclohexylammonium salt: [50329-34-5].

Solid. Mp $79-80^\circ$.

Kabachnik, M.I. *et al.*, *Tetrahedron*, 1960, **9**, 10 (*synth*)

Busev, A.I. *et al.*, *Tr. Kom. Anal. Khim., Akad. Nauk SSSR*, 1960, **11**, 172 (*use*)

Zemlyanski, N.I. *et al.*, *Zh. Obshch. Khim.*, (Engl. transl. p. 811), 1961, **31**, 880 (*synth*)

Khaskin, B.A. *et al.*, *Zh. Obshch. Khim.*, 1973, **43**, 1916; (Engl. transl. pp. 93, 1901), 1974, **44**, 95 (*synth*)

Olah, G.A. *et al.*, *J. Org. Chem.*, 1975, **40**, 2582 (*props, pmr, P nmr*)

Glidewell, C., *Inorg. Chim. Acta*, 1977, **25**, 159 (*salts, P nmr, complexes*)

Zimin, M.G. *et al.*, *Zh. Obshch. Khim.*, (Engl. transl. p. 930), 1978, **48**, 1020 (*P nmr*)

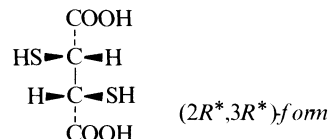
Kalinen, A.E. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (Engl. transl. p. 727), 1979, 783 (*cryst struct*)

Toropova, V.F. *et al.*, *Talanta*, 1987, **34**, 211 (*use*)

Bol'shova, T.A. *et al.*, *Zh. Anal. Khim.*, 1989, **44**, 284 (*synth, dem, Ag*)

2,3-Dimercaptobutanedioic acid, 9CI D-00751

2,3-Dimercaptosuccinic acid, 8CI. Dithiotartaric acid
[2418-14-6]



$\text{C}_4\text{H}_6\text{O}_4\text{S}_2$ M 182.221

Poison antidote, complexing agent. Used as masking reagent for metals. Sol. alkalis.

▷ WM7640000.

(2R*,3R*)-form [10008-75-0]

(+)-threo-form

Prisms. Mp $124-125^\circ$. $[\alpha]_D^{22} +28^\circ$ (c, 1 in Et_2O).

▷ WM7645000.

(2S*,3S*)-form

(-)-threo-form

Fine needles (EtOAc/pet. ether). Mp $124-125^\circ$. $[\alpha]_D^{22} -128^\circ$ (c, 1 in Et_2O).

(2RS,3RS)-form

(±)-threo-form

Mp $127-128^\circ$. pK_{a1} 2.9; pK_{a2} 4.5.

Di-Me ester:

$\text{C}_6\text{H}_{10}\text{O}_4\text{S}_2$ M 210.275

Cryst. (isopropyl ether). Mp $71-72^\circ$.

Di-S-Ac:

$\text{C}_8\text{H}_{10}\text{O}_6\text{S}_2$ M 266.295

Mp $150-151^\circ$. Must be recryst. $<50^\circ$.

(2RS,3SR)-form [304-55-2]

erythro-form. meso-form. **Succimer, INN, USAN, DIM-SA, DMS, DMSA, DTS, MPI-DMSA, Ro 1-7977**

Antidote for heavy metal poisoning, diagnostic aid.

Used as a selective masking agent for Cd in EDTA

titration of Zn. Cryst. (EtOAc). Mp $210-211^\circ$ (dec.,

dependent on rate of heating). pK_{a1} 3.0; pK_{a2} 3.3.

▷ WM7650000.

Di-Me ester: Platelets. Mp $91-92^\circ$.

Di-S-Ac: Mp $183-185^\circ$.

Di-Ac, di-Me ester:

$\text{C}_{10}\text{H}_{14}\text{O}_6\text{S}_2$ M 294.349

Mp $119-120^\circ$.

Di-S-Me, di-Me ester:

$\text{C}_8\text{H}_{14}\text{O}_4\text{S}_2$ M 238.328

Cryst. (MeOH). Mp $111-112^\circ$.

U.K. Pat., 908 986, (1960); CA, **58**, 5693f (*synth, pharmacol*)

Cannava, A. *et al.*, *Arch. Int. Pharmacodyn. Ther.*, 1961, **131**, 283 (*pharmacol*)

Gerecke, M. *et al.*, *Helv. Chim. Acta*, 1961, **44**, 955 (*synth, resoln, config*)

Martell, A.E., *Inorg. Chem.*, 1965, **4**, 378 (*use*)

Holzbecher, J. *et al.*, *Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use*)

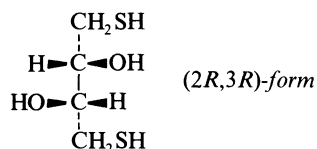
Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1058.

- Aposhian, H.V., *Annu. Rev. Pharmacol. Toxicol.*, 1983, **23**, 193 (activity)
 McGown, E.L. *et al. Proc. West. Pharmacol. Soc.*, 1984, **27**, 169 (metab)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DNV800.

1,4-Dimercapto-2,3-butanediol, 9CI**D-00752**

2,3-Dihydroxy-1,4-butanedithiol

[7634-42-6]

C₄H₁₀O₂S₂ M 154.254**(2R,3R)-form** [16096-97-2](–)-threo-form. *L*-DithiothreitolNeedles (Et₂O) or by subl. Mp 48.2-49.8°. [α]_D²² – 11.9° (c, 2.4 in CHCl₃).

▷ EK1612000.

(2RS,3RS)-form [3483-12-3](±)-threo-form. *DL*-Dithiothreitol. Cleland's reagentProtective reagent for -SH groups. Bp₁ 115-116°.

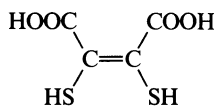
▷ EK1610000.

(2RS,3SR)-form [6892-68-8]

erythro-form. meso-form. Dithioerythritol

Small plates (Et₂O/pet. ether). Mp 82-83°.

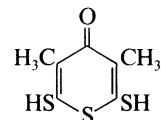
▷ KF2410000.

Tetra-Ac:C₁₂H₁₈O₆S₂ M 322.403Plates (C₆H₆ or MeOH). Mp 126°.Cleland, W.W., *Biochemistry*, 1964, **3**, 480 (*synth, use*)Carmack, M. *et al. J. Org. Chem.*, 1968, **33**, 2171 (*synth, abs config*)Slepko, G.I. *et al. CA*, 1971, **74**, 61476 (*synth*)Kelley, C.J., *Diss. Abstr. Int.*, **B**, 1971, **31**, 7187.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXO800.**2,3-Dimercapto-2-butenedioic acid****D-00753**C₄H₄O₄S₂ M 180.205**(Z)-form***Dinitrile*: [20654-67-5]. 2,3-Dimercapto-2-butenedinitrile.*Maleonitrile dithiolate*. 1,2-Dicyanoethylene dithiolateC₄H₂N₂S₂ M 142.205Used as 0.2% aq. soln. for photometric detn. of Mo, W (λ_{max} 570 nm, ε 5500, MeCN aq.), V (λ_{max} 580 nm, ε 4900). Pale yellow cryst. (EtOH/Et₂O). Sol. MeCN aq., EtOH, H₂O.

[18820-77-4, 23953-37-9]

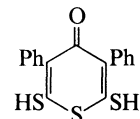
Bähr, G. *et al. Ber.*, 1957, **90**, 438 (*synth*)Ciganek, E. *et al. J. Org. Chem.*, 1968, **33**, 541 (*synth, nitrile*)Chakrabarti, A.K. *et al. Anal. Chim. Acta*, 1972, **59**, 225 (*synth, detn, W*)Chakrabarti, A.K. *et al. Talanta*, 1972, **19**, 1187 (*detn, Mo*)Chatterjee, A.B. *et al. Mikrochim. Acta*, 1974, 275 (*detn, V*)**2,6-Dimercapto-3,5-dimethyl-4H-thiopyran-4-one, 9CI****D-00754**

[1738-12-1]

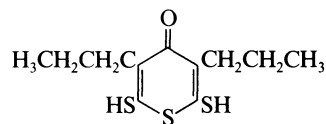
C₇H₈OS₃ M 204.338Used as a 0.1mM aq. soln. for photometric detn. of Ag, Bi (λ_{max} 430 nm, ε 21000), Sn (λ_{max} 420 nm, ε 18500); titrimetric amperometric detn. of Ag, potentiometric detn. of Ag, Cu. Cryst.Usatenko, Y.I. *et al. Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn, Sn, Bi*)Arishkevich, A.M. *et al. CA*, 1972, **76**, 94108k; *CA*, 1973, **78**, 11121b (*detn, Cu, Hg, amp, detn, Ag*)Kroik, A.A. *et al. CA*, 1972, **77**, 121711f (*detn, Ag*)**2,6-Dimercapto-3,5-diphenyl-4H-thiopyran-4-one, 8CI****D-00755**

2,6-Dimercapto-3,5-diphenyl-4-pyrone

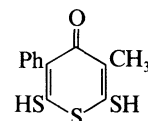
[1913-90-2]

C₁₇H₁₂OS₃ M 328.479Used as a 0.03% soln. in 0.5M NaOH for photometric detn. of Te (λ_{max} 360 nm, ε 17800), Bi (λ_{max} 410 nm, ε 30000) (colloid aq. medium), Sn (λ_{max} 440 nm, ε 28800). Yellow cryst. Sol. EtOH, Me₂CO, CHCl₃, alkalis; mod. sol. H₂O. Used as 0.5% surfactant OP-10 aq. medium.Usatenko, Y.I. *et al. Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn, Bi, Sn*); HRamanaukas, E. *et al. CA*, 1970, **72**, 128418w (*detn, Te*)**2,6-Dimercapto-3,5-dipropyl-4H-thiopyran-4-one, 9CI****D-00756**

[1913-88-8]

C₁₁H₁₆OS₃ M 260.445Used as a 0.1mM aq. soln. for photometric detn. of Bi (λ_{max} 430 nm, ε 33700), Sn (λ_{max} 410 nm, ε 25800); amperometric titrimetric detn. of Ag. Cryst.Usatenko, Y.I. *et al. Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn, Bi, Sn*)Arishkevich, A.M. *et al. CA*, 1972, **76**, 94108k (*detn, Ag*)**2,6-Dimercapto-3-methyl-5-phenyl-4H-thiopyran-4-one, 9CI****D-00757**

[27242-29-1]

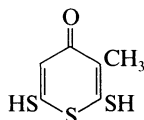


C₁₂H₁₀OS₃ M 266.408

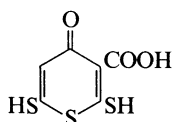
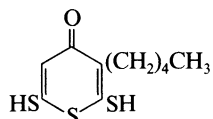
Used for photometric detn. of Ag. Cryst.

Arishkevich, A.M. *et al*, *CA*, 1973, **78**, 11121b (*detn*, Ag)**2,6-Dimercapto-3-methyl-4H-thiopyran-4-one, 9CI** **D-00758**

[1738-11-0]

C₆H₆OS₃ M 190.311Used as 0.1mM aq. soln. for photometric detn. of Bi (λ_{\max} 420 nm, ϵ 25900), Sn (λ_{\max} 410 nm, ϵ 18500); used as a 0.01M soln. in 0.5M H₂SO₄ for potentiometric detn. of Pd, Pt; amperometric detn. of Ag, Ce, Pd. Cryst.Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn*, Bi, Sn)Arishkevich, A.M. *et al*, *CA*, 1972, **76**, 94108k; 1973, **78**, 11121b (*detn*, Ag, amp detn, Pd)Pitsyk, O.I. *et al*, *CA*, 1972, **77**, 159733c (*pot detn*, Pd, Pt)Usatenko, Y.I. *et al*, *Zavod. Lab.*, 1975, **41**, 645 (*detn*, Ce)**2,6-Dimercapto-4-oxo-4H-thiopyran-3-carboxylic acid, 9CI** **D-00759**

[1738-10-9]

C₆H₄O₃S₃ M 220.294Used as a 0.1mM aq. soln. for photometric detn. of Ag, Bi (λ_{\max} 430 nm, ϵ 21900), titrimetric amperometric detn. of Ag. Cryst.Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 462 (*detn*, Bi)Arishkevich, A.M. *et al*, *CA*, 1972, **76**, 94108k (*amp*, *detn*, Ag)Kroik, A.A. *et al*, *CA*, 1972, **77**, 121711f (*phot*, *detn*, Ag)**2,6-Dimercapto-3-pentyl-4H-thiopyran-4-one, 9CI** **D-00760**C₁₀H₁₄OS₃ M 246.418Used as 0.1mM aq. soln. for photometric detn. of Bi (λ_{\max} 420 nm, ϵ 31200), Sn (λ_{\max} 430 nm, ϵ 25700). Cryst.Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn*, Bi, Sn)**2,3-Dimercapto-1-propanesulfonic acid, 9CI, 8CI** **D-00761***Unithiol*

[74-61-3]

C₃H₈O₃S₃ M 188.292Efficient chelating agent for heavy metals (Hg, As, Sb, Au, Cd). Antidote to As poisoning. Used as 0.01M aq. soln. as a masking agent in complexometric titration of Ca, Mg; photometric detn. of Mo (λ_{\max} 335 nm, ϵ 7200); extraction-photometric detn. of As.**(+)-form***Na salt*: $[\alpha]_D^{20} + 2.5^\circ$ (c, 1 in H₂O).**(-)-form***Na salt*: $[\alpha]_D^{20} - 2.5^\circ$ (c, 1 in H₂O).**(±)-form** [88031-93-0]Cryst. p*K*_{a2} 8.84; p*K*_{a3} 11.20 (25°).*Na salt*: [4076-02-2].

Mp 229° dec.

▷ TZ6420000.

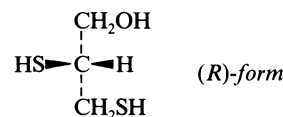
[85168-98-5, 85187-11-7]

Petrunkin, V.E., *CA*, 1957, **54**, 24378 (*synth*)Volf, L.A. *et al*, *Zavod. Lab.*, 1959, **25**, 1438 (*use*)Hsu, C.A. *et al*, *J. Pharmacol. Exp. Ther.*, 1983, **224**, 314 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DNU860.**2,3-Dimercaptopropanoic acid** **D-00762**

[6220-25-3]

C₃H₆O₂S₂ M 138.211Used in photometric detn. of Mo, Pd. p*K*_{a1} 3.45 (COOH); p*K*_{a2} 9.54; p*K*_{a3} 11.55.**(-)-form**Mp 68-69°. $[\alpha]_D^{23} - 1.1^\circ$ (c, 4 in MeOH). Largely racemic.Busev, A.I., *Zh. Anal. Khim.*, 1961, **16**, 695; 1963, **18**, 50, 1233; 1964, **19**, 327, 475, 767 (*detn*, Mo, Pd)Owen, L.N. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1974, 2413 (*synth*)**2,3-Dimercapto-1-propanol, 9CI** **D-00763***3-Hydroxy-1,2-propanedithiol. 1,2-Dithioglycerol. British anti-lewisite. Dimercaprol, BAN, USAN, INN. Ametoxin.**Antoxol. Balistab. Balonk. Dimersol. Panobal. Sulfactin. BAL*

[59-52-9]

C₃H₈OS₂ M 124.228

Used as a masking agent for heavy metals and for photometric detn. of Cu.

▷ Highly irritant. UB2625000.

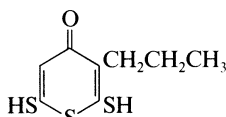
(R)-form [16495-08-2]Oil. Bp_{0,1} 65°. $[\alpha]_D^{21} - 9.6^\circ$ (c, 7 in MeOH), $[\alpha]_D^{25} + 3.0^\circ$ (c, 9 in CHCl₃).*Benzyl ether*: [16495-07-1].C₁₀H₁₄OS₂ M 214.352Oil. Bp_{0,0005} 93-95°. $[\alpha]_D^{25} - 7.6^\circ$ (c, 1.5 in CHCl₃).**(S)-form** [16495-16-2]Oil. Bp_{0,1} 65°. $[\alpha]_D^{25} + 9.6^\circ$ (c, 6 in MeOH).*Benzyl ether*: [16495-15-1].Oil. Bp_{0,1} 93-96°. $[\alpha]_D^{26} + 7.2^\circ$ (c, 10 in CHCl₃).**(±)-form**Antidote to heavy metal poisoning. Oil. d²⁰ 1.246. Bp_{0,8} 82-84°. p*K*_{a1} 8.62; p*K*_{a2} 10.57 (25°, 0.1M NaCl). n_D^{20} 1.5749.

2,3-Di-Ac:C₇H₁₂O₃S₂ M 208.302Oil. Bp_{0.05} 120°.*l*-Me ether: [58950-98-4]. 3-Methoxy-1,2-propanedithiolC₄H₁₀OS₂ M 138.254Oil. Bp₁ 68°.Fraser, J.B. *et al*, *Biochem. J.*, 1947, **41**, 328 (*rev*)Stocken, L.A., *J. Chem. Soc.*, 1947, 592 (*synth*)Cassassas, E., *Chim. Anal. (Paris)*, 1965, **47**, 419 (*detn*, Cu)Anisuzzaman, A.K.M. *et al*, *J. Chem. Soc. C*, 1967, 1021 (*synth*, *abs config*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1036.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BAD750.**2,6-Dimercapto-3-propyl-4H-thiopyran-4-one, 9CI**

[3044-64-2]

C₈H₁₀OS₃ M 218.364

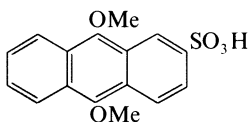
Used as a 0.1mM aq. soln. for photometric detn. of Bi

(λ_{max} 420 nm, ε 22900), Sn (λ_{max} 420 nm, ε 24500).

Cryst.

Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn*, Bi, Sn)**9,10-Dimethoxy-2-anthracenesulfonic acid, 9CI**

[52212-90-5]

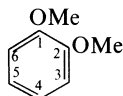
C₁₆H₁₄O₅S M 318.350

Reagent for the fluorometric detn. of amines.

[67580-39-6]

Westerlund, D. *et al*, *Anal. Chim. Acta*, 1973, **67**, 89 (*synth*)Gfeller, J.C. *et al*, *J. Chromatogr.*, 1979, **172**, 141 (*use*)v. Buurem, C. *et al*, *Anal. Chem.*, 1980, **52**, 700 (*use*)**1,2-Dimethoxybenzene, 9CI***Veratrol*. *Veratrole*. *Catechol dimethyl ether*

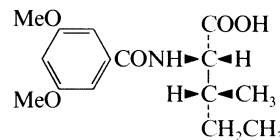
[91-16-7]

C₈H₁₀O₂ M 138.166Used in photometric detn. of Ce(IV), V. Cryst. (pet. ether). Mp 22.5°. Bp₇₅₉ 206°, Bp₁₀ 88-90°.

▷ CZ6475000.

Picrate: Red plates. Mp 56-57°.Perkin, W.H. *et al*, *J. Chem. Soc.*, 1906, **89**, 1649.King, H. *et al*, *J. Chem. Soc.*, 1939, 1168 (*synth*)Antoniades, H.N., *Chemist-Analyst*, 1955, **44**, 34 (*detn*, Ce)Wright, G.E. *et al*, *Tetrahedron*, 1973, **29**, 3775 (*nmr*)Starkov, S. *et al*, *CA*, 1974, **82**, 43030 (*synth*)Lille, V. *et al*, *CA*, 1976, **85**, 46138 (*glc*)Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DOA200.**N-(3,5-Dimethoxybenzoyl)isoleucine, 9CI**

D-00767

C₁₅H₂₁NO₅ M 295.335*L*-form [114494-61-0]

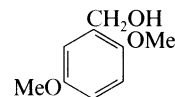
Chiral stationary phase for the sepn. of enantiomers by hplc. Oil.

Vloon, W.J. *et al*, *Chromatographia*, 1987, **24**, 655.**2,5-Dimethoxybenzyl alcohol, 8CI**

D-00768

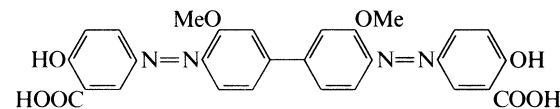
2,5-Dimethoxybenzenemethanol, 9CI. α-Hydroxy-2,5-dimethoxytoluene

[33524-31-1]

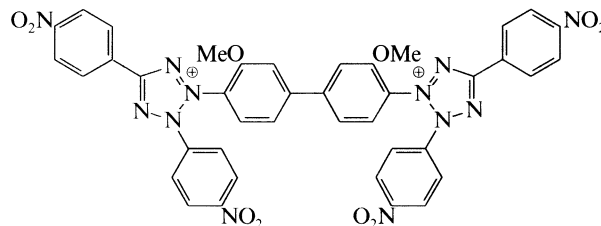
C₉H₁₂O₃ M 168.192A self-indicating standard for the detn. of organolithium reagents. Bp 278-279°, Bp₁ 122-125°.Biellmann, J.F. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 1676 (*synth*)Winkle, M.R. *et al*, *J. Chem. Soc., Chem. Commun.*, 1980, 87 (*use*)**3,3'-(3,3'-Dimethoxy-[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[6-hydroxybenzoic acid], 9CI**

D-00769

5,5'-Bis(3,3'-dimethoxy-4,4'-diphenylenediazo)disalicyclic acid [58608-00-7]

C₂₈H₂₂N₄O₈ M 542.504Used as a 0.1% soln. in dil. alkalis for photometric detn. of Be. Cryst. Sol. EtOH, alkalis; insol. H₂O.Baiulescu, G.E. *et al*, *Rev. Chim. (Bucharest)*, 1975, **26**, 764.**3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2,5-bis(4-nitrophenyl)-2H-tetrazolium](2+) 9CI**

D-00770

C₄₀H₂₈N₁₂O₁₀²⁺ M 836.736 (ion)*Dichloride*: [1184-43-6].C₄₀H₂₈Cl₂N₁₂O₁₀ M 907.641

Used as 1% aq. soln. for photometric detn. of various dehydrogenases; redox indicator. Pale yellow cryst. (MeOH). Mp 159°. $E^\circ -0.05V$.

Wagner, H. *et al.* *Z. Med. Labortech.*, 1976, **16**, 94; *CA*, **85**, 118989n (indicator)

Cheng, K.L. *et al.* *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1983.

3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2-(3-nitrophenyl)-5-phenyl-2H-tetrazolium](2+), 9CI D-00771



$C_{40}H_{30}N_{10}O_6^{2\oplus}$ M 746.740 (ion)

Dichloride: [38184-50-8].

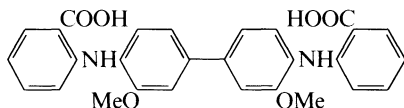
$C_{40}H_{30}Cl_2N_{10}O_6$ M 817.646

Used as 1.2mM aq. soln. for photometric detn. of $S^{2\ominus}$ (λ_{max} 530 nm, ϵ 33000, 67% DMF, pH 8.3-11). Cryst. Sol. alkalis, DMF, Me_2CO ; sl. sol. H_2O .

Kolesnikova, A.M. *et al.* *Zavod. Lab.*, 1985, **51**, 1 (detn, $S^{2\ominus}$)

2,2'-[(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, 9CI D-00772

Diphenylaminedi-2,2'-dicarboxylic acid. *N,N'*-Bis(2-carboxyphenyl)-3,3'-dimethoxybenzidine [52962-95-5]

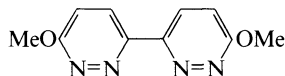


$C_{28}H_{24}N_2O_6$ M 484.507

Used as a 0.1 or 1% soln. in conc. H_2SO_4 for photometric detn. of $V(V)$ (λ_{max} 624 nm, ϵ 63600); redox indicator (colour change: colourless \rightarrow blue). Cryst. powder. Sol. alkalis, conc. acids.

Frumina, N.S. *et al.* *Talanta*, 1969, **16**, 138.

6,6'-Dimethoxy-3,3'-bipyridazine D-00773
[24049-46-5]



$C_{10}H_{10}N_4O_2$ M 218.215

Used as MeOH soln. for photometric detn. of $Fe(II)$. Cryst. (MeOH). Sol. Et_2O , C_6H_6 ; insol. H_2O . Mp 237-238°.

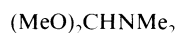
Igeta, H. *et al.* *Tetrahedron Lett.*, 1969, 2359 (synth)

Maeda, M. *et al.* *Chem. Pharm. Bull.*, 1970, **18**, 1548 (detn, Fe)

1,1-Dimethoxy-N,N-dimethylmethanamine D-00774

1,1-Dimethoxy-N,N-dimethylmethanamine, 9CI. *1,1-Dimethoxytrimethylamine*. *N,N-Dimethylformamide dimethyl acetal*

[4637-24-5]



$C_5H_{13}NO_2$ M 119.163

Widely used versatile reagent, which functions as a methylating agent, converts diols to alkenes or epoxides and also effects the rearrangement of allylic alcohols to β,γ -unsaturated amides. Derivatisation reagent for carboxylic acids, amino acids and amines for gc anal. Bp₇₂₀ 102-103°.

Thenot, J.P. *et al.* *Anal. Lett.*, 1972, **5**, 217, 519 (use)

Horman, I. *et al.* *Biomed. Mass Spectrom.*, 1974, **1**, 115 (use)

Pelter, A. *et al.* *Synthesis*, 1978, 843 (use)

Ponticello, G.S. *et al.* *J. Org. Chem.*, 1979, **44**, 4003 (use)

Lin, Y.-i. *et al.* *J. Org. Chem.*, 1979, **44**, 4160 (use)

Gammill, R.B., *Synthesis*, 1979, 901 (use)

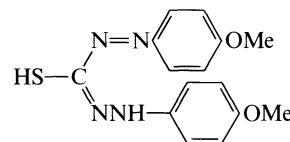
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 191 (use)

Abdulla, R.F. *et al.* *J. Org. Chem.*, 1980, **45**, 1724 (use)

Burchill, P. *et al.* *Chromatographia*, 1986, **21**, 67 (use)

4,4'-Dimethoxydithizone D-00775

4-Methoxyphenyldiazene-carbothioic acid 2-(4-methoxyphenyl)hydrazide, 9CI. *Bis-p-methoxyphenylthiocarbazon* [2502-94-5]



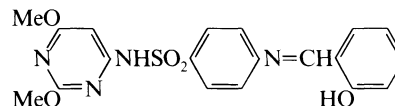
$C_{15}H_{16}N_4O_2S$ M 316.383

Used as a 0.01% soln. in CCl_4 or $CHCl_3$ for extraction-photometric detn. of Zn, Ni. Black greenish cryst. powder. Sol. $CHCl_3$, CCl_4 , EtOH, Me_2CO , alkalis; insol. H_2O .

Joon, S.O. *et al.* *Anal. Chem.*, 1967, **39**, 295 (detn, Zn, Ni)

N-(2,6-Dimethoxy-4-pyrimidinyl)-4-[(2-hydroxyphenyl)methylene]aminol benzenesulfonamide, 9CI D-00776

Sulfadimethoxin salicylaldimine [59534-88-2]



$C_{19}H_{18}N_4O_5S$ M 414.441

Used as aq. soln. for gravimetric detn. of Ba (in the presence of Sr, Ca, pH 6). Cryst. Sol. H_2O , EtOH.

Jain, P. *et al.* *Microchem. J.*, 1977, **22**, 92 (synth, detn, Ba)

Dimethylamine D-00777

N-Methylmethanamine, 9CI

[124-40-3]



C_2H_7N M 45.084

Found in higher plants, fungi and bacteria. Rubber vulcanisation accelerator, tanning agent. Reagent used in the ms determination of the location of ethylenic bonds. Gas at r.t. V. sol. H_2O . d_4^{20} 0.680. Mp -96° . Bp 7° . pK_a 3.28 (25°).

► Irritant, TLV 18. Extremely flammable. IP8750000.

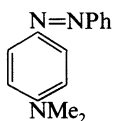
B.HCl: *Dimethylammonium chloride*

Volatile cryst. Sol. H_2O , EtOH, $CHCl_3$; insol. Et_2O . Mp 171° .

Werner, E.A., *J. Chem. Soc.*, 1917, **111**, 850 (*synth*)
Ger. Pat., 468 895, (1929); *CA*, **23**, 846 (*synth*)
U.S. Pat., 2 456 599, (1948); *CA*, **43**, 3440g (*manuf*)
 Gohlke, R.S. *et al*, *Acta Chim. Hung.*, 1962, **34**, 1281 (*ms*)
 Suhr, H., *Chem. Ber.*, 1963, **96**, 1720 (*pmr*)
 Serban, S., *Rev. Chim. (Bucharest)*, 1963, **14**, 451; *CA*, **60**, 5097b (*synth*)
 Audier, H. *et al*, *Bull. Soc. Chim. Fr.*, 1964, 3034 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, 7, 119.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 298.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DOQ800, DOR000.

4-Dimethylaminoazobenzene **D-00778**

N,N-Dimethyl-4-(phenylazo)benzenamine, 9CI. N,N-Dimethyl-p-(phenylazo)aniline, 8CI. Butter yellow. Dimethyl yellow. Methyl yellow. C.I. Solvent yellow 2. C.I. 11020. Numerous proprietary names [60-11-7]

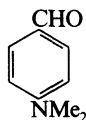


$C_{14}H_{15}N_3$ M 225.293
 Used as a 0.04, 0.1 or 0.5% soln. in EtOH as an acid-base indicator (pH range: 2.9-4.0; colour change: red → yellow). Formerly used as a food dye, use discontinued. Yellow leaflets (EtOH). Sol. EtOH, Me_2CO , C_6H_6 ; insol. H_2O . Mp 115°, Mp 117°. pK_{a1} 3.34 ($\mu = 0.1$, 20°), pK_{a1} 3.25.

▷ Carcinogenic. LD₅₀ 200 mg/kg (rat, oral). BX7350000.
 Möhlau, G., *Ber.*, 1884, **17**, 1491 (*synth*)
 Cray, I.M. *et al*, *Trans. Faraday Soc.*, 1925, **21**, 326.
 Rosenhauer, E. *et al*, *Ber.*, 1928, **61**, 396 (*synth*)
 Kotthoff, I.M. *et al*, *J. Am. Chem. Soc.*, 1938, **60**, 2516.
 Guss, L.S. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 249.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DOT300.

4-(Dimethylamino)benzaldehyde, 9CI **D-00779**

Ehrlich's reagent [100-10-7]



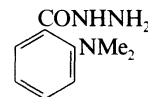
$C_9H_{11}NO$ M 149.192
 Used as 5% EtOH soln. in photometric detn. of N_2H_4 (λ_{max} 455 nm). Reagent for conversion of alkyl halides to aldehydes. Used as 1% soln. in acidified MeOH for detn. of amines, indoles and ergot alcohols. Cryst. Sol. alcohols. Mp 74°. Bp₁₇ 176-177°.

▷ Toxic orally. CU5775000.
B,HCl: [5988-39-6]. Cryst. Mp 107-109°.
(E)-Oxime: [37961-71-0]. $C_9H_{12}N_2O$ M 164.207 Cryst. Mp 144°.
(Z)-Oxime: [77145-76-7]. Cryst. Mp 185° dec.
4-Nitrophenylhydrazone: Mp 182°.
Org. Synth., Coll. Vol., 1, 1932, 208 (*bibl*)
 Pesez, M. *et al*, *Bull. Soc. Chim. Fr.*, 1947, 122.
Org. Synth., Coll. Vol., 4, 1963, 331 (*synth*)

Pilz, W. *et al*, *Fresenius' Z. Anal. Chem.*, 1966, **219**, 416.
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, 2, 146.
 Dattagupta, J.K. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 1228 (*struct*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DOT400.

2-(Dimethylamino)benzoic acid hydrazide, 9CI **D-00780**

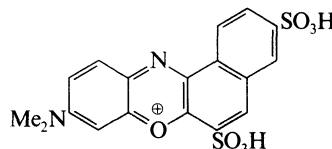
Dmayl hydrazide [86601-75-4]



$C_9H_{13}N_3O$ M 179.221
 Fluorescent reagent for hplc anal. of carbonyl compds.
 Anderson, J.M., *Anal. Biochem.*, 1986, **152**, 146 (*synth, use*)

9-(Dimethylamino)benzo[a]phenoxazin-7-ium-2,5-disulfonic acid(1+) **D-00781**

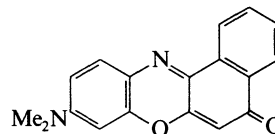
R-Acid phenonaphthoxazine. Phenonaphthoxazine R-acid



$C_{18}H_{15}N_2O_7S_2^{\oplus}$ M 435.458 (ion)
 Sulfonic acid derivative of Meldola's Blue. Redox indicator. pK_{a1} 5.34. $E^{\circ} + 0.471$ V.
Di-K salt, chloride: Dark blue cryst. powder. Sol. H_2O .
 Eggers, H. *et al*, *Biochem. Z.*, 1942, **310**, 233.

9-(Dimethylamino)-5H-benzo[a]phenoxazin-5-one, 9CI **D-00782**

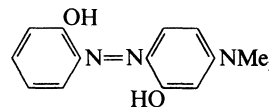
[16650-80-9]



$C_{18}H_{14}N_2O_2$ M 290.321
 Acid-base indicator. Long, dark-coloured needles. Insol. H_2O . Mp 248-250° (xylene).
 Thorpe, J.F., *J. Chem. Soc.*, 1907, **91**, 324 (*synth*)
 Kehrman, F. *et al*, *Ber.*, 1917, **50**, 873 (*synth*)
 Kehrman, F. *et al*, *Helv. Chim. Acta*, 1926, **9**, 866 (*synth*)
 Stuzka, V. *et al*, *Spectrochim. Acta, Part A*, 1967, **23**, 2175 (*ir*)
 Stuzka, V. *et al*, *Collect. Czech. Chem. Commun.*, 1969, **34**, 221; 1972, **37**, 1121 (*spectra, use*)

4-Dimethylamino-2,2'-dihydroxyazobenzene **D-00783**

5-(Dimethylamino)-2-[(2-hydroxyphenyl)azo]phenol, 9CI [50783-83-0]



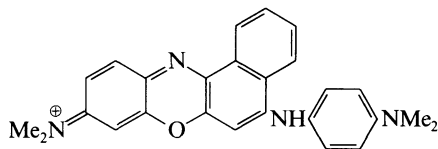
$C_{14}H_{15}N_3O_2$ M 257.291

Used as 1mM EtOH soln. for photometric detn. of Cd, Co, Cu, Mn, Ni, Pb, Zn. Dark red needles. Sol. EtOH; spar. sol. H₂O. Subl. 175°.

Shibata, S. *et al*, *Anal. Chim. Acta*, 1973, **66**, 397 (*synth, use*)

9-(Dimethylamino)-5-[[4-(dimethylamino)phenyl]amino]benzo[*a*]phenoxazin-7-ium(1+), 9CI

Fast cotton blue B. C.I. Basic blue 10. C.I. 51190



C₂₆H₂₅N₄O[⊕] M 409.510 (ion)

Strictly, the name Fast cotton blue B applies to the chloride.

Chloride: [4517-26-4].

C₂₆H₂₅ClN₄O M 444.962

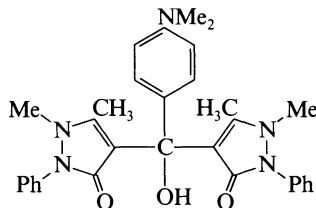
Used as a soln. in H₂O or EtOH as a redox indicator (pH range 3-8). Dark blue cryst. powder. Sol. EtOH, H₂O.

Curme, G.O., *J. Am. Chem. Soc.*, 1913, **35**, 1143 (*use*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

4,4'-[*p*-(Dimethylamino)- α -hydroxybenzylidene]diantipyrine

Diantipyrinyl-*p*-dimethylaminophenylcarbinol



C₃₁H₃₃N₅O₃ M 523.633

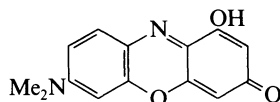
Used for extraction-photometric detn. of Tl(III) (CCl₄/PhNO₂). Dark red cryst. (ligroin). Sol. EtOH, Me₂CO; sl. sol. H₂O. Mp 134-136°.

Porai-Koshits, A.E. *et al*, *Zh. Obshch. Khim.*, 1947, **17**, 1752 (*synth*)

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 67 (*synth, use*)

7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, 8CI

[13972-90-2]



C₁₄H₁₂N₂O₃ M 256.260

Used as a 1mM soln. in EtOH as redox indicator for titanometric detn. of Fe(III), Au(III), Ce(IV), Cr₂O₇²⁻, VO₄³⁻ and some organic compds.; redox indicator for stannometry; acid-base indicator. Orange cryst. (EtOH). Sol. Me₂CO, EtOH, CHCl₃; spar. sol. C₆H₆. Mp > 350°. E° +0.352 V (pH 1.62).

Kotouček, M. *et al*, *Monatsh. Chem.*, 1965, **95**, 1433 (*synth*)

Ruzička, E. *et al*, *Mikrochim. Acta*, 1967, 277 (*titanometry*)

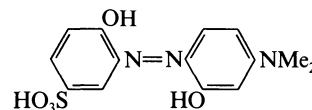
Kotouček, M. *et al*, *Mikrochim. Acta*, 1967, 967 (*acid-base ind*)

Ruzička, E. *et al*, *CA*, 1968, **69**, 40930j (*stannometry*)

3-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-hydroxybenzenesulfonic acid, 9CI

4'-Dimethylamino-2,2'-dihydroxyazobenzene-3-sulfonic acid

[50783-84-1]



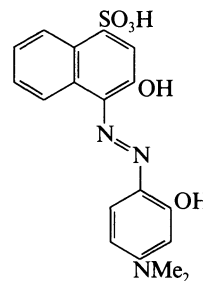
C₁₄H₁₅N₃O₃S M 337.356

Used as 1mM aq. soln. for photometric detn. of Cd, Co, Cu, Mn, Ni, Pb, Zn. Red-purple needles. Sol. H₂O, EtOH.

Shibata, S. *et al*, *Anal. Chim. Acta*, 1973, **66**, 397 (*synth, use*)

4-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, 9CI

[50783-91-0]



C₁₈H₁₇N₃O₃S M 387.415

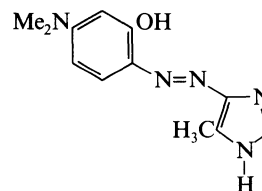
Used as a 1mM soln. in EtOH or H₂O for extraction-photometric detn. of Co, Cu, Fe(III), La, Mn, Ni, Zn. Dark brown amorph. powder.

Shibata, S. *et al*, *Anal. Chim. Acta*, 1973, **66**, 397 (*use*)

5-(Dimethylamino)-2-[(5-methylimidazol-4-yl)azo]phenol, 8CI

4-(4-Dimethylamino-2-hydroxyphenylazo)-5-methylimidazole

[13182-99-5]



C₁₂H₁₅N₃O M 245.283

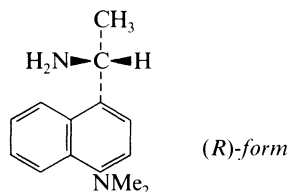
Used as metallochromic indicator for titrimetric detn. of Cd, Co, Cu, Ni, Zn. Cryst. pK_{a1}4.9; pK_{a2}11.8 (50% dioxan 25°).

Yamauchi, O. *et al*, *Talanta*, 1968, **15**, 177, 459 (*use*)

4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine, 9CI

D-00790

1-[4-(Dimethylamino)-1-naphthyl]ethylamine

 $C_{14}H_{18}N_2$ M 214.310

Derivatisation reagent for the resolu. of carboxylic acids by hplc.

(R)-form [76281-06-6]

B, HCl: Needles. Mp 240-241° dec. $[\alpha]_D^{15}$ -17.7° (c. 0.37 in MeOH).

(S)-form [76299-18-8]

 $[\alpha]_D$ +19.75° (c. 2.0 in EtOH).B, HCl: Needles. Mp 243-244° dec. $[\alpha]_D^{15}$ +17.3° (c. 1.4 in MeOH).(\pm)-form [76281-03-3]

Oil.

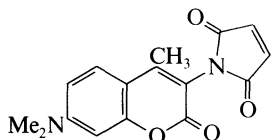
B, HCl: Needles (MeOH/Et₂O). Mp 239-240° dec.

[89631-49-2]

Goto, J. *et al.*, *Anal. Chem.*, 1980, **120**, 187 (*synth.*, *use*)Nagashima, H. *et al.*, *Chem. Pharm. Bull.*, 1984, **32**, 251 (*synth.*, *use*)**1-[7-(Dimethylamino)-4-methyl-2-oxo-2H-1-benzopyran-3-yl]-1H-pyrrole-2,5-dione, 9CI**

D-00791

(7-Dimethylamino-4-methyl-3-coumarinyl)maleimide. DACM [55145-14-7]

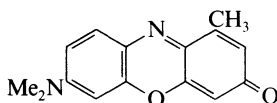
 $C_{16}H_{14}N_2O_4$ M 298.298

Fluorescent reagent for thiols, e.g. in proteins. Yellow needles (EtOAc). Mp 218-219.5°.

Yamamoto, K. *et al.*, *Anal. Biochem.*, 1977, **79**, 83; 1978, **90**, 300 (*use*)Machida, M. *et al.*, *Chem. Pharm. Bull.*, 1977, **25**, 1289, 1678 (*synth.*, *pmr.*, *ir.*, *uv.*, *use*)Curtis, S.K. *et al.*, *Histochemistry*, 1980, **68**, 23 (*use*)**7-(Dimethylamino)-1-methyl-3H-phenoxazin-3-one, 8CI**

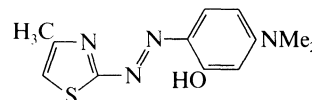
D-00792

[17704-27-7]

 $C_{15}H_{14}N_2O_2$ M 254.288Used as a 1mM soln. in EtOH as redox indicator for titanometric detn. of Fe(III), Au(III), Cr₂O₇²⁻, VO₄³⁻ and some organic compds.; redox indicator for stannometry; acid-base indicator. Orange-red cryst. Sol. Me₂CO, EtOH, CHCl₃; spar. sol. C₆H₆. Mp >350°. E° +0.411 V (pH 1.78).Ruzicka, E. *et al.*, *Mikrochim. Acta*, 1967, 277 (*titanometry*)
Kotouček, M. *et al.*, *Mikrochim. Acta*, 1967, 967 (*acid-base ind*)
Ruzicka, E. *et al.*, *CA*, 1968, **69**, 40930j (*stannometry*)**5-Dimethylamino-2-[(4-methyl-2-thiazolyl)azol]phenol, 9CI**

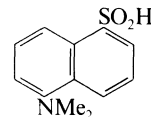
D-00793

2-(4-Dimethylamino-2-hydroxyphenylazo)-4-methylthiazole [95833-33-3]

 $C_{12}H_{14}N_4OS$ M 262.335Used as 0.05% soln. in 0.5M NaOH in 50% EtOH for photometric detn. of Fe(II) (λ_{max} 765 nm, ϵ 27100, pH 5.5-9). Red cryst. Sol. EtOH, alkalis.Ueda, K. *et al.*, *Mikrochim. Acta*, 1984, **3**, 103 (*synth.*, *detn.*, *Fe*)**5-(Dimethylamino)-1-naphthalenesulfinic acid, 9CI**

D-00794

[71288-39-6]

 $C_{12}H_{13}NO_2S$ M 235.306

Derivatisation reagent for hplc anal. of chloroamines. Mp 242-244° dec.

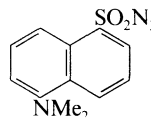
[86124-84-7]

Scully, F.E. *et al.*, *Environ. Sci. Technol.*, 1984, **18**, 787 (*synth.*, *use*)**5-(Dimethylamino)-1-naphthalenesulfonyl azide, 9CI**

D-00795

Dansyl azide

[106531-68-4]

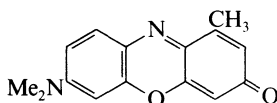
 $C_{12}H_{12}N_4O_2S$ M 276.318

Fluorescent labelling reagent used in hplc for detn. of activated alkenes. Mp 47-48°.

Takadate, A. *et al.*, *Yakugaku Zasshi*, 1986, **106**, 36; *CA*, **106**, 66862w (*synth.*, *use*)**7-(Dimethylamino)-1-methyl-3H-phenoxazin-3-one, 8CI**

D-00792

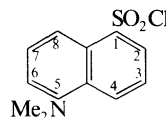
[17704-27-7]

 $C_{15}H_{14}N_2O_2$ M 254.288Used as a 1mM soln. in EtOH as redox indicator for titanometric detn. of Fe(III), Au(III), Cr₂O₇²⁻, VO₄³⁻ and some organic compds.; redox indicator for stannometry; acid-base indicator. Orange-red cryst. Sol. Me₂CO, EtOH, CHCl₃; spar. sol. C₆H₆. Mp >350°. E° +0.411 V (pH 1.78).**5-(Dimethylamino)-1-naphthalenesulfonyl chloride, 9CI**

D-00796

Dansyl chloride

[605-65-2]

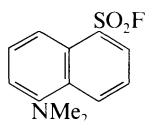
 $C_{12}H_{12}ClNO_2S$ M 269.751Gives fluorescent derivs. with amino acids. Used in classical protein sequencing. Cryst. (Me₂CO aq.). Mp 69°. Several isomeric compds. have also been investigated as molecular probes.

▷ QK3688000.

Fussganger, V., *Ber.*, 1902, **35**, 976.
 Hartley, B.S. *et al*, *Biochim. Biophys. Acta*, 1956, **21**, 58.
 Weber, G., *Biochem. J.*, 1957, **51**, 155.
 Hartley, B.S. *et al*, *Biochem. J.*, 1963, **89**, 59P, 379.
 Seiler, N. *et al*, *Experientia*, 1964, **20**, 559.
 Gros, C., *Bull. Soc. Chim. Fr.*, 1967, 3952 (use)
 Briel, G. *et al*, *Hoppe Seyler's Z. Physiol. Chem.*, 1972, **353**, 540 (use)
 Neuhoﬀ, V., *Mol. Biol. Biochem. Biophys.*, 1973, **14**, 85 (use, rev)
 Chimiak, A. *et al*, *Org. Prep. Proced. Int.*, 1973, **5**, 117 (synth, use)
 Wiechmann, M., *Hoppe Seyler's Z. Physiol. Chem.*, 1977, **358**, 967, 981 (use)
 Davis, B.A., *J. Chromatogr.*, 1978, **151**, 252 (use)
 Snejdarkova, M. *et al*, *Z. Chem.*, 1981, **21**, 229 (use)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DPN200.

5-(Dimethylamino)-1-naphthalenesulfonyl fluoride, 9CI **D-00797**

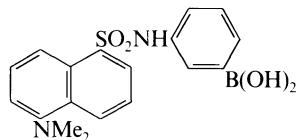
Dansyl fluoride
 [34523-28-9]



$C_{12}H_{12}FNO_2S$ M 253.297
 Fluorescent label for proteins; also used in the detn. of insecticides. Yellow cryst. (EtOH aq.). Mp 48-50°.
 Himel, C.M. *et al*, *J. Agric. Food Chem.*, 1971, **19**, 1175 (synth, use)
 Vaz, W.L.C. *et al*, *Biochim. Biophys. Acta*, 1976, **439**, 194 (use)
 Bianchi, T.A. *et al*, *J. Org. Chem.*, 1977, **42**, 2031 (synth)

[3-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]amino]phenyl]boronic acid, 9CI **D-00798**

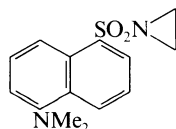
[3-(*Dansylamino*)phenyl]boronic acid
 [75806-94-9]



$C_{18}H_{19}BN_2O_4S$ M 370.236
 Used as fluorescent derivatisation reagent in chromatographic detn. of brassinosteroids. Amorphous solid.
 Burnett, T.J. *et al*, *Biochem. Biophys. Res. Commun.*, 1980, **96**, 157 (synth, use)
 Vainio, P., *Biochim. Biophys. Acta*, 1983, **746**, 217 (use)
 Gamoh, K. *et al*, *Anal. Chim. Acta*, 1990, **228**, 101 (synth, use)

1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]aziridine, 9CI **D-00799**

N-Dansylaziridine
 [51908-46-4]

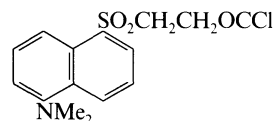


$C_{14}H_{16}N_2O_2S$ M 276.359
 Fluorescence reagent used for labelling protein thiol groups. Yellow platelets (C_6H_6 /cyclohexane). Mp 88-90°.

Scouten, W.H. *et al*, *Biochim. Biophys. Acta*, 1974, **336**, 421 (synth)
 Bolognesi, M. *et al*, *Acta Crystallogr., Sect. B*, 1977, **33**, 122 (cryst struct)
 Lin, T.-I., *Arch. Biochem. Biophys.*, 1978, **185**, 285 (use)
 Lankmayr, E.P. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **295**, 371 (use)
 Grossmann, S.H., *J. Clin. Immunoassay*, 1984, **7**, 96 (use)

2-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]ethyl carbonochloridate, 9CI **D-00800**

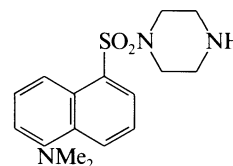
2-Dansylethyl chloroformate
 [88381-00-4]



$C_{15}H_{16}ClNO_4S$ M 341.814
 Fluorescent labelling reagent for alcohols. Mp 137-138°.
 Takadate, A. *et al*, *Yakugaku Zasshi*, 1983, **103**, 962 (synth, use)

1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]piperazine, 9CI **D-00801**

Dansyl semipiperazide
 [86516-36-1]

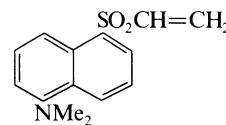


$C_{16}H_{21}N_3O_2S$ M 319.427
 Fluorescent reagent for hplc anal. of carboxylic acids.
 Yellow cryst.

Yanagisawa, I. *et al*, *J. Chromatogr.*, 1985, **345**, 229 (synth, use)
 Hansel, W. *et al*, *Dtsch. Lebensm.-Rundsch.*, 1987, **83**, 315 (synth, use)
 Junker-Buchheit, A. *et al*, *Fresenius' Z. Anal. Chem.*, 1988, **331**, 387 (use)

(5-Dimethylamino-1-naphthyl) vinyl sulfone **D-00802**

5-(Ethenylsulfonyl)-N,N-dimethyl-1-naphthalenamine, 9CI
 [81253-29-4]

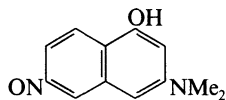


$C_{14}H_{15}NO_2S$ M 261.344
 Fluorescent marker for estimation of SH groups in proteins. Light-yellow cryst. (C_6H_6 /pet. ether). Mp 93-94°.

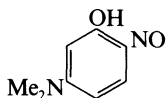
Horner, L. *et al*, *Phosphorus Sulfur Relat. Elem.*, 1983, **15**, 1 (synth, ir, pmr)
 Horner, L. *et al*, *Justus Liebigs Ann. Chem.*, 1985, **34**, 40, 430 (use)

3-Dimethylamino-6-nitroso-1-naphthol D-00803

N,N-Dimethyl-4-hydroxy-7-nitroso-2-naphthalenamine

C₁₂H₁₂N₂O₂ M 216.239Used for photometric detn. of Co (λ_{\max} 465 nm, ϵ 60000).Yellow needles (aq. HCl). pK_{a1} 2.69; pK_{a2} 8.40 (μ = 0.2).Möhlaw, R., *Ber.*, 1859, **25**, 1059 (*synth*)Motomizu, S., *Anal. Chim. Acta*, 1971, **56**, 415 (*pKa, use*)Motomizu, S., *Bunseki Kagaku (Jpn. Anal.)*, 1971, **20**, 590 (*use*)**5-(Dimethylamino)-2-nitrosophenol**, 9CI D-00804

[16761-04-9]

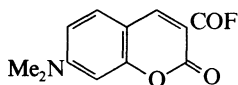
C₈H₁₀N₂O₂ M 166.179

B, HCl: [41317-10-6].

Used as a 2mM aq. soln. for photometric detn. of V (λ_{\max} 410 nm, ϵ 14000); extraction-photometric detn. of Co (λ_{\max} 456, ϵ 60000, 1,2-dichloroethane). Yellow needles (dil. HCl). Sol. H₂O, dil. acids.Motomizu, S., *Anal. Chim. Acta*, 1971, **56**, 415 (*detn, Co*)Motomizu, A., *Analyst (London)*, 1972, **97**, 986 (*detn, Co*)Motomizu, S., *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 695; 1971, **20**, 590 (*detn, Co*)Uchida, F., *Anal. Chim. Acta*, 1976, **83**, 427 (*detn, V*)**7-(Dimethylamino)-2-oxo-2H-1-benzopyran-3-carbonyl fluoride**, 9CI D-00805

7-Dimethylaminocoumarin-3-carbonyl fluoride

[132181-77-2]

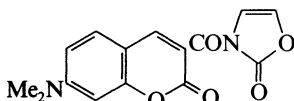
C₁₂H₁₀FNO₃ M 235.214

Fluorescent derivatisation reagent for amines. Mp 233-235°.

Fujino, H. *et al*, *Yakugaku Zasshi*, 1990, **110**, 693; *CA*, **114**, 94384a (*synth, deriv, use*)**3-[[7-(Dimethylamino)-2-oxo-2H-1-benzopyran-3-yl]carbonyl]-2(3H)-oxazolone**, 9CI D-00806

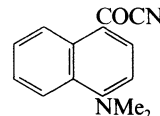
3-(7-Dimethylaminocoumarin-3-carbonyl)-2-oxazolone

[122607-17-4]

C₁₅H₁₂N₂O₅ M 300.270Fluorescent labelling reagent for hplc of amines. Yellow prisms (C₆H₆). Mp 223-225°.Takadate, A. *et al*, *Chem. Pharm. Bull.*, 1989, **37**, 373 (*synth, use*)**4-(Dimethylamino)- α -oxo-1-naphthaleneacetonitrile**, 9CI D-00807

4-Dimethylamino-1-naphthoyl nitrile

[78062-05-2]

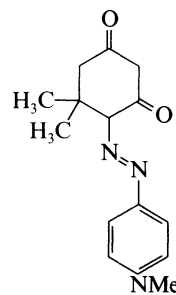
C₁₄H₁₂N₂O M 224.262

Derivatisation reagent for hplc sepn. of hydroxy compds.

Mp 130.5-132°.

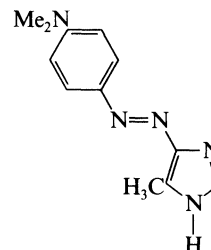
Goto, J. *et al*, *Chem. Pharm. Bull.*, 1981, **29**, 899 (*synth, use*)**4-[[4-(Dimethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione**, 9CI D-00808

[36530-93-5]

C₁₆H₂₁N₃O₂ M 287.361Used as an acid-base indicator (pH range: 3.5-5.5; colour change: yellow \rightarrow red; pH range: 9.5-10.8; colour change: red \rightarrow yellow). Dark red cryst. (EtOH). Sol. AcOH, EtOH, Me₂CO, Et₂O, CHCl₃, spar. sol. H₂O. Mp 165-166°. pK_{a1} 3.67; pK_{a2} 9.97.Madajova, V. *et al*, *Chem. Zvesti*, 1971, **25**, 343 (*pKa, use*)**4-[[5-(*p*-Dimethylamino)phenyl]azo]-5-methylimidazole**, 8CI D-00809

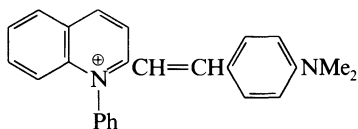
4-(4-Methyl-5-imidazolylazo)-1-dimethylaminobenzene

[3705-76-8]

C₁₂H₁₅N₅ M 229.284

Used as 0.1% soln. in EtOH for titrimetric detn. of Cu.

Orange cryst. Sol. Et₂O, EtOH.Tanaka, H. *et al*, *Chem. Pharm. Bull.*, 1964, **12**, 1268 (*detn, Cu*)

4-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-phenylquinolinium(1+), 9CI **D-00810**

$C_{25}H_{23}N_2^{\oplus}$ M 351.470 (ion)

Basic cyanine dye.

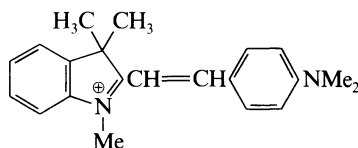
Chloride: [33712-03-7].

$C_{25}H_{23}ClN_2$ M 386.923

Used as 1mM aq. soln. for photometric detn. of Pb (λ_{max} 570 nm, ϵ 45000). Cryst. Sol. H₂O, EtOH; insol. CHCl₃.

[125232-91-9]

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 313 (*detn*, Pb)

2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1,3,3-trimethyl-3H-indolium(1+), 9CI **D-00811**

$C_{21}H_{25}N_2^{\oplus}$ M 305.442 (ion)

Chloride: [42279-61-8].

$C_{21}H_{25}ClN_2$ M 340.895

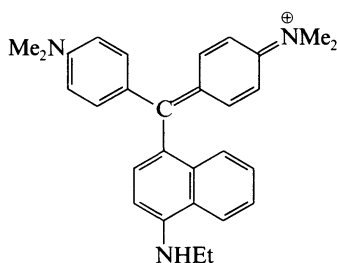
Used as 1mM aq. soln. for photometric detn. of Pb (λ_{max} 540 nm, ϵ 77000). Cryst. Sol. H₂O, EtOH; insol. CHCl₃.

[124521-92-2]

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 313 (*detn*, Pb)

N-[4-[[4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+), 9CI **D-00812**

Basic blue K. Basic blue 11. Victoria blue R. C.I. 44040



$C_{29}H_{32}N_3^{\oplus}$ M 422.592 (ion)

Strictly, the name Basic blue K applies to the chloride.

Chloride: [2185-86-6].

$C_{29}H_{32}ClN_3$ M 458.045

Used as a 0.1mM soln. in 20% EtOH for extraction-photometric detn. of Au, Ga, Mo, Sb, Tl, Br[⊖], I[⊖], NO₂[⊖]. Dark bluish cryst. (EtOH). V. sol. EtOH; sol. hot H₂O.

▷ PA0780300.

Podberezskaya, N.K. *et al*, *Zavod. Lab.*, 1966, **32**, 918 (*detn*, iodide)

Narushkyavichyus, L.R. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 922

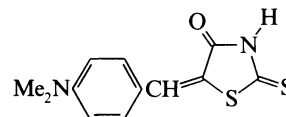
(*detn*, Au, Ga, Mo, Sb, Tl, Br[⊖], NO₂[⊖])

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, VKA600.

5-[[4-(Dimethylamino)phenyl]ethylene]-2-thioxo-4-thiazolidinone, 9CI **D-00813**

p-Dimethylaminobenzylidenerhodanine

[536-17-4]



$C_{12}H_{12}N_2OS_2$ M 264.372

Used as 0.03% Me₂CO soln. for photometric detn. of Ag (ϵ 2000), Au, Hg, Pd, Pt. Red cryst. powder. Sl. sol. Me₂CO, EtOH, CHCl₃; insol. H₂O. Mp 285-288° dec. Used as 0.03% Me₂CO soln.

▷ VI8090000.

Cave, G.C. *et al*, *Anal. Chem.*, 1952, **24**, 1503 (*detn*, Ag)

Ringbom, A. *et al*, *Anal. Chim. Acta*, 1953, **9**, 80 (*detn*, Ag)

Cotton, T.M. *et al*, *Anal. Chim. Acta*, 1960, **22**, 192 (*detn*, Au)

Ayres, G.H. *et al*, *Anal. Chim. Acta*, 1961, **24**, 241 (*detn*, Pd)

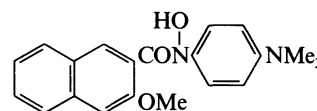
Jangg, G., *Fresenius' Z. Anal. Chem.*, 1961, **183**, 255 (*detn*, Hg)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DOT800.

N-[4-(Dimethylamino)phenyl]-N-hydroxy-3-methoxy-2-naphthalenecarboxamide, 9CI **D-00814**

N-(p-N,N-Dimethylanilino)-3-methoxy-2-naphthohydroxamic acid

[58869-05-9]



$C_{20}H_{20}N_2O_3$ M 336.390

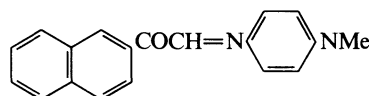
Used in extraction-photometric detn. of V (λ_{max} 570 nm, ϵ 12000). Cryst. Sol. CHCl₃, CCl₄, C₆H₆.

Abbasi, S.A., *Anal. Chem.*, 1976, **48**, 714.

2-[[p-(Dimethylamino)phenyl]imino]-2'-acetoneaphthone, 8CI **D-00815**

β -Naphthylglyoxal p-dimethylaminoanil

[22220-22-0]



$C_{20}H_{18}N_2O$ M 302.375

Used as a soln. in Me₂CO for photometric detn. of Fe.

Red-orange cryst. (EtOH). Sol. common org. solvents.

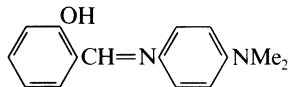
Mp 112-113°.

Malik, W.U. *et al*, *J. Indian Chem. Soc.*, 1968, **45**, 307 (*synth*, *ir*, *spectra*)

Saxena, R.C. *et al*, *J. Indian Chem. Soc.*, 1969, **46**, 1071 (*detn*, Fe)

2-[[[4-(Dimethylamino)phenyl]imino]methyl]phenol, 9CI

D-00816

4-(Dimethylamino)-N-salicylideneaniline
[959-74-0]C₁₅H₁₆N₂O M 240.304Used for spot tests for detn. of UO₂²⁺. Yellow cryst. Sol. EtOH, Me₂CO.Jungreis, E. *et al*, *Anal. Chim. Acta*, 1964, **30**, 405 (detn, UO₂²⁺)**4-(Dimethylamino)phenyl isothiocyanate**

D-00817

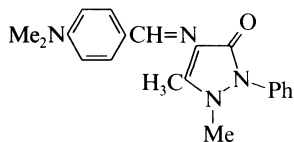
4-Isothiocyanato-N,N-dimethylbenzenamine, 9CI
[2131-64-8]C₉H₁₀N₂S M 178.257

Electrochem. label for hplc detn. of amino acids. Cryst. (EtOH). Mp 69°.

▷ NX8500000.

Dyson, G.M. *et al*, *J. Chem. Soc.*, 1927, 436 (synth)Hodgkins, J.E. *et al*, *J. Org. Chem.*, 1964, **29**, 3098 (synth)Katritzky, A.R. *et al*, *J. Am. Chem. Soc.*, 1970, **92**, 6855 (ir)Jones, R.G. *et al*, *Org. Magn. Reson.*, 1982, **19**, 196 (cmr)Mahachi, T.J. *et al*, *J. Chromatogr.*, 1984, **298**, 279 (use)**4-[[[4-(Dimethylamino)phenyl]methylene]amino]-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, 9CI**

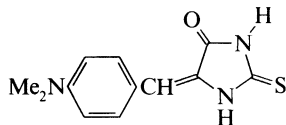
D-00818

4-(4-Dimethylaminobenzylideneamino)antipyrine
[61098-08-6]C₂₀H₂₂N₄O M 334.420

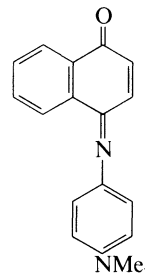
Used as a 0.05mM soln. in EtOH for fluorimetric detn. of Ga. Cryst. (EtOH). Sol. common org. solvs.

Pilipenko, A.T. *et al*, *Uzb. Khim. Zh.*, 1977, **43**, 536 (detn, Ga)**5-[[[4-(Dimethylamino)phenyl]methylene]-2-thioxo-4-imidazolidinone, 9CI**

D-00819

p-Dimethylaminobenzylidene-2-thiohydantoin
[41250-31-1]C₁₂H₁₃N₃OS M 247.320Used as 1mM EtOH soln. to give colour reactions with Ag, Pd, Hg(II), Cu(II). Cryst. (EtOH). Sol. EtOH, DMF. pK_{a1} 1.70; pK_{a2} 9.25 (72% EtOH).Montana Gonzalez, M.T. *et al*, *Talanta*, 1980, **27**, 613 (use)Montana Gonzalez, M.T. *et al*, *Microchem. J.*, 1982, **27**, 549 (synth, use)**N-(4'-Dimethylaminophenyl)-1,4-naphthoquinone imine**

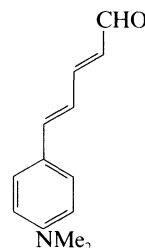
D-00820

4-[[[4-(Dimethylamino)phenyl]imino]-1(4H)-naphthalenone, 9CI
[132-31-0]C₁₈H₁₆N₂O M 276.337Used for fluorimetric detn. of S₂O₄²⁻. Cryst.Nakamura, H. *et al*, *Chem. Pharm. Bull.*, 1974, **22**, 1950 (use)**5-[[4-(Dimethylamino)phenyl]-2,4-pentadienal, 9CI**

D-00821

DAPDA

[83073-86-3]

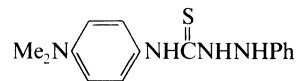
C₁₃H₁₅NO M 201.268

(E,E)-form [20432-36-4]

Colorimetric reagent for amines. Yellow plates (2-propanol) or light brown cryst. Mp 153-155°.

Peters, G.M. *et al*, *J. Org. Chem.*, 1975, **40**, 2243 (synth)Nakatsuji, S. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 2467 (synth, uv, pmr, use)Spangler, C.W. *et al*, *Synth. Commun.*, 1988, **18**, 51 (synth)**4-(4'-Dimethylaminophenyl)-1-phenylthiosemicarbazide**

D-00822

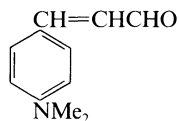
N-[4-(Dimethylamino)phenyl]-2-phenylhydrazinecarbothioamide, 9CI
[69519-52-4]C₁₅H₁₈N₄S M 286.400

Used as EtOH soln. for photometric detn. of Pd (ε 20600, alkaline medium). Cryst. (EtOH). Sol. DMF, EtOH.

Gyepes, E. *et al*, *CA*, 1984, **101**, 182944v (synth, detn, Pd)

3-[4-(Dimethylamino)phenyl]-2-propenal, 9CI

4-(Dimethylamino)cinnamaldehyde

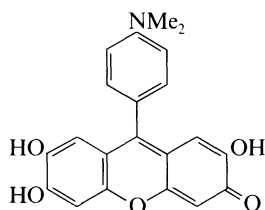
C₁₁H₁₃NO M 175.230**(E)-form** [6203-18-5]

Used for photometric detn. of NH₃ (λ_{\max} 630 nm, ϵ 45200). Used for detn. of apotryptophanase and tryptophanase. Used as 0.2% soln. in acidified MeOH for detn. of indoles. Yellow cryst. Sol. EtOH.

Turner, J.M., *Biochem. J.*, 1961, **78**, 790.Guseinov, I.K. *et al*, *Azerb. Khim. Zh.*, 1978, 108; *CA*, **89**, 225540p (*detn. NH₃*)**9-[4-(Dimethylamino)phenyl]-2,6,7-trihydroxy-3H-xanthen-3-one, 9CI**

p-Dimethylaminophenylfluorone

[6098-86-8]

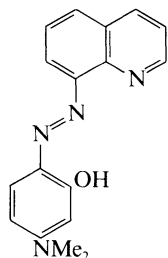
C₂₁H₁₇NO₅ M 363.369

Used as 0.05% soln. in EtOH in photometric detn. of Ge (λ_{\max} 513 nm, ϵ 140000). Cryst. Sol. EtOH.

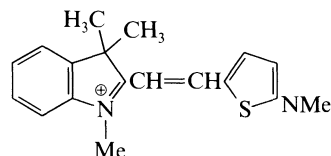
Campe, A. *et al*, *Talanta*, 1961, **8**, 453 (*detn. Ge*)Patrovsky, V., *Chem. Listy*, 1965, **59**, 1464 (*detn. Ta*)**5-(Dimethylamino)-2-(8-quinolinylazo)phenol, 9CI**

8-(4-Dimethylamino-2-hydroxyphenylazo)quinoline

[15968-31-7]

C₁₇H₁₆N₄O M 292.340

Used as 1mM EtOH soln. for photometric detn. of Co (λ_{\max} 547 nm, ϵ 72000, pH 5-11), Ni, Cu, Zn. Cryst. Sol. EtOH, MeOH; spar. sol. H₂O. Subl. 205°. pK_{a2} 3.1; pK_{a3} 13.1 (MeOH aq.).

Shibata, S. *et al*, *Anal. Chim. Acta*, 1973, **66**, 397 (*synth, use*)**2-[2-[(5-Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3H-indolium(1+), 9CI**C₁₉H₂₃N₂S[⊕] M 311.470 (ion)

Basic cyanine dye.

Perchlorate: [112096-42-1].C₁₉H₂₃ClN₂O₄S M 410.920

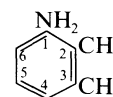
Used as 1mM aq. soln. for extraction-photometric detn. of Tl(III) (λ_{\max} 560 nm, ϵ 120000, 0.25M H₂SO₄, pentyl acetate) and Pb. Cryst. Sol. H₂O.

[124521-93-3]

Balog, I.S. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 2405 (*synth*)Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1987, **42**, 1242; 1989, **44**, 113 (*detn. Tl, Pb*)**2,3-Dimethylaniline D-00827**

2,3-Dimethylbenzenamine, 9CI. 2,3-Xylydine, 8CI. 3-Amino-o-xylene

[87-59-2]

C₈H₁₁N M 121.182Liq. d²⁰ 0.993. Bp 221-222°, Bp₃ 76-78°.

► Toxic by inhalation and skin absorption, TLV 25. ZE8750000.

B,HCl: [5417-45-8].

Cryst. Mp 254°.

N-Formyl:C₉H₁₁NO M 149.192

Cryst. Mp 102°.

N-Ac: [134-98-5].C₁₀H₁₃NO M 163.219

Used as 2% soln. in C₆H₆ for extraction-photometric detn. of W (with SCN[⊖]; λ_{\max} 405 nm, ϵ 13100). Cryst. (EtOH aq.). Sol. C₆H₆. Mp 135°.

► AN7400000.

N-Me: [41456-51-3].C₉H₁₃N M 135.208

Oil. Bp 222-223°.

N-Di-Me: [24226-35-5].C₁₀H₁₅N M 149.235Liq. Bp 199-200°, Bp₇ 75°.Smith, L.I. *et al*, *J. Org. Chem.*, 1941, **6**, 427 (*synth*)Bergman, E.D. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 5803; *J. Org. Chem.*, 1961, **26**, 919 (*synth*)Aaron, J.-J. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 598 (*synth*)Nasipuri, D. *et al*, *Indian J. Chem.*, 1972, **10**, 795 (*synth*)Hallas, G. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1977, 450 (*synth*)Behrmann, E.J. *et al*, *J. Org. Chem.*, 1978, **43**, 4551 (*synth*)Mishra, N. *et al*, *Analyst (London)*, 1987, **112**, 1131 (*detn. W*)Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 928.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 534.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, XMJ000.

2,5-Dimethylaniline**D-00828**

2,5-Dimethylbenzenamine, 9CI. 2,5-Xylidine, 8CI. p-Xylidine.

2-Amino-p-xylene

[95-78-3]

C₈H₁₁N M 121.182Pale-yellow leaflets. Mod. sol. H₂O. Mp 15.5°. Bp 213-215°, Bp₄ 83°.

▷ Toxic by inhalation and skin absorption, TLV 25. ZE9100000.

B,HCl: [51786-53-9].

Cryst. Mp 228°.

▷ ZF0350000.

N-Formyl: [10113-40-3].

C₉H₁₁NO M 149.192Cryst. (H₂O). Mp 116-117°.

N-Ac: [2050-44-4].

C₁₀H₁₃NO M 163.219Used as 0.15M soln. in C₆H₆ for extraction-photometric detn. of Au(III) (λ_{max} 400nm, ε 4800), W (λ_{max} 405 nm, ε 12400). Cryst. (H₂O or toluene). Sol. C₆H₆, CHCl₃. Mp 142°.

▷ AN7450000.

N-Benzoyl: [71114-52-8].

C₁₅H₁₅NO M 225.290

Cryst. (EtOH). Mp 140°.

N-Me: [21354-48-3].

C₉H₁₃N M 135.208Yellow oil. Bp 225-227°, Bp₁₀ 95-96°.

N-Di-Me: [17327-77-4].

C₁₀H₁₅N M 149.235Liq. Bp 204°, Bp₁ 59°.Shriner, R.L. *et al*, *Chem. Rev.*, 1944, **35**, 351 (*synth*)Budzikiewicz, H. *et al*, *Monatsh. Chem.*, 1964, **95**, 1396 (*synth*)Kovacic, P. *et al*, *J. Am. Chem. Soc.*, 1966, **88**, 100 (*synth*)Brown, R.F.C. *et al*, *Can. J. Chem.*, 1968, **46**, 2577 (*nmr*)Aaron, J.-J. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 598 (*synth*)Nara, K. *et al*, *CA*, 1974, **81**, 151678a (*synth*)Kricka, L.J. *et al*, *Can. J. Chem.*, 1974, **52**, 299 (*synth*)Lichter, R.L. *et al*, *Org. Magn. Reson.*, 1974, **6**, 636 (*nmr*)Hallas, G. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1977, 559 (*synth*)Weisburger, E.K. *et al*, *J. Environ. Pathol. Toxicol.*, 1978, **2**, 325(*tox*)Patel, K.S. *et al*, *Anal. Chem.*, 1986, **58**, 1547 (*detn, Au*)Mishra, N. *et al*, *Analyst (London)*, 1987, **112**, 1131 (*detn, W*)Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,

Butterworths, London and Boston, 1979, 928.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 534.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, XNA000, XOS000.

2,6-Dimethylaniline**D-00829**

2,6-Dimethylbenzenamine, 9CI. 2,6-Xylidine, 8CI. 2-Amino-m-xylene

C₈H₁₁N M 121.182Liq. d₂₀ 0.984. Mp 11°. Bp₇₃₉ 214°. n_D²⁰ 1.5610.

▷ Toxic by inhalation and skin absorption, TLV 25.

N-Formyl: [607-92-1].

C₉H₁₁NO M 149.192

Cryst. (EtOH). Mp 176-177° (rapid heat).

N-Ac: [2198-53-0].

C₁₀H₁₃NO M 163.219Used as 2% soln. in C₆H₆ for extraction-photometric detn. of W (λ_{max} 405 nm, ε 13100). Cryst. Sol. C₆H₆. Mp 177°.

▷ AN7470000.

N-Benzoyl: [18109-39-2].

C₁₅H₁₅NO M 225.290

Cryst. (EtOH aq.). Mp 168-168.5°.

N-Me: [767-71-5].

C₉H₁₃N M 135.208

Oil. Bp 206-207°. Steam-volatile.

N-Me, N-Ac: [18835-47-7].

C₁₁H₁₅NO M 177.246Cryst. (Et₂O). Mp 94-95°.

N-Di-Me: [769-06-2].

C₁₀H₁₅N M 149.235Bp 195-196°, Bp₁ 51°.

N-Di-Me, 1,3,5-trinitrobenzene complex: Scarlet cryst. Mp 108°.

[21436-98-6]

Borkowski, W.C. *et al*, *J. Org. Chem.*, 1952, **17**, 1128 (*synth*)Bock, H. *et al*, *Chem. Ber.*, 1966, **99**, 1347, 1361 (*synth*)Miyajima, G. *et al*, *Chem. Pharm. Bull.*, 1971, **19**, 2301 (*synth*)Gassmann, P.G. *et al*, *J. Am. Chem. Soc.*, 1972, **94**, 2448 (*synth*)Watanabe, T. *et al*, *Chem. Lett.*, 1974, 7812 (*synth*)Gribble, G.W. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 7812 (*synth*)Bacaloglu, I. *et al*, *J. Prakt. Chem.*, 1974, **316**, 529 (*synth*)Yoder, C.H. *et al*, *J. Org. Chem.*, 1976, **41**, 1511 (*nmr*)Grimshaw, J. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1977, 2448(*synth*)Hallas, G. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1977, 559 (*synth*)Mishra, N. *et al*, *Analyst (London)*, 1987, **112**, 1131 (*detn, W*)Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,

Butterworths, London and Boston, 1979, 928.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 534.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, ABP250.

3,4-Dimethylaniline**D-00830**

3,4-Dimethylbenzenamine, 9CI. 3,4-Xylidine, 8CI. 4-Amino-o-xylene

[95-64-7]

C₈H₁₁N M 121.182Cryst. (pet. ether). Mp 51°. Bp₂₂₋₂₅ 116-118°. pK_a 8.8.

▷ Toxic by inhalation and skin absorption, TLV 25.

ZE9450000.

B,HCl: [7356-54-9].

Cryst. Mp 256°.

N-Formyl: [6639-60-7].

C₉H₁₁NO M 149.192

Mp 52°.

N-Di-Me: [770-03-6].

C₁₀H₁₅N M 149.235Bp 232°, Bp₁₁ 105°.

N-Ac: [2198-54-1].

C₁₀H₁₃NO M 163.219Used as 2% soln. in C₆H₆ for extraction-photometric detn. of W (λ_{max} 405 nm, ε 11700). Cryst. (EtOH aq.). Sol. C₆H₆. Mp 99°.

▷ AN7500000.

Ley, G., *Ber.*, 1921, **54**, 377 (*synth*)*Org. Synth., Coll. Vol.*, 3, 1955, 307 (*synth*)Kovacic, P. *et al*, *J. Am. Chem. Soc.*, 1966, **88**, 100 (*synth*)Dubois, J.E. *et al*, *Bull. Soc. Chim. Fr.*, 1968, 617 (*synth*)Braeunigen, H. *et al*, *Pharmazie*, 1969, **24**, 24 (*synth*)Hirashima, T. *et al*, *Chem. Lett.*, 1975, 259 (*synth*)Netzel, D.A. *et al*, *Org. Magn. Reson.*, 1978, **11**, 58 (*nmr*)Mishra, N. *et al*, *Analyst (London)*, 1987, **112**, 1131 (*detn, W*)Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,

Butterworths, London and Boston, 1979, 928.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 534.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, ABP500, XNS000.

N,N-Dimethylaniline, 8CIN,N-Dimethylbenzenamine, 9CI
[121-69-7]C₈H₁₁N M 121.182

Intermed. for dyestuffs. Base with various synthetic uses.
Used for detn. of H₂O₂, H₂S, NO₂[⊖]. Yellowish-brown
oily liq. d₄²⁰ 0.9557. Mp 2.5°. Bp 193°, Bp₁₃ 77°. Steam-
volatile.

▷ Highly toxic by inhalation or skin absorption, TLV (skin)
25. Explosive mixt. with dibenzoyl peroxide. BX4725000.

B, HCl: [5882-44-0].

Cryst. Mp 85-95°. Hygroscopic.

B₂H₂SO₄: Cryst. Mp 80°.

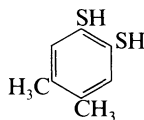
Picrate: Cryst. Mp 163-164°.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y.,
1947, **2** (use)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1969, **2**,
147.Ho, T.-L., *Synth. Commun.*, 1973, **3**, 99 (synth)Watanabe, Y. et al, *Chem. Lett.*, 1974, 1265 (synth)Gribble, G.W. et al, *J. Am. Chem. Soc.*, 1974, **96**, 7812 (synth)Sutter, P. et al, *Phosphorus Sulfur Relat. Elem.*, 1978, **4**, 335
(synth)Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (cmr)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed.,
Royal Society of Chemistry, London, 1981, 300.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, DQF800.**4,5-Dimethyl-1,2-benzenedithiol, 9CI**

D-00832

4,5-Dimercapto-o-xylene

[37734-36-4]

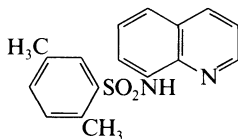
C₈H₁₀S₂ M 170.299

Complexing agent for transition metals. Used for
extraction-photometric detn. of Mo, W (CCl₄). Cryst.
(hexane). Mp 111°. pK_{a1} 707; pK_{a2} 11.29 (MeOH).

Di-Me ether: 1,2-Dimethyl-4,5-bis(methylthio)benzene. 4,5-
Bis(methylthio)-o-xyleneC₁₀H₁₄S₂ M 198.353Liq. Bp₁₁ 175-178°.Schroth, W. et al, *Z. Chem.*, 1964, **4**, 270; 1977, **77**, 411 (synth)Billig, E. et al, *J. Am. Chem. Soc.*, 1966, **88**, 4870 (synth, use)Hoyer, E. et al, *CA*, 1972, **77**, 83195f (detn. Mo, V)**(2,5-Dimethylbenzenesulfonylamino)quinoline**

D-00833

2,5-Dimethyl-N-(8-quinolyl)benzenesulfonamide

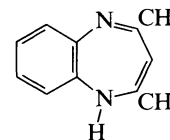
C₁₇H₁₆N₂O₂S M 312.392

Used as a 0.1M soln. in EtOH or Me₂CO for pptn. of Ag,
Co, Cu, Hg, Pb, Zn. Cryst. Mp 148-149°.

Billman, J.H. et al, *Anal. Chem.*, 1962, **34**, 408 (use)**2,4-Dimethyl-1H-1,5-benzodiazepine, 9CI**

D-00834

[68537-93-9]

C₁₁H₁₂N₂ M 172.229

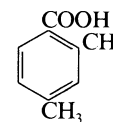
Used as 0.1% MeOH soln. as an acid-base indicator
(colour change: pink → yellow). Cryst. Sol. MeOH; sl.
sol. H₂O. pK_a 8.60 (H₂O).

Omar, N.M., *Indian J. Chem.*, 1974, **12**, 498 (synth)El-Rabbat, N.A. et al, *Analyst (London)*, 1980, **105**, 165 (use, ind)**2,4-Dimethylbenzoic acid, 9CI, 8CI**

D-00835

unsym-m-Xylylic acid

[611-01-8]

C₉H₁₀O₂ M 150.177

Cryst. (EtOH aq.). Mp 126-127°. Bp₇₂₇ 267°. pK_{a1} 4.22
(25°). Sublimes.

Me ester: [23617-71-2].

C₁₀H₁₂O₂ M 164.204

Cryst. Mp 232-233°.

Chloride: [21900-42-5].

C₉H₉ClO M 168.622Cryst. Mp 25.5°. Bp 234-236°, Bp₁₅ 113-115°.

Amide: [73258-94-3].

C₉H₁₁NO M 149.192

Cryst. (EtOH). Mp 179-181°.

Amide, oxime: [52400-13-2]. N-Hydroxy-2,4-
dimethylbenzenecarboximidamide, 9CI. 2,4-
DimethylbenzamidoximeC₉H₁₂N₂O M 164.207

Used as 0.01M soln. in EtOH for photometric detn. of
Co. Cryst. Sol. hot H₂O, EtOH, CHCl₃. Mp 176-177°.

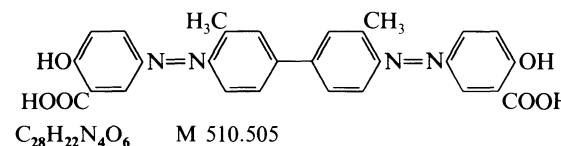
Nitrile: [21789-36-6]. I-Cyano-2,4-dimethylbenzene

C₉H₉N M 131.177

Mp 23-25°. Bp 223°.

Gattermann, L. et al, *Justus Liebig's Ann. Chem.*, 1888, **244**, 53
(synth)Openheimer, E., *Ber.*, 1889, **22**, 2442 (synth)Perkin, W.H. et al, *J. Chem. Soc.*, 1925, 2283 (synth)Manolov, K. et al, *Mikrochim. Acta*, 1974, 231.McAlees, A.J. et al, *J. Chem. Soc., Perkin Trans. 1*, 1977, 203
(synth)**3,3'-[(3,3'-Dimethyl-[1,1'-biphenyl]-4,4'-
diyl)bis(azo)]bis[6-hydroxybenzoic acid],
9CI**

D-00836

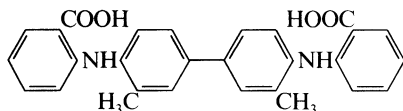
5,5'-Bis(3,3'-dimethyl-4,4'-diphenylenediazo)disalicyclic acid
[58607-99-1]C₂₈H₂₂N₄O₆ M 510.505

Used as a 0.1% soln. in dil. alkalis for photometric detn. of Be. Orange cryst. (EtOH). Sol. alkalis, EtOH; insol. H₂O.

Bajulescu, G.E. *et al*, *Rev. Chim. (Bucharest)*, 1975, **26**, 764.

2,2'-[(3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid **D-00837**

Diphenylditolidine-2,2'-dicarboxylic acid. N,N'-Bis(2-carboxyphenyl)-3,3'-dimethylbenzidine

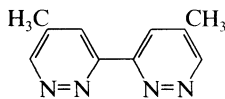


C₂₈H₂₄N₂O₄ M 452.509

Used as a 0.1 or 1% soln. in conc. H₂SO₄ for photometric detn. of V (λ_{max} 568 nm, ε 52000); redox indicator (colour change: colourless → blue). Cryst. powder. Sol. alkalis, conc. acids.

Frumina, N.S. *et al*, *Talanta*, 1969, **16**, 138.

5,5'-Dimethyl-3,3'-bipyridazine **D-00838**
[24049-48-7]



C₁₀H₁₀N₄ M 186.216

Used as a soln. in MeOH for photometric detn. of Fe(II). Cryst. (Et₂O). Sol. Et₂O, C₆H₆, EtOH; insol. H₂O. Mp 163-164°.

Igeta, H. *et al*, *Tetrahedron Lett.*, 1969, 2359 (*synth*)

Maeda, M. *et al*, *Chem. Pharm. Bull.*, 1970, **18**, 1548 (*detn. Fe*)

6,6'-Dimethyl-3,3'-bipyridazine **D-00839**
[24049-45-4]

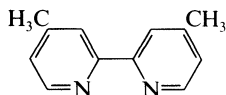
C₁₀H₁₀N₄ M 186.216

Used as MeOH soln. for photometric detn. of Fe(II). Cryst. (EtOAc). Sol. Et₂O, C₆H₆, EtOH; insol. H₂O. Mp 234-235°.

Igeta, H. *et al*, *Tetrahedron Lett.*, 1969, 2359 (*synth*)

Maeda, M. *et al*, *Chem. Pharm. Bull.*, 1970, **18**, 1548 (*detn. Fe*)

4,4'-Dimethyl-2,2'-bipyridine, 9CI **D-00840**
2,2'-Bi-4-picoline, 8CI
[1134-35-6]



C₁₂H₁₂N₂ M 184.240

Used in photometric detn. of Fe(II), Cu(I), Co, Ni; pptn. of Zn(SCN)₄²⁻, Cd(SCN)₄²⁻. Mp 175-179°.

Schilt, A., *Analytical Applications of 1,10-Phenanthroline and Related Compounds*, Pergamon, Oxford, 1969 (*use*)

Haginiwa, J. *et al*, *Yakugaku Zasshi*, 1973, **93**, 144 (*synth*)

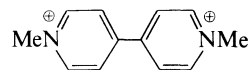
Sprintschnik, G. *et al*, *J. Am. Chem. Soc.*, 1977, **99**, 4947 (*synth, nmr*)

1,1'-Dimethyl-4,4'-bipyridinium(2+), 9CI **D-00841**
8CI

N,N'-Dimethyl-4,4'-bipyridyl (2+). N,N'-Dimethylviologen.

Paraquat, BSI

[4685-14-7]



C₁₂H₁₄N₂²⁺ M 186.256 (ion)
Herbicide.

▷ V. highly toxic orally, freq. cause of fatal poisoning. Exp. teratogen. DW1960000.

Dichloride: [1910-42-5]. *Paraquat dichloride*

C₁₂H₁₄Cl₂N₂ M 257.161

Constit. of numerous proprietary herbicides e.g. Weedol.

Used as dil. AcOH soln. as redox indicator (reduced form is blue). V. air-sensitive needles (MeOH/Me₂CO).

V. sol. H₂O; sl. sol. MeOH, EtOH; insol. nonpolar solvs. Mp 300° approx. dec.

▷ LD₅₀ 26 mg/kg (rat, i.p.). DW2275000.

Bismethylsulfate: [2074-50-2].

C₁₄H₂₀N₂O₈S M 376.387

Formerly-used commercial form of Paraquat. Mp 300° approx. dec.

▷ DW2010000.

Michaelis, L. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 1481 (*synth*)

Brian, R.C., *Nature (London)*, 1958, **181**, 446 (*rev*)

Haque, R. *et al*, *J. Am. Chem. Soc.*, 1969, **91**, 3822 (*pmr*)

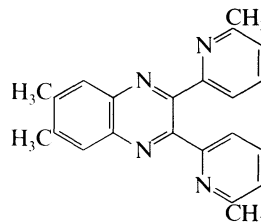
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 520 (*use*)

Calderbank, A. *et al*, *Herbic.: Chem., Degrad. Mode Action* (2nd Ed.), Vol 2, 2nd Ed., Dekker, N.Y., 1976, 501 (*rev*)

Pesticide Manual, 9th Ed., 1991, 646.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PA1990, PA1995, PA1000, PAJ250.

6,7-Dimethyl-2,3-bis(6-methyl-2-pyridinyl) quinoxaline, 9CI **D-00842**
[17401-61-5]

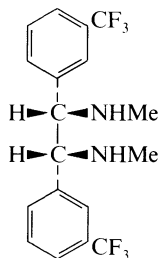


C₂₂H₂₀N₄ M 340.427

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 515 nm, ε 5210, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 159°.

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

N,N'-Dimethyl-1,2-bis[3-(trifluoromethyl)phenyl]-1,2-ethanediamine, 9CI **D-00843**
[120263-19-6]



$C_{18}H_{18}F_6N_2$ M 376.344

(R,R)-form

(+)-form

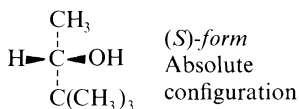
Reagent for detn. of the enantiomeric purity of aldehydes using ^{19}F nmr. Cryst. Mp 115° . $[\alpha]_D^{25} + 17^\circ$ (c, 0.5 in $CHCl_3$).

Cuvinot, D. et al, *J. Org. Chem.*, 1989, **54**, 2420 (use)

3,3-Dimethyl-2-butanol

D-00844

Pinacolin alcohol. Pinacolyl alcohol. Methyl-tert-butylcarbinol
[464-07-3]



$C_6H_{14}O$ M 102.176

(S)-form [1517-67-5]

Used in the resolution of amino acids. $[\alpha]_D^{20} + 7.71^\circ$.

Ac:

$C_8H_{16}O_2$ M 144.213
Bp₇₅₆ 141° . $[\alpha]_D^{25} + 9.63^\circ$.

(±)-form [20281-91-8]

Spar. sol. H_2O . Mp 5.6° . Bp 121° .

Ac: Bp₇₄₀ $141.2-141.4^\circ$.

Delacre, M., *Z. Phys. Chem. (Leipzig)*, 1906, **1**, 1234 (synth)

Pickard, R.H. et al, *J. Chem. Soc.*, 1914, **105**, 1120 (synth)

Jacobus, J. et al, *J. Am. Chem. Soc.*, 1969, **91**, 1998 (abs config)

Ayers, G.S. et al, *J. Chromatogr.*, 1971, **63**, 259 (use)

3,3-Dimethyl-2-butanone, 9CI

D-00845

1,1,1-Trimethylacetone. Pinacolone. tert-Butyl methyl ketone
[75-97-8]



$C_6H_{12}O$ M 100.160

Used as a 0.1M soln. in C_6H_6 extraction-photometric detn. of Fe (λ_{max} 435 nm, ϵ 4300). Liq. with camphoraceous odour. Bp $106.0-106.1^\circ$. Steam-volatile.

▷ EL7700000.

2,4-Dinitrophenylhydrazone: [964-53-4].

Yellow cryst. (EtOH). Mp $126-127^\circ$.

Oxime: [2475-93-6].

$C_6H_{13}NO$ M 115.175

Needles (EtOH aq.). Mp $78.5-79.5^\circ$. Bp₇₄₈ 171.6° .

Org. Synth., Coll. Vol., 1, 1932, 462 (synth, props)

Emerson, W.S., *J. Am. Chem. Soc.*, 1947, **69**, 1212 (synth)

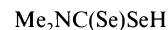
Koshimura, H., *Bunseki Kagaku (Jpn. Anal.)*, 1972, **21**, 652 (detn, Fe)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DQU000.

Dimethylcarbamodiselenoic acid, 9CI

D-00846

Dimethyldiselenocarbamic acid



$C_3H_7NSe_2$ M 215.015

Orange cryst. Insol. H_2O . Mp $98-105^\circ$.

Na salt: [51895-44-4].

Used for extraction-photometric detn. of Bi (λ_{max} 410 nm, ϵ 9750, $CHCl_3$), Co (λ_{max} 405 nm, ϵ 13300, $CHCl_3$), Cu (λ_{max} 490 nm, ϵ 11000, $CHCl_3$), Ni (λ_{max} 423 nm, ϵ 8600, $CHCl_3$). Cryst. Sol. H_2O .

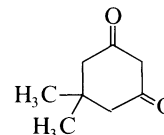
Barnard, D. et al, *J. Chem. Soc.*, 1961, 2922 (synth)

Kirspuu, K.K. et al, *Zh. Anal. Khim.*, 1968, **23**, 354 (use)

5,5-Dimethyl-1,3-cyclohexanedione, 9CI

D-00847

5,5-Dimethyldihydroresorcinol. Methone. Dimedone
[126-81-8]



$C_8H_{12}O_2$ M 140.182

Characterising reagent for carbonyl compds., protecting agent for NH_2 groups. Used in photometric detn. of CN^\ominus . Monoclinic needles or prisms. Sol. $CHCl_3$, C_6H_6 ; spar. sol. pet. ether, H_2O . pK_{a1} 5.27 (25°).

Monoxime:

$C_8H_{13}NO_2$ M 155.196

Cryst. Mp 115° . Also exists in an amorph. form.

Dioxime:

$C_8H_{14}N_2O_2$ M 170.211

Used as 0.5% soln. in EtOH for photometric detn. of Co (λ_{max} 400 nm, ϵ 23000). Prisms + $2H_2O$. Sol. alkaline aq. solns., alcohols, $CHCl_3$. Mp 176° (anhyd.), Mp 170° .

Bisthiosemicarbazone: [79811-20-4].

$C_{10}H_{18}N_6S_2$ M 286.424

Used as 0.01M soln. of hydrochloride in 0.1M $HClO_4$ for photometric detn. of ClO_3^\ominus (λ_{max} 417 nm, ϵ 18600, 70% $HClO_4$ medium), BrO_3^\ominus (λ_{max} 415 nm), IO_3^\ominus , IO_4^\ominus , NO_2^\ominus , Pb, Zn. Yellow cryst. (EtOH) (as hydrochloride). Sol. acids, EtOH, DMF. Mp $187-189^\circ$ (as hydrochloride). Reg. no. refers to hydrochloride.

Bis(phenylthiosemicarbazone): [77783-19-8]. 2-[5,5-Dimethyl-3-[2-[(phenylamino)thioxomethylhydrazino]-2-cyclohexen-1-ylidene]]-N-phenylhydrazinecarbothioamide, 9CI

$C_{22}H_{26}N_6S_2$ M 438.620

Used as 0.1% soln. in DMF to give colour reactions with Fe, Ni, Co, Cd, Bi; kinetic-photometric detn. of Cu (λ_{max} 430 nm). Yellow cryst. (EtOH). Sol. DMF; spar. sol. EtOH, pentanol, $CHCl_3$. Mp $189-191^\circ$. pK_{a1} 3.85; pK_{a2} 7.85.

[82531-23-5]

Org. Synth., Coll. Vol., 2, 1943, 200 (synth)

Halpern, B. et al, *Aust. J. Chem.*, 1964, **17**, 1282 (use)

Goto, T. et al, *Tetrahedron Lett.*, 1965, 757 (ms)

Kratochvil, V., *Collect. Czech. Chem. Commun.*, 1969, **25**, 299 (detn, CN^\ominus)

Belcher, R. et al, *Talanta*, 1974, **21**, 191 (detn, Co, synth)

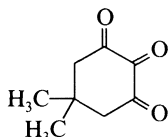
Singh, I. et al, *Can. J. Chem.*, 1975, **53**, 1046 (cryst struct)

Rodriguez, J. et al, *Talanta*, 1981, **28**, 131 (synth, reactions)

Munoz Leyra, J.A. *et al*, *An. Quim., Ser. B*, 1982, **78**, 132 (*use*)
 Callejon Mochon, M. *et al*, *Anal. Chim. Acta*, 1982, **140**, 271 (*detn.*
 IO_4^{\ominus})
 Salinas, F. *et al*, *Anal. Lett.*, 1984, **17**, 993 (*detn.*, Zn)
 Munoz Leyra, J.A. *et al*, *Mikrochim. Acta*, 1984, **3**, 295 (*detn.*
 ClO_3^{\ominus})
 Jimenez Sanchez, J.C. *et al*, *Microchem. J.*, 1985, **32**, 69 (*synth.*
 thiosemicarbazone, *detn.*, NO_2^{\ominus})
 Rodriguez, J. *et al*, *Mikrochim. Acta*, 1985, **1**, 69 (*detn.*, Cu)
 Salinas, C. *et al*, *Quim. Anal. (Madrid)*, 1986, **5**, 197 (*detn.*, Pb)

5,5-Dimethyl-1,2,3-cyclohexanetrione**D-00848**

[32999-99-8]

 $C_8H_{10}O_3$ M 154.165Red-violet cryst. ($CHCl_2/Et_2O$). Mp 70-72°.

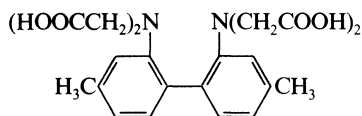
2-Oxime: [2703-74-4]. Isonitrosodimedone

 $C_8H_{11}NO_3$ M 169.180Used as a 0.025% soln. in isopentanol for extraction-
 photometric and gravimetric detn. of Co (λ_{max} 374 nm, ϵ
 20000). Cryst. Sol. isopentanol.1,2-Dioxime, 3-thiosemicarbazone: [99688-02-5]. 2-[2,3-
 Bis(hydroxyimino)-5,5-dimethylcyclohexylidene]
 hydrazinecarbothioamide, 9CI $C_9H_{15}N_5O_2S$ M 257.316Used as a 0.5% soln. in DMF for extraction-
 photometric detn. of Fe (pentanol). Yellow cryst. (EtOH
 aq.). V. sol. DMF; sol. EtOH (1.45 g per 100 cm³); spar.
 sol. H₂O (0.02 g per 100 cm³). Mp 183-185°. pK_{a1} 4.41;
 pK_{a2} 6.26; pK_{a3} 13.9 ($\mu = 0.1$, 20°).

2-Oxime, 3-thiosemicarbazone:

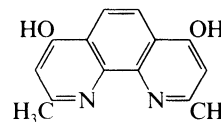
 $C_9H_{14}N_4O_2S$ M 242.301Used as DMF soln. for photometric detn. of Cu(II)
 (λ_{max} 465 nm, ϵ 5500), Fe(II). Yellow cryst. Sol. DMF,
 EtOH.

2-Oxime, 1,3-bisthiosemicarbazone: [98296-38-9].

 $C_{10}H_{17}N_7OS_2$ M 315.423Used as 0.085% soln. in DMF for photometric detn. of
 Fe(II) (λ_{max} 565 nm, ϵ 9800), Cr(VI) (λ_{max} 485 nm, ϵ
 5600), Co; as EtOH soln. for photometric detn. of Ni
 (λ_{max} 440 nm, ϵ 7200), Co (λ_{max} 400 nm, ϵ 10000).
 Yellow cryst. (EtOH). Sol. DMF, EtOH. Mp 182-184°.Guhra-Sircar, S.S. *et al*, *J. Indian Chem. Soc.*, 1941, **18**, 155 (2-
 oxime, *detn.*, Co)Gillis, J. *et al*, *Mikrochemie*, 1953, 244 (2-oxime, *detn.*, Co)van den Bossche, W. *et al*, *Anal. Chim. Acta*, 1958, **18**, 564 (2-
 oxime, *detn.*, Co)Schank, K. *et al*, *Synthesis*, 1983, 392 (*synth*)Salinas, F. *et al*, *Mikrochim. Acta*, 1985, **1**, 245 (*detn.*, Cr)Salinas, F. *et al*, *Talanta*, 1985, **32**, 1074; 1987, **34**, 655 (*synth.*, *use*)Salinas, F. *et al*, *Anal. Chem.*, 1986, 824 (*synth.*, *detn.*, Fe)Salinas, F. *et al*, *Ann. Chim. (Rome)*, 1986, **76**, 301, 387 (*detn.*, Co,
 Cu)Salinas, F. *et al*, *Bull. Soc. Chim. Belg.*, 1987, **96**, 73 (*detn.*, Fe, Ni)Salinas, F. *et al*, *Microchem. J.*, 1987, **35**, 157 (*detn.*, Fe)**4,4'-Dimethyl-2,2'-diaminobiphenyl-
N,N,N',N'-tetraacetic acid****D-00849** $C_{22}H_{24}N_2O_8$ M 444.440Tetra-Na salt: Used as metallofluorescent indicator in
 titrimetric detn. of Co, Cr, Cu, Mn, Zn, Ni. Cryst.Kirkbright, G. *et al*, *Anal. Chim. Acta*, 1965, **32**, 544 (*synth.*, *use*)**2,9-Dimethyl-4,7-dihydroxy-1,10-
phenanthroline****D-00850**

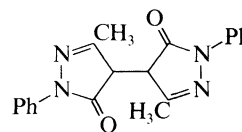
2,9-Dimethyl-1,10-phenanthroline-4,7-diol, 9CI

[27337-63-9]

 $C_{14}H_{12}N_2O_2$ M 240.261Used as 0.01M soln. in 0.1M NaOH for photometric detn.
 of Cu (λ_{max} 400 nm, ϵ 11500).Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 647 (*synth*)Dunbar, W.E. *et al*, *Talanta*, 1972, **19**, 1025.**3,3'-Dimethyl-1,1'-diphenyl-[4,4'-bi-2-
pyrazoline]-5,5'-dione, 8CI****D-00851**

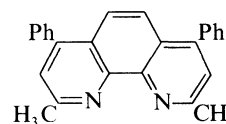
Bispyrazolone

[7477-67-0]

 $C_{20}H_{18}N_4O_2$ M 346.388Used as a 0.3% soln. in 0.5M Na₂CO₃ for photometric
 detn. of NH₃, CN[⊖]. Cryst. (EtOH). Sol. EtOH, Me₂CO;
 sl. sol. H₂O.Epstein, J., *Anal. Chem.*, 1947, **19**, 272 (*detn.*, CN[⊖])Procházková, L. *et al*, *Anal. Chem.*, 1964, **36**, 865.**2,9-Dimethyl-4,7-diphenyl-1,10-
phenanthroline, 9CI****D-00852**

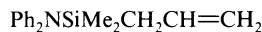
Bathocuproine

[4733-39-5]

 $C_{26}H_{20}N_2$ M 360.457Used as 2mM soln. in EtOH for photometric detn. of Cu
 (λ_{max} 479 nm, ϵ 14200). Cryst. (EtOH). Sol. EtOH,
 C₆H₆, Me₂CO; spar. sol. H₂O. Mp 282-283°.Smith, G.F. *et al*, *Anal. Chem.*, 1953, **25**, 510 (*detn.*, Cu)Case, F.H. *et al*, *J. Org. Chem.*, 1954, **19**, 919 (*synth*)Borchardt, L.G. *et al*, *Anal. Chem.*, 1957, **29**, 414 (*detn.*, Cu)Penner, E.M. *et al*, *Talanta*, 1963, **10**, 407 (*detn.*, Cu)Schilt, A.A., *Analytical Applications of 1,10-Phenanthroline and
 Related Compounds*, Pergamon, Oxford, 1969.Jackwerth, E. *et al*, *Anal. Chem.*, 1971, **255**, 194 (*detn.*, Cu)Snell, F.D., *Photometric and Fluorimetric Methods of Analysis,
 Metals, Part I*, John Wiley, New York, 1978, 148.

1,1-Dimethyl-*N,N*-diphenyl-1-(2-propenyl) silanamine, 9CI **D-00853**

Allyldimethylsilyl-N,N-diphenylamine. (Diphenylamino) dimethyl-2-propenylsilane. ADMSDPA
[126235-53-8]



$\text{C}_{17}\text{H}_{21}\text{NSi}$ M 267.445

Silylation reagent for prostaglandins and steroids. Oil.

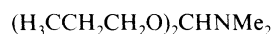
$\text{Bp}_{0.55}$ 100-108°.

Steffenrud, S. *et al.*, *J. Chromatogr. Sci.*, 1989, **27**, 545 (*synth, use*)

Dimethyl(dipropoxymethyl)amine **D-00854**

N,N-Dimethyl-1,1-dipropoxymethanamine, 9CI. 1,1-Dipropoxytrimethylamine, 8CI. Dimethylformamide dipropyl acetal

[6006-65-1]



$\text{C}_9\text{H}_{21}\text{NO}_2$ M 175.270

Alkylating reagent used for derivatisation of fatty acids and amino acids for gc anal. Oil. Bp 173-175°, Bp_{12} 57-59°. n_D^{20} 1.4089.

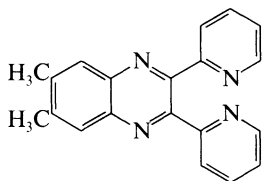
Bredereck, H. *et al.*, *Chem. Ber.*, 1968, **101**, 41 (*synth*)

Thenot, J.P. *et al.*, *Anal. Lett.*, 1972, **5**, 217, 519 (*use*)

Kantlehner, W. *et al.*, *Chem. Ber.*, 1972, **105**, 1340 (*synth*)

6,7-Dimethyl-2,3-di(2-pyridyl)quinoxaline, 8CI **D-00855**

[6627-38-9]



$\text{C}_{20}\text{H}_{16}\text{N}_4$ M 312.373

Used for extraction-photometric detn. of Cu (λ_{max} 418 nm, 514 nm, dichloroethane). Cryst. (EtOH). Spar. sol.

EtOH; insol. H_2O ; sol. dichloroethane. Mp 191-195°.

Stephen, W.I. *et al.*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

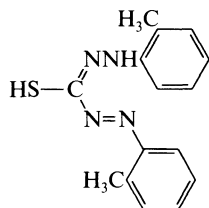
Forster, D. *et al.*, *Anal. Chim. Acta*, 1968, **40**, 350; 1969, **47**, 154 (*detn, Cu*)

Trusell, F.C. *et al.*, *Anal. Chim. Acta*, 1968, **40**, 350.

2,2'-Dimethyldithizone **D-00856**

2-Methylphenyldiazene-carbothioic acid 2-(2-methylphenyl) hydrazide, 9CI. Di-2-tolylthiocarbazon

[3982-97-6]



$\text{C}_{15}\text{H}_{16}\text{N}_4\text{S}$ M 284.384

Used as a 0.01% soln. in CHCl_3 or CCl_4 for extraction-photometric detn. of Cd, Cu, Hg, Ni, Zn (CCl_4).

Greenish black cryst. powder. Sol. CHCl_3 , CCl_4 , EtOH, alkalis; insol. H_2O .

Takei, S. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1957, **6**, 630; 1961, **10**, 708.

Math, K.S. *et al.*, *Anal. Chem.*, 1964, **36**, 1762 (*detn, Ni, Zn*)

McClellan, B.E. *et al.*, *Anal. Chem.*, 1964, **36**, 2263.

Than, E. *et al.*, *Z. Chem.*, 1968, **8**, 348; *CA*, **70**, 16794t (*detn, Cd*)

Juette, B.A. *et al.*, *Talanta*, 1971, **18**, 965 (*detn, Hg*)

3,3'-Dimethyldithizone **D-00857**

3-Methylphenyldiazene-carbothioic acid 2-(3-methylphenyl) hydrazide, 9CI. Di-m-tolylthiocarbazon

[6939-79-3]

$\text{C}_{15}\text{H}_{16}\text{N}_4\text{S}$ M 284.384

Used as a 0.01% soln. in CHCl_3 or CCl_4 for extraction-photometric detn. of Cd (λ_{max} 620 nm, ϵ 34000, CHCl_3).

Greenish black cryst. powder. Sol. CHCl_3 , CCl_4 , EtOH, alkalis; insol. H_2O .

Than, E. *et al.*, *Z. Chem.*, 1968, **8**, 348 (*use*)

4,4'-Dimethyldithizone **D-00858**

4-Methylphenyldiazene-carbothioic acid 2-(4-methylphenyl) hydrazide, 9CI. Di-p-tolylthiocarbazon

[16026-13-4]

$\text{C}_{15}\text{H}_{16}\text{N}_4\text{S}$ M 284.384

Used as a 0.01% soln. in CHCl_3 or CCl_4 for extraction-photometric detn. of Cd, Cu, Hg, Ni, Zn (CHCl_3).

Greenish black cryst. powder. Sol. CHCl_3 , CCl_4 , EtOH, alkalis; insol. H_2O . $\text{p}K_a$ 6.40 ($\mu = 0.1$, 50% dioxan).

Hubbard, D.M. *et al.*, *J. Am. Chem. Soc.*, 1943, **65**, 2390 (*synth*)

Takei, S. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1956, **5**, 695 (*detn, Cu, Hg*)

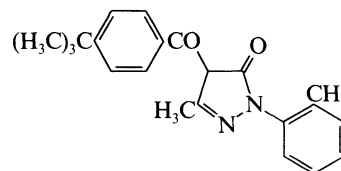
Busev, A.I. *et al.*, *Zh. Neorg. Khim.*, 1961, **6**, 2805 (*detn, Cu, Hg*)

Math, K.S. *et al.*, *Anal. Chem.*, 1964, **36**, 1762 (*detn, Ni, Zn*)

Than, E. *et al.*, *Z. Chem.*, 1968, **8**, 348 (*use*)

4-[4-(1,1-Dimethylethyl)benzoyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3H-pyrazol-3-one, 9CI **D-00859**

4-(p-tert-Butylbenzoyl)-3-methyl-1-o-tolyl-5-pyrazolone
[123035-91-6]



$\text{C}_{22}\text{H}_{24}\text{N}_2\text{O}_2$ M 348.444

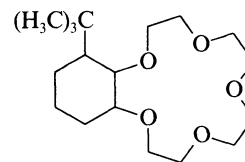
Used as a 0.01M C_6H_6 soln. for extraction separation of Li and Na. Cryst. (dioxan aq.). Sol. dioxan, cyclohexane, C_6H_6 , CHCl_3 . Mp 168°.

Mukai, H. *et al.*, *Anal. Chim. Acta*, 1989, **220**, 111 (*synth, use*)

15-(1,1-Dimethylethyl)tetradecahydro-1,4,7,10,13-benzopentaoxacyclopentadecin, 9CI **D-00860**

4-tert-Butylcyclohexyl-15-crown-5

[17454-49-8]



$C_{18}H_{34}O_5$ M 330.464
Used for extraction of lanthanides. Cryst. Sol. toluene.
Ensor, D.D. *et al*, *Anal. Chem.*, 1986, **58**, 1814 (use)

Dimethylformamide, 9CI**D-00861**

Formyldimethylamine
[68-12-2]



C_3H_7NO M 73.094

Widely used solv. and reagent in org. synth. and chemical analysis. Liq. Misc. H_2O , EtOH, Et₂O, C₆H₆, CHCl₃. d_4^{25} 0.945. Mp –61°. Bp 153°, Bp₃₉ 76°. n_D^{25} 1.4294.

▷ Highly toxic by inhalation, mod. toxic by skin absorption. Reacts violently with many materials. LQ2100000.

Diethyl acetal: see *(Diethoxymethyl)dimethylamine*, D-00313

Dipropyl acetal: see *Dimethyl(dipropoxymethyl)amine*, D-00854

Dibutyl acetal: see *1,1-Dibutoxytrimethylamine*, D-00221

Di-tert-butyl acetal: see *1,1-Di-tert-butoxytrimethylamine*, D-00222

Benneville, P.L. *et al*, *J. Org. Chem.*, 1956, **21**, 772 (synth)

McClelland, R.A. *et al*, *J. Chem. Soc., Chem. Commun.*, 1974, 824 (pmr)

Pizey, J.S., *Synth. Reagents*, Ellis Horwood, 1974, **1**, 1 (rev, bibl)

Kudo, K. *et al*, *Chem. Lett.*, 1977, 1495 (synth)

Fritz, H. *et al*, *Org. Magn. Reson.*, 1977, **9**, 108 (cmr)

Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals*, Wiley, New York, 1978 (use)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **11**, 263 (rev)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 189.

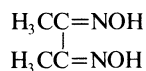
Gescher, A., *Chem. Br.*, 1990, 435 (tox)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 303.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DSB000.

Dimethylglyoxime**D-00862**

2,3-Butanedione dioxime. *Biacetyl dioxime*. *Diethyl dioxime*. *Chugaev's reagent*. DMG. H_2Dm
[95-45-4]



$C_4H_8N_2O_2$ M 116.119

Used in detn. of Ni, Pd; gravimetric detn. of Ni (red pptn.), Pd (yellow), photometric detn. of Ni (λ_{max} 445 nm, ϵ 15000), Pd, Co, Fe, Cu, Re; in separation of Ni, Pd by extraction (CHCl₃) or pptn. as M(HDm)₂. Triclinic cryst. (EtOH aq.). Sol. EtOH, Me₂CO, Et₂O, alk. soln.; v. spar. sol. H_2O , CHCl₃. Mp 238-240°.

▷ EK2975000.

Dibenzoyl: [18128-12-6].

$C_{18}H_{16}N_2O_4$ M 324.335
Needles. Mp 225°.

Chugaev, L.A., *Ber.*, 1905, **38**, 2520.

Org. Synth., Coll. Vol., 2, 1943, 204 (synth)

Christopherson, H. *et al*, *Anal. Chim. Acta*, 1954, **10**, 1 (detn, Ni)

Norwitz, G. *et al*, *Anal. Chem.*, 1965, **37**, 417 (use, Ni)

Davis, W.F., *Talanta*, 1969, **16**, 1330 (use, Pd)

Schienbaum, M.L., *J. Org. Chem.*, 1970, **35**, 2790 (synth)

Singh, R.B. *et al*, *Talanta*, 1979, **26**, 425 (rev)

Marzczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 393.

Onishi, H., *Photometric Determination of Traces of Metals, Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 1989, 125.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DBH000.

5,5-Dimethyl-2,4-hexanedione, 9CI**D-00863**

Pivalylacetone. *Acetylpinacolin*
[7307-04-2]



$C_8H_{14}O_2$ M 142.197

Used as a 0.1M soln. in C₆H₆ for extraction-photometric detn. of Cu; extraction separation of transition metals. Fragrant oil. Sol. common org. solvs. Bp₇₄₅ 170-171°.

Cu complex: Purple prisms. Mp 196-197° (190°).

Morgan, G.T. *et al*, *J. Chem. Soc.*, 1922, **121**, 922 (synth)

Koshimura, H. *et al*, *Anal. Chim. Acta*, 1970, **49**, 67 (use)

Koshimura, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 97 (detn, Cu)

Cornforth, J. *et al*, *Aust. J. Chem.*, 1984, **37**, 1453 (synth)

1,1-Dimethylhydrazine, 9CI**D-00864**

Dimazine. UDMH
[57-14-7]



$C_2H_8N_2$ M 60.099

Rocket propellant. Protecting group for carbonyl compds., reagent for conversion of aldehydes to nitriles. Anal. reagent for carbonyl compds. Liq. with ammoniacal odour. Sol. H_2O , EtOH. d_4^{25} 0.791. Mp –58°. Bp 63°. n_D^{25} 1.4075. V. hygroscopic.

▷ Highly corrosive to eyes, skin and mucous membranes. Convulsant poison. TLV 1. Suspected carcinogen. Ignites violently with oxidants. MV2450000.

B,HCl: [593-82-8].

Hygroscopic cryst. (EtOH). Mp 83°.

▷ MV2900000.

Oxalate: Mp 142-143°.

Picrate: Mp 145-146° dec.

Org. Synth., 1936, **16**, 22 (synth)

Rowe, R.A. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 563 (synth)

Vanden Heuval, W.J.A. *et al*, *Biochim. Biophys. Acta*, 1963, **74**, 560 (use)

Ohme, R. *et al*, *Justus Liebigs Ann. Chem.*, 1968, **713**, 74 (synth)

Zenkovich, I.G. *et al*, *J. Org. Chem. USSR (Engl. Transl.)*, 1978, **14**, 1047 (ms)

Schantl, J. *et al*, *Monatsh. Chem.*, 1978, **109**, 1481 (pmr)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **2**, 279; **12**, 739, 766 (rev)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 192.

Sisler, H.H. *et al*, *Inorg. Chem.*, 1980, **19**, 2846 (synth)

Mathis, R. *et al*, *Spectrochim. Acta, Part A*, 1981, **37**, 677; 1982, **38**, 133; 1986, **42**, 519 (ir)

McDaniel, C.A. *et al*, *J. Chem. Ecol.*, 1985, **11**, 303 (use)

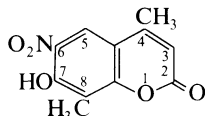
Riggs, N.V. *et al*, *Aust. J. Chem.*, 1987, **40**, 1783 (struct, conformn)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 304.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DSF400, DSG000.

4,8-Dimethyl-7-hydroxy-6-nitro-2H-1-benzopyran-2-one, 9CI

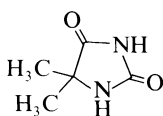
D-00865

7-Hydroxy-4,8-dimethyl-6-nitrocoumarin, 8CI
[10080-43-0] $C_{11}H_9NO_5$ M 235.196Colorimetric reagent for NO_3^- . Mp 226-227°.Moffett, R.B., *J. Med. Chem.*, 1962, **5**, 335.Laby, R.H. *et al.*, *Nature (London)*, 1966, **210**, 298 (*synth, uv*)**5,5-Dimethyl-2,4-imidazolidinedione, 9CI**

D-00866

5,5-Dimethylhydantoin

[77-71-4]

 $C_5H_8N_2O_2$ M 128.130Reagent for amine synth. Prisms (EtOH). Sol. H_2O . Mp 175°. Sublimes.

▷ MU0977000.

3-N-Ac:

 $C_7H_{10}N_2O_3$ M 170.168

Mp 192°.

1,3-N-Di-Ac: [36452-35-4].

 $C_9H_{12}N_2O_4$ M 212.205

Mp 186-187°.

1-N-Me, 3-N-Ac: [22820-92-4]. 3-Acetyl-1,5,5-trimethyl-2,4-imidazolidinedione

 $C_8H_{12}N_2O_3$ M 184.194

Selective acetylating agent for phenolic OH groups. Mp 126-127°.

1,3-N-Dichloro: [118-52-5]. 1,3-Dichloro-5,5-dimethyl-2,4-imidazolidinedione, 9CI. Dichlorohydantoin. Dactin.

Halane

 $C_5H_6Cl_2N_2O_2$ M 197.020Chlorinating agent, disinfectant, used esp. in laundry bleaches. Used as 0.25M soln. in glacial AcOH for potentiometric oxidimetric titration of As(III), Sb(III), Sn(II), Fe(II). Prisms ($CHCl_3$). Sol. H_2O ; mod. sol. AcOH, EtOH. Mp 132°. Liberates HOCl in contact with water.

▷ Irritant, TLV 0.2. Violent explosion with xylene. MU0700000.

1,3-Di-N-iodo: [2232-12-4]. 1,3-Diiodo-5,5-dimethyl-2,4-imidazolidinedione. 1,3-Diiodo-5,5-dimethylhydantoin

 $C_5H_6I_2N_2O_2$ M 379.924

Iodinating agent for aromatic compds. and enol acetates.

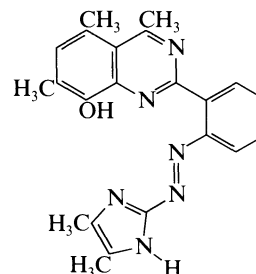
▷ MU0970000.

Slotta, K.H. *et al.*, *Ber.*, 1934, **67**, 1532 (*synth*)Bucherer, H.T. *et al.*, *J. Prakt. Chem.*, 1934, **140**, 291; *CA*, **29**, 127 (*synth*)Okada, T. *et al.*, *CA*, 1957, **51**, 13852 (*synth*)Brederek, H. *et al.*, *Justus Liebigs Ann. Chem.*, 1957, **604**, 178 (*synth*)Kamennov, N.A. *et al.*, *CA*, 1967, **67**, 90725 (*synth*)Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 259; **3**, **4**; **7**, 126.U.S. Pat., 3 752 821, (1973); *CA*, **79**, 92221 (*synth*)Merck Index, 10th Ed., 1983, No. 3049 (*Dactin*)Radhamma, M.P. *et al.*, *Talanta*, 1983, **30**, 49 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DFE200, DSF300.**2-[o-(4,5-Dimethylimidazol-2-yl)azo]phenyl]-4,5,7-trimethyl-8-quinazolinol, 8CI**

D-00867

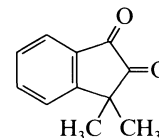
Quinazolinazo

[3818-89-1]

 $C_{22}H_{22}N_6O$ M 386.455Used as 2mM $CHCl_3$ soln. for photometric detn. of Li (ϵ 12800). Dark red cryst. Sol. EtOH, $CHCl_3$, Me_2CO , DMF; insol. H_2O . Mp 175-177° dec.Dziomko, V.M. *et al.*, *Zh. Anal. Khim.*, 1963, **18**, 937 (*synth, detn, Li*)Dziomko, V.M. *et al.*, *CA*, 1964, **67**, 90764n.**3,3-Dimethyl-1,2-indanedione, 8CI**

D-00868

[20651-88-1]

 $C_{11}H_{10}O_2$ M 174.199

Orange cryst. (AcOH). Mp 106-107°.

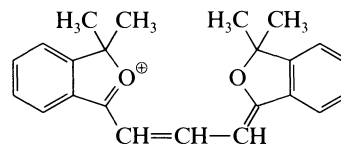
Dioxime: [24273-35-6].

 $C_{11}H_{12}N_2O_2$ M 204.228

Used for pptn. of Au, Cu, Ni, Os, Pd. Cryst. (EtOH aq.). Mp 191-193° dec.

Koelsch, C.F. *et al.*, *J. Org. Chem.*, 1941, **6**, 516 (*synth*)Bark, L.S. *et al.*, *Talanta*, 1969, **16**, 497 (*use*)**3-[3-(3,3-Dimethyl-1(3H)-isobenzofuranylidene)-1-propenyl]-1,1-dimethyl-1H-isobenzofurylium(1+), 9CI**

D-00869

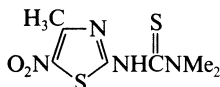
 $C_{23}H_{23}O_2^+$ M 331.433 (ion)

Perchlorate: [101231-86-1].

 $C_{23}H_{23}ClO_6$ M 430.884Used as 0.1mM soln. in aq. Me_2CO for extraction-photometric detn. of Sb(V) (λ_{max} 532 nm). Red cryst. (AcOH). Sol. AcOH, Me_2CO ; sl. sol. H_2O . Mp 275-276°.Shchemeleva, G.G. *et al.*, *Zh. Anal. Khim.*, 1985, **40**, 2169 (*synth, detn, Sb*)

N,N-Dimethyl-N'-(4-methyl-5-nitro-2-thiazolyl)thiourea, 9CI

[83454-12-0]

C₇H₁₀N₄O₂S₂ M 246.314

Used as 1mM MeOH soln. for extraction-photometric detn. of Pd (λ_{\max} 413 nm, ϵ 40400, CHCl₃). Orange needles. Sol. acids, alkalis, CHCl₃, MeOH. Mp 241°. pK_{a1} 5.62 (24°).

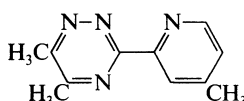
Yoda, R., *Mikrochim. Acta*, 1982, 2, 271 (synth, detn, Pd)

D-00870

Used as a 5mM soln. in aq. DMF for photometric detn. of Co (λ_{\max} 420 nm, ϵ 15000), Os, Pd (λ_{\max} 480 nm, ϵ 16000). Orange-red cryst. Sol. DMF. Mp 220-222°.

Buckle, D.R. *et al*, *J. Med. Chem.*, 1973, 16, 1334 (synth, pharmacol)Alexander, R.G. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1977, 1191 (synth)Lingappa, Y. *et al*, *Talanta*, 1987, 34, 789 (synth, use)**5,6-Dimethyl-3-(4-methyl-2-pyridinyl)-1,2,4-triazine, 9CI**

[30091-56-6]

C₁₁H₁₂N₄ M 200.243

Used as a 5mM soln. in EtOH aq. for photometric detn. of Cu(I) (λ_{\max} 454 nm, ϵ 7400), Fe(II) (λ_{\max} 527 nm, ϵ 15300). Cryst. (C₆H₆). Sol. common org. solvs. Mp 147-148°.

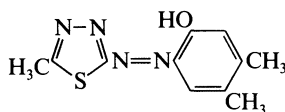
Case, F.H., *J. Heterocycl. Chem.*, 1970, 7, 1001 (synth)Schilt, A.A. *et al*, *Talanta*, 1974, 21, 831 (detn, Cu, Fe)

D-00871

4,5-Dimethyl-2-[(5-methyl-1,3,4-thiadiazol-2-yl)azo]phenol, 9CI

2-(2-Hydroxy-4,5-dimethylphenylazo)-5-methyl-1,3,4-thiadiazole

[85638-82-0]

C₁₁H₁₂N₄OS M 248.308

Used as 0.01% soln. in EtOH for photometric detn. of Ni (λ_{\max} 625 nm, ϵ 19800). Red-orange needles (EtOH). V. sol. CHCl₃; mod. sol. MeOH, EtOH; spar. sol. H₂O. Mp 176-178°. pK_{a1} 7.88 (μ = 0.05, 25°).

Cacho, J. *et al*, *Collect. Czech. Chem. Commun.*, 1983, 48, 471 (synth, ir, nmr, detn, Ni)

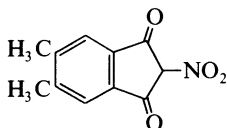
D-00872

5,6-Dimethyl-2-nitro-1,3-indanedione

5,6-Dimethyl-2-nitro-1H-indene-1,3(2H)-dione, 9CI.

Nivimedone, BAN, INN

[49561-92-4]

C₁₁H₉NO₄ M 219.196

Antiallergic drug. Mp 113-114°.

Na salt: [57441-90-4]. Nivimedone sodium, USAN. BRL 10833

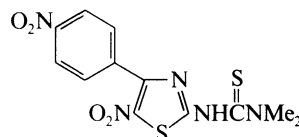
Bis(thiosemicarbazone): [111313-20-3].

C₁₃H₁₅N₇O₂S₂ M 365.439

D-00873

N,N-Dimethyl-N'-[5-nitro-4-(4-nitrophenyl)-2-thiazolyl]thiourea

[86107-99-5]

C₁₂H₁₁N₅O₄S₂ M 353.382

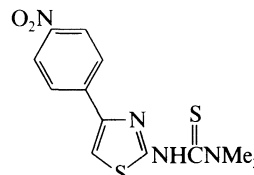
Used as a 2mM soln. in Me₂CO for extraction-photometric detn. of Pd (λ_{\max} 430 nm, ϵ 27900, CHCl₃). Orange needles (DMSO aq., Me₂CO aq.). Sol. Me₂CO, EtOH; spar. sol. H₂O. Mp 227° (234°).

Yoda, R. *et al*, *Mikrochim. Acta*, 1983, 2, 75 (synth, detn, Pd)

D-00874

N,N-Dimethyl-N'-[4-(4-nitrophenyl)-2-thiazolyl]thiourea, 9CI

[78833-30-4]

C₁₂H₁₂N₄O₂S₂ M 308.384

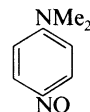
Used as 2mM Me₂CO soln. for extraction-photometric detn. of Pd (λ_{\max} 334 nm, ϵ 27600, CHCl₃). Orange cryst. (Me₂CO aq.). Sol. Me₂CO; insol. MeOH.

Yoda, R. *et al*, *Mikrochim. Acta*, 1983, 2, 75 (synth, detn, Pd)

D-00875

N,N-Dimethyl-4-nitrosoaniline

N,N-Dimethyl-4-nitrosobenzenamine, 9CI. 4-(Dimethylamino)nitrosobenzene. Accelerene [138-89-6]

C₈H₁₀N₂O M 150.180

Dyestuff intermediate, vulcanising accelerator. Reagent used in Kröhnke synthesis of aldehydes from alkyl halides. Used as 0.025% soln. in EtOH for photometric detn. of Pd, Pt, Rh, Ru, Os, Ir. Green plates (Et₂O). Sol. EtOH, Et₂O; sl. sol. H₂O. Mp 92.5-93.5° (85-87°). pK_a 9.71 (25°). Steam-volatile.

▷ Mod. toxic, irritant. Delayed violent reacn. with Ac₂O. BX7175000.

Org. Synth., Coll. Vol., 1, 1932, 214 (synth)

Neber, P.W. *et al*, *Justus Liebig's Ann. Chem.*, 1942, 550, 182 (synth)

Org. Synth., Coll. Vol., 2, 1943, 223 (synth)

Yoe, J.H. *et al*, *Anal. Chem.*, 1954, 26, 1335, 1340 (detn, Pd, Pt)Westland, A.D. *et al*, *Anal. Chem.*, 1955, 27, 1776 (detn, Ir)

Wilson, R.B. *et al.*, *Anal. Chem.*, 1961, **33**, 1652 (*detn.*, *Rh*)
 Faye, G.H., *Anal. Chem.*, 1965, **37**, 696 (*detn.*, *Ru*, *Os*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**,
 746 (*use*)
 Penner, G.H. *et al.*, *Can. J. Chem.*, 1989, **67**, 525 (*cmr*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,
 Royal Society of Chemistry, London, 1981, 304.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, DSY600.

2,8-Dimethyl-4,6-nonanedione, 9CI **D-00877**
Diisovalerylmethane
 [7307-08-6]



$C_{11}H_{20}O_2$ M 184.278
 Used as a soln. in C_6H_6 for extraction separation of
 Cu(II), Fe(III). Sol. common org. solvs. Bp 115-116°.
 Hauser, C.R. *et al.*, *J. Am. Chem. Soc.*, 1944, **66**, 1220 (*synth*)
Org. Synth., 1948, **28**, 44 (*synth*)
 Koshimura, H. *et al.*, *Anal. Chim. Acta*, 1971, **55**, 163 (*sepn.*, *Cu*,
Fe)

1,1-Dimethyl-1-(pentafluorophenyl) **D-00878**
silanamine, 9CI
Aminodimethyl(pentafluorophenyl)silane. Flophemesylamine
 [55804-98-3]



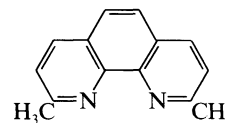
$C_8H_8F_5NSi$ M 241.235
 Silylation reagent for gc-ms anal. of alcohols, acids,
 amines, etc. Oil. Bp₆ 52°.
 Morgan, E.D. *et al.*, *J. Chromatogr.*, 1974, **89**, 225; 1975, **104**, 351
 (*synth.*, *use*)
 Poole, C.F. *et al.*, *Org. Mass Spectrom.*, 1975, **10**, 1164 (*ms*)
 Francis, A.J. *et al.*, *J. Chromatogr.*, 1978, **161**, 111 (*use*)
 Francis, A.J. *et al.*, *Org. Mass Spectrom.*, 1978, **13**, 67 (*use*)

2,4-Dimethyl-3-pentanone, 9CI **D-00879**
Diisopropyl ketone
 [565-80-0]



$C_7H_{14}O$ M 114.187
 Isol. from lavender oil (*Lavendula officinalis* hybrid). Liq.
 d_4^{20} 0.811. Bp 124-125°. n_D^{20} 1.4001.
Oxime: [1113-74-2].
 $C_7H_{15}NO$ M 129.202
 Used for extraction-photometric detn. of Pd. Needles
 (EtOH). Sol. alcohols. Mp 34°. Bp 181-185°.
Semicarbazone: Mp 160°.
2,4-Dinitrophenylhydrazone: Mp 94-98°.
 Pfeiffer, G.J. *et al.*, *J. Am. Chem. Soc.*, 1931, **53**, 1047 (*synth*)
 Bruzav, Mme., *Ann. Chim. (Paris)*, 1934, **1**, 266 (*synth*)
 Hauser, C.R. *et al.*, *J. Am. Chem. Soc.*, 1937, **59**, 1826 (*synth*)
 Stadler, P.A., *Helv. Chim. Acta*, 1960, **43**, 1601 (*isol*)
 Dunn, P.J. *et al.*, *Mikrochim. Acta*, 1975, **2**, 129 (*oxime*, *detn.*, *Pd*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, DTI600.

2,9-Dimethyl-1,10-phenanthroline **D-00880**
Neocuproine
 [484-11-7]



$C_{14}H_{12}N_2$ M 208.262
 Used as a diagnostic aid in blood sugar determinations.
 Used as 0.02-0.1% soln. in EtOH for extraction-
 photometric detn. of Cu(I) (λ_{max} 545 nm, ϵ 7900, pH 5-
 10 isopentanol), indirect detn. of S^{2-} , I^- . Cryst. +
 $\frac{1}{2}H_2O$. Sol. EtOH. Mp 165° (158-160°). pK_a 6.17.
N-Oxide: [118896-77-8].
 $C_{14}H_{12}N_2O$ M 224.262
 Yellow cryst. + $2H_2O$. Mp 131-132° dec.
 Smith, G.F. *et al.*, *Anal. Chem.*, 1952, **24**, 371 (*synth.*, *detn.*, *Cu*)
 Gahler, A.R., *Anal. Chem.*, 1954, **26**, 577 (*detn.*, *Cu*)
 O'Reilly, E.J. *et al.*, *Aust. J. Chem.*, 1960, **13**, 145.
 Madija, K., *J. Prakt. Chem.*, 1962, **17**, 97 (*synth*)
 Lindsey, J.W. *et al.*, *Talanta*, 1969, **16**, 414 (*detn.*, *Cu*)
 Yamamoto, Y. *et al.*, *Anal. Chim. Acta*, 1974, **69**, 321 (*detn.*, I^-)
 Bhat, S.R. *et al.*, *Anal. Chim. Acta*, 1979, **108**, 293; 1981, **128**, 263
 (*detn.*, S^{2-})
 Rollick, K.L. *et al.*, *J. Org. Chem.*, 1982, **47**, 435 (*pmr*, *cmr*)
 Newkome, G.R. *et al.*, *J. Org. Chem.*, 1989, **54**, 1766 (*oxide*)
 Britton, D. *et al.*, *Acta Crystallogr., Sect. C*, 1991, **47**, 1100 (*cryst*
struct)

3,8-Dimethyl-1,10-phenanthroline **D-00881**
 [3002-80-0]

$C_{14}H_{12}N_2$ M 208.262
 Used for photometric detn. of Fe(II), Cu(I), Co, Ni. Mp
 212°. pK_a 5.23.
 Case, F.H., *J. Am. Chem. Soc.*, 1948, **70**, 3994 (*synth*)
 Carman, R.M. *et al.*, *Aust. J. Chem.*, 1964, **17**, 1354 (*pmr*)
 Schilt, A., *Analytical Applications of 1,10-Phenanthroline and*
Related Compounds, Pergamon, Oxford, 1969 (*use*)

4,7-Dimethyl-1,10-phenanthroline, 9CI **D-00882**
 [3248-05-3]

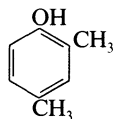
$C_{14}H_{12}N_2$ M 208.262
 Used for photometric detn. of Fe(II), Cu(I), Co, Ni. Mp
 194-195°.
 Case, F.H., *J. Am. Chem. Soc.*, 1948, **70**, 3994 (*synth*)
 Madija, K., *J. Prakt. Chem.*, 1962, **17**, 97 (*synth*)
 Schilt, A., *Analytical Applications of 1,10-Phenanthroline and*
Related Compounds, Pergamon, Oxford, 1969 (*detn.*, *Co*, *Cu*, *Fe*,
Ni)
 Homada, Y., *Chem. Pharm. Bull.*, 1979, **27**, 1535 (*synth*)

5,6-Dimethyl-1,10-phenanthroline, 9CI **D-00883**
 [3002-81-1]

$C_{14}H_{12}N_2$ M 208.262
 Used for photometric detn. of Fe(II), Cu(I), Co, Ni. Mp
 265-266°.
 Case, F.H., *J. Am. Chem. Soc.*, 1948, **70**, 3994 (*synth*)
 Schilt, A., *Analytical Applications of 1,10-Phenanthroline and*
Related Compounds, Pergamon, Oxford, 1969 (*detn.*, *Fe*, *Cu*, *Co*,
Ni)
 Marker, A. *et al.*, *Aust. J. Chem.*, 1978, **31**, 1255 (*cmr*)

2,4-Dimethylphenol

m-4-Xylenol. 4-Hydroxy-m-xylene
[105-67-9]



$C_8H_{10}O$ M 122.166

Used as 2.5% Me_2CO soln. for photometric detn. of NO_3^\ominus (λ_{max} 455 nm). Needles (EtOH aq. or C_6H_6). Sol. Me_2CO , EtOH; mod. sol. H_2O . Mp 27-28°. Bp₁₄ 97-98°. pK_{a1} 10.60 (25°).

▷ Exp. carcinogen. ZE5600000.

Ac: [877-53-2].

$C_{10}H_{12}O_2$ M 164.204

Oil. Bp₁₃ 107.5-108.5°.

Benzoyl: [76048-43-6].

$C_{15}H_{14}O_2$ M 226.274

Cryst. (AcOH). Mp 37-38°. Bp₁₅ 110.5-111°.

Me ether: [6738-23-4]. 1-Methoxy-2,4-dimethylbenzene. 2,4-Dimethylanisole

$C_9H_{12}O$ M 136.193

Mp 192°.

Et ether: [35338-30-8]. 1-Ethoxy-2,4-dimethylbenzene. 2,4-Dimethylphenetole

$C_{10}H_{14}O$ M 150.220

Oil. Bp 202-203°.

Lambooy, J.P. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 5327 (synth)

Wessely, F. *et al*, *Monatsh. Chem.*, 1963, **94**, 227 (synth)

Norwitz, G. *et al*, *Anal. Chim. Acta*, 1977, **89**, 177; 1978, **98**, 323; 1979, **105**, 335; **109**, 373 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, XKJ500.

2,6-Dimethylphenol, 9CI

D-00885

2,6-Xylenol, 8CI. m-2-Xylenol. 2-Hydroxy-m-xylene. 1,3,2-Xylenol

[576-26-1]

$C_8H_{10}O$ M 122.166

Isol. from a Siberian conifer. Used as 0.1% soln. in glac.

AcOH for extraction-photometric detn. of NO_3^\ominus (λ_{max} 432 nm, ϵ 7900, toluene). Leaflets or flat needles. Sol. EtOH, AcOH; mod. sol. H_2O . Mp 49°. Bp 203°. pK_{a1} 10.62 (25°).

▷ Exp. carcinogen. ZE6125000.

4-Nitrobenzoyl: Cryst. Mp 99°.

Me ether: [1004-66-6]. 2-Methoxy-1,3-dimethylbenzene. 2,6-Dimethylanisole

$C_9H_{12}O$ M 136.193

Liq. Bp 182-183°.

Et ether: [26620-08-6]. 2-Ethoxy-1,3-dimethylbenzene. 2,6-Dimethylphenetole

$C_{10}H_{14}O$ M 150.220

Liq. Bp 195.5-196.5°.

Cox, R. *et al*, *J. Org. Chem.*, 1960, **25**, 1083 (synth)

Hartley, A.M. *et al*, *Anal. Chem.*, 1963, **35**, 1207 (use)

Andrews, D.W., *Analyst (London)*, 1964, **89**, 730 (use)

Antona, D. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 1372 (cryst struct)

Gornostaeva, L.I., *CA*, 1978, **88**, 117789 (isol)

Minami, N. *et al*, *Chem. Pharm. Bull.*, 1979, **27**, 816 (synth)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, XLA000.

3,4-Dimethylphenol, 9CI

D-00886

3,4-Xylenol, 8CI. 4-Hydroxy-o-xylene. 1,2,4-Xylenol. asym-o-Xylenol

[95-65-8]

$C_8H_{10}O$ M 122.166

Used as 2 or 5% soln. in EtOH for photometric detn. of NO_3^\ominus . Cryst. (H_2O). Sol. EtOH; mod. sol. H_2O . Mp 62-64°. Bp 227°. pK_{a1} 10.36 (25°).

▷ Exp. carcinogen. ZE6300000.

Ac:

$C_{10}H_{12}O_2$ M 164.204

Bp₈₀ 140°.

4-Nitrobenzoyl: Cryst. Mp 128°.

Me ether: [4685-47-6]. 4-Methoxy-1,2-dimethylbenzene. 3,4-Dimethylanisole

$C_9H_{12}O$ M 136.193

Mp 204-205°.

Et ether: 4-Ethoxy-1,2-dimethylbenzene, 9CI. 3,4-Dimethylphenetole

$C_{10}H_{14}O$ M 150.220

Oil. Bp 218°.

[22618-23-1]

Vitullo, V.P. *et al*, *J. Org. Chem.*, 1970, **35**, 3976 (synth)

Vandenborre, M.T. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 2488 (cryst struct)

Marx, J.N. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 2121 (synth, nmr)

Elton-Bott, R.R., *Anal. Chim. Acta*, 1977, **90**, 215 (use)

Osibanjo, O. *et al*, *Analyst (London)*, 1980, **105**, 908 (use)

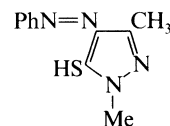
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, XLJ000.

1,3-Dimethyl-4-(phenylazo)-1H-pyrazole-5-thiol

D-00887

1,3-Dimethyl-5-mercapto-4-phenylazopyrazole. Methylazothiopyrine

[78431-23-9]



$C_{11}H_{12}N_4S$ M 232.309

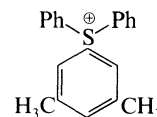
Used as 0.1% soln. in MeOH for extraction-photometric detn. of Ni, Co, (alkaline media), Ag, Cu, Hg, Pd (acidic media). Reddish needles (pet. ether). Insol. H_2O ; sol. C_6H_6 , pet. ether, alkalis.

Tanaka, T. *et al*, *Chem. Pharm. Bull.*, 1981, **29**, 445 (use)

(3,5-Dimethylphenyl)diphenylsulfonium(1+)

D-00888

m-Xylyldiphenylsulfonium(1+)



$C_{20}H_{19}S^\oplus$ M 291.436 (ion)

Chloride:

$C_{20}H_{19}ClS$ M 326.889

Used as a 5% aq. soln. for detn. of Bi, Co. Cryst.

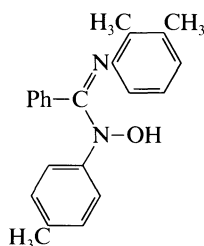
Courtot, C. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1933, **197**, 1227 (synth)

Potratz, A.H. *et al*, *Anal. Chem.*, 1949, **21**, 1276 (detn, Bi, Co)

N'-(2,3-Dimethylphenyl)-N-hydroxy-N-(4-methylphenyl)benzamidine **D-00889**

N'-(2,3-Dimethylphenyl)-N-hydroxy-N-(4-methylphenyl)benzenecarboximidamide, 9CI. N'-(2,3-Dimethylphenyl)-N-hydroxy-N-p-tolylbenzamidine

[85224-08-4]



$C_{22}H_{22}N_2O$ M 330.429

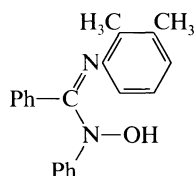
Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 595 nm, ϵ 5150, in the presence of azide), Fe(III). Cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 , CCl_4 .

Deb, K.K. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (*synth*)
 Jha, A.R. *et al.*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (*detn.*, Fe, V)
 Jha, A.R. *et al.*, *J. Indian Chem. Soc.*, 1982, **59**, 1177 (*synth.*, *detn.*, V)

N'-(2,3-Dimethylphenyl)-N-hydroxy-N-phenylbenzamidine **D-00890**

N'-(2,3-Dimethylphenyl)-N-hydroxy-N-phenylbenzenecarboximidamide, 9CI

[85224-07-3]



$C_{21}H_{20}N_2O$ M 316.402

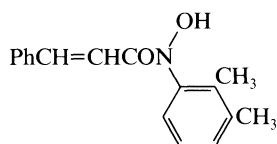
Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 590 nm ϵ 5050, in the presence of azide), Fe(III). Cryst. (C_6H_6 /pet. ether). Sol. $CHCl_3$, C_6H_6 , CCl_4 .

Deb, K.K. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 178 (*synth*)
 Jha, A.R. *et al.*, *Analyst (London)*, 1981, **106**, 1150; 1983, **108**, 1135 (*detn.*, Fe, V)
 Jha, A.R. *et al.*, *J. Indian Chem. Soc.*, 1982, **59**, 1179 (*synth.*, *detn.*, V)

N-(2,3-Dimethylphenyl)-N-hydroxy-3-phenylpropenamide, 9CI **D-00891**

N-Cinnamoyl-N-(2,3-xyllyl)hydroxylamine

[69891-38-9]



$C_{17}H_{17}NO_2$ M 267.327

Used in extraction-photometric detn. of V (λ_{max} 535 nm, ϵ 6600) (from 4-9M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

Ishizaki, M. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1980, **29**, 135

(*detn.*, V)

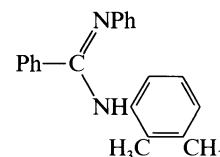
Yamashige, T. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1980, **29**, 537

(*detn.*, V)

N-(2,3-Dimethylphenyl)-N'-phenylbenzenecarboximidamide, 9CI **D-00892**

N-(2,3-Dimethylphenyl)-N'-phenylbenzamidine

[116489-14-6]



$C_{21}H_{20}N_2$ M 300.402

Used as 0.3% C_6H_6 soln. (10% 1-pentanol) for extraction-photometric detn. of W(V) (λ_{max} 405 nm, ϵ 12100, presence of SCN^{\ominus}). Cryst. Sol. C_6H_6 , toluene.

Shukla, A. *et al.*, *Anal. Chim. Acta*, 1988, **208**, 91 (*synth.*, *detn.*, W)

N-(2,6-Dimethylphenyl)-N'-phenylbenzenecarboximidamide, 9CI **D-00893**

N-(2,6-Dimethylphenyl)-N'-phenylbenzamidine

[79458-84-7]

$C_{21}H_{20}N_2$ M 300.402

Used as 0.1% soln. in C_6H_6 for extraction-photometric detn. of Mo (λ_{max} 470 nm, ϵ 18500; 2.5-5M HCl, in the presence of SCN^{\ominus}). Cryst. (EtOH acidified with HCl). Sol. EtOH, C_6H_6 , $CHCl_3$.

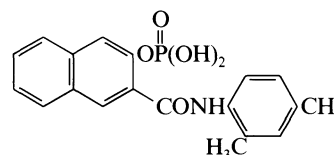
Patel, K.S. *et al.*, *Anal. Chem.*, 1982, **54**, 52 (*synth.*, *detn.*, Mo)

N-(2,4-Dimethylphenyl)-3-(phosphonooxy)-2-naphthalenecarboxamide, 9CI **D-00894**

Naphthol AS-MX phosphoric acid. 3-Hydroxy-2-naphtho-

2',4'-xylylide dihydrogen phosphate, 8CI

[1596-56-1]



$C_{19}H_{18}NO_5P$ M 371.329

Substrate for the histochemical demonstration of acid and alkaline phosphatase. Cryst. V. sol. EtOH, hot H_2O .

[36889-52-8]

Burstone, M.S., *J. Natl. Cancer Inst.*, 1958, **20**, 601 (*synth*)

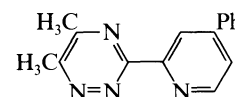
Guibault, G.G. *et al.*, *Anal. Chem.*, 1971, **43**, 721 (*use*)

Inglis, N.R. *et al.*, *Clin. Chim. Acta*, 1971, **33**, 287 (*use*)

Fritsche, H.A. *et al.*, *Clin. Chem. (Winston-Salem, N.C.)*, 1972, **18**, 417 (*use*)

5,6-Dimethyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, 9CI **D-00895**

[30091-57-7]



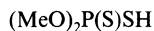
$C_{16}H_{14}N_4$ M 262.313

Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 460 nm, ϵ 6400), Fe(II) (λ_{\max} 533 nm, ϵ 19900). Cryst. (C₆H₆/pet. ether). Sol. common org. solvs. Mp 112-113°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, 7, 1001 (synth)
Schilt, A.A. et al, *Talanta*, 1974, 21, 831 (detn, Cu, Fe)

O,O-Dimethyl phosphorodithioate, 9CI, 8CI D-00896

O,O-Dimethyl dithiophosphate. O,O-Dimethyl dithiophosphoric acid
[756-80-9]



C₂H₇O₂PS₂ M 158.182

Used as soln. in nonpolar solvs. for extraction separation of Ni, Zn, Cd, Pb, In, Tl(I). Liq. d₄²⁰ 1.29. Bp₄ 56-57°, Bp_{0.15} 34-35°. pK_a 2.64 (80% EtOH). n_D²⁵ 1.5328.

▷ TE0525000.

NH₄ salt: [1066-97-3].

Cryst. Mp 145-146° dec.

K salt: Cryst. Mp 171-172° dec.

Pishchumika, P.S., *Zh. Russ. Fiz. Khim. Ova.*, *Chast Khim.*, 1912, 44, 1406 (synth)

McIvor, R.A. et al, *Can. J. Chem.*, 1956, 34, 1819 (synth)

Kabachnik, M.I. et al, *Tetrahedron*, 1960, 9, 10 (synth)

Zemlyanskii, N.I. et al, *Zh. Obshch. Khim.*, (Engl. transl. p. 4018), 1961, 30, 4056 (raman)

Nyquist, R.A. et al, *Spectrochim. Acta, Part A*, 1969, 25, 47 (ir)

Wolfe, N.L. et al, *J. Agric. Food Chem.*, 1975, 23, 1212 (cmr)

Olah, G.A. et al, *J. Org. Chem.*, 1975, 40, 2582 (props, pmr, P nmr)

Paasivirta, J. et al, *Org. Magn. Reson.*, 1977, 9, 708 (pmr, cmr, P nmr)

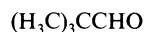
Lefferts, J.L. et al, *Inorg. Chem.*, 1980, 19, 1662 (synth, complexes)

Toropova, V.F. et al, *Talanta*, 1987, 34, 211 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PHH500.

2,2-Dimethylpropanal D-00897

Pivalic aldehyde. Trimethylacetaldehyde
[630-19-3]



C₅H₁₀O M 86.133

Constit. of wood spirit. Reagent for derivatisation of amino compds. for gc anal. Liq. d¹⁷ 0.792. Mp 6°. Bp 77-78°. n_D²⁰ 1.3791.

Oxime: [637-91-2].

C₅H₁₁NO M 101.148

Mp 41°. Bp₂₀ 65°.

Semicarbazone: Mp 191°.

2,4-Dinitrophenylhydrazone: Cryst. (EtOH). Mp 210°.

Dunbar, R.E. et al, *J. Am. Chem. Soc.*, 1934, 56, 444 (synth)

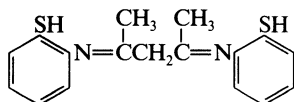
Angyal, S.T. et al, *J. Chem. Soc.*, 1955, 1737 (synth)

Jellum, E. et al, *Anal. Biochem.*, 1969, 31, 227, 339 (use)

Org. Synth., 1971, 51, 11, 31 (synth)

2,2'-[(1,3-Dimethyl-1,3-propanediylidene) dinitrilo]bisbenzenethiol, 9CI D-00898

2,4-Pentanedione bis(2-mercaptophenyl)anil. Acetylacetone bis(2-mercaptophenyl)anil
[59862-11-2]



C₁₇H₁₈N₂S₂ M 314.475

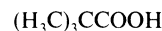
Used as a 0.1% soln. in EtOH for photometric detn. of Os (λ_{\max} 480 nm, ϵ 7300); Pd (λ_{\max} 510 nm, ϵ 5900, pH 1-3). Orange cryst. (C₆H₆). Sol. EtOH, Me₂CO, C₆H₆, alkalis. Py. Mp 184°.

Bag, S.P. et al, *J. Indian Chem. Soc.*, 1978, 55, 615.

Chatterjee, A.B. et al, *Mikrochim. Acta*, 1983, 1, 115 (synth, detn, Pd)

2,2-Dimethylpropanoic acid, 9CI D-00899

Pivalic acid, 8CI. Trimethylacetic acid
[75-98-9]



C₅H₁₀O₂ M 102.133

Mp 35.3-35.5°. Bp 163.7-163.8°, Bp₂₀ 75-78°. pK_{a1} 5.04 (25°).

▷ TO7700000.

Me ester: [598-98-1].

C₆H₁₂O₂ M 116.160

Bp 100-102°.

Chloride: [3282-30-2]. Pivaloyl chloride

C₅H₉ClO M 120.578

Reagent for mixed anhydride peptide synth. Reagent for peptide N-terminal amino acid anal. Bp 105-106°.

▷ AO7200000.

Amide: [754-10-9].

C₅H₁₁NO M 101.148

Needles or plates. Mp 178°. Bp 212°.

Nitrile: [630-18-2]. 2-Cyano-2-methylpropane. Pivalonitrile.

Trimethylacetone nitrile

C₅H₉N M 83.133

Cryst. Mp 15-16°. Bp 105-106°.

Anhydride: [1538-75-6]. Pivalic anhydride

C₁₀H₁₈O₃ M 186.250

Derivatisation reagent used in gc anal. of thyroid hormones. Bp₉₃ 124°, Bp₁₂ 78°. n_D²⁰ 1.4089.

Org. Synth., 1928, 8, 104, 108 (synth)

Hardy, D.V.N., *J. Chem. Soc.*, 1936, 364 (synth)

Ansell, M.F. et al, *J. Chem. Soc.*, 1955, 2705 (synth, anhydride)

Lohaus, G., *Chem. Ber.*, 1967, 100, 2719 (deriv)

Jaakonmaeki, P.I. et al, *J. Gas Chromatogr.*, 1967, 5, 303 (use, anhydride)

Stouffer, J.E. et al, *J. Chromatogr. Sci.*, 1969, 7, 124 (use, anhydride)

Volpert, E.M. et al, *J. Chromatogr.*, 1970, 50, 507 (use, anhydride)

Prota, G. et al, *Biochimie*, 1971, 53, 51 (use, chloride)

Cavadore, J.C. et al, *Anal. Biochem.*, 1974, 60, 608 (use, chloride)

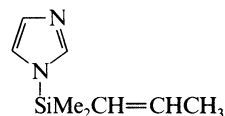
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, 8, 404.

Screttas, C.G. et al, *J. Org. Chem.*, 1989, 54, 1013 (synth)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DTS400, PJA500, PJA750.

1-(Dimethyl-2-propenylsilyl)-1H-imidazole, 9CI D-00900

N-(Allyldimethylsilyl)imidazole. Allyl-1-imidazolyl dimethylsilane
[65535-30-0]



C₈H₁₄N₂Si M 166.297

Silylation reagent for gc-ms anal. of steroids. Bp_{0.7} 88-92°.

Phillipou, G., *J. Chromatogr.*, 1976, 129, 384 (use)

Blair, I.A. et al, *J. Chromatogr. Sci.*, 1977, 15, 478 (synth, pmr)

N-(Dimethyl-2-propenylsilyl)-2,2,2-trifluoro-N-methylacetamide, 9CI

D-00901

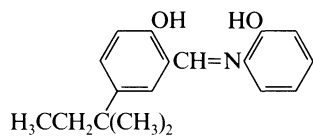
N-Methylallyldimethylsilyltrifluoroacetamide
[126264-67-3]C₈H₁₄F₃NOSi M 225.285Silylation reagent for prostaglandins and steroids. Liq.
Bp₃₂ 73-78°.Steffenrud, S. *et al*, *J. Chromatogr. Sci.*, 1989, **27**, 545 (*synth*, *pmr*, *use*)C₆H₉ClN₂ M 144.603

Useful intermed. for N-subst. pyrazoles. Hygroscopic solid (as hydrochloride).

Org. Synth., Coll. Vol., 4, 1963, 351.Rossi, S. *et al*, *Gazz. Chim. Ital.*, 1964, **94**, 210 (*synth*)Janik, B. *et al*, *Mikrochim. Acta*, 1965, 1142 (*detn*, *Cu*)Elguero, J. *et al*, *Bull. Soc. Chim. Fr.*, 1966, 3727 (*nmr*)Zecchina, A. *et al*, *J. Chem. Soc.*, 1967, 1363 (*ir*)Nishiwaki, T., *J. Chem. Soc. B*, 1967, 885 (*ms*)Elguero, J. *et al*, *J. Org. Chem.*, 1974, **39**, 357 (*cmr*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1975, **5**, 142.Faure, R. *et al*, *Can. J. Chem.*, 1988, **66**, 1141 (*cmr*)Katritzky, A.R. *et al*, *Can. J. Chem.*, 1989, **67**, 1144 (*N*-chloromethyl)**N-[5-(1,1-Dimethylpropyl)-2-hydroxyphenyl]-2-hydroxyaniline**

D-00902

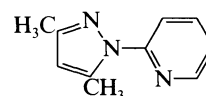
5-(1,1-Dimethylpropyl)-2-hydroxybenzaldehyde 2-hydroxyanil. 2-[N-(2-Hydroxyphenyl)formimidoyl]-4-tert-pentylphenol

C₁₈H₂₁NO₂ M 283.369

Used as 1mM soln. in EtOH for fluorimetric detn. of Al.

Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 144.0-144.5°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth*, *use*)**2-(3,5-Dimethyl-1H-pyrazol-1-yl)pyridine**

D-00905

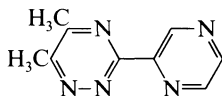
N-(2-Pyridinyl)-3,5-dimethylpyrazole
[21018-71-3]C₁₀H₁₁N₃ M 173.217Bidentate ligand; extraction agent for Cd(II), Hg(II) and Pb(II). Light yellow oil. Bp_{0.4} 74°.

B,HCl: Mp 140-144°.

Saha, N. *et al*, *J. Inorg. Nucl. Chem.*, 1977, **39**, 1236 (*synth*)Baker, A.T. *et al*, *Aust. J. Chem.*, 1989, **42**, 623 (*bibl*)**5,6-Dimethyl-3-pyrazinyl-1,2,4-triazine, 9CI**

D-00903

[31696-88-5]

C₉H₉N₅ M 187.204

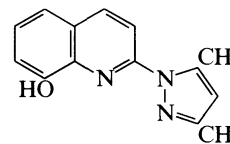
Used as 5mM soln. in aq. EtOH for photometric detn. of

Fe(II) (λ_{max} 521 nm, ε 14100). Cryst. (C₆H₆/pet. ether).

Sol. common org. solvs. Mp 110-111°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*use*)**2-(3,5-Dimethyl-1-pyrazolyl)-8-quinolinol, 9CI**

D-00906

1-(8-Hydroxy-2-quinolyl)-3,5-dimethylpyrazole
[18239-59-3]C₁₄H₁₃N₃O M 239.276Used as 0.01% soln. in Me₂CO for fluorimetric detn. of

Cd in the presence of Zn (in alkaline medium); as

0.01% EtOH soln. for luminescent detn. of Cu. Needles

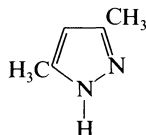
(EtOH). Sol. alkalis, EtOH, Me₂CO, CHCl₃; insol. H₂O.

Mp 133-134°.

Bozhevolnov, E.A. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 1722 (*synth*, *detn*, *Cd*)**3,5-Dimethyl-1H-pyrazole, 9CI**

D-00904

[67-51-6]

C₅H₈N₂ M 96.132Used in photometric detn. of Cu (with use of SCN[⊖]).Forms CrO₃ complex used for oxidn. of alcohols. Cryst.(pet. ether). Sol. H₂O. Mp 106-107°. Bp 218°. Steam-

volatile.

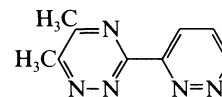
Picrate: Mp 166-167°.*N-Ac*:C₇H₁₀N₂O M 138.169Cryst. (EtOH aq.). Mp 38°. Bp₄₀ 88-90°.*N-Benzoyl*:C₁₂H₁₂N₂O M 200.240

Needles (EtOH). Mp 48-49°.

1-Chloromethyl: 1-Chloromethyl-3,5-dimethylpyrazole**5,6-Dimethyl-3-(3-pyridazinyl)-1,2,4-triazine, 9CI**

D-00907

[31696-89-6]

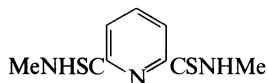
C₉H₉N₅ M 187.204

Used as 5mM soln. in aq. EtOH for photometric detn. of

Co(I) (λ_{max} 455 nm, ε 9300), Fe(II) (λ_{max} 512 nm, ε15300). Cryst. (C₆H₆). Sol. common org. solvs. Mp 150°.Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*use*)

N,N'-Dimethyl-2,6-**pyridinedicarbothioamide, 9CI**

N,N'-Dimethylthiolutidinamide. Thiolutidinic acid N,N'-dimethylamide
[39237-53-1]



C₉H₁₁N₃S₂ M 225.338

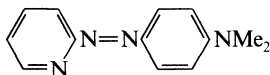
Used as a 0.1% soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 588 nm, ϵ 17200); complexing agent for Cu, Fe, Ni. Yellowish needles (EtOH aq.). Sol. EtOH, Me₂CO; spar. sol. H₂O. Mp 168-169°.

Gagliardi, E. *et al*, *Monatsh. Chem.*, 1972, **103**, 1337; 1981, **112**, 537 (*synth, cryst struct, ir, raman*)

Gagliardi, E. *et al*, *Mikrochim. Acta*, 1973, 763 (*synth, detn, Fe*)

N,N'-Dimethyl-4-(2-pyridinylazo)**benzenamine, 9CI**

2-[p-(Dimethylamino)phenylazo]pyridine, 8CI. PAMA. PADA
[13103-75-8]



C₁₃H₁₄N₄ M 226.280

Used for the qualitative and quantitative detn. of -SH groups; for titrimetric detn. of Cu (pH $\frac{1}{2}$ 5.8, colour change: pink \rightarrow orange); as a metallochromic indicator in titrimetric detn. of Co, Cu, Hg, Ni. Red needles (pet. ether). Sol. dil. acids, C₆H₆. Mp 108-109°, Mp 111-112°. pK_{a7} 2.0; pK_{a2} 4.5.

[77038-70-1]

Faessinger, R.W. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 4606 (*synth*)

Klotz, J.M. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 4159 (*detn, Co, Cu, Hg, Ni*)

Klotz, I.M. *et al*, *Arch. Biochem. Biophys.*, 1961, **95**, 540 (*use*)

Anderson, R.G. *et al*, *Analyst (London)*, 1967, **92**, 207 (*rev*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 291.

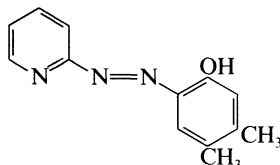
Grant, M.W. *et al*, *J. Chem. Soc., Faraday Trans. 1*, 1976, **72**, 1362 (*detn, Ni*)

Holloway, C.E. *et al*, *Inorg. Chim. Acta*, 1985, **98**, 131 (*pmr*)

4,5-Dimethyl-2-(2-pyridinylazo)phenol, 9CI

D-00910

2-(2-Hydroxy-4,5-dimethylphenylazo)pyridine
[31867-73-9]



C₁₃H₁₃N₃O M 227.265

Used as a 3mM soln. in EtOH for extraction-photometric detn. of Co (λ_{\max} 640 nm, ϵ 13000, CHCl₃), Ga, Sb, Sn (λ_{\max} 590 nm, ϵ 10000), V(V) (λ_{\max} 630 nm, ϵ 7000, CHCl₃). Orange-red cryst. Sol. alkalis; mod. sol. EtOH, Me₂CO.

Rakhmatullaev, K. *et al*, *Uzb. Khim. Zh.*, 1970, **14**, 25 (*detn, Co, Ga, Sb*)

Rakhmatullaev, K. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 2402 (*detn, Sb, Sn*)

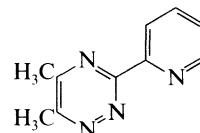
Rakhmatullaev, K. *et al*, *CA*, 1976, **84**, 38261h (*detn, Co, Sb*)

D-00908

5,6-Dimethyl-3-(2-pyridinyl)-1,2,4-triazine, 9CI

D-00911

[30091-54-4]



C₁₀H₁₀N₄ M 186.216

Used as 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 450 nm, ϵ 7400), Fe(II) (λ_{\max} 525 nm, ϵ 14500). Cryst. (C₆H₆). Sol. common org. solvs. Mp 92-93°.

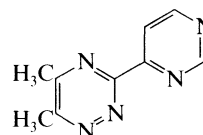
Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn, Cu, Fe*)

5,6-Dimethyl-3-(4-pyrimidinyl)-1,2,4-triazine, 9CI

D-00912

[31696-90-9]



C₉H₉N₅ M 187.204

Used as 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 530 nm, ϵ 9900). Cryst. (C₆H₆/pet. ether). Sol. common org. solvs. Mp 116-117°.

Case, F.H., *J. Heterocycl. Chem.*, 1971, **8**, 173 (*synth*)

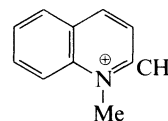
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn, Fe*)

1,2-Dimethylquinolinium(1+), 9CI

D-00913

1-Methylquinaldinium(1+), 8CI

[18241-36-6]



C₁₁H₁₂N⁺ M 158.222 (ion)

Chloride:

C₁₁H₁₂ClN M 193.675

Needles (CHCl₃/Et₂O). Mp 148-149°.

Iodide: [876-87-9].

C₁₁H₁₂IN M 285.127

Yellow needles (EtOH). Sol. H₂O, insol. EtOH. Mp 195°.

▷ VC3651000.

4-Methylbenzenesulfonate: [42952-26-1].

Reagent for the detn. of formic acid. Cryst.

(EtOH/EtOAc). Mp 161°.

Perchlorate: Prisms. Mp 152-154°.

Marvel, C.S. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 3638 (*synth, tosylate*)

Adams, J.B. *et al*, *Aust. J. Chem.*, 1955, **8**, 392 (*synth, chloride, iodide*)

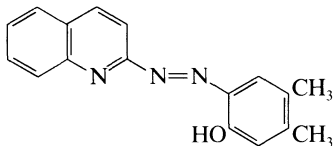
Bonthrone, W. *et al*, *J. Chem. Soc.*, 1959, 2773 (*synth, perchlorate*)

Sawicki, E. *et al*, *CA*, 1963, **59**, 10767c (*use*)

Salsmans, R. *et al*, *Org. Mass Spectrom.*, 1974, **8**, 357 (*ms*)

Jaroszewska, J. *et al*, *Org. Magn. Reson.*, 1984, **22**, 323 (*pmr, cmr*)

4,5-Dimethyl-2-(2-quinolinylazo)phenol, 9CI **D-00914**
2-(2-Hydroxy-4,5-dimethylphenylazo)quinoline
[29284-60-4]



$C_{17}H_{15}N_3O$ M 277.325
Used as 0.024% $CHCl_3$ soln. for extraction-photometric detn. of Sb(V), λ_{max} 630 nm ($CHCl_3$), Sn(IV), Tl(III) (λ_{max} 615 nm, $CHCl_3$, pH 3.5). Brown-orange cryst. Sol. EtOH, MeOH, $CHCl_3$, Me_2CO ; insol. H_2O . Mp 110°.

Rakhmatullaev, K. *et al.*, *Zh. Anal. Khim.*, 1970, **25**, 914, 1132; 1974, **29**, 1020, 2402 (*synth, detn, Sb, Tl, Sn*)

N-(Dimethylsilyl)-1,1-dimethylsilanamine, 9CI **D-00915**
1,1,3,3-Tetramethyldisilazane, 8CI. Bis(dimethylsilyl)amine
[15933-59-2]



$C_4H_{15}NSi_2$ M 133.340
Silylation reagent for use in gc anal. of alcohols, steroids and cannabinoids. Bp 99-100°.

Kriegsmann, H. *et al.*, *Z. Anorg. Allg. Chem.*, 1961, **310**, 100, 320 (*synth, spectra*)
Supina, W. *et al.*, *J. Am. Oil Chem. Soc.*, 1967, **44**, 74 (*use*)
Vanden Heuval, W.J.A., *J. Chromatogr.*, 1967, **27**, 85 (*use*)
Andrianov, K.A. *et al.*, *Zh. Obshch. Khim.*, 1969, **39**, 2513; *CA*, **72**, 87436 (*nmr*)
Williams, E.A. *et al.*, *J. Organomet. Chem.*, 1976, **108**, 153 (*nmr*)
Harvey, D.J., *J. Chromatogr.*, 1978, **147**, 291 (*use*)

Dimethyl sulfate **D-00916**
Methyl sulfate
[77-78-1]



$C_2H_6O_4S$ M 126.133
Methylating agent. Used as a soln. in 20% MeOH aq. for gravimetric separation of Ba, Ca, Sr. Liq. Spar. sol. H_2O , hexane, EtOH, C_6H_6 ; sol. Et_2O , Me_2CO . d_{15}^{20} 1.332. Fp -27°, Mp -31.7°. Bp 188° dec., Bp₁₅ 76°. n_D^{20} 1.3874. Hydrol. by hot H_2O .

▷ V. highly toxic by inhalation and skin absorption, suspected carcinogen, TLV (skin) 0.5. WS8225000.

Guyot, J. *et al.*, *C. R. Hebd. Seances Acad. Sci.*, 1919, **169**, 795 (*synth*)
U.S. Pat., 1 317 648, (1920); *CA*, **14**, 70 (*synth*)
Elving, P., *Anal. Chem.*, 1950, **22**, 1375 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 188.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 306.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUD100.

Dimethyl sulfite **D-00917**
Methyl sulfite
[616-42-2]

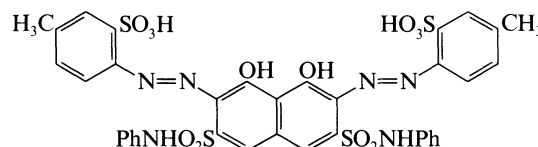


$C_2H_6O_3S$ M 110.134

Used to methylate amino acids in gc anal. Liq. with acetone odour. d_4^{24} 1.207. Bp 126°, Bp₄₅ 52°. n_D^{20} 1.4093.
▷ Probably toxic. Reacts with H_2O and acids to give toxic and corrosive fumes.

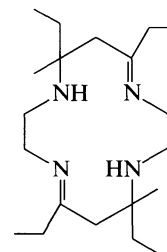
Voss, W. *et al.*, *Justus Liebigs Ann. Chem.*, 1931, **485**, 258 (*synth*)
Kyrides, L.P., *J. Am. Chem. Soc.*, 1944, **66**, 1006 (*synth*)
Cruckshank, P.A. *et al.*, *Anal. Chem.*, 1964, **36**, 1191 (*use*)
Pavlov, V.M., *Zh. Obshch. Khim.*, 1971, **41**, 2530 (*synth*)
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 397.
Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 833.

Dimethylsulfonazo DAL **D-00918**
6,6'-[[1,8-Dihydroxy-3,6-bis(phenylsulfamoyl)-2,7-naphthylene]bis(azo)]di-m-toluenesulfonic acid, 8CI
[13277-21-9]



$C_{36}H_{30}N_6O_{12}S_4$ M 866.930
Used in extraction-photometric detn. of Ba and Sr. Dark cryst. powder. Sol. H_2O , butanol.
Budešinsky, B. *et al.*, *Talanta*, 1966, **13**, 1217.

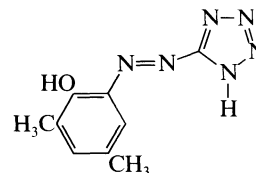
7,14-Dimethyl-5,7,12,14-tetraethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, 9CI **D-00919**
[52443-88-6]



$C_{20}H_{40}N_4$ M 336.563
Used as 0.01M aq. soln. of perchlorate salt for extraction-photometric detn. of Cu, Co, Ni (as ion-pairs with anionic azo dyes; $\epsilon \sim 50000$, $CHCl_3$). Cryst. Sol. acid solns.

Nazarenko, A.Y. *et al.*, *Zh. Anal. Khim.*, 1983, **38**, 1946 (*detn, Co, Cu, Ni*)

2,4-Dimethyl-6-(1*H*-tetrazol-5-ylazo)phenol, 9CI **D-00920**
5-(2-Hydroxy-3,5-dimethylphenylazo)-1*H*-tetrazole
[81526-35-4]



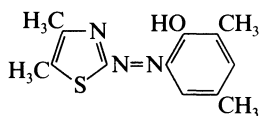
$C_9H_{10}N_6O$ M 218.218

Used for photometric detn. of Cu (λ_{\max} 565 nm), Ni (λ_{\max} 545 nm); gives colour reactions with Bi, Cd, Hg, Pb, V(VI), Zn. Orange cryst. (EtOH aq.).

Nerin, C. *et al*, *CA*, 1984, **100**, 44530k (*synth, use*)

2-[(4,5-Dimethyl-2-thiazolyl)azo]-4,6-dimethylphenol, 9CI **D-00921**

2-(2-Hydroxy-3,5-dimethylphenylazo)-4,5-dimethylthiazole [76877-50-4]



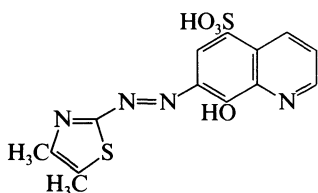
$C_{13}H_{15}N_3OS$ M 261.347

Used as 1mM EtOH soln. for extraction-photometric detn. of U(VI) (toluene). Violet cryst. Sol. EtOH, MeOH, DMF, alkalis. Mp 91-93°. pK_a 9.76.

Santana, B. *et al*, *Collect. Czech. Chem. Commun.*, 1988, **53**, 258 (*synth, detn, U*)

7-(4,5-Dimethyl-2-thiazolyl)azo-8-hydroxy-5-quinolinesulfonic acid, 9CI **D-00922**

[91097-77-7]



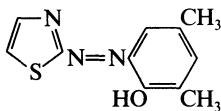
$C_{14}H_{12}N_4O_4S_2$ M 364.405

Used as 0.02% soln. in EtOH for photometric detn. of Tl(III) (λ_{\max} 560 nm, ϵ 130000). Dark purple cryst. powder. Sol. EtOH. Mp 170-172°.

Jialong, G. *et al*, *Talanta*, 1985, **32**, 1072 (*synth, detn, Tl*)

2,4-Dimethyl-6-(2-thiazolylazo)phenol, 9CI **D-00923**

2-(2-Hydroxy-3,5-dimethylphenylazo)thiazole [3012-56-4]



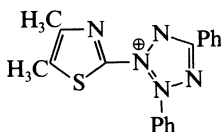
$C_{11}H_{11}N_3OS$ M 233.293

Used as 1mM EtOH soln. for extraction-photometric detn. of U(VI) (λ_{\max} 580 nm, ϵ 16000, pH 6.5, toluene). Violet cryst. Sol. EtOH, MeOH, DMF, alkalis. Mp 82-84°. pK_a 8.58.

Santana, B. *et al*, *Collect. Czech. Chem. Commun.*, 1988, **53**, 258 (*synth, detn, U*)

2-(4,5-Dimethyl-2-thiazolyl)-3,5-diphenyl-2H-tetrazolium(1+), 9CI **D-00924**

Thiazolyl blue [298-93-1]



$C_{18}H_{16}N_5S^{\oplus}$ M 334.424 (ion)

Strictly, the name Thiazolyl blue applies to the bromide.

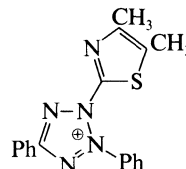
Bromide:

$C_{18}H_{16}BrN_5S$ M 414.328

Used as 4mM aq. soln. for extraction-photometric detn. of Re(VI) (λ_{\max} 280 nm, forms ion associate with ReO_4^{\ominus} , $CHCl_3$). Cryst. Sol. H_2O .

Alexandrov, A. *et al*, *Mikrochim. Acta*, 1985, **1**, 447 (*detn, Re*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUG400.

3-(4,5-Dimethyl-2-thiazolyl)-2,5-diphenyl-2H-tetrazolium(1+) **D-00925**



$C_{18}H_{16}N_5S^{\oplus}$ M 334.424 (ion)

Chloride: [6193-35-7].

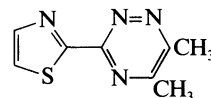
$C_{18}H_{16}ClN_5S$ M 369.877

Used as 1% aq. soln. for photometric detn. of various dehydrogenases. Cryst. (MeOH). Sol. EtOH, H_2O .

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1983.

5,6-Dimethyl-3-(2-thiazolyl)-1,2,4-triazine, 9CI **D-00926**

[30091-59-9]



$C_8H_8N_4S$ M 192.244

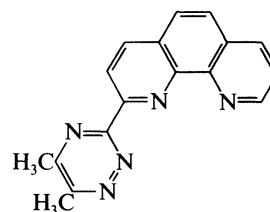
Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 530 nm, ϵ 10000). Cryst. (EtOH). Sol. common org. solvs. Mp 140-141°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn, Fe*)

2-(5,6-Dimethyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, 9CI **D-00927**

3-(1,10-Phenanthroline-2-yl)-5,6-dimethyl-1,2,4-triazine [55671-80-2]



$C_{17}H_{13}N_5$ M 287.323

Used as 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{\max} 588 nm, ϵ 10400, EtOH aq.). Cryst. (EtOH). Sol. common org. solvs. Mp 210-211° (as monohydrate).

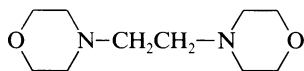
Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn, Fe*)

1,2-Di-4-morpholinylethane

4,4'-(1,2-Ethanediyil)bismorpholine

[1723-94-0]

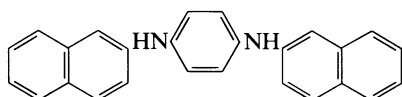
 $C_{10}H_{20}N_2O_2$ M 200.280Used as a 0.1M soln. in 1M HNO_3 for gravimetric detn. of As, Bi, Si, Zn; potentiometric detn. of Hg. Cryst. (Et_2O). Sol. H_2O . Mp 74-75°.Amus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **195**, 86; **196**, 161; 1964, **203**, 409; 1967, **226**, 171 (detn, Hg, Bi, Zn, As, Si)

D-00928

Dubois, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 1313, 1316 (props)
Tiptsova, V.G., *Zh. Anal. Khim.*, 1965, **20**, 1200; 1966, **21**, 1179 (detn, Hg, Ag)**N,N'-Di-2-naphthalenyl-1,4-benzenediamine, 9CI**

N,N'-Di-(2-naphthyl)-p-phenylenediamine

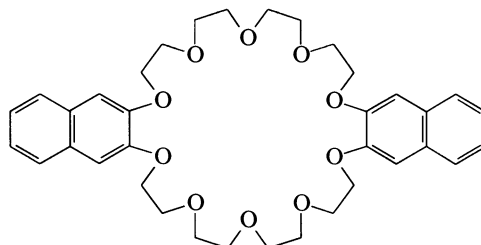
[1323-70-2]

 $C_{26}H_{20}N_2$ M 360.457Used for extraction-photometric detn. of Ir(IV) (λ_{max} 488 nm). Cryst. Sol. EtOH, Me_2CO , C_6H_6 , conc. acids; insol. H_2O .Nasouri, F.G. *et al*, *Anal. Chim. Acta*, 1970, **50**, 163.

D-00929

Dinaphtho-30-crown-10

7,8,10,11,13,14,16,17,26,27,29,30,32,33,35,36-Hexadecahydrodinaphtho[2,3-b:2',3'-

q][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, 9CI
[98793-05-6] $C_{36}H_{44}O_{10}$ M 636.738

Used as an ionophore in ion-selective electrodes (shows high selectivity for K over Na). Cryst.

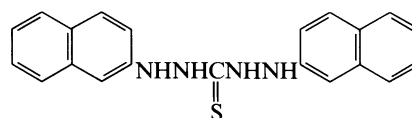
Blair, T.L. *et al*, *Anal. Chim. Acta*, 1989, **222**, 252 (synth, use)

D-00932

1,5-Di-(β-naphthyl)thiocarbazone

1,5-Di-2-naphthyl-3-thiocarbohydrazide, 9CI

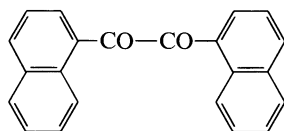
[33833-43-1]

 $C_{21}H_{18}N_4S$ M 358.466Used as soln. in $CHCl_3$ for extraction-photometric detn. of Ag (λ_{max} 505 nm, ϵ 47300, $CHCl_3$). Yellow cryst. Sol. common org. solvs.Tiptsova, V.G. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 1179 (detn, Ag)

D-00933

1,2-Di(1-naphthalenyl)-1,2-ethanedione

Di-α-naphthyl diketone

 $C_{22}H_{14}O_2$ M 310.351

Monooxime:

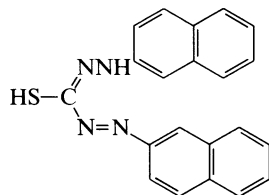
 $C_{22}H_{15}NO_2$ M 325.366Used for extraction-photometric detn. of Co (λ_{max} 436 nm). Cryst.Singh, R.B. *et al*, *Talanta*, 1979, **26**, 425.

D-00930

Dinaphthizone

2-Naphthalenyldiazene-carbothioic acid 2-(2-naphthalenyl)hydrazide, 9CI. Di-(2-naphthyl)thiocarbazone

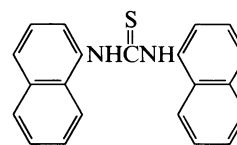
[6939-80-6]

 $C_{21}H_{16}N_4S$ M 356.450Gives colour reactions with heavy metals; photometric detn. of Hg, Ag, Zn (λ_{max} 560 nm, ϵ 120000). Dark cryst. ($CHCl_3$). Sl. sol. $CHCl_3$, CCl_4 , C_6H_6 .Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 550 (use)Martin, A.E., *Anal. Chem.*, 1953, **25**, 1853 (synth, detn, Zn)Grzhegorzhevskii, A.S., *Zh. Anal. Khim.*, 1956, **11**, 689 (synth)

D-00931

1,3-Di-1-naphthyl-2-thiourea, 8CI

[1240-37-5]

 $C_{21}H_{16}N_2S$ M 328.437Defoliant. Used in photometric detn. of Te (H_2SO_4/KBr medium). Cryst. ($PhNO_2$). Spar. sol. hot EtOH, insol. CS_2 , Et_2O , C_6H_6 . Mp 207-208°, Mp 197.5°.

▷ YS2770000.

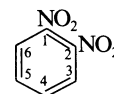
Brass, K. *et al*, *J. Prakt. Chem.*, 1937, **148**, 44 (synth)Tsukervanik, I.P. *et al*, *Dokl. Akad. Nauk SSSR*, 1956, **6**, 11 (use)Aravindakshan, P.A. *et al*, *Indian J. Chem.*, 1963, **1**, 395 (synth)Murashova, V.I. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1205 (detn, Te)Novikov, E.G. *et al*, *Zh. Prikl. Spektrosk.*, 1971, **14**, 833 (uv)

D-00934

1,2-Dinitrobenzene, 9CI

o-Dinitrobenzene, 8CI

[528-29-0]



D-00935

$C_6H_4N_2O_4$ M 168.109

Gives colour reaction with $S_2O_4^{2-}$. Plates (EtOH). Sol. EtOH, $CHCl_3$; sl. sol. H_2O . Mp 118°. Bp₇₇₃ 319°, Bp₁₈ 182°. Steam-volatile.

▷ Highly toxic, TLV 1. Explosive. CZ7450000.

v. Wyler, O., *Helv. Chim. Acta*, 1932, **15**, 23 (synth)

Ogata, Y. *et al*, *J. Org. Chem.*, 1956, **21**, 1065 (synth)

Heertjes, P.M. *et al*, *Chem. Weekbl.*, 1958, **54**, 314 (synth)

Feigl, F., *Spot Tests in Inorganic Analysis*, Elsevier, Amsterdam, 1970 (use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 308.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUQ400.

1,3-Dinitrobenzene, 9CI

D-00936

m-Dinitrobenzene, 8CI

[99-65-0]

$C_6H_4N_2O_4$ M 168.109

Reference material used in elemental microanalysis. Cryst. (EtOH). Mp 89.57°. Bp 291°, Bp 302.8°, Bp₁₄ 167°. Triboluminescent. Steam-volatile.

▷ Highly toxic by inhalation and skin absorption, TLV (skin) 1. Mixts. with conc. nitric acid possess high explosive props.. CZ7350000.

Analyst (London), 1972, **97**, 740 (microanal)

Vogel, A.I., *Practical Organic Chemistry*, Longman, London, 1978, 626 (synth)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 566.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 308.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUQ200.

1,4-Dinitrobenzene, 9CI

D-00937

p-Dinitrobenzene, 8CI

[100-25-4]

$C_6H_4N_2O_4$ M 168.109

Gives colour reaction with $S_2O_4^{2-}$. Needles or prisms (EtOH). Mp 173-174°. Bp 299°, Bp₃₄ 183°.

▷ Highly toxic, TLV (skin) 1. Mixtures with conc. nitric acid possess high explosive props.. CZ7525000.

v. Wyler, O., *Helv. Chim. Acta*, 1932, **15**, 23 (synth)

Org. Synth., Coll. Vol., 2, 1943, 225 (synth)

Sasaki, Y. *et al*, *Chem. Pharm. Bull.*, 1967, **15**, 599 (pmr)

Feigl, F., *Spot Tests in Inorganic Analysis*, Elsevier, Amsterdam, 1970.

Exner, O. *et al*, *Collect. Czech. Chem. Commun.*, 1972, **37**, 2156 (ir)

Bromilow, J. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 2020 (cmr)

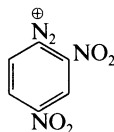
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 308.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUQ600.

2,4-Dinitrobenzenediazonium(1+), 9CI

D-00938

[18300-85-1]



$C_6H_3N_4O_4^+$ M 195.114 (ion)

Tetrafluoroborate(1-): [345-12-0].

$C_6H_3BF_4N_4O_4$ M 281.919

Derivatisation reagent used in tlc of active methylene compds. Cryst. Mp 158° dec.

Messmer, A. *et al*, *Acta Chim. Acad. Sci. Hung.*, 1961, **28**, 399 (synth)

Yakobson, G.G. *et al*, *Zh. Obshch. Khim.*, 1962, **32**, 849; *CA*, **58**, 2389g (synth)

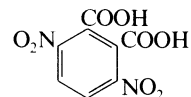
Jurvik, P. *et al*, *J. Chromatogr.*, 1973, **84**, 414 (use)

3,6-Dinitro-1,2-benzenedicarboxylic acid, 9CI

D-00939

3,6-Dinitrophthalic acid, 8CI

[2300-16-5]



$C_8H_4N_2O_8$ M 256.128

Cryst. (Et_2O /ligroin). Mp 201-202°.

Anhydride:

$C_{16}H_6N_4O_{15}$ M 494.241

Mp 145°.

Monopyridinium salt: [87550-19-4].

Used in micro detn. of reducing sugars.

Will, W., *Ber.*, 1895, **28**, 369.

Momose, T. *et al*, *Yakugaku Zasshi*, 1951, **71**, 977; *CA*, 1921, **46**.

Momose, T. *et al*, *Chem. Pharm. Bull.*, 1960, **8**, 514; 1961, **9**, 263 (use)

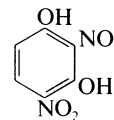
Momose, T. *et al*, *Talanta*, 1963, **10**, 115.

2,4-Dinitro-1,3-benzenediol, 9CI

D-00940

2,4-Dinitroresorcinol, 8CI

[519-44-8]



$C_6H_4N_2O_6$ M 200.107

Used in photometric detn. of U. Yellow cryst. Mp 147-148°. pK_a 3.16.

▷ Explosive when shocked or heated.

1-Me ether: 3-Methoxy-2,6-dinitrophenol

$C_7H_6N_2O_6$ M 214.134

Mp 108°.

Di-Me ether: [18523-14-3]. 1,3-Dimethoxy-2,4-dinitrobenzene, 9CI, 8CI

$C_8H_8N_2O_6$ M 228.161

Mp 73°.

Di-Et ether:

$C_{10}H_{12}N_2O_6$ M 256.215

Mp 57°.

Vermuelen, H., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1919, **38**, 107 (deriv)

Borsche, W. *et al*, *Ber.*, 1928, **61**, 698.

Gay-Lussac, A. *et al*, *Meml. Poudres*, 1958, **40**, 7; *CA*, **55**, 3489.

Ruchkin, V.E. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1972, **42**, 2717 (ir)

Rajamoorthi, K. *et al*, *Analyst* (London), 1981, **106**, 641 (detn, U)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 619.

3,4-Dinitro-1,2-benzenediol, 9CI

D-00941

3,4-Dinitroproocatechol, 8CI. 3,4-Dinitrocatechol

[20184-66-1]

$C_6H_4N_2O_6$ M 200.107

Used in photometric detn. of V. Cryst. + 2H₂O. Sol. EtOH, Me₂CO; spar. sol. H₂O. Mp 82°, Mp 147° (anhyd.). pK_{a1} 4.02; pK_{a2} 8.24 (30°, 0.1M NaClO₄).

Dibenzoyl:

C₂₀H₁₂N₂O₈ M 408.323

Cryst. (C₆H₆/pet. ether). Mp 111.5°.

1-Me ether: 6-Methoxy-2,3-dinitrophenol. 5,6-Dinitroguaiacol

C₇H₆N₂O₆ M 214.134

Pale-yellow prisms (toluene). Mp 205-208° dec.

1-Me ether, Ac:

C₉H₈N₂O₇ M 256.171

Mp 124-125°.

2-Me ether: 2-Methoxy-3,4-dinitrophenol. 3,4-Dinitroguaiacol

C₇H₆N₂O₆ M 214.134

Plates (CCl₄). Mp 109.5-110°.

2-Me ether, Ac:

C₉H₈N₂O₇ M 256.171

Mp 124-125°.

Di-Me ether: [71089-33-3]. 1,2-Dimethoxy-3,4-dinitrobenzene. 3,4-Dinitroveratrole

C₈H₈N₂O₆ M 228.161

Cryst. (MeOH). Mp 91°, Mp 129°.

Pollecioff, F. *et al*, *J. Chem. Soc.*, 1918, **113**, 651.

Rosenblatt, D.H. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 3277 (*synth*)

Kopko, J., *Pol. J. Chem. (Rocz. Chem.)*, 1954, **28**, 525; *CA*, **49**, 8849.

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1506 (*detn, V*)

Proctor, G.R. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1979, 103.

3,5-Dinitro-1,2-benzenediol, 9CI D-00942

3,5-Dinitropyrocatechol, 8CI. 3,5-Dinitrocatechol

[7659-29-2]

C₆H₄N₂O₆ M 200.107

Used for photometric detn. of Nb, Ti, V, W, rare earth metals. Yellow needles (EtOH). Sol. alkalis, EtOH, Me₂CO; spar. sol. H₂O; insol. C₆H₆, CHCl₃. Mp 164°. pK_{a1} 3.39; pK_{a2} 10.03 (25°, 0.1M NaClO₄, 4% EtOH).

Di-Ac:

C₁₀H₈N₂O₈ M 284.182

Mp 112°.

1-Me ether: [63975-57-5]. 2-Methoxy-4,6-dinitrophenol. 3,5-Dinitroguaiacol

C₇H₆N₂O₆ M 214.134

Yellow cryst. (C₆H₆). Mp 80°, Mp 123-124°.

2-Me ether: 2-Methoxy-3,5-dinitrophenol. 4,6-Dinitroguaiacol

C₇H₆N₂O₆ M 214.134

Yellow cryst. Mp 123°.

2-Me ether, Ac: [36383-37-6].

C₉H₈N₂O₇ M 256.171

Mp 114°.

Di-Me ether: [13661-34-2]. 1,2-Dimethoxy-3,5-dinitrobenzene. 3,5-Dinitroveratrole

C₈H₈N₂O₆ M 228.161

Cryst. (EtOH). Mp 102°.

Polecicoff, F. *et al*, *J. Chem. Soc.*, 1918, **113**, 650 (*deriv*)

Heertjes, P.M. *et al*, *J. Chem. Soc.*, 1954, 1868 (*synth*)

Iorio, M.A., *Ann. Chim. (Rome)*, 1959, **49**, 379 (*synth*)

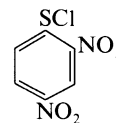
Lobiński, R. *et al*, *Anal. Sci.*, 1988, **4**, 629 (*detn, V*)

Marczenko, Z. *et al*, *Talanta*, 1988, **34**, 1001 (*detn, V*)

Lobiński, R. *et al*, *Anal. Chim. Acta*, 1989, **226**, 281 (*detn, Nb*)

2,4-Dinitrobenzenesulfonyl chloride D-00943

[528-76-7]



C₆H₃ClN₂O₄S M 234.619

Synth. reagent. Selective blocking reagent for nucleosides.

Anal. reagent for amines, alcohols, thiols, etc. Mp 95-96°.

► Explosive if shocked or heated.

Kharasch, N., *J. Am. Chem. Soc.*, 1947, **69**, 1612; 1950, **72**, 1796 (*synth*)

Kharasch, N., *J. Chem. Educ.*, 1956, **33**, 585.

Org. Synth., Coll. Vol., 5, 1973, 474 (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 231 (*use*)

Ito, H. *et al*, *Chem. Pharm. Bull.*, 1978, **26**, 296 (*synth*)

Khanna, N. *et al*, *J. Indian Chem. Soc.*, 1978, **55**, 1312 (*use*)

Obtemperanskaya, S. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 2421; *CA*, **92**, 190797k (*use*)

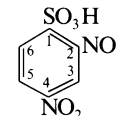
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 552.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 308.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUR200.

2,4-Dinitrobenzenesulfonic acid, 9CI, 8CI D-00944

[89-02-1]



C₆H₄N₂O₇S M 248.173

Used in photography and steel-coating treatments. Anal. reagent for amines. Cryst. + 3H₂O. Mp 106-108° (hydrate), Mp 130° (anhyd.).

► DB6500000.

Chloride: [1656-44-6].

C₆H₃ClN₂O₆S M 266.618

Mp 102°.

Amide: [73901-01-6].

C₆H₅N₃O₆S M 247.188

Mp 154°.

Willgerodt, C. *et al*, *J. Prakt. Chem.*, 1886, **34**, 116 (*synth*)

Blanksma, M.J.J., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1905, **24**, 322 (*synth*)

Elgersma, J.N., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1929, **48**, 757 (*synth*)

Crawhall, J.C. *et al*, *Biochem. J.*, 1955, **61**, 264 (*use*)

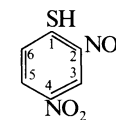
Smith, A.D. *et al*, *Anal. Biochem.*, 1967, **18**, 36 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUR400.

2,4-Dinitrobenzenethiol, 9CI, 8CI D-00945

1-Mercapto-2,4-dinitrobenzene. 2,4-Dinitrothiophenol

[2218-96-4]



C₆H₄N₂O₄S M 200.175

Reagent for the characterisation of organic halogen compds. Needles (C_6H_6 /ligroin). Mp 131°.

▷ DC1750000.

Me ether: [2363-23-7]. 2,4-Dinitrothioanisole

$C_7H_6N_2O_4S$ M 214.201

Mp 126°.

Et ether: [7343-55-7]. 2,4-Dinitrothiophenetole

$C_8H_8N_2O_4S$ M 228.228

Mp 113°.

Zincke, Th. *et al*, *J. Prakt. Chem.*, 1912, **85**, 216 (*synth*)

Bost, R.W. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 1968 (*use*)

Kharasch, N. *et al*, *J. Org. Chem.*, 1959, **24**, 1020 (*synth*)

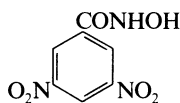
Parker, A.J. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 3071 (*synth*)

3,5-Dinitrobenzohydroxamic acid

D-00946

N-Hydroxy-3,5-dinitrobenzamide, 9CI

[29882-36-8]



$C_7H_5N_3O_6$ M 227.133

N-Ph: [29556-22-7]. N-Hydroxy-3,5-dinitro-N-phenylbenzamide, 9CI

$C_{13}H_9N_3O_6$ M 303.231

Used for photometric detn. of U; pptn. of Al, Cu, Fe(III), Hf, Mn, Pb, Sn(II), Sn(IV), Ti, Zr. Yellow cryst. Sol. common org. solvs.; spar. sol. H_2O (7 mg per 100 cm^3 at 25°). Mp 133°.

N-(4-Chlorophenyl): [67494-60-4]. N-(4-Chlorophenyl)-N-hydroxy-3,5-dinitrobenzamide, 9CI

$C_{13}H_8ClN_3O_6$ M 337.675

Used as 2mM $CHCl_3$ soln. for extraction-photometric detn. of Co, Cu(II), Fe(II,III), Ti, V(V) (pH ~ 5). Cryst. Sol. $CHCl_3$, EtOH.

N-(4-Methylbenzoyl), *Me ester*: [67467-54-3]. 4-[(3,5-Dinitrobenzoyl)hydroxyamino]benzoic acid methyl ester, 9CI

$C_{15}H_{11}N_3O_8$ M 361.267

Used as 2mM $CHCl_3$ soln. for extraction-photometric detn. of Co, Cu(II), Fe(II,III), Ti, V(V) (pH ~ 5). Cryst. Sol. $CHCl_3$, EtOH. pK_a 7.68.

N-(4-Methylphenyl): [32919-57-6]. N-Hydroxy-N-(4-methylphenyl)-3,5-dinitrobenzamide, 9CI

$C_{14}H_{11}N_3O_6$ M 317.257

Used as 2mM $CHCl_3$ soln. for extraction-photometric detn. of Co, Cu(II), Fe(II,III), Ti, V(V) (pH ~ 5). Cryst. Sol. $CHCl_3$, EtOH.

Lutwick, G.D. *et al*, *Can. J. Chem.*, 1954, **32**, 949 (*use*)

Shendrikar, A.D., *Talanta*, 1969, **16**, 51 (*use*)

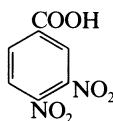
Gaikwad, M.D. *et al*, *Indian J. Chem.*, 1973, **11**, 1188 (*detn*, U)

Vernon, F. *et al*, *Anal. Chim. Acta*, 1978, **98**, 349 (*synth*, use)

3,4-Dinitrobenzoic acid, 9CI, 8CI

D-00947

[528-45-0]



$C_7H_4N_2O_6$ M 212.118

Reagent for microdetn. of sugar components in polysaccharide hydrolysates. Mp 165°. pK_a 2.818 (25°, H_2O).

Me ester: [22907-68-2].

$C_8H_6N_2O_6$ M 226.145

Mp 87°.

Et ester: [35998-99-3].

$C_9H_8N_2O_6$ M 240.172

Mp 71°.

Chloride: [24376-18-9].

$C_7H_3ClN_2O_5$ M 230.564

Mp 50-51°. Bp₁₇ 188°.

▷ Explodes above 225°.

Amide:

$C_7H_5N_3O_5$ M 211.134

Mp 165-166°.

Goldstein, H. *et al*, *Helv. Chim. Acta*, 1943, **26**, 475 (*synth*)

Org. Synth., *Coll. Vol.*, 3, 1955, 336 (*synth*)

Dippy, J.F.S. *et al*, *J. Chem. Soc.*, 1964, 154 (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, 1, 320.

Wood, T. *et al*, *Anal. Biochem.*, 1968, **22**, 1117 (*use*)

3,5-Dinitrobenzoic acid, 9CI, 8CI

D-00948

[99-34-3]

$C_7H_4N_2O_6$ M 212.118

Corrosion inhibitor, also used in photography. Can be used to identify the alcohol components in esters.

Yellow or colourless cryst. (dimorph.). Mp 212-213°.

pK_a 2.824 (25°, H_2O).

Me ester: [2702-58-1].

$C_8H_6N_2O_6$ M 226.145

Mp 112°.

Et ester: [618-71-3].

$C_9H_8N_2O_6$ M 240.172

Mp 93°.

Chloride: [99-33-2].

$C_7H_3ClN_2O_5$ M 230.564

Reagent for isol. and characterisation of alcohols and amines. Needles. Mp 74°. Bp₁₁ 196°.

▷ Highly toxic, irritant. DM6637000.

Amide: [121-81-3]. 3,5-Dinitrobenzamide. **Nitromide**, USAN. NSC 60719

$C_7H_5N_3O_5$ M 211.134

Coccidiostat for poultry. Leaflets. Mp 183°.

Anhydride: [40993-10-0].

$C_{14}H_6N_4O_{11}$ M 406.222

Reagent for the identification of ethers, alcohols and phenols. Mp 109°.

Nitrile: [4110-35-4]. 1-Cyano-3,5-dinitrobenzene

$C_7H_3N_3O_4$ M 193.118

Cryst. (diisopropyl ether). Mp 130-131°.

▷ DI4365000.

Phillips, M. *et al*, *J. Am. Chem. Soc.*, 1931, **53**, 1924 (*use*)

Org. Synth., *Coll. Vol.*, 3, 1955, 337.

Bachman, G.B. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 5871 (*synth*)

Belg. Pat., 612 706, (1962); *CA*, **58**, 2786g (*use*, *amide*)

Finan, P.A. *et al*, *J. Chem. Soc.*, 1962, 2824 (*synth*, *amide*)

Dippy, J.F.S. *et al*, *J. Chem. Soc.*, 1964, 154 (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, 1, 320.

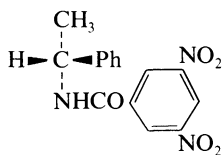
Mai, K. *et al*, *Tetrahedron Lett.*, 1986, **27**, 2203 (*nitrile*)

Prince, P. *et al*, *Acta Crystallogr.*, *Sect. C*, 1991, **47**, 895 (*cryst struct*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 617.

N-(3,5-Dinitrobenzoyl)- α -phenylethylamine

3,5-Dinitro-N-(1-phenylethyl)benzamide, 9CI. N-(α -Methylbenzyl)-3,5-dinitrobenzamide
[14401-99-1]



$C_{15}H_{13}N_3O_5$ M 315.285

(*R*)-form [69632-32-2]

Chiral shift reagent. Cryst. Mp 158-160°. $[\alpha]_D^{20} -17.5^\circ$ (c, 0.9 in Me_2CO).

(\pm)-form [14402-00-7]

Mp 147°.

[69632-31-1]

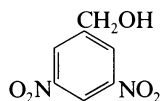
Berger, J. *et al*, *Acta Chem. Scand.*, 1966, **20**, 2002 (*synth*)

Debhmkh, M. *et al*, *Tetrahedron Lett.*, 1984, **25**, 3467 (*synth, use*)

Dunach, E., *Tetrahedron Lett.*, 1985, **26**, 2649 (*synth, use*)

3,5-Dinitrobenzyl alcohol

3,5-Dinitrobenzenemethanol. α -Hydroxy-3,5-dinitrotoluene
[71022-43-0]



$C_7H_6N_2O_5$ M 198.135

Mp 98°.

4-Methylbenzenesulfonyl: [126673-11-8].

$C_{14}H_{12}N_2O_7S$ M 352.324

Uv labelling agent for carboxylic acids. Yellow needles (pet. ether).

Subba Rao, B.C. *et al*, *Curr. Sci.*, 1960, **29**, 389 (*synth*)

Laurence, C. *et al*, *Spectrochim. Acta, Part A*, 1978, **34**, 1127 (*ir*)

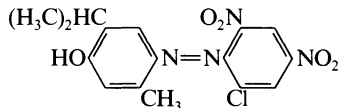
Yates, K. *et al*, *J. Org. Chem.*, 1980, **45**, 1401 (*synth, pmr, ir*)

Funzao, K. *et al*, *J. Chromatogr.*, 1989, **481**, 211 (*p-tosylate, synth, use*)

2,4-Dinitro-6-chlorophenylazothymol

D-00951

6-[(2-Chloro-4,6-dinitrophenyl)azo]thymol, 8CI. 4-[(2-Chloro-4,6-dinitrophenyl)azo]-2-isopropyl-5-methylphenol
[18265-73-1]



$C_{16}H_{15}ClN_2O_5$ M 378.771

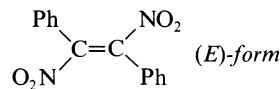
Used as acid-base indicator (pH range: 7-9; colour change: yellow \rightarrow blue); spot reagent for Mg. Red amorphous powder. Sol. EtOH; spar. sol. H_2O . Mp 183°. pK_{a1} 8.33 (27°).

Mukeji, S.K. *et al*, *Talanta*, 1967, **14**, 1123 (*synth, use*)

1,2-Dinitro-1,2-diphenylethylene

D-00952

1,1'-(1,2-Dinitro-1,2-ethenediyl)bisbenzene, 9CI. α,β -Dinitrostilbene
[28925-38-4]



$C_{14}H_{10}N_2O_4$ M 270.244

Reagent for the colorimetric detn. of amines, amino acids and thiols.

(*E*)-form [16906-54-0]

Light-yellow needles or prisms (EtOH). Mp 187-188°.

(*Z*)-form [1796-05-0]

Yellow pyramids (EtOH). Mp 108-109°.

Campbell, K.N. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 2400 (*synth, w*)

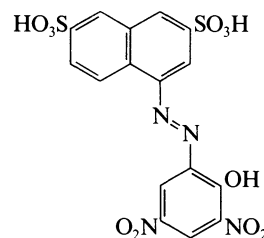
Freeman, J.P. *et al*, *J. Org. Chem.*, 1958, **23**, 136 (*w*)

Dubois, P. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1979, **288**, 311; 1980, **290**, 21 (*use*)

Dubois, P. *et al*, *Talanta*, 1981, **28**, 843 (*use*)

4-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI

D-00953



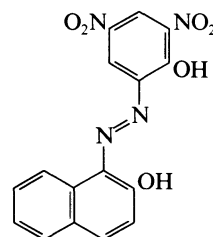
$C_{16}H_{10}N_4O_{11}S_2$ M 498.407

Used as a 0.1% soln. in EtOH to give colour reactions with Al, Ga, Zn. Cryst.

Poluektov, N.S. *et al*, *Zh. Anal. Khim.*, 1958, **13**, 555 (*use*)

1-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2-naphthol

D-00954



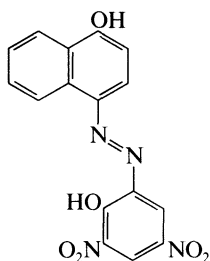
$C_{16}H_{10}N_4O_6$ M 354.278

Used as a 0.1% soln. in EtOH to give colour reaction with Al, Ga, Zn. Cryst.

Poluektov, N.S. *et al*, *Zh. Anal. Khim.*, 1958, **13**, 555 (*use*)

4-(3,5-Dinitro-2-hydroxyphenylazo)-1-naphthol

Picraminazo

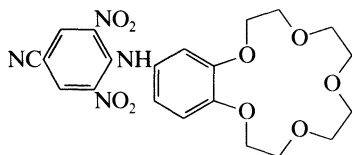
 $C_{16}H_{10}N_4O_6$ M 354.278

Used as 5 mM EtOH soln. for photometric detn. of Mg.

Brown cryst. Sol. EtOH, Me₂CO, alkalis; sl. sol. H₂O.Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 674 (*synth, detn, Mg*)**3,5-Dinitro-4-[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentanedecin-15-yl)amino]benzonitrile, 9CI**

D-00956

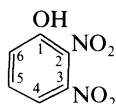
4''-Cyano-2'',6''-dinitrophenyl-4'-aminobenzo-15-crown-5 [76652-67-0]

 $C_{21}H_{22}N_4O_9$ M 474.426Used as CHCl₃ soln. for extraction separation of K (from Na). Dark orange powder. Sol. CHCl₃, dioxan.Bubnis, B.P. *et al*, *Anal. Chim. Acta*, 1982, **139**, 307 (*synth, use*)**2,3-Dinitrophenol, 9CI, 8CI**

D-00957

ε-Dinitrophenol

[66-56-8]

 $C_6H_4N_2O_5$ M 184.108

Used in gravimetric detn. of Zr; acid-base indicator.

Yellow cryst. Sol. EtOH, Et₂O; sl. sol. H₂O. Mp 144-145°. p*K*_a 4.96 (25°).

▷ SL2700000.

Me ether: [16315-07-4]. 1-Methoxy-2,3-dinitrobenzene, 9CI, 2,3-Dinitroanisole, 8CI $C_7H_6N_2O_5$ M 198.135

Cryst. (EtOH or toluene). Mp 119°.

Et ether: [4280-24-4]. 1-Ethoxy-2,3-dinitrobenzene, 2,3-Dinitrophenetole $C_8H_8N_2O_5$ M 212.162

Yellowish cryst. Mp 101°.

▷ Highly toxic, can cause dermatitis. Potentially explosive.

Vermeulen, P., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1906, **25**, 14 (*deriv*)Meldola, R. *et al*, *J. Chem. Soc.*, 1913, **103**, 1484 (*synth*)Mikhailov, G.I., *Zh. Anal. Khim.*, 1955, **10**, 382.Hrivnak, J. *et al*, *J. Chromatogr.*, 1969, **44**, 437 (*glc*)Granzhan, V.A. *et al*, *CA*, 1972, **77**, 19290 (*synth*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972.*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 310.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUY800.**2,4-Dinitrophenol**

D-00958

[51-28-5]

 $C_6H_4N_2O_5$ M 184.108Used for gravimetric detn. of Zr; indirect photometric detn. of SO₄²⁻; as acid-base indicator. Yellow plates (H₂O). Sol. EtOH, Me₂CO, C₆H₆; sl. sol. H₂O. Mp 113°. Mp 106-108°. p*K*_a 4.00 (25°). Sublimes. Steam-volatile.

▷ Highly toxic, explosive. SL2800000.

Ac: [4232-27-3]. $C_8H_6N_2O_6$ M 226.145

Mp 72°.

4-Methylbenzenesulfonyl: Mp 122°.

Me ether: [119-27-7]. 1-Methoxy-2,4-dinitrobenzene, 2,4-Dinitroanisole $C_7H_6N_2O_5$ M 198.135

Cryst. (EtOH). Mp 83°.

▷ Toxic, potentially explosive. DA5250000.

Et ether: [610-54-8]. 1-Ethoxy-2,4-dinitrobenzene, 2,4-Dinitrophenetole $C_8H_8N_2O_5$ M 212.162

Mp 87°. Steam-volatile.

▷ SI7875000.

Blanksma, M.J.J. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1940, **59**, 629 (*synth, deriv*)Mikhailov, G.I., *Zh. Anal. Khim.*, 1955, **10**, 382 (*detn, Zr*)Pailer, M., *Monatsh. Chem.*, 1968, **99**, 103 (*synth, deriv*)Stephens, M.D. *et al*, *Can. J. Chem.*, 1971, **49**, 3759 (*pmr*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)Kagawa, T. *et al*, *Acta Crystallogr., Sect. B*, 1976, **32**, 3171 (*cryst struct*)Burns, D.T. *et al*, *Anal. Chim. Acta*, 1984, **162**, 443 (*detn, SO₄²⁻*)Nyburg, S.C. *et al*, *Acta Crystallogr., Sect. C*, 1987, **43**, 686 (*cryst struct, deriv*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 310.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUP800, DUY400, DUZ000.**2,5-Dinitrophenol**

D-00959

γ-Dinitrophenol

[329-71-5]

 $C_6H_4N_2O_5$ M 184.108Used for gravimetric detn. of Zr; acid-base indicator; pH range 4.0→5.8; colour change, colourless → yellow. Yellowish needles. Sol. EtOH; spar. sol. H₂O. Mp 108°. p*K*_a 5.21 (25°). Steam-volatile.

▷ SL2900000.

Me ether: [3962-77-4]. 2-Methoxy-1,4-dinitrobenzene, 9CI, 2,5-Dinitroanisole, 8CI $C_7H_6N_2O_5$ M 198.135Needles (C₆H₆/pet. ether). Mp 96°. Spar. steam-volatile.

▷ Highly toxic, potentially explosive.

Et ether: 2-Ethoxy-1,4-dinitrobenzene, 2,5-Dinitrophenetole $C_8H_8N_2O_5$ M 212.162

Mp 85°.

Datta, R.L. *et al*, *J. Indian Chem. Soc.*, 1927, **4**, 321.Mikhailov, G.I., *Zh. Anal. Khim.*, 1955, **10**, 382 (*detn, Zr*)Granzhan, V.A. *et al*, *CA*, 1972, **77**, 19290.Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 93 (*use*)Janu, I. *et al*, *CA*, 1975, **82**, 111198 (*ir*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 310.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVA000.

2,6-Dinitrophenol**D-00960***β*-Dinitrophenol

[573-56-8]

C₆H₄N₂O₅ M 184.108

Used for gravimetric detn. of Zr; as 0.1% EtOH soln. as acid-base indicator (pH range 1.7-4.4; colour change, colourless → yellow). Pale-yellow cryst. (H₂O). Sol. H₂O, EtOH, C₆H₆, Et₂O, CHCl₃. Mp 63-64°. p*K*_a 4.77. Steam-volatile.

▷ Highly toxic, potentially explosive. SL2975000.

4-Methylbenzenesulfonyl: Mp 135°.*Me ether*: [3535-67-9]. 2-Methoxy-1,3-dinitrobenzene, 9CI.

2,6-Dinitroanisole, 8CI

C₇H₆N₂O₅ M 198.135

Cryst. (EtOH). Mp 117-118°.

Et ether: [13027-43-5]. 2-Ethoxy-1,3-dinitrobenzene. 2,6-DinitrophenetoleC₈H₈N₂O₅ M 212.162

Mp 58°.

Phillips, M.A., *Chem. Ind. (London)*, 1952, 714 (*synth*)Mikhailov, G.I., *Zh. Anal. Khim.*, 1955, **10**, 382 (*detn. Zr*)Yuan, C.-S., *CA*, 1960, **54**, 22443.Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 93 (*use*)Iwasaki, F. *et al. Acta Crystallogr., Sect. B*, 1976, **32**, 102.Nudelmann, N.S. *et al. J. Chem. Soc., Perkin Trans. 2*, 1976, 1256 (*deriv*)Nyburg, S.C. *et al. Acta Crystallogr., Sect. C*, 1987, **43**, 686 (*cryst struct, deriv*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 310.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVA200.**3,4-Dinitrophenol****D-00961***δ*-Dinitrophenol

[577-71-9]

C₆H₄N₂O₅ M 184.108

Used as EtOH soln. in gravimetric detn. of Zr; acid base indicator. Yellowish needles (H₂O). Sol. EtOH, Et₂O; sl. sol. H₂O. Mp 134°. p*K*_a 5.42 (25°).

▷ Highly toxic, potentially explosive. SL3000000.

Me ether: [4280-28-8]. 4-Methoxy-1,2-dinitrobenzene, 9CI.

3,4-Dinitroanisole, 8CI

C₇H₆N₂O₅ M 198.135

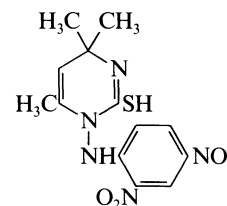
Yellow needles. Mp 70°.

Et ether: 4-Ethoxy-1,2-dinitrobenzene. 3,4-DinitrophenetoleC₈H₈N₂O₅ M 212.162

Mp 87°.

Holleman, A.F., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1903, **22**, 263 (*deriv*)Vermeulen, H., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1906, **25**, 12.Mikhailov, G.I., *Zh. Anal. Khim.*, 1955, **10**, 382 (*detn. Zr*)Granzhan, V.A. *et al. CA*, 1972, **77**, 19290.Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*indicator*)Di Nunno, L. *et al. J. Chem. Soc., Perkin Trans. 1*, 1973, 1954 (*deriv*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 310.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVA400.**1-[(2,4-Dinitrophenyl)amino]-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, 9CI****D-00962**

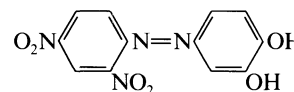
[41388-01-6]

C₁₃H₁₅N₅O₄S M 337.359

Used as 0.01*M* CHCl₃ soln. for extraction-photometric detn. of Pd(II) and Os (λ_{max} 495 nm, ε 5600, 0.5-1.5*M* HCl). Cryst. (AcOH). Sol. CHCl₃, AcOH. Mp 223-224°.

Singh, A.K. *et al. Talanta*, 1976, **23**, 851 (*synth, detn. Pd, Os*)**4-[(2,4-Dinitrophenyl)azo]-1,2-benzenediol, 9CI****D-00963**

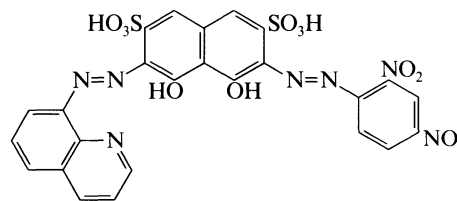
1-(3',4'-Dihydroxyphenyl)azo-2,4-dinitrobenzene [60129-44-4]

C₁₂H₈N₄O₆ M 304.218

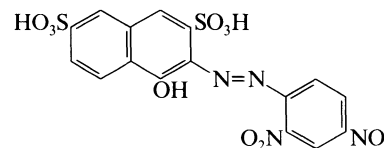
Used as 1*mM* dioxan soln. for photometric detn. of Zr (λ_{max} 460 nm, ε 27000, pH 2-3, 40% dioxan). Cryst. (Me₂CO). Sol. dioxan, Me₂CO, DMF.

Vilkova, O.M. *et al. Zh. Anal. Khim.*, 1978, **33**, 716 (*synth, detn. Zr*)**3-[(2,4-Dinitrophenyl)azo]-4,5-dihydroxy-6-(8-quinolinylo)-2,7-naphthalenedisulfonic acid, 9CI****D-00964**

[22106-84-9]

C₂₅H₁₅N₇O₁₂S₂ M 669.565

Used for photometric detn. of Cu; extraction-photometric detn. of Cu (butanol). Dark red cryst. Sol. H₂O, EtOH.

Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562.**3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, 9CI****D-00965***Nitrazine yellow. Nitrazol yellow. C.I. 14890*C₁₆H₁₀N₄O₁₁S₂ M 498.407

Acid dye. Strictly, the name Nitrazine yellow refers to the disodium salt.

Di-Na salt: [5423-07-4].

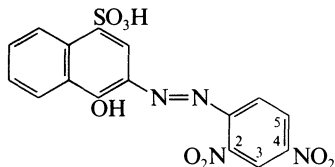
Acid-base indicator (pH range: 6.4-6.8; colour change: yellow \rightarrow blue). Used for indicator papers (Delta paper). Commercially available. Red cryst. Sol. H_2O , EtOH. λ_{max} 586 nm.

Colour Index, 3rd Edn., 1971, 4, 4073 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 88.

Sigma-Aldrich Library of Chemical Safety Data, 1988, 2, 2546A.

3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid, 9Cl **D-00966**



$C_{16}H_{10}N_4O_8S$ M 418.343

Na salt: [27961-01-9].

Used as a 0.05% soln. in EtOH as acid-base indicator (pH range: 8.4 - 9.2; colour change: red \rightarrow violet). Red cryst. (AcOH). Sol. H_2O , EtOH.

Barakat, M.Z. *et al*, *Analyst (London)*, 1958, 83, 695.

Legradi, L., *CA*, 1970, 72, 125348n.

3-[(3,5-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid, 9Cl **D-00967**

$C_{16}H_{10}N_4O_8S$ M 418.343

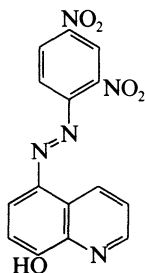
Na salt: [27961-02-0].

Used as a 0.05% soln. in 50% EtOH as adsorption indicator in argentometry. Red cryst. (AcOH). Sol. H_2O , EtOH.

Legradi, L., *CA*, 1970, 72, 125348n (*use*)

5-(2,4-Dinitrophenylazo)-8-hydroxyquinoline **D-00968**

5-(2,4-Dinitrophenylazo)-8-quinolinol
[103600-03-9]



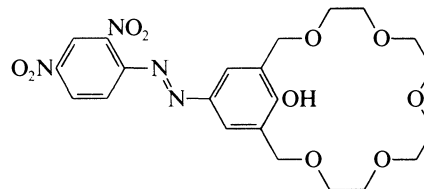
$C_{15}H_9N_5O_5$ M 339.267

Used as EtOH soln. for extraction-photometric detn. of Co (λ_{max} 538 nm, ϵ 125000, 4-methyl-2-pentanone). Orange cryst. (EtOH). Sol. EtOH; insol. H_2O .

Yamamoto, D. *et al*, *CA*, 1986, 105, 71689x (*detn*, Co)

19-[(2,4-Dinitrophenyl)azo]-3,6,9,12,15-pentaoxabicyclo[15.3.1]heneicosal(21),17,19-trien-21-ol, 9Cl **D-00969**

[81238-58-6]



$C_{22}H_{26}N_4O_{10}$ M 506.468

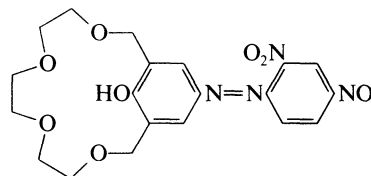
Used as 0.1% MeOH soln. for photometric detn. of K (optical sensor for K). Orange cryst. (EtOH). Sol. EtOH, MeOH.

Al-Amir, S.M. *et al*, *Talanta*, 1989, 36, 645 (*detn*, K)

16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadecal(18),14,16-trien-18-ol, 9Cl **D-00970**

m-Dinitrophenylazohydroxybenzene-7-crown-4

[81238-57-5]



$C_{20}H_{22}N_4O_9$ M 462.415

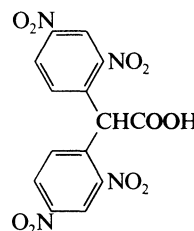
Used as a 0.25mM soln. in $CHCl_3$ for extraction-photometric detn. of Cs, Li, Rb. Reddish orange cryst. (EtOH). Sol. EtOH, Me_2CO , $CHCl_3$; insol. H_2O . Mp 167.5-168.5°. pK_{a1} 7.05 ($\mu = 0.1$, 25°C). λ_{max} 400 nm ($CHCl_3$).

Kaneda, Y. *et al*, *Tetrahedron Lett.*, 1981, 22, 4407 (*synth*)

Nakashima, K. *et al*, *Chem. Lett.*, 1982, 1781; 1983, 1415 (*detn*, Li, Cs, Rb)

α -(2,4-Dinitrophenyl)-2,4-dinitrobenzeneacetic acid, 9Cl **D-00971**

Bis(2,4-dinitrophenyl)acetic acid



$C_{14}H_8N_4O_{10}$ M 392.238

Me ester:

$C_{15}H_{10}N_4O_{10}$ M 406.265

Cryst. ($C_6H_6/MeOH$). Mp 162-163°.

Et ester: [5833-18-1]. *Ethylbis(2,4-dinitrophenyl) acetate*

$C_{16}H_{12}N_4O_{10}$ M 420.292

Acid-base indicator (pH range: 7.5-9.1; colour change:

colourless \rightarrow deep blue). Used as satd. soln. in

$Me_2CO/EtOH$ (1:1). Pale yellow cryst. (C_6H_6 or EtOH).

Sol. MeOH, EtOH, Me_2CO . Mp 155-156°.

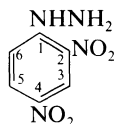
Werner, A., *Ber.*, 1906, 39, 1278 (*synth*)

Fehnel, E.A. *et al*, *Ind. Eng. Chem., Anal. Ed.*, 1944, **16**, 53.
Bluhm, A.L. *et al*, *J. Org. Chem.*, 1964, **29**, 636 (*synth*)
Bishop, E., *Indicators*, Oxford, Pergamon, 1972.

(2,4-Dinitrophenyl)hydrazine, 9Cl, 8Cl **D-00972**

DNPH. Brady's reagent

[119-26-6]



$C_6H_6N_4O_4$ M 198.138

Reagent for characterisation of carbonyl compds.; also effects dehydrohalogenation of α -halogeno ketones etc. Acid-base indicator (pH range: 7.6-9.6; colour change: red \rightarrow yellow). Blue-red cryst. with violet fluor. Mp 198° dec. (194°). pK_a 9.1 (25°).

▷ Mod. toxic. MV3325000.

N-Ac:

$C_8H_8N_4O_5$ M 240.175

Yellow needles (EtOH aq.). Mp 197-198°.

N-Benzoyl:

$C_{13}H_{10}N_4O_5$ M 302.246

Orange-red leaflets (EtOH). Mp 206-207°.

Org. Synth., Coll. Vol., 2, 1943, 228 (*synth*)

Murashova, V.I. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 1503 (*use*)

Ault, A., *J. Chem. Educ.*, 1965, **42**, 267 (*synth*)

Legradi, L., *Magy. Kem. Foly.*, 1965, **71**, 302 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 176.

Buckingham, J., *Q. Rev., Chem. Soc.*, 1969, **23**, 37 (*rev*)

Pearson, D.E., *Org. Prep. Proced. Int.*, 1972, **4**, 49 (*synth*)

Keiser, J.K., *J. Chem. Educ.*, 1974, **51**, 599 (*pmr*)

Allen, C.F.H., *Can. J. Chem.*, 1975, **53**, 865 (*ms*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

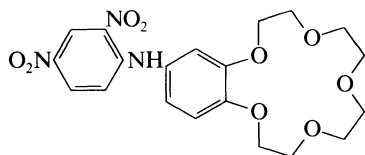
Royal Society of Chemistry, London, 1981, 311.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVC400.

N-(2,4-Dinitrophenyl)-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclotetradecin-15-amine, 9Cl **D-00973**

(2,4-Dinitrophenylamino)benzo-15-crown-5

[83003-95-6]



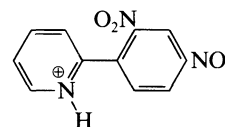
$C_{20}H_{23}N_3O_9$ M 449.416

Used as $CHCl_3$ soln. for extraction separation of K (from Na). Dark orange powder. Sol. $CHCl_3$, dioxan.

Bubnis, B.P. *et al*, *Anal. Chim. Acta*, 1982, **139**, 307 (*use*)

2-(2,4-Dinitrophenyl)pyridinium(1 +) **D-00974**

[2669-98-9]



$C_{11}H_8N_3O_4^{\oplus}$ M 246.202 (ion)

Chloride:

$C_{11}H_8ClN_3O_4$ M 281.655

Acid-base indicator (pH range: 11.3 - 12.8; colour change: yellow \rightarrow violet) used as a 0.25% soln. in EtOH. Red cryst. powder. Sol. EtOH, C_6H_6 ; insol. H_2O .

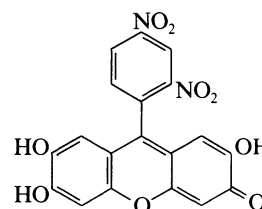
Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

9-(2,4-Dinitrophenyl)-2,6,7-trihydroxy-3H-xanthen-3-one, 9Cl **D-00975**

2',4'-Dinitro-2,3,7-trihydroxy-9-phenylfluorone.

Dinitrophenylfluorone

[6098-83-5]



$C_{19}H_{10}N_2O_9$ M 410.296

Used for photometric detn. of Ge (ϵ 62000), Al, Ga, In, Sn, Nb, Mo, W. Dark powder.

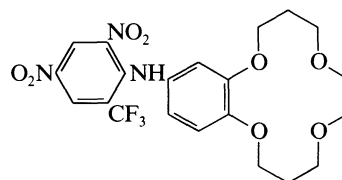
Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Nauka, Moscow, 1973.

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1478; 1978, **33**, 903.

N-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-3,4,6,7,10,11-hexahydro-2H,9H-1,5,8,12-benzotetraoxacylotetradecin-14-amine, 9Cl **D-00976**

2'',4''-Dinitro-6''-trifluoromethylphenyl-4'-amino-14-benzene-4-crown

[95088-66-7]



$C_{21}H_{22}F_3N_3O_8$ M 501.415

Used as 0.7mM CH_2Cl_2 soln. for extraction-photometric detn. of Li (λ_{max} 464 nm, ϵ 200000, CH_2Cl_2). Reddish orange cryst. (EtOH). Sol. EtOH, Me_2CO , CH_2Cl_2 , $CHCl_3$; insol. H_2O . pK_{a1} 9.99; pK_{a2} 9.6.

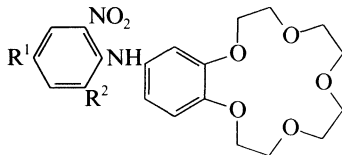
Wu, Y.P. *et al*, *Anal. Chim. Acta*, 1984, **162**, 102, 285 (*detn. Li*)

N-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, 9CI

D-00977

6'-Trifluoromethyl-2'',4''-dinitrophenyl-4'-aminobenzo-15-crown-5

[78857-86-0]

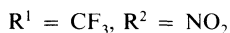
C₂₁H₂₂F₃N₃O₉ M 517.415Used as 2mM CHCl₃ soln. for extraction-photometric detn. of K (in the presence of Na). Dark orange powder. Sol. CHCl₃, dioxan. Mp 165°.Pacey, G.E. *et al*, *Analyst (London)*, 1981, **106**, 636 (*synth, detn, K*)
Bubnis, B.P. *et al*, *Anal. Chim. Acta*, 1982, **139**, 307 (*use*)**N-[2,6-Dinitro-4-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, 9CI**

D-00978

4''-Trifluoromethyl-2'',6''-dinitrophenyl-4'-aminobenzo-15-crown-5

[78857-85-9]

As N-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00977 with

C₂₁H₂₂F₃N₃O₉ M 517.415Used as CHCl₃ soln. for extraction-photometric detn. of K (in the presence of Na). Dark orange powder. Sol. CHCl₃, dioxan. Mp 171°.Pacey, G.E. *et al*, *Analyst (London)*, 1981, **106**, 636 (*synth, detn, K*)
Bubnis, B.P. *et al*, *Anal. Chim. Acta*, 1982, **139**, 307 (*detn, K*)**Dinonylamine**

D-00979

N-Nonyl-1-nonanamine, 9CI

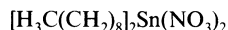
[2044-21-5]

C₁₈H₃₉N M 269.513Used as soln. in CHCl₃ or 1,2-dichloroethane for extraction of molybdophosphoric acid. Needles. Sol.C₆H₆, CHCl₃, EtOH, Me₂CO; insol. H₂O.Ivanov, N., *Zh. Anal. Khim.*, 1977, **32**, 1688.**Dinonyltin dinitrate**

D-00980

Bis(nitrooxyl)dinonylstannane, 9CI

[58760-92-2]

C₁₈H₃₈N₂O₆Sn M 497.218Used as 0.1M CHCl₃ soln. for extraction-sepn. of As from P(V) and of Se(IV) from Se(VI) (Et₂O). Cryst. Sol. CHCl₃, octanol; insol. H₂O.Spivakov, B.Y. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2182 (*sepn. Se*)
Shkinev, V.M. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 922 (*sepn. As*)**Dioctylamine**

D-00981

N-Octyl-1-octanamine, 9CI

[1120-48-5]

C₁₆H₃₅N M 241.459

Used for extraction; forms ion-pairs with anionic complexes (e.g. P-Mo-blue). Mp 14-15°. Bp 297-298°.

▷ Irritant. JF9300000.

Picrate: Mp 110-110.5°.

N-Methyl: [4455-26-9].

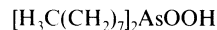
C₁₇H₃₇N M 255.486

Used as 5% soln. in xylene for extraction-photometric detn. of Zn (from HCl). Cryst. Sol. xylene, toluene.

Schneider, H.J. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 4287 (*synth*)Paul, J., *Anal. Chim. Acta*, 1960, **23**, 178.Andrew, T.R. *et al*, *Analyst (London)*, 1965, **90**, 161.Paul, J., *Mikrochim. Acta*, 1965, 860, 836.U.S. Pat., 3 739 028, (1973); CA, **79**, 52778k (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVJ600.**Di(n-octyl)arsinic acid**

D-00982

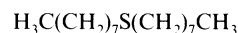
[5274-32-8]

C₁₆H₃₅AsO₂ M 334.373Used as 0.1M soln. in CHCl₃ for extraction separation of Nb and Ta, Sc, Ce(III), Eu, Ho, Yb. Cryst. Sol. CHCl₃, C₆H₆.Irgolic, K.J. *et al*, *J. Organomet. Chem.*, 1966, **6**, 17 (*synth*)Irgolic, K.J. *et al*, *Mikrochim. Acta*, 1974, 369 (*extn. Sc, Ce, Eu, Ho, Yb*)Irgolic, K.J. *et al*, *Anal. Chim. Acta*, 1976, **84**, 119 (*extn. Nb, Ta*)**Dioctyl sulfide**

D-00983

Octyl sulfide

[2690-08-6]

C₁₆H₃₄S M 258.511Used in extraction-separation of Pd. Liq. with strong odour. Bp₁₀ 180°.Vogel, A.I. *et al*, *J. Chem. Soc.*, 1943, 16 (*purifn. props*)U.S. Pat., 2 551 813, (1951); CA, **45**, 9559 (*synth*)Mojski, M., *Talanta*, 1978, **25**, 163 (*use*)**Dioctyl sulfoxide**

D-00984

1,1'-Sulfinylbisoctane, 9CI

[1986-89-6]

C₁₆H₃₄OS M 274.510Used as C₆H₆ soln. for extraction-sepn. of Te(IV) from Se(IV) (from 9M HCl). Cryst. (EtOH aq.). Sol. EtOH, CHCl₃, C₆H₆.Laurence, G., *C. R. Hebd. Seances Acad. Sci.*, 1969, **269**, 352 (*synth*)Markl, P. *et al*, *Mikrochim. Acta*, 1978, **2**, 285 (*sepn. Te*)

1,4-Dioxane, 9CI**D-00985**

Diethylene dioxide. Diethylene oxide. Ethylene glycol ethylene ether. Dioxan
[123-91-1]

C₄H₈O₂ M 88.106

Solv. freq. used in chemical anal. Liq. with pleasant odour.

Sol. EtOH, C₆H₆, d₄²⁰ 1.033. Fp 11°. Bp₇₅₀ 101°. Crit. point 312°/50.7 atm. n_D²⁰ 1.4175. Forms azeotrope with H₂O contg. 18.4% H₂O, Bp 87.8°.

▶ Mod. toxic by inhalation and skin absorption, TLV 180. Highly flammable, may form explosive peroxide. JG8225000.

Picrate: Cryst. Mp 66°.

Stumpf, W., *Chemie und Anwendungen des 1,4-Dioxans*, Verlag Chemie, Weinheim, 1956 (bibl)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, 1, 333.

Ratier, M. et al. *Bull. Soc. Chim. Fr.*, 1972, 1593 (synth)

Schaur, R.C. et al. *J. Am. Chem. Soc.*, 1975, 97, 464 (synth)

Dorman, D.E. et al. *J. Org. Chem.*, 1975, 40, 3729 (cmr)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 494.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 312.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVQ000.

2,3-Dioxobutanoic acid, 9CI**D-00986**

Acetylgluoxalic acid. Pyruvylformic acid. Acetyloxoacetic acid

[4374-46-3]

C₄H₄O₄ M 116.073

Me ester:

C₅H₆O₄ M 130.100Dark-yellow liq. Bp₁₂ 65-68°. Forms hydrate Mp 80°.

2-(4-Nitrophenylhydrazono): Cryst. Mp 175-176°.

Bis-4-nitrophenylhydrazono: Cryst. Mp 297-299°.

2-Oxime, Et ester: [5408-04-8]. Ethyl-α-

isonitrosoacetoacetate. Ethyloximinoacetoacetate

C₆H₉NO₄ M 159.141

Used as 5% aq. soln. for extraction-photometric detn. of Pd(II) (λ_{max} 400 nm, CHCl₃), Ru (ε 10500). Cryst. (toluene). Mp 56°, Mp 58-58.5°.

2-(2-Hydroxyphenyl)hydrazono, Et ester: [21103-84-4].

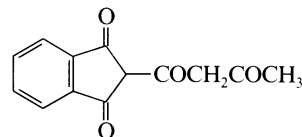
C₁₂H₁₄N₂O₄ M 250.254

Used as a 0.4mM aq. soln. for extraction-photometric detn. of Co.

Denis, W., *Am. Chem. J.*, 1907, 38, 561.Adkins, H. et al. *J. Am. Chem. Soc.*, 1938, 60, 1328 (synth)Jagi, J., *Bull. Chem. Soc. Jpn.*, 1963, 36, 506, 512 (synth)Patil, M.R. et al. *J. Indian Chem. Soc.*, 1973, 50, 569 (detn, Pd)Mittsel, Y.A. et al. *Zh. Anal. Khim.*, 1974, 29, 596 (deriv, detn, Co)Patil, M.R. et al. *Talanta*, 1976, 23, 550 (detn, Ru)**2-(1,3-Dioxobutyl)-1H-indene-1,3-(2H)-dione, 9CI****D-00987**

2-Acetoacetyl-1,3-indanedione

[10437-96-4]

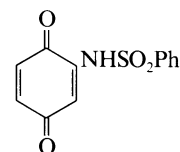
C₁₃H₁₀O₄ M 230.220

Used for extraction-photometric detn. of Fe

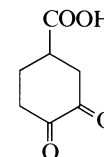
(CHCl₃/isopentanol). Yellow cryst. Sol. EtOH, C₆H₆, H₂O, CHCl₃. Mp 127-129°.

von Schrititz, D.M. et al. *J. Org. Chem.*, 1967, 32, 1774 (synth)Apsitis, A. et al. *CA*, 1980, 92, 103750 (detn, Fe)**N-(3,6-Dioxo-1,4-cyclohexadien-1-yl)benzenesulfonamide, 8CI****D-00988**

[34238-55-6]

C₁₂H₉NO₄S M 263.273Used for photometric detn. of NH₃ (λ_{max} 480 nm),

antihistamine. Yellow cryst. (CCl₄). Sol. EtOH, Me₂CO, CHCl₃, CCl₄.

Tulus, R. et al. *CA*, 1977, 87, 58562x (detn, antihistamine)Alferov, E.A. et al. *Khim. Khim. Tekhnol. (Minsk)*, 1977, 20, 1732;CA, 88, 144782d (detn, NH₃)**3,4-Dioxocyclohexanecarboxylic acid****D-00989**C₇H₈O₄ M 156.138

Dioxime: 4-Carboxyoxime

C₇H₁₀N₂O₄ M 186.167

Used as a 5mM-0.2M aq. soln. for extraction-

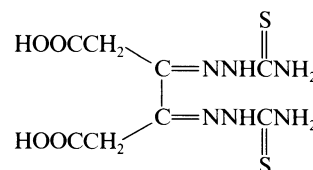
photometric detn. of Ni. Cryst. (H₂O). Sol. H₂O. Mp

218-220° dec. pK_{a1} 4.85 (μ = 0.1); pK_{a2} 10.45 (μ = 0.01); pK_{a3} 12.37 (μ = 0.06).

Banks, C.V. et al. *J. Org. Chem.*, 1958, 23, 1210 (synth)Banks, C.V. et al. *Anal. Chim. Acta*, 1962, 27, 101 (use)**3,4-Dioxohexanedioic acid bis(thiosemicarbazide)****D-00990**

3,4-Bis[(aminothioxomethyl)hydrazono]hexanedioic acid, 9CI.

2,3-Dioxobutane-1,4-dicarboxylic acid dithiosemicarbazone

C₈H₁₂N₆O₄S₂ M 320.353

Di-Et ester: [13509-65-4].

$C_{12}H_{20}N_6O_4S_2$ M 376.460

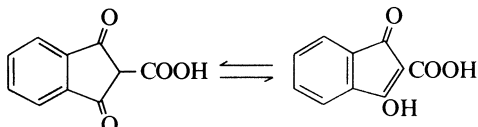
Used as a soln. in 0.4M NaOH for photometric detn. of Co (λ_{max} 386 nm), Cu (λ_{max} 490 nm). Yellowish cryst. powder (dioxan). Sol. alkalis; spar. sol. $CHCl_3$. Mp 210° dec.

Górski, W. *et al*, *Chem. Anal. (Warsaw)*, 1958, 3, 647; 1966, 11, 759 (*synth, detn, Cu, use*)

Górski, W. *et al*, *CA*, 1972, 77, 56048d (*detn, Co*)

1,3-Dioxo-2-indanecarboxylic acid, 8CI D-00991

2,3-Dihydro-1,3-dioxo-(1H)-indene-2-carboxylic acid, 9CI.
1,3-Indanedione-2-carboxylic acid. Phthaloylacetic acid
[7033-76-3]



$C_{10}H_6O_4$ M 190.155

Mp 270° dec. Unstable, readily losing CO_2 .

Me ester: [1785-84-8].

$C_{11}H_8O_4$ M 204.182

Used for extraction-photometric detn. of Fe (λ_{max} 490 nm, ϵ 5300, ($CHCl_3$)). Cryst. Sol. Et_2O , Me_2CO , $EtOH$. Mp 82-84°.

Et ester: [3457-77-0].

$C_{12}H_{10}O_4$ M 218.209

Mp 75-78°.

Amide:

$C_{10}H_7NO_3$ M 189.170

Orange powder (C_6H_6 or DMF aq.). Mp 180-220° (sinters).

Nitrile: [42382-92-3]. 2-Cyano-1,3-indanedione

$C_{10}H_5NO_2$ M 171.155

Mp 205-206° (195°).

Yale, H.L., *J. Am. Chem. Soc.*, 1947, 69, 1547.

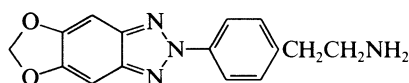
Horton, R.L. *et al*, *J. Org. Chem.*, 1960, 25, 938.

Vanags, G. *et al*, *CA*, 1963, 58, 483d.

Simonenko, V.I. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1982, 48, 1291 (*use*)

4-[2H-[1,3]Dioxolo[4,5-f]benzotriazol-2-yl] benzeneethanamine, 9CI D-00992

2-[4-(5,6-Methylenedioxy)-2H-benzotriazol-2-yl] phenethylamine
[123490-74-4]



$C_{15}H_{14}N_4O_2$ M 282.301

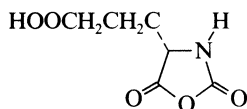
Fluorescence derivatisation reagent for carboxylic acids.

Needles (MeOH). Mp 145-147°.

Narita, S. *et al*, *Anal. Sci.*, 1989, 5, 31 (*synth, use*)

2,5-Dioxo-4-oxazolidinepropanoic acid, 9CI D-00993

Glutamic acid N-carboxyanhydride



$C_6H_7NO_5$ M 173.125

The acid and its salts polymerise to polyglutamates.

(S)-form [33043-68-4]

L-form

Used in peptide synthesis, and in the detn. of the optical purity of amino acids by hplc. Cryst. ($EtOH$ /hexane). Mp 83° dec. $[\alpha]_D^{26} -29.52^\circ$ (c, 1.05 in dioxan).

Me ester: [1663-47-4].

$C_7H_9NO_5$ M 187.152

Cryst. ($CHCl_3$ /pet. ether). Mp 99°.

Et ester: [19363-27-0].

$C_8H_{11}NO_5$ M 201.179

Cryst. ($CHCl_3$ /pet. ether). Mp 66°.

Benzyl ester: [3190-71-4].

$C_{13}H_{13}NO_5$ M 263.249

Cryst. Mp 93-94°. $[\alpha]_D^{25} -17.6^\circ$ (c, 3.78 in $EtOAc$).

Coleman, D., *J. Chem. Soc.*, 1950, 3222; 1951, 2294 (*synth, esters*)

Blout, E.R. *et al*, *J. Am. Chem. Soc.*, 1956, 78, 941 (*synth, benzyl ester*)

Manning, J.M. *et al*, *J. Biol. Chem.*, 1968, 243, 5591 (*use*)

Hirschmann, R. *et al*, *J. Am. Chem. Soc.*, 1971, 93, 2746 (*synth, use*)

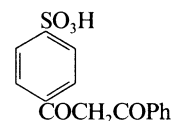
Fuller, W.D. *et al*, *Biopolymers*, 1976, 15, 1869 (*synth, esters*)

Kricheldorf, H.R. *et al*, *Org. Magn. Reson.*, 1980, 14, 198 (*nmr, esters*)

Daly, W.H. *et al*, *Tetrahedron Lett.*, 1988, 29, 5859 (*synth*)

4-(1,3-Dioxo-3-phenylpropyl) benzenesulfonic acid, 9CI D-00994

1-Phenyl-3-(p-sulfofenyl)-1,3-propanedione
[49539-07-3]



$C_{15}H_{12}O_5S$ M 304.323

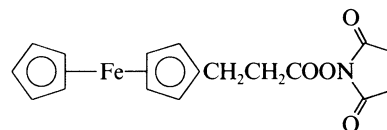
Used for photometric detn. of U (λ_{max} 398 nm, ϵ 19300). Pale yellow plates (H_2O). Sol. H_2O .

Tröltzsch, C., *J. Prakt. Chem.*, 1963, 22, 192 (*synth*)

Tröltzsch, C., *Z. Chem.*, 1973, 13, 228 (*detn, U*)

[3-[(2,5-Dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]ferrocene, 9CI D-00995

[91630-54-5]



$C_{17}H_{17}FeNO_4$ M 355.173

Derivatisation reagent for amines for hplc with electrochem. detn. Mp 141-142°.

Tanaka, M. *et al*, *J. Chromatogr.*, 1984, 292, 410; 1989, 487, 247 (*synth, use*)

***O,O*-Dipentyl phosphorodithioate, 9CI, 8CI D-00996**

O,O-Dipentyl hydrogen dithiophosphate. *O,O*-Diamyl dithiophosphoric acid. *O,O*-Diamyl phosphorodithioate
[2253-54-5]

$[H_3C(CH_2)_4O]_2P(S)SH$

$C_{10}H_{23}O_2PS_2$ M 270.396

Zn complex used as lubricant additive. Used as soln. of K salt in $CHCl_3$, C_6H_6 or CCl_4 for extraction of Cd, In, Ni, Pb, Tl, Zn. Oil. Sol. $EtOH$, C_6H_6 , CCl_4 , Me_2CO . d^{20} 1.04. $Bp_{0.015}^{20}$ 89°. n_D^{20} 1.4920.

K salt: [3287-86-3].

Flotation agent. Solid. Mp 144-145°.

Busev, A.I. *et al*, *Tr. Kom. Anal. Khim., Akad. Nauk SSSR*, 1960, **11**, 172.

Almasi, L. *et al*, *CA*, 1965, **62**, 2729 (*synth*)

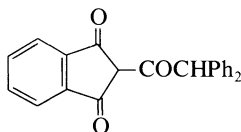
Bolotova, G.L. *et al*, *CA*, 1965, **63**, 6897 (*synth*)

Mazitova, F.N. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 1393), 1980, **50**, 1718 (*synth*, *P nmr*)

Toropova, V.F. *et al*, *Talanta*, 1987, **34**, 211 (*use*)

Diphenadione, BAN, INN**D-00997**

2-(Diphenylacetyl)-1H-indene-1,3(2H)-dione, 9CI. 2-(Diphenylacetyl)-1,3-indandione, 8CI. Didandin. Didion. Difexan. Dipaxin. Diphacinone. Diphenacin. Oragulant. *Solvan. U 1363. URI 788*
[82-66-6]



$C_{23}H_{16}O_3$ M 340.378

Anticoagulant, rodenticide. Pale-yellow cryst. (EtOH). Sol. Me_2CO , AcOH, sl. sol. C_6H_6 . Mp 146-147°.

▷ Highly toxic orally. NK5600000.

l-Hydrazone: [5102-79-4].

$C_{23}H_{18}N_2O_2$ M 354.407

Reagent for detn. of carbonyl compds. Yellow cryst. (EtOH/DMF). Mp 305° dec.

U.S. Pat., 2 672 483, (1954); *CA*, **49**, 3264a (*synth*)

Braun, R.A. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 2749 (*synth, deriv*)

Ozols, J. *et al*, *Zh. Obshch. Khim.*, 1958, **28**, 3038 (*synth*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 335.

Mosher, W.A. *et al*, *Talanta*, 1968, **15**, 482 (*use, deriv*)

Pietrzyk, D.J. *et al*, *Anal. Chem.*, 1970, **42**, 37 (*synth, use, deriv*)

Tckhivinska, T.I. *et al*, *CA*, 1976, **85**, 32670q.

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 4812.

Kurth, M.J. *et al*, *Tetrahedron Lett.*, 1985, **26**, 4883 (*cmr, struct*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVV600.

Diphenhydramine, BAN, INN**D-00998**

2-(Diphenylmethoxy)-N,N-dimethylethanamine, 9CI. 2-(Diphenylmethoxy)-N,N-dimethylethylamine, 8CI. Benzhydryl 2-dimethylaminoethyl ether. 2-Dimethylaminoethyl α -phenylbenzyl ether. Numerous proprietary names
[58-73-1]



$C_{17}H_{21}NO$ M 255.359

Antihistamine and virucide. Oil. Bp₃ 163-167°, Bp₂ 150-165°. Component of Mandrax.

▷ Poisonous. LD₅₀ 29mg/kg (mouse, i.v.). KR6825000.

B, HCl: [147-24-0]. *Diphenhydramine hydrochloride, USAN.*

Histex. Bendylate. Eldadryl. Benadryl. Dimedrol

Component of numerous proprietary preparations. Used as 2% aq. soln. in photometric detn. of Ti (ϵ 82000). Cryst. (EtOH/Et₂O). Sol. H₂O. Mp 161-162°, Mp 166-170°.

▷ KR7000000.

Citrate: [88637-37-0]. *Diphenhydramine citrate, USAN*

8-Chlorotheophylline salt(1:1): [523-87-5]. *Diphenhydramine teoclate. Dimenhydrinate, BAN, INN. Dramamine. Eldodram. Gravol. Numerous proprietary names*

$C_{24}H_{28}ClN_5O_3$ M 469.970

Antinauseant. Mp 102-107°.

▷ XH5082000.

N-Oxide: [3922-74-5]. *Amoxydramine, INN*

$C_{17}H_{21}NO_2$ M 271.358

Antihistamine. Mp 20°. Normally used as salts.

N-oxide, 2-oxo-10-bornanesulfonate: [15350-99-9].

Amoxydramine camsilate, INN

[13168-00-8, 15350-99-9]

U.S. Pat., 2 427 878, (1947).

U.S. Pat., 2 421 714, (1947); *CA*, **41**, 5550 (*synth*)

Cusic, J.W., *Science (Washington, D.C.)*, 1949, **109**, 574 (*synth, Dimenhydrinate*)

Kubo, H. *et al*, *CA*, 1955, **49**, 218 (*synth*)

U.K. Pat., 752 707, (1956); *CA*, **51**, 5846 (*synth, Dimenhydrinate*)

Thompson, W.E. *et al*, *J. Pharm. Sci.*, 1965, **54**, 1819 (*ir*)

Ostrovkhaya, Y.A., *Med. Promst. SSSR*, 1966, **20**, 23 (*synth*)

Rekker, R.F. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1968, **87**, 1099 (*w*)

Rekker, R.F. *et al*, *Arzneim.-Forsch.*, 1970, **20**, 1572 (*ir, nmr*)

Jaju, B.P. *et al*, *J. Pharmacol. Exp. Ther.*, 1971, **176**, 718

(*Dimenhydrinate*)

Holcomb, I.J. *et al*, *Anal. Profiles Drug Subst.*, 1974, **3**, 173 (*rev, synth, anal, props*)

Talipov, S.T. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 724 (*use, deriv*)

Eckhardt, G., *Org. Mass Spectrom.*, 1979, **14**, 31 (*ms*)

Julian, E.A. *et al*, *J. Pharm. Sci.*, 1981, **70**, 704 (*struct*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 6128, 6131, 12669.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 4439 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BAU750, BBV500, DYE600.

Diphenylacetic acid, 8CI**D-00999**

α -Phenylbenzeneacetic acid, 9CI. Diphenylmethane- α -carboxylic acid

[117-34-0]



$C_{14}H_{12}O_2$ M 212.248

Used in extraction-separation of U. Leaflets (EtOH). Mp 149°.

▷ AH2515000.

Me ester: [3469-00-9].

$C_{15}H_{14}O_2$ M 226.274

Cryst. (MeOH aq.). Mp 60°.

Et ester: [3468-99-3].

$C_{16}H_{16}O_2$ M 240.301

Cryst. (EtOH). Mp 58°. Bp₁₅ 178°.

Anhydride: [1760-46-9].

$C_{28}H_{22}O_3$ M 406.480

Mp 98°. Bp₁₅ 220°.

Chloride: [1871-76-7].

$C_{14}H_{11}ClO$ M 230.693

Cryst. (ligroin). Mp 56-57°. Bp₁₅ 178°.

▷ AO6750000.

Amide: [4695-13-0].

$C_{14}H_{13}NO$ M 211.263

Mp 167-168°.

▷ AB8135000.

Nitrile: [86-29-3]. *Diphenylacetoneitrile.*

Cyanodiphenylmethane

$C_{14}H_{11}N$ M 193.248

Mp 75-76° (72-73°). Bp₁₂ 181°.

▷ Exp. neoplastic agent. AL9800000.

3-(Diethylamino)propyl ester: [3578-28-7].

$C_{21}H_{27}NO_2$ M 325.450

Anticholinergic, antiasthmatic agent.

- 3-(Diethylamino)propyl ester; *B,HCl*: [3098-65-5]. *Arpenal*
 Staudinger, H., *Ber.*, 1911, **44**, 1619.
Org. Synth., Coll. Vol., 1, 1932, 219.
 Hurd, C.D. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 2589.
 Hsu, M.-L. *et al*, *CA*, 1961, **56**, 7201.
Org. Synth., Coll. Vol., 4, 1963, 777.
U.S.S.R. Pat., 231 716, (1968); *CA*, **70**, 67947 (*synth, props, Arpenal*)
 Prozorovskii, V.B. *et al*, *Farmakol. Toksikol. (Moscow)*, 1969, **32**, 475 (*Arpenal*)
 Arakelova, R.L. *et al*, *Arm. Khim. Zh.*, 1973, **26**, 76 (*cryst struct, Arpenal*)
 Adam, J. *et al*, *Collect. Czech. Chem. Commun.*, 1974, **39**, 2576 (*use*)
 Strazzolini, P. *et al*, *Synth. Commun.*, 1987, **17**, 1919 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVW800, DVX200.

Diphenylamine, 8CI**D-01000**

N-Phenylbenzenamine, 9CI
 [122-39-4]

PhNHPH

C₁₂H₁₁N M 169.226

Used for photometric detn. of NO₃[⊖], NO₂[⊖]. Cryst. Sol.
 EtOH, Et₂O, C₆H₆; insol. H₂O. Mp 52-54°. Bp 302°. pK_a
 22.73 (25°, DMSO aq.).

▷ Toxic, TLV 10. Exp. carcinogen. JJ7800000.

N-Ac: [519-87-9]. *N*-Diphenylacetamide

C₁₄H₁₃NO M 211.263

Cryst. (pet. ether). Mp 103°.

▷ AB8133000.

N-Benzoyl: [4051-56-3]. *N*-Diphenylbenzamide

C₁₉H₁₅NO M 273.334

Prisms (EtOH). Mp 179-180°.

N-Nitroso: [86-30-6]. *Diphenylnitrosamine*

C₁₂H₁₀N₂O M 198.224

Rubber vulcanisation inhibitor, lubricant additive,
 antioxidant, fungicide, insecticide, stabiliser. Yellow
 plates. Mp 66.5°.

▷ Carcinogen. JJ9800000.

Goldberg, I. *et al*, *Ber.*, 1907, **40**, 4541.

Chapman, A.W., *J. Chem. Soc.*, 1929, 2133.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **II**.

Szekely, E., *Talanta*, 1967, **14**, 941 (*use*)

Brownlee, R.C. *et al*, *J. Am. Chem. Soc.*, 1968, **90**, 1757.

Itier, J.C. *et al*, *Bull. Soc. Chim. Fr.*, 1970, 168.

Cox, R.A. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 488.

Mornon, J.-P. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1977, **284**, 779 (*cryst struct*)

Dhaneshwar, N.N. *et al*, *Acta Crystallogr., Sect. C*, 1991, **47**, 217 (*cryst struct, N-nitroso*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 313.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVX800, DW1000, PDX500.

N,N'*-Diphenylbenzamidine, 8CI*D-01001**

N,N'-Diphenylbenzenecarboximidamide, 9CI
 [2556-46-9]

PhN=CPhNHPH

C₁₉H₁₆N₂ M 272.349

Used as a 7mM soln. in CHCl₃ for extraction-photometric detn. of Au(III) (λ_{max} 395 nm, ε 12000) and Mo (λ_{max} 465 nm, ε 17000). Leaflets (EtOH). Sol. CHCl₃, C₆H₆, EtOAc, EtOH, Et₂O. Mp 148-149° (144-145°).

B,HCl: [5014-74-4].

Mp 297-299°.

Picrate: Mp 215-216°.

N-Hydroxy: [53170-30-2]. *N-Hydroxy-N,N'*-diphenylbenzenecarboximidamide, 9CI

C₁₉H₁₆N₂O M 288.348

Used as a 3mM soln. in Me₂CO for photometric detn. of Fe(III) (λ_{max} 560 nm), V(V) (λ_{max} 560 nm, ε 4210); as a 0.1% soln. in EtOH or CHCl₃ for extraction-photometric detn. of Ni, gravimetric detn. of Ni. Pale yellow cryst. (pet. ether/C₆H₆). Sol. CHCl₃; mod. sol. C₆H₆, CCl₄, EtOAc. Mp 163° (170°).

[59387-41-6]

Warren, W.H. *et al*, *Ber.*, 1935, **68**, 957.

Shriner, R.L. *et al*, *Chem. Rev.*, 1944, **35**, 351 (*synth, deriv*)

Munoz, G.G. *et al*, *CA*, 1962, **57**, 8496h.

Org. Synth., Coll. Vol., 4, 1963, 383.

Zimmer, H. *et al*, *Tetrahedron Lett.*, 1968, 176.

Satyanarayana, K. *et al*, *Anal. Chem.*, 1974, **46**, 1609 (*synth, deriv*)

Satyanarayana, K. *et al*, *Indian J. Chem.*, 1975, **13**, 295 (*use*)

Briggs, L.H. *et al*, *Aust. J. Chem.*, 1976, **29**, 357 (*synth, deriv*)

Satyanarayana, K., *J. Indian Chem. Soc.*, 1976, **53**, 63, 928; 1978, **55**, 787 (*detn, Fe, V*)

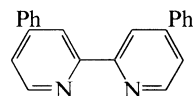
Patel, K.S. *et al*, *Bull. Chem. Soc. Jpn.*, 1979, **52**, 595.

Patel, K.S. *et al*, *Anal. Chem.*, 1982, **54**, 52; 1986, **58**, 1547 (*use*)

Savariar, C.P., *Talanta*, 1989, **36**, 1047 (*detn, Ti*)

4,4'-Diphenyl-2,2'-bipyridine, 9CI**D-01002**

[6153-92-0]

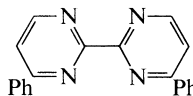
C₂₂H₁₆N₂ M 308.382

Used as redox indicator. Needles (pet. ether). Sol. EtOH, C₆H₆, pet. ether; insol. H₂O.

Schilt, A.A., *Analytical Applications of 1,10-Phenanthroline and Related Compounds*, Pergamon, Oxford, 1969 (*use, ind*)

4,4'-Diphenyl-2,2'-bipyrimidine, 8CI**D-01003**

[10198-99-9]

C₂₀H₁₄N₄ M 310.357

Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 403 nm, ε 5200). Cryst. (Et₂O). Sol. C₆H₆, dil. HCl. Mp 155-156°.

Lafferty, J.J. *et al*, *J. Org. Chem.*, 1967, **32**, 1591 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn, Cu*)

Diphenylcarbazide**D-01004**

sym-Diphenylcarbazide. 1,5-Diphenylcarbazide. 1,5-Diphenylcarbohydrazide
 [140-22-7]

PhNHNHCONHNHPH

C₁₃H₁₄N₄O M 242.280

Used chiefly for photometric detn. of Os, Cr(VI) (λ_{\max} 545 nm, ϵ 43000; 0.05-0.1M H₂SO₄); detn. of Cu, Re, Ir, Rh, Au, Zn, Mn; indicator in chelatometric titrn. with standard Hg(II) soln. Cryst. (EtOH). Sl. sol; H₂O, sol. Me₂CO, EtOH; insol. Et₂O, C₆H₆, CHCl₃. Mp 175-175.5°.

B, HCl: Cryst. Mp 125° dec.

Ac:

C₁₅H₁₆N₄O₂ M 284.317
Cryst. Mp 98°.

Slotta, K.H. *et al*, *Fresenius' Z. Anal. Chem.*, 1929, **77**, 344 (*bibl*)
Noller, C.R., *J. Am. Chem. Soc.*, 1930, **52**, 1134 (*synth*)
Urone, P.F., *Anal. Chem.*, 1955, **27**, 1355 (*solns, stability*)
Balt, S. *et al*, *Anal. Chim. Acta*, 1961, **25**, 507; 1962, **27**, 188; 1963, **29**, 466; 1964, **30**, 434 (*detn, Cr*)
Marchart, H. *et al*, *Anal. Chim. Acta*, 1964, **30**, 11 (*reaction, Cr*)
Friese, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **286**, 107 (*detn, Cr*)
Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, **277**, use.
Andrade, J.C. *et al*, *Analyst (London)*, 1984, **109**, 645 (*detn, Cr*)
Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 412.
Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 428.
West, T.S. *et al*, *The Determination of Trace Metals in Natural Waters*, Blackwell, Oxford, 1988, 12.

Diphenylcarbazone D-01005

Phenyldiazene-carboxylic acid 2-phenylhydrazide, 9CI
[538-62-5]

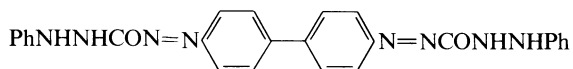


C₁₃H₁₂N₄O M 240.264

Used for photometric detn. of Br[⊖], Cl[⊖], I[⊖], CN[⊖], Zn, Cd, Ga, In, Ir, Rh, Ru, Hg, Cu. Orange-red needles. Mp 157° dec.

Balt, D. *et al*, *Anal. Chim. Acta*, 1962, **27**, 416 (*detn, Hg*)
Okutani, T., *Bull. Chem. Soc. Jpn.*, 1968, **41**, 1728 (*detn, Hg*)
Einaga, H. *et al*, *Analyst (London)*, 1973, **98**, 82 (*detn, Cu*)
Manku, G.S., *Mikrochim. Acta*, 1973, 341.
Friese, B., *Justus Liebig's Ann. Chem.*, 1977, **286**, 107 (*synth*)
Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 277 (*use*)

sym-Diphenylcarbazone D-01006



C₂₆H₂₂N₈O₂ M 478.512

Used as a 0.025M soln. in Me₂CO for photometric detn. of Rh (λ_{\max} 565 nm). Cryst.

Ayres, G. *et al*, *Anal. Chim. Acta*, 1960, **23**, 448 (*detn, Rh*)

2,2'-Diphenylcarbonothioic dihydrazide, D-01007 9CI

1,5-Diphenyl-3-thiocarbohydrazide, 8CI.

Diphenylthiocarbazide

[622-03-7]



C₁₃H₁₄N₄S M 258.346

Used in photometric detn. of Cu, Te (HCl medium). Cryst. (EtOH). Spar. sol. EtOH, C₆H₆. Mp 156-158° dec. Sol. alkalis with dec. Turns green on melting or in hot soln.

▷ FF2800000.

Maw, C.E. *et al*, *CA*, 1938, **32**, 2912 (*synth*)
Org. Synth., Coll. Vol., 3, 1955, 360 (*synth*)
Murashova, V.I. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1205 (*Te*)
Hainberger, L. *et al*, *Mikrochim. Acta*, 1974, 885 (*Cu*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DWN400.

Diphenyldisulfimide D-01008

N-(Phenylsulfonyl)benzenesulfonamide, 9CI

[2618-96-4]



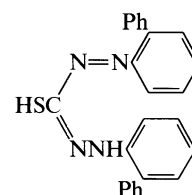
C₁₂H₁₁NO₄S₂ M 297.355

Used as an acidimetric standard. Cryst. Sol. H₂O.

Runge, F. *et al*, *Fresenius' Z. Anal. Chem.*, 1957, **158**, 266 (*use*)

2,2'-Diphenyldithizone D-01009

Di-(o-diphenyl)thiocarbazono



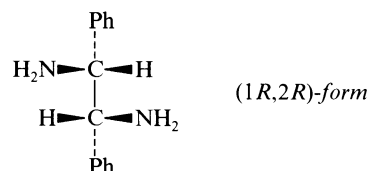
C₂₅H₂₀N₄S M 408.526

Used as a 0.01% soln. in CCl₄ or CHCl₃ for extraction-photometric detn. of Ag, Hg, Cd, Cu. Greenish-black cryst. powder. Sol. alkalis, Me₂CO, CCl₄, CHCl₃, EtOH; insol. H₂O.

Takei, S., *Bunseki Kagaku (Jpn. Anal.)*, 1960, **9**, 409 (*use*)

1,2-Diphenyl-1,2-ethanediamine, 9CI D-01010

1,2-Diphenylethylenediamine, 8CI. 1,2-Diamino-1,2-diphenylethane. Stilbenediamine. α,β -Diaminostilbene
[5700-60-7]



C₁₄H₁₆N₂ M 212.294

(1R,2R)-form [29841-69-8]

Cryst. Mp 85-86.5° (80°). [α]_D²² +106.9° (c, 1.07 in MeOH), [α]_D¹⁸ +82.6° (c, 0.97 in Et₂O) (opt. pure). Has assigned the opposite (incorrect) abs. config.

N,N'-Di-Me: 1,2-Bis(methylamino)-1,2-diphenylethane
Cryst. (pentane). Mp 51°. [α]_D²⁵ +20° (c, 0.15 in CHCl₃) (e.e. >95%).

(1S,2S)-form [35132-20-8]

Mp 85.5-86°. [α]_D²² -83° (c, 0.1 in Et₂O).

(1RS,2RS)-form [16635-95-3]

(±)-form

Fluorogenic reagent for hplc anal. of catecholamines. Cryst. (ligroin). Mp 90-92° (76-77°).

B, 2HCl: Cryst. Mp 251° dec.

Picrate: Cryst. Mp 220°.

N,N'-Di-Me: [60508-97-6].

C₁₆H₂₀N₂ M 240.347
Oil.

N-Tetra-Me: [94533-52-5].

C₁₈H₂₄N₂ M 268.401

Cryst. (hexane). Mp 104.5-106.5°.
N-Tetra-Et: [94533-54-7].
C₂₂H₃₂N₂ M 324.508
Cryst. (MeOH aq.). Mp 74.5-77°.

(1RS,2SR)-form [951-87-1]

meso-form

Fluorogenic reagent for hplc anal. of catecholamines.

Leaflets (Et₂O). Mp 121°.

B,2HCl: Cryst. Mp 256° dec.

Picrate: Cryst. Mp 225°.

N,N'-Di-Me: [60509-62-8].

Cryst. (hexane). Mp 132-133.5°.

N-Tetra-Me: [94533-51-4].

Cryst. (hexane). Mp 195-197°.

N-Tetra-Et: [94533-53-6].

Cryst. (MeOH aq.). Mp 85-86°.

Feist, F. *et al*, *Ber.*, 1895, **28**, 3169 (*synth*)Biltz, H. *et al*, *Justus Liebigs Ann. Chem.*, 1912, **391**, 208 (*synth*)Okaku, N., *Bull. Chem. Soc. Jpn.*, 1967, **40**, 2326 (*synth*)Meric, R. *et al*, *Tetrahedron Lett.*, 1974, 2059 (*abs config*)Chang, C.A. *et al*, *Inorg. Chem.*, 1979, **18**, 1266 (*synth, resoln*)Mitsui, A. *et al*, *J. Chromatogr.*, 1985, **344**, 61; 1986, **380**, 229 (*use*)Saigo, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1986, **59**, 931 (*resoln, props*)Betschart, C. *et al*, *Helv. Chim. Acta*, 1987, **70**, 2215 (*synth, ir, pmr, derivs*)Umegae, Y. *et al*, *Anal. Chim. Acta*, 1988, **208**, 59 (*use*)Manganey, P. *et al*, *Tetrahedron Lett.*, 1988, **29**, 2675 (*N,N'-Di-Me, resoln*)Corey, E.J. *et al*, *J. Am. Chem. Soc.*, 1989, **111**, 5493 (*synth*)Pini, D. *et al*, *Synthesis*, 1990, 1023 (*synth, pmr*)Kanemasa, S. *et al*, *J. Org. Chem.*, 1991, **56**, 4473 (*N,N'-Di-Me, synth*)**N,N'-Diphenyl-1,2-ethanediamine, 9CI** **D-01011**

N,N'-Diphenylethylenediamine. 1,2-Dianilinoethane.

Wanzlick's reagent

[150-61-8]

C₁₄H₁₆N₂ M 212.294

Antioxidant for siloxane rubber. Reagent for imidazolidine synth. Anal. reagent for aldehydes. Cryst. (EtOH). Mp

65°, Mp 68°, 74°. Bp₂ 178-182°.

▷ KV4800000.

B,HCl: Cryst. (EtOH). Mp 214-215°.

N,N'-Di-Ac:

C₁₈H₂₀N₂O₂ M 296.368Cryst. (Et₂O/pet. ether or Et₂O/EtOH). Mp 156.5-157°.

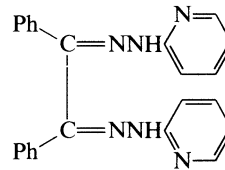
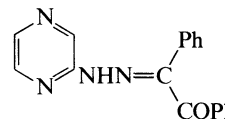
N,N'-Dibenzoyl:

C₂₈H₂₄N₂O₂ M 420.510Cryst. (Et₂O/pet. ether or Et₂O/EtOH). Mp 193-194°.

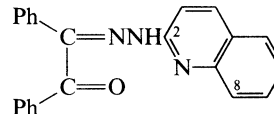
N,N'-Dinitroso:

C₁₄H₁₄N₄O₂ M 270.290

Mp 157°.

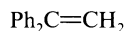
N,N'-Bis(p-toluenesulphonyl): Cryst. (Et₂O/pet. ether or Et₂O/EtOH). Mp 223-223.5°.Bennett, G.M., *J. Chem. Soc.*, 1919, **115**, 577.Billman, J.H. *et al*, *J. Org. Chem.*, 1951, **16**, 1041 (*synth*)Wanzlick, H.W. *et al*, *Chem. Ber.*, 1953, **86**, 1463 (*use*)Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 98.Chalmers, R.A. *et al*, *Analyst (London)*, 1972, **97**, 951 (*use*)Gomez Aranda, V. *et al*, *Synthesis*, 1974, **7**, 504 (*synth*)**Diphenylethanedione bis(2-pyridinylhydrazone), 9CI** **D-01012**
Benzil bis(2-pyridylhydrazone)
[58495-39-9]C₂₄H₂₀N₆ M 392.462Used as a soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 635 nm, ε 5800), Cu(I), Co, Ni, Zn. Cryst. (MeOH aq.). Sol. EtOH, Me₂CO, C₆H₆; insol. H₂O. Mp 180°.Schilt, A.A. *et al*, *Talanta*, 1975, **22**, 915 (*synth, use*)**Diphenylethanedione mono(pyrazinylhydrazone), 9CI** **D-01013**
[58495-46-8]C₁₈H₁₄N₄O M 302.335

Used as a soln. in aq. EtOH for photometric detn. of Co, Ni, Fe(II). Cryst. Sol. common org. solvs.

Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 373 (*use*)**Diphenylethanedione mono(2-quinolinylhydrazone), 9CI** **D-01014**
Benzil mono-2-quinolinylhydrazone
[70253-43-9]C₂₃H₁₇N₃O M 351.407Used as a soln. in C₆H₆ for extraction-photometric detn. of Cu(C₆H₆) (λ_{max} 520 nm, ε 40000). Orange cryst. (EtOH). Sol. C₆H₆, EtOH, Me₂CO; insol. H₂O. Mp 165-167°.Berger, S.A. *et al*, *Mikrochim. Acta*, 1979, **1**, 311.**Diphenylethanedione mono(8-quinolinylhydrazone), 9CI** **D-01015**
Benzoylphenyl-N-8-quinolinylhydrazone
[82633-13-4]C₂₃H₁₇N₃O M 351.407Used as a 0.01M soln. in 0.05M HCl/EtOH to give colour reaction with Cu(I); used as 0.01M EtOH soln. for photometric detn. of Fe(III) (λ_{max} 643 nm, ε 9700), Co, Ni, Zn. Cryst. (EtOH). Sol. common org. solvs. Mp 128° (as monohydrate).Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth, use*)

1,1-Diphenylethylene, 8CI**D-01016**

1,1'-Ethenylenebisbenzene, 9CI. α-Methylenediphenylmethane
[530-48-3]



$\text{C}_{14}\text{H}_{12}$ M 180.249

Used in photometric detn. of O_3 . Liq. d_4^{25} 1.038. Mp 8° . Bp 277° , Bp₁₆ 147° .

► Forms an explosive peroxide.

Org. Synth., Coll. Vol., 1, 1932, 221 (*synth*)

McKinley, S.V. *et al.*, *J. Chem. Soc., Chem. Commun.*, 1972, 134 (*synth*)

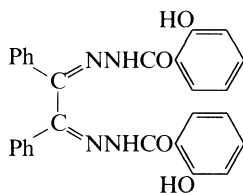
Jeffrey, A. *et al.*, *Aust. J. Chem.*, 1974, **27**, 2659 (*synth*)

Collard, R.S. *et al.*, *Anal. Chim. Acta*, 1979, **108**, 255 (*detn, ozone*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 314.

Diphenylglyoxal bis(2-hydroxybenzoylhydrazone)**D-01017**

2-Hydroxybenzoic acid 2,2'-(1,2-diphenyl-1,2-ethanediyldiene)dihydrazide, 9CI
[73319-79-6]



$\text{C}_{28}\text{H}_{22}\text{N}_4\text{O}_4$ M 478.506

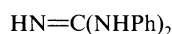
Used as 0.1% soln. in DMF/EtOH for photometric detn. of Ca, Ti. Cryst. Sol. DMF; spar. sol. C_6H_6 , EtOH, CHCl_3 . Mp $> 300^\circ$. pK_{a1} 8.20.

Silva, M. *et al.*, *Analyst (London)*, 1980, **105**, 193 (*detn, Ca*)

Silva, M. *et al.*, *Microchem. J.*, 1980, **25**, 117 (*detn, Ti*)

1,3-Diphenylguanidine, 8CI**D-01018**

N,N'-Diphenylguanidine, 9CI. Accelerator D
[102-06-7]



$\text{C}_{13}\text{H}_{13}\text{N}_3$ M 211.266

Vulcanisation accelerator, complexing agent in detection of metals, organic base. Used as protonated form (diphenylguanidinium ion); forms extractable ion-pairs with anionic complexes of metals, e.g. Co, Ga, In, Mo, Rh, Sn, Ti, V, W, for extraction separation and photometric detn. Needles (EtOH). Sol. Et_2O , CHCl_3 , dil. acids; spar. sol. H_2O . Mp 150° . Strongly alkaline soln.

► Irritant. Highly toxic orally. LD₅₀ 290 mg/kg (mouse, oral). MF0875000.

*B.HNO*₃: Cryst. Mp $195\text{--}196^\circ$ dec.

Picrate: Cryst. Mp 171° .

Macholdt-Erdniss, J., *Chem. Ber.*, 1958, **91**, 1992 (*synth*)

Ferris, A.F. *et al.*, *J. Org. Chem.*, 1963, **28**, 71 (*synth*)

Tananaiko, M.M. *et al.*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1972, **38**, 610 (*use, Co*)

Wakamatsu, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1974, **46**, 761 (*use, V*)

Nazarenko, V.A. *et al.*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1979, **45**, 878 (*use, W*)

Legocki, J. *et al.*, *CA*, 1981, **95**, 80430 (*synth*)

Cheng, K.L. *et al.*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 499 (*use*)

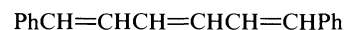
Clement, B. *et al.*, *Chem. Ber.*, 1986, **119**, 1101 (*N-15 nmr, tautom*)

Maryanoff, C.A. *et al.*, *J. Org. Chem.*, 1986, **51**, 1882 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DWC600.

1,6-Diphenyl-1,3,5-hexatriene, 8CI**D-01019**

1,1'-(1,3,5-Hexatriene-1,6-diy)bisbenzene, 9CI. DPH
[1720-32-7]



$\text{C}_{18}\text{H}_{16}$ M 232.324

Fluorescence probe for membrane fluidity studies. Used as 0.03% soln. in CHCl_3 for detn. of lipids. Used in liquid scintillation spectrometry.

(E,E,E)-form [17329-15-6]

all-trans-form

Cryst. (EtOH) or pale yellow leaflets (EtOH/dioxan).

Mp $203\text{--}204^\circ$ (192°).

(E,E,Z)-form [38557-35-6]

cis,trans,trans-form

Oil.

(E,Z,E)-form [38557-34-5]

trans,cis,trans-form

Cryst. (hexane). Mp $109\text{--}110^\circ$.

Braude, E.A., *J. Chem. Soc.*, 1950, 379 (*uv*)

Drenth, W. *et al.*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1953, **72**, 39 (*cryst struct*)

Gobov, G.B. *et al.*, *Zh. Fiz. Khim.*, 1964, **35**, 1142 (*ir*)

Johnstone, R.A.W. *et al.*, *J. Chem. Soc. C*, 1968, 2540 (*ms*)

Hashimoto, I. *et al.*, *J. Org. Chem.*, 1968, **33**, 3955 (*synth*)

Lednicer, D., *J. Org. Chem.*, 1971, **36**, 3473 (*synth*)

van Rossum, A.J.G. *et al.*, *J. Chem. Soc., Perkin Trans. 2*, 1975, 1042 (*synth*)

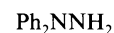
Dickens, B.F. *et al.*, *Biochemistry*, 1980, **19**, 5029 (*use*)

Clement, N.R. *et al.*, *Biochemistry*, 1981, **20**, 1544 (*use*)

Pottel, H. *et al.*, *Biochim. Biophys. Acta*, 1983, **730**, 181 (*use*)

1,1-Diphenylhydrazine, 9CI**D-01020**

[530-50-7]



$\text{C}_{12}\text{H}_{12}\text{N}_2$ M 184.240

Reagent for characterisation of carbonyl compds.; extraction-photometric detn. of Se (λ_{max} 530 nm, ϵ 25700). Plates (ligroin). Mp 34.5° , Mp 44° . Bp₄₀₋₅₀ 220° .

B.HCl: Mp $165\text{--}170^\circ$.

Ac: *1-Acetyl-2,2-diphenylhydrazine*. unsym-
Diphenylacetylhydrazide

$\text{C}_{14}\text{H}_{14}\text{N}_2\text{O}$ M 226.277

Needles. Mp 188.5° .

[38622-18-3]

Murashova, V.I. *et al.*, *Zh. Anal. Khim.*, 1964, **19**, 1503 (*use*)

Kalamur, J. *et al.*, *CA*, 1967, **69**, 86668h (*synth*)

Koga, N. *et al.*, *J. Org. Chem.*, 1968, **33**, 3963 (*synth*)

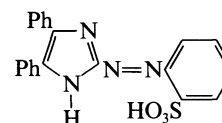
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 178.

Brindle, J.R. *et al.*, *Can. J. Chem.*, 1976, **54**, 871 (*synth*)

Shantil, J. *et al.*, *Monatsh. Chem.*, 1978, **109**, 1481 (*nmr*)

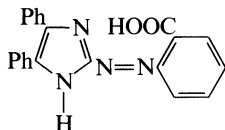
2-[(4,5-Diphenyl-1H-imidazol-2-yl)azo] benzenesulfonic acid, 9CI**D-01021**

2-(2-Sulfophenylazo)-4,5-diphenylimidazole
[19668-07-6]

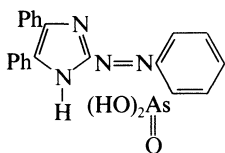


C₂₁H₁₆N₄O₃ M 404.448Used as EtOH soln. to give colour reactions with Cu, Cd, Co, Ni, Zn. Pale red cryst. (alkaline aq. soln.). Sol. EtOH, CHCl₃; sl. sol. H₂O. Mp > 300°.Shibata, S. *et al.*, *Anal. Chim. Acta*, 1976, **81**, 131 (*synth, use*)**2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo] benzoic acid, 9CI** D-01022

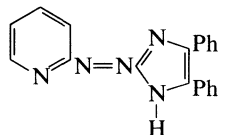
2-[(2-Carboxyphenyl)azo]-4,5-diphenylimidazole [5264-48-2]

C₂₂H₁₆N₄O₂ M 368.394Used as a 1mM soln. in EtOH for photometric detn. of Cd, Cu, Hg, Ni. Red needles (EtOH aq.). Sol. acids, alkalis, EtOH, CHCl₃; insol. H₂O. Mp 235°. pK_{a1} 3.8; pK_{a2} 10.8 (35% EtOH, 0.1M KCl, 25°).Shibata, S. *et al.*, *Anal. Chim. Acta*, 1976, **81**, 131 (*synth, use*)**[2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo] phenyl]arsonic acid, 9CI** D-01023

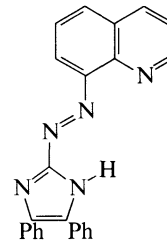
2-[(2-Arsonophenyl)azo]-4,5-diphenylimidazole [60037-64-1]

C₂₁H₁₇AsN₄O₃ M 448.312Used as EtOH soln. for colour reactions with Cu, Ti, Ni, Pd. Yellow-orange needles. Sol. EtOH, CHCl₃, alkalis; sl. sol. H₂O. Mp > 300°. pK_{a2} 4.4; pK_{a3} 11.2 (35% EtOH).Shibata, S. *et al.*, *Anal. Chim. Acta*, 1976, **81**, 131 (*synth, use*)**2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo] pyridine, 9CI** D-01024

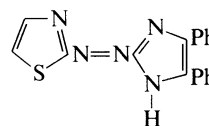
2-(2-Pyridylazo)-4,5-diphenylimidazole [60037-66-3]

C₂₀H₁₅N₅ M 325.372Used as EtOH soln. to give colour reactions with Ag, Bi, Co, Cu, Hg, Ni, Pd. Orange needles (EtOH aq.). Sol. EtOH, CHCl₃; insol. H₂O. Mp 249°. pK_{a2} 2.7; pK_{a3} 9.7 (35% EtOH).Shibata, S. *et al.*, *Anal. Chim. Acta*, 1976, **81**, 131 (*synth, use*)**8-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo] quinoline, 9CI** D-01025

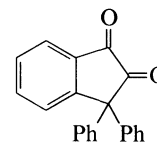
2-(8-Quinolylazo)-4,5-diphenylimidazole [4948-87-2]

C₂₄H₁₇N₅ M 375.432Used as 0.1mM CHCl₃ soln. or 0.05% EtOH soln. for extraction-photometric detn. of Hg (λ_{max} 580 nm, ε 73000), Cu. Reddish brown cryst. powder. Sol. CHCl₃, EtOH; insol. H₂O. Mp 202°. pK_{a2} 3.7; pK_{a3} 10.7 (35% EtOH aq.).Shibata, S. *et al.*, *Anal. Chim. Acta*, 1976, **81**, 131; 1980, **120**, 405 (*synth, detn, Hg*)**2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo] thiazole, 9CI** D-01026

4,5-Diphenyl-2-(2-thiazolylazo)imidazole [60037-65-2]

C₁₈H₁₃N₅S M 331.400Used as EtOH soln. to give colour reactions with Co, Cu, Mn, Ni, Zn. Reddish brown powder. Sol. EtOH, CHCl₃; insol. H₂O. Mp 240°. pK_{a3} 8.9 (35% EtOH).Shibata, S. *et al.*, *Anal. Chim. Acta*, 1976, **81**, 131 (*synth, use*)**3,3-Diphenyl-1,2-indanedione** D-01027

[7312-39-2]

C₂₁H₁₄O₂ M 298.340

Cryst. (pet. ether). Mp 152-153°.

Dioxime: [1738-08-5].

C₂₁H₁₆N₂O₂ M 328.370Used as a soln. in EtOH for pptn. of Pd. Pale yellow cryst. (EtOH). Sol. EtOH, Me₂CO, Et₂O.Schoenberg, A. *et al.*, *J. Chem. Soc.*, 1937, 627 (*synth*)Koelsch, C.F. *et al.*, *J. Org. Chem.*, 1941, **6**, 516 (*synth*)Bark, L.S. *et al.*, *Talanta*, 1965, **12**, 781 (*pptn, Pd*)**Diphenyliodonium(1 +)** D-01028

[10182-84-0]

[Ph₂I][⊕]C₁₂H₁₀I[⊕] M 281.115 (ion)

Bactericide, phenylating agent.

Fluoride: [322-23-6].

C₁₂H₁₀FI M 300.114

Solid. Mp 79-102° (85° dec. and 110° dec.).

Chloride: [1483-72-3].

C₁₂H₁₀Cl M 316.568

Mp 227°.

Bromide: [1483-73-4].

C₁₂H₁₀Br M 361.019

Mp 208°.

Iodide: [2217-79-0].

C₁₂H₁₀I₂ M 408.020

Used as a satd. aq. soln. for detn. of Bi, Co. Needles (MeOH). Mp 172-175° dec., Mp 163-165°.

Trifluoromethanesulfonate: [66003-76-7].

C₁₃H₁₀F₃O₃S M 430.186

Solid. Mp 178-180°.

Nitrate:

C₁₂H₁₀INO₃ M 343.120

Mp 149-150°.

I-Oxide, acetate: Diphenyliodonium I-oxide acetate

C₁₄H₁₃IO₃ M 356.159

Cryst. + 1½ H₂O. Dimeric in cryst. state.

Org. Synth., Coll. Vol., 1, 1932, 355 (iodide)

Masson, I. et al, J. Chem. Soc., 1937, 1718 (synth, iodide)

Potratz, A.H. et al, Anal. Chem., 1949, 21, 1276 (use, iodide)

Beringer, F.M. et al, J. Am. Chem. Soc., 1953, 75, 2705 (chloride)

Epshtein, L.M. et al, Dokl. Akad. Nauk SSSR, 1963, 149, 865;

CA, 59, 4676 (ir)

Petrosyan, V.S. et al, Dokl. Akad. Nauk SSSR, 1967, 175, 613

(pmr)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, 2, 178.

Fogg, A.G. et al, Mikrochim. Acta, 1969, 546.

Alcock, N.W. et al, J. Chem. Soc., Dalton Trans., 1977, 217 (cryst struct)

Cadogan, J.I.G. et al, Synth. Commun., 1977, 365 (use)

Bozopoulos, A.P. et al, Acta Crystallogr., Sect. C, 1987, 43, 142

(cryst struct, oxide)

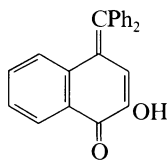
Dektar, J.L. et al, J. Org. Chem., 1990, 55, 639 (synth, uv, ir, pmr, cmr, photochem)

Chen, K. et al, J. Org. Chem., 1991, 56, 5734 (fluoride)

4-(Diphenylmethylene)-2-hydroxy-1(4H)-naphthalenone, 9CI

D-01029

[69019-54-1]



C₂₃H₁₆O₂ M 324.378

Used for photometric detn. of Ge. Orange cryst. (EtOH).

Sol. Me₂CO, EtOH, C₆H₆. Mp 195°.

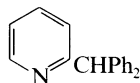
Bevillard, P. et al, Bull. Soc. Chim. Fr., 1954, 307 (synth)

Nazarenko, V.A. et al, J. Anal. Chem. USSR (Engl. Transl.), 1963, 18, 156 (use)

2-(Diphenylmethyl)pyridine, 9CI

D-01030

[3678-70-4]



C₁₈H₁₅N M 245.323

Used as soln. in CHCl₃ or C₆H₆ for extraction separation of Au(III), As(III). Cryst. Sol. CHCl₃, C₆H₆. Mp 59-61°.

Ejaz, M. et al, J. Radioanal. Chem., 1978, 42, 335 (detn, Au)

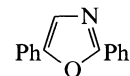
Ejaz, M. et al, Talanta, 1985, 32, 1055 (detn, As)

2,5-Diphenyloxazole, 9CI

D-01031

PPO

[92-71-7]



C₁₅H₁₁NO M 221.258

Used as scintillating material, also as antioxidant; has antirheumatic activity. Needles (pet. ether). Sol. EtOH, Et₂O, prac. insol. H₂O. Mp 74°.

▷ RP6825000.

B,HCl: Mp 165°.

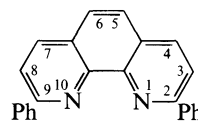
Fischer, E., Ber., 1869, 29, 207 (synth)

Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, DW1200.

2,9-Diphenyl-1,10-phenanthroline, 9CI

D-01032

[25677-69-4]



C₂₄H₁₆N₂ M 332.404

Used for photometric detn. of Cu(I), Fe(II). Cryst. (C₆H₆). Sol. EtOH, C₆H₆; insol. H₂O. pK_{a1} 6.17 (dioxan, 25°).

Wilkins, D.H. et al, Acta Chim. Hung., 1955, 27, 1574 (detn, Cu, Fe)

Case, F.H. et al, J. Org. Chem., 1955, 20, 1330 (synth)

3,8-Diphenyl-1,10-phenanthroline

D-01033

C₂₄H₁₆N₂ M 332.404

Used as redox indicator. Cryst. (C₆H₆/pet. ether). Sol. EtOH, C₆H₆; insol. H₂O. Mp 190-191°. pK_{a1} 5.23 (dioxan, 25°).

Case, F.H. et al, J. Org. Chem., 1955, 20, 1330 (synth)

Schilt, A.A. et al, J. Phys. Chem., 1956, 60, 1546 (pKa, use, ind)

4,7-Diphenyl-1,10-phenanthroline

D-01034

Bathophenanthroline

[1662-01-7]

C₂₄H₁₆N₂ M 332.404

Used for extraction-photometric detn. of Fe(II) (λ_{max} 533 nm, ε 22400, CHCl₃). Cryst. (C₆H₆). Sol. EtOH, Me₂CO, C₆H₆; spar. sol. H₂O. Mp 215-216°. Sulfonated derivs. with greater soly. are often substituted.

Case, F.H., J. Org. Chem., 1951, 16, 1541 (synth)

Smith, G.F. et al, Analyst (London), 1952, 77, 418 (use)

Clark, L.J. et al, Anal. Chem., 1962, 34, 348 (detn, Fe)

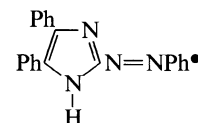
Penner, E.M. et al, Talanta, 1962, 9, 1027 (detn, Fe)

Marczenko, Z., Separation and Spectrophotometric Determination of Elements, Horwood, Chichester, 1986, 333.

4,5-Diphenyl-2-(phenylazo)-1H-imidazole, 9CI

D-01035

[34938-51-7]



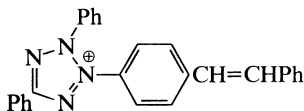
C₂₁H₁₆N₄ M 324.384

Used as a 1mM soln. in EtOH for photometric detn. of Cd, Cu, Hg, Zn. Reddish yellow needles (EtOH aq.). Sol. acids, alkalis, EtOH, CHCl₃; insol. H₂O. Mp 222°. p*K*_{a3} 10.5 (25°, 0.1M KCl, 35% EtOH).

Shibata, S. *et al*, *Anal. Chim. Acta*, 1976, **81**, 131 (*synth, use*)

2,5-Diphenyl-3-[4-(2-phenylethenyl)phenyl]-2H-tetrazolium(1+), 9CI **D-01036**

2,5-Diphenyl-3-(p-styrylphenyl)-2H-tetrazolium(1+), 8CI. DSTC



C₂₇H₂₁N₄[⊕] M 401.490 (ion)

Chloride: [24387-36-8].

C₂₇H₂₁ClN₄ M 436.942

Reagent for the detn. of sugars and thiol steroids on chromatograms. Yellow needles (H₂O). Mp 228° (monohydrate).

Nineham, A.W. *et al*, *J. Chem. Soc.*, 1954, 1568 (*synth*)

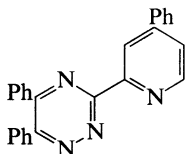
Avigad, G. *et al*, *Biochem. J.*, 1961, **80**, 57 (*use*)

Stevens, P.J. *et al*, *J. Chromatogr.*, 1964, **14**, 269 (*use*)

Leone, R.M. *et al*, *J. Chromatogr.*, 1977, **135**, 527 (*use*)

5,6-Diphenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, 9CI **D-01037**

[1058-71-5]



C₂₆H₁₈N₄ M 386.455

Used as 5mM soln. in EtOH acidified with HCl for photometric detn. of Fe(II) (λ_{max} 561 nm, ε 28700), Cu(I). Cryst. (EtOH). Sol. alkalis, EtOH. Mp 192-193°.

Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (*synth*)

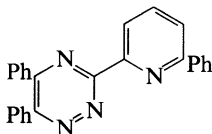
Schilt, A.A. *et al*, *Anal. Chem.*, 1967, **39**, 114 (*detn, Fe*)

Nagahiro, T. *et al*, *Mikrochim. Acta*, 1984, **1**, 85 (*detn, Fe*)

Nagahiro, T. *et al*, *Talanta*, 1984, **31**, 1112 (*detn, Fe*)

5,6-Diphenyl-3-(6-phenyl-2-pyridinyl)-1,2,4-triazine, 9CI **D-01038**

[18895-97-1]



C₂₆H₁₈N₄ M 386.455

Used as a 5mM soln. in aq. EtOH to give colour reaction with Cu(I). Cryst. (EtOH). Sol. common org. solvs. Mp 163-164°.

Case, F.H. *et al*, *J. Heterocycl. Chem.*, 1968, **5**, 413 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*use*)

Diphenylphosphinodithioic acid, 9CI **D-01039**

[1015-38-9]

Ph₂P(S)SH

C₁₂H₁₁PS₂ M 250.325

Reacts with nitriles with the formation of thioamides.

Forms many metal- and organometal-complexes, and is hence used in flotation technology. Pale-yellow cryst. (Et₂O). Sol. alkalis, CCl₄. Mp 55-57°. p*K*_{a1} 1.77 (7% EtOH aq.), p*K*_{a1} 2.69 (80% EtOH aq.), p*K*_{a1} 3.48 (EtOH).

Na salt: [5827-17-8].

Used as a soln. in CCl₄ for the detn. of Ru, Rh, Pt, Pd, Au, Ag, Ir and Os. Cryst. (Me₂CO/pet. ether). Mp 254-255°.

Me ester: [15288-70-7]. Methyl diphenylphosphinodithioate

C₁₃H₁₃PS₂ M 264.351

Cryst. (EtOH or naphtha). Mp 82-83°.

Et ester: [33329-02-1]. Ethyl diphenylphosphinodithioate

C₁₄H₁₅PS₂ M 278.378

Liq. d₄²⁰ 1.19. Bp_{0.3} 166-167°. n_D²⁰ 1.6611.

Isopropyl ester: [59568-76-2]. Isopropyl

diphenylphosphinodithioate

C₁₅H₁₇PS₂ M 292.405

Mp 78-87.5°.

tert-Butyl ester: tert-Butyl diphenylphosphinodithioate

C₁₆H₁₉PS₂ M 306.432

Needles (pet. ether). Mp 91-92°.

2-Propenyl ester: 2-Propenyl diphenylphosphinodithioate.

Allyl diphenylphosphinodithioate

C₁₅H₁₅PS₂ M 290.389

Liq. Bp_{0.04} 160°.

Ph ester: [57644-86-7]. Phenyl diphenylphosphinodithioate

C₁₈H₁₅PS₂ M 326.422

Cryst. (EtOH or pet. ether). Mp 57-59°, Mp 123-125°.

Benzyl ester: [57644-87-8]. Benzyl

diphenylphosphinodithioate

C₁₉H₁₇PS₂ M 340.449

Undist. oil.

Trimethylsilyl ester: Trimethylsilyl

diphenylphosphinodithioate

C₁₅H₁₉PS₂Si M 322.506

Liq. Bp_{0.02} 151-153°.

Anhydrosulfide: [6079-78-3].

C₂₄H₂₀P₂S₃ M 466.567

Cryst. (2-propanol). Mp 118-121°.

Anhydride with acetic acid: S-Acetyl

diphenylphosphinodithioate

C₁₄H₁₃OPS₂ M 292.362

Solid. Mp 86-90°.

Anhydride with benzoic acid: S-Benzoyl

diphenylphosphinodithioate

C₁₉H₁₅OPS₂ M 354.433

Solid. Mp 120-121°.

Hopkins, T.R. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 4447

(anhydrosulfide, esters)

Küchen, W. *et al*, *Chem. Ber.*, 1968, **101**, 3454 (*synth, P nmr*)

Spence, R.A. *et al*, *Aust. J. Chem.*, 1969, **22**, 2359 (*synth, ir, ms, props*)

Almasi, L. *et al*, *Chem. Ber.*, 1969, **102**, 1489 (*anhydrosulfide*)

Kabanova, L.L. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 2248 (*use*)

Küchen, W. *et al*, *Z. Anorg. Allg. Chem.*, 1975, **413**, 266 (*silyl ester, ir, ms, pmr, P nmr*)

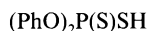
Murav'ev, I.V. *et al*, *Zh. Obshch. Khim.*, 1976, **46**, 789; *J. Gen. Chem. USSR (Engl. Transl.)*, 787 (*esters*)

Goda, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1978, **51**, 260, 818 (*esters, use*)

Harris, R.K. *et al*, *J. Chem. Soc., Dalton Trans.*, 1978, 9
(anhydrosulfide, pmr, P nmr, cmr)
Küchen, W. *et al*, *Chem. Ber.*, 1981, **114**, 3485 (props, use)
Keek, H. *et al*, *Phosphorus Sulfur Relat. Elem.*, 1983, **14**, 225 (ms)

O,O-Diphenyl phosphorodithioate, 9CI, 8CI D-01040

O,O-Diphenyl hydrogen phosphorodithioate. O,O-Diphenyl dithiophosphate. O,O-Diphenyl dithiophosphoric acid
[2253-60-3]



$\text{C}_{12}\text{H}_{11}\text{O}_2\text{PS}_2$ M 282.323

K salt used as 1mM soln. in dichloroethane in extraction-photometric detn. of Pd (λ_{max} 295 nm, ϵ 30000). Cryst. (hexane). Sol. CHCl_3 , CCl_4 , C_6H_6 , dichloroethane, EtOH, Me_2CO . Mp 61°. pK_{a1} 1.81 (7% EtOH aq.), pK_{a1} 2.66 (80% EtOH aq.).

K salt: [3514-82-7].

Cryst. ($\text{Me}_2\text{CO}/\text{C}_6\text{H}_6$). Mp 191.5-192°.

Diethylammonium salt: [51576-73-9].

Solid. Mp 177-178°.

Triethylammonium salt: Solid. Mp 99-99.5°.

4-Methylanilinium salt: Cryst. (H_2O). Mp 110-112°.

Kabachnik, M.I. *et al*, *Tetrahedron*, 1960, **9**, 10 (synth)
Zemlyanski, N.I. *et al*, *Zh. Obshch. Khim.*, 1962, **32**, 1962; *J. Gen. Chem. USSR (Engl. Transl.)*, 1962 (synth)

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 1675 (synth, use)

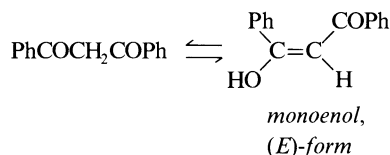
Khaskin, B.A. *et al*, *Zh. Obshch. Khim.*, 1974, **44**, 95; *J. Gen. Chem. USSR (Engl. Transl.)*, 93 (synth)

Mazitova, F.N. *et al*, *Zh. Obshch. Khim.*, 1980, **50**, 815; *J. Gen. Chem. USSR (Engl. Transl.)*, 652 (synth)

Rozen, A.M. *et al*, *Zh. Obshch. Khim.*, 1982, **52**, 1235; *J. Gen. Chem. USSR (Engl. Transl.)*, 1086 (props, use)

1,3-Diphenyl-1,3-propanedione D-01041

ω -Benzoylacetophenone. Phenyl phenacyl ketone. γ -Hydroxychalcone. Dibenzoylmethane
[120-46-7]



$\text{C}_{15}\text{H}_{12}\text{O}_2$ M 224.259

Dioxo-, (E)-enol and (Z)-enol forms all known. Used in photometric detn. of U (λ_{max} 395 nm, ϵ 20000) and in extraction and separation of Cd.

Dioxo-form

Plates. Mp 81°.

Monoxime:

$\text{C}_{15}\text{H}_{13}\text{NO}_2$ M 239.273

Mp 165°.

Monosemicarbazone: Mp 205°.

Dioxime: [66917-88-2]. Isonitrosodibenzoylmethane

$\text{C}_{15}\text{H}_{14}\text{N}_2\text{O}_2$ M 254.288

Used as a 0.5-0.15% soln. in EtOH for extraction-photometric detn. of Pd(II) (λ_{max} 420 nm, ϵ 14900), Ru(III). Cryst. Sol. EtOH, Et_2O , CHCl_3 .

(E)-Enol-form

Cryst. (Et_2O). Mp 77.5-79°. Bp₁₈ 210-221°, Bp₃ 165-170°.

(Z)-Enol-form

Needles (EtOH or Et_2O). Mp 72-73°.

Me ether: 3-Methoxy-1,3-diphenyl-1-butanone

$\text{C}_{16}\text{H}_{14}\text{O}_2$ M 238.285

Pale yellow prisms (hexane). Mp 83-84°.

Org. Synth., Coll. Vol., 1, 1932, 199 (synth)

Levine, R. *et al*, *J. Am. Chem. Soc.*, 1945, **67**, 1510.

Eistert, B. *et al*, *Chem. Ber.*, 1951, **81**, 745 (config)

Yoe, J.H. *et al*, *Anal. Chem.*, 1953, **25**, 1200 (detn, U)

Horton, C.A. *et al*, *Anal. Chem.*, 1958, **30**, 1779 (detn, U)

Schweitzer, G.K. *et al*, *Anal. Chim. Acta*, 1962, **26**, 120; 567 (detn, U, Cd, use)

Hollander, F.J. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 1552 (cryst struct)

Aldrich Library of NMR Spectra, 1974, **6**, 10B (nmr)

Battesti, P. *et al*, *Bull. Soc. Chim. Fr.*, 1974, 2214.

Aldrich Library of IR Spectra, 2nd Ed., 1975, 749B (ir)

Ishikara, H. *et al*, *Chem. Lett.*, 1978, 1007 (synth)

Desai, B.J. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **298**, 158

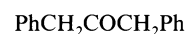
(dioxime, detn, Pd, Ru)

Kikuchi, F. *et al*, *Chem. Pharm. Bull.*, 1990, **38**, 1862 (pmr, cmr, ms)

1,3-Diphenyl-2-propanone, 9CI D-01042

1,3-Diphenylacetone. Dibenzyl ketone

[102-04-5]



$\text{C}_{15}\text{H}_{14}\text{O}$ M 210.275

Cryst. (EtOH aq., Et_2O or pet. ether). Mp 35-36°. Bp 331°, Bp_{0.1} 112-125°.

Oxime: [1788-31-4].

$\text{C}_{15}\text{H}_{15}\text{NO}$ M 225.290
Mp 125°.

Semicarbazone: Mp 123-124°, Mp 146°.

2,4-Dinitrophenylhydrazone: [1555-81-3].

Orange cryst. (EtOH). Mp 110°.

Phenylhydrazone: Needles or leaflets. Mp 128-129°.

Tosylhydrazone: [19816-88-7].

$\text{C}_{22}\text{H}_{22}\text{N}_2\text{O}_2\text{S}$ M 378.494

Reagent for the titrimetric detn. of organolithium compounds. Mp 185-186° dec.

Hurd, C.D. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 2589; 1936, **58**, 1240.

Ashley, J.N. *et al*, *J. Chem. Soc.*, 1942, 103.

Rabjohn, N. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 2259.

Shapiro, E.L. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 4769.

MacKenzie, S. *et al*, *J. Org. Chem.*, 1963, **28**, 717 (uv)

Mislow, K. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 1710 (pmr)

Tagaki, W. *et al*, *Bull. Chem. Soc. Jpn.*, 1965, **38**, 414.

Keana, J.F.W. *et al*, *J. Org. Chem.*, 1973, **38**, 3815 (synth, tosylhydrazone)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 123 (use)

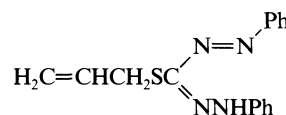
Casanova, J. *et al*, *Tetrahedron Lett.*, 1977, 1773 (cmr, config, tosylhydrazone)

Lipton, M.F. *et al*, *J. Organomet. Chem.*, 1980, **186**, 155 (synth, pmr, ms, use, tosylhydrazone)

1,5-Diphenyl-3-(2-propenylthio)formazan, 9CI D-01043

Allyldithizone

[82526-40-7]



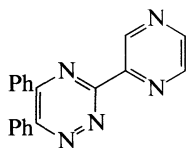
$\text{C}_{16}\text{H}_{16}\text{N}_4\text{S}$ M 296.395

Used as 0.1% soln. in EtOH for photometric detn. of Ir, Rh. Red cryst. (EtOH). Sol. H_2O , EtOH, Me_2CO .

Kotov, A. *et al*, *CA*, 1983, **98**, 117226t (detn, Ir, Rh)

5,6-Diphenyl-3-(pyrazinyl)-1,2,4-triazine**D-01044**

[18091-47-9]

 $C_{19}H_{13}N_5$ M 311.345

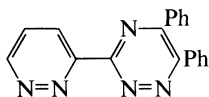
Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 507 nm, ϵ 2730), Fe(II) (λ_{max} 536 nm, ϵ 19600). Cryst. (EtOH). Sol. C_6H_6 , dil. HCl. Mp 179-180°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (synth)
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (detn. Cu, Fe)

5,6-Diphenyl-3-(3-pyridazyl)-1,2,4-triazine**D-01045**

5,6-Diphenyl-3-(3-pyridazyl)-as-triazine, 8CI

[18091-48-0]

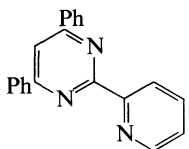
 $C_{19}H_{13}N_5$ M 311.345

Used as a 5mM soln. in EtOH aq. for photometric detn. of Cu(I) (λ_{max} 558 nm, ϵ 6900), Fe(II) (λ_{max} 542 nm, ϵ 19000). Sol. C_6H_6 , EtOH, dil. HCl. Mp 215-216°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (synth)
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (detn. Cu, Fe)

4,6-Diphenyl-2-(2-pyridinyl)pyrimidine, 9CI**D-01046**

[61097-54-9]

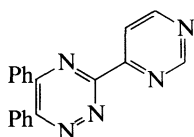
 $C_{21}H_{15}N_3$ M 309.370

Used for photometric detn. of Cu(I) (λ_{max} 425 nm, ϵ 5200, pH ~7, aq. EtOH). Cryst. (MeOH). Sol. MeOH, EtOH. Mp 158°.

Schilt, A.A. *et al*, *Talanta*, 1976, **23**, 543 (synth, detn. Cu)

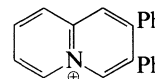
5,6-Diphenyl-3-(4-pyrimidinyl)-1,2,4-triazine**D-01047**

[18091-49-1]

 $C_{19}H_{13}N_5$ M 311.345

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co, Cu(I) (λ_{max} 475 nm, ϵ 2400), Fe(II) (λ_{max} 550 nm, ϵ 10400). Cryst. (EtOH). Sol. C_6H_6 , dil. HCl. Mp 180-181°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (synth)
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (use)

2,3-Diphenylquinolizinium(1+), 9CI**D-01048** $C_{21}H_{16}N^{\oplus}$ M 282.364 (ion)

Bromide: [16171-40-7].

 $C_{21}H_{16}BrN$ M 362.268

Fluorescent derivatisation reagent for amines. Cryst. (EtOH). Mp 286°.

Westphal, O. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1963, **2**, 96 (synth)

Alvarez-Builla, J. *et al*, *J. Heterocycl. Chem.*, 1985, **22**, 681 (synth)

Galvaz, E. *et al*, *An. Quim.*, 1987, **83**, 115 (cmr, pmr)

Martin, M.A. *et al*, *Anal. Chim. Acta*, 1991, **245**, 217 (use)

Diphenyl selenoxide**D-01049**

1,1'-Seleninylbisbenzene, 9CI. Phenyl selenoxide, 8CI

[7304-91-8]

 Ph_2SeO $C_{12}H_{10}OSe$ M 249.170

Oxidizing agent. Used as a 20% soln. in CH_2Cl_2 for extraction-photometric detn. of Rh. Cryst. (C_6H_6). Sol. EtOH, C_6H_6 , $CHCl_3$. Mp 112.8°, Mp 108-109°.

Rheinboldt, H. *et al*, *J. Am. Chem. Soc.*, 1946, **68**, 2671 (synth)

Ziegler, M. *et al*, *Mikrochim. Acta*, 1967, 782 (synth, detn. Rh)

Cinquini, M. *et al*, *Chem. Ind. (London)*, 1969, 1737 (synth)

Balenovic, K. *et al*, *Synthesis*, 1973, 172 (use)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 280 (synth, use)

Nagao, Y. *et al*, *Tetrahedron Lett.*, 1977, 1345 (synth, use)

Fujita, E., *J. Indian Chem. Soc.*, 1978, **55**, 1226 (synth)

2,4-Diphenylsemicarbazide, 8CI**D-01050**

N,2-Diphenylhydrazinecarboxamide, 9CI

 $PhNHCONPhNH_2$ $C_{13}H_{13}N_3O$ M 227.265

Used as satd. MeOH soln. for photometric detn. of Ru. Leaflets (EtOH). Sol. EtOH, C_6H_6 , Et_2O , $CHCl_3$; sol. MeOH; spar. sol. H_2O . Mp 165-166°, Mp 186°.

Geilman, W. *et al*, *Fresenius' Z. Anal. Chem.*, 1956, **152**, 96.

Wannagat, U. *et al*, *Monatsh. Chem.*, 1963, **94**, 63 (synth)

Scharner, P. *et al*, *Mikrochim. Acta*, 1969, 304.

Diphenyl sulfide**D-01051**

1,1'-Thiobisbenzene, 9CI. Phenyl sulfide, 8CI. Thiophenol phenyl ether. Diphenyl thioether

[139-66-2]

 $PhSPh$ $C_{12}H_{10}S$ M 186.277

Used as a 3% soln. in C_6H_6 for detn. of Pd. Cryst. Sol. common org. solvs. d_4^{20} 1.113. Bp₁₈ 162-163°.

▷ Emits highly toxic fumes when heated to dec.. SX2275000.

Org. Synth., Coll. Vol., 2, 1943, 242.

Cumper, C.W.N., *J. Chem. Soc.*, 1965, 5860.

Cumper, C.W.N., *J. Chem. Soc. A*, 1966, 239.

Pitombo, L., *Anal. Chim. Acta*, 1969, **46**, 158 (detn. Pd)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 241.

Cristau, H.J. *et al*, *Synthesis*, 1981, 892 (synth)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PG1500.

Diphenyl sulfone

1,1-Sulfonylbisbenzene, 9CI. Benzenesulfone. Sulfo benzide
[127-63-9]



$\text{C}_{12}\text{H}_{10}\text{O}_2\text{S}$ M 218.276

Reference material used in elemental microanalysis. Spar. sol. hot H_2O . Mp 128-129° (123°). Bp₁₈ 232°.

▷ SX2400000.

Graybill, B.M., *J. Org. Chem.*, 1967, **32**, 2931 (*synth*)
Smith, B.C. *et al.*, *J. Chem. Soc., Chem. Commun.*, 1968, 1474 (*synth*)
Analyst (London), 1972, **97**, 740 (*microanal*)
Sime, J.G. *et al.*, *J. Cryst. Mol. Struct.*, 1974, **4**, 269 (*struct*)
Baarschers, W.H., *Can. J. Chem.*, 1976, **54**, 3056 (*synth*)
Gregory, D.C. *et al.*, *J. Mol. Struct.*, 1979, **51**, 69 (*struct*)
Horyna, J. *et al.*, *Collect. Czech. Chem. Commun.*, 1980, **45**, 1575 (*cmr*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PGI750.

1,4-Diphenylthiosemicarbazide

N,2-Diphenylhydrazinocarbothioamide, 9CI
[1768-59-8]



$\text{C}_{13}\text{H}_{13}\text{N}_3\text{S}$ M 243.332

Used as 0.2% soln. in EtOH for photometric detn. of Ru (ϵ 10000), Re, Se, Pd (λ_{max} 555 nm, ϵ 10000), Pt (λ_{max} 430 nm, ϵ 7400). Prisms (EtOH). Mp 176-177°.

1-Benzoyl:

$\text{C}_{20}\text{H}_{17}\text{N}_3\text{OS}$ M 347.440
Mp 310°.

4-Ac:

$\text{C}_{15}\text{H}_{15}\text{N}_3\text{OS}$ M 285.369
Mp 161-162°.

Marckwald, W., *Ber.*, 1892, **25**, 3098 (*synth*)
Grammaticakis, P., *Bull. Soc. Chim. Fr.*, 1953, 86 (*uw*)
Hara, T. *et al.*, *Anal. Chim. Acta*, 1960, **23**, 65 (*detn, Ru*)
Sushkova, S.G. *et al.*, *Zh. Anal. Khim.*, 1966, **21**, 1475 (*detn, Se*)
Kemula, W. *et al.*, *Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1971, **19**, 325; *CA*, **75**, 117661 (*ir*)
Radushchev, A.V. *et al.*, *Zh. Anal. Khim.*, 1973, **28**, 2360 (*detn, Pd, Pt*)
Borisova, L.V. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 743 (*detn, Re*)
Sharbatyan, P.A. *et al.*, *Zh. Org. Khim.*, 1978, **14**, 116 (*ms*)
Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 493.

2,4-Diphenylthiosemicarbazide

N,1-Diphenylhydrazinocarbothioamide, 9CI
[13207-47-1]



$\text{C}_{13}\text{H}_{13}\text{N}_3\text{S}$ M 243.332

Used for photometric detn. of Re, Ru. Cryst. Sl. sol. EtOH, Me_2CO , C_6H_6 ; insol. H_2O . Mp 139°.

1-Ac:

$\text{C}_{15}\text{H}_{15}\text{N}_3\text{OS}$ M 285.369
Yellowish needles (EtOH). Mp 133°.

Marckwald, W., *Ber.*, 1892, **25**, 3098 (*synth*)
Geilmann, W. *et al.*, *Fresenius' Z. Anal. Chem.*, 1956, **151**, 401 (*detn, Re*)
Scharner, P. *et al.*, *Mikrochim. Acta*, 1969, 304 (*detn, Ru*)

***N,N'*-Diphenylthiourea, 9CI**

Thiocarbanilide, 8CI. sym-Diphenylthiourea
[102-08-9]



$\text{C}_{13}\text{H}_{12}\text{N}_2\text{S}$ M 228.317

Used in extraction separation and photometric detn. of Te (ϵ 150000), Ag, Pt, Rh, Ru. Leaflets (EtOH). Mp 154-155°. $pK_a < 2$.

▷ FE1225000.

S-Decyl: [62554-27-2]. *N,N'*-Diphenylcarbamimidothioic acid decyl ester, 9CI. *S-(1-Decyl)-N,N'*-diphenylisothiourenium

$\text{C}_{23}\text{H}_{32}\text{N}_2\text{S}$ M 368.585

Used as 5% soln. of hydrobromide salt in 2,6-dimethyl-4-heptanone for group extraction separation of noble metals. Viscous liq. (as hydrobromide). Sol. CHCl_3 , 4-methyl-2-pentanone, 2,6-dimethyl-4-heptanone, EtOH, dioxan.

N-Hydroxy: [20577-12-2]. *N-Hydroxy-N,N'*-diphenylthiourea, 9CI. *1-Hydroxy-1,3-diphenyl-2-thiourea, 8CI. N-Hydroxythiocarbanilide. N,N'*-Diphenylthiocarbamoylhydroxamic acid
Used as a 0.01M soln. in CHCl_3 for extraction-photometric detn. of Cu, Mo; photometric detn. of Ni (λ_{max} 470 nm, ϵ 16000). Cryst. (C_6H_6) or leaflets (EtOH). Sol. EtOH, C_6H_6 , CHCl_3 , Me_2CO , AcOH, dioxan. Mp 108-110° dec.

Aldrich Library of IR Spectra, 811H (*ir*)

Aldrich Library of NMR Spectra, 7, 104A (*pmr*)

Sadtler Standard C-13 NMR Spectra, 2968 (*cmr*)

Sadtler Standard Ultraviolet Spectra, 2170 (*uv*)

Snedker, S.J.C., *J. Soc. Chem. Ind., London*, 1925, **44**, 74T, 486 (*synth*)

Geilmann, W. *et al.*, *Fresenius' Z. Anal. Chem.*, 1957, **156**, 420 (*detn, Ru*)

Russel, B.G. *et al.*, *Talanta*, 1967, **14**, 957 (*detn, Te*)

Maklakova, V.P. *et al.*, *Zavod. Lab.*, 1968, **34**, 1049 (*detn, Mo*)

Maklakova, V.P. *et al.*, *Zh. Anal. Khim.*, 1970, **25**, 257 (*detn, Cu*)

Seryakova, I.V. *et al.*, *Zh. Anal. Khim.*, 1972, **27**, 1840 (*detn, Ag*)

Diamantatos, A. *et al.*, *Anal. Chim. Acta*, 1977, **91**, 287; **94**, 49 (*detn, Pt, Rh, Te*)

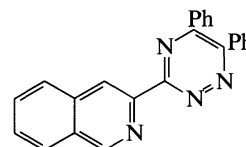
Jones, E.A. *et al.*, *Anal. Chim. Acta*, 1977, **94**, 257 (*synth, use*)

Hasan, M. *et al.*, *Indian J. Technol.*, 1978, **16**, 123; *CA*, **89**, 208603u (*detn, Ni*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DWN800.

3-(5,6-Diphenyl-1,2,4-triazin-3-yl) isoquinoline, 8CI

3-(3-Isoquinolyl)-5,6-diphenyl-1,2,4-triazine
[17583-54-9]



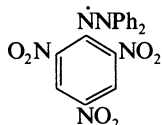
$\text{C}_{24}\text{H}_{16}\text{N}_4$ M 360.417

Used as 5mM soln. in EtOH aq. to give colour reactions with Co, Cu(I); photometric detn. of Fe(II) (λ_{max} 556 nm, ϵ 2320). Cryst. (DMF aq.). Sol. common org. solvs. Mp 198-199°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)

Schilt, A.A. *et al.*, *Talanta*, 1970, **17**, 649 (*use*)

2,2-Diphenyl-1-(2,4,6-trinitrophenyl)hydrazyl, 9CI
 2,2-Diphenylpicrylhydrazyl, 8CI. DPPH
 [1898-66-4]



$C_{18}H_{12}N_5O_6$ M 394.323

Dehydrogenating agent, chain-terminating agent for polymerisations. Reagent for the spectrophotometric anal. of amines and thiols. Violet cryst. Mp 137-138°.

▷ MW3250000.

Goldschmidt, S. *et al*, *Ber.*, 1922, **55**, 628 (*synth*)
 Lyons, J.A. *et al*, *J. Polym. Sci.*, 1955, **18**, 141 (*purifn*)
 Papariello, G.J. *et al*, *Anal. Chem.*, 1965, **37**, 899 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 347 (*use*)
 Williams, D.E., *J. Am. Chem. Soc.*, 1967, **89**, 4280 (*cryst struct*)
 Garnett, J.L. *et al*, *J. Catal.*, 1967, **7**, 305 (*synth*)
 O'Connor, S.E. *et al*, *J. Org. Chem.*, 1977, **42**, 577 (*synth, purifn*)
 Hunsaker, D.B. *et al*, *Talanta*, 1983, **30**, 475 (*use*)

O,O-Di-2-propenyl phosphorodithioate, 9CI **D-01058**

O,O-Diallyl phosphorodithioate, 8CI. O,O-Diallyl hydrogen dithiophosphate. O,O-Diallyl dithiophosphoric acid
 [5851-14-9]



$C_6H_{11}O_2PS_2$ M 210.257

Used for extraction of Cu, Fe(III), Mo, Ni, Os, Ru, Pt; flotation of In, Sn, Ti. Liq. d_4^{20} 1.17. $Bp_{0.001}$ 64-66°. n_D^{20} 1.5326.

K salt: [20442-45-9].

Cryst. (Me₂CO/Et₂O). Sol. common org. solvents. Mp 126°.

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 1151 (*use*)
 Mel'nik, Ya.I. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 768), 1970, **40**, 791 (*synth*)
 Zemlyanski, N.I. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 50), 1972, **42**, 54 (*synth*)

***N*-[(Dipropylamino)thioxomethyl]benzamide, 9CI** **D-01059**

1,1-Dipropyl-3-benzoylthiourea. *N,N*-Di-*n*-propyl-*N'*-benzoylthiourea
 [58682-52-3]



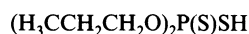
$C_{14}H_{20}N_2OS$ M 264.391

Used as 0.1M soln. in toluene for extraction separation of platinum group metals. Cryst. (EtOH). Sol. toluene, CHCl₃, decane. Mp 71°.

Koenig, K.H. *et al*, *Fresenius' Z. Anal. Chem.*, 1985, **321**, 457 (*synth, use*)

O,O-Dipropyl phosphorodithioate, 9CI, 8CI **D-01060**

Dipropyl phosphorodithioic acid. O,O-Dipropyl dithiophosphate. O,O-Dipropyl hydrogen dithiophosphate
 [2253-43-2]



D-01057

$C_6H_5O_2PS_2$ M 214.289

Used as soln. in nonpolar solvs. for extraction separation of Ni, Zn, In, Cd, Pb, Tl(I). Liq. d_4^{20} 1.10. Bp_2 80-82°. pK_{a1} 1.75 (20°, 7% EtOH aq.), pK_{a1} 2.57 (20° 80% EtOH aq.). n_D^{20} 1.4990.

K salt: [3287-84-1].

Solid. Mp 165°.

Anilinium salt: [67333-92-0].

Solid. Mp 80-81°.

Pishchimuka, V.F. *et al*, *Zh. Russ. Khim. Ova.*, 1912, **44**, 1406 (*synth*)

McIvor, R.A. *et al*, *Can. J. Chem.*, 1958, **36**, 820 (*ir*)

Kabachnik, M.I. *et al*, *Tetrahedron*, 1960, **9**, 10 (*synth, props*)

Zemlyanskii, N.I. *et al*, *Zh. Obshch. Khim.*, 1972, **42**, 54 (*Engl. transl.* p. 50)

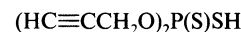
Zimin, M.G. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 930), 1978, **48**, 1020 (*P nmr*)

Lefferts, J.L. *et al*, *Inorg. Chem.*, 1980, **19**, 1662 (*synth, complexes*)

Toropova, V.F. *et al*, *Talanta*, 1987, **34**, 211 (*use*)

O,O-Di-2-propynyl phosphorodithioate, 9CI **D-01061**

O,O-Di-2-propynyl hydrogen dithiophosphate. O,O-Di-2-propynyl dithiophosphoric acid
 [26819-90-9]



$C_6H_7O_2PS_2$ M 206.226

Used for extraction of Cu, Mo, Pt; flotation of In, Mo, Sn, Tl(I), Tl(III), Zr. Unstable liq. d_4^{20} 1.27. $Bp_{0.001}$ 76°. n_D^{20} 1.5618.

▷ Reaction mixtures may explode if overheated. Ag salt explodes when heated.

K salt: [26842-96-6].

Cryst. Sol. common org. solvents. Mp 138°.

Pb complex: Solid. Mp 80°.

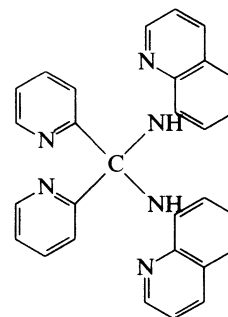
Zemlyanskii, N.I. *et al*, *Zh. Obshch. Khim.*, 1969, **39**, 2461; (*Engl. transl.* pp. 50, 2401), 1972, **42**, 54 (*synth*)

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 1151 (*use*)

Mel'nik, Ya.I. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 768), 1970, **40**, 791 (*synth*)

1,1-Di-2-pyridinyl-*N,N'*-di-8-quinolinylmethanediamine **D-01062**

Di-2-pyridyl-*N,N'*-bis[(8-quinolyl)amino]methane. DPQAM
 [82358-78-9]



$C_{29}H_{22}N_6$ M 454.533

Used as 0.1% soln. in CHCl₃ for extraction-photometric detn. of Fe (λ_{max} 693 nm, ϵ 170000, CHCl₃), Ni, Co. Yellow cryst. (DMF). Sol. EtOH, DMF, CHCl₃; insol. H₂O. Mp 225-227°. pK_{a1} 2.48; pK_{a2} 3.83; pK_{a3} 13.6.

Escobar, R. *et al*, *Talanta*, 1982, **29**, 135 (*synth, pKa*)

Escobar, R. *et al*, *Analyst (London)*, 1983, **108**, 821 (*detn, Fe*)

Di-2-pyridinylethanedione, 9CI**D-01063**

α -Pyridil. Di-2-pyridylglyoxal. Di-2-pyridyl diketone.
Bipyridylglyoxal
[492-73-9]



$C_{12}H_8N_2O_2$ M 212.207

Cryst. (EtOH). Mp 156-157°.

Monoxime: [27956-01-0]. Di-2-pyridylmonoxime

$C_{12}H_9N_3O_2$ M 227.222

Used for photometric detn. of Co (λ_{max} 408 nm, ϵ 17000). Cryst.

Dioxime, (E,E): [30805-88-0]. 2,2'-Dipyridyl- α -glyoxime

$C_{12}H_{10}N_4O_2$ M 242.237

Used as 1% soln. in EtOH/0.25M HCl in extraction-photometric detn. of Au(III) and Fe. Cryst. Sol. EtOH.

Dihydrazone: [35431-84-6].

$C_{12}H_{12}N_6$ M 240.267

Used for fluorimetric detn. of Tc(VII), Pd, Ni. Cryst. (EtOH).

2-Quinolyldihydrazone: [71384-12-8].

$C_{21}H_{15}N_5O$ M 353.382

Used as EtOH soln. for photometric detn. of Hg (λ_{max} 485 nm, ϵ 39000). Sol. EtOH, Me₂CO, Et₂O.

Bis(phenylthiosemicarbazone): [36772-41-5]. Di-2-pyridylglyoxal-dithiosemicarbazone

$C_{14}H_{14}N_8S_2$ M 358.450

Used as a 0.1% soln. in EtOH for extraction-photometric detn. of Co, Fe, Ni. Cryst. (EtOH). Sol. CHCl₃, C₆H₆, EtOH; insol. H₂O.

Bis(phenylthiosemicarbazone): [70424-51-0]. Di-2-pyridinylethanedione bis(phenylthiosemicarbazone)

$C_{26}H_{22}N_8S_2$ M 510.645

Used as a 0.1% EtOH soln. for photometric detn. of Co, Ni, Fe(II), Cu, Zn, Cd. Yellow cryst. (50% EtOH). Sol. EtOH, DMF; sl. sol. H₂O, CHCl₃. pK_{a1} 3.24; pK_{a2} 11.6.

Monophenylhydrazone oxime: [71337-00-3].

$C_{18}H_{15}N_5O$ M 317.349

Used for photometric detn. of Fe(II). Cryst. (EtOH). Mp 213°.

Mono(pyrazinylhydrazone): [58495-35-5].

$C_{16}H_{12}N_6O$ M 304.310

Used as a soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 504 nm, ϵ 18000), Co (λ_{max} 507 nm, ϵ 27200), Ni (λ_{max} 483 nm, ϵ 43000), Fe(II). Cryst.

Bis(pyrazinylhydrazone): [58495-50-4].

$C_{20}H_{16}N_{10}$ M 396.413

Used as a soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 484 nm, ϵ 20000), Co (λ_{max} 508 nm, ϵ 29700), Ni (λ_{max} 479 nm, ϵ 46000), Fe(II) (λ_{max} 601 nm, ϵ 10500).

Mono(2-thiazolylhydrazone): [73568-94-2].

$C_{15}H_{11}N_5OS$ M 309.351

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 525 nm, ϵ 16300), Cu(I) (λ_{max} 425 nm, ϵ 11100), Fe(II) (λ_{max} 629 nm, ϵ 10500), Ni (λ_{max} 525 nm). Cryst. (MeOH). Mp 154°.

Bis(4,4-diphenylsemicarbazone): see Di-2-pyridinylethanedione bis(diphenylsemicarbazone), D-01064

Bis(2-hydroxybenzoylhydrazone): see Di-2-pyridinylethanedione bis(2-hydroxybenzoylhydrazone), D-01065

Matthes, W. et al, Chem. Ber., 1951, **84**, 452 (synth)

Holland, W., Anal. Lett., 1969, **2**, 71, 167 (oxime)

Ashida, T. et al, Acta Crystallogr., Sect. B, 1970, **26**, 454 (cryst struct)

Stuparsky, S. et al, Mikrochim. Acta, 1970, 115 (oxime)

Soules, D. et al, Mikrochim. Acta, 1971, 565; 1972, 247 (detn, Au, Fe)

Barnes, C.S. et al, Tetrahedron Lett., 1972, 705 (ms)

Bahamonde, J.L. et al, Talanta, 1973, **20**, 694 (dithiosemicarbazone, detn, Fe)

Bahamonde, J.L. et al, Analyst (London), 1974, **99**, 355 (dithiosemicarbazone, detn, Co, Cr)

Newkome, G.R. et al, Tetrahedron Lett., 1974, 691 (synth, ir, pmr)

Case, F.H. et al, J. Chem. Eng. Data, 1976, **21**, 124 (synth)

Gonzalez Balairon, M. et al, Talanta, 1979, **26**, 71

(phenylthiosemicarbazone, use)

Schilt, A.A. et al, Talanta, 1979, **26**, 85, 373; 1980, **27**, 55.

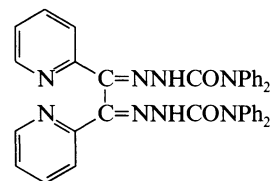
Kulshrestha, H. et al, Chem. Anal. (Warsaw), 1980, **25**, 647 (hydrazone)

Grases, F. et al, Anal. Chim. Acta, 1984, **161**, 359; **166**, 71 (dihydrazone, detn, Tc, Ni, Pd)

Di-2-pyridinylethanedione**D-01064****bis(diphenylsemicarbazone)**

2,2'-(1,2-Di-2-pyridinyl-1,2-ethanediylidene)bis[N,N-diphenylhydrazinecarboxamide], 9CI

[96848-50-9]



$C_{38}H_{30}N_8O_2$ M 630.707

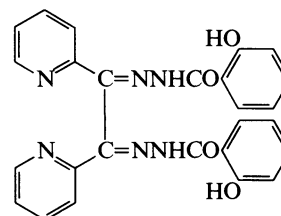
Used as EtOH soln. for extraction-photometric detn. of Ni (λ_{max} 420 nm, ϵ 54000, CHCl₃). Cryst. (EtOH). Sol. DMF, EtOH.

Kato, T. et al, Bunseki Kagaku (Jpn. Anal.), 1985, **34**, 124 (synth, detn, Ni)

Di-2-pyridinylethanedione bis(2-hydroxybenzoylhydrazone)**D-01065**

2-Hydroxybenzoic acid (1,2-di-2-pyridinyl-1,2-ethanediylidene)dihydrazide, 9CI

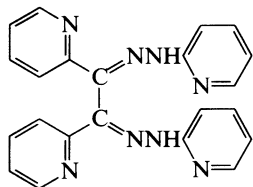
[74403-62-6]



$C_{26}H_{20}N_6O_4$ M 480.482

Used as a 0.01% soln. in DMF/EtOH for photometric detn. of Ca. Cryst. Sol. DMF; spar. sol. EtOH, C₆H₆, CHCl₃. Mp 281-282°. pK_{a1} 3.27; pK_{a2} 7.85.

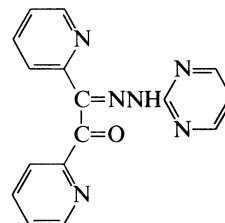
Silva, M. et al, Analyst (London), 1980, **105**, 193 (detn, Ca)

Di-2-pyridinylethanedione bis(2-pyridinylhydrazone), 9CI2,2'-Pyridyl diketone di-2-pyridylhydrazone
[59158-23-5] $C_{22}H_{18}N_8$ M 394.438Used as 1mM EtOH soln. for photometric detn. of Fe(II) (λ_{max} 595 nm, ϵ 8300), Cu(I), Co, Ni, Zn. Cryst. (EtOH aq.). Sol. EtOH; sl. sol. H₂O. Mp 222-223°.Schilt, A.A. *et al*, *Talanta*, 1975, **22**, 915 (*synth, use*)

D-01066

Chiswell, B. *et al*, *Inorg. Chem.*, 1964, **3**, 492.Schilt, A.A. *et al*, *Talanta*, 1975, **22**, 915; 1979, **26**, 85 (*synth, use*)Asuero, A.G. *et al*, *Microchem. J.*, 1987, **36**, 216 (*detn, Co*)**Di-2-pyridinylethanedione mono(2-pyrimidinylhydrazone), 9CI**

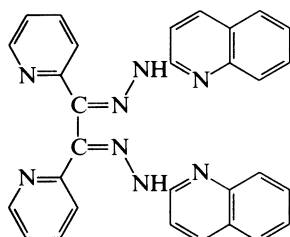
[73569-04-7]

 $C_{16}H_{12}N_6O$ M 304.310Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 462 nm, ϵ 24000), Cu(I) (λ_{max} 438 nm, ϵ 21200), Fe(II) (λ_{max} 613 nm, ϵ 8100), Ni (λ_{max} 445 nm, ϵ 35900). Cryst. (C₆H₆). Sol. common org. solvs. Mp 165°.Schilt, A. *et al*, *Talanta*, 1980, **27**, 55 (*synth, use*)

D-01069

Di-2-pyridinylethanedione bis(2-quinolinylhydrazone)

[107140-28-3]

 $C_{30}H_{22}N_8$ M 494.557Used as 0.5mM soln. in EtOH for photometric and fluorimetric detn. of Zn, Cd (λ_{max} 482 nm, ϵ 51000, pH 8, 80% EtOH); as 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 530 nm, ϵ 33000, 3M HClO₄). Yellow cryst. (EtOH). Sol. EtOH. Mp 149-152°.

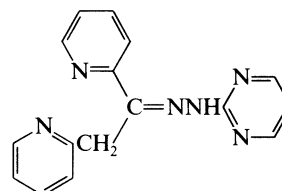
[71954-21-7]

Kulshreshtha, H. *et al*, *Analyst (London)*, 1979, **104**, 572 (*synth, detn, Co*)West, K.J. *et al*, *Talanta*, 1986, **33**, 807 (*synth, use*)

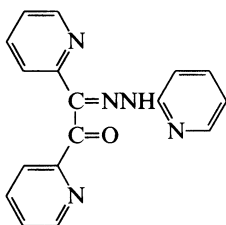
D-01067

1,2-Di-2-pyridinylethanone 2-pyrimidinylhydrazone, 9CI

[73569-07-0]

 $C_{16}H_{14}N_6$ M 290.327Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 454 nm, ϵ 24700), Cu(I) (λ_{max} 442 nm, ϵ 17500), Fe(II) (λ_{max} 556 nm, ϵ 760), Ni (λ_{max} 429 nm, ϵ 37600). Cryst. (MeOH aq.). Sol. common org. solvs. Mp 126°.Schilt, A. *et al*, *Talanta*, 1980, **27**, 55 (*synth, use*)

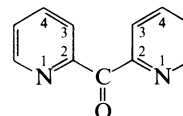
D-01070

Di-2-pyridinylethanedione mono(2-pyridinylhydrazone), 9CIDi-2-pyridylglyoxal mono-2-pyridylhydrazone
[59158-22-4] $C_{17}H_{13}N_5O$ M 303.323Used as 0.1% soln. in EtOH for photometric detn. of Co (λ_{max} 490 nm, ϵ 27000, pH 3-7), Cu(I), Ni, Zn, Fe(II). Cryst. (MeOH). Sol. EtOH, MeOH. Mp 108-109°.

Oxime: [71336-99-7].

 $C_{17}H_{14}N_6O$ M 318.337Used for photometric detn. of Co (λ_{max} 482 nm, ϵ 27400), Cu(I) (λ_{max} 470 nm, ϵ 21400), Fe(II), Ni (λ_{max} 460 nm, ϵ 18000). Cryst. (EtOH). Mp 237°.

D-01068

Di-2-pyridinylmethanone, 9CIDi-2-pyridyl ketone. 2-Pyridyl ketone, 8CI
[19437-26-4] $C_{11}H_8N_2O$ M 184.197Prisms (pet. ether). Mp 54-55°. Bp_{0.4} 132-135°.

Picrate: Yellow cryst. (EtOAc). Mp 181-182°.

Oxime: [1562-95-4].

 $C_{11}H_9N_3O$ M 199.212

Reagent for detn. of metal ions (Pd(II), Fe(II), Co(III) etc.). Needles (MeOH aq. or EtOAc). Mp 141-142.5°.

Ethylene ketal: [42772-86-1].

 $C_{13}H_{12}N_2O_2$ M 228.250

Needles (pet. ether). Mp 164-166°.

Semicarbazone: Plates or needles (EtOH). Mp 220-221° (217-218°).

Hydrazone: [74804-05-0].

 $C_{11}H_{10}N_4$ M 198.227

D-01071

Used for fluorimetric detn. of Tc(VII), Cu (λ_{\max} 435 nm), Hg, Pd, Ni. Cryst. (C₆H₆/pet. ether).

Phenylhydrazone: [75775-57-4].

C₁₇H₁₄N₄ M 274.324

Used for fluorimetric detn. of Tc(VII). Cryst. (EtOH). Sol. EtOH.

Guanylylhydrazone: see Di-2-pyridinylmethanone guanylylhydrazone, D-01078

2-Quinolylylhydrazone: see Di-2-pyridinylmethanone 2-quinolylylhydrazone, D-01082

2-Pyrimidylhydrazone: see Di-2-pyridinylmethanone 2-pyrimidylhydrazone, D-01081

2-Pyridylhydrazone: see Di-2-pyridinylmethanone 2-pyridylhydrazone, D-01080

Benzoylhydrazone: see Di-2-pyridinylmethanone benzoylhydrazone, D-01073

Wibaut, J.P. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1951, **70**, 989, 1054 (*synth, derivs*)

Leete, E. *et al*, *Can. J. Chem.*, 1952, **30**, 563 (*synth, derivs*)

Holland, W.J. *et al*, *J. Anal. Chem. USSR (Engl. Transl.)*, 1968, **40**, 433 (*oxime, use*)

Newkome, G.R. *et al*, *Tetrahedron Lett.*, 1973, 1599 (*acetal*)

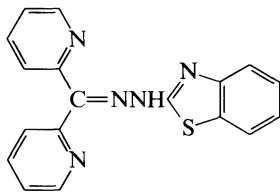
Grases, F. *et al*, *Anal. Chim. Acta*, 1980, **119**, 359; 1981, **125**, 21; 1984, **161**, 359; **166**, 71 (*detn, Hg, Cu, Ni, Pd, Tc*)

Di-2-pyridinylmethanone 2-benzothiazolylhydrazone

D-01072

2(3H)-Benzothiazolone (di-2-pyridinylmethylene)hydrazide, 9CI

[87468-62-0]



C₁₈H₁₃N₅S M 331.400

Used as 2.5mM EtOH soln. for photometric detn. of Fe(II) (λ_{\max} 427 nm, ϵ 34100, pH 4.9). Yellow needles (EtOH). Sol. EtOH. Mp 106-107°.

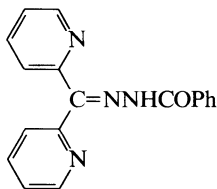
Singh, R.B. *et al*, *Analyst (London)*, 1983, **108**, 1120 (*synth, detn, Fe*)

Di-2-pyridinylmethanone benzoylhydrazone

D-01073

Benzoic acid (di-2-pyridinylmethylene)hydrazide, 9CI. Di-2-pyridyl ketone benzoylhydrazone

[101342-95-4]



C₁₈H₁₄N₄O M 302.335

Used as 1mM C₆H₆ soln. for extraction-photometric detn. of Pd(II), Fe(II) (λ_{\max} 696 nm, ϵ 15900, pH 4.6-6).

Cryst. (EtOH). Sol. EtOH, C₆H₆. Mp 136-137°. pK_a 1.18, pK_{a2} 10.9 (25°).

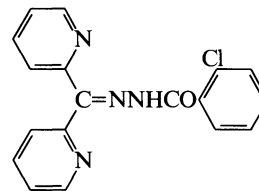
Nakanishi, T. *et al*, *Anal. Sci.*, 1985, **1**, 161 (*detn, Pd*)

Nakanishi, T. *et al*, *Microchem. J.*, 1986, **33**, 172 (*synth, detn, Fe*)

Di-2-pyridinylmethanone 2-chlorobenzoylhydrazone

D-01074

2-Chlorobenzoic acid (di-2-pyridinylmethylene)hydrazide, 9CI. Di-2-pyridyl ketone 2-chlorobenzoylhydrazone [93418-34-9]



C₁₈H₁₃ClN₄O M 336.780

Used as 0.01M soln. in 4-methyl-2-pentanone or xylene for extraction separation of Cd, Co, Cu, Ni, Zn (pH 5-9).

Cryst. Sol. 4-methyl-2-pentanone, xylene.

Tossidis, I.A. *et al*, *Chem. Chron.*, 1983, **12**, 181 (*synth*)

Arpadjan, S. *et al*, *Analyst (London)*, 1988, **113**, 1699 (*use*)

Di-2-pyridinylmethanone 3-chlorobenzoylhydrazone

D-01075

3-Chlorobenzoic acid (di-2-pyridinylmethylene)hydrazide, 9CI. Di-2-pyridyl ketone 3-chlorobenzoylhydrazone [93418-35-0]

C₁₈H₁₃ClN₄O M 336.780

Used as 0.01M soln. in 4-methyl-2-pentanone or xylene for extraction separation of Cd, Co, Cu, Ni, Zn (pH 5-9).

Cryst. Sol. 4-methyl-2-pentanone, xylene.

Tossidis, I.A. *et al*, *Chem. Chron.*, 1983, **12**, 181 (*synth*)

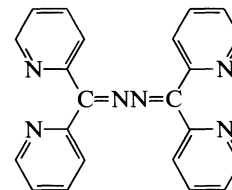
Arpadjan, S. *et al*, *Analyst (London)*, 1988, **113**, 1699 (*use*)

Di-2-pyridinylmethanone di-2-pyridinylmethylenehydrazone

D-01076

Di-2-pyridylketone azine

[55671-79-9]



C₂₂H₁₆N₆ M 364.409

Used as soln. in EtOH for photometric detn. of Pd, Fe(II); as 0.1% soln. in EtOH for fluorimetric detn. of Cu(II) (λ_{\max} 430 nm, 0.2-0.5 ppm, pH 4); Au(III). Yellow cryst. (C₆H₆). Sol. EtOH, C₆H₆; insol. H₂O. Mp 192°.

Valcarcel, M. *et al*, *Analyst (London)*, 1975, **100**, 33 (*synth, detn, Fe*)

Garcia Vargas, M. *et al*, *An. Quim.*, 1978, **74**, 901 (*detn, Pd*)

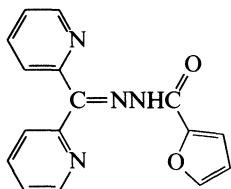
Grases, F. *et al*, *Anal. Chim. Acta*, 1981, **125**, 21 (*synth, detn, Cu*)

Grases, F. *et al*, *Analisis*, 1981, **9**, 66 (*detn, Au*)

**Di-2-pyridinylmethanone
2-furoylhydrazone**

D-01077

2-Furancarboxylic acid (di-2-pyridinylmethylene)hydrazide,
9CI
[97541-63-4]



$C_{16}H_{12}N_4O_2$ M 292.296

Used as 0.025M EtOH soln. for fluorimetric detn. of Al (λ_{max} 465 nm, 10-100 ng/ml, pH 6.1-6.5), Ga; as 0.1% EtOH soln. for photometric detn. of Fe(II) (λ_{max} 620 nm, ϵ 8400, pH 6-11). Yellow cryst. (EtOH). Sol. EtOH, DMF, $CHCl_3$, Mp 132-134°.

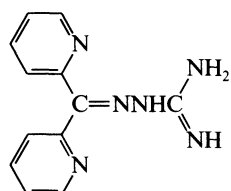
Garcia de Torres, A. *et al*, *Mikrochim. Acta*, 1984, **3**, 375 (synth, detn, Fe)

Salgado Ordonez, M. *et al*, *Talanta*, 1985, **32**, 887 (synth, detn, Al)
Salgado Ordonez, M. *et al*, *Analyst (London)*, 1988, **113**, 1283 (detn, Ga)

Di-2-pyridinylmethanone guanyldiazide

D-01078

Di-2-pyridylketone guanyldiazide
[109173-47-9]



$C_{12}H_{12}N_6$ M 240.267

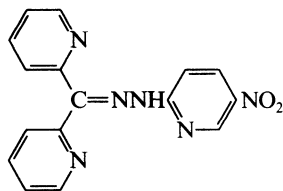
Used as 0.01M aq. soln. for photometric detn. of Co, Pd(II), Fe(II), Ni, Cu(II). Cryst. (EtOH aq.). Sol. H_2O , EtOH. Mp 143-147°.

Kavlentis, E., *Mikrochim. Acta*, 1986, **3**, 251 (synth, use)

**Di-2-pyridinylmethanone 5-nitro-2-
pyridylhydrazone**

D-01079

5-Nitro-2(1H)-pyridinone (di-2-pyridinylmethylene)
hydrazone, 9CI
[117609-65-1]



$C_{16}H_{12}N_6O_2$ M 320.310

Used as 1mM soln. in 1,2-dichloroethane for extraction-photometric detn. of Pd (λ_{max} 560 nm, ϵ 38000). Yellow needles (EtOH). Sol. EtOH, 1,2-dichloroethane. Mp 172-173°.

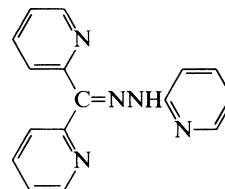
Kanetake, T. *et al*, *Anal. Sci.*, 1988, **4**, 411 (synth, detn, Pd)

Di-2-pyridinylmethanone

D-01080

2-pyridinylhydrazone, 9CI

2,2'-Bipyridyl ketone 2-pyridylhydrazone
[42838-37-9]



$C_{16}H_{13}N_5$ M 275.312

Used as a 0.01M soln. in EtOH for extraction-photometric detn. of Co (λ_{max} 480 nm, ϵ 32000), Cd, Fe(II), Zn, Pd. Cryst. (EtOH). Sol. EtOH, Me_2CO , C_6H_6 ; spar. sol. H_2O . Mp 138°.

Vasilikiotis, G.S. *et al*, *Anal. Chim. Acta*, 1974, **70**, 319 (detn, Co)

Alexaki-Tzivanidou, H. *et al*, *Anal. Chim. Acta*, 1975, **75**, 231 (detn, Fe)

Alexaki-Tzivanidou, H. *et al*, *Microchem. J.*, 1978, **23**, 329.

Kouimtzi, T.A. *et al*, *Anal. Chim. Acta*, 1980, **113**, 185.

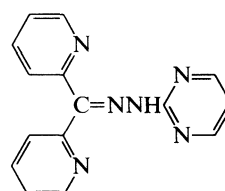
Stratis, J.A. *et al*, *Analyst (London)*, 1984, **109**, 373 (detn, Pd)

Di-2-pyridinylmethanone

D-01081

2-pyrimidinylhydrazone

2(1H)-Pyrimidinone di-(2-pyridinylmethylene)hydrazone, 9CI
[69557-87-5]



$C_{15}H_{12}N_6$ M 276.300

Used as a 0.01M or 5mM soln. in EtOH for photometric detn. of Co (λ_{max} 440, 460 nm, ϵ 29800), Fe(II), V, Zn; Ni (λ_{max} 437 nm, ϵ 45200), Cu(I) (λ_{max} 451 nm, ϵ 19900). Pale yellow cryst. (C_6H_6). Sol. EtOH, C_6H_6 . Mp 160°.

Singh, R.B. *et al*, *Ann. Chim. (Rome)*, 1978, **68**, 1017 (detn, V)

Singh, R.B. *et al*, *Anal. Chim. Acta*, 1979, **104**, 191 (detn, Co)

Singh, R.B. *et al*, *Bull. Chem. Soc. Jpn.*, 1979, **52**, 3131 (detn, Zn)

Singh, R.B. *et al*, *Indian J. Chem., Sect. A*, 1979, **17**, 318 (detn, Fe(II))

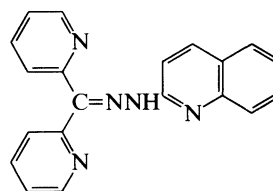
Schlit, A. *et al*, *Talanta*, 1980, **27**, 55 (synth, use)

Di-2-pyridinylmethanone

D-01082

2-quinolinylhydrazone

2(1H)-Quinolinone (di-2-pyridinylmethylene)hydrazone, 9CI
[69633-16-5]



$C_{20}H_{15}N_5$ M 325.372

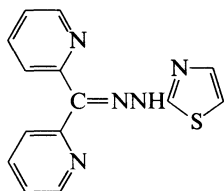
Used for extraction (1mM soln. in C₆H₆) photometric (1mM soln. in EtOH) detn. of Cd, Co (λ_{\max} 513 nm, ϵ 35200), Cu, Fe (λ_{\max} 465 nm, ϵ 19100), Hg, Pd, Zn (λ_{\max} 480 nm, C₆H₆), Ni. Light yellow cryst. (ligroin). Sol. EtOH, C₆H₆. Mp 155-156°. pK_{a1} 12.19; pK_{a2} 5.57; pK_{a3} 2.48 (20% EtOH aq.).

Singh, R.B. *et al*, *Talanta*, 1978, **26**, 898 (*synth, detn, Co*)
Singh, R.B. *et al*, *Analyst (London)*, 1979, **104**, 1188 (*detn, Zn*)
Otomo, M., *Anal. Chim. Acta*, 1980, **116**, 161.
Otomo, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1982, **31**, E21.
Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth, use*)

Di-2-pyridinylmethanone 2-thiazolyldiazone

D-01083

Di-2-pyridyl ketone 2-thiazolyldiazone
[73568-91-9]



C₁₄H₁₁N₅S M 281.340

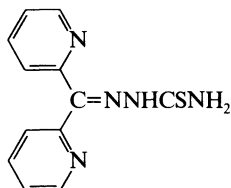
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 493 nm, ϵ 26000), Cu(I) (λ_{\max} 478 nm, ϵ 18000), Fe(II) (λ_{\max} 600 nm, ϵ 12300), Ni (λ_{\max} 460 nm, ϵ 41000). Cryst. (MeOH). Sol. common org. solvs. Mp 135°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth, use*)

Di-2-pyridinylmethanone thiosemicarbazone

D-01084

Di-2-pyridyl ketone thiosemicarbazone
[6839-91-4]



C₁₂H₁₁N₅S M 257.318

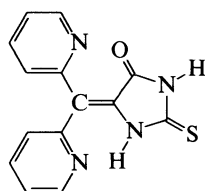
Used as a 0.1% soln. in EtOH for photometric detn. of Cu (λ_{\max} 395 nm, ϵ 11300), Fe(II) (λ_{\max} 620 nm, ϵ 9300), Ni (λ_{\max} 395 nm, ϵ 19600), Hg(II) (λ_{\max} 380 nm, ϵ 20800). Cryst. (EtOH aq.). Sol. EtOH, Me₂CO, C₆H₆; sl. sol. H₂O. Mp 200-202°. pK_{a1} 3.40; pK_{a2} 11.25.

Martinez, M.P. *et al*, *Anal. Chim. Acta*, 1976, **81**, 157.
Gallardo Cespedes, A. *et al*, *Microchem. J.*, 1984, **30**, 105 (*detn, Hg*)

5-(Di-2-pyridinylmethylene)-2-thioxo-4-imidazolidinone, 9CI

D-01085

[69580-23-0]



C₁₄H₁₀N₄OS M 282.325

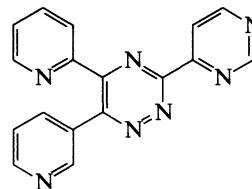
Used as 7mM DMF soln. for photometric detn. of Ag, Au(III) (λ_{\max} 295 nm, ϵ 24000). Yellow cryst. (EtOH). Sol. EtOH, DMF. Mp 205° dec.

Montana Gonzalez, M.T. *et al*, *Talanta*, 1978, **25**, 331 (*synth, detn, Ag, Au*)

5,6-Di-2-pyridinyl-3-(4-pyrimidinyl)-1,2,4-triazine

D-01086

[18091-52-6]



C₁₇H₁₁N₇ M 313.321

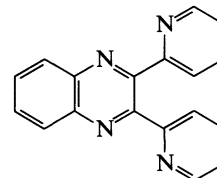
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 450 nm), Cu(I) (λ_{\max} 512 nm), Fe(II) (λ_{\max} 593 nm, ϵ 7000). Cryst. (DMF aq.). Sol. C₆H₆, dil. HCl. Mp 198-199°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*use*)

2,3-Di-2-pyridinylquinoxaline, 9CI

D-01087

2,3-Bis(2-pyridyl)quinoxaline
[23309-74-2]



C₁₈H₁₂N₄ M 284.320

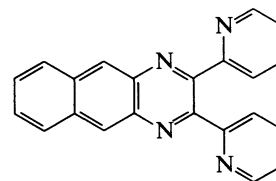
Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{\max} 515 nm, ϵ 3250, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 184°.

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

2,3-Di-2-pyridylbenzo[g]quinoxaline, 8CI

D-01088

2,3-Bis(2-pyridyl)-6,7-benzquinoxaline
[857-48-7]



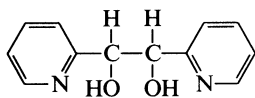
C₂₂H₁₄N₄ M 334.379

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{\max} 544 nm, ϵ 3180, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 172°.

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

1,2-Di-2-pyridyl-1,2-ethanediol, 9CI **D-01089**

1,2-Bis(2-pyridyl)ethyleneglycol. 1,2-Di-2-pyridylglycol
[1141-05-5]



$C_{12}H_{12}N_2O_2$ M 216.239

Used for photometric detn. of Cu, Fe(III). Sol. Me_2CO , EtOH.

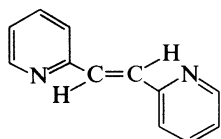
[5486-06-6]

Bhat, A.N. *et al*, *Indian J. Appl. Chem.*, 1966, **29**, 64 (detn. Fe)

Bhat, A.N. *et al*, *Proc. - Indian Acad. Sci., Sect. A*, 1968, **67**, 208; *CA*, **69**, 83164e (detn. Cu)

1,2-Di(2-pyridyl)ethylene **D-01090**

2,2'-(1,2-Ethenediyl)bispypyridine, 9CI. 2,2'-Vinylenedipyridine, 8CI. 1,2-Bis(2-pyridyl)ethylene. 2,2'-Diazastilbene
[1437-15-6]



(E)-form

$C_{12}H_{10}N_2$ M 182.224

Used as 5% AcOH soln. in photometric detn. of H_2O_2 (λ_{max} 442 nm, ϵ 34000); as a 10% soln. in EtOH for gravimetric detn. of Cd. Sol. EtOH, Me_2CO .

(E)-form [13341-40-7]

Prisms. Mp 118-119°.

B, HCl: Mp 240°.

N,N'-Dioxide:

$C_{12}H_{10}N_2O_2$ M 214.223

Cryst. (Me_2CO aq.). Mp 235-236°.

(Z)-form [14802-37-0]

Needles. Mp 48-48.5°.

Katsumoto, T., *Bull. Chem. Soc. Jpn.*, 1959, **32**, 1019 (synth, isom, ir, uv)

Maruszewska-Wieczorkowska, E. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1964, **38**, 625 (synth)

Perkampus, H.H. *et al*, *Spectrochim. Acta*, 1964, **20**, 359 (ir)

Michalski, J. *et al*, *Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1966, **14**, 505; *CA*, **66**, 37742g (dioxide)

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1967, **228**, 334 (detn, Cd)

Favini, G. *et al*, *Gazz. Chim. Ital.*, 1967, **97**, 1434 (isom, uv)

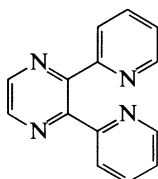
Hauser, T.R. *et al*, *Anal. Chem.*, 1968, **40**, 231 (detn, H_2O_2)

Coletta, F. *et al*, *Spectrosc. Lett.*, 1976, **9**, 469 (cmr)

Vansant, J. *et al*, *J. Org. Chem.*, 1980, **45**, 1557 (cryst struct)

2,3-Di-2-pyridylpyrazine, 8CI **D-01091**

2,3-Bis(2-pyridyl)pyrazine
[25005-96-3]



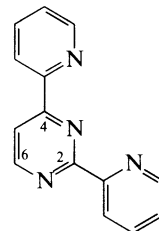
$C_{14}H_{10}N_4$ M 234.260

Used as a 5mM soln. in aq. HCl gives colour reaction with Cu(I). Yellow-orange cryst. (hexane). Sol. EtOH, C_6H_6 ; sl. sol. dil. acids. Mp 168°.

Stephen, W., *Talanta*, 1969, **16**, 939 (use)

2,4-Di-2-pyridylpyrimidine, 8CI **D-01092**

[10198-71-7]



$C_{14}H_{10}N_4$ M 234.260

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co, Cu(I), Fe(II) (λ_{max} 550 nm, ϵ 9700). Cryst. (Et_2O). Sol. Et_2O , Me_2CO , C_6H_6 ; mod. sol. EtOH.

Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (detn, CO, Cu, Fe)

4,6-Di-2-pyridylpyrimidine, 8CI **D-01093**

[10198-91-1]

$C_{14}H_{10}N_4$ M 234.260

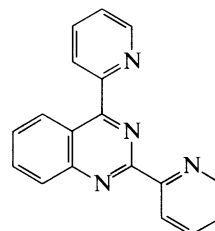
Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 488 nm, ϵ 6400), Fe(II) (λ_{max} 571 nm, ϵ 7800). Cryst. (Et_2O). Sol. common org. solvents. Mp 113-114°.

Lafferty, J.J. *et al*, *J. Org. Chem.*, 1967, **32**, 1591 (synth)

Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (detn, Cu, Fe)

Di-2-pyridylquinazoline, 8CI **D-01094**

[10198-95-5]



$C_{18}H_{12}N_4$ M 284.320

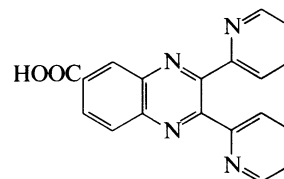
Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 658 nm, ϵ 10900), Cu(I) (λ_{max} 481 nm, ϵ 4600). Cryst. (cyclohexane). Sol. C_6H_6 , dil. HCl. Mp 139-140°.

Lafferty, J.J. *et al*, *J. Org. Chem.*, 1967, **32**, 1591 (synth)

Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (detn, Cu, Fe)

2,3-Di-2-pyridyl-6-quinoxalinecarboxylic acid, 8CI **D-01095**

2,3-Bis(2-pyridyl)-6-carboxyquinoline
[17401-74-0]



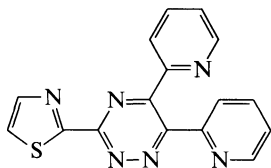
$C_{19}H_{12}N_4O_2$ M 328.329

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 535 nm, ϵ 3750, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 241°.

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

5,6-Di-2-pyridyl-3-(2-thiazolyl)-1,2,4-triazine

D-01096



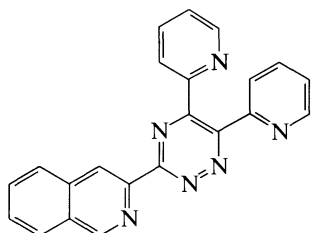
$C_{16}H_{10}N_6S$ M 318.361

Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 584 nm, ϵ 10000). Cryst. (DMF). Sol. EtOH, DMF. Mp 233-234°.

Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (*synth*)
Schilt, A.A., *Talanta*, 1966, **13**, 895 (*detn, Fe*)

3-(5,6-Di-2-pyridyl-1,2,4-triazin-3-yl)isoquinoline, 8CI

3-(3-Isoquinolyl)-5,6-di-2-pyridyl-1,2,4-triazine
[17583-55-0]



$C_{22}H_{14}N_6$ M 362.393

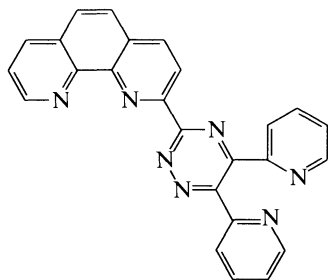
Used as 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(I); photometric detn. of Fe(II) (λ_{max} 569 nm, ϵ 1950). Cryst. (EtOH). Sol. common org. solvs. Mp 221-222°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*use*)

2-[5,6-Di-(2-pyridyl)-1,2,4-triazin-3-yl]-1,10-phenanthroline

D-01098

3-[2-(1,10-Phenanthrolyl)]-5,6-di-2-pyridyl-1,2,4-triazine



$C_{25}H_{15}N_7$ M 413.440

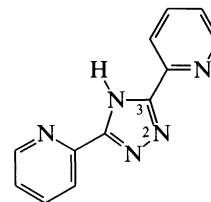
Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 614 nm, ϵ 10600), Cu(I) (λ_{max} 475 nm, ϵ 2500). Cryst. (EtOH). Sol. EtOH. Mp 215-216°.

Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (*synth*)
Schilt, A.A., *Talanta*, 1966, **13**, 895 (*detn, Fe, Cu*)

3,5-Di-2-pyridyl-1,2,4-triazole

D-01099

2,2'-(1H-1,2,4-Triazole-3,5-diyl)bispyridine, 9CI
[1671-85-8]



$C_{12}H_9N_5$ M 223.237

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 455 nm, ϵ 3600, EtOH aq.). Cryst. (H₂O). Sol. common org. solvs. Mp 208-209°.

2,3-Dihydro: 3,5-Di-2-pyridyl-1,2,4-triazoline

$C_{12}H_{11}N_5$ M 225.252

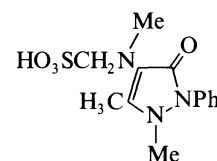
Used as a 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 520 nm, ϵ 9400). Cryst. (EtOH). Sol. common org. solvs. Mp 139°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn, Fe*)

Dipyrone, BAN, USAN

D-01100

[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)methylamino]methanesulfonic acid, 9CI.
(Antipyrinylmethylamino)methanesulfonic acid, 8CI.
Diproparn. Analgin. Methampyrone. Noramidopyrine methanesulfonate. Sulpyrin. Numerous proprietary names
[50567-35-6]



$C_{13}H_{17}N_3O_4S$ M 311.361

Analgesic, antipyretic, usually as the Na salt. Insol. Et₂O, Me₂CO, C₆H₆, CHCl₃.

Na salt: [68-89-3]. Metamizole sodium, INN

Used as a 20% aq. soln. for photometric detn. of Fe (λ_{max} 440 nm). Minute cryst. + 1H₂O (EtOH). Sol. H₂O.

▷ PB1300000.

Hungarian Pat., 151 986, (1965); *CA*, **63**, 8370h (*synth*)

Fayez, K. *et al*, *Analyst (London)*, 1970, **95**, 614 (*detn, Fe*)

Murthy, H.M.K. *et al*, *Curr. Sci.*, 1977, **46**, 221 (*cryst struct*)

Ovcharov, R. *et al*, *Symp. Proc. Moscow*, (Eds.), Schattauer, Stuttgart, 1978, 1980 (*book*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2638.

Jiang, J. *et al*, *CA*, 1983, **99**, 105170 (*synth*)

Marciniec, B. *et al*, *Pharmazie*, 1985, **40**, 110 (*ms*)

Roth, H.J. *et al*, *Agents Actions Suppl.*, 1986, **19**, 205 (*rev, metab*)

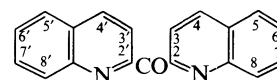
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 2830 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AMK500.

Di-2-quinolinylmethanone, 9CI

D-01101

Di-2-quinolyl ketone. 2-Quinolyl ketone
[58346-55-7]

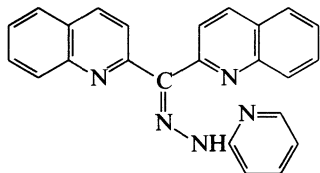


$C_{19}H_{12}N_2O$ M 284.317
 Light-brown prisms (C_6H_6), prisms (EtOH). Mp 166-167°.
Oxime: [33240-99-2]. 2,2'-*Di*quinolylketoxime
 $C_{19}H_{13}N_3O$ M 299.331
 Used as a 0.1% soln. in EtOH for extraction-
 photometric detn. of Co (λ_{max} 365 nm, ϵ 53000, C_6H_6).
 Prisms. Mp 205-206°.
Phenylhydrazone: Mp 199°.
Anil:
 $C_{25}H_{17}N_3$ M 359.429
 Yellow cryst. Mp 161°.

Scheibe, G. *et al*, *Ber.*, 1922, **55**, 3157 (*synth*)
 Gilman, H. *et al*, *J. Org. Chem.*, 1957, **22**, 565 (*synth*)
 Hamana, M. *et al*, *Chem. Pharm. Bull.*, 1963, **11**, 415 (*synth, ir*)
 Stupavsky, S. *et al*, *Mikrochim. Acta*, 1971, 559 (*oxime, detn, Co*)

Di-2-quinolinylmethanone **D-01102**
2-pyridinylhydrazone

2(*1H*)-Pyridinone di-(2-quinolinylmethylene)hydrazone, 9CI
 [73233-14-4]

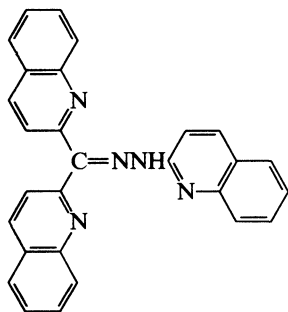


$C_{24}H_{17}N_5$ M 375.432
 Used as 0.1% soln. in EtOH for extraction-photometric
 detn. of Pd (λ_{max} 624 nm, ϵ 19500, $CHCl_3$). Yellow
 needles (EtOH). Sol. alcohols. Mp 197-198.5°.

Beaupré, P.W. *et al*, *Mikrochim. Acta*, 1979, **II**, 479 (*synth, use*)

Di-2-quinolinylmethanone **D-01103**
2-quinolinylhydrazone

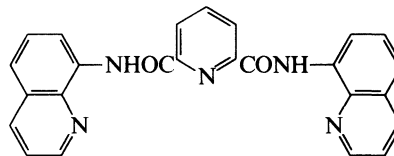
2(*1H*)-Quinolone di-2-quinolinylmethylenehydrazone, 9CI
 [101342-96-5]



$C_{28}H_{19}N_5$ M 425.492
 Used as 4 mM soln. in C_6H_6 for extraction-photometric
 detn. of Cd (λ_{max} 552 nm, ϵ 91500). Yellow needles
 (EtOH). Sol. C_6H_6 , EtOH. Mp 221°.

Otomo, M. *et al*, *Anal. Sci.*, 1985, **1**, 165 (*synth, detn, Cd*)

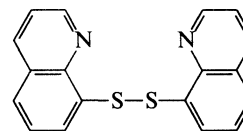
***N,N'*-Di-(8-quinolinyl)-2,6-** **D-01104**
pyridinedicarboxamide, 9CI
 2,6-Bis[N-(8-quinolyl)carbamoyl]pyridine
 [132734-56-6]



$C_{25}H_{17}N_5O_2$ M 419.442
 Used as 1mM $CHCl_3$ soln. for highly selective extraction
 sepn. of Cu (*I*) (pH 6.2). Cryst. ($C_6H_6/CHCl_3$). Sol.
 $CHCl_3$, C_6H_6 . Mp 290-292.5°.

Hiratani, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1990, **63**, 3331 (*synth, detn, Cu*)

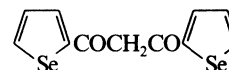
Di-8-quinolyl disulfide **D-01105**
 8,8'-Dithiobisquinoline, 9CI
 [1160-28-7]



$C_{18}H_{12}N_2S_2$ M 320.438
 Used as a collector in preconcentration of microamounts
 of heavy metals; used as a 0.2% soln. in $CHCl_3$ for
 extraction-photometric detn. of Cu(*I*). Cryst. (toluene).
 Sol. C_6H_6 , toluene $CHCl_3$; insol. weak acids, alkalis,
 H_2O . Mp 206°.

Shevchuk, I.A. *et al*, *CA*, 1961, **55**, 24752d (*synth, detn, Cu*)
 Bankovsky, Yu.A. *et al*, *Talanta*, 1987, **34**, 179.

1,3-Di-2-selenophenyl-1,3-propanedione **D-01106**
Diselenoylmethane

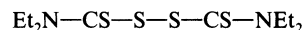


$C_{11}H_8O_2Se_2$ M 330.103
 Used as a satd. soln. in EtOH for extraction-photometric
 detn. of Cu (λ_{max} 385 nm, ϵ 29500, $CHCl_3$). Yellow
 cryst. (MeOH). Sol. common org. solvs. Mp 107-108°.

Yurev, Y.K. *et al*, *Zh. Obshch. Khim.*, 1961, **31**, 1449 (*synth, detn, Cu*)

Disulfiram, BAN, INN, USAN **D-01107**

Tetraethyl thioperoxydicarbonic diamide, 9CI.
Bis(diethylthiocarbamyl) disulfide, 8CI. *Tetraethylthiuram*
disulfide. *Antabuse.* *Ethylidithiourame.* *Dicupral.* *Mercupral.*
Numerous proprietary names
 [97-77-8]



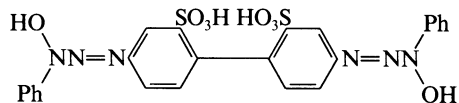
$C_{10}H_{20}N_2S_4$ M 296.545
 Fungicide, insecticide, bactericide, rubber vulcanisation
 accelerator, used in treating alcoholism (alcohol
 deterrent). Used as 0.01M EtOH soln. in photometric
 detn. of Cu (ϵ 23000), gravimetric detn. of Se. Yellow-
 white cryst. Sol. CS_2 , $CHCl_3$, C_6H_6 , EtOH. Mp 70°.

▷ Toxic, exp. carcinogen. TLV 2. JO1225000.

Michal, J. *et al*, *Collect. Czech. Chem. Commun.*, 1955, **20**, 305
 (use, Cu, Se)

- Michal, J. *et al*, *Zh. Anal. Khim.*, 1959, **14**, 422 (*detn*, Cu)
 Bilikova, A. *et al*, *Chem. Listy*, 1965, **59**, 91 (*detn*, Cu)
 Yoshida, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1967, **16**, 605 (*use*)
 Liegeois, R.L. *et al*, *Ind. Chim. Belg.*, 1967, **32**, 189; *CA*, **70**, 120786c.
 Madsen, J.O. *et al*, *J. Org. Chem.*, 1967, **32**, 2054 (*ms*)
 Drost, R.H. *et al*, *Pharm. Weekbl.*, 1970, **105**, 1129 (*w*)
 Brinkhoff, H.C. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1970, **89**, 11 (*nmr*)
 Nash, N.G. *et al*, *Anal. Profiles Drug Subst.*, 1975, **4**, 168 (*rev, synth*)
 Kellner, R., *Mikrochim. Acta*, 1975, **II**, 369 (*ir*)
 de Saint-Blanquat, G. *et al*, *J. Pharmacol.*, 1976, **7**, 393 (*rev, pharmacol*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 569.
 Van Gaal, H.L.M. *et al*, *Inorg. Chem.*, 1979, **18**, 3251 (*cmr*)
 Eneanya, D.I. *et al*, *Annu. Rev. Pharmacol. Toxicol.*, 1981, **21**, 575 (*rev, pharmacol, tox*)
 Peachey, J.E. *et al*, *Pharmacol. Ther.*, 1981, **15**, 89 (*rev, pharmacol*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2731.
 Brien, J.F. *et al*, *Drug Metab. Rev.*, 1983, **14**, 113 (*rev, metab*)
 Wang, Y. *et al*, *Acta Crystallogr., Sect. C*, 1986, **42**, 1420 (*cryst struct*)
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1767 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXH250.

1,1'-(2,2'-Disulfo-4,4'-biphenylene)bis(3-hydroxy-3-phenyltriazene) **D-01108**
 4,4'-Bis(3-hydroxy-3-phenyl-1-triazeno)-2,2'-biphenyldisulfonic acid, 9CI



$C_{24}H_{20}N_6O_8S_2$ M 584.589

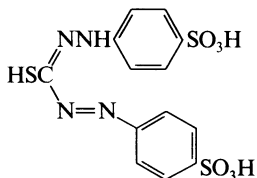
Di-Na salt: [27956-02-1].

Used as a 0.5% aq. soln. for photometric detn. of Mo (λ_{max} 420 nm), Pd (λ_{max} 430 nm). Creamy yellow cryst. Sol. H_2O ; sl. sol. EtOH.

Krishnaswamy, N. *et al*, *Fresenius' Z. Anal. Chem.*, 1970, **249**, 241 (*detn*, Mo, Pd)

4,4'-Disulfodithizone **D-01109**

Di-(p-sulfophenyl)thiocarbazone. (4-Sulfophenyl) diazenecarbothioic acid 1-[2-(4-sulfophenyl)hydrazide], 9CI [32476-08-7]



$C_{13}H_{12}N_4O_6S_3$ M 416.459

Dark green cryst. powder. Sol. H_2O . pK_{a1} 3.6; pK_{a2} 8.9 ($\mu = 0.1$).

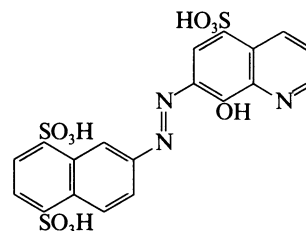
Di-Na salt: [61161-43-1].

Used as aq. soln. for extraction-photometric detn. of Ag, Bi, Cd, Hg, Pb, Sb, Sn.

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1971, **37**, 50 (*use*)

Arendaryuk, E.N. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1978, **44**, 1096 (*use*)

7-(5,8-Disulfo-2-naphthylazo)-8-hydroxy-5-quinolinesulfonic acid **D-01110**
 Naphthylazoxine 5,8S



$C_{19}H_{13}N_3O_{10}S_3$ M 539.524

Used as a 0.16% aq. soln. for photometric detn. of Sc (λ_{max} 420 nm, ϵ 14500). Dark red cryst. Sol. H_2O .

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 1069 (*detn*, Sc)

1,4-Dithiane, 9CI **D-01111**

p-Dithiane, 8CI

[505-29-3]



$C_4H_8S_2$ M 120.239

Gives colour reaction with $HgCl_2$. Monoclinic prisms. Sol. EtOH, Et_2O , Me_2CO , AcOH; spar. sol. H_2O . Mp 112-113°. Bp 199-200°. Subl. at r.t., volatile in steam and EtOH.

1,1-Dioxide:

$C_4H_8O_2S_2$ M 152.238

Mp 200°.

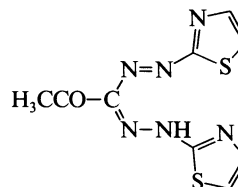
Org. Synth., Coll. Vol., 4, 1963, 396 (*synth*)

Hunter, G. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1978, **use**, 712 (*pmr*)

Sandell, E.A. *et al*, *Photometric Determination of Traces of Metals*, Wiley, New York, 1978 (*use*)

1-(1,5-Di-2-thiazolylformazanyl)ethanone, **D-01112**
 9CI

1-(2-Thiazolylazo)-1-(2-thiazolylhydrazino)-2-propanone [109328-98-5]



$C_9H_8N_6OS_2$ M 280.334

Used as soln. in 50% dioxan to give colour reactions with Cu, Ni, Zn, Co, Cd (suitable for photometric detns.).

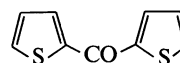
Red cryst. Sol. dioxan; spar. sol. H_2O . Mp 155° dec. pK_{a1} 1.91; pK_{a2} 6.05 (1% dioxan).

Ishizuki, T. *et al*, *Anal. Chim. Acta*, 1988, **212**, 253 (*synth, use*)

Di-2-thienyl ketone, 8CI **D-01113**

Di-2-thienylmethanone, 9CI. *2,2'-Dithienone*

[704-38-1]



$C_9H_6OS_2$ M 194.278

Needles (EtOH). Mp 90-90.5°. Bp 326°.

▷ XJ9800000.

Phenylhydrazone: Mp 137°.

Oxime: [10558-44-8]. *Di(2-thenoyl)ketoxime*

$C_9H_7NOS_2$ M 209.292

Used as a 2% sol. in EtOH for gravimetric detn. of Au, Pd; nephelometric detn. of Pd. Needles (EtOH aq.). Sol. Et_2O , Me_2CO . Mp 134-136°.

Thomas, P. *et al*, *Bull. Soc. Chim. Fr.*, 1918, **23**, 290.

Steinkopf, W. *et al*, *Justus Liebig's Ann. Chem.*, 1932, **495**, 162.

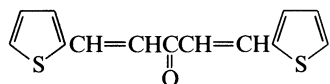
Holland, W.J. *et al*, *Can. J. Chem.*, 1963, **41**, 1657; 1964, **42**, 1016 (synth, neph detn, Pd)

Holland, W.J. *et al*, *Anal. Chem.*, 1966, **38**, 919 (grav detn, Pd)

Holland, W.J. *et al*, *Anal. Chim. Acta*, 1968, **41**, 327 (detn, Au)

Benassi, R. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1989, 1741 (cryst struct, cmr, conformn)

1,5-Di-2-thienyl-1,4-pentadien-3-one, 9CI **D-01114**
[886-78-2]



$C_{13}H_{10}OS_2$ M 246.353

Used as 1mM soln. in AcOH as an acid-base indicator for photometric titration of bases. Cryst. Sol. AcOH. pK_a 2.09.

Sarbar, M. *et al*, *Talanta*, 1986, **33**, 907 (synth, use)

1,12-Di-2-thienyl-2,5,8,11-tetrathiadodecane **D-01115**

2,2'-(2,5,8,11-Tetrathiadodecane-1,12-diyl)bisthiophene, 9CI
[107396-38-3]



$C_{16}H_{22}S_6$ M 406.746

Used as 1mM soln. in 1,2-dichloroethane for selective extraction separation of Ag, Cu(I), Hg(II). Cryst. (CCl_4 /hexane). Sol. 1,2-dichloroethane, toluene, hexane, 4-methyl-2-pentanone. Mp 50.8-51.6°.

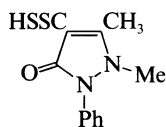
Lachowicz, E. *et al*, *Anal. Chim. Acta*, 1986, **188**, 239 (synth, use)

Lachowicz, E. *et al*, *Analyst (London)*, 1987, **112**, 1623 (detn, Ag)

Dithioantipyrinic acid, 8CI **D-01116**

Antipyrine-4-dithiocarboxylic acid

[3777-74-0]



$C_{12}H_{12}N_2OS_2$ M 264.372

Used as 1% soln. in aq. NH_3 for indirect extraction-photometric detn. of Bi, Pb, Tl. Cryst. Sl. sol. H_2O ; sol. alkalis.

Janik, B. *et al*, *Mikrochim. Acta*, 1970, 1050 (use)

Dithiobenzoic acid **D-01117**

Benzenecarbodithioic acid, 9CI. Thiolthionobenzoic acid

[121-68-6]

PhCSSH

$C_7H_6S_2$ M 154.256

Used in photometric detn. of Ir. Heavy dark-red-violet oil. Resinifies on standing in air.

Me ester: [2168-78-7].

$C_8H_8S_2$ M 168.283

Red oil. Bp 275-280°.

Et ester: [936-63-0].

$C_9H_{10}S_2$ M 182.310

Bp₁₅ 155-160°.

Ph ester: [949-00-8].

$C_{13}H_{10}S_2$ M 230.354

Red cryst. (EtOH). Mp 61-62°.

Houben, J., *Ber.*, 1906, **39**, 3219.

Gilman, H., *J. Am. Chem. Soc.*, 1926, **48**, 2718.

Kjaer, A., *Acta Chem. Scand.*, 1950, **4**, 1347.

Ger. Pat., 1 274 121, (1968); *CA*, **70**, 3573.

Golubev, V.N. *et al*, *Zavod. Lab.*, 1975, **41**, 1063 (use)

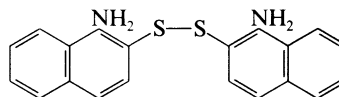
Gotthardt, H., *Chem. Ber.*, 1976, **109**, 740.

Yokoyama, M. *et al*, *Synthesis*, 1984, 827 (synth)

2,2'-Dithiobis[1-naphthaleneamine], 9CI **D-01118**

2,2'-Dithiobis(1-aminonaphthalene). Bis(1-amino-2-naphthyl) disulfide. DTAN

[38262-57-6]



$C_{20}H_{16}N_2S_2$ M 348.492

Reagent for fluorimetric anal. of aromatic aldehydes. Mp 132-133°.

N,N'-Di-Ac: [38262-58-7].

$C_{24}H_{20}N_2O_2S_2$ M 432.566

Mp 202°.

Jacobson, P., *Ber.*, 1887, **20**, 1899 (synth)

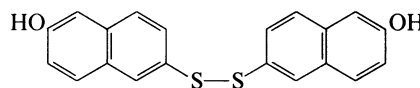
Cockerill, A.F. *et al*, *Tetrahedron Lett.*, 1972, 3059 (synth)

Ohkura, Y. *et al*, *Anal. Chim. Acta*, 1978, **99**, 317; 1979, **110**, 335 (use)

6,6'-Dithiobis[2-naphthalenol], 9CI **D-01119**

2,2'-Dihydroxy-6,6'-dinaphthyl disulfide. DDD

[6088-51-3]



$C_{20}H_{14}O_2S_2$ M 350.461

Reacts with thiol groups in biomaterials to give strong fluorescence. Useful in the detn. of active SH and SS groups in amino acids, peptides and proteins. Needles (AcOH). Prac. insol. H_2O ; sol. EtOH, AcOH; v. sol. C_6H_6 . Mp 220-221°.

Zincke, T. *et al*, *Ber.*, 1918, **51**, 352 (synth)

Barnett, R.J. *et al*, *Science (Washington, D.C.)*, 1952, **116**, 323 (use)

Pomeranz, Y. *et al*, *Anal. Chim. Acta*, 1962, **26**, 301 (use)

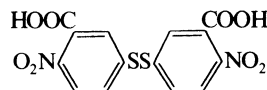
Esterbauer, H. *et al*, *Acta Histochem.*, 1972, **42**, 351; 1973, **47**, 94 (use)

Noehammer, G., *Histochemistry*, 1982, **75**, 219 (use)

3,3'-Dithiobis[6-nitrobenzoic acid], 9CI, 8CI **D-01120**

4,4'-Dinitrodiphenyl disulfide 3,3'-dicarboxylic acid. 5,5'-Dithiobis[2-nitrobenzoic acid]. Ellman's reagent. DTNB

[69-78-3]



$C_{14}H_8N_2O_8S_2$ M 396.358

Colorimetric reagent for detn. of SH groups. Used in photometric detn. of $SO_3^{2\ominus}$. Mp 238°.

Ellman, G.L., *Arch. Biochem. Biophys.*, 1959, **82**, 70 (*synth*)

Deakin, H. *et al*, *Biochem. J.*, 1963, **89**, 296 (*use*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 351 (*use*)

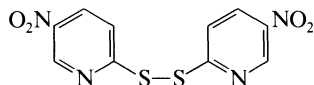
Humphrey, R.E. *et al*, *Anal. Chem.*, 1970, **42**, 698 (*detn*, $SO_3^{2\ominus}$)

Higashi, L.S. *et al*, *J. Am. Chem. Soc.*, 1978, **100**, 8101 (*struct*)

2,2'-Dithiobis[5-nitropyridine], 9CI D-01121

DTNP. 5,5'-Dinitro-2,2'-pyridinedisulfide. Bis(3-nitropyridyl) disulfide

[2127-10-8]



$C_{10}H_6N_4O_4S_2$ M 310.314

Selective reagent for the detn. of thiols. Commercially available. Needles (MeOH). Mp 155-157°.

Rath, C., *Justus Liebigs Ann. Chem.*, 1931, **487**, 105 (*synth*)

Grassetti, D.R. *et al*, *J. Med. Chem.*, 1965, **8**, 753 (*synth*)

Grassetti, D.R. *et al*, *J. Chromatogr.*, 1969, **41**, 121 (*use*)

Swatditat, A. *et al*, *Anal. Biochem.*, 1972, **45**, 349 (*use*)

Laurell, C.B., *J. Chromatogr.*, 1978, **159**, 25 (*use*)

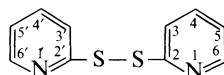
Anisimov, A.V. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 2248 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXL200.

2,2'-Dithiobispyridine, 9CI D-01122

2,2'-Dipyridyl disulfide. Aldrithiol 2

[2127-03-9]



$C_{10}H_8N_2S_2$ M 220.319

Reagent for peptide coupling and macrocyclic lactonisation of ω -hydroxy acids and selective reagent for detecting thiols. Used as a 1mM soln. in EtOH for photometric detn. of $S^{2\ominus}$. Cryst. Sol. H_2O , EtOH, Me_2CO , C_6H_6 . Mp 57-58°.

N,N'-Dioxide: [3696-28-4]. *Dipyrrithione*, USAN, INN.

Omadine disulfide. *OMDS*

$C_{10}H_8N_2O_2S_2$ M 252.317

Antibacterial, antifungal agent. Mp 200-201° dec.

N,N'-Dioxide, $MgSO_4$ complex: [67182-81-4]. *Bispyrrithione magsulfex*, USAN. [2,2'-Dithiobis[pyridine] 1,1'-dioxide-O,O',S,S][sulfato(2-)-O]magnesium, 9CI. *Omadine MDS*

$C_{10}H_8MgN_2O_6S_3$ M 372.686

Antibacterial, antidandruff and antifungal agent.

Räth, C., *Justus Liebigs Ann. Chem.*, 1931, **487**, 105 (*synth*)

Canadian Pat., 501 851, (1954); *CA*, **50**, 6740 (*deriv*)

U.S. Pat., 2 742 476, (1956); *CA*, **50**, 16877c (*deriv*)

Grassetti, D.R. *et al*, *J. Chromatogr.*, 1969, **41**, 121 (*use*)

Humphrey, R.E. *et al*, *Anal. Chem.*, 1971, **43**, 140 (*detn*, $S^{2\ominus}$)

Corey, E.J. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 5614 (*use*)

Keats, N.G. *et al*, *J. Heterocycl. Chem.*, 1977, **14**, 232 (*ms*)

Grimshaw, C.E. *et al*, *J. Am. Chem. Soc.*, 1979, **101**, 1521 (*use*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1980, **8**, 214 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXN300.

4,4'-Dithiobispyridine, 9CI D-01123

4,4'-Dipyridyl disulfide. Aldrithiol 4

[2645-22-9]

$C_{10}H_8N_2S_2$ M 220.319

Thiol reagent. Used as a 1mM soln. in EtOH for photometric detn. of $S^{2\ominus}$. Cryst. Sol. H_2O , EtOH.

Me_2CO , C_6H_6 . Mp 74-76°.

Humphrey, R.E. *et al*, *Anal. Chem.*, 1970, **42**, 698; 1971, **43**, 140 (*detn*, $S^{2\ominus}$)

Ferraro, J.R. *et al*, *J. Inorg. Nucl. Chem.*, 1972, **34**, 231 (*ir*)

Cheng, C.L. *et al*, *Aust. J. Chem.*, 1973, **26**, 1785 (*conformn*)

Forchioni, A. *et al*, *Spectrochim. Acta, Part A*, 1975, **31**, 1367 (*pmr*)

Grimshaw, C.E. *et al*, *J. Am. Chem. Soc.*, 1979, **101**, 152 (*use*)

Nagao, Y. *et al*, *Tetrahedron Lett.*, 1979, 4403 (*use*)

Dithiocarbamic acid, 8CI D-01124

Carbamodithioic acid, 9CI. *Aminodithioformic acid*.

Dithiocarbonic amide

[594-07-0]

H_2NCSSH

CH_3NS_2 M 93.173

Needles, unstable above 20° → CS_2 + H_2S + NH_4SCN .

Sol. EtOH, Et_2O . Mp 35.7°. pK_a 2.95 (25°). Dec. by

H_2O .

NH_4 salt: *Ammonium dithiocarbamate*

$CH_7N_2S_2$ M 111.212

Synth. from CS_2 and NH_3 . Lustrous yellow cryst. Sol.

H_2O . Mp 99° dec. Dec. in air.

Me ester: [16696-83-6].

$C_2H_5NS_2$ M 107.200

Insol. H_2O . Mp 42°.

Me ester, N-Ac: [16696-88-1].

$C_4H_7NOS_2$ M 149.237

Yellow prisms. Mp 119°.

N,N-Dibenzyl: [99-22-9]. *Dibenzyl dithiocarbamic acid*.

Bis(phenylmethyl)carbamodithioic acid, 9CI

$C_{15}H_{15}NS_2$ M 273.422

Used as Na salt for extraction, separation and

photometric detn. of heavy metals e.g. Bi, Cu, Pb. Also use as Zn salt.

N,N-Dibutyl: see *N-Dibutyl dithiocarbamic acid*, D-00232 [136-30-1, 55310-46-8]

Mulder, E., *Justus Liebigs Ann. Chem.*, 1873, **168**, 232 (*synth*)

U.K. Pat., 307 728, (1927); *CA*, **24**, 129 (*synth*)

Inorg. Synth., 1950, **3**, 48 (*deriv*, *synth*)

Martens, R.I. *et al*, *Analyst (London)*, 1952, **24**, 991 (*N,N*-dibenzyl, *detn*, Zn salt)

Andrus, S., *Analyst (London)*, 1955, **80**, 514 (*N,N*-dibenzyl, *detn*, Cu)

Org. Synth., *Coll. Vol.*, 3, 1955, 763 (*synth*)

Stobart, J.A., *Analyst (London)*, 1965, **90**, 278 (*N,N*-dibenzyl, *synth*, *detn*, Pb)

Capacchi, L. *et al*, *J. Chem. Soc., Chem. Commun.*, 1966, 441

(*deriv*, *cryst struct*)

Gattow, G. *et al*, *Z. Anorg. Allg. Chem.*, 1969, **364**, 161 (*synth*, *ir*)

Yamane, T. *et al*, *Anal. Chim. Acta*, 1972, **62**, 137; 1974, **69**, 347

(*N,N*-dibenzyl, *detn*, Bi)

Gmelin Handbook Inorg. Chem., *Syst.No.* 14, 1978, **D6**, 133 (*bibl*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **4**, 744.

Merck Index, 11th Ed., 1989, 533 (*deriv*, *props*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SGF500.

Dithiocarbonic acid

Carbonodithioic acid, 11CI, 9CI

[4741-30-4]

CH₂OS₂ M 94.158

Acid unknown in free state.

S,S-Di-Me ester: [868-84-8].

C₃H₆OS₂ M 122.212

Liq. Bp 168°.

S-Me, S-Et ester: [10596-55-1].

C₄H₈OS₂ M 136.239Liq. Bp₃₀ 83-85°.

S,S-Di-Et ester: [623-80-3].

C₅H₁₀OS₂ M 150.265Liq. Bp 196-197°, Bp₁₄ 83-86°.

O-Butyl ester: [871-58-9].

C₅H₁₀OS₂ M 150.265Used as 2M aq. soln. of K salt for extraction-photometric detn. of Mn (λ_{max} 457 nm, ε 5500). Yellow cryst. (H₂O). Sol. H₂O. CA number refers to K salt.

O,S-Dibutyl ester: [10226-07-0]. O,S-Dibutyldithiocarbonate

C₉H₁₈OS₂ M 206.373Used for photometric detn. of Pd (λ_{max} 400 nm). Sol. Et₂O, EtOH, Me₂CO.Schmidt, R. *et al*, *Ber.*, 1868, 1, 166 (*synth*)Delépine, M., *Bull. Soc. Chim. Fr.*, 1903, 29, 56 (*synth*)Kralovsky, J. *et al*, *Mikrochim. Acta*, 1966, 34 (*dibutyl ester, use*)Holsber, D.H. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth.**Chem. Soc.)*, 1972, 391, 1371 (*synth*)Komati, K. *et al*, *Chem. Pharm. Bull.*, 1978, 26, 3807 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PKY850.**N-(Dithiocarboxy)sarcosine**

N-(Dithiocarboxy)-N-methylglycine, 9CI

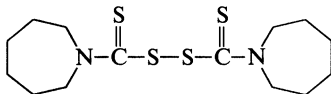
[40520-03-4]

C₄H₇NO₂S₂ M 165.237Used as 0.01M aq. soln. for separation and photometric detn. of Cu(II) (λ_{max} 432 nm, ε 14500); also used as a masking agent. Cryst. Sol. H₂O.Watanabe, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1979, 28, 154, 366 (*use*)Sakai, Y. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1979, 28, 429 (*synth, use, detn, Cu*)Sakai, Y. *et al*, *Talanta*, 1980, 27, 1073 (*synth, use, detn, Cu*)**1,1'-(Dithiodicarbonothioyl)bis[hexahydro-1H-azepine], 9CI**

Bis[(hexahydro-1H-azepin-1-yl)thiocarbonyl]disulfide.

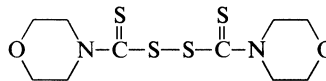
Bis(hexamethylene)thiocarbamoyl disulfide

[13821-89-1]

C₁₄H₂₄N₂S₄ M 348.621Used as a 2mM soln. in MeOH for photometric detn. of Cu (λ_{max} 425 nm, ε 32700). Cryst. Sol. MeOH, Et₂O. Mp 110°.Wawshinek, O. *et al*, *Anal. Chim. Acta*, 1966, 35, 109.Lofberg, R.T. *et al*, *Anal. Lett.*, 1969, 2, 439.**D-01125 4,4'-(Dithiodicarbonothioyl)bismorpholine, 9CI**

Bis(morpholino)thiocarbamoyl disulfide

[729-46-4]

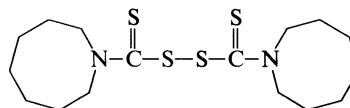
C₁₀H₁₆N₂O₂S₄ M 324.513Used as a 2mM soln. in MeOH for photometric detn. of Cu (λ_{max} 425 nm, ε 3000). Cryst. Sol. MeOH, Et₂O. Mp 145°.

▷ JO1530000.

Wawshinek, O. *et al*, *Anal. Chim. Acta*, 1966, 35, 109 (*detn, Cu*)Lofberg, R.T. *et al*, *Anal. Lett.*, 1969, 2, 439 (*detn, Cu*)**D-01129 1,1'-(Dithiodicarbonothioyl)bis[octahydroazocine], 9CI**

Bis(heptamethylene)thiocarbamoyl disulfide

[18805-40-8]

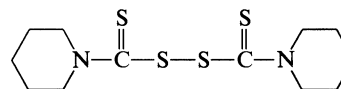
C₁₆H₂₈N₂S₄ M 376.675Used as a 2mM soln. in MeOH for photometric detn. of Cu (λ_{max} 425 nm, ε 35600). Cryst. Sol. MeOH, Et₂O. Mp 133-134°.Wawshinek, O. *et al*, *Anal. Chim. Acta*, 1966, 35, 109.Lofberg, R.T. *et al*, *Anal. Lett.*, 1969, 2, 439.**D-01130 1,1'-(Dithiodicarbonothioyl)bispiperidine, 9CI**

Bis(piperidinothiocarbonyl) disulfide, 8CI.

Bis(pentamethylene)thiocarbamoyl disulfide.

Dicyclopentamethylenethiuram disulfide

[94-37-1]

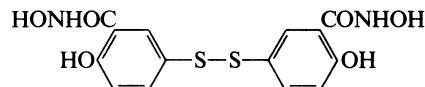
C₁₂H₂₀N₂S₄ M 320.567Fungicide. Used as a 2mM soln. in MeOH for photometric detn. of Cu (λ_{max} 425 nm, ε 32200). Solid (CS₂/hexane). Sol. MeOH, Et₂O. Mp 130-131°.

▷ JO1585000.

Blake, E.S., *J. Am. Chem. Soc.*, 1943, 65, 1267 (*synth*)Hoffmeister, E.H. *et al*, *Tetrahedron*, 1965, 21, 35 (*synth, bibl, ir*)Lofberg, R.T. *et al*, *Anal. Lett.*, 1969, 2, 439.**D-01131 5,5'-Dithiodisalicylhydroxamic acid**

3,3'-Dithiobis[N,6-dihydroxybenzamide], 9CI

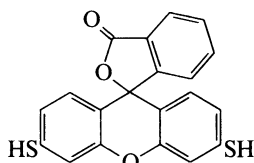
[96684-97-8]

C₁₄H₁₂N₂O₆S₂ M 368.391Used as 0.01M aq. soln. for extraction-photometric detn. of Mn (λ_{max} 495 nm, ε 1960), V. Cryst.Martinez-Vidal, J.L. *et al*, *Microchem. J.*, 1988, 37, 241, 246 (*synth, detn, Mn, V*)

Dithiofluorescein, 8CI

Thiofluorescein

[28024-03-5]

C₂₀H₁₂O₃S₂ M 364.445

Used as aq. soln. with triethanolamine and EDTA for indirect photometric detn. of SCN[⊖] (as bromocyanide). Cryst. Sol. alkalis.

Wroński, M., *Chem. Anal. (Warsaw)*, 1969, **14**, 1183 (detn, SCN[⊖])**D-01132**

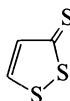
alkaline solns; spar. sol. EtOH, CCl₄, CHCl₃, C₆H₆; insol. H₂O. Mp 165-169° dec. Etheral solutions are dark red in colour. Used mainly as 0.001-0.003% soln. in CCl₄.

▷ Causes eye injury experimentally. LQ9450000.

Org. Synth., Coll. Vol., 3, 1955, 360 (synth)Sandell, E.B., *Colorimetric Determination of Traces of Metals*, 3rd ed., Interscience, New York, 1959.Iwantscheff, G., *Das Dithizon und Seine Anwendung in der Mikro und Spurenanalyse*, Verlag Chemie, Weinheim, 1972.Irving, H.M.N.H., *Dithizone*, Royal Society of Chemistry Analytical Monographs no. 5, 1977 (rev)Laing, M., *J. Chem. Soc., Perkin Trans. 2*, 1977, 1248 (cryst struct)Hutton, A.T. et al, *J. Chem. Soc., Chem. Commun.*, 1981, 735 (struct)Cheng, K.L. et al, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 363 (use)Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 262, 315, 529, 672, 824; *Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 66, 227, 253, 379, 426, 708.Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 258, 373, 440, 524, 637.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DWN200.**3H-1,2-Dithiole-3-thione, 9CI, 8CI**

1,2-Dithia-4-cyclopentene-3-thione

[534-25-8]

C₃H₂S₃ M 134.247

Poss. isol. from *Brassica oleracea* var. *capitata*. Used as 1mM EtOH soln. in extraction-photometric detn. of Pd. Cryst. (C₆H₆ or MeOH). Sol. EtOH, CHCl₃; insol. H₂O. Mp 81-82°.

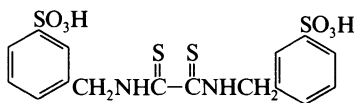
B,MeI: Mp 175°.Jirousek, L. et al, *Naturwissenschaften*, 1958, **45**, 386.Busev, A.I. et al, *Zh. Anal. Khim.*, 1970, **25**, 953 (detn, Pd)Meinetsberger, E. et al, *Synthesis*, 1977, 802 (synth, pmr, ir)Pedersen, C.T., *Adv. Heterocycl. Chem.*, 1982, **31**, 63 (rev)Wei, C.H., *Acta Crystallogr., Sect. C*, 1985, **41**, 1768 (cryst struct)Poleschner, H. et al, *Phosphorus Sulfur Relat. Elem.*, 1985, **25**, 193; 1987, **29**, 187 (synth, cmr)**D-01133****1,1,1,2,2,6,6,7,7,8,8,8-Dodecafluoro-3,5-octanedione, 9CI**

[32357-73-6]

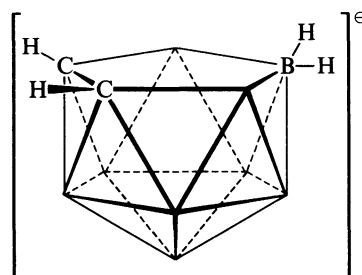
F₃CCF₂COCH₂COCF₂CF₂CF₃C₈H₂F₁₂O₂ M 358.083Used for extraction and gc sepn. of lanthanides. Liq. Sol. EtOH, Me₂CO.Sieck, R.F. et al, *Anal. Chem.*, 1972, **44**, 2307 (synth, gc)Mitchell, J.W. et al, *Talanta*, 1972, **19**, 1157 (extrn)**D-01136****α,α-[(Dithiooxaly)diimino]di-m-toluenesulfonic acid, 8CI**

N,N'-Bis(m-sulfobenzyl)dithiooxamide

[3929-44-0]

C₁₆H₁₆N₂O₆S₄ M 460.576Used for photometric detn. of Co, Pd. Cryst. Sol. H₂O; insol. Et₂O, C₆H₆.Janssens, A.A. et al, *Bull. Soc. Chim. Belg.*, 1970, **79**, 161.**D-01134****Dodecahydro-7,8-dicarbaundecaborate(1-), 11CI, 10CI, 9CI, 8CI**

[11130-95-3]

**D-01137****Dithizone**

(Phenylazo)thioformic acid 2-phenylhydrazide, 8CI.

Phenyldiazinecarbothioic acid 2-phenylhydrazide, 9CI.

Diphenylthiocarbazone. H₂D₂

[60-10-6]

C₁₃H₁₂N₄S M 256.331

Used in preconcentration and extraction separation of heavy metal ions; gives colour reactions with many metals; in extraction-photometric detn. of Ag (λ_{max} 462 nm, ε 31000), Bi, Pb, Zn (λ_{max} 538 nm, ε 93000), Cd, Cu, Pd, Hg (λ_{max} 485 nm, ε 71000), Tl and other elements. Bluish-black cryst. (EtOH aq.). Sol. aq.

D-01135C₂H₁₂B₉[⊖] M 133.416 (ion)

nido-. Known as the (3)-1,2-isomer in early lit.

K salt: [12304-72-2]. *Cuproselect*C₂H₁₂B₉K M 172.514Often used as a source of C₂B₉H₁₂[⊖] for metal complex formation. Used for photometric detn. of Cu. Colourless solid. Sol. H₂O, alcohols; insol. Et₂O. Quite hygroscopic.*Me₄N salt*: [12304-89-1].Colourless solid. Sol. alcohols, ketones, nitriles; insol. H₂O.

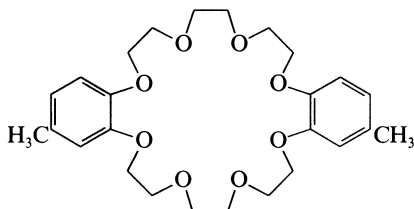
[12385-59-0]

Garrett, P.M. et al, *J. Am. Chem. Soc.*, 1964, **86**, 5016 (synth)Hawthorne, M.F. et al, *J. Am. Chem. Soc.*, 1968, **90**, 862 (synth, ir, pmr, B-11 nmr)

Nabivanets, B.I. *et al.*, *Zh. Anal. Khim.*, 1973, **28**, 897 (*use*)
Inorg. Synth., 1983, **22**, 231 (*synth, pmr, B-11 nmr, rev, bibl*)
 Buchanan, J. *et al.*, *J. Chem. Soc., Dalton Trans.*, 1990, 677 (*cryst struct*)

6,7,9,10,12,13,20,21,23,24,26,27-**D-01138****Dodecahydro-2,16-dimethyldibenzo[*b,n*][1,4,7,10,13,16,19,-22]octaoxacyclotetracosin, 9CI***Dimethyldibenzo-24-crown-8*

[54326-75-9]

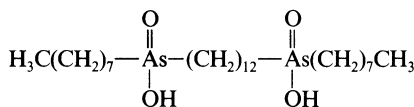
 $C_{26}H_{36}O_8$ M 476.566

Obt. as an undefined isomer or regioisomeric mixture with the 2,17 isomer. CAS registry no. applies to this prepn. of undefined composition. Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. (C_6H_6/Et_2O). Sol. C_6H_6 , Et_2O . Mp 68-70°.

Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 7017 (*synth*)
 Petranek, J. *et al.*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 497 (*use*)
 Petranek, J. *et al.*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

1,12-Dodecanediylbis[octylarsinic acid], 9CI**D-01139**

[63586-97-0]

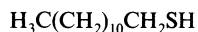
 $C_{28}H_{60}As_2O_4$ M 610.623

Used as $1mM$ soln. in octanol for extraction separation of Ce(III) and Eu(III) (pH 6.9-7.8, 50°). Cryst. Mod. sol. octanol; insol. $CHCl_3$, CCl_4 .

Olivares, A.M. *et al.*, *Mikrochim. Acta*, 1984, **2**, 141 (*synth, use*)

1-Dodecanethiol, 9CI**D-01140***1-Mercaptododecane. Lauryl mercaptan. Dodecyl mercaptan. Thiododecyl alcohol*

[112-55-0]

 $C_{12}H_{26}S$ M 202.403

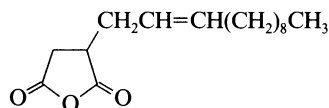
Reagent used to determine unsaturation in alkenic compds. Liq. Bp₃₉ 165-169°, Bp₁₅ 142-145°.

▷ JR3155000.

Org. Synth., 1941, **21**, 36 (*synth*)
 Frank, R.L. *et al.*, *J. Am. Chem. Soc.*, 1946, **48**, 2103 (*synth*)
 Itabashi, K., *CA*, 1961, **55**, 23412f (*synth*)
 Muller, K., *Fresenius' Z. Anal. Chem.*, 1961, **181**, 126 (*use*)
Fr. Pat., 148 193, (1967); *CA*, **67**, 108212 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, LBX000.

3-(2-Dodecenyldihydro-2,5-furandione, 9CI**D-01141***2-Dodecenylsuccinic anhydride, 8CI*

[19780-11-1]

 $C_{16}H_{26}O_3$ M 266.380

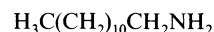
Derivatisation reagent for ms anal. of amines. Mp 41-43°.

Bp₅ 180-182°.

Ligon, W.V. *et al.*, *Anal. Chem.*, 1986, **58**, 1889 (*use*)

Dodecylamine**D-01142***1-Dodecanamine, 9CI. Laurylamine. 1-Aminododecane*

[124-22-1]

 $C_{12}H_{27}N$ M 185.352

Used as an anal. reagent for aldehydes, and as a 2% soln. in BuOH for extraction-photometric detn. of Nb; extraction of Mn(III) and Fe(III) pyrophosphate complexes. Cryst. (C_6H_6). Sol. EtOH, Et_2O , C_6H_6 , $CHCl_3$. Mp 27-28°. Bp 247-249°, Bp₁₀ 126°. n_D^{20} 1.4421.

▷ JR6475000.

N-Me: [7311-30-0].

 $C_{13}H_{29}N$ M 199.379Oil. Bp_{1.2-1.5} 110-115°.

N-Di-Me, N-oxide: [1643-20-5].

 $C_{14}H_{31}NO$ M 229.405

Used in detergents. V. hygroscopic needles (dry toluene). Mp 130-131°.

▷ JR6650000.

Krafft, F., *Ber.*, 1890, **23**, 2364.Adkins, H. *et al.*, *J. Am. Chem. Soc.*, 1934, **56**, 2419.v. Braun, J. *et al.*, *Ber.*, 1937, **70**, 979.

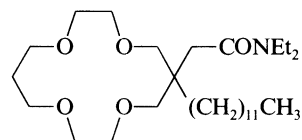
Heierman, F. *et al.*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1938, **57**, 456.

Siggia, S. *et al.*, *Anal. Chem.*, 1953, **25**, 830 (*use*)*Org. Synth., Coll. Vol.*, 4, 1963, 564 (*deriv*)Shevchuk, I.A. *et al.*, *Zavod. Lab.*, 1967, **33**, 288 (*use, Fe*)Shevchuk, I.A. *et al.*, *Zh. Anal. Khim.*, 1968, **23**, 1386 (*use, Mn*)Bedenbaugh, A.O. *et al.*, *J. Am. Chem. Soc.*, 1970, **92**, 5774 (*deriv*)*Org. Synth.*, 1970, **50**, 56 (*deriv*)Gilson, D.F.R., *Can. J. Chem.*, 1974, **52**, 2421 (*nmr*)Ivanov, N. *et al.*, *Fresenius' Z. Anal. Chem.*, 1976, **280**, 223 (*use, Nb*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DRS200, DXW000.

6-Dodecyl-*N,N*-diethyl-1,4,8,11-tetraoxacyclotetradecane-6-acetamide, 9CI**D-01143***(Diethylcarbamoylmethyl)dodecyl-14-crown-4*

[106868-32-0]

 $C_{28}H_{55}NO_5$ M 485.746

Used as ionophore in the polymeric ion-selective electrode for Li. Oil.

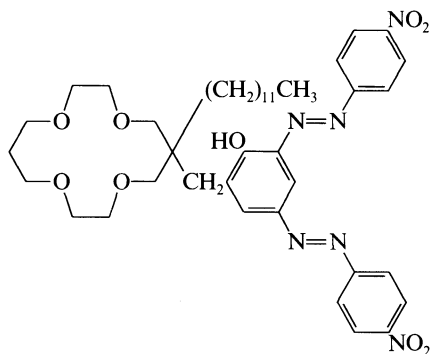
Kimura, K. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1986, 1945
(*synth*)

Kimura, K. *et al*, *Anal. Chem.*, 1987, **59**, 2331 (*detn*, *Li*)

6-Dodecyl-6-[2-hydroxy-3,5-bis(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane **D-01144**

2-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-4,6-bis[(4-nitrophenyl)azo]phenol, 9CI

[106419-31-2]



$C_{41}H_{56}N_6O_9$ M 776.928

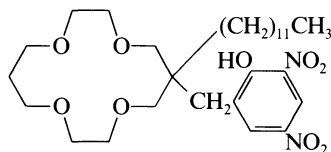
Used as soln. in 1,2-dichloroethane for extraction separation of Li (λ_{max} 582 nm, ϵ 34000) from other alkali metals (selectivity ratio Li/Na 91). Reddish orange solid (MeOH/CHCl₃). Sol. MeOH, CHCl₃, 1,2-dichloroethane. Mp 105.5°.

Kimura, K. *et al*, *J. Org. Chem.*, 1987, **52**, 836 (*synth*, *use*)

6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane **D-01145**

4-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-2,6-dinitrophenol, 9CI

[106419-28-7]



$C_{29}H_{48}N_2O_9$ M 568.706

Used as soln. in 1,2-dichloroethane for extraction separation of Li (λ_{max} 374 nm, ϵ 14000) from other alkali metals (selectivity ratio Li/Na 87). Yellow solid (MeOH). Sol. MeOH, 1,2-dichloroethane. Mp 60.5°.

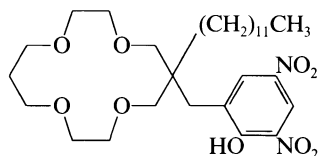
Sakamoto, H. *et al*, *Anal. Chem.*, 1987, **59**, 1513 (*use*)

Kimura, K. *et al*, *J. Org. Chem.*, 1987, **52**, 836 (*synth*, *use*)

6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane **D-01146**

2-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-4,6-dinitrophenol, 9CI. Dodecyl-14-crown-4-dinitrophenol

[98506-70-8]



$C_{29}H_{48}N_2O_9$ M 568.706

Used as 0.3mM CHCl₃ soln. for selective extraction-photometric detn. of Li. Yellowish orange cryst. (MeOH). Sol. CHCl₃, MeOH. Mp 64.5°.

Kimura, K. *et al*, *Chem. Lett.*, 1985, 1239 (*use*)

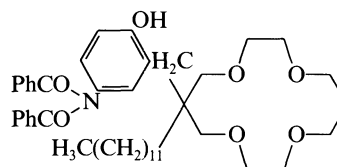
Kimura, K. *et al*, *J. Org. Chem.*, 1987, **52**, 836 (*synth*)

Kimura, K. *et al*, *Anal. Sci.*, 1988, **4**, 221 (*use*)

6-Dodecyl-6-[2-hydroxy-5-(1,8-naphthalenedicarboximido)benzyl]-1,4,8,11-tetraoxacyclotetradecane **D-01147**

2-[4-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-3-hydroxyphenyl]-1H-benz[de]-isoquinoline-1,3(2H)-dione, 9CI

[114482-52-9]



$C_{43}H_{59}NO_7$ M 701.942

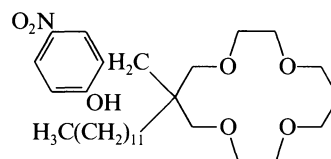
Used as 0.07mM soln. in 1,2-dichloroethane for selective extraction-sepn. of Li (1,2-dichloroethane) and photometric detn. of Li (λ_{max} 420 nm, ϵ 5300). Cryst. Sol. CHCl₃, 1,2-dichloroethane. Mp 91-92°. pK_a 10.79 (dioxan aq.).

Kimura, K. *et al*, *Anal. Chim. Acta*, 1987, **203**, 85 (*synth*, *detn*, *Li*)

6-Dodecyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane **D-01148**

2-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-4-nitrophenol, 9CI

[98506-68-4]



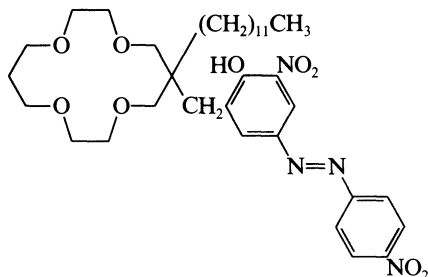
$C_{29}H_{49}NO_7$ M 523.709

Used as soln. in 1,2-dichloroethane for extraction detn. of Li (λ_{max} 413 nm, ϵ 19000) from Na and other alkali metals (selectivity ratio Li/Na 240). Reddish brown solid (MeOH/H₂O, 10:1). Sol. MeOH, 1,2-dichloroethane. Mp 53.5°.

Sakamoto, H. *et al*, *Anal. Chem.*, 1987, **59**, 1513 (*detn*, *Li*)

Kimura, K. *et al*, *J. Org. Chem.*, 1987, **52**, 836 (*synth*, *detn*, *Li*)

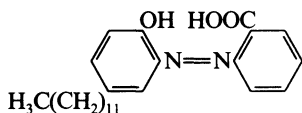
6-Dodecyl-6-[2-hydroxy-3-nitro-5-(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane **D-01149**
 2-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-6-nitro-4-[(4-nitrophenyl)azo]phenol, 9CI
 [106419-32-3]



$C_{35}H_{52}N_4O_9$ M 672.817
 Used as soln. in 1,2-dichloroethane for extraction separation of Li (λ_{max} 488 nm, ϵ 28000) from other alkali metals (selectivity ratio Li/Na 68). Red solid (MeOH/CHCl₃). Sol. MeOH, CHCl₃, 1,2-dichloroethane. Mp 87.5°.

Kimura, K. *et al*, *J. Org. Chem.*, 1987, **52**, 836 (*synth, use*)

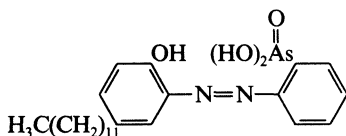
2-[(5-Dodecyl-2-hydroxyphenyl)azo]benzoic acid, 9CI **D-01150**
 [28948-81-4]



$C_{25}H_{34}N_2O_3$ M 410.555
 Used as solns. in C₆H₆ or CHCl₃ for extraction sepn. of Be from Al. Dark red cryst. powder. Sol. CHCl₃, C₆H₆.

Blasius, E. *et al*, *Talanta*, 1973, **20**, 639 (*synth, sepn, Be*)

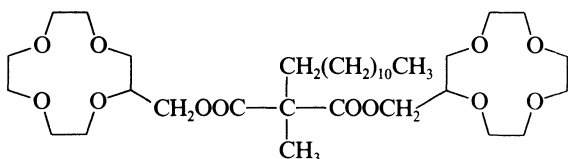
[2-[(5-Dodecyl-2-hydroxyphenyl)azo]phenyl]arsonic acid, 9CI **D-01151**
 [50313-85-4]



$C_{24}H_{35}AsN_2O_4$ M 490.473
 Used as soln. in C₆H₆ or CHCl₃ for extraction sepn. of Zr from Hf. Brown cryst. powder. Sol. CHCl₃, C₆H₆.

Blasius, E. *et al*, *Talanta*, 1973, **20**, 639 (*synth, use*)

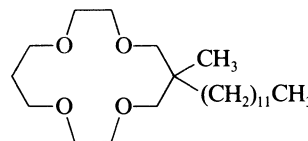
Dodecylmethylpropanedioate bis(1,4,7,10-tetraoxacyclododec-2-ylmethyl)ester, 9CI **D-01152**
 Bis[(12-crown-4)-2-ylmethyl] 2-dodecyl-2-methylmalonate
 [80403-59-4]



$C_{34}H_{62}O_{12}$ M 662.857
 Used as sensor for Na and K in ion-selective electrodes.
 Cryst. (THF/MeOH).

Ikeda, I. *et al*, *Tetrahedron Lett.*, 1981, **22**, 3615 (*synth*)
 Shono, T. *et al*, *J. Electroanal. Chem.*, 1982, **132**, 99 (*synth*)
 Tamura, H. *et al*, *Mikrochim. Acta*, 1983, **2**, 287 (*use*)
 Moody, G.J. *et al*, *Analyst (London)*, 1989, **114**, 15 (*use*)

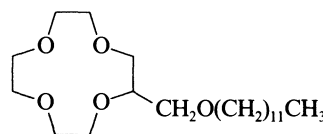
6-Dodecyl-6-methyl-1,4,8,11-tetraoxacyclotetradecane, 9CI **D-01153**
 Dodecylmethyl-14-crown-4
 [91539-72-9]



$C_{23}H_{46}O_4$ M 386.614
 Used as an ionophore in polymeric ion-selective electrode for Li. Oil.

Kitazawa, S. *et al*, *J. Am. Chem. Soc.*, 1984, **106**, 6978 (*synth*)
 Kimura, K. *et al*, *Anal. Chem.*, 1987, **59**, 2331 (*detn, Li*)

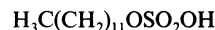
2-[(Dodecyloxy)methyl]-1,4,7,10-tetraoxacyclododecane, 9CI **D-01154**
 [83492-36-8]



$C_{21}H_{42}O_5$ M 374.560
 Used as 0.01M soln. in CH₂Cl₂ for extraction separation of Na (in the presence of picrate). Cryst. Sol. CH₂Cl₂, CHCl₃, toluene.

Pacey, G.E. *et al*, *Synth. Commun.*, 1981, **11**, 323 (*synth*)
 Pacey, G.E. *et al*, *Talanta*, 1984, **31**, 165 (*use*)

1-Dodecyl sulfate **D-01155**
 Sulfuric acid monododecyl ester, 9CI. Lauryl sulfate
 [151-41-7]



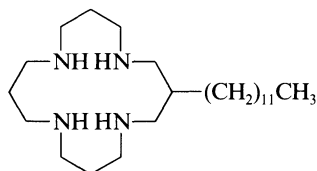
$C_{12}H_{26}O_4S$ M 266.401
 Detergent, surface-active agent. Used as 1% aq. soln. in photometric detns. of metals (with some azo reagents). Cryst. Sol. H₂O.

▷ WT0700000.
 Glycine salt: Mp 110°.
 Urea salt: Mp 110°.

Jaeger, D.A. *et al*, *J. Org. Chem.*, 1977, **42**, 3298 (*synth*)
 Hung, S.C. *et al*, *Talanta*, 1982, **29**, 85 (*detn, Ag*)
 Tan Zhe, *et al*, *Talanta*, 1984, **31**, 624 (*detn, Zn*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MRH250.

3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, 9CI
[83459-10-3]

D-01156

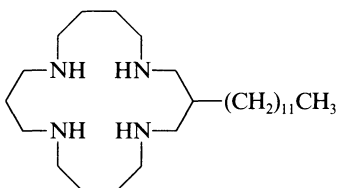
C₂₄H₅₂N₄ M 396.702

Used as 1mM soln. in CHCl₃ for extraction sepn. of Cu(II) (in the presence of perchlorate); extraction of Co, Ni, Zn, Cd, Pd, Ag. Oil. Sol. many org. solvs.; insol. H₂O.

Muller, F.R. *et al*, *Tetrahedron Lett.*, 1982, **23**, 2769 (*synth, use*)Handel, H. *et al*, *Helv. Chim. Acta*, 1983, **66**, 514 (*use*)

3-Dodecyl-1,5,10,14-tetraazacyclooctadecane, 9CI
[83459-11-4]

D-01157

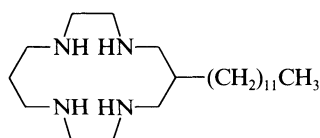
C₂₆H₅₆N₄ M 424.755

Used as 1mM soln. in CHCl₃ for extraction sepn. of Cu(II), Co, Ni, Zn, Cd, Pd, Ag. Cryst. (Me₂CO). Mp 86°.

Muller, F.R. *et al*, *Tetrahedron Lett.*, 1982, **23**, 2769 (*synth, use*)Handel, H. *et al*, *Helv. Chim. Acta*, 1983, **66**, 514 (*use*)

6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, 9CI
[71366-38-6]

D-01158

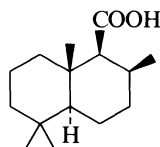
C₂₂H₄₈N₄ M 368.648

Used as 1mM soln. in CHCl₃ or 1,2-dichloroethane for extraction separation of Cu(II) (in the presence of perchlorate), Co, Ni, Zn, Cd, Pd, Ag. Cryst. (Me₂CO). Sol. common org. solvs.; insol. H₂O. Mp 118°.

Muller, F.R. *et al*, *Tetrahedron Lett.*, 1982, **23**, 2769 (*synth, use*)Handel, H. *et al*, *Helv. Chim. Acta*, 1983, **66**, 514 (*use*)**11-Drimanoic acid**

D-01159

Decahydro-2,5,5,8a-tetrahydro-1-naphthalenecarboxylic acid, 9CI

C₁₅H₂₆O₂ M 238.369

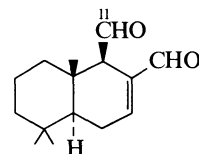
Obt. by oxidation of 11-drimanol. Cryst. (MeOH aq.). Mp 135-136°. [α]_D +14° (c, 1.70 in CHCl₃).

Chloride: [42290-37-9]. *Drimanoyl chloride*C₁₅H₂₅ClO M 256.815

Used as derivatising reagent for gc analysis of enantiomeric alcohols and amines.

Appel, H.H. *et al*, *J. Chem. Soc.*, 1959, 3322 (*struct*)Brooks, C.J.W. *et al*, *Anal. Chem.*, 1973, **45**, 896 (*chloride, use*)**7-Drimene-11,12-dial**

D-01160

C₁₅H₂₂O₂ M 234.338(5α,9β,10β)-form [6754-20-7] *Polygodial. Tadeonal*Isol. from *Polygonum hydropiper* and *Drimys lanceolata*.

Insect growth regulator. Shows antibacterial and antifungal activity. Plant growth regulator (inhibits rice husk germination, promotes root elongation in rice).

Used as reagent for separation of enantiomeric primary amines. Needles (pet. ether). Mp 57°, Mp 50°. Bp_{0.8} 138-140°. [α]_D -210° (90% EtOH).

▷ Skin irritant.

11-Carboxylic acid: [98204-84-3]. *12-Oxo-7-drimen-11-oic acid. Polygonic acid*

C₁₅H₂₂O₃ M 250.337

Constit. of *P. hydropiper*. Cryst. Mp 96-97°. [α]_D²³ -31° (c, 1.06 in CHCl₃).

*3β-Acetoxy: 3β-Acetoxy polygodial*C₁₇H₂₄O₄ M 292.374

Constit. of *Canella winterana*. Cryst. Mp 131-132°. [α]_D²⁵ -58° (c, 0.05 in CHCl₃).

Loder, J.W. *et al*, *Aust. J. Chem.*, 1962, **15**, 322, 389 (*isol, uw, ir, pmr*)Kubo, I. *et al*, *J. Chem. Soc., Chem. Commun.*, 1976, 1013 (*isol, struct*)Jalali-Naini, M. *et al*, *Tetrahedron*, 1983, **39**, 749 (*synth*)Cortés, M.J. *et al*, *Chem. Ind. (London)*, 1985, 735 (*synth*)Fukuyama, Y. *et al*, *Phytochemistry*, 1985, **24**, 1521 (*Polygonic acid*)Mori, K. *et al*, *Tetrahedron*, 1986, **42**, 273 (*synth*)Caprioli, V. *et al*, *J. Nat. Prod. (Lloydia)*, 1987, **50**, 146 (*synth*)Brooks, C.J. *et al*, *J. Chromatogr.*, 1988, **438**, 108 (*use*)Jansen, B.J.M. *et al*, *J. Org. Chem.*, 1988, **53**, 855 (*synth*)Banthorpe, D.V. *et al*, *Phytochemistry*, 1989, **28**, 1631 (*biosynth*)Al-Said, M.S. *et al*, *Phytochemistry*, 1990, **29**, 975 (*isol, pmr, cmr*)

E

Edetol, USAN, INN

E-00001

1,1',1'',1'''-(1,2-Ethanediyldinitrilo)tetrakis-2-propanol, 9CI.
N,N,N',N'-Tetrakis(2-hydroxypropyl)ethylenediamine.
Quadrol. THEDP. Entprol
[102-60-3]



$\text{C}_{14}\text{H}_{32}\text{N}_2\text{O}_4$ M 292.418

Pharmaceutical aid (alkalizing agent). Used as a 0.3M soln. in 2M KOH for photometric detn. of Mn (λ_{max} 506 nm); gravimetric detn. of P. Viscous liq./solid. Misc. H_2O . Mp 31-32°. Bp_{0.8} 175-181°, Bp_{1.0} 190°. pK_{a1} 8.07; pK_{a2} 5.95.

▷ UB5604000.

Tetra-Ac ester: Bp_{0.3} 178-179°.

U.S. Pat., 2 697 118, (1954); *CA*, **49**, 15951b (*synth*)

Ishidate, M. *et al*, *Chem. Pharm. Bull.*, 1960, **8**, 807 (*synth*)

Pike, L. *et al*, *Anal. Chim. Acta*, 1964, **31**, 318 (*detn, Mn*)

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1968, **233**, 252; 1972, **258**, 353 (*detn, P*)

Bhide, M.V. *et al*, *J. Immunopharmacol.*, 1985, **7**, 303 (*pharmacol*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, QAT000.

2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-Eicosafuoroundecanoic acid, 9CI

E-00002

[1765-48-6]



$\text{C}_{11}\text{H}_2\text{F}_{20}\text{O}_2$ M 546.104

Cryst. (toluene). Mp 100-101°.

Chloride: [2248-93-3].

$\text{C}_{11}\text{HClF}_{20}\text{O}$ M 564.549

Derivatisation reagent for gc analysis of hydroxy steroids.

U.S. Pat., 2 559 629, (1951); *CA*, **46**, P3063h (*synth*)

Kirschner, M.A. *et al*, *Anal. Biochem.*, 1969, **30**, 346 (*use, deriv*)

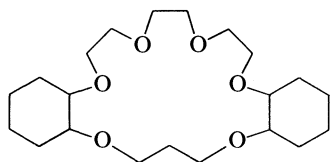
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EAE875.

Eicosahydro-20H-dibenzo[b,n][1,4,7,10,13,16]hexaoxacyclononadecin, 9CI

E-00003

Dicyclohexyl-19-crown-6

[54160-00-8]



$\text{C}_{21}\text{H}_{38}\text{O}_6$ M 386.528

Used as 1% soln. in dipentyl phthalate as ionophore in K-selective electrode (PVC membrane). Oil. Sol. hexane, Et_2O .

Ryba, O. *et al*, *J. Electroanal. Chem.*, 1973, **44**, 425 (*synth*)

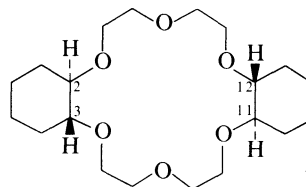
Petránek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

Eicosahydrodibenzo[b,k][1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI, 8CI

E-00004

Dicyclohexyl-18-crown-6. 2,3,11,12-Dicyclohexano-1,4,7,10,13,16-hexaoxacyclooctadecane. Dicyclohexano-18-crown-6

[16069-36-6]



(2*RS*,3*RS*,11*RS*,12*RS*)-form

$\text{C}_{20}\text{H}_{36}\text{O}_6$ M 372.501

Complexing agent for metal salts. Complexes with KMnO_4 to form a benzene-soluble oxidant and with other polar reagents to increase solubility in nonpolar solvs. Used in extraction-separation of Hg, Ag; as 1% soln. in dipentyl phthalate as ionophore in K-selective electrode. Colourless or pale yellow wax. Mp 38-54°. Bp 344°.

▷ Toxic. Rapidly absorbed through skin. Severe skin irritant, may cause permanent eye damage.

(2*RS*,3*RS*,11*RS*,12*RS*)-form [54383-26-5]

trans-transoid-trans-form. trans-anti-trans-form

Needles (Et_2O). Mp 77-80°. This isomer also known in opt. active form.

(2*RS*,3*RS*,11*SR*,12*SR*)-form [54383-27-6]

trans-cisoid-trans-form. trans-syn-trans-form

Prisms (Et_2O). Mp 120-121°.

(2*RS*,3*SR*,11*SR*,12*RS*)-form [15128-66-2]

cis-transoid-cis-form. cis-anti-cis-form. *Isomer B*

Cryst. (hexane). Mp 69-70°.

(2*RS*,3*SR*,11*RS*,12*SR*)-form [15128-65-1]

cis-cisoid-cis-form. cis-syn-cis-form. *Isomer A*

Cryst. (hexane). Mp 61-62.5°.

Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 2495, 7017 (*synth, purifin, uv, ir, pmr, use, tox*)

Org. Synth., 1972, **52**, 66 (*synth, pmr*)

Petránek, J. *et al*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 497 (*use*)

Petránek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

Christensen, J.J. *et al*, *Chem. Rev.*, 1974, **74**, 351 (*rev*)

Stoddart, J.F. *et al*, *J. Chem. Soc., Chem. Commun.*, 1974, 390 (*synth, bibl*)

Hayward, R.C. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1976, 2413 (*synth, bibl*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 174.

Burden, I.J. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1977, 220 (*synth, bibl*)

Yakshin, V.V. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 938 (*detn, Hg*)

Abashkin, V.M. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1713 (*detn, Ag*)

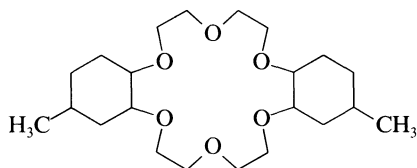
Fraser, M.E. *et al*, *Can. J. Chem.*, 1986, **64**, 816 (*cryst struct*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DGV100.

Eicosahydro-2,13-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, 9CI

Dimethyldicyclohexyl-18-crown-6

[41376-28-7]



$C_{22}H_{40}O_6$ M 400.554

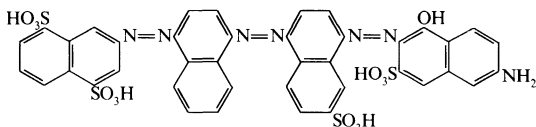
Obt. as an undefined isomer or regioisomeric mixture with the 2,14-isomer. CAS registry no. applies to this prepn. of undefined composition. Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. (hexane/Et₂O). Sol. hexane, Et₂O. Mp 35-60°.

Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 7017 (*synth*)
 Petranek, J. *et al*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 497.
 Petranek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

Eliamina blue FFL

E-00006

3-[[4-[[4-[(6-Amino-1-hydroxy-3-sulfo-2-naphthalenyl)azo]-6-sulfo-1-naphthalenyl]azo]-1-naphthalenyl]azo]-1,5-naphthalenedisulfonic acid, 9CI. C.I. Direct blue. Direct light blue MFL. Chlorantine fast blue. Helion blue BRRL. Pyrazol fast blue BS. Solar blue G. Triantine light blue FRL. Viosol blue BRR. C.I. 34140. Numerous other proprietary names



$C_{40}H_{27}N_7O_{13}S_4$ M 941.956

Strictly the name Eliamina blue FFL refers to the tetrasodium salt.

Tetra-Na salt: [4399-55-7].

Indicator used as a 0.2% soln. in 5% EtOH for titrimetric detn. of Th. Dark red cryst. powder. Sl. sol. H₂O; v. spar. sol. EtOH. λ_{max} 594 nm (H₂O).

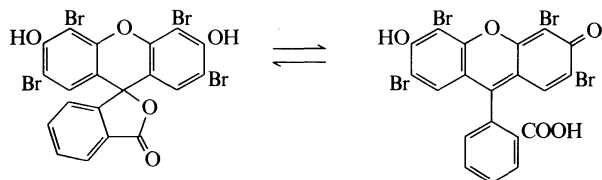
Zaki, M.R. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, **174**, 274 (*detn, Th*)

Colour Index, 3rd Edn., 1971, **4**, 4318 (*synth*)

Eosine

E-00007

2',4',5',7'-Tetrabromo-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9CI. 2',4',5',7'-Tetrabromofluorescein, 8CI. C.I. Solvent red 43. C.I. Acid red 87. C.I. 45380 [15086-94-9]



Lactone form

Quinonoid form

$C_{20}H_8Br_4O_5$ M 647.896

Strictly, the name Eosine applies to the disodium salt.

Insol. H₂O; sl. sol. EtOH; sol. alkalis.

▷ LM580000.

Di-Na salt: [17372-87-1].

Fluorescent dye used in biochemistry etc. Used for extraction-photometric and fluorimetric detn. of many metals, e.g. Co, Pb, Hg, Ag, Zn; titrimetric detn. of Br[⊖], I[⊖]. Red cryst. with bluish tinge, or brownish-red powder. Sol. H₂O; sl. sol. EtOH; insol. Et₂O.

▷ LM585000.

Quinonoid-form

Et ester: [26799-78-0]. 2-(2,4,5,7-Tetrabromo-6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoic acid ethyl ester, 9CI. C.I. Solvent red 45. C.I. 45386

$C_{22}H_{12}Br_4O_5$ M 675.950

Used as 0.5mM soln. of K salt in 80% EtOH for photometric detn. of Pt(IV) (λ_{max} 555 nm, ϵ 80000). Violet cryst. powder (as K salt). Sl. sol. EtOH, hot water.

[6359-05-3]

Baeyer, A., *Ber.*, 1871, **4**, 555 (*synth*)

El-Ghamry, M.T. *et al*, *Anal. Chem.*, 1968, **40**, 1986 (*detn, Ag*)

El-Ghamry, M.T. *et al*, *Talanta*, 1969, **16**, 235 (*deriv, detn, Pt*)

Haddad, P.R. *et al*, *Talanta*, 1976, **23**, 275 (*detn, Co*)

Tananaiko, M.M. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 336.

Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Metals, Part I*, John Wiley, New York, 1978, 93.

Szczepaniak, W. *et al*, *Anal. Chim. Acta*, 1982, **140**, 261 (*detn, Pb*)

Fompeydie, D. *et al*, *Bull. Soc. Chim. Fr.*, Part II, 1982, 5 (*synth*)

Mukadavi, J.R., *Analyst (London)*, 1984, **109**, 1577 (*detn, Hg*)

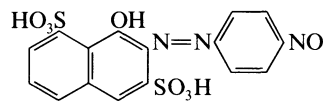
Konopski, L. *et al*, *J. Chromatogr.*, 1986, **363**, 394 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BMO250, BNH500.

Epsilon blue

E-00008

7-(4-Nitrophenylazo)-8-hydroxy-1,6-naphthalenedisulfonic acid



$C_{16}H_{11}N_3O_9S_2$ M 453.410

Strictly the name Epsilon blue applies to the disodium salt.

Di-Na salt: [73904-21-9].

Acid-base indicator (pH range 11-13; colour change: pink → purple). Used as a 0.1% aq. soln. Dark red cryst. powder. Sol. H₂O.

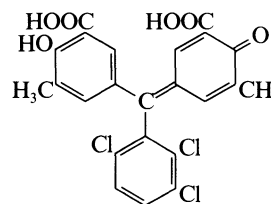
Ferber, K.H., *Ind. Eng. Chem., Anal. Ed.*, 1946, **18**, 631 (*synth*)

Bishop, E., *Indicators*, Oxford, Pergamon, 1972 (*use*)

Eriochrome azurol G

E-00009

5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,3,6-trichlorophenyl)methyl]-2-hydroxy-3-methylbenzoic acid, 9CI. 2'',5'',6''-Trichloro-4-hydroxy-3,3'-dimethylfuchsone-5,5'-dicarboxylic acid. C.I. Mordant blue 47. C.I. 43855. Radiochrome blue B. Diamond blue FBG. Sunchromine blue FBG. Mitsui chrome brilliant blue GX



$C_{23}H_{15}Cl_3O_6$ M 493.726

Strictly, the name Eriochrome azurol G applies to the disodium salt.

Di-Na salt: [3267-40-1].

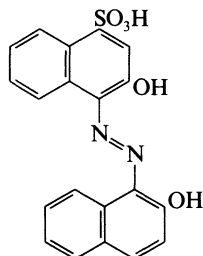
Used as 0.1% soln. in EtOH for photometric detn. of Sc (λ_{\max} 610 nm, ϵ 30000). Blue cryst. (EtOH). Sol. H₂O, EtOH.

Uesugi, K., *Bull. Chem. Soc. Jpn.*, 1969, **42**, 2398 (detn, Sc)
Colour Index, 3rd Edn., 1971, **4**, 4409 (synth)

Eriochrome blue black**E-00010**

3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-1-naphthalenesulfonic acid, 9CI. 2,2'-Dihydroxy-1,1'-azonaphthalene-4-sulfonic acid. Calcon. Palatine chrome black 6BN. Solochrome dark blue B. Diamond blue black EB. C.I. Mordant blue 17. C.I. 15705

[2538-79-6]

C₂₀H₁₄N₂O₅S M 394.407

Strictly the name Eriochrome blue black applies to the sodium salt.

Na salt: [2538-85-4].

Used as aq. soln. for extraction-photometric detn. of UO₂²⁺, Al, Mo (λ_{\max} 540 nm, ϵ 18700); indicator for titrimetric detn. of Ca, Cd, Mg, Zn; acid-base indicator.

Brown-orange powder. Sol. H₂O, 2-ethoxyethanol; sl. sol. EtOH, Me₂CO; insol. C₆H₆, CHCl₃, Et₂O.

▶ QK2200000.

Schwarzenbach, G. et al, *Helv. Chim. Acta*, 1948, **31**, 678 (use, indicator)

Liddell, H., *Analisis*, 1958, **83**, 111 (detn, Be, Zn, Cd)

Poluektov, N.S. et al, *Zh. Anal. Khim.*, 1958, **13**, 555 (detn, Al, Ga, Zn)

Korkisch, J. et al, *Mikrochim. Acta*, 1961, 537, 564 (Mo, Zr)

Abd El Raheem, A.A. et al, *Fresenius' Z. Anal. Chem.*, 1971, **256**, 356 (detn, Ca, Mg)

Jean, M., *Analisis*, 1972, **1**, 358 (detn, Mo)

Von Juergenson, H.B., *CA*, 1972, **76**, 22735q (detn, Ca)

Puech, A. et al, *CA*, 1972, **77**, 31107j (detn, Al)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 310 (use, indicator)

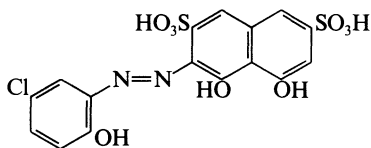
Mavrodin, M., *Rev. Roum. Chim.*, 1972, **17**, 1972 (detn, UO₂²⁺)

Croitoru, V. et al, *CA*, 1973, **79**, 87095u (detn, Cd, Zn)

Eriochrome blue SE**E-00011**

2-(5-Chloro-2-hydroxyphenylazo)chromotropic acid. 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI. C.I. Mordant blue 13. C.I. 16680. Acid chrome navy blue B. Chrome fast blue 2B. Corinth CA. Plasmocorinth B

[7361-97-9]

C₁₆H₁₁ClN₂O₉S₂ M 474.856

Strictly, the name Eriochrome blue SE applies to the disodium salt.

Di-Na salt: [1058-92-0].

Used as 0.1% soln. in 25% MeOH or as solid (mixt.

with KCl 1:200) as metallochromic indicator in titrimetric detn. of Ca, Cd, Mg, Ni, Mn, Pb, Zn and in photometric detn. of Be, Zr, U(VI) (λ_{\max} 550 nm, ϵ 19000); as 0.1% aq. soln. to give colour reactions with Al, Ga. Dark reddish cryst. powder. Sol. MeOH, EtOH, 2-ethoxyethanol; sl. sol. H₂O. Mp > 300°. pK_{a1} 8.0; pK_{a2} 10.5; pK_{a3} 11.9.

Abd El Raheem, A.A. et al, *Fresenius' Z. Anal. Chem.*, 1958, **163**, 340; 1971, **256**, 356 (detn, Cd, Mg, Mn, Ni, Pb, Zn)

Flaschka, H. et al, *Z. Physiol. Chem.*, 1958, **310**, 97 (synth, use)

Kovacs, G.S. et al, *Anal. Chim. Acta*, 1959, **21**, 297 (detn, Ca, Mg)

Korenman, I.M. et al, *Zh. Anal. Khim.*, 1960, **15**, 36 (detn, Ga, In, Sc, Th)

Brush, J.S., *Anal. Chem.*, 1961, **33**, 798 (pK_a)

Uesugi, K. et al, *Bull. Chem. Soc. Jpn.*, 1966, **39**, 194 (detn, Be)

Navratil, O., *Chem. Listy*, 1966, **60**, 451 (detn, Zr)

Bishop, E., *Indicators*, Oxford, Pergamon, 1972 (use)

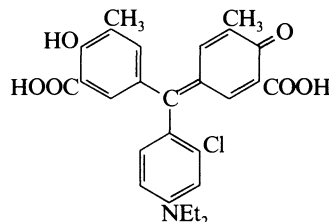
Mavrodin, M., *Rev. Roum. Chim.*, 1972, **17**, 1199; *CA*, **77**, 159764p (detn, U)

Scarpa, A., *Biochemistry*, 1974, **13**, 2789 (detn, Mg)

Eriochrome brilliant violet B**E-00012**

5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)[2-chloro-4-(diethylamino)phenyl]methyl]-2-hydroxymethylbenzoic acid, 9CI. 2'-Chloro-4''-diethylamino-4'-hydroxy-3,3'-dimethylfuchson-5,5'-dicarboxylic acid. C.I. Mordant violet 28. C.I. 43570. Brilliant monochrome violet. Omega chrome brilliant violet B

[7452-52-0]

C₂₇H₂₆ClNO₆ M 495.958

Used as 0.1% soln. in aq. EtOH for photometric detn. of Be (λ_{\max} 560 nm, ϵ 59500), Sc (λ_{\max} 562 nm, ϵ 64000).

Violet cryst. (MeOH). Sol. H₂O, MeOH, EtOH.

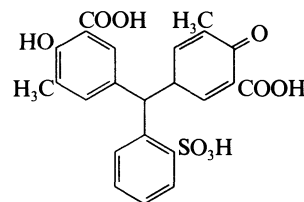
Uesugi, K., *Anal. Chim. Acta*, 1970, **49**, 89, 597 (detn, Be, Sc)

Colour Index, 3rd Edn., 1971, **4**, 4407 (synth)

Eriochrome cyanine R**E-00013**

5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2-sulfophenyl)methyl]-2-hydroxy-3-methylbenzoic acid, 9CI. Mordant blue 3. Solochrome cyanine R. Chromoxane cyanine R. C.I. 43820

[2588-24-1]

C₂₃H₁₈O₉S M 470.456

Tri-Na salt: [3564-18-9].

Used for photometric detn. of Al, Be, Cr, Cu, Ga, In; indirect detn. of F⁻ (with Zr). Brick red cryst. powder. Sol. H₂O, EtOH, alkalis, conc. H₂SO₄.

Megregian, S., *Anal. Chem.*, 1954, **26**, 1161 (detn, F)

Hill, U.T., *Anal. Chem.*, 1956, **28**, 1419; 1966, **38**, 654 (detn, Al)

Sommer, L. *et al*, *Collect. Czech. Chem. Commun.*, 1967, **32**, 4355 (detn, B)

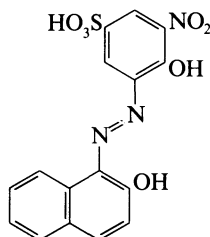
Joshi, A.P. *et al*, *Microchem. J.*, 1967, **12**, 447 (detn, Ga)

Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 25.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986.

Eriochrome fast grey RAS**E-00014**

4-Hydroxy-3-[(2-hydroxy-1-naphthalenyl)azo]-5-nitrobenzenesulfonic acid, 9CI. 1-(2-Hydroxy-3-nitro-5-sulfophenylazo)-2-naphthol. C.I. Mordant black 15. Fast grey RA. Solochrome fast grey RAS. Wool grey N. C.I. 15690. Alizarine Chrome black 4R. Numerous other proprietary names
[25747-09-5]



$C_{16}H_{11}N_3O_7S$ M 389.345

Strictly, the name Eriochrome fast grey RAS applies to the sodium salt. pK_{a1} 3.83; pK_{a2} 10.53; pK_{a3} 10.7.

Na salt: [3179-84-8].

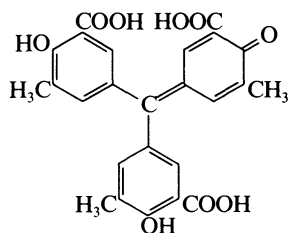
Used as metallochromic indicator for titrimetric detn. of Bi, Fe(III), Th, Zn. Dark red cryst. powder.

Khalifa, H. *et al*, *Anal. Chim. Acta*, 1957, **17**, 194 (use)

Khalifa, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, **172**, 167 (props) *Colour Index*, 3rd Edn., 1971, **4**, 4082 (synth)

Eriochrome geranol**E-00015**

5-[(3-Carboxy-4-hydroxy-5-methylphenyl)(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)methyl]-2-hydroxy-3-methylbenzoic acid, 9CI. 3,3',3''-Trimethyl-4',4''-dihydroxyfuchsone-5,5',5''-tricarboxylic acid. C.I. Mordant violet 16. C.I. 43865
[2947-64-0]



$C_{25}H_{20}O_9$ M 464.428

Di-Na salt: Used as a 0.5% soln. in aq. EtOH as metallochromic indicator for titrimetric detn. of Fe(III) (colour change: red-violet → orange); photometric detn. of Al (λ_{max} 500 nm, ϵ 50000), Ga (λ_{max} 505 nm, ϵ 35600). Cryst. Sol. EtOH, spar. sol. H_2O .

Tri- NH_4 salt: [55343-76-5]. Chromoxane violet R

Used as 0.1% aq. or EtOH soln. in photometric detn. of Al (λ_{max} 500 nm, ϵ 53000) and Ga. Red cryst. (EtOH). Sol. EtOH, H_2O ; insol. $CHCl_3$. pK_{a1} 2.88; pK_{a2} 4.20, pK_{a3} 4.20.

[55343-76-5]

Kulberg, L.M. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1955, **21**, 256 (synth)

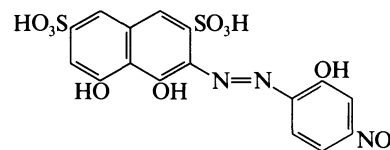
Sommer, L. *et al*, *Collect. Czech. Chem. Commun.*, 1956, **22**, 203 (detn, Fe)

Lisenko, N.F. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 25; 1974, **29**, 1729 (detn, Ga)

Romantseva, T.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2342 (detn, Al)

Eriochrome green B**E-00016**

4,5-Dihydroxy-3-[(2-hydroxy-4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI
[35733-86-9]



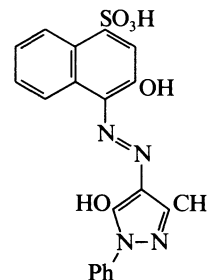
$C_{16}H_{11}N_3O_{11}S_2$ M 485.408

Used as 0.1% aq. soln. for photometric detn. of V(V) (λ_{max} 595 nm, ϵ 22000). Red cryst. Sol. H_2O .

Tikhonov, V.N., *Zh. Anal. Khim.*, 1971, **26**, 2142 (detn, V)

Eriochrome red B**E-00017**

4-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]-3-hydroxy-1-naphthalenesulfonic acid, 9CI. C.I. Mordant red 7. Chrome fast red B. Chrome red B. Omega chrome red B. Solochrome red ER. C.I. 18760. Alizarine brilliant red 3R. Hispacrom red 2B. Numerous other proprietary names



$C_{20}H_{16}N_4O_5S$ M 424.436

Strictly, the name Eriochrome red B applies to the sodium salt.

Na salt: [3618-63-1].

Used as 0.1% soln. in H_2O or EtOH as metallochromic indicator in titrimetric detn. of Ca, Cu, Mn, Ni, Pb, Zn.

Dark red cryst. powder. Sol. H_2O , EtOH. λ_{max} 483 nm (H_2O).

Morgan, G.T. *et al*, *J. Chem. Soc.*, 1924, **125**, 1732 (detn, Cr, Co)

Drew, H.D.K. *et al*, *J. Chem. Soc.*, 1939, 823 (synth, detn, Cr)

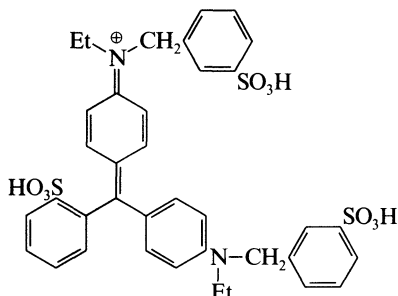
Belcher, R. *et al*, *Chem. Anal. (Warsaw)*, 1957, **46**, 86 (detn, Cu, Mn, Ni, Pb, Zn)

Wehber, P., *Fresenius' Z. Anal. Chem.*, 1957, **158**, 10 (detn, Ca)

Bishop, E., *Indicators*, Oxford, Pergamon, 1972, 317 (use)

Erioglaucine A**E-00018**

N-Ethyl-*N*-[4-[[4-[ethyl(3-sulfophenyl)methyl]amino]phenyl](2-sulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfobenzene-methanaminium(1+) hydroxide inner salt. *C.I.* Acid blue 9. Brilliant blue 9. *C.I.* 42090. *C.I.* Food blue 2. Food blue 1. Alphazurine. Disulphine lake blue EG. Eriosky blue. Numerous other proprietary names



$C_{37}H_{37}N_2O_9S_3^{\oplus}$ M 749.905 (ion)

Strictly, the name Erioglaucine A applies to the diammonium salt.

Di-NH₄ salt: [2650-18-2].

Used as 0.1% aq. soln. as a redox indicator (colour change: pink → yellow). Dark blue cryst. powder. Sol. H_2O . $E^{\circ} +1.13$ V (1M H_2SO_4).

▶ BQ4550000.

Di-Na salt: [3844-45-9].

Biological stain; textile dye; wood stain; indicator. Reddish-violet powder with metallic lustre. Sol. H_2O , EtOH.

▶ Carcinogen.

Hansen, W.H. *et al*, *Toxicol. Appl. Pharmacol.*, 1966, **8**, 29 (*tox*)

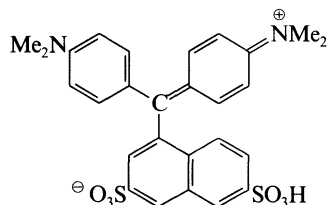
Bishop, E., *Indicators*, Oxford, Pergamon, 1972, 634.

Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 1530C.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FAE000, FMU059.

Erio green B**E-00019**

C.I. Acid green 16. *C.I.* 44025. Amido green V. Derma green P. Intracrid green V. Mercantine green V extra. Naphthalene green V. Solar brilliant green J. Sulfacid brilliant green ZJ. Numerous other proprietary names [12768-78-4]



$C_{27}H_{26}N_2O_6S_2$ M 538.644

Strictly, the name Erio green B applies to the sodium salt.

Prob. a mixt. of the *N,N*-Di-Me and *N,N*-Di-Et compds.

Na salt: Redox indicator used as a soln. in H_2O or EtOH.

Also used for detn. of Ce and Pd. Dark greenish blue cryst. powder. Sol. EtOH, H_2O . $E^{\circ} 1.13$ V (1M H_2SO_4).

Frisch, F., *Helv. Chim. Acta*, 1931, **14**, 669.

Ramsley, A.O., *Color Eng.*, 1967, **5**, 20 (*ir*)

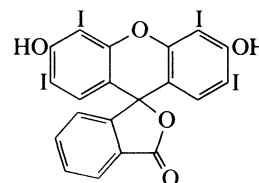
Rao, N. *et al*, *Mikrochim. Acta*, 1970, 292, 512 (*detn. Ce, Pd*)

Rao, N. *et al*, *Fresenius' Z. Anal. Chem.*, 1971, **254**, 110, 605 (*use, indicator*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Erythrosine**E-00020**

3',6'-Dihydroxy-2',4',5',7'-tetraiodospiro[isobenzofuran-1(3H),9'(9H)xanthen]-3-one, 9CI. Tetraiodofluorescein. *C.I.* Acid red 51. *C.I.* Food red 14. Aizen erythrosine. Cogilor orange 211.10. Cogilor orange 312.42. Dianthine B. Iodeosine B. Pyrosine B. Red 1427. FDC red No. 3. *C.I.* 45430. Numerous proprietary names [15905-32-5]



$C_{20}H_8I_4O_5$ M 835.898

Tautomeric (?) between spiro and open-chain forms. CA data refers to spiro-form. Strictly the name Erythrosine refers to the disodium salt. Iodination prod. of Fluorescein.

▶ LM5940000.

Di-Na salt: [16423-68-0]. *Ceplac. Felumin. Trace*

Used as 5mM aq. soln. for extraction-photometric detn. of K, Cd (ϵ 96000), Pb, Mn, Zn, Ag; used as adsorption and fluorescent indicator. Diagnostic aid (dental disclosing agent). Radiopaque medium. Biological stain. Dye used in food, feed additives, flavours and printing inks. Brown powder. Sol. H_2O giving cherry-red soln.

▶ LD₅₀ 200 mg/kg (rat, iv). LM5950000.

[49746-10-3]

Dolinsky, M. *et al*, *J. Assoc. Off. Agric. Chem.*, 1951, **34**, 114 (*synth*)

Machwe, H.K. *et al*, *Curr. Sci.*, 1967, **36**, 261; 1973, **42**, 786 (*spectra*)

Seybold, P.G. *et al*, *CA*, 1969, **71**, 8201c (*props*)

Iwachido, T., *Bull. Chem. Soc. Jpn.*, 1971, **44**, 1835 (*use*)

Canadian Pat., 953 624, (1974); *CA*, **83**, 15670f (*use*)

Marmino, D.M., *J. Assoc. Off. Anal. Chem.*, 1974, **57**, 495 (*nmr*)

Collins, T.F.X. *et al*, *Food Cosmet. Toxicol.*, 1976, **14**, 233 (*tox*)

Matveets, M.A. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1049 (*props*)

Tananaiko, M.M. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1899 (*detn. Cd, Pb*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

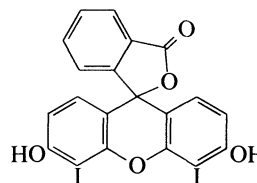
Pharmaceutical Press, London, 1982/1989, 2392.

Hoshi, S. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1983, **32**, 287.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FAG040.

Erythrosine Y**E-00021**

3',6'-Dihydroxy-4',5'-diiodospiro[isobenzofuran-1(3H),9'-(9H)xanthen]-3-one, 9CI [38577-97-8]



$C_{20}H_{10}I_2O_5$ M 584.105

Strictly, the name Erythrosine Y refers to the disodium salt.

Di-Na salt: [33239-19-9].

Used as adsorption indicator for detn. of I^{\ominus} . Cryst.

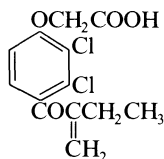
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*detn. I^{\ominus}*)

Ethacrynic acid, BAN, USAN**E-00022**

[2,3-Dichloro-4-(2-methylene-1-oxobutyl)phenoxy]acetic acid, 9CI. [2,3-Dichloro-4-(2-methylenebutyl)phenoxy]acetic acid, 8CI. **Ethacrynic acid, INN, JAN.** *Acetacrin. Edecrin.*

NSC 85791. *Other proprietary names*

[58-54-8]



$C_{13}H_{12}Cl_2O_4$ M 303.141

Diuretic. Reagent for the hplc anal. of thio drugs. Mp 122°. Also used as Na salt.

▷ AG6600000.

Schultz, E.M. *et al*, *J. Med. Chem.*, 1962, **5**, 660 (*synth*)

Beyer, K.H. *et al*, *J. Pharmacol. Exp. Ther.*, 1965, **147**, 1 (*pharmacol*)

Peters, G. *et al*, *Handb. Exp. Pharmacol.*, 1969, **24**, 405 (*rev*)

Kim, K.E. *et al*, *Am. J. Cardiol.*, 1971, **27**, 407 (*rev. pharmacol*)

Williamson, H.E. *et al*, *J. Clin. Pharmacol.*, 1977, **17**, 663 (*pharmacol*)

Lamotte, J. *et al*, *Acta Crystallogr., Sect. B*, 1978, **34**, 2636 (*cryst struct*)

Koehler, D.A., *Annu. Rev. Pharmacol. Toxicol.*, 1981, **21**, 265 (*rev*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2328, 2363.

Cavrini, V. *et al*, *Chromatographia*, 1987, **23**, 680 (*use*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,

Akademie-Verlag, Berlin, 1987, 2693 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, DFP600.

Ethanebis(thioic) acid, 9CI**E-00023**

1,2-Dithiooxalic acid, 8CI

[17148-96-8]



$C_2H_2O_2S_2$ M 122.169

pK_{a1} 0.91; pK_{a2} 2.71. Free acid known only in aq. soln.

Di-K salt: [20267-56-5].

Used as 0.25% aq. soln. in extraction-photometric detn. of Ni. Cryst. Sol. H_2O .

Di-Me ester: [54129-78-1].

$C_4H_6O_2S_2$ M 150.222

Mp 80°. Bp 218°.

Diamide: see *Ethanedithioamide*, E-00027

Jones, H.O. *et al*, *J. Chem. Soc.*, 1909, **95**, 1904.

Arndt, F. *et al*, *Ber.*, 1923, **56**, 1976.

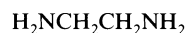
Cameron, A.J. *et al*, *Anal. Chim. Acta*, 1961, **24**, 360 (*detn, Ni*)

Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 227 (*detn, Ni*)

Ethanediamine, 9CI**E-00024**

Ethylenediamine, 8CI. 1,2-Diaminoethane

[107-15-3]



$C_2H_8N_2$ M 60.099

Solvent, emulsifier, rubber latex stabiliser, antifreeze component. Base with synthetic applications. Used in manuf. of chelating agents and fungicides. Li deriv. is alkene isomerisation and dehydrogenating agent. Pharmaceutical aid. Chelating agent; reagent for Cu(I).

Clear, thick, strongly alkaline liq. with ammoniacal odour. Sol. EtOH, H_2O (with hydration); insol. C_6H_6 ; sl. sol. Et_2O . pK_a 6.85. Steam-volatile. Forms compds. with metallic salts.

▷ Toxic, irritant, allergen. TLV 25. Flammable, reacts violently with many materials. KH8575000.

Monohydrate: [6780-13-8].

Oil. Mp 10°. Bp 118°.

B,2HCl: [333-18-6].

Monoclinic prisms. Insol. EtOH; sol. H_2O . Subl. without melting.

▷ KV3850000.

Dipicrate: Mp 233-235° dec.

N,N'-Bis(4-methylbenzenesulfonyl): Cryst. (EtOH). Mp 163-164°.

N-Ac: [1001-53-2]. *N-(2-Aminoethyl)acetamide*, 9CI. *2-Acetamidoethylamine*

$C_4H_{10}N_2O$ M 102.136

Needles. V. sol. H_2O , EtOH; spar. sol. Et_2O . Mp 172°.

N,N'-Di-Ac: [871-78-3]. *N,N-1,2-Ethanediybisacetamide*, 9CI

$C_6H_{12}N_2O_2$ M 144.173

Mp 51°. Bp₃ 128°.

N,N'-Dioctadecanoyl: [110-30-5]. *N,N'-*

Dioctadecanoylethanediamine. *N,N'-1,2-*

Ethanediybis(octadecanamide), 9CI. *N,N'-*

Ethylenebis(octadecanamide). *N,N'-*

Distearoylethylenediamine. *Acrawax C. Acrawax CT*

$C_{38}H_{76}N_2O_2$ M 593.031

Antifoaming agent in polymer industry. Cryst. (EtOH aq.). Mp 149-149.5° (140-141°).

N-Me: [109-81-9]. *N-Methyl-1,2-ethanediamine*. *2-*

Methylaminoethylamine

$C_3H_{10}N_2$ M 74.125

Bp 115-116°.

▷ KV5250500.

N-Me; B,HCl: Cryst. + H_2O (EtOH). Mp 130-132° dec.

N-Et: [110-72-5]. *N-Ethyl-1,2-ethanediamine*. *2-*

Ethylaminoethylamine

$C_4H_{12}N_2$ M 88.152

Refractive oil. V. sol. H_2O . Bp 130°.

N,N'-Di-Et: [100-36-7].

$C_6H_{16}N_2$ M 116.206

Bp 149-150°.

▷ KV3500000.

N,N'-Di-Et; B,2HCl: [52198-62-6].

Mp 259-260°.

N-Nitro: [58130-90-8].

$C_2H_7N_3O_2$ M 105.096

Isol. from *Agaricus silvaticus*.

Johnson, T.B. *et al*, *J. Am. Chem. Soc.*, 1916, **38**, 2135 (*deriv*)

Ing, H.R. *et al*, *J. Chem. Soc.*, 1926, 2348 (*synth, deriv*)

Bailar, J.C. Jr., *J. Am. Chem. Soc.*, 1934, **56**, 955 (*synth*)

Bloom, M.S. *et al*, *J. Am. Chem. Soc.*, 1945, **67**, 539 (*deriv*)

Takase, S. *et al*, *Nippon Kagaku Kaishi*, 1948, **69**, 154 (*Acrawax C*)

Hall, R.H. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 2213 (*synth*)

Stetter, H. *et al*, *Chem. Ber.*, 1954, **87**, 566.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**,

239; **4**, 237.

Jamet-Deleroix, S. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1972,

274, 771; *Acta Crystallogr., Sect. B*, 1973, **29**, 977 (*cryst struct*)

Austin, G.R., *Chem. Eng. (N.Y.)*, 1974, **81**, 143, 148, 150 (*rev. manuf*)

Chilton, W.S. *et al*, *Phytochemistry*, 1975, **14**, 2291 (*isol, deriv, ir, w*)

Butler, R.N. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1976, 386

(*Acrawax C*)

Ivin, K.J. *et al*, *Makromol. Chem.*, 1978, **179**, 591 (*synth, pmr*)

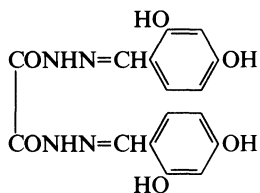
Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 208.

Nilsson, L. *et al*, *Acta Chem. Scand., Ser. B*, 1983, **37**, 929 (*synth*)
 Newkome, G.R. *et al*, *J. Org. Chem.*, 1983, **48**, 4848 (*pmr, ms*)
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,
 Butterworths, London and Boston, 1979, 402.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,
 Royal Society of Chemistry, London, 1981, 267.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, DJI400, EEA500, EIW000.

Ethanedioic acid bis[[2,4-dihydroxyphenyl)methylene]hydrazide], 9CI **E-00025**

4,4'-Oxalylbis(hydrazonomethyl)diresorcinol. 2,4-Dihydroxybenzaldehyde oxaloylhydrazone
 [6963-28-6]



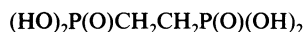
$C_{16}H_{14}N_4O_6$ M 358.310

Used as 0.1% soln. in DMF for fluorimetric detn. of Al
 $(\lambda_{max} 470 \text{ nm})$, In $(\lambda_{max} 475 \text{ nm})$. Cryst. Sol. DMF.

Pastor, E. *et al*, *J. Mol. Struct.*, 1986, **143**, 513 (*synth*)
 Pastor, E. *et al*, *Analyst (London)*, 1987, **112**, 1041 (*detn, Al, In*)

1,2-Ethanediphosphonic acid **E-00026**

1,2-Ethanediyldiphosphonic acid, 9CI. 1,2-Ethylenediphosphonic acid, 8CI. 1,2-Diphosphonoethane
 [6145-31-9]



$C_2H_8O_6P_2$ M 190.029

Plant growth regulator; flotation agent. Cryst. or needles
 (EtOH/Et₂O). Mp 223-224°. pK_{a1} 1.50; pK_{a2} 2.96; pK_{a3}
 7.50; pK_{a4} 9.08 (H₂O, 25°).

Tetra-Me ester: [5927-50-4]. Tetramethyl 1,2-ethanediyldiphosphonate. 1,2-Bis(dimethoxyphosphinyl)ethane

$C_6H_{16}O_6P_2$ M 246.136
 Liq. Bp_{1.5} 166-168°. n_D^{15} 1.4428.

Tetra-Et ester: [995-32-4]. Tetraethyl 1,2-ethanediyldiphosphonate. 1,2-Bis(diethoxyphosphinyl)ethane

$C_{10}H_{24}O_6P_2$ M 302.243

Deodorant. Used as a 0.025M soln. in CHCl₃ for
 extraction separation of Am, Bk, Cm, Eu. Liq. Bp₁₄
 200-202°, Bp₁ 167°. $n_D^{16.5}$ 1.4425.

P,P'-Dibutyl ester: [33454-77-2].

$C_{10}H_{24}O_6P_2$ M 302.243

Used for extraction of Eu into C₆H₆, CHCl₃. Sol. C₆H₆,
 CHCl₃.

Tetra-butyl ester: [919-48-2]. Tetra-butyl 1,2-ethanediyldiphosphonate. 1,2-Bis(dibutoxyphosphinyl)ethane

$C_{18}H_{40}O_6P_2$ M 414.458

Used in purification of Ga.

Tetra-Ph ester: [42451-26-3]. Tetraphenyl 1,2-ethanediyldiphosphonate. 1,2-Bis(diphenoxyphosphinyl)ethane

$C_{26}H_{24}O_6P_2$ M 494.419

Solid. Mp 155-155.5°.

Tetrachloride: [1499-30-5]. 1,2-Ethanediyldisphosphonic dichloride]. 1,2-Bis(dichlorophosphinyl)ethane
 $C_2H_4Cl_4O_2P_2$ M 263.811
 Solid. Mp 167-170°.

[1779-28-8]

Ford-Moore, A.H. *et al*, *J. Chem. Soc.*, 1947, 1465 (*tetra-Et ester*)
 Moedritzer, K. *et al*, *J. Inorg. Nucl. Chem.*, 1961, **22**, 297 (*ester, synth, ir, P nmr*)

Maier, L., *Helv. Chim. Acta*, 1965, **48**, 133 (*tetrachloride*)

Kosolapoff, G.M. *et al*, *J. Chem. Soc.*, 1966, 757 (*tetrachloride, ir*)

Brophy, J.J. *et al*, *Aust. J. Chem.*, 1967, **20**, 503 (*esters, pmr*)

Kamin, G.J. *et al*, *J. Chromatogr.*, 1967, **31**, 292 (*tetra-Et ester, use*)

Shner, S.M. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p. 390*), 1967, **37**, 418 (*synth, tetrakis(2-chloroethyl) ether*)

Sommer, K., *Z. Anorg. Allg. Chem.*, 1970, **376**, 37 (*tetrachloride, synth, P nmr*)

Jamil, M. *et al*, *Anal. Chim. Acta*, 1971, **55**, 145 (*dibutyl ester, sepn, Eu*)

Nesterova, N.P. *et al*, *Izv. Akad. Nauk SSSR*, 1974, **10**, 2295 (*synth*)

Khmutova, M.K. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1110 (*tetra-Et ester, use*)

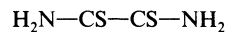
Peterson, S.W. *et al*, *J. Phys. Chem.*, 1977, **81**, 466 (*cryst struct*)

Yatmirski, K.B. *et al*, *Zh. Neorg. Khim.*, (*Engl. transl. p. 236*), 1977, **22**, 435 (*props, complexes*)

Ethanedithioamide, 9CI **E-00027**

Dithiooxamide, 8CI. Rubeanic acid

[79-40-3]



$C_2H_4N_2S_2$ M 120.199

Used as a stabilizer for ascorbic acid solns. Used as 0.1%
 soln. in EtOH for photometric detn. of Mo (λ_{max} 600
 nm, ϵ 2200), Cu(I), Ni, Co, Re, Ru, Os. Red cryst. Dec.
 at ca. 200°.

▷ RP1575000.

Jacobs, W.D. *et al*, *Anal. Chim. Acta*, 1959, **20**, 332 (*detn, Cu, Co, Ni*)

Scott, T.A. *et al*, *J. Phys. Chem.*, 1959, **30**, 465 (*spectra, struct*)

Ray, P. *et al*, *J. Indian Chem. Soc.*, 1961, **38**, 535 (*rev*)

Paul, A., *Anal. Chem.*, 1963, **35**, 2119 (*detn, Cu*)

Wheatley, P.J., *J. Chem. Soc.*, 1965, 396 (*cryst struct*)

Lingane, P.J., *Anal. Chim. Acta*, 1969, **47**, 529 (*detn, Ru*)

Burakevich, J.V. *et al*, *J. Org. Chem.*, 1970, **35**, 2102 (*synth*)

Bhowal, S.K., *Anal. Chim. Acta*, 1974, **69**, 465 (*detn, Os*)

Williams, D.A. *et al*, *Anal. Chem.*, 1975, **47**, 2025 (*detn, Mo*)

Hoppe, H. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1975, **308**, 526 (*synth*)

Desseyn, H.O. *et al*, *Appl. Spectrosc.*, 1978, **32**, 101 (*ir, raman*)

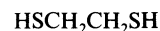
Domnisse, R.A. *et al*, *Bull. Soc. Chim. Belg.*, 1979, **88**, 261 (*cmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, DXO200.

1,2-Ethanedithiol **E-00028**

1,2-Dimercaptoethane. Dithioethylene glycol

[540-63-6]



$C_2H_6S_2$ M 94.201

Converts ketones to ethylene thioketals. Derivatisation
 reagent for carbonyl compds. giving thioketals suitable
 for gc. Liq. d 1.124. Bp 146°, Bp₁₅₀ 76-81°. pK_{a1} 9.05;
 pK_{a2} 10.56 (25°).

▷ KI3325000.

Bis-2,4-dinitrophenyl: Cryst. (butanone/MeOH). Mp 249-
 250°.

Bis-2,4-dinitrophenylthio: Cryst. (butanone/MeOH). Mp
 202.5-203°.

Bis-4-methylbenzenesulphonyl: [2225-23-2]. *Ethylene dithiosylate*. S,S'-1,2-Ethanediybis-4-methylbenzenesulfonylthioate
Cryst. (EtOH/EtOAc).

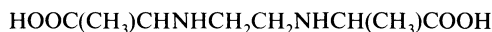
Di-Me ether: [6628-18-8]. 1,2-Bis(methylthio)ethane, 9CI
Oil. Bp 183°.

Mono-Et ether: [26750-44-7]. 2-(Ethylthio)ethanethiol, 9CI
Oil. Bp 188°.

Hall, W.P. *et al*, *J. Am. Chem. Soc.*, 1943, **65**, 1466 (*synth*)
Grogan, C.H. *et al*, *J. Org. Chem.*, 1955, **20**, 50 (*synth, deriv*)
Org. Synth., Coll. Vol., 4, 1963, 401 (*synth*)
Zmigrod, A. *et al*, *Steroids*, 1966, **8**, 119 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 189; **5**, 290.

Hargittai, I. *et al*, *J. Chem. Soc., Chem. Commun.*, 1972, 323 (*struct*)
Org. Synth., Coll. Vol., 5, 1973, **54**, 33.
Bittell, J.E. *et al*, *J. Org. Chem.*, 1978, **43**, 1687 (*synth, ir*)
Harvey, T.G. *et al*, *J. Chromatogr.*, 1984, **298**, 273 (*use*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EEB000.

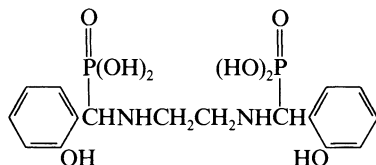
N,N'-1,2-Ethanediybisalanine, 9CI **E-00029**
EDDPA
[36517-11-0]



$\text{C}_8\text{H}_{16}\text{N}_2\text{O}_4$ M 204.225
Used as 0.01-0.1M aq. soln. of Na salt for photometric detn. of Cu (λ_{max} 670 nm, ϵ 140). Cryst. Sol. alkali aq. solns. Mp 278-280° dec.

Irving, H. *et al*, *J. Chem. Soc.*, 1958, 3540 (*synth*)
Frausto Da Silva, J.J. *et al*, *Talanta*, 1965, **12**, 465 (*detn, Cu*)

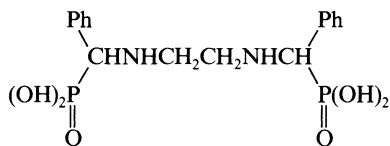
[1,2-Ethanediybis[imino[(2-hydroxyphenyl)methylene]] bisphosphonic acid, 9CI **E-00030**
[20708-36-5]



$\text{C}_{16}\text{H}_{22}\text{N}_2\text{O}_8\text{P}_2$ M 432.306
Used as complexing agent for Cu, Ni. Pink cryst. Mp > 300°. $\text{p}K_{\text{a}1}$ 4.16; $\text{p}K_{\text{a}2}$ 6.57; $\text{p}K_{\text{a}3}$ 7.38; $\text{p}K_{\text{a}4}$ 9.61; $\text{p}K_{\text{a}5}$ 11.99; $\text{p}K_{\text{a}6}$ 12.3 (0.5M NaClO₄, 25°).

Giron-Forest, D. *et al*, *Bull. Soc. Chim. Fr.*, 1968, 3441; 1972, 296, 390 (*props, synth, pKa*)

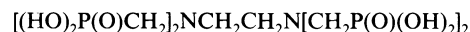
[1,2-Ethanediybis[imino(phenylmethylene)] bisphosphonic acid, 9CI **E-00031**
[Ethylenebis(iminobenzylidene)]diphosphonic acid, 8CI
[20536-09-8]



$\text{C}_{16}\text{H}_{22}\text{N}_2\text{O}_6\text{P}_2$ M 400.307
Used as complexing agent for Cu, Fe(III), Ni, Zn. Pink cryst. Mp 229°. $\text{p}K_{\text{a}1}$ 4.31; $\text{p}K_{\text{a}2}$ 5.46; $\text{p}K_{\text{a}3}$ 7.25; $\text{p}K_{\text{a}4}$ 10.0 (0.5M NaClO₄, 25°).

Medved, T.Y. *et al*, *CA*, 1968, **69**, 73551q (*synth, use*)
Giron-Forest, D. *et al*, *Bull. Soc. Chim. Fr.*, 1972, 296, 390 (*synth, pKa, use*)

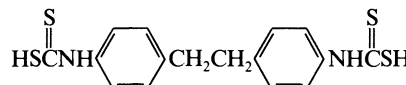
[1,2-Ethanediybis[nitrilobis[methylene]] tetrakisphosphonic acid, 9CI **E-00032**
N,N,N',N'-Tetrakis(phosphonomethyl)-1,2-ethanediamine.
Dequest 2040. Dequest 2041
[1429-50-1]



$\text{C}_6\text{H}_{20}\text{N}_2\text{O}_{12}\text{P}_4$ M 436.125
Behaves as a hexabasic acid, existing in a zwitterionic form. Sequestering agent, used as a corrosion inhibitor, in electroplating, in the extraction of Am and Eu, and as an antidote to Be poisoning. Used for photometric detn. of Ce(IV), Fe(II), Fe(III), Hg(II), Pb (λ_{max} 242 nm, ϵ 6600), Th. Sol. H₂O. Mp 214° dec. $\text{p}K_{\text{a}1}$ 12.99; $\text{p}K_{\text{a}2}$ 9.78; $\text{p}K_{\text{a}3}$ 7.94; $\text{p}K_{\text{a}4}$ 6.42; $\text{p}K_{\text{a}5}$ 5.17; $\text{p}K_{\text{a}6}$ 3.02; $\text{p}K_{\text{a}7}$ 1.33 (25°). The tetraammonium salt marketed as Dequest 2042. The (tetra)-K salt marketed as Dequest 2044. The Ca-Na salt marketed as Dequest 2047.

Monohydrate: Mp 250° dec.
[15142-96-8, 34274-30-1, 40588-70-3, 71334-91-3]
Moedritzer, K. *et al*, *J. Org. Chem.*, 1966, **31**, 1603 (*synth, P nmr, props*)
Motekaitis, R.J. *et al*, *Inorg. Chem.*, 1976, **15**, 2303 (*synth, complexes*)
Kurochkina, L.V. *et al*, *Zh. Neorg. Khim.*, 1978, **23**, 2676; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1481 (*complexes*)
Bermejo Barrera, A. *et al*, *CA*, 1979, **94**, 113767q (*use*)
Levin, V.I. *et al*, *Zh. Neorg. Khim.*, 1981, **26**, 1180; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1981, **26**, 637 (*complexes, props*)
Rizkalla, E.N. *et al*, *Inorg. Chem.*, 1983, **22**, 1478 (*synth, pnr, P nmr, complexes*)
Bermejo Barrera, A. *et al*, *Microchem. J.*, 1986, **33**, 162 (*detn, Pb*)

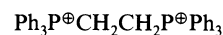
1,2-Ethanediybis[phenylcarbomodithioic acid], 9CI **E-00033**
1,2-Ethylenebis[phenyldithiocarbamic acid]
[79948-23-5]



$\text{C}_{16}\text{H}_{16}\text{N}_2\text{S}_4$ M 364.580
Di-NH₄ salt: [79948-22-4].
Used as a 0.06% soln. in MeOH for extraction-photometric detn. of Cu (λ_{max} 442 nm, ϵ 15600, CHCl₃). Cryst. Sol. EtOH.

Yamamoto, D. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1981, **30**, 626 (*detn, Cu*)

1,2-Ethanediybis[triphenylphosphonium] (2+), 9CI **E-00034**
1,2-Ethylenebis[triphenylphosphonium](2+). 1,2-Bis(triphenylphosphonio)ethane
[13275-02-0]

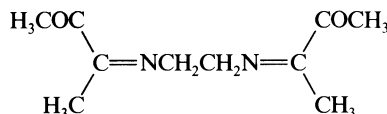


$\text{C}_{38}\text{H}_{34}\text{P}_2^{2+}$ M 552.634 (ion)
Dibromide: [1519-45-5].
 $\text{C}_{38}\text{H}_{34}\text{Br}_2\text{P}_2$ M 712.442
Used as 0.5% aq. soln. for extraction-photometric detn. of Co, Nb, Mn (as MnO₄²⁻). Cryst. (CHCl₃/EtOAc). Sol. H₂O. Mp 297-300°, Mp 313-314°.

▷ Exhibits anticholinesterase activity towards vertebrates and schistosomes. Can explode at 80-90°.

- Pattenden, G. *et al*, *J. Chem. Soc. C*, 1969, 531 (*synth, ir, nmr*)
 Schweizer, E.E. *et al*, *J. Org. Chem.*, 1973, **38**, 3069 (*synth, use*)
 Swartz, W.E. *et al*, *Spectrochim. Acta, Part A*, 1974, **30**, 1561 (*pe*)
 Wood, G.W. *et al*, *J. Org. Chem.*, 1975, **40**, 636 (*ms*)
 Leddy, B.P. *et al*, *Tetrahedron Lett.*, 1980, **21**, 2261 (*props*)
 Willcockson, W.S. *et al*, *Comp. Biochem. Physiol., C: Comp. Pharmacol.*, 1982, **72**, 101 (*tox*)
 Burns, D.T. *et al*, *Anal. Chim. Acta*, 1987, **199**, 241; 1988, **204**, 365; 1989, **225**, 123 (*detn, Mn, Nb, Co*)

3,3'-(1,2-Ethanediyldinitrilo)bis-2-butanone **E-00035**



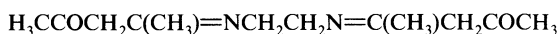
- $\text{C}_{10}\text{H}_{16}\text{N}_2\text{O}_2$ M 196.249
Dioxime, 9CI: [36658-91-0].
 $\text{C}_{10}\text{H}_{18}\text{N}_4\text{O}_2$ M 226.278
 Used as a 1% soln. in aq. EtOH for gravimetric detn. of Ni, Pd. Cryst. (EtOH). Sol. Me_2CO , EtOH. Mp 242° dec.
 Mathur, N.K. *et al*, *Talanta*, 1964, **11**, 647 (*synth, detn, Ni, Pd*)

5,5'-(1,2-Ethanediyldinitrilo)bis[2,2-dimethyl-3-hexanone], 9CI **E-00036**
Bis(acetyl-pivalylmethane)ethylenediimine
 [62796-05-8]



- $\text{C}_{18}\text{H}_{32}\text{N}_2\text{O}_2$ M 308.463
 Used as 0.02M soln. in hexane or aq. EtOH for gc sepn. of Cu—Pd, Ni—Pd and Cu—Ni (cyclohexane). Cryst. (pet. ether). Sol. EtOH, hexane. Mp 110-111°.
 Belcher, R. *et al*, *Anal. Chim. Acta*, 1978, **100**, 503 (*synth, use*)

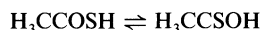
4,4'-(1,2-Ethanediyldinitrilo)bis[(2-pentanone)], 9CI **E-00037**
Bis(acetylacetone)ethylenediimine
 [6310-76-5]



- $\text{C}_{12}\text{H}_{20}\text{N}_2\text{O}_2$ M 224.302
 Used as a 2% aq. soln. as a complexing agent for Co, Cu, Ni, Pd, Pt; photometric detn. of Co (λ_{max} 345 nm), Fe(III) (λ_{max} 490 nm, pH 1-2). Cryst. (H_2O). Sol. hot H_2O , common org. solvs.; insol. Et_2O , pet. ether. Mp 111-111.5°.

- McCarty, P.J. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 5820 (*synth, use*)
 Gambarov, D.G. *et al*, *Zh. Anal. Khim.*, 1975, **31**, 1731 (*detn, Co*)
 Gambarov, D.G. *et al*, *Zavod. Lab.*, 1983, **49**, 10 (*synth, detn, Fe*)

Ethanethioic acid, 9CI **E-00038**
Thioacetic acid. Thiolaetic acid
 [507-09-5]



- $\text{C}_2\text{H}_4\text{OS}$ M 76.119
 Forms 2 series of esters. Radical addition reagent for alkenes and alkynes, S-acetylating agent. Liq. d^{20} 1.068. Bp 93°. pK_a 3.33 (25°).

▷ Mod. irritant, flammable. AJ5600000.

S-Me ester: [1534-08-3].

$\text{C}_3\text{H}_6\text{OS}$ M 90.146

Bp 95-96°.

O-Me ester: [21119-13-1].

$\text{C}_3\text{H}_6\text{OS}$ M 90.146

Pale-yellow liq. Insol. H_2O . Bp 88-91°.

S-Et ester: [625-60-5]. *Ethyl thioacetate*

$\text{C}_4\text{H}_8\text{OS}$ M 104.173

Bp 116-117°.

O-Et ester: [926-67-0].

$\text{C}_4\text{H}_8\text{OS}$ M 104.173

Bp 105-107°.

S-Propyl ester: [2307-10-0].

$\text{C}_5\text{H}_{10}\text{OS}$ M 118.199

Bp 135-137°.

O-Propyl ester: [73741-55-6].

$\text{C}_5\text{H}_{10}\text{OS}$ M 118.199

Bp 125-130°.

S-Ph ester: [934-87-2].

$\text{C}_8\text{H}_8\text{OS}$ M 152.217

Mp 16-17°. Bp 228-230°.

▷ AJ7559000.

O-Ph ester: [30623-40-6].

$\text{C}_8\text{H}_8\text{OS}$ M 152.217

Bp₃₄ 90-94°.

O-Benzyl ester:

$\text{C}_9\text{H}_{10}\text{OS}$ M 166.243

Bp₂₈ 115-120°.

Amide: [62-55-5]. *Thioacetamide*

$\text{C}_2\text{H}_5\text{NS}$ M 75.134

Converts nitriles to thioamides. Used as aq. soln. for pptn. of metals as sulfides from homogeneous aq. media (qualitative analysis). Prisms (Et_2O). V. sol. EtOH; sol. H_2O ; mod. sol. Et_2O , C_6H_6 . Mp 115°, Mp 107.5-108.5°. pK_a 13.4 (25°).

▷ Highly toxic orally. AC8925000.

Hydrazide: [62543-18-4].

$\text{C}_2\text{H}_6\text{N}_2\text{S}$ M 90.149

Mp 59°.

Dimethylamide: N,N-Dimethylthioacetamide

$\text{C}_4\text{H}_9\text{NS}$ M 103.188

Long spiny needles (hexane). Mp 72-73°.

Clarke, H.T. *et al*, *J. Am. Chem. Soc.*, 1924, **46**, 1731 (*synth*)

Baker, R.B. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 1568 (*synth*)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New

York, 1948, **4**, 155 (*synth, use, thioacetamide*)

Washizuka, S., *Bull. Chem. Soc. Jpn.*, 1954, **27**, 76 (*use, thioacetamide*)

Org. Synth., *Coll. Vol.*, **4**, 1963, 928 (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 955, 1154.

Wladislaw, B. *et al*, *J. Chem. Soc. B*, 1971, 565 (*ir, uv*)

Harris, S.J. *et al*, *J. Chem. Soc., Chem. Commun.*, 1976, 1008

(*synth*)

Juaristi, E. *et al*, *J. Org. Chem.*, 1988, **53**, 3334 (*synth*)

Bordwell, F.G. *et al*, *J. Org. Chem.*, 1991, **56**, 4218 (*synth, pmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TFA000, TFA500.

Ethanethiol, 8CI, 9CI **E-00039**
Ethyl mercaptan. Mercaptoethane
 [75-08-1]



$\text{C}_2\text{H}_6\text{S}$ M 62.135

Formed in vinous fermentations. Occurs in natural gases, petroleum and sewers. Found in the Jovian atmosphere. Odorant for natural gas, intermediate in the manuf. of

plastics, insecticides, antioxidants. Reagent for the characterisation of sugars by ms. With phthalaldehyde, forms derivs. with amines suitable for chromatog. Volatile liq. with powerful leek-like odour. Sol. EtOH, Et₂O, alkalis; v. spar. sol. H₂O. Fp –148° (–144.4°), Mp –121°. Bp 36.1°. pK_a 10.61 (25°). Crit. point 225.5°/54.2 atm.

▷ Toxic, TLV 1. Highly flammable, flash p. <21°. K19625000.

Ac: see *Ethanethioic acid*, E-00038

Klason, P., *Ber.*, 1887, **20**, 3407 (*synth*)

Sabatier, P. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1910, **150**, 1217 (*synth*)

Reid, E., *Organic Chemistry of Bivalent Sulphur*, Chemical Publishing Co., N.Y., 1958, **1**, 15 (*rev*)

De Jongh, D.C., *J. Am. Chem. Soc.*, 1964, **86**, 3149 (*use*)

Hayashi, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 2382 (*spectra*)

Wolfe, S. *et al*, *Can. J. Chem.*, 1976, **54**, 2847 (*synth*)

Almond, V. *et al*, *J. Chem. Soc., Chem. Commun.*, 1977, 483 (*spectra*)

Cronin, J.R. *et al*, *Anal. Biochem.*, 1979, **93**, 174 (*use*)

Simpson, R.C. *et al*, *J. Chromatogr.*, 1983, **261**, 407 (*use*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 319.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EMB100.

Ethanol, 9CI

E-00040

Ethyl alcohol. Hydroxyethane. Alcohol

[64-17-5]



C₂H₆O M 46.069

Produced by fermentation of sugars, carbohydrates, starch.

Manuf. from synthesis gas, ethylene, ethyne, sulphite waste liquors, etc. Intoxicating constit. of all alcoholic beverages. Also used as a solvent, antiseptic, sedative, in manuf. of perfumes, drugs etc. Gasoline additive/substitute. Used as a derivatisation reagent for acids. Very mobile liq., with pleasant odour and burning taste. Misc. H₂O, most org. solvs. d₄²⁰ 0.7893. Fp –117.3° (–112.3°). Bp 78.5°, Bp₁₃₀ 39.8°, Bp₁₆ 4°. pK_a 15.93 (25°). n_D²⁰ 1.3610. Hygroscopic, forming an azeotrope contg. 4.43% wt H₂O, Bp 78.15°. Crit. point 243° (62.7 atm.). Mol. Bp elevation 11.7°. Is obt. anhyd. by azeotropic distillation with C₆H₆ or by dehydration with K₂CO₃, CaO, CaSO₄, etc.

▷ TLV 1900. Highly flammable, flash p. 12°. Reacts violently with a wide range of oxidants. KQ6300000.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 928.

Jönsson, P.-G., *Acta Crystallogr., Sect. B*, 1976, **32**, 232 (*cryst struct*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **9**, 338 (*rev. bibl*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 551.

Goldstein, D.B., *Pharmacology of Alcohol*, Oxford Univ. Press, 1983 (*book*)

Holford, N.H.G., *Clin. Pharmacokin.*, 1987, **13**, 273 (*rev*)

Pohorecky, L.A. *et al*, *Pharmacol. Ther.*, 1988, **36**, 335 (*rev. pharmacol*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 320.

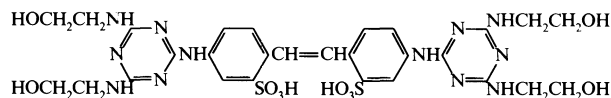
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EFU000.

2,2'-(1,2-Ethenediyl)bis[4-[[4-amino-6-bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]benzenesulfonic acid], 8CI

E-00041

White K

[15208-15-8]



C₂₈H₃₆N₁₂O₁₀S₂ M 764.799

Di-Na salt: [20182-55-2].

Commercially available. Used as a 0.08mM aq. soln. for luminescent detn. of Cr; fluorescent acid-base indicator. Cryst.

[15208-17-0]

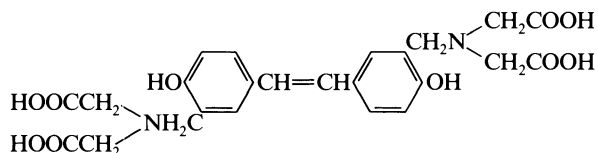
U.S. Pat., 2 875 058, (1959); CA, **53**, 9867g (*synth*)

Temkina, V.Y. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 632, 1830 (*use, indicator*)

4,4'-[1,2-Ethenediylbis[2-(aminomethyl)phenol]]-N,N,N',N'-tetraacetic acid

E-00042

3,5'-Bis(dicarboxymethylaminomethyl)-4,4'-dihydroxystilbene



C₂₄H₂₆N₂O₁₀ M 502.477

(*E*)-form [29769-63-9]

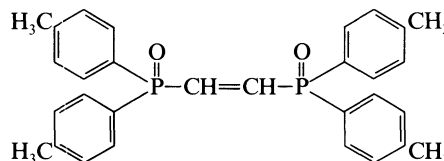
Used as a 0.1mM aq. soln. for fluorimetric detn. of Cd, Ga, La, Lu. Cryst. (H₂O). Sol. EtOH, hot H₂O, alkalis.

Budesinsky, B. *et al*, *Analyst (London)*, 1969, **94**, 182.

1,2-Ethenediylbis[bis(4-methylphenyl)phosphineoxide], 9CI

E-00043

Bis[bis(4-methylphenyl)phosphinyl]ethylene



C₃₀H₃₀O₂P₂ M 484.513

Used as a 0.025M soln. in CHCl₃ for extraction-separation of Am, Bk, Cf, Cm, Eu. Cryst. Sol. common org. solvs.

[55743-58-3, 55743-59-4]

Kamin, G.J. *et al*, *J. Chromatogr.*, 1967, **31**, 292 (*use*)

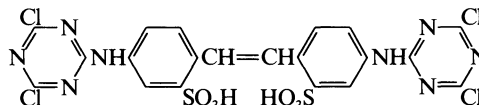
Nesterova, N.P. *et al*, *Izv. Akad. Nauk SSSR*, 1974, **10**, 2295 (*synth*)

Khmutova, M.K. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1110 (*use*)

2,2'-(1,2-Ethenediyl)bis[5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], 9CI

E-00044

[16013-46-0]



C₂₀H₁₂Cl₄N₈O₆S₂ M 666.308

Used as a 0.1% aq. soln. as a fluorescent pH indicator.
Cryst.

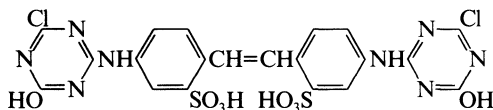
[26464-76-6]

Temkina, V.Y. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 632 (*use*)

2,2'-(1,2-Ethenediyl)bis[5-[(4-hydroxy-6-chloro-1,3,5-triazin-2-yl)amino] benzenesulfonic acid], 9CI **E-00045**

4,4'-Bis[(4-chloro-6-hydroxy-s-triazin-2-yl)amino]-2,2'-stilbenedisulfonic acid, 8CI

[18299-10-0]



$C_{20}H_{14}Cl_2N_8O_8S_2$ M 629.417

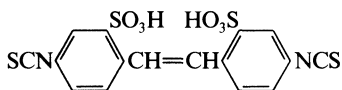
Used as a 0.1% aq. soln. as fluorescent acid-base indicator. Cryst.

Tiemkina, V.Y. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 632 (*use*)

2,2'-(1,2-Ethenediyl)bis[5-isothiocyanatobenzenesulfonic acid], 9CI **E-00046**

4,4'-Diisothiocyanatostilbene-2,2'-disulfonic acid. DIDS

[53005-05-3]



$C_{16}H_{10}N_2O_6S_4$ M 454.529

Fluorescent labelling reagent. Fine red brown cryst. powder.

[67483-13-0]

Cabantchik, Z.I. *et al*, *J. Membr. Biol.*, 1972, **10**, 311; 1974, **15**, 207, 227 (*synth*)

Ship, S. *et al*, *J. Membr. Biol.*, 1977, **33**, 311 (*synth*)

Tsukamoto, T. *et al*, *Biochemistry*, 1980, **19**, 918 (*use*)

Niggli, V. *et al*, *FEBS Lett.*, 1982, **138**, 164 (*use*)

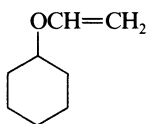
Ramjeeasingh, M. *et al*, *Membr. Biochem.*, 1982, **4**, 259 (*use*)

Simons, T.J.B., *J. Physiol. (London)*, 1986, **378**, 287 (*use*)

(Ethenyloxy)cyclohexane, 9CI **E-00047**

Cyclohexyl vinyl ether

[2182-55-0]



$C_8H_{14}O$ M 126.198

Derivatisation reagent for sugars. Liq. d_4^{20} 0.8883. Bp 147-148°. n_D^{20} 1.4546.

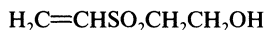
Reppe, W. *et al*, *Justus Liebigs Ann. Chem.*, 1956, **601**, 81 (*synth*)

Wolfram, M.L. *et al*, *J. Org. Chem.*, 1968, **33**, 1067 (*use*)

2-(Ethenylsulfonyl)ethanol, 9CI **E-00048**

2-(Vinylsulfonyl)ethanol, 8CI. 2-Hydroxyethyl vinyl sulfone

[4271-48-1]



$C_4H_8O_3S$ M 136.171

Creaseproofing agent for textiles. Anal. reagent for thiols. d_4^{20} 1.3047. Bp₃₀₄ 150°. n_D^{20} 1.4916.

Schoberl, A. *et al*, *Justus Liebigs Ann. Chem.*, 1968, **716**, 37 (*synth*)

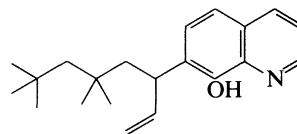
U.S. Pat., 3509217, (1970); *CA*, **73**, 76660t (*synth, use*)

Obtemperanskaya, S. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 175; *CA*, **80**, 115808p *use*.

7-(1-Ethenyl-3,3,5,5-tetramethylhexyl)-8-quinolinol, 9CI **E-00049**

Kelex 100

[29171-27-5]



$C_{21}H_{29}NO$ M 311.466

Used as a soln. in $CHCl_3$ or kerosene for extraction-separation of rare earth elements. Co. Cryst.

Lakshmanan, V.I. *et al*, *J. Inorg. Nucl. Chem.*, 1973, **35**, 4285 (*detn, Co*)

Flett, D.S. *et al*, *J. Inorg. Nucl. Chem.*, 1975, **37**, 2197 (*detn, Co*)

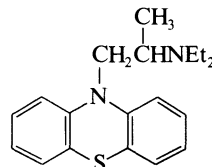
Yamada, E. *et al*, *Anal. Chem.*, 1981, **53**, 2115 (*detn, rare earths*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 263 (*use*)

Ethopropazine, BAN **E-00050**

N,N-Diethyl- α -methyl-10H-phenothiazine-10-ethanamine, 9CI. 10-(2-Diethylaminopropyl)phenothiazine. **Profenamine**, INN. Isothazone. Isothiazine. Other proprietary names

[522-00-9]



$C_{19}H_{24}N_2S$ M 312.478

Parasympatholytic agent used against parkinsonism.

Anticholinergic. Cryst. Mp 53-55°.

▷ SO4900000.

B.HCl: [1094-08-2]. Ethopropazine hydrochloride, *USAN*. *Pardisol*. *Lysivane*

Used as a 0.2% aq. soln. for photometric detn. of Pt (λ_{max} 400 nm, ϵ 13000), V(V) (λ_{max} 510 nm, ϵ 7090).

Cryst. (CH_2Cl_2). Mp 223-225° dec.

o-(4-Hydroxybenzoyl)benzoate: Profenamine hibenzoate, *JAN* Reuse, J., *C. R. Seances Soc. Biol. Ses Fil.*, 1950, **144**, 1563 (*pharmacol*)

Charpentier, P. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1951, **232**, 415 (*synth*)

U.S. Pat., 2 607 773, (1952); *CA*, **47**, 6989i (*synth*)

Genzer, J.D. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 2506 (*resoln*)

Marsau, P. *et al*, *Acta Crystallogr., Sect. B*, 1971, **27**, 2058 (*cryst struct*)

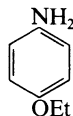
Gowda, H.S. *et al*, *Indian J. Chem., Sect. A*, 1978, **16**, 633 (*detn, V*)

Gowda, H.S. *et al*, *Curr. Sci.*, 1979, **48**, 520 (*detn, Pt*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DIR000.

4-Ethoxyaniline

4-Ethoxybenzenamine, 9CI. p-Phenetidine, 8CI. p-Aminophenetole. p-Aminophenol ethyl ether [156-43-4]



$C_9H_{11}NO$ M 137.181

Used as 0.1% aq. soln. for catalytic of detn. Mn(II) (with use of periodate). Mp 4°. Bp 253°, Bp₁₀ 103-104°.

▷ Highly toxic and irritant. SI6465500.

N-Ac: [62-44-2]. N-(4-Ethoxyphenyl)acetamide, 9CI. p-Acetophenetidide, 8CI. **Phenacetin**, INN. Other proprietary names

$C_{10}H_{13}NO_2$ M 179.218

Antipyretic and antineuralgic. Reference material used in elemental microanalysis. Mp 137-138°. Bp 242-245°.

▷ AM4375000.

N-Me, N-Ac: [7298-73-9]. N-Methylphenacetin

$C_{11}H_{15}NO_2$ M 193.245

Bp 251°, Bp₄ 102-104°.

▷ AM4450000.

N-(Hydroxyacetyl): [22521-79-5]. N-(4-Ethoxyphenyl)-2-hydroxyacetamide, 9CI. **Fenacetinol**, INN. p-(Glycolophenetidide), 8CI. PM 1952

$C_{10}H_{13}NO_3$ M 195.218

Analgesic. Mp 154°.

Hinsberg, O., *Justus Liebigs Ann. Chem.*, 1899, **305**, 276.

Wedekind, E. *et al. Ber.*, 1907, **40**, 1001.

Braun, T., *Fresenius' Z. Anal. Chem.*, 1957, **159**, 135 (detn, Mn)

Braun, T., *Rev. Chim. (Bucharest)*, 1957, **8**, 43 (detn, Mn)

Shapiro, S.L. *et al. J. Am. Chem. Soc.*, 1959, **81**, 6322

(Fenacetinol)

Mikhant'ev, B.I. *et al. Zh. Obshch. Khim.*, 1961, **31**, 3050.

Shostakovskii, M.F. *et al. Zh. Obshch. Khim.*, 1961, **31**, 3226.

Stroh, H.H. *et al. Chem. Ber.*, 1963, **96**, 184.

Fr. Pat., CAM115, (1966); *CA*, **70**, 106231m (synth, pharmacol, Fenacetinol)

Shelley, J.H. *et al. Clin. Pharmacol. Ther. (St. Louis)*, 1967, **8**, 427 (rev, Phenacetin)

Kiese, M. *et al. Biochem. Pharmacol.*, 1969, **18**, 1325 (uv, ir, nmr)

Analyst (London), 1972, **97**, 740 (microanal)

Gillette, J.R. *et al. Adv. Exp. Med. Biol.*, 1982, **136B**, 931 (rev, Phenacetin)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2681.

Patel, U. *et al. Acta Crystallogr., Sect. C*, 1983, **39**, 1445 (Phenacetin)

O'Connor, C.J. *et al. Aust. J. Chem.*, 1984, **37**, 497 (Phenacetin, cmr)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1590 (synonyms)

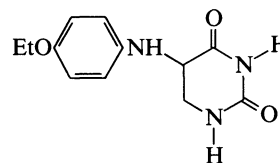
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 321.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ABG750, PDD500.

E-00051

5-(p-Ethoxyanilino)-5,6-dihydrouracil

E-00052



$C_{12}H_{15}N_3O_3$ M 249.269

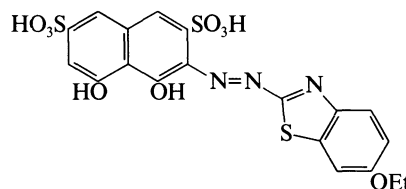
Used as 0.01M soln. in aq. NaOH for extraction-photometric detn. of Au (λ_{max} 520 nm, ϵ 1300). Cryst. Sol. H₂O, EtOH. pK_a 4.32.

Marshall, D.A. *et al. Anal. Lett.*, 1969, **2**, 595 (detn, Au)

3-[(6-Ethoxy-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8CI

E-00053

[21468-91-7]



$C_{19}H_{15}N_3O_9S_3$ M 525.540

Used as a 0.1% aq. soln. for photometric detn. of Al (λ_{max} 620 nm, ϵ 26000), Th, Zr. Orange-red cryst. Sol. H₂O, EtOH.

Savvin, S.B. *et al. CA*, 1969, **70**, 68239k (synth, detn, Th, Zr)

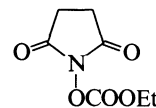
Savvin, S.B. *et al. Zh. Anal. Khim.*, 1970, **25**, 423 (detn, Al)

1-[(Ethoxycarbonyloxy)-2,5-pyrrolidinedione, 9CI

E-00054

N-(Carboxyoxysuccinimide ethyl ester, 8CI. N-(Ethoxycarbonyloxy)succinimide

[23583-01-9]



$C_7H_9NO_5$ M 187.152

Reagent for peptide sequence detn. by ms. Cryst. (EtOAc/pet. ether). Mp 50-51°.

Kiryushkin, A.A., *Tetrahedron Lett.*, 1966, 33 (use)

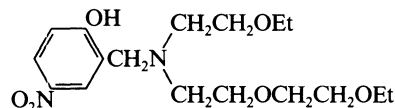
Gross, H. *et al. Justus Liebigs Ann. Chem.*, 1969, **725**, 212 (synth)

Paquet, A., *Can. J. Chem.*, 1979, **57**, 2775 (synth)

2-[[2-(2-Ethoxyethoxy)ethyl](2-ethoxyethyl)aminomethyl]-4-nitrophenol, 9CI

E-00055

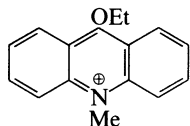
N-(2-Hydroxy-5-nitrobenzyl)-3,6,12-trioxa-9-azatetradecane [100443-49-0]



$C_{17}H_{28}N_2O_6$ M 356.418

Used as 1,2-dichloroethane soln. for extraction sepn. of Li.
Yellowish oil. Sol. CHCl_3 , 1,2-dichloroethane, dioxan.
 pK_{a1} 5.11; pK_{a2} 9.11 (25°, aq. 10% dioxan).

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1985, **173**, 193 (*synth, sepn, Li*)

9-Ethoxy-10-methylacridinium(1+), 9Cl E-00056

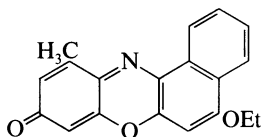
$\text{C}_{16}\text{H}_{16}\text{NO}^{\oplus}$ M 238.308 (ion)

Trifluoromethanesulfonate: [135834-37-6].

$\text{C}_{17}\text{H}_{16}\text{F}_3\text{NO}_4\text{S}$ M 387.379

Spectrophotometric derivatisation reagent for primary amines. Yellow cryst. Mp 125-127°.

Dunning, J.W. *et al*, *Talanta*, 1991, **38**, 631 (*synth, use, uv, ir, pmr*)

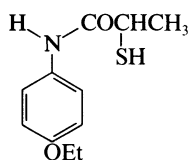
5-Ethoxy-11-methyl-9H-benzo[a]phenoxazin-9-one, 8Cl [17799-98-3] E-00057

$\text{C}_{19}\text{H}_{15}\text{NO}_3$ M 305.332

Used as a 0.1mM soln. in EtOH as redox indicator for titanometric detn. of Fe(III), Au(III), $\text{Cr}_2\text{O}_7^{2\ominus}$, $\text{VO}_4^{3\ominus}$ and some oxidizing organic compds. Orange cryst. Sol. Et_2O ; sl. sol. EtOH, C_6H_6 . Mp 232°. $E^\circ +0.260$ V (1N HCl, 50% EtOH, $\mu = 0.07$).

Ruzička, E. *et al*, *Monatsh. Chem.*, 1968, **99**, 838 (*synth*)

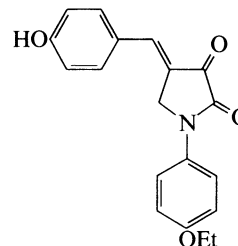
Ruzička, E. *et al*, *Mikrochim. Acta*, 1969, 698 (*use*)

1-[(4-Ethoxyphenyl)amino]-2-mercapto-1-propanone E-00058
2-Mercapto-p-propionophenetidine, 8Cl. α -Mercaptopropionic acid p-phenetidide. α -Merprofen [16537-36-3]

$\text{C}_{11}\text{H}_{15}\text{NO}_2\text{S}$ M 225.311

Used as a 1% aq. soln. for extraction-photometric detn. of Co (λ_{max} 485 nm, ϵ 19000, CHCl_3), Mo(V) (λ_{max} 360 nm, ϵ 2700, C_6H_6 /isopentanol), Mo(VI) (λ_{max} 360 nm, ϵ 2700, C_6H_6 /isopentanol). Cryst. Sol. H_2O , EtOH. Mp 122°.

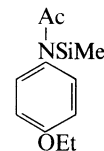
Nacu, A. *et al*, *CA*, 1969, **70**, 83943d; 1971, **74**, 119708e (*synth, detn, Co, Mo*)

1-(4-Ethoxyphenyl)-4-(4-hydroxybenzylidene)-2,3-pyrrolidinedione E-00059

$\text{C}_{19}\text{H}_{17}\text{NO}_4$ M 323.348

Used as acid-base indicator (pH_3 5.8, colour change: yellow \rightarrow brown; pH_2 8.4, colour change: brown \rightarrow red). Cryst.

Singh, M. *et al*, *Chem. Ind. (London)*, 1967, **31**, 1322 (*use*)

N-(4-Ethoxyphenyl)-N-(trimethylsilyl)acetamide, 9Cl [59079-36-6] E-00060

$\text{C}_{13}\text{H}_{21}\text{NO}_2\text{Si}$ M 251.400

Silylation derivatising reagent for use in glc. d_4^{20} 1.024. Bp₄ 130°. n_D^{20} 1.5032.

Piekos, R. *et al*, *J. Chromatogr.*, 1976, **117**, 431 (*synth, use*)

1-Ethoxy-N,N,N-trimethyl-1-oxo-2-hexadecanaminium (1+), 9Cl E-00061
(1-Carboxypentadecyl)trimethyl ammonium(1+) ethyl ester, 8Cl [14565-92-5]

$\text{C}_{21}\text{H}_{44}\text{NO}_2^{\oplus}$ M 342.584 (ion)

Bromide: [10567-02-9]. *Septonex. Desident. Mucoseptonex*

$\text{C}_{21}\text{H}_{44}\text{BrNO}_2$ M 422.488

Used as 5mM EtOH or 5mM aq. soln. for photometric detn. of Be, Pd, U (λ_{max} 612nm, ϵ 111000). Cryst. (HBr aq.). Sol. H_2O , EtOH.

Fantova, I. *et al*, *Chem. Listy*, 1980, **74**, 291; *CA*, **93**, 18502v (*detn, Pd*)

Kanický, V. *et al*, *Collect. Czech. Chem. Commun.*, 1980, **45**, 1525 (*detn, U*)

Burešova, I. *et al*, *Collect. Czech. Chem. Commun.*, 1982, **47**, 1321 (*detn, Be*)

Egermaierova, J. *et al*, *Microchem. J.*, 1983, **28**, 10 (*detn, Pd*)

Ethyl acetate, 9Cl E-00062
Ethyl ethanoate. Acetic ester [141-78-6]

$\text{C}_4\text{H}_8\text{O}_2$ M 88.106

Found in cereal crops, radishes, fruit juices, beer, wine etc. and produced by *Anthemis nobilis* and *Rubus* spp. Used in artificial fruit essences; as a solvent; in the manuf. of plastics, perfumes etc. Used in printing inks, adhesives and lacquers. Used as a solvent in extraction sepn. of

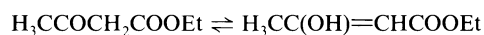
UO₂(NO₃)₂. A volatile flammable liq. with characteristic, fruity odour. Misc. most org. solvs., sol. 13 parts H₂O at 15°, less sol. at higher temps. Slowly hydrol. by H₂O. Forms azeotrope with H₂O, 6.1% w/w, Bp 70.4°.

▷ Mod. irritant, TLV 1400. Highly flammable, flash p. –4.4°. May ignite or explode with LiAlH₄. AH5425000.

Wade, J., *J. Chem. Soc.*, 1905, **87**, 1656 (*synth*)
 Guest, R.J. *et al.*, *Anal. Chem.*, 1955, **27**, 931 (*use*)
 Iacobescu, S. *et al.*, *CA*, 1977, **86**, 170639 (*synth*)
 Minato, H. *et al.*, *Chem. Lett.*, 1977, 1095 (*synth*, *pmr*)
 Nefedov, B.K. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1977, 614; *CA*, **87**, 38814 (*manuf*)
 Sandell, E.B. *et al.*, *Photometric Determination of Traces of Metals, General Aspects*, Wiley, New York, 1977 (*use*)
 Anon., *CA*, 1978, **88**, 36649 (*purifn*)
 Ger. Pat., 2 731 962, (1979); *CA*, **90**, 151615 (*manuf*)
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 224.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 322.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EFR000.

Ethyl acetoacetate, 8CI**E-00063**

Ethyl 3-oxobutanoate, 9CI. Acetoacetic ester



C₆H₁₀O₃ M 130.143

Equilibrium mixt. consists of approx. 92.3% keto and 7.7% enol forms. Both forms have been obt. at low temps. Obt. by condensation of ethyl acetate with sodium. Synthetic reagent of great utility and historical importance. Acetals with ethylene and propylene glycols are used in perfumery. Used as EtOH soln. as a metal indicator in titrimetry with EDTA of Fe(III) (pH range 1-2; colour change red-violet → pale yellow). Liq. with characteristic agreeable/irritant odour. pK_a 11.8 (50% dioxan), pK_a 10.68 (25°).

Keto-form [141-97-9]

Misc. most org. solvents, sol. dil. alkalis, pptd. with CO₂, spar. sol. H₂O. d₂₀ 1.0282. Bp₁₄ 74°, Bp₁ 28.5°.

▷ Mod. toxic. AK5250000.

Semicarbazone: [5982-65-0]. *Ethyl 3-[(aminocarbonyl)hydrazono]butanoate, 9CI*

Needles (Et₂O). Sol. hot H₂O. Mp 129° dec.

Phenylhydrazone: *Ethyl 3-(phenylhydrazono)butanoate*

Needles. Sol. EtOH. Mp 50°. Oxidised by air.

Enol-form

n_D²⁰ 1.4480.

Knorr, L. *et al.*, *Ber.*, 1911, **44**, 1138 (*tautomers*)
 Snell, J.M. *et al.*, *J. Am. Chem. Soc.*, 1931, **53**, 2310 (*synth*)
Org. Synth., Coll. Vol., 1, 1932, 235 (*synth*)
 Kundu, P.C., *Fresenius' Z. Anal. Chem.*, 1961, **184**, 255 (*use*)
 Carlson, R.M. *et al.*, *Tetrahedron Lett.*, 1973, 4819 (*synth*)
 Kato, T. *et al.*, *Yakugaku Zasshi*, 1974, **94**, 884 (*synth*)
 Kurgane, B. *et al.*, *Zh. Org. Khim.*, 1974, **10**, 2306 (*tautom*)
 Schimelpfenig, C.W., *J. Chem. Educ.*, 1977, **54**, 446 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EFS000.

α-(Ethylamino)-p-(dimethylamino)benzylphosphonic acid**E-00064**

[[4-(Dimethylamino)phenyl](ethylamino)methyl]phosphonic acid



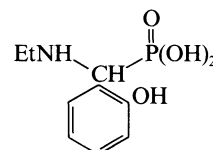
C₁₁H₁₉N₂O₃P M 258.256

Et ester: [59488-09-4].

C₁₃H₂₃N₂O₃P M 286.310

Used as aq. soln. for photometric detn. of Cu. Sol. H₂O.

Zuchi, G. *et al.*, *Rev. Chim. (Bucharest)*, 1975, **26**, 986; 1977, **28**, 290, 472, 571; 1978, **29**, 574 (*synth*, *ir*, *pmr*, *detn*, Cu)

[(Ethylamino)(2-hydroxyphenyl)methyl]phosphonic acid, 9CI**E-00065**

C₉H₁₄NO₄P M 231.188

Et ester: [59488-05-0].

C₁₁H₁₈NO₄P M 259.241

Used as a 1% aq. soln. for photometric detn. of Cu.

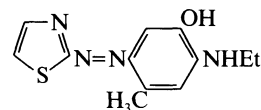
Cryst.

Morait, G. *et al.*, *Rev. Roum. Chim.*, 1976, **27**, 233.

2-(Ethylamino)-4-methyl-2-(2-thiazolylazo)phenol, 9CI**E-00066**

2-(4-Ethylamino-3-hydroxy-6-methylphenylazo)thiazole. 5-(2-Thiazolylazo)-2-monoethylamino-p-cresol

[39765-31-6]



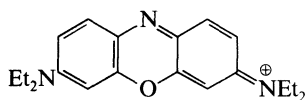
C₁₂H₁₄N₄OS M 262.335

Used for extraction-photometric detn. of Hg (λ_{max} 570 nm), In (λ_{max} 545 nm, ε 37000), Ga (λ_{max} 550 nm, ε 65000), Sb (λ_{max} 590 nm, ε 38500), Nb, V (λ_{max} 570 nm, ε 28000); complexometric detn. of In; as a 0.4-4mM soln. in propanol for photometric detn. of Ir (λ_{max} 510 nm, ε 40000), Nb, Rh (λ_{max} 590 nm, ε 34000). Orange-red cryst. pK_{a1} 5.4; pK_{a2} 9.20.

Kolosova, I.V., *CA*, 1973, **78**, 37630s (*detn*, Hg)
 Shalamov, G.G., *CA*, 1973, **79**, 61149h (*detn*, V)
 Nikolaeva, E.M., *CA*, 1973, **79**, 73205m (*detn*, In)
 Gusev, S.I., *CA*, 1973, **79**, 73206n (*detn*, Ga, Sb)
 Mal'tseva, L.S. *et al.*, *Zavod. Lab.*, 1973, **39**, 385 (*detn*, Nb)
 Goroshko, G.G. *et al.*, *Zh. Anal. Khim.*, 1978, **33**, 1114 (*detn*, Ir, Rh)
 Shurupova, T.I. *et al.*, *Zh. Anal. Khim.*, 1981, **36**, 926 (*detn*, Ir)

Ethyl capri blue

3,7-Bis(diethylamino)phenoxazin-5-ium(1+), 9CI

 $C_{20}H_{26}N_3O^{\oplus}$ M 324.445 (ion)

Strictly, the name Ethyl capri blue applies to the chloride.

Chloride: [6703-67-9].

 $C_{20}H_{26}ClN_3O$ M 359.898Used as redox indicator (pH range: 1-10). Dark blue cryst. powder. Sol. H_2O . pK_{a1} 6.70; pK_{a2} 7.14. E° + 0.540 V.Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)**Ethyl chloroformate, 8CI**

E-00068

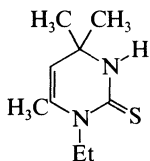
Ethyl carbonochloridate, 9CI. Chloroformic ester. Ethyl chlorocarbonate

[541-41-3]

 $C_3H_5ClO_2$ M 108.524Used extensively in synthesis. Used as an anal. reagent for phenolic amines and tertiary amines. Liq. Misc. EtOH, C_6H_6 , $CHCl_3$, Et_2O , prac. insol. H_2O . d_4^{25} 1.1442. Mp -80.6° . Bp 93.1° . Slowly hydrol. by H_2O .▶ Highly toxic vapour, irritant. Highly flammable, flash p. 16° . LQ6125000.Cappelli, G., *Gazz. Chim. Ital.*, 1920, **50**, 8 (synth)Saunders, J.H. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 3797 (synth)Kalis, V. *et al*, *CA*, 1967, **67**, 64002 (purifn)Vessman, J. *et al*, *Anal. Lett.*, 1973, **6**, 699 (use)Liotta, D. *et al*, *Can. J. Chem.*, 1975, **53**, 907 (synth)U.K. Pat., 1 379 977, (1975); *CA*, **83**, 9226 (manuf)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1979, 7, 147.Yamamoto, S. *et al*, *J. Chromatogr.*, 1980, **194**, 399 (use)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 327.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EHK500.**1-Ethyl-3,4-dihydro-4,4,6-trimethyl-2(1H)-pyrimidinethione, 9CI**

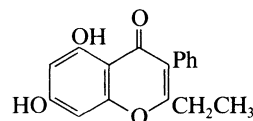
E-00069

[18957-52-3]

 $C_9H_{16}N_2S$ M 184.305Used as 0.01M $CHCl_3$ soln. for extraction-photometric detn. of Pd(II) (λ_{max} 430 nm, ϵ 4200, 1-10M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 , dioxan.Mathes, R.A., *J. Am. Chem. Soc.*, 1953, **75**, 1747 (synth)Singh, A.K. *et al*, *Talanta*, 1976, **23**, 337 (detn, Pd)**2-Ethyl-5,7-dihydroxy-3-phenyl-4H-1-benzopyran-4-one**

E-00070

2-Ethyl-5,7-dihydroxyisoflavone

 $C_{17}H_{14}O_4$ M 282.295

7-Me ether: [55927-40-7]. 2-Ethyl-5-hydroxy-7-methoxyisoflavone. 2-Ethyl-5-hydroxy-7-methoxy-3-phenyl-4H-1-benzopyran-4-one, 9CI

 $C_{18}H_{16}O_4$ M 296.322Used as MeOH soln. for extraction-fluorimetric detn. of Be (λ_{max} 430 nm, CCl_4). Cryst. Sol. EtOH, MeOH.Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1974, **23**, 1349 (detn, Be)**N-Ethyl-N,N-dimethyl-1-hexadecanaminium(1+), 9CI**

E-00071

Cetyldimethylammonium.

Ethylhexadecyldimethylammonium

[10328-33-3]

 $C_{20}H_{44}N^{\oplus}$ M 298.574 (ion)

Antiseptic.

Bromide: [124-03-8]. Cetylcide. Radiol

 $C_{20}H_{44}BrN$ M 378.478Used as 0.1M aq. soln. for ion-flotation of Cd, Zn, Cu, Ni from aq. soln. Cryst. Sol. H_2O .

▶ BQ5425000.

B,EtSO₃H: [3006-10-8]. Mecetronium ethylsulfate, USAN.

Mecetronium ethylsulfate, INN. Querton 16 ES. Sterilium

Lewison, E.F., *Arch. Surg. (Chicago)*, 1950, **60**, 865.U.S. Pat., 2 541 248, (1951); *CA*, **45**, 4894.U.S. Pat., 3 113 956, (1963); *CA*, **60**, 5335.McDonald, C.W. *et al*, *Microchem. J.*, 1979, **24**, 553; 1981, **26**, 80; 1982, **27**, 240 (use)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EKN500.**Ethylenebisdithiocarbamic acid, 8CI**

E-00072

1,2-Ethanediybiscarbamodithioic acid, 9CI

[111-54-6]

 $C_4H_8N_2S_4$ M 212.385Parent acid very unstable, not characterised. Derivs. are used as marine pesticides and as fungicides. Decomposes to CS_2 and ethylenethiourea.

▶ Salts are highly toxic.

Di-Na salt: [142-59-6]. Nabam, BSI. Parzate

Agricultural fungicide. Cryst. + $6H_2O$.

▶ FA6825000.

Di-NH₄ salt: [3566-10-7].Used for extraction-photometric detn. of Ni (λ_{max} 385 nm, ϵ 36500).

Di-Me ester: [20721-48-6].

 $C_6H_{12}N_2S_4$ M 240.438Mp $105-107^{\circ}$.

▶ Forms an explosive dust.

Dibenzyl ester: [28249-26-5].

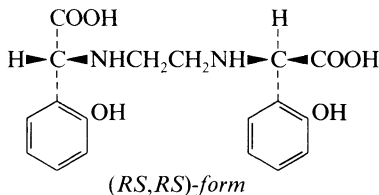
 $C_{18}H_{20}N_2S_4$ M 392.633

Possesses herbicidal activity. Cryst. (EtOH). Mp 114-116° (128-129°).

- Collins, A.P. *et al*, *J. Am. Pharm. Assoc.*, 1955, **44**, 310 (*synth, pharmacol*)
 Kennard, K.C. *et al*, *J. Org. Chem.*, 1959, **24**, 464 (*derivs*)
 Dorsett, H.G. Jr. *et al*, *Bur. Mines Rep. Invest.*, No. 7132, 1968 (*haz*)
 Wakamori, S. *et al*, *Agric. Biol. Chem.*, 1969, **33**, 1367 (*synth, use, ester*)
 Engst, R., *Nahrung*, 1971, **15**, 815 (*rev, bibl, metab*)
Pesticide Manual. 6th Ed., 1979, 370.
 Yamamoto, D. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1980, **29**, 396 (*detn, Ni*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ANZ000, DXD200.

N,N'-Ethylenebis[2-(o-hydroxyphenyl)glycine] E-00073

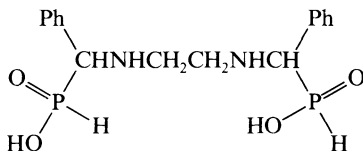
Ethylenediamine-N,N'-bis[α-(2-hydroxyphenylacetic acid)].
α,α'-(1,2-Ethanediyldiimino)bis[2-hydroxybenzeneacetic acid], 9CI
 [1170-02-1]



$C_{18}H_{20}N_2O_6$ M 360.366
 Multidentate ligand. Complexing agent used for titrimetric detn. of Fe. Sol. alkalis. pK_{a1} 6.39; pK_{a2} 8.78; pK_{a3} 10.56; pK_{a4} 11.85 (0.1M KNO_3).

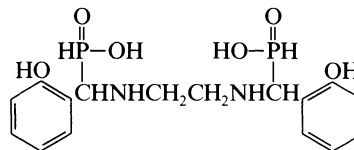
- (RS,RS)-form [81944-54-9]
 (±)-form
 Microcryst. Mp 234-236° dec. Known in opt. active forms.
 (RS,SR)-form [81944-53-8]
 meso-form
 Mp 249° dec.
 Ryskiewich, D.P. *et al*, *Nature (London)*, 1962, **193**, 472 (*resoln*)
 Anderegg, G. *et al*, *Helv. Chim. Acta*, 1964, **47**, 1067.
 Sugura, K. *et al*, *Nippon Kagaku Zasshi*, 1968, **89**, 853 (*use, ir, uv*)
 Bailey, N.A. *et al*, *Inorg. Chim. Acta*, 1981, **50**, 111 (*use, synth, cryst struct, resoln, ir*)
 Patch, H.G. *et al*, *Inorg. Chem.*, 1982, **21**, 2972 (*use, resoln, tlc, uv, pmr, esr*)
 Wilson, J.G., *Aust. J. Chem.*, 1987, **40**, 1695 (*synth, pmr*)
 Bannochie, C.J. *et al*, *J. Am. Chem. Soc.*, 1989, **111**, 4735 (*resoln, use*)

[Ethylenebis(iminobenzylidene)]diphosphinic acid, 8CI E-00074
 [17316-86-8]



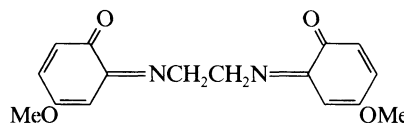
$C_{16}H_{22}N_2O_4P_2$ M 368.308
 Used as complexing agent for Cu, Ni, Fe(III), Zn. Pink cryst. Mp 246-248°.
 Medved, T.Y. *et al*, *CA*, 1968, **69**, 73551q (*synth, use*)

[Ethylenebis(iminosalicylidene)]diphosphinic acid, 8CI E-00075
 [23480-37-7]



$C_{16}H_{22}N_2O_6P_2$ M 400.307
 Used for photometric detn. of Fe(II), Fe(III). Mp 219.5-220°.
 Neish, W.J.P. *et al*, *Experientia*, 1969, **25**, 788 (*use*)

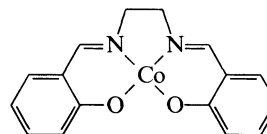
N,N'-Ethylenebis(4-methoxy-1,2-benzoquinone 2-imine) E-00076



$C_{16}H_{16}N_2O_4$ M 300.313
 Dioxime:
 $C_{16}H_{18}N_4O_4$ M 330.343
 Used for extraction-photometric detn. of Pd (λ_{max} 420 nm, $CHCl_3$). Cryst.
 Singh, R.B. *et al*, *Talanta*, 1975, **26**, 425.

[N,N'-Ethylenebis(salicylideneiminato)]cobalt E-00077

[[2,2'-(1,2-Ethanediybis[nitrilomethylidene]]bis[phenolato]](2-)-N,N',O,O']cobalt, 10CI, 9CI. [[α,α'-(Ethylenedinitrilo)di-o-cresolato](2-)]cobalt, 8CI. *Salcomine*
 [14167-18-1]



$C_{16}H_{14}CoN_2O_2$ M 325.232
 Autoxidn. catalyst. Binds $\frac{1}{2}O_2$ reversibly, turning black.
 Oxygen desorbed at 100° *in vacuo*. Used as a 0.3% soln. in 1,2-dichlorobenzene as collector for NO and NO_2 .
 Red cryst. (DMF); maroon cryst. + C_6H_6 (C_6H_6). Sol. C_6H_6 , $CHCl_3$, Py. Needs to be desolvated before oxygen taken up. Also obt. as inactive red form.

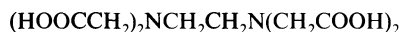
▷ GG0590000.

- Tsumaki, J., *Bull. Chem. Soc. Jpn.*, 1938, **13**, 252 (*synth, use*)
Inorg. Synth., 1950, **3**, 196 (*synth*)
 Busetto, C. *et al*, *J. Chem. Soc., Dalton Trans.*, 1973, 1712 (*esr, ir, uv*)
 West, B.O. *et al*, *J. Organomet. Chem.*, 1974, **64**, 125 (*synth*)
 McAllister, R.M. *et al*, *J. Organomet. Chem.*, 1974, **77**, 91 (*synth*)
 Nishinaga, A., *Chem. Lett.*, 1975, 273 (*use*)
 Aymes, D. *et al*, *Bull. Soc. Chim. Fr.*, 1976, 1717 (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, 7, 316 (*use*)
 Ishii, K. *et al*, *Anal. Chem.*, 1983, **55**, 604 (*collector, NO, NO_2*)
 Aymes, D.J. *et al*, *J. Chem. Educ.*, 1989, **66**, 854 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BLH250.

Ethylenediaminetetraacetic acid **E-00078**

N,N' -1,2-Ethanediybis[N-(carboxymethyl)]glycine, 9CI.
Ethylenedinitrilotetraacetic acid, 8CI. EDTA. **Edetic acid**,
BAN, **INN**. Versene acid. Sequestrene. Tetracemin.
Complexone III. Many other synonyms

[60-00-4]

 $\text{C}_{10}\text{H}_{16}\text{N}_2\text{O}_8$ M 292.245

Acid and salts are powerful chelating agents for metal ions. Used as pharmaceutical aids in cases of poisoning etc. Used as titrant in complexometric titrations of many metal ions; photometric detn. of Cr(III), Ni, Co; masking agent. Volumetric standard for detn. of Mg, Ca. Cryst. (H_2O). Dimorphic. Prac. insol. H_2O . Mp 220° dec. $\text{p}K_{a1}$ 2.02; $\text{p}K_{a2}$ 2.66; $\text{p}K_{a3}$ 6.21; $\text{p}K_{a4}$ 10.31 (20°). Starts to decarboxylate above 150°. Stable in boiling H_2O .

▶ Mod. toxic, exp. teratogen. AH4025000.

Di-Na salt: Edetate disodium, USAN. Other proprietary names

Metal chelating agent and veterinary anticoagulant.
Cryst. + $2\text{H}_2\text{O}$. Mp 252° dec.

Tri-Na salt: [150-38-9]. Edetate trisodium, USAN.

Trisodium edetate. Limclair. Sequestrene NA 3. Versene 9

Chelating agent. Cryst. + $1\text{H}_2\text{O}$ (H_2O). Mp > 300°.

▶ AH5275000.

Tetra-Na salt: [64-02-8]. Edetate sodium, USAN.

Complexone II. Trilon B

Chelating agent. Used widely in electroplating process. Commercially available as dihydrate. Amorph. powder. Mp > 300° (as hydrate).

▶ Mod. toxic.

Di-Na mono-Ca salt: [62-33-9]. Sodium calcium edetate, **BAN**, **INN**. *Edetate calcium disodium*, USAN. *Edathamil calcium disodium*. *Calcium disodium versenate*. *Mosatil*. *Antallin*. *Ledclair*. Other proprietary names

Powerful chelating agent used for treatment of lead poisoning. Powder. Forms a tetrahydrate.

▶ Mod. toxic orally. EV7700000.

Tetra-Me ester: [19376-45-5].

 $\text{C}_{14}\text{H}_{24}\text{N}_2\text{O}_8$ M 348.352Liq. Bp₅ 195-197°.

Tetra-Et ester: [3626-00-4].

 $\text{C}_{18}\text{H}_{32}\text{N}_2\text{O}_8$ M 404.459Liq. Bp₃ 195-196°.

Tetranitrile: [5766-67-6]. Ethylenediamine tetraacetoneitrile.

Tetrakis(cyanomethyl)ethylenediamine. EDTN

 $\text{C}_{10}\text{H}_{12}\text{N}_6$ M 216.245

Powder. Mp 132°.

▶ Highly toxic. AM0100000.

Di-K salt: [2001-94-7]. Edetate dipotassium, USAN

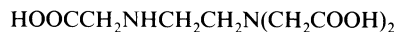
Na salt, Fe(III) chelate: Sodium ironedetate, **BAN**. *Sodium feredetate*, **INN**. Sytron

Used in treatment of iron-deficiency anaemia. Cryst. (EtOH aq.).

[139-33-3, 6381-92-6, 10378-23-1, 23411-34-9, 25102-12-9, 58167-76-3]

Smith, R. *et al*, *J. Org. Chem.*, 1949, **14**, 355 (*synth*)Astakhov, K.V. *et al*, *Zh. Obshch. Khim.*, 1950, **20**, 1780; *CA*, **45**, 2409 (*synth*)Biermans, J. *et al*, *Ind. Chim. (Rome)*, 1952, **39**, 6 (*rev. bibl*)Nielsch, W. *et al*, *Anal. Chim. Acta*, 1954, **11**, 376 (*detn. Ni*)Sawyer, D.T. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 4191 (*synth, ir, Fe chelate*)Schwarzenbach, G. *et al*, *Die Komplemetrische Titration*, Enke, Stuttgart, 1965 (*use*)Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 373; 1975, **5**, 296.Alner, D.J. *et al*, *Chem. Ind. (London)*, 1968, 1565 (*esters*)Fuji, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1969, **42**, 1569 (*detn. Cr*)Perrin, D.D., *Masking and Demasking of Chemical Reactions*, Interscience, New York, 1970 (*use*)Přibil, R., *Analytical Applications of EDTA and Related Compounds*, Pergamon Press, Oxford, 1972 (*use*)Ladd, M.F.C. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 2973 (*cryst struct*)Nagai, T. *et al*, *CA*, 1973, **78**, 45406 (*pmr*)Tancheva, S., *CA*, 1973, **79**, 52735 (*synth*)Baisden, P.A. *et al*, *Inorg. Chem.*, 1977, **16**, 1367 (*pmr*)Nuttall, R.H. *et al*, *J. Chem. Soc., Dalton Trans.*, 1977, 1884 (*raman*)Barnett, B.L. *et al*, *Inorg. Chem.*, 1979, **18**, 2674 (*cryst struct*)Polyakova, I.A. *et al*, *Izv. Timiryazevsk. S'kh. Akad.*, 1979, 167; *CA*, **91**, 174326 (*ir*)Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 213 (*use*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1038, 1039, 1052.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986 (*use*)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1717 (*synonyms*)Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 1607D (*haz*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EIV000, EIX000, EJB000, TNL250.**Ethylenediaminetriacetic acid****E-00079** $\text{C}_8\text{H}_{14}\text{N}_2\text{O}_6$ M 234.208

N-Butyl: N-Butylethylenediaminetriacetic acid

 $\text{C}_{12}\text{H}_{22}\text{N}_2\text{O}_6$ M 290.316

Used as chelating agent for Cu. Cryst. (EtOH). Mp 154-156° dec. $\text{p}K_{a1}$ 1.8; $\text{p}K_{a2}$ 6.64; $\text{p}K_{a3}$ 10.04 (24°).

N-Octyl: N-Octylethylenediaminetriacetic acid

 $\text{C}_{16}\text{H}_{30}\text{N}_2\text{O}_6$ M 346.423

Used as chelating agent for Cu. Cryst. (EtOH). Mp 147-148° dec. $\text{p}K_{a1}$ 1.9; $\text{p}K_{a2}$ 6.53; $\text{p}K_{a3}$ 9.76 (24°).

N-Cyclohexyl: N-(Cyclohexyl)ethylenediaminetriacetic acid

 $\text{C}_{14}\text{H}_{24}\text{N}_2\text{O}_6$ M 316.353

Used as chelating agent for Cu. Cryst. (EtOH). Mp 206-209° dec. $\text{p}K_{a1}$ 1.6; $\text{p}K_{a2}$ 6.47; $\text{p}K_{a3}$ 10.15 (24°).

N-Benzyl: N-Benzylethylenediaminetriacetic acid

 $\text{C}_{15}\text{H}_{20}\text{N}_2\text{O}_6$ M 324.333

Used as chelating agent for Cu. Cryst. (EtOH). Mp 130-131° dec. $\text{p}K_{a1}$ 1.9; $\text{p}K_{a2}$ 5.10; $\text{p}K_{a3}$ 9.84 (24°).

Bruno, A.J. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 2723 (*synth, use*)**Ethylenedithiodiacetic acid****E-00080**

2,2'-[1,2-Ethanediybis(thio)]bisacetic acid, 9CI.

Ethylenebisthioglycolic acid. 1,2-Bis(carboxymethylthio)ethane

[7244-02-2]

 $\text{C}_6\text{H}_{10}\text{O}_4\text{S}_2$ M 210.275

Cryst. Mp 107-108°.

Di-Na salt: [31188-63-3].

Used as 0.01M aq. soln. for photometric detn. of Pd (λ_{max} 290 nm, ϵ 21000). Cryst. Sol. H_2O .

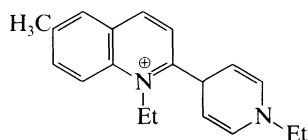
Pitombo, L.R.M. *et al*, *Anal. Chim. Acta*, 1975, **75**, 391; 1978, **101**, 77 (*synth, ir*)
 Pitombo, L.R.M. *et al*, *Mikrochim. Acta*, 1976, **2**, 121 (*detn, Pd*)
 Naboli, A., *Ann. Chim. (Rome)*, 1979, **69**, 399 (*detn, Pd*)

1-Ethyl-2-(1-ethyl-1,4-dihydro-4-pyridinyl)-6-methylquinolinium(1+), 9CI

E-00081

Pinaverdol

[125202-62-2]

C₁₉H₂₃N₂[⊕] M 279.404 (ion)Basic cyanine dye. The name Pinaverdol is also used for the *N*-Me compd.

Iodide:

C₁₉H₂₃IN₂ M 406.309Used as 1mM aq. soln. for photometric detn. of Pb (λ_{max} 565 nm, ε 160000). Cryst. (MeOH). Sol. H₂O, EtOH; insol. CHCl₃.

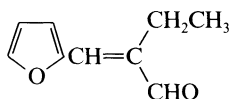
[124521-96-6]

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 313 (*detn, Pb*)

2-Ethyl-4-(2-furanyl)propenal

E-00082

α-Ethyl-β-2-furylacrolein

C₉H₁₀O₂ M 150.177

Thiosemicarbazone:

C₁₀H₁₃N₃OS M 223.298Used as a 0.4mM soln. in EtOH for photometric detn. of Pd (λ_{max} 382 nm, ε 27500), Pt (λ_{max} 385 nm, ε 18500). Cryst. (EtOH). Mp 206-207°. pK_{a1} 0.92; pK_{a2} 11.85.Kerentseva, V.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1144; 1972, **27**, 719 (*synth, pKa, detn, Pd, Pt*)

2-Ethyl-1-hexanol, 9CI

E-00083

[104-76-7]

C₈H₁₈O M 130.230

(+) -form

Liq. Bp₂₂ 92-94°. [α]_D²⁰ +2.57° (C₆H₆).

(–) -form [50373-29-0]

Liq. Bp₅₅ 110°. [α]_D²⁴ –0.22° (neat).

Ac: [50373-28-9].

C₁₀H₂₀O₂ M 172.267[α]_D²⁴ +0.26° (neat).

(±) -form

Occurs in corn, olive oil, tobacco, tea, rice, tamarind, grapes, blueberries etc., also in *Plantago asiatica*. Used as a solv. in antifoaming agents and in mercerising textiles. Used for extraction of many elements. Liq. V. spar. sol. H₂O; misc. EtOH, Me₂CO, Et₂O. Bp₁₅ 84-86°, 182-185°.

▷ Mod. toxic. MP0350000.

Ac: [103-09-3].

Used in perfumery. Liq. Bp₂₅ 95°.

▷ AH5600000.

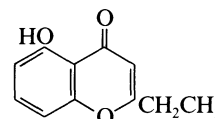
Weizmann, C. *et al*, *J. Chem. Soc.*, 1920, **117**, 324 (*synth*)Levene, P.A. *et al*, *J. Biol. Chem.*, 1922, **54**, 351 (*synth*)Orlandini, K.A. *et al*, *Anal. Chem.*, 1965, **37**, 1149 (*use*)Ortiani, T. *et al*, *Agric. Biol. Chem.*, 1973, **37**, 1923 (*resoln*)Austin, G.T., *Chem. Eng. (N.Y.)*, 1974, **81**, 143, 148, 150 (*rev manuf*)Kito, T. *et al*, *CA*, 1978, **89**, 107947 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EKQ000, OEE000.

2-Ethyl-5-hydroxy-4H-1-benzopyran-4-one, 9CI

E-00084

2-Ethyl-5-hydroxychromone

[22598-98-7]

C₁₁H₁₀O₃ M 190.198Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 509 nm, 40% MeOH, CCl₄). Yellow cryst. Sol. MeOH.Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 1284 (*synth*)Ito, T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 343 (*detn, Ti*)

3-Ethyl-5-hydroxy-4H-1-benzopyran-4-one, 9CI

E-00085

3-Ethyl-5-hydroxychromone

[22599-00-4]

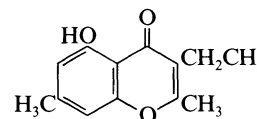
C₁₁H₁₀O₃ M 190.198Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 529 nm, 40% MeOH, CCl₄). Yellow cryst. Sol. MeOH.Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 1284 (*synth*)Ito, T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 343 (*detn, Ti*)

3-Ethyl-5-hydroxy-2,7-dimethyl-4H-1-benzopyran-4-one, 9CI

E-00086

3-Ethyl-5-hydroxy-2,7-dimethylchromone

[31867-68-2]

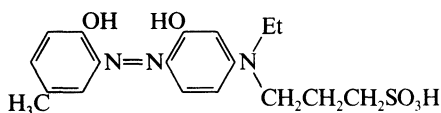
C₁₃H₁₄O₃ M 218.252Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 509 nm, 40% MeOH, CCl₄). Yellow cryst. Sol. MeOH.Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1970, **19**, 1346 (*synth*)Ito, T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 343 (*detn, Ti*)

3-[Ethyl[3-hydroxy-4-[(2-hydroxy-5-methylphenyl)azo]phenyl]amino]-1-propanesulfonic acid, 9CI

E-00087

2-(2-Hydroxy-5-methyl-1-phenylazo)-5-[N-ethyl-N-(3-sulfopropyl)amino]phenol

[91999-89-2]

 $C_{18}H_{23}N_3O_5S$ M 393.463

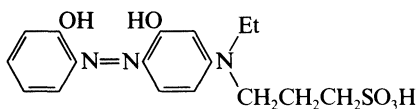
Used as 0.05mM aq. soln. for photometric detn. of Mg, Ca (λ_{max} 505 nm, pH ~ 10, FIA). Cryst. (EtOH/aq. HCl). Sol. H_2O , EtOH. pK_{a1} 3.05; pK_{a2} 8.75; pK_{a3} 12.7 ($\mu = 0.1$, 25°).

Wada, H. *et al*, *Anal. Chim. Acta*, 1984, **159**, 289 (*synth, detn, Ca, Mg*)**3-[Ethyl[3-hydroxy-4-[(2-hydroxyphenyl)azo]phenyl]amino]-1-propanesulfonic acid, 9CI**

E-00088

2-(2-Hydroxyphenylazo)-5-[N-ethyl-N-(3-sulfopropyl)amino]phenol

[91999-88-1]

 $C_{17}H_{21}N_3O_5S$ M 379.436

Used as 0.05mM aq. soln. for photometric detn. of Mg, Ca (λ_{max} 496 nm, pH ~ 10). Cryst. (EtOH/aq. HCl). Sol. H_2O , EtOH. pK_{a1} 2.90; pK_{a2} 8.65; pK_{a3} 12.8 ($\mu = 0.1$, 25°).

Wada, H. *et al*, *Anal. Chim. Acta*, 1984, **159**, 289 (*synth, use*)**O-Ethylhydroxylamine, 9CI, 8CI**

E-00089

 α -Ethylhydroxylamine. Ethoxyamine

[624-86-2]

 C_2H_7NO M 61.083

Used as a derivatisation reagent for oxo acids.

Inflammable liq. with strong odour. Misc. H_2O , EtOH, Et_2O . Bp 64-65° (68°).

B, HCl: [3332-29-4].Scales (EtOH/ Et_2O). Mp 128° (133-134°).

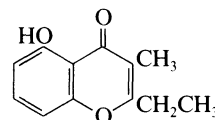
Gürke, *Justus Liebig's Ann. Chem.*, 1880, **205**, 274 (*synth*)
 Jones, L.W. *et al*, *J. Am. Chem. Soc.*, 1914, **36**, 730 (*synth*)
 Fujii, T. *et al*, *Chem. Pharm. Bull.*, 1967, **15**, 345 (*synth, pmr*)
 Heinemann, B., *Appl. Microbiol.*, 1971, **21**, 726 (*pharmacol*)
 Chalmers, R.A. *et al*, *Analyst (London)*, 1972, **97**, 951, 958 (*use*)
 Lawson, A.M. *et al*, *Biomed. Mass Spectrom.*, 1974, **1**, 199 (*use*)
 Chimiak, A. *et al*, *Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1974, **22**, 195, 479 (*synth, ms*)

2-Ethyl-5-hydroxy-3-methyl-4H-1-benzopyran-4-one, 9CI

E-00090

2-Ethyl-5-hydroxy-3-methylchromone

[22599-02-6]

 $C_{12}H_{12}O_3$ M 204.225

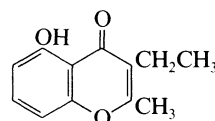
Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 518 nm, 40% MeOH, CCl_4). Yellow cryst. Sol. MeOH.

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 1284 (*synth*)Ito, T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 343 (*detn, Ti*)**3-Ethyl-5-hydroxy-2-methyl-4H-1-benzopyran-4-one, 9CI**

E-00091

3-Ethyl-5-hydroxy-2-methylchromone

[22599-01-5]

 $C_{12}H_{12}O_3$ M 204.225

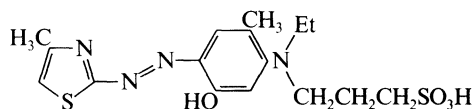
Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 513 nm, 40% MeOH, pH 6.5-8.5, CCl_4). Yellow cryst. Sol. MeOH.

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 1284 (*synth*)Ito, T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 343 (*detn, Ti*)**3-[Ethyl[5-hydroxy-2-methyl-4-[(4-methyl-2-thiazolyl)azo]]-1-propanesulfonic acid, 9CI**

E-00092

5-[N-Ethyl-N-(sulfopropyl)amino]2-(4-methyl-2-thiazolylazo) cresol

[104932-72-1]

 $C_{16}H_{22}N_4O_4S_2$ M 398.506

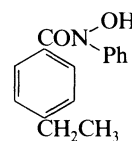
Used as 0.1% aq. soln. for photometric detn. of Fe(II) (λ_{max} 754 nm, ϵ 23500, pH 8.0), Co, Ni, Cu, Zn. Dark red powder. Sol. H_2O . Mp 280° dec. pK_{a2} 3.48; pK_{a3} 9.15 (25°, $\mu = 0.1$).

Ueda, K. *et al*, *Analyst (London)*, 1986, **111**, 733 (*synth, use*)**4-Ethyl-N-hydroxy-N-phenylbenzamide, 9CI**

E-00093

N-p-Ethylbenzoyl-N-phenylhydroxylamine

[113389-01-8]

 $C_{15}H_{15}NO_2$ M 241.289

Used as 0.1M CHCl₃ soln. for extraction separation of Al, Cd, Cu, Fe(III), U, V. Cryst. (EtOH aq.). Sol. CHCl₃, EtOH. Mp 108-110°.

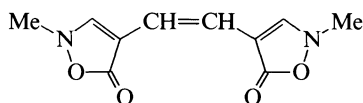
Hojjatie, M. *et al*, *Anal. Chim. Acta*, 1987, **199**, 49 (*synth, use*)

Used as a 0.01M aq. soln. for photometric detn. of H₂O₂ (λ_{\max} 540 nm, ϵ 27900). Cryst. (EtOH/Me₂CO). Sol. H₂O. Mp 210° dec.

Tamaoku, K. *et al*, *Anal. Chim. Acta*, 1982, **136**, 121 (*synth, ir, use*)

4,4'-Ethylidenebis[3-methyl-2-isoxazolin-5-one], 8CI E-00094

[20783-73-7]



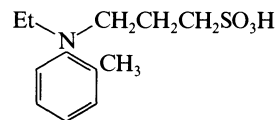
C₁₀H₁₀N₂O₄ M 222.200

Used as a 0.5% aq. soln. for photometric detn. of Cu, Pd, U. Cryst. Sol. H₂O. Mp 156-158°.

Hashmi, M.H. *et al*, *Mikrochim. Acta*, 1968, 608 (*use*)

3-[Ethyl-(2-methylphenyl)amino]-1-propanesulfonic acid, 9CI E-00098

N-Ethyl-*N*-sulfopropyl-*o*-toluidine



C₁₂H₁₉NO₃S M 257.353

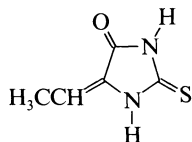
Na salt: [82611-87-8].

Used as a 0.01M aq. soln. for photometric detn. of H₂O₂. Cryst. (EtOH/Me₂CO). Sol. H₂O. Mp 188-190° dec.

Tamaoku, K. *et al*, *Anal. Chim. Acta*, 1982, **136**, 121 (*synth, ir, use*)

5-Ethylidene-2-thioxo-4-imidazolidinone, 9CI E-00095

[64419-93-8]



C₅H₆N₂OS M 142.181

Used as 0.5mM EtOH soln. to give colour reaction with Cu(I) (pH 4.5). Cryst. (EtOH). Sol. EtOH, DMF. Mp 248-250°. pK_{a1} 8.5; pK_{a2} 11.4.

Montana Gonzalez, M.T. *et al*, *Mikrochim. Acta*, 1982, **2**, 363 (*synth, use*)

3-[Ethyl-(3-methylphenyl)amino]-1-propanesulfonic acid E-00099

N-Ethyl-*N*-sulfopropyl-*m*-toluidine

[36783-03-6]

C₁₂H₁₉NO₃S M 257.353

Na salt: [40567-80-4].

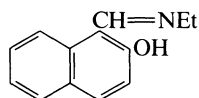
Used as 0.01M aq. soln. for photometric detn. of H₂O₂. Cryst. (EtOH/Me₂CO). Sol. H₂O. Mp 170° dec.

Tamaoku, K. *et al*, *Anal. Chim. Acta*, 1982, **136**, 121 (*synth, ir, use*)

1-[(Ethylimino)methyl]-2-naphthalenol, 9CI E-00096

β-Hydroxynaphthylideneethylamine

[715-56-0]



C₁₃H₁₃NO M 199.252

Used as a 2% soln. in EtOH for gravimetric detn. of V(IV); complexing agent for Al, Sn(IV). Yellow-green needles (EtOH). Mp 123°.

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 180 (*synth, detn, V*)

Prasad, R. *et al*, *CA*, 1974, **80**, 9922m (*detn, Al*)

Singh, O.P. *et al*, *CA*, 1976, **84**, 83504a (*detn., Sn*)

3-[Ethyl-(4-methylphenyl)amino]-1-propanesulfonic acid, 9CI E-00100

N-Ethyl-*N*-sulfopropyl-*p*-toluidine

C₁₂H₁₉NO₃S M 257.353

Na salt: [79211-64-6].

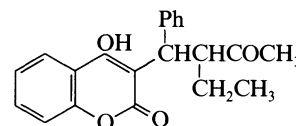
Used as a 0.01M aq. soln. for photometric detn. of H₂O₂. Cryst. (EtOH/Me₂CO). Sol. H₂O. Mp 197-200° dec.

Tamaoku, K. *et al*, *Anal. Chim. Acta*, 1982, **136**, 121 (*synth, ir, use*)

3-(2-Ethyl-3-oxo-1-phenylbutyl)-4-hydroxy-4H-1-benzopyran-4-one E-00101

3-[α -(1-Ethylacetyl)benzyl]-4-hydroxycoumarin, 8CI

[19343-43-2]



C₂₁H₂₀O₄ M 336.387

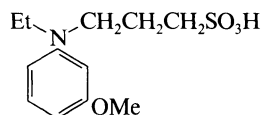
Used as a 0.25-0.5% soln. in EtOH as turbidimetric acid-base indicator (pH range: 4.0-5.0). Cryst. Sol. Me₂CO, EtOH.

Korenmann, I.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1305.

3-[Ethyl(3-methoxyphenyl)amino]-1-propanesulfonic acid, 9CI E-00097

N-Ethyl-*N*-sulfopropyl-*m*-anisidine

[88795-34-0]



C₁₂H₁₉NO₄S M 273.352

Na salt: [82611-88-9].

3-(Ethylphenylamino)-1-propanesulfonic acid E-00102

N-Ethyl-N-sulfopropylaniline

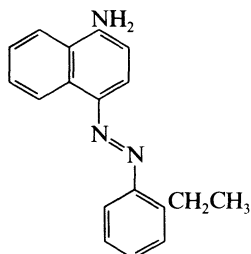
[102636-89-5]

C₁₁H₁₇NO₃S M 243.326

Na salt: [82611-85-6].

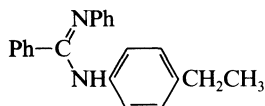
Used as a 0.01M aq. soln. for photometric detn. of H₂O₂. Cryst. (EtOH/Me₂CO). Sol. H₂O. Mp 145°.Tamaoku, K. *et al*, *Anal. Chim. Acta*, 1982, **136**, 121 (detn, H₂O₂)**4-[(2-Ethylphenyl)azo]-1-naphthalenamine, 9CI** E-00103

[23330-82-7]

C₁₈H₁₇N₃ M 275.352Used as 0.1% soln. in EtOH as an adsorption acid-base indicator and for titrimetric detn. of SCN[⊖]. Orange cryst. (EtOH). Sol. EtOH, Me₂CO.Bishop, E., *Indicators*, Oxford, Pergamon, 1972 (use)**N-(4-Ethylphenyl)-N-phenylbenzenecarboximidamide, 9CI** E-00104

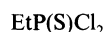
N-p-Ethylphenyl-N'-phenylbenzamidine

[79458-82-5]

C₂₁H₂₀N₂ M 300.402Used as 0.1% soln. in C₆H₆ for extraction-photometric detn. of Mo (λ_{max} 470 nm, ε 16500; 1.2-5M HCl). Cryst. (EtOH + HCl). Sol. EtOH, C₆H₆, CHCl₃.Patel, K.S. *et al*, *Anal. Chem.*, 1982, **54**, 52 (synth, detn, Mo)**Ethylphosphonothioic dichloride, 9CI** E-00105

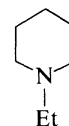
Ethylthiophosphonic dichloride

[993-43-1]

C₂H₅Cl₂PS M 163.007Reagent for the anal. of bifunctional compds. by gc. with phosphorus-specific detection. Intermediate in insecticide synth. Liq. with pungent odour. d₄²⁰ 1.35. Bp₇₄₀ 177-181°, Bp₅₀ 80-82°. n_D²⁰ 1.5428.Hoffmann, F.W. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 3945 (synth)
Martin, G. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1961, **253**, 2523 (pmr)Maier, L., *Helv. Chim. Acta*, 1964, **47**, 27 (synth, nmr)Christol, C. *et al*, *J. Chim. Phys. Phys.-Chim. Biol.*, 1965, **62**, 246 (ir, raman)Kavavanov, K.V. *et al*, *Zh. Obshch. Khim.*, (Engl. transl. p. 76), 1965, **35**, 78 (synth)Shagidullin, R.R. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*,(Engl. transl. p. 564), 1975, **222**, 897 (uv)Poole, C.F. *et al*, *J. Chromatogr.*, 1979, **178**, 495 (use)Kavshik, M.P. *et al*, *J. Org. Chem.*, 1980, **45**, 2270 (synth)Durig, J.R. *et al*, *J. Raman Spectrosc.*, 1987, **18**, 415 (ir, raman)**1-Ethylpiperidine, 9CI** E-00106

Ethylpiperidylamine

[766-09-6]

C₇H₁₅N M 113.202Used as a titrant for the determination of weak acids in the presence of their anhydrides. Liq. d₄²⁰ 0.824. Bp 128°. n_D²⁰ 1.4415.

▷ Eye irritant. Highly flammable, flash p. 19°. TN0250000.

Picrate: Yellow needles (EtOH). Mp 167.5°.

Winans, C.F. *et al*, *J. Am. Chem. Soc.*, 1932, **54**, 310 (synth)Adkins, H. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 2425 (synth)Yur'ev, K.Y. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1939, **9**, 590; *CA*, **33**, 7779 (synth)Siggia, S. *et al*, *Anal. Chem.*, 1953, **25**, 797 (use)Ferles, M. *et al*, *Collect. Czech. Chem. Commun.*, 1971, **36**, 2057 (synth)Duthaler, R.O. *et al*, *J. Am. Chem. Soc.*, 1977, **99**, 8406 (nmr)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 334.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EOS500.**2-Ethyl-4-pyridinecarbothioamide, 9CI** E-00107

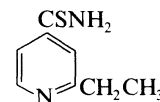
Ethionamide, BAN, USAN, INN. 2-

Ethylisothionicotinamide. 2-Ethyl-4-

thiocarbamoylpyridine. α-Ethylisonicotinoylthioamide.

Trescatyl. Trecator. Numerous proprietary names

[536-33-4]

C₈H₁₀N₂S M 166.246Antitubercular drug. Used as a 0.01% soln. in EtOH for photometric detn. of Pd (λ_{max} 400 nm). Yellow cryst. (EtOH). V. spar. sol. Et₂O, spar. sol. MeOH, EtOH, sol. Py. Mp 164-166° dec.

▷ NS0350000.

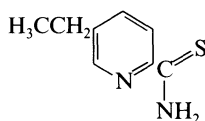
Liebermann, D. *et al*, *Bull. Soc. Chim. Fr.*, 1958, 687 (synth)U.K. Pat., 800 250, (1958); *CA*, **53**, 4309b (synth)Popper, E. *et al*, *Rev. Roum. Chim.*, 1970, **15**, 115.Alleaume, M. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1971, **273**, 1747 (cryst struct)Bernheim, F., *Drill's Pharmacol. Med.*, 4th Ed., 1971, 1713 (pharmacol)Wang, C.-H. *et al*, *Heterocycles*, 1979, **12**, 1191 (synth)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7557.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 919 (synonyms)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EPQ000.

5-Ethyl-2-pyridinecarbothioamide

E-00108

C₈H₁₀N₂S M 166.246

Cryst. Mp 106°.

N-Ph: [785-29-5]. 5-Ethyl-N-phenyl-2-

pyridinecarbothioamide, 9CI. 5-Ethylthiopicolinanilide, 8CI

C₁₄H₁₄N₂S M 242.344

Used as a 0.025M soln. in CHCl₃ for extraction-photometric detn. of Au; as 1mM CHCl₃ soln. for extraction-separation of Au(III), Pd(II) (from HCl), Ag. Pt. Yellow cryst. Sol. CHCl₃, CCl₄, 1,2-dichloroethane, EtOH.

Libermann, D. *et al.*, *C. R. Hebd. Seances Acad. Sci.*, 1956, **242**, 2409 (*synth*)

Kost, A.N. *et al.*, *CA*, 1965, **62**, 9100a (*synth, deriv*)

Gibalo, I.M. *et al.*, *Zh. Anal. Khim.*, 1982, **37**, 92 (*detn, Au*)

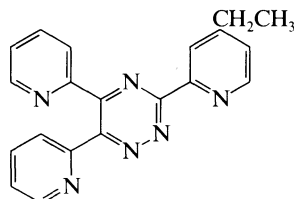
Gibalo, I.M. *et al.*, *Zh. Neorg. Khim.*, 1982, **27**, 1005 (*detn, Pd, Ag*)

Shkil', A.N. *et al.*, *Zh. Anal. Khim.*, 1989, **44**, 1204 (*synth, use*)

Rukhadze, E.G. *et al.*, *Zh. Anal. Khim.*, 1989, **44**, 1257 (*detn, Ag, Pt*)

3-(4-Ethyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine

E-00109

C₂₀H₁₆N₆ M 340.387

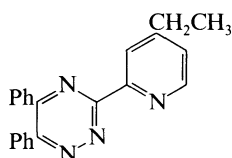
Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 571 nm, ε 22700), Cu(I) (λ_{max} 504 nm, ε 5200). Cryst. (EtOH aq.). Sol. EtOH; sl. sol H₂O. Mp 169-170°.

Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (*synth*)

Schilt, A.A., *Talanta*, 1966, **13**, 895 (*detn, Cu, Fe*)

3-(4-Ethyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine

E-00110

C₂₂H₁₈N₄ M 338.411

Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 561 nm, ε 35300), Cu(I) (λ_{max} 479 nm, ε 6200). Cryst. (2-methoxyethanol). Sol. 2-methoxyethanol, EtOH. Mp 150-151°.

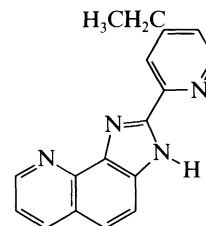
Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (*synth*)

Schilt, A.A., *Talanta*, 1966, **13**, 895 (*detn, Cu, Fe*)

2-(4-Ethyl-2-pyridyl)-3H-imidazo[4,5-h]quinoline, 8CI

E-00111

[14060-61-8]

C₁₇H₁₄N₄ M 274.324

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II). Cryst. (C₆H₆/pet. ether). Sol. common org. solvs. Mp 103-104°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)

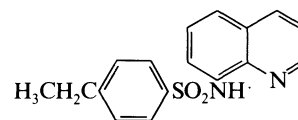
Schilt, A.A. *et al.*, *Talanta*, 1968, **15**, 1055 (*use*)

4-Ethyl-N-(8-quinolinyl)benzenesulfonamide, 9CI

E-00112

8-(p-Ethylbenzenesulfonamido)quinoline

[35799-19-0]

C₁₇H₁₆N₂O₂S M 312.392

Used for extraction-photometric detn. of Cu (λ_{max} 380 nm, ε 15800, CHCl₃). Cryst. Sol. EtOH, Et₂O.

Werner, A. *et al.*, *Ber.*, 1906, **39**, 1278 (*synth*)

Bluhm, A.L. *et al.*, *J. Org. Chem.*, 1964, **29**, 636 (*synth*)

Lee, H.L. *et al.*, *CA*, 1972, **76**, 148496f (*detn, Cu*)

N-(Ethylsulfonyl)benzamide, 8CI

E-00113

PhCONHSO₂EtC₉H₁₁NO₃S M 213.257

Oxime: [33967-87-2].

C₉H₁₂N₂O₃S M 228.271

Used as 0.1M aq. soln. for extraction-photometric detn. of Ru(VI) (λ_{max} 530 nm, ε 2400), BuOH/CHCl₃. Cryst. Sol. EtOH, Me₂CO, Et₂O. pK_{a1} 6.28; pK_{a2} 12.21.

Klimkovich, E.A. *et al.*, *Khim. Khim. Tekhnol. (Minsk)*, 1971, **14**, 346; *CA*, **75**, 29560s (*detn, Ru*)

Fedorova, N.G., *Zh. Anal. Khim.*, 1971, **26**, 664 (*pKa*)

(Ethylsulfonyl)ethene, 9CI

E-00114

Ethyl vinyl sulfone

[1889-59-4]

EtSO₂CH=CH₂C₄H₈O₂S M 120.172

Anal. reagent for thiols. Oil. d₂₀ 1.1457. Bp₈ 110-112°, Bp₃ 89-93°. n_D²⁰ 1.4640.

Fehnel, E.A. *et al.*, *J. Am. Chem. Soc.*, 1949, **71**, 231 (*synth, ir*)

Ford-Moore, A.H., *J. Chem. Soc.*, 1949, 2433 (*synth*)

Scharf, V.Z. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1967, 1843;

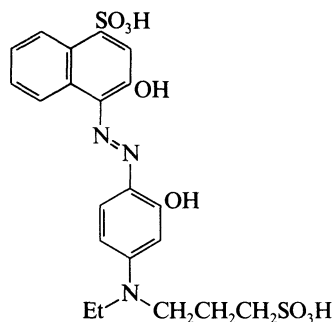
CA, **68**, 59042x (*synth*)

Obtemperanskaya, S.I. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 175 (*use*)

4-[[4-[Ethyl(3-sulfopropyl)amino]-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, 9CI

2-(2-Hydroxy-4-sulfo-1-naphthylazo)-5-[N-ethyl-N-(3-sulfopropyl)amino]phenol

[91999-92-7]

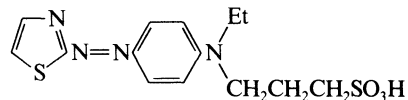
 $C_{21}H_{23}N_3O_8S_2$ M 509.560Used as 0.05mM aq. soln. for photometric detn. of Mg, Ca (λ_{max} 556, pH ~ 10). Cryst. (propanol/EtOAc aq.). Sol. H₂O, EtOH, propanol, EtOAc. pK_{a1} 2.60; pK_{a2} 8.60; pK_{a3} 12.6 ($\mu = 0.1$, 25°).Wada, H. *et al*, *Anal. Chim. Acta*, 1984, **159**, 289 (*synth, detn, Ca, Mg*)

E-00115

3-[Ethyl[4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, 9CI

TAESA

[100743-67-7]

 $C_{14}H_{18}N_4O_3S_2$ M 354.453Used as aq. soln. for photometric detn. of Ag (λ_{max} 526 nm, pH 4-6). Cryst. Sol. H₂O, alkalis, EtOH.Oshita, K. *et al*, *Anal. Chim. Acta*, 1985, **176**, 41 (*synth, reactions*)

E-00118

[[2-(Ethylthio)ethyl]thio]acetic acid, 9CI β -Ethylthioethylthioglycollic acid

[56566-65-5]

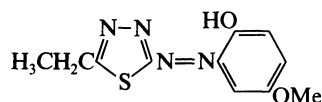
 $C_6H_{12}O_2S_2$ M 180.292Used as 1mM aq. soln. of Na salt for photometric detn. of Pd (λ_{max} 290 nm, ϵ 19000). Liq. Bp₂ 112-113°.Pitombo, L.R.M. *et al*, *Anal. Chim. Acta*, 1975, **75**, 391; 1978, **101**, 177 (*synth, epr, ir*)Pitombo, L.R.M. *et al*, *Mikrochim. Acta*, 1976, 121 (*detn, Pd*)

E-00119

2-[[5-Ethyl-1,3,4-thiadiazol-2-yl]azo]-4-methoxyphenol, 9CI

2-Ethyl-5-(2-hydroxy-5-methoxyphenylazo)-1,3,4-thiadiazole

[96031-14-0]

 $C_{11}H_{12}N_4O_2S$ M 264.307

Used for photometric detn. of Co. Orange-red cryst. Sol. EtOH.

Arias, J.J. *et al*, *Quim. Anal. (Barcelona)*, 1984, **3**, 211; *CA*, **102**, 178299s (*detn, Co*)

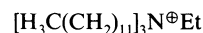
E-00116

Ethyltridodecylammonium(1+)

E-00120

N,N-Didodecyl-N-ethyl-1-dodecanaminium(1+), 9CI

[45314-73-6]

 $C_{38}H_{80}N^+$ M 551.057 (ion)

Surfactant.

Bromide: [53290-56-5].

 $C_{38}H_{80}BrN$ M 630.961Used as a 0.8mM soln. in xylene for extraction-photometric detn. of Al (λ_{max} 597 nm, ϵ 84000), Fe(III) (λ_{max} 613 nm, ϵ 173000), Sc (λ_{max} 520 nm, ϵ 27000), Y (λ_{max} 604 nm, ϵ 76000). Cryst. Sol. H₂O, C₆H₆.

Tetrahydroborate: [57292-15-6].

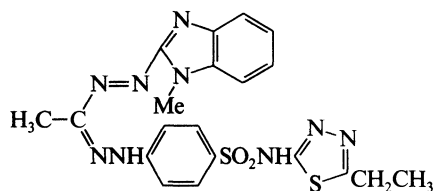
White solid.

[56120-31-1]

Scott, A.B. *et al*, *J. Am. Chem. Soc.*, 1943, **65**, 692 (*synth*)Shijo, Y., *Bull. Chem. Soc. Jpn.*, 1974, **47**, 1642; 1975, **48**, 1647, 2793 (*detn, Cu, Fe*)Shijo, Y., *Bunseki Kagaku (Jpn. Anal.)*, 1974, **23**, 884 (*detn, Y*)Shijo, Y., *CA*, 1974, **81**, 85516t, 180697m (*detn, Al, Sc*)Shijo, Y., *Nippon Kagaku Kaishi*, 1974, 1658, 1912; **81**, 180697m; *CA*, **82**, 35407h (*detn, Al, Sn*)Semenenko, K.N. *et al*, *Zh. Neorg. Khim.*, 1975, **20**, 2334 (*synth, tetrahydroborate*)**N-(5-Ethyl-1,3,4-thiadiazol-2-yl)-4-[3-methyl-5-(1-methyl-1H-benzimidazol-2-yl)-1-formazanyl]benzenesulfonamide, 9CI**

Sulfamoylformazan

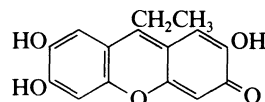
[21108-84-9]

 $C_{20}H_{21}N_9O_2S_2$ M 483.577Used as 5% aq. soln. for extraction-photometric detn. of Cu (ϵ 45000) and Ni (λ_{max} 630nm, ϵ 51000, CHCl₃).Cryst. (EtOH). Sol. H₂O, EtOH, DMF.Sedov, Yu.A. *et al*, *Khim.-Farm. Zh.*, 1968, **7**, 16 (*synth*)Dubinina, L.F. *et al*, *Zavod. Lab.*, 1972, **33**, 1322 (*detn, Cu, Ni*)Podchainova, V.N. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 242 (*detn, Cu*)

E-00117

9-Ethyl-2,6,7-trihydroxy-3H-xanthen-3-one

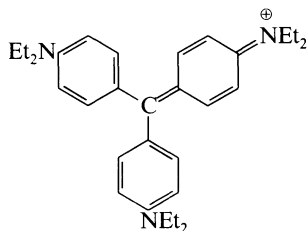
Ethylfluorone

 $C_{15}H_{12}O_5$ M 272.257Used as 1mM EtOH soln. for photometric detn. of Sb, Mo. Red cryst. Sol. EtOH, Me₂CO.Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Izd. Nauka, Moscow, 1973 (*synth, use, detn, Sb, Mo*)

E-00121

Ethyl violet

N-[4-[Bis[4-(diethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium(1+), 9CI. C.I. Basic violet. C.I. 42600 [2390-59-2]



$C_{31}H_{42}N_3^{\oplus}$ M 456.693 (ion)

Strictly, the name Ethyl violet applies to the chloride.

Chloride:

$C_{31}H_{42}ClN_3$ M 492.146

Used as 0.5mM aq. soln. for extraction-photometric detn. of B (as BF_4^{\ominus}) (λ_{max} 610 nm, ϵ 105000, toluene), Cu (as $CuCl_2^{\ominus}$) (λ_{max} 612 nm, ϵ 97000, toluene), Pb (as PbI), As(V). Grey-violet cryst. powder. Sol. H_2O , EtOH.

Motomizu, S. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1982, **31**, 717 (detn, As)

Motomizu, S. *et al*, *Analyst (London)*, 1983, **108**, 944 (detn, As)

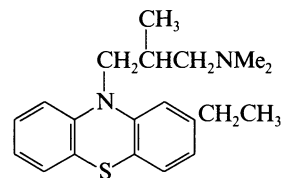
Oshima, M. *et al*, *Anal. Chem.*, 1984, **56**, 948 (detn, B)

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 820, 1226 (detn, Pb)

Yamamoto, K. *et al*, *Analyst (London)*, 1987, **112**, 1011 (detn, Cu)

E-00122**Etymemazine, INN****E-00123**

10-[3-(Dimethylamino)-2-methylpropyl]-2-ethylphenothiazine, 8CI. Ethotrimeprazine. Ethylisobutrazine. Diquel. Nuital [523-54-6]



$C_{20}H_{26}N_2S$ M 326.505

(±)-form

Used as a 0.02M soln. in $CHCl_3$ for extraction-photometric detn. of Mo (λ_{max} 460 nm, ϵ 39000, $CHCl_3$). Antihistamine, tranquilliser.

B, HCl: [3737-33-5]. *Sergetyl. RP 6484*

Mp 173-175°.

U.K. Pat., 789 703, (1958); CA, **53**, 4312h (synth, pharmacol)

Adjarian, R. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1963, **141**, 443 (pharmacol)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 12723.

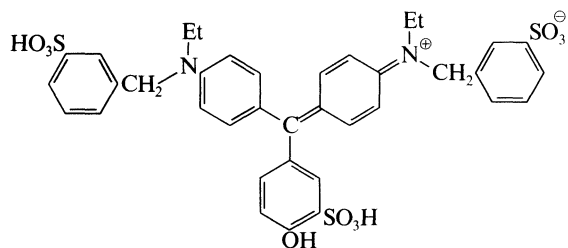
Gowda, A.T. *et al*, *Analyst (London)*, 1985, **110**, 743 (use)

F

Fast green FCF

F-00001

N-Ethyl-N-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl](4-hydroxy-2-sulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfobenzeneethaniminium hydroxide inner salt, 9CI. C.I. Food green 3. C.I. 42053



$C_{37}H_{34}N_2O_{10}S_3$ M 762.881

Strictly, the name Fast green FCF refers to the disodium salt.

Di-Na salt: [2353-45-9].

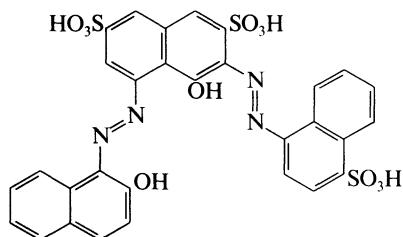
Used as redox indicator, biological stain. Dark green cryst. Sol. H_2O , EtOH, acids. Mp 290° dec. λ_{max} 622 nm.

Johnson, H. *et al*, *Ind. Eng. Chem.*, 1927, **19**, 497 (synth)
Dutt, V.V.S.E. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **258**, 32 (use)
Dutt, V.V.S.E. *et al*, *Indian J. Chem.*, 1972, **10**, 560 (use)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FAG000.

Fast sulphon black F

F-00002

4-Hydroxy-5-[(2-hydroxy-1-naphthalenyl)azo]-3-[(4-sulfo-1-naphthalenyl)azo]-1,7-naphthalenedisulfonic acid, 9CI. C.I. Acid black 32. C.I. 26990. Java fast black F. Phenazo black A



$C_{30}H_{20}N_4O_{11}S_3$ M 708.706

Strictly, the name Fast sulphon F applies to the sodium salt.

Na salt: [3682-47-1].

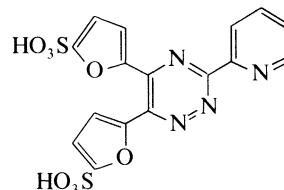
Used as a 0.5% aq. soln. for photometric detn. of Be (λ_{max} 620 nm, ϵ 13700); metallochromic indicator for titrimetric detn. of Cu. Dark greenish red cryst. powder. Sol. H_2O , EtOH; sl. sol. 2-ethoxyethanol.

Belcher, R. *et al*, *Chem. Ind. (London)*, 1957, 1647 (detn, Cu)
Belcher, R. *et al*, *Chemist-Analyst*, 1958, **47**, 2 (detn, Cu)
West, T.S., *Anal. Chim. Acta*, 1961, **25**, 301 (detn, Cu)
Cabrera, A.M. *et al*, *Anal. Chem.*, 1963, **35**, 311 (detn, Be)

Ferene

F-00003

5,5'-[3-(2-Pyridinyl)-1,2,4-triazine-5,6-diy]bis-2-furansulfonic acid, 9CI
[90691-98-8]



$C_{16}H_{10}N_4O_8S_2$ M 450.409

Di-Na salt: [79551-14-7]. Ferene S

Used as 0.18mM aq. soln. for photometric detn. of Fe(II) (λ_{max} 593 nm, ϵ 34500). Yellow cryst. + H_2O (EtOH).

[90358-66-0]

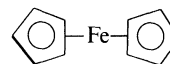
Higgins, T., *CA*, 1981, **95**, 183278.

Hennessy, D.J. *et al*, *Can. J. Chem.*, 1984, **62**, 721 (synth, detn, Fe)

Ferrocene, 9CI, 8CI

F-00004

Di- π -cyclopentadienyliron(II). Bis(cyclopentadienyl)iron
[102-54-5]



$C_{10}H_{10}Fe$ M 186.036

Commercially available. Used in anal. of transition metals, as iron fertiliser, electron beam sensitiser, fuel additive. Used as a 0.1% soln. in dioxan as reducing agent for molybdophosphate in photometric detn. of P; as a primary standard for redox titrations in MeCN. Orange cryst. (EtOH aq.). Sol. EtOH, C_6H_6 , insol. H_2O . Mp $120-123^\circ$, Mp $172.5-173^\circ$. Bp 249° . Sublimes above 100° , steam-volatile. Exists in ordered and disordered phases. Undergoes aromatic-type subn. reacns.

▷ Toxic, TLV 10. LK0700000.

Woodward, R.B. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 2125 (deriv)

Nesmejanov, A.N., *Usp. Khim.*, 1958, **28**, 8 (synth)

Org. Synth., Coll. Vol., 1963, **4**, 473, 476 (synth)

Rosenblum, M., *Chemistry of the Iron Group Metalloenes*, Wiley, N.Y., 1965 (rev)

Kratochvil, B. *et al*, *Anal. Chem.*, 1970, **42**, 492 (standard)

Surikov, F.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 573 (reducing agent)

Gmelin Handbook Inorg. Chem., Syst. No. 59, Organoiron compounds, 1974, **A1** (rev, bibl)

Brauer, G., *Handbuch Präp. Anorg. Chem.*, 3rd Ed., Ferdinand Enke Verlag, 1975-1981, **3**, 1842 (synth)

Barkatin, A.A., *CA*, 1978, **88**, 61869 (props)

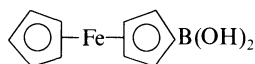
Seiler, P. *et al*, *Acta Crystallogr., Sect. B*, 1979, **35**, 1068 (struct)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 284.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FBC000.

Ferrocenyldihydroxyborane

Ferroceneboronic acid. Boronferrocene, 9CI.
Ferrocenylboronic acid
[12152-94-2]

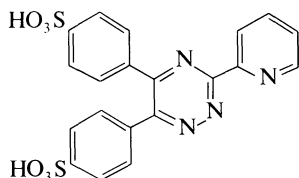


$C_{10}H_{11}BF_2O_2$ M 229.854
Derivatisation reagent for gc anal. of diols and related compds. Yellow cryst. Mp 143-148° (sealed tube). Rapidly hydrol. by hot H₂O giving ferrocene.

Nesmeyanov, A.N. *et al.* *Dokl. Akad. Nauk SSSR*, 1959, **126**, 1004 (*synth*)
Shechter, H. *et al.* *J. Org. Chem.*, 1961, **26**, 1034 (*synth*)
Nesmeyanov, A.N. *et al.* *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1968, 2371 (*synth*)
Org. React. (N.Y.), 1969, **17**, 1 (*synth*)
Epton, R. *et al.* *J. Organomet. Chem.*, 1978, **150**, 93, 101 (*synth, ir, pmr, ms*)
Brooks, C.J.W. *et al.* *J. Chromatogr.*, 1986, **362**, 113; 1987, **399**, 207 (*use*)

Ferrozine

3-(2-Pyridyl)-5,6-bis(4-sulfophenyl)-1,2,4-triazine
[32796-55-7]

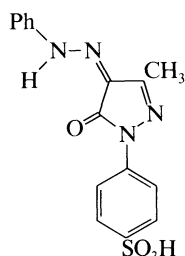


$C_{20}H_{14}N_4O_6S_2$ M 470.486
Used for photometric detn. of Fe(II) (λ_{max} 560 nm, ϵ 28000), Co, Cr and indirectly As, Mo, SO₂.
Di-Na salt: [28048-33-1].
Cryst. (H₂O). Mp > 350°.

Stookey, L.L. *Anal. Chem.*, 1970, **42**, 779 (*synth, detn, Fe*)
Attari, A. *et al.* *Anal. Chem.*, 1972, **44**, 151 (*detn, SO₂*)
Kundra, S.K. *et al.* *Anal. Chem.*, 1974, **46**, 1605 (*detn, Co*)
Kellen, G.J. *et al.* *Anal. Chem.*, 1976, **48**, 1538 (*detn, As*)
Simonzadeh, N. *et al.* *Talanta*, 1979, **26**, 935 (*detn, Mo*)
Thompson, J.C. *et al.* *Anal. Chem.*, 1984, **56**, 755 (*detn, Fe*)
Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 730.

Flavazine L

4-[4,5-Dihydro-3-methyl-5-oxo-4-(phenylazo)-1H-pyrazol-1-yl]benzenesulfonic acid

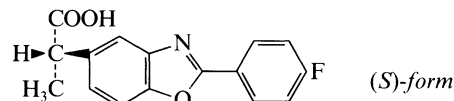


$C_{16}H_{14}N_4O_4S$ M 358.377
Strictly, the name Flavazine applies to the Na salt.
Na salt: [6359-82-6].
Used as a 0.5% aq. soln. for gravimetric detn. of Zr.
Orange-red cryst. Sol. H₂O.
Popa, G. *et al.* *Anal. Chim. Acta*, 1962, **26**, 434.

F-00005

Flunoxaprofen, INN

2-(4-Fluorophenyl)- α -methyl-5-benzoxazoleacetic acid, 9CI.
Priaxim
[51234-27-6]



$C_{16}H_{12}FNO_3$ M 285.274
▷ DM4472000.
(S)-form [66934-18-7]
Analgesic, antiinflammatory agent. Cryst. (trichloroethylene). Mp 164-166°. [α]_D²⁰ +50° (c, 0.7 in DMF).

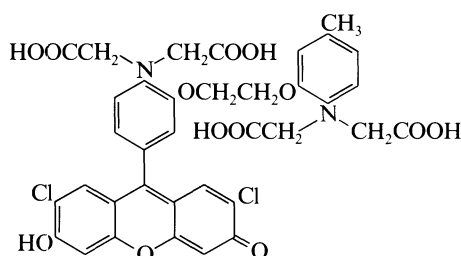
(±)-form [73952-77-9]
Cryst. (trichloroethylene). Mp 162-164°.

Chloride:
 $C_{16}H_{11}ClFNO_2$ M 303.719
Fluorescent derivatisation reagent for resolution of amines. Cryst. (CH₂Cl₂). Mp 73°.

Martindale. The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 16812.
Ger. Pat., 3 325 672, (1984); *CA*, **100**, 209792 (*synth*)
Lampa, E. *et al.* *Drugs Exp. Clin. Res.*, 1985, **11**, 501 (*pharmacol*)
Pedrazzini, S. *et al.* *J. Chromatogr.*, 1987, **413**, 338 (*hplc*)
Bareggi, S.R. *et al.* *Arzneim.-Forsch.*, 1988, **38**, 574 (*pharmacol*)
Spahn, H., *J. Chromatogr.*, 1988, **427**, 131 (*chloride, synth, use*)
Martin, F. *et al.* *Chirality*, 1989, **1**, 223 (*chloride, use*)

Fluo 3

N-[2-[2-[2-[Bis(carboxymethyl)amino]-5-(2,7-dichloro-6-hydroxy-3-oxo-3H-xanthen-9-yl)phenoxy]ethoxy]-4-methylphenyl]-N-(carboxymethyl)glycine, 9CI
[123632-39-3]

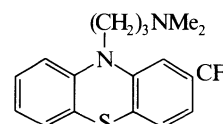


$C_{36}H_{30}Cl_2N_2O_{13}$ M 769.544
Red-brown solid.
NH₄ salt: [134907-84-9].
Fluorescent indicator for intracellular Ca.
Tetrakis(acetoxymethyl) ester: [121714-22-5]. *Fluo 3AM*
Fluorescent indicator for intracellular Ca.
Minta, A. *et al.* *J. Biol. Chem.*, 1989, **264**, 8171 (*synth*)
Kao, J.P.Y. *et al.* *J. Biol. Chem.*, 1989, **264**, 8179 (*use*)

F-00007

Fluopromazine, BAN

*N,N-Dimethyl-2-(trifluoromethyl)-10H-phenothiazine-10-propanamine, 9CI. 10-[3-(Dimethylamino)propyl]-2-(trifluoromethyl)phenothiazine, 8CI. **Trifluopromazine**, INN, **USAN. Trifluoropromazine. Numerous proprietary names**
[146-54-3]*



C₁₈H₁₉F₃N₂S M 352.423Tranquilliser. Neuroleptic. Antiemetic. Visc. oil. Bp_{0.7} 176°.

▷ SO8850000.

B.HCl: [1098-60-8]. *Triflupromazine hydrochloride*, *USAN*.
Vespral. *Vesprin*Used as a 0.2% aq. soln. for photometric detn. of Au
(λ_{max} 503 nm, ε 13000). Cryst. Mp 173-174°.

▷ SO8925000.

Yale, H.L. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 4375.Craig, P.N. *et al*, *J. Org. Chem.*, 1957, **22**, 709.Florey, K., *Anal. Profiles Drug Subst.*, 1973, **2**, 523 (*rev. synth.**anal*)Phelps, D.W. *et al*, *Acta Crystallogr., Sect. B*, 1974, **30**, 2812 (*cryst**struct*)Gowda, H.S. *et al*, *Indian J. Chem., Sect. A*, 1976, **14**, 632 (*detn.**Au*)Patra, A. *et al*, *J. Indian Chem. Soc.*, 1982, **59**, 660 (*cmr*)*Martindale*, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7041.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,

Akademie-Verlag, Berlin, 1987, 4775.

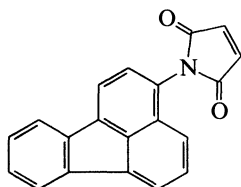
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, TKL000.

1-(3-Fluoranthenyl)-1H-pyrrole-2,5-dione, 9CI

3-Fluoranthenylmaleimide

[60354-76-9]

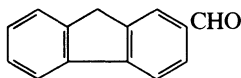
C₂₀H₁₁NO₂ M 297.312Fluorescent probe for thiols. Pale yellow needles (C₆H₆).

Mp 185-186°.

Kanaoka, Y. *et al*, *Chem. Pharm. Bull.*, 1976, **24**, 1417 (*synth. use*)**9H-Fluorene-2-carboxaldehyde, 9CI**

2-Formylfluorene

[30084-90-3]

C₁₄H₁₀O M 194.232

Fluorogenic reagent for primary aliphatic amines. Cryst.

(EtOH aq.). Mp 85.6-86°.

▷ LL5917000.

Oxime: Plates (pet. ether). Mp 156-157°.*Semicarbazone*: Plates (EtOH). Mp 278°.*Phenylhydrazone*: Pale yellow leaflets (EtOH). Mp 202-203°.

2,4-Dinitrophenylhydrazone: Cryst. (xylene). Mp 259-260°.

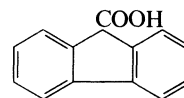
2-Pyridylhydrazone: [82810-35-3].

C₁₉H₁₅N₃ M 285.348Used as 5mM EtOH soln. for kinetic-fluorimetric detn.
of Mg (λ_{max} 520 nm, pH ~ 13). Cryst. Sol. EtOH.Hinkel, L.E. *et al*, *J. Chem. Soc.*, 1936, 339 (*synth*)Angyal, S.J. *et al*, *J. Chem. Soc.*, 1951, 3512 (*synth*)Kreutzberger, A., *Z. Chem.*, 1970, **10**, 383 (*synth*)Hwang, T.K. *et al*, *Anal. Chim. Acta*, 1978, **99**, 305 (*use*)Laserna, J.J. *et al*, *Microchem. J.*, 1982, **27**, 312 (*synth, detn, Mg*)**9H-Fluorene-9-carboxylic acid, 9CI**

F-00013

Diphenyleneacetic acid

[1989-33-9]

C₁₄H₁₀O₂ M 210.232

Protecting reagent for phenols. Needles (AcOH). Mp 230-232°.

Me ester: [3002-30-0].C₁₅H₁₂O₂ M 224.259

Characterising agent for alkyl halides. Mp 63°.

Chloride: [16331-50-3].C₁₄H₉ClO M 228.677

Mp 77°.

Amide: [7471-95-6].C₁₄H₁₁NO M 209.247

Mp 251°.

Anhydride:C₂₈H₁₈O₃ M 402.448

Mp 164-165°.

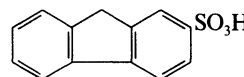
Nitrile: [1529-40-4]. 9-CyanofluoreneC₁₄H₉N M 191.232

Mp 151-152°.

Arnold, R.T. *et al*, *J. Am. Chem. Soc.*, 1949, **71**, 2439 (*synth*)Bavin, P.M.G., *Anal. Chem.*, 1960, **32**, 554 (*synth, use*)*Org. Synth., Coll. Vol.*, 4, 1963, 482.*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, 1,
394, 679.Jones, D.W. *et al*, *J. Chem. Soc. B*, 1971, 388 (*pmr*)Joullié, M.M. *et al*, *J. Org. Chem.*, 1979, **44**, 2961 (*cmr*)**9H-Fluorene-2-sulfonic acid**

F-00014

[52525-94-7]

C₁₃H₁₀O₃S M 246.286

Cryst. (EtOAc). Mp 154°.

Chloride: [13354-17-1]. 9H-Fluorene-2-sulfonyl chlorideC₁₃H₉ClO₂S M 264.732

Fluorogenic reagent for anal. of phenols. Cryst.

(AcOH/Ac₂O). Mp 162°.

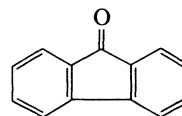
[13354-14-8, 53091-77-3]

Courtot, C., *Ann. Chim.*, 1930, **14**, 5 (*synth*)Merrifield, R.B., *J. Org. Chem.*, 1978, **43**, 4808 (*synth, pmr*)Carlson, R.M. *et al*, *J. Chromatogr. Sci.*, 1984, **22**, 272 (*use,*
chloride)**9H-Fluorene-9-one, 9CI**

F-00015

Fluorenone. *Fluorene ketone*. *Diphenylene ketone*

[486-25-9]

C₁₃H₈O M 180.206Yellow, rhombic cryst. V. sol. EtOH, Et₂O; insol. H₂O.

Mp 83-83.5°. Bp 341.5°.

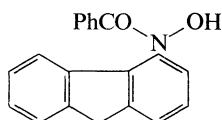
▷ LL8925000.

Hydrazone: [13629-22-6].C₁₃H₁₀N₂ M 194.235

Used for photometric detn. of ketosteroids. Cryst. (MeOH). Mp 152°.

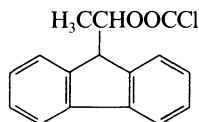
- Kuhn, R. *et al*, *Ber.*, 1925, **58**, 2230.
 Courtot, C. *et al*, *Bull. Soc. Chim. Fr.*, 1929, **65**, 290.
 Huntress, E.H. *et al*, *J. Am. Chem. Soc.*, 1931, **53**, 2720.
U.S. Pat., 1 868 531, (1932); *CA*, **26**, 5315.
 Baltzly, R. *et al*, *J. Org. Chem.*, 1961, **26**, 3669 (*synth, hydrazone*)
 Luss, H.R. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 884 (*cryst struct*)
 Wade, L.G. Jr. *et al*, *J. Org. Chem.*, 1979, **44**, 3724 (*synth*)
 Dochinets, D.I. *et al*, *Farm. Zh. (Kiev)*, 1989, 51 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FDO000.

N-Fluoren-1-ylbenzohydroxamic acid, 9CI **F-00016**
Benzoyl-1-fluorenylhydroxylamine
 [29968-64-7]



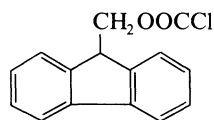
- $C_{20}H_{15}NO_2$ M 301.344
 Used as a 0.5% soln. in $CHCl_3$ for colorimetric detn. of V ($CHCl_3$, λ_{max} 548 nm, ϵ 5100). Red-orange flakes (EtOH aq.). Mp 147° dec.
 Cassidy, R.M. *et al*, *Can. J. Chem.*, 1968, **46**, 327 (*detn, V*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FDY000.

1-(9H-Fluoren-9-yl)ethyl carbonochloridate, 9CI **F-00017**
1-(9-Fluorenyl)ethyl chloroformate. FLEC
 [118609-65-7]



- $C_{16}H_{13}ClO_2$ M 272.730
 (+)-*form* [107474-79-3]
 Reagent for hplc sepn. of amino acid enantiomers and chiral amines. Oil. $[\alpha]_D^{25} +67.9^\circ$ (c, 1 in CH_2Cl_2).
 Einarsson, S. *et al*, *Anal. Chem.*, 1987, **59**, 1191 (*synth, use*)
 Veuthy, J.L. *et al*, *Chromatographia*, 1989, **27**, 105 (*use*)

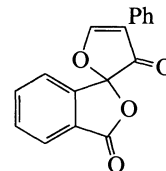
9-Fluorenyl methyl chloroformate **F-00018**
9H-Fluoren-9-ylmethyl carbonochloridate, 9CI. FMOC.
Amino tag
 [28920-43-6]



- $C_{15}H_{11}ClO_2$ M 258.703
 Amino acid protecting group, cleaved under basic conditions. Especially used in solid-phase peptide synth. Used in the hplc detn. of amino acids. Cryst. (Et₂O). Mp 61.5-63°.
 Carpino, L.A. *et al*, *J. Org. Chem.*, 1972, **37**, 3404 (*synth, rev, ir*)
 Erickson, B.W. *et al*, *The Proteins*, Academic Press, New York, 1976, 257 (*use*)
 Martinez, J. *et al*, *J. Org. Chem.*, 1977, **44**, 3596 (*use*)
 Moye, H.A. *et al*, *Anal. Lett.*, 1979, **12**, 25 (*use*)

- Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1980, **8**, 230 (*use*)
 Chang, C.-D. *et al*, *Int. J. Pept. Protein Res.*, 1980, **15**, 59 (*use*)
 Einarsson, S. *et al*, *J. Chromatogr.*, 1983, **282**, 609; 1985, **348**, 213 (*use*)

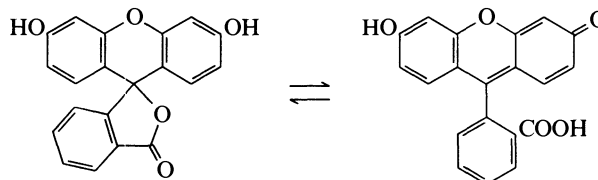
Fluorescamine **F-00019**
4-Phenylspiro[furan-2(3H),1'(3'H)-isobenzofuran]-3,3'-dione, 9CI. 4-Phenylspiro[furan-2(3H),1'-phthalan]-3,3'-dione.
Fluram
 [38183-12-9]



- $C_{17}H_{10}O_4$ M 278.264
 Fluorimetric reagent for amino acids, primary amines, peptides, proteins and proteolytic enzymes. Cryst. (CH_2Cl_2/Et_2O). Mp 154-155°.

- Weigle, M. *et al*, *J. Am. Chem. Soc.*, 1972, **94**, 5927 (*synth*)
 Undenfriend, S. *et al*, *Science (Washington, D.C.)*, 1972, **178**, 871 (*use*)
 Weigle, M. *et al*, *Biochem. Biophys. Res. Commun.*, 1973, **50**, 352.
 Weigle, M. *et al*, *J. Org. Chem.*, 1976, **41**, 388 (*synth, ir, uv*)
 Sogowa, K. *et al*, *J. Biochem. (Tokyo)*, 1978, **83**, 1783 (*use*)
 Undenfriend, S., *Pharmacology*, 1979, **19**, 223 (*rev, use*)
 Doetsch, P.W. *et al*, *J. Chromatogr.*, 1980, **189**, 79 (*use, bibl*)
 Mendez, E., *Anal. Biochem.*, 1982, **127**, 55 (*use*)
 Jimenez, M.H. *et al*, *Carbohydr. Res.*, 1982, **101**, 133 (*use*)
 Evans, C.H. *et al*, *Anal. Biochem.*, 1984, **142**, 411 (*use*)
 Gritzner, G. *et al*, *Pure Appl. Chem.*, 1984, **56**, 461 (*use*)
Pure Appl. Chem., IUPAC, Analytical Chemistry Division (U.K.), 1984, **56**, 467 (*use*)

Fluorescein, 8CI **F-00020**
3',6'-Dihydroxyspiro[isobenzofuran-1(3H),9'-(9H)-xanthen]-3-one, 9CI. 9-(o-Carboxyphenyl)-6-hydroxy-3H-xanthen-3-one. Uranin. Resorcinolphthalein. C.I. Solvent yellow 94
 [2321-07-5]



- $C_{20}H_{12}O_5$ M 332.312
 Fluorescent dye with numerous applications, e.g. as water-flow tracer and in cosmetics. Used as an adsorption indicator in the titration of Cl^- , Br^- , I^- , SCN^- and as a fluorescence acid-base indicator (pH range 4.0-4.5 → 6.0; colour change pink/green → green). Used for photometric detn. of I_2 . Exists in at least two forms, yellow amorph. and red cryst., possibly also in third, orange, modification. Structure assignments may not be certain.

▷ LM5075000.
Lactone-form

Yellow amorph. solid. Sol. Me_2CO , MeOH; spar. sol. H_2O , EtOH, Et₂O; insol. pet. ether. Becomes cryst. on heating.

- Me ether:*
 $C_{21}H_{14}O_5$ M 346.339
 Mp 272°.

Et ether:

$C_{22}H_{16}O_5$ M 360.365
Mp 253-254°.

Di-Ac: [596-09-8].

$C_{24}H_{16}O_7$ M 416.386
Substrate for esterases. Cryst.

Mono-β-D-galactopyranoside: [102286-67-9].

$C_{26}H_{22}O_{10}$ M 494.454
Fluorogenic substrate for β-D-galactosidase.

Di-(β-D-galactopyranoside): [17817-20-8].

$C_{32}H_{32}O_{15}$ M 656.596
Fluorogenic substrate for β-galactosidase.

Quinonoid-form

Red cryst. with green iridescence. Sol. hot formic acid, hot $PhNH_2$, hot Me_2CO , spar. sol. H_2O , EtOH, Et_2O , insol. pet. ether.

Di-Na salt: [518-47-8]. *Fluorescein sodium*, BAN, USAN.

Fundusein. C.I. Acid yellow 73. C.I. 45350. Numerous proprietary names

Diagnostic aid (corneal trauma indicator). Used as a fluorescent labelling reagent for proteins. Hygroscopic orange powder. Component of Fluress. Also used as didodecanoyl ester (Fluorescein dilaurate, BAN).

▷ LD₅₀ 1800 mg/kg (mouse, i.p.). LM5425000.*Me ester:*

$C_{21}H_{14}O_5$ M 346.339
Red cryst. with green iridescence (MeOH). Spar. sol. org. solvs. Mp 282°.

Me ether, Me ester:

$C_{22}H_{16}O_5$ M 360.365
Orange-yellow needles or deep-red cryst. with metallic lustre ($C_6H_6/MeOH$). Mp 208°.

Et ester:

$C_{22}H_{16}O_5$ M 360.365
Green leaflets (EtOH). Spar. sol. EtOH, Me_2CO , AcOH; insol. H_2O . Mp 247°.

Et ester, Ac:

$C_{24}H_{18}O_6$ M 402.403
Mp 191°.

Et ester, Et ether:

$C_{24}H_{20}O_5$ M 388.419
Yellow needles (EtOH aq.). Mp 159°.

Orndorff, W.R. *et al*, *J. Am. Chem. Soc.*, 1927, **49**, 1272 (*bibl*)

Déribéré, M., *Fresenius' Z. Anal. Chem.*, 1939, **116**, 341 (*use*)

Nagase, S. *et al*, *Yakugaku Zasshi*, 1953, **73**, 1033.

Zanker, V. *et al*, *Chem. Ber.*, 1958, **91**, 572 (*tautom*)

Steiner, R.F. *et al*, *Chem. Rev.*, 1962, **62**, 457 (*rev*)

Rotman, B. *et al*, *Proc. Natl. Acad. Sci. U.S.A.*, 1963, **50**, 1 (*use*)

Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **22**, 432 (*rev*)

Guilbault, G.G. *et al*, *Anal. Chem.*, 1964, **36**, 409 (*use*)

Braun, D.E. *et al*, *Anal. Chem.*, 1967, **39**, 840 (*use*)

Colour Index, 3rd Ed., 1971, **4**, 4424 (*bibl*)

Ullman, E.F. *et al*, *J. Biol. Chem.*, 1976, **251**, 4172 (*use*)

Suzuki, Y. *et al*, *Jpn. J. Exp. Med.*, 1979, **49**, 179 (*use*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1956.

Hoffmann, J. *et al*, *Anal. Biochem.*, 1983, **131**, 180.

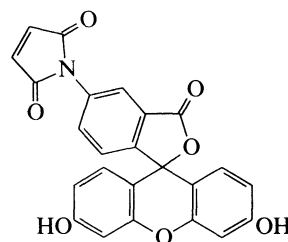
Nolan, G. *et al*, *Proc. Natl. Acad. Sci. U.S.A.*, 1988, **85**, 2603 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FEV000, FEW000.

Fluorescein-5-maleimide

[75350-46-8]

F-00021



$C_{24}H_{13}NO_7$ M 427.369

Fluorescent label for thiol and disulfide groups.

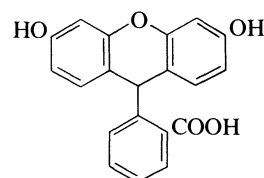
Curtis, S.K. *et al*, *Histochemistry*, 1980, **68**, 23 (*use*)

Fluorescein

2-(3,6-Dihydroxy-9H-xanthen-9-yl)benzoic acid, 9CI

[518-44-5]

F-00022



$C_{20}H_{14}O_5$ M 334.328

Formed by *Pseudomonas aeruginosa*. Needles (AcOH). Sol.

Et_2O , alkalis. Mp 125-127°. Turns yellow in air. Oxidn.

→ Fluorescein. Derivs. of this compd. are often wrongly

described as derivs. of Fluorescein. The literature of

Fluorescein and Fluorescein is somewhat confused.

Di-Ac: [35340-49-9].

$C_{24}H_{18}O_7$ M 418.402

Reagent for the detn. of alcohols and amines. Mp 200-202°.

Et ester:

$C_{22}H_{18}O_5$ M 362.381

Needles (AcOH). Mp 195-196°. Turns yellow in air.

Di-Me ether:

$C_{22}H_{18}O_5$ M 362.381

Needles (EtOH). Mp 204-205°.

Di-Me ether, Me ester:

$C_{23}H_{20}O_5$ M 376.408

Cryst. (EtOH). Mp 136°.

Liebigs, H.V., *J. Prakt. Chem.*, 1913, **88**, 42.

Totter, J.R. *et al*, *J. Bacteriol.*, 1953, **65**, 45.

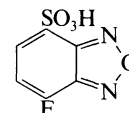
Sharma, P.N. *et al*, *Helv. Chim. Acta*, 1984, **67**, 301 (*synth, use*)

7-Fluoro-4-benzofurazansulfonic acid, 9CI

7-Fluoro-2,1,3-benzoxadiazole-4-sulfonic acid

[91575-54-1]

F-00023



$C_6H_3FN_2O_4S$ M 218.165

NH₄ salt: [84806-27-9].

Fluorogenic reagent for thiols. Needles (MeCN/EtOH).

Mp > 280° dec.

Amide: [91366-65-3]. 7-Fluoro-4-benzofurazansulfonamide,

9CI. 4-Aminosulfonyl-7-fluoro-2,1,3-benzoxadiazole

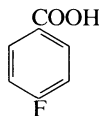
$C_6H_4FN_3O_3S$ M 217.180

Fluorogenic reagent for thiols. Mp 145-146°.

Imai, K. *et al*, *Anal. Biochem.*, 1983, **128**, 471 (*synth, use*)
 Toyooka, T. *et al*, *J. Chromatogr.*, 1983, **282**, 495 (*use*)
 Toyooka, T. *et al*, *Anal. Chem.*, 1984, **56**, 2461 (*deriv, synth, use*)
 Sueyoshi, T. *et al*, *J. Biochem. (Tokyo)*, 1985, **97**, 1811 (*use*)
 Imai, K. *et al*, *Methods Enzymol.*, 1987, **143**, 67 (*use, rev*)

4-Fluorobenzoic acid**F-00024**

[456-22-4]

C₇H₅FO₂ M 140.114Used in etching. Reference material used in elemental microanalysis. Prisms (H₂O). Mp 185°. pK_a 4.15 (25°).*Me ester*: [403-33-8].C₈H₇FO₂ M 154.140

Mp 4.5°. Bp 198°.

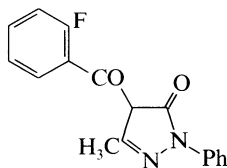
Et ester: [451-46-7].C₉H₉FO₂ M 168.167Mp 26°. Bp 211°. n_D^{25.7} 1.4707.*Chloride*: [403-43-0].C₇H₄ClFO M 158.559

Reagent for characterisation of alcohols, phenols, carboxylic acids, amines and thiols by F-19 nmr. Mp 9°. Bp 193°.

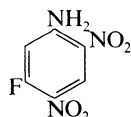
▷ Lachrymator.

Amide: [824-75-9].C₇H₆FNO M 139.129Mp 154-155°. Bp₃₈ 104°.*Nitrile*: [1194-02-1]. *p-Fluorobenzonitrile. 1-Cyano-4-fluorobenzene*C₇H₄FN M 121.114Mp 35-36°. Bp₇₅₀ 188.2°.Dippy, J. *et al*, *J. Chem. Soc.*, 1934, 1466.Taft, R.W. *et al*, *J. Am. Chem. Soc.*, 1963, **85**, 3146 (*nmr*)*Analyst (London)*, 1972, **97**, 740 (*microanal*)Spratt, M.P. *et al*, *Anal. Chem.*, 1984, **56**, 2038 (*use, chloride*)**4-(2-Fluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one, 9CI****F-00025**

[129228-92-8]

C₁₇H₁₃FN₂O₂ M 296.300Used as 0.01M C₆H₆ soln. for extraction separation of Lu(III) (pH 1-2). Cryst. (dioxan aq.). Sol. C₆H₆, 1,2-dichloroethane, dioxan. Mp 119°.Mukai, H. *et al*, *Anal. Chim. Acta*, 1990, **239**, 277 (*synth, use*)**5-Fluoro-2,4-dinitroaniline, 8CI****F-00026***5-Fluoro-2,4-dinitrobenzenamine, 9CI*

[367-81-7]

C₆H₄FN₃O₄ M 201.114

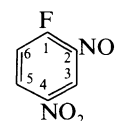
Reagent for amino acid detn. Cryst. (EtOH). Mp 186-187°.

N-Ac:C₈H₆FN₃O₅ M 243.151

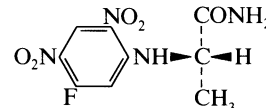
Cryst. (EtOH). Mp 119°.

N,N-Diethyl: [6917-48-2]. *FDNDEA*C₁₀H₁₂FN₃O₄ M 257.221Fluorogenic reagent for amino acids. Cryst. (Me₂CO aq.). Mp 112°.Bergmann, E.D. *et al*, *J. Org. Chem.*, 1961, **26**, 1480 (*synth, use*)Matsui, K. *et al*, *CA*, 1966, **65**, 10699f (*synth*)Koji, M. *et al*, *CA*, 1966, **65**, 10699f (*synth*)Munier, R.L. *et al*, *Chromatographia*, 1981, **14**, 289 (*synth, use, N,N-diethyl*)Fermo, T. *et al*, *J. Chromatogr.*, 1988, **433**, 53 (*use, N,N-diethyl*)**1-Fluoro-2,4-dinitrobenzene****F-00027***Sanger's reagent. Dnp-F*

[70-34-8]

C₆H₃FN₂O₄ M 186.099Used for labelling terminal amino groups of polypeptides and for characterising amines, amino acids and phenols. Oil. Mp 12°, Mp 27.5-30°. Bp₂₅ 178°, Bp₂ 133°. n_D²⁰ 1.5690.

▷ Highly toxic, causes allergic reactions and dermatitis by inhalation and skin contact. CZ7800000.

Sanger, F. *Biochem. J.*, 1945, **39**, 507.Finger, G.C. *et al*, *Biochem. Prep.*, 1953, **3**, 120.Walle, T., *Acta Pharm. Suec.*, 1968, **5**, 367 (*use*)Loemker, J.E. *et al*, *Can. J. Chem.*, 1969, **47**, 209 (*nmr, ir*)Cohen, I.C. *et al*, *J. Chromatogr.*, 1969, **44**, 251 (*use*)Vinson, J.A. *et al*, *Anal. Chim. Acta*, 1972, **58**, 245 (*use*)Hudlicky, M. *et al*, *J. Fluorine Chem.*, 1974, **4**, 19 (*nmr*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1977, **6**, 233 (*use*)Bartos, J. *et al*, *Pure Appl. Chem.*, 1984, **56**, 467 (*use*)Wilkins, A. *et al*, *Acta Crystallogr., Sect. C*, 1991, **47**, 220 (*cryst struct*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DUW400.**2-[(5-Fluoro-2,4-dinitrophenyl)amino]propanamide, 9CI****F-00028***1-Fluoro-2,4-dinitrophenyl-5-alaninamide*C₉H₉FN₄O₅ M 272.192*(S)-form* [95713-52-3]*L-form. Marfey's reagent*

Derivatisation reagent for sepn. of amino acid enantiomers. Golden yellow cryst. Mp 224-226°.

Marfey, P., *Carlsberg Res. Commun.*, 1984, **49**, 591 (*synth, use*)Aberhart, D.J. *et al*, *Anal. Biochem.*, 1985, **151**, 88 (*use*)Szokan, G. *et al*, *J. Chromatogr.*, 1988, **444**, 115 (*use*)Aberhart, D.J. *et al*, *Methods Enzymol.*, 1988, **166**, 14 (*use*)

5-Fluoro-8-hydroxyquinoline

5-Fluoro-8-quinolinol, 9CI

[387-97-3]

C₉H₆FNO M 163.151Cryst. (EtOH). Sol. EtOH, Et₂O, Me₂CO. Fe(III) complex used as redox indicator.

[57434-95-4]

Tomkinson, J.C. *et al*, *J. Chem. Soc.*, 1958, 2010 (*use, indicator*)**4-Fluoro-7-nitrobenzofurazan, 9CI**

4-Fluoro-7-nitro-2,1,3-benzoxadiazole. NBD-F

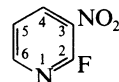
[29270-56-2]

C₆H₂FN₃O₃ M 183.098

Reagent for fluorimetric detn. of amines, amino acids and proteins. Yellow cryst. (pet. ether). Mp 52.5-53.5°.

Di Numo, L. *et al*, *J. Chem. Soc. C*, 1970, 1433 (*synth*)Watanabe, Y. *et al*, *Anal. Biochem.*, 1981, **116**, 471.Imai, K. *et al*, *Anal. Chim. Acta*, 1981, **130**, 377; 1985, **170**, 81 (*use*)Watanabe, Y. *et al*, *J. Chromatogr.*, 1982, **239**, 723; 1984, **309**, 279 (*use*)Watanabe, Y. *et al*, *Anal. Chem.*, 1983, **55**, 1786 (*use*)Kotaniguchi, H. *et al*, *J. Chromatogr.*, 1987, **420**, 141 (*use*)**2-Fluoro-3-nitropyridine, 9CI**

[1480-87-1]

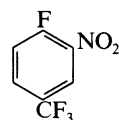
C₅H₃FN₂O₂ M 142.089Reagent for the detn. of cysteinyl residues and for N-terminal amino acids in proteins. Liq. Bp₁₀ 109-109.5°. n_D²⁵ 1.5278.

▷ Lachrymator, skin irritant.

Finger, G.C. *et al*, *J. Am. Chem. Soc.*, 1959, **81**, 2674 (*synth*)Signor, A. *et al*, *Eur. J. Biochem.*, 1969, **7**, 328 (*use*)Toniolo, C. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1972, 1182 (*use*)Perjessy, A. *et al*, *Collect. Czech. Chem. Commun.*, 1985, **50**, 2443 (*ir*)Peet, N.P. *et al*, *Heterocycles*, 1986, **24**, 3213 (*synth, pmr*)Fukuhara, T. *et al*, *J. Fluorine Chem.*, 1988, **38**, 435 (*synth*)**1-Fluoro-2-nitro-4-(trifluoromethyl) benzene, 9CI**

α,α,α,4-Tetrafluoro-3-nitrotoluene, 8CI. 4-Fluoro-3-nitrobenzotrifluoride

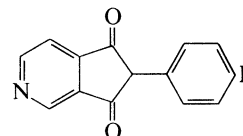
[367-86-2]

C₇H₃F₄NO₂ M 209.100

F-00029

Reagent for chromatog. anal. of amines. Liq. Bp₁₅ 92°. n_D²⁰ 1.4618.Finger, G.C. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 6034 (*synth*)Crosby, D.G. *et al*, *J. Agric. Food Chem.*, 1968, **16**, 839 (*use*)Spragg, B.P. *et al*, *J. Chromatogr.*, 1983, **258**, 289 (*use*)Clark, J.H. *et al*, *Tetrahedron Lett.*, 1987, **28**, 111 (*synth*)**6-(4-Fluorophenyl)-5H-2-pyridine-5,7(6H)-dione**

2-(4-Fluorophenyl)-5-azaindandione

C₁₄H₈FNO₂ M 241.221Used as a 20% soln. in Me₂CO as acid-base indicator (pH range: 4.7-5.8). Cryst.Hrnčiar, P. *et al*, *Chem. Zvesti*, 1966, **20**, 261 (*use*)

F-00033

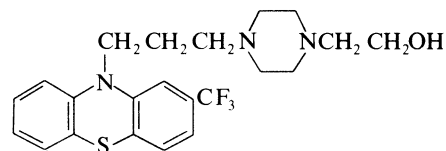
Fluphenazine, BAN, INN

F-00034

4-[3-[2-(Trifluoromethyl)-10H-phenothiazin-10-yl]propyl]-1-piperazineethanol, 9CI. 10-[3-[4-(2-Hydroxyethyl)-1-piperazinyl]propyl]-2-trifluoromethylphenothiazine.

Flufenazine. NSC 62323. Numerous proprietary names

[69-23-8]

C₂₂H₂₆F₃N₃OS M 437.528Tranquilliser. Used as a 0.2% aq. soln. for photometric detn. of As(III), Ce(IV), NO₂[⊖], Pd(II) (λ_{max} 480nm, ε 3990). Dark brown viscous oil. Sol. H₂O. Bp_{0.5} 268-274°.

▷ TL9730000.

B,2HCl: [146-56-5]. Fluphenazine hydrochloride, USAN.

Prolixin. Moditen

Cryst. (EtOH). Mp 235-237°.

▷ TL9800000.

Hexanoyl: [2376-43-4]. Fluphenazine caproate. Mirenil prolongatum

C₂₈H₃₆F₃N₃O₂S M 535.672

Neuroleptic.

Heptanoyl: [2746-81-8]. Fluphenazine enanthate, BAN,

JAN, USAN. Other synonyms

C₂₉H₃₈F₃N₃O₂S M 549.699Neuroleptic. Yellow viscous liq. Cryst. + 2H₂O (as hydrochloride). Mp 184-185° (hydrochloride).

▷ MJ2450000.

Decanoyl: [5002-47-1]. Fluphenazine decanoate, BAN.

Dapotum D. Modecate. Moditen

C₃₂H₄₄F₃N₃O₂S M 591.780

Neuroleptic. Pale yellow-orange visc. liq. Mp 30-32°.

▷ HE0525000.

Yale, H.L. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 2039 (*synth*)U.K. Pat., 829 246, (1960); CA, **54**, 17428.U.K. Pat., 833 473, (1960); CA, **54**, 21143.Ger. Pat., 1 165 602, (1964); CA, **60**, 15886 (*deriv*)U.S. Pat., 3 194 733, (1965); CA, **64**, 5114 (*derivs*)Florey, K., *Anal. Profiles Drug Subst.*, 1973, **2**, 245, 263 (*rev, enanthate*)Gowda, H.S. *et al*, *Rev. Roum. Chim.*, 1977, **22**, 745; CA, **87**, 126635a (*use*)Curry, S.H. *et al*, *Br. J. Clin. Pharmacol.*, 1979, **7**, 325 (*metab*)

Kreyenbuehl, B. *et al*, *Pharm. Acta Helv.*, 1979, **54**, 197 (*uv, ir*)
 Clarke, G., *Anal. Profiles Drug Subst.*, 1980, **9**, 275 (*rev, decanoate*)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,
 Pharmaceutical Press, London, 1982/1989, 7046-7048.
 Shetty, H.U. *et al*, *Biomed. Mass Spectrom.*, 1983, **10**, 601 (*ms*)
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,
 Akademie-Verlag, Berlin, 1987, 6546, 7787, 7963 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, FMP000, PMI250,
 TJW500.

Formaldehyde, 9CI, 8CI, BAN, USAN**F-00035**

Methanal. Formitrol. Formol. Veracur
 [50-00-0]

HCHO

CH₂O M 30.026

Found in traces in essential oils and other vegetable sources. Intermed. in the production of resins. The 40% aq. soln. known as formalin which contains 10-15% of MeOH to prevent polymerization, is a disinfectant, antiseptic and preservative. Used in manuf. of Pentaerythritol, Hexamethylenetetramine and 1,4-Butanediol. Used in detn. of NH₃, NO₃[⊖], detn. of Au, Ag; prep. of formaldoxime (reagent for Mn). Important industrial chemical. 23rd in order of volume for USA in 1990 (production 3.20 million tons/year). Gas with pungent, suffocating odour. Sol. H₂O. V. sol. H₂O; sol. most org. solvs. except pet. ether. d 1.083. Mp -92°. Bp -21°, Bp₄₀₀ -33°. pK_a 13.27 (hydrate 25°). Stable at temps. below -30°. With conc. H₂SO₄ → polyoxymethylene. With phenol → phenol-formaldehyde resins.

▷ Highly toxic and irritant. LP8925000.

Anhyd. polymer: [9002-81-7]. *Polyoxymethylene*

Obtd. by polymerisation of formaldehyde soln. with H₂SO₄. Mp 170-172°. Polyoxymethylene is also an old name for Paraformaldehyde.

Polymer: [30525-89-4]. *Paraformaldehyde. Paraform*

Obtd. by evaporation of aq. formaldehyde solns. Used as disinfectant, fumigant, fungicide, waterproofing glues and resins, including artificial horn and ivory. White solid with sl. odour of formaldehyde. Spar. sol. H₂O; sol. strong alkalis; insol. EtOH, Et₂O. Mp 163-165° dec.

▷ Irritant, mod. toxic orally. RV0540000.

Oxime: [75-17-2]. *Formaldoxime*

CH₃NO M 45.041

Reagent for synth. of aldehydes from diazonium salts. Used for photometric detn. of Mn (λ_{max} 455 nm, ε 11200), Ni, Fe, Ce and V. Sol. H₂O. Bp 84°. Slowly turns to amorph. trimer insol. in H₂O.

Oxime; B,HCl: [3473-11-8].

Prisms. Mp 136°.

Semicarbazone: [14066-69-4].

Mp 169° dec.

2,4-Dinitrophenylhydrazone: [1081-15-8].

Prisms (ligroin). Mp 167°.

Di-Et acetal: [462-95-3]. *Diethoxymethane. Diethyl formal.*

*Ethylal. Methylene diethyl ether*C₅H₁₂O₂ M 104.149Sol. H₂O. Bp 89°.

▷ PA8500000.

Ammonia compd: see *Hexamethylenetetramine*, H-00057

Bisulfite compd: [870-72-4].

Redn. products used in calico printing. Cryst. + 1H₂O (H₂O). Sol. MeOH, spar. sol. EtOH. Mp 200° dec.

▷ PB2200000.

Walker, F., *Ind. Eng. Chem.*, 1931, **23**, 1220; *J. Am. Chem. Soc.*, 1933, **55**, 2821 (*rev*)

Patry, M. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1945, **221**, 259 (*synth*)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **1**, 375 (*use*)

Marczenko, Z., *Acta Chim. Hung.*, 1961, **26**, 347 (*detn, Ce*)

Marczenko, Z., *Anal. Chim. Acta*, 1964, **31**, 224 (*use*)

Marczenko, Z., *Bull. Soc. Chim. Fr.*, 1964, 939 (*use*)

Walker, J.F., *Formaldehyde*, 3rd Ed., Reinhold, N.Y., 1964 (*rev. bibl*)

Fujimaki, M. *et al*, *Agric. Biol. Chem.*, 1965, **29**, 855 (*isol*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 402; **8**, 231.

Okač, A. *et al*, *Fresenius' Z. Anal. Chem.*, 1969, **178**, 198 (*use*)

Absar, I. *et al*, *Can. J. Chem.*, 1972, **50**, 646 (*struct*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **11**, 231 (*rev*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2246.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 364 (*oxime, detn, Mn*)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,

Butterworths, London and Boston, 1979, 697, 885.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 339, 425.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, EFT500, FMV000, PAI000, SHI500.

Formamidinesulfonic acid**F-00036**

Aminoiminomethanesulfonic acid, 9CI, 8CI. Thiourea dioxide
 [1758-73-2]

HN=C(NH₂)SO₂HCH₄N₂O₂S M 108.121

Possibly exists as zwitterion. Reducing agent, e.g. for ketones and dyes. Used as aq. soln. for pptn. separation of Rh from Ir; gravimetric or photometric detn. of Rh. Needles. Sol. H₂O. Mp 126° dec.

Barnett, E.B., *J. Chem. Soc.*, 1910, **97**, 63 (*synth*)

Barnett, E.B. *et al*, *J. Solution Chem.*, 1910, **97**, 63 (*synth*)

Sullivan, R.A.L. *et al*, *Acta Crystallogr.*, 1962, **15**, 675 (*struct*)

Pshenitsyn, N.K. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 761 (*sepn, detn, Rh*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 232.

Rosevear, J. *et al*, *Aust. J. Chem.*, 1984, **37**, 2489 (*use*)

Formic acid, 9CI, 8CI**F-00037***Methanoic acid*

[64-18-6]

HCOOH

CH₂O₂ M 46.026

Observed by S. Fisher in 1670 from red ants (*Formica rufa*). Vesicant principle of nettles (*Urtica* spp.), widespread in plants. Used as decalcifier, wool dye reducer, depilatory for hides and tanning, electroplating, rubber regeneration and silage and grain preservation. Reactive alkylating agent for alcohols; carboxylating agent for tertiary compds. Reducing agent; used for gravimetric detn. of Au(III), Pt(IV), Rh(III), Rh(III), Hg(II). Liq. with pungent odour. Misc. H₂O, EtOH, Et₂O; mod. sol. C₆H₆. d₄²⁰ 1.220. Mp 8.4°. Bp 100.5°. Bp₁₂₀ 50°. Good solvent props. Strong reducing agent, burns with a blue flame.

▷ Causes severe burns, TLV 9. Esters may be toxic and/or highly flammable. LQ4900000.

NH₄ salt: Ammonium formate

Reagent for catalytic hydrogen transfer reacns. Mp 116°. V. hygroscopic.

4-Bromophenacyl ester: [10536-76-2].

Cryst. (EtOH). Mp 99°.

4-Nitrophenyl ester: 4-Nitrophenyl formate

$C_7H_5NO_4$ M 167.121

Formylating reagent for use in peptide synthesis. Cryst. (EtOH aq.). Mp 65-68°. Stable only when v. pure.

2,4,5-Trichlorophenyl ester: 2,4,5-Trichlorophenyl formate

$C_7H_3Cl_3O_2$ M 225.458

Formylating reagent for use in peptide synthesis. Cryst. (hexane). Mp 68-70°.

Hydrazide: [624-84-0]. *Hydrazinecarboxaldehyde, 9CI*

CH_4N_2O M 60.055

Used as 10% aq. soln. for photometric detn. of Au, Cu, Co. Cryst. (EtOH). Sol. H₂O.

▷ LQ8615000.

Pryanishnikov, A.A. *et al*, *CA*, 1933, **27**, 2672 (*synth*)

Zuffanti, S.J., *J. Am. Chem. Soc.*, 1941, **63**, 3123 (*NH₄ salt, synth, bibl*)

Hashmi, M.H. *et al*, *Anal. Chem.*, 1966, **38**, 439 (*use, hydrazide*)

Holsboer, D.H. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1971, **90**, 556 (*deriv*)

Nahringbauer, I., *Acta Crystallogr., Sect. B*, 1978, **34**, 315 (*cryst struct*)

Benninghoven, A. *et al*, *Adv. Mass Spectrom.*, 1978, **7B**, 1433 (*ms*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-

1984, **11**, 257 (*rev*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**,

232.

Martinez, J. *et al*, *Synthesis*, 1982, 979 (*deriv*)

Ram, S. *et al*, *Synthesis*, 1988, 91 (*rev*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 339.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

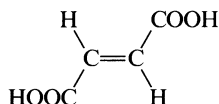
Ed., Van Nostrand-Reinhold, 1992, FNA000, FNN000.

Fumaric acid, 8CI

F-00038

(E)-2-Butenedioic acid, 9CI. *trans-Ethylene-1,2-dicarboxylic acid. Paramaleic acid. Glaucic acid. Boletic acid*

[110-17-8]



$C_4H_4O_4$ M 116.073

Occurs in many plants, e.g. *Fumaria officinalis*, *Boletus scaber*, *Fomes ignarius*. Produced by *Rhizopus nigricans*.

Is essential to vegetable and animal tissue respiration.

Used as di-Na salt for pptn. sepn. of Th from lanthanides. Monoclinic, prismatic needles or leaflets (H₂O). Sol. EtOH, spar. sol. H₂O, Et₂O, Me₂CO, prac. insol. C₆H₆. Mp 300-302° (sealed tube). pK_a 4.54 (25°). At 230° forms maleic anhydride.

▷ LS9625000.

Mono-Me ester: [2756-87-8].

$C_5H_6O_4$ M 130.100

Found in *Tagetes minuta* and *Cudrania javanensis*.

Prisms (EtOH). Mp 144.5°.

Mono-Me ester; B,HCl: [17081-97-9].

$C_5H_5ClO_3$ M 148.545

Mp 16°. Bp₁₄ 69.5°.

Di-Me ester: [624-49-7].

$C_6H_8O_4$ M 144.127

Cryst. Mp 102°. Bp₁₂ 88.5°.

▷ EM6125000.

Di-Et ester: [623-91-6].

$C_8H_{12}O_4$ M 172.180

Fragrance ingredient. d 1.052. Mp 1-2°. Bp 218-219°.

Bp₁₀ 95-96°. n_D²⁰ 1.440.

Dichloride: [627-63-4]. *Fumaroyl chloride*

$C_4H_2Cl_2O_2$ M 152.964

Bp 158-160°.

▷ Highly irritant. Gives toxic fumes in contact with water. LT2800000.

Monoamide: [2987-87-3]. *4-Amino-4-oxo-2-butenic acid,*

9CI. Fumaramic acid

$C_4H_5NO_3$ M 115.088

Used to manuf. Asparagine by bacterial conversion. Mp 218-222°.

Diamide: [627-64-5].

$C_4H_6N_2O_2$ M 114.104

Mp 267° dec.

Bis(dimethylamide):

$C_8H_{14}N_2O_2$ M 170.211

Mp 134.5°.

Dinitrile: [764-42-1]. *Fumaronitrile. (E)-1,2-Dicyanoethylene*

$C_4H_2N_2$ M 78.073

Needles. Sol. EtOH, Et₂O, C₆H₆. Mp 96°. Bp 186°.

▷ LT2300000.

Me ester, nitrile: [925-56-4]. *Methyl β-cyanoacrylate*

$C_5H_5NO_2$ M 111.100

Cryst. (1-propanol aq.). Mp 32-34°. Bp₃₅ 80-83°.

[17013-01-3]

Anschütz, R., *Justus Liebigs Ann. Chem.*, 1928, **461**, 155 (*isom*)

Justel, B., *Angew. Chem.*, 1943, **56**, 157 (*detn, Th*)

Org. Synth., Coll. Vol., 2, 1943, 302 (*synth*)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New

York, 1947, **2**, 41 (*synth, use*)

U.S. Pat., 2 848 366, (1958).

Org. Synth., Coll. Vol., 4, 1963, 486 (*nitrile*)

Devlin, C.J. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1972, 1249 (*di-Et ester*)

Benghiat, V. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1972, 1758

(*cryst struct, deriv*)

Junek, H. *et al*, *Tetrahedron*, 1972, **28**, 4083 (*synth, pmr, deriv*)

Karrer, W. *et al*, *Konstitution und Vorkommen der Organischen*

Pflanzenstoffe, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985,

no. 849.

Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)

George, W.O. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1973, 954 (*ir, derivs*)

Fritz, H. *et al*, *J. Magn. Reson.*, 1974, **15**, 179 (*emr*)

Kerr, R.O., *Benzene Its Ind. Deriv.*, Wiley, N.Y., 1975 (*rev*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**,

319.

Compton, D.A.C. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1975, 400

(*raman*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-

1984, **14**, 770 (*rev*)

Pfau, M. *et al*, *Bull. Soc. Chim. Fr.*, Part II, 1982, 341

(*bisdimethylamide*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 5054.

Gajiwski, J.J. *et al*, *J. Am. Chem. Soc.*, 1989, **111**, 9078 (*Methyl β-*

cyanoacrylate)

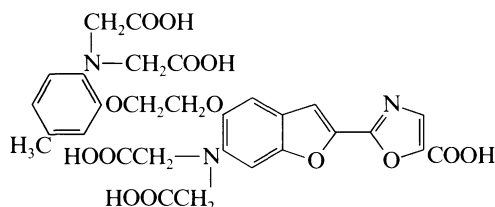
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, DJJ800, DSB600, DXD800,

FOU000, FOX000, FOY000.

Fura 2

[96314-98-6]

 $C_{29}H_{27}N_3O_{14}$ M 641.544

Tetra-K salt: Fluorescent probe for intracellular Mg.

Penta-K salt: [113694-64-7].

Fluorescent probe for intracellular Ca.

Penta-Et ester: [96331-97-4].

 $C_{39}H_{47}N_3O_{14}$ M 781.812

Mp 138°.

Pentakis(acetoxymethyl)ester: [108964-32-5]. Fura 2-AM

 $C_{44}H_{47}N_3O_{24}$ M 1001.861

Fluorescent probe for intracellular Ca. Yellow powder.

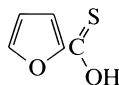
[96315-04-7, 100108-74-5, 100215-37-0, 120551-16-8]

Rao, G.H.R. *et al*, *Biochem. Biophys. Res. Commun.*, 1985, **132**, 652 (use)Grynkiewicz, G. *et al*, *J. Biol. Chem.*, 1985, **260**, 3440 (synth, use)Poenie, M., *Prog. Clin. Biol. Res.*, 1986, **210**, 53 (rev)Cork, R.J. *et al*, *Biol. Bull. (Woods Hole, Mass.)*, 1989, **176**, 25 (rev)Roe, M.W. *et al*, *Cell Calcium*, 1990, **11**, 63 (rev)

2-Furancarbothioic acid, 9CI

Thio-2-furoic acid, 8CI

[4741-45-1]

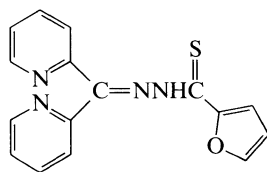
 $C_5H_4O_2S$ M 128.151Liq. Bp₁₆ 101°.

Hydrazide: [68062-22-6]. 2-Furanthiocarboxyhydrazide

 $C_5H_6N_2OS$ M 142.181Used as 0.01 M EtOH soln. for extraction-photometric detn. of Pt(IV) (λ_{max} 715 nm, pH 5.4-6.0, 4-methyl-2-pentanone), Os(VI, VIII), Ru(III), Re(VII). Cryst. (hot H₂O or C₆H₆). Sol. EtOH, C₆H₆; mod. sol. H₂O. Mp 130-131°.Jensen, K.A. *et al*, *Acta Chem. Scand.*, 1961, **15**, 1097 (synth, hydrazide)Niwa, E. *et al*, *CA*, 1968, **68**, 49377w (synth)Shome, S.C. *et al*, *Mikrochim. Acta*, 1978, **2**, 343 (synth, use)

2-Furancarbothioic acid (di-2-pyridinyl) methylenehydrazide, 9CI

[73697-16-2]

 $C_{16}H_{12}N_4OS$ M 308.363Used as 0.01 M soln. in EtOH or Me₂CO for photometric detn. of Re (λ_{max} 546 nm, ϵ 15000, EtOH), Fe(II) (λ_{max} 738 nm, ϵ 12000, C₆H₆). Orange-red cryst. (EtOH). Sol. EtOH, Me₂CO, C₆H₆, CHCl₃, Mp 139°, Mp 142-143°.

F-00039

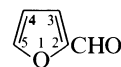
Kettrup, A. *et al*, *Anal. Chim. Acta*, 1980, **115**, 383 (synth, detn, Re)Nakanishi, T. *et al*, *Microchem. J.*, 1983, **28**, 99 (detn, Fe)

2-Furancarboxaldehyde, 9CI

F-00042

Furfural. 2-Furaldehyde. 2-Formylfuran. Furfurole. α -Furfuraldehyde

[98-01-1]

 $C_5H_4O_2$ M 96.085Isol. from plant sources, obt. by hydrol. of pentoses, eg. gums. A common constit. of essential oils. Flavour ingredient. Reagent for the detn. of amines. Liq. Part. misc. H₂O. d_4^{20} 1.159. Bp 162°, Bp₆₅ 90°. n_D^{20} 1.5261. Resinifies on keeping. Steam-volatile.

▶ Mod. toxic, irritant, TLV 20. LT7000000.

Phenylhydrazone: [2216-75-3].

Mp 97-98°.

2,4-Dinitrophenylhydrazone: [2074-02-4].

Scarlet leaflets. Mp 202°, Mp 229° dec.

Semicarbazone: Mp 190-192°.

Thiosemicarbazone: [5419-96-5]. 2-Furancarboxaldehyde thiosemicarbazone

 $C_6H_7N_3OS$ M 169.207Used as 1% EtOH soln. for gravimetric detn. of Pd, Ni; photometric detn. of Pd (λ_{max} 347 nm, ϵ 34000), Cu (λ_{max} 364 nm, ϵ 33500), Co, Ni. Needles (EtOH). Sol. EtOH, DMF alkalis; sl. sol. H₂O. Mp 154°, Mp 162-163°, 182-183°.(E)-Oxime: [620-03-1]. α -Oxime. syn-Oxime $C_5H_5NO_2$ M 111.100Mp 75-76°. pK_{a1} 11.16 (25°).(Z)-Oxime: [1450-58-4]. β -Oxime. anti-OximeCryst. (C₆H₆/pet. ether). Mp 90-91°.

Anil: [3237-23-8]. N-(2-Furanylmethylene)benzenamine, 9CI.

Furfurylideneaniline

 $C_{11}H_9NO$ M 171.198Cryst. Mp 58°. Bp₂ 122-123°.

Dimethylhydrazone:

 $C_7H_{10}N_2O$ M 138.169Oil. Bp₂ 69°.

Org. Synth., Coll. Vol., 1, 1932, 274 (synth)

Wacek, D.A., *Angew. Chem.*, 1941, **54**, 453 (rev)Barney, J.E. *et al*, *J. Chromatogr.*, 1969, **45**, 82 (use)Wasylishen, R. *et al*, *Can. J. Chem.*, 1972, **50**, 274 (pmr, oximes)Abraham, R.J. *et al*, *Tetrahedron*, 1972, **28**, 3015 (pmr)Karrer, W. *et al*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 1782 (occur)Cano Pavon, J.M. *et al*, *Talanta*, 1973, **20**, 339 (synth, detn, Pd)Pavon, J.M. *et al*, *Talanta*, 1973, **20**, 339 (detn, Pd)Chadwick, D.J. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1974, 1141 (pmr)Mas'ko, L.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 315 (detn, Pd)Green, J.H.S. *et al*, *Spectrochim. Acta, Part A*, 1977, **33**, 843 (ir)Rosales, D. *et al*, *Analyst (London)*, 1982, **107**, 385 (detn, Ni)Gowda, H.S. *et al*, *Curr. Sci.*, 1983, **52**, 360 (detn, Ni)Gowda, H.S. *et al*, *Indian J. Chem., Sect. A*, 1983, **22**, 551, 1086 (detn, Co, Cu)Goto, G. *et al*, *Chem. Pharm. Bull.*, 1986, **34**, 3202 (oxime)Ghahrial, S.S. *et al*, *Acta Chem. Scand., Ser. B*, 1987, **41**, 426 (oxime)Potts, K.T. *et al*, *J. Org. Chem.*, 1988, **53**, 1199 (deriv, synth, pmr)

Hazards in the Chemical Laboratory. (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 340.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FQ875.

3-Furancarboxaldehyde

F-00043

3-Furaldehyde. 3-Formylfuran. β -Furfuraldehyde
[498-60-2] $C_5H_4O_2$ M 96.085Isol. from *Evonymus atropurpureus*, *E. europaeus*,
Phaseolus multiflorus and other higher plants and fungi.
Liq. d_{20}^{20} 1.111. Bp_{732} 144°, Bp_{43} 70-72°. n_D^{20} 1.4945.
Polymerises on heating or in the light.

Oxime: [35940-93-3].

 $C_5H_5NO_2$ M 111.100Used for extraction-photometric detn. of Pd (λ_{max} 307
nm, ϵ 69700, CH_2Cl_2). Cryst.

Phenylhydrazone: [60162-44-9].

Mp 149.5°.

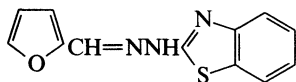
Gilman, H. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 2908 (*synth*)Gronowitz, S. *et al*, *Ark. Kemi*, 1962, **17**, 483 (*pmr*)Ueda, S. *et al*, *Nippon Kagaku Kaishi*, 1974, **10**, 1917; *CA*, **81**,
180695j (*detn*, Pd)Gronowitz, S. *et al*, *Chem. Scr.*, 1975, **7**, 211 (*pmr*, *cmr*)Benassi, R. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1988, 1501
(*struct*)**2-Furancarboxaldehyde**

F-00044

2-benzothiazolylhydrazone

Furfural 2-benzothiazolylhydrazone

[53846-87-0]

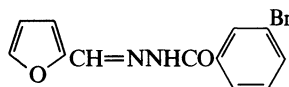
 $C_{12}H_9N_3OS$ M 243.289Used as 0.25M C_6H_6 soln. for extraction-photometric
detn. of Cu (λ_{max} 415 nm, ϵ 44000, C_6H_6). Cryst. Sol.
 C_6H_6 , $CHCl_3$. Mp 170-172°. pK_{a2} 11.3 (50% dioxan).Odashima, T. *et al*, *Anal. Chim. Acta*, 1976, **83**, 431 (*synth*, *detn*,
Cu)**2-Furancarboxaldehyde**

F-00045

3-bromobenzoylhydrazone

3-Bromobenzoic acid (2-furanylmethylene)hydrazide, 9CI

[93418-03-2]

 $C_{12}H_9BrN_2O_2$ M 293.119Used as 0.01M in 4-methyl-2-pentanone or xylene for
extraction-separation of Cd, Co, Cu, Ni, Zn (pH 5-9).
Cryst. Sol. 4-methyl-2-pentanone.Tossidis, I.A. *et al*, *Chem. Chron.*, 1983, **12**, 181 (*synth*)Arpadjan, S. *et al*, *Analyst (London)*, 1988, **113**, 1699 (*use*)**2-Furancarboxaldehyde**

F-00046

4-bromobenzoylhydrazone

4-Bromobenzoic acid (2-furanylmethylene)hydrazide, 9CI

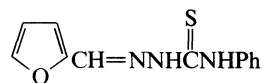
[93444-96-3]

 $C_{12}H_9BrN_2O_2$ M 293.119Used as 0.01M soln. in 4-methyl-2-pentanone or xylene for
extraction separation of Cd, Co, Cu, Ni, Zn (pH 5-9).
Cryst. Sol. 4-methyl-2-pentanone, xylene.Tossidis, I.A. *et al*, *Chem. Chron.*, 1983, **12**, 181 (*synth*)Arpadjan, S. *et al*, *Analyst (London)*, 1988, **113**, 1699 (*use*)**2-Furancarboxaldehyde**

F-00047

phenylthiosemicarbazone2-(2-Furanylmethylene)-N-phenylhydrazinecarbothioamide,
9CI. Furfural phenylthiosemicarbazone

[31397-09-8]

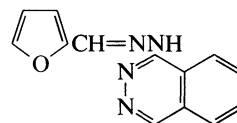
 $C_{12}H_{11}N_3OS$ M 245.304Used as 0.2% EtOH soln. for gravimetric detn. of Ni, Pd.
Cryst. Sol. EtOH, alkalis; sl. sol. H_2O .Cano Pavon, J.M. *et al*, *Anal. Lett.*, 1974, **7**, 159 (*synth*, *detn*, Pd)Rosales, D. *et al*, *Analyst (London)*, 1982, **107**, 385 (*detn*, Ni)**2-Furancarboxaldehyde**

F-00048

1-phthalazinylhydrazone, 9CI

Furfural 1-phthalazinylhydrazone

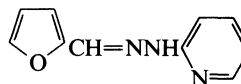
[83728-77-2]

 $C_{13}H_{10}N_4O$ M 238.248Used as 1mM soln. in 10% Triton X-100 soln. for
photometric detn. of Ni. Cryst. Sol. EtOH, $CHCl_3$;
insol. H_2O , C_6H_6 . Mp 205° dec.Ishii, H. *et al*, *Analyst (London)*, 1982, **107**, 885 (*detn*, Ni)**2-Furancarboxaldehyde**

F-00049

2-pyridinylhydrazone, 9CI

[2746-57-8]

 $C_{10}H_9N_3O$ M 187.201Used as a 1mM soln. in EtOH for photometric detn. of
Co (λ_{max} 418 nm, ϵ 47000). Cryst. Sol. Et_2O , EtOH,
 $CHCl_3$, dioxan. Mp 60-61°.

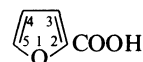
[100462-81-5, 100462-82-6]

Garcia Sanchez, F. *et al*, *Talanta*, 1985, **32**, 967 (*detn*, Co)**2-Furancarboxylic acid**

F-00050

Pyromucic acid. α -Furoic acid

[88-14-2]

 $C_5H_4O_3$ M 112.085Leaflets (H_2O). Mod. sol. cold H_2O , v. sol. hot. Mp 133-
134°. Bp 230-232°, Bp_{20} 141-144°.

▷ LV1763000.

Me ester: [611-13-2]. $C_6H_6O_3$ M 126.112 Bp 181.3°.

▷ LV1950000.

Et ester: [614-99-3]. $C_7H_8O_3$ M 140.138 Mp 34°. Bp_{766} 195°, Bp_{95} 128°.

▷ LV1850000.

Anhydride: [615-08-7].

$C_{10}H_6O_5$ M 206.154
Needles (EtOH). Mp 73°. Bp 325° part. dec.

Chloride:

$C_5H_3ClO_2$ M 130.530
Mp -2°. Bp 173°, Bp₁₀ 66°. Stable to water.

► Highly irritant.

Amide: [609-38-1]. 2-Furancarboxamide

$C_5H_5NO_2$ M 111.100
Mp 142-143°.

Hydrazide: [3326-71-4]. 2-Furoylhydrazine

$C_5H_6N_2O_2$ M 126.115
Anal. reagent for carbohydrates. Cryst. (C_6H_6). Mp 78°.
► LV1925000.

Nitrile: [617-90-3]. 2-Cyanofuran. 2-Furancarbonitrile, 9CI

C_5H_3NO M 93.085
Bp₇₃₈ 146°.

Org. Synth., Coll. Vol., 4, 1963, 493 (synth)

Cook, M.J. et al, *Tetrahedron*, 1968, **24**, 4501 (use, hydrazide)

Chadwick, D.J. et al, *J. Chem. Soc., Perkin Trans. 1*, 1974, 1141 (pmr)

Gronowitz, S. et al, *Chem. Scr.*, 1975, **7**, 211 (pmr, cmr)

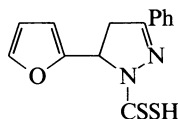
Lever, M. et al, *Anal. Biochem.*, 1984, **139**, 205 (use, hydrazide)

Murahashi, S.-I. et al, *J. Org. Chem.*, 1986, **51**, 898 (synth, ir, pmr, ms)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EKM000, FQF000, MKH600.

(2-Furanyl)-2,3-dihydro-4-phenyl-1H-pyrazole-1-carbonodithioic acid F-00051

5-(2-Furyl)-3-phenylpyrazoline-1-dithiocarbamic acid



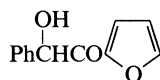
$C_{14}H_{12}N_2OS_2$ M 288.394

Used as 0.5% soln. in $CHCl_3$ /3-methylbutanol for extraction-photometric detn. of Pd (λ_{max} 380 nm, ϵ 83000, $CHCl_3$) and other platinum metals. Yellow cryst. Sol. alkalis, $CHCl_3$, isopentanol.

Busev, A.I. et al, *Zh. Anal. Khim.*, 1967, **22**, 1028; 1972, **27**, 1802 (synth, use)

1-(2-Furanyl)-2-hydroxy-2-phenylethanone, 9CI F-00052

2-Furyl α -hydroxybenzyl ketone. Benzfuroin [36715-43-2]



$C_{12}H_{10}O_3$ M 202.209
Cryst. Mp 137-139°.

Oxime: [86278-51-5]. Benzfuroin oxime

$C_{12}H_{11}NO_3$ M 217.224
Used as a 0.03% M aq. soln. for photometric detn. of U. Cryst. (EtOH). Sol. EtOH, H_2O . Mp 165-166°.

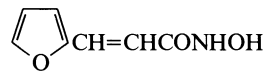
Feigl, F. et al, *Chem. Ber.*, 1925, **58**, 2294 (synth)

Tiffeneau, M. et al, *Bull. Soc. Chim. Fr.*, 1931, **49**, 725 (synth)

Armeanu, V. et al, *Rev. Roum. Chim.*, 1983, **28**, 45 (use)

Ricci, A. et al, *J. Org. Chem.*, 1985, **50**, 130 (synth)

3-(2-Furanyl)-N-hydroxy-2-propenamide F-00053



$C_7H_7NO_3$ M 153.137

N-Ph: [22861-47-8]. 3-(2-Furanyl)-N-hydroxy-N-phenyl-2-propenamide. N-Phenyl-2-furanacrylohydroxamic acid, 8CI

$C_{13}H_{11}NO_3$ M 229.235

Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of Ti (λ_{max} 397 nm, ϵ 15000, from 9M HCl), V(V). Cryst. Sol. $CHCl_3$.

N-(4-Methylphenyl): [22861-49-0]. 3-(2-Furanyl)-N-hydroxy-N-(4-methylphenyl)-2-propenamide, 9CI

$C_{14}H_{13}NO_3$ M 243.262

Used as a 0.1% $CHCl_3$ soln. for extraction-photometric detn. of Ti (λ_{max} 400 nm, ϵ 14800). Cryst. Sol. $CHCl_3$.

N-(4-Chlorophenyl): [67669-02-7]. N-(4-Chlorophenyl)-3-(2-furanyl)-N-hydroxy-2-propenamide, 9CI

$C_{13}H_{10}ClNO_3$ M 263.680

Used for amperometric detn. of Sc (pH 5.5-6.5). Cryst.

Bhura, D.C. et al, *J. Chem. Eng. Data*, 1969, **14**, 276 (synth)

Bhura, D.C. et al, *Anal. Chim. Acta*, 1971, **53**, 379 (detn, V)

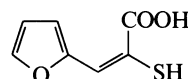
Shvedene, N.V. et al, *Zh. Anal. Khim.*, 1978, **33**, 60 (deriv, use)

Bhura, D.C. et al, *Analysis*, 1980, **8**, 108 (detn, Ti)

3-(2-Furanyl)-2-mercapto-2-propenoic acid, 9CI F-00054

2-Mercapto-3-(2-furyl)propenoic acid. α -Mercapto- β -(2-furyl)acrylic acid. MDL 71626

[55927-33-8]



$C_7H_6O_3S$ M 170.189

Chelating agent protecting against toxicity and teratogenicity of Cd *in vivo*. Used as 1% soln. in EtOH for photometric detn. of Ti (λ_{max} 490 nm, ϵ 35000), Mo (λ_{max} 450 nm, ϵ 8900). Cryst. Sol. EtOH, MeOH. Mp 115-117°.

Campaigne, E. et al, *J. Org. Chem.*, 1956, **21**, 32.

Izquierdo, A. et al, *Quim. Anal. (Madrid)*, 1974, **28**, 148 (use)

Izquierdo, A. et al, *Analysis*, 1976, **4**, 200 (detn, Mo)

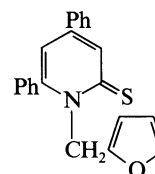
Izquierdo, A. et al, *Talanta*, 1978, **25**, 56 (detn, Ti)

Giroux, E. et al, *J. Biol. Chem.*, 1984, **259**, 3658.

Ferm, V.H. et al, *Experientia*, 1987, **43**, 208.

1-(2-Furanylmethyl)-4,6-diphenyl-2(1H)-pyridinethione F-00055

[76950-90-8]

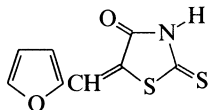


$C_{22}H_{17}NOS$ M 343.448

Used as a 0.25mM soln. in EtOH for photometric detn. of Hg (λ_{max} 314 nm, ϵ 46000, 50% EtOH). Yellow cryst. (EtOH). Sol. EtOH. pK_a 10.66.

Lorenzo, A. et al, *Synthesis*, 1980, 853 (synth)

Pérez Ruiz, T. et al, *Mikrochim. Acta*, 1984, **2**, 183 (detn, Hg)

5-(2-Furanylmethylene)-2-thioxo-4-thiazolidinone, 9CI5-Furanylmethylenerhodanine
[4703-96-2]C₈H₅NO₂S₂ M 211.265

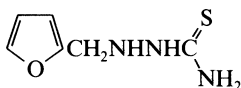
Several tautomers possible. Used as a 0.2% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt. Orange-red cryst. or yellow cryst. (EtOH). Sol. Et₂O, Me₂CO, EtOH, DMF. Mp 270°. pK_{a1} 8.3; pK_{a2} 12.2.

[618-81-5]

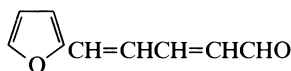
Kulberg, L.M. *et al*, *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)
Montana Gonzalez, M.T. *et al*, *Mikrochim. Acta*, 1982, **2**, 363 (*synth, reactions*)

N-(2-Furanylmethyl)**hydrazinecarbothioamide, 9CI**

[96860-19-4]

C₆H₉N₃OS M 171.223

Used for photometric detn. of Ni (λ_{max} 366 nm, ε 21600). Cryst.

Gowda, H.S. *et al*, *Curr. Sci.*, 1983, **52**, 360 (*detn, Ni*)**5-(2-Furanyl)-2,4-pentadienal, 9CI**Furil-2-pentadienal
[5916-94-9]C₉H₈O₂ M 148.161

Yellow leaflets. Mp 68-69°.

Thiosemicarbazone: [53652-13-4]. 2-[5-(2-Furanyl)-2,4-pentadienylidene]hydrazinecarbothioamide, 9CI

C₁₀H₁₁N₃OS M 221.282

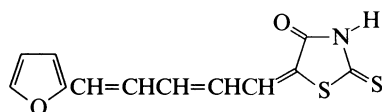
Used as 0.4mM soln. in EtOH for photometric detn. of Pd (λ_{max} 435 nm, ε 80000). Cryst. Sol. EtOH.

[134919-61-2]

Konig, W., *Ber.*, 1925, **58**, 2559 (*synth*)
Mas'ko, L.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 315 (*synth, detn, Pd*)

5-[5-(2-Furanyl)-2,4-pentadienylidene]-2-thioxo-4-thiazolidinone, 9CI

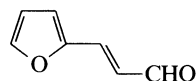
5-[5-(2-Furanyl)-2,4-pentadienylidene]rhodanine

C₁₂H₉NO₂S₂ M 263.341

Several tautomers possible. Used as a 0.2% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt. Red cryst. Sol. Et₂O, EtOH, Me₂CO. Mp 200° dec.

Kulberg, L.M. *et al*, *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)

F-00056

3-(2-Furanyl)-2-propenal, 9CIFurfurylideneacetaldehyde. 2-Furanacrolein
[623-30-3]*(E)-form*C₇H₆O₂ M 122.123*(E)-form* [39511-08-5]

Has insecticidal props. Needles with cinnamon odour. Sol. hot H₂O. Mp 54°. Bp₁₄ 135°. Steam-volatile.

Semicarbazone: Mp 215-219°.*Phenylhydrazone*: Cryst. (pet. ether). Mp 132°.*Thiosemicarbazone, 8CI*:C₈H₉N₃OS M 195.245

Used as a 0.4mM soln. in EtOH for photometric detn. of Pd (λ_{max} 383 nm, ε 41000), Pt (λ_{max} 385 nm, ε 41000). Mp 157-158° (150-151°). pK_{a1} 0.46; pK_{a2} 11.70.

(Z)-form [71277-14-0]Bp_{0.1} 58°. 97% pure.*Di-Et acetal*:C₁₁H₁₆O₃ M 196.246Bp_{0.2} 63°.König, R.H., *J. Prakt. Chem.*, 1913, **88**, 193.

Kerentseva, V.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1144; 1972, **27**, 719 (*synth, pKa, detn, Pd, Pt*)

Parr, W.J.E. *et al*, *Can. J. Chem.*, 1976, **54**, 3216 (*pmr*)Bestmann, H.J. *et al*, *Chem. Ber.*, 1982, **115**, 161 (*synth*)

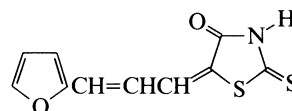
F-00057

5-[3-(2-Furanyl)-2-propenylidene]-2-thioxo-4-thiazolidinone, 9CI

5-(3-Furanyl-2-propenylidene)rhodanine

[37530-63-5]

F-00061

C₁₀H₇NO₂S₂ M 237.303

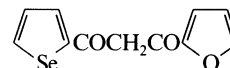
Several tautomers possible. Used as a 0.2% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt. Red cryst. Sol. Et₂O, EtOH, Me₂CO. Mp 205°.

Kulberg, L.M. *et al*, *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)**1-(2-Furanyl)-3-(2-selenophenyl)-1,3-propanedione, 9CI**

Furoylselenoylmethane

[2801-99-2]

F-00062

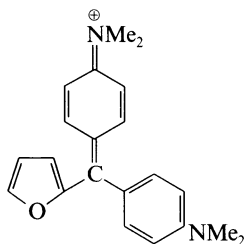
C₁₁H₈O₃Se M 267.142

Used as a satd. soln. in EtOH for extraction-photometric detn. of Cu (λ_{max} 380 nm, ε 37000, CHCl₃). Yellow cryst. (MeOH). Sol. common org. solvs. Mp 43-44°. Bp₇ 206-207°.

Yurev, Y.K. *et al*, *Zh. Obshch. Khim.*, 1961, **31**, 1449 (*synth, use*)

Furfurol green**F-00063**

N-[4-[(Dimethylamino)phenyl]-2-furanylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+)

 $C_{21}H_{23}N_2O^{\oplus}$ M 319.425 (ion)

Strictly, the name Furfurol green applies to the chloride.

Chloride: [6735-60-0].

 $C_{21}H_{23}ClN_2O$ M 354.878Used as 0.5% aq. soln. for extraction-photometric detn. of Tl (λ_{max} 627 nm, ϵ 26000, C_6H_6 /butanone) as [ThBr₄][⊖] complex; detn. of Ga as [GaCl₄][⊖]. Sol. H₂O.Albu, C.D., *CA*, 1967, **66**, 3807 (*struct*)Costinescu, P. *et al*, *CA*, 1971, **74**, 71284j (*detn*, *Ga*)Constantinescu, C., *Rev. Chim. (Bucharest)*, 1973, **24**, 919; *CA*, **81**, 85560c.**2-Furohydroxamic acid****F-00064**

N-Hydroxy-2-furancarboxamide, 9CI

 $C_5H_5NO_3$ M 127.099

N-(3-Chlorophenyl): [51639-70-4]. N-(3-Chlorophenyl)-N-hydroxy-2-furancarboxamide, 9CI

 $C_{11}H_8ClNO_3$ M 237.642Used as 0.5% soln. in EtOH for extraction-photometric detn. of Sn(IV) (λ_{max} 480 nm, ϵ 50300, CHCl₃/EtOH). Cryst. Sol. EtOH.

N-(4-Chlorophenyl): [51639-68-0]. N-(4-Chlorophenyl)-N-hydroxy-2-furancarboxamide, 9CI

 $C_{11}H_8ClNO_3$ M 237.642Used as 0.5% soln. in EtOH for extraction-photometric detn. of Sn(IV) (λ_{max} 480 nm, ϵ 51800, CHCl₃/EtOH). Cryst. Sol. EtOH.

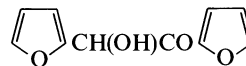
N-(4-Methylphenyl): [29556-16-9]. N-Hydroxy-N-(4-methylphenyl)-2-furancarboxamide, 9CI

 $C_{12}H_{11}NO_3$ M 217.224Used as a 0.1% soln. in CHCl₃ for extraction photometric detn. of Ce (λ_{max} 465 nm, CHCl₃) V (λ_{max} 532 nm, ϵ 4900, CHCl₃). Cryst.Tandon, S.G. *et al*, *J. Chem. Eng. Data*, 1962, **7**, 553 (*synth*, N-4-methylphenyl)Tandon, S.G. *et al*, *J. Indian Chem. Soc.*, 1970, **47**, 583 (*detn*, *V*)Agrawal, Y.K. *et al*, *J. Chem. Eng. Data*, 1971, **16**, 371, 495(*synth*)Agrawal, Y.K. *et al*, *Chem. Anal. (Warsaw)*, 1977, **22**, 215 (*detn*, *Ce*)Agrawal, Y.K. *et al*, *Analyst (London)*, 1985, **110**, 1325 (*detn*, *Sn*)**Furoin, 8CI****F-00065**

1,2-Di(2-furanyl)-2-hydroxyethanone, 9CI.

Furoylfurylcarbinol. α,α -Furoin

[552-86-3]

 $C_{10}H_8O_4$ M 192.171

Needles (EtOH). Mp 138-139°.

▷ LV2100000.

Benzoyl:

 $C_{17}H_{12}O_5$ M 296.279

Mp 92-93°.

Oxime: [21659-48-3]. α -Furoinoxime $C_{10}H_9NO_4$ M 207.185

Used as a 0.01M soln. in aq. EtOH for photometric detn. of Fe(III). Yellow cryst. (EtOH aq.). Mp 160-161°.

Thiosemicarbazone: Mp 144-145°.

Buck, J.S. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 2163.Hartmann, W.W. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 1228.Klein, B., *J. Am. Chem. Soc.*, 1941, **63**, 1474.Okuzumi, T. *et al*, *Nippon Kagaku Zasshi*, 1961, **82**, 1235; *CA*, **57**, 15090d.Armeanu, V. *et al*, *Rev. Roum. Chim.*, 1968, **19**, 226 (*synth*, *use*, *oxime*)Sadatoshi, A. *et al*, *Bull. Chem. Soc. Jpn.*, 1976, **49**, 746.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FQI000.

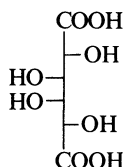
G

Galactaric acid, 9CI, 8CI

G-00001

1,2,3,4-Tetrahydroxy-1,4-butanedicarboxylic acid. Mucic acid, 9CI, 8CI. Tetrahydroxyadipic acid. Galactosaccharic acid

[526-99-8]



$C_6H_{10}O_8$ M 210.140

A meso-compd., certain derivs. induce asymmetry. Isol. from sporophylls of brown algae, various fruits and fungi. Used as 2% aq. soln. to form colour complexes with Fe, Co, Cr(III), Mn, U(VI). (pH 3-10). Cryst. Sol. alkalis, H_2O . Mp 213°, Mp 225°, Mp 230° dec.

▷ LW5180000.

Bisphenylhydrazide: Mp 240°.

2,3,4,5-Tetra-Ac:

$C_{14}H_{18}O_{12}$ M 378.289
Mp 260° dec.

Tollens, B. et al, *Kurzes Handbuch der Kohlenhydrate*, Edwards Bros. Inc., Ann Arbor, 1943, 359.

Anet, E.F.L.J. et al, *Nature (London)*, 1954, **174**, 930 (isol)

Togawasa, Y. et al, *CA*, 1955, **49**, 7064 (isol)

Lewis, B.A. et al, *Methods Carbohydr. Chem.*, 1963, **2**, 38.

Burden, I.J. et al, *J. Chem. Soc., Perkin Trans. 1*, 1974, 863 (pmr)

Gonzalez-Portal, A. et al, *Microchem. J.*, 1982, **27**, 357 (use)

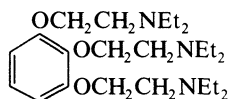
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, GAR000.

Gallamine, BAN

G-00002

2,2',2''-[1,2,3-Benzenetriyltris(oxy)]tris(N,N-diethylethanamine), 9CI. 2,2'',2''''-(v-Phenenyiltrioxy) trisriethylamine, 8CI

[153-76-4]



$C_{24}H_{45}N_3O_3$ M 423.638

Neuromuscular blocker. Muscle relaxant. Mp 145-150°.

Used as triethiodide.

B.HCl: Used as a 0.1M aq. soln. for photometric detn. of BrO_3^- , NO_2^- . Cryst.

B.3EtI: [65-29-2]. Gallamine triethiodide, USAN, INN.

Benzcurine iodide. Flaxedil. Relaxan. Retensin. Numerous proprietary names

Cryst. (Me_2CO aq.). Insol. Me_2CO , Et_2O , C_6H_6 , $CHCl_3$. Mp 152-153°.

▷ BS1100000.

Bovet, D. et al, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1947, **225**, 74 (pharmacol)

Protiva, M. et al, *Collect. Czech. Chem. Commun.*, 1948, **13**, 326 (synth)

U.S. Pat., 2 691 042, (1954); *CA*, **49**, 11706 (synth)

Older, I., *Anal. Chem.*, 1969, **41**, 1116 (detn, BrO_3^- , NO_2^-)

Lu, T.-C., *J. Pharmacol. Exp. Ther.*, 1970, **174**, 560 (pharmacol)

Dal Santo, G., *Br. J. Anaesth.*, 1972, **44**, 321 (metab)

Buzello, W. et al, *Anaesthesist*, 1978, **27**, 313 (props)

Colquhoun, D. et al, *Br. J. Pharmacol.*, 1979, **66**, 78 (props)

Henthorn, T.K. et al, *J. Pharmacol. Exp. Ther.*, 1982, **222**, 389 (pharmacol)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 5720.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 7902.

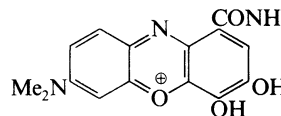
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PDD300.

Gallamine blue

G-00003

1-(Aminocarbonyl)-7-(dimethylamino)-3,4-dihydroxyphenoxazin-5-ium(1+), 9CI. 7-Dimethylamino-3,4-dihydroxy-1-phenoxazinecarboxamide. Mordant blue 45. C.I. 51045

[1563-02-6]



$C_{15}H_{14}N_3O_4^{\oplus}$ M 300.293 (ion)

Strictly, the name Gallamine blue applies to the chloride.

Chloride:

$C_{15}H_{14}ClN_3O_4$ M 335.746

Acid-base indicator (pH range: 2 - 4; colour change: red → blue; pH range: 7 - 9; colour change: blue → purple) used as aq. soln. Dark greenish blue cryst.

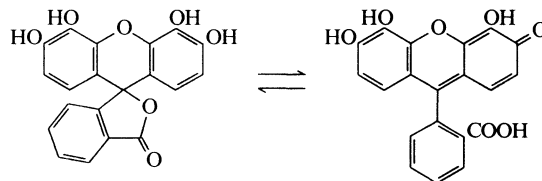
Manelli, G. et al, *Ann. Chim.*, 1951, **41**, 68.

Gallein

G-00004

4,5-Dihydroxyfluorescein. 3',4',5',6'-Tetrahydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9CI. 3',4',5',6'-Tetrahydroxyfluoran. C.I. Mordant violet 25. Alizarine violet

[2103-64-2]



$C_{20}H_{12}O_7$ M 364.311

Indicator. Used for photometric detn. of In, Sn, Mo, W, Zr, Ge. Biological stain. Used clinically for detn. of PO_4^{3-} in urine. Biological stain. Brownish-red powder or cryst. + $1\frac{1}{2} H_2O$. Greenish-yellow when anhydrous. Sol. EtOH, alkalis; insol. H_2O , C_6H_6 , $CHCl_3$. Mp > 300° (loses H_2O at 180°). pK_{a1} 1.8; pK_{a2} 6.3.

Me ester:

$C_{21}H_{14}O_7$ M 378.337

Amorph. Mp > 280°.

Tri-Me ether, Me ester:

$C_{24}H_{20}O_7$ M 420.418

Mp 199°.

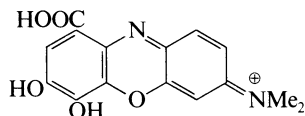
Orndorff, W.R. et al, *Am. Chem. J.*, 1909, **42**, 185 (bibl)

Gibbs, R.C. et al, *J. Am. Chem. Soc.*, 1929, **51**, 1755 (uw)

- Orlovski, S.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1961, **27**, 687 (*detn. In*)
 Leong, C.L., *Analyst (London)*, 1970, **95**, 1018 (*detn. Mo*)
 Ackermann, G. *et al*, *Talanta*, 1974, **21**, 431 (*detn. Sn*)
 Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 938 (*detn. W*)
 Ouisi, H., *Photometric Determination of Traces of Metals, Part Ib: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 507, 510.

Galloyanine**G-00005**

1-Carboxy-7-(dimethylamino)-3,4-dihydroxyphenoxazin-5-ium(1+), 9CI. 7-Dimethylamino-3H-4-hydroxy-3-oxophenoxazine-1-carboxylic acid. C.I. Mordant blue 10. C.I. 51030. Alizarine navy blue AT. Brilliant chrome blue P



$C_{15}H_{13}N_2O_5^{\oplus}$ M 301.278 (ion)

Strictly, the name Galloyanine applies to the chloride.

Chloride: [1562-85-2].

Used as a 1% soln. in AcOH as metallochromic indicator in titrimetric detn. of Ga, Th. Dark reddish blue cryst. powder. Sl. sol. AcOH, EtOH; insol. H₂O. ▶ SP7692000.

Me ester, chloride: [6416-51-9].

$C_{16}H_{15}ClN_2O_5$ M 350.758

Used as a 0.2mM soln. in EtOH for photometric detn. of Bi (λ_{max} 563 nm, ϵ 23400). Orange cryst. Sol. EtOH.

Milner, G.W.C., *Analyst (London)*, 1955, **80**, 77 (*detn. Ga*)

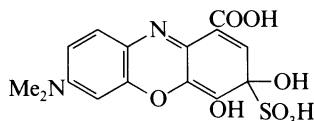
Specker, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1956, **149**, 97 (*detn. Ga*)

Sangal, S.P. *et al*, *CA*, 1961, **55**, 13164 (*detn. Th*)

Kotoucek, M. *et al*, *Collect. Czech. Chem. Commun.*, 1977, **42**, 235 (*deriv. use*)

Galloyanine MS**G-00006**

7-(Dimethylamino)-3,4-dihydroxy-3-sulfo-3H-phenoxazine-1-carboxylic acid, 8CI. Zirconin [27822-77-1]



$C_{15}H_{14}N_2O_8S$ M 382.350

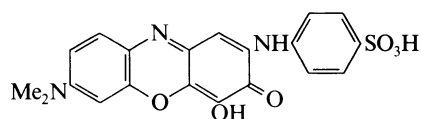
Used as 0.05% aq. soln. for photometric detn. of Zr (Hf) (λ_{max} 625 nm, ϵ 40000). Grey cryst. powder (MeOH aq.). Sol. H₂O. $pK_{a2} \sim 3$; $pK_{a1} \sim 8$.

Mustafin, I.S. *et al*, *Zavod. Lab.*, 1967, **33**, 12 (*detn. Zn*)

Mustafin, I.S. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1338 (*synth. use*)

Gallophenine**G-00007**

4-[[7-(Dimethylamino)-4-hydroxy-3-oxo-3H-phenoxazin-2-yl]amino]benzenesulfonic acid. C.I. Mordant black 59. C.I. 51125 [31995-53-6]



$C_{20}H_{17}N_3O_6S$ M 427.437

Strictly the name Gallophenine refers to the sodium salt.

Redox indicator used as soln. in H₂O or EtOH (pH range 4.5-9; colour change: green → purple). Dark blue cryst. powder. Sol. EtOH, H₂O.

Michaelis, L. *et al*, *J. Biol. Chem.*, 1930, **87**, 713 (*use*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Gelatin, BAN, USAN**G-00008**

Gelfoam. Puragel. Emagel. Gelafusal. Gelatine bloom 250. Gelrite. Nikkol CCP4. Pharmagel A. Rousselot 3046. Spongiofort [9000-70-8]

Used in the food industry as a stabiliser and thickener.

Derived from collagen; obt. by boiling skin, tendons, ligaments and bones with H₂O. Used as a protecting colloid; serves as nonionic surfactant in polarography. Plasma expander. Pharmaceutical aid. Used in sponge and film forms as a local haemostatic agent. Sl. yellow sheets, flakes or coarse powder. Sol. hot H₂O, glycerol, AcOH; insol. org. solvs.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4**, 297.

Veis, A., *The Macromolecular Chemistry of Gelatin*, Academic Press, New York, 1964.

Ward, A.G. *et al*, *The Science and Technology of Gelatin*, Academic Press, London, 1977.

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **11**, 155, 713 (*manuf*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 818.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PCU360.

Girard's reagent T**G-00009**

2-Hydrazino-N,N,N-trimethyl-2-oxoethanaminium, 9CI. (Carboxymethyl)trimethylammonium hydrazide, 8CI

$Me_3N^{\oplus}CH_2CONHNH_2$

$C_5H_{14}N_3O^{\oplus}$ M 132.185 (ion)

Reagent for forming water-sol. derivs. with carbonyl compds., used esp. in isoln. of steroids.

Chloride: [123-46-6].

$C_5H_{14}ClN_3O$ M 167.638

Needles. Mp 192° sl. dec. V. hygroscopic.

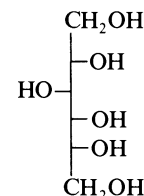
Girard, A. *et al*, *Helv. Chim. Acta*, 1936, **19**, 1095 (*synth*)

Org. Synth. Coll. Vol., 2, 1943, 85 (*synth*)

Wheeler, O.H., *Chem. Rev.*, 1962, **62**, 205 (*rev*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 410.

Wheeler, O.H., *J. Chem. Educ.*, 1968, **45**, 435 (*rev*)

Glucitol, 9CI, 8CI**G-00010**

$C_6H_{14}O_6$ M 182.173

D-form [50-70-4]

D-Sorbitol. L-Gulitol. Numerous proprietary names

Occurs widely in plants ranging from algae to the higher orders. Fruits of the plant family Rosaceae, which include apples, pears, cherries, apricots, contain appreciable amounts. Rich sources are the fruits of the

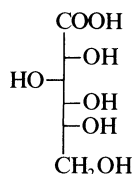
Sorbus and *Crataegus* spp. Used for manuf. of sorbose, propylene glycol, ascorbic acid, resins, plasticisers and as antifreeze mixts. with glycerol or glycol. Tablet excipient, sweetening agent and humectant. Used in photometric detn. of Ru(VI) and Ru(VIII); in acid-base titration of borate. Needles + $\frac{1}{2}$ or 1H₂O (EtOH) with sweet taste (60% of sucrose). Freely sol. H₂O; fairly sol. hot EtOH; spar. sol. cold EtOH. Mp 97° (stable form), Mp 92° (labile form), Mp 110-112° (anhyd.). $[\alpha]_D^{20} + 7^\circ$ (borax), $[\alpha]_D^{20} + 31^\circ$ (molybdate). pK_a 13.00 (60°).

▷ LZ4290000.

- Barker, S.A. *et al*, *Adv. Carbohydr. Chem.*, 1952, **7**, 137 (rev)
 Thiel, I.M.E. *et al*, *J. Org. Chem.*, 1966, **31**, 3704.
 Matsui, M. *et al*, *Chem. Pharm. Bull.*, 1968, **16**, 1288.
 Park, Y.J. *et al*, *Acta Crystallogr., Sect. B*, 1971, **27**, 2393 (cryst struct)
 Brimacombe, J.S. *et al*, *The Carbohydrates*, Academic Press, 1972, **1A**, 479 (rev)
 Yankauskas, J.J. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 333 (detn, Ru)
 Menon, K.R. *et al*, *CA*, 1974, **83**, 125709h (detn, B)
 Colson, P. *et al*, *Can. J. Chem.*, 1975, **53**, 1030 (cmr)
 Koester, R. *et al*, *Justus Liebigs Ann. Chem.*, 1975, 752 (synth, pmr)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 618, 5070, 13262.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IHL000, SKV200.

Gluconic acid, 9CI, 8CI

G-00011



C₆H₁₂O₇ M 196.157

D-form [526-95-4]

Used as an aq. soln. for photometric detn. of Mn. Needles. Sol. H₂O. Mp 130-132°. $[\alpha]_D^{20} - 6.7^\circ \rightarrow + 11.7^\circ$ (H₂O, 5 d). pK_a 3.76 (17°).

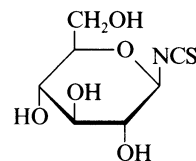
Ca salt: [18016-24-5]. *Calcium gluconate*, USAN. *Calglucon* Electrolyte replenisher. $[\alpha]_D^{20} + 8.5^\circ$ (c, 3.0 in H₂O). Component of Calcet.

[299-28-5, 18016-24-5]

- Tollens, B. *et al*, *Kurzes Handbuch der Kohlenhydrate*, Edwards Bros. Inc., Ann Arbor, 1943, 285.
 Green, J.W., *Adv. Carbohydr. Chem.*, 1948, **3**, 153 (rev)
 Tanabe, H. *et al*, *CA*, 1962, **58**, 8617ef (synth, props)
 Frush, H.L. *et al*, *Methods Carbohydr. Chem.*, 1963, **2**, 14 (synth, Ca salt)
 Fisch, D.C. *et al*, *Methods Enzymol.*, 1966, **9**, 53.
 Zhadanov, Y.A. *et al*, *Zh. Obshch. Khim.*, 1969, **39**, 1128.
 de Lederkremer, R.M. *et al*, *Carbohydr. Res.*, 1970, **13**, 9.
 Bermejo Martinez, F. *et al*, *Mikrochim. Acta*, 1971, **1**, 489 (detn, Mn)
 Lis, T., *Carbohydr. Res.*, 1983, **122**, 23 (cryst struct)
 Olafsdottir, E.S. *et al*, *Phytochemistry*, 1992, **31**, 4129 (biosynth)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CAS750.

Glucopyranosyl isothiocyanate

G-00012



C₇H₁₁NO₅S M 221.234

β-D-form

2,3,4,6-Tetra-Ac: [14152-97-7]. TAGIT

C₁₅H₁₉NO₅S M 389.382

Derivatisation reagent for the resolu. of amino acids by hplc. Mp 112-113°. $[\alpha]_D^{20} + 5^\circ$ (c, 1 in CHCl₃).

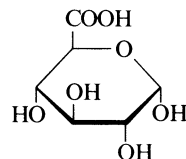
[18866-59-6]

- Muller, A. *et al*, *Ber.*, 1941, **74**, 698 (synth)
 Nimura, N. *et al*, *J. Chromatogr.*, 1980, **202**, 375; 1981, **210**, 77; 1984, **316**, 547 (use)
 Gal, J. *et al*, *J. Liq. Chromatogr.*, 1984, **7**, 2307; 1986, **9**, 673 (use)
 Camarasa, M.J., *Synthesis*, 1984, 509 (synth)

Glucuronic acid, 9CI, 8CI

G-00013

Glycuronic acid



α-Pyranose-form

C₆H₁₀O₇ M 194.141

D-form

Widely distributed in plants, where it occurs in gums, mucilages, saponins and flavone glycosides and in animals as a constit. of mucopolysaccharides. Glycosides are formed in the liver to detoxify poisonous hydroxyl-containing substances. Phenyl, cresyl and indoxyl glycosides are present in normal urine. Used in hplc to determine enantiomeric purity of dopamine agonists. Mp 165° (146°). $[\alpha]_D^{24} + 11.7^\circ \rightarrow + 36.3^\circ$ (2 d) (H₂O).

Ba salt: [29600-83-7].

$[\alpha]_D^{20} + 17.5^\circ$ (H₂O).

Bicine salt: Monohydrate. Mp 156-157°. $[\alpha]_D^{20} - 15.1^\circ$ (H₂O).

Na salt: [14984-34-0].

Monohydrate. $[\alpha]_D^{20} - 0.6^\circ \rightarrow + 22.5^\circ$ (H₂O).

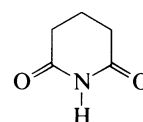
- Tollens, B. *et al*, *Kurzes Handbuch der Kohlenhydrate*, Edwards Bros. Inc., Ann Arbor, 1943, 282.
 Mehlretter, C.L. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 2424.
 Aspinall, G.O., *Adv. Carbohydr. Chem.*, 1954, **9**, 131 (rev)
 Easty, B.D., *J. Org. Chem.*, 1962, **27**, 2102.
 Paulsen, H. *et al*, *Chem. Ber.*, 1966, **99**, 908.
Glucuronic Acid, Free Comb., (Dutton, G.J., Ed.), Academic Press, New York, 1966, 629 (rev)
 Anthonsen, T. *et al*, *Acta Chem. Scand.*, 1973, **27**, 2671.
 Timpe, W. *et al*, *Carbohydr. Res.*, 1975, **39**, 53.
 Compennolle, F., *Carbohydr. Res.*, 1980, **83**, 135.
 Gerding, T.K. *et al*, *J. Chromatogr.*, 1989, **487**, 125 (use)

Glutarimide

G-00014

2,6-Piperidinedione, 9CI

[1121-89-7]



C₅H₇NO₂ M 113.116

Cryst. (EtOH aq.). Mp 152-154°.

Monoxime: [38105-50-9]. 2-Hydroxyimino-6-oxopiperidine

C₅H₈N₂O₂ M 128.130

Gives colour reactions with Ag, Au, Co, Cr, Cu, Fe, Mn, Mo, Ni, U, V; used for pptn. of Ag, Au, Bi, Ce, Co, Hg, Pd.

Dioxime: [18271-49-3]. Glutarimide dioxime

C₅H₉N₃O₂ M 143.145

Used for photometric detn. of Ce.

Org. Synth., Coll. Vol., 4, 1963, 496 (synth)

Masquestiau, A. *et al.*, *Bull. Soc. Chim. Belg.*, 1969, **78**, 309 (ms)

Petersen, C.S., *Acta Chem. Scand.*, 1971, **25**, 379 (cryst struct)

Buscarons, F. *et al.*, *Quim. Ind. (Madrid)*, 1971, **17**, 6 (use)

Buscarons, F. *et al.*, *Inf. Quim. Anal.*, 1972, **26**, 1.

Ul Hasan, M., *Org. Magn. Reson.*, 1980, **14**, 447 (cmr)

Crockett, G.C. *et al.*, *Synth. Commun.*, 1981, **11**, 447 (synth)

Kinoshita, T. *et al.*, *Synthesis*, 1985, 402 (synth)

Glycerol

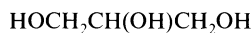
G-00015

1,2,3-Propanetriol, 9CI. 1,2,3-Trihydroxypropane. Glycerin.

Amylac. Babylax. Bulboid. Cristal. Dagrax. Glyrol.

Luxoral. Meprolax. Osmoglyn. Glyceritol

[56-81-5]



C₃H₈O₃ M 92.094

Found extensively in esterified form in animal and plant glycerides. Obt. on large scale by alkaline hydrol. of fats during soap manuf. and by other routes. Used in cosmetics, foods, tobacco processing and extensively in numerous industrial and domestic prods. Component of alkyl resins and polyurethanes. Mild laxative, diuretic. Used for detn. of B; photometric detn. of Co. Syrup with sweet taste. Misc. H₂O, EtOH; insol. C₆H₆, CHCl₃, CCl₄. d 1.262, d₄¹⁵ 1.265. Mp 17.8°. Bp 290° part. dec., Bp₂₀ 182°. pK_{a1} 14.4. V. hygroscopic. Steam-volatile. Numerous glycerides are listed separately.

▷ Reacts violently or explosively with many oxid. agents. MA850000.

Bismuth salt: [17140-54-4]. *Bismutoral*

Oral antiseptic.

Complex with aluminium hydroxide: [12182-48-8]. **Glucalox**,

INN. *Glycalox*, BAN. *Manalox AG*

Antacid.

Tribenzoyl: [614-33-5].

C₂₄H₂₀O₆ M 404.418

Mp 72°.

Tris-4-nitrobenzoyl: Mp 197.5°.

1-Me ether: [623-39-2]. 3-Methoxy-1,2-propanediol

C₄H₁₀O₃ M 106.121

Bp 220°, Bp₄₀ 136°.

2-Me ether: [761-06-8]. 2-Methoxy-1,3-propanediol

C₄H₁₀O₃ M 106.121

Bp 232°, Bp₄₀ 148°.

1,2-Di-Me ether: [40453-77-8]. 2,3-Dimethoxy-1-propanol

C₅H₁₂O₃ M 120.148

Bp 180°, Bp₄₀ 100°.

1,3-Di-Me ether: [623-69-8]. 1,3-Dimethoxy-2-propanol

C₅H₁₂O₃ M 120.148

Bp 169°, Bp₄₀ 88°.

Tri-Me ether: [20637-49-4]. 1,2,3-Trimethoxypropane

C₆H₁₄O₃ M 134.175

Bp 148°.

[18673-08-0, 28959-04-8, 36887-04-4]

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **1**, 91 (use)

Gidez, L.I. *et al.*, *J. Am. Chem. Soc.*, 1952, **74**, 2413 (synth)

Miner, C.S. *et al.*, *Glycerol*, *Am. Chem. Soc. Monograph No. 117*, N.Y., 1953 (rev)

Nessonova, G.D. *et al.*, *Zavod. Lab.*, 1959, **25**, 786 (detn. Co)

Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **10**, 619 (rev)

U.S. Pat., 3 352 895, (1967); *CA*, **68**, 33186x (synth, Glucalox)

Newman, A.A., *Glycerol*, *Am. Chem. Soc. Monograph No. 117*, Morgan-Grampian, London, 1968 (rev)

Karrer, W. *et al.*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 139.

Budden, R. *et al.*, *Arzneim.-Forsch.*, 1978, **28**, 1579 (pharmacol)

Kern, J.C., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **2**, 921 (rev)

Carmaniu, S. *et al.*, *Arch. Int. Physiol. Biochim.*, 1980, **88**, 255 (metab)

Frank, M.S. *et al.*, *Pharmacotherapy (Carlisle, Mass.)*, 1981, **1**, 147 (rev, pharmacol)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1901.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 142.

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 448.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 342.

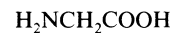
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, GGA000, GGU000.

Glycine

G-00016

Aminoacetic acid, 9CI. Glycocol. Glue sugar

[56-40-6]



C₂H₅NO₂ M 75.067

Certain derivs. of importance in peptide synth. have been listed separately under the name of the *N*-protecting group. Occurs widely in peptides and proteins. Catalyst for Knoevenagel condensations. Used for detn. of Cu, Au. Cryst. (EtOH aq.). Sol. H₂O; sl. sol. EtOH. Mp 262° dec. pK_{a1} 2.35; pK_{a2} 9.78 (25°). Isoelectric point 5.97. Sweet taste.

▷ MB7600000.

B,HCl: Mp 185°.

Me ester:

C₃H₇NO₂ M 89.094

Bp 130° dec., Bp₅₀ 54°.

Me ester; B,HCl: Sol. EtOH. Mp 175°.

Org. Synth., Coll. Vol., 1, 1932, 298 (synth)

Org. Synth., Coll. Vol., 2, 1943, 310 (synth)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, NY, 1947, **2** (use)

Greenstein, J.P. *et al.*, *Chemistry of the Amino Acids*, (Chapter 26), Wiley, N.Y., 1961, **3**, 1955 (bibl, synth)

Junk, G. *et al.*, *J. Am. Chem. Soc.*, 1963, **85**, 839 (ms)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 412.

Leipert, T.K. *et al.*, *J. Am. Chem. Soc.*, 1975, **97**, 269 (nmr)

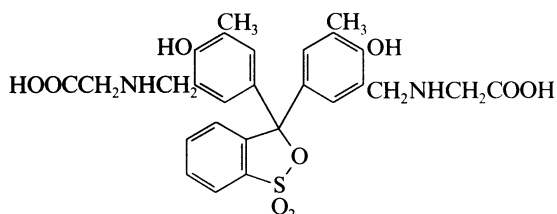
Power, L.F. *et al.*, *Acta Crystallogr., Sect. B*, 1976, **32**, 11.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, GHA000.

Glycinesresol red**G-00017**

N,N' -[3H-2,1-Benzoxathiol-3-ylidenebis[(6-hydroxy-5-methyl-3,1-phenylene)methylene]]bisglycine S,S-dioxide, 9CI. 3,3'-Bis(N-carboxymethylaminomethyl)-o-cresolsulfonephthalein. 3,3'-Bis(3-aminomethyl-4-hydroxy-5-methylphenyl)-3H-2,1-benzoxathiole-N,N'-diacetic acid S,S-dioxide

[4079-10-1]

 $C_{27}H_{28}N_2O_9S$ M 556.592

Used as a 0.2M aq. soln. as metallochromic indicator in titrimetric detn. of Cu; photometric detn. of Ga. Dark red cryst. powder. Sol. H_2O . pK_{a1} -1.8; pK_{a2} 0; pK_{a3} 2.5; pK_{a4} 4.9; pK_{a5} 7.1; pK_{a6} 10.8; pK_{a7} 12.4.

Körbl, J. *et al*, *Chem. Ind. (London)*, 1957, 1624 (*synth, use*)Budesinski, B. *et al*, *Collect. Czech. Chem. Commun.*, 1963, **28**, 1154 (*use*)Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 944 (*detn, Ga*)**Glycinedithiocarbamic acid****G-00018**

Carboxymethyldithiocarbamic acid

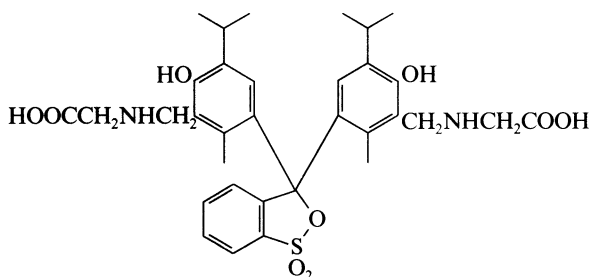
 $C_4H_7NO_2S_2$ M 165.237

Used as aq. soln. of NH_4 salt for photometric detn. of Bi, Cu. Cryst. (H_2O). Sol. H_2O .

Haas, W. *et al*, *Mikrochim. Acta*, 1961, 787 (*synth, detn, Bi, Cu*)**Glycinethymol blue****G-00019**

N,N' -[3H-2,1-Benzoxathiol-3-ylidenebis[[6-hydroxy-2-methyl-5-(1-methylethyl)-3,1-phenylene)methylene]]bisglycine S,S-dioxide, 9CI

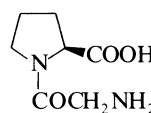
[3810-63-7]

 $C_{33}H_{40}N_2O_9S$ M 640.753

Used as 0.1mM aq. soln. for photometric detn. of Cr, U; used for indirect detn. of F^{\ominus} . Cryst. Sol. H_2O .

Körbl, J. *et al*, *Chem. Ind. (London)*, 1957, 1624 (*synth*)Tatev, O.A. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 930 (*detn, Cr*)Kirillov, A.I. *et al*, *Zavod. Lab.*, 1974, **40**, 353 (*detn, U*)Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1979, **45**, 1101 (*detn, F[⊖]*)**Glycylproline****G-00020**

N-Aminoacetylpyrrolidine-2-carboxylic acid



Absolute configuration

 $C_7H_{12}N_2O_3$ M 172.183**(S)-form** [704-15-4]*L-form*

Prisms (MeOH aq.). Mp 185°. $[\alpha]_D^{20}$ -113.8° (H_2O), $[\alpha]_D^{18}$ -86.2°. Hygroscopic.

Lactam: $C_7H_{10}N_2O_2$ M 154.168Mp 180-183°. $[\alpha]_D^{20}$ -202°.

N-Benzoyloxycarbonyl: [1160-54-9].

Chiral additive for enantiomeric separation of amines and amino acids. Cryst. (EtOAc). Mp 158-159°. $[\alpha]_D$ -77.5° (c, 2 in $CHCl_3$).

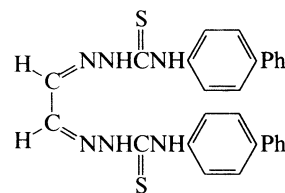
N-Benzoyloxycarbonyl, *Me ester*: Cryst. (Et_2O /pet. ether). Mp 49-50°.

N-tert-Butyloxycarbonyl: Mp 142-144°. $[\alpha]_D$ -68.8° (c, 2.1 in DMF).

Abderhalden, E. *et al*, *Hoppe Seyler's Z. Physiol. Chem.*, 1925, **145**, 308 (*synth*)Abderhalden, E. *et al*, *CA*, 1931, **25**, 77 (*synth*)Bergmann, M. *et al*, *Ber.*, 1932, **65**, 1192 (*synth*)Goodman, M. *et al*, *J. Am. Chem. Soc.*, 1962, **84**, 1279 (*synth*)Wunsch, E., *Hoppe Seyler's Z. Physiol. Chem.*, 1963, **332**, 288 (*synth*)Anderson, G.W. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 1839 (*synth*)Kenner, G.W. *et al*, *J. Chem. Soc. C*, 1967, 108 (*synth*)Pettersson, C. *et al*, *Chromatographia*, 1986, **21**, 321 (*use, deriv*)Karlsson, A. *et al*, *J. Chromatogr.*, 1991, **543**, 287 (*use, deriv*)**Glyoxal bis(4-biphenylthiosemicarbazone)****G-00021**

2,2'-(1,2-Ethanediyliidene)bis[N-(1,1'-biphenyl)hydrazinecarbothioamide], 9CI

[38985-48-7]

 $C_{28}H_{24}N_6S_2$ M 508.670

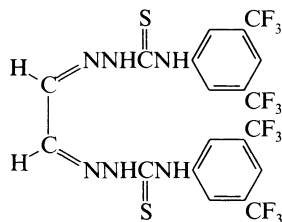
Used as 0.01% soln. in EtOAc for extraction-photometric detn. of Cu(II) (λ_{max} 510 nm, ϵ 17800), Hg(II), Zn. Grey cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 237°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (*synth, use*)

Glyoxal bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone]

G-00022

2,2'-(1,2-Ethanediyliidene)bis[N-[3,5-bis(trifluoromethyl)phenyl]hydrazinecarbothioamide], 9CI
[38985-47-6]



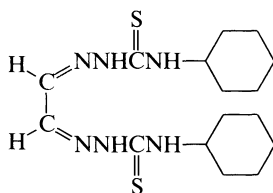
$C_{20}H_{12}F_{12}N_6S_2$ M 628.468

Used as 0.01% soln. in EtOAc for extraction-photometric detn. of Hg(II) (λ_{max} 460 nm, ϵ 11000, $CHCl_3$), Cu(II), Pb, Zn. Yellow cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 221°.

Niederschulte, U. et al, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

Glyoxal bis(4-cyclohexylthiosemicarbazone)

G-00023



$C_{16}H_{28}N_6S_2$ M 368.569

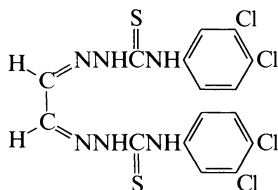
Used as 0.01% soln. in EtOAc for extraction-photometric detn. of Cu(II) (λ_{max} 510 nm, ϵ 7300, $CHCl_3$), Hg(II), Pb, Zn. Yellow-orange cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone.

Niederschulte, U. et al, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

Glyoxal bis(3,4-dichlorophenylthiosemicarbazone)

G-00024

2,2'-(1,2-Ethanediyliidene)bis[N-(3,4-dichlorophenyl)hydrazinecarbothioamide], 9CI
[38901-42-7]



$C_{16}H_{12}Cl_4N_6S_2$ M 494.254

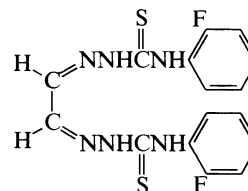
Used as 0.01% soln. in EtOAc to give colour reactions with Ag, Bi, Cd, Cu, Hg(II). Grey cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 225°.

Niederschulte, U. et al, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

Glyoxal bis(2-fluorophenylthiosemicarbazone)

G-00025

2,2'-(1,2-Ethanediyliidene)bis[N-(2-fluorophenyl)hydrazinecarbothioamide], 9CI
[38901-38-1]



$C_{16}H_{14}F_2N_6S_2$ M 392.456

Used as 0.01% soln. in EtOAc to give colour reactions with Ag, Bi, Cd, Co, Cu, Pb. Yellow cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 212°.

Niederschulte, U. et al, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

Glyoxal bis(4-fluorophenylthiosemicarbazone)

G-00026

2,2'-(1,2-Ethanediyliidene)bis[N-(4-fluorophenyl)hydrazinecarbothioamide], 9CI
[38985-46-5]

$C_{16}H_{14}F_2N_6S_2$ M 392.456

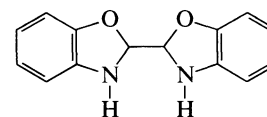
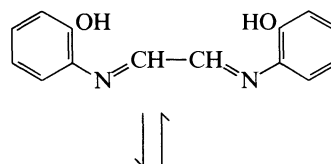
Used as 0.01% soln. in EtOAc for extraction-photometric detn. of Cu(II) (λ_{max} 500 nm, ϵ 11100), Hg(II), Zn. Brown cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 221°.

Niederschulte, U. et al, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth, use)

Glyoxal bis(2-hydroxyanil)

G-00027

2,2'-(Ethanediyliidenedinitrilo)diphenol, 9CI. Di(o-hydroxyphenylimino)ethane. 2,2'-Benzoxazoline. GBHA
[1149-16-2]



$C_{14}H_{12}N_2O_2$ M 240.261

Used as 0.05% soln. in MeOH for photometric detn. of Ca (λ_{max} 516 nm, ϵ 18000) Sc, Mn, Ni, U. Pale yellow needles (MeOH). Sol. alkalis; sl. sol. MeOH, EtOH, C_6H_6 , dioxan; insol. H_2O . Mp 201-205°.

Umland, F. et al, *Fresenius' Z. Anal. Chem.*, 1960, **176**, 96 (detn, Ca)

Okač, A. et al, *Fresenius' Z. Anal. Chem.*, 1963, **195**, 338 (detn, Sc)

Fifield, J.A. et al, *Analyst (London)*, 1969, **94**, 503 (detn, Ca)

Hunter, G., *Analyst (London)*, 1972, **97**, 233 (detn, Ca)

Cheng, K.L. et al, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 269 (use)

Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, 4th Ed., 1986, **4**, 352.

Glyoxal bis(4-hydroxybenzoylhydrazone) G-00028

4-Hydroxybenzoic acid 1,2-ethanediylienedihydrazide, 9CI
[42272-80-0]



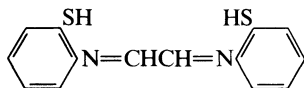
$C_{16}H_{14}N_4O_4$ M 326.311

Used as a 1mM soln. in 0.01M NaOH for photometric detn. of Ca, Cd (λ_{max} 460 nm). Cryst. (EtOH). Sol. EtOH, DMF, alkalis.

Lever, M., *Anal. Chim. Acta*, 1973, **65**, 311 (detn. Ca, Cd)

Glyoxal bis(2-mercaptoanil) G-00029

2,2'-(1,2-Ethanediylienedinitrilo)bisbenzenethiol, 9CI
[1723-98-4]



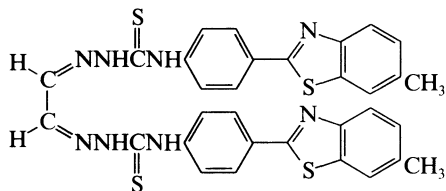
$C_{14}H_{12}N_2S_2$ M 272.394

Used as 1% soln. in CHCl₃ for specific test for Hg; photometric detn. of Hg. Needles (pet. ether). Sol. CHCl₃, pet. ether. Mp 93-94°.

Thabet, S. *et al*, *Anal. Chim. Acta*, 1966, **34**, 231 (synth. detn. Hg)
Mehra, H.C., *Fresenius' Z. Anal. Chem.*, 1977, **285**, 262 (detn. Hg)

Glyoxal bis[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone G-00030

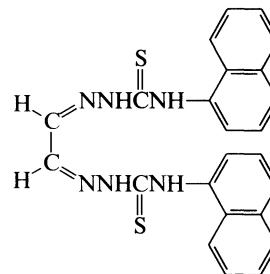
2,2'-(1,2-Ethanediyliene)bis[N-[4-(6-methyl-2-benzothiazolyl)phenyl]hydrazinecarbothioamide], 9CI
[38901-45-0]



$C_{32}H_{26}N_8S_4$ M 650.875

Used as 0.01% soln. in EtOAc to give colour reactions with Ag, Bi, Cu, Hg(II), Co, Zn. Yellow cryst. Sol. MeOH, CHCl₃, EtOAc, 4-methyl-2-pentanone. Mp 250°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth. use)

Glyoxal bis(1-naphthylthiosemicarbazone) G-00031

$C_{24}H_{20}N_6S_2$ M 456.594

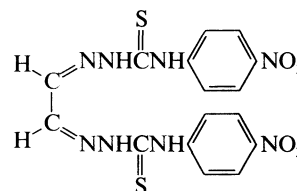
Used as 0.01% soln. in EtOAc for extraction-photometric detn. of Hg(II) (λ_{max} 460 nm, ϵ 13000), Cu(II), Pb, Zn. Orange cryst. Sol. MeOH, CHCl₃, EtOAc, 4-methyl-2-pentanone.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth. use)

Glyoxal bis(4-nitrophenylthiosemicarbazone) G-00032

2,2'-(1,2-Ethanediyliene)bis[N-(4-nitrophenyl)hydrazinecarbothioamide], 9CI

[38901-35-8]



$C_{16}H_{14}N_8O_4S_2$ M 446.470

Used as 0.01% soln. in EtOAc to give colour reactions with Ag, Bi, Co, Cu, Hg(II), Zn. Orange cryst. Sol. MeOH, CHCl₃, EtOAc, 4-methyl-2-pentanone. Mp 210°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth. use)

Glyoxal bis(phenylthiosemicarbazone) G-00033

2,2'-(1,2-Ethanediyliene)bis[N-phenylhydrazinecarbothioamide], 9CI
[18670-34-3]



$C_{16}H_{16}N_6S_2$ M 356.475

Used as DMF soln. for photometric detn. of Pd (λ_{max} 635 nm, ϵ 3200); extraction-photometric detn. of Zn (λ_{max} 450 nm, ϵ 18000), Cu(I), Hg(II). Yellow-orange cryst. Sol. DMF, EtOH.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (synth. use)

Asuero, A.G. *et al*, *Analyst (London)*, 1986, **111**, 747 (detn. Pd)

Glyoxal bis(thiosemicarbazone) G-00034

2,2'-(1,2-Ethanediyliene)bishydrazinecarbothioamide, 9CI
[1072-12-4]

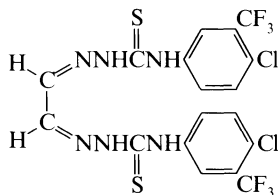


$C_4H_8N_6S_2$ M 204.279

Used as a 0.1mM soln. in dil. NaOH for photometric detn. of Ag, Hg (λ_{max} 335 nm, ϵ 43000). Yellow cryst. Mp > 300°.

Gingras, B.A. *et al*, *Can. J. Chem.*, 1962, **40**, 1053 (*synth*)
 Budesinsky, B.W. *et al*, *Anal. Chim. Acta*, 1971, **55**, 115 (*detn*, *Ag*, *Hg*)

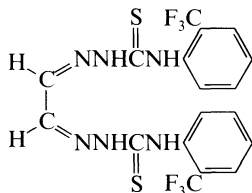
Glyoxal bis[4-(3-trifluoromethyl)-4-chlorophenyl]thiosemicarbazone **G-00035**
 2,2'-(1,2-Ethanediyldiene)bis[N-[4-chloro-3-(trifluoromethyl)phenyl]hydrazinecarbothioamide], 9CI
 [39022-53-2]



$C_{18}H_{12}Cl_2F_6N_6S_2$ M 561.361
 Used as 0.01% soln. in EtOAc for extraction-photometric detn. of Cu(II) (λ_{max} 510 nm, ϵ 13700), Hg(II), Pb, Zn. Grey cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 222°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (*synth*, *use*)

Glyoxal bis[4-(2-trifluoromethyl)phenyl]thiosemicarbazone **G-00036**
 2,2'-(1,2-Ethanediyldiene)bis[N-[2-(trifluoromethyl)phenyl]hydrazinecarbothioamide], 9CI
 [38901-40-5]



$C_{18}H_{14}F_6N_6S_2$ M 492.471
 Used as 0.01% soln. in EtOAc to give colour reactions with Ag, Bi, Cd, Cu, Mn, Ni. Brown cryst. Sol. MeOH, $CHCl_3$, EtOAc, 4-methyl-2-pentanone. Mp 237°.

Niederschulte, U. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 191 (*synth*, *use*)

Glyoxime **G-00037**
 Ethanedial dioxime, 9CI. Glyoxal dioxime, 8CI
 [557-30-2]



$C_2H_4N_2O_2$ M 88.066
 Used in detn. of Ni, pptn. separation and photometric detn. of Pd (ϵ 25000, $CHCl_3$); used as antidote to nerve gas poisoning. Cryst. V. sol. H_2O , EtOH, Et_2O . d 1.547. Mp 178° dec. pK_{a1} 9.9; pK_{a2} 11.5.

► MD2850000.

O,O'-Di-Ac: [26032-67-7]. Glyoxal bis-O-acetyloxime, 8CI
 $C_6H_8N_2O_4$ M 172.140
 Ethylene copolymer crosslinking agent, fruit-ripening agent. Cryst. (H_2O). Mp 120° (126°).

O,O'-Dibenzoyl:
 $C_{16}H_{12}N_2O_4$ M 296.282
 Mp 139°.

[17016-13-6, 81745-49-5]

Wittenberg, M. *et al*, *Ber.*, 1883, **16**, 505 (*synth*)

Kahr, K. *et al*, *Ber.*, 1960, **93**, 132 (*synth*)
 Calleri, M. *et al*, *Acta Crystallogr.*, 1966, **20**, 73; 1967, **22**, 468 (*cryst struct*, *complex*)
 Ayres, G.H. *et al*, *Anal. Chim. Acta*, 1966, **35**, 181 (*detn*, *Ni*, *Pd*)
 Guetle, J.-P. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1967, **264**, 1509 (*pmr*)
Ger. Pat., 2 338 010, (1974); *CA*, **80**, 132803a (*synth*, *derivs*)
 Bodina, R.I. *et al*, *J. Org. Chem. USSR (Engl. Transl.)*, 1976, **12**, 2039 (*synth*, *ir*, *w*)
 Charalambous, J. *et al*, *Org. Mass Spectrom.*, 1983, **18**, 406 (*ms*)
 Cherskaya, N.O. *et al*, *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Engl. Transl.)*, 1986, **35**, 2150 (*ir*, *raman*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EEA000.

Glyoxylic acid, 8CI **G-00038**
 Oxoacetic acid, 9CI. Glyoxalic acid. Aldehydoformic acid. Formylformic acid
 [298-12-4]



$C_2H_2O_3$ M 74.036
 Found in plant and animal tissues. Prod. by *Aspergillus niger* and other microorganisms. Can replace HCHO in Mannich reactions and ozonolyses. V. deliquescent prisms giving yellow aq. soln. V. sol. H_2O ; spar. sol. EtOH, Et_2O . Mp 104-107° (sinters from 94°). pK_a 2.32. Slowly reduces NH_3 . $AgNO_3$. Forms a monohydrate, Mp 50°, and a hemihydrate, Mp 70-75°.

► Irritant, corrosive. MD4550000.

Semicarbazone: Mp 240° dec.
 Thiosemicarbazone: [928-74-5]. [(Aminothioxomethyl)hydrazono]acetic acid, 9CI
 $C_3H_5N_3O_2S$ M 147.157
 Used as 0.5mM aq. soln. for catalytic detn. of Rh(III). Cryst. Sol. H_2O , EtOH.

Et ester: [924-44-7].
 $C_4H_6O_3$ M 102.090
 Bp 130°.

Et ester, 2,4-dinitrophenylhydrazone: Mp 124.5-125.5°.
 Et ester, semicarbazone: Mp 228°.

Di-Et acetal: [20461-86-3]. Diethoxyacetic acid
 $C_4H_{12}O_4$ M 148.158
 Bp₁₁ 108-110°.

Di-Et acetal, Et ester: [6065-82-3].
 $C_8H_{16}O_4$ M 176.212
 Bp 199°, Bp₁₃ 83-85°.

Di-Et acetal, nitrile: [6136-93-2]. Cyanodiethoxymethane
 $C_6H_{11}NO_2$ M 129.158
 Bp₁₂ 55-56°.

Anilide:
 $C_8H_7NO_2$ M 149.149
 Mp 77-78°.

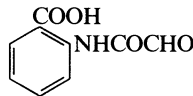
Anilide, 2,4-dinitrophenylhydrazone: Mp 171-172°.

Benzyl ester:
 $C_9H_8O_3$ M 164.160
 Viscous liq. Bp_{0,1} 90° (Kugelrohr).

tert-Butyl ester:
 $C_6H_{10}O_3$ M 130.143
 Viscous oil. Bp₁₂ 49°.

Eisenbraun, A.A. *et al*, *Can. J. Chem.*, 1960, **38**, 622 (*synth*)
Org. Synth., Coll. Vol., 4, 1963, 124, 427 (*synth*)
 Blake, J. *et al*, *J. Am. Chem. Soc.*, 1966, **88**, 4061 (*tert-butyl ester*)
 Pappas, J.J. *et al*, *Tetrahedron Lett.*, 1966, 4273 (*synth*)
 Kelly, T.R. *et al*, *Synthesis*, 1972, 544 (*synth*)
Ullmanns Encykl. Tech. Chem., 4. Aufl., 1976 (*rev*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 162.

- Ezerskaya, N.A. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 846 (*synth. detn. Rh*)
 Bishop, J.E. *et al*, *J. Org. Chem.*, 1991, **56**, 5079 (*benzyl, tert-butyl esters*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, GIQ000.

N-Glyoxyloylanthranilic acid**G-00039**

$C_9H_7NO_4$ M 193.159
 Free acid not isol.

Monooxime: [6579-46-0].

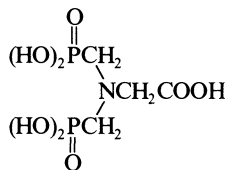
$C_9H_8N_2O_4$ M 208.173

Used as a 1% soln. in EtOH for photometric detn. of Co. Cryst. Mp 206-208°.

Buscarons, F., *Anal. Chim. Acta*, 1958, **19**, 432 (*detn. Co*)

Glyphosine, BSI**G-00040**

N,N-Bis(phosphonomethyl)glycine, 9CI. *Polaris* [2439-99-8]



$C_4H_{11}NO_8P_2$ M 263.080

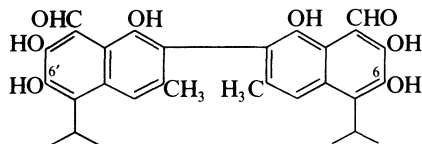
Plant growth regulator, used particularly in the sugar cane industry. Ligand for In, Mn, Ga, Ca, Mg, Fe, and Cu. Used for photometric detn. of Ca, Pb. Cryst. (EtOH aq.). V. sol. H_2O , sl. sol. EtOH, insol. C_6H_6 . Mp 200° dec. pK_{a1} 1.7; pK_{a2} 2.0; pK_{a3} 5.1; pK_{a4} 6.45; pK_{a5} 10.98 (H_2O , 25°). Light-stable.

▷ MB9120000.

- Westerback, S. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 2567 (*synth. props, complexes*)
 Kireeva, A.Yu. *et al*, *Zh. Obshch. Khim.*, (Engl. transl. p. 2494), 1973, **43**, 2508 (*synth, ir, pmr*)
 Karadakov, B. *et al*, *Dokl. Bolg. Akad. Nauk*, 1979, **32**, 325; *CA*, **91**, 217713y (*use*)
Pesticide Manual, 6th Ed., 1979, 293; 7th Ed., 304.
 Tsiur'nikova, N.V. *et al*, *Zh. Obshch. Khim.*, (Engl. transl. p. 859), 1981, **51**, 1028 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BLG250.

Gossypol**G-00041**

1,1',6,6',7,7'-Hexahydroxy-3,3'-dimethyl-5,5'-bis(1-methylethyl)-[2,2'-binaphthalene]-8,8'-dicarboxaldehyde, 9CI. *Thespesin* [303-45-7]



$C_{30}H_{30}O_8$ M 518.562

Atropisomeric compd., occurs naturally in both (+) and (±)-forms.

▷ Toxic. DU3100000.

(+)-*form* [20300-26-9]

Constit. of *Thespesia populinea*. Pale-yellow needles (pet. ether), deep-yellow prisms + Me_2CO (Me_2CO), large elongated plates (Me_2CO aq.). Mp 181-183°. $[\alpha]_D^{19} + 445^\circ$ (c, 0.15 in $CHCl_3$).

▷ DU3101000.

Hexa-Me ether: [17273-30-2].

Colourless. Mp 242-244°. $[\alpha]_D + 177^\circ$ ($CHCl_3$).

(±)-*form* [40112-23-0]

Toxic component of cotton boll cavities. Used as 0.2% EtOH soln. for detn. of Sn(IV); for photometric detn. of Ge. Male antifertility agent, undergoing widespread trials in the Peoples' Republic of China. Cryst. in three forms (Et_2O , $CHCl_3$, pet. ether). Mp 184°, Mp 199°, Mp 214°.

Hexa-Ac: [30719-67-6].

Mp 276-279°.

▷ DU3103000.

Bisphenylhydrazone: Yellow plates (C_6H_6). Mp 303°.

6-Me ether: [54302-42-0].

$C_{31}H_{32}O_8$ M 532.589

Constit. of the roots of *Gossypium* spp. Yellow cryst. (C_6H_6 /hexane). Mp 146-149°.

6,6'-Di-Me ether: [1110-58-3].

$C_{32}H_{34}O_8$ M 546.616

From *G.* spp. Golden-yellow cryst. (C_6H_6 /hexane). Mp 181-184°.

Hexa-Me ether: Cryst. in three forms, two colourless and one red. Mp 231-232° (colourless), Mp 221° (colourless), Mp 158-160° (red).

2-Aminoethylsulfonate: [87606-98-2]. *GSN* (as disodium salt). *Metaphin* (as disodium salt)

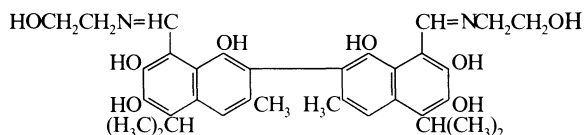
Immunosuppressive, antiviral agent.

[62770-38-1, 90141-22-3]

- Vioque-Pizarro, A., *Anal. Chim. Acta*, 1951, **5**, 529 (*detn, Sn*)
 Adams, R. *et al*, *Chem. Rev.*, 1960, **60**, 555 (*rev*)
 Bell, A., *Phytopathology*, 1967, **57**, 759.
 Bhakuni, D.S. *et al*, *Experientia*, 1968, **24**, 109 (*isol*)
 King, T.J. *et al*, *Tetrahedron Lett.*, 1968, 261 (*isol*)
 Wood, A.B. *et al*, *Chem. Ind. (London)*, 1969, 1738 (*conformn*)
 Edwards, J.D., *J. Am. Oil Chem. Soc.*, 1970, **47**, 441 (*synth*)
 Abou-Donia, M.B. *et al*, *Lipids*, 1970, **5**, 938 (*metab*)
 Talipov, S.T. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 1420 (*detn, Ge*)
 Stipanovic, R.D. *et al*, *Phytochemistry*, 1975, **14**, 1077.
 O'Brien, D.H. *et al*, *J. Org. Chem.*, 1978, **43**, 1105 (*nmr*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 12798.
 Aripov, U.A. *et al*, *Khim.-Farm. Zh.*, 1983, **17**, 908 (*pharmacol, deriv*)
 Sega, S.J. *et al*, *Gossypol*, Plenum Press, N.Y., 1985 (*book*)
 Masciadri, R. *et al*, *J. Chem. Soc., Chem. Commun.*, 1985, 1573 (*biosynth*)
 Talipov, S.A. *et al*, *Khim. Prir. Soedin.*, 1985, **21**, 797; 1986, **22**, 108 (*cryst struct*)
 Ibragimov, B.T. *et al*, *Khim. Prir. Soedin.*, 1985, **21**, 799; 1986, **22**, 110 (*cryst struct*)
 Wu, D.F. *et al*, *Clin. Pharmacol. Ther. (St. Louis)*, 1986, **39**, 613 (*pharmacol*)
 Stipanovic, R.D. *et al*, *J. Chem. Soc., Chem. Commun.*, 1986, 100 (*biosynth*)
 Sampath, D.S. *et al*, *J. Chem. Soc., Chem. Commun.*, 1986, 649 (*cd, resoln*)
 Lacombe, L. *et al*, *J. Nat. Prod. (Lloydia)*, 1987, **50**, 277 (*cmr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, GJM000, GJM025, GJM030, GJM035.

Gossypol bis[N-(2-hydroxy)ethyleneimine] G-00042

[6287-78-1]

 $C_{34}H_{40}N_2O_8$ M 604.699

Used as a 0.1% soln. in $CHCl_3$ /3-methylbutanol for extraction-photometric detn. of V (λ_{max} 575 nm, ϵ 13000). Yellow cryst. Sol. Me_2CO , EtOH, $CHCl_3$; insol. H_2O . Mp 252-255°, Mp 276°.

Gonzalez Correa, O. *et al*, *J. Am. Oil Chem. Soc.*, 1966, **43**, 678 (synth)

Inoyatov, A. *et al*, *Uzb. Khim. Zh.*, 1970, **14**, 20 (detn, V)

B, HNO_3 : [52470-25-4].

Mp 214°.

► May explode during prepn.

B_2, H_2CO_3 : Mp 197°.

$B, AcOH$: [34771-62-5].

Mp 229-230°.

N-Benzenesulfonyl: Mp 212°.

Picrate: Mp 333°.

l-N-Ac: [5699-40-1].

$C_3H_7N_3O$ M 101.108

Mp 145°.

Org. Synth., *Coll. Vol.*, 1, 1932, 302 (synth)

Welcher, R.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **2**, 388 (use)

Watt, G.W. *et al*, *Ind. Eng. Chem.*, 1954, **46**, 2599 (synth)

Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **10**, 734 (rev)

Hart, N.K. *et al*, *Aust. J. Chem.*, 1970, **23**, 1679 (synth, deriv)

Corral, R.A. *et al*, *J. Chem. Soc., Chem. Commun.*, 1970, 556 (synth, deriv)

Ullmanns Encykl. Tech. Chem., 4. Aufl., 1976 (rev)

Fritsche-Lang, W. *et al*, *Chem. Ber.*, 1985, **118**, 2044 (purifn)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 318.

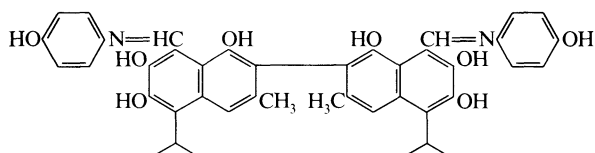
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 342.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, GKW000, GLB300.

Gossypol bis(4-hydroxyphenyl)imine G-00043

8,8'-Bis[[hydroxyphenyl]imino]methyl]-3,3'-dimethyl-5,5'-bis(1-methylethyl)[2,2'-binaphthalene]-1,1',6,6',7,7'-hexol, 9CI

[56286-59-0]

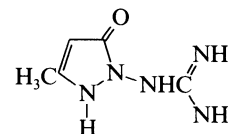
 $C_{42}H_{40}N_2O_8$ M 700.787

Used as 0.1% soln. in EtOH for extraction-photometric detn. of W(VI) (λ_{max} 535 nm, ϵ 140000, $CHCl_3$). Cryst. Sol. EtOH, MeOH, butanol, isopentanol.

Chaprasova, L.V. *et al*, *Zavod. Lab.*, 1986, **52**, 13 (detn, W)

2-Guanidino-1,2-dihydro-5-methyl-3H-pyrazol-3-one G-00045

l-Carbamidino-3-methyl-5-pyrazolone

 $C_5H_9N_5O$ M 155.159

Used for photometric detn. of $OsO_4^{2\ominus}$, $UO_2^{2\oplus}$. Cryst. Sol. EtOH, Me_2CO ; sl. sol. cold H_2O .

Poddar, S.N., *Fresenius' Z. Anal. Chem.*, 1964, **203**, 333 (detn, $OsO_4^{2\ominus}$, $UO_2^{2\oplus}$)

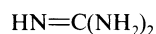
Guanidine, 9CI

G-00044

Carbamide. Iminourea. Aminoformamidine.

Aminomethanamidine. Carbamamidine

[113-00-8]

 CH_5N_3 M 59.071

Occurs widely e.g. first isol. from vetch seedlings (*Vicia sativa*). Organic base used to form extractable ion-pairs with anionic complexes. Deliquescent cryst. mass. Sol.

H_2O , EtOH, acids aq. solns. Mp ca. 50°. Strong base, absorbs CO_2 from air.

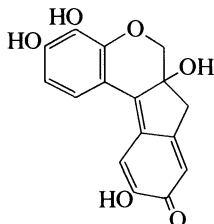
► Highly toxic orally. ME7750000.

H

Haematein

H-00001

6a,7-Dihydro-3,4,6a,10-tetrahydroxybenz[b]indeno[1,2-d]pyran, 9CI. Hydroxybrazilein. Hematein
[475-25-2]



$C_{16}H_{12}O_6$ M 300.267

Isol. from logwood under alkaline oxidn. conds. Used as 0.03% soln. in aq. MeOH for photometric detn. of B (λ_{max} 505 nm, ϵ 23000), Hf (λ_{max} 520 nm, ϵ 58000), Ga, Sn. Acid-base indicator (colour change: yellow \rightarrow red \rightarrow purple); biological stain. Brownish-red needles (EtOH). Mp 250° dec.

▷ DE3120000.

Tetra-Me ether: Amber prisms (EtOAc or EtOH). Mp 210°.

Hummel, J.J. *et al*, *Ber.*, 1882, **15**, 2337.

Bollina, E. *et al*, *Ber.*, 1902, **35**, 1678.

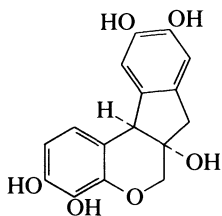
Engels, P. *et al*, *J. Chem. Soc.*, 1908, **93**, 1121 (*synth*)

Cooke, R.G. *et al*, *Aust. J. Chem.*, 1955, **8**, 109 (*w*)

Haematoxylin

H-00002

7,11b-Dihydrobenz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol, 9CI. Hematoxylin. C.I. Natural black 1. C.I. 75290



Relative configuration

$C_{16}H_{14}O_6$ M 302.283

(+)-*form* [517-28-2]

Constit. of *Haematoxylon campechianum* (Logwood). First isol. in 1810. Histological stain. Used as 0.1% soln. in 95% EtOH for photometric detn. of B, Ti, Sn (λ_{max} 590 nm, ϵ 23000), F[⊖] (indirectly). Prisms + 3H₂O (EtOH). Sol. hot H₂O. Mp 100-120°. [α]_D¹⁸ +102.4° (H₂O). Reddens on exp. to light.

▷ MH7875000.

Penta-Ac: Mp 165-166°.

(±)-*form* [1621-46-1]

Mp 210-212°.

Perkin, W.H. *et al*, *J. Chem. Soc.*, 1908, **93**, 489 (*struct*)

Hunter, G.J. *et al*, *Anal. Chim. Acta*, 1953, **8**, 351; **9**, 425 (*detn*, F[⊖])

Dann, O. *et al*, *Chem. Ber.*, 1965, **98**, 1498 (*synth*)

Craig, J.C. *et al*, *J. Org. Chem.*, 1965, **30**, 1573 (*stereochem*, *pnr*)

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1966, **216**, 3.

Morsingh, F. *et al*, *Tetrahedron*, 1970, **26**, 281 (*synth*)

Robinson, R., *Bull. Soc. Chim. Fr.*, 1972, 3292 (*rev*)

Kirkiacharian, B.S. *et al*, *Bull. Soc. Chim. Fr.*, 1972, 3292 (*synth*)

Leong, C.L., *Analyst (London)*, 1977, **102**, 293, 837 (*detn*, Sn, Ti)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HAP500.

Heptadecanoic acid

H-00003

Margaric acid. *Daturinic acid*

[506-12-7]

$H_3C(CH_2)_{15}COOH$

$C_{17}H_{34}O_2$ M 270.454

Used (with octadecanoic acid) for amino acid sequencing in peptides. Cryst. (pet. ether). Mp 62-63°.

▷ LD₅₀ 36 mg/kg (mouse, i.v.). MI3850000.

Me ester: [1731-92-6].

$C_{18}H_{36}O_2$ M 284.481

Cryst. (EtOH). Mp 30°. Bp₉ 184-187°.

Et ester: [14010-23-2].

$C_{19}H_{38}O_2$ M 298.508

Cryst. (EtOH aq.). Mp 28°. Bp₅ 185°.

Amide: [25844-13-7].

$C_{17}H_{35}NO$ M 269.470

Cryst. (EtOH). Mp 108°.

Nitrile:

$C_{17}H_{33}N$ M 251.454

Cryst. (EtOH). Mp 34°. Bp₁₀ 185°.

Bricas, E. *et al*, *Biochemistry*, 1965, **4**, 2254 (*use*)

Buchta, E. *et al*, *Justus Liebigs Ann. Chem.*, 1966, **698**, 93 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HAS500.

Heptafluorobutanoic acid, 9CI

H-00004

Perfluorobutyric acid

[375-22-4]

$F_3CCF_2CF_2COOH$

$C_4HF_7O_2$ M 214.039

Liq. d_4^{20} 1.65. Mp -19.9°. Bp 120.8-121°.

▷ ET4025000.

Me ester: [356-24-1].

$C_5H_3F_7O_2$ M 228.066

Liq. Bp 81.5-82°.

Et ester: [356-27-4].

$C_6H_5F_7O_2$ M 242.093

Liq. Bp 96.6°.

▷ ET4200000.

Butyl ester: [1559-07-5].

$C_8H_9F_7O_2$ M 270.147

Liq. Bp 132.5°.

Fluoride: [335-42-2].

C_4F_8O M 216.031

Bp₇₄₁ 7-7.5°.

Chloride: [375-16-6].

C_4ClF_7O M 232.485

d_4^{25} 1.56. Bp₇₄₀ 38-39°.

Bromide:

C_4BrF_7O M 276.936

Bp₇₃₆ 53°.

Iodide:

C_4F_7IO M 323.937

Bp 75-76°.

Anhydride: [336-59-4].

C₈F₁₄O₃ M 410.064Anal. derivatisation reagent for alcohols, phenols, amines, amino acids, etc. Liq. d₄²⁵ 1.65. Bp 108-108.5°.

Amide: [662-50-0].

C₄H₇F₇NO M 213.055

Mp 102-103°.

▶ ES4725000.

Nitrile: [375-00-8].

C₄F₇N M 195.039

Bp 2° (5°).

Aldrich Library of IR Spectra, 3rd Ed., 297E, 417F (ir)

Haszeldine, R.N., *J. Chem. Soc.*, 1950, 3037 (synth)Henne, A.L. et al, *J. Am. Chem. Soc.*, 1953, **75**, 992 (synth)Banks, R.E., *Fluorocarbons and their Derivatives*, 2nd Ed.,

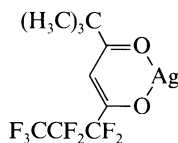
MacDonald, London, 1970, 72 (props, use)

Moss, C.W. et al, *J. Chromatogr.*, 1971, **60**, 134 (anhydride, use)Ovenall, D.W. et al, *J. Magn. Reson.*, 1977, **25**, 361 (cmr)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HAX000, HAX500, HAY000.**(6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedionato-O,O')silver, 11Cl, 10Cl, 9Cl**

H-00005

(1,1,1,2,2,3,3-Heptafluoro-7,7-dimethyl-4,6-octanedionato) silver(I). Ag(fod)

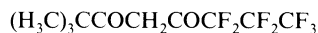
[76121-99-8]

C₁₀H₁₀AgF₇O₂ M 403.045Nmr shift reagent; used in conjunction with Yb(fod)₃ and Pr(fod)₃ for aromatic protons. Light sensitive. Dec. on crystallisation. Insol. H₂O. Mp 134° dec.Wenzel, T.J. et al, *J. Am. Chem. Soc.*, 1980, **102**, 5903 (synth, use)Wenzel, T.J. et al, *Anal. Chem.*, 1981, **53**, 343 (synth, use)Rackham, D.M. et al, *Spectrosc. Lett.*, 1981, **14**, 379, 639.Audit, M. et al, *Org. Magn. Reson.*, 1983, **21**, 698 (nmr studies)Hajek, M. et al, *Anal. Chem.*, 1986, **58**, 1743 (use)**6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedione, 8Cl**

H-00006

Hexafluorobutanoylpivaloylmethane

[17587-22-3]

C₁₀H₁₁F₇O₂ M 296.184Used for gc separation of divalent metals; extraction of volatile divalent metals (Co, Zn) (C₆H₆, CHCl₃). Oily liq. Bp_{2,7} 33°. pK_a 6.7 (24°; μ = 0.1; Me₄NClO₄).Sweet, T.R. et al, *Anal. Chim. Acta*, 1970, **52**, 173 (gc)Scribner, W.G. et al, *CA*, 1970, **73**, 92153k (extrn)**2,2,3,3,4,4,4-Heptafluoro-N-methyl-N-(trimethylsilyl)butanamide, 9Cl**

H-00007

[53296-64-3]

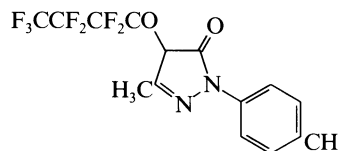
C₈H₁₂F₇NOSi M 299.263

Silylation reagent for gc analysis of individual glucosinolates in plant tissue, caffeine and strychnine.

Ger. Pat., 2 262 842, (1974); *CA*, **81**, 114256r (synth, use)Thies, W., *Fette, Seifen, Anstrichm.*, 1976, **78**, 231; *CA*, **85**, 76445z (use)U.S. Pat., 3 954 651, (1976); *CA*, **85**, 103518j (synth, use)**4-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-2,4-dihydro-5-methyl-2-(4-methylphenyl)-3H-pyrazol-3-one, 9Cl**

H-00008

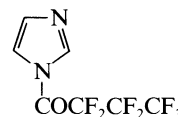
3-Methyl-4-(perfluorobutyl)-1-p-tolyl-5-pyrazolone [111278-72-9]

C₁₅H₁₁F₇N₂O₂ M 384.253Used as a 0.05M soln. in C₆H₆ or cyclohexane for extraction-separation of Li, Na. Cryst. (EtOH aq. or dioxan aq.). Sol. cyclohexane, C₆H₆. Mp 101°.Jensen, B.S., *Acta Chem. Scand.*, 1959, **13**, 1668 (synth)Umetani, S. et al, *Talanta*, 1987, **34**, 779 (detn, Li, Na)**1-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-1H-imidazole, 9Cl**

H-00009

1-(Heptafluorobutyl)imidazole

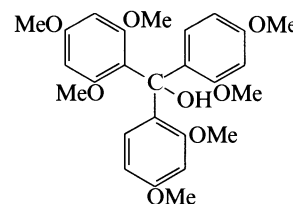
[32477-35-3]

C₇H₃F₇N₂O M 264.102Gc derivatisation reagent for amines. Bp₁₂ 56-58°.Vessmann, J. et al, *Anal. Lett.*, 1969, **2**, 81 (use)Franken, J.J. et al, *J. Chromatogr.*, 1974, **91**, 425 (use)Benington, F. et al, *J. Chromatogr.*, 1975, **106**, 435 (use)Pachler, K.G.R. et al, *Org. Magn. Reson.*, 1981, **17**, 278 (cmr)**Heptamethoxy red**

H-00010

α,α-Bis(2,4-dimethoxyphenyl)-2,4,6-trimethoxybenzenemethanol, 9Cl. 2,2',2'',4,4',4'',6-Heptamethoxytriphenylcarbinol

[80202-76-2]

C₂₆H₃₀O₈ M 470.518

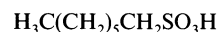
Acid-base indicator (pH range: 5.0-7.0; colour change: red → colourless), used as 0.1% soln. in EtOH. Cryst. powder. Mp 149°.

Kolthoff, I.M., *J. Am. Chem. Soc.*, 1927, **49**, 1218; 1939, **61**, 16 (use)Lund, H., *J. Am. Chem. Soc.*, 1927, **49**, 1346 (synth)**1-Heptanesulfonic acid, 9Cl**

H-00011

1-Heptylsulfonic acid

[60586-80-3]



C₇H₁₆O₃S M 180.268

Na salt: [22767-50-6].

Ion-pairing reagent used in hplc of peptides and proteins. Mp > 300°.

Me ester: [3818-04-0].

C₈H₁₈O₃S M 194.294Liq. Bp_{0.3} 95°.Hancock, W.S. *et al*, *J. Chromatogr.*, 1978, **161**, 291 (*use*)Johnson, T.J. *et al*, *Tetrahedron*, 1978, **34**, 547 (*synth*)Bidingmeyer, B.A. *et al*, *Adv. Chromatogr. (Houston) 19th 1984*, 1979, **14**, 435; *CA*, **91**, 217413a (*use*)Costanzo, S.J., *J. Chromatogr.*, 1984, **314**, 402 (*use*)Levin, S. *et al*, *Anal. Chem.*, 1985, **57**, 1830 (*use*)**4-Heptanone***Di-n-propyl ketone. Butyrone*

[123-19-3]

C₇H₁₄O M 114.187Scent constit. of urine of red fox *Vulpes vulpes*. Refractive liq. d 0.815. Mp –32.6°. Bp 142-144°.

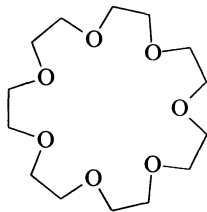
▷ Mod. toxic, flammable. MJ5600000.

2,4-Dinitrophenylhydrazone: [1655-41-0].

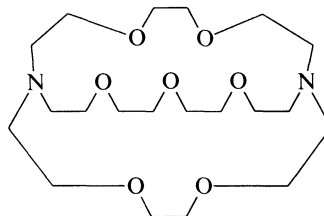
Mp 75°.

Oxime: [1188-63-2].C₇H₁₅NO M 129.202Used for extraction separation of Ag, Au, Pd (CHCl₃); photometric detn. of Pd. Cryst. Sol. CHCl₃. Mp 187-188°. Bp₇₇₂ 196°.Holland, W.J. *et al*, *Mikrochim. Acta*, 1972, 183 (*synth*)*Org. Synth., Coll. Vol.*, 5, 1973, 589 (*synth*)Walker, R., *Mikrochim. Acta*, 1974, 105; 1975, **2**, 249, 541 (*detn. Au, Pd*)Dunn, P. *et al*, *Mikrochim. Acta*, 1975, **2**, 129; 1977, **1**, 363 (*detn. Pd*)Kirchoff, R., *Tetrahedron Lett.*, 1976, 2533 (*synth*)Shono, T. *et al*, *Tetrahedron Lett.*, 1977, 3625 (*synth*)Jorgensen, J.W. *et al*, *Science (Washington, D.C.)*, 1978, **199**, 796.Whitten, W.K. *et al*, *J. Chem. Ecol.*, 1980, **6**, 49.Dupuis, L.T. *et al*, *Mikrochim. Acta*, 1980, **1**, 29 (*detn. Ag*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DWT600.**1,4,10,13,16,19-****Heptaoxacycloheptacosane, 9CI***21-Crown-7*

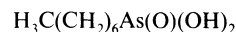
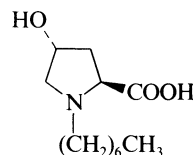
[33089-36-0]

C₁₄H₂₈O₇ M 308.371Used for complexing and extraction-separation of alkali metal ions. Liq. Misc. H₂O.Vögtle, F.M. *et al*, *Top. Curr. Chem.*, 1981, **98**, 163 (*rev*)Yoshio, M. *et al*, *Anal. Lett.*, 1982, **15**, 1197 (*rev*)**H-00012****4,7,10,16,19,24,27-Heptaoxa-1,13-diazabicyclo[11.8.8]nonacosane, 9CI***Cryptand 3.2.2*

[31255-22-8]

C₂₀H₄₀N₂O₇ M 420.545Used as complexing agent for alkali metal ions; used for extraction separation of Cs, K, Rb. Cryst. Sol. H₂O.pK_{a1} 6.55; pK_{a2} 9.14 (H₂O, 25°).Lehn, J.M. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 6700 (*use*)**Heptylarsonic acid, 9CI**

[35328-95-1]

C₇H₁₇AsO₃ M 224.131Used as soln. in CHCl₃ for extraction sepn. of Zr and Ti; gravimetric detn. of Zr. Cryst. Sol. CHCl₃, CCl₄.Pietsch, R. *et al*, *Anal. Chim. Acta*, 1973, **64**, 345 (*detn. Zr, Ti*)**N-Heptylhydroxyproline***1-Heptyl-4-hydroxyproline*C₁₂H₂₃NO₃ M 229.319**(2S,4R)-form** [76666-35-8]*L-form*

Hplc stationary phase for resolu. of racemic α-amino acids.

Davankov, V.A. *et al*, *Chromatographia*, 1980, **13**, 677.**H-00014****4-Heptanone***Di-n-propyl ketone. Butyrone*

[123-19-3]

C₇H₁₄O M 114.187Scent constit. of urine of red fox *Vulpes vulpes*. Refractive liq. d 0.815. Mp –32.6°. Bp 142-144°.

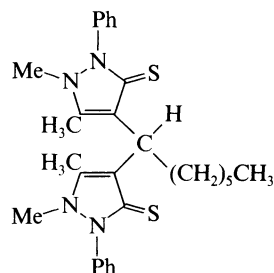
▷ Mod. toxic, flammable. MJ5600000.

2,4-Dinitrophenylhydrazone: [1655-41-0].

Mp 75°.

Oxime: [1188-63-2].C₇H₁₅NO M 129.202Used for extraction separation of Ag, Au, Pd (CHCl₃); photometric detn. of Pd. Cryst. Sol. CHCl₃. Mp 187-188°. Bp₇₇₂ 196°.Holland, W.J. *et al*, *Mikrochim. Acta*, 1972, 183 (*synth*)*Org. Synth., Coll. Vol.*, 5, 1973, 589 (*synth*)Walker, R., *Mikrochim. Acta*, 1974, 105; 1975, **2**, 249, 541 (*detn. Au, Pd*)Dunn, P. *et al*, *Mikrochim. Acta*, 1975, **2**, 129; 1977, **1**, 363 (*detn. Pd*)Kirchoff, R., *Tetrahedron Lett.*, 1976, 2533 (*synth*)Shono, T. *et al*, *Tetrahedron Lett.*, 1977, 3625 (*synth*)Jorgensen, J.W. *et al*, *Science (Washington, D.C.)*, 1978, **199**, 796.Whitten, W.K. *et al*, *J. Chem. Ecol.*, 1980, **6**, 49.Dupuis, L.T. *et al*, *Mikrochim. Acta*, 1980, **1**, 29 (*detn. Ag*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DWT600.**H-00013****4,4'-Heptylidenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazole-3-thione], 9CI***Hexyldithiopyrylmethane*

[74713-69-2]

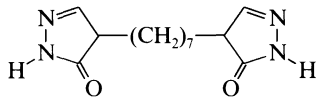
C₂₉H₃₆N₄S₂ M 504.762**H-00017**

Used as aq. soln. for extraction-photometric detn. of Bi, Au(III), Mo, Pd(II), Pb, Sn. Yellowish cryst. powder. Sol. acids, DMF, AcOH, Me₂CO, CHCl₃; sl. sol. H₂O. Mp 169°.

Dolgorev, A.V. *et al.*, *Zh. Anal. Khim.*, 1980, **35**, 854 (*synth, use*)

4,4'-Heptylidenebis[1,2-dihydro-3H-pyrazol-3-one], 9CI **H-00018**

Dipyrazolonylheptane
[80936-04-5]



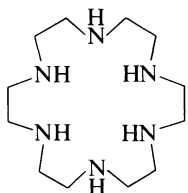
C₁₃H₂₀N₄O₂ M 264.327

Used as 0.5M soln. in CHCl₃ for extraction-separation of Ag. Cryst. (EtOH). Sol. CHCl₃, PhCl, dichloroethane. Mp 131-132°.

Degtev, M.I. *et al.*, *Zh. Anal. Khim.*, 1982, **37**, 2158 (*synth, use*)

1,4,7,10,13,16-Hexaazacyclooctadecane, 9CI **H-00019**

18-Azacrown-6
[296-35-5]



C₁₂H₃₀N₆ M 258.409

Solubilizing agent for urinary calculi, superior to EDTA. Used as 5mM aq. soln. for extraction of many metal ions. Long needles (MeCN). Mp 147-150°, Mp 150-153°.

Hexakis(4-methylbenzenesulfonyl): [52601-75-9].

Mp 311-313°.

B₃H₂SO₄: [56187-09-8].

Sol. H₂O. Mp > 300°.

Org. Synth., 1978, **58**, 86 (*synth*)

Stetter, H. *et al.*, *Tetrahedron*, 1981, **37**, 767 (*synth, ir, pmr*)

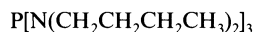
Kimura, G. *et al.*, *Chem. Pharm. Bull.*, 1983, **31**, 3264 (*use*)

Arpadian, S. *et al.*, *Talanta*, 1987, **34**, 953 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HCN100.

Hexabutylphosphorous triamide, 9CI **H-00020**

Tris(N,N-dibutylamino)phosphine
[5848-65-7]



C₂₄H₅₄N₃P M 415.684

Liq. Bp_{0.1} 140-141°. n_D²⁰ 1.4700.

Oxide: [22421-85-8]. *Hexabutylphosphoric triamide*.

Tris(N,N-dibutylamino)phosphine oxide

C₂₄H₅₄N₃OP M 431.684

Used for extraction of the lanthanide elements. Liq. Bp_{0.01} 130-132°. pK_{a1} 10.66; pK_{a2} 4.76 (MeNO₂). n_D²⁵ 1.4618.

Sulfide: [3949-47-1]. *Hexabutylphosphorothioic triamide*.

Tris(N,N-dibutylamino)phosphine sulfide

C₂₄H₅₄N₃PS M 447.750

Used as a 2.5mM soln. in CHCl₃ for extraction of Ag, Cu, Hg. Low-melting solid. Mp 19-20°. n_D²⁰ 1.4869.

Stuebe, C. *et al.*, *J. Am. Chem. Soc.*, 1956, **78**, 976 (*synth, derivs*)

Handley, T.H., *Anal. Chem.*, 1964, **36**, 2467 (*use*)

Gonnet, C. *et al.*, *Anal. Chim. Acta*, 1972, **62**, 227 (*oxide, use*)

Gonnet, C. *et al.*, *Bull. Soc. Chim. Fr.*, Part I, 1973, 45 (*oxide, use*)

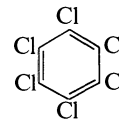
Buchikhin, E.P. *et al.*, *Zh. Obshch. Khim.*, 1974, **44**, 1354; *J. Gen. Chem. USSR (Engl. Transl.)*, 1330 (*oxide, props*)

Marchenko, A.P. *et al.*, *Zh. Obshch. Khim.*, 1978, **48**, 551; *J. Gen. Chem. USSR (Engl. Transl.)*, 501 (*oxide*)

Yakshin, V.V. *et al.*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1979, **247**, 128; *Dokl. Chem. (Engl. Transl.)*, 344 (*oxide, props*)

Hexachlorobenzene, 9CI, 8CI **H-00021**

Perchlorobenzene
[118-74-1]



C₆Cl₆ M 284.782

Reference material used in elemental microanalysis.

Needles (2-propanol). Mp 226°.

▷ Mod. toxic orally. DA2975000.

Schnepp, O. *et al.*, *J. Chem. Phys.*, 1959, **30**, 868 (*w*)

Bullester, M. *et al.*, *J. Am. Chem. Soc.*, 1960, **82**, 4259 (*w*)

Ware, J. *et al.*, *J. Org. Chem.*, 1961, **26**, 2267 (*synth*)

Solomon, W. *et al.*, *J. Org. Chem.*, 1966, **31**, 1551 (*synth*)

Delorme, P. *et al.*, *J. Chim. Phys. Phys.-Chim. Biol.*, 1967, **64**, 591 (*ir*)

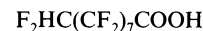
Analyst (London), 1972, **97**, 740 (*microanal*)

Clark, J. *et al.*, *J. Chem. Soc., Perkin Trans. 2*, 1976, 73 (*ms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HCC500.

2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid, 9CI **H-00022**

9H-Hexadecafluorononanoic acid
[76-21-1]



C₉H₂F₁₆O₂ M 446.088

Cryst. Mp 62-68°.

Et ester: [1799-47-9].

C₁₁H₆F₁₆O₂ M 474.142

Liq. Bp₄₀ 112°. n_D²⁵ 1.3203.

Chloride: [423-95-0].

C₉HFClF₁₆O M 464.533

Derivatisation reagent for gc of hydroxy steroids.

Amide: [376-19-2].

C₉H₃F₁₆NO M 445.103

Cryst. Mp 136-138°.

Nitrile: [5678-73-9].

C₉HF₁₆N M 427.088

Liq. Bp 144°.

U.S. Pat., 2 559 629, (1951); *CA*, **46**, P3063h (*synth*)

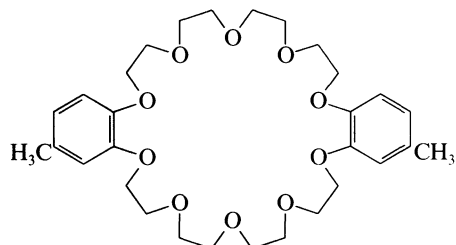
Ellzey, S.E. *et al.*, *J. Org. Chem.*, 1965, **30**, 3945 (*synth, derivs*)

Kirschner, M.A. *et al.*, *Anal. Biochem.*, 1969, **30**, 346 (*use, chloride*)

6,7,9,10,12,13,15,16,23,24,26,27,29,30,32, H-00023

33-Hexadecahydro-2,20-dimethyldibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, 9CI*Dimethyldibenzo-30-crown-10*

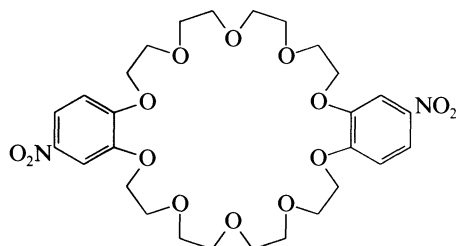
[41735-86-8]

 $C_{30}H_{44}O_{10}$ M 564.672Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. (hexane/Et₂O). Sol. hexane, Et₂O. Mp 77-78°.Ryba, O. *et al*, *J. Electroanal. Chem.*, 1973, **44**, 425 (*synth*)
Petranek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

6,7,9,10,12,13,15,23,24,26,27,29,30,32,33- H-00024

Hexadecahydro-2,19-dinitrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, 9CI*Dinitrodibenzo-30-crown-10*

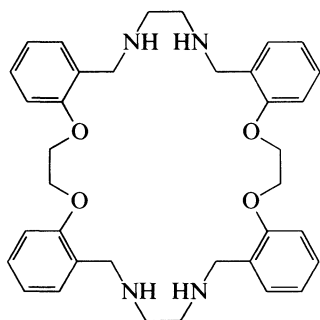
[54112-60-6]

 $C_{28}H_{38}N_2O_{14}$ M 626.613Exact struct. unknown; may be either 2,19 or 2,20 isomer or a regioisomeric mixt. Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. (C₆H₆/Et₂O). Sol. C₆H₆, Et₂O. Mp 129°.Pederson, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 7017 (*synth*)
Petranek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

6,7,13,14,15,16,17,18,24,25,31,32,33,34,35,- H-00025

36-Hexadecahydrotetrabenzo[*e,m,s,a*][1,4,15,18,8,11,22,25]tetraoxatetraazacyclooctacosine, 9CI

[78891-75-5]

 $C_{36}H_{44}N_4O_4$ M 596.768Used as 1mM soln. in CHCl₃ for extraction separation of Ag, Hg, Pd, Cu, Co, Zn. Cryst. Sol. common org. solvs. Mp 167-168°.Adam, K.R. *et al*, *Inorg. Chem.*, 1981, **20**, 4048 (*synth*)
Morosanova, E.I. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1984, **277**, 1151 (*use*)**Hexadecanoic acid**

H-00026

Palmitic acid. Aethalic acid

[57-10-3]

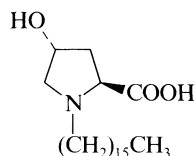
 $H_3C(CH_2)_{14}COOH$ $C_{16}H_{32}O_2$ M 256.428Occurs in the form of esters (glycerides) in oils and fats of vegetable and animal origin. Usually obt. from palm oil. Widely distributed in plants. Used in detn. of water hardness. Cryst. Mp 63-64°. Bp 390°, Bp₁₀₀ 268.5°, Bp₁₅ 215°.▷ LD₅₀ 57 mg/kg (mouse, i.v.). RT4550000.*Me ester*: [112-39-0]. $C_{17}H_{34}O_2$ M 270.454Mp 30.5°. Bp₁₄₇ 415-418°, Bp₁₅ 196°, Bp₂ 148°.*Et ester*: [628-97-7]. $C_{18}H_{36}O_2$ M 284.481Mp 19.3°, Mp 24° (dimorph.). Bp₁₀ 191°.*Tetratriacontanyl ester*: [84461-48-3]. **Tetratriacontanyl****palmitate** $C_{50}H_{100}O_2$ M 733.339Isol. from seeds of *Cassia spectabilis* (Leguminosae) and flowers of *Melastoma candidum albiflorum*. Cryst. (C₆H₆). Mp 69°.*Chloride*: [112-67-4]. $C_{16}H_{31}ClO$ M 274.873Mp 12°. Bp₂₀ 199°.*Anhydride*: [623-65-4]. $C_{32}H_{62}O_3$ M 494.840

Mp 64°.

Amide: [629-54-9]. *Hexadecanamide, 9CI. Palmitamide, 8CI* $C_{16}H_{33}NO$ M 255.443Isol. from seeds of *Casimiroa edulis*. Mp 106-107°. Bp₁₂ 235-236°.*Nitrile*: $C_{16}H_{31}N$ M 237.428Mp 33°. Bp 333°, Bp₁₀₀ 251°, Bp₁ 142°.Whitby, G.S., *J. Chem. Soc.*, 1926, 1458 (*synth*)Smith, J.C., *J. Chem. Soc.*, 1931, 802.Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, NY, 1947, **2** (*use*)Kincl, F.A. *et al*, *J. Chem. Soc.*, 1956, 4163 (*isol, amide*)Bailey, A.V. *et al*, *J. Am. Oil Chem. Soc.*, 1971, **48**, 775 (*pmr*)Karrer, W. *et al*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 703 (*occur*)Hayashi, S., *J. Chem. Phys.*, 1975, **63**, 775 (*ir*)Singh, M. *et al*, *Z. Naturforsch., B*, 1984, **39**, 1425

(Tetratriacontanyl palmitate)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PAE250.

N-Hexadecylhydroxyproline*l*-Hexadecyl-4-hydroxyprolineC₂₁H₄₁NO₃ M 355.560**(2S,4R)-form** [76652-69-2]*l*-formHplc stationary phase for resolu. of racemic α -amino acids.Davankov, V.A. *et al*, *Chromatographia*, 1980, **13**, 677.**H-00027**

carbohydrates. Used as 0.2-0.3% aq. soln. Increases sensitivity in photometric detn. of metals (e.g. Al, Be, In, Th, Zr) with some chelating reagents (e.g. chromazurol S, bromopyrogallol red, phenylfluorone); forms ternary complexes.

Chloride: [112-02-7]. *Cetrimonium chloride*, *BAN*C₁₉H₄₂ClN M 320.000*Bromide*: [57-09-0]. *Cetrimonium bromide*, *INN*. *Cetrimide*.*Cetab*. *Other synonyms*C₁₉H₄₂BrN M 364.451Microcryst. Sol. H₂O, EtOH, insol. C₆H₆, Et₂O. Mp 237-243°.

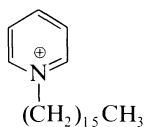
► Toxic, exp. teratogen. Emits highly toxic fumes when heated. BQ7875000.

Pentachlorophenolate: [87-76-3]. *TCAP*. *T.S.P.*

Topical antiseptic, fungicide.

4-Methylbenzenesulfonate: [138-32-9]. *Cetrimonium tosilate*.*Intol**Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 121.Borisova, N.N. *et al*, *Zh. Prikl. Khim. (Leningrad)*, 1967, **40**, 2838 (*synth, pharmacol*)Uno, T. *et al*, *Spectrochim. Acta, Part A*, 1968, **24**, 1749 (*ir*)Chojnacki, J. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1971, **45**, 1997 (*cryst struct*)LoSurdo, A. *et al*, *J. Phys. Chem.*, 1972, **76**, 130 (*pmr*)Kalyanasundaram, K. *et al*, *J. Phys. Chem.*, 1976, **80**, 1462 (*conformn*)Tikhonov, B.N., *Zh. Anal. Khim.*, 1977, **32**, 1435 (*rev*)Isomaa, B. *et al*, *Acta Pharmacol. Toxicol.*, 1980, **47**, 17 (*pharmacol, toxicity*)*Martindale, The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2216.Callahan, J.H. *et al*, *Anal. Chem.*, 1984, **56**, 1632 (*theory*)Chernova, R.K. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 1019 (*use*)Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 1157 (*use*)Ohashi, M. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 2499 (*ms*)Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986 (*use*)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 5535.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HCQ500, TLN150.**1-Hexadecylpyridinium(1+)***Cetylpyridinium*. *Other proprietary names*

[7773-52-6]

C₂₁H₃₈N⁺ M 304.538 (ion)

Surface active agent with bactericidal properties; used in throat pastilles etc. Used as a 0.2-0.3% aq. soln. to increase sensitivity in photometric detn. of metals; forms ternary complexes with metal ions and some chromogenic reagents.

Chloride: [123-03-5]. *Cetylpyridinium chloride*, *BAN*, *INN*.*Merocet*. *Ceepryn*. *Cepacol*C₂₁H₃₈ClN M 339.991Sol. H₂O. Mp 87-88°. Monohydrate, Mp 77-83°.

► UU4900000.

Bromide: [140-72-7].C₂₁H₃₈BrN M 384.442Microcryst. Sol. H₂O, EtOH. Mp 61-62°, Mp 66-68°.*Iodide*: [2349-55-5].C₂₁H₃₈IN M 431.442

Mp 101°.

Warren, M.R. *et al*, *J. Pharm. Pharmacol.*, 1942, **74**, 401 (*pharmacol, tox*)Huyck, C.L. *et al*, *Am. J. Pharm.*, 1944, **116**, 50 (*rev*)Adam, N.K. *et al*, *Trans. Faraday Soc.*, 1946, **42**, 523 (*synth*)Ziegler, M., *Angew. Chem.*, 1956, **68**, 411, 620 (*synth*)Chumakov, Y.I. *et al*, *CA*, 1966, **64**, 19549d (*synth*)Svoboda, V., *Talanta*, 1966, **13**, 237 (*use*)Tikhonov, B.N., *Zh. Anal. Khim.*, 1977, **32**, 1435 (*rev*)*Martindale, The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2217.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 78 (*use*)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 6403 (*synonyms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

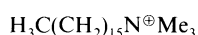
Ed., Van Nostrand-Reinhold, 1992, CCX000.

H-00028**Hexafluoroacetylacetone***1,1,1,5,5,5-Hexafluoro-2,4-pentanedione*, *9CI*

[1522-22-1]

C₅H₂F₆O₂ M 208.060Used as 1% EtOH soln. for extraction separation of Fe(III), Be (C₆H₆); fluorimetric detn. of Eu, Tb, Sm.Liq. with irritant odour. d 1.470. Mp 90° dec. (as dihydrate). Bp 70-71° (63-65°). pK_a 4.42 (25°).Henne, A. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 1819; 1956, **78**, 2790 (*synth*)Scribner, W.G. *et al*, *Anal. Chem.*, 1965, **37**, 1136; 1966, **38**, 1779 (*detn, Be*)Williams, D.E. *et al*, *Anal. Chem.*, 1971, **43**, 139 (*detn, Eu, Tb*)Williams, D.E. *et al*, *Mikrochim. Acta*, 1972, 194 (*detn, Sm*)Turoff, M.L. *et al*, *Talanta*, 1977, **24**, 567 (*detn, Fe*)Lo, J.G. *et al*, *J. Chromatogr. Sci.*, 1980, **18**, 359 (*use*)**H-00030****Hexadecyltrimethylammonium(1+), 8CI***N,N,N-Trimethyl-1-hexadecylammonium*, *9CI*.*Cetyltrimethylammonium*. *Cetrimonium*

[6899-10-1]

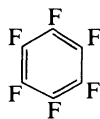
C₁₉H₄₂N⁺ M 284.547 (ion)

Topical antiseptic, surfactant. Reagent for isol. and purifn. of acidic polysaccharides and sulphonated

Hexafluorobenzene, 9Cl, 8Cl

Perfluorobenzene

[392-56-3]

 C_6F_6 M 186.056Internal reference standard used in ^{19}F nmr. Liq. d_4^{20} 161.Mp 3-4°. Bp₇₄₃ 81-82°.

▷ DA3050000.

McBee, E.T. *et al*, *Ind. Eng. Chem.*, 1947, **39**, 378 (*synth*)Gash, V.W. *et al*, *J. Org. Chem.*, 1966, **31**, 3602 (*nmr*)Delorme, P. *et al*, *J. Chim. Phys. Phys.-Chim. Biol.*, 1967, **64**, 591 (*ir*)Doyle, A.M., *J. Chem. Soc. C*, 1968, 2740 (*synth*)Fenton, D.E., *Chem. Ind. (London)*, 1969, 695 (*uv*)Smithson, L.D., *Org. Mass Spectrom.*, 1970, **4**, 1 (*ms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HDB000.**1,1,1,3,3,3-Hexafluoro-2-propanol, 9Cl**

H-00032

[920-66-1]

 $C_3H_2F_6O$ M 168.039Chromatographic derivatisation reagent for carboxylic acids. Liq. $d_{20.5}$ 1.46. Bp 57-58°. pK_{a1} 9.3 (25°).

▷ UB6450000.

Benzoyl: [10315-85-2].

 $C_{10}H_6F_6O_2$ M 272.147

Cryst. (pentane).

Krunyants, I.L. *et al*, *CA*, 1962, **57**, 12305 (*rev*)Middleton, W.J. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 4948 (*synth*)Urry, W.H. *et al*, *J. Org. Chem.*, 1967, **32**, 347 (*ester*)Dziedzic, S.W. *et al*, *Anal. Biochem.*, 1972, **47**, 592 (*use*)Imai, K. *et al*, *J. Chromatogr.*, 1976, **120**, 181 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HDC500.**1,1,1,3,3,3-Hexafluoro-2-propanone, 9Cl**

H-00033

Hexafluoroacetone

[684-16-2]

 C_3F_6O M 166.023Forms a complex with H_2O_2 which functions as a peracid in synthesis. Reagent for gc anal. of amino acids and for the ^{19}F nmr anal. of alcohols and phenols. Gas. Fp -129°. Bp -26°. pK_a 6.58 (hydrate).

▷ Highly irritant, TLV 0.7. Experimental teratogen.

UC2450000.

Covalent hydrate: [10543-95-0]. 1,1,1,3,3,3-Hexafluoro-2,2-propanediol

 $C_3H_2F_6O_2$ M 184.038Bp₉₃ 57°.

Semicarbazone: Mp 154°.

Imine:

 C_3HF_6N M 165.038

Bp 15.5-17°.

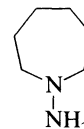
[34202-69-2]

Weygand, F. *et al*, *Chem. Ber.*, 1966, **99**, 1461 (*use*)Krespan, C.G. *et al*, *Fluorine Chem. Rev.*, 1967, **1**, 145 (*rev*)*Org. Synth.*, 1970, **50**, 81 (*imine*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1972, **3**, 149.Ho, F.F.L., *Anal. Chem.*, 1974, **46**, 496 (*use*)Karhan, J. *et al*, *Collect. Czech. Chem. Commun.*, 1982, **47**, 1973 (*use*)Tordeux, M. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1990, 1951 (*synth*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 345.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HCZ000, HDA000, HDA500.**Hexahydro-1*H*-azepin-1-amine, 9Cl**

H-00034

1-Aminohexahydro-1*H*-azepine, 8Cl. N-Aminohomopiperidine. N-Aminohexamethylenimine

[5906-35-4]

 $C_6H_{14}N_2$ M 114.190Derivatisation reagent for gc anal. of ketones. Liq. Bp₅₅ 95°. n_D^{20} 1.4853.

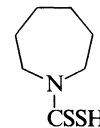
▷ CM3165000.

Van den Heuval, W.J.A. *et al*, *J. Chromatogr.*, 1965, **18**, 391 (*use*)Sladkova, T.A. *et al*, *Khim. Geterotsikl. Soedin.*, 1968, 140 (*synth*)Mikolajewska, H., *Acta Pol. Pharm.*, 1974, **31**, 181; *CA*, **82**, 124681k (*synth*)**Hexahydro-1*H*-azepine-1-carbodithioic acid, 9Cl**

H-00035

Hexamethylenedithiocarbamic acid

[874-56-6]

 $C_7H_{13}NS_2$ M 175.318*K salt*: [52711-97-4].

Used for extraction-photometric detn. of Cu; extraction separation of Ir (dichloroethane). Cryst.

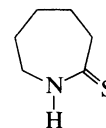
[24678-65-7]

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 225 (*detn. Cu*)Byr'ko, V.M. *et al*, *CA*, 1973, **78**, 34527 (*sepn. Ir*)**Hexahydro-2*H*-azepine-2-thione, 9Cl**

H-00036

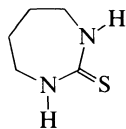
Caprothiolactam. Thiocaprolactam

[7203-96-5]

 $C_6H_{11}NS$ M 129.226Used as a 3% soln. in $CHCl_3$ or a 0.2*M* soln. in aq. Me_2CO for extraction-photometric detn. of Bi; photometric detn. of Cu, Sb; gravimetric detn. of Cd, Pd; as 2% aq. soln. for extraction-photometric detn. of Au (λ_{max} 400 nm, ϵ 3700). Cryst. (EtOH). Sol. EtOH, Me_2CO , $CHCl_3$; spar. sol. H_2O . Mp 99-103°, Mp 107-110°.

Sikorska-Tomiczka, A. *et al*, *Chem. Anal. (Warsaw)*, 1967, **12**, 1291; 1969, **14**, 1177; 1970, **15**, 795; *CA*, 1967, **68**, 119106h; 1969, **72**, 128294k; 1970, **74**, 19002b (*detn. Bi, Pb, Sb*)
 Basińska, H. *et al*, *Chem. Anal. (Warsaw)*, 1969, **14**, 165, 1261; *CA*, **70**, 111338f; **72**, 106770c (*detn. Cd, Cu*)
 Sikorska-Tomiczka, H., *Mikrochim. Acta*, 1970, 1006 (*detn. Au*)
 Yokoyama, M. *et al*, *Synthesis*, 1984, 827 (*synth*)
 Yde, B. *et al*, *Tetrahedron*, 1984, **40**, 2047 (*synth*)

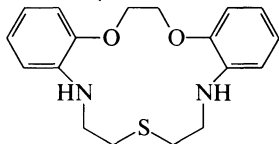
Hexahydro-2H-1,3-diazepine-2-thione, 9CI H-00037
Tetramethylenethiourea
 [5700-04-9]



$C_5H_{10}N_2S$ M 130.213
 Used as 1% aq. soln. for extraction-photometric detn. of Bi (λ_{max} 480 nm, ϵ 11000, $CHCl_3$), Sb, Sn. Cryst. Sol. $CHCl_3$; mod. sol. H_2O .

Shelikhina, E.I. *et al*, *Zh. Neorg. Khim.*, 1982, **27**, 2065 (*synth*)
 Presnyak, I.S. *et al*, *Zh. Anal. Khim.*, 1990, **45**, 1548 (*use*)

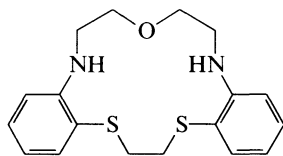
6,7,10,11,17,18-Hexahydro-5H,9H-dibenzo[e,n][1,4,10,7,13]dioxathiadiazacyclopentadecine, 9CI H-00038
1,3-Diaza-2-thiadibenzo-15-crown-5. 2,3:8,9-Dibenzo-13-thia-4,7-dioxa-1,10-diazacyclopentadecane
 [96656-76-7]



$C_{18}H_{22}N_2O_2S$ M 330.450
 Used as 1mM soln. in $CHCl_3$ for extraction-separation and detn. of Hg(II). Cryst. Sol. $CHCl_3$.

Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 1046 (*synth*)
 Poddubnykh, L.P. *et al*, *Zh. Neorg. Khim.*, 1986, **31**, 1812 (*detn. Hg*)
 Poddubnykh, L.P. *et al*, *Zavod. Lab.*, 1987, **53**, 1 (*detn. Hg*)

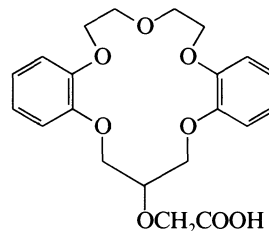
6,7,10,11,17,18-Hexahydro-5H,9H-dibenzo[e,k][1,7,10,4,13]oxadithiadiazacyclopentadecine, 9CI H-00039
2,3:8,9-Dibenzo-13-oxa-4,7-dithia-1,10-diazacyclopentadecane
 [96656-78-9]



$C_{18}H_{22}N_2O_2S_2$ M 346.517
 Used as 1mM soln. in $CHCl_3$ for selection extraction of Hg(II) and Ag. Cryst. Sol. $CHCl_3$.

Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 1046 (*detn. Hg*)
 Poddubnykh, L.P. *et al*, *Zh. Neorg. Khim.*, 1986, **31**, 1812 (*detn. Hg, Ag*)

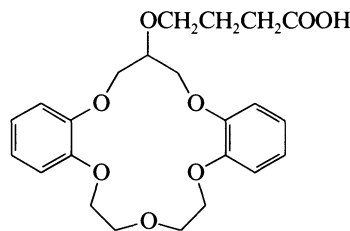
[(6,7,9,10,18,19-Hexahydro-17H-dibenzo[b,k][1,4,7,10,13]pentaoxacyclohexadecin-18-yl)oxy]acetic acid, 9CI H-00040
sym-Dibenzo-16-crown-5-oxyacetic acid
 [78708-41-5]



$C_{21}H_{24}O_8$ M 404.416
 Used as a soln. in $CHCl_3$ /heptanol mixt. for extraction-sepn. of lanthanides. Cryst. (EtOH aq.). Sol. EtOH, heptanol; sl. sol. H_2O . Mp 166-166.5°. pK_a 4.6.

Strzelbicki, J. *et al*, *Anal. Chem.*, 1981, **53**, 1894 (pK_a)
 Bartsch, R.A. *et al*, *J. Org. Chem.*, 1982, **47**, 457 (*synth*)
 Jian Tang, *et al*, *Anal. Chem.*, 1988, **58**, 3233 (*use*)
 Tang, J. *et al*, *Analyst (London)*, 1989, **114**, 451 (*detn. La*)

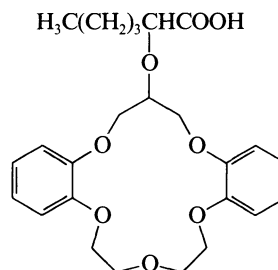
4-[(6,7,9,10,18,19-Hexahydro-17H-dibenzo[b,k][1,4,7,10,13]pentaoxacyclohexadecin-18-yl)oxy]butanoic acid, 9CI H-00041
4-(sym-Dibenzo-16-crown-5-oxy)butanoic acid
 [124617-96-5]



$C_{23}H_{28}O_8$ M 432.469
 Used as 0.1mM $CHCl_3$ soln. for extraction separation of Ca, Sr, Ba. Cryst. (EtOH aq.). Sol. $CHCl_3$, CH_2Cl_2 , EtOH. Mp 102-105°.

Uhlemann, E. *et al*, *Anal. Chim. Acta*, 1989, **224**, 47 (*synth, use*)

2-[6,7,9,10,18,19-Hexahydro-17H-dibenzo[b,k]-[1,4,7,10,13-pentaoxacyclohexadecin-18-yl]oxy]hexanoic acid, 9CI H-00042
2-(sym-Dibenzo-16-crown-5-oxy)hexanoic acid
 [79519-67-8]



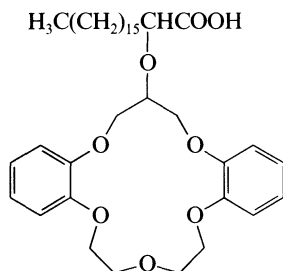
$C_{25}H_{32}O_8$ M 460.523

Used as CHCl_3 soln. for extraction separation of lanthanides. Cryst. (pet. ether). Sol. CHCl_3 , pet. ether. Mp 93-95°.

Bartsch, R.A. *et al*, *J. Org. Chem.*, 1982, **47**, 457 (synth)
Tang, J. *et al*, *Analyst (London)*, 1989, **114**, 451 (detn. La, Eu, Lu)

17-[(6,7,9,10,18,19-Hexahydro-17H-dibenzo[*b,k*][1,4,7,10,13]-pentaoxacyclohexadecin-18-yl)oxy]octadecanoic acid, 9CI

2-(sym-Dibenzo-16-crown-5-oxy)stearic acid
[121108-87-0]



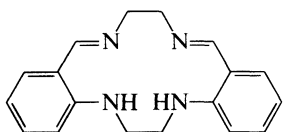
$\text{C}_{37}\text{H}_{56}\text{O}_8$ M 628.845

Used as CHCl_3 soln. for extraction separation of lanthanides. Cryst. (pet. ether). Sol. CHCl_3 , pet. ether.

Bartsch, R.A. *et al*, *J. Org. Chem.*, 1982, **47**, 457 (synth)
Tang, J. *et al*, *Analyst (London)*, 1989, **114**, 451 (detn. La, Eu, Lu)

7,8,15,16,17,18-Hexahydrodibenzo[*e,m*][1,4,8,11]-tetraazacyclotetradecine, 9CI

Macrocyclic schiff's base I
[33419-89-5]



$\text{C}_{18}\text{H}_{20}\text{N}_4$ M 292.383

Used as 1 mM soln. in CHCl_3 for selective extraction-sepn. of Cu(II) (pH 5-8; in the presence of picrate). Cryst. Sol. CHCl_3 .

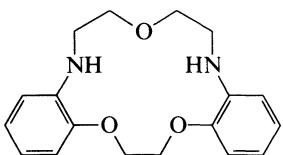
Owston, P.G. *et al*, *J. Chem. Soc., Chem. Commun.*, 1980, 1218 (synth)

Zolotov, Yu.A. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1984, **277**, 1145 (use)

Isakova, N.V. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 859 (detn. Cu)

6,7,10,11,17,18-Hexahydro-5H,9H-dibenzo[*e,n*][1,4,10,7,13]-trioxadiazacyclopentadecine, 9CI

2,3,8,9-Dibenzo-4,7,13-trioxa-1,10-diazacyclopentadecane
[96656-75-6]



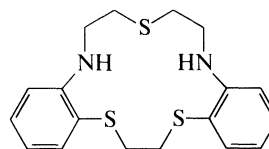
$\text{C}_{18}\text{H}_{22}\text{N}_2\text{O}_3$ M 314.383

Used as 1mM soln. in CHCl_3 for selective extraction sepn. of Hg(II) . Cryst. Sol. CHCl_3 .

Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 1046 (sepn. Hg)

6,7,10,11,17,18-Hexahydro-5H,9H-dibenzo[*e,n*][1,4,10,7,13]-trithiadiazacyclopentadecine, 9CI

2,3,8,9-Dibenzo-4,7,13-trithia-1,10-diazacyclopentadecane
[96656-79-0]



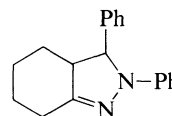
$\text{C}_{18}\text{H}_{22}\text{N}_2\text{S}_3$ M 362.583

Used as 1mM CHCl_3 soln. for extraction-photometric detn. of Ag (λ_{max} 380 nm, ϵ 25000). Cryst. Sol. CHCl_3 , C_6H_6 , 1,2-dichloroethane, PhCl.

Poddubnykh, L.P. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 255 (synth, detn. Ag)

3,3a,4,5,6,7-Hexahydro-2,3-diphenyl-2H-indazole, 9CI

[86328-94-1]



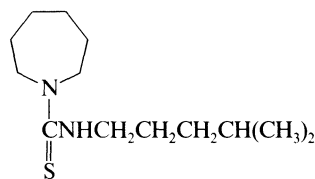
$\text{C}_{19}\text{H}_{20}\text{N}_2$ M 276.380

Used as 0.01% EtOH soln. for kinetic-fluorimetric detn. of V(V) (λ_{max} 535 nm; oxidation to pyrazole). Cryst. Sol. EtOH.

Grases, F. *et al*, *Anal. Chim. Acta*, 1983, **148**, 245 (synth, use)

Hexahydro-N-(4-methylpentyl)-1H-azepine-1-carbothioamide, 9CI

N-Hexamethylene-N'-isohexylthiourea
[64919-32-0]



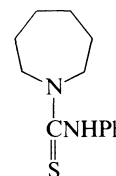
$\text{C}_{13}\text{H}_{26}\text{N}_2\text{S}$ M 242.428

Used as a 0.05M CHCl_3 soln. for extraction of Ir. Viscous oil. Sol. CHCl_3 , C_6H_6 , EtOH.

Zolotov, Yu.A. *et al*, *Anal. Chim. Acta*, 1978, **100**, 613 (synth, use)

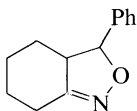
Hexahydro-N-phenyl-1H-azepine-1-carbothioamide, 9CI

N-Hexamethylene-N'-phenylthiourea
[64919-31-9]



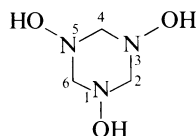
$C_{13}H_{18}N_2S$ M 234.365
Used as 0.05M $CHCl_3$ soln. for extraction of Ir. Cryst.
(EtOH). Sol. $CHCl_3$, C_6H_6 , EtOH.
Zolotov, Yu.A. *et al.* *Anal. Chim. Acta*, 1978, **100**, 613 (*synth, use*)

3,3a,4,5,6,7-Hexahydro-3-phenyl-2,1-benzisoxazole, 9CI H-00050
3-Phenyl-Δ^{1,7a}-hexahydroanthranil
[86328-95-2]



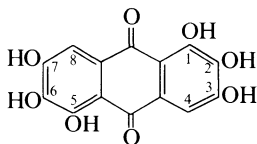
$C_{13}H_{15}NO$ M 201.268
Used as 0.01% EtOH soln. for kinetic-fluorimetric detn. of
 $V(V)$ (λ_{max} 520 nm). Cryst. Mod. sol. EtOH.
Grases, F. *et al.* *Anal. Chim. Acta*, 1983, **148**, 245 (*synth, detn, V*)

Hexahydro-1,3,5-trihydroxy-1,3,5-triazine, 9CI, 8CI H-00051
Triformoxime. N-Trihydroxytrimethylenetriamine
[3756-02-3]



$C_3H_9N_3O_3$ M 135.122
Used for photometric detn. of Mn(II) (λ_{max} 440 nm, ϵ
16000) and Fe(III) (λ_{max} 520 nm, ϵ 12000). Amorph.
solid. Insol. H_2O , EtOH, Et_2O , sol. dil. acids.
Kajiwara, M. *et al.* *Nippon Kagaku Zasshi*, 1964, **85**, 539; *CA*, **62**,
1072h (*detn, Fe*)
Jerslev, B. *et al.* *Acta Chem. Scand., Ser. B*, 1977, **31**, 875 (*cryst*
struct, synth)
Jensen, K.A. *et al.* *CA*, 1978, **89**, 110 480 (*synth, pmr*)

1,2,3,5,6,7-Hexahydroxyanthraquinone, 8CI H-00052
1,2,3,5,6,7-Hexahydroxy-9,10-anthracenedione, 9CI.
Rufigallol. Rufigallic acid
[82-12-2]



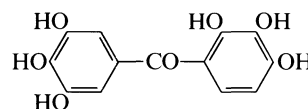
$C_{14}H_8O_8$ M 304.212
Used as 0.07% soln. in DMSO for photometric detn. of
Be (λ_{max} 530 nm). Red needles. Mp 365°.
Hexa-Ac:
 $C_{26}H_{20}O_{14}$ M 556.436
Yellow plates (Ac_2O). Mp 268-270° dec.
Hexa-Me ether: 1,2,3,5,6,7-Hexamethoxyanthraquinone
 $C_{20}H_{20}O_8$ M 388.373
Yellow needles. Mp 240°.

Birkenshaw, J.H. *et al.* *Biochem. J.*, 1955, **59**, 475 (*uv*)
Grimshaw, J. *et al.* *J. Chem. Soc.*, 1956, 4225 (*synth*)
Bloom, H. *et al.* *J. Chem. Soc.*, 1959, 178 (*ir*)
Chan, A.W.K. *et al.* *Aust. J. Chem.*, 1966, **19**, 1701 (*pmr*)
Azim, M.A. *et al.* *Mikrochim. Acta*, 1969, 153 (*synth, detn, Be*)

1,2,4,5,6,8-Hexahydroxyanthraquinone, 8CI H-00053
1,2,4,5,6,8-Hexahydroxy-9,10-anthracenedione, 9CI.
Anthracene blue WR
[6373-24-6]

$C_{14}H_8O_8$ M 304.212
Gives colour reaction for Sc (orange → violet). Used as
0.1% aq. soln. Deep-red needles (AcOH). Sl. sol. H_2O .
Mp > 360°.
[61169-36-6]
Treibs, A. *et al.* *Justus Liebigs Ann. Chem.*, 1933, **506**, 171 (*uv*)
Korenman, I.M., *Zh. Anal. Khim.*, 1959, **14**, 547 (*use*)
Banks, H.J. *et al.* *Aust. J. Chem.*, 1978, **31**, 2271 (*synth, ir, uv,*
pmr)

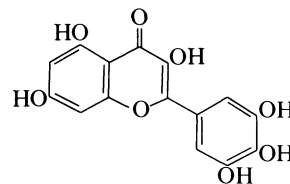
2,3,3',4,4',5'-Hexahydroxybenzophenone, 8CI H-00054
(2,3,4-Trihydroxyphenyl)(3,4,5-trihydroxyphenyl)methanone,
9CI. 4-Galloylpyrogallol. Exifone, INN
[52479-85-3]



$C_{13}H_{10}O_7$ M 278.218
Antithrombotic, platelet aggregation inhibitor. Used as a
0.2-0.4% aq. soln. for photometric detn. of Mo (λ_{max}
420 nm, ϵ 14000). Yellowish needles (H_2O). Sol. hot
 H_2O , Me_2CO , EtOH. Mp 272-273°.

Hexa-Ac:
 $C_{25}H_{22}O_{13}$ M 530.441
Mp 132°.
Bleuler, H. *et al.* *J. Chem. Soc.*, 1916, **109**, 529 (*synth*)
Popa, G. *et al.* *Rev. Chim. (Bucharest)*, 1973, **24**, 635; *CA*, **80**,
103486u.
Ger. Pat., 2 501 443, (1975); *CA*, **83**, 188522n (*synth, pharmacol,*
tox)
Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,
Pharmaceutical Press, London, 1982/1989, 3929.

3,3',4',5,5',7-Hexahydroxyflavone H-00055
3,5,7-Trihydroxy-2-(3,4,5-trihydroxyphenyl)-4H-1-
benzopyran-4-one, 9CI. 3',4',5,5',7-Pentahydroxyflavonol.
Myricetin. Cannabiscetin. Myricetol
[529-44-2]



$C_{15}H_{10}O_8$ M 318.239
Isol. from the bark of *Myrica rubra* and *M. nagi*;
widespread in the plant world, occurring in seeds,
flowers and stems, often as glycosides. Used as 0.1%
soln. in Me_2CO or DMF for fluorimetric detn. of Sc.
Light-yellow needles (EtOH aq.). Sol. Me_2CO , DMF
Mp 357-360° dec.

▶ LK8646000.
Hexa-Ac: [14813-29-7].
Needles (EtOH). Mp 214-216°.
▶ LK8648000.
3'-O-β-D-Glucopyranoside: [520-14-9]. *Cannabiscitrin*

$C_{21}H_{20}O_{13}$ M 480.381

Widespread, e.g. in *Thea sinensis*, *Corylopsis paniciflora*, *Ribes nigrum*. Used as a 0.1% soln. in DMF or Me_2CO for fluorimetric detn. of Hf, Sc. Yellow cryst. Mp 220° (softens at 210°).

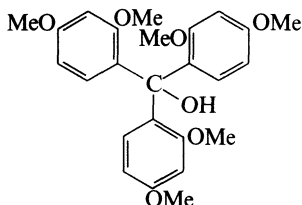
[6822-41-9, 26856-98-4, 28454-80-0, 29662-78-0, 36116-88-8, 39049-12-2, 79191-63-2]

- Perkin, A.G., *J. Chem. Soc.*, 1902, **81**, 203 (struct)
 Kalf, J. et al, *J. Chem. Soc.*, 1925, **127**, 183 (synth)
 Nierenstein, M., *Ber.*, 1928, **61**, 361 (synth)
 Seshadri, T.R. et al, *Proc. - Indian Acad. Sci., Sect. A*, 1946, **23**, 296; *CA*, **40**, 6447 (struct)
 Farkas, L. et al, *Chem. Ber.*, 1967, **100**, 2296 (synth)
 Berti, G. et al, *Tetrahedron*, 1967, **23**, 2295 (isol, synth)
 Karrer, W. et al, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, 1575, 1576 (occur)
 Gaydou, E.M. et al, *Ann. Chim. (Paris)*, 1977, **2**, 303 (synth, uv, cmr)
 Dasgupta, S., *Indian J. Chem., Sect. B*, 1977, **15**, 197 (isol)
 Markham, K.R. et al, *Tetrahedron*, 1978, **34**, 1389 (cmr)
 Wells, E.F. et al, *Can. J. Bot.*, 1980, **58**, 1459 (deriv)
 Srivastawa, S.K. et al, *Indian J. Chem., Sect. B*, 1981, **20**, 833 (isol)
 Castleden, I.R. et al, *Aust. J. Chem.*, 1985, **38**, 1177 (isol, cryst struct)
 Vogt, T. et al, *Phytochemistry*, 1987, **26**, 1027 (deriv)
 Yu, S. et al, *Phytochemistry*, 1987, **26**, 2131 (deriv)
 Zel'tser, L.E. et al, *Talanta*, 1987, **34**, 873 (detn. Sc, Hf)
The Flavonoids: Advances in Research since 1980, (Ed. Harborne, J.B.), Chapman and Hall, London, 1988.

Hexamethoxy red

H-00056

α, α -Bis(2,4-dimethoxyphenyl)-2,4-dimethoxybenzenemethanol, 9CI. 2,2',2'',4,4',4''-Hexamethoxytriphenylcarbinol. Tris(2,4-dimethoxyphenyl)carbinol
 [76832-37-6]



$C_{25}H_{28}O_7$ M 440.492

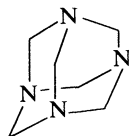
Acid-base indicator (pH range 2.6-4.6; colour change: pink → colourless). Used as 0.1% soln. in EtOH. Cryst. powder. Sol. EtOH. Mp 147°.

- Kolthoff, I.M., *J. Am. Chem. Soc.*, 1927, **49**, 1218; 1939, **61**, 16.
 Lund, H., *J. Am. Chem. Soc.*, 1927, **49**, 1346 (synth)

Hexamethylenetetramine, 8CI

H-00057

1,3,5,7-Tetraazatricyclo[3.3.1.1^{3,7}]decane, 9CI. **Methenamine**, INN. **Aminoform**. **Formamine**. **Formin**. **Hexamine**. **Metenamine**. **Urotropin**. Numerous proprietary names
 [100-97-0]



$C_6H_{12}N_4$ M 140.188

Uses include steel corrosion inhibitor, stabiliser for oils, urinary antiseptic, rubber vulcanisation accelerator and reagent for Au and Hg. Reagent used in the Delepine, Sommelet and Duff reactions. Used for pptn. separation

of Fe(III), Al; gravimetric detn. of Fe(III), Al, U, Th, Cu and in buffer prep. Volatile, rhombohedral cryst. (EtOH). Sol. H_2O , less sol. warm H_2O . Subl. ca. 263° in vacuo with some dec.

▷ MN4725000.

- B,HI*: Mp 170-171°.
B,H₂SO₄: Monohydrate. Mp 108°.
Picrate: Mp 179° dec.
B,MeI: Needles (EtOH). Sol. H_2O , insol. $CHCl_3$, Et_2O . Mp 190°, Mp 204° dec.
Compd. with 5-Oxo-1,3-dioxolane-4,4-diacetic acid (1:1): [6190-43-8]. *Citrohexamine*. *Hexacitramine*. *Helmitol*. *Uropurgol*. Other proprietary names
 Mp ca. 175° dec.
Camphorate (2:1): [630-55-7]. *Hexacamphamine*. Other proprietary names
Hippurate (1:1): [5714-73-8]. *Hexamine hippurate*, BAN. *Methenamine hippurate*, USAN, JAN. *Hiprex*
 Mp 105-110°.
Mandelate (1:1): [587-23-5]. *Hexamethylenamine mandelate*. *Mandelamine*. *Methenamine mandelate*, USAN. Other proprietary names
 Mp 128-130°.
Compd. with 2-Hydroxy-5-sulfobenzoic acid (1:1): [20480-93-7]. *Hexal*. *Hexalet*. *Sulfhexet*. *Uropuret*
 Cryst. + $1H_2O$. Mp ca. 190° dec.
Compd. with CHBr₃: [15585-71-4]. **Brometenamine**, INN
 Butlerow, A., *Justus Liebigs Ann. Chem.*, 1860, **115**, 322.
 Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 124 (synth, use)
 Ger. Pat., 824 055, (1951); *CA*, **49**, 7597 (*Mandelamine*)
 Settimj, M., *CA*, 1952, **46**, 1965 (*Citrohexamine*)
 Stetter, H., *Angew. Chem.*, 1954, **66**, 217.
 Vogel, A.I., *Textbook of Qualitative Inorganic Analysis*, Longmans, London, 1961 (use)
 Morita, M., *CA*, 1973, **79**, 32020d (synth)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 243.
 Gleckman, R. et al, *Am. J. Hosp. Pharm.*, 1979, **36**, 1509.
 Alonso, F. et al, *CA*, 1979, **90**, 127487 (*Mandelamine*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 5657-5661.
 Chou, M. et al, *Acta Crystallogr., Sect. C*, 1987, **43**, 322 (cryst struct)
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 530 (synonyms)
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 600.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HEI500.

Hexamethylphosphoric triamide, 9CI

H-00058

Hexamethylphosphoramido. *Tris(dimethylamido) oxophosphorus(V)*. **HMPT**
 [680-31-9]

OP(NMe₂)₃

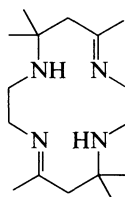
$C_6H_{18}N_3OP$ M 179.201

Widely used as polar, aprotic solvent which activates the synth. and use of organometallic compds. (e.g. Li, Mg derivs.). Widespread use in organic synthesis: converts benzamides into dimethylaminoquinolines, dehydrating agent for alcohols and amides. Used in combination with $SOCl_2$ for synth. of alkyl chlorides. Used for extraction separation of metals ($CHCl_3$, as SCN-complexes); photometric detn. of Os, Ru, Fe(III), Ti. Liq. Misc. H_2O . d_4^{20} 1.025. Mp 7°. Bp 235°, Bp₁₅ 115°, Bp₁ 68-70°. n_D^{20} 1.4582.

▷ Potent animal carcinogen; suspected human carcinogen. Irritant. TD0875000.

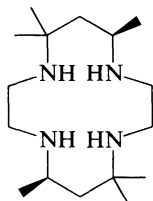
Normant, H., *Angew. Chem., Int. Ed. Engl.*, 1967, **6**, 1046 (rev)
 Diggle, J.W. et al, *J. Phys. Chem.*, 1974, **78**, 1018 (props)
 Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, 5, 323; 1977, **6**, 273; 1979, **7**, 168; 1980, **8**, 240; 1981, **9**, 235; 1982, **10**, 196.
 Gloe, K. et al, *J. Prakt. Chem.*, 1975, **317**, 529 (synth)
 Pantzer, R. et al, *Z. Anorg. Allg. Chem.*, 1975, **416**, 297 (ir, raman)
 Mitra, M. et al, *Anal. Chim. Acta*, 1977, **94**, 489 (detn, Ti)
 London, A.G. et al, *Org. Mass Spectrom.*, 1977, **12**, 283 (ms)
 Mitra, M. et al, *Talanta*, 1977, **24**, 698; 1978, **25**, 599 (use)
 Pederson, E.B., *CA*, 1978, **89**, 89752e (rev)
 Itaya, K. et al, *J. Am. Chem. Soc.*, 1978, **100**, 5996 (purifn)
 Spencer, H., *Chem. Ind. (London)*, 1979, 728 (tox)
 Chowdhury, R.P. et al, *Mikrochim. Acta*, 1979, **2**, 515 (detn, Fe)
 Bergesen, K. et al, *Acta Chem. Scand., Ser. A*, 1981, **35**, 147 (cmr)
 Pal, B.K. et al, *Talanta*, 1981, **28**, 62 (detn, Os)
 Cowley, A.H. et al, *Inorg. Chem.*, 1982, **21**, 543 (pe)
 Worley, S.D. et al, *J. Electron Spectrosc. Relat. Phenom.*, 1982, **25**, 135 (pe, struct)
 Mitra, B.K. et al, *Mikrochim. Acta*, 1982, **2**, 449 (detn, Ru)
 Duangthai, S. et al, *Org. Magn. Reson.*, 1982, **20**, 33 (struct)
 Fujinaga, T. et al, *Recomm. Methods Purif. Solvents Tests Impurities*, (J.F. Coetzee Ed.), Pergamon, 1982, 38 (rev)
 Koidan, G.N. et al, *Zh. Obshch. Khim.*, 1982, **52**, 2001; *J. Gen. Chem. USSR (Engl. Transl.)*, 1982, **52**, 1779 (synth, props, derivs)
 Cload, P.A. et al, *Org. Mass Spectrom.*, 1983, **18**, 57 (ms)
 Bollinger, J.-C. et al, *Org. Mass Spectrom.*, 1985, **20**, 318 (ms)
 Appling, J.R. et al, *Org. Mass Spectrom.*, 1985, **20**, 343 (ms)
 Bollinger, J.-C. et al, *Spectrochim. Acta, Part A*, 1985, **41**, 399 (pmr, ir)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 346.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HEK000.

5,7,7,12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, 9CI **H-00059**
 [37933-61-2]



$C_{16}H_{32}N_4$ M 280.456
 Used as 0.01 M aq. soln. of perchlorate salt for extraction-photometric detn. of Cu, Co, Ni ($\epsilon \sim 50000$, $CHCl_3$).
 Cryst. Sol. acids.
 Nazarenko, A.Yu. et al, *Zh. Anal. Khim.*, 1983, **38**, 1946 (synth, use)
 Pyatnitskii, I.V. et al, *Zh. Anal. Khim.*, 1985, **40**, 1423 (detn Cu)

5,5,7,12,12,14-Hexamethyl-1,4,8,11-tetraazacyclotetradecane, 9CI **H-00060**



$C_{16}H_{36}N_4$ M 284.487
 (7*RS*,14*RS*)-form [10368-91-9]
 (\pm)-cis-form

Used as aq. soln. for photometric detn. of Cu (λ_{max} 510 nm). Cryst. (Me_2CO). Sol. H_2O , Me_2CO .

Inorg. Synth., 1978, **18**, 10.
 Pyatnitskii, I.V. et al, *Zh. Anal. Khim.*, 1985, **40**, 1423 (detn, Cu)

1,6-Hexanediamine, 9CI **H-00061**
 Hexamethylenediamine. 1,6-Diaminohexane
 [124-09-4]



$C_6H_{16}N_2$ M 116.206
 Starting material for nylon-type polymers. Reagent for the polarog. anal. of aldehydes and ketones. Leaflets, long needles (by subl.). Sol. H_2O , EtOH, C_6H_6 . Mp 42°. Bp 204-205°, Bp₁₋₂ 46-47°.

▷ Irritant. MO1180000.

B,2HCl: [6055-52-3].

Mp 248°.

N,N'-Di-formyl: [35161-65-0].

$C_8H_{16}N_2O_2$ M 172.227

Mp 112°.

N,N'-Di-Ac: [3073-59-4].

$C_{10}H_{20}N_2O_2$ M 200.280

Mp 127°.

Picrate: Mp 220°.

N,N'-Di-Me: [13093-04-4]. *N,N'*-Dimethyl-1,6-hexanediamine, 9CI. 1,6-Bis(methylamino)hexane

$C_8H_{20}N_2$ M 144.259

Bp 205°, Bp₂ 65-70°.

N,N'-Di-Me; *B,HCl*: Mp 240-241° (210°).

Curtius, Th. et al, *J. Prakt. Chem.*, 1900, **62**, 189 (synth)

v. Braun, J. et al, *Ber.*, 1905, **38**, 2203 (synth)

Slotta, K.H. et al, *Ber.*, 1929, **62**, 1398 (synth)

Brown, R. et al, *J. Chem. Soc.*, 1946, 781 (synth)

Reppe, W. et al, *Justus Liebigs Ann. Chem.*, 1955, **596**, 80 (synth)

Ried, W. et al, *Justus Liebigs Ann. Chem.*, 1957, **611**, 71 (deriv)

Ishidate, M. et al, *Chem. Pharm. Bull.*, 1958, **6**, 164 (deriv)

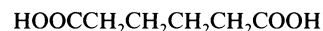
Hall, M.E., *Anal. Chem.*, 1959, **31**, 2007 (use)

Leonhard, K.W., *Ullmanns Encykl. Tech. Chem.*, 4. Aufl., 1976, **12**, 665 (rev)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 268.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HEO000, HEO500.

Hexanedioic acid, 9CI **H-00062**
 Adipic acid. Butane-1,4-dicarboxylic acid
 [124-04-9]



$C_6H_{10}O_4$ M 146.143

Obt. industrially by oxidn. of cyclohexane by air/catalyst followed by HNO_3 . Used in manuf. of nylons, also plasticisers, resins and as food acidulant. Used in pptn. of Al, Zr, U(VI) and standardization of base solns. Important industrial chemical, 46th in order of volume for USA in 1990 (production 0.82 million tons/year). Monoclinic cryst. (HNO_3). Sol. EtOH; spar. sol. Et_2O ; mod. sol. H_2O . Mp 153°, Mp 149-150°. Bp₁₅ 216°. pK_{a1} 4.41; pK_{a2} 5.41 (20°), pK_{a1} 4.44; pK_{a2} 5.44 (25°). Sublimes. Does not readily form a monomeric anhydride; forms a polymeric anhydride which gives the unstable monomer on dist.

▷ AU8400000.

Me ester: [627-91-8].

$C_7H_{12}O_4$ M 160.169

Mp 3°. Bp₁₀ 162°.

Di-Me ester: [627-93-0].

$C_8H_{14}O_4$ M 174.196

Fp 0°, Mp 8°.

▷ AV1645000.

Dichloride: [111-50-2].

$C_6H_8Cl_2O_2$ M 183.033

Bp₁₈ 130-132° sl. dec.

Monoamide: Adipamic acid

$C_6H_{11}NO_3$ M 145.158

Needles (H₂O). Mp 125-130°.

Diamide: [628-94-4]. **Hexanediamide. Adipamide**

$C_6H_{12}N_2O_2$ M 144.173

Mp 220°.

▷ AU7800000.

Dinitrile: [111-69-3]. **1,4-Dicyanobutane. Adiponitrile**

$C_6H_8N_2$ M 108.143

Sol. EtOH, CHCl₃; insol. H₂O, Et₂O, CS₂. Mp 0-1°.

Bp₂₀ 181°.

▷ High oral toxicity. Emits HCN on combustion.

AV2625000.

Hill, J.W., *J. Am. Chem. Soc.*, 1930, **52**, 4110 (*anhydride*)

Org. Synth., Coll. Vol., 1, 1932, 18 (*synth*)

Henne, A.L. *et al*, *J. Am. Chem. Soc.*, 1943, **65**, 752 (*synth*)

Welcher, F., *Organic Analytical Reagents*, Van Nostrand, New

York, 1947, **2**, 22 (*synth, standard*)

Jain, B.D., *Curr. Sci.*, 1963, **32**, 66 (*pptn*)

Tanaka, K., *Hydrocarbon Process.*, 1974, **53**, 114 (*rev*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **1**, 510 (*rev*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AEN000, AEN250, AER250, DOQ300.

2,5-Hexanedione, 9CI

H-00063

Acetylacetone. 1,2-Diacetylcethane

[110-13-4]



$C_6H_{10}O_2$ M 114.144

Reagent for gc anal. of primary amines. Liq. gradually turns yellow. Misc. H₂O, EtOH. d_4^{20} 0.970. Mp -9°.

Bp₂₀ 194°. pK_{a1} 18.7.

▷ Highly toxic by inhalation. MO3150000.

Monoxime:

$C_6H_{11}NO_2$ M 129.158

Liq. Bp₁₁ 130°.

Dioxime: [2157-57-5].

$C_6H_{12}N_2O_2$ M 144.173

E,Z-form gives colour reactions with Ni, Pd. Plates (C₆H₆). Sol. H₂O, Me₂CO, CHCl₃. Mp 137°.

Bis-2,4-dinitrophenylhydrazone: Mp 257°.

Disemicarbazone: Mp 223-224°.

[52402-53-6]

Knorr, L., *Ber.*, 1900, **33**, 1219.

Ponzio, G.J., *Prakt. Chem.*, 1901, **63**, 63.

Justoni, R., *Gazz. Chim. Ital.*, 1941, **71**, 375.

Walle, T., *Acta Pharm. Suec.*, 1968, **5**, 353 (*use*)

Stetter, H. *et al*, *Chem. Ber.*, 1985, **118**, 1115 (*synth*)

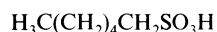
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HEQ500.

1-Hexanesulfonic acid, 9CI

H-00064

1-Hexylsulfonic acid

[13595-73-8]



$C_6H_{14}O_3S$ M 166.241

d_4^{25} 1.1047. Mp 16.1°. Bp₁ 174°.

Na salt: [2832-45-3].

Ion-pairing reagent used in hplc of peptides and proteins. Mp > 300°.

Me ester: [10307-26-3].

$C_7H_{16}O_3S$ M 180.268

Liq. Bp_{0,3} 75°.

Vivian, D.L. *et al*, *J. Am. Chem. Soc.*, 1935, **57**, 2559 (*synth*)

Hancock, W.S. *et al*, *J. Chromatogr.*, 1978, **161**, 291 (*use*)

Johnson, T.J. *et al*, *Tetrahedron*, 1978, **34**, 547 (*synth*)

Bidlingmeyer, B.A. *et al*, *Adv. Chromatogr. (Houston) 19th 1984*,

1979, **14**, 435; *CA*, **91**, 217413a (*use*)

Okabayashi, H. *et al*, *Chem. Scr.*, 1982, **20**, 117 (*cmr*)

Levin, S. *et al*, *Anal. Chem.*, 1985, **57**, 1830 (*use*)

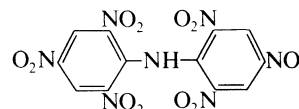
2,2',4,4',6,6'-Hexanitrodiphenylamine, 8CI H-00065

2,4,6-Trinitro-N-(2,4,6-trinitrophenyl)benzenamine, 9CI.

Bis(2,4,6-trinitrophenyl)amine. p-Dipicrylamine.

2,4,6,2',4',6'-Hexanitrodiphenylamine

[131-73-7]



$C_{12}H_5N_7O_{12}$ M 439.211

Explosive. Forms ion-pairs with alkali metal cations; used in precipitn. and photometric detn. of K and Tl(I).

Prisms (AcOH). Sol. AcOH. Mp 245-246° dec.

▷ Causes exp. neoplasms. JJ9275000.

NH₄ Salt: [2844-92-0]. **Aurantia**

Biological stain.

▷ Explosive.

N-Ac:

$C_{14}H_7N_7O_{13}$ M 481.248

Mp 240° dec.

N-Me: Methylpicrylamine

$C_{13}H_7N_7O_{12}$ M 453.238

Cryst. (EtOH). Mp 236-237°.

N-Et: Ethylpicrylamine

$C_{14}H_9N_7O_{12}$ M 467.265

Needles. Mp 201-202°.

Hoffman, A. *et al*, *J. Am. Chem. Soc.*, 1919, **41**, 1013 (*synth*)

U.S. Pat., 1 326 947, (1920); *CA*, **14**, 633.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4**, 8 (*synth, rev*)

Lewis, P.R., *Analyst (London)*, 1955, **80**, 768 (*detn, K*)

Gorbenko-Germanov, D.S. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 1020 (*detn, K, Tl*)

Motomizu, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1969, **42**, 1006 (*use*)

Sucharda-Sobezyk, A., *CA*, 1972, **77**, 113246 (*ir, uv*)

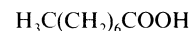
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HET500.

Hexanoic acid, 9CI

H-00066

Caproic acid. Pentane-1-carboxylic acid

[142-62-1]



$C_6H_{12}O_2$ M 116.160

Occurs naturally, e.g. in lichens. Sex pheromone of the female dermestid beetle *Trogoderma glabrum*. Simple esters are used as flavouring agents. Used for extraction of Co, Mn, Ni and rare earth elements. Oily liq. Sol. alkalis, EtOH, Et₂O; spar. sol. H₂O. d_4^{20} 0.9274. Fp -1.5° to -2°. Bp 205°. pK_{a1} 4.8 (25°). n_D^{20} 1.41635.

▷ MO5250000.

Me ester: [106-70-7].

$C_7H_{14}O_2$ M 130.186

Bp 150°, Bp₁₅ 52°.

▷ Causes burns. MO8401400.

S-Benzylthiuronium salt: Mp 146-147°.

Chloride: [142-61-0].

$C_6H_{11}ClO$ M 134.605

Bp 151-153°.

Anhydride: [2051-49-2].

$C_{12}H_{22}O_3$ M 214.304

Bp 254-257°, Bp_{14,5} 143°. Stable to aq. carbonates.

Amide: [628-02-4]. Hexanamide, 9CI. Caproamide

$C_6H_{13}NO$ M 115.175

Mod. sol. hot H₂O. Mp 100°.

▷ MN7875000.

Nitrile: [628-73-9]. Hexanenitrile, 9CI. Capronitrile

$C_6H_{11}N$ M 97.160

Bp 163.6°, Bp₂₅ 75°.

▷ MO3900000.

(E)-2-Hexenyl ester: [53398-86-0]. (E)-2-Hexenyl hexanoate

$C_{12}H_{22}O_2$ M 198.305

Alarm pheromone of *Riptortus clavatus*. Bp₃ 79°.

Gartenmeister, R., *Justus Liebigs Ann. Chem.*, 1886, **233**, 249.

Org. Synth., *Coll. Vol.*, 2, 1943, 474, Note 6 (*synth*)

Org. Synth., *Coll. Vol.*, 3, 1955, 164 (*anhydride*)

Karrer, W. *et al. Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 814 (*occur*)

Sekine, T. *et al. Bull. Chem. Soc. Jpn.*, 1973, **46**, 1183 (*detn, Ag*)

Aizawa, H., *CA*, 1974, **79**, 108575m (*detn, Mn, Ni*)

Kremenskaya, I.N. *et al. CA*, 1974, **80**, 74765b (*detn, Co, Mn*)

Danilov, N.A., *Zh. Neorg. Khim.*, 1974, **19**, 194 (*detn, rare earth elements*)

Yarger, R.G. *et al. J. Chem. Ecol.*, 1975, **1**, 323.

Sevrin, M. *et al. Tetrahedron Lett.*, 1977, 3835 (*synth*)

Miyazaki, S. *et al. CA*, 1978, **89**, 129030b (*synth*)

Leal, W.S. *et al. Biosci., Biotechnol., Biochem.*, 1992, **56**, 1004 (2-hexenyl hexanoate)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 347.

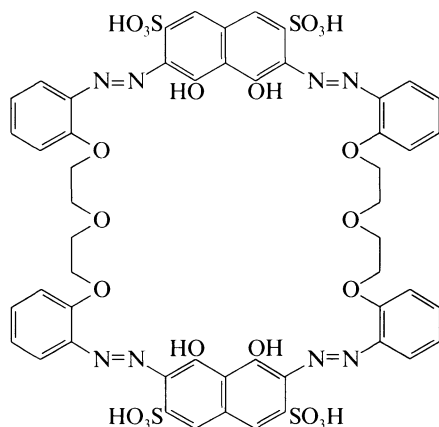
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HEM500, HER500, HEU000.

Hexaoxacycloazochrome

H-00067

6,7,9,10,32,33,35,36-Octahydro-19,45,53,56-tetrahydroxy-18,21:44,47-dietheno-24,20:50,46-dimetheno-20H,46H-tetrabenzob[b,o,x,k][1,17,20,23,39,42,4,5,13,14,26,27,35,36]hexaoxaoctaazacyclotetracontine-23,49,55,58-tetrasulfonic acid, 9CI

[96927-43-4]



$C_{52}H_{44}N_8O_{22}S_4$ M 1261.224

Used as 0.03% soln. in 0.05M HCl for photometric detn. of Pb (λ_{max} 720 nm, ϵ 150000). Dark brown cryst. powder. Mod. sol. H₂O, DMF; sl. sol. EtOH.

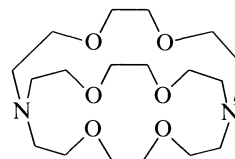
Petrova, T.V. *et al. Zh. Anal. Khim.*, 1988, **43**, 2221; 1989, **44**, 603; 1990, **45**, 579 (*synth, use*)

4,7,13,16,21,24-Hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, 9CI

H-00068

Cryptand 2.2.2. Kryptofix 222

[23978-09-8]



$C_{18}H_{36}N_2O_6$ M 376.492

Complexing agent for alkaline earth metals and Pb; used for photometric detn. of Ca, Mg, Sr. Cryst. (hexane). Sol. H₂O, Me₂CO, dioxan, C₆H₆, CHCl₃; insol. Et₂O. Mp 68-69°.

▷ MP4750000.

Dietrich, B. *et al. Tetrahedron*, 1973, **29**, 1629 (*synth, pmr*)

Metz, B. *et al. J. Chem. Soc., Perkin Trans. 2*, 1976, 423 (*cryst struct*)

Kolthoff, I.M., *Anal. Chem.*, 1979, **51**, 1R (*rev*)

Kagenow, M. *et al. Anal. Chim. Acta*, 1980, **114**, 227; 1983, **145**, 125 (*detn, Ca, Mg, Sr*)

Foerster, H.G. *et al. J. Am. Chem. Soc.*, 1980, **102**, 6984 (*N-15 nmr*)

Kulstad, S. *et al. Tetrahedron Lett.*, 1980, **21**, 643 (*synth*)

Szczepaniak, W. *et al. Anal. Chim. Acta*, 1982, **140**, 261 (*detn, Pb*)

Anelli, P.L. *et al. J. Org. Chem.*, 1985, **50**, 3453 (*synth*)

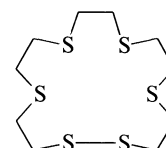
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, LFG000.

1,2,5,8,11,14-Hexathiacyclohexadecane, 9CI

H-00069

Hexathia-18-crown-6

[125730-51-0]



$C_{10}H_{20}S_6$ M 332.664

Used as 5mM soln. in 1,2-dichloroethane for extraction separation of Cu(I), Ag (in the presence of picrate, pH 4-5). Needles (hexane). Sol. C₆H₆, hexane, 1,2-dichloroethane. Mp 88.2-89.0°.

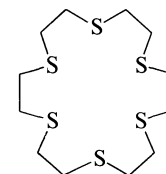
Sekido, E. *et al. Anal. Chim. Acta*, 1989, **221**, 99 (*synth, use*)

1,4,7,10,13,16-Hexathiacyclooctadecane

H-00070

Hexathia-18-crown-6. S₆-Ethano-18

[296-41-3]



$C_{12}H_{24}S_6$ M 360.718

Used as 0.5mM soln. in 1,2-dichloroethane for extraction of Ag, Cu (λ_{\max} 608 nm, ϵ 88000), Pd, Ni, Co, Zn. Needles (hexane/Me₂CO); cryst. (EtOH). Sol. EtOH, 1,2-dichloroethane, CHCl₃, Mp 92-94°.

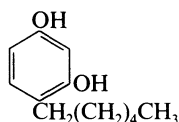
Black, D.St.C. *et al*, *Tetrahedron Lett.*, 1969, 3961 (*synth*)
Ochrymowycz, L.A. *et al*, *J. Org. Chem.*, 1974, **39**, 2079 (*synth*)
Sevdcic, D. *et al*, *J. Inorg. Nucl. Chem.*, 1980, **42**, 885 (*sepn. Ag, Hg*)

Sekido, E. *et al*, *Anal. Sci.*, 1988, **4**, 511 (*detn. Cu*)
Sekido, E. *et al*, *Bull. Chem. Soc. Jpn.*, 1988, **61**, 1587 (*extrn*)
Wolf, R.E. *et al*, *J. Am. Chem. Soc.*, 19887, **109**, 4328 (*synth. pmr, ir, cryst struct, bibl*)

4-Hexyl-1,3-benzenediol, 9CI **H-00071**

4-Hexylresorcinol, 8CI. Hexyl-2,4-dihydroxybenzene. 1-(2,4-Dihydroxyphenyl)hexane. Caprokol. **Hexylresorcinol**, USAN. Hexylresorcin. Numerous proprietary names

[136-77-6]



C₁₂H₁₈O₂ M 194.273

Urinary antiseptic. Anthelmintic. Reagent for the anal. of acrolein. Needles (pet. ether). Mp 68-70°. Bp₆₋₇ 178-180°.

▷ Causes exp. neoplasms. VH1575000.

9-Aminoacridine complex: [7527-91-5]. **Acrisorcin**, USAN, INN. *Akrinol. Aminacrine hexylresorcinolate. Sch 7056* Antifungal, anthelmintic agent. Yellow cryst. Mp 189-190°.

1-Ac:

C₁₄H₂₀O₃ M 236.310
Oil.

3-Ac:

C₁₄H₂₀O₃ M 236.310
Needles (heptane). Mp 62-63°.

Dohme, A.R.L. *et al*, *J. Am. Chem. Soc.*, 1926, **48**, 1691 (*synth*)
Cox, E.N., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1931, **50**, 848 (*synth*)

Shas, E.Y., *Chem. Zentralbl.*, 1941, **2**, 636 (*rev*)

Cohen, I.R. *et al*, *Anal. Chem.*, 1961, **33**, 726 (*use*)

Seneca, H., *Antibiot. Chemother. (Washington, D.C.)*, 1961, **11**, 587 (*Acrisorcin*)

U.S. Pat., 3 122 553, (1964); *CA*, **60**, 13231 (*Acrisorcin*)

Quercia, V. *et al*, *Boll. Chim. Farm.*, 1971, **110**, 428 (*ms*)

Hemenway, D.R. *et al*, *Am. Ind. Hyg. Assoc. J.*, 1980, **41**, 305; *CA*, **93**, 78676q (*use*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 782, 2202.

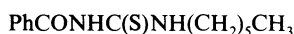
Mizobuchi, S. *et al*, *Agric. Biol. Chem.*, 1985, **49**, 1327 (*synth, props*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 2519.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HFV500.

***N*-Hexyl-*N'*-benzoylthiourea** **H-00072**

N-[(Hexylamino)thioxomethyl]benzamide, 9CI
[125788-00-3]



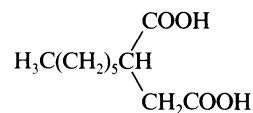
C₁₄H₂₀N₂OS M 264.391

Used as toluene soln. for extraction separation of Pd(II). Cryst. (EtOH). Sol. toluene, C₆H₆, EtOH. Mp 37°.

Vest, P. *et al*, *Fresenius' Z. Anal. Chem.*, 1989, **335**, 759 (*synth, detn, Pd*)

2-Hexylbutanedioic acid **H-00073**

Hexylsuccinic acid, 8CI. Octane-1,3-dicarboxylic acid
[5702-91-0]



C₁₀H₁₈O₄ M 202.250

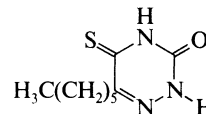
(±)-form

Used as 2mM aq. soln. for ion-pair chromatography separation of alkali, alkaline earth metals, Zn and Mn. Cryst. Sol. H₂O. Mp 84° (85-86°).

Schwedt, G. *et al*, *J. Anal. Chem. USSR (Engl. Transl.)*, 1990, **336**, 415 (*synth, use*)

6-Hexyl-4,5-dihydro-5-thioxo-1,2,4-triazin-3(2H)-one, 9CI **H-00074**

3-Hydroxy-5-mercapto-6-hexyl-1,2,4-triazine
[49671-10-5]



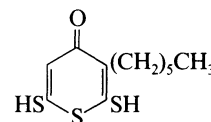
C₉H₁₅N₃OS M 213.303

Used for photometric detn. of Os. Cryst. Sol. H₂O, EtOH.

Popa, G. *et al*, *An. Univ. Bucuresti, Chim.*, 1971, **20**, 33 (*detn, Os*)

3-Hexyl-2,6-dimercapto-4H-thiopyran-4-one, 9CI **H-00075**

[1768-94-1]



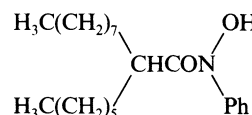
C₁₁H₁₆OS₃ M 260.445

Used as a 0.1mM aq. soln. for photometric detn. of Bi (λ_{\max} 425 nm, ϵ 32500), Sn (λ_{\max} 420 nm, ϵ 23200). Cryst.

Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn, Bi, Sn*)

2-Hexyl-*N*-hydroxy-*N*-phenyldecanamide, 9CI **H-00076**

N-(2-Hexyldecanoyl)-*N*-phenylhydroxylamine
[132499-93-5]



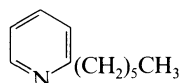
C₂₂H₃₇NO₂ M 347.540

Used as 0.1mM CCl₄ soln. for extraction separation of lanthanides. Cryst. (Et₂O/hexane). Sol. Et₂O, EtOAc, CCl₄, hexane. Mp 36-37°.

Haraguchi, K. *et al*, *Anal. Sci.*, 1990, **6**, 877 (*synth, use*)

2-Hexylpyridine, 9CI**H-00077**

[1129-69-7]

C₁₁H₁₇N M 163.262

Used as 0.1M soln. in C₆H₆ for extraction separation of Fe(III) (as anionic chloride complex), Au. Cryst. Sol. C₆H₆, CHCl₃.

McDonald, F.R. *et al*, *Appl. Spectrosc.*, 1968, **22**, 325, 329 (*nmr, struct*)

Iqbal, M. *et al*, *Sep. Sci.*, 1976, **11**, 255 (*sepn, Au*)

Qureshi, M.A. *et al*, *Talanta*, 1979, **26**, 166 (*sepn, Fe*)

Hippuric acid**H-00078**

N-Benzoylglycine, 9CI. Benzoylaminoethanoic acid. Benzamidoacetic acid

[495-69-2]

C₉H₉NO₃ M 179.175

Naturally occurring amino acid found in the urine of most mammals including man. Urinary metab. of toluene, benzoic acid etc. Used in the azlactone synth. of aminoacids. Reference material used in elemental microanalysis. Needles (H₂O or EtOH), cryst. (CHCl₃/hexane). Mod. sol. cold H₂O; sol. hot H₂O, EtOH; spar. sol. CHCl₃. pK_{a1} 3.59 (40°, 0.3M KCl).

▷ MR8150000.

*Me ester:*C₁₀H₁₁NO₃ M 193.202

Prisms. Mp 85°.

*Et ester:*C₁₁H₁₃NO₃ M 207.229Needles (H₂O). Mp 67.5°.*Ph ester:*C₁₅H₁₃NO₃ M 255.273

Plates (EtOH). Mp 104°.

*Benzyl ester:*C₁₆H₁₅NO₃ M 269.299

Mp 87-89°.

Chloride: Mp 125-130°.*Amide:*C₉H₁₀N₂O₂ M 178.190Cryst. (H₂O). Mp 183°. Sublimes.*Nitrile:*C₉H₈N₂O M 160.175

Plates (EtOH). Mp 144°.

*Hydrazide:*C₉H₁₁N₃O₂ M 193.205

Mp 162-164°.

Fisher, E., *Ber.*, 1905, **38**, 612.

Org. Synth., *Coll. Vol.*, 2, 1943, 328 (*synth*)

Analyst (London), 1972, **97**, 740 (*microanal*)

Currie, M. *et al*, *J. Chem. Soc.*, *Perkin Trans.* 2, 1974, 784 (*cryst struct*)

Dejongh, D.C. *et al*, *Can. J. Chem.*, 1975, **53**, 3175 (*synth, ms*)

Hydrazine**H-00079***Diazane*

[302-01-2]

H₄N₂ M 32.045

Hydrogen-bonded as liq. and solid. Self-ionising solv.

Interatomic distances: N—H 102, N—N 145 pm. Synth.

from NH₃ + ClO[⊖]. Commercially available. Powerful and versatile reducing agent, esp. in basic soln. Used in plastics and agriculture industries and in H₂O treatment. Rocket fuel. Reducing agent often used in analysis e.g. Hg(II), Pt(II,IV) (to metal), Se(IV) to Se, NO₃[⊖] to NO₂[⊖]. Colourless oily fuming liq. Misc. H₂O, alcohols; sl. sol. org. solvs. d₂₅²⁵ 1.004. Mp 254°, Mp 1.8°. Bp 113.5°. pK_a 7.96. n_D²⁵ 1.464.

▷ Explosive in air if ignited or overheated. Highly toxic, corrosive. MU7175000.

Salt with H₂SO₄: [10034-93-2]. *Hydrazinium(2+) sulfate* H₆N₂O₄S M 130.124

Synth. from hydrazine and H₂SO₄. Commercially available. Colourless cryst. Sl. sol. cold H₂O, sol. hot H₂O. Mp 254° dec.

▷ MV9625000.

Monohydrate: [7803-57-8]. *Hydrazine hydrate*H₆N₂O M 50.060

Commercially available strong base, v. powerful reducing agent, solv., rocket engine propellant. Used in manuf. of Helman catalyst. Fuming liq. Insol. CHCl₃, Et₂O; misc. H₂O, alcohols. Mp -51.7°, < -65°. Bp₇₄₀ 118-119°, Bp₄₇ 26°. Molecular, not ionic, complex. More convenient to use than pure hydrazine.

▷ Cancer suspect agent. Toxic. Attacks glass, rubber, v. corrosive. MV8050000.

Deutero compd.: [13762-95-3]. *Hydrazine-d₄*.*Tetradeuterohydrazine. Perdeuterohydrazine*D₄N₂ M 36.070Commercially available. pK_a 9.1 (18°).

[10217-52-4]

Inorg. Synth., 1939, **1**, 90 (*synth, deriv*)

Wagner, E.L. *et al*, *J. Chem. Phys.*, 1951, **19**, 210 (*deutero, ir, raman, conformn*)

Morino, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1960, **33**, 46 (*struct*)

Durig, J. *et al*, *J. Chem. Phys.*, 1966, **44**, 4238 (*deutero, ir, raman*)

Mellor Compr. Treat. Inorg. Theor. Chem., Longman, London,

Part 2, 1967, **8/II**, 69 (*rev*)

Kolthoff, L.M. *et al*, *Quant. Chem. Anal.*, 4 Ed., MacMillan, N.Y., 1969.

Compr. Inorg. Chem., Pergamon, Oxford, 1973, **2**, 250 (*rev*)

Brauer, G., *Handbuch Präp. Anorg. Chem.*, 3rd Ed., Ferdinand Enke Verlag, 1975-1981, **1**, 455 (*deriv, synth*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **12**, 734 (*rev*)

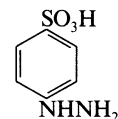
Madsen, B.C., *Anal. Chim. Acta*, 1981, **124**, 437 (*detn, NO₃[⊖]*)

Tanaka, N. *et al*, *J. Mol. Spectrosc.*, 1983, **99**, 245 (*deutero, theory*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HGS000, HGU500, HGW500.

4-Hydrazinobenzenesulfonic acid, 9CI**H-00080***Phenylhydrazine-p-sulfonic acid*

[98-71-5]

C₆H₈N₂O₃S M 188.207

Bifunctional reagent used for carbonyl compd. resolin. and various anal. determinations. Forms easily separable derivs. with ketones. Used as 0.5% soln. in 0.1M HCl for photometric detn. of Se (λ_{max} 520 nm). Needles or leaflets (H₂O). Spar. sol. H₂O, EtOH. Mp 286°.

▷ DB6900000.

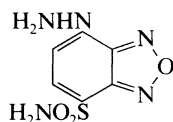
Thompson, L., *J. Soc. Dyers Colour.*, 1921, **37**, 7 (*synth*)

Kirkbright, G.F. *et al.*, *Anal. Chem.*, 1963, **35**, 808 (*detn.*, *Se*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 842.

Rigin, V.I. *et al.*, *Zavod. Lab.*, 1967, **33**, 1370 (*detn.*, *Se*)
 Kaehler, H. *et al.*, *Justus Liebigs Ann. Chem.*, 1972, **757**, 15 (*use*)
 Sanghvi, A. *et al.*, *Anal. Chem.*, 1973, **45**, 207 (*use*)
 Kawashima, T. *et al.*, *Anal. Chim. Acta*, 1977, **89**, 65 (*detn.*, *Se*)
 Osuji, G.O. *et al.*, *FEBS Lett.*, 1977, **83**, 85 (*use*)
 Mukai, M. *et al.*, *Can. J. Chem.*, 1979, **57**, 360 (*use*)
 Nakano, S. *et al.*, *Chem. Lett.*, 1980, 1173 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PF1500.

7-Hydrazino-4-benzofurazansulfonamide, 9CI H-00081

4-(Aminosulfonyl)-7-hydrazino-2,1,3-benzoxadiazole
 [131467-85-1]



$C_6H_7N_5O_3S$ M 229.219
 Fluorogenic reagent for aldehydes and ketones. Yellow-orange needles (MeOH). Mp 184-185° dec.

N,N-Di-Me: [131467-86-2].

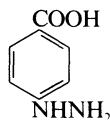
$C_8H_{11}N_5O_3S$ M 257.273

Fluorogenic reagent for aldehydes and ketones.
 Reddish-brown cryst. (MeOH). Mp 138-139° dec.

Uzu, S. *et al.*, *Analyst (London)*, 1990, **115**, 1477 (*synth.*, *use*)

4-Hydrazinobenzoic acid, 9CI H-00082

Phenylhydrazine-p-carboxylic acid
 [619-67-0]



$C_7H_8N_2O_2$ M 152.152
 Reagent for detection and determination of carbonyl compds. Shows antitubercular activity. Yellow needles or plates (H₂O). Mp 114°.

B, HCl: [24589-77-3].

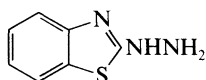
Mp 252-253° (rapid heat).

[52455-33-1]

Fischer, E., *Justus Liebigs Ann. Chem.*, 1882, **212**, 337 (*synth*)
 Anchel, M. *et al.*, *J. Biol. Chem.*, 1936, **114**, 543 (*synth*)
 Veibel, S. *et al.*, *Bull. Soc. Chim. Fr.*, 1938, **5**, 1506 (*synth*)
 Veibel, S., *Monatsh. Chem.*, 1950, **81**, 330 (*use*)
 Grammaticakis, P., *Bull. Soc. Chim. Fr.*, 1954, 1381 (*uv*)
 Larsen, L.M., *Dan. Tidsskr. Farm.*, 1968, **42**, 296; *CA*, **71**, 56429e (*use*)

2-Hydrazinobenzothiazole H-00083

2(3H)-Benzothiazolone hydrazone
 [615-21-4]



$C_7H_7N_3S$ M 165.218
 Presumably tautomeric. Used for colorimetric detn. of sugars and keto steroids. Needles (EtOH). Mp 197-199°.

Boggust, W.A. *et al.*, *J. Chem. Soc.*, 1949, 355 (*synth*)

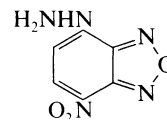
Bartos, J., *Ann. Pharm. Fr.*, 1962, **20**, 650; *CA*, **61**, 3701e (*use*)

Peet, N.P. *et al.*, *J. Heterocycl. Chem.*, 1988, **25**, 543 (*synth.*, *ir.*, *pmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HHB500.

4-Hydrazino-7-nitrobenzofurazan, 9CI H-00084

[90421-78-6]



$C_6H_5N_5O_3$ M 195.137

Fluorogenic reagent for aldehydes and ketones.

Compd. with hydrazine (1:1): [131467-87-3].

$C_6H_9N_7O_3$ M 227.182

Yellow-brown cryst. Mp > 300°.

Guebitz, G. *et al.*, *J. Liq. Chromatogr.*, 1984, **7**, 839 (*use*)

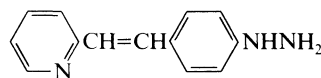
Koizumi, H. *et al.*, *J. Chromatogr.*, 1988, **457**, 299 (*synth.*, *use*)

Uzu, S. *et al.*, *Analyst (London)*, 1990, **115**, 1477 (*synth.*, *use*)

2-[2-(4-Hydrazinophenyl)ethenyl]pyridine, H-00085

9CI
 4'-Hydrazino-2-stilbazole. 2-(p-Hydrazinostyryl)pyridine.

8CI
 [27580-22-9]



$C_{13}H_{13}N_3$ M 211.266

Fluorimetric reagent for α -keto acids and neuraminic acids. Pale yellow prisms (propanol). Sol. EtOH,

MeOH, C₆H₆, EtOAc; prac. insol. H₂O, pet. ether. Mp 138°.

B, 2HCl: Yellow prisms (dil. HCl). Sol. H₂O, MeOH, EtOH. Mp 200°.

Mizutani, S. *et al.*, *Chem. Pharm. Bull.*, 1969, **17**, 2340 (*synth.*, *use*)

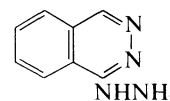
Hirata, T. *et al.*, *J. Chromatogr.*, 1981, **226**, 25 (*use*)

Kobayashi, K. *et al.*, *Anal. Sci.*, 1985, **1**, 81 (*use*)

1-Hydrazinophthalazine H-00086

Hydralazine, BAN, INN. Numerous proprietary names

[86-54-4]



$C_8H_8N_4$ M 160.178

Antihypertensive agent. Sensitive reagent for NO₂[⊖] and formaldehyde. Used as 0.1% aq. soln. for photometric detn. of Fe(III) (λ_{max} 565 nm; pH ~ 11). Yellow cryst. (MeOH). Mp 171-173°.

▷ TH8925000.

B, HCl: [304-20-1]. Hydralazine hydrochloride, USAN.

Lopress. Apresoline

Yellow cryst. Mp 273° dec. Component of Apresazide.

Hydral, Hyserp, Seragen and Unipres.

▷ TH9000000.

[59275-69-3]

Druey, J. *et al.*, *Helv. Chim. Acta*, 1951, **34**, 195 (*synth*)

Ruggieri, R., *Anal. Chim. Acta*, 1957, **16**, 242 (*detn.*, *Fe*)

Oishi, E., *Yakugaku Zasshi*, 1969, **89**, 959; *CA*, **72**, 83624 (*synth*)

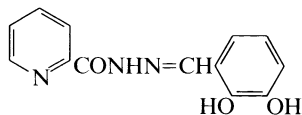
Stadnicka, K. *et al.*, *Acta Crystallogr., Sect. B*, 1978, **34**, 1747

(*cryst. struct*)

Orzech, C.E. *et al.* *Anal. Profiles Drug Subst.*, 1979, **8**, 283 (*rev*)
 Butula, I. *et al.* *Croat. Chem. Acta*, 1979, **52**, 43 (*synth*)
 Al-Rahi, M.F., *Diss. Abstr. Int.*, B, 1980, **40**, 3163 (*synth, props*)
 Ludden, T.M. *et al.* *Clin. Pharmacokinet.*, 1982, **7**, 185 (*rev*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,
 Pharmaceutical Press, London, 1982/1989, 878.
 Zacest, R. *et al.* *Handb. Hypertens.*, 1984, **5**, 312 (*rev, pharmacol*)
 Kreye, V.A.W., *J. Cardiovasc. Pharmacol.*, 1984, **6**, 646 (*rev, pharmacol*)
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,
 Akademie-Verlag, Berlin, 1987, 854 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, HGP495, HGP500.

Hydrazo II**H-00087**

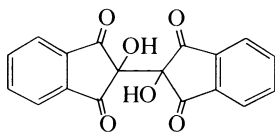
2-Pyridinecarboxylic acid [(2,3-dihydroxyphenyl)methylene]hydrazide, 9CI. α -Picolinic acid resorcinolhydrazide. 2,3-Dihydroxybenzaldehyde 2-pyridinecarbonylhydrazone [40522-21-2]



$C_{13}H_{11}N_3O_3$ M 257.248
 Used as soln. in Me_2CO for photometric detn. of Ti (λ_{max} 475 nm, ϵ 22000). Cryst. Sol. Me_2CO , EtOH.
 Dolgorev, A.V., *Zavod. Lab.*, 1972, **38**, 1309 (*synth, use, detn, Ti*)

Hydrindantin**H-00088**

2,2'-Dihydroxy[2,2'-bi-1H-indene]-1,1',3,3'(2H,2'H)-tetrone, 9CI. 2,2'-Dihydroxy[2,2'-biindan]-1,1',3,3'-tetrone, 8CI [5103-42-4]

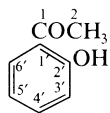


$C_{18}H_{10}O_6$ M 322.273
 Reagent for colorimetric detn. of amino acids. Prisms + $2H_2O$ (Me_2CO). Becomes anhyd. at 100° , turns brown-red at 200° and dec. at $249-54^\circ$.

Moore, S. *et al.* *J. Biol. Chem.*, 1954, **211**, 907 (*synth*)
 Bruce, T.C. *et al.* *J. Org. Chem.*, 1958, **23**, 145 (*synth*)
 Schank, K. *et al.* *Justus Liebigs Ann. Chem.*, 1967, **710**, 137 (*synth*)
 Schoenberg, A. *et al.* *Justus Liebigs Ann. Chem.*, 1968, **711**, 98 (*synth*)

2'-Hydroxyacetophenone, 8CI**H-00089**

1-(2-Hydroxyphenyl)ethanone, 9CI. o-Acetylphenol. 2-Hydroxyphenyl methyl ketone [118-93-4]



$C_8H_8O_2$ M 136.150
 Present in oil from *Chione glabra*. Greenish-yellow oil.
 Bp_{717} 213° , Bp_{17} 106° . pK_a 10.22 (25°).

▷ AM8575000.

Oxime: [1196-29-8].

$C_8H_9NO_2$ M 151.165
 Used for gravimetric detn. of V(V); metallochromic indicator in titrimetric detn. of Fe(III). Mp 117° .
 2,4-Dinitrophenylhydrazone: [17744-50-2].

Mp $213-214^\circ$.

Ac: [7250-94-4].

 $C_{10}H_{10}O_3$ M 178.187Needles (EtOH). Mp 89° .

Me ether: [579-74-8]. 2'-Methoxyacetophenone

 $C_9H_{10}O_2$ M 150.177Oil. Bp 245° , Bp_{18} 131° .

Me ether, oxime:

 $C_9H_{11}NO_2$ M 165.191Needles. Mp 83° .

Hydrazone: [6962-75-0].

 $C_8H_{10}N_2O$ M 150.180Used for photometric detn. of Ni (λ_{max} 425 nm, ϵ 700).

Cryst. Sol. common org. solvs.

Thiosemicarbazone: [7441-53-4].

 $C_9H_{11}N_3OS$ M 209.271Used for photometric detn. of Cu (λ_{max} 430 nm).

[54582-21-7, 54582-28-4]

Norris, J.F. *et al.* *J. Am. Chem. Soc.*, 1939, **61**, 1413 (*synth*)Poddar, S.N. *et al.* *J. Indian Chem. Soc.*, 1963, **40**, 706 (*oxime, detn, V*)Smith, W.B. *et al.* *J. Am. Chem. Soc.*, 1972, **94**, 1959 (*pmr*)Durmis, J. *et al.* *Collect. Czech. Chem. Commun.*, 1973, **38**, 243 (*ir*)Hem, L. *et al.* *Curr. Sci.*, 1973, **42**, 852 (*use*)Desai, M.N. *et al.* *J. Indian Chem. Soc.*, 1973, **50**, 72 (*oxime, detn, Fe*)Shah, J.R. *et al.* *J. Indian Chem. Soc.*, 1973, **50**, 157

(thiosemicarbazone, use)

Tomasik, P. *et al.* *Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1974, **22**, 1065 (*uv*)Ternai, B. *et al.* *Tetrahedron*, 1976, **32**, 565 (*cmr*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HIN500.**4'-Hydroxyacetophenone, 8CI****H-00090**

1-(4-Hydroxyphenyl)ethanone, 9CI. p-Acetylphenol. 4-Hydroxyphenyl methyl ketone. Piceol. Ameliorol [99-93-4]

 $C_8H_8O_2$ M 136.150

Occurs naturally as glucosides. Isol. free from *Picea glehnii*, *Apocynum cannabinum*, *Fabiana imbricata* and other plants. Needles (EtOH aq. or Et_2O). Mp 109° . Bp_3 148° . pK_a 8.05 (25°).

▷ AM8750000.

Oxime: [34523-34-7].

 $C_8H_9NO_2$ M 151.165

Used as 1.5% soln. in aq. MeOH for extraction-photometric detn. of Ni (λ_{max} 375 nm, ϵ 4100, 4-methyl-2-pentanone), simultaneous detn. of Ni and Cu. Mp $144-145^\circ$.

2,4-Dinitrophenylhydrazone: Mp 225° .O- β -D-Glucopyranoside: [530-14-3]. **Piceoside**. Amelioroside. Picein. Salinigrin. Salicinerein $C_{14}H_{18}O_7$ M 298.292

Found in *Salix* (willow) bark, *Picea* spp., *Amelanchier* spp. and other plants. Cryst. + $1H_2O$ (H_2O). Mp 195° . $[\alpha]_D - 88.9^\circ$ (H_2O).

 β -D-Glucoside, tetra-Ac: Mp $172-173^\circ$.

Me ether: [100-06-1]. 4'-Methoxyacetophenone. Acetanisol. Melitone. Linarodin

 $C_9H_{10}O_2$ M 150.177

Trace constit. of oil of *Piper longum*. More common in combined form. Perfumery ingredient. Plates (EtOH). Mp $38-39^\circ$. Bp 258° , Bp_{15} $138-139^\circ$.

▷ AM9240000.

Me ether, oxime: [2475-92-5].

 $C_9H_{11}NO_2$ M 165.191Needles (pet. ether). Mp $86-87^\circ$.

[26358-63-4]

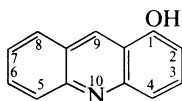
Norris, J.F. *et al*, *J. Am. Chem. Soc.*, 1939, **61**, 1413 (*synth*)
 Simons, J.H. *et al*, *J. Am. Chem. Soc.*, 1939, **61**, 1795 (*synth*)
 Montgomery, H. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 693
 (*glucoside*)
 Edwards, O.E. *et al*, *Can. J. Chem.*, 1962, **40**, 256 (*isol*)
 Tsuzuki, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 526 (*glucoside*)
 Miyajima, G. *et al*, *Chem. Pharm. Bull.*, 1971, **19**, 2301 (*cmr*)
 Durmis, J. *et al*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 243 (*ir*)
 Sakurai, H. *et al*, *Org. Mass Spectrom.*, 1973, **7**, 1109 (*ms*)
 Opdyke, D.L.J., *Food Cosmet. Toxicol., Suppl.*, 1974, 927 (*rev*,
deriv)
 Selikson, S.J. *et al*, *Tetrahedron Lett.*, 1974, 3029 (*synth, deriv*)
 Reddy, T.S. *et al*, *Talanta*, 1979, **26**, 968 (*synth, use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, HIO000, MDW750.

1-Hydroxyacridine

H-00091

1-Acridinol, 9CI. Neoxine

[5464-73-3]

 $C_{13}H_9NO$ M 195.220

Used for extraction of chelates with Cu, Ni, Zn similar to
 oxine in props. and reactions (nonprecipn. of Al).
 Yellow cryst. (EtOH aq.). Mp 230°, Mp 250° dec. NH-
 (Keto) form sometimes detectable.

Me ether: [23043-45-0]. *1-Methoxyacridine* $C_{14}H_{11}NO$ M 209.247

Cryst. (cyclohexane). Mp 134°.

Nitzsche, S., *Ber.*, 1943, **76**, 1187 (*synth*)Albert, A. *et al*, *J. Chem. Soc.*, 1943, 458 (*synth*)Mason, S.F., *J. Chem. Soc.*, 1957, 5010 (*tautom*)Ishibashi, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1959, **32**, 1064 (*use*)**4-Hydroxyacridine**

H-00092

4-Acridinol, 9CI. Neoxine

[18123-20-1]

 $C_{13}H_9NO$ M 195.220

Used for extraction-separation of Co, Cu(II), Ni, Zn.

Similar to oxine in its props. and reactions. Yellow
 cryst. (EtOH aq.). Sol. common org. solvs. Mp 116.5°.

B.HCl: Orange cryst. Mp 252° dec.*Me ether*: [3295-61-2]. *4-Methoxyacridine* $C_{14}H_{11}NO$ M 209.247

Pale-yellow cryst. (EtOH aq.). Mp 130-131°.

Et ether: *4-Ethoxyacridine* $C_{15}H_{13}NO$ M 223.274

Yellow cryst. Mp 80°.

Nitzsche, S., *Ber.*, 1943, **76**, 1187 (*synth*)Albert, A. *et al*, *J. Chem. Soc.*, 1943, 458 (*synth*)Mason, S.F., *J. Chem. Soc.*, 1957, 5010 (*tautom*)Ishibashi, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1959, **32**, 1064 (*use*)Ionescu, M. *et al*, *J. Prakt. Chem.*, 1972, **314**, 441.**9-Hydroxyacridine**

H-00093

9-Acridinol. Acridol

[643-62-9]

 $C_{13}H_9NO$ M 195.220*Me ether*: [10228-90-7]. *9-Methoxyacridine* $C_{14}H_{11}NO$ M 209.247

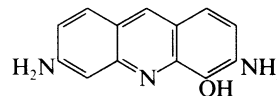
Yellow needles (pet. ether). Mp 65°. Forms
 monohydrate Mp 103°.

Et ether: *9-Ethoxyacridine* $C_{15}H_{13}NO$ M 223.274

Anal. reagent for hydralazine and cycloserine. Mp ca.
 83°.

Ph ether: [2148-14-3]. *9-Phenoxyacridine* $C_{19}H_{13}NO$ M 271.318Cryst. (C_6H_6). Mp 127-128°.Lehmstedt, K., *Chem. Ber.*, 1935, **68**, 1455.Dupré, D.J., *J. Chem. Soc.*, 1945, 549.Stewart, J.T. *et al*, *Int. J. Pharm.*, 1983, **17**, 161 (*deriv, use*)Stewart, J.T. *et al*, *J. Pharm. Sci.*, 1988, **77**, 452 (*deriv, use*)**4-Hydroxy-3,6-acridinediamine**

H-00094

 $C_{13}H_{11}N_3O$ M 225.249*4-Et ether*: *4-Ethoxy-3,6-acridinediamine* $C_{15}H_{15}N_3O$ M 253.303

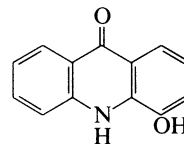
Used as the lactate salt as an adsorption indicator in
 titrimetric detn. of Br^{\ominus} , Cl^{\ominus} , I^{\ominus} , SCN^{\ominus} . Yellow needles
 (EtOH). Sol. EtOH, Et_2O , H_2O .

Bognar, J., *Magy. Kem. Foly.*, 1959, **65**, 223, 227; *CA*, 1960, **54**,
 3057 (*use*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)**4-Hydroxyacridone**

H-00095

4-Hydroxy-9(10H)-acridinone, 9CI

[31231-39-7]

 $C_{13}H_9NO_2$ M 211.220Cryst. (AcOH aq.). Mp 300° dec. Green fluor. in H_2SO_4 .*Me ether*: [35308-00-0]. $C_{14}H_{11}NO_2$ M 225.246

Yellow cryst. (AcOH aq.). Mp 295-296°.

4-Et ether: [71803-12-8]. *4-Ethoxyacridone* $C_{15}H_{13}NO_2$ M 239.273

Used as a 1% soln. in EtOH. Fluorescent pH indicator
 (pH range: 1.2-3.2; colour change; green → blue).

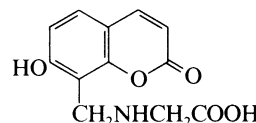
Yellow cryst. (AcOH aq.). Sol. EtOH, Me_2CO . Mp 320°
 dec.

Jensen, K.A., *Fresenius' Z. Anal. Chem.*, 1933, **94**, 177 (*use*)Villemey, L., *Ann. Chim. (Paris)*, 1950, **5**, 570 (*synth*)Gurevich, A.I. *et al*, *CA*, 1961, **55**, 14460 (*struct*)Lewis, J.R. *et al*, *J. Chem. Soc., Chem. Commun.*, 1970, 1625
 (*synth*)**7-Hydroxy-8-(aminomethyl)coumarin-*N*-acetic acid**

H-00096

N-[[(7-Hydroxy-2-oxo-(2H)-1-benzopyran-8-yl)methyl]
 glycine], 9CI. Umbelliferone-8-methyleneglycine

[54696-34-3]

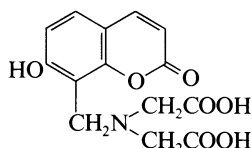
 $C_{12}H_{11}NO_5$ M 249.223

Used as a 0.1% aq. soln. as metal fluorescent indicator for detn. of Ca, Cu. Yellow cryst. (HCl aq.). Sol. alkalis; sl. sol. H₂O; insol. Me₂CO. Mp > 300°. pK_{a1} 6.7; pK_{a2} 11.7 (0.1 M KCl).

Huitnik, G.M. *et al*, *Talanta*, 1974, **21**, 1193 (*synth*, *nmr*, *use*)

7-Hydroxy-8-(aminomethyl)coumarin-*N,N*-diacetic acid **H-00097**

N-(Carboxymethyl)-[(7-hydroxy-2-oxo-(2H)-1-benzopyran-8-yl)methyl]glycine, 9CI. *Umbelliferone-8-methyleneiminodiacetic acid*
[54696-33-2]

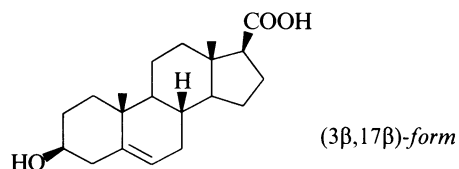


C₁₄H₁₃NO₇ M 307.259

Used as a 0.1% aq. soln. as metal fluorescent indicator for detn. of Ca, Cu. Yellow cryst. (HCl aq.). Sol. alkalis; sl. sol. H₂O; insol. Me₂CO. Mp > 300°. pK_{a1} 2.94; pK_{a2} 6.9; pK_{a3} 11.18 (0.1 M KCl).

Huitnik, G.M. *et al*, *Talanta*, 1974, **21**, 1193 (*synth*, *nmr*, *use*)

3-Hydroxyandrost-5-ene-17-carboxylic acid **H-00098**



C₂₀H₃₀O₃ M 318.455

(3β,17β)-form [10325-79-8]

Needles (EtOH). Mp 282-283° dec. [α]_D²⁵ -20° (c, 0.2 in EtOH).

Ac: [7150-18-7].

C₂₂H₃₂O₄ M 360.492

Cryst. (AcOH). Mp 238-240°.

Ac, chloride: [7429-97-2].

C₂₂H₃₁ClO₃ M 378.938

Used as derivatising agent for gc analysis of optically active alcohols.

(3β,14β,17α)-form

Mp 246-248°.

Me ester, Ac: Needles. Mp 108-108.5°. [α]_D¹⁹ -12.7° (c, 0.806 in CHCl₃).

Ac: Needles. Mp 175-176°. [α]_D¹⁹ +4.4° (c, 0.478 in CHCl₃).

Heusser, H. *et al*, *Helv. Chim. Acta*, 1950, **33**, 1260 (*synth*)

Org. Synth., 1962, **42**, 4 (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 9 (*use*)

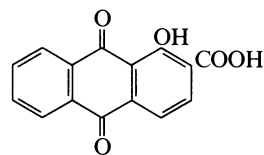
Anders, M.W. *et al*, *Anal. Chem.*, 1971, **43**, 1093 (*chloride, use*)

Danishesky, S. *et al*, *J. Org. Chem.*, 1975, **40**, 1989 (*synth*)

Guentert, T.W. *et al*, *Helv. Chim. Acta*, 1976, **59**, 2125 (*synth*)

1-Hydroxyanthraquinone-2-carboxylic acid **H-00099**

9,10-Dihydro-1-hydroxy-9,10-dioxo-2-anthracenecarboxylic acid, 9CI. 1-Hydroxy-2-carboxyanthraquinone
[7400-93-3]



C₁₅H₈O₅ M 268.225

Used as 2mM soln. in EtOH for fluorometric detn. of Be and Mg, La (λ_{max} 580 nm); as 1mM soln. in EtOH for photometric detn. of Ni (λ_{max} 500 nm). Cryst. (AcOH). Sol. alkalis, EtOH, AcOH. Mp 223-225°.

Scholl, R., *Monatsh. Chem.*, 1913, **34**, 1023 (*synth*)

Capitan, F. *et al*, *Anal. Lett.*, 1975, **8**, 753 (*detn. Be*)

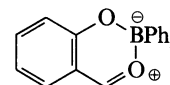
Salinas, F. *et al*, *Quim. Anal. (Madrid)*, 1975, **29**, 319; *CA*, **85**, 103337z (*detn. Ni*)

Salinas, F. *et al*, *Analyst (London)*, 1987, **112**, 1391 (*detn. Be, Mg*)

Salinas, F. *et al*, *Microchem. J.*, 1987, **36**, 79 (*detn. La*)

(2-Hydroxybenzaldehydato-*O,O'*) diphenylboron, 9CI **H-00100**

2,2-Diphenyl-1-oxa-3-oxonia-2-boratanaphthalene. (Salicylaldehydato)diphenylboron
[5911-25-0]



C₁₉H₁₅BO₂ M 286.137

Fluorimetric reagent for amines. Bright yellow-orange needles (EtOH). Mp 151°.

Umland, F. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1965, **4**, 432 (*synth*)

Bally, I. *et al*, *Tetrahedron Lett.*, 1965, 3929 (*synth*)

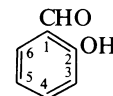
Rettig, S.J. *et al*, *Can. J. Chem.*, 1976, **54**, 1168 (*cryst struct*)

Hohaus, E., *Fresenius' Z. Anal. Chem.*, 1982, **310**, 70; 1984, **319**, 533; 1985, **322**, 343; 1986, **325**, 15 (*use*)

2-Hydroxybenzaldehyde **H-00101**

Salicylaldehyde

[90-02-8]



C₇H₆O₂ M 122.123

Isol. from various plant sources, e.g. *Spiraea* spp., *Crepis foetida*, *Rauwolfia caffra*. Used as 1% soln. in dil. NH₃ for gravimetric detn. of Ni, Cu. Oil. d₄²⁰ 1.17. Fp 0.7°. Bp 197°, Bp₁₈ 86°. pK_{a1} 8.37 (25°). n_D²⁰ 1.574. Steam-volatile.

▷ VN5250000.

Semicarbazone: [3030-97-5].

C₈H₉N₃O₂ M 179.178

Used as EtOH soln. for photometric detn. of Al and Zn (in the presence of surfactants), U; used as a 0.1% soln. in EtOH as acid-base fluorescent indicator (pH range: 7.6-8.0; colour change: yellow → blue); as 0.1% DMF soln. for fluorimetric detn. of Sc (λ_{max} 450 nm, pH 6.0). Needles (EtOH). Sol. EtOH, DMF, Me₂CO. Mp 230°, Mp 224°.

Thiosemicarbazone: [5351-90-6].

$C_8H_9N_3OS$ M 195.245

Used as 10mM MeOH soln. for photometric detn. of Hg(II), V, Fe, Cu (λ_{max} 375 nm, ϵ 9200). Used as 0.1% EtOH soln. for kinetic fluorimetric detn. of Mn (λ_{max} 440 nm, 2-9 ng/ml, with use of H_2O_2). Yellow cryst. Sol. MeOH, DMF, EtOH.

▷ VN6125000.

Hydrazone: [3291-00-7].

$C_7H_8N_2O$ M 136.153

Plates (EtOH). Mp 96°.

Phenylhydrazone: [614-65-3].

Used as a 10% soln. in EtOH for gravimetric detn. of Cu. Needles or plates. Mp 142-143°.

Benzoylhydrazone: [3232-37-9]. *Salicylaldehyde*

benzoylhydrazone. *Hydrazo I*

$C_{14}H_{12}N_2O_2$ M 240.261

Used for fluorimetric detn. of Al (λ_{max} 458 nm); as Me_2CO soln. for photometric detn. of Ti, Cu, Pd; extraction-photometric detn. of Co, Cu, Fe, Ni, Ti, V. Cryst. (MeOH aq.). Sol. EtOH; sl. sol. H_2O . Mp 178°.

Guanylylhydrazone: see *2-Hydroxybenzaldehyde*

guanylylhydrazone, H-00105

Phenylthiosemicarbazone: see *2-Hydroxybenzaldehyde*

phenylthiosemicarbazone, H-00107

Isonicotinoylhydrazone: see *Salinazid*, S-00003

1-Phthalazinylylhydrazone: see *2-Hydroxybenzaldehyde*

1-phthalazinylylhydrazone, H-00108

Me ether: see *2-Methoxybenzaldehyde*, M-00074

Oxime: [94-67-7]. *Salicylaldoxime*

$C_7H_7NO_2$ M 137.138

Used as EtOH soln. for gravimetric detn. of Cu, Fe(III), Zn, Ni, Pb, Bi. Cryst. Sol. EtOH, Et_2O , C_6H_6 ; sl. sol. H_2O . Mp 57°.

▷ VN5775000.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, **3**, 259 (use, *salicylaldoxime*)

Sah, P.P. et al, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1950, **69**, 1545 (synth)

Holzbecher, Z., *Chem. Listy*, 1958, **52**, 425.

Holzbecher, Z., *Collect. Czech. Chem. Commun.*, 1959, **24**, 1451.

Bozhevolnov, E.A. et al, *CA*, 1960, **54**, 23836 (use)

Umaphathy, P. et al, *Curr. Sci.*, 1960, **29**, 428 (synth)

Umaphathy, P. et al, *Indian J. Chem.*, 1963, **1**, 272 (use)

Dolgorev, A.V. et al, *Metalloved. Prochn. Mater.*, 1971, 363 (synth, use, *benzoylhydrazone*)

Dimmock, J.R. et al, *Can. J. Pharm. Sci.*, 1972, **7**, 100 (synth, *benzoylhydrazone*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 695 (use)

Pfluger, C.E. et al, *Acta Crystallogr.*, 1973, **29**, 2608 (cryst struct, *oxime*)

Bhasin, S.K. et al, *J. Indian Chem. Soc.*, 1973, **50**, 155 (ms, *benzoylhydrazone*)

Dolgorev, A.V. et al, *Zh. Anal. Khim.*, 1973, **28**, 1093 (use)

Morishige, K., *Anal. Chim. Acta*, 1974, **73**, 245 (synth, detn, Sc)

Rastogi, O.K. et al, *Acta Chim. Acad. Sci. Hung.*, 1975, **87**, 63;

CA, **84**, 83705s (extrn, Cu, Co, Ni)

Vasilikiotis, G.S. et al, *CA*, 1976, **85**, 153389p (detn, Cu, Pd)

Cervený, L. et al, *Chem. Tech. (Leipzig)*, 1976, **28**, 557 (synth)

Gassmann, P.G. et al, *J. Am. Chem. Soc.*, 1978, **100**, 7611 (synth, ir)

Casiraghi, G. et al, *J. Chem. Soc., Perkin Trans. 1*, 1978, 318 (synth)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **13**, 70 (rev)

Reddy, N.S. et al, *J. Indian Inst. Sci.*, 1983, **64**, 133.

Moreno, A. et al, *Talanta*, 1983, **30**, 107 (detn, Mn)

Holzbecher, Z. et al, *Collect. Czech. Chem. Commun.*, 1984, **49**,

1468 (synth, detn, Al, Zn)

Gallardo Cespedes, A. et al, *Microchem. J.*, 1984, **30**, 105 (detn, Hg)

Reddy, N.S. et al, *Microchem. J.*, 1985, **31**, 318 (detn, Cu)

Lopez de Alba, P.L. et al, *J. Radioanal. Nucl. Chem.*, 1986, **104**, 255 (detn, U)

Uehara, N. et al, *Talanta*, 1989, **36**, 1031 (synth, detn, Al)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SAG000, SAG500.

4-Hydroxybenzaldehyde

H-00102

p-Formylphenol

[123-08-0]

$C_7H_6O_2$ M 122.123

Occurs naturally combined in many glycosides. Isol. free state from *Papaver somniferum*. Prod. by microorganisms. Present in sulfite liquor. Constit. of wing gland and abdominal hairpencils of the male African sugarcane borer *Eldana saccharina*. Reagent for the colorimetric detn. of shikimic acid. Needles (H_2O). Mp 115-116°. pK_a 7.62 (25°, H_2O).

▷ CU6475000.

Semicarbazone: Needles (EtOH). Mp 223-225°.

2,4-Dinitrophenylhydrazone: Cryst. ($PhNO_2$). Mp 280° dec.

Ac: [878-00-2].

$C_9H_8O_3$ M 164.160

Liq. Bp 265°.

O-β-D-Glucopyranoside: *4-Glucosyloxybenzaldehyde*.

Hydrangea glucoside C

$C_{13}H_{16}O_7$ M 284.265

Constit. of *Hydrangea serrata*. Needles (EtOH). Mp

168-170°. $[x]_D^{16}$ – 81.3° (c, 0.12 in MeOH).

Me ether: see *4-Methoxybenzaldehyde*, M-00075

Et ether: [10031-82-0]. *4-Ethoxybenzaldehyde*

$C_9H_{10}O_2$ M 150.177

Mp 13-14°. Bp 249°, Bp₂₀ 140°.

▷ CU6100000.

Ph ether: [67-36-7]. *4-Phenoxybenzaldehyde*

$C_{13}H_{10}O_2$ M 198.221

Cryst. solid. Mp 22-24°. Bp_{0.3} 200-205°.

[60221-52-5]

Gattermann, L. et al, *Ber.*, 1898, **31**, 1765.

Gattermann, L., *Justus Liebigs Ann. Chem.*, 1907, **357**, 313.

Magnusen, L.B. et al, *J. Am. Chem. Soc.*, 1963, **85**, 1711.

Mossor, T. et al, *Anal. Biochem.*, 1972, **47**, 39 (use)

Yagi, A. et al, *Chem. Pharm. Bull.*, 1972, **20**, 1755 (*glucoside*)

Aldrich Library of NMR Spectra, 1974, **2**, 801B.

Aldrich Library of IR Spectra, 1975, **6**, 85A.

Beistel, D.W. et al, *J. Phys. Chem.*, 1976, **80**, 2023 (cmr)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-

1984, **13**, 70 (rev)

Burger, B.V. et al, *Z. Naturforsch., C*, 1985, **40**, 847.

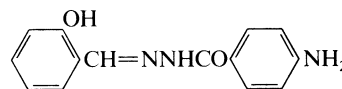
Sammes, P.G. et al, *J. Chem. Soc., Perkin Trans. 1*, 1988, 3229 (*Ph ether*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, EEL500, FOF000.

2-Hydroxybenzaldehyde N-(4-aminobenzoyl)hydrazone

H-00103



$C_{14}H_{13}N_3O_2$ M 255.276

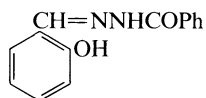
Used for photometric detn. of Ti (λ_{max} 237 nm, ϵ 84600).

Cryst. Mp 181°.

Dolgorev, A.V. et al, *Zh. Anal. Khim.*, 1973, **28**, 1093 (use)

2-Hydroxybenzaldehyde

H-00104

N*-benzoylhydrazoneSalicylaldehyde benzoylhydrazone*C₁₄H₁₂N₂O₂ M 240.261

Used for photometric detn. of Cd, Co (λ_{\max} 420 nm, ϵ 20000), Mn (λ_{\max} 400 nm, ϵ 15000), Ni (λ_{\max} 410 nm, ϵ 18000), Ti (λ_{\max} 253 nm, ϵ 44400), Zn (λ_{\max} 390 nm, ϵ 25000). Cryst. Sol. common org. solvs; insol. H₂O. Mp 178°.

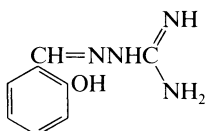
Vasilikiotis, G.S. *et al*, *Microchem. J.*, 1973, **18**, 85 (detn, Cd, Co, Mn, Ni, Zn)

Dolgorev, A.V., *Zh. Anal. Khim.*, 1973, **28**, 1093 (detn, Ti)

2-Hydroxybenzaldehyde guanylhydrazone H-00105

2-[(2-Hydroxyphenyl)methylene]hydrazinecarboximidamide, 9CI. (*Salicylideneamino*)guanidine, 8CI. *Salicylaldehyde guanylhydrazone*

[94-90-6]

C₈H₁₀N₄O M 178.193

Used as a 0.01M aq. soln. for photometric detn. of Fe(II) (λ_{\max} 430 nm) Zn; kinetic photometric detn. of Mn.

B, HCl: [42452-50-6].

Cryst. (EtOH aq.). p*K*_{a1} 7.75; p*K*_{a2} 10.2 (μ = 0.1, 20°). Nitrate: Mp 209-210°.

Thiele, J. *et al*, *Justus Liebigs Ann. Chem.*, 1898, **302**, 299 (synth)

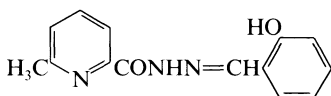
Berzas Nevado, J.J. *et al*, *Microchem. J.*, 1984, **30**, 380 (detn, Fe)

Salinas, F. *et al*, *Talanta*, 1987, **34**, 321 (detn, Mn)

Kavlentis, E. *et al*, *Analisis*, 1989, **17**, 136 (detn, Mn, Zn)

2-Hydroxybenzaldehyde 6-methyl-2-nicotinoylhydrazone

H-00106

C₁₄H₁₃N₃O₂ M 255.276

Used for photometric detn. of Ti (λ_{\max} 255 nm, ϵ 13100).

Cryst. Mp 230°.

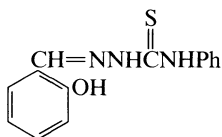
Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1093 (use)

2-Hydroxybenzaldehyde phenylthiosemicarbazone

H-00107

2-[(2-Hydroxyphenyl)methylene]-*N*-phenylhydrazinecarbothioamide, 9CI. *Salicylaldehyde phenylthiosemicarbazone*

[14938-70-6]

C₁₄H₁₃N₃OS M 271.342

Used as 0.25 mM soln. in CHCl₃ for extraction-photometric detn. of Co, Cu, Ni, Pd (λ_{\max} 400 nm, ϵ 13800). Cryst. (EtOH). Sol. CHCl₃, EtOH.

Patel, R.S. *et al*, *CA*, 1977, **86**, 34893j (use)

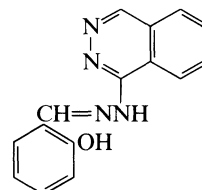
Yamaguchi, S. *et al*, *Analyst (London)*, 1985, **110**, 1241 (synth, detn, Pd)

2-Hydroxybenzaldehyde

H-00108

1-phthalazinylhydrazone*Salicylaldehyde 1-phthalazinylhydrazone*

[81914-09-2]

C₁₅H₁₂N₄O M 264.286

Used as 0.75mM EtOH soln. to give colour reactions with Co, Cu, Mn, Cr, Zn, Pd, In, Ge; fluorescence with Ga, Al, In, Zn. Yellow cryst. (conc. HCl). Sol. dioxan, EtOH; sl. sol. H₂O. Mp 247-248°. p*K*_{a1} 4.53; p*K*_{a2} 10.0.

Callejon Mochon, M. *et al*, *Talanta*, 1986, **33**, 62 (synth, use)

***N*-Hydroxybenzamide, 9CI**

H-00109

Benzohydroxamic acid. Benzoylhydroxamic acid

[495-18-1]

PhCONHOH

C₇H₇NO₂ M 137.138

Used to ppt. among others; Cu, Cd, Al, In, Th, Zr. Used in extraction-photometric detn. of V (λ_{\max} 500 nm, ϵ 4000), Co, Ni, Mo. Rhombic tablets. Mp 128°, Mp 125°. p*K*_a 8.91 (25°).

▷ DF9650000.

O-Benzoyl:C₁₄H₁₁NO₃ M 241.246

Needles. Mp 161°. Exists as PhC(OH)=NOOCPh.

N-Ph: see *N*-Phenylhydroxylamine, P-00135

N-Benzyl: [7339-99-3]. *N*-Benzylbenzohydroxamic acid. *N*-Hydroxy-*N*-phenylmethylbenzamide

C₁₄H₁₃NO₂ M 227.262

Used as a 0.1% soln. in CHCl₃ for extraction-photometric detn. of V (λ_{\max} 510 nm, ϵ 4300). Cryst. (CHCl₃).

N-(2-Methylphenyl): [1143-74-4]. *N*-Hydroxy-*N*-(2-methylphenyl)benzamide, 9CI. *N*-*o*-Tolylbenzohydroxamic acid

C₁₄H₁₃NO₂ M 227.262

Used as 5mM CHCl₃ soln. for gravimetric detn. of U(VI); extraction-photometric detn. of V(V) (λ_{\max} 510 nm, ϵ 5000, 4M HCl), Fe(III), Cu, Mo, Ti. Cryst. (EtOH aq.). Sol. CHCl₃, C₆H₆, EtOH, Me₂CO, CCl₄; insol. H₂O. Mp 108°. p*K*_a 8.3.

N-(3-Methylphenyl): [13664-23-8]. *N*-Hydroxy-*N*-(3-methylphenyl)benzamide, 9CI. *N*-*m*-Tolylbenzohydroxamic acid

Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{\max} 525 nm, ϵ 4850, 4M HCl), Cu, Fe(III), Mn. Cryst. (EtOH aq.). Sol. CHCl₃, C₆H₆. Mp 93°.

N-(4-Methylphenyl): [1503-92-0]. *N*-Hydroxy-*N*-(4-methylphenyl)benzamide

Used for extraction-photometric detn. of Ce(IV) (λ_{\max} 465 nm, ϵ 46000), Ti(IV) (λ_{\max} 370 nm, ϵ 7100). pK_a 8.4.
N-(2-Chlorophenyl): [1697-18-3]. N-(2-Chlorophenyl)-N-hydroxybenzamide

$C_{13}H_{10}ClNO_2$ M 247.680

Used for selective gravimetric detn. of Fe(III) (pH 3.4-3.8). pK_a 8.1.

N-(3-Chlorophenyl): [67055-91-8]. N-(3-Chlorophenyl)-N-hydroxybenzamide, 9CI. N-m-Chlorophenylbenzohydroxamic acid

Used as 0.5% soln. in EtOH for extraction-photometric detn. of Sn(IV) (λ_{\max} 480 nm, ϵ 48100, $CHCl_3$ /EtOH). Cryst. Sol. EtOH.

N-(4-Chlorophenyl): [1528-82-1]. N-(4-Chlorophenyl)-N-hydroxybenzamide, 9CI

Used as 1% soln. in EtOH for extraction-photometric detn. of Nb (λ_{\max} 365 nm, ϵ 30000), Sn(IV) (λ_{\max} 470 nm, ϵ 48800), Co, Cu(II), Fe(II,III), Ti, V(V). Cryst. Sol. EtOH. Mp 158-159°. pK_a 8.1.

N-(4-Sulphophenyl): [60096-04-0]. N-(Sulphophenyl)benzohydroxamic acid. 4-(Benzoylhydroxyamino)benzenesulfonic acid, 9CI

$C_{13}H_{11}NO_5S$ M 293.300

Used as a 3% aq. soln. for titrimetric detn. of Fe(II). Cryst. Sol. H_2O .

Jones, L.W. et al, *J. Am. Chem. Soc.*, 1921, **43**, 2422 (synth)
Org. Synth., Coll. Vol., 2, 1943, 67.

Jones, G.B. et al, *Anal. Chem.*, 1959, **31**, 1344 (use)

Kuehan, P.R. et al, *Anal. Chem.*, 1961, **33**, 740 (detn, V)

Alimarin, I.P., *Zh. Anal. Khim.*, 1963, **18**, 342 (use)

Majumdar, A.K. et al, *Anal. Chim. Acta*, 1964, **31**, 147 (synth, N-(2-methylphenyl))

Alimarin, I.P. et al, *CA*, 1964, **60**, 8629 (use)

Exner, O., *Collect. Czech. Chem. Commun.*, 1964, **29**, 1337 (ir, struct)

Horner, L. et al, *Chem. Ber.*, 1965, **98**, 2631 (synth)

Jeffery, P.G. et al, *Analyst (London)*, 1967, **92**, 763.

Bowie, J.H. et al, *Aust. J. Chem.*, 1969, **22**, 175 (ms)

Gupta, V.K. et al, *J. Indian Chem. Soc.*, 1969, **46**, 983; 1971, **48**, 753 (synth)

Das, M.K. et al, *Anal. Chim. Acta*, 1970, **50**, 243 (detn, U)

Majumdar, A.K. et al, *Analyst (London)*, 1971, **96**, 127.

Shukla, J.P. et al, *Aust. J. Chem.*, 1971, **24**, 2701 (deriv)

Agrawal, Y.K. et al, *J. Chem. Eng. Data*, 1971, **16**, 371, 495; 1972, **17**, 257; 1977, **22**, 257 (synth)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Majumdar, A.K., *N-Benzoylphenylhydroxylamine and Its Analogues*, Pergamon, 1972 (rev, bibl)

Gupta, V.K. et al, *Anal. Chim. Acta*, 1973, **66**, 39 (detn, V)

Shukla, J.P. et al, *J. Indian Chem. Soc.*, 1974, **51**, 437 (synth)

Agrawal, Y.K. et al, *Mikrochim. Acta*, 1976, 595 (detn, Ce)

Trickes, G. et al, *Z. Naturforsch., A*, 1977, **32**, 956 (cmr)

Vernon, F. et al, *Anal. Chim. Acta*, 1978, **98**, 349 (N-4-chlorophenyl, use)

Nanewar, R.R. et al, *Talanta*, 1978, **25**, 352 (N-benzyl, use)

Grigor'eva, M.F. et al, *Zh. Anal. Khim.*, 1979, **34**, 2171 (detn, V)

Agrawal, Y.K. et al, *Bull. Soc. Chim. Belg.*, 1980, **89**, 9 (detn, Nb)

Yamada, K. et al, *J. Am. Chem. Soc.*, 1981, **103**, 7003 (synth)

Ando, W. et al, *Synth. Commun.*, 1983, **13**, 1053 (synth)

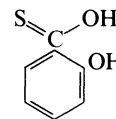
Agrawal, Y.K. et al, *Analyst (London)*, 1985, **110**, 1325; 1987, **112**, 1767 (N-Ph, detn, SCN^\ominus)

Hojjatie, M. et al, *Anal. Chim. Acta*, 1987, **199**, 49 (synth, use, N-(3-Methylphenyl))

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BCL500.

2-Hydroxybenzenecarbothioic acid, 9CI H-00110

[7283-41-2]



$C_7H_6O_2S$ M 154.189

Mp 33-35°. Bp_{0.4} 60-62°.

Hydrazide: [41820-68-2]. o-Hydroxythiobenzhydrazide

$C_7H_8N_2OS$ M 168.219

Used as 0.01 M soln. in EtOH for photometric detn. of Re (λ_{\max} 560 nm, ϵ 9600), Os, Ru, Pt. Cryst. (Et_2O). Sol. H_2O , EtOH, C_6H_6 , $CHCl_3$, Mp 101-102°.

U.S. Pat., 3 136 800, (1964); *CA*, **61**, 4277f (synth)

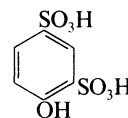
Shome, S.C. et al, *Anal. Chim. Acta*, 1973, **65**, 217 (synth, detn, Ru)

Gangopadhyay, P.K. et al, *Anal. Chim. Acta*, 1973, **66**, 460; 1975, **75**, 235 (detn, Pt, Re)

Gangopadhyay, P.K. et al, *Mikrochim. Acta*, 1977, **1**, 173 (detn, Os)

4-Hydroxy-1,3-benzenedisulfonic acid, 9CI H-00111

[96-77-5]



$C_6H_6O_7S_2$ M 254.241

Used as soln. in conc. H_2SO_4 for photometric detn. of NO_3^\ominus (λ_{\max} 410 nm, ϵ 9400). Deliquescent needles. Sol. H_2O , EtOH, acids; insol. Et_2O . Mp 100° dec.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **1** (detn, NO_3^\ominus)

Gordon, J.L. et al, *Anal. Chem.*, 1958, **30**, 2057 (detn, NO_3^\ominus)

Hora, F.B. et al, *Analyst (London)*, 1960, **85**, 567 (detn, NO_3^\ominus)

2-Hydroxybenzoic acid, 9CI H-00112

Salicylic acid. Numerous proprietary names

[69-72-7]



$C_7H_6O_3$ M 138.123

Occurs in form of esters in essential oils and plant prods.

e.g. oil of wintergreen. Used as an antiseptic and antifungal agent, and for various skin conditions.

Keratolytic. Simple esters are perfumery and flavouring ingredients. Used as aq. soln. for photometric detn. of Fe, Zr, NH_3 , Sc; indirect photometric-detn. of F^\ominus ; extraction separation of Sc. Needles (H_2O). Mod. sol. H_2O . Mp 159°. Bp₂₀ 211°. pK_{a1} 2.98; pK_{a2} 13.6 (25°). Steam volatile. Subl. *in vacuo*.

▷ VO0525000.

Na salt: [54-21-7]. Numerous proprietary names

Antipyretic and antineuralgic. Cryst. Other metal salts of salicylic acid are used; mainly as analgesics and antiinflammatory agents e.g. Magnesium salicylate, USAN.

▷ VO5075000.

Et ester: [118-61-6]. Ethyl salicylate. Mesotol. Sal ethyl. Salstan

$C_9H_{10}O_3$ M 166.176

- Has been used as a vet. counterirritant. Antirheumatic.
Liq. Mp 1.3°. Bp 231-235°.
▷ VO3000000.
- Amide:** [65-45-2]. 2-Hydroxybenzamide, 9CI. **Salicylamide**,
INN. Numerous proprietary names
C₇H₇NO₂ M 137.138
Analgesic. Used as 1% soln. in EtOH as metallochromic
indicator in titrimetric detn. of Fe(III). White or sl. pink
cryst. Mp 140°.
▷ VN6475000.
- Amide, oxime:** [6005-58-9]. Salicylamidoxime. N,2-
Dihydroxybenzenecarboximidamide, 9CI
C₇H₈N₂O₂ M 152.152
Used as 0.2% aq. soln. for photometric detn. of Ti (λ_{max}
400 nm). Cryst. Sol. EtOH, H₂O.
- Amide, N-hydroxy:** [89-73-6]. Salicylhydroxamic acid. N,2-
Dihydroxybenzamide, 9CI
C₇H₇NO₃ M 153.137
Used as 0.05M soln. in 5M HCl for extraction-
photometric detn. of Ti, V (CCl₄/heptanol).
Trypanocide. Cryst. Sol. acids. Mp 168°.
- Amide, N-Ph. 2-Et ether:** [69079-96-5]. N-(o-
Ethoxybenzoyl)phenylhydroxylamine. 2-Ethoxy-N-
hydroxy-N-phenylbenzamide, 9CI
C₁₅H₁₅NO₂ M 241.289
Used for pptn. of Al, Cu, Fe, Hf, Mn, Pb, Sn(II),
Sn(IV), Ti, Zr. Cryst. Sol. common org. solvs.; spar. sol.
H₂O (1mg per 100 cm³ at 25°). Mp 103°.
- Anilide:** [87-17-2]. 2-Hydroxy-N-phenylbenzamide, 9CI.
Salicylanilide. Anadol. Hyanilid. Salifebrin. Salimidol.
ASK
C₁₃H₁₁NO₂ M 213.235
Antipyretic and topical antifungal agent. Used as 1%
aq. soln. for photometric detn. of U(VI) (λ_{max} 360 nm, ε
3870). Prisms (H₂O). Sol. alkalis, EtOH; mod. sol. H₂O.
Mp 135.8-136.2°.
- Ac:** see 2-Acetoxybenzoic acid, A-00010
- Resorcinalhydrazide:** see 2-Hydroxybenzoic acid [(2,4-
dihydroxyphenyl)methylene]hydrazide, H-00116
- Hydrazide:** Salicyloyl hydrazide
C₇H₈N₂O₂ M 152.152
Used as EtOH soln. for photometric detn. of V (λ_{max}
415 nm, ε 4000, 50% EtOH). Cryst. Sol. EtOH.
▷ VO3700000.
- Salicylhydrazide:** see 2-Hydroxybenzoic acid [(2-
hydroxyphenyl)methylene]hydrazide, H-00120
[18917-95-8]
- Jeanrenaud, A., *Ber.*, 1889, **22**, 1270 (*synth, amide, N-hydroxy*)
Lacroix, S. et al, *Anal. Chim. Acta*, 1950, **4**, 68 (*detn, F[⊖]*)
Reichert, B., *Arzneim.-Forsch.*, 1953, **3**, 255 (*Salicylamide*)
Lutwick, G.D. et al, *Can. J. Chem.*, 1954, **32**, 949 (*use, deriv*)
Bandyopadhyay, D. et al, *J. Indian Chem. Soc.*, 1956, **33**, 21
(*synth*)
Bandyopadhyay, D. et al, *Fresenius' Z. Anal. Chem.*, 1957, **155**,
117 (*synth*)
Banerjea, D., *Fresenius' Z. Anal. Chem.*, 1957, **159**, 123 (*detn, Ti*)
Lieberman, S. et al, *Bull. Soc. Chim. Fr.*, 1958, 185 (*Salicylanilide*)
Rogers, R.N. et al, *Anal. Chem.*, 1959, **31**, 616 (*detn, F[⊖]*)
Org. Synth., Coll. Vol., 4, 1963, 178 (*derivs*)
Smith, M.J.H. et al, *The Salicylates: a Critical Biographical
Review*, Wiley, London, 1967.
Desai, M.N. et al, *Microchem. J.*, 1969, **14**, 503 (*detn, Fe*)
Shendrikar, A.D. et al, *Talanta*, 1969, **16**, 51 (*use, deriv*)
Ger. Pat., 91 052, (1972); *CA*, **78**, 29465b (*Benzyl salicylate*)
Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)
Kubelka, W. et al, *Phytochemistry*, 1974, **13**, 1805.
Gottlieb, O.R. et al, *Phytochemistry*, 1975, **14**, 1825.
Sekhon, B.S. et al, *Ann. Chim. (Paris)*, 1976, **1**, 69 (*use, hydrazide*)
- Kochetkova, S.K. et al, *Zh. Anal. Khim.*, 1976, **31**, 44 (*detn, Zr*)
Kjoeller, L. et al, *Acta Crystallogr., Sect. B*, 1978, **34**, 962 (*cryst
struct, amide, N-hydroxy*)
Mandal, S.K. et al, *J. Indian Chem. Soc.*, 1978, **55**, 845 (*detn, U*)
Erickson, S.H., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed.,
Wiley, N.Y., 1978-1984, **20**, 500 (*rev*)
Levy, G., *Drug Metab. Rev.*, 1979, **9**, 1 (*rev, metab*)
Goldsmith, L.A., *Int. J. Dermatol.*, 1979, **18**, 32 (*rev, pharmacol*)
Zmievskaia, O.R. et al, *Zh. Anal. Khim.*, 1979, **34**, 908 (*detn, Ti*)
Grigor'eva, M.F. et al, *Zh. Anal. Khim.*, 1979, **34**, 2171 (*detn, V*)
Langade, A.D. et al, *Anal. Chem.*, 1980, **52**, 2031 (*detn, Sc*)
Krom, M.D., *Analyst (London)*, 1980, **105**, 305 (*detn, NH₃*)
Brune, K. et al, *Arzneim.-Forsch.*, 1984, **34**, 1060 (*rev, pharmacol*)
Shibasaki, J. et al, *J. Pharmacobio-Dyn.*, 1984, **7**, 804
(*Salicylamide*)
Kashino, S. et al, *Acta Crystallogr., Sect. C*, 1986, **42**, 457
(*Salicylanilide*)
Khadikar, P.V. et al, *Spectrochim. Acta, Part A*, 1986, **42**, 755 (*ir,
thermodynamics*)
Piccolo, O. et al, *Tetrahedron*, 1986, **42**, 885 (*Salicylanilide*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,
Royal Society of Chemistry, London, 1981, 188.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, CMG000, EEM000,
SAH000, SAH500, SAI000, SAL000, SAL500, SJO000.

4-Hydroxybenzoic acid, 9CI

H-00113

Catalpinic acid (obsol.). p-Salicylic acid

[99-96-7]

C₇H₆O₃ M 138.123

Isol. from many plants, free and combined. First isol. from
fruits of *Catalpa bignonioides*. Prisms (xylene/EtOH),
cryst. + 1H₂O (EtOH aq. or Me₂CO/EtOH). Mp 213-
214°. pK_{a1} 4.67; pK_{a2} 9.37 (25°).

▷ DH1925000.

Me ester: [99-76-3]. Methyl 4-hydroxybenzoate.**Methylparaben**. Methyl parasept. Nipagin M. Tegosept
MC₈H₈O₃ M 152.149

Queen bee pheromone. Food and drug preservative.
Needles (EtOH aq.). Mp 131° (127-129°). Bp 270-280°
dec. Used as Na salt.

▷ Allergen. DH2450000.

Et ester: [120-47-8]. **Ethylparaben**, **INN**, **USAN**. Ethyl 4-
hydroxybenzoate. Ethyl butex. Ethyl chemosept. Ethyl
parasept. Mekkings E. Mycocten. Nipagin A. Solbrol A.
Tegosept EC₉H₁₀O₃ M 166.176

Rectal gland secretion from male melon flies (*Dacus
cucurbitae*). Pharmaceutical aid, antifungal agent.
Preservative. Cryst. Mp 116°. Bp 297-298° dec. pK_{a1}
8.50 (25°).

▷ Allergen. DH2190000.

Me ether: see 4-Methoxybenzoic acid, M-00079**Hydrazide:** [5351-23-5].C₇H₈N₂O₂ M 152.152

Colorimetric reagent for reducing sugars. Leaflets (H₂O).
Mp 260°.

[5026-62-0, 35285-69-9]

Struve, A. et al, *J. Prakt. Chem.*, 1895, **52**, 239 (*synth, hydrazide*)King, L.C. et al, *J. Am. Chem. Soc.*, 1945, **67**, 2089.Pearl, I.A., *J. Org. Chem.*, 1947, **12**, 85.Kaemmerer, H. et al, *Spectrochim. Acta, Part A*, 1968, **24**, 2059
(*uv*)Arnold, G. et al, *Z. Naturforsch., B*, 1968, **23**, 1192 (*ir, hydrazide*)Exner, O. et al, *Collect. Czech. Chem. Commun.*, 1970, **35**, 1371;
1971, **36**, 534 (*ir*)Scott, K.N., *J. Magn. Reson.*, 1970, **2**, 361; *J. Am. Chem. Soc.*,
1972, **94**, 8564 (*pmr, cmr*)Kozior, M.J., *Anal. Chim. Acta*, 1981, **128**, 195 (*use, hydrazide*)Slessor, K.N., *Nature (London)*, 1988, 332, 354.

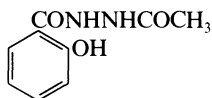
Perkins, M.V. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1990, 1111.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BSC000, HJL000, HJL500, HJN000, HNU500, PNO250, SAI500.

Used as a 1mM soln. in 0.01M NaOH for photometric detn. of Bi, Ca, Cd, La. Cryst. (EtOH). Sol. EtOH, DMF, alkalis.

Lever, M., *Anal. Chim. Acta*, 1973, **65**, 311 (use)

2-Hydroxybenzoic acid 2-acetylhydrazide, H-00114

9CI
N-Acetyl-N'-salicylhydrazine
[20349-50-2]



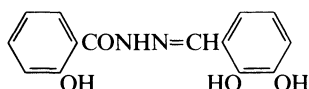
$C_9H_{10}N_2O_3$ M 194.190

Used as 1% EtOH soln. for gravimetric detn. of Ti (pH 3.5-5). Cryst. (EtOH). Sol. EtOH. Mp 183°.

Tewari, S.R. *et al*, *Mikrochim. Acta*, 1979, **2**, 397 (synth, detn, Ti)

2-Hydroxybenzoic acid [(2,3-dihydroxyphenyl)methylene]hydrazide, H-00115

9CI
2,3-Dihydroxybenzaldehyde salicyloylhydrazone
[92071-89-1]



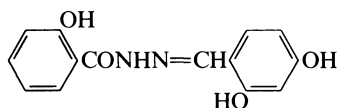
$C_{14}H_{12}N_2O_4$ M 272.260

Used a 0.1mM EtOH soln. for fluorimetric detn. of Zn (10-800 ppb, λ_{max} 530 nm, pH 6-7.5, 60% EtOH). Cryst. (EtOH aq.). Sol. EtOH; sl. sol. H_2O . Mp 240-243°.

Afonso, A.M. *et al*, *Mikrochim. Acta*, 1984, **2**, 53 (synth, detn, Zn)

2-Hydroxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, H-00116

9CI
Salicylic acid resorcinalhydrazide. 2,4-Dihydroxybenzaldehyde 2-hydroxybenzoylhydrazone
[70478-94-3]



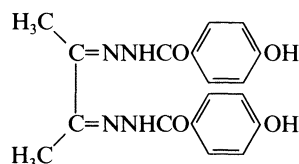
$C_{14}H_{12}N_2O_4$ M 272.260

Used as 0.01M soln. in Me_2CO or EtOH for photometric detn. of Ti (λ_{max} 400 nm, ϵ 24000, pH 0.8-1.8). Grey powder. Spar. sol. Me_2CO , EtOH, dioxan, DMF, $CHCl_3$, C_6H_6 .

Chacrawazty, D. *et al*, *J. Pharm. Sci.*, 1969, **43**, 26 (synth)
Karpova, O.I. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 292 (detn, Ti)

4-Hydroxybenzoic acid (1,2-dimethyl-1,2-ethanediyldene)dihydrazide, 9CI H-00117

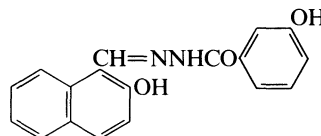
2,3-Butanedione bis(4-hydroxybenzoylhydrazone). Dimethylglyoxal bis(4-hydroxybenzoylhydrazone)



$C_{18}H_{18}N_4O_4$ M 354.365

3-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, 9CI H-00118

2-Hydroxy-1-naphthalenecarboxaldehyde 3-hydroxybenzoylhydrazone
[69733-99-9]



$C_{18}H_{14}N_2O_3$ M 306.320

Used as 0.1mM Me_2CO soln. for fluorimetric detn. of Al (λ_{max} 475 nm, pH 3-4, 60% Me_2CO). Yellow cryst. (EtOH). Sol. EtOH, Me_2CO ; sl. sol. H_2O .

Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 2357 (synth, detn, Al)

4-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, 9CI H-00119

2-Hydroxy-1-naphthalenecarboxaldehyde 4-hydroxybenzoylhydrazone
[69733-97-7]

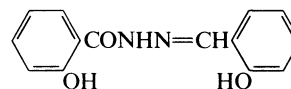
$C_{18}H_{14}N_2O_3$ M 306.320

Used as 0.1mM Me_2CO soln. for fluorimetric detn. of Al (λ_{max} 480 nm, pH 3-4, 60% Me_2CO). Yellow cryst. (EtOH). Sol. EtOH, Me_2CO ; sl. sol. H_2O .

Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 2357 (synth, detn, Al)

2-Hydroxybenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, 9CI H-00120

Salicylic acid salicylhydrazide. Salicyloylsalicylalhydrazone
[3232-36-8]



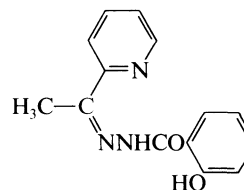
$C_{14}H_{12}N_2O_3$ M 256.260

Used as a 0.5% soln. in EtOH for photometric detn. of Ti; extraction-photometric detn. of Fe, Ti, V. Cryst. (EtOH aq.). Sol. EtOH. Mp 277°.

Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1093 (use)

2-Hydroxybenzoic acid [2-(2-pyridinyl)ethylidene]hydrazide, 9CI H-00121

2-Acetylpyridine salicyloylhydrazone
[76122-69-5]

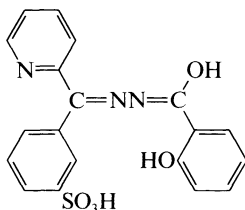


$C_{14}H_{13}N_3O_2$ M 255.276

Incorr. named in reference. Used as 0.05% CHCl₃ soln. for extraction-photometric detn. of V (λ_{\max} 415 nm, ϵ 18700). Yellow cryst. (EtOH). Sol. EtOH, DMF, CHCl₃, C₆H₆. Mp 230-234°.

Garcia-Vargas, M. *et al*, *Analyst (London)*, 1980, **105**, 965 (*synth*, *detn*, V)

2-Hydroxybenzoic acid [2-pyridinyl(3-sulfophenyl)methylene]hydrazide, 9CI
3-(Picolydene)benzenesulfonic acid 2-hydroxybenzoylhydrazone
[98774-26-6]

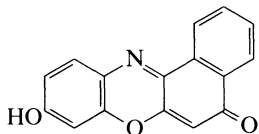


C₁₉H₁₅N₃O₅S M 397.411

Used as 0.1% DMF soln. for photometric detn. of Ni (λ_{\max} 375 nm, ϵ 36000), Co, V. Cryst. (EtOH aq.). Sol. DMF, H₂O; mod. sol. EtOH, Me₂CO.

Garcia-Vargas, M. *et al*, *Anal. Chim. Acta*, 1985, **171**, 313 (*synth*, *use*)

9-Hydroxy-5H-benzo[a]phenoxazin-5-one, 9CI
[792-08-5]



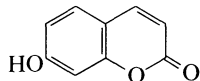
C₁₆H₉NO₃ M 263.252

Acid-base indicator. Orange cryst. Mp 305-307°.

Ac: 9-Acetoxybenzo[α]phenoxazin-5-one
Mp 241-242°.

Afanas'eva, G.B. *et al*, *Zh. Obshch. Khim.*, 1964, **34**, 3893 (*synth*)
Stuzka, V. *et al*, *Collect. Czech. Chem. Commun.*, 1972, **37**, 1121;
1977, **42**, 1332 (*use*)

7-Hydroxy-2H-1-benzopyran-2-one, 9CI H-00124
7-Hydroxycoumarin. *Umbelliferone*. *Hydrangin*. *Skimmetin*
[93-35-6]



C₉H₆O₃ M 162.145

Occurs widely in plants including, *Angelica*, *Artemisia*, *Coronilla*, *Ferula* and *Ruta* spp. Phytoalexin of infected sweet potato. Used in sunscreen lotions and creams. Used as an acid-base indicator (pH range 6.5-8.0). Used as a 0.1% aq. soln. as metal fluorescent indicator for detn. of Ca, Cu. Cryst. (toluene), needles (H₂O), yellow cryst. (EtOH aq.). Sol. EtOH; sl. sol. hot H₂O or Et₂O; mod. sol. Me₂CO. Mp 230-232° (223-224°, 227-228°). pK_{a1} 7.7.

▷ GN6820000.

O-Ac: [10387-49-2]. *Acetylumbelliferone*
C₁₁H₈O₄ M 204.182

Constit. of *Daphne gnidiodes*. Prisms or needles (H₂O). Mp 140°.

O-Benzoyl: [31005-05-7].

C₁₆H₁₀O₄ M 266.253

Cryst. (AcOH). Mp 16°.

Sethna, S. *et al*, *Org. React. (N.Y.)*, 1953, **7**, 20 (*synth*)

Org. React. (N.Y.), 1953, **VII**, 20 (*synth*)

Sen, K. *et al*, *J. Org. Chem.*, 1959, **24**, 316 (*synth*, *w*)

Barnes, C.J. *et al*, *Aust. J. Chem.*, 1964, **17**, 975 (*ms*)

das Gupta, A.K. *et al*, *J. Chem. Soc.*, 1969, 29 (*synth*)

González, A.G. *et al*, *An. Quim.*, 1973, **69**, 1013 (*pmr*)

Huitnik, G.M. *et al*, *Talanta*, 1974, **21**, 1193 (*detn*, Ca, Cu)

Cussans, N.J. *et al*, *Tetrahedron*, 1975, **31**, 2719 (*cmr*)

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic*

Analysis, Horwood, Chichester, 1976 (*ind*)

Murray, R.D.H., *Prog. Chem. Org. Nat. Prod.*, 1978, **35**, 200 (*rev*)

Hardt, T.J., *Diss. Abstr. Int.*, **B**, 1982, **43**, 1445 (*pharmacol*)

Ritschel, W.A. *et al*, *Arzneim.-Forsch.*, 1983, **33**, 836 (*metab*)

Joseph-Nathan, P. *et al*, *J. Heterocycl. Chem.*, 1984, **21**, 1141 (*pmr*, *deriv*)

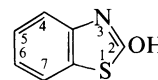
Ueno, K., *Acta Crystallogr., Sect. C*, 1985, **41**, 1786 (*cryst struct*)

Abu-Eittah, R.H. *et al*, *Can. J. Chem.*, 1985, **63**, 1173 (*w*)

Talapatra, B. *et al*, *Indian J. Chem., Sect. B*, 1986, **25**, 1122 (*synth*)

Ulubelen, A. *et al*, *J. Nat. Prod. (Lloydia)*, 1986, **49**, 692 (*acetate*)

2-Hydroxybenzothiazole H-00125
2-Benzothiazolol, 8CI. 1-Hydroxybenzthiazole (*obsol.*)
[934-34-9]



C₇H₅NOS M 151.189

Gives colour reaction with Pd (λ_{\max} 368 nm). Cryst. Minor tautomer of 2(3H)-Benzothiazolone, B-00090.

Ac: [15456-95-8].

C₉H₇NO₂S M 193.226

Mp 60°.

Me ether: [63321-86-8]. 1-Methoxybenzothiazole

C₈H₇NOS M 165.215

Cryst. (MeOH) with odour of wintergreen. Mp 34-35°.

Bp₃₀ 119°.

Et ether: [70292-64-7]. 1-Ethoxybenzothiazole

C₉H₉NOS M 179.242

Mp 25°. Bp > 360°.

Davies, W.H. *et al*, *J. Chem. Soc.*, 1942, 304 (*deriv*)

Joshi, S.R. *et al*, *Indian J. Chem.*, 1973, **11**, 590 (*detn*, Pd)

Faure, R. *et al*, *Org. Magn. Reson.*, 1978, **11**, 617 (*tautom*, *cmr*)

4-Hydroxybenzothiazole H-00126
4-Benzothiazolol, 8CI
[7405-23-4]

C₇H₅NOS M 151.189

Used for gravimetric detn. of Cu, Ni, Zn. Yellow cryst.

Sol. H₂O. Mp 143.5°.

Erlenmeyer, H. *et al*, *Helv. Chim. Acta*, 1938, **21**, 95; 1941, **24**, 1159.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **1**, 208 (*synth*, *use*)

6-Hydroxybenzothiazole H-00127
6-Benzothiazolol, 9CI
[13599-84-3]

C₇H₅NOS M 151.189

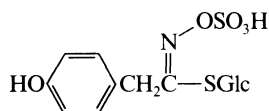
Useful for the enhancement of some peroxidase-catalysed chemiluminescent oxidn. reactions. Prisms (EtOAc/pet. ether). Mp 185-186°.

Boggust, W.A. *et al.*, *J. Chem. Soc.*, 1949, 355 (*synth*)
Sawhney, S.N. *et al.*, *J. Org. Chem.*, 1979, **44**, 1136 (*pmr*)
Thorpe, G.H.G. *et al.*, *Anal. Biochem.*, 1985, **145**, 96 (*use*)

4-Hydroxybenzyl glucosinolate

H-00128

1-Thio-β-D-glucopyranose 1-[4-hydroxy-N-(sulfooxy)benzeneethanimidate]. **Glucosinalbin**. Glucosinalbate [19253-84-0]



C₁₄H₁₉NO₁₀S₂ M 425.437
Isol. from *Brassica* seeds.

Tetramethylammonium: [20643-28-1].

Prisms (EtOH aq.). Mp 191-192°. [α]_D²⁴ -20° (c, 2 in H₂O).

4-Me ether: [499-27-4]. 4-Methoxybenzyl glucosinolate.

Glucosinobrietin

C₁₅H₂₁NO₁₀S₂ M 439.464

Isol. from *Aubretia* sp.

4-Me ether, K salt: Glass. Mp 148-155° dec.

4-Me ether, tetramethylammonium salt: [21290-06-2].

Prisms (EtOH aq.). Mp 187-189°. [α]_D²⁷ -21° (c, 2 in H₂O).

4-Me ether, tetra-Ac: [21412-37-3].

Needles (EtOH) (as K salt). Mp 187-190° (173-174°) (K salt). [α]_D²⁷ -7° (c, 0.93 in H₂O).

Salt with sinapine: [20196-67-2]. **Sinalbine**. Sinapinyl glucosinalbate

Isol. from mustard seed (*Sinapsis alba*) and other crucifers. Acid base indicator (pH range: 6.2-8.4; colour change: colourless → yellow). Cryst. + 5H₂O. Mp 83-84° (hydrate), Mp 139° (anhyd.). [α]_D -8.23° (H₂O).

[16411-05-5, 27299-07-6, 74542-19-1]

Harrison, K., *Biochem. J.*, 1932, **26**, 88 (*Sinalbine*, use)

Kjaer, A. *et al.*, *Acta Chem. Scand.*, 1956, **10**, 26; 1968, **22**, 2 (*isol. deriv*)

Ettlinger, M.G. *et al.*, *J. Am. Chem. Soc.*, 1956, **78**, 4172 (*struct*)

Kindl, H. *et al.*, *Monatsh. Chem.*, 1964, **95**, 439; 1965, **96**, 527; 1969, **100**, 1773 (*biosynth*)

Benn, M.H., *Can. J. Chem.*, 1965, **43**, 1 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*Sinalbine*, use)

Fenwick, G.R. *et al.*, *Biomed. Mass Spectrom.*, 1980, **7**, 410; 1981, **8**, 265 (*ms*)

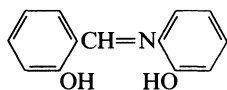
Cox, I.J. *et al.*, *Carbohydr. Res.*, 1984, **132**, 323 (*pmr, cmr*)

2-(2-Hydroxybenzylideneamino)phenol

H-00129

2-[[[(2-Hydroxyphenyl)imino]methyl]phenol, 9CI. Salicylidene-2-aminophenol. Manganon IREA

[1761-56-4]



C₁₃H₁₁NO₂ M 213.235

Used as a 0.1% soln. in Me₂CO for extraction-photometric detn. of Al, Cu (λ_{max} 423 nm, ε 6200), Ni (λ_{max} 418 nm, ε 17000, pH 8.5-9.8, CHCl₃); as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 505 nm, pH 5.8), Ga (λ_{max} 515 nm, pH 4.0), Be (λ_{max} 440 nm, pH 10.5), In; as 0.1mM soln. in EtOH for photometric detn. of Co, Fe, Ti. Orange-red cryst. (EtOH). Sol. Me₂CO, EtOH, H₂O, DMF. Mp 187°, Mp 183-185°.

[51152-29-5]

Freeman, D.C. *et al.*, *J. Am. Chem. Soc.*, 1956, **78**, 2676 (*synth*)

Hovorka, V., *Chem. Listy*, 1958, **52**, 1708 (*detn. Co, Fe, Ti*)

Saylor, J.H. *et al.*, *Anal. Chim. Acta*, 1964, **30**, 427 (*synth, detn. Al, Ga, In*)

Dagnall, R.M. *et al.*, *Talanta*, 1966, **13**, 609 (*detn. Al*)

Ishii, H. *et al.*, *Bull. Chem. Soc. Jpn.*, 1969, **42**, 1558 (*detn. Ni*)

Ishii, H. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1969, **18**, 230 (*detn. Cu*)

Stolyarov, K.P. *et al.*, *Zh. Anal. Khim.*, 1971, **26**, 1890 (*detn. Al*)

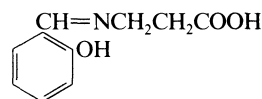
Morishige, K., *Anal. Chim. Acta*, 1974, **73**, 245; 1980, **121**, 301 (*synth, detn. Al, Be, Ga*)

3-(2-Hydroxybenzylideneamino)propanoic acid

H-00130

N-[(2-Hydroxyphenyl)methylene]-β-alanine, 9CI. N-Salicylidene-β-alanine

[34295-85-7]



C₁₀H₁₁NO₃ M 193.202

Used as complexing agent for Cd, Co, Cu, Mn, Ni,

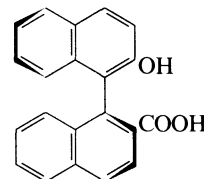
UO₂²⁺, Zn. Cryst.

Mehta, R.K. *et al.*, *Indian J. Appl. Chem.*, 1971, **34**, 27 (*detn. Cu*)

Mehta, R.K. *et al.*, *J. Prakt. Chem.*, 1972, **314**, 950 (*pKa, use*)

2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid, 9CI

H-00131



(S)-form

C₂₁H₁₄O₃ M 314.340

(S)-form

Me ether: [80317-69-7]. 2'-Methoxy-[1,1'-binaphthalene]-2-carboxylic acid

C₂₂H₁₆O₃ M 328.367

[α]_D -25.5° (c, 2.60 in THF).

Me ether, chloride: [116741-65-2].

C₂₂H₁₅ClO₂ M 346.812

Derivatisation reagent for hplc separation of enantiomeric alcohols and amines. Prisms. Mp 139-142°.

(±)-form

Me ether: [93603-09-9].

Cryst. (EtOH aq.). Mp 258.5-260°.

[80317-69-7, 106909-96-0, 124579-19-7]

Wilson, J.M. *et al.*, *J. Org. Chem.*, 1984, **49**, 4930 (*synth*)

Miyano, S. *et al.*, *Bull. Chem. Soc. Jpn.*, 1986, **59**, 2044; 1989, **62**, 1528, 3886 (*synth, resoln, use*)

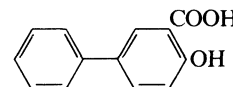
Hotta, H. *et al.*, *Chem. Lett.*, 1990, 143 (*synth*)

4-Hydroxy-3-biphenylcarboxylic acid, 8CI

H-00132

2-Hydroxy-5-phenylbenzoic acid. 5-Phenylsalicylic acid

[323-87-5]



C₁₃H₁₀O₃ M 214.220

Used as 1% soln. in EtOH for indirect photometric detn. of F^{\ominus} (using reagent as $Fe(III)$ complex). Needles (EtOAc/pet. ether or C_6H_6). Mp 215-216° (212-213°).

Me ester: [17504-13-1].

$C_{14}H_{12}O_3$ M 228.247

Needles (pet. ether). Mp 93-94°.

Me ether: [17504-10-8]. 4-Methoxy-3-biphenylcarboxylic acid

$C_{14}H_{12}O_3$ M 228.247

Pale-yellow plates (Et_2O). Mp 166-167°.

Fieser, L.F. *et al*, *J. Am. Chem. Soc.*, 1936, **58**, 1738.

Vorozhtsov, N.N. *et al*, *CA*, 1938, **32**, 7907 (*synth*)

Nichols, M.L. *et al*, *Anal. Chem.*, 1954, **26**, 703 (*detn*, F^{\ominus})

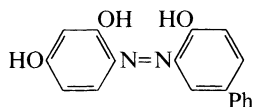
Baine, O. *et al*, *J. Org. Chem.*, 1954, **19**, 510 (*synth*)

Witiak, D.T. *et al*, *J. Med. Chem.*, 1975, **18**, 934 (*synth*)

4-[4-Hydroxy-3-biphenylazo]-1,3-benzenediol

H-00133

3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl



$C_{18}H_{14}N_2O_3$ M 306.320

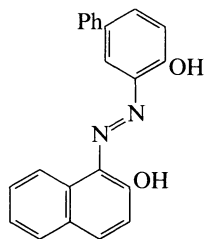
Used as metal indicator for titrimetric detn. of Ca, Mg.

Orange-red cryst. (C_6H_6). Sol. EtOH, C_6H_6 , alkalis. Mp 123.5°. pK_{a1} 6.7; pK_{a2} 8.1; pK_{a3} 11.4 ($\mu = 0.1$).

Diehl, H. *et al*, *Anal. Chem.*, 1960, **32**, 1120.

1-(4-Hydroxy-3-biphenylazo)-2-naphthol

H-00134



$C_{22}H_{16}N_2O_2$ M 340.381

Used for titrimetric detn. of Ca, Mg. Red cryst. (C_6H_6).

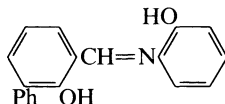
Sol. EtOH, C_6H_6 , Me_2CO ; sl. sol. H_2O . Mp 191-193° (155° dec.). pK_{a1} 8.0; pK_{a2} 11.8 ($\mu = 0.1$).

Diehl, H. *et al*, *Anal. Chem.*, 1960, **32**, 1120 (*synth*, *detn*, Ca, Mg)

N-(2-Hydroxy-3-biphenyl)methylene-2-hydroxyaniline

H-00135

2-Hydroxy-3-biphenylcarboxaldehyde 2-hydroxyanil



$C_{19}H_{15}NO_2$ M 289.333

Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.

Cryst. (EtOH). Sl. sol. H_2O ; sol. EtOH. Mp 172-172.5°.

Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth*, *detn*, Al)

2-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]ethanesulfonic acid, 9CI

H-00136

N-[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]taurine, 8CI. N-Tris(hydroxymethyl)methyl-2-aminoethanesulfonic acid. TES [7365-44-8]

$(HOCH_2)_3CNHCH_2CH_2SO_3H$

$C_6H_{15}NO_6S$ M 229.254

Good's buffer with pH range 6.8-8.2. Cryst. (EtOH aq.).

Mod. sol. H_2O . Mp 226-228°. pK_a 7.5 (20°).

[70331-82-7, 83446-24-6]

Good, N.E. *et al*, *Biochemistry*, 1966, **5**, 467 (*synth*, *use*)

Amaralis Vega, C. *et al*, *Anal. Chem.*, 1976, **48**, 1293 (*props*)

Pfeiffer, S.E. *et al*, *J. Biol. Chem.*, 1976, **251**, 5112 (*use*)

Nakon, R. *et al*, *Science (Washington, D.C.)*, 1983, **221**, 749 (*use*)

Jenkins, W.T. *et al*, *Anal. Biochem.*, 1985, **145**, 362 (*use*)

3-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, 9CI

H-00137

N-Tris(hydroxymethyl)methyl-3-aminopropanesulfonic acid. TAPS

[29915-38-6]

$(HOCH_2)_3CNHCH_2CH_2CH_2SO_3H$

$C_7H_{17}NO_6S$ M 243.280

Good's buffer with pH range 7.7-9.1. Hygroscopic cryst.

Mod. sol. H_2O . Mp 194°, Mp 240° dec. pK_a 8.4 (20°).

[91000-53-2]

Gregory, J.D. *et al*, *Science (Washington, D.C.)*, 1970, **169**, 97 (*use*)

Zeid, I. *et al*, *Justus Liebigs Ann. Chem.*, 1974, 667 (*synth*)

McGlothlin, C.D. *et al*, *Anal. Lett.*, 1976, **9**, 245 (*props*)

Hutchens, T.W. *et al*, *J. Chromatogr.*, 1986, **359**, 157 (*use*)

[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl] carbamodithioic acid, 9CI

H-00138

N-[Tris(hydroxymethyl)methyl]dithiocarbamic acid

$(HOCH_2)_3CNHC(S)SH$

$C_5H_{11}NO_3S_2$ M 197.279

Used for amperometric titrimetric detn. of Co, Ni. Cryst.

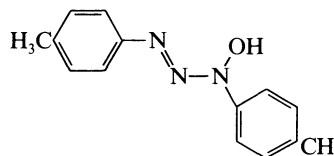
Chaudhuri, H. *et al*, *Indian J. Chem.*, 1975, **13**, 1083 (*detn*, Co, Ni)

3-Hydroxy-1,3-bis(4-methylphenyl) triazene

H-00139

3-Hydroxy-1,3-di-p-tolyltriazene, 8CI

[5756-85-4]



$C_{14}H_{15}N_3O$ M 241.292

Used as EtOH soln. for photometric detn. of Pd, Cu.

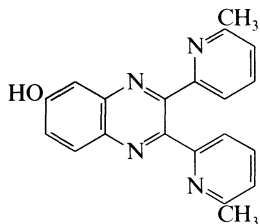
Yellow cryst. Sol. EtOH. Mp 131°.

Purohit, D.N. *et al*, *J. Indian Chem. Soc.*, 1966, **43**, 703 (*synth*, *detn*, Cu, Pd)

Purohit, D.N., *Talanta*, 1967, **14**, 353 (*rev*)

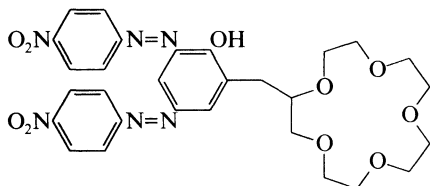
6-Hydroxy-2,3-bis(6-methyl-2-pyridyl)quinoxaline

H-00140

C₂₀H₁₆N₄O M 328.373*Me ether*: [17401-69-3]. 6-Methoxy-2,3-bis(6-methyl-2-pyridyl)quinoxaline, 8CIC₂₁H₁₈N₄O M 342.399Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{\max} 515 nm, ϵ 5980, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 97°.Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth. detn. Cu*)**2-Hydroxy-3,5-bis[(4-nitrophenylazo)phenyl]methyl-15-crown-5**

H-00141

2,4-Bis[(4-nitrophenylazo)-6-(1,4,7,10,13-pentaoxacyclopentadec-2-ylmethyl)phenol, 9CI [100443-60-5]

C₂₉H₃₂N₆O₁₀ M 624.606Used as 1,2-dichloroethane soln. for extraction sepn. of Na from K and Cs. Brown powder (EtOH). Sol. EtOH, CHCl₃, 1,2-dichloroethane. pK_a 8.61.Katayama, Y. *et al*, *Anal. Chim. Acta*, 1985, **173**, 193 (*synth. use*)**N-Hydroxybutanamide, 9CI**

H-00142

Butyrohydroxamic acid

[4312-91-8]

C₄H₉NO₂ M 103.121Used as EtOH soln. for photometric detn. of V(V) (λ_{\max} 450 nm). Cryst. Sol. EtOH, Me₂CO.Bass, V.C. *et al*, *Talanta*, 1966, **13**, 735 (*detn. V*)**N-Hydroxy-2-butenamide, 9CI**

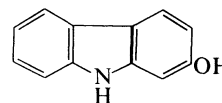
H-00143

Crotonohydroxamic acidC₄H₇NO₂ M 101.105*N-Ph*: [22861-53-6]. *N-Phenylcrotonohydroxamic acid*, 8CI*N-Hydroxy-N-phenyl-2-butenamide*, 9CIC₁₀H₁₁NO₂ M 177.202Used as 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{\max} 535 nm, ϵ 4400, 4M HCl). Cryst. Sol. CHCl₃.*N-(4-Methylphenyl)*: [22861-54-7]. *N-Hydroxy-N-(4-methylphenyl)-2-butenamide*, 9CIC₁₁H₁₃NO₂ M 191.229Used as 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{\max} 540 nm, ϵ 4800, 4M HCl). Cryst. Sol. CHCl₃.Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 278 (*synth. deriv*)
Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn. V*)**2-Hydroxycarbazole**

H-00144

9H-Carbazol-2-ol, 9CI

[86-79-3]

C₁₂H₉NO M 183.209

Reagent for the detn. of formaldehyde and pyruvaldehyde. Mp 276° (259-262°).

Ac:C₁₄H₁₁NO₂ M 225.246

Mp 188°.

N-Me: [51846-67-4]. *9-Methyl-9H-carbazol-2-ol*. *2-Hydroxy-9-methylcarbazole*C₁₃H₁₁NO M 197.236Cryst. (Me₂CO/pet. ether). Mp 165°.*Et ether*: *2-Ethoxycarbazole*C₁₄H₁₃NO M 211.263

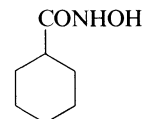
Mp 217°.

Haglid, F. *et al*, *Acta Chem. Scand.*, 1961, **15**, 1761 (*synth*)Sawicki, E. *et al*, *Mikrochim. Acta*, 1962, 741 (*detn. formaldehyde, pyruvaldehyde*)Oikawa, Y. *et al*, *J. Org. Chem.*, 1976, **41**, 1118 (*synth. ir, uv, pmr*)Flo, C. *et al*, *Justus Liebigs Ann. Chem.*, 1987, 509 (*synth. ir, pmr, ms, deriv*)**N-Hydroxycyclohexanecarboxamide**

H-00145

Cyclohexanecarbohydroxamic acid

[13810-02-1]

C₇H₁₃NO₂ M 143.185

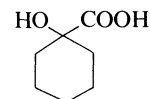
Cryst. (MeOH). Mp 131-132°.

N-Ph: *Cyclohexanophenylhydroxylamine*C₁₃H₁₇NO₂ M 219.283Used as a 0.5% soln. in CHCl₃ to give colour reaction with V (λ_{\max} 520 nm, ϵ 4200, CHCl₃). Red-orange flakes (EtOH aq.). Mp 124°.Armour, C.A. *et al*, *Can. J. Chem.*, 1957, **35**, 1454 (*synth. deriv*)Cohen, W. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 3928 (*synth*)Cassidy, R.M. *et al*, *Can. J. Chem.*, 1968, **46**, 327 (*use, deriv*)**1-Hydroxycyclohexanecarboxylic acid, 9CI**

H-00146

Cyclohexanol-1-carboxylic acid

[1123-28-0]

C₇H₁₂O₃ M 144.170Used as 5% aq. soln. for gravimetric detn. of Zr. Prisms (H₂O or EtOH). Mod. sol. H₂O (7.3 g per 100 cm³ at 20°). Mp 108-109°. pK_{a1} 4.16 (25°).*Me ester*: [6149-50-4].

C₈H₁₄O₃ M 158.197Bp₁₇ 103°. pK_a 5.29.

Et ester:

C₉H₁₆O₃ M 172.224Bp_{0.6} 67°.

3,5-Dinitrobenzoyl: Mp 165-166°.

Amide: [7500-69-8].

C₇H₁₃NO₂ M 143.185

Needles (EtOAc). Mp 128-129°.

Nitrile: [931-97-5]. 1-Cyanocyclohexanol. Cyclohexanone cyanhydrin

C₇H₁₁NO M 125.170Sol. H₂O; insol. org. solvs. Mp 29°. Bp_{17.5} 125-126°.

▶ GU7710000.

Nitrile, benzoyl: [32379-40-1].

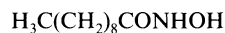
C₁₄H₁₅NO₂ M 229.278

Cryst. Mp 71°.

Tarbouriech, C., *C. R. Hebd. Seances Acad. Sci.*, 1909, **149**, 604.
Ultée, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1909, **28**, 4, 19.v. Auwers, K. *et al, Ber.*, 1915, **48**, 1389 (*synth*)Boeseken, *et al, Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1932, **51**, 164.Alimarin, I.P. *et al, Zh. Anal. Khim.*, 1961, **16**, 162 (*synth, use, detn, Zr*)Harnden, M.R., *J. Chem. Soc. C*, 1969, 960 (*general synth*)Carr, G. *et al, J. Chem. Soc., Perkin Trans. 2*, 1989, 359 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HKA000.**N-Hydroxydecanamide, 9CI****H-00147**

Decanohydroxamic acid. Caprihydroxamic acid

[2259-85-0]

C₁₀H₂₁NO₂ M 187.281

Cryst. Mp 88-88.5°.

N-Ph: [25310-16-1]. N-Hydroxy-N-phenyldecanamide, 9CI.

N-Phenyldecanohydroxamic acid, 8CI

C₁₆H₂₅NO₂ M 263.379Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 500 nm, ε 4150, 4M HCl). Cryst.Sol. CHCl₃, C₆H₆.

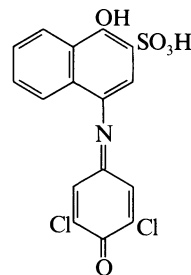
N-(3-Methylphenyl): [25310-18-3]. N-Hydroxy-N-(3-methylphenyl)decanamide

C₁₇H₂₇NO₂ M 277.406Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 510 nm ε 4450, 4M HCl). Cryst. Sol.CHCl₃, C₆H₆.

N-(4-Methylphenyl): [25310-17-2]. N-Hydroxy-N-(4-methylphenyl)decanamide

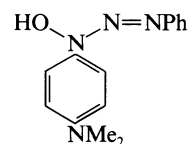
C₁₇H₂₇NO₂ M 277.406Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 510 nm ε 4450, 4M HCl). Cryst.Sol. CHCl₃, C₆H₆.

[3482-97-1]

Bayer, E. *et al, Angew. Chem.*, 1956, **68**, 698 (*synth, tlc*)Gupta, V.K. *et al, J. Indian Chem. Soc.*, 1969, **46**, 831 (*synth*)Gupta, V.K. *et al, Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)**1-Hydroxy-4-[(3,5-dichloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid****H-00148**C₁₆H₉Cl₂NO₅S M 398.222Na salt: Used as acid-base indicator; redox indicator. Used as 0.02% aq. soln. Red cryst. Sol. H₂O. pK_{a1} 6.1. E° +0.563 V.Gibbs, H.D. *et al, Public Health Rep.*, 1925, **40**, 649; 1928, Suppl. No. 69.Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 483 (*use*)**3-Hydroxy-3-(p-dimethylaminophenyl)-1-phenyltriazeno****H-00149**

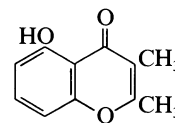
4-(1-Hydroxy-3-phenyl-2-triazenyl)-N,N-dimethylbenzenamine, 9CI

[72072-29-8]

C₁₄H₁₆N₄O M 256.307Used for photometric detn. of Ru (λ_{max} 490 nm, ε 25000).Yellow-greenish cryst. (EtOH). Sol. EtOH, Et₂O. Mp 104-105°.Purohit, D.N. *et al, Fresenius' Z. Anal. Chem.*, 1979, **298**, 160 (*synth, detn, Ru*)**5-Hydroxy-2,3-dimethyl-4H-1-benzopyran-4-one, 9CI****H-00150**

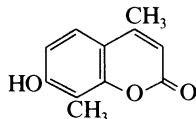
5-Hydroxy-2,3-dimethylchromone

[22598-82-9]

C₁₁H₁₀O₃ M 190.198Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 517 nm, 40% MeOH, CCl₄). Yellow cryst. Sol. MeOH.Murata, A. *et al, Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 1284 (*synth*)Ito, T. *et al, Anal. Chim. Acta*, 1980, **113**, 343 (*detn, Ti*)

7-Hydroxy-4,8-dimethyl-2H-1-benzopyran-2-one

H-00151

7-Hydroxy-4,8-dimethylcoumarin. 4,8-Dimethylumbelliferone
[4115-76-8]C₁₁H₁₀O₃ M 190.198Reagent for colorimetric detn. of NO₃[⊖]. Mp 257-258°.

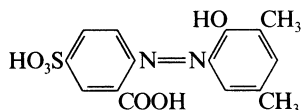
Ac: Mp 135-136°.

Rangaswami, S. *et al*, *Proc. - Indian Acad. Sci., Sect. A*, 1938, 7, 8; *CA*, 32, 4561.Laby, R.H. *et al*, *Nature (London)*, 1966, 210, 298 (use)Marcioni, S. *et al*, *Farmaco, Ed. Sci.*, 1979, 34, 234 (synth)**2-[(2-Hydroxy-3,5-dimethylphenyl)azo]-5-sulfobenzoic acid**

H-00152

2'-Hydroxy-3',5'-dimethyl-4'-sulfoazobenzene-2-carboxylic acid

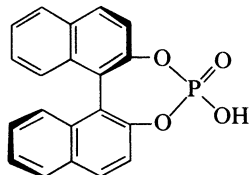
[57421-52-0]

C₁₅H₁₄N₂O₆S M 350.351Used as a 2mM aq. soln. for photometric detn. of Al (λ_{max} 510 nm, ε 2850), Cu, Fe(III) (λ_{max} 620 nm, ε 1270), Ni, Co (λ_{max} 520 nm, ε 8700). Orange-red cryst. (EtOH aq.). Sol. alkalis, EtOH; spar. sol H₂O; insol. C₆H₆, pK_{a1} 12.1; pK_{a2} 4.4 (0.2M KNO₃, 50% EtOH, 25°).Sharma, O.P. *et al*, *Indian J. Chem., Sect. A*, 1975, 13, 848 (detn, Cu, Ni)Bokare, A. *et al*, *Indian J. Chem., Sect. A*, 1976, 14, 541 (pK_a, detn, Fe)Deshmukh, K. *et al*, *J. Indian Chem. Soc.*, 1976, 53, 1012 (detn, Al, Fe)Deshmukh, B.K. *et al*, *Fresenius' Z. Anal. Chem.*, 1978, 293, 304 (use)**4-Hydroxydinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin 4-oxide, 9CI**

H-00153

1,1'-Binaphthyl 2,2'-cyclic phosphoric acid

[35193-63-6]



(R)-form

C₂₀H₁₃O₄P M 348.294

Resolving agent for bases, amino acids, and helicenes. Resolved via strychnine, cinchonine, or cinchonidine salts.

(R)-form [39648-67-4]

Solid. Mp 335-337°. [α]_D -609° (c, 0.24 in MeOH).

Strychnine salt: Solid. Mp 245-247°.

(S)-form [35193-64-7]

Cryst. Mp 350°. [α]_D²² +530° (c, 1.35 in MeOH). Rotn. quoted in the paper as [α]_D²², which seems to be a misprint.

(±)-form [50574-52-2]

Cryst. (MeOH). Mp 344-346°.

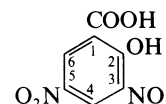
[50574-62-4]

Jacques, J. *et al*, *Tetrahedron Lett.*, 1971, 4617 (synth, resoln, use)Mikeš, F. *et al*, *J. Chromatogr.*, 1978, 149, 455 (use)Hoyano, Y.Y. *et al*, *Can. J. Chem.*, 1980, 58, 134 (synth, resoln, derivs)Tetreau, C. *et al*, *Nouv. J. Chim.*, 1980, 4, 423 (cd)Arnold, W. *et al*, *Tetrahedron Lett.*, 1983, 24, 343 (use)Werner, W. *et al*, *J. Prakt. Chem.*, 1987, 329, 1031 (synth, use)Shapiro, M.J. *et al*, *J. Org. Chem.*, 1989, 54, 5826 (use)**2-Hydroxy-3,5-dinitrobenzoic acid**

H-00154

3,5-Dinitrosalicylic acid

[609-99-4]

C₇H₄N₂O₇ M 228.118

Reagent for spectrophotometric anal. of reducing sugars.

Derivatisation reagent for the chromatog. sepn. of unsymmetric hydrazines. Plates + 1H₂O (H₂O). Mp 173-174°. pK_{a1} 0.45; pK_{a2} 7.40 (25°, 0.1M KNO₃).

Me ester: [22633-33-6].

C₈H₆N₂O₇ M 242.145

Mp 127-128°.

Et ester: [22557-74-0].

C₉H₈N₂O₇ M 256.171Cryst. (H₂O). Mp 99°.

Ph ester: [52040-46-7].

C₁₃H₈N₂O₇ M 304.215

Cryst. Mp 183°.

Amide: [2912-79-0].

C₇H₅N₃O₆ M 227.133Yellow cryst. (H₂O). Mp 181°.

Nitrile: [25844-84-2]. 2-Cyano-4,6-dinitrophenol

C₇H₃N₃O₅ M 209.118

Mp 72°.

Anilide: [78154-59-3].

C₁₃H₉N₃O₆ M 303.231

Mp 163°.

Me ether: [6083-67-6]. 2-Methoxy-3,5-dinitrobenzoic acid

C₈H₆N₂O₇ M 242.145

Mp 165°.

Me ether, Me ester: [38102-00-0].

C₉H₈N₂O₇ M 256.171

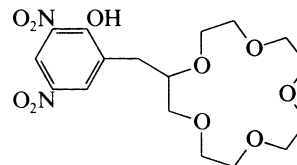
Mp 69°.

Goldstein, H. *et al*, *Helv. Chim. Acta*, 1954, 37, 1121 (synth)Meur, S.K. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, 283, 195 (use)Jones, P.R. *et al*, *J. Org. Chem.*, 1986, 51, 3016 (synth)**2-Hydroxy-3,5-dinitrobenzyl-15-crown-5**

H-00155

2,4-Dinitro-6-(1,4,7,10,13-pentaoxacyclotadec-2-ylmethyl)phenol, 9CI

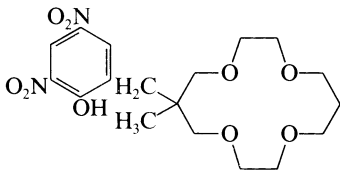
[100443-57-0]

C₁₇H₂₄N₂O₁₀ M 416.384

Used as 1,2-dichloroethane soln. for extraction of Na, K, Rb. Yellowish viscous oil. Sol. CHCl_3 , 1,2-dichloroethane, dioxan. pK_a 3.97 (25°, aq. 10% dioxan). Katayama, Y. *et al*, *Anal. Chim. Acta*, 1985, **173**, 193 (*synth, use*)

6-(2-Hydroxy-3,5-dinitrobenzyl)-6-methyl-1,4,8,11-tetraoxacyclotetradecane H-00156

2-[(6-Methyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-4,6-dinitrophenol, 9CI
[106419-35-6]



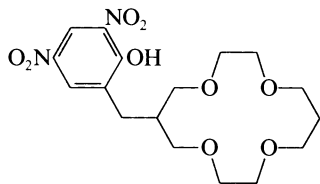
$\text{C}_{18}\text{H}_{26}\text{N}_2\text{O}_9$ M 414.411

Used as soln. in 1,2-dichloroethane for extraction sepn. of Li (λ_{max} 374 nm, ϵ 16000) from other alkali metals (selectivity ratio Li/Na 76). Yellow solid (MeOH aq.). Sol. MeOH, 1,2-dichloroethane. Mp 95°.

Kimura, K. *et al*, *J. Org. Chem.*, 1987, **52**, 836 (*synth, detn, Li*)

6-(2-Hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane H-00157

2,4-Dinitro-6-(1,4,8,11-tetraoxacyclotetradec-6-ylmethyl)phenol, 9CI
[106434-35-9]



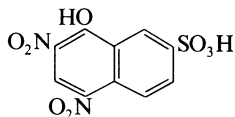
$\text{C}_{17}\text{H}_{24}\text{N}_2\text{O}_9$ M 400.385

Used as soln. in 1,2-dichloroethane for extraction sepn. of Li (λ_{max} 370 nm, ϵ 16000) from other alkali metals (selectivity ratio Li/Na 49). Pale yellow solid (MeOH aq.). Sol. MeOH, 1,2-dichloroethane. Mp 107°.

Kimura, K. *et al*, *J. Org. Chem.*, 1987, **52**, 836 (*synth, detn, Li*)

8-Hydroxy-5,7-dinitro-2-naphthalenesulfonic acid, 8CI H-00158

Flavianic acid. Acid yellow S. Citronin A. Naphthol yellow S. Sulfur yellow S. C.I. Acid yellow



$\text{C}_{10}\text{H}_6\text{N}_2\text{O}_8\text{S}$ M 314.232

Usually obt. as di-Na salt. Light-yellow needles + 3H₂O. Sol. H₂O. Mp 100°.

Di-Na salt: [846-70-8].

Dye for wool and silk, used in photography. Used as saturated aq. soln. for selective gravimetric detn. of Zr (pH 0.7, in the presence of Fe, Al, Cr, Be, U, Ti and Th). Greenish-yellow powder. Sol. H₂O. Mp 148-151°.

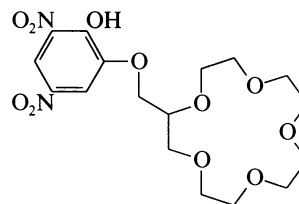
King, H.J.S., *J. Chem. Soc.*, 1924, **125**, 1334 (*synth*)

Yuteiko, T. *et al*, *Chem. Pharm. Bull.*, 1965, **13**, 399 (*uv*)

Rybakov, A.A. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1110 (*detn, Zr*)

(2-Hydroxy-3,5-dinitrophenoxymethyl)-15-crown-5 H-00159

2,4-Dinitro-6-(1,4,7,10,13-pentaoxacyclopentadec-2-ylmethoxy)phenol, 9CI
[83416-20-0]



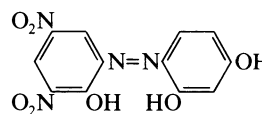
$\text{C}_{17}\text{H}_{24}\text{N}_2\text{O}_{11}$ M 432.383

Used as soln. in 1,2-dichloroethane for extraction-photometric detn. of Na (λ_{max} 423 nm, ϵ 14000); extraction of alkali metals. Cryst. Sol. 1,2-dichloroethane, CHCl_3 ; spar. sol. H₂O. pK_a 3.16.

Nakamura, H. *et al*, *Anal. Chim. Acta*, 1982, **139**, 219 (*synth, use*)

4-[(2-Hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, 9CI H-00160

2,2',4'-Trihydroxy-3,5-dinitroazobenzene
[58566-40-8]



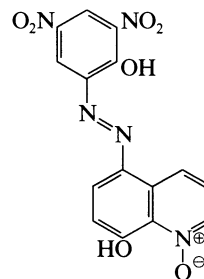
$\text{C}_{12}\text{H}_8\text{N}_4\text{O}_7$ M 320.218

Used as a 0.1% soln. in EtOH to give colour reactions with Al, Ga, Zn. Cryst.

Poluektov, N.S. *et al*, *Zh. Anal. Khim.*, 1958, **13**, 555 (*use*)

5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-8-quinolinol 1-oxide, 9CI H-00161

[63319-33-5]



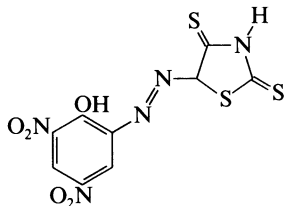
$\text{C}_{15}\text{H}_9\text{N}_5\text{O}_7$ M 371.265

Used as 0.25mM soln. in Me₂CO for extraction-photometric detn. of Pd (λ_{max} 530 nm, ϵ 21000, toluene); as a soln. in NH₃ aq. for photometric detn. of Al, Co, Cu, Pb, Pd, Zn. Yellow-brown cryst. Sol. alkalis; spar. sol. EtOH (25mg per 100 cm³), Me₂CO (30mg per 100 cm³), H₂O (12mg per 100 cm³). Mp 310-315°. λ_{max} 390 nm (EtOH).

Nemodruk, A.A. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 457 (*synth*)

Kleimenova, O.K. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 2170 (*detn, Pd*)

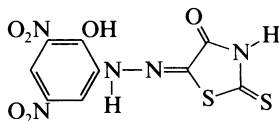
5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2,4-thiazolidinedithione, 9CI **H-00162**
Picraminazothiorhodanine
 [36575-91-4]



$C_9H_5N_5O_5S_3$ M 359.367
 Used as EtOH soln. for photometric detn. of Pt(II). Red cryst. powder. Sol. EtOH, DMF.

Basargin, N.N. *et al*, *Zavod. Lab.*, 1972, **38**, 260 (*synth, detn, Pt*)

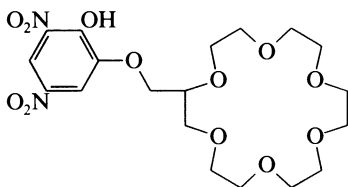
5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2-thioxo-4-thiazolidinone, 9CI **H-00163**
Picraminazorhodanine
 [36575-90-3]



$C_9H_5N_5O_6S_2$ M 343.300
 Several tautomers possible. Used as 0.1% soln. in EtOH for photometric detn. of noble metals. Red cryst. powder. Sol. EtOH, DMF, dioxan.

Propistsova, R.F. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 250 (*tautom*)
 Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)

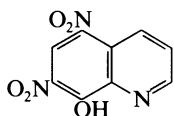
(2-Hydroxy-3,5-dinitrophenyl)oxymethyl-18-crown-6 **H-00164**
 2-(1,4,7,10,13,16-Hexaoxacyclooctadec-2-ylmethoxy)-4,6-dinitrophenol, 9CI
 [83416-18-6]



$C_{19}H_{28}N_2O_{12}$ M 476.436
 Used as soln. in 1,2-dichloroethane for extraction of alkali metals. Cryst. Sol. 1,2-dichloroethane, $CHCl_3$; spar. sol. H_2O . pK_a 3.27.

Nakamura, H. *et al*, *Anal. Chim. Acta*, 1982, **139**, 219 (*synth, use*)

8-Hydroxy-5,7-dinitroquinoline **H-00165**
 5,7-Dinitro-8-quinolinol, 9CI. 5,7-Dinitrooxine
 [1084-32-8]



$C_9H_5N_3O_5$ M 235.156

Forms anionic complexes extractable with Rhodamine B; used as 0.01 M soln. in aq. NaOH for extraction-photometric detn. of Ca (ϵ 40000), Mg (λ_{max} 573 nm, C_6H_6). Yellow plates (dil. HCl). Spar. sol. most solvs. Mp 276°, Mp 320°.

N-Oxide: [21168-36-5].

$C_9H_5N_3O_6$ M 251.155

Used as freshly prepd. Me_2CO soln. for photometric detn. of Ru(III) (λ_{max} 410 nm, ϵ 6100); complexing agent for Al, Fe, lanthanides. Yellow rectangular needles (AcOH). Sol. Me_2CO . Mp 213-214°.

Bedall, K. *et al*, *Ber.*, 1881, **14**, 1368.

Schmitt, R. *et al*, *Ber.*, 1887, **20**, 2692.

Skrowaczewska, Z. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1948, **22**, 154; *CA*, **44**, 3494.

Ramaiah, K. *et al*, *Indian J. Chem.*, 1968, **6**, 635 (*synth*)

Gupta, R.D. *et al*, *CA*, 1969, **71**, 7068c (*detn, Al, Fe, lanthanides*)

Gupta, R.D. *et al*, *J. Less-Common Met.*, 1969, **18**, 139 (*synth*)

Gupta, R.D. *et al*, *Anal. Chim. Acta*, 1970, **50**, 109 (*detn, Ru*)

Bel'tyukova, S.V. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1976, **42**, 83.

2-Hydroxy-2,2-diphenylacetic acid **H-00166**
 α -Hydroxy- α -phenylbenzeneacetic acid, 9CI.
 Diphenylglycollic acid. Benzilic acid
 [76-93-7]

$Ph_2C(OH)COOH$

$C_{14}H_{12}O_3$ M 228.247

Used as a 0.2 M aq. soln. of Na salt for gravimetric detn. of Mn, Sc. Needles. Sol. hot H_2O . Mp 151-152°. pK_a 3.04 (25°).

Me ester: [76-89-1].

$C_{15}H_{14}O_3$ M 242.274

Mp 74-75°. Bp₁₃ 187°.

Et ester: [52182-15-7].

$C_{16}H_{16}O_3$ M 256.301

Mp 34°. Bp₂₁ 201°.

Me ether: [7475-61-8]. 2-Methoxy-2,2-diphenylacetic acid

$C_{15}H_{14}O_3$ M 242.274

Needles (AcOH). Mp 111-112°.

Et ether: [7495-45-6]. 2-Ethoxy-2,2-diphenylacetic acid

$C_{16}H_{16}O_3$ M 256.301

Plates (Et₂O). Mp 114-115°.

Amide: [4746-87-6].

$C_{14}H_{13}NO_2$ M 227.262

Mp 154-155°.

Me ester, Ac:

$C_{17}H_{16}O_4$ M 284.311

Mp 122°.

Kao, S. *et al*, *J. Chem. Soc.*, 1931, 443 (*amide*)

Org. Synth., Coll. Vol., 1, 1932, 89 (*synth*)

Lillien, I., *J. Org. Chem.*, 1964, **29**, 1631 (*synth*)

Wheland, R. *et al*, *J. Am. Chem. Soc.*, 1970, **92**, 6057 (*synth*)

Moersch, G.W. *et al*, *Synthesis*, 1971, 647 (*synth*)

Mullin, M.H. *et al*, *Anal. Chem.*, 1972, **44**, 1878 (*detn, Sc*)

Chatterjee, A. *et al*, *Indian J. Chem., Sect. A*, 1977, **15**, 70 (*detn, Mn*)

Adam, W. *et al*, *J. Org. Chem.*, 1977, **42**, 38 (*synth*)

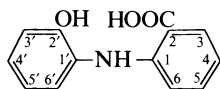
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EES300.

2'-Hydroxydiphenylamine-2-carboxylic acid

H-00167

2-[(2-Hydroxyphenyl)amino]benzoic acid, 9CI. N-(o-Hydroxyphenyl)anthranilic acid, 8CI. 2-(2-Hydroxyanilino)benzoic acid

[14359-86-5]

C₁₃H₁₁NO₃ M 229.235

Fungicide. Needles (EtOH aq.). Mp 190°.

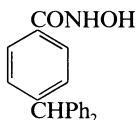
Me ether: [13278-32-5]. 2'-Methoxydiphenylamine-2-carboxylic acid. 2-[(2-Methoxyphenyl)amino]benzoic acidC₁₄H₁₃NO₃ M 243.262Used for photometric detn. of V (λ_{\max} 623nm, ϵ 31300); redox indicator. Needles (C₆H₆). Sol. EtOH, C₆H₆, AcOH; spar. sol. H₂O. Mp 176°. E° + 1.0V (0.5M H₂SO₄).

▷ CB3280000.

Ullmann, F. *et al*, *Justus Liebigs Ann. Chem.*, 1907, **355**, 312.Sterlin, S.M. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1938, **8**, 884.Raines, S. *et al*, *J. Med. Chem.*, 1968, **11**, 895.Frumina, N.S. *et al*, *Talanta*, 1969, **16**, 138 (*detn*, V)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*, indicator)Kim, D.H. *et al*, *J. Heterocycl. Chem.*, 1974, **11**, 703.**N-Hydroxy-4-(diphenylmethyl)benzamide, 9CI**

H-00168

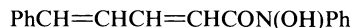
p-(Diphenylmethyl)benzohydroxamic acid. Triphenylmethane-p-hydroxamic acid

C₂₀H₁₇NO₂ M 303.360Used for photometric detn. of V (λ_{\max} 450 nm). Cryst. Sol. CHCl₃.Bass, V.C. *et al*, *Talanta*, 1966, **13**, 735 (*detn*, V)**N-Hydroxy-N,5-diphenyl-2,4-pentadienamide, 9CI**

H-00169

N-Phenyl-3-styrylacrylohydroxamic acid

[22861-42-3]

C₁₇H₁₅NO₂ M 265.311Used as 0.1% CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{\max} 555 nm, ϵ 7500) Ti (λ_{\max} 415 nm, ϵ 18000, from 9M HCl). Cryst. Sol. CHCl₃.Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 276 (*synth*)Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn*, V)Bhura, D.C. *et al*, *Analisis*, 1980, **8**, 106 (*detn*, Ti)**3-Hydroxy-1,3-diphenyl-1-triazene, 9CI**

H-00170

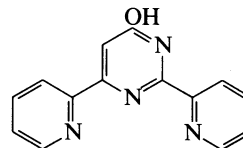
[5756-82-1]

C₁₂H₁₁N₃O M 213.238Used as 0.02M soln. in EtOH for photometric detn. of Tl(III) (λ_{\max} 422 nm). Cryst. (EtOH). Sol. EtOH.Sagani, N., *Anal. Chem.*, 1956, **28**, 1616 (*synth*)Shome, S.C. *et al*, *Anal. Chem.*, 1966, **38**, 1522 (*detn*, Tl)**4-Hydroxy-2,6-di-2-pyridinylpyrimidine**

H-00171

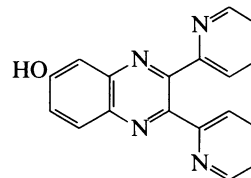
2,6-Di-2-pyridyl-4-pyrimidinol, 8CI

[10239-68-6]

C₁₄H₁₀N₄O M 250.259Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 525 nm, ϵ 10900). Cryst. (EtOH). Sol. C₆H₆; mod. sol. Me₂CO, Et₂O, EtOH. Mp 219-220°.Lafferty, J.J. *et al*, *J. Org. Chem.*, 1967, **32**, 1591 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn*, Fe)**6-Hydroxy-2,3-di-2-pyridinylquinoxaline**

H-00172

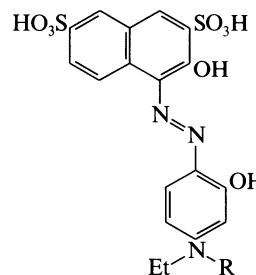
2,3-Bis(2-pyridyl)-6-hydroxyquinoxaline

C₁₈H₁₂N₄O M 300.319*Me ether*: [17401-68-2]. 6-Methoxy-2,3-di-2-pyridinylquinoxaline, 9CIC₁₉H₁₄N₄O M 314.346Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{\max} 505 nm, ϵ 3690, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 194°.Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth*, *detn*, Cu)**2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-(N,N-diethylamino)phenol**

H-00173

4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, 9CI

[91999-87-0]



R = Et

C₂₀H₂₁N₃O₈S₂ M 495.533Used as 0.05mM aq. soln. for photometric detn. of Mg (ϵ 47000), Ca (λ_{\max} 560 nm, ϵ 39000, pH ~ 10). Cryst. + 3H₂O (EtOH/HCl). Sol. H₂O, EtOH. pK_{a1} 4.35; pK_{a2} 8.25; pK_{a3} 13.2 (μ = 0.1, 25°).Wada, H. *et al*, *Anal. Chim. Acta*, 1984, **159**, 289 (*synth*, *detn*, Ca, Mg)

2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-[N-ethyl-N-(sulfopropyl)amino]phenol

H-00174

4-[[4-[Ethyl-(3-sulfopropyl)amino]-2-hydroxyphenyl]azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, 9CI
[91999-91-6]

As 2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-(N,N-diethylamino)phenol, H-00173 with

C₂₁H₂₃N₃O₁₁S₃ M 589.624Used as 0.05mM aq. soln. for photometric detn. of Mg, Ca (λ_{max} 555 nm, pH ~ 10). Cryst. (propanol/EtOAc aq.). Sol. H₂O, EtOH; sl. sol. EtOAc. pK_{a1} 3.50; pK_{a2} 7.85; pK_{a3} 13.3 ($\mu = 0.1$, 25°).Wada, H. *et al*, *Anal. Chim. Acta*, 1984, **159**, 289 (*synth*, *detn*, Ca, Mg)**2-Hydroxydithiobenzoic acid**

H-00175

2-Hydroxybenzenecarbothioic acid, 9CI. Dithiosalicylic acid, 8CI. 2-Hydroxybenzenethionothioic acid
[527-89-9]C₇H₆OS₂ M 170.256Used as a 1% satd. aq. soln. for gravimetric, extraction-photometric detn. of Ni. Orange needles (pet. ether). Sol. hot H₂O, alkalis; sl. sol. cold H₂O. Mp 48-50°, Mp 64°.*Hg salt*: Thioargyrium

Antiseptic.

Mg salt: [59654-94-3]. Dithioral

Antirheumatic, antineuralgic.

Me ester:C₈H₈OS₂ M 184.283

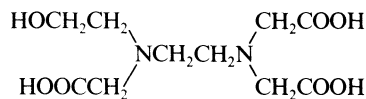
Mp 10-20°.

Org. Synth., *Coll. Vol.*, 2, 1943, 580 (*synth*)Bost, R.W. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 25.Weyers, G. *et al*, *Fresenius' Z. Anal. Chem.*, 1968, **235**, 418 (*synth*, *use*)*Belg. Pat.*, 795 177, (1973); *CA*, **80**, 112628u (*Mg salt*)**4-Hydroxydithiobenzoic acid, 8CI**

H-00176

4-Hydroxybenzenecarbothioic acid, 9CI. 4-Hydroxybenzenethionothioic acid
[6147-87-1]C₇H₆OS₂ M 170.256Used as 0.1M soln. in EtOH for extraction-photometric detn. of Ni (λ_{max} 372 nm, ϵ 60000). Cryst. Sol. EtOH.*Me ester*: [5969-44-8].C₈H₈OS₂ M 184.283Mp 50-54°. Bp_{0.15} 145-147°.*Et ester*: [24530-66-3].C₉H₁₀OS₂ M 198.309Red cryst. + $\frac{1}{2}$ H₂O. Mp 42° (hydrate), Mp 57° (anhyd.). Bp_{0.4} 170-173°.Jörg, H., *Ber.*, 1927, **60**, 1466 (*synth*)Viola, H. *et al*, *Chem. Ber.*, 1968, **101**, 3517 (*synth*)Rudzit, A.P. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 2407 (*detn*, Ni)**N-(2-Hydroxyethyl)**

H-00177

ethylenediaminetriacetic acidN-[2-[Bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)glycine, 9CI. EDTA-OH. N-(Carboxymethyl)-N'-(2-hydroxyethyl)-N,N'-ethylenediglycine, 8CI. Chel DM acid. Detarol. Hamp-OL. HEDTA. HEEDTA
[150-39-0]C₁₀H₁₈N₂O₇ M 278.261Used as titrant in chelatometric titrations; masking agent for various metals. Commercially available. Cryst. Mp 160-165° dec., Mp 212° dec. pK_{a1} 2.51; pK_{a2} 5.31; pK_{a3} 9.86.

▷ MB9185000.

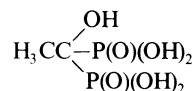
[139-89-9, 30718-90-2]

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Chemistry*, Horwood, Chichester, 1976.Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HKS000.**(1-Hydroxyethylidene)bisphosphonic acid, 9CI**

H-00178

Hydroxyethane-1,1-diphosphonic acid. Etidronic acid, BAN, USAN, INN. EHDp. Etidronate. Ksidifon. Xidiphone. Dequest 2010. Dequest 2015

[2809-21-4]

C₂H₈O₇P₂ M 206.028Calcification inhibitor for Paget's disease. Used for photometric detn. of V (λ_{max} 269 nm, ϵ 38200). Used as 0.025M aq. soln. as titrant in volumetric detn. of Th (Xylenol Orange as indicator); complexing agent for metals. Syrup, cryst. + 1H₂O (AcOH aq.). Sol. H₂O, EtOH, MeOH. Mp 105°. pK_{a1} 1.7; pK_{a2} 2.47; pK_{a3} 7.28; pK_{a4} 10.29; pK_{a5} 11.13 (H₂O, 25°). The tetra-Na salt marketed as Dequest 2016 and Dequest 2015 DN.*Di-Na salt*: [7414-83-7]. *Calcimux. Didronel. Difosfen.**Diphos†. Diphosponat. Etidon. HEDSPA. Sodium etidronate. Etidronate disodium, USAN*

The name Diphos is also used for 1,2-Bis(diphenylphosphino)ethane, B-00338. Used in dentifrices.

▷ JL5950000.

Tri-Na salt: [2666-14-0].

Used in dentifrices.

▷ JL6650000.

Tetra-Me ester: [15207-88-2]. *Tetramethyl (1-hydroxyethylidene)bisphosphonate*C₆H₁₆O₇P₂ M 262.136Cryst. (C₆H₆/hexane). Mp 68-71°.*Tetra-Et ester*: [20427-93-4]. *Tetraethyl (1-hydroxyethylidene)bisphosphonate*C₁₀H₂₄O₇P₂ M 318.243

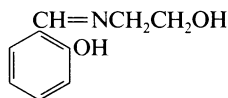
Liq. which isomerises on distn.

[3794-83-0, 70675-24-0]

Přibil, R. *et al*, *Talanta*, 1967, **14**, 591 (*use*)Kasperek, F., *Monatsh. Chem.*, 1968, **99**, 2016 (*synth*)

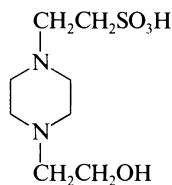
- Nicholson, D.A. *et al*, *J. Org. Chem.*, 1970, **35**, 3149; 1971, **36**, 3843 (*ester, synth, P nmr*)
 Strates, B.S. *et al*, *Biochim. Biophys. Acta*, 1971, **244**, 121 (*pharmacol*)
 Wiers, B.H., *Inorg. Chem.*, 1971, **10**, 2581 (*salts*)
 Blaser, B. *et al*, *Z. Anorg. Allg. Chem.*, 1971, **381**, 247 (*synth, props, P nmr*)
 Michael, W.R. *et al*, *Toxicol. Appl. Pharmacol.*, 1972, **21**, 503 (*metab*)
 Maier, L., *Helv. Chim. Acta*, 1973, **56**, 1257 (*ester, synth, pmr, P nmr, props*)
 Bikhman, B.I. *et al*, *Zh. Neorg. Khim.*, (*Engl. transl. p. 1273*), 1973, **18**, 2406 (*ir, salts*)
 Collins, A.J. *et al*, *J. Appl. Chem. Biotechnol.*, 1977, **27**, 651 (*props, salts*)
 De Angelis, L., *Med. Actual.*, 1978, **14**, 101 (*rev, pharmacol*)
 Barnett, B.L. *et al*, *Acta Crystallogr., Sect. B*, 1979, **35**, 1212 (*cryst struct*)
 Worms, K.H. *et al*, *Z. Anorg. Allg. Chem.*, 1979, **457**, 209 (*synth*)
 Motekaitis, R.J. *et al*, *Inorg. Chem.*, 1980, **19**, 1646 (*props, complexes*)
 Rizhalla, E.N. *et al*, *Talanta*, 1980, **27**, 715 (*complexes*)
 Goeva, L.V., *Radiokhimiya*, (*Engl. transl. p. 489*), 1982, **22**, 591 (*props*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 12674.
 Fonong, T. *et al*, *Anal. Chem.*, 1983, **55**, 1089 (*props*)
 Van der Pol, H.J., *Pharm. Weekbl.*, 1983, **118**, 330 (*anal, props*)
 Perfil'ev, V.A. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 2133 (*detn, V*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXD400, HKS780, TEE250, TNL750.

2-[(2-Hydroxyethyl)imino]methylphenol, 9CI **H-00179**
 β -N-Salicylidenaminoethanol
 [1952-38-1]



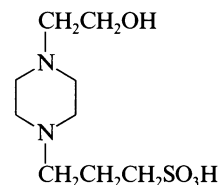
- $C_9H_{11}NO_2$ M 165.191
 Used as a 3mM soln. in DMF for fluorimetric detn. of Zn.
 Cryst. Mp 36°.
 Kato, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1972, **21**, 856 (*detn, Zn*)

4-(2-Hydroxyethyl)-1-piperazineethanesulfonic acid, 9CI **H-00180**
 HEPES
 [7365-45-9]



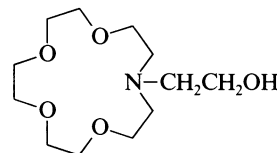
- $C_8H_{18}N_2O_4S$ M 238.307
 Good's buffer with pH range 6.8-8.2. Hygroscopic cryst. (EtOH aq.). Mp 234-238° dec. pK_a 7.55 (20°).
 [75277-39-3]
 Good, N.E. *et al*, *Biochemistry*, 1966, **5**, 467 (*synth, use*)
 Shipman, C., *Proc. Soc. Exp. Biol. Med.*, 1969, **130**, 305 (*use*)
 Eagle, H., *Science (Washington, D.C.)*, 1971, **174**, 500 (*use*)
 Amaralis Vega, C. *et al*, *Anal. Chem.*, 1976, **48**, 1293 (*use*)
 McGlothlin, C.D. *et al*, *Anal. Lett.*, 1976, **9**, 245 (*props*)

4-(2-Hydroxyethyl)-1-piperazinepropanesulfonic acid, 9CI **H-00181**
 N-(2-Hydroxyethyl)piperazine-N'-3-propanesulfonic acid.
 EPPS. HEPPS
 [16052-06-5]



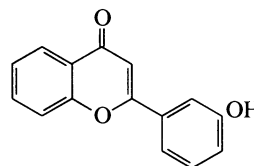
- $C_9H_{20}N_2O_4S$ M 252.334
 Good's buffer with pH range 7.5-8.5. Cryst. powder. V. sol. H_2O . Mp 231° dec. pK_a 8.0 (20°).
 [81484-17-5]
 Eagle, H., *Science (Washington, D.C.)*, 1971, **174**, 500 (*use*)
 McGlothlin, C.D. *et al*, *Anal. Lett.*, 1976, **9**, 245 (*props*)
 Robinson, D.M., *Naturwissenschaften*, 1978, **65**, 438 (*use*)
 Syvertsen, C. *et al*, *Eur. J. Biochem.*, 1981, **117**, 165 (*use*)
 Hutchens, T.W. *et al*, *J. Chromatogr.*, 1986, **359**, 157 (*use*)

13-Hydroxyethyl-1,4,7,10-tetraoxa-13-azacyclopentadecane **H-00182**
 1,4,7,10-Tetraoxa-13-azacyclopentadecane-13-ethanol, 9CI
 [81331-60-4]



- $C_{12}H_{25}NO_5$ M 263.333
 Used as 0.01M soln. in MeOH for complexation of Li, Na, K, Ca, Sr (in MeOH). Oil. Sol. MeOH. pK_a 8.90 (MeOH).
 Masuyama, A. *et al*, *Tetrahedron Lett.*, 1981, **22**, 4665 (*synth*)
 Wickstroem, T. *et al*, *Anal. Chim. Acta*, 1988, **211**, 223 (*use*)

3'-Hydroxyflavone **H-00183**
 2-(3-Hydroxyphenyl)-4H-1-benzopyran-4-one, 9CI. 2-(3-Hydroxyphenyl)chromone
 [70460-18-3]

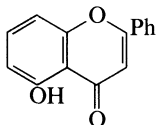


- $C_{15}H_{10}O_3$ M 238.242
 Used as a 0.01% soln. in toluene for photometric detn. of organotin and organolead compounds. Prisms (EtOH aq.). Sol. C_6H_6 , toluene. Mp 208°.
Me ether: [53906-83-5]. 3'-Methoxyflavone
 $C_{16}H_{12}O_3$ M 252.269
 Isol. from *Pimelea decora*. Mp 131-132°.
 Kostanecki, S. *et al*, *Ber.*, 1901, **34**, 1690 (*synth*)
 Looker, J.H. *et al*, *J. Org. Chem.*, 1962, **27**, 381 (*synth, ir*)
 Aldridge, W.N. *et al*, *Analyst (London)*, 1981, **106**, 60 (*use*)
 Freeman, P.W. *et al*, *Aust. J. Chem.*, 1981, **34**, 1779 (*isol*)
 Guidugli, F.H. *et al*, *Org. Mass Spectrom.*, 1985, **19**, 502 (*ms*)

5-Hydroxyflavone

H-00184

5-Hydroxy-2-phenyl-4H-1-benzopyran-4-one, 9CI. 5-Hydroxy-2-phenylchromone. *Primuletin* [491-78-1]



$C_{15}H_{10}O_3$ M 238.242

Isol. from *Primula* spp. Used for photometric detn. of U(V) (λ_{max} 435 nm, pH 6.0-8.5). Yellow cryst. Sol. EtOH, MeOH. Mp 159° (156-157°).

Me ether: [42079-78-7]. 5-Methoxyflavone

$C_{16}H_{12}O_3$ M 252.269

Mp 133° (131°).

Simonis, H. *et al*, *Ber.*, 1926, **59**, 2914 (*deriv*)

Sugasawa, S., *CA*, 1934, **28**, 6717 (*synth*)

Karrer, P. *et al*, *Helv. Chim. Acta*, 1941, **24**, 297 (*isol*)

Looker, J.H. *et al*, *J. Org. Chem.*, 1962, **27**, 381 (*synth, ir*)

Dev, B. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **196**, 178 (*detn, U*)

Naik, G.N. *et al*, *Indian J. Chem.*, 1966, **4**, 273 (*pmr*)

Wollenweber, E., *Biochem. Physiol. Pflanz.*, 1974, **166**, 419 (*isol*)

Tyukavkina, N.A. *et al*, *Khim. Prir. Soedin.*, 1975, 583 (*ir, ur*)

Ternai, B. *et al*, *Tetrahedron*, 1976, **32**, 565 (*cmr*)

Saxena, S. *et al*, *Synthesis*, 1985, 697 (*synth*)

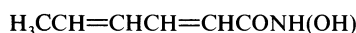
Shoja, M., *Acta Crystallogr., Sect. C*, 1990, **46**, 517 (*cryst struct*)

N-Hydroxy-2,4-hexadienamide, 9CI

H-00185

Sorbohydroxamic acid

[4076-62-4]



$C_6H_9NO_2$ M 127.143

Used as EtOH soln. for photometric detn. of V(V) (λ_{max} 450 nm). Cryst. Sol. EtOH, Me₂CO.

N-Ph: [22861-43-4]. N-Hydroxy-N-phenyl-2,4-hexadienamide, 9CI. N-Phenylsorbohydroxamic acid, 8CI

$C_{12}H_{13}NO_2$ M 203.240

Used as 0.1% CHCl₃ soln. for extraction-photometric detn. of Ti (λ_{max} 390 nm, ϵ 9700; from 9M HCl), V(V). Cryst. Sol. CHCl₃.

N-(4-Chlorophenyl): [22861-46-7]. N-(4-Chlorophenyl)-N-hydroxy-2,4-hexadienamide, 9CI

$C_{12}H_{12}ClNO_2$ M 237.685

Used as a 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{max} 550 nm, ϵ 5100). Cryst. Sol. CHCl₃.

N-(3-Methylphenyl): [22861-44-5]. N-Hydroxy-N-(3-methylphenyl)-2,4-hexadienamide, 9CI

$C_{13}H_{15}NO_2$ M 217.267

Used as a 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{max} 550 nm, ϵ 5500, 4M HCl).

Bass, V.C. *et al*, *Talanta*, 1966, **13**, 735 (*detn, V*)

Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 276, 278 (*synth*)

Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn, V*)

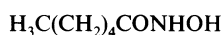
Bhura, D.C. *et al*, *Analisis*, 1980, **8**, 108 (*detn, Ti*)

N-Hydroxyhexanamide, 9CI

H-00186

Hexanohydroxamic acid. Caprohydroxamic acid

[4312-93-0]



$C_6H_{13}NO_2$ M 131.174

Used for photometric detn. of V(V) (λ_{max} 460 nm, ϵ 3200). Cryst. Sol. EtOH, C₆H₆, CHCl₃, Et₂O. Mp 65-66°.

N-Ph: [25310-12-7]. N-Hydroxy-N-phenylhexanamide, 9CI.

N-Phenylhexanohydroxamic acid, 8CI

$C_{12}H_{17}NO_2$ M 207.272

Used as 0.1mM soln. in CCl₄ for extraction-separation of Co, Ni, Zn, Pb; photometric detn. of V(V) (λ_{max} 505 nm, ϵ 4000, 4M HCl). Cryst. Sol. CCl₄, CHCl₃.

N-(4-Methylphenyl): [25310-13-8]. N-Hydroxy-N-(4-methylphenyl)hexanamide

$C_{13}H_{19}NO_2$ M 221.299

Used for extraction-photometric detn. of V(V) (λ_{max} 510 nm, ϵ 4350, 4M HCl). Cryst. Sol. CHCl₃, C₆H₆.

Gupta, V.K. *et al*, *J. Indian Chem. Soc.*, 1969, **46**, 831 (*synth*)

Agrawal, Y.K. *et al*, *J. Chem. Eng. Data*, 1971, **16**, 495 (*synth, deriv*)

Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

Muzgin, V.N. *et al*, *Anal. Khim. Vanadija*, Nauka, Moscow, 1981 (*detn, V*)

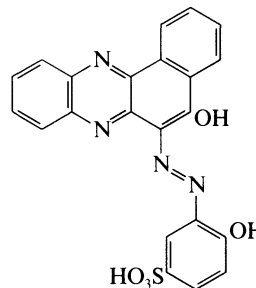
Ando, W. *et al*, *Synth. Commun.*, 1983, **13**, 1053 (*synth*)

Haraguchi, K. *et al*, *Anal. Sci.*, 1989, **5**, 735 (*use*)

4-Hydroxy-3-[(5-hydroxybenzo[a]phenazin-6-yl)azo]benzenesulfonic acid, 9CI

H-00187

[74261-72-6]



$C_{22}H_{14}N_4O_5S$ M 446.442

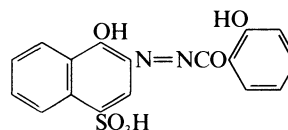
Used as 0.4 or 0.8mM aq. soln. for photometric detn. of V. Dark red cryst. Sol. alkalis. pK_{a2} 8.34; pK_{a3} 13.05.

Truong Son, N. *et al*, *Collect. Czech. Chem. Commun.*, 1980, **45**, 819 (*synth, detn, V*)

4-Hydroxy-3-[(2-hydroxybenzoyl)azo]-1-naphthalenesulfonic acid, 9CI

H-00188

[58014-83-8]



$C_{17}H_{12}N_2O_6S$ M 372.358

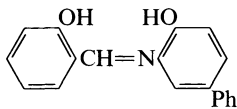
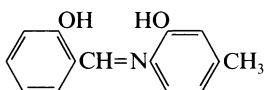
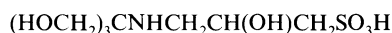
Used as 0.5mM soln. in 3% DMF as an indicator in EDTA titration of Hg, Cu, Tl(III), Th, In; photometric detn. of Cu, Hg. Bright red cryst. (EtOH/DMF). Sol. 30% EtOH, DMF, Me₂CO; sl. sol. H₂O. pK_a 7.00 (20% DMF).

Sommer, L. *et al*, *CA*, 1975, **83**, 172074g (*synth, use*)

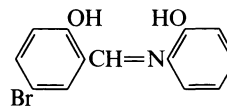
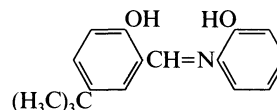
Sommer, L. *et al*, *Collect. Czech. Chem. Commun.*, 1977, **42**, 2862 (*synth, use*)

4-Hydroxy-*N*-(2-hydroxybenzylidene)-3-biphenylamine H-00189

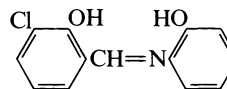
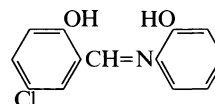
4-Hydroxy-3-(2-hydroxybenzylideneamino)biphenyl

C₁₉H₁₅NO₂ M 289.333Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.
Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)**2-Hydroxy-*N*-(2-hydroxybenzylidene)-4-methylaniline** H-001902-[[[(2-Hydroxyphenyl)methylene]amino]-5-methylphenol, 9CI.
2-Hydroxybenzaldehyde 2-hydroxy-4-methylanil
[55041-60-6]C₁₄H₁₃NO₂ M 227.262Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{\max}
503 nm, pH 5.5), Ga (λ_{\max} 510 nm, pH 3.5), Be (λ_{\max}
435 nm, pH 9.5). Cryst. (EtOH). Sol. DMF, EtOH.Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (*synth, detn, Al, Ga, Be*)**2-Hydroxy-*N*-(2-hydroxybenzylidene)-5-methylaniline** H-001912-[[[(2-Hydroxyphenyl)methylene]amino]-4-methylphenol, 9CI.
2-Hydroxybenzaldehyde 2-hydroxy-5-methylanil
[1761-57-5]C₁₄H₁₃NO₂ M 227.262Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{\max}
525 nm, pH 6.0), Ga (λ_{\max} 535 nm, pH 4.5), Be (λ_{\max}
435 nm, pH 9.5). Cryst. (EtOH). Sol. DMF, EtOH; sl.
sol. H₂O. Mp 160.0-160.5°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (*synth, detn, Al, Be, Ga*)**2-Hydroxy-3-[[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, 9CI** H-001923-[N-Tris(hydroxymethyl)methylamino]-2-hydroxypropanesulfonic acid. TAPSO
[68399-81-5]C₇H₁₇NO₇S M 259.280Good's buffer with pH range 7.0-8.2. Cryst. V. sol. H₂O.
Mp 226-228° dec. pK_a 7.6 (20°).

[105140-25-8]

Ferguson, W.J. *et al*, *Anal. Biochem.*, 1980, **104**, 300 (*synth, use*)Hutchens, T.W. *et al*, *J. Chromatogr.*, 1986, **359**, 157 (*use*)Irgum, K., *Anal. Chem.*, 1987, **59**, 358 (*use*)Kitamura, Y. *et al*, *J. Solution Chem.*, 1987, **16**, 715 (*use*)**2-Hydroxy-*N*-(2-hydroxy-5-bromobenzylidene)aniline** H-001934-Bromo-2-[[[(2-hydroxyphenyl)imino]methyl]phenol, 9CI. 5-Bromo-2-hydroxybenzaldehyde 2-hydroxyanil
[1761-51-9]C₁₃H₁₀BrNO₂ M 292.131Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.
Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 188.0-
188.7°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)**2-Hydroxy-*N*-(2-hydroxy-5-tert-butylbenzylidene)aniline** H-001944-(1,1-Dimethylethyl)-2-[[[(2-hydroxyphenyl)imino]methyl]phenol, 9CI. 5-tert-Butyl-2-hydroxybenzaldehyde 2-hydroxyanil
[54825-08-0]C₁₇H₁₉NO₂ M 269.343Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{\max}
500 nm, pH 5.8), Ga (λ_{\max} 510 nm, pH 4.0), Be (λ_{\max}
450 nm, pH 8). Cryst. (EtOH). Sol. DMF, EtOH.Morishige, K., *Anal. Chim. Acta*, 1974, **73**, 245; 1980, **121**, 301
(*synth, detn, Al, Ga, Be*)**2-Hydroxy-*N*-(2-hydroxy-3-chlorobenzylidene)aniline** H-00195

6-Chloro-2-[[[(2-hydroxyphenyl)imino]methyl]phenol, 9CI. 3-Chloro-2-hydroxybenzaldehyde 2-hydroxyanil

C₁₃H₁₀ClNO₂ M 247.680Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.
Cryst. (EtOH). Sol. EtOH, sl. sol. H₂O. Mp 185-186°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)**2-Hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline** H-001964-Chloro-2-[[[(2-hydroxyphenyl)imino]methyl]phenol, 9CI. 5-Chloro-2-hydroxybenzaldehyde 2-hydroxyanil
[1761-47-3]C₁₃H₁₀ClNO₂ M 247.680Used as 0.1% DMF soln. for fluorimetric detn. of Be (λ_{\max}
445 nm, pH 9.7), as 1mM soln. in EtOH for fluorimetric
detn. of Al, Sc. Cryst. (EtOH). Sol. DMF, EtOH; spar.
sol. H₂O. Mp 184°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Be, Sc, Al*)Morishige, K., *Anal. Chim. Acta*, 1974, **73**, 245 (*synth, detn, Be*)

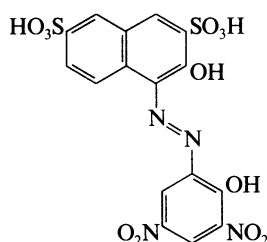
2-Hydroxy-3-[(2-hydroxy-1,1-dimethylethyl)amino]-1-propanesulfonic acid, 9CIAMPSO
[68399-79-1] $\text{C}_7\text{H}_{17}\text{NO}_5\text{S}$ M 227.281

Biological buffer.

U.S. Pat., 4 246 194, (1979); CA, 92, 75852h (synth)

McConnell, B. et al, *Biophys. Chem.*, 1984, 20, 135 (use)Szewczyk, B. et al, *Anal. Biochem.*, 1985, 150, 403 (use)

H-00197

Gusev, S.I. et al, *Zh. Anal. Khim.*, 1966, 21, 568 (detn, Bi)
Shemyakin, F.M. et al, *Khim. Khim. Tekhnol. (Minsk)*, 1978, 21, 1445; CA, 89, 190318t (detn, Be, La, $\text{VO}_2^{2\oplus}$, $\text{UO}_2^{2\oplus}$)**3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI**Picramine R
[3626-45-7] $\text{C}_{16}\text{H}_{10}\text{N}_4\text{O}_{12}\text{S}_2$ M 514.407Used as 0.1% aq. soln. for fluorimetric detn. of Al (pH 2.8-3.3, 20% EtOH); as 0.06 or 0.1% aq. soln. for photometric detn. of Cu (λ_{max} 555 nm), Zr (λ_{max} 560 nm). Orange-red cryst. (H_2O). Sol. H_2O , EtOH.

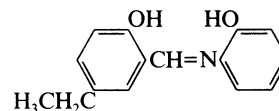
[32446-27-8]

Dedkov, Y.M. et al, *Zh. Anal. Khim.*, 1965, 20, 574 (detn, Zr)Bogdanova, V.I. et al, *Zavod. Lab.*, 1968, 34, 688 (detn, Cu)Savvin, S.B. et al, *Zh. Anal. Khim.*, 1981, 36, 1945 (synth, detn, Al)

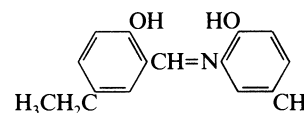
H-00198

2-Hydroxy-N-(2-hydroxy-5-ethylbenzylidene)aniline

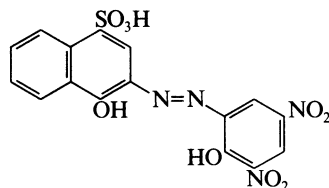
H-00201

4-Ethyl-2-[[[(2-hydroxyphenyl)imino]methyl]phenol, 9CI. 5-Ethyl-2-hydroxybenzaldehyde 2-hydroxyanil
[54825-09-1] $\text{C}_{15}\text{H}_{15}\text{NO}_2$ M 241.289Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 500 nm, pH 5.8), Ga (λ_{max} 510 nm, pH 4.0), Be (λ_{max} 450 nm, pH 8). Cryst. (EtOH). Sol. DMF, EtOH.Morishige, K., *Anal. Chim. Acta*, 1974, 73, 245; 1980, 121, 301 (synth, detn, Al, Be)**2-Hydroxy-N-(2-Hydroxy-5-ethylbenzylidene)-5-methylaniline**

H-00202

4-Ethyl-2-[[[(2-hydroxy-5-methylphenyl)imino]methyl]phenol, 9CI. 5-Ethyl-2-hydroxybenzaldehyde 2-hydroxy-5-methylanil
[54825-07-9] $\text{C}_{16}\text{H}_{17}\text{NO}_2$ M 255.316Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 525 nm, pH 6.0), Ga (λ_{max} 535 nm, pH 4.1), Be (λ_{max} 450 nm, pH 8.5). Cryst. (EtOH). Sol. DMF, EtOH.Morishige, K., *Anal. Chim. Acta*, 1974, 73, 245; 1980, 121, 301 (synth, detn, Al, Be, Ga)**4-Hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-1-naphthalenesulfonic acid, 9CI**

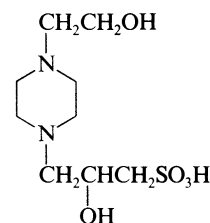
[24763-66-4]

 $\text{C}_{16}\text{H}_{10}\text{N}_4\text{O}_9\text{S}$ M 434.342Used as 4.6mM aq. soln. for photometric detn. of V(IV) (λ_{max} 635 nm, ϵ 21000). Dark red cryst. powder. Mod. sol. H_2O . $\text{p}K_{a1}$ 2.18; $\text{p}K_{a2}$ 9.30 ($\mu = 0.2$, 20°).Basargin, N.N. et al, *Zh. Anal. Khim.*, 1969, 24, 813 (detn, V)

H-00199

 β -Hydroxy-4-(2-hydroxyethyl)-1-piperazinepropanesulfonic acid, 9CI

H-00203

N-2-Hydroxyethylpiperazine-N'-2-hydroxypropanesulfonic acid. HEPPSO
[68399-78-0] $\text{C}_9\text{H}_{20}\text{N}_2\text{O}_5\text{S}$ M 268.333Good's buffer with pH range 7.4-8.6. Mesomorphic cryst. V. sol. H_2O . Mp 96-98°, Mp 158-160°. $\text{p}K_a$ 7.9 (20°).

[89648-37-3]

Ferguson, W.J. et al, *Anal. Biochem.*, 1980, 104, 300 (synth, use)Kaushal, V. et al, *Anal. Biochem.*, 1986, 157, 291 (use)Pospichal, J. et al, *J. Chromatogr.*, 1987, 390, 17 (use)**6-Hydroxy-5-[(2-hydroxy-3,5-dinitrophenyl)azo]-2-naphthalenesulfonic acid, 9CI**

H-00200

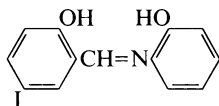
 $\text{C}_{16}\text{H}_{10}\text{N}_4\text{O}_9\text{S}$ M 434.342

Na salt: [3838-30-0].

Used as 1mM aq. soln. as metallochromic indicator for titrimetric detn. of Bi; detn. of Be, La, $\text{VO}_2^{2\oplus}$, $\text{UO}_2^{2\oplus}$. Brown cryst. powder. Sol. H_2O , EtOH.

2-Hydroxy-*N*-(2-hydroxy-5-iodobenzylidene)aniline H-00204

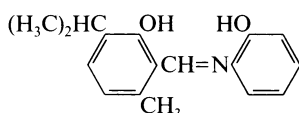
2-[[[(2-Hydroxyphenyl)imino]methyl]-4-iodophenol, 9CI. 2-Hydroxy-5-iodobenzaldehyde 2-hydroxyanil

C₁₃H₁₀INO₂ M 339.132

Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.

Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 197.5-198°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)**2-Hydroxy-*N*-(2-hydroxy-3-isopropyl-6-methylbenzylidene)aniline** H-00205

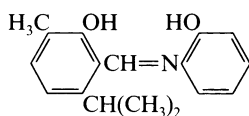
2-[[[(2-Hydroxyphenyl)imino]methyl]-3-methyl-6-(1-methylethyl)phenol. 2-Hydroxy-3-isopropyl-6-methylbenzaldehyde 2-hydroxyanil

C₁₇H₁₉NO₂ M 269.343

Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.

Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 127-127.5°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)**2-Hydroxy-*N*-(2-hydroxy-6-isopropyl-3-methylbenzylidene)aniline** H-00206

2-Hydroxy-6-isopropyl-3-methylbenzaldehyde 2-hydroxyanil

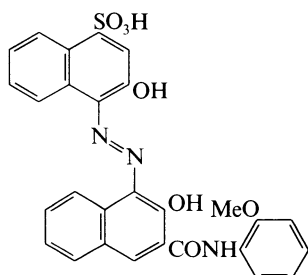
C₁₇H₁₉NO₂ M 269.343

Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.

Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 146.0-146.5°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)**3-Hydroxy-4-[[2-hydroxy-3-[[2-methoxyphenyl]amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, 9CI** H-00207

Calconalide II

[21542-33-6]

C₂₈H₂₁N₃O₇S M 543.556Used as a 0.1% soln. in MeOH as metallochromic indicator for titrimetric detn. of Ca, Mg. Greenish blue cryst. Sol. H₂O, EtOH, Me₂CO.Neumann, J. *et al*, *Fresenius' Z. Anal. Chem.*, 1968, **239**, 167 (*use*)
Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use*)**3-Hydroxy-4-[[2-hydroxy-3-[[4-methoxyphenyl]amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, 9CI** H-00208

3-Hydroxy-4-[[2-hydroxy-3-[[p-methoxyphenyl]carbonyl]-1-naphthyl]azo]-1-naphthalenesulfonic acid, 8CI. Calcon-p-aniside

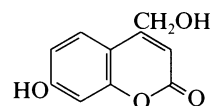
[21542-34-7]

C₂₈H₂₁N₃O₇S M 543.556

Used as a 0.1% soln. in MeOH as metallochromic indicator for titrimetric detn. of Ca. Orange-red cryst.

Neumann, J. *et al*, *Fresenius' Z. Anal. Chem.*, 1968, **239**, 167 (*detn, Ca*)**7-Hydroxy-4-(hydroxymethyl)-2H-1-benzopyran-2-one** H-00209

7-Hydroxy-4-hydroxymethylcoumarin

C₁₀H₈O₄ M 192.171

7-Me ether: [72433-26-2]. 4-(Hydroxymethyl)-7-methoxy-2H-1-benzopyran-2-one, 9CI

C₁₁H₁₀O₄ M 206.198

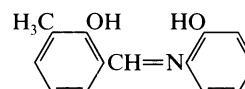
Reagent for fluorescent labelling of carboxylic acids.

Cryst. (EtOH). Mp 183-185°.

Lloyd, J.F.B., *J. Chromatogr.*, 1979, **178**, 249 (*use*)Takadate, A. *et al*, *Synthesis*, 1983, 806 (*synth*)**2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)aniline** H-00210

2-[[[(2-Hydroxyphenyl)imino]methyl]-6-methylphenol, 9CI. 2-Hydroxy-3-methylbenzaldehyde 2-hydroxyanil

[1761-43-9]

C₁₄H₁₃NO₂ M 227.262Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 505 nm, pH 5.8), Ga (λ_{max} 515 nm, pH 4.0), Be (λ_{max} 440 nm, pH 10.5). Cryst. (EtOH). Sol. DMF, EtOH; sl. sol. H₂O. Mp 153.5-154°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, detn, Al*)Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (*synth, detn, Al, Be, Ga*)**2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)aniline** H-00211

2-[[[(2-Hydroxyphenyl)imino]methyl]-5-methylphenol, 9CI. 2-Hydroxy-4-methylbenzaldehyde 2-hydroxyanil

[1761-42-8]

C₁₄H₁₃NO₂ M 227.262Used as 0.1% DMF soln. or 1mM soln. in EtOH for fluorimetric detn. of Al (λ_{max} 498 nm, pH 6.0), Ga (λ_{max} 510 nm, pH 4.5), Be (λ_{max} 435 nm, pH 9.5). Cryst. (EtOH). Sol. DMF, EtOH; sl. sol. H₂O. Mp 184.5-185.0°.

Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth. detn. Al*)
Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (*synth. detn. Al, Be, Ga*)

2-Hydroxy-N-(2-hydroxy-5-methylbenzylidene)aniline **H-00212**

2-[[[(2-Hydroxyphenyl)imino]methyl]-4-methylphenol, 9CI. 2-Hydroxy-5-methylbenzaldehyde 2-hydroxyanil
[1761-40-6]

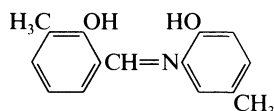
$C_{14}H_{13}NO_2$ M 227.262

Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 500 nm, pH 6.0), Ga (λ_{max} 510 nm, pH 4.5), Be (λ_{max} 455 nm, pH 9.5). Cryst. (EtOH). Sol. DMF, EtOH. Mp 162.5-163°.

Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth. detn. Al*)
Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (*synth. detn. Al, Be, Ga*)

2-Hydroxy-N-(2-hydroxy-3-methylbenzylidene)-5-methylaniline **H-00213**

2-[[[(2-Hydroxy-3-methylphenyl)methylene]amino]-6-methylphenol, 9CI. 2-Hydroxy-3-methylbenzaldehyde 2-hydroxy-5-methylanil
[76950-23-7]



$C_{15}H_{15}NO_2$ M 241.289

Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 520 nm, pH 6.0), Ga (λ_{max} 530 nm, pH 4.5), Be (λ_{max} 455 nm, pH 10). Cryst. (EtOH). Sol. DMF, EtOH.

Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (*synth. detn. Al, Be, Ga*)

2-Hydroxy-N-(2-hydroxy-4-methylbenzylidene)-4-methylaniline **H-00214**

2-[[[(2-Hydroxy-4-methylphenyl)methylene]amino]-6-methylphenol, 9CI. 2-Hydroxy-4-methylbenzaldehyde 2-hydroxy-4-methylanil
[76950-24-8]

$C_{15}H_{15}NO_2$ M 241.289

Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 500 nm, pH 5.0), Ga (λ_{max} 510 nm, pH 4.0), Be (λ_{max} 450 nm, pH 9.5). Cryst. (EtOH). Sol. DMF, EtOH.

Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (*synth. detn. Al, Be, Ga*)

2-Hydroxy-N-(2-hydroxy-4-methylbenzylidene)-5-methylaniline **H-00215**

2-[[[(2-Hydroxy-4-methylphenyl)imino]methyl]-5-methylphenol, 9CI. 2-Hydroxy-4-methylbenzaldehyde 2-hydroxy-5-methylanil
[76950-27-1]

$C_{15}H_{15}NO_2$ M 241.289

Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 520 nm, pH 6.0), Ga (λ_{max} 530 nm, pH 4.5), Be (λ_{max} 430 nm, pH 9.5). Cryst. (EtOH). Sol. DMF, EtOH.

Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (*synth. use*)

2-Hydroxy-N-(2-hydroxy-5-methylbenzylidene)-4-methylaniline **H-00216**

2-[[[(2-Hydroxy-5-methylphenyl)imino]methyl]-4-methylphenol, 9CI. 2-Hydroxy-5-methylbenzaldehyde 2-hydroxy-4-methylanil
[1761-91-7]

$C_{15}H_{15}NO_2$ M 241.289

Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 500 nm, pH 5.0), Ga (λ_{max} 510 nm, pH 3.8), Be (λ_{max} 450 nm, pH 10). Cryst. (EtOH). Sol. DMF, EtOH.

Morishige, K., *Anal. Chim. Acta*, 1974, **73**, 245; 1980, **121**, 301 (*synth. detn. Al, Be, Ga*)

2-Hydroxy-N-(2-hydroxy-5-methylbenzylidene)-5-methylaniline **H-00217**

2-[[[(2-Hydroxy-5-methylphenyl)imino]methyl]-4-methylphenol, 9CI. 2-Hydroxy-5-methylbenzaldehyde 2-hydroxy-5-methylanil
[1761-41-7]

$C_{15}H_{15}NO_2$ M 241.289

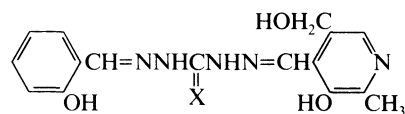
Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 525 nm, pH 6.0), Ga (λ_{max} 480 nm, pH 4.5), Be (λ_{max} 535 nm, pH 9.5). Cryst. (EtOH). Sol. DMF, EtOH; sl. sol. H₂O. Mp 185°.

[54825-06-8]

Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth. detn. Al*)
Morishige, K., *Anal. Chim. Acta*, 1974, **75**, 245; 1980, **121**, 301 (*synth. detn. Al, Be, Ga*)

2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbonic acid dihydrazide, 9CI **H-00218**

[102502-25-0]



X = O

$C_{16}H_{17}N_5O_4$ M 343.341

Used as 0.05% aq. soln. for photometric detn. of Ga (λ_{max} 420 nm, ϵ 30000, pH 2.1), U, Al. Cryst. (EtOH aq.). Sol. H₂O, EtOH. Mp 222-223°.

Barragan de la Rosa, F.J. *et al*, *Talanta*, 1988, **35**, 343 (*synth. detn. Al, Ga, U*)

2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbothioic acid dihydrazide **H-00219**

[117932-58-8]

As 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbonic acid dihydrazide, H-00218 with

X = S

$C_{16}H_{17}N_5O_3S$ M 359.408

Used as 0.05% aq. soln. for photometric detn. of Cu(II), Ga, Co, Fe(III). Cryst. (EtOH aq.). Sol. H₂O, EtOH. Mp 217-218°.

Barragan de la Rosa, F.J. *et al*, *Talanta*, 1988, **35**, 343 (*synth. use*)

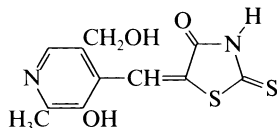
5-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2-thioxo-4-thiazolidinone, 9CI

H-00220

5-[4-(2-Methyl-3-hydroxy-5-hydroxymethyl)pyridyl]ene]

rhodanine

[105609-13-0]

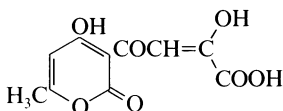
 $C_{11}H_{10}N_2O_3S_2$ M 282.344

Used as 0.025% soln. in DMF for photometric detn. of Ag (λ_{\max} 530 nm, ϵ 15000, DMF, pH 8.2). Orange cryst. (EtOH aq.). Sol. DMF. pK_{a1} 2.95; pK_{a2} 5.95; pK_{a3} 8.75 ($\mu = 1$).

Godoy, R.E. *et al*, *Analyst* (London), 1986, **111**, 1297 (*synth*, *detn*, *Ag*)

2-Hydroxy-4-(4-hydroxy-6-methyl-2-oxo-2H-pyran-3-yl)-4-oxo-2-butenic acid, 9CI

H-00221

 $C_{10}H_8O_7$ M 240.169*Et ester*: [59698-12-3]. $C_{12}H_{12}O_7$ M 268.223

Used as a 1mM soln. in glac. AcOH for fluorimetric detn. of Al, Be. Cryst. Sol. Me_2CO , EtOH.

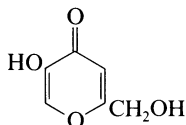
Drevenkar, V. *et al*, *Microchem. J.*, 1976, **21**, 402 (*detn*, *Al*, *Be*)

5-Hydroxy-2-(hydroxymethyl)-4H-pyran-4-one, 9CI

H-00222

Kojic acid

[501-30-4]

 $C_6H_6O_4$ M 142.111

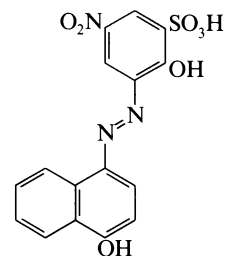
Prod. by the action of microorganisms, esp. *Aspergillus* spp. on carbohydrates, e.g. dextrose. Synthetic intermed. for prodn. of food additives. Used as aq. soln. for photometric detn. of V, U. Cryst. (H_2O). Sol. H_2O . Mp 161° (152°).

▷ UQ0875000.

Yabuta, T., *J. Chem. Soc.*, 1924, **125**, 575 (*struct*)Becker, H.D., *Acta Chem. Scand.*, 1962, **16**, 78 (*synth*)Satyanarayana, D. *et al*, *Chemist-Analyst*, 1965, **54**, 4 (*detn*, *V*)Sommer, L. *et al*, *Collect. Czech. Chem. Commun.*, 1966, **31**, 1288 (*detn*, *U*)Lichtenthaler, F.W. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1969, **8**, 978.Kingsbury, C.A. *et al*, *J. Org. Chem.*, 1976, **41**, 2777 (*pmr*)Bajpai, P. *et al*, *J. Sci. Ind. Res.*, 1982, **41**, 185 (*rev*)Lokaj, J. *et al*, *Acta Crystallogr., Sect. C*, 1991, **47**, 193 (*cryst struct*)Cole, R.J. *et al*, *Handbook of Toxic Fungal Metabolites*, Academic Press, N.Y., 1981, 759.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HLH500.**2-Hydroxy-3-[4-hydroxynaphthalenylazo]-5-nitrobenzenesulfonic acid**

H-00223

4-(2-Hydroxy-5-nitro-3-sulfo-phenylazo)-1-naphthol

 $C_{16}H_{11}N_3O_7S$ M 389.345

Used as 0.1% aq. soln. for photometric detn. of Al (λ_{\max} 550 nm, ϵ 12200, pH 2.5-4). Yellow cryst. Sol. H_2O , EtOH.

Ermolenko, L.V. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1030 (*synth*, *detn*, *Al*)

3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, 9CI

H-00224

1-(2-Hydroxy-4-sulfo-6-nitro-1-naphthylazo)-2-naphthol.

2,2'-Dihydroxy-6-nitro-1,1'-azonaphthalene-4-sulfonic acid.

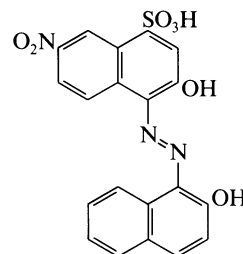
C.I. 15710. Aizen Chrome black AH. Eniachrome black A.

Acid chrome black N. Azochromol black A. Hispacrom

black A. Solochrome black AS (free acid). C.I. Mordant

black 1, 8CI

[16279-54-2]

 $C_{20}H_{13}N_3O_7S$ M 439.405

Used for photometric detn. of Ti (λ_{\max} 420 nm, ϵ 19000); as a masking agent for Bi in detn. of Cu and Mg; as a 0.1% soln. in EtOH as metallochromic indicator for titrimetric detn. of Cu, Mg, Mn, Ni, Pb, Zn. Brownish black cryst. with faint metallic lustre. Sol. alkalis H_2O ; sl. sol. EtOH, Me_2CO . pK_{a1} 6.2; pK_{a2} 13.0.

Na salt: [3618-58-4].

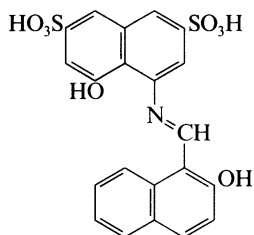
Dark red cryst. powder. Sol. H_2O ; spar. sol. EtOH, Me_2CO .

Abd El Raheem, A.A. *et al*, *Anal. Chim. Acta*, 1958, **19**, 327 (*detn*, *Cu*, *Mn*, *Ni*, *Pb*, *Zn*)

Dryanovska-Noninska, B. *et al*, *Farmatsiya* (Moscow), 1966, **16**, 50 (*masking*)

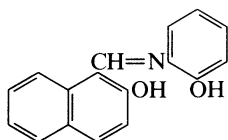
Hahn, C.S. *et al*, *CA*, 1969, **70**, 43506g (*synth*)Ger. Pat., 2 224 643, (1972); *CA*, 1973, **78**, 73625c (*synth*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 307 (*use*, *ind*)Korenman, I.M. *et al*, *CA*, 1975, **83**, 141388h (*detn*, *Ti*)

4-Hydroxy-5-[[[(2-hydroxy-1-naphthalenyl)methylene]amino]-2,7-naphthalenedisulfonic acid, 9CI
[94787-53-8]



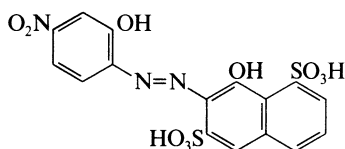
$C_{21}H_{15}NO_8S_2$ M 473.483
Used as 3% aq. soln. for photometric detn. of B (λ_{max} 445 nm, ϵ 8700; 30% MeOH medium). Cryst. Sol. H_2O .
Aznarez, J. *et al*, *Analyst (London)*, 1985, **110**, 61 (*detn*, B)

2-Hydroxy-N-(2-hydroxynaphthylidene)aniline H-00226
1-[[[(2-Hydroxyphenyl)imino]methyl]-2-naphthalenol, 9CI. 2-Hydroxy-1-naphthalenecarboxaldehyde 2-hydroxyanil
[894-93-9]



$C_{17}H_{13}NO_2$ M 263.295
Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.
Cryst. (EtOH). Sol. EtOH; sl. sol. H_2O . Mp 251.5-252.0°.
Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth*, *detn*, Al)

8-Hydroxy-7-[(2-hydroxy-4-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, 9CI
[33683-71-5]

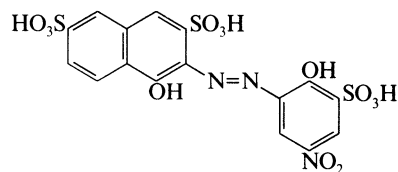


$C_{16}H_{11}N_3O_{10}S_2$ M 469.409
Used for photometric detn. of Al (λ_{max} 550 nm, ϵ 15600), Ga (λ_{max} 560 nm, ϵ 23200), In (λ_{max} 560 nm, ϵ 8800).
Cryst. pK_{a1} 6.86.
Tiutiunnikova, P.D. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 508 (*detn*, Al, Ga, In)

8-Hydroxy-7-[(2-hydroxy-5-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, 9CI
[33683-72-6]

$C_{16}H_{11}N_3O_{10}S_2$ M 469.409
Used for photometric detn. of Al (λ_{max} 580 nm, ϵ 22800), Ga (λ_{max} 580 nm, ϵ 24200), In (λ_{max} 590 nm, ϵ 14200).
Cryst. pK_{a1} 5.42.
Tiutiunnikova, P.D. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 508 (pK_a , *detn*, Al, Ga, In)

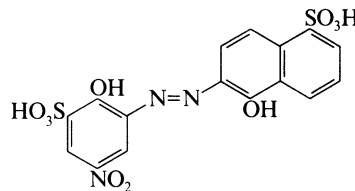
4-Hydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid H-00229



$C_{16}H_{11}N_3O_{13}S_3$ M 549.473
Used as 0.1% aq. soln. for photometric detn. of Al (λ_{max} 545 nm, ϵ 24300, pH 2.5-4). Yellow cryst. Sol. H_2O , EtOH.

Ermolenko, L.V. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1030 (*synth*, *detn*, Al)

5-Hydroxy-6-[(2-hydroxy-5-nitro-3-sulfophenyl)-azo]-1-naphthalenesulfonic acid, 9CI H-00230
Sulfonitrophenol azurine 4,1
[33683-78-2]

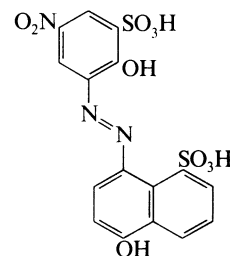


$C_{16}H_{11}N_3O_{10}S_2$ M 469.409
Used as 0.6mM aq. soln. for photometric detn. of Ga (λ_{max} 560 nm, ϵ 35800); as 0.1% aq. soln. for photometric detn. of Al (λ_{max} 545 nm, ϵ 12200, pH 2.5-4). Orange-red cryst. Sol. H_2O ; sl. sol. EtOH. pK_a 3.74 ($\mu = 0.1$), pK_{a2} 4.03; pK_{a3} 11.4.

Dedkov, Yu.M. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1266, 2350 (*synth*, *detn*, Ga)

Ermolenko, L.V. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1030 (*synth*, *detn*, Al)

5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, 9CI H-00231
[33683-79-3]



$C_{16}H_{11}N_3O_{10}S_2$ M 469.409
Used as a 0.6mM aq. soln. for photometric detn. of Ga (λ_{max} 560 nm, ϵ 35800); as 0.1% aq. soln. for photometric detn. of Al (λ_{max} 540 nm, ϵ 21600, pH 2.5-4). Orange-red cryst. Sol. H_2O . pK_{a2} 3.74; pK_{a3} 10.9.

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2350 (*detn*, Ga)
Ermolenko, L.V. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1030 (*synth*, *detn*, Al)

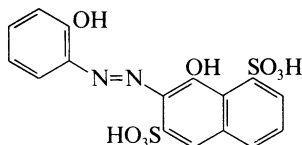
5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulphophenyl)azo]-2-naphthalenesulfonic acid

H-00232

 $C_{16}H_{11}N_3O_{10}S_2$ M 469.409Used as 0.1% aq. soln. for photometric detn. of Al (λ_{max} 550 nm, ϵ 6800, pH 2.5-4). Yellow cryst. Sol. H_2O , EtOH.Ermolenko, L.V. et al. *Zh. Anal. Khim.*, 1988, **43**, 1030 (synth, detn, Al)**8-Hydroxy-7-[(2-hydroxyphenyl)azo]-1,6-naphthalenedisulfonic acid, 9CI**

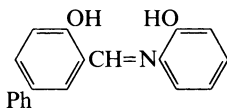
H-00233

[33683-70-4]

 $C_{16}H_{12}N_2O_8S_2$ M 424.411Used for photometric detn. of Al (λ_{max} 560 nm, ϵ 9600), Ga (λ_{max} 560 nm, ϵ 12000), In (λ_{max} 560 nm, ϵ 9400). Cryst. pK_{a1} 8.10.Tiutiunnikova, P.D. et al. *Zh. Anal. Khim.*, 1975, **30**, 508 (detn, Al, Ga, In)**2-Hydroxy-N-(2-hydroxy-5-phenylbenzylidene)aniline**

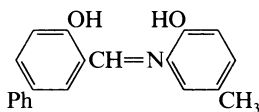
H-00234

3-[[[(2-Hydroxyphenyl)imino]methyl][1,1'-biphenyl]-4-ol, 9CI. 4-Hydroxy-3-biphenylcarboxaldehyde 2-hydroxyanil [1761-46-2]

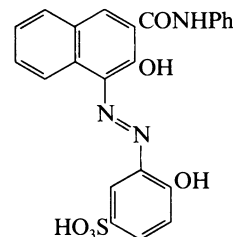
 $C_{19}H_{15}NO_2$ M 289.333Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 503 nm, pH 5.0), Ga (λ_{max} 512 nm, pH 3.5), Be (λ_{max} 465 nm, pH 10.5). Cryst. (EtOH). Sol. DMF, EtOH. Mp 185.5-186.0°.Argauer, R.J. et al. *Anal. Chem.*, 1964, **36**, 2141 (synth, detn, Al) Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (synth, detn, Al, Be, Ga)**2-Hydroxy-N-(2-hydroxy-5-phenylbenzylidene)-5-methylaniline**

H-00235

3-[[[(2-Hydroxy-5-methylphenyl)imino]methyl][1,1'-biphenyl]-4-ol, 9CI. 4-Hydroxy-3-biphenylcarboxaldehyde 2-hydroxy-5-methylanil [76950-26-0]

 $C_{20}H_{17}NO_2$ M 303.360Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 525 nm, pH 5.5), Ga (λ_{max} 535 nm, pH 3.0), Be (λ_{max} 460 nm, pH 10.5). Cryst. (EtOH). Sol. DMF, EtOH.Morishige, K., *Anal. Chim. Acta*, 1980, **121**, 301 (synth, detn, Al, Ga, Be)**4-Hydroxy-3-[[2-hydroxy-3-(phenylcarbamoyl)-1-naphthyl]azo] benzenesulfonic acid, 8CI**

H-00236

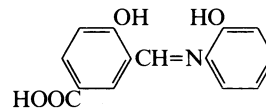
 $C_{23}H_{17}N_3O_6S$ M 463.470

Used as a 0.1% soln. in MeOH as metallochromic indicator in titrimetric detn. of Ca. Cryst.

Neumann, J., *CA*, 1967, **67**, 3697b (synth)Neumann, J. et al. *Fresenius' Z. Anal. Chem.*, 1968, **239**, 167 (detn, Ca)**4-Hydroxy-3-[[2-hydroxyphenyl)imino]methyl]benzoic acid**

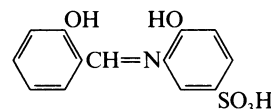
H-00237

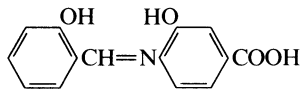
3-Formyl-4-hydroxybenzoic acid 2-hydroxyanil

 $C_{14}H_{11}NO_4$ M 257.245*Me ester*: 2-Hydroxy-N-(2-hydroxy-5-carbomethoxybenzylidene)aniline $C_{15}H_{13}NO_4$ M 271.272Used as a 1mM soln. in EtOH for fluorimetric detn. of Al. Cryst. (EtOH). Sol. EtOH; sl. sol. H_2O . Mp 234.5-235.0°.Argauer, R.J. et al. *Anal. Chem.*, 1964, **36**, 2141 (synth, detn, Al)**4-Hydroxy-3-[[2-hydroxyphenyl)methylene]amino]benzenesulfonic acid, 9CI**

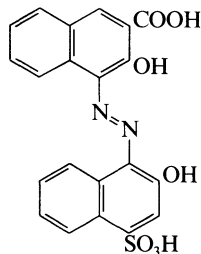
H-00238

2-Hydroxy-N-salicylidene-5-sulfoaniline. 2-Hydroxybenzaldehyde 2-hydroxy-5-sulfoanil [53851-92-6]

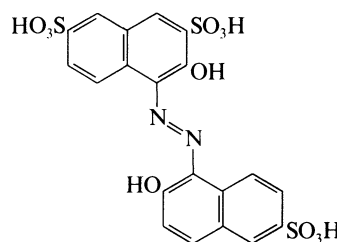
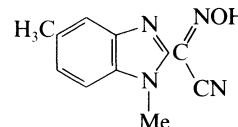
 $C_{13}H_{11}NO_5S$ M 293.300Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 480 nm, pH 5.5) Ga (λ_{max} 490 nm, pH 3.7), In, Be; as 0.1% aq. soln. for photometric detn. of Cu(II) (λ_{max} 406 nm, ϵ 14500, pH 4-7). Cryst. (EtOH). Sol. DMF, EtOH, H_2O .Morishige, K., *Anal. Chim. Acta*, 1974, **72**, 295; **73**, 245 (synth, detn, Al, Be, Ga)Zenki, M. et al. *Bunseki Kagaku (Jpn. Anal.)*, 1978, **27**, 570 (detn, Cu)Deguchi, M. et al. *Bunseki Kagaku (Jpn. Anal.)*, 1990, **39**, 463 (detn, In)

3-Hydroxy-4-[[2-(hydroxyphenyl)**H-00239****methylene]amino]benzoic acid, 9CI***4-Carboxy-2-hydroxy-N-salicylideneaniline*
[53899-51-7] $C_{14}H_{11}NO_4$ M 257.245Used as a 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 505 nm, pH 5.6), Ga (λ_{max} 510 nm, pH 3.5). Cryst. (EtOH). Sol. DMF, EtOH.Morishige, K., *Anal. Chim. Acta*, 1974, **72**, 295 (*synth, detn, Al, Ga*)**4-Hydroxy-3-[[2-(hydroxyphenyl)****H-00240****methylene]amino]benzoic acid, 9CI***5-Carboxy-2-hydroxy-N-salicylideneaniline*
[53851-94-8] $C_{14}H_{11}NO_4$ M 257.245Used as 0.1% DMF soln. for fluorimetric detn. of Al (λ_{max} 490 nm, pH 5.0), Ga (λ_{max} 495 nm, pH 3.5), Sn(IV). Cryst. (EtOH). Sol. DMF, EtOH.Morishige, K., *Anal. Chim. Acta*, 1974, **72**, 295 (*synth, use*)
Morishige, K., *CA*, 1981, **95**, 161361v (*detn, Sn*)**N-Hydroxy-3-(4-hydroxyphenyl)-N-phenyl-2-propenamide, 9CI****H-00241***p-Hydroxy-N-phenylcinnamohydroxamic acid* $C_{15}H_{13}NO_3$ M 255.273*4-Me ether*: [29625-36-3]. *p-Methoxy-N-phenylcinnamohydroxamic acid, 8CI. N-Hydroxy-3-(4-methoxyphenyl)-N-phenyl-2-propenamide* $C_{16}H_{15}NO_3$ M 269.299Used as 0.1% $CHCl_3$ soln. for extraction-photometric detn. of Ti (λ_{max} 402 nm, ϵ 17000 from 9M HCl), V (λ_{max} 570 nm, ϵ 7500). Cryst. Sol. $CHCl_3$.Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 276 (*synth*)
Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn, V*)
Bhura, D.C. *et al*, *Analisis*, 1980, **8**, 108 (*detn, Ti*)**3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid****H-00242***2,2'-Dihydroxy-4'-sulfo-1,1'-azonaphthalene-3-carboxylic acid. Calconcarboxylic acid. Calred. Kalces. Patton and Reeder's dye*

[3737-95-9]

 $C_{21}H_{14}N_2O_5S$ M 438.417Used as 0.74mM EtOH soln. for photometric detn. of F^{\ominus} (based on bleaching of the Al-reagent complex). Sol. hot H_2O , MeOH. pK_{a1} 1-2; pK_{a2} 3.8; pK_{a4} 13.6 (0.1M KCl, 24°). Hygroscopic.*Na salt*: [38756-90-0].Used in a mixt. (1:100) with NaCl as metallochromic indicator in titrimetric detn. of Ca in the presence of Mg; used as 0.1mM aq. soln. for photometric detn. of U(VI) (λ_{max} 570 nm, ϵ 13600). Dark violet cryst. powder. Sol. H_2O .Patton, J. *et al*, *Anal. Chem.*, 1956, **28**, 1026 (*synth*)Bangh, C.A. *et al*, *Anal. Chem.*, 1961, **33**, 1804 (*detn, Ca*)Baczyk, S., *Fresenius' Z. Anal. Chem.*, 1964, **202**, 273 (*detn, Ca*)Ishii, H., *Bunseki Kagaku (Jpn. Anal.)*, 1966, **15**, 972 (*detn, Ca*)Itoh, A. *et al*, *Analyst (London)*, 1970, **95**, 583 (*detn, Ca*)Bishop, E., *Indicators*, Oxford, Pergamon, 1972 (*detn, Ca*)Mavrodin, M., *Rev. Roum. Chim.*, 1972, **17**, 1199 (*detn, U*)Irving, H., *Pure Appl. Chem.*, 1978, **50**, 339 (*detn, F^{\ominus}*)Boos, K.S., *Biochim. Biophys. Acta*, 1982, **693**, 68 (*use*)Rahim, S.A. *et al*, *Microchem. J.*, 1987, **36**, 294 (*detn, F^{\ominus}*)**3-Hydroxy-4-[(2-hydroxy-6-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI****H-00243***1-(2-Hydroxy-6-sulfo-1-naphthylazo)-2-naphthol-3,6-disulfonic acid. 2,2'-Dihydroxy-1,1'-azonaphthalene-3,6,6'-trisulfonic acid*

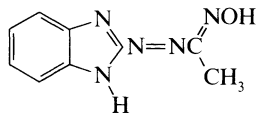
[32884-46-1]

 $C_{20}H_{14}N_2O_{11}S_3$ M 554.535Used as 0.1mM aq. soln. as an indicator for compleximetric titration of Ca (λ_{max} 555 nm, pH 12). Dark violet cryst. Sol. H_2O . pK_{a1} 5.69; pK_{a2} 13.4 (25°, μ = 1).Wada, H. *et al*, *Anal. Chim. Acta*, 1980, **121**, 265 (*synth, detn, Ca*) **α -(Hydroxyimino)-1,5-dimethyl-1H-benzimidazole-2-acetonitrile, 9CI****H-00244***N-Methyl-2-(α -isonitroso- α -cyano)methylbenzimidazole*
[70566-29-9] $C_{11}H_{10}N_4O$ M 214.226Used as 0.2mM Me_2CO soln. for extraction-photometric detn. of Fe(II) (λ_{max} 540 nm, ϵ 16000, toluene/isopentanol). Cryst. Sol. Me_2CO .Chernov'yants, M.S. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 236 (*synth, detn, Fe*)

2-[[1-(Hydroxyimino)ethyl]azo]-1H-benzimidazole, 9CI

H-00245

[76128-52-4]

 $C_9H_9N_5O$ M 203.203

Used as 0.05% EtOH soln. for photometric detn. of Cu (λ_{max} 525 nm, ϵ 12600), Co. Yellow cryst. (EtOH). Sol. EtOH, DMF, Me₂CO. pK_a 9.01.

*N*¹-Benzyl: [76128-54-6]. 2-[[1-(Hydroxyimino)ethyl]azo]-1-(phenylmethyl)-1H-benzimidazole, 9CI

 $C_{16}H_{15}N_5O$ M 293.327

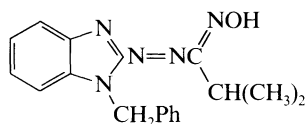
Used as 0.02mM soln. in EtOH for photometric detn. of Cu, Co, Ni, Mn (pH 7-12). Yellow cryst. (EtOH). Sol. EtOH, DMF, Me₂CO.

Dubinina, L.F. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1700 (*synth, detn, Cu, Co*)

2-[[1-(Hydroxyimino)-2-methylpropyl]azo]-1-(phenylmethyl)-1H-benzimidazole, 9CI

H-00246

[76128-55-7]

 $C_{18}H_{19}N_5O$ M 321.381

Used as 0.05% EtOH soln. for photometric detn. of Cu (λ_{max} 465 nm, ϵ 16000), Ni, Co. Yellow cryst. (EtOH). Sol. EtOH, Me₂CO. pK_a 9.46.

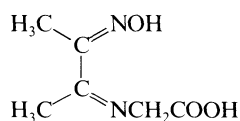
Dubinina, L.F. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1700 (*synth, use*)

***N*-[2-(Hydroxyimino)-1-methylpropylidene]glycine, 9CI**

H-00247

Biacetylglycinimine oxime

[76291-06-0]

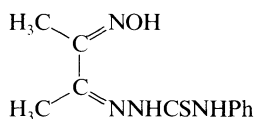
 $C_6H_{10}N_2O_3$ M 158.157

Used as 0.05% soln. in EtOH for extraction-photometric and gravimetric detn. of Pd. Cryst. (EtOH). Sol. EtOH, Me₂CO; spar. sol. H₂O. Mp 234-235°.

Riyazuddin, P. *et al*, *Talanta*, 1982, **29**, 1122.

2-[2-(Hydroxyimino)-1-methylpropylidene]-N-phenylhydrazinecarbothioamide

H-00248

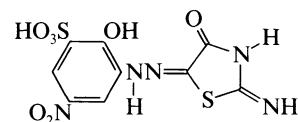
Biacetyl phenythiosemicarbazone oxime $C_{11}H_{14}N_4OS$ M 250.324

Used as a 0.1% soln. in DMF for photometric detn. of Mn. Cryst. (EtOH). Sol. EtOH, Me₂CO; insol. H₂O. Mp 210-212°.

Cano Pavon, J.M. *et al*, *Anal. Chim. Acta*, 1975, **75**, 335.

2-Hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]-5-nitrobenzenesulfonic acid

H-00249

Sulfonitrophenolazopseudothiohydantoin $C_9H_7N_5O_7S_2$ M 361.316

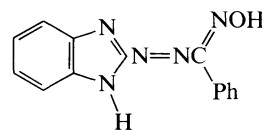
Various tautomers possible. Used as EtOH soln. for photometric detn. of Ag, Au, Pd, Pt. Yellow cryst. powder. Sol. H₂O, EtOH, DMF.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)

2-[[[(Hydroxyimino)phenylmethyl]azo]-1H-benzimidazole, 9CI

H-00250

[76128-53-5]

 $C_{14}H_{11}N_5O$ M 265.274

Used as 0.02mM soln. in aq. EtOH for photometric detn. of Cu, Co, Ni, Mn (pH 4-7). Yellow cryst. (EtOH). Sol. EtOH, DMF, Me₂CO. pK_a 8.74.

*N*¹-Benzyl: [76128-56-8]. 2-[[[(Hydroxyimino)phenylmethyl]azo]-1-(phenylmethyl)-1H-benzimidazole, 9CI

 $C_{21}H_{17}N_5O$ M 355.398

Used as 0.02mM soln. in aq. EtOH for photometric detn. of Cu (λ_{max} 460 nm, ϵ 12300), Co, Ni (λ_{max} 546 nm, ϵ 12300), Pb, Mn (pH 3.5-10). Yellow cryst. (EtOH). Sol. EtOH, DMF, Me₂CO. pK_{a1} 8.79.

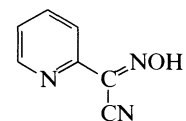
Dubinina, L.F. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1700; 1983, **38**, 94 (*synth, use*)

 α -(Hydroxyimino)-2-pyridineacetonitrile, 9CI

H-00251

2-Pyridylcyanoxime

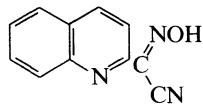
[4185-96-0]

 $C_7H_5N_3O$ M 147.136

Used as 5mM EtOH soln. for extraction-photometric detn. of Fe(II) (λ_{max} 585 nm, ϵ 16500, CHCl₃), Cu(I). Cryst. Sol. EtOH. pK_{a1} 2.47; pK_{a2} 7.40.

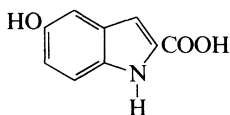
Chernov'yants, M.S. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 797 (*synth, use*)

α -(Hydroxyimino)-2-quinolineacetonitrile, 9CI H-00252
 2-Quinolylcyanoxime
 [72082-07-6]



$C_{11}H_7N_3O$ M 197.196
 Used as 5mM EtOH soln. for extraction-photometric detn. of Fe(II) (λ_{max} 545 nm, ϵ 13400, $CHCl_3$), Cu(I). Cryst. Sol. EtOH. pK_{a1} 2.73; pK_{a2} 7.0.
 Chernov'yants, M.S. *et al.*, *Zh. Anal. Khim.*, 1984, **39**, 797 (*synth, use*)

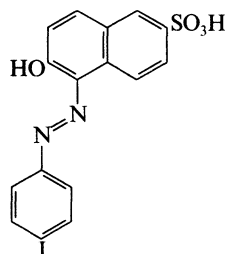
5-Hydroxy-1H-indole-2-carboxylic acid, 9CI H-00253
 [21598-06-1]



$C_9H_7NO_3$ M 177.159
 Used for photometric detn. of NO_2^- (λ_{max} 465 nm, ϵ 3500, H_2SO_4). Mp 246° dec.
Me ester: [51991-39-0].
 $C_{10}H_9NO_3$ M 191.186
 Plates (MeOH). Mp 177°.
Et ester: [24985-85-1].
 $C_{11}H_{11}NO_3$ M 205.213
 Needles (EtOH). Mp 156°.
Me ether: [4382-54-1]. 5-Methoxy-1H-indole-2-carboxylic acid
 $C_{10}H_9NO_3$ M 191.186
 Needles (H_2O). Sol. EtOH, Et_2O , AcOH. Mp 196-197° dec.
 ▶ NL6005000.
Me ether, Et ester: [4792-58-9].
 $C_{12}H_{13}NO_3$ M 219.240
 Mp 157°.

Blaikie, K.G. *et al.*, *J. Chem. Soc.*, 1924, **125**, 309.
 Bergel, F. *et al.*, *J. Chem. Soc.*, 1943, 49.
 Beer, R.J.S. *et al.*, *J. Chem. Soc.*, 1948, 1605.
 Bouchet, P. *et al.*, *Synth. Commun.*, 1974, **4**, 57.
 Capitan, F. *et al.*, *Bol. Soc. Quim. Peru*, 1977, **43**, 1; *CA*, **88**, 114730k (*detn, NO_2^-*)
 Léon, P. *et al.*, *J. Med. Chem.*, 1987, **30**, 2074 (*deriv, synth*)

6-Hydroxy-5-[(4-iodophenyl)azo]-2-naphthalenesulfonic acid, 9CI H-00254
 [62936-60-1]

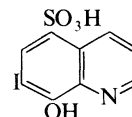


$C_{16}H_{11}IN_2O_4S$ M 454.244

Used as a 0.1% soln. in 20% Me_2CO for photometric titrimetric detn. of Pd (λ_{max} 575 nm). Orange-red cryst. Sol. EtOH.

Khalifa, H. *et al.*, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 46 (*detn, Pd*)

8-Hydroxy-7-iodo-5-quinolinesulfonic acid, 9CI H-00255
Ferron. Loretin. Yatren. Numerous proprietary names
 [547-91-1]

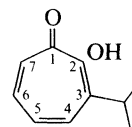


$C_9H_6INO_4S$ M 351.121
 Antiamoebic. Topical disinfectant. Used as 0.1% aq. soln. for photometric detn. of Fe(III) (λ_{max} 610 nm, ϵ 4000), Al, Pd, V; indirect detn. of F^- . Yellow prisms or laminae. V. spar. sol. H_2O , EtOH, prac. insol. Et_2O , $CHCl_3$, C_6H_6 . Mp 250-280° dec. Forms cryst. salts with alkali and alkaline-earth metals. Used mainly as mixt. with $NaHCO_3$ (Chiniofon, INN).

▶ VC2800000.

[8002-90-2]
 Claus, A., *Arch. Pharm. (Weinheim, Ger.)*, 1893, **231**, 706.
 Cohn, G., *J. Prakt. Chem.*, 1911, **83**, 503.
Ger. Pat., 545 915, (1933); *CA*, **27**, 566.
 Ziegler, M. *et al.*, *Fresenius' Z. Anal. Chem.*, 1957, **154**, 170 (*detn, Fe*)
 Botton, L.P., *CA*, 1958, **52**, 1840.
 Adams, D.F., *Anal. Chem.*, 1960, **32**, 1312 (*detn, F^-*)
 Merritt, L.L. *et al.*, *Acta Crystallogr., Sect. B*, 1970, **26**, 734 (*cryst struct*)
 Gershon, H. *et al.*, *J. Org. Chem.*, 1971, **36**, 3494.
 Singh, T. *et al.*, *Talanta*, 1971, **18**, 225 (*detn, Pd*)
 Goto, K. *et al.*, *Talanta*, 1974, **21**, 183 (*detn, Al*)
 Przeslakowski, G. *et al.*, *Analyst (London)*, 1982, **107**, 1320 (*detn, Fe*)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 4766.
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1082 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IEP200.

2-Hydroxy-3-isopropyl-2,4,6-cycloheptatrien-1-one H-00256
 2-Hydroxy-3-(1-methylethyl)-2,4,6-cycloheptatrien-1-one, 9CI. 3-Isopropyltropolone. α -Thujaplicin
 [1946-74-3]

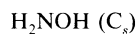


$C_{10}H_{12}O_2$ M 164.204
 Occurs in *Juniperus conferta* and the heartwood of *Thuja plicata*. Also from *T. occidentalis*, *T. dolabrata*, *T. standishii*, *Cupressus* spp., and *Juniperus* spp. Antifungal.
 Used as 0.1M soln. in EtOH for extraction-photometric detn. of Fe, Ti, V, U ($CHCl_3$). Needles (pet. ether). Mp 82° (34°). $Bp_{0.001}$ 80° (bath).
Me ether: Mp 71.5-72.5°. Bp_4 118-120°.
 Gripenberg, J., *Acta Chem. Scand.*, 1948, **2**, 639 (*isol*)
 Cook, J.W. *et al.*, *J. Chem. Soc.*, 1951, 695 (*synth*)
 Zavarin, E. *et al.*, *J. Org. Chem.*, 1959, **24**, 1318 (*isol*)

Bredenberg, J.B., *Acta Chem. Scand.*, 1961, **15**, 961 (*isol*)
 Dyrssen, D. *et al.* *Acta Chem. Scand., Ser. A*, 1961, **15**, 1614;
 1962, **16**, 785 (*detn.*, U)
 Dutt, Y. *et al.* *Talanta*, 1969, **16**, 1369 (*detn.*, Ti)
 McClellan, B.E. *et al.* *Anal. Chem.*, 1971, **43**, 436 (*detn.*, Fe)
 Menis, O. *et al.* *Anal. Chim. Acta*, 1971, **55**, 89 (*detn.*, V, Fe)
 Takaya, H. *et al.* *J. Am. Chem. Soc.*, 1978, **100**, 1778 (*synth*)

Hydroxylamine, 9CI**H-00257**

Hydroxyamine. Amino hydroxide
 [7803-49-8]



$$\text{H}_3\text{NO} \quad \text{M } 33.030$$

Usually handled in aq. soln. or as salts. Synth. from $[\text{NH}_2\text{OH}_2]\text{Cl}$ + sodium butoxide. May act as an oxidising agent (esp. when acidified) or more commonly as a reducing agent. Antioxidant for photographic developers etc. Reducing agent often used in analysis e.g. Hg(II) to metal, Fe(III) to Fe(II) ; photometric detn. of V(V) . White thermally unstable hygroscopic cryst. V. sol. H_2O , alcohols, liq. NH_3 ; sol. acids. $d^{33} 1.204$. Mp 33° . Bp₂₂ 58° . $\text{p}K_a 5.95$ (25°). Dec. rapidly at 20° esp. in moist air or CO_2 .

▷ Explodes when heated. NC2975000.

B,HCl: [5470-11-1]. *Hydroxylamine hydrochloride.*

Hydroxylammonium chloride

$$\text{ClH}_4\text{NO} \quad \text{M } 69.490$$

Commercially available. Powerful reducing agent, catalyst and copolym. inhibitor. Mp 159° dec.

▷ Toxic, corrosive; explodes on heating. NC3675000.

B,H₂SO₄ (2:1): [10039-54-0]. *Hydroxylamine sulfate.*

Hydroxylammonium sulfate

$$\text{H}_8\text{N}_2\text{O}_6\text{S} \quad \text{M } 164.139$$

Powerful reducing agent. Commercially available. Sol. H_2O . Mp $\sim 170^\circ$.

▷ Toxic, corrosive. NC5425000.

Inorg. Synth., 1939, **1**, 87 (*synth*)

Charlot, G., *Les Méthodes de la Chimie Analytique (V)*, V. Ed., Masson, Paris, 1966.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 478, 481; 1969, **2**, 217; 1979, **7**, 176; 1981, **9**, 245 (*uses*)

Mellor Compr. Treat. Inorg. Theor. Chem., Part 2, 1967, **8/II**, 115 (*rev*)

Tsunehawa, S., *J. Phys. Soc. Jpn.*, 1972, **33**, 167 (*struct*)

Lukachina, V.V. *et al.* *Fresenius' Z. Anal. Chem.*, 1973, **28**, 86 (*detn.*, V)

Maltseva, L.S. *et al.* *Zh. Anal. Khim.*, 1974, **29**, 2053 (*detn.*, V)

Brauer, G., *Handbuch Präp. Anorg. Chem.*, 3rd Ed., Ferdinand

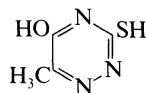
Enke Verlag, 1975-1981, **1**, 464, 465, 466, 467 (*synth.*, *adducts*)

Stedman, G., *Adv. Inorg. Chem. Radiochem.*, 1979, **22**, 114 (*rev*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HLM500, HLN000, OLS000.

5-Hydroxy-3-mercapto-6-methyl-1,2,4-triazine**H-00258**

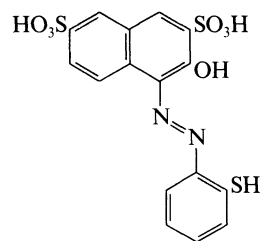
3-Mercapto-6-methyl-1,2,4-triazin-5-ol, 8CI
 [7338-83-2]



$$\text{C}_4\text{H}_5\text{N}_3\text{OS} \quad \text{M } 143.169$$

Used as 0.2% soln. in 1% NaOH for photometric detn. of Os.

Baiulescu, G., *Anal. Chim. Acta*, 1961, **24**, 463 (*detn.*, Os)

3-Hydroxy-4-(2-mercapto-phenylazo)-2,7-naphthalenedisulfonic acid**H-00259**

$$\text{C}_{16}\text{H}_{12}\text{N}_2\text{O}_7\text{S}_3 \quad \text{M } 440.478$$

S-Me: [85261-30-9]. *3-Hydroxy-4-[[2-(methylthio)phenyl]azo]-2,7-naphthalenedisulfonic acid*, 9CI

$$\text{C}_{17}\text{H}_{14}\text{N}_2\text{O}_7\text{S}_3 \quad \text{M } 454.505$$

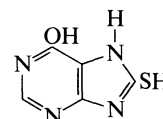
Used as aq. soln. for photometric detn. of Cu(II) (λ_{max} 513 nm, ϵ 20000) (as Na salt). Deep purple solid (Na salt). Sol. H_2O , EtOH.

Pringle, D.L. *et al.* *Talanta*, 1982, **29**, 1097 (*synth.*, *detn.*, Cu)

6-Hydroxy-8-mercapto-2,9-dihydro-8-thioxo-6H-purin-6-one**H-00260**

1,7,8,9-Tetrahydro-8-thioxo-6H-purin-6-one, 9CI. *8-Thiohypoxanthine*

[6305-94-8]



$$\text{C}_5\text{H}_4\text{N}_4\text{OS} \quad \text{M } 168.179$$

Used for photometric detn. of Pd (λ_{max} 343 nm, pH 1.35-1.5). Solid + $\frac{1}{2}\text{H}_2\text{O}$.

S-Me: [59008-28-5]. *1,7-Dihydro-8-methylthio-6H-purin-6-one*, 9CI. *6-Hydroxy-8-methylthio-7H-purine*

$$\text{C}_6\text{H}_6\text{N}_4\text{OS} \quad \text{M } 182.206$$

Cryst. (AcOH).

S-Me, Na salt: [59008-15-0].

Used as a 0.8% soln. in DMF for pptn. detn. of many metals. Cryst.

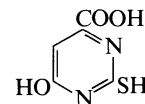
Robins, R.K., *J. Am. Chem. Soc.*, 1958, **80**, 6671 (*synth*)

Rauret, G. *et al.* *Quim. Anal. (Madrid)*, 1975, **29**, 216, 345 (*use*)

6-Hydroxy-2-mercapto-4-pyrimidinecarboxylic acid**H-00261**

1,2,3,6-Tetrahydro-6-oxo-2-thioxo-4-pyrimidinecarboxylic acid, 9CI. *2-Thioorotic acid*, 8CI

[6953-78-2]



$$\text{C}_5\text{H}_4\text{N}_2\text{O}_3\text{S} \quad \text{M } 172.164$$

Oxo- and thioxo tautomers possible. Used as aq. soln. of NH_4 salt for gravimetric detn. of Hg(II) . Yellow cryst. Insol. H_2O , EtOH, Et₂O. Mp $338-339^\circ$ dec.

S-Et: [6308-28-7]. *2-(Ethylthio)-6-hydroxy-4-pyrimidinecarboxylic acid*, 8CI

$$\text{C}_7\text{H}_8\text{N}_2\text{O}_3\text{S} \quad \text{M } 200.218$$

Used as a 0.2% soln. in 4M NaOH for detn. of Mn(VII). Cryst. (H₂O). Mp 248°.

S-Benzyl: [6308-26-5]. 2-(Benzylthio)-6-hydroxy-4-pyridimidinecarboxylic acid, 8CI

C₁₂H₁₀N₂O₃S M 262.289

Used as a 0.2% soln. in 4M NaOH for detn. of Mn(VII). Cryst. (H₂O). Mp 265°.

S-Me, 6-Me ether: [15584-03-9]. 6-Methoxy-2-methylthio-4-pyrimidinecarboxylic acid

C₇H₈N₂O₃S M 200.218

Used as a 0.2% soln. in aq. NaOH to give colour reaction with Mn(VII). Cryst.

Johnson, T.B. *et al*, *J. Am. Chem. Soc.*, 1932, **54**, 2941 (*synth*)

Chung, O.K. *et al*, *Anal. Chem.*, 1967, **39**, 383, 525 (*detn. Mn*)

Shrivastava, M. *et al*, *J. Indian Chem. Soc.*, 1986, **63**, 783 (*detn. Hg*)

Jovanovic, M.V. *et al*, *J. Heterocycl. Chem.*, 1987, **24**, 191 (*cmr, tautomerism*)

Hydroxymethanesulfinic acid

H-00262



CH₄O₃S M 96.107

Na salt: [149-44-0]. *Rongalite*

Used as reducing agent for Ti(IV). Cryst.

Riazanceva, I.M. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1974, **17**, 1256.

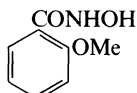
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FMW000.

N-Hydroxy-2-methoxybenzamide, 9CI

H-00263

2-Methoxybenzohydroxamic acid

[31791-97-6]



C₈H₉NO₃ M 167.164

Cryst. (Me₂CO/Et₂O). Mp 129-131°.

N-Ph: [34661-16-0]. N-Hydroxy-2-methoxy-N-phenylbenzamide, 9CI

C₁₄H₁₃NO₃ M 243.262

Used for extraction-photometric detn. of V(V) (λ_{max} 530 nm, ε 4200). Cryst. Sol. CHCl₃, C₆H₆.

N-(2-Methylphenyl): [34661-14-8]. N-Hydroxy-2-methoxy-N-(2-methylphenyl)benzamide, 9CI

C₁₅H₁₅NO₃ M 257.288

Used for extraction-photometric detn. of V(V) (λ_{max} 520 nm, ε 5000). Cryst. Sol. CHCl₃, C₆H₆.

N-(3-Methylphenyl): [34661-25-1]. N-Hydroxy-2-methoxy-N-(3-methylphenyl)benzamide, 9CI

Used for photometric detn. of V(V) (λ_{max} 520 nm, ε 4900).

N-(4-Methylphenyl): [42772-57-6]. N-Hydroxy-2-methoxy-N-(4-methylphenyl)benzamide, 9CI

Used as a 0.05M soln. in CHCl₃ for extraction-photometric detn. of U (λ_{max} 360 nm, ε 2140, CHCl₃). Cryst. (C₆H₆/ pet. ether). Sol. common org. solvs. Mp 128°.

Stolberg, M.A. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 2615 (*synth*)

Tondon, U. *et al*, *J. Indian Chem. Soc.*, 1969, **46**, 983 (*synth, deriv*)

Gupta, V.K. *et al*, *J. Indian Chem. Soc.*, 1971, **48**, 743 (*derivs, synth*)

Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (*derivs, use*)

Murti, M.V. *et al*, *Chem. Anal. (Warsaw)*, 1975, **20**, 741 (*detn. U*)

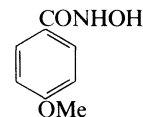
Abbasi, S.A. *et al*, *Fresenius' Z. Anal. Chem.*, 1976, **280**, 222 (*detn. U*)

N-Hydroxy-4-methoxybenzamide, 9CI

H-00264

p-Methoxybenzohydroxamic acid

[10507-69-4]



C₈H₉NO₃ M 167.164

Used as a 2% aq. soln. for extraction-photometric detn. of V(V) (λ_{max} 450 nm, ε 4030, hexanol). Cryst. Sol. H₂O.

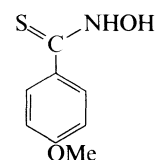
Minczewski, J. *et al*, *Chem. Anal. (Warsaw)*, 1961, **6**, 377 (*detn. V*)

N-Hydroxy-4-methoxybenzenecarbothioamide, 9CI

H-00265

p-Methoxybenzothiohydroxamic acid

[17650-20-3]



C₈H₉NO₂S M 183.231

Used as 1% alkaline aq. soln. for extraction-photometric detn. of V (λ_{max} 372 nm, ε 20000, CHCl₃), Mo, Ti, Sn, Bi, Fe, Mn (λ_{max} 430 nm, butanol; λ_{max} 450 nm, ε 10600, CHCl₃), Nb (λ_{max} 430 nm, CHCl₃). Cryst. Sol. alkalis, H₂O.

Minczewski, J. *et al*, *Chem. Anal. (Warsaw)*, 1964, **9**, 397 (*detn. Mn, Nb*)

Skorko-Trybula, Z., *Chem. Anal. (Warsaw)*, 1965, **10**, 831; 1967, **12**, 815; 1971, **16**, 99 (*detn. V, Mo, Ti, Sn, Bi, Fe*)

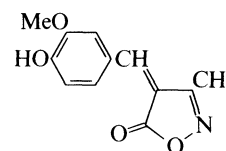
Skorko-Trybula, Z.A., *CA*, 1975, **83**, 71070x (*detn. Bi, Co, Fe, Mn, Mo, Nb, Sn, Ti, V*)

4-(4-Hydroxy-3-methoxybenzylidene)-3-methyl-5(4H)-isoxazolone

H-00266

3-Methyl-4-vanillylidene-2-isoxazolin-5-one, 8CI

[31867-76-2]



C₁₂H₁₁NO₄ M 233.223

Used as a 0.5% soln. in 0.2% NaOH for photometric detn. of Au. Cryst. (EtOH/MeOH). Mp 230-231°.

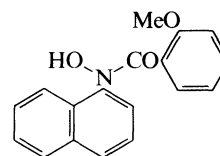
Hashmi, M.H. *et al*, *Mikrochim. Acta*, 1970, 1214 (*synth, detn. Au*)

N-Hydroxy-2-methoxy-N-1-naphthalenylbenzamide, 9CI

H-00267

N-1-Naphthyl-o-methoxybenzohydroxamic acid

[36237-44-2]



C₁₈H₁₅NO₃ M 293.321

Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{\max} 525 nm, ϵ 4400, 4M HCl). Cryst. Sol. CHCl₃, C₆H₆.

Gupta, V.K. *et al*, *J. Chem. Eng. Data*, 1972, **17**, 248 (*synth*)
Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn.*, V)

N-Hydroxy-4-methoxy-N-1-naphthalenylbenzamide, 9CI **H-00268**

N-1-Naphthyl-*p*-methoxybenzohydroxamic acid
[36237-43-1]

C₁₈H₁₅NO₃ M 293.321

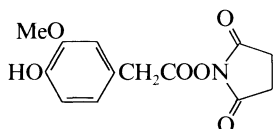
Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{\max} 520 nm, ϵ 5400, 4M HCl). Cryst. Sol. CHCl₃, C₆H₆.

Gupta, V.K. *et al*, *J. Chem. Eng. Data*, 1972, **17**, 248 (*synth*)
Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn.*, V)

1-[(4-Hydroxy-3-methoxyphenyl)acetyl]oxy]-2,5-pyrrolidinedione, 9CI **H-00269**

Succinimide homovanillate

[72072-13-0]



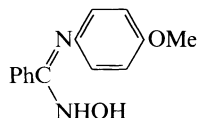
C₁₃H₁₃NO₆ M 279.249

Derivatisation reagent for amines for electrochem. detn. in liq. chromatog. Needles (EtOAc). Mp 141-142°.

Shimada, K. *et al*, *Chem. Pharm. Bull.*, 1979, **27**, 2259 (*synth.*, *pmr.*, *use*)

N-Hydroxy-N'-(4-methoxyphenyl)benzenecarboximidamide **H-00270**

[52395-23-0]



C₁₄H₁₄N₂O₂ M 242.277

Cryst. (C₆H₆/pet. ether). Mp 160-162°.

N-Ph: [59387-14-3]. *N*-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-phenylbenzenecarboximidamide, 9CI

C₂₀H₁₈N₂O₂ M 318.374

Used as a 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{\max} 580 nm, ϵ 3950, CHCl₃). Cryst. Sol. CHCl₃; mod. sol. C₆H₆, CCl₄, EtOAc. Mp 170°.

N-(4-Methylphenyl): [69038-92-2]. *N*-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-(4-methylphenyl)benzenecarboximidamide, 9CI

C₂₁H₂₀N₂O₂ M 332.401

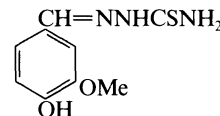
Used as a 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{\max} 586 nm, ϵ 4460, CHCl₃). Cryst. Sol. CHCl₃; mod. sol. C₆H₆, CCl₄, EtOAc.

Dondoni, A. *et al*, *J. Org. Chem.*, 1977, **42**, 3372.

Satyanarayana, K. *et al*, *J. Indian Chem. Soc.*, 1978, **55**, 787 (*synth.*, *use*, *derivs*)

2-[(4-Hydroxy-3-methoxyphenyl)methylene]hydrazinecarbothioamide, 9CI **H-00271**

2-(4-Hydroxy-3-methoxyphenyl)methylenethiosemicarbazone
[5351-92-8]



C₉H₁₁N₃O₂S M 225.271

Used as 0.3% soln. in EtOH for photometric detn. of Co (λ_{\max} 402 nm, ϵ 13700), Pd (λ_{\max} 410 nm, ϵ 12300), Cu, Hg. Cryst. (EtOH). Sol. EtOH, DMF.

▷ VT3450000.

Gowda, H.S. *et al*, *Curr. Sci.*, 1983, **52**, 636 (*detn.*, Co)

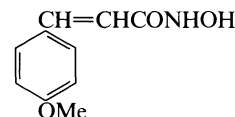
Thimmaiah, K.N. *et al*, *Indian J. Chem., Sect. A*, 1984, **23**, 248 (*detn.*, Hg)

Thimmaiah, K.N. *et al*, *Rev. Roum. Chim.*, 1986, **31**, 719 (*detn.*, Pd, Cu)

N-Hydroxy-3-(4-methoxyphenyl)-2-propenamide, 9CI **H-00272**

4-Methoxycinnamohydroxamic acid

[25357-01-1]



C₁₀H₁₁NO₃ M 193.202

Plates (MeOH). Mp 143.5-144°.

N-(3-Methylphenyl): [29265-64-3].

C₁₇H₁₇NO₃ M 283.326

Used as 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{\max} 570 nm, ϵ 7500, 4M HCl). Cryst. Sol. CHCl₃.

N-(4-Methylphenyl): [29265-65-4].

C₁₇H₁₇NO₃ M 283.326

Used as 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{\max} 570 nm, ϵ 7500, 4M HCl). Cryst. Sol. CHCl₃.

[29900-74-1]

Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 278 (*synth.*, *deriv*)

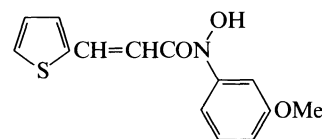
Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (*detn.*, V)

Tanaka, K. *et al*, *Chem. Pharm. Bull.*, 1983, **31**, 2810 (*synth*)

N-Hydroxy-N-(3-methoxyphenyl)-3-(2-thienyl)-2-propenamide, 9CI **H-00273**

N-*m*-Methoxyphenyl-2-thenylacrylohydroxamic acid

[119581-97-4]



C₁₄H₁₃NO₃S M 275.328

Used as 0.1M soln. in CHCl₃, for extraction-photometric detn. of V(V) (λ_{\max} 545 nm, ϵ 8100, 3.5-7.5M HCl).

Cryst. (C₆H₆). Sol. CHCl₃, C₆H₆.

Abbasi, S.A. *et al*, *Analyst (London)*, 1988, **113**, 1561 (*synth.*, *detn.*, V)

N-Hydroxy-N-(4-methoxyphenyl)-3-(2-thienyl)-2-propenamide, 9CI **H-00274**

N-p-Methoxyphenyl-2-thienylacrylohydroxamic acid
[119581-96-3]

$C_{14}H_{13}NO_3S$ M 275.328

Used as 0.1M soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 545 nm, ϵ 8800, 3.5-7.5M HCl).

Cryst. (C_6H_6). Sol. $CHCl_3$, C_6H_6 .

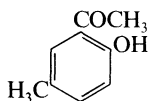
Abbasi, S.A. *et al*, *Anal. Lett.*, 1987, **20**, 1347 (detn. V)

Abbasi, S.A. *et al*, *Analyst (London)*, 1988, **113**, 1561 (synth, detn. V)

2'-Hydroxy-5'-methylacetophenone **H-00275**

1-(2-Hydroxy-5-methylphenyl)ethanone, 9CI. 2-Acetyl-p-cresol. Methyl 6-hydroxy-m-tolyl ketone

[1450-72-2]



$C_9H_{10}O_2$ M 150.177

Flavouring for coffee and tobacco. Prisms (pet. ether or MeOH aq.). Mp 50°. Bp₂₀ 120-125°.

Oxime: [3973-90-8].

$C_9H_{11}NO_2$ M 165.191

Needles (EtOH). Mp 145°.

Me ether: [20628-07-3].

$C_{10}H_{12}O_2$ M 164.204

Bp 254°, Bp₁₁ 132°.

Semicarbazone: [51040-40-5].

$C_{10}H_{13}N_3O_2$ M 207.232

Used as a 0.5% soln. in EtOH as a metallochromic indicator for titrimetric detn. of Fe(II). Needles (EtOH). Mp 212°.

Thiosemicarbazone: [51089-88-4].

$C_{10}H_{13}N_3OS$ M 223.298

Used for photometric detn. of Fe(III) (λ_{max} 645 nm). Yellow cryst. (AcOH).

2,4-Dinitrophenylhydrazone: [22020-96-8].

Mp 273-273.5°.

Rosenmund, K.W. *et al*, *Justus Liebigs Ann. Chem.*, 1928, **460**, 56.

Yoshino, T. *et al*, *CA*, 1963, **59**, 7416 (synth)

Bonsall, C. *et al*, *J. Chem. Soc.*, 1967, 1836 (ir, uv, nmr)

Patel, M.C. *et al*, *J. Indian Chem. Soc.*, 1973, **50**, 560

(thiosemicarbazone, use)

Epshtein, L.M. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1974, 1710.

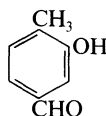
Basinski, W. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1974, **48**, 2217 (synth)

Manku, G.S., *Curr. Sci.*, 1976, **45**, 294 (semicarbazone, use)

2-Hydroxy-4-methylbenzaldehyde **H-00276**

2-Hydroxy-p-tolualdehyde. m-Cresol-6-aldehyde. 4-Methylsalicylaldehyde. 2,4-Cresotaldehyde. 2-Formyl-5-methylphenol

[698-27-1]



$C_8H_8O_2$ M 136.150

Needles (H_2O or EtOH). Mp 60-61°. Bp₇₂₆ 219-221°. Steam-volatile.

Oxime: 4-Methylsalicylaldoxime

$C_8H_9NO_2$ M 151.165

Used as 1% aq. soln. for gravimetric detn. of Cu(II). Plates (EtOH aq.). Sol. EtOH, Et_2O , $CHCl_3$, hot H_2O . Mp 108.5-109°.

Semicarbazone: [54825-10-4]. 2-[(2-Hydroxy-4-methylphenyl)methylene]hydrazinecarboxamide, 9CI

$C_9H_{11}N_3O_2$ M 193.205

Used as 0.1% DMF soln. for fluorimetric detn. of Ga (λ_{max} 440 nm, pH 3.2), Sc (λ_{max} 450 nm, pH 6.3). Cryst. (EtOH). Sol. EtOH, DMF. Mp 268°.

2,4-Dinitrophenylhydrazone: [973-82-0].

Mp 266-267°.

Me ether: [57415-35-7]. 2-Methoxy-4-methylbenzaldehyde

$C_9H_{10}O_2$ M 150.177

Needles. Mp 42-43°. Bp₇₂₀ 263-264°. Steam-volatile.

Anselmino, O., *Ber.*, 1917, **50**, 395.

Duff, J.C., *J. Chem. Soc.*, 1941, 547.

Welcher, F.J., *Organic Analytical Reagents*, Vol. 3, Van Nostrand, New York, 1947 (synth, use)

Gross, H. *et al*, *Chem. Ber.*, 1963, **96**, 308.

Casnati, G. *et al*, *Tetrahedron Lett.*, 1965, 243 (synth)

Morishige, K., *Anal. Chim. Acta*, 1974, **73**, 245 (synth, detn. Sc)

Bruce, J.M. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1974, **2**, 288 (synth)

Deguchi, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1985, **34**, 640; *CA*, **104**, 61168y (synth, detn. Ga)

Hauser, F.M. *et al*, *Synthesis*, 1987, 723 (deriv, synth, ir, pmr, ms)

2-Hydroxy-5-methylbenzaldehyde, 9CI **H-00277**

6-Hydroxy-m-tolualdehyde. p-Cresol-2-aldehyde. 5-Methylsalicylaldehyde. 2,5-Cresotaldehyde. 2-Formyl-4-methylphenol

[613-84-3]

$C_8H_8O_2$ M 136.150

Plates (EtOH aq.). Mp 56°. Bp 217-218°.

Oxime: [1726-86-9].

$C_8H_9NO_2$ M 151.165

Needles (H_2O). Mp 105°.

2,4-Dinitrophenylhydrazone: Mp 261-264°.

Semicarbazone: [54825-11-5].

$C_9H_{11}N_3O_2$ M 193.205

Used as 0.1% DMF soln. for fluorimetric detn. of Sc (λ_{max} 470 nm, pH 6.2). Needles (AcOH). Sol. DMF, EtOH. Mp 238° dec.

Thiosemicarbazone: [53851-95-9].

$C_9H_{11}N_3OS$ M 209.271

Used as 0.1% DMF soln. for fluorimetric detn. of Ga (λ_{max} 465 nm, pH 4.5). Cryst. (EtOH). Sol. DMF, EtOH.

Me ether: 2-Methoxy-5-methylbenzaldehyde. 4-Methyl-m-anisaldehyde

$C_9H_{10}O_2$ M 150.177

Bp 250°, Bp₁₂ 130.2°.

Adams, R., *J. Am. Chem. Soc.*, 1919, **41**, 247.

Bell, F., *J. Chem. Soc.*, 1928, 2215.

Liggett, L.M. *et al*, *CA*, 1947, **41**, 110.

Eliseeva, V.N. *et al*, *CA*, 1962, **57**, 11080 (synth)

Morishige, K., *Anal. Chim. Acta*, 1974, **72**, 295; 1974, **73**, 245 (synth, detn. Ga, Sc)

Christensen, H., *Synth. Commun.*, 1975, **5**, 65 (synth)

2-Hydroxy-3-methylbenzoic acid, 9CI **H-00278**

2-Hydroxy-m-toluic acid. o-Cresotic acid. o-Cresol-6-carboxylic acid. 3-Methylsalicylic acid. o-Cresotinic acid. Hydroxytoluic acid, BAN, INN. 2,3-Cresotic acid

[83-40-9]



$C_8H_8O_3$ M 152.149

Used as 0.1% aq. soln. as a metal indicator (pH range 2 → 4.2; colour change blue-violet → colourless (yellow)) for Fe(III), Th, Zr. Analgesic, antiseptic. Needles (H_2O or EtOH aq.). Sol. H_2O . Mp 169-170°. pK_{a1} 2.95; pK_{a2} 14.6 (25°).

▷ GP3920000.

Me ester: [23287-26-5].

$C_9H_{10}O_3$ M 166.176

Cryst. Mp 28-30°. Bp 235°, Bp₁₃ 110°.

Ac: [4386-39-4].

$C_{10}H_{10}O_4$ M 194.187

Needles (C_6H_6). Mp 113°.

Amide: [14008-60-7]. 2-Hydroxy-3-methylbenzamide. 2,3-Cresotamide, 8CI. Cresotamide, INN

$C_8H_9NO_2$ M 151.165

Analgesic, antipyretic, antiinflammatory agent. Needles (EtOH aq.). Mp 112°.

Me ether: [26507-91-5]. 2-Methoxy-3-methylbenzoic acid

$C_9H_{10}O_3$ M 166.176

Needles (H_2O). Mp 85°. pK_{a1} 3.84 (20°, 1% EtOH).

Chloride: [15198-07-9].

$C_8H_7ClO_2$ M 170.595

Mp 27-28°. Bp₁₆ 87-89°.

Nitrile: [13589-71-4]. 2-Cyano-6-methylphenol

C_8H_7NO M 133.149

Plates (EtOH). Mp 88.5°.

Rather, J.B. *et al*, *J. Am. Chem. Soc.*, 1919, **41**, 75 (*synth*)

King, C. *et al*, *J. Am. Chem. Soc.*, 1945, **67**, 2089 (*synth*)

Pande, C.S. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, **175**, 29 (*use*)

Fr. Pat., M19, (1961); *CA*, **58**, 1411d (*synth, pharmacol, amide*)

Gupta, M.P. *et al*, *Acta Crystallogr., Sect. B*, 1971, **27**, 713 (*cryst struct*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 372 (*use*)

Yamazaki, M. *et al*, *CA*, 1974, **80**, 47030b (*cmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CNX625.

2-Hydroxy-5-methylbenzoic acid H-00279

6-Hydroxy-m-toluic acid. 2,5-Cresotic acid. p-Cresol-2-carboxylic acid. 5-Methylsalicylic acid. p-Cresotic acid [89-56-5]

$C_8H_8O_3$ M 152.149

Used as 0.1% aq. soln. as a metal indicator (pH range 1.4-4.4; colour change blue-violet → colourless yellow) for Fe(III), Th, Zr. Needles (H_2O or pet. ether). Sol. H_2O . Mp 153°. pK_{a1} 3.15; pK_{a2} 13.35 (25°, 0.1M KCl).

Me ester: [22717-57-3].

$C_9H_{10}O_3$ M 166.176

$d^{15.8}$ 1.153. Mp -1°. Bp₁₄ 122-124°.

Et ester: [34265-58-2].

$C_{10}H_{12}O_3$ M 180.203

Oil. Mp 251°.

Me ether: [25045-36-7]. 2-Methoxy-5-methylbenzoic acid

$C_9H_{10}O_3$ M 166.176

Needles (H_2O). Mp 69°. pK_{a1} 4.20 (20°).

Amide: [39506-61-1].

$C_8H_9NO_2$ M 151.165

Needles (EtOH). Mp 177-178°.

Nitrile: [51282-90-7]. 2-Cyano-4-methylphenol

C_8H_7NO M 133.149

Mp 100-101°.

Asahina, Y. *et al*, *Yakugaku Zasshi*, 1934, **54**, 488.

King, C. *et al*, *J. Am. Chem. Soc.*, 1947, **67**, 2089 (*synth*)

Pande, C.S. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, **175**, 29 (*use*)

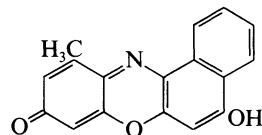
McCulloch, A.N. *et al*, *Can. J. Chem.*, 1971, **49**, 3152 (*ir, ester*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 373 (*use*)

Yamazaki, M. *et al*, *CA*, 1974, **80**, 47030b.

5-Hydroxy-11-methyl-9H-benzo[a]phenoxazin-9-one, 8CI H-00280

[17799-75-6]



$C_{17}H_{11}NO_3$ M 277.279

Used as a 0.1mM soln. in EtOH aq. as acid-base indicator; redox indicator for titanometric detn. of Fe(III), Au(III), Ce(IV), $Cr_2O_7^{2-}$, VO_4^{3-} and some org. compds. Red-brown cryst. Sol. C_6H_6 , Et_2O ; sl. sol. EtOH. Mp > 360°. pK_{a2} 7.5 (50% EtOH, $\mu = 0.07$). $E^\circ + 0.295$ V (1 N HCl, 50% EtOH, $\mu = 0.07$).

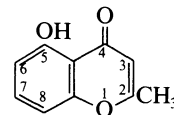
Ruzicka, E. *et al*, *Mikrochim. Acta*, 1968, 1299; 1969, 698 (*use*)

Ruzicka, E. *et al*, *Monatsh. Chem.*, 1968, **99**, 838 (*synth*)

5-Hydroxy-2-methyl-4H-1-benzopyran-4-one, 9CI H-00281

5-Hydroxy-2-methylchromone

[1130-62-7]



$C_{10}H_8O_3$ M 176.171

Produced by *Daldinia concentrica*. Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 511 nm, 40% MeOH, CCl_4). Yellow needles. Sol. MeOH. Mp 72-76°, Mp 90-91°.

Me ether: [22105-23-3]. 5-Methoxy-2-methyl-4H-1-benzopyran-4-one. 5-Methoxy-2-methylchromone

$C_{11}H_{10}O_3$ M 190.198

Cryst. Mp 105°.

2,3-Dihydro: 2,3-Dihydro-5-hydroxy-2-methyl-4H-1-benzopyran-4-one. 5-Hydroxy-2-methylchromanone

$C_{10}H_{10}O_3$ M 178.187

Isol. from *D. concentrica*. Pale yellow needles (hexane). Mp 30-35°.

Allport, D.C. *et al*, *J. Chem. Soc.*, 1960, 654 (*isol, uv*)

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 1284 (*synth*)

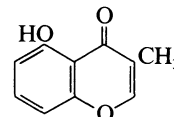
Murray, R.D.H. *et al*, *Tetrahedron*, 1969, **25**, 5819 (*synth, ir*)

Ito, T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 343 (*detn, Ti*)

5-Hydroxy-3-methyl-4H-1-benzopyran-4-one, 9CI H-00282

3-Methyl-5-hydroxychromone

[22598-99-8]



$C_{10}H_8O_3$ M 176.171

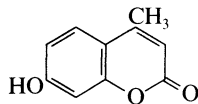
Used as 0.02M MeOH soln. for extraction-fluorimetric detn. of Ti (λ_{max} 530 nm, 40% MeOH, CCl_4). Yellow cryst. Sol. MeOH.

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1968, **17**, 1284 (*synth*)

Ito, T. *et al*, *Anal. Chim. Acta*, 1980, **113**, 343 (*detn, Ti*)

7-Hydroxy-4-methyl-2H-1-benzopyran-2-one, 9CI **H-00283**

7-Hydroxy-4-methylcoumarin. 4-Methylumbelliferone. Coumarin 4. **Hymecromone**, INN, JAN, USAN. Cantabiline. BMU. Pilot 447. Hymechromone. Other proprietary names [90-33-5]



$C_{10}H_8O_3$ M 176.171

Isol. from young branches of *Dalbergia volubilis* and from *Eupatorium pauciflorum*. Used in tunable lasers. Choleric, spasmolytic and sunscreen agent. Used as a 1% soln. in aq. EtOH for detn. of Al; fluorescence acid-base indicator (pH > 7.0, blue fluorescence). Needles (EtOH). Mp 194-195°. pK_a 7.80 (25°). Phototautomerises.

▷ GN7000000.

Ac: [2747-05-9].

$C_{12}H_{10}O_4$ M 218.209

Isol. from *Trigonella foenumgraecum*. Cryst. Mp 153-154° (150-151°).

Benzoyl: [66185-72-6].

$C_{17}H_{12}O_4$ M 280.279

Needles (EtOH). Mp 159-160°.

Dihydrogen phosphate: [3368-04-5].

$C_{10}H_9O_6P$ M 256.151

Substrate for phosphatase. Cryst. (Et₂O). Mp 214-216°.

Me ether: [2555-28-4]. 7-Methoxy-4-methyl-2H-1-benzopyran-4-one. 7-Methoxy-4-methylcoumarin

$C_{11}H_{10}O_3$ M 190.198

Needles (EtOH). Mp 159°.

[5980-33-6, 103764-33-6]

v. Pechmann, H. *et al*, *Ber.*, 1883, **16**, 2122 (*synth*)

Org. Synth., *Coll. Vol.*, 3, 1955, 282 (*synth*)

Fernley, H.N. *et al*, *Biochem. J.*, 1965, **97**, 95; 1966, **99**, 39; 1967, **102**, 48 (*synth*, *phosphate*)

Aguila, J.F., *Talanta*, 1967, **14**, 1195 (*synth*, *detn*, *Al*)

Kappe, T. *et al*, *Org. Prep. Proced.*, 1969, **1**, 61 (*synth*)

White, I.N.H. *et al*, *Biochim. Biophys. Acta*, 1971, **229**, 193 (*use*, *phosphate*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 695 (*use*, *indicator*)

Trozzolo, A.M. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 4699 (*tautom*)
Shimizu, S. *et al*, *Acta Crystallogr.*, *Sect. B*, 1975, **31**, 1287 (*cryst struct*)

Sojka, S.A., *J. Org. Chem.*, 1975, **40**, 1175 (*cmr*)

Bhardwaj, D.K. *et al*, *Indian J. Chem.*, *Sect. B*, 1977, **15**, 94 (*isol*, *acetate*)

Chawla, H.M. *et al*, *Indian J. Chem.*, *Sect. B*, 1977, **15**, 492 (*isol*)
Krejcovcs, J. *et al*, *Collect. Czech. Chem. Commun.*, 1979, **44**, 2211 (*synth*)

Kauffman, J.M., *Appl. Opt.*, 1980, **19**, 3431 (*use*)

Sankar, S.S. *et al*, *Org. Magn. Reson.*, 1982, **19**, 222 (*cmr*)

Taylor, R.T. *et al*, *Synthesis*, 1982, 672 (*synth*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 3725.

Chaudhari, D.D., *Chem. Ind. (London)*, 1983, **24**, 568 (*synth*)

Sinha, P.K. *et al*, *Histochem. J.*, 1984, **16**, 334 (*use*, *phosphate*)

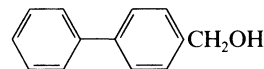
Anthony, F.A. *et al*, *Anal. Biochem.*, 1986, **155**, 103 (*use*, *phosphate*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1420.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HMB000, MKP500.

4-(Hydroxymethyl)biphenyl **H-00284**

[1,1'-Biphenyl]-4-methanol, 9CI
[3597-91-9]



$C_{13}H_{12}O$ M 184.237

Indicator used in the titration of alkyl-lithiums (colourless to red end-point). Cryst. (C₆H₆). Mp 101-102°.

▷ DV5425000.

O-Ac: [62037-98-3].

$C_{15}H_{14}O_2$ M 226.274

Cryst. (Et₂O/pentane). Mp 32-33°.

4-Methylbenzenesulfonyl: Mp 114-115°.

Hammond, G.S. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 573 (*synth*)

Birkeland, S.P., *J. Org. Chem.*, 1961, **26**, 2662 (*synth*)

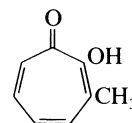
Bly, R.S. *et al*, *J. Organomet. Chem.*, 1976, **117**, 35 (*derivs*, *ir*, *pmr*)

Juaristi, E. *et al*, *J. Org. Chem.*, 1983, **48**, 2603 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HLY400.

2-Hydroxy-3-methyl-2,4,6-cycloheptatrien-1-one **H-00285**

β -Methyltropolone



$C_8H_8O_2$ M 136.150

Used as chelating agent for Be, Ca, Co, Mg, Pb, Zn.

Cryst. (ligroin). Mp 76-77°, Mp 69-70°. pK_{a1} 8.69 (50% dioxan, 30°).

Bryant, B.E. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 1696 (*synth*)

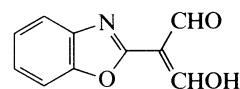
Gupta, B.P. *et al*, *Indian J. Chem.*, 1967, **5**, 322 (*use*)

 α -(Hydroxymethylene)-2-

benzoxazoleacetaldehyde, 9CI **H-00286**

2-(2-Benzoxazolyl)malonaldehyde

[39116-24-0]



$C_{10}H_7NO_3$ M 189.170

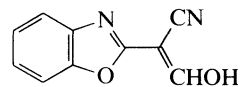
Used as 0.01M soln. in 4-methyl-2-pentanone for extraction separation of Cd, Co, Fe(II), Mn, Zn, Ni. Cryst. (dioxan). Sol. dioxan, 4-methyl-2-pentanone, xylene.

Karadjova, I. *et al*, *Analyst (London)*, 1990, **115**, 1539 (*synth*, *use*)

 α -(Hydroxymethylene)-2-

benzoxazoleacetonitrile, 9CI **H-00287**

[39116-38-6]



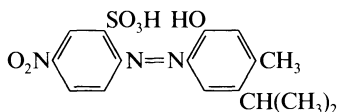
$C_{10}H_6N_2O_2$ M 186.170

Used as 0.01M soln. in 4-methyl-2-pentanone for extraction separation of Co, Fe(II), Ni. Cryst. (dioxan). Sol. dioxan, 4-methyl-2-pentanone, xylene.

Karadjova, I. *et al*, *Analyst (London)*, 1990, **115**, 1539 (*synth*, *use*)

2-[[2-Hydroxy-4-methyl-5-(1-methylethyl) phenyl]azo]-5-nitrobenzenesulfonic acid, 9CI **H-00288**

2'-Hydroxy-5'-isopropyl-4'-methyl-4-nitroazobenzene-2-sulfonic acid



$C_{16}H_{17}N_3O_6S$ M 379.393

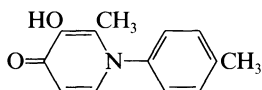
K salt: [41364-44-7].

Used as a 4mM soln. in DMF for photometric detn. of Na (λ_{max} 550 nm). Orange cryst. (EtOH). Sol. DMF; spar. sol. H_2O .

Markovich, I.S., *Zh. Anal. Khim.*, 1973, **28**, 227 (*detn.*, Na)

3-Hydroxy-2-methyl-1-(4-methylphenyl)-4(1H)-pyridinone, 9CI **H-00289**

3-Hydroxy-2-methyl-1-(4-tolyl)-4-pyridone [49744-74-3]



$C_{13}H_{13}NO_2$ M 215.251

Used as 5mM soln. in $CHCl_3$ for extraction-photometric detn. of Ti (λ_{max} 355 nm, ϵ 16000, $CHCl_3$). Cryst. Sol. Me_2CO , EtOH, $CHCl_3$.

Tamhina, B. *et al.*, *J. Inorg. Nucl. Chem.*, 1974, **36**, 1855 (*synth*)

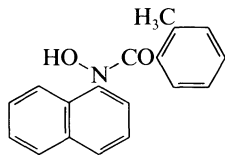
Vojković, V. *et al.*, *Fresenius' Z. Anal. Chem.*, 1977, **285**, 266 (*detn.*, Ti)

Jahopčić, K. *et al.*, *J. Inorg. Nucl. Chem.*, 1977, **39**, 1201 (*synth*)

Tamhina, B. *et al.*, *Mikrochim. Acta*, 1986, **1**, 135 (*detn.*, Ti)

N-Hydroxy-2-methyl-N-1-naphthalenylbenzamide, 9CI **H-00290**

N-1-Naphthyl-o-methylbenzohydroxamic acid [36237-40-8]



$C_{18}H_{15}NO_2$ M 277.322

Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 515 nm, ϵ 4300, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

Gupta, V.K. *et al.*, *J. Chem. Eng. Data*, 1972, **17**, 248 (*synth*)

Gupta, V.K. *et al.*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn.*, V)

N-Hydroxy-4-methyl-N-1-naphthalenylbenzamide, 9CI **H-00291**

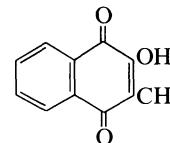
N-1-Naphthyl-p-methylbenzohydroxamic acid [36237-39-5]

$C_{18}H_{15}NO_2$ M 277.322

Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 510 nm, ϵ 4900, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

Gupta, V.K. *et al.*, *J. Chem. Eng. Data*, 1972, **17**, 248 (*synth*)

Gupta, V.K. *et al.*, *Anal. Chim. Acta*, 1973, **66**, 38 (*detn.*, V)

2-Hydroxy-3-methyl-1,4-naphthoquinone **H-00292**
2-Hydroxy-3-methyl-1,4-naphthalenedione, 9CI. *Phthiocol* [483-55-6]

$C_{11}H_8O_3$ M 188.182

Pigment of human tubercle bacillus. Also isol. from *Streptococcus faecalis* and *Asplenium laciniatum*. Yellow needles (hexane). Mp 173-174°.

▷ QL8485000.

Ac:

$C_{13}H_{10}O_4$ M 230.220

Pale-yellow needles (MeOH). Mp 106°.

Thiosemicarbazone: Reddish-orange needles (EtOH aq.), prisms (MeOH). Mp 179-180°.

Monoxime: [35796-36-2].

$C_{11}H_9NO_3$ M 203.197

Used as a 0.01M soln. in EtOH for photometric detn. of Ni (λ_{max} 510 nm, ϵ 22000). Cryst. (EtOH). Sol. EtOH. Mp 200-201°.

Andersen, R.J. *et al.*, *J. Biol. Chem.*, 1933, **103**, 197; 1939, **130**, 429 (*isol.*, *synth*)

Fieser, L., *J. Biol. Chem.*, 1940, **133**, 391 (*synth*)

Lichstein, H.C. *et al.*, *J. Bacteriol.*, 1946, **52**, 145 (*props*)

Weygand, F. *et al.*, *Chem. Ber.*, 1957, **90**, 1879 (*synth*)

Gaultier, N. *et al.*, *Acta Crystallogr.*, 1965, **19**, 919 (*cryst struct*)

Baum, R.H. *et al.*, *J. Biol. Chem.*, 1965, **240**, 3425 (*isol*)

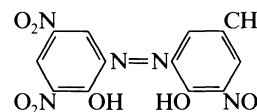
Gupta, R.B. *et al.*, *Curr. Sci.*, 1976, **45**, 44 (*isol*)

Kamini, M. *et al.*, *Analysis*, 1982, **10**, 390 (*synth*, *detn.*, Ni)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HMI000.

2-[(2-Hydroxy-5-methyl-3-nitrophenyl) azo]-4,6-dinitrophenol **H-00293**

2,2'-Dihydroxy-5-methyl-3,3',5'-trinitroazobenzene



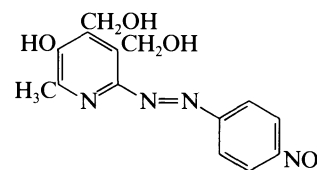
$C_{13}H_9N_5O_8$ M 363.243

Used as a 1mM aq. soln. as metallochromic indicator for titrimetric detn. of Bi. Dark cryst. powder. Sol. EtOH, H_2O .

Gusev, S.I. *et al.*, *Zh. Anal. Khim.*, 1966, **21**, 568 (*detn.*, Bi)

5-Hydroxy-6-methyl-2-[(4-nitrophenyl) azo]-3,4-pyridinedimethanol, 9CI **H-00294**

6-(4-Nitrophenylazo)pyridoxine [42322-96-3]



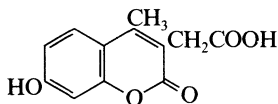
$C_{14}H_{14}N_4O_5$ M 318.288

Used as a 0.5mM aq. soln. for photometric detn. of Hg. Orange-red cryst. Sol. EtOH; sl. sol. H_2O .

Bagbasarov, K.N. *et al.*, *Zavod. Lab.*, 1973, **39**, 92 (*detn.*, Hg)

7-Hydroxy-4-methyl-2-oxo-2H-1-benzopyran-3-acetic acid, 9CI

7-Hydroxy-4-methylcoumarin-3-acetic acid. 4-Methylumbelliferone-3-acetic acid
[5852-10-8]



$C_{12}H_{10}O_5$ M 234.208
Fluorescent label. Needles (EtOH aq.). Mp 268°.

Ac:

$C_{14}H_{12}O_6$ M 276.245
Mp 199-200°.

Benzoyl:

$C_{19}H_{14}O_6$ M 338.316
Mp 190-191°.

Et ester:

$C_{14}H_{14}O_5$ M 262.262
Needles (Me₂CO/EtOH). Mp 163°.

Et ester, Ac:

$C_{16}H_{16}O_6$ M 304.299
Fine leaflets (EtOH aq.). Mp 98°.

Et ester, benzoyl:

$C_{21}H_{18}O_6$ M 366.370
Mp 138°.

Me ether: [82412-17-7].

$C_{13}H_{12}O_5$ M 248.235
Plates (EtOH aq.). Mp 198°.

Me ether, Me ester:

$C_{14}H_{14}O_5$ M 262.262
Needles. Mp 122°.

Me ether, Et ester:

$C_{15}H_{16}O_5$ M 276.288
Shining plates (EtOH aq.). Mp 80°.

Amide:

$C_{12}H_{11}NO_4$ M 233.223
Needles (AcOH). Mp 300° dec.

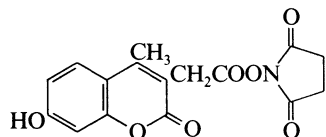
Anilide:

$C_{18}H_{15}NO_4$ M 309.321
Silky needles (AcOH). Mp 242°.

Banerjee, S.K., *J. Indian Chem. Soc.*, 1931, **8**, 777 (synth)
Dey, B.B. *et al.*, *J. Indian Chem. Soc.*, 1931, **8**, 817 (synth)
Shah, R.H. *et al.*, *J. Indian Chem. Soc.*, 1942, **19**, 481 (synth)
Khalifan, H. *et al.*, *Biochem. J.*, 1983, **209**, 265 (use)
Parmar, V.S. *et al.*, *J. Indian Chem. Soc.*, 1987, **64**, 745 (ms, Et ester)
Parmar, V.S. *et al.*, *Magn. Reson. Chem.*, 1988, **26**, 430 (cmr, deriv)

1-[[[(7-Hydroxy-4-methyl-2-oxo-2H-benzopyran-3-yl)acetyl]oxyl]-2,5-pyrrolidinedione, 9CI

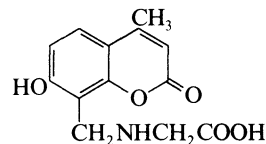
Succinimido 7-hydroxy-4-methylcoumarin-3-acetate. Succinimido 4-methylumbelliferone-3-acetate. CASE
[96735-88-5]



$C_{16}H_{13}NO_7$ M 331.281
Fluorescent label. Used in radiolabelling proteins.

Khalifan, H. *et al.*, *Biochem. J.*, 1983, **209**, 265 (synth, use)
Rand-Weaver, M. *et al.*, *FEBS Lett.*, 1985, **182**, 185 (synth, use)
Samuel, D. *et al.*, *J. Immunol. Methods*, 1985, **81**, 123 (synth, use)

H-00295

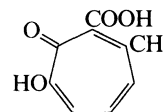
N-[7-Hydroxy-4-methyl-2-oxo-(2H)-1-(benzopyran-8-yl)methyl]glycine, 9CI
4-Methylumbelliferone-8-methyleneglycine
[54696-35-4]

$C_{13}H_{13}NO_5$ M 263.249
Used as a 0.1% aq. soln. as metal fluorescent indicator for detn. of Ca, Cu. Yellow cryst. (aq. HCl). Sol. alkalis; sl. sol. H₂O; insol. Me₂CO. Mp > 300°. pK_{a1} 6.85; pK_{a2} 12.12 (0.1 M KCl).

Huitnik, G.M. *et al.*, *Talanta*, 1974, **21**, 1193 (synth, nmr, detn, Ca, Cu)

6-Hydroxy-2-methyl-7-oxo-1,3,5-cycloheptatriene-1-carboxylic acid, 8CI

α-Carboxy-β-methyltropolone
[4636-38-8]

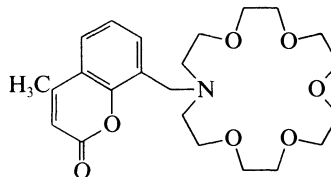


$C_9H_8O_4$ M 180.160
Gives colour reactions with Ba, Ca, Cd, Co, Fe(III), Mg, Mn, Ni, U, Zn, lanthanides, actinides. Cryst. (AcOH). Mp 190-192°. pK_{a1} 7.40; pK_{a2} 2.50 (0.1 M NaClO₄), pK_{a1} 7.31; pK_{a2} 2.68 (0.5 M KNO₃).

Dutt, Y. *et al.*, *J. Indian Chem. Soc.*, 1965, **42**, 767 (pKa, detn, U)
Dutt, Y. *et al.*, *Indian J. Chem.*, 1966, **4**, 214 (pKa, detn, Fe)
Gupta, B.P. *et al.*, *J. Indian Chem. Soc.*, 1966, **43**, 610 (detn, lanthanides, actinides)
Gupta, B.P. *et al.*, *Indian J. Chem.*, 1967, **5**, 322 (detn, Ba, Ca, Cd, Co, Mg, Mn, Ni, Zn)
Gupta, B.P. *et al.*, *J. Inorg. Nucl. Chem.*, 1967, **29**, 1806 (detn, lanthanides)

7-Hydroxy-4-methyl-8-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2H-1-benzopyran-2-one, 9CI

N-(4-Methyl-7-coumarin-8-ylmethyl)monoaza-18-crown-6
[84166-70-1]

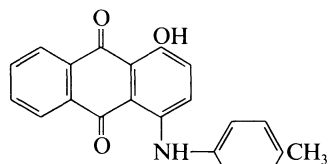


$C_{23}H_{33}NO_8$ M 451.516
Used as 1,2-dichloroethane soln. for extraction of Li, Na, K, Rb. Yellow oil. Sol. CHCl₃, 1,2-dichloroethane, dioxan. pK_{a1} 6.45; pK_{a2} 10.5 (25°, dioxan aq.).

Katayama, Y. *et al.*, *Anal. Chim. Acta*, 1985, **173**, 193 (synth, use)

H-00296

1-Hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione, 9CI **H-00300**
1-Hydroxy-4-p-toluidinoanthraquinone. Waxoline purple A. C.I. Solvent violet 13. C.I. 60725
 [81-48-1]



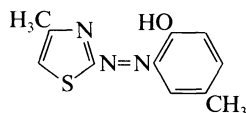
$C_{21}H_{15}NO_3$ M 329.354

Used as 0.005% soln. in 85% H_2SO_4 for photometric detn. of B. Cryst. Sol. conc. H_2SO_4 .

▷ CB7700000.

Trinder, N., *Analyst (London)*, 1948, **73**, 494 (*synth*)
 Bell, D. *et al. Analyst (London)*, 1968, **93**, 298 (*detn. B*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HOK000.

2-(2-Hydroxy-5-methylphenylazo)-4-methylthiazole **H-00301**
4-Methyl-2-[(4-methyl-2-thiazolyl)azo]phenol, 9CI
 [92289-55-9]

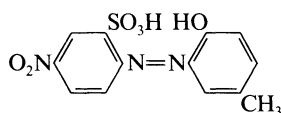


$C_{11}H_{11}N_3OS$ M 233.293

Used as 0.05% soln. in 0.4M NaOH in 50% EtOH for photometric detn. of Fe(II) (λ_{max} 773 nm, ϵ 10300, pH 4-4.5). Red cryst. Sol. EtOH, alkalis.

Ueda, K. *et al. Mikrochim. Acta*, 1984, **3**, 103 (*synth, detn. Fe*)

2-[(2-Hydroxy-5-methylphenyl)azo]-5-nitrobenzenesulfonic acid **H-00302**
2'-Hydroxy-5'-methyl-4-nitroazobenzene-2-sulfonic acid



$C_{13}H_{11}N_3O_6S$ M 337.312

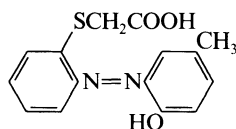
Red cryst. Sol. DMF, spar. sol. H_2O .

K salt: [41364-43-6].

Used as a 4mM soln. in DMF for photometric detn. of Na (λ_{max} 550 nm).

Markovich, I.S., *Zh. Anal. Khim.*, 1973, **28**, 227 (*detn. Na*)

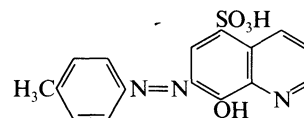
[[2-[(2-Hydroxy-5-methylphenyl)azo]phenyl]thio]acetic acid, 9CI **H-00303**
2-Hydroxy-5-methyl-2'-mercaptoazobenzene-S-acetic acid
 [85261-28-5]



$C_{15}H_{14}N_2O_3S$ M 302.353

Used as aq. soln. for photometric detn. of Cu(II) (λ_{max} 520 nm, ϵ 10500), Ni. Orange needles (EtOH). Sol. EtOH, H_2O . Mp 146-148°. pK_{a1} 5.38 (50% EtOH).
 Pringle, D.L. *et al. Talanta*, 1982, **29**, 1097 (*synth, use*)

8-Hydroxy-7-[(4-methylphenyl)azo]-5-quinolinesulfonic acid, 9CI **H-00304**
 [17809-13-1]

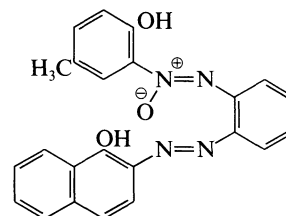


$C_{16}H_{13}N_3O_4S$ M 343.362

Used as 1mM aq. soln. for photometric detn. of Nb (λ_{max} 395 nm, pH 4-4.5). Yellow cryst. Sol. H_2O .

Aazmi, A.S. *et al. Zh. Anal. Khim.*, 1979, **34**, 1858 (*synth, detn. Nb*)

1-[[2-[(2-Hydroxy-5-methylphenyl)-O,N,N-azoxy]phenyl]azo]-2-naphthalenol, 9CI **H-00305**
 [19217-35-7]



$C_{23}H_{18}N_4O_3$ M 398.420

Used as a 0.2-0.5mM soln. in CCl_4 for extraction photometric detn. of Ca, Co, Cu; gives colour reactions with Ca, Co, Cu, Zn. Reddish brown cryst. Sol. dioxan, $CHCl_3$, CCl_4 , C_6H_6 , insol. H_2O .

Dziomko, W.M. *et al. Zh. Anal. Khim.*, 1960, **15**, 661; *J. Anal. Chem. USSR (Engl. Transl.)*, 753 (*reactions*)

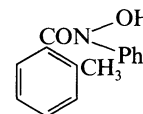
Dziomko, V.M. *et al. Zh. Obshch. Khim.*, 1960, **30**, 628.

Gorbenko, F.P. *et al. Zh. Anal. Khim.*, 1963, **18**, 1198 (*detn. Ca*)

Minczewski, J., *Chem. Anal. (Warsaw)*, 1964, **9**, 365 (*detn. Cu*)

Wieteska, E., *Chem. Anal. (Warsaw)*, 1972, **17**, 85; 1974, **19**, 1237 (*detn. Ca*)

N-Hydroxy-2-methyl-N-phenylbenzamide, 9CI **H-00306**
N-o-Methylbenzoyl-N-phenylhydroxylamine
 [17120-15-9]



$C_{14}H_{13}NO_2$ M 227.262

Used as 0.1M $CHCl_3$ soln. for extraction separation of Al, Fe(III), Cu, Mn, V. Cryst. (EtOH aq.). Sol. $CHCl_3$, EtOH. Mp 101°.

Hojjat, M. *et al. Anal. Chim. Acta*, 1987, **199**, 49 (*synth, use*)

N-Hydroxy-4-methyl-N-phenylbenzamide, 9CI **H-00307**
N-p-Methylbenzoyl-N-phenylhydroxylamine
 [17120-16-0]
 $C_{14}H_{13}NO_2$ M 227.262

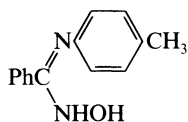
Used as 0.1M CHCl₃ soln. for extraction separation of Al, Cu, Fe(III), Mn, V. Cryst. (EtOH aq.). Sol. CHCl₃, EtOH. Mp 116°.

Hojjatie, M. *et al*, *Anal. Chim. Acta*, 1987, **199**, 49 (*synth, use*)

N-Hydroxy-N'-(4-methylphenyl)benzenecarboximidamide

H-00308

[36954-50-4]

C₁₄H₁₄N₂O M 226.277Cryst. (C₆H₆/pet. ether). Mp 159-160°.

N-Ph: [59387-13-2]. N-Hydroxy-N'-(4-methylphenyl)-N-phenylbenzenecarboximidamide, 9CI

C₂₀H₁₈N₂O M 302.375

Used as a 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{max} 575 nm, ε 4200, CHCl₃). Cryst. Sol. CHCl₃, mod. sol. C₆H₆, CCl₄, EtOAc. Mp 190°.

N-(4-Methylphenyl): [69038-91-1]. N-Hydroxy-N,N'-bis(4-methylphenyl)benzenecarboximidamide, 9CI

C₂₁H₂₀N₂O M 316.402

Used as a 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{max} 578 nm, ε 4330, CHCl₃). Cryst. Sol. CHCl₃, mod. sol. C₆H₆, CCl₄, EtOAc. Mp 156°.

[53442-07-2]

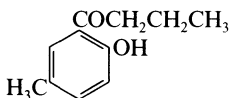
Exner, O. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1974, 567 (*synth, pmr, confign*)

Satyanarayana, K. *et al*, *J. Indian Chem. Soc.*, 1978, **55**, 787 (*detn, V*)

1-(2-Hydroxy-5-methylphenyl)-1-butanone, 9CI

H-00309

2-Hydroxy-5-methylpropiophenone

C₁₁H₁₄O₂ M 178.230**(E)-form**

Oxime: [103582-37-2].

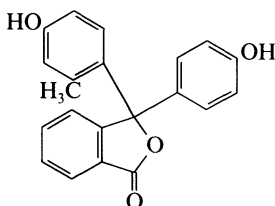
C₁₁H₁₅NO₂ M 193.245Used for photometric detn. of PO₄³⁻. Sol. EtOH, Et₂O.

Reddy, V.K. *et al*, *J. Indian Inst. Sci.*, 1981, **63**, 211 (*detn, PO₄³⁻*)

3-(4-Hydroxy-2-methylphenyl)-3-(4-hydroxyphenyl)-1(3H)-isobenzofuranone

H-00310

Phenol-m-cresolphthalein. 2'-Methylphenolphthalein

C₂₁H₁₆O₄ M 332.355

Used as acid-base indicator (pH₁ 9.92; colour change: colourless → red). Yellowish cryst. powder. Sol. Me₂CO, EtOH, AcOH.

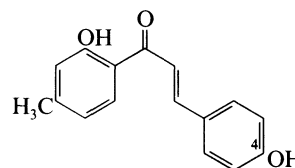
Thiel, A. *et al*, *Z. Anorg. Allg. Chem.*, 1929, **178**, 49.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 102.

1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one, 9CI

H-00311

2',4-Dihydroxy-5'-methylchalcone

C₁₆H₁₄O₃ M 254.285

Cryst. Mp 71°.

4-Me ether: [16635-13-5]. 1-(2-Hydroxy-5-methylphenyl)-3-(4-methoxyphenyl)-2-propen-1-one, 9CI

C₁₇H₁₆O₃ M 268.312

Orange cryst. (EtOH), Mp 98-99°.

4-Me ether, oxime: [58434-59-6].

C₁₇H₁₇NO₃ M 283.326

Used as 1% EtOH soln. for extraction-photometric detn. of Cu (λ_{max} 370 nm, ε 7200), V(V) (λ_{max} 630 nm, ε 800, 9M HCl); gravimetric detn. of Pd, Ni, Cu. Cryst. (EtOH). Sol. EtOH, CHCl₃, cyclohexane. Mp 85°.

[1032-84-4]

Von Auwers, K. *et al*, *Ber.*, 1921, **54**, 1543 (*synth, deriv*)

Mahanthay, P. *et al*, *Indian J. Chem.*, 1965, **3**, 121 (*synth, ir*)

Deshmukh, B.K. *et al*, *Fresenius' Z. Anal. Chem.*, 1975, **279**, 363 (*detn, Cu*)

Deshmukh, B.K. *et al*, *J. Indian Chem. Soc.*, 1975, **52**, 385; 1976, **53**, 1067 (*deriv, synth, use*)

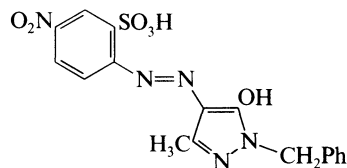
Gholse, S.B. *et al*, *Microchem. J.*, 1984, **30**, 297 (*use*)

Doshi, A.G. *et al*, *Curr. Sci.*, 1986, **55**, 502 (*synth, deriv*)

2-[[5-Hydroxy-3-methyl-1-(phenylmethyl)-1H-pyrazol-4-yl]azo]-5-nitrobenzenesulfonic acid, 9CI

H-00312

1-Benzyl-5-hydroxy-3-methyl-4-(4-nitro-2-sulfophenylazo)pyrazole

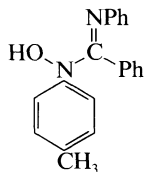
C₁₇H₁₅N₅O₆S M 417.401

Several tautomers possible. Used as 4mM soln. in DMF for photometric detn. of Na. Orange cryst. Sol. DMF; spar. sol. H₂O.

[41364-46-9, 41364-50-5]

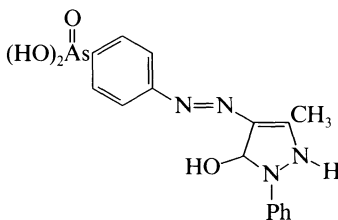
Markovich, I.S. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 227 (*synth, detn, Na*)

N-Hydroxy-N-(4-methylphenyl)-N-phenylbenzenecarboximidamide, 9CI
N-Hydroxy-N-p-tolyl-N'-phenylbenzamidine
[69038-93-3]



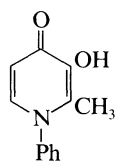
$C_{20}H_{18}N_2O$ M 302.375
Used as a 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V (λ_{max} 575 nm, ϵ 4460, $CHCl_3$). Cryst. Sol. $CHCl_3$; mod sol. C_6H_6 , CCl_4 , EtOAc. Mp 174°.
Satyanarayana, K. *et al.*, *J. Indian Chem. Soc.*, 1978, **55**, 787 (detn. V)

[4-[(5-Hydroxy-3-methyl-1-phenyl)-1H-pyrazol-4-yl]azo]phenyl]arsonic acid, 9CI
[37950-10-0]



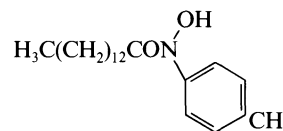
$C_{16}H_{17}AsN_4O_4$ M 404.256
Various tautomers possible. Used for gravimetric detn. of Zr. Dark red cryst. powder.
Popa, G. *et al.*, *Chim. Anal. (Bucharest)*, 1972, **2**, 147; *CA*, **77**, 159818j.

3-Hydroxy-2-methyl-1-phenyl-4(1H)-pyridinone, 9CI
[49744-73-2]



$C_{12}H_{11}NO_2$ M 201.224
Used as solns. in 1,2-dichloroethane or dioxan for extraction sepn. of In as 0.01M soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 625 nm, ϵ 5600, $CHCl_3$); as 7mM soln. in $CHCl_3$ for extraction separation of Ga, U; extraction-photometric detn. of Fe(III) (λ_{max} 470 nm, ϵ 6300, $CHCl_3$), W (λ_{max} 406 nm, ϵ 10600, $CHCl_3$). Cryst. Sol. 1,2-dichloroethane, dioxan, $CHCl_3$, pK_{a1} 3.02; pK_{a2} 9.56.
Tamhina, B. *et al.*, *CA*, 1973, **79**, 132372p; 1974, **81**, 32852t (detn. Ga, Fe)
Tamhina, B. *et al.*, *J. Inorg. Nucl. Chem.*, 1974, **36**, 1855; 1976, **38**, 1505 (synth, detn. U)
Vojković, V. *et al.*, *Fresenius' Z. Anal. Chem.*, 1975, **276**, 377 (detn)
Jakopcic, K. *et al.*, *J. Inorg. Nucl. Chem.*, 1977, **39**, 1201 (synth)
Tamhina, B. *et al.*, *Microchem. J.*, 1977, **22**, 144 (detn. W)
Ishii, H. *et al.*, *Bull. Chem. Soc. Jpn.*, 1989, **62**, 1817 (detn. In)

N-Hydroxy-N-(4-methylphenyl)tetradecanamide, 9CI
N-(4-Methylphenyl)tetradecanohydroxamic acid. N-p-Tolylmyristohydroxamic acid
[25310-20-7]



$C_{21}H_{35}NO_2$ M 333.513
Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 515 nm, ϵ 4300, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .
Gupta, V.K. *et al.*, *J. Indian Chem. Soc.*, 1969, **46**, 831 (synth)
Gupta, V.K. *et al.*, *Anal. Chim. Acta*, 1973, **66**, 39 (detn. V)

3-Hydroxy-3-methyl-1-phenyltriazeno, 8CI
[5756-69-4]

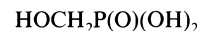


$C_7H_9N_3O$ M 151.168
Used as aq. EtOH soln. for photometric detn. of Fe (pH 3.1-4.5). Cryst. Sol. EtOH, Me_2CO , H_2O . Mp 69°.

▷ XY2780000.

Purohit, D.N., *Talanta*, 1967, **14**, 353 (synth, detn. Fe)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HMP000.

(Hydroxymethyl)phosphonic acid, 9CI
Phosphonomethanol
[2617-47-2]



CH_5O_4P M 112.022
Cryst. (EtOH/EtOAc). Mp 88-90°, Mp 98.5-100.5°. pK_{a1} 1.7; pK_{a2} 7.01 (25°).

Monoanilinium salt: Cryst. (EtOH). Mp 167-168°.
Di-Me ester: [24630-67-9]. *Dimethyl (hydroxymethyl) phosphonate*

$C_3H_9O_4P$ M 140.075

Derivatisation reagent for gc of carboxylic acids with thermionic detection. Liq.

Di-Et ester: [3084-40-0]. *Diethyl (hydroxymethyl) phosphonate*

$C_5H_{13}O_4P$ M 168.129

Liq. Bp_{0.2} 103-105°. n_D^{20} 1.4342.

Bis(triethylsilyl) ester: *Bis(triethylsilyl) (hydroxymethyl) phosphonate*

$C_{13}H_{33}O_4PSi_2$ M 340.546

Liq. n_D^{20} 1.4472. Dec. on attempted distn.

Kharasch, M.S. *et al.*, *J. Org. Chem.*, 1960, **25**, 1000 (*diethyl ester, synth*)

Orlov, N.F. *et al.*, *Zh. Obshch. Khim.*, (Engl. transl. p. 537), 1966, **36**, 578 (*silyl ester*)

Maier, L., *Z. Anorg. Allg. Chem.*, 1972, **394**, 117 (*synth, P nmr, salts*)

Brun, G. *et al.*, *Bull. Soc. Fr. Mineral. Cristallogr.*, 1974, **97**, 79; *CA*, **81**, 83219 (*cryst struct*)

Schulz, P. *et al.*, *J. Chromatogr.*, 1975, **111**, 105 (*use, ester*)

Tebby, J.C. *et al.*, *Phosphorus Relat. Group V Elem.*, 1975, **5**, 273 (*ms*)

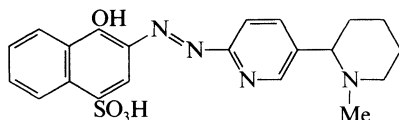
Rueppel, M.L. *et al.*, *Org. Magn. Reson.*, 1976, **8**, 19 (*pmr, P nmr*)

Griffiths, W.R. *et al.*, *Phosphorus Relat. Group V Elem.*, 1976, **6**, 223 (*synth*)

Tebby, J.C. *et al*, *Phosphorus Relat. Group V Elem.*, 1976, 6, 253 (pmr)
 Holý, A. *et al*, *Collect. Czech. Chem. Commun.*, 1982, 47, 3447 (esters, synth, derivs)
 Baraldi, P.G. *et al*, *Synthesis*, 1982, 653 (ester, synth, ir, pmr, props)

4-Hydroxy-3-[[5-(1-methyl-2-piperidinyl)2-pyridinyl]azo]-1-naphthalenesulfonic acid H-00319

6'-[(1-Hydroxy-4-sulfo-2-naphthyl)azo]-1-methylanabasine, 8CI
 [28115-71-1]



$C_{21}H_{22}N_4O_4S$ M 426.495

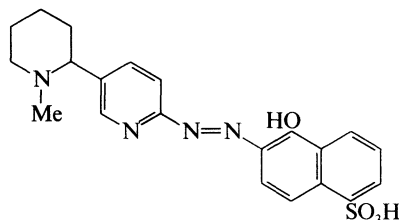
Na salt: [25349-58-0].

Used for photometric detn. of Mn(II); gives colour reactions with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Orange-red cryst. (EtOH/Et₂O). Sol. EtOH, H₂O; insol. Et₂O.

Kagramanova, N.G. *et al*, *CA*, 1969, 71, 56314p; 1970, 72, 96255x (synth, use)

5-Hydroxy-[6-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid H-00320

6'-[(1-Hydroxy-5-sulfo-2-naphthyl)azo]-1-methylanabasine, 8CI
 [20649-80-3]



$C_{21}H_{22}N_4O_4S$ M 426.495

Used as a 0.01M aq. soln. to give colour reaction with Cd, Co, Cu, Ga, Ni, Pd, Zn; photometric titrimetric detn. of Bi (λ_{max} 590 nm, ϵ 2250), Tl(III) (λ_{max} 580 nm, ϵ 2950). Dark purple cryst. Sol. H₂O, EtOH. pK_a 9.2.

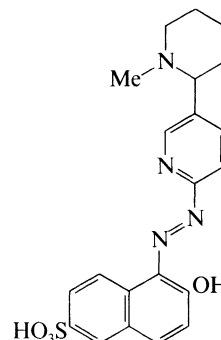
Dzhiyanbaeva, R.K. *et al*, *CA*, 1968, 69, 8121k, 60029a, 73647a, 7 (synth, ind, Cu, Bi, Ti)

Sharipova, S.T. *et al*, *Uzb. Khim. Zh.*, 1968, 12, 13; *CA*, 69, 63276q (pK_a)

Sharipova, S.T. *et al*, *CA*, 1970, 72, 139227j (detn. Cd, Co, Cu, Ni, Pd, Zn)

6-Hydroxy-5-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenesulfonic acid H-00321

6'-[(2-Hydroxy-6-sulfo-1-naphthyl)azo]-1-methylanabasine, 8CI
 [25763-79-5]



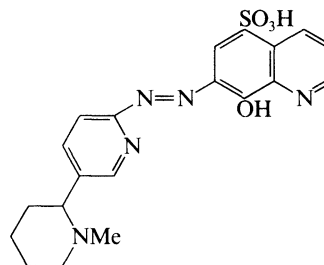
$C_{21}H_{22}N_4O_4S$ M 426.495

Gives colour reactions with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Orange-red cryst. Sol. H₂O. pK_{a2} 5.1, pK_{a3} 10.2 (0.5M KCl).

Mansurkhodzhaev, U. *et al*, *CA*, 1969, 71, 125942f (synth, use)

8-Hydroxy-7-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-5-quinolinesulfonic acid H-00322

6'-[(8-Hydroxy-5-sulfo-7-quinolyl)azo]-1-methylanabasine, 8CI



$C_{20}H_{21}N_5O_4S$ M 427.483

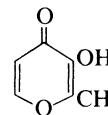
Na salt: [23333-79-1].

Gives colour reactions with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Pink cryst. Sol. H₂O.

Dzhiyanbaeva, R.K. *et al*, *CA*, 1968, 69, 60029a (synth, use)

3-Hydroxy-2-methyl-4H-pyran-4-one, 9CI H-00323

3-Hydroxy-2-methyl- γ -pyrone. *Maltol*. *Laricin*. *Laricinic acid*. *Larixinic acid*
 [118-71-8]



$C_6H_6O_3$ M 126.112

Found in larch trees (*Larix decidua*), pine needles, chicory, wood tars, roasted malt and produced by alkaline hyd. of streptomycin. Also from ferns *Arachniodes maximowiczii* and *Macrothelypteris torresiana*. Food flavouring additive. Used as metal indicator (e.g. for Fe(III)). Needles or prisms (toluene or CHCl₃) with odour of caramel/butterscotch. Mod. sol. H₂O, sol. EtOH. Mp 161-162°.

▷ UQ1050000.

Benzoyl:

 $C_{13}H_{10}O_4$ M 230.220

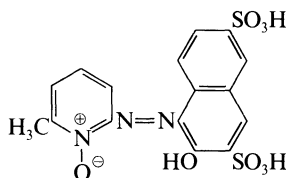
Needles (EtOH aq.). Mp 115-116°.

O-β-D-Glucopyranoside: [20847-13-6]. **Dianthoside**. Maltol glucoside $C_{12}H_{16}O_8$ M 288.254Isol. from *Dianthus* sp. and other plants, e.g. from ferns *A. maximowiczii*, *M. torresiana*, *Parathelypteris* spp.*Metathelypteris laxa*. Cryst. (EtOH/EtOAc). Mp 132°. $[\alpha]_D - 52.8^\circ$ (H₂O).

Food Chemicals Codex, 2nd Ed., 487 (anal)

Spielman, M.A. et al, *J. Am. Chem. Soc.*, 1947, **69**, 2908 (synth)Plouvier, V., *C. R. Hebd. Seances Acad. Sci.*, 1964, **258**, 1099

(Dianthoside)

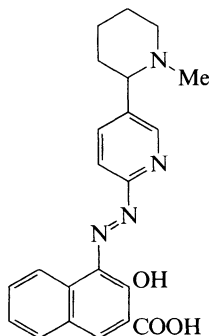
Shimizu, Y. et al, *Agric. Biol. Chem.*, 1970, **34**, 845 (isol, ir, ms)Bishop, E., *Indicators*, Pergamon, Oxford, 1972.Chawla, R.K. et al, *J. Org. Chem.*, 1974, **39**, 3281 (synth, ir, pmr)Torri, S. et al, *Chem. Lett.*, 1976, 495 (synth)Shono, T. et al, *Tetrahedron Lett.*, 1976, 1363 (synth)Looker, J.H. et al, *J. Carbohydr. Chem.*, 1985, **4**, 38 (synth, pmr, cmr, Dianthoside)Tanaka, N. et al, *Chem. Pharm. Bull.*, 1986, **34**, 1015 (isol)Arnarp, J. et al, *Acta Chem. Scand.*, 1990, **44**, 916 (ms)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MAO350.**3-Hydroxy-4-[(6-methyl-2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid N-oxide** H-00324 $C_{16}H_{13}N_3O_8S_2$ M 439.426

Di-Na salt: [73514-57-5].

Used as 0.05% aq. soln. for photometric detn. of Cu (λ_{max} 536 nm, ϵ 18000), Zr (λ_{max} 545 nm, ϵ 15000), Sc (λ_{max} 555 nm, ϵ 16000), Fe(III). Brown cryst. (EtOH aq.). Sol. H₂O, EtOH.Baeupré, P.W. et al, *Mikrochim. Acta*, 1979, **2**, 403; 1980, **2**, 53; 1982, **2**, 419; 1983, **3**, 71 (synth, detn, Cu, Zr, Sc, Fe)**3-Hydroxy-4-[[5-(1-methyl-2-pyrrolidinyl)-2-pyridinyl]azo]-2-naphthalenecarboxylic acid** H-00325

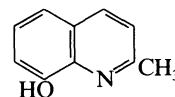
6'-[(3-Carboxy-2-hydroxy-1-naphthyl)azo]-1-methylanabasine, 8CI

[23333-81-5]

 $C_{22}H_{22}N_4O_3$ M 390.441Gives colour reactions with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Pink cryst. (EtOH). V. sol. H₂O; sol. EtOH, Me₂CO.Dzhiyanbaeva, R.K. et al, *CA*, 1968, **69**, 60029a (synth, use)**8-Hydroxy-2-methylquinoline** H-00326

2-Methyl-8-quinolinol, 9CI. 8-Hydroxyquinaldine

[826-81-3]

 $C_{10}H_9NO$ M 159.187Used as 2% soln. in AcOH aq. or as 0.1% Me₂CO soln. for extraction-photometric detn. of Cr, Mn, Be, Ce, (CHCl₃, CCl₄); gravimetric detn. of Be, Cu, Fe(III). Prisms (EtOH aq.). Sol. AcOH, EtOH, Me₂CO, Et₂O, alkalis; insol. H₂O. Mp 74°. Bp 266-267°, Subl. 100°. Steam-volatile.

B,HCl: Mp 251-252°.

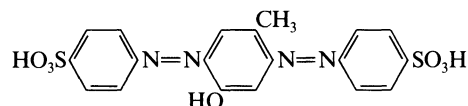
Ac: [27037-61-2]. 8-Acetoxyquinaldine

 $C_{12}H_{11}NO_2$ M 201.224Used as 20% soln. in AcOH for pptn. of Th, Zn, Cu, In. Needles (pet. ether). Sol. EtOH, H₂O (hydrd.), Et₂O, pet. ether, C₆H₆. Mp 63-64°. Hydrol. after heating.

Me ether: [3033-80-5]. 8-Methoxy-2-methylquinoline

 $C_{11}H_{11}NO$ M 173.214Cryst. (C₆H₆). Mp 128-129°. Bp 282°, Bp₃ 105-110°.Manske, R.H.F. et al, *Can. J. Res., Sect. F*, 1949, **27**, 359.Friedler, H., *J. Prakt. Chem.*, 1961, **13**, 86 (synth)Hikime, S. et al, *Talanta*, 1964, **11**, 851 (use)Jones, J.P. et al, *Talanta*, 1964, **11**, 861 (use)Graham, R.P. et al, *Talanta*, 1964, **11**, 1641 (use)**4-[3-Hydroxy-6-methyl-4-(4-sulfophenylazo)phenylazo]benzenesulfonic acid** H-00327

2,6-Bis[(4-sulfophenyl)azo]-4-methylphenol

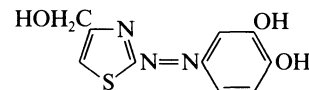
 $C_{19}H_{16}N_4O_7S_2$ M 476.490

Used as a 0.05-1% aq. soln. to give colour reactions with Be, Co, Ni. Cryst.

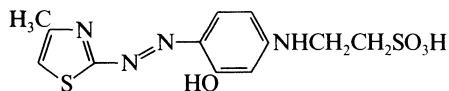
Kuznetsov, V.I., *Zh. Anal. Khim.*, 1955, **10**, 276 (use)**4-[[4-(Hydroxymethyl)-2-thiazolyl]azo]-1,2-benzenediol, 9CI** H-00328

2-(3,4-Dihydroxyphenylazo)-4-hydroxymethylthiazole

[54315-96-7]

 $C_{10}H_9N_3O_3S$ M 251.265Used as a 1mM soln. in Me₂CO for photometric detn. of W (λ_{max} 510 nm, ϵ 49000). Orange-red cryst. Sol. EtOH, Me₂CO, alkalis. pK_{a1} 7.2; pK_{a2} 11.5 (0.1M LiCl).Barkane, V. et al, *Latv. PSR Zinat. Akad. Vestis, Fiz. Teh. Zinat. Ser.*, 1974, 500; *CA*, **81**, 169470m (props)M'asoedova, As., *Zh. Anal. Khim.*, 1975, **30**, 2398 (detn, W)

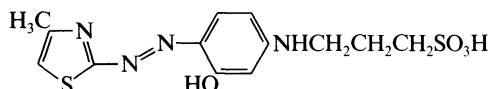
2-[[3-Hydroxy-4-[methyl-2-thiazolylazo]phenyl]amino]ethanesulfonic acid, 9CI **H-00329**
 2-(4-Methyl-2-thiazolylazo)-5-[N-(2-sulfoethyl)amino]phenol
 [104932-70-9]



$C_{12}H_{14}N_4O_4S_2$ M 342.399
 Used as 0.1% aq. soln. for photometric detn. of Fe(II)
 (λ_{max} 561 nm, ϵ 48600, pH 8.0), Co, Ni, Cu, Zn. Dark
 red powder. Sol. H_2O . Mp $>280^\circ$ dec. pK_{a2} 3.42; pK_{a3}
 8.76 (25°, $\mu = 0.1$).

Ueda, K. *et al.*, *Analyst (London)*, 1986, **111**, 733 (*synth, use*)

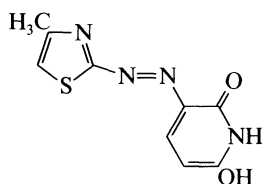
3-[[3-Hydroxy-4-[(4-methyl-2-thiazolyl)azo]phenyl]amino]-1-propanesulfonic acid, 9CI **H-00330**
 2-(4-Methyl-2-thiazolylazo)-5-[N-(2-sulfoethyl)amino]phenol
 [104932-71-0]



$C_{13}H_{16}N_4O_4S_2$ M 356.426
 Used as 0.1% aq. soln. for photometric detn. of Fe(II)
 (λ_{max} 579 nm, ϵ 50000, pH ~ 5.5), Co, Ni, Cu, Zn. Dark
 red powder. Sol. H_2O . Mp $>280^\circ$ dec. pK_{a2} 3.59; pK_{a3}
 9.09 (25°, $\mu = 0.1$).

Ueda, K. *et al.*, *Analyst (London)*, 1986, **111**, 733 (*synth, use*)

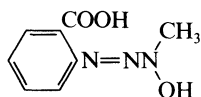
6-Hydroxy-3-[(4-methyl-2-thiazolyl)azo]-2(1H)-pyridinone, 9CI **H-00331**
 3-(4-Methyl-2-thiazolylazo)-2,6-dihoxypyridine
 [72384-89-5]



$C_9H_8N_4O_2S$ M 236.254
 Used for photometric detn. of Cu (λ_{max} 510 nm, ϵ 30600);
 metallochromic indicator in titrimetric detn. of Cu (pH
 4.6). Orange cryst. Sol. EtOH, Me_2CO . pK_{a1} 1.65; pK_{a2}
 5.59; pK_{a3} 12.8.

Garcia-Montelongo, M. *et al.*, *An. Quim., Ser. B*, 1979, **75**, 557
 (*detn, Cu*)

2-(3-Hydroxy-3-methyl-1-triazenyl)benzoic acid, 9CI **H-00332**
 1-(o-Carboxyphenyl)-3-hydroxy-3-methyltriazene
 [50967-99-2]

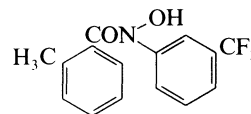


$C_8H_9N_3O_3$ M 195.177

Used as a 0.01M soln. in EtOH for extraction-photometric
 detn. of Fe(III), Ti(IV) ($CHCl_3$). Cryst. (EtOH). Sol.
 EtOH, Me_2CO , $PhNO_2$, dioxan; sl. sol. hot H_2O , C_6H_6 ,
 $CHCl_3$, CCl_4 . Mp 186° dec.

Majumdar, A.K. *et al.*, *Anal. Chim. Acta*, 1973, **67**, 307 (*detn, Fe, Ti*)

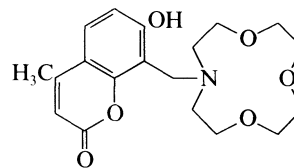
N-Hydroxy-2-methyl-N-[3-(trifluoromethyl)phenyl]benzamide, 9CI **H-00333**
 N-p-Methylbenzoyl-N-m-trifluoromethylphenylhydroxylamine
 [113389-03-0]



$C_{15}H_{12}F_3NO_2$ M 295.260
 Used as 0.1M $CHCl_3$ soln. for extraction separation of
 Mo(VI), W(VI). Cryst. (EtOH aq.). Sol. $CHCl_3$, EtOH.
 Mp 119-120°.

Hojjatie, M. *et al.*, *Anal. Chim. Acta*, 1987, **199**, 49 (*synth, detn, Mo, W*)

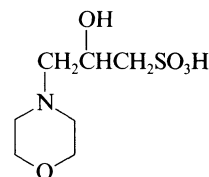
7-Hydroxy-4-methyl-8-(1,4,7-trioxo-10-azacyclododec-10-ylmethyl)-2H-1-benzopyran-2-one, 9CI **H-00334**
 N-(4-Methyl-7-hydroxycoumarin-8-ylmethyl)monoaza-12-crown-4
 [100443-50-3]



$C_{19}H_{25}NO_6$ M 363.410
 Used as 1,2-dichloroethane soln. for extraction of Li.
 Yellow cryst. ($CHCl_3/EtOH$). Sol. $CHCl_3$, 1,2-
 dichloroethane, dioxan. pK_{a1} 6.37; pK_{a2} 11.1 (25°,
 dioxan aq.).

Katayama, Y. *et al.*, *Anal. Chim. Acta*, 1985, **173**, 193 (*synth, sepn, Li*)

β -Hydroxy-4-morpholinepropanesulfonic acid, 9CI **H-00335**
 Morpholine-N-(2-hydroxypropanesulfonic acid). MOPSO
 [68399-77-9]



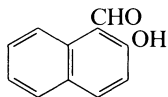
$C_7H_{15}NO_5S$ M 225.265
 Good's buffer with pH range 6.2-7.4. Cryst. (MeOH). Sol.
 H_2O . Mp 273-274° (280-282°). pK_a 6.95 (20°).

Ferguson, W.J. *et al.*, *Anal. Biochem.*, 1980, **104**, 300 (*synth, use*)
 McConnell, B. *et al.*, *Biophys. Chem.*, 1984, **20**, 135 (*use*)
 Hutchens, T.W. *et al.*, *J. Chromatogr.*, 1986, **359**, 157 (*use*)

2-Hydroxy-1-naphthaldehyde, 8CI**H-00336**

2-Hydroxy-1-naphthalenecarboxaldehyde, 9CI. 1-Formyl-2-naphthol

[708-06-5]

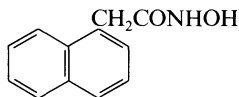
 $C_{11}H_8O_2$ M 172.183

Used as gravimetric detn. of Mg. Yellow needles (hexane). Mp 82°.

Me ether: 2-Methoxy-1-naphthaldehyde $C_{12}H_{10}O_2$ M 186.210Needles (EtOH). Mp 84°. Bp₁₁ 200-201°.*Oxime*: [7470-09-9]. $C_{11}H_9NO_2$ M 187.198Used as 0.02M in CHCl₃ soln. for extraction-photometric detn. of Ni (λ_{max} 412 nm, ϵ 7000); gravimetric detn. of V(IV); photometric detn. of U(VI). Needles. Sol. common org. solvs; sl. sol. H₂O. Mp 157°.*Semicarbazone*: [56536-09-5]. $C_{12}H_{11}N_3O_2$ M 229.238Used as EtOH soln. for fluorimetric detn. of Sc (λ_{max} 445 nm, acetate buffer). Yellow cryst. (EtOH). Sol. DMF; spar. sol. EtOH, Me₂CO.*Thiosemicarbazone*: [7410-40-4]. $C_{12}H_{11}N_3OS$ M 245.304Used as 0.015% soln. in EtOH for kinetic-photometric detn. of Mn. Yellow cryst. (EtOH/Me₂CO aq.). Sol. DMF; spar. sol. EtOH, Me₂CO. Mp 275°.Sah, P.T. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1950, **69**, 1545 (*synth*, *thiosemicarbazone*)*Org. Synth.*, *Coll. Vol.*, 3, 1955, 463.Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 180 (*oxime*, *synth*, *detn*, *V*)Rappoport, Z., *J. Chem. Soc. B*, 1967, 898 (*w*)Reddy, G.R., *Curr. Sci.*, 1969, **38**, 139; *CA*, **71**, 45513b (*detn*, *U*)Haish, D. *et al*, *Curr. Sci.*, 1973, **42**, 329 (*nmr*)Narashimham, N. *et al*, *Tetrahedron*, 1975, **31**, 1005 (*synth*)Holzbeher, Z., *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*detn*, *Mg*)*U.K. Pat.*, 1 490 350, (1977); *CA*, **88**, 192757p (*synth*)Uesugi, K. *et al*, *Microchem. J.*, 1982, **27**, 71 (*detn*, *Ni*, *V*, *U*, *oxime*)Perez-Bendito, D. *et al*, *Analyst (London)*, 1984, **109**, 1297 (*synth*, *detn*, *Mn*, *thiosemicarbazone*)Deguchi, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1986, **35**, 779 (*detn*, *Sc*, *semicarbazone*)**N-Hydroxy-1-naphthaleneacetamide, 9CI****H-00337**

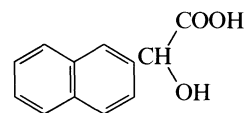
1-Naphthoacetohydroxamic acid

[10335-80-5]

 $C_{12}H_{11}NO_2$ M 201.224Used as EtOH soln. to give colour reactions with Cu, Fe(III), V(V), U(VI), Os, Ti. Cryst. Sol. EtOH, Me₂CO, CHCl₃.Bass, V.C. *et al*, *Talanta*, 1966, **13**, 735 (*use*) **α -Hydroxy-2-naphthaleneacetic acid****H-00338**

2-Naphthaleneglycolic acid, 8CI

[14289-44-2]

 $C_{12}H_{10}O_3$ M 202.209**(±)-form**Cryst. (CHCl₃/pet. ether). Mp 168°. *α -Me ether*: [7362-01-8]. *α -Methoxy-2-naphthaleneacetic acid*, 8CI $C_{13}H_{12}O_3$ M 216.236

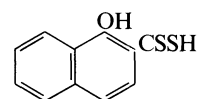
Used as gravimetric detn. of Na. Cryst. (pet. ether).

Sol. Et₂O, alkalis. Mp 98-99°.*NH₄ salt*: [16291-71-7].

Mp 153-155°.

Reeves, W. *et al*, *J. Am. Chem. Soc.*, 1961, **83**, 2755 (*synth*, *deriv*)Holzapfel, H. *et al*, *Anal. Chim. Acta*, 1967, **37**, 535 (*detn*, *Na*)Holzapfel, H. *et al*, *CA*, 1967, **67**, 53926w (*synth*)Compere, E.L., *J. Org. Chem.*, 1968, **33**, 2565 (*synth*)**1-Hydroxy-2-naphthalenecarbodithioic acid, 9CI****H-00339** *β -Dithionaphtholic acid*

[17306-26-2]

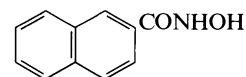
 $C_{11}H_8OS_2$ M 220.316

Used in photometric detn. of Ni, Co, Ru. Cryst. (EtOH).

Sol. EtOH, MeOH.

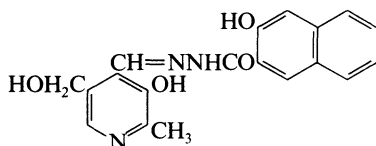
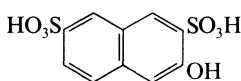
Janik, B. *et al*, *Mikrochim. Acta*, 1967, 843 (*detn*, *Ni*)Górniak, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1975, **273**, 127; **275**, 205 (*detn*, *Co*, *Ru*)**N-Hydroxy-2-naphthalenecarboxamide, 9CI****H-00340**N-2-Naphthoylhydroxylamine. *β -Naphthhydroxamic acid*

[10335-79-2]

 $C_{11}H_9NO_2$ M 187.198Used as 0.05% soln. in MeOH for photometric detn. of V(V) (λ_{max} 450 nm). Plates (EtOH). Sol. EtOH, spar. sol. H₂O, Et₂O, C₆H₆. Mp 168°.

▷ QL0850000.

Ekstrand, G., *Ber.*, 1887, **20**, 1353.Bass, V.C. *et al*, *Anal. Chim. Acta*, 1966, **35**, 337 (*synth*, *detn*, *V*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NAV000.

3-Hydroxy-2-naphthalenecarboxylic acid H-00341
[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazide, 9CIPyridoxal 3-hydroxy-2-naphthaloylhydrazone
[95735-67-4] $C_{19}H_{17}N_3O_4$ M 351.361Used as 1.4mM DMF soln. for photometric detn. of Ti, Zr (λ_{max} 415 nm, ϵ 30000), Hf. Yellow cryst. (EtOH/DMF). Sol. DMF; spar. sol. H_2O , EtOH, Me_2CO , $CHCl_3$. pK_{a1} 3.5; pK_{a2} 7.1; pK_{a3} 9.5.Gutiérrez, M.C. et al, *Mikrochim. Acta*, 1984, 2, 17 (synth, use)**3-Hydroxy-2,7-naphthalenedisulfonic acid, 9CI** H-003422-Naphthol-3,6-disulfonic acid. R Acid
[148-75-4] $C_{10}H_8O_7S_2$ M 304.301Important azo dyestuffs intermed. Used as an aq. soln. of salt as acid-base fluorescent indicator (pH range: 9.0-9.5); for photometric detn. of Fe(III). Needles. pK_a 9.62.

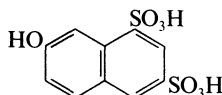
Anilide:

 $C_{22}H_{18}N_2O_5S_2$ M 454.527
Mp 202°.

[135-51-3]

Kawaguchi, T., *CA*, 1924, 18, 2891.Forster, R.B. et al, *J. Soc. Chem. Ind., London*, 1927, 46, 25τ.Pollak, J. et al, *Monatsh. Chem.*, 1928, 49, 203.Dérivée, M. et al, *Fresenius' Z. Anal. Chem.*, 1939, 116, 341 (use, ind)Hennion, G.F. et al, *J. Am. Chem. Soc.*, 1943, 65, 2468.Hashimoto, S. et al, *CA*, 1967, 67, 32508w (synth)Teodorescu, N. et al, *Rev. Roum. Chim.*, 1970, 21, 326 (detn, Fe)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)Langfeld, H.W. et al, *Rev. Chim. (Bucharest)*, 1978, 29, 873.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ROF300.**7-Hydroxy-1,3-naphthalenedisulfonic acid, 9CI** H-003432-Naphthol-6,8-disulfonic acid. β -Naphthol- γ -disulfonic acid. G Acid

[118-32-1]

 $C_{10}H_8O_7S_2$ M 304.301

The disodium salt (G salt) is used as an intermed. in the manuf. of azo dyestuffs. Used as an aq. soln. of salt as acid-base fluorescent indicator (pH range: 7.5-9.1).

Cryst. Sol. H_2O . pK_a 8.99.

Dichloride:

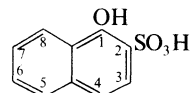
 $C_{10}H_6Cl_2O_5S_2$ M 341.192
Mp 161-162°.

Dianilide:

 $C_{22}H_{18}N_2O_5S_2$ M 454.527
Mp 195°.U.K. Pat., 210 120, (1924); *CA*, 18, 1673.Forster, R.B. et al, *J. Soc. Chem. Ind., London*, 1927, 40, 25τ.Pollak, J. et al, *Monatsh. Chem.*, 1928, 49, 203.Dérivée, M., *Fresenius' Z. Anal. Chem.*, 1939, 116, 341 (use, ind)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)Raisanen, K. et al, *Z. Naturforsch., B*, 1977, 32, 818 (cmr)Schulman, S.G. et al, *J. Am. Chem. Soc.*, 1979, 101, 139 (w)**1-Hydroxy-2-naphthalenesulfonic acid, 9CI** H-00344

1-Naphthol-2-sulfonic acid

[567-18-0]

 $C_{10}H_8O_4S$ M 224.237Hydroxynaphthalenesulfonic acids have an extensive patent literature, mostly in the older lit., and many are used as dyestuffs intermediates. Used as an aq. soln. of salt as acid-base fluorescent indicator (pH range: 8.0-9.0). Cryst. (H_2O). Mp > 250°.

Anilide, Ac:

 $C_{18}H_{15}NO_4S$ M 341.387
Mp 157.5°.Fr. Pat., 429 999, (1912); *CA*, 6, 2536.Anschutz, R., *Justus Liebig's Ann. Chem.*, 1918, 415, 64.Gebauer-Fülneegg, E. et al, *Monatsh. Chem.*, 1929, 53-4, 100.Eisenbrand, J., *Pharm. Zentralhalle Dtschl.*, 1930, 75, 1033 (use, ind)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)Tatsuaki, N. et al, *Yuki Gosei Kagaku Kyokaiishi*, 1972, 30, 545 (synth)**4-Hydroxy-1-naphthalenesulfonic acid, 9CI** H-00345

1-Naphthol-4-sulfonic acid. Neville and Winthers' acid. NW acid

[84-87-7]

 $C_{10}H_8O_4S$ M 224.237Dyestuffs intermed. Used as an aq. soln. of salt as acid-base fluorescent indicator (pH₁ 8.2). Reagent for the detn. of nitroanilines and of hydrazines. Cryst. (H_2O). Mp 170° dec.

Aniline salt: Mp 186-187°.

S-Benzylthiuronium salt: Mp 103.4°.

Zincke, Th. et al, *Ber.*, 1915, 48, 120.Rowe, F.M., *J. Soc. Dyers Colour.*, 1919, 35, 128.Gebauer-Fülneegg, E. et al, *Ber.*, 1928, 61, 781.Eisenbrand, J., *Pharm. Ztg.*, 1930, 75, 1033 (use, ind)Krebsler, A. et al, *Helv. Chim. Acta*, 1938, 21, 1221.Tanizaki, Y. et al, *Bull. Chem. Soc. Jpn.*, 1965, 38, 1419 (w)Legradi, L., *CA*, 1966, 64, 10403f (use)Legradi, L., *Fresenius' Z. Anal. Chem.*, 1968, 239, 29 (use)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)Lajunen, L.H.J. et al, *Finn. Chem. Lett.*, 1978, 207 (cmr)**5-Hydroxy-1-naphthalenesulfonic acid, 9CI** H-00346

1-Naphthol-5-sulfonic acid

[117-59-9]

 $C_{10}H_8O_4S$ M 224.237Used as an aq. soln. of salt as acid-base fluorescent indicator (pH range: 6.5-7.5). Cryst. Sol. H_2O . Mp 110-112°.

Anilide:

 $C_{16}H_{13}NO_3S$ M 299.350

Mp 201°.
 Chloride, Ac:
 $C_{12}H_9ClO_4S$ M 284.719
 Mp 129°.

Heller, K., *J. Prakt. Chem.*, 1929, **1**, 121, 196.
 Gebauer-Fülneegg, E. *et al. Monatsh. Chem.*, 1929, **53-4**, 100.
 Kogan, I.M. *et al. J. Appl. Chem. USSR (Engl. Transl.)*, 1938, **11**, 659; *CA*, **32**, 7031.
 Déribéré, M., *Fresenius' Z. Anal. Chem.*, 1939, **116**, 341 (*use, ind*)
 Kozlov, V.V., *CA*, 1965, **63**, 14780e (*synth*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

6-Hydroxy-2-naphthalenesulfonic acid, 9CI H-00347

2-Naphthol-6-sulfonic acid. Schaffer acid. β -Naphtholsulfonic acid-s

[93-01-6]

$C_{10}H_8O_4S$ M 224.237

Intermed. in manuf. of ball point pen inks and azo dyes.

Resolving agent for amino acids. Used as an aq. soln. of salt as acid-base fluorescent indicator. Cryst. + 1 or 2H₂O. Mp 129° (monohydrate), Mp 118° (dihydrate), Mp 167° (anhyd.).

▷ QK1820000.

Aniline salt: Mp 264°.

Anilide:

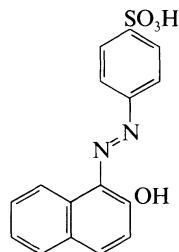
$C_{16}H_{13}NO_3S$ M 299.350
 Mp 161°.

Forster, R.B. *et al. J. Soc. Chem. Ind., London*, 1927, **46**, 29r.
 Engel, K.H., *J. Am. Chem. Soc.*, 1930, **52**, 2835.
 Vorontzov, I.I. *et al. CA*, 1934, **28**, 3730.
 Krebser, A. *et al. Helv. Chim. Acta*, 1938, **21**, 1221.
 Déribéré, M., *Fresenius' Z. Anal. Chem.*, 1939, **116**, 341 (*use, ind*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)
 Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1975, **5**, 470.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HMU500.

4-[(2-Hydroxy-1-naphthalenyl)azo] benzenesulfonic acid, 9CI H-00348

Tropaeolin OOO. C.I. 15510 Acid orange 7. C.I. 15510
 Pigment orange 17. Acid orange A. Orange II. Mandarin G.
 Wool orange A

[573-89-7]



$C_{16}H_{12}N_2O_4S$ M 328.348

The name Tropaeolin OOO strictly applies to the sodium salt. Cryst. Sol H₂O, EtOH.

Na salt: [633-96-5].

Used as acid-base indicator (pH range 7.4-8.6 colour change amber → orange; pH 10.2 → 11.8 orange → red); extraction-photometric detn. of surfactants; photometric detn. of Co (λ_{max} 357, ϵ 26800). Used as a 0.005% soln. in phosphate buffer in 50% MeOH. Biological stain. Dye. Orange needles + 5H₂O (H₂O). Sol. H₂O, EtOH.

Org. Synth., Coll Vol II, 1943, 36 (*synth*)

Popa, G. *et al. Zh. Anal. Khim.*, 1959, **14**, 322 (*use*)

Hseu, T.M. *et al. J. Chin. Chem. Soc. (Taipei)*, 1971, **18**, 203 (*detn, Co*)

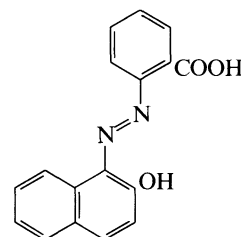
Kawase, J. *et al. Analyst (London)*, 1979, **104**, 750 (*use*)

Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 2656n.

2-[(2-Hydroxy-1-naphthalenyl)azo]benzoic acid, 9CI H-00349

1-(2-Carboxyphenylazo)-2-naphthol

[29128-56-1]



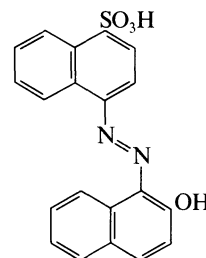
$C_{17}H_{12}N_2O_3$ M 292.293

Used for photometric detn. of Li. Orange-red cryst.

Strelcova, S.A. *et al. Uzb. Khim. Zh.*, 1967, **11**, 13 (*detn, Li*)

4-[(2-Hydroxy-1-naphthalenyl)azo]-1-naphthalenesulfonic acid, 9CI H-00350

2'-Hydroxy-1,1'-azonaphthalene-4-sulfonic acid



$C_{20}H_{14}N_2O_4S$ M 378.408

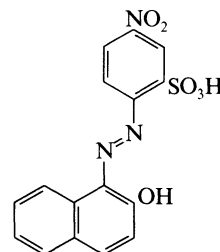
Ba salt: [50867-36-2].

Used as a 0.01% soln. in EtOH to give colour reaction with Pd. Orange-red cryst.

Popa, G. *et al. Zh. Anal. Khim.*, 1959, **14**, 322 (*use*)

2-[(2-Hydroxy-1-naphthalenyl)azo]-5-nitrobenzenesulfonic acid, 9CI H-00351

1-(4-Nitro-2-sulfophenylazo)-2-naphthol

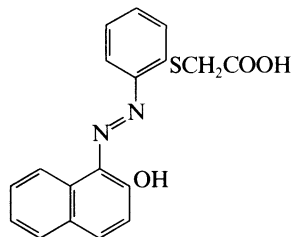
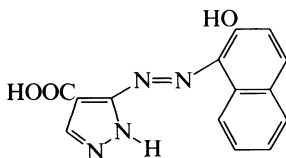


$C_{16}H_{11}N_3O_6S$ M 373.345

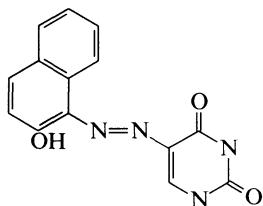
Used as a 4mM soln. in DMF for photometric detn. of Na (λ_{max} 550 nm). Red cryst. (DMF). Sol. DMF; spar. sol. H₂O.

[5850-83-9, 41364-45-8]

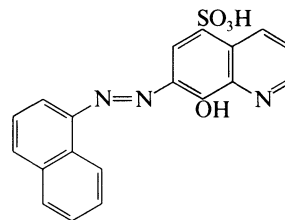
Markovich, I.S. *et al. Zh. Anal. Khim.*, 1973, **28**, 227 (*synth, use*)

[[2-[(2-Hydroxy-1-naphthalenyl)azo]phenyl]thioacetic acid, 9CI
[85261-29-6]C₁₈H₁₄N₂O₃S M 338.386Used as aq. soln. for photometric detn. of Ni (λ_{\max} 520 nm, ϵ 20200). Greenish prisms (AcOH). Sol. AcOH, EtOH, H₂O. Mp 167-169°. pK_{a1} 5.30 (50% EtOH).Pringle, D.L. *et al*, *Talanta*, 1982, **29**, 1097 (*synth, detn, Ni*)**3-[(2-Hydroxy-1-naphthalenyl)azo]-1H-pyrazole-4-carboxylic acid**
[51147-02-5]C₁₄H₁₀N₄O₃ M 282.258Used as a 1mM soln. in 1.5mM NaOH for photometric detn. of Co (λ_{\max} 580 nm, ϵ 12500), Cu (λ_{\max} 525 nm, ϵ 13000). Orange-red cryst. Sol. alkalis; spar. sol. Me₂CO, EtOH, dioxan. Mp 345-346°.

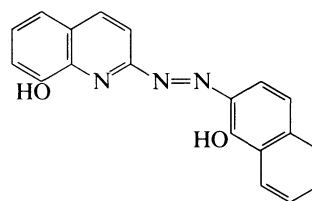
[29120-19-2]

Janik, B. *et al*, *Chem. Anal. (Warsaw)*, 1970, **15**, 397; 1971, **16**, 413 (*synth, detn, Cu, Co*)**5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1H,3H)-pyrimidinedione, 9CI**
1-(2,4-Dihydroxy-5-pyrimidylazo)-2-naphthol
[62817-76-9]C₁₄H₁₀N₄O₃ M 282.258*NH₄ salt*: Used as a 0.01% soln. in EtOH as chelatometric indicator in titrimetric detn. of MoO₄²⁻, WO₄²⁻, PO₄³⁻. Red cryst.Kundra, S.K. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 715 (*detn, MoO₄²⁻, WO₄²⁻, PO₄³⁻*)

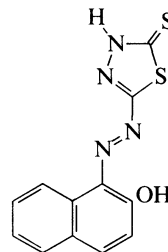
H-00352

8-Hydroxy-7-(1-naphthalenylazo)-5-quinolinesulfonic acid, 9CI*Naphthylazoxine*
[50539-65-6]C₁₉H₁₃N₃O₄S M 379.395Used as a 0.1-4% soln. in DMF as metallochromic indicator in titrimetric detn. of Cd, Cu, Ga, In, Pb, Tl, Zn. Cryst. (DMF aq.). Sol. DMF, spar. sol. EtOH, Me₂CO; insol. H₂O, Et₂O, C₆H₆, CHCl₃.Fritz, J.S. *et al*, *Anal. Chem.*, 1957, **29**, 821 (*detn, Cd, Cu, Pb, Zn*)Busev, A.J. *et al*, *CA*, 1962, **57**, 6603 (*detn, In*)Busev, A.J. *et al*, *Uzb. Khim. Zh.*, 1962, **6**, 24; *CA*, **57**, 15799 (*detn, Tl*)Busev, A.J. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 180 (*synth, detn, Ga*)

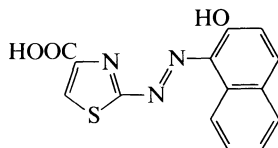
H-00353

2-[(1-Hydroxy-2-naphthalenyl)azo]-8-quinolinol, 9CI2-[2-(8-Hydroxyquinolyl)azo]-1-naphthol
[22960-27-6]C₁₉H₁₃N₃O₂ M 315.331Used as 0.6mM soln. in aq. dioxan for photometric detn. of Ca (λ_{\max} 610 nm, ϵ 24000, dioxan, pH 8.6-9.0) and as an indicator in EDTA titration of Ca. Reddish-brown needles (dioxan). Mp 212°. pK_{a1} 1.74; pK_{a2} 10.4 (0.1M KCl, 40% dioxan, 25°).Ishizuki, T. *et al*, *Anal. Chim. Acta*, 1985, **176**, 63 (*synth, detn, Ca*)**5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1H,3H)-pyrimidinedione, 9CI**

H-00354

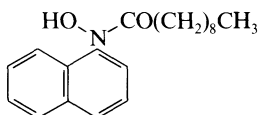
1-(2,4-Dihydroxy-5-pyrimidylazo)-2-naphthol
[62817-76-9]**5-[(2-Hydroxy-1-naphthalenyl)azo]-1,3,4-thiadiazole-2(3H)-thione, 9CI***Mercaptothiadiazolylazonaphthol*
[31165-30-7]C₁₂H₈N₄OS₂ M 288.353Used as a 0.2mM soln. in MeOH for photometric detn. of Co (λ_{\max} 638 nm, ϵ 11800), Ni (λ_{\max} 638 nm, ϵ 15000). Red amorph. powder. Sol. alkalis; mod. sol. Me₂CO, EtOH; spar. sol. H₂O. Mp 219-220°.Domagalina, E. *et al*, *Chem. Anal. (Warsaw)*, 1970, **15**, 769, 1227 (*synth, detn, Co, Ni*)

2-[(2-Hydroxy-1-naphthalenyl)azo]-4-thiazolecarboxylic acid **H-00358**
1-(4-Carboxy-2-thiazolylazo)-2-naphthol. 4-Carboxy-TAN
 [30486-42-1]



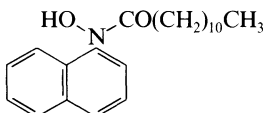
$C_{14}H_9N_3O_3S$ M 299.309
 Used in photometric detn. of In. Cryst. (EtOH). Sol. EtOH, MeOH.
 Drozdova, S.N., *Zh. Anal. Khim.*, 1971, **26**, 291 (*synth, detn, In*)

N-Hydroxy-N-1-naphthalenyldecanamide, 9Cl **H-00359**
N-1-Naphthylcaprihydroxamic acid
 [36237-35-1]



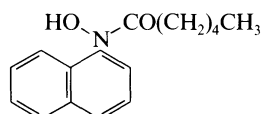
$C_{20}H_{27}NO_2$ M 313.439
 Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 495 nm, ϵ 4150, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .
 Gupta, V.K. *et al, J. Chem. Eng. Data*, 1972, **17**, 248 (*synth*)
 Gupta, V.K. *et al, Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

N-Hydroxy-N-1-naphthalenyldodecanamide, 9Cl **H-00360**
N-1-Naphthyllaurohydroxamic acid
 [36237-36-2]



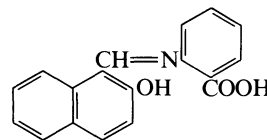
$C_{22}H_{31}NO_2$ M 341.492
 Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 500 nm, ϵ 3800, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .
 Gupta, V.K. *et al, J. Chem. Eng. Data*, 1972, **17**, 248 (*synth*)
 Gupta, V.K. *et al, Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

N-Hydroxy-N-1-naphthalenylhexanamide, 9Cl **H-00361**
N-1-Naphthylcaprohydroxamic acid
 [36237-34-0]



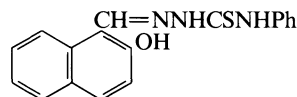
$C_{16}H_{19}NO_2$ M 257.332
 Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 495 nm, ϵ 4250, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .
 Gupta, V.K. *et al, J. Chem. Eng. Data*, 1972, **17**, 248 (*synth*)
 Gupta, V.K. *et al, Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

2-[(2-Hydroxy-1-naphthalenyl)methylene]amino]benzoic acid, 9Cl **H-00362**
N-(2-Hydroxy-1-naphthylidene)anthranilic acid
 [796-47-4]



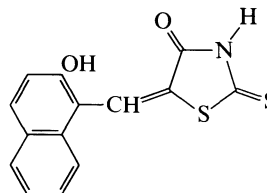
$C_{18}H_{13}NO_3$ M 291.306
 Used as a 10% aq. soln. for gravimetric detn. of Cu. Orange cryst. (EtOH).
 Mehta, R.K. *et al, J. Indian Chem. Soc.*, 1973, **50**, 658 (*synth, detn, Cu*)

2-[(2-Hydroxy-1-naphthalenyl)methylene]-N-phenylhydrazinecarbothioamide, 9Cl **H-00363**
 [59157-24-3]



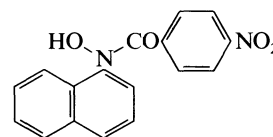
$C_{18}H_{15}N_3OS$ M 321.402
 Used as 0.25 mM soln. in $CHCl_3$ for extraction-photometric detn. of Pd (λ_{max} 435 nm, ϵ 9700). Yellow cryst. (EtOH). Sol. $CHCl_3$, EtOH.
 Yamaguchi, S. *et al, Analyst (London)*, 1985, **110**, 1241 (*synth, Pd*)

5-[(2-Hydroxy-1-naphthalenyl)methylene]-2-thioxo-4-thiazolidinone, 9Cl **H-00364**
5-(2-Hydroxy-1-naphthylidene)rhodanine



$C_{14}H_9NO_2S_2$ M 287.363
 Used as a 0.2% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt. Orange-red cryst. Sol. EtOH.
 Kulberg, L.M. *et al, Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)

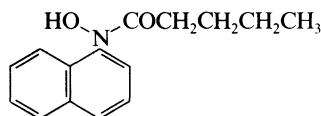
N-Hydroxy-N-1-naphthalenyl-4-nitrobenzamide, 9Cl **H-00365**
N-1-Naphthyl-p-nitrobenzohydroxamic acid
 [36237-42-0]



$C_{17}H_{12}N_2O_4$ M 308.293
 Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 505 nm, ϵ 4500, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .
 Gupta, V.K. *et al, J. Chem. Eng. Data*, 1972, **17**, 248 (*synth*)
 Gupta, V.K. *et al, Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

N-Hydroxy-N-1-naphthalenylpentanamide, 9CI **H-00366**

N-1-Naphthylvalerohydroxamic acid
[36237-33-9]

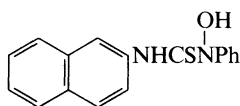


$C_{15}H_{17}NO_2$ M 243.305
Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 510 nm, ϵ 4200, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

Gupta, V.K. *et al*, *J. Chem. Eng. Data*, 1972, **17**, 248 (synth)
Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (detn, V)

N-Hydroxy-N'-2-naphthalenyl-N-phenylthiourea, 9CI **H-00367**

[20717-98-0]

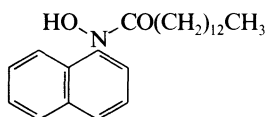


$C_{17}H_{14}N_2OS$ M 294.376
Used for photometric detn. of Co. Leaflets (EtOH). Sol. EtOH, Me_2CO , Et_2O .

Mocanu, R. *et al*, *CA*, 1973, **78**, 66602q (synth, use, detn, Co)

N-Hydroxy-N-1-naphthalenyltetradecanamide, 9CI **H-00368**

N-1-Naphthylmyristohydroxamic acid
[36237-37-3]



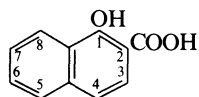
$C_{24}H_{35}NO_2$ M 369.546
Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 500 nm, ϵ 3800, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

Gupta, V.K. *et al*, *J. Chem. Eng. Data*, 1972, **17**, 248 (synth)
Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (detn, V)

1-Hydroxy-2-naphthoic acid **H-00369**

1-Hydroxy-2-naphthalenecarboxylic acid, 9CI. 1-Naphthol-2-carboxylic acid

[86-48-6]



$C_{11}H_8O_3$ M 188.182
Used for titrimetric detn. of Al, Bi, Cr, Cu, Ni, Th, Zr. Needles (EtOH or Et_2O). Spar. sol. H_2O ; sol. EtOH, Et_2O , C_6H_6 . Mp 195°.

Me ester: [948-03-8].

$C_{12}H_{10}O_3$ M 202.209
Cryst. (EtOH). Mp 78°.

Et ester: [33950-71-9].

$C_{13}H_{12}O_3$ M 216.236
Cryst. (EtOH). Mp 49°.

Nitrile: [67176-26-5]. 2-Cyano-1-naphthol

$C_{11}H_7NO$ M 169.182
Cryst. ($C_6H_6/MeOH$). Mp 176-177°.

Aggarwal, R.C. *et al*, *Z. Anorg. Allg. Chem.*, 1960, **304**, 337 (use)
Sen, A.B. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **195**, 255 (use)
Schulman, S., *Anal. Chim. Acta*, 1973, **67**, 259 (uv)
Beckmann, W., *Angew. Chem., Int. Ed. Engl.*, 1976, **88**, 549 (synth)
Gupta, M.P. *et al*, *Cryst. Struct. Commun.*, 1976, **5**, 553 (struct)
Hauser, F. *et al*, *J. Heterocycl. Chem.*, 1978, **15**, 1535; *J. Org. Chem.*, 1978, **43**, 178 (synth)
Broom, N.J.P. *et al*, *J. Chem. Soc., Perkin Trans. I*, 1981, 465 (deriv, pmr)

3-Hydroxy-2-naphthoic acid **H-00370**

3-Hydroxy-2-naphthalenecarboxylic acid, 9CI. β -Hydroxynaphthoic acid. 2-Naphthol-3-carboxylic acid
[92-70-6]

$C_{11}H_8O_3$ M 188.182
Used in water-based inks and as dyestuff intermediate. Used as 0.1% soln. in EtOH for photometric detn. of Fe(II) (ϵ 2200). Yellow cryst. (H_2O or AcOH). Sol. EtOH; mod. sol. H_2O . Mp 222-223°.

▷ Mod. toxic, irritant. QL1755000.

Me ester: [883-99-8].

$C_{12}H_{10}O_3$ M 202.209
Needles (EtOH). Mp 75-76°.

Et ester: [7163-25-9].

$C_{13}H_{12}O_3$ M 216.236
Needles (AcOH). Mp 85°.

Chloride:

$C_{11}H_7ClO_2$ M 206.628
Needles (pet. ether). Mp 95-96°.

Amide:

$C_{11}H_9NO_2$ M 187.198
Yellow needles (EtOH or AcOH). Mp 217-218°.

Amide, N-hydroxy: [22974-74-9]. 3-Hydroxy-2-naphthohydroxamic acid, 8CI

$C_{11}H_9NO_3$ M 203.197
Used for photometric detn. of V(V). Yellow cryst. Spar. sol. H_2O , sol. EtOH, Me_2CO . Mp 176°. pK_{a1} 7.50; pK_{a2} 9.04.

Nitrile: 3-Cyano-2-naphthol

$C_{11}H_7NO$ M 169.182
Cryst. (EtOH). Mp 188-189°.

Anilide: [92-77-3]. Naphthol AS. 3-Hydroxy-N-phenyl-2-naphthalenecarboxamide

$C_{17}H_{13}NO_2$ M 263.295
Used as aq. soln. of Na salt as fluorescent acid-base indicator (pH range 8.2-10.3; colour change: non-fluorescence → yellowish-green). Cryst. Sol. alkalies, EtOH.

Majumdar, A.K. *et al*, *Anal. Chim. Acta*, 1959, **21**, 47 (detn, Fe)
Markman, A.L. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1969, **12**, 97 (hydroxamic acid, use)

Ostrobrod, B.G. *et al*, *CA*, 1971, **75**, 19614y (pKa)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)

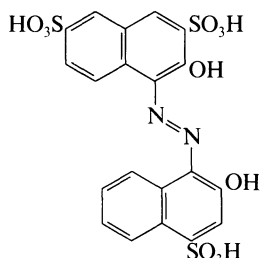
Ger. Pat., 2 449 779, (1974); *CA*, **85**, 46258y (synth)
Prafer-Janczewska, L. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1978, **52**, 1149 (ms)

Prafer-Janczewska, L. *et al*, *Spectrosc. Lett.*, 1978, **11**, 9 (nmr)
Pop, V. *et al*, *CA*, 1979, **90**, 177561t (uv)

Hydroxynaphthol blue

H-00371

3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, 2,2'-Dihydroxy-1,1'-azonaphthalene-3,4',6-trisulfonic acid
[29120-26-1]



$C_{20}H_{14}N_2O_{11}S_3$ M 554.535

Strictly, the name Hydroxynaphthol blue applies to the trisodium salt. pK_{a4} 6.44; pK_{a5} 12.93.

Tri-Na salt: [63451-35-4].

Used as metallochromic indicator in titrimetric detn. of Ca and for photometric detn. of Cu (λ_{max} 555 nm, ϵ 30000). Commercially available. Dark red cryst. powder.

Itoh, A. *et al*, *Analyst (London)*, 1970, **95**, 583 (*use*)

Sugawara, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1977, **50**, 3206 (*use*)

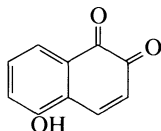
Sigma-Aldrich Library of Chemical Safety Data, 1988, **1**, 1943B.

5-Hydroxy-1,2-naphthoquinone

H-00372

5-Hydroxy-1,2-naphthalenedione

[38028-39-6]



$C_{10}H_6O_3$ M 174.156

Red needles. Mp 172-176° dec.

Me ether: [61539-67-1]. 5-Methoxy-1,2-naphthoquinone

$C_{11}H_8O_3$ M 188.182

Red cryst. (Me_2CO). Mp 208-210° (180-190°).

Dioxime: [56496-23-2].

$C_{10}H_8N_2O_3$ M 204.185

Used as 1mM soln. in EtOH for extraction-photometric detn. of Ni (λ_{max} 490 nm, ϵ 8600, $CHCl_3$). Cryst. Sol. EtOH.

[53589-70-1]

Cassebaum, H. *et al*, *Chem. Ber.*, 1959, **92**, 1643 (*synth, uv*)

Richey, F.A. *et al*, *J. Agric. Food Chem.*, 1972, **20**, 825 (*synth*)

Ashworth, P. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1974, 739 (*esr*)

Tôei, K. *et al*, *Anal. Chim. Acta*, 1975, **75**, 323 (*synth, detn, Ni*)

Ishii, H. *et al*, *Tetrahedron*, 1976, **32**, 2693 (*synth, ir, uv, pmr*)

Grundmann, C., *Synthesis*, 1977, 6441 (*synth*)

Krohn, K. *et al*, *Chem. Ber.*, 1989, **122**, 2323 (*synth, uv, pmr, cmr, ms*)

7-Hydroxy-1,2-naphthoquinone

H-00373

7-Hydroxy-1,2-naphthalenedione, 9CI

[607-09-0]

$C_{10}H_6O_3$ M 174.156

Mp 195-200°.

Me ether: [18398-34-0]. 7-Methoxy-1,2-naphthoquinone

$C_{11}H_8O_3$ M 188.182

Mp 165-170°.

Dioxime: [56496-24-3].

$C_{10}H_8N_2O_3$ M 204.185

Used as a 1mM soln. in EtOH for extraction-photometric detn. of Ni (λ_{max} 468 nm, ϵ 13300, $PhNO_2$). Cryst. Sol. EtOH.

[53589-72-3, 59734-97-3]

Teuber, H.J. *et al*, *Chem. Ber.*, 1954, **87**, 1236 (*synth, uv*)

Ashworth, P. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1974, 739 (*esr*)

Tôei, K. *et al*, *Anal. Chim. Acta*, 1975, **75**, 323 (*detn, Ni*)

Dixon, W.T. *et al*, *Tetrahedron Lett.*, 1976, 623 (*esr*)

Murali, D. *et al*, *Indian J. Chem., Sect. B*, 1987, **26**, 668 (*synth*)

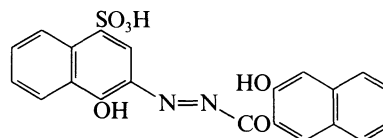
Lemaire, M. *et al*, *Tetrahedron*, 1987, **43**, 835 (*synth*)

2-(2-Hydroxy-3-naphthoylazo)-1-hydroxy-4-naphthalenesulfonic acid

H-00374

4-Hydroxy-3-[[[(3-hydroxy-2-naphthalenyl)carbonyl]azo]-1-naphthalenesulfonic acid, 9CI

[58033-08-2]



$C_{21}H_{14}N_2O_6S$ M 422.417

Used as a 1mM soln. in 10% DMF for photometric detn. of Ag, Hg; as 0.5mM soln. in 3% DMF as an indicator in EDTA titration of Hg, Cu, Tl(III), Th, In. Bright red cryst. (DMF aq.). Sol. Me_2CO , EtOH, DMF; insol. H_2O . pK_{a1} 7.22 ($\mu = 0.1$, H_2O).

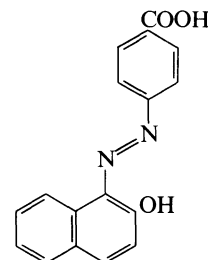
Sommer, L. *et al*, *CA*, 1975, **83**, 172074g (*synth, use*)

Sommer, L. *et al*, *Collect. Czech. Chem. Commun.*, 1977, **42**, 2862 (*synth, use, detn, Ag, Hg*)

p-[(2-Hydroxy-1-naphthyl)azo]benzoic acid, 8CI

H-00375

[32624-43-4]



$C_{17}H_{12}N_2O_3$ M 292.293

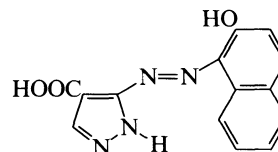
Used as 0.5% aq. soln. for indirect photometric detn. of F^{\ominus} . Cryst. Sol. H_2O , EtOH.

Ramasamy, J. *et al*, *Anal. Chem.*, 1979, **51**, 2044 (*synth, use, detn, F[⊖]*)

3-[(2-Hydroxy-1-naphthyl)azo]-4-pyrazolecarboxylic acid, 8CI

H-00376

[29120-19-2]

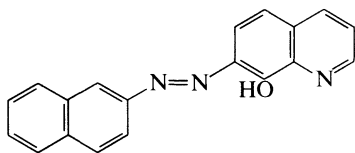


$C_{14}H_{10}N_4O_3$ M 282.258

Used as 1mM soln. in dioxan for photometric detn. of Cu(II) (λ_{\max} 525 nm, ϵ 14000). Cryst. (EtOH). Sol. EtOH, dioxan, alkalis.

Janik, B. *et al.*, *Chem. Anal. (Warsaw)*, 1970, **15**, 397 (*synth. detn.*, Cu)

8-Hydroxy-7-(2-naphthylazo)quinoline H-00377
7-(2-Naphthylazo)-8-quinolinol



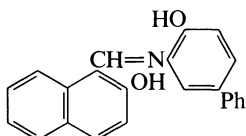
$C_{19}H_{13}N_3O$ M 299.331

Used as a soln. in EtOH as mercurimetric indicator. Orange-red cryst. Sol. Et₂O, Me₂CO, EtOH, CHCl₃.

Cherkesov, A.I., *Zavod. Lab.*, 1961, **27**, 1447 (*use*)

2-(2-Hydroxy-1-naphthylideneamino)-4-biphenylol H-00378

1-[N-(4-Hydroxy-3-biphenyl)formimidoyl]-2-naphthol

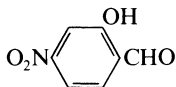


$C_{23}H_{17}NO_2$ M 339.393

Used as a 1mM soln. in EtOH for fluorimetric detn. of Al. Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 274.5-275.5°.

Argauer, R.J. *et al.*, *Anal. Chem.*, 1964, **36**, 2141 (*synth. use*)

2-Hydroxy-4-nitrobenzaldehyde H-00379
4-Nitrosalicylaldehyde. 2-Formyl-5-nitrophenol
[2460-58-4]



$C_7H_5NO_4$ M 167.121

Cryst. (EtOH aq.). Mp 134-135°.

Phenylhydrazone: Red cryst. (EtOH aq.). Mp 168-169°.

2,4-Dinitrophenylhydrazone: Orange cryst. (EtOH). Mp 323°.

2-Me, oxime: [64437-79-2]. *4-Nitro-o-anisaldoxime*

$C_8H_8N_2O_4$ M 196.162

Used as a 0.5% soln. in ethanediol for gravimetric detn. of Ag, Cu, Pd; photometric detn. of Ag, Pd. Yellow needles (C₆H₆). Sol. H₂O, Me₂CO, Et₂O, C₆H₆.

Segesser, J.R. *et al.*, *J. Am. Chem. Soc.*, 1942, **64**, 825.

Ryabokobylko, Y.S. *et al.*, *Zh. Strukt. Khim.*, 1974, **15**, 783 (*ir. nmr*)

Goswami, D.D., *CA*, 1975, **82**, 31075 (*synth*)

Buscarons, F. *et al.*, *Quim. Anal. (Madrid)*, 1976, **30**, 417; 1977, **31**, 29 (*detn. Ag, Pd*)

2-Hydroxy-5-nitrobenzaldehyde, 9CI H-00380
5-Nitrosalicylaldehyde. 2-Formyl-4-nitrophenol
[97-51-8]

$C_7H_5NO_4$ M 167.121

Derivatisation reagent for the gas chromatog. sepn. of unsymmetric hydrazines. Cryst. (AcOH aq.). Mp 126°.

pK_{a1} 5.51 (25°).

Me ether: [25016-02-8]. *2-Methoxy-5-nitrobenzaldehyde*

$C_8H_7NO_4$ M 181.148

Needles (H₂O). Mp 89-90°.

Oxime: [1595-15-9].

$C_7H_6N_2O_4$ M 182.135

Used as soln. in AcOH for detn. of Bi, Cu, Pb, Ni; used as a 0.5% soln. in ethanediol for gravimetric detn. of Ag, Cu, Pd; photometric detn. of Ag, Pd. Yellow needles/cryst. (C₆H₆). Sol. AcOH. Mp 225°.

Phenylthiosemicarbazone: [41377-31-5]. *2-[(2-Hydroxy-5-nitrophenyl)methylene]-N-phenylhydrazinecarbothioamide, 9CI*

$C_{14}H_{12}N_4O_3S$ M 316.340

Used for extraction-photometric detn. of Cu(II) (λ_{\max} 390 nm, ϵ 25000, CHCl₃, pH 2.3-6.2). Yellow cryst. Sol. DMF, EtOH.

[64437-80-5]

Miller, W., *Ber.*, 1887, **20**, 1927.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 257 (*synth. use*)

Hach, C.C. *et al.*, *CA*, 1948, **42**, 1240.

Denton, D.A. *et al.*, *J. Chem. Soc.*, 1963, 4741 (*synth*)

Neurath, G. *et al.*, *J. Chromatogr.*, 1968, **34**, 257 (*use*)

Ryabokobylko, Y.S. *et al.*, *Zh. Strukt. Khim.*, 1974, **15**, 783 (*ir. nmr*)

Buscarons, F. *et al.*, *Quim. Anal. (Madrid)*, 1976, **30**, 417; 1977, **31**, 29 (*detn. Ag, Pd, Cu*)

Peshkova, V.M. *et al.*, *Oximes*, Nauka, Moscow, 1977 (*synth. use*)

Yamaguchi, S. *et al.*, *Anal. Sci.*, 1986, **2**, 149 (*synth. use*)

4-Hydroxy-2-nitrobenzaldehyde H-00381
4-Formyl-3-nitrophenol

$C_7H_5NO_4$ M 167.121

Yellow needles (EtOH). Mp 67°.

Phenylhydrazone: Red needles (EtOH). Mp 189-190°.

Me ether: [22996-21-0]. *4-Methoxy-2-nitrobenzaldehyde. 3-Nitro-p-anisaldehyde*

Cryst. (CHCl₃/pet. ether). Mp 95.5-96°.

Me ether, 2,4-dinitrophenylhydrazone: Orange needles (EtOH). Mp 222-223° dec.

Me ether, oxime: [64437-81-6]. *2-Nitro-p-anisaldoxime*

$C_8H_8N_2O_4$ M 196.162

Used as a 0.5% soln. in ethanediol for gravimetric detn. of Ag, Cu, Pd; photometric detn. of Ag, Pd. Yellow needles (C₆H₆). Sol. H₂O, Me₂CO, Et₂O, C₆H₆.

Sachs, F. *et al.*, *Ber.*, 1906, **39**, 2754.

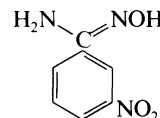
Woodward, R.B. *et al.*, *Tetrahedron*, 1958, **2**, 1.

Sidhu, G.S. *et al.*, *Justus Liebigs Ann. Chem.*, 1959, **627**, 218.

Buscarons, F. *et al.*, *Quim. Anal. (Madrid)*, 1976, **30**, 417; 1977, **31**, 29 (*deriv. detn. Ag, Pd, Cu*)

Boulton, A.J. *et al.*, *J. Org. Chem.*, 1977, **42**, 897.

N-Hydroxy-3-nitrobenzenecarboximidamide, 9CI H-00382
m-Nitrobenzamidoxime
[5023-94-9]



$C_7H_7N_3O_3$ M 181.151

Used as a 0.05M soln. in EtOH for photometric detn. of Cr(III) (λ_{\max} 550 nm). Cryst. (H₂O). Sol. H₂O, EtOH. Mp 174°.

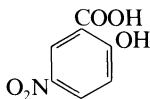
Manolov, K. *et al*, *Mikrochim. Acta*, 1970, 634 (*detn*, Cr)

2-Hydroxy-5-nitrobenzoic acid

H-00383

5-Nitrosalicylic acid

[96-97-9]

C₇H₅NO₅ M 183.120

Used as 1mM aq. soln. for photometric detn. of Ta (λ_{\max} 405 nm, pH 9-10). Needles (H₂O). Sol. H₂O. Mp 229-230°. p*K*_{a1} 2.1; p*K*_{a2} 10.6 (25°, 0.1M KCl).

Me ester: [17302-46-4].

C₈H₇NO₅ M 197.147Cryst. (Et₂O). Mp 119°.

Nitrile: [39835-09-1]. 2-Cyano-4-nitrophenol

C₇H₄N₂O₃ M 164.120

Yellow needles (H₂O). Mp 194-196°. p*K*_a 4.1 (30°, 0.1M KCl).

Me ether: [40751-89-1]. 2-Methoxy-5-nitrobenzoic acid

C₈H₇NO₅ M 197.147Plates or leaflets (H₂O). Mp 161°. Sublimes.

Me ether, chloride: [90763-46-5].

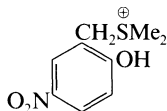
C₈H₆ClNO₄ M 215.592

Cryst. Mp 82-83°.

Simonsen, J.L. *et al*, *J. Chem. Soc.*, 1917, 111, 220.Chattaway, F.D., *J. Chem. Soc.*, 1926, 2720.Meldrum, A.N. *et al*, *J. Indian Chem. Soc.*, 1928, 5, 95.Barany, H.C. *et al*, *J. Chem. Soc.*, 1946, 965.McIntyre, J.S., *Can. J. Chem.*, 1967, 45, 767 (*ir*, *uv*)Gomaa, H.M. *et al*, *Environ. Lett.*, 1971, 2, 47.Sharma, I. *et al*, *Zh. Anal. Khim.*, 1976, 31, 398 (*use*)Talberg, H.J., *Acta Chem. Scand., Ser. A*, 1977, 31, 485 (*cryst struct*)de Paulis, T. *et al*, *J. Med. Chem.*, 1988, 31, 2027 (*deriv*, *synth*)**(2-Hydroxy-5-nitrobenzyl) dimethylsulfonium(1+)**

H-00384

[(2-Hydroxy-5-nitrobenzyl)methyl]dimethylsulfonium(1+), 9CI. HNB sulfonium

C₉H₁₂NO₃S[⊕] M 214.265 (ion)

Bromide: [28611-73-6].

C₉H₁₂BrNO₃S M 294.169

Reagent for detn. of tryptophan residues. Cryst. Sol. H₂O. Mp 172-173° dec.

Chloride:

C₉H₁₂ClNO₃S M 249.717Cryst. (MeOH/Et₂O). Mp 152-153° dec.

Me ether: Dimethyl(2-methoxy-5-nitrobenzyl)sulfonium(1+). [(2-Methoxy-5-nitrophenyl)methyl]dimethylsulfonium(1+), 9CI

C₁₀H₁₄NO₃S[⊕] M 228.291 (ion)

Me ether, bromide: [64415-08-3]. MNB sulfonium bromide. K-IIWS

C₁₀H₁₄BrNO₃S M 308.195

Polarity reporter of microenvironment in proteins. Sol. H₂O. Mp 139-150° dec.

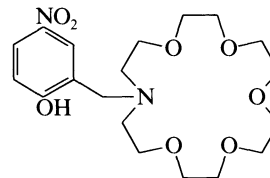
[28611-72-5]

Horton, H.R. *et al*, *J. Biol. Chem.*, 1970, 245, 3397 (*synth*)Tucker, W.P. *et al*, *Arch. Biochem. Biophys.*, 1971, 144, 730 (*use*)Borders, C.L. *et al*, *Biochem. Biophys. Res. Commun.*, 1972, 49, 246 (*use*)Michel, A. *et al*, *Arch. Int. Physiol. Biochim.*, 1976, 84, 400 (*use*)Kita, Y. *et al*, *J. Biochem. (Tokyo)*, 1982, 92, 653 (*use*)**16-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-16-azacyclooctadecane**

H-00385

4-Nitro-2-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)phenol, 9CI. N-(2-Hydroxy-5-nitrobenzyl)monoaza-18-crown-6

[79592-90-8]

C₁₉H₃₀N₂O₈ M 414.455

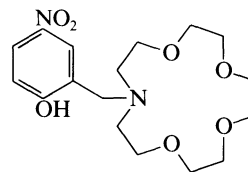
Used as 1,2-dichloroethane soln. for extraction of alkali metal ions. Yellow cryst. Sol. CHCl₃, 1,2-dichloroethane, dioxan. p*K*_{a1} 5.77; p*K*_{a2} 9.6 (25°, aq. 10% dioxan).

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1985, 173, 193 (*synth*, *use*)**13-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13-azacyclopentadecane**

H-00386

4-Nitro-2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)phenol, 9CI. N-(2-Hydroxy-5-nitrobenzyl)monoaza-15-crown-5

[79566-00-0]

C₁₇H₂₆N₂O₇ M 370.402

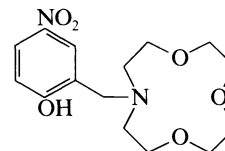
Used as 1,2-dichloroethane soln. for extraction of Li, Na, K. Yellow cryst. Sol. CHCl₃, 1,2-dichloroethane, dioxan. p*K*_{a1} 5.79; p*K*_{a2} 9.7 (25°, aq. 10% dioxan).

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1985, 173, 193 (*synth*, *use*)**10-(2-Hydroxy-5-nitrobenzyl)-1,4,7-trioxa-10-azacyclododecane**

H-00387

4-Nitro-2-(1,4,7-trioxa-10-azacyclododec-10-ylmethyl)phenol, 9CI. N-(2-Hydroxy-5-nitrobenzyl)monoaza-12-crown-4

[96927-45-6]

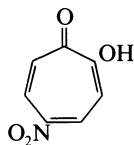
C₁₅H₂₂N₂O₆ M 326.349

Used as 1,2-dichloroethane soln. for extraction photometric detn. sepn. of Li (λ_{\max} 400 nm) from other alkali metals. Yellow cryst. Sol. CHCl₃, 1,2-dichloroethane, dioxan, H₂O. Mp 82-83°, Mp 98.5°. p*K*_{a1} 5.91; p*K*_{a2} 9.80 (25°, aq. 10% dioxan).

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1985, **173**, 193 (*synth, sepn, Li*)
Sasaki, K. *et al*, *Anal. Chim. Acta*, 1985, **174**, 141 (*sepn, Li*)

2-Hydroxy-5-nitro-2,4,6-cycloheptatrien-1-one, 9CI **H-00388**

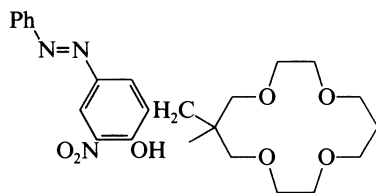
5-Nitrotropolone
[3084-13-7]



$C_7H_5NO_4$ M 167.121
Gives colour reaction with Fe(III). Cryst. pK_{a1} 2.64.
[55298-23-2]
Dutt, Y. *et al*, *Talanta*, 1969, **16**, 1369 (*pK, use*)

6-[2-Hydroxy-3-nitro-5-[(4-nitrophenyl)azo]benzyl]-6-methyl-1,4,8,11-tetraoxacyclotetradecane **H-00389**

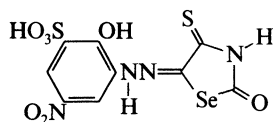
2-[[[(6-Methyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]azo]phenol, 9CI
[106419-36-7]



$C_{24}H_{30}N_4O_9$ M 518.522
Used as soln. in 1,2-dichloroethane for extraction sepn. of Li (λ_{max} 490 nm, ϵ 31000) from other alkali metals (selectivity ratio Li/Na 45). Red solid (MeOH/CHCl₃). Sol. MeOH, CHCl₃, 1,2-dichloroethane.
Kimura, K. *et al*, *J. Org. Chem.*, 1987, **52**, 836 (*synth, detn, Li*)

2-Hydroxy-5-nitro-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid **H-00390**

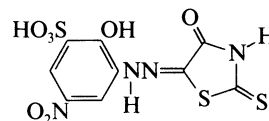
Sulfonitrophenolazoselenoisorhodanine



$C_9H_6N_4O_7S_2Se$ M 425.261
Various tautomers possible. Used as EtOH soln. for photometric detn. of Ag, Au, Pd, Pt. Brown cryst. powder. Sol. H₂O, EtOH.
Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)

2-Hydroxy-5-nitro-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, 9CI **H-00391**

Sulfonitrophenolazorhodanine
[35633-31-9]



$C_9H_6N_4O_7S_3$ M 378.367
Various tautomers possible. Used as 0.1% soln. in 50% EtOH for photometric detn. of Pt (λ_{max} 500 nm, ϵ 72000), Au, Ag. Red cryst. powder. Sol. H₂O, EtOH, DMF.

N-NH₂: 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid

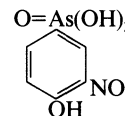
$C_9H_7N_5O_7S_3$ M 393.382
Used as EtOH soln. for photometric detn. of Ag, Au, Pd, Pt. Orange cryst. powder. Sol. H₂O, EtOH, DMF, dioxan.

Propistsova, R.F. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2424; 1975, **30**, 250 (*tautomer, synth, use*)

Basargin, N.N. *et al*, *Zavod. Lab.*, 1972, **38**, 260 (Pt)
Gur'eva, R.F. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 660 (Ag)
Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*rev*)

4-Hydroxy-3-nitrophenylarsonic acid, 9CI **H-00392**

4-Hydroxy-3-nitrobenzenearsonic acid. Roxarsone, INN, BAN, USAN. Ren-O-sal. Ristat. NSC 2101
[121-19-7]



$C_6H_6AsNO_6$ M 263.038
Used to control enteric infections in chickens and to improve growth and feed efficiency. Used as 2.5mM aq. soln. for pptn. separation of Ta from Sn, Ti, W; gravimetric detn. of Zr. Pale yellow needles or plates (H₂O). Spar. sol. hot H₂O. Mp > 300°. Puffs up and deflagrates on heating.

▷ Highly toxic orally. CY5250000.

Benda, L. *et al*, *Ber.*, 1911, **44**, 3445 (*synth*)

Izmailskii, V.A. *et al*, *Khim.-Farm. Promst.*, 1933, 317; *CA*, **28**, 3721 (*synth*)

Pressman, D. *et al*, *J. Am. Chem. Soc.*, 1943, **65**, 540 (*synth, pKa*)
Patrovsky, V., *Collect. Czech. Chem. Commun.*, 1965, **30**, 1727 (*detn, Ta*)

Kyrs, M. *et al*, *Collect. Czech. Chem. Commun.*, 1967, **32**, 747 (*detn, Zr*)

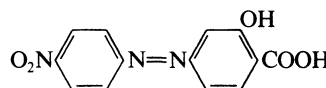
Chatterjee, A. *et al*, *Acta Crystallogr., Sect. B*, 1977, **33**, 3593 (*cryst struct*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 13220.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HMY000.

2-Hydroxy-4-(4-nitrophenylazo)benzoic acid **H-00393**

2-Hydroxy-4'-nitro-4-azobenzene-carboxylic acid
[20940-53-8]



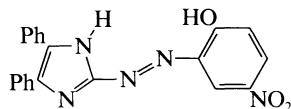
$C_{13}H_9N_3O_5$ M 287.231

Used as 0.006% aq. soln. (pH 10.5) for photometric detn. of Mg. Red cryst. Sol. alkalis.

Yoe, J.H., *J. Chem. Educ.*, 1937, **14**, 170 (detn, Mg)
Betteridge, D. *et al*, *Talanta*, 1962, **9**, 355 (detn, Mg)

2-[(2-Hydroxy-5-nitrophenyl)azo]-4,5-diphenylimidazole H-00394

2-[(4,5-Diphenylimidazol-2-yl)azo]-4-nitrophenol, 9CI
[5264-46-0]



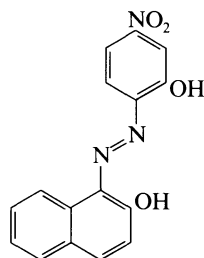
$C_{21}H_{15}N_5O_3$ M 385.381

Acetate salt: Used as a 1% soln. in EtOH-triethanolamine for photometric detn. of Co (λ_{max} 632 nm). Red cryst. (AcOH). Sol. EtOAc, EtOH. Mp 230° dec.

Mattison, L.E. *et al*, *Anal. Chem.*, 1969, **41**, 1690.

1-[(2-Hydroxy-4-nitrophenyl)azo]-2-naphthalenol, 9CI H-00395

[6434-57-7]



$C_{16}H_{11}N_3O_4$ M 309.281

Metal indicator used in complexometric detn. of Cd, Zn. Used as 0.1% soln. in EtOH or as a solid mixt. (1:100) with NaCl. Orange-red cryst. Sol. EtOH, Me₂CO. Mp 274-277°.

Budesinsky, B., *Collect. Czech. Chem. Commun.*, 1958, **23**, 895 (detn, Cd, Zn)

Schetty, G. *et al*, *Helv. Chim. Acta*, 1970, **53**, 1437; 1972, **55**, 1509 (synth)

1-[(2-Hydroxy-5-nitrophenyl)azo]-2-naphthalenol, 9CI H-00396

[14847-54-2]

$C_{16}H_{11}N_3O_4$ M 309.281

Used as 2mM soln. in Me₂CO for photometric detn. of V(IV) (λ_{max} 550 nm, ϵ 14800), V(V) (λ_{max} 550 nm, ϵ 10700), Mo. Orange cryst. Sol. EtOH, Me₂CO.

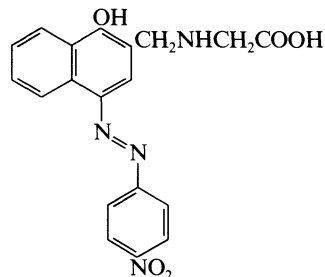
Simov, D. *et al*, *CA*, 1972, **76**, 155562c (synth)

Popa, G. *et al*, *CA*, 1974, **81**, 145218j (detn, Mo)

Caramlau, M. *et al*, *Rev. Chim. (Bucharest)*, 1978, **29**, 983; *CA*, **90**, 132213q.

N-[[1-Hydroxy-4-(4-nitrophenylazo)-2-naphthyl]methyl]glycine H-00397

4-(p-Nitrophenylazo)-2-glycinomethyl-1-naphthol. Glycine naphthol violet



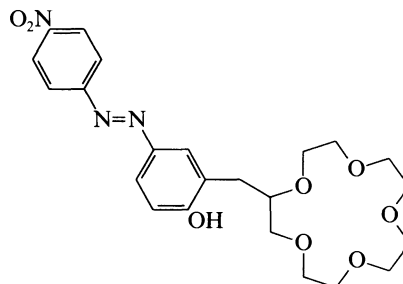
$C_{19}H_{16}N_4O_5$ M 380.359

Used as a metal indicator in titrimetric detn. of Co, Cu, Ni as a solid mixt. with KNO₃ (1:100). Orange-red cryst. Sol. alkalis.

Budesinsky, B., *Collect. Czech. Chem. Commun.*, 1959, **24**, 1804.

2-Hydroxy-[5-(4-nitrophenylazo)phenyl]methyl-15-crown-5 H-00398

4-[(4-Nitrophenyl)azo]-2-(1,4,7,10,13-pentaoxacyclopentadec-2-ylmethyl)phenol, 9CI
[100443-59-2]



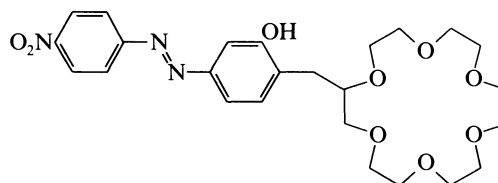
$C_{23}H_{29}N_3O_8$ M 475.497

Used as 1,2-dichloroethane soln. for extraction sepn. of Na, K, Rb, Cs. Brown powder (CHCl₃/EtOH). Sol. CHCl₃, dioxan, 1,2-dichloroethane. pK_a 7.97 (25°, aq. 10% dioxan).

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1985, **173**, 193 (synth, use)

2-Hydroxy-5-(4-nitrophenylazo)phenylmethyl-18-crown-6 H-00399

2-(1,4,7,10,13,16-Hexaoxacyclooctadec-2-ylmethyl)-4-[(4-nitrophenyl)azo]phenol, 9CI
[100443-61-6]



$C_{25}H_{33}N_3O_9$ M 519.550

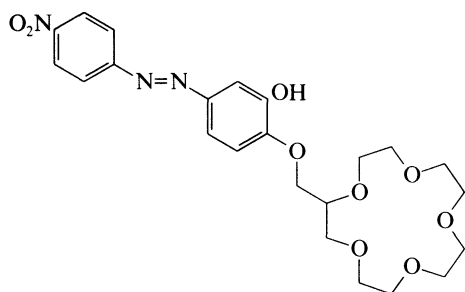
Used as 1,2-dichloroethane soln. for extraction of alkali metals; sepn. of K from Na. Brown powder. Sol. CHCl₃, 1,2-dichloroethane, dioxan. pK_a 8.11 (25°, aq. 10% dioxan).

Katayama, Y. *et al*, *Anal. Chim. Acta*, 1985, **173**, 193 (synth, use)

[2-Hydroxy-5-(4-nitrophenylazo)phenyl] oxymethyl-15-crown-5 H-00400

4-[(4-Nitrophenyl)azo]-2-(1,4,7,10,13-pentaoxacyclopentadec-2-ylmethoxy)phenol, 9CI

[81760-15-8]

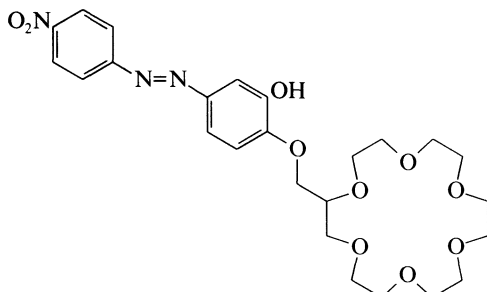
 $C_{23}H_{29}N_3O_9$ M 491.497

Used as 0.01mM soln. in 1,2-dichloroethane for extraction sepn. of alkali metals; extraction-photometric detn. of Na (λ_{max} 560 nm, ϵ 37000) and K. Red cryst. Sol. $CHCl_3$, C_6H_6 , CCl_4 , 1,2-dichloroethane. Mp 45-55°. pK_a 7.51 (25°, 10% dioxan).

Nakamura, H. *et al*, *Anal. Chim. Acta*, 1982, **139**, 219 (*synth, use*)**[2-Hydroxy-5-(4-nitrophenylazo)phenyl] oxymethyl-18-crown-6** H-00401

2-(1,4,7,10,13,16-Hexaoxacyclooctadec-2-ylmethoxy)-4-[(4-nitrophenyl)azo]phenol, 9CI

[81760-16-9]

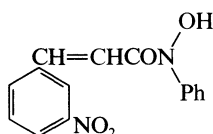
 $C_{25}H_{33}N_3O_{10}$ M 535.550

Used as 0.01mM soln. in 1,2-dichloroethane for extraction sepn. of alkali metals; extraction-photometric detn. of K (λ_{max} 575 nm, ϵ 35000) and Na. Red cryst. Sol. $CHCl_3$, C_6H_6 , CCl_4 . Mp 88-89°. pK_a 7.54 (25°, 10% dioxan).

Nakamura, H. *et al*, *Anal. Chim. Acta*, 1982, **139**, 219 (*use*)**N-Hydroxy-3-(3-nitrophenyl)-N-phenyl-2-propenamide, 9CI** H-00402

N-(m-Nitrocinnamoyl)phenylhydroxylamine

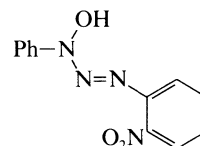
[81105-52-4]

 $C_{15}H_{12}N_2O_4$ M 284.271

Used as 5mM EtOH soln. for amperometric detn. of La (0.08-0.15 mg, pH 7.3, rotating graphite microelectrode). Bright-yellow cryst. Sol. EtOH. Mp 170°. pK_a 8.20.

Oliferenko, G.L. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 2330 (*synth, detn, La*)**3-Hydroxy-1-(2-nitrophenyl)-3-phenyl-1-triazene, 9CI** H-00403

[53464-35-0]

 $C_{12}H_{10}N_4O_3$ M 258.236

Used as a 1.5mM soln. in EtOH for photometric detn. of Zn (λ_{max} 490 nm). Brown-orange cryst. Sol. dioxan, Me_2CO ; spar. sol. Et_2O , EtOH; insol. H_2O . Mp 142-144°.

Hazova, I.P., *Khim. Khim. Tekhnol. (Minsk)*, 1963, **6**, 218 (*synth, detn, Zn*)Piatnitskii, I.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 44 (*detn, Zn*)**3-Hydroxy-1-(4-nitrophenyl)-3-phenyl-1-triazene, 9CI** H-00404

[17026-17-4]

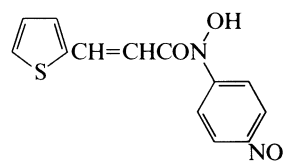
 $C_{12}H_{10}N_4O_3$ M 258.236

Used as 0.05% EtOH soln. for photometric detn. of Mg. Greenish yellow cryst. Sol. EtOH, MeOH, Me_2CO , toluene. Mp 182-184° dec.

Pochinok, K.N. *et al*, *Zh. Anal. Khim.*, 1951, **6**, 288 (*synth, detn, Mg*)Purohit, D.N., *Talanta*, 1967, **14**, 353 (*rev*)**N-Hydroxy-N-(4-nitrophenyl)-3-(2-thienyl)-2-propenamide, 9CI** H-00405

N-p-Nitrophenyl-2-thienylacrylohydroxamic acid

[119582-04-6]

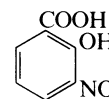
 $C_{13}H_{10}N_2O_4S$ M 290.299

Used as 0.1M soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 520 nm, ϵ 5900, 3.5-7.5M HCl). Cryst. (C_6H_6). Sol. $CHCl_3$, C_6H_6 .

Abbasi, S.A. *et al*, *Analyst (London)*, 1988, **113**, 1561 (*synth, detn, V*)**2-Hydroxy-3-nitrosobenzoic acid, 9CI** H-00406

3-Nitrososalicylic acid

[64780-75-2]

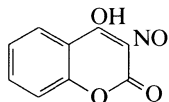
 $C_7H_5NO_4$ M 167.121

Used as metallochromic indicator for titrimetric detn. of Cu, Ni; extraction-photometric detn. of Co, Ni. Cryst. Sol. EtOH, alkalis, pet. ether.

Perry, M.H. *et al*, *Anal. Chem.*, 1950, **22**, 565 (*detn, Co, Ni*)Conaghan, H.F. *et al*, *CA*, 1960, **54**, 15090 (*detn, Cu, Ni*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*detn, Cu, Ni*)

4-Hydroxy-3-nitroso-2H-1-benzopyran-2-one, 9CI **H-00407**

3-Nitroso-4-hydroxycoumarin. Oximidobenzotetronic acid
[22308-86-7]



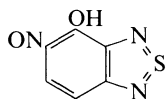
$C_9H_5NO_4$ M 191.143

Used as 1-2% EtOH soln. or 0.1% soln. in dioxan for photometric detn. of Ir, Os, Pt, Pd, Co, Cu (λ_{max} 427 nm), Fe(II), Th (λ_{max} 419 nm); gravimetric detn. of Co, Pd; spot test for Co, Cu, Fe. Cryst. Sol. EtOH.

Bhat, A.N. *et al.* *Anal. Chim. Acta*, 1961, **25**, 343 (*detn.*, Fe)
Bhat, A.N. *et al.* *J. Indian Chem. Soc.*, 1961, **38**, 779 (*synth.*)
Manku, G.S. *et al.* *Anal. Chim. Acta*, 1967, **39**, 128 (*detn.*, Co)
Manku, G.S. *et al.* *Talanta*, 1969, **16**, 1421, 1431 (*detn.*, Co, Pt, Pd, Os, Ir)
Manku, G.S. *et al.* *Mikrochim. Acta*, 1970, 1101, 1836; 1972, 811 (*detn.*, Cu, Co, Fe, Th)

4-Hydroxy-5-nitroso-2,1,3-benzothiadiazole **H-00408**

5-Nitroso-2,1,3-benzothiadiazol-4-ol, 9CI
[53370-81-3]



$C_6H_3N_3O_2S$ M 181.175

Used as a 0.5mM soln. in aq. EtOH for extraction-photometric detn. of Co, Fe (CHCl₃). Cryst. Sol. EtOH.

D'yachenko, S.A. *et al.* *Zh. Anal. Khim.*, 1974, **29**, 877 (*detn.*, Co, Fe)

5-Hydroxy-4-nitroso-2,1,3-benzothiadiazole **H-00409**

4-Nitroso-2,1,3-benzothiadiazol-5-ol, 9CI
[1753-78-2]

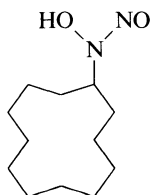
$C_6H_3N_3O_2S$ M 181.175

Used as a 0.5mM soln. in 50% EtOH for extraction-photometric detn. of Co, Fe (CHCl₃). Cryst. Sol. EtOH. Mp 170-175° (dec.).

Piesin, W.G. *et al.* *Zh. Obshch. Khim.*, 1964, **34**, 3763 (*synth.*)
D'yachenko, S.A. *et al.* *Zh. Anal. Khim.*, 1974, **29**, 877 (*use*)

N-Hydroxy-N-nitrosocyclododecanamine, 9CI **H-00410**

N-Nitroso-N-cyclododecylhydroxylamine
[51279-09-5]



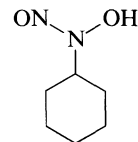
$C_{12}H_{24}N_2O_2$ M 228.334

Used as a 1% soln. in EtOH for gravimetric detn. of Ca, Mg; extraction sepn. of Al, Bi, Fe, Sb, Th, Zr; turbidimetric detn. of Ca, Mg. Cryst. Sol. EtOH (5.3 g per 100 cm³ at 20°); spar. sol. CHCl₃, C₆H₆, CCl₄; insol. H₂O. pK_{a1} 5.47.

Buscaróns, F. *et al.* *Anal. Chim. Acta*, 1974, **70**, 468 (*use*)

N-Hydroxy-N-nitrosocyclohexanamine, 9CI **H-00411**

N-Nitroso-N-cyclohexylhydroxylamine. Hexahydrocupferron
[4883-72-1]



$C_6H_{12}N_2O_2$ M 144.173
 pK_{a1} 5.58.

NH_4 salt: [22990-96-1].

Used as 1-3 % aq. soln. for extraction-photometric detn. of Cu, Fe, Ti, V; extraction-sepn. of Al, Bi, Fe, Sb, Th, Zr; amperometric titrimetric detn. of Cu, Fe. Cryst. Sol. H₂O (11.49 g per 100 cm³ at 20°); sl. sol. EtOH (0.43 g per 100 cm³ at 20°); spar. sol. CHCl₃, C₆H₆, CCl₄. Mp 140° (250° dec.).

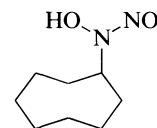
[22990-95-0]

Buscaróns, F. *et al.* *Anal. Chim. Acta*, 1973, **67**, 349; 1974, **70**, 113 (*detn.*, Al, Ti, V)

Buscaróns, F. *et al.* *Quim. Anal. (Madrid)*, 1974, **28**, 1975 (*amp detn.*, Cu, Fe)

N-Hydroxy-N-nitrosocyclooctylamine, 9CI **H-00412**

N-Nitroso-N-cyclooctylhydroxylamine



$C_8H_{16}N_2O_2$ M 172.227

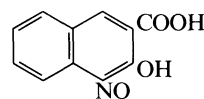
Used as a 1% aq. soln. for extraction sepn. of Al, Bi, Fe, Sb, Th, Zr. Cryst. Sol. H₂O (24.4 g per 100 cm³ at 20°), EtOH (4.1 g per 100 cm³ at 20°); spar. sol. CHCl₃, C₆H₆, CCl₄. pK_{a1} 5.65.

[51279-10-8]

Buscaróns, F. *et al.* *Anal. Chim. Acta*, 1974, **70**, 468 (*use*)

3-Hydroxy-4-nitroso-2-naphthalenecarboxylic acid, 9CI **H-00413**

[32446-26-7]



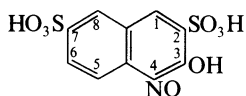
$C_{11}H_7NO_4$ M 217.181

Used as a 2mM aq. soln. for extraction-photometric detn. of Co (λ_{max} 428 nm, ϵ 32000, C₆H₆). Cryst. Sol. alkalis; mod. sol. H₂O.

Motomizu, S., *Bunseki Kagaku (Jpn. Anal.)*, 1971, **20**, 590 (*detn.*, Co)

3-Hydroxy-4-nitroso-2,7-naphthalenedisulfonic acid, 9CI, 8CI H-00414

1-Nitroso-2-hydroxy-3,6-naphthalenedisulfonic acid

C₁₀H₇NO₅S₂ M 333.299Sol. H₂O.

Di-Na salt: [525-05-3]. Nitroso R salt

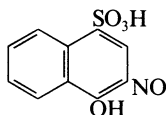
Used as 0.5% aq. soln. for photometric detn. of Co (λ_{max} 415 nm, ε 35000), Fe, Pd, Rh, Ru, Th (indirectly). Dispersant for aq. drilling fluids. Golden-yellow cryst.Sol. H₂O. pK_a 7.05.

▷ QJ6480000.

Shipman, W.H. *et al*, *Anal. Chem.*, 1955, **27**, 1240; 1956, **28**, 1151 (*detn*, Co)Shamir, J. *et al*, *Talanta*, 1961, **8**, 330 (*detn*, Pd)Miller, D.J. *et al*, *Anal. Chem.*, 1965, **37**, 739 (*detn*, Ru)U.S. Pat., 3 531 408, (1970); *CA*, **73**, 132712a (*use*)Barkovski, V.F. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 128 (*detn*, Fe)Rollins, O.W. *et al*, *Anal. Chem.*, 1971, **43**, 146 (*detn*, Rh)Ibrahim, N.A. *et al*, *J. Prakt. Chem.*, 1973, **315**, 203 (*use*)Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HNB000.**4-Hydroxy-3-nitroso-1-naphthalenesulfonic acid, 9CI** H-00415

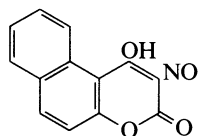
2-Nitroso-1-naphthol-4-sulfonic acid

[3682-32-4]

C₁₀H₇NO₅S M 253.235Used as 0.02M aq. soln. for photometric detn. of Co (λ_{max} 566 nm, ε 166000), Fe (ε 210000, CHCl₃). Cryst. Sol. H₂O.Motomizu, S. *et al*, *Anal. Chim. Acta*, 1977, **89**, 167; 1980, **120**, 267 (*detn*, Co)Motomizu, S. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1981, **30**, 245 (*detn*, Fe)Motomizu, S. *et al*, *Talanta*, 1982, **29**, 89 (*detn*, Co)**1-Hydroxy-2-nitroso-3*H*-naphtho[2,1-*b*]pyran-3-one, 9CI** H-00416

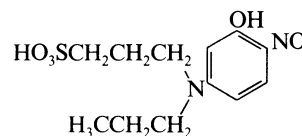
4-Hydroxy-3-nitroso-5,6-benzocoumarin

[53051-89-1]

C₁₃H₇NO₄ M 241.203Used as 0.05% soln. in Me₂CO for extraction-photometric detn. of Ru (λ_{max} 540 nm, ε 10400, butanol), Ni (λ_{max} 395 nm, ε 25000), Cu; detn. of Co, Fe. Yellow cryst. (AcOH). Sol. AcOH, Me₂CO, EtOH; insol. H₂O. Mp 178-180° dec.Kohli, N. *et al*, *Curr. Sci.*, 1973, **42**, 142 (*detn*, Ni)Kohli, N. *et al*, *Chimia*, 1974, **28**, 661 (*synth*, *detn*, Cu)Kohli, N. *et al*, *Talanta*, 1974, **21**, 638 (*detn*, Ru)Kohli, N. *et al*, *Mikrochim. Acta*, 1975, **1**, 675 (*detn*, Co)**3-[(3-Hydroxy-4-nitrosophenyl)propylamino]-1-propanesulfonic acid, 9CI** H-00417

2-Nitroso-5-(propylamino)phenol-N-propanesulfonic acid

[80459-15-0]

C₁₂H₁₈N₂O₅S M 302.351Used as aq. soln. for photometric detn. of Fe(II) (λ_{max} 756 nm, ε 45000). Yellow cryst. powder. Sol. H₂O.Saito, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1981, **30**, 635.**N-Hydroxy-N-nitroso-2-propanamine, 9CI** H-00418

N-Nitroso-N-isopropylhydroxylamine

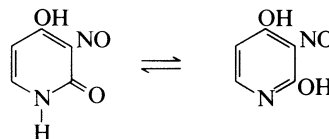
(H₃C)₂CHN(OH)NOC₃H₈N₂O₂ M 104.108Used as a 1% aq. soln. for extraction sepn. of Al, Bi, Fe, Sb, Th, Zr. Cryst. Sol. H₂O (25.6 g per 100 cm³ at 20°), EtOH (6.8 g per 100 cm³ at 20°); spar. sol. CHCl₃, C₆H₆, CCl₄. pK_a 5.64.

[53765-13-2]

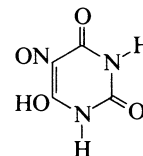
Buscaróns, F. *et al*, *Anal. Chim. Acta*, 1974, **70**, 468 (*use*)**4-Hydroxy-3-nitroso-2(1*H*)-pyridinone, 9CI** H-00419

2,4-Dihydroxy-3-nitrosopyridine

[52809-57-1]

C₅H₄N₂O₃ M 140.098Used as a 0.1% soln. in EtOH for photometric detn. of Co (λ_{max} 412 nm, ε 24500) and Fe(II) (λ_{max} 655 nm, ε 12600). Cryst. (EtOH). Sol. EtOH, Me₂CO. pK_{a1} 4.68 (μ = 0.1, 25°).Musumeci, S. *et al*, *Fresenius' Z. Anal. Chem.*, 1976, **282**, 221 (*detn*, Co, Fe)**6-Hydroxy-5-nitroso-2,4(1*H*,3*H*)-pyrimidinedione, 9CI** H-00420

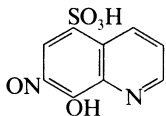
[43109-88-2]

C₄H₃N₃O₄ M 157.085Used for photometric detn. of Co (λ_{max} 367 nm, ε 40500). Cryst. Sol. EtOH, Me₂CO, Et₂O.Tsuchya, M. *et al*, *CA*, 1976, **85**, 186238s (*detn*, Co)

8-Hydroxy-7-nitroso-5-quinolinesulfonic acid, 9CI

H-00421

7-Nitroso-8-quinolinol-5-sulfonic acid
[5263-74-1]



$C_9H_6N_2O_5S$ M 254.223

Na salt: [56956-50-4].

Used as 2.5mM soln. for photometric detn. of Fe (λ_{max} 710 nm, ϵ 29000), Co (λ_{max} 525 nm, ϵ 11500); complexing agent for Cu, Fe, $UO_2^{2\oplus}$. Cryst. Sol. H_2O .

[40204-96-4]

Aly, M.M. *et al*, *J. Inorg. Nucl. Chem.*, 1972, **34**, 3939; 1973, **35**, 2727 (*synth, detn, Cu, Fe, UO₂[⊕]*)

Aly, M.M. *et al*, *Fresenius' Z. Anal. Chem.*, 1973, **266**, 127; 1974, **270**, 32 (*detn, Co, Fe*)

Eldawy, M.A. *et al*, *Anal. Chem.*, 1975, **47**, 1844 (*detn, Fe*)

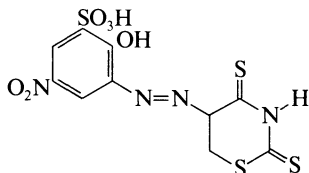
Eldawy, M.A. *et al*, *CA*, 1976, **85**, 37330p (*detn, Co*)

Abbasi, S. *et al*, *Indian J. Chem., Sect. A*, 1976, **14**, 215 (*detn, Fe*)

2-Hydroxy-5-nitro-3-[(tetrahydro-2,4-dithioxo-2H-1,3-thiazin-5-yl)azol]benzenesulfonic acid, 9CI

H-00422

Sulfonitrophenolazothiothiopropiorhodanine
[64780-77-4]



$C_{10}H_8N_4O_6S_4$ M 408.460

Used as 0.1% aq. soln. for photometric detn. of Pt, Pd, Au, Ag. Dark red cryst. powder. Sol. H_2O , alkalis, EtOH, Me_2CO .

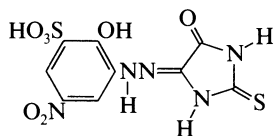
Gur'eva, R.F. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 632 (*synth, detn, Ag*)

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*rev*)

2-Hydroxy-5-nitro-3-[(2-thioxo-4-oxopyrrolidinyl)azol]benzenesulfonic acid

H-00423

Sulfonitrophenolazothiohydantoin



$C_9H_7N_5O_7S_2$ M 361.316

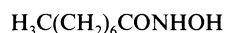
Various tautomers known. Used as EtOH soln. for photometric detn. of Pt, Pd, Au, Ag. Yellow cryst. powder. Sol. H_2O , EtOH, DMF.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)

N-Hydroxyoctanamide, 9CI

H-00424

Octanohydroxamic acid. Caprylohydroxamic acid
[7377-03-9]



$C_8H_{17}NO_2$ M 159.228

Used as an EtOH soln. for photometric detn. of V(V) (λ_{max} 450 nm). Cryst. Mp 78.5-79°.

N-Ph: [25310-14-9]. N-Phenylloctanohydroxamic acid. N-Hydroxy-N-phenylloctanamide, 9CI

$C_{14}H_{21}NO_2$ M 235.325

Used as 0.1mM soln. CCl_4 for extraction separation of Co, Ni, Zn, Pb, V(V) (λ_{max} 510 nm, ϵ 4000, 4M HCl), lanthanides. Cryst. (Et_2O /hexane). Sol. CCl_4 , $CHCl_3$. Mp 64.5-65.5°.

N-(4-Methylphenyl): [25310-15-0]. N-p-Tolyloctanohydroxamic acid. N-Hydroxy-N-(4-methylphenyl)octanamide

$C_{15}H_{23}NO_2$ M 249.352

Used for extraction-photometric detn. of V(V) (λ_{max} 510 nm, ϵ 4200, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

Inoue, Y. *et al*, *Nippon Kagaku Kaishi*, 1940, **16**, 504, 510; *CA*, 1941, **35**, 731 (*synth*)

Bass, V.C. *et al*, *Talanta*, 1966, **13**, 735 (*detn, V*)

Gupta, V.K. *et al*, *J. Indian Chem. Soc.*, 1969, **46**, 831.

Agrawal, Y.K. *et al*, *J. Chem. Eng. Data*, 1971, **16**, 495 (*deriv, synth*)

Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

Sosnovsky, G. *et al*, *Synthesis*, 1980, 654 (*synth, ir, nmr*)

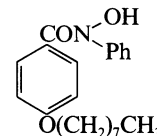
Haraguchi, K. *et al*, *Anal. Sci.*, 1989, **5**, 735; 1990, **6**, 877 (*deriv, use*)

Ruiqin, W. *et al*, *J. Am. Chem. Soc.*, 1989, **111**, 114 (*N-14 nmr*)

N-Hydroxy-4-(octyloxy)-N-phenylbenzamide, 9CI

H-00425

N-p-Octyloxybenzoyl-N-phenylhydroxylamine
[111052-01-8]



$C_{21}H_{27}NO_3$ M 341.449

Used as 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of Ti, V(V) (λ_{max} 570 nm, ϵ 7900, in the presence of SCN^\ominus). Cryst. Sol. $CHCl_3$, 1,2-dichloroethane.

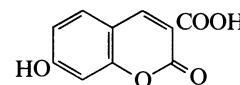
Inoue, S. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1988, **37**, 316 (*synth, detn, Ti*)

Inoue, S. *et al*, *Talanta*, 1989, **36**, 794 (*detn, V*)

7-Hydroxy-2-oxo-2H-1-benzopyran-3-carboxylic acid, 9CI

H-00426

7-Hydroxy-3-coumarincarboxylic acid
[779-27-1]



$C_{10}H_6O_5$ M 206.154

Used for fluorimetric detn. of amines. Cryst. Mp 271° dec. Ac: [81017-23-4].

$C_{12}H_8O_6$ M 248.192

Cryst. (AcOH). Mp 208°.

Me ester: [86788-49-0].

$C_{11}H_8O_5$ M 220.181

Cryst. (MeOH). Mp 236-237°.

Et ester: [6093-71-6].

$C_{12}H_{10}O_5$ M 234.208

Cryst. Mp 171°.

Et ester, Ac:

$C_{14}H_{12}O_6$ M 276.245

Plates (EtOH). Mp 153-154°.

Me ether: [20300-59-8]. 7-Methoxycoumarin-3-carboxylic acid

$C_{11}H_8O_5$ M 220.181

Fluorescent label for alcohols and amines. Faint greenish-yellow plates (EtOH aq.). Mp 195°.

Me ether, Me ester:

$C_{12}H_{10}O_5$ M 234.208

Yellow needles (MeOH). Mp 201-202°.

Me ether, Et ester: [6093-72-7].

$C_{13}H_{12}O_5$ M 248.235

Rhombic plates (EtOH). Mp 134°.

Me ether, chloride: [51867-62-0].

$C_{11}H_7ClO_4$ M 238.627

Fluorescent derivatisation reagent for alcohols. Pale yellow prismatic needles (CHCl₃/pet. ether). Mp 143°.

Me ether, fluoride: [129601-67-8]. 7-Methoxy-2-oxo-2H-1-benzopyran-3-carbonyl fluoride. 7-Methoxycoumarin-3-carbonyl fluoride

$C_{11}H_7FO_4$ M 222.172

Fluorescent labelling reagent for primary amines. Pale yellow needles (hexane). Mp 158-160°.

Me ether, azide: [97632-67-2]. 7-Methoxy-2-oxo-2H-1-benzopyran-3-carbonyl azide, 9CI

$C_{11}H_7N_3O_4$ M 245.194

Fluorescent labelling reagent for alcohols. Pale yellow needles. Mp 170-171°.

v. Pechmann, V.H. *et al*, *Ber.*, 1901, **34**, 378 (*synth*)

Boehm, T. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1933, **271**, 490 (*synth*)

Baker, W. *et al*, *J. Chem. Soc.*, 1949, 512 (*synth*)

Sherman, W.R. *et al*, *Anal. Chem.*, 1968, **40**, 803 (*spectra*)

Khan, M.A.S. *et al*, *Anal. Chim. Acta*, 1968, **43**, 156 (*pmr*)

Stewart, J.T. *et al*, *Anal. Chim. Acta*, 1970, **52**, 390 (*use*)

Stewart, J.T. *et al*, *J. Pharm. Sci.*, 1971, **60**, 461 (*use*)

Bissell, E.R., *Synthesis*, 1982, 846 (*synth, Et ester*)

Hogberg, T. *et al*, *Acta Chem. Scand., Ser. B*, 1984, **38**, 359 (*synth, pmr, ms*)

Wolfbeis, O.S. *et al*, *Bull. Chem. Soc. Jpn.*, 1985, **58**, 731 (*spectra*)

Takadate, A. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 1164 (*azide, synth, use*)

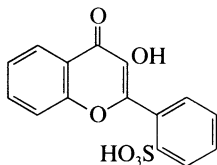
Hamada, C. *et al*, *J. Chromatogr.*, 1985, **341**, 426 (*chloride, use*)

Fujino, H. *et al*, *Anal. Sci.*, 1990, **6**, 465 (*deriv, synth, use*)

2-(3-Hydroxy-4-oxo-4H-1-benzopyran-2-yl)benzenesulfonic acid, 8CI

H-00427

3-Hydroxyflavone-2'-sulfonic acid. Flavonol-2'-sulfonic acid [17356-55-7]



$C_{15}H_{10}O_6S$ M 318.306

Used as EtOH soln. for photometric detn. of Tl(III) (λ_{max} 372 nm, ϵ 29000 pH 6-7.6), Zr, Sn(IV), Th. Yellowish cryst. Sol. H₂O, EtOH.

Oka, Y. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1964, **13**, 207 (*detn, Zr*)

Oka, Y. *et al*, *Nippon Kagaku Kaishi, Pure. Chem. Sect.*, 1964, **85**, 430; *CA*, **61**, 12627h (*detn, Th*)

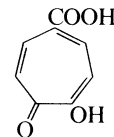
Yamamoto, K., *Nippon Kagaku Kaishi, Pure. Chem. Sect.*, 1967, **88**, 345; *CA*, **67**, 17575x (*detn, Tl*)

4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carboxylic acid

H-00428

Tropolone-5-carboxylic acid

[56968-86-6]



$C_8H_6O_4$ M 166.133

Fine yellow needles (AcOH). Mp 288° (dec.). Forms a monohydrate, Mp. 224-225°.

Nitrile: [3266-92-0]. 4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carbonitrile, 9CI. 5-Cyanotropolone

$C_8H_5NO_2$ M 147.133

Used as complexing agent for Fe(III). Yellow needles (H₂O). Mp 236°. pK_{a1} 3.72 (25°).

Me ester, Me ether: [57014-01-4].

$C_{10}H_{10}O_4$ M 194.187

Needles (C₆H₆). Mp 185°.

Cook, J.W. *et al*, *J. Chem. Soc.*, 1952, 4416; 1954, 530 (*synth*)

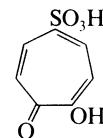
Johns, R.B. *et al*, *J. Chem. Soc.*, 1955, 309 (*synth*)

Dutt, Y. *et al*, *Talanta*, 1969, **16**, 1369 (*pKa, use*)

4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-sulfonic acid, 9CI

H-00429

5-Sulfotropolone. Tropolone-5-sulfonic acid



$C_7H_6O_5S$ M 202.187

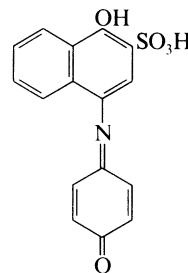
NH₄ salt: [56968-76-4].

Used as complexing agent for Fe(III), Th, UO₂²⁺. Cryst. Mp 280°. pK_{a1} 4.66, pK_{a1} 5.07.

Dutt, Y. *et al*, *Talanta*, 1969, **16**, 1369 (*pKa, use*)

1-Hydroxy-4-[(4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid, 8CI

H-00430



$C_{16}H_{11}NO_5S$ M 329.333

Na salt: [5418-38-2].

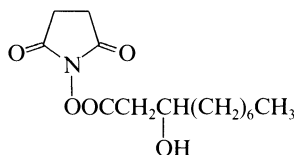
Redox indicator; acid-base indicator (colour change: brownish-red → blue). Used as a 0.02% aq. soln. Red cryst. Sol. H₂O. pK_{a1} 8.7. E° +0.544 V.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 484 (*use*)

1-[(3-Hydroxy-1-oxodecyl)oxy]-2,5-pyrrolidinedione, 9CI

H-00431

N-[(3-Hydroxydecanoyl)oxy]succinimide, 8CI. Succinimido 3-hydroxydecanoate
[53665-56-8]



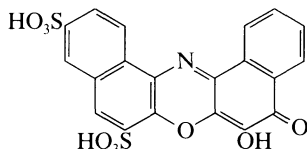
$C_{14}H_{23}NO_5$ M 285.339
Reagent for peptide sequence detn. by ms. Cryst. (EtOAc/pet. ether). Mp 78-78.5°.
[33796-55-3]

Hiramoto, M. *et al*, *Chem. Pharm. Bull.*, 1971, **19**, 1308 (*synth. use*)
Okada, K. *et al*, *Tetrahedron*, 1974, **30**, 1175 (*use*)

6-Hydroxy-5-oxo-5H-dibenzo[*a,j*]phenoxazine-8,11-disulfonic acid, 9CI

H-00432

[65501-73-7]



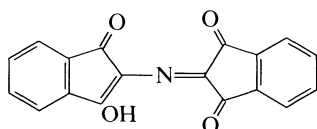
$C_{20}H_{11}NO_9S_2$ M 473.440
Used as 0.4mM aq. soln. for photometric detn. of V(V) (λ_{max} 630 nm, ϵ 22000). Cryst. Sol. H₂O. pK_a 3.37.

Lasovsky, J. *et al*, *Collect. Czech. Chem. Commun.*, 1977, **42**, 1941 (*detn. V*)

2-[(3-Hydroxy-1-oxo-1H-inden-2-yl)imino]-1H-indene-1,3(2H)-dione, 9CI

H-00433

Ninhydrin dye. Azinbisindandione
[7185-16-2]



$C_{18}H_9NO_4$ M 303.273
Used as a 0.1mM aq. soln. for photometric detn. of Bi, Pb (λ_{max} 560 nm), Hg (λ_{max} 530 nm); as metallochromic indicator for titrimetric detn. of Cu. Brown cryst. (propanol). Mp 310°.

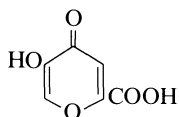
[36968-48-6]

Wehber, P. *et al*, *Fresenius' Z. Anal. Chem.*, 1957, **158**, 10 (*detn. Cu*)
Burkina, A.Y. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 473 (*detn. Bi, Pb, Hg*)

5-Hydroxy-4-oxo-4H-pyran-2-carboxylic acid, 9CI

H-00434

5-Hydroxy-4-pyrone-2-carboxylic acid. Comenic acid
[499-78-5]



$C_6H_4O_5$ M 156.095
Yellow cryst. Mp 270° dec. pK_{a1} -2.34; pK_{a2} 7.29 (25°).

Me ester: [49652-51-9].

$C_7H_6O_5$ M 170.121
Mp 185.5-186.5°.

Et ester: [50671-51-7].

$C_8H_8O_5$ M 184.148

Used as a 1% soln. in CHCl₃ for photometric detn. of O₂. Cryst. Mp 126-127°, Mp 135°. Subl.

Et ester, Ac:

$C_{10}H_{10}O_6$ M 226.185
Mp 104°.

Me ether: [1199-60-6]. 5-Methoxy-4-oxo-4H-pyran-2-carboxylic acid

$C_7H_6O_5$ M 170.121
Mp 280-282°.

Et ether: 5-Ethoxy-4-oxo-4H-pyran-2-carboxylic acid

$C_8H_8O_5$ M 184.148
Mp 239-240°.

Garkusha, G.A. *et al*, *Zh. Obshch. Khim.*, 1953, **23**, 1578; 1961, **31**, 2573 (*synth*)

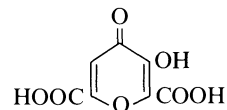
Becker, H.D., *Acta Chem. Scand.*, 1962, **16**, 78 (*synth*)

Garkusha, G.A. *et al*, *Zh. Prikl. Khim. (Leningrad)*, 1968, **41**, 995 (*detn. O₂*)

3-Hydroxy-4-oxo-4H-pyran-2,6-dicarboxylic acid, 9CI

H-00435

3-Hydroxy-4-pyrone-2,6-dicarboxylic acid. Meconic acid. Opium acid
[497-59-6]



$C_7H_4O_7$ M 200.104

Occurs in opium (*Papaver somniferum*) and other *P. spp.*

Used as a 0.5% aq. soln. for titrimetric detn. of Fe(III).

Cryst. + 3H₂O (H₂O), loses 3H₂O at 100°. Sol. EtOH,

C_6H_6 . Mp 270° dec. Subl. 210-215°. pK_{a1} 1.83; pK_{a2} 2.11; pK_{a3} 11.3 (30% EtOH, $\mu = 0.1$).

Di-Me ester: [58262-33-2].

$C_9H_8O_7$ M 228.158

Cryst. (MeOH). Mp 117°.

Di-Et ester: [729-63-5].

$C_{11}H_{12}O_7$ M 256.212

Cryst. (H₂O). Mp 111.5°.

Ac:

$C_9H_6O_8$ M 242.142

Cryst. (H₂O). Mp 218°.

Benzoyl:

$C_{14}H_8O_8$ M 304.212

Mp 248°.

Mennel, *J. Prakt. Chem.*, 1882, **26**, 456.

Garkusha, G.A. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1946, **16**, 2025.

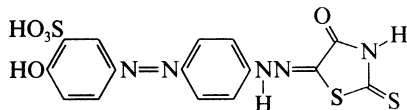
Sommer, L. *et al*, *Collect. Czech. Chem. Commun.*, 1956, **21**, 1645; 1966, **31**, 1288 (*detn. Fe*)

Goryaev, M.I., *CA*, 1963, **59**, 11419.

Garkusha, G.A. *et al*, *Zh. Obshch. Khim.*, 1963, **33**, 3579; *CA*, **60**, 11969 (*synth*)

2-Hydroxy-5-[[4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]phenyl]azo]benzenesulfonic acid

H-00436

Sulfophenolazobenzeneazorhodanine $C_{15}H_{11}N_5O_5S_3$ M 437.480

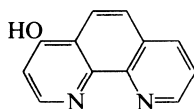
Various tautomers known. Used as EtOH soln. for photometric detn. of Ag, Au, Pd, Pt. Brown cryst. powder. Sol. H_2O , EtOH.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)**4-Hydroxy-1,10-phenanthroline**

H-00437

1,10-Phenanthroline-4-ol, 9CI

[23443-31-4]

 $C_{12}H_8N_2O$ M 196.208

Used as 0.01M soln. in dil. NaOH for photometric detn. of Fe(II) (λ_{max} 545 nm, ϵ 12000). Light yellow cryst. (H_2O). Sol. H_2O , alkalis. Mp 214-216°.

Poe, D.P. *et al*, *Talanta*, 1980, **27**, 368 (*synth, use, detn, Fe*)**6-Hydroxy-1,7-phenanthroline**

H-00438

1,7-Phenanthroline-6-ol, 9CI

[3697-13-0]

 $C_{12}H_8N_2O$ M 196.208

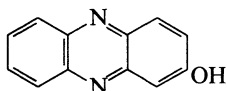
OH-form preferred. Shows inhibition of growth of *Plasmodium falciparum*. Forms complexes with transition metals. Can be used in spectrophotometric detn. of Fe(II) (λ_{max} 570 nm, ϵ 6500) and V. Slender prisms or plates (C_6H_6), cream needles (EtOH). Mp 160-161° (157°).

B, HCl: Yellow plates. Mp 274-275°.*B, 2HCl*: Pale yellow slender prisms (HCl conc.). Mp 315° dec.*Picrate*: Yellow plates or clusters of yellow needles (EtOH). Mp 243° (237°) dec.*Me ether*: *6-Methoxy-1,7-phenanthroline* $C_{13}H_{10}N_2O$ M 210.235Yellow cryst. (C_6H_6). Mp 99°.Howarth, R.D. *et al*, *J. Chem. Soc.*, 1944, 311 (*synth*)Druey, J. *et al*, *Helv. Chim. Acta*, 1950, **33**, 1080 (*Me ether*)Mason, S.F., *J. Chem. Soc.*, 1957, 4874 (*ir, tautom*)Duswalt, J.M. *et al*, *Anal. Chem.*, 1961, **33**, 1782 (*detn, Fe*)Dougherty, J.A. *et al*, *Anal. Chem.*, 1965, **37**, 1096 (*use*)Sen Gupta, P.K. *et al*, *J. Indian Chem. Soc.*, 1977, **54**, 653 (*synth, w, ir*)**2-Hydroxyphenazine**

H-00439

2-Phenazinol, 9CI

[4190-95-8]

 $C_{12}H_8N_2O$ M 196.208

Formed by *Pseudomonas aureofaciens*. Dark-red cryst. + H_2O (EtOH), anhyd. at 100°. Mp 253-254° dec. (> 200° dec.).

Ac: [18258-47-4]. $C_{14}H_{10}N_2O_2$ M 238.245Cryst. (EtOH or C_6H_6). Mp 151-152°.*Benzoyl*: [35605-70-0]. $C_{19}H_{12}N_2O_2$ M 300.316

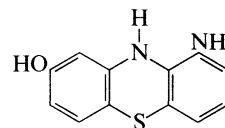
Mp 144-145°.

Me ether: [2876-18-8]. *2-Methoxyphenazine* $C_{13}H_{10}N_2O$ M 210.235Cryst. (H_2O). Mp 126°.*10-Oxide*: [18274-41-4]. $C_{12}H_8N_2O_2$ M 212.207

Mp 258° dec.

N-Me: [63508-56-5]. *10-Methyl-2(10H)-phenazinone, 9CI*.*Methylaposafranone* $C_{13}H_{10}N_2O$ M 210.235

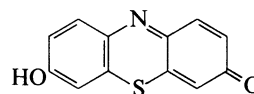
Used as a redox indicator. Dark red needles (H_2O). E° + 0.197 V (30°).

Priesler, P.W. *et al*, *J. Am. Chem. Soc.*, 1937, **59**, 141 (*N-Me, synth, ind*)Levitch, M.E. *et al*, *Biochemistry*, 1966, **5**, 689 (*isol, w, ir, synth*)Pietra, S. *et al*, *Ann. Chim. (Rome)*, 1971, **61**, 290 (*synth*)Inoue, H., *Bull. Chem. Soc. Jpn.*, 1971, **44**, 3101 (*synth*)Flood, M.E. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1972, 622 (*isol*)Neuenhaus, W. *et al*, *Z. Naturforsch., B*, 1980, **35**, 385 (*synth*)**8-Hydroxy-10H-phenothiazin-1-amine, 9CI** H-00440 $C_{12}H_{10}N_2OS$ M 230.290*Et ether*: [66824-85-9]. *1-Amino-8-ethoxyphenothiazine. 8-**Ethoxy-10H-phenothiazin-1-amine, 9CI* $C_{14}H_{14}N_2OS$ M 258.343

Used for photometric detn. of Hg (λ_{max} 445 nm, ϵ 24100). Yellow cryst. powder.

Chaudhary, R.C. *et al*, *CA*, 1978, **89**, 52764j (*detn, Hg*)**7-Hydroxy-3H-phenothiazin-3-one, 9CI** H-00441*Thionol*

[3568-81-8]

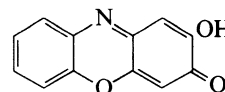
 $C_{12}H_7NO_2S$ M 229.259

Used as a 0.1% soln. in conc. HCl as redox indicator.

Reddish yellow needles (AcOH). pK_{a1} 5.8; pK_{a2} 9.2; pK_{a3} 10.5. E° + 0.53 V (21°); λ_{max} 590 nm.

De Eds, F. *et al*, *J. Am. Chem. Soc.*, 1938, **60**, 1446, 2079 (*synth, props*)Granick, S. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 2983 (*synth*)Ruzicka, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **195**, 411 (*use*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)**2-Hydroxy-3H-phenoxazin-3-one, 9CI** H-00442*Phenoxazone*

[1915-49-7]



$C_{12}H_7NO_3$ M 213.192

Used as a redox indicator. Red cryst. Sol. common org. solvs. Mp 264-265° dec. $E^\circ +0.35$ V.

Me ether: 2-Methoxy-3H-phenoxazin-3-one

$C_{13}H_9NO_3$ M 227.219

Pale-yellow cryst. Mp 255° dec.

Musha, S. *et al*, *Nippon Kagaku Kaishi*, 1955, **76**, 1289 (*use, ind*)

Cavill, G.W.K. *et al*, *Tetrahedron*, 1961, **12**, 139 (*synth*)

Bolognese, A. *et al*, *J. Heterocycl. Chem.*, 1986, **23**, 1003 (*synth, w, pmr*)

7-Hydroxy-3H-phenoxazin-3-one, 9CI H-00443

Resorufin. Azoresorufin. 9-Hydroxy-3-isophenoxazine

[635-78-9]

$C_{12}H_7NO_3$ M 213.192

Brown needles (aniline). Sol. alkali, insol. H_2O , Et_2O .

10-Oxide: [550-82-3]. *Resazurin*

$C_{12}H_7NO_4$ M 229.192

Used as indicator and for colorimetric detn. of bacteria in milk. Used as a 1mM soln. in EtOH as redox indicator for titanometry, stannometry. Blue prisms (AcOH). Dark red to greenish prisms or plates (AcOH, EtOAc). Sol. Et_2O , EtOH. $E^\circ +0.324$ V (pH 2.09, 23°).

▷ SP7700000.

Ac: [1152-14-3]. *o-Aceto-resorufin*

$C_{14}H_9NO_4$ M 255.229

Used as 0.1mM soln. in HCl in EtOH as redox indicator for titanometry, stannometry. Orange cryst. (AcOH). Sol. Et_2O , EtOH. Mp 221°. $E^\circ +0.405$ V (pH 1.7, 23°).

Ac, 10-oxide: [3950-29-6]. *o-Acetylresazurin*

$C_{14}H_9NO_5$ M 271.229

Used as a redox indicator for titanometry and stannometry. Orange cryst. (AcOH). Sol. Et_2O , EtOH. $E^\circ +0.405$ V (pH 2.1, 23°).

Me ether: [5725-89-3].

$C_{13}H_9NO_3$ M 227.219

Used as a 1mM soln. in EtOH as redox indicator for titanometry, stannometry. Orange cryst. (EtOH). Sol. Et_2O , EtOH. $E^\circ +0.329$ V (pH 2.04, 23°).

Me ether, 10-oxide: [5748-27-6].

$C_{13}H_9NO_4$ M 243.218

Used as 1mM soln. in EtOH as redox indicator for titanometry, stannometry. Dark red cryst. Sol. Et_2O , EtOH. $E^\circ +0.339$ V (pH 2.27, 23°).

Et ether: [5725-91-7].

$C_{14}H_{11}NO_3$ M 241.246

Use as a 1mM soln. in EtOH as redox indicator for titanometry, stannometry. Fluorimetric substrate for cytochrome P_{450} linked enzymes. Orange needles (EtOH). Sol. Et_2O , EtOH. Mp 225°. $E^\circ +0.339$ V (pH 2, 23°).

Et-ether, 10-oxide: [3705-80-4].

$C_{14}H_{11}NO_4$ M 257.245

Used as a 1mM soln. in EtOH as redox indicator for titanometry, stannometry. Dark red needles (EtOH). Sol. Et_2O , EtOH. Mp 215°. $E^\circ +0.363$ V (pH 2.1, 23°).

Nietzki, B. *et al*, *Ber.*, 1889, **22**, 3020.

Twigg, R.S., *Nature (London)*, 1945, **155**, 401.

Ruzička, E., *Fresenius' Z. Anal. Chem.*, 1967, **228**, 423 (*use, 10-oxide, Et ether*)

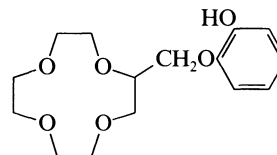
Burke, M.D. *et al*, *Biochem. Pharmacol.*, 1985, **34**, 3337 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HNG500.

(2-Hydroxyphenoxymethyl)-12-crown-4 H-00444

2-(1,4,7,10-Tetraoxacyclododec-2-ylmethoxy)phenol, 9CI

[90095-19-5]



$C_{15}H_{22}O_6$ M 298.335

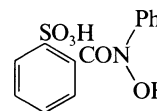
Used as a 0.1mM soln. in CH_2Cl_2 for extraction separation of alkali metals. Cryst. Sol. CH_2Cl_2 , $CHCl_3$, toluene.

Pacey, G.E. *et al*, *Synth. Commun.*, 1981, **11**, 323 (*synth*)

Pacey, G.E. *et al*, *Talanta*, 1984, **31**, 165 (*use*)

2-[(Hydroxyphenylamino)carbonyl] benzenesulfonic acid H-00445

N-(2-Sulfobenzoyl)-N-phenylhydroxylamine



$C_{13}H_{11}NO_5S$ M 293.300

Na salt: [33834-74-1].

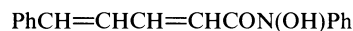
Used as aq. soln. for photometric detn. of Fe(III) (λ_{max} 450 nm, ϵ 4100). Cryst. Sol. H_2O .

Bhargava, S.P. *et al*, *J. Inst. Chem. (India)*, 1971, **43**, 159; *CA*, **76**, 80705r.

1-(Hydroxyphenylamino)-5-phenyl-1,4-pentadien-3-one, 9CI H-00446

3-Styrylacryloyl-N-phenylhydroxylamine

[67734-63-8]



$C_{17}H_{15}NO_2$ M 265.311

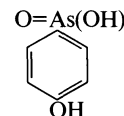
Used as 4mM EtOH soln. for amperometric detn. of Sc (pH 5.5-6.5, graphite electrode). Cryst. Sol. EtOH; sl. sol. H_2O .

Shvedene, N.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 60 (*synth, detn, Sc*)

(4-Hydroxyphenyl)arsonic acid H-00447

4-Hydroxybenzenearsonic acid. Oxarsanilic acid

[98-14-6]



$C_6H_7AsO_4$ M 218.040

Used for pptn. separation of many metals. Prisms (AcOH). Sol. H_2O , EtOH. Mp 177-178° dec. pK_{a1} 3.85; pK_{a2} 8.63; pK_{a3} 10.13 (25°).

▷ Toxic. CY5075000.

Na salt: Cryst. (EtOH aq.).

Formaldehyde polymer mixt.: [54531-52-1]. **Polybenzarsol**,

INN. Benzarsol. Benzocal. Benzoral

Antiprotozoal agent. LD₅₀ 235 mg/kg (mouse, i.p.).

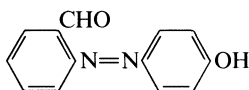
▷ CH9495000.

[9006-68-2]

Bertheim, A., *Ber.*, 1908, **41**, 1854 (*synth*)

Barrowcliff, M. *et al*, *J. Chem. Soc.*, 1908, **93**, 1895 (*synth*)
Org. Synth., Coll. Vol., 1, 1932, 490 (*synth*)
 Pressman, D. *et al*, *J. Am. Chem. Soc.*, 1943, **65**, 540 (*pKa*)
 Faith, H.E., *J. Am. Chem. Soc.*, 1950, **72**, 837 (*polybenzarsol*)
 Ueda, T. *et al*, *Yakugaku Zasshi*, 1951, **71**, 821 (*synth*)
 Jones, W.R. *et al*, *Antibiot. Chemother. (Washington, D.C.)*, 1958, **8**, 400 (*polybenzarsol*)
 Nakata, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1962, **35**, 1611 (*pptn*)
 Kyrs, M. *et al*, *Collect. Czech. Chem. Commun.*, 1967, **32**, 747 (*detn, Hf, Zr*)
 Morgan, W.E. *et al*, *Inorg. Chem.*, 1972, **11**, 219.
 Vlacil, F., *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BCJ150, PDO250.

2-(4-Hydroxyphenylazo)benzaldehyde **H-00448**
 4'-Hydroxyazobenzene-2-carboxaldehyde. 2-Formyl-4'-hydroxyazobenzene



$C_{13}H_{10}N_2O_2$ M 226.234

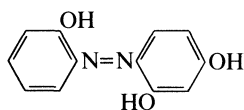
Me ether, oxime:

$C_{14}H_{13}N_3O_2$ M 255.276

Used as a 2mM aq. soln. for photometric detn. of Co.
 Orange-red cryst.

Mahgoub, A.E. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 205 (*detn, Co*)

4-[(2-Hydroxyphenyl)azo]-1,3-benzenediol **H-00449**
9CI
 4-(2-Hydroxyphenylazo)resorcinol. 2,2',4'-Trihydroxyazobenzene
 [4867-02-1]

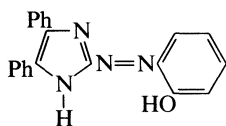


$C_{12}H_{10}N_2O_3$ M 230.223

Used for titrimetric detn. of Ca, Mg. Pale yellow cryst. (EtOH). Sol. EtOH, alkalis; sl. sol. H₂O. Mp 183-184° dec. *pK*_{a1} 6.6; *pK*_{a2} 8.7; *pK*_{a3} 12.2 ($\mu = 0.1$).

Diehl, H. *et al*, *Anal. Chem.*, 1960, **32**, 1120 (*synth, use, detn, Ca, Mg*)

2-[(2-Hydroxyphenyl)azo]-4,5-diphenylimidazole **H-00450**
 2-[(4,5-Diphenyl-1H-imidazol-2-yl)azo]phenol, 9CI
 [60037-63-0]

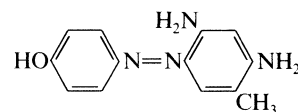


$C_{21}H_{16}N_4O$ M 340.384

Used as 0.1mM soln. in EtOH aq. for colour reactions with Cu, Co, Ag, Cd, Ga, Mn, Ni, Pb, V, Zn. Orange needles (EtOH aq.). Sol. EtOH, CHCl₃, alkalis; spar. sol. H₂O. Mp 243°. *pK*_{a2} 2.7; *pK*_{a3} 8.7 (EtOH aq.).

Shibata, S. *et al*, *Anal. Chim. Acta*, 1976, **81**, 131 (*synth, use*)

4-[(4-Hydroxyphenyl)azo]-6-methyl-1,3-benzenediamine **H-00451**



$C_{13}H_{14}N_4O$ M 242.280

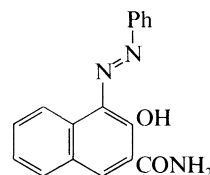
Et ether: 4-[(4-Ethoxyphenyl)azo]-6-methyl-1,3-benzenediamine

$C_{15}H_{18}N_4O$ M 270.333

Acid-base indicator (pH 4.8-6.6; colour change: red → yellow). Used as 0.1% soln. in EtOH. Orange cryst. (EtOH). Sol. EtOH, C₆H₆, Et₂O; insol. H₂O.

Schulek, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1944, **128**, 398 (*use*)

3-Hydroxy-4-(phenylazo)-2-naphthalenecarboxamide **H-00452**
 [6271-25-6]



$C_{17}H_{13}N_3O_2$ M 291.309

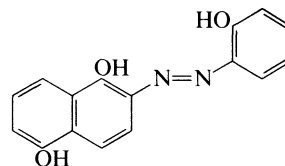
N-Hydroxy: [58998-10-0]. 1-Phenylazo-2-hydroxy-3-naphthylhydroxamic acid. N,3-Dihydroxy-4-(phenylazo)-2-naphthalenecarboxamide, 9CI

$C_{17}H_{13}N_3O_3$ M 307.308

Used as CHCl₃ soln. for extraction-photometric detn. of V (λ_{max} 545 nm, ϵ 65400, C₆H₆). Cryst. Sol. C₆H₆, CHCl₃, DMF.

Abdusalamova, E.K. *et al*, *CA*, 1976, **84**, 159197a (*synth, use*)

2-[(2-Hydroxyphenyl)azo]-1,5-naphthalenediol **H-00453**



$C_{16}H_{12}N_2O_3$ M 280.282

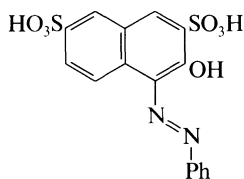
Metal indicator used as a 0.1% soln. in EtOH for titrimetric detn. of Ca, Cd, Mg, Mn, Zn. Orange-red cryst. Sol. EtOH, Me₂CO.

Budesinsky, B., *Collect. Czech. Chem. Commun.*, 1958, **23**, 895 (*use*)

3-Hydroxy-4-(phenylazo)-2,7-naphthalenedisulfonic acid, 9CI

H-00454

C.I. Acid orange 14. C.I. 16100. Brilliant orange 2R. Naphthalene lake orange R. Ponceau G. Cetil orange RR. Orange R. Other proprietary names
[3626-43-5]



$C_{16}H_{12}N_2O_7S_2$ M 408.412

The name Ponceau G is also used for C.I. Acid red 26.

Disodium salt: [5859-00-7].

Used for photometric detn. of Pd. Orange-red cryst. Sol. H_2O ; spar. sol. EtOH.

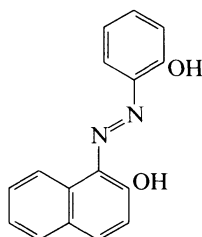
Colour Index, 3rd Ed., 1971, 4, 4090.

Issa, Y.M. *et al. An. Quim.*, 1983, 79, 207.

1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, 9CI

H-00455

[4866-98-2]



$C_{16}H_{12}N_2O_2$ M 264.283

Used as a 0.1% soln. in EtOH as metal indicator in complexometric detn. of Ca, Mg, Sr. Orange-red cryst. (EtOH). Sol. EtOH, Me_2CO . Mp 192°. pK_{a1} 7.7; pK_{a2} 12.4.

[52820-18-5]

Drew, H.D.K. *et al. J. Chem. Soc.*, 1938, 292 (*synth*)

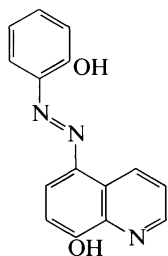
Budesinsky, B., *Collect. Czech. Chem. Commun.*, 1958, 23, 895 (*detn. Ca, Sr*)

Diehl, H. *et al. Anal. Chem.*, 1960, 32, 1120 (*synth, detn. Ca, Mg*)

5-(2-Hydroxyphenylazo)-8-quinolinol, 9CI

H-00456

8-Hydroxy-5-(2-hydroxyphenylazo)quinoline



$C_{15}H_{11}N_3O_2$ M 265.271

Gives colour reactions with Cd, Co, Mn, Ni, Pb, Zn.

Orange cryst. (dioxan). Sol. EtOH. Mp 222° dec. pK_{a1} 3.3; pK_{a2} 8.4; pK_{a3} 12.4 ($\mu = 0.1$, 50% dioxan, 25°).

Takamoto, S., *Anal. Chem.*, 1965, 37, 1249 (*use*)

5-(3-Hydroxyphenylazo)-8-quinolinol, 9CI

H-00457

[4563-87-5]

$C_{15}H_{11}N_3O_2$ M 265.271

Gives colour reactions with Cd, Co, Mn, Ni, Pb, Zn.

Orange cryst. (EtOH). Mp 210°. pK_{a1} 3.1; pK_{a2} 8.8; pK_{a3} 11.2 ($\mu = 0.1$; 50% dioxan, 25°).

Takamoto, S., *Acta Chim. Hung.*, 1965, 37, 1249.

5-(4-Hydroxyphenylazo)-8-quinolinol, 9CI

H-00458

8-Hydroxy-5-(4-hydroxyphenylazo)quinoline

[5087-35-4]

$C_{15}H_{11}N_3O_2$ M 265.271

Gives colour reactions with Cd, Co, Mn, Ni, Pb, Zn.

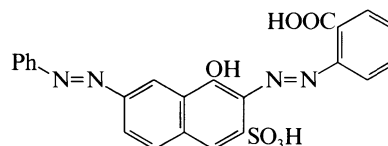
Orange cryst. (EtOH). Mp 239° dec. pK_{a1} 3.3; pK_{a2} 9.2; pK_{a3} 10.7 ($\mu = 0.1$, 50% dioxan, 25°).

Takamoto, S., *Anal. Chem.*, 1965, 37, 1249.

2-[(1-Hydroxy-7-(phenylazo)-3-sulfo-2-naphthalenyl)azo]benzoic acid

H-00459

3-(2-Carboxyphenylazo)-4-hydroxy-6-phenylazo-2-naphthalenesulfonic acid



$C_{23}H_{16}N_4O_6S$ M 476.469

Used as a 0.01% soln. in EtOH to give colour reaction with Pd. Cryst.

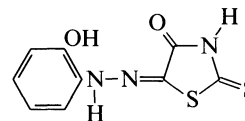
Popa, G. *et al. Zh. Anal. Khim.*, 1959, 14, 322 (*use*)

5-[(2-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, 9CI

H-00460

o-Phenolazorhodanine

[35633-33-1]



$C_9H_7N_3O_2S_2$ M 253.305

Various tautomers possible. Used as 0.1% soln. in 50%

EtOH for photometric detn. of Pt, Au, Ag (λ_{max} 540 nm, ϵ 35000). Red cryst. powder. Sol. EtOH, DMF, dioxan.

Propitsova, R.F. *et al. Zh. Anal. Khim.*, 1971, 26, 2424; 1975, 30, 250 (*synth, use*)

Gur'eva, R.F. *et al. Zh. Anal. Khim.*, 1976, 31, 660 (*detn. Ag*)

Savvin, S.B. *et al. Talanta*, 1987, 34, 87 (*rev*)

5-[(3-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, 9CI

H-00461

m-Phenolazorhodanine

$C_9H_7N_3O_2S_2$ M 253.305

Various tautomers possible. Used as 0.1% soln. in 50%

EtOH for photometric detn. of noble metals. Red cryst. powder. Sol. EtOH, DMF, dioxan.

Savvin, S.B. *et al. Talanta*, 1987, 34, 87 (*rev*)

5-[(4-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, 9CI*p*-Phenolazorhodanine

[3220-35-7]

C₉H₇N₃O₂S₂ M 253.305

Various tautomers possible. Used as 0.1% soln. in aq.

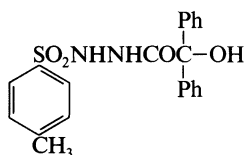
EtOH for photometric detn. of Au, Pt, Pd. Red cryst. powder. Sol. EtOH, DMF, dioxan.

N³-NH₂: [97474-89-0]. 3-Amino-5-[(4-hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, 9CIC₉H₈N₄O₂S₂ M 268.320Used as an EtOH soln. for photometric detn. of Au, Pt, Pd, Hg(II) (λ_{max} 540 nm, ε 20000). Orange cryst. powder. Sol. EtOH, DMF, dioxan.Propitsova, R.F. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2424 (*synth, use*)Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1985, **40**, 820 (*deriv, detn, Hg*)Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*rev*)**N-Hydroxy-N-phenylbenzeneacetamide, 9CI***N*-Phenylacetylphenylhydroxylamine

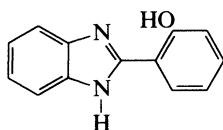
[13663-57-5]

C₁₄H₁₃NO₂ M 227.262Used as a soln. in CHCl₃ for extraction-photometric detn. of Ti (λ_{max} 390 nm, CHCl₃, ε 1800). Cryst. Mp 90-91°.Bag, S.P. *et al*, *Microchem. J.*, 1977, **22**, 434 (*synth, use*)**α-Hydroxy-α-phenylbenzeneacetic acid 2-[(4-methylphenyl)sulfonyl]hydrazide, 9CI***Benzylic acid N'-(4-tolylsulfonyl)hydrazide*

[87852-85-5]

C₂₁H₂₀N₂O₄S M 396.466Used as 1mM EtOH soln. for extraction-photometric detn. of Os(VI) (λ_{max} 513 nm, CHCl₃). Cryst. Sol. EtOH.Vorob'eva, N.E. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 467 (*synth, detn, Os*)**2-(2-Hydroxyphenyl)benzimidazole**2-(1*H*-Benzimidazol-2-yl)phenol, 9CI

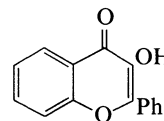
[2963-66-8]

C₁₃H₁₀N₂O M 210.235Used as 0.1% soln. in EtOH as a fluorescence acid-base indicator (pH₁ 9.9; colour change: no fluorescence → blue-violet); photometric detn. of Hg. Cryst. (EtOH aq.). Sol. EtOH, AcOH. Mp 242°. EtOH soln. shows blue fluoresc.Walter, J.L. *et al*, *Anal. Chem.*, 1953, **25**, 127 (*synth, detn, Hg*)Holzbecher, Z., *Chem. Listy*, 1958, **52**, 425 (*use*)Holzbecher, Z., *Collect. Czech. Chem. Commun.*, 1959, **24**, 1451 (*use*)

H-00462

3-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one, 9CI*Flavonol. 3-Hydroxyflavone. 3,4-Flavandione. 3-Hydroxy-2-phenylchromone*

[577-85-5]

C₁₅H₁₀O₃ M 238.242Used as 0.01% soln. in EtOH for detn. of Zr, Hf; fluorimetric detn. of Zr, Cr. Pale yellow needles (EtOH aq.). Sol. EtOH, alkalis; sl. sol. H₂O. Mp 170°.

▷ LK8650000.

Ac:C₁₇H₁₂O₄ M 280.279

Mp 110-111°.

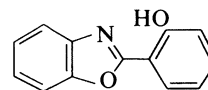
Me ether: 3-Methoxy-2-phenyl-4*H*-1-benzopyran-4-one. 3-Methoxy-2-phenylchromoneC₁₆H₁₂O₃ M 252.269

Mp 114°.

v. Kostenecki, S. *et al*, *Ber.*, 1904, **37**, 2819.Oyamada, T., *Anal. Chem.*, 1934, **55**, 1256.Alford, W.C. *et al*, *Anal. Chem.*, 1951, **23**, 1149 (*detn, Zr*)Bognar, P., *Justus Liebigs Ann. Chem.*, 1966, **693**, 225.Smith, M.A. *et al*, *J. Heterocycl. Chem.*, 1968, **5**, 425.Ramakrishnan, V.T., *J. Org. Chem.*, 1970, **35**, 2898 (*synth*)Sommer, L. *et al*, *Mikrochim. Acta*, 1970, 1181 (*detn, Zr*)Filer, T.D., *Anal. Chem.*, 1971, **43**, 469, 1753 (*detn, Zr*)Jose, C.I., *Spectrochim. Acta, Part A*, 1974, **30**, 1199 (*ir*)Costa, A.M. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1985, 799(*synth, pmr*)Moriarty, R.M. *et al*, *J. Heterocycl. Chem.*, 1985, **22**, 583 (*synth*)Cabrera-Martin, C. *et al*, *Anal. Chim. Acta*, 1986, **183**, 263 (*detn, Cr*)**2-(2-Hydroxyphenyl)benzoxazole**

2-(2-Benzoxazolyl)phenol, 9CI

[835-64-3]

C₁₃H₉NO₂ M 211.220

Used as 0.1% soln. in 95% EtOH for pptn. sepn. and gravimetric detn. of Cd and Cu. Pink cryst. (EtOH or AcOH aq.). Sol. EtOH. Mp 125-126°. Bp 338°.

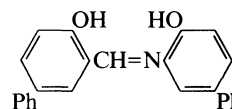
▷ SJ7520000.

O-Ac: [51589-61-8].C₁₅H₁₁NO₃ M 253.257

Cryst. (MeOH). Mp 85-87°.

De Voe, J.R. *et al*, *Anal. Chem.*, 1959, **31**, 1428 (*detn, Cd, Cu*)Sténson, P., *Acta Chem. Scand.*, 1969, **23**, 1514 (*cryst struct*)Nagai, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 2600 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HNI000.**N-2-Hydroxy-5-phenylbenzylidene-2-hydroxy-5-phenylaniline**

2,2'-(Methyldynenitrilo)bis[4-phenylphenol]

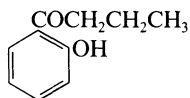


C₂₅H₁₉NO₂ M 365.431

Used as a 1mM soln. in EtOH for fluorimetric detn. of Al.

Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 238.5-239.5°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (*synth, use*)**1-(2-Hydroxyphenyl)-1-butanone****H-00469**

2-Butanoylphenol

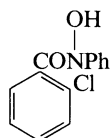
C₁₀H₁₂O₂ M 164.204

Oxime: [21667-43-6].

C₁₀H₁₃NO₂ M 179.218Used for extraction-photometric detn. of Fe(III) (λ_{max} 510 nm, ε 1000). Cryst. pK_{a1} 11.81 (75% dioxan, μ = 0.1, 40°).Gandhi, M.H. *et al*, *Chim. Anal. (Paris)*, 1968, **50**, 167 (*use*)Shah, J.R. *et al*, *J. Indian Chem. Soc.*, 1973, **50**, 362 (*pKa*)**N-Hydroxy-N-phenyl-2-chlorobenzamide,****H-00470****9CI**

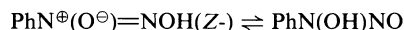
o-Chloro-N-phenylbenzohydroxamic acid, 8CI

[17221-72-6]

C₁₃H₁₀ClNO₂ M 247.680Used for photometric detn. of V (λ_{max} 530 nm, ε 4400).Cryst. (EtOH aq.). Sol. EtOH, Me₂CO; spar. sol. H₂O, C₆H₆. Mp 105-107°.Nekhaenko, T.M. *et al*, *CA*, 1969, **71**, 87377r; 1970, **72**, 139368f (*synth, detn, V*)**1-Hydroxy-2-phenyldiazene 2-oxide****H-00471**

N-Hydroxy-N-nitrosobenzeneamine, 9CI. N-Nitroso-N-phenylhydroxylamine, 8CI. N-Hydroxy-N-nitrosoaniline

[148-97-0]

C₆H₆N₂O₂ M 138.126

Frequently represented as nitrosophenylhydroxylamine, but "nitrobenzene-N-oxime" tautomer predominates.

Cryst. (Me₂CO). V. unstable in air and org. solvs.

▷ NC4550000.

NH₄ salt: [135-20-6]. *Cupferron*C₆H₉N₃O₂ M 155.156Used in precipitation and extraction separation of Al, Bi, Co, Zn, Cu, Fe, Ga, In, Mn, Sb, Th, Ti, U, W, Zr; gravimetric detn. of Al, Bi, Cu, Fe(III), Nb, Ti, Zr; photometric detn. of Fe(III), Ti, V. Needles (H₂O). Sol. H₂O, EtOH; insol. Et₂O. Mp 163-164°. Dec. on heating to NH₃ and NO_x.

▷ Highly toxic, exp. carcinogen. NC4725000.

4-Methylbenzenesulfonyl: [16046-28-9].Plates (EtOAc), cryst. (CHCl₃/hexane). Mp 136-137° dec.*Me ether*: [25370-94-9]. *1-Methoxy-2-phenyldiazene 2-oxide*, 9CI. *1-Methoxy-2-phenyldiimine 2-oxide*, 8CIC₇H₈N₂O₂ M 152.152

Prisms (pet. ether). Mp 37-38°.

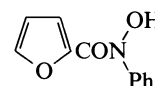
Benzyl ether: [25370-92-7]. *1-Benzyloxy-2-phenyldiazene 2-oxide*. *1-Benzyloxy-2-phenyldiimine 2-oxide*, 8CIC₁₃H₁₂N₂O₂ M 228.250Cryst. (Et₂O/hexane). Mp 80-81°.

[31773-90-7]

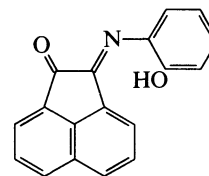
Bamberger, E. *et al*, *Ber.*, 1896, **29**, 2412 (*deriv*)*Org. Synth., Coll. Vol.*, 1, 1932, 177 (*synth, deriv*)Allen, S.H. *et al*, *Anal. Chim. Acta*, 1952, **7**, 483 (*detn, W*)Elving, P.J. *et al*, *Anal. Chem.*, 1955, **27**, 1817 (*detn, Ti, Zr, Hf*)George, M.V. *et al*, *Can. J. Chem.*, 1959, **37**, 679 (*deriv*)Hibbits, J.O. *et al*, *Talanta*, 1961, **8**, 209; 1964, **11**, 1509 (*detn, Nb, Ti*)Stevens, T.E., *J. Org. Chem.*, 1964, **29**, 311 (*deriv*)Crump-Wiesner, H.J. *et al*, *Talanta*, 1969, **16**, 124 (*detn, U*)White, E.H. *et al*, *Tetrahedron Lett.*, 1970, 4467 (*deriv, struct*)Yoshimura, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 1424 (*ir, uv, synth*)Hickmann, E. *et al*, *Tetrahedron Lett.*, 1979, 2457 (*struct*)Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 71 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ANO500.**N-Hydroxy-N-phenyl-2-furancarboxamide, 9CI****H-00472**

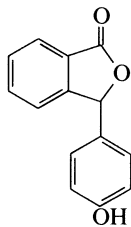
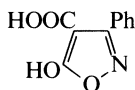
N-Furoylphenylhydroxylamine

[7630-14-0]

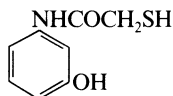
C₁₁H₉NO₃ M 203.197Used as a 0.2% soln. in CHCl₃ (detn. of V), a 0.1-0.2M soln. in EtOH (detn. of Ti) for extraction-photometric detn. of V (λ_{max} 530 nm, ε 5650, CHCl₃); photometric detn. of Ti (λ_{max} 360 nm, ε 9600). Cryst. (MeOH). Sol. CHCl₃, EtOH, C₆H₆, Me₂CO. Mp 132-134°.Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1966, **32**, 383 (*detn, Ti*)Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1014 (*detn, V*)Eremenko, M.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1955 (*detn, Ti*)**2-[(2-Hydroxyphenyl)imino]-1-acenaphthenone, 8CI****H-00473**

[23003-63-6]

C₁₈H₁₁NO₂ M 273.290Used as 0.1% CHCl₃ soln. for extraction-photometric detn. of Ca. Yellow cryst. Sol. EtOH, CHCl₃; insol. H₂O. Mp 180-181°.Pelczar, T., *Mikrochim. Acta*, 1968, 1295 (*synth, use*)

3-(4-Hydroxyphenyl)-1-(3H)-isobenzofuranone, 9CI3-(4-Hydroxyphenyl)phthalide
[7468-76-0] $C_{14}H_{10}O_3$ M 226.231Used as a 0.2% soln. in EtOH as adsorption indicator in argentometric titrimetric detn. of Cl^{\ominus} , I^{\ominus} . Light brown cryst. Mp 210-212°.Singh, E., *J. Indian Chem. Soc.*, 1973, **50**, 676; 1976, **53**, 948, 950 (synth, detn, I^{\ominus} , Cl^{\ominus})**5-Hydroxy-3-phenyl-4-isoxazolecarboxylic acid, 9CI** $C_{10}H_7NO_4$ M 205.170

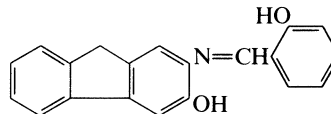
Free acid unknown.

Me ester: [15969-44-5]. $C_{11}H_9NO_4$ M 219.196Cryst. (Et₂O). Mp 128.5°.*Et ester*: [46796-31-0]. $C_{12}H_{11}NO_4$ M 233.223Used as 0.01M soln. in 2-methylpentanol for photometric detn. of Fe(III) (λ_{max} 490 nm, ϵ 4200). Cryst. (Et₂O). Sol. 2-methylpentanol, Et₂O. Mp 148-149°.Stagno d'Alcontres, G. *et al*, *Gazz. Chim. Ital.*, 1961, **91**, 1005; 1967, **97**, 997 (synth)Doyle, F.P. *et al*, *J. Chem. Soc.*, 1963, 5845 (synth)Corigliano, F. *et al*, *Talanta*, 1976, **23**, 545 (detn, Fe)**N-(3-Hydroxyphenyl)-2-mercaptoacetamide, 9CI**3-(Mercaptoacetylamino)phenol
[6310-11-8] $C_8H_9NO_2S$ M 183.231

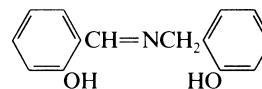
Used as a 0.5-1% soln. in aq. EtOH or dil. HCl for gravimetric detn. of Ag, Au, Co, Cu, Ir, Pd, Pt, Rh, Fe, molybdate. Cryst. (EtOH). Mp 161°.

Poonia, N.S. *et al*, *Anal. Chem.*, 1966, **38**, 113 (detn, Cu)Gupta, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1967, **40**, 215 (use)Poonia, N.S., *Mikrochim. Acta*, 1968, 1204; 1969, 211 (detn, Ag, Au, Pd, Pt)Kakkar, S.N. *et al*, *J. Indian Chem. Soc.*, 1974, **51**, 808 (detn, Co, Ir, Rh)Kakkar, S.N. *et al*, *Mikrochim. Acta*, 1974, 403 (detn, Fe, Co, molybdate)

H-00474

2-[[[(2-Hydroxyphenyl)methylene]amino]-9H-fluoren-3-ol, 9CI3-Hydroxy-2-(salicylideneamine)fluorene
[1761-52-0] $C_{20}H_{15}NO_2$ M 301.344Used as a 1mM soln. in EtOH for fluorimetric detn. of Al. Ga. Cryst. (EtOH). Sol. EtOH; sl. sol. H₂O. Mp 246-246.5°.Argauer, R.J. *et al*, *Anal. Chem.*, 1964, **36**, 2141 (synth, Al)White, C.E. *et al*, *Anal. Chem.*, 1967, **39**, 367 (detn, Al)Grigor'ev, N.N. *et al*, *CA*, 1974, **80**, 145878d; **81**, 111923v (detn, Al, Ga)Stolyarov, K.P. *et al*, *CA*, 1975, **83**, 187874s (detn, Al, Ga)**2-[[[(2-Hydroxyphenyl)methylene]amino]methyl]phenol, 9CI**

[3946-40-5]

 $C_{14}H_{13}NO_2$ M 227.262

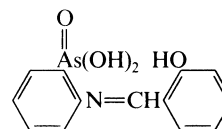
Used for fluorescent detn. of Ga; fluorimetric detn. of Zn. Yellow cryst. (EtOH). Sol. EtOH, dioxan, isopentanol.

Mp 185-186°. pK_{a1} 4.5; pK_{a2} 7.9; pK_{a3} 8.7 (50% dioxan).Holzbecher, Z., *Collect. Czech. Chem. Commun.*, 1972, **37**, 2557 (synth, use, pK_a)**2-[[[(2-Hydroxyphenyl)methylene]amino]phenyl]arsonic acid, 9CI**

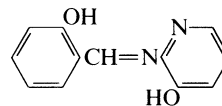
H-00479

N-Salicylidene-2-aminophenylarsonic acid. 2-Hydroxybenzaldehyde 2-arsonoanil

[30937-57-6]

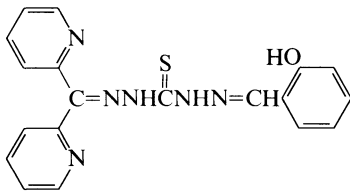
 $C_{13}H_{12}AsNO_4$ M 321.164Used as 0.1% soln. in Me₂CO or DMF for luminescence analysis for Al, Ga, In, Zr, Hf. Cryst. (Me₂CO). Sol. Me₂CO, DMF.Zel'tser, L.E. *et al*, *Talanta*, 1987, **34**, 873 (synth, use)**2-[[[(2-Hydroxyphenyl)methylene]amino]-3-pyridinol, 9CI**

H-00480

N-(3-Hydroxy-2-pyridyl)salicylaldehyde
[38016-39-6] $C_{12}H_{10}N_2O_2$ M 214.223Used as 1mM DMF soln. for fluorimetric detn. of Al (λ_{max} 506 nm, pH 4-6, aq. DMF). Yellow cryst. (MeOH). Sol. EtOH, MeOH, DMF; spar. sol. H₂O. Mp 162°.Sanchez Rojas, F. *et al*, *Analyst (London)*, 1988, **113**, 1287 (synth, detn, Al)

[(2-Hydroxyphenyl)methylene]carbonothioic acid (di-2-pyridinylmethylene) dihydrazide, 9CI

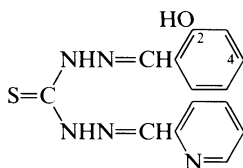
H-00481

1-[Di(2-pyridyl)methylene]-5-salicylidene-thiocarbonohydrazide
[108100-42-1] $C_{19}H_{16}N_6OS$ M 376.441Used as 0.1% soln. in DMF for photometric detn. of Zn (λ_{max} 417 nm, ϵ 60500, pH 5.3-5.8). Yellow cryst. Sol. DMF. pK_{a1} 3.05; pK_{a2} 8.25; pK_{a3} 12.04 (14% DMF, $\mu = 0.1$).Morales, M.T. *et al.*, *Analyst (London)*, 1987, **112**, 467 (*synth, detn.*, Zn)**[(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonic dihydrazide, 9CI**

H-00482

1-(2-Pyridylmethylideneamino)-3-(salicylideneamino)urea
[99223-48-0] $C_{14}H_{13}N_5O_2$ M 283.289Used as 1mM soln. in aq. EtOH for photometric detn. of Zn (λ_{max} 385 nm, ϵ 21600), Cd, Ni, Fe(II), Co, Pd. Yellow cryst. (EtOH). Sol. EtOH. Mp 241-243° dec.Rosales, D. *et al.*, *Talanta*, 1985, **32**, 467 (*synth, use*)**[(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, 9CI**

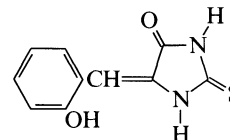
H-00483

1-(2-Pyridylmethylideneamino)-3-(salicylideneamino)thiourea
[95514-80-0] $C_{14}H_{13}N_5OS$ M 299.356Used as 1mM soln. in EtOH for photometric detn. of In (λ_{max} 415 nm, ϵ 63000), Bi, Co, Cu, Pd, Zn. Yellow cryst. (EtOH). Sol. EtOH. Mp 180-182° dec.Rosales, D. *et al.*, *Talanta*, 1985, **32**, 467 (*synth, use*)**[(4-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, 9CI**

H-00484

1-(4-Hydroxybenzylideneamino)-3-(2-pyridylmethylideneamino)thiourea
[117345-79-6] $C_{14}H_{13}N_5OS$ M 299.356Used as DMF soln. for photometric detn. of Bi, Zn, Ga, Hg(II), Cu (40% DMF). Yellow cryst. (EtOH). Sol. EtOH, DMF, H₂O. Mp 215-216°. pK_{a1} 3.5; pK_{a2} 7.0; pK_{a3} 8.1.Alvarez, F. *et al.*, *Talanta*, 1988, **35**, 493 (*synth, use*)**5-[(2-Hydroxyphenyl)methylene]-2-thioxo-4-imidazolidinone**

H-00485

5-(2-Hydroxybenzylidene)-2-thioxo-5-imidazolidinone. 5-Salicylidene-2-thioimidazole $C_{10}H_8N_2O_2S$ M 220.251

Several tautomers possible.

*N*¹-Ac: 5-Salicylidene-1-acetyl-2-thioimidazole $C_{12}H_{10}N_2O_3S$ M 262.289

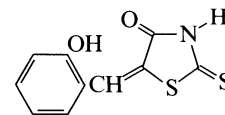
Used as a 0.2% soln. in EtOH for photometric detn. of Ag, Au, Cu, Hg, Pd, Pt, W; fluorimetric detn. of Au, W. Cryst. Sol. EtOH.

*N*³-Ph: 5-Salicylidene-3-phenyl-2-thioimidazole $C_{16}H_{12}N_2O_2S$ M 296.349

Used as 0.2% soln. in EtOH for photometric detn. of Ag, Au, Cu, Hg, Pd, Pt, Tl, W; fluorimetric detn. of Au, Tl, W. Cryst. Sol. EtOH.

Turkevich, N.M. *et al.*, *Zh. Anal. Khim.*, 1956, **11**, 180 (*use*)**5-[(2-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, 9CI**

H-00486

5-(o-Hydroxybenzylidene)rhodanine
[34709-44-9] $C_{10}H_7NO_2S_2$ M 237.303Several tautomers possible. Used as a 0.2% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt, Tl. Orange-red cryst. Sol. EtOH, Me₂CO.Kulberg, L.M. *et al.*, *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)Turkiewicz, N.M., *Zh. Anal. Khim.*, 1956, **11**, 180 (*use*)**5-[(3-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, 9CI**

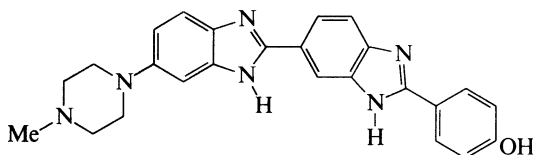
H-00487

5-(m-Hydroxybenzylidene)rhodanine
[37530-35-1] $C_{10}H_7NO_2S_2$ M 237.303

Several tautomers possible. Used as a 0.01% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt, Tl. Orange-red cryst. Sol. EtOH.

Kulberg, L.M. *et al.*, *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)

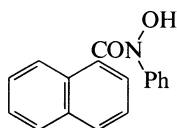
2'-(4-Hydroxyphenyl)-5-(4-methyl-1-piperazinyl)-2,5'-bi-1H-benzimidazole **H-00488**
4-[5-(4-Methyl-1-piperazinyl)[2,5'-bi-1H-benzimidazol]-2'-yl]phenol, 9CI. Hoechst 33258. H 33258 [23491-44-3]



$C_{25}H_{24}N_6O$ M 424.504
Base-specific fluorescent probe for metaphase chromosomes and DNA. Anthelmintic. Mp 235° dec. B,3HCl: [23491-45-4]. Mp 280° dec.

Loewe, H. *et al*, *Arzneim.-Forsch.*, 1974, **24**, 1927 (*synth*)
Kubota, Y., *Bull. Chem. Soc. Jpn.*, 1990, **63**, 758 (*bibl*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MOD500.

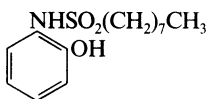
N-Hydroxy-N-phenyl-1-naphthalenecarboxamide, 9CI **H-00489**
N-(1-Naphthoyl)phenylhydroxylamine [29556-17-0]



$C_{17}H_{13}NO_2$ M 263.295
Used for pptn. of Al, Cu, Fe, Hf, Mn, Pb, Sn(II), Sn(IV), Ti, Zr. Cryst. Sol. common org. solvs.; spar. sol. H₂O (3 mg per 100 cm³, 25°). Mp 129°.

Lutwick, G.D. *et al*, *Can. J. Chem.*, 1954, **32**, 949 (*use*)
Shendrikar, A.D. *et al*, *Talanta*, 1969, **16**, 51 (*use*)

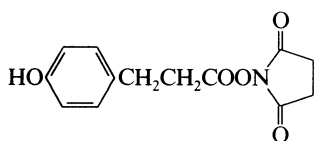
N-(2-Hydroxyphenyl)-1-octanesulfonamide, 9CI **H-00490**
2-Octanesulfonamidophenol [86252-94-0]



$C_{14}H_{23}NO_3S$ M 285.407
Used as 0.02M soln. in PhCl for extraction separation of Cu(II), Co, Zn, Cd, Pb, Hg(II). Cryst. (cyclohexane). Sol. PhCl, toluene, cyclohexane. Mp 88-88.5°.

Ide, S. *et al*, *Anal. Chim. Acta*, 1983, **149**, 235 (*synth, use*)

1-[3-(4-Hydroxyphenyl)-1-oxopropoxy]-2,5-pyrrolidinedione, 9CI **H-00491**
N-[(p-Hydroxyhydrocinnamoyl)oxy]succinimide, 8CI. Succinimido 3-(4-hydroxyphenyl)propionate. Bolton-Hunter reagent [34071-95-9]



$C_{13}H_{13}NO_5$ M 263.249
Used in iodine-125 labelling of proteins. Derivatisation reagent for anal. of aliphatic amines by hplc. with electrochem. detn. Cryst. (2-propanol aq.). Mp 120-122°.
Rudinger, J. *et al*, *Biochem. J.*, 1973, **133**, 538 (*synth*)
Smith, R.M. *et al*, *Electroanalysis (N.Y.)*, 1990, **2**, 167; *CA*, **113**, 125763j (*use*)

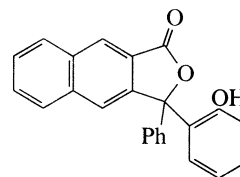
N-Hydroxy-N-phenylpentanamide, 8CI **H-00492**
N-Phenyl-n-valerohydroxamic acid [25310-10-5]



$C_{11}H_{15}NO_2$ M 193.245
Used as 5mM soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{max} 505 nm, ϵ 4050, 4M HCl). Cryst. Sol. CHCl₃, C₆H₆.

Gupta, V.K. *et al*, *J. Indian Chem. Soc.*, 1969, **66**, 831 (*synth*)
Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

3-[2-Hydroxyphenyl]-3-phenyl-naphtho[2,1-b]furan-1(3H)-one, 9CI **H-00493**
[38619-49-7]



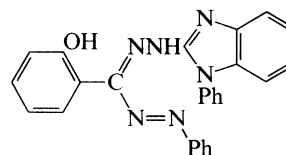
$C_{24}H_{16}O_3$ M 352.389
Used as a 0.2% soln. in EtOH as adsorption indicator in argentometric detn. of Cl⁻, I⁻. Cryst. CAS no. given also refers to the 4-hydroxy compd. below.

Singh, E. *et al*, *Z. Naturforsch., B*, 1972, **27**, 405 (*synth, w, ir*)
Singh, E. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 948, 950 (*detn, I⁻, Cl⁻*)

3-[4-Hydroxyphenyl]-3-phenyl-naphtho[2,1-b]furan-1(3H)-one, 9CI **H-00494**
 $C_{24}H_{16}O_3$ M 352.389
Used as a 0.2% soln. in EtOH as adsorption indicator in argentometric detn. of Cl⁻, I⁻. Cryst.

Singh, E. *et al*, *Z. Naturforsch., B*, 1972, **27**, 405 (*synth, w, ir*)
Singh, E. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 948, 950 (*detn, I⁻, Cl⁻*)

3-(2-Hydroxyphenyl)-1-phenyl-5-(1-phenyl-2-benzimidazolyl)formazan **H-00495**
2-[1-Phenyl-5-(1-phenyl-1H-benzimidazol-2-yl)formazanyl]phenol, 9CI [62164-53-8]



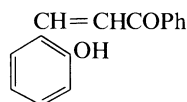
$C_{26}H_{20}N_6O$ M 432.484
Used as 1mM EtOH soln. for photometric detn. of Hg(II) (λ_{max} 350 nm, ϵ 19000, pH 5-6, Me₂CO). Cryst. Sol. EtOH, Me₂CO.

Dubinina, L.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1547 (*synth, detn, Hg*)

3-(2-Hydroxyphenyl)-1-phenyl-2-propen-1-one, 9CI **H-00496**

2'-Hydroxychalcone, 8CI. *ω*-Salicylideneacetophenone. *ω*-O-Hydroxybenzylideneacetophenone. (2-Hydroxystyryl)phenyl ketone

[644-78-0]



C₁₅H₁₂O₂ M 224.259

Used as 0.5% EtOH soln. for specific gravimetric detn. of Be (orange-yellow ppt., pH 8-9).

(*E*)-form [42224-53-3]

Mp 153° dec.

(*Z*)-form

Mp 159°.

v. Auwers, K. *et al*, *Justus Liebigs Ann. Chem.*, 1932, **493**, 218.

Miquel, J.F., C. R. *Hebd. Seances Acad. Sci.*, 1962, **254**, 4479.

Fournari, P. *et al*, *Bull. Soc. Chim. Fr.*, 1967, 2673.

Truce, W.E. *et al*, *J. Am. Chem. Soc.*, 1973, **95**, 4426.

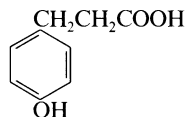
Bravo, P. *et al*, *Gazz. Chim. Ital.*, 1975, **105**, 109.

Naidu, R.R., *Talanta*, 1975, **22**, 614 (*synth*, *use*)

3-(4-Hydroxyphenyl)propanoic acid **H-00497**

4-Hydroxybenzenepropanoic acid, 9CI. 3-(*p*-Hydroxyphenyl)propionic acid, 8CI. Dihydro-*p*-coumaric acid. 4-Hydroxyxyhydrocinnamic acid. Phloretinic acid. HPPA

[501-97-3]



C₉H₁₀O₃ M 166.176

Constit. of urine. Isol. from sulfite liquors, prod. by *Clostridium butyricum*. Isol. from heartwood of *Haplormosia monophylla* (Leguminosae). Fluorescent substrate for the detn. of peroxidase. Prisms (Et₂O). Mp 129-130°. pK_a 4.76 (25°).

Me ester: [5597-50-2].

C₁₀H₁₂O₃ M 180.203

Cryst. (Et₂O/pet. ether). Mp 40-41°. Bp₁₇ 186-187°.

Et ester:

C₁₁H₁₄O₃ M 194.230

Mp 45°. Bp₁₈ 193°.

Ac:

C₁₁H₁₂O₄ M 208.213

Mp 93.5-95.5°.

Amide:

C₉H₁₁NO₂ M 165.191

Prisms. Mp 58-59°.

Me ether: 3-(4-Methoxyphenyl)propanoic acid

C₁₀H₁₂O₃ M 180.203

Cryst. (EtOH or H₂O). Mp 104-105°. Bp₁₅ 192-194°.

Me ether, Me ester: [15823-04-8].

C₁₁H₁₄O₃ M 194.230

Plates (H₂O). Mp 38°. Bp 278°, Bp₁ 120°.

Me ether, amide: [25413-27-8].

C₁₀H₁₃NO₂ M 179.218

Prisms (EtOH). Mp 125-126°.

Me ether, nitrile: [22442-48-4].

C₁₀H₁₁NO M 161.203

Bp 290-300°, Bp₁₅ 167°.

Zemplén, G. *et al*, *Ber.*, 1928, **61**, 2486.

Bowden, E. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 2422.

Pearl, I.A. *et al*, *J. Org. Chem.*, 1961, **26**, 546 (*isol*)

Grimmer, G. *et al*, *Biochem. Z.*, 1966, **346**, 186 (*isol*)

Wittstruck, T.A. *et al*, *J. Am. Chem. Soc.*, 1967, **89**, 3803 (*pmr*)

Chatterjee, A. *et al*, *Tetrahedron Lett.*, 1969, 73.

Ballantine, J.A. *et al*, *Org. Mass Spectrom.*, 1970, **3**, 1215 (*ms*)

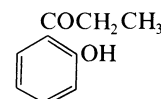
Hayashi, Y. *et al*, *Mokuzai Gakkaishi*, 1974, **20**, 595; *CA*, **82**, 74659m (*isol*)

Zaitsu, K. *et al*, *Anal. Biochem.*, 1980, **109**, 109 (*use*)

1-(2-Hydroxyphenyl)-1-propanone, 9CI **H-00498**

2'-Hydroxypropiophenone, 8CI. Ethyl 2-hydroxyphenyl ketone. *o*-Propionylphenol

[610-99-1]



C₉H₁₀O₂ M 150.177

Oil. Bp₈₀ 150°, Bp_{0.1} 54°.

Oxime: [18265-75-3].

C₉H₁₁NO₂ M 165.191

Used for gravimetric detn. of Ti; pptn. sepn. of Ti.

Cryst. (pet. ether). Mp 93-94°, Mp 104°.

Semicarbazone: Mp 189°.

2,4-Dinitrophenylhydrazone: [17189-82-1].

Scarlet cryst. Mp 189°.

Me ether: [5561-92-2]. 1-(2-Methoxyphenyl)-1-propanone. *o*-Propionylanisole

C₁₀H₁₂O₂ M 164.204

Pale-yellow oil. Bp_{16.5} 137°.

Petschek, E. *et al*, *Ber.*, 1913, **46**, 2014.

Robertson, A. *et al*, *J. Chem. Soc.*, 1931, 2426.

Böschmühl, M. *et al*, *CA*, 1932, **26**, 4343.

Jhaveri, L.C. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 1147 (*synth*, *use*)

N-Hydroxy-3-phenylpropenamide, 9CI **H-00499**

Cinnamohydroxamic acid, 8CI

[3669-32-7]



C₉H₉NO₂ M 163.176

Used as a 2% soln. in EtOH for complexometric detn. of Fe (colour change: violet→yellow); gravimetric detn. of Fe(III). Cryst. Sol. EtOH, Me₂CO.

▷ GE1050000.

N-Ph: [7369-44-0]. N-Cinnamoylphenylhydroxylamine. N-Hydroxy-N,3-diphenyl-2-propenamide, 9CI

C₁₅H₁₃NO₂ M 239.273

Used as 0.1% CHCl₃ soln. or 0.5% sol. in EtOH for extraction photometric detn. of V (ε 63000), U, Fe(III); gravimetric detn. of Nb, Ta. Pale green cryst. Sol. CHCl₃, CCl₄. Mp 162-163°, Mp 159-160°.

N-(2-Methylphenyl): [22861-50-3]. N-*o*-Tolylcinnamohydroxamic acid. N-Hydroxy-3-phenyl-2-propenamide, 9CI

C₁₆H₁₅NO₂ M 253.300

Used as 0.1% CHCl₃ soln. for extraction-photometric detn. of Ti (λ_{max} 395 nm, ε 15200, 9M HCl), V(V). Cryst. Sol. CHCl₃.

N-(3-Methylphenyl): [22861-51-4]. N-*m*-Tolylcinnamohydroxamic acid, 8CI

Used as a 0.1% soln. in CHCl₃ for extraction-photometric detn. of V(V) (λ_{max} 540 nm, ε 6200, 4M HCl). Cryst. Sol. CHCl₃.

N-(4-Methylphenyl): [29284-28-4]. N-*p*-Tolylcinnamohydroxamic acid, 8CI

Used as 0.1% soln. in CHCl_3 for extraction-photometric detn. of $V(V)$ (λ_{max} 555 nm, ϵ 6500, 4M HCl). Cryst. Sol. CHCl_3 .

N-(4-Chlorophenyl): see N-(4-Chlorophenyl)-N-hydroxy-3-phenyl-2-propenamides, C-00232

Majumdar, A.K. *et al*, *Anal. Chim. Acta*, 1960, **22**, 514 (detn, Nb, Ta)

Priyadarshini, U. *et al*, *Analyst (London)*, 1961, **86**, 544 (detn, V)

Majer, J. *et al*, *Chem. Zvesti*, 1962, **16**, 633 (synth)

Tandon, S.G. *et al*, *J. Chem. Eng. Data*, 1962, **7**, 553 (deriv, synth)

Springer, V. *et al*, *Fresenius' Z. Anal. Chem.*, 1964, **202**, 51.

Springer, V. *et al*, *Chem. Zvesti*, 1965, **19**, 481; 1968, **22**, 797

(gravimetric detn, extrn of Fe)

Zharovskii, F.G. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 59 (detn, U)

Priyadarshini, M. *et al*, *J. Chem. Eng. Data*, 1967, **12**, 143 (synth)

Bhura, D.C. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 278 (synth, derivs)

Bhura, D.C. *et al*, *Anal. Chim. Acta*, 1971, **53**, 379 (detn, V)

Husakova, N.N. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 721 (detn, V)

Roshania, R.D. *et al*, *Microchem. J.*, 1979, **24**, 378 (detn, V)

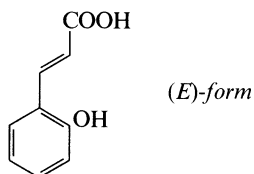
Bhura, D.C. *et al*, *Analisis*, 1980, **8**, 108 (detn, Ti)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CMQ475.

3-(2-Hydroxyphenyl)-2-propenoic acid, 9CI H-00500

o-Hydroxycinnamic acid, 8CI. *o*-Coumaric acid. *o*-Coumaric acid

[583-17-5]



$\text{C}_9\text{H}_8\text{O}_3$ M 164.160

Used as a 1% soln. in EtOH as a fluorescence acid-base indicator (pH range 7.2-9.0; colour change: non-fluoresc. → green). $\text{p}K_{\text{a}1}$ 3.70 (30°, 1.0M LiCl).

(E)-form [614-60-8]

Occurs in many plants e.g. *Melilotus officinalis* and *Angraecum fragrans*. Intermed. in biosynth. of coumarins. Needles (H_2O). Sol. EtOH, hot H_2O , Et_2O ; insol. CS_2 , CHCl_3 . Mp 207-208° dec. $\text{p}K_{\text{a}}$ 4.61.

Nonvolatile in steam. Dec. on dist.

▷ GD9090000.

Ac:

$\text{C}_{11}\text{H}_{10}\text{O}_4$ M 206.198

Mp 149°.

Me ether: [1011-54-7]. 3-(2-Methoxyphenyl)-2-propenoic acid. *o*-Methoxycinnamic acid. *O*-Methyl-*o*-coumaric acid

$\text{C}_{10}\text{H}_{10}\text{O}_3$ M 178.187

Mp 185-186°. $\text{p}K_{\text{a}}$ 4.78 (25°).

(Z)-form [495-79-4]

Coumarinic acid

Obt. by photoisomerisation. Readily loses H_2O giving coumarin.

Me ether: [14737-91-8].

Mp 93.6°. $\text{p}K_{\text{a}}$ 3.27 (25°).

[6099-03-2]

Tiemann, F., *Ber.*, 1877, **10**, 284 (synth)

Fittig, R. *et al*, *Justus Liebig's Ann. Chem.*, 1883, **216**, 141; 1884, **226**, 351 (synth)

Roth, W.A. *et al*, *Ber.*, 1913, **46**, 260 (synth)

Sen, R.N. *et al*, *J. Indian Chem. Soc.*, 1930, **7**, 247 (synth)

Jensen, K.A., *Fresenius' Z. Anal. Chem.*, 1933, **94**, 177 (use, indicator)

Dippy, F.J.F. *et al*, *J. Chem. Soc.*, 1938, 357 (synth)

Lock, G. *et al*, *Ber.*, 1939, **72**, 1064 (deriv)

Baddar, F.G., *J. Chem. Soc.*, 1947, 224 (synth)

Narayana, M. *et al*, *J. Org. Chem.*, 1962, **27**, 4704 (synth, uv)

Wheeler, O.H. *et al*, *J. Org. Chem.*, 1963, **28**, 2015 (uv)

Bergman, J. *et al*, *J. Chem. Soc.*, 1964, 2021 (cryst struct, deriv)

Hadjoudis, E. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1972, 1060 (synth, ir)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MEJ775.

N-Hydroxy-N-phenyl-2-propylpentanamide, 9CI

H-00501

N-(2-Propylpentanoyl)-N-phenylhydroxylamine

[132520-39-9]

$(\text{H}_3\text{CCH}_2\text{CH}_2)_2\text{CHCON}(\text{OH})\text{Ph}$

$\text{C}_{14}\text{H}_{21}\text{NO}_2$ M 235.325

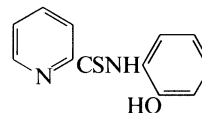
Used as 0.1mM CCl_4 soln. for extraction separation of lanthanides. Cryst. (Et_2O /hexane). Sol. Et_2O , EtOAc , hexane, CCl_4 . Mp 49-50°.

Haraguchi, K. *et al*, *Anal. Sci.*, 1990, **6**, 877 (synth, use)

N-(2-Hydroxyphenyl)-2-pyridinecarbothioamide

H-00502

[84356-80-9]



$\text{C}_{12}\text{H}_{10}\text{N}_2\text{OS}$ M 230.290

Me ether: [13225-86-0]. N-(2-Methoxyphenyl)-2-pyridinecarbothioamide, 9CI. N-*o*-Methoxyphenyl-2-thiopicolinamide. Thio-*o*-picolinanisidide, 8CI

$\text{C}_{13}\text{H}_{12}\text{N}_2\text{OS}$ M 244.317

Used as 1mM soln. in CHCl_3 for extraction separation of microamounts of Au (III) (from 5.4M HCl medium), Pd, Ag, Pt. Yellow cryst. Sol. CHCl_3 , CCl_4 , 1,2-dichloroethane, EtOH. Mp 82-83°.

Glazneva, G.V. *et al*, *Zh. Obshch. Khim.*, 1966, **36**, 1499; *CA*, **66**, 18652m (synth, deriv)

Gibalo, I.M. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 92 (detn, Au)

Gibalo, I.M. *et al*, *Zh. Neorg. Khim.*, 1982, **27**, 1005 (detn, Pd, Ag)

Romana, D.V. *et al*, *Indian J. Chem., Sect. B*, 1987, **26**, 517 (ms, deriv)

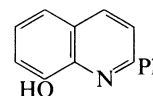
Rukhadze, E.G. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 1257 (detn, Pt)

8-Hydroxy-2-phenylquinoline

H-00503

2-Phenyl-8-quinolinol

[6961-25-7]



$\text{C}_{15}\text{H}_{11}\text{NO}$ M 221.258

Used as MeOH soln. for pptn. reactions with Zn, Cd, Ni, Co, Hg(II), Mn, Pb, Cu(II). Yellow cryst. (MeOH). Sol. MeOH, EtOH, CHCl_3 . Mp 59°. $\text{p}K_{\text{a}1}$ 5.10; $\text{p}K_{\text{a}2}$ 9.90 (20°).

Me ether:

$\text{C}_{16}\text{H}_{13}\text{NO}$ M 235.285

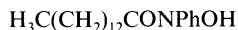
Cryst. (pet. ether). Mp 69.8-70.5°.

Phillips, J.P. *et al*, *J. Am. Chem. Soc.*, 1949, **71**, 3986 (synth)

Bocquet, G. *et al*, *Anal. Chim. Acta*, 1955, **13**, 508; 1956, **14**, 1, 201 (synth, reactions)

***N*-Hydroxy-*N*-phenyltetradecanamide, 9CI H-00504**

N-Phenyltetradecanohydroxamic acid, 8CI. *N*-Phenylmyristohydroxamic acid
[25310-19-4]

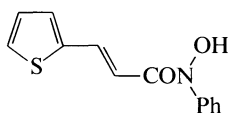


$\text{C}_{20}\text{H}_{33}\text{NO}_2$ M 319.486
Used as 5mM CHCl_3 soln. for extraction-photometric detn. of V(V) (λ_{max} 510 nm, ϵ 4300, 4M HCl). Cryst. Sol. CHCl_3 , C_6H_6 .

Gupta, V.K. *et al*, *J. Indian Chem. Soc.*, 1969, **4**, 831 (*synth, deriv*)
Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

***N*-Hydroxy-*N*-phenyl-3-(2-thienyl)-2-propenamide, 9CI H-00505**

N-Phenyl-2-thiopheneacrylohydroxamic acid
[119582-00-2]

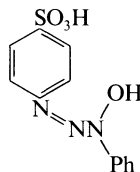


$\text{C}_{13}\text{H}_{11}\text{NO}_2\text{S}$ M 245.301
Used as 0.1M soln. in CHCl_3 for extraction-photometric detn. of V(V) (λ_{max} 535 nm, ϵ 7200, 3.5-7.5M HCl). Cryst. (C_6H_6). Sol. CHCl_3 , C_6H_6 .

Abbasi, S.A. *et al*, *Analyst (London)*, 1988, **113**, 1561 (*synth, detn, V*)

4-(3-Hydroxy-3-phenyl-1-triazenyl) benzenesulfonic acid, 9CI H-00506

[13521-01-2]

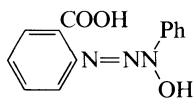


$\text{C}_{12}\text{H}_{11}\text{N}_3\text{O}_4\text{S}$ M 293.303
Used as a 1% aq. soln. of Na salt for titrimetric amperometric detn. of Pd, metallochromic indicator in titrimetric detn. of Fe(III); gives colour reactions with Co, Cu, Fe, Mo, Ni, Pd, Ti; indirect photometric detn. of citrate, F^\ominus , oxalate, $\text{PO}_4^{3\ominus}$. Light yellow cryst. Mp 157° dec. $\text{pK}_{\text{a}1}$ 9.99.

Sogani, N.C., *Anal. Chem.*, 1957, **29**, 397 (*synth, detn, Pd*)
Gupta, H.K. *et al*, *J. Indian Chem. Soc.*, 1960, **37**, 97 (*photometric detn, Fe*)
Jaimni, J.P.C. *et al*, *Fresenius' Z. Anal. Chem.*, 1964, **203**, 181 (*detn, Fe*)
Purohit, D.N. *et al*, *J. Indian Chem. Soc.*, 1966, **43**, 703 (*detn, use*)
Purohit, D.N., *Talanta*, 1967, **14**, 353 (*rev*)
Temyanko, V.S. *et al*, *CA*, 1972, **77**, 147215x (*detn, Pd*)

2-(3-Hydroxy-3-phenyl-1-triazenyl)benzoic acid, 9CI H-00507

1-(*o*-Carboxyphenyl)-3-hydroxy-3-phenyltriazene
[20184-65-0]



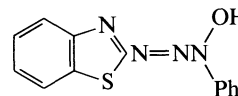
$\text{C}_{13}\text{H}_{11}\text{N}_3\text{O}_3$ M 257.248

Used as a 0.5% soln. in aq. NH_3 for extraction-photometric detn. of Fe, Ti, V (CHCl_3). Yellowish brown cryst. (EtOH). Sol. alkalis, EtOH, Me_2CO ; sl. sol. C_6H_6 , CHCl_3 ; insol. H_2O . Mp 164-165°.

Majumdar, A.K. *et al*, *Anal. Chim. Acta*, 1968, **40**, 299; 1969, **44**, 85 (*detn, Ti, V, Fe*)

2-(3-Hydroxy-3-phenyl-1-triazenyl) benzothiazole, 9CI H-00508

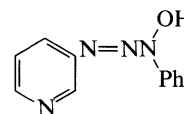
[57340-35-9]



$\text{C}_{13}\text{H}_{10}\text{N}_4\text{OS}$ M 270.314
Used for gravimetric detn. of Cu, Ni, Pd. Yellow cryst. Mukerji, S.K. *et al*, *Indian J. Chem., Sect. A*, 1977, **15**, 366 (*use*)

3-(3-Hydroxy-3-phenyl-1-triazenyl) pyridine, 9CI H-00509

[38800-92-9]

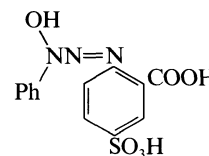


$\text{C}_{11}\text{H}_{10}\text{N}_4\text{O}$ M 214.226
Used as a 0.01mM soln. in CHCl_3 for extraction-photometric detn. of Co (λ_{max} 350 nm, ϵ 30000, CHCl_3), Cu (λ_{max} 347 nm, ϵ 63000, CHCl_3), Fe(III) (λ_{max} 347 nm, ϵ 47000, CHCl_3). Cryst. Sol. common org. solvs.

Korotkaya, E.D. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1975, **18**, 1695 (*use*)

2-(3-Hydroxy-3-phenyl-1-triazenyl)-5-sulfobenzoic acid, 8CI H-00510

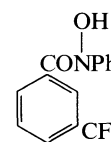
1-(2-Carboxy-4-sulfophenyl)-3-hydroxy-3-phenyltriazene
[30897-83-7]



$\text{C}_{13}\text{H}_{11}\text{N}_3\text{O}_6\text{S}$ M 337.312
Used as a 0.5% soln. in aq. NH_3 for photometric detn. of Fe, Mo, Pd, V. Yellowish brown cryst. (EtOH). Sol. alkalis, EtOH, Me_2CO ; sl. sol. C_6H_6 , CHCl_3 ; insol. H_2O . Majumdar, A.K. *et al*, *Anal. Chim. Acta*, 1971, **53**, 393 (*use*)

***N*-Hydroxy-*N*-phenyl-3-(trifluoromethyl) benzamide, 9CI H-00511**

N-m-Trifluoromethylbenzoyl-*N*-phenylhydroxylamine
[31012-15-4]



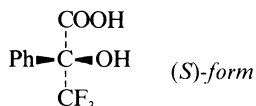
$\text{C}_{14}\text{H}_{10}\text{F}_3\text{NO}_2$ M 281.234

Used as 0.1M CHCl₃ soln. for extraction separation of Al, Cu, Fe(III), Mn, V. Cryst. (EtOH aq.). Sol. CHCl₃, EtOH. Mp 75°.

Hojjat, M. *et al*, *Anal. Chim. Acta*, 1987, **199**, 49 (*synth. use*)

2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid H-00512

α-Hydroxy-*α*-(trifluoromethyl)benzeneacetic acid, 9CI. *α*-Hydroxy *α*-trifluoromethylphenylacetic acid. *α*-(Trifluoromethyl)mandelic acid, 8CI
[55519-22-7]



C₉H₇F₃O₃ M 220.148

(*R*)-form [17257-70-4]

[α]_D²⁰ – 23.2° (c, 2.93 in CHCl₃). +ve rotn. in MeOH or H₂O.

Me ether: [20445-31-2]. *α*-Methoxy-*α*-(trifluoromethyl)benzeneacetic acid, 9CI. 2-Methoxy-2-phenyl-3,3,3-trifluoropropanoic acid. MTPA. Mosher's reagent. β , β , β -Trifluoro-*α*-methoxyhydratropic acid, 8CI

C₁₀H₉F₃O₃ M 234.174

Chiral nmr shift reagent and resolving agent. Reagent for determining optical purity of alcohols and amines.

Bp_{1.5} 116-118°. [α]_D²⁵ + 68.5° (c, 1.49 in MeOH).

Me ether, chloride: [20445-33-4].

C₁₀H₈ClF₃O₂ M 252.620

Resolving agent for alcohols and amines. Bp₁ 54-56°.

[α]_D²⁴ + 129.0° (c, 5.7 in CCl₄).

(*S*)-form [29246-94-4]

Me ester: [26164-18-1].

C₁₀H₉F₃O₃ M 234.174

[α]_D + 6.90° (neat). Not opt. pure.

Me ether: [17257-71-5].

Reagent for detn. of optical purity of alcohols and amines. Mp 46-49°. Bp_{0.05} 95-97°, Bp_{1.5} 115-117°. [α]_D – 71.8° (c, 3.28 in MeOH).

(\pm)-form

Cryst (C₆H₆). Mp 110.5-111.5°.

Me ester: Bp_{2.3} 86-92°.

Me ether: [56135-03-6].

Nmr shift reagent. Bp₁ 105-110°.

Amide:

C₉H₈F₃NO₂ M 219.163

Cryst. (C₆H₆/hexane). Mp 102-103°.

Nitrile: 1-Cyano-2,2,2-trifluoro-1-phenylethanol. 2,2,2-Trifluoroacetophenone cyanohydrin

C₉H₆F₃NO M 201.148

Cryst. (hexane). Mp 75-77°.

[20698-90-2]

Dale, J.A. *et al*, *J. Org. Chem.*, 1969, **34**, 2543 (*synth. resolu. bibl*)

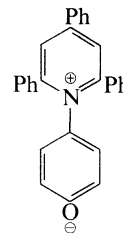
Mioskowski, C. *et al*, *Tetrahedron*, 1973, **29**, 3669 (*abs config*)

Gal, J., *J. Pharm. Sci.*, 1977, **66**, 169 (*deriv. use*)

Hull, W.E. *et al*, *Tetrahedron*, 1986, **42**, 547 (*deriv. synth. use*)

1-(4-Hydroxyphenyl)-2,4,6-triphenylpyridinium hydroxide inner salt H-00513

2,4,6-Triphenyl-N-(4-hydroxyphenyl)pyridinium betaine
[17658-06-9]



C₂₉H₂₁NO M 399.491

Used as 1mM soln. for photometric detn. of H₂O in org. solvs. (EtOH, isopropanol, Me₂CO, MeCN, dioxan).

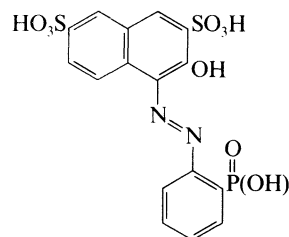
Orange-red cryst. Sol. common org. solvs.

Dimroth, K. *et al*, *Justus Liebigs Ann. Chem.*, 1963, **661**, 1 (*synth*)

Kumoi, S. *et al*, *Talanta*, 1970, **17**, 319 (*use*)

3-Hydroxy-4-[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI H-00514

Phosphonazo R



C₁₆H₁₃N₂O₁₀PS₂ M 488.392

Strictly, the name Phosphonazo R applies to the disodium salt.

Di-Na salt: [18029-18-0].

Used as 0.1% aq. soln. for photometric detn. of Li (λ _{max} 450 nm, ϵ 2300, propanol aq.). Brown cryst. powder.

Sol. H₂O, EtOH.

Lazarev, A.I. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 36 (*detn. Li*)

Kina, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 2710 (*synth. use*)

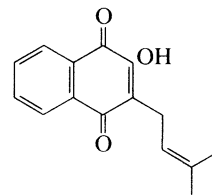
2-Hydroxy-3-prenylnaphthoquinone H-00515

2-Hydroxy-3-(3-methyl-2-butenyl)-1,4-naphthalenedione, 9CI.

Lapachol. *Greenhartin*. *Taiguic acid*. *Tecomina*. *Groenhartin*.

Lapachoic acid. NSC 11905

[84-79-7]



C₁₅H₁₄O₃ M 242.274

Widespread occurrence in the plant world, particularly in heartwood, bark and roots. e.g. the *Bigononiaceae* and various *Tabebuia*, *Tecomella* and *Tectona* spp.

Anticoagulant with anticancer activity; said to be comly. available in Brazil as an anticancer agent but has

undesirable side-effects. Used as a 0.05% soln. in MeOH as acid-base indicator (pH range: 3.7-5.7; colour change: yellow → wine red). Yellow prisms (EtOH or Et₂O). Mp 139-140°.

▷ QL8750000.

Ac: Yellow prisms (EtOH). Mp 82-83°.

Me ether: [17241-45-1]. 2-Methoxy-3-prenyl-naphthoquinone
C₁₆H₁₆O₃ M 256.301

Constit. of the heartwood of *Tabebuia avellanadae*.
Yellow cryst. (pet. ether). Mp 54-55°.

Hooker, S.C., *J. Am. Chem. Soc.*, 1936, **58**, 1181 (*synth, bibl*)

Burnett, A.R. *et al*, *J. Chem. Soc. C*, 1967, 2100; *Chem. Ind. (London)*, 1968, 1771 (*synth*)

Pettit, G.R. *et al*, *Can. J. Chem.*, 1968, **46**, 2471; *J. Chem. Soc. C*, 1971, 509 (*synth*)

Jacobsen, N. *et al*, *Acta Chem. Scand.*, 1973, **27**, 3211 (*synth*)

Rao, K.V., *Cancer Chemother. Rep., Part 2*, 1974, **4**, 11 (*use*)

Da Silveira, J.C. *et al*, *Phytochemistry*, 1975, **14**, 1829 (*isol*)

Sawnhey, S.S. *et al*, *Indian J. Chem.*, 1976, **14**, 295 (*use*)

McDonald, I.A. *et al*, *Aust. J. Chem.*, 1977, **30**, 1727 (*pmr, cmr*)

Sawnhey, S.S. *et al*, *J. Indian Chem. Soc.*, 1977, **54**, 403 (*use*)

Kapoor, N.K. *et al*, *Indian J. Chem., Sect. B*, 1982, **21**, 189 (*synth*)

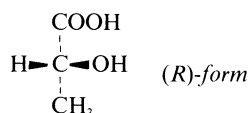
Ghera, E. *et al*, *J. Org. Chem.*, 1985, **50**, 3355 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HLY500.

2-Hydroxypropanoic acid, 9CI

H-00516

Lactic acid, 8CI. *Chem-Cast. Enyper. Kerlactine. Lactogyn. Lactolaval. Lactovagan. Neostil. Tonsillosan. Variclene*
[50-21-5]



C₃H₆O₃ M 90.079

Various uses include as a caustic, dermatologic, antiseptic and as a digestive. Used in the resolution of alcohols.

Aq. soln. used as complexing agent in ion-exchange separations, of alkaline earth metals.

▷ Irritant. Butyl ester is highly toxic. OD2800000.

(*R*)-form [10326-41-7]

d-form

Prismatic plates; cryst. (diisopropyl ether aq.). Sol. H₂O, EtOH, Et₂O; prac. insol. CHCl₃. Mp 26-27° (53°). [α]_D²⁰ -2.26° (H₂O). p*K*_a 3.83.

Me ester: [17392-83-5].

C₄H₈O₃ M 104.105

Oil. Bp₁₃ 40°. [α]_D²⁰ +7.46°.

(*S*)-form [79-33-4]

L-form. *Sarcocollactic acid. Paralactic acid*

Occurs in the juice of muscular tissue, bile etc. Flavour ingredient, food antioxidant. Various esters are also used in flavourings. Prisms (AcOH or CHCl₃). Mp 25-26°, Mp 53°. [α]_D¹⁵ +3.82° in H₂O. p*K*_a 3.79 (25°). Very hygroscopic.

Me ester: [27871-49-4].

C₄H₈O₃ M 104.105

Oil. Bp₁₉ 58°. [α]_D²⁰ -8.25°.

(±)-form

Widely distributed in nature - starch, molasses, potatoes etc. Also obtained from sulfite pulp liquor. Used in foodstuffs (preservative, flavours, acidulant), plasticizers, mordants. In brewing, manuf. of cheese and confectionery. Depilatory for hides. Cryst., or colourless or yellowish syrupy liq. Sol. H₂O, EtOH; spar. sol. Et₂O; insol. CHCl₃, CS₂, ligroin. Volatile in superheated steam.

Me ester: [2155-30-8].

Oil. Bp 144.8°.

▷ Mod. irritant. Flammable.

Irvine, J.C., *J. Chem. Soc.*, 1906, 936 (*resoln*)

Milton, G.M. *et al*, *Can. J. Chem.*, 1957, **35**, 541 (*use*)

Gil-Av, E. *et al*, *Proc. Chem. Soc., London*, 1962, 146 (*use*)

Strelow, F.W. *et al*, *Talanta*, 1970, **17**, 1 (*cation exchange*)

Holten, C.H. *et al*, *Lactic Acid*, Verlag Chemie, Weinheim, 1971.

Wood, G.W. *et al*, *Can. J. Chem.*, 1975, **53**, 3500 (*ms*)

Hayashi, T. *et al*, *Tetrahedron Lett.*, 1976, 4351 (*synth*)

Waldron, R.W. *et al*, *Inorg. Chem.*, 1977, **16**, 1220 (*synth*)

Imuta, M. *et al*, *J. Org. Chem.*, 1978, **43**, 3530.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 373.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, LAG000, LAQ000.

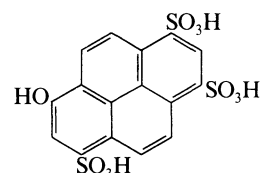
8-Hydroxy-1,3,6-pyrenetrisulfonic acid,

H-00517

9CI

HPT

[27928-00-3]



C₁₆H₁₀O₁₀S₃ M 458.447

Used in chromatography for the detn. of bile acids; fluorescent indicator for acid-base titrations.

Tri-Na salt: [6358-69-6]. *C.I. Solvent green 7. Pyranine*

Fluorescent dye. Yellow needles (+ H₂O).

▷ UR2700000.

Trichloride, acetate: [91991-08-1]. 8-(Acetyloxy)-1,3,6-pyrenetrisulfonyl trichloride, 9CI

C₁₈H₉Cl₃O₈S₃ M 555.820

Fluorescent label for amines.

Tietze, E. *et al*, *Justus Liebigs Ann. Chem.*, 1939, **540**, 189 (*synth*)

Kellogg, T.F. *et al*, *J. Lipid Res.*, 1970, **11**, 498 (*use*)

Kano, K. *et al*, *Biochim. Biophys. Acta*, 1978, **509**, 289 (*use*)

Goswami, S.K. *et al*, *Lipids*, 1981, **16**, 759 (*use*)

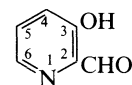
Wolfbeis, O.S., *Fresenius' Z. Anal. Chem.*, 1985, **320**, 271 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TNM000.

3-Hydroxy-2-pyridinecarboxaldehyde, 9CI

H-00518

3-Hydroxypicolinaldehyde, 8CI. *2-Formyl-3-hydroxypyridine*
[1849-55-4]



C₆H₅NO₂ M 123.111

Model compd. for Pyridoxal, P-00414. Yellow clusters (hexane). Mp 81-82° (78-79°). Bp₅ 64°.

Oxime:

C₆H₆N₂O₂ M 138.126

Long needles (H₂O). Mp 178-179°.

2,4-Dinitrophenylhydrazone; *B.HCl*: Orange powder (EtOH aq.). Mp 253-254.5°.

Thiosemicarbazone: [3814-79-7].

C₇H₈N₄OS M 196.232

Used as 1mM EtOH soln. for fluorimetric detn. of Mn (λ_{max} 460 nm, EtOH aq. medium + H₂O₂). Yellow cryst. Sol. EtOH, DMF, alkalis; spar. sol. H₂O. Mp 250-252°.

Thiosemicarbazone; B,HCl: Used as 0.1% EtOH soln. for photometric detn. of Co (λ_{\max} 450 nm, ϵ 23500). Orange needles + 2H₂O (HCl aq.). Mp 225-235° dec.

Me ether: [1849-53-2]. 3-Methoxy-2-pyridinecarboxaldehyde C₇H₇NO₂ M 137.138
Leaflets (C₆H₆/cyclohexane). Mp 67-68° (55-56°). Bp₃ 106-108°.

Me ether, oxime:

C₇H₈N₂O₂ M 152.152

Short needles (H₂O). Mp 196.5-197.5°.

Me ether, 2,4-dinitrophenylhydrazone; B,HCl: Orange-yellow cryst. powder (EtOH aq.). Mp 269-270°.

Me ether, thiosemicarbazone: Yellow cryst. (EtOH aq.). Mp 204-205° dec.

Me ether, di-Et acetal: 2-(Diethoxymethyl)-3-methoxypyridine

C₁₁H₁₇NO₃ M 211.260

Pale yellow oil. Bp₃ 120°.

Heinert, D. *et al.*, *Tetrahedron*, 1958, **3**, 49 (*synth*)

Heinert, D. *et al.*, *J. Am. Chem. Soc.*, 1959, **81**, 3933 (*synth, ir*)

Nakamoto, K. *et al.*, *J. Am. Chem. Soc.*, 1959, **81**, 5857, 5863 (*uv*)

Gansow, O.A. *et al.*, *Tetrahedron*, 1968, **24**, 4477 (*pmr*)

Cano Pavon, J.M. *et al.*, *Mikrochim. Acta*, 1976, **2**, 233 (*synth*)

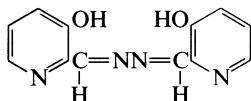
Vazquez Ruiz, J. *et al.*, *Talanta*, 1984, **31**, 29 (*detn, Mn*)

Comins, D.L. *et al.*, *J. Org. Chem.*, 1990, **55**, 69 (*synth, pmr, cmr, ir*)

3-Hydroxy-2-pyridinecarboxaldehyde [(3-hydroxy-2-pyridinyl)methylene]hydrazone, 9CI

H-00519

3-Hydroxypicolinaldehyde azine
[49610-88-0]



C₁₂H₁₀N₄O₂ M 242.237

Used as 0.05% soln. in DMF for photometric detn. of Ni (λ_{\max} 480 nm, ϵ 42000), Co (λ_{\max} 570 nm, ϵ 30000); as 1mM EtOH soln. for fluorimetric detn. of Mn (λ_{\max} 540 nm, EtOH/DMF with H₂O₂). Yellow cryst. (EtOH). Sol. H₂O, EtOH, DMF. Mp 162°. pK_{a1} 3.92; pK_{a2} 7.97.

Garcia de Torres, A. *et al.*, *Talanta*, 1973, **20**, 915 (*synth*)

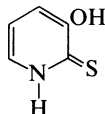
Garcia de Torres, A. *et al.*, *Anal. Chim. Acta*, 1974, **68**, 466; 1975, **79**, 257 (*detn, Ni, Co*)

Vazquez Ruiz, J. *et al.*, *Talanta*, 1984, **31**, 29 (*detn, Mn*)

3-Hydroxy-2(1H)-pyridinethione H-00520

H-00520

3-Hydroxy-2-mercaptopyridine. 2-Mercapto-3-pyridinol
[23003-22-7]



C₅H₅NOS M 127.167

Used as a 0.5% aq. soln. for detn. of Os. Used as 0.01M soln. in MeOH for photometric detn. of Fe(III); indicator in chelatometric titration of Fe(III). Cryst. (EtOH). Sol. MeOH, EtOH, CHCl₃. Mp 144-145°.

Me ether, Me thioether: [98627-11-3]. 3-Methoxy-2-(methylthio)pyridine, 9CI

C₇H₉NOS M 155.220

No phys. props. given.

Udheim, K. *et al.*, *Acta Chem. Scand.*, 1969, **23**, 1704 (*synth, uv*)

Katyal, M. *et al.*, *Analyst (London)*, 1973, **98**, 659 (*detn, Fe, Os*)

Kushwaha, V. *et al.*, *Talanta*, 1974, **21**, 763 (*detn, Pd*)

Mehta, Y.L. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 402 (*use*)

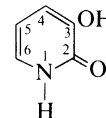
Davies, J.S. *et al.*, *Tetrahedron Lett.*, 1980, **21**, 2191 (*synth*)

Comins, D.L. *et al.*, *Tetrahedron Lett.*, 1988, **29**, 773 (*Me ether synth*)

3-Hydroxy-2(1H)-pyridinone, 9CI

H-00521

[16867-04-2]



C₅H₅NO₂ M 111.100

Used as a 0.5%-1.0% soln. in EtOH or H₂O for photometric detn. of Os, Fe; metallochromic indicator for titrimetric detn. of Fe(III). Mp 248°. pK_{a1} 0.22 (in aq. H₂SO₄ soln.); pK_{a2} 9.00 (20°).

N-Me: [19365-01-6].

C₆H₇NO₂ M 125.127

Mp 130-131°.

3-Ac:

C₇H₇NO₃ M 153.137

Mp 155°.

Diol-form

2,3-Pyridinediol. 2,3-Dihydroxypyridine

Cryst.

Di-Me ether: [52605-97-7]. 2,3-Dimethoxypyridine

C₇H₉NO₂ M 139.154

Bp₁₇ 100°.

N-Oxide: 1,3-Dihydroxy-2(1H)-pyridinone

C₅H₅NO₃ M 127.099

Cryst. (1-butanol). Mp 188-190° (182-184°). Exists in soln. as the *N*-hydroxypyridine tautomer.

Bain, B.M. *et al.*, *J. Chem. Soc.*, 1961, 5216 (*synth*)

Curtis, K.E. *et al.*, *Anal. Chim. Acta*, 1970, **49**, 351 (*detn, Fe*)

Moehle, H. *et al.*, *Tetrahedron*, 1970, **26**, 3779 (*synth*)

Goel, D.P. *et al.*, *Analyst (London)*, 1971, **96**, 123 (*detn, Fe*)

Curtis, K.E. *et al.*, *Can. J. Chem.*, 1972, **50**, 1649 (*detn, Fe*)

Mehta, H.C. *et al.*, *Anal. Chim. Acta*, 1974, **74**, 194 (*detn, Fe*)

Stogryn, E.C. *et al.*, *J. Heterocycl. Chem.*, 1974, **11**, 251 (*deriv*)

Mehta, Y.L. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 402 (*detn, Os*)

Elguero, J. *et al.*, *Tautomerism of Heterocycles*, Academic Press,

London, 1976, 111 (*tautom*)

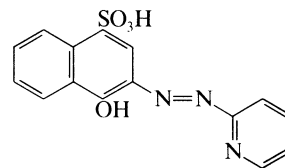
Ballesteros, P. *et al.*, *J. Chem. Soc., Perkin Trans. 2*, 1990, 1215 (*N-oxide*)

Streater, M. *et al.*, *J. Med. Chem.*, 1990, **33**, 1749 (*1-Me, synth*)

4-Hydroxy-3-(2-pyridinylazo)-1-naphthalenesulfonic acid, 9CI

H-00522

2-(2-Pyridylazo)-1-naphthol-4-sulfonic acid. PANS
[10558-11-9]



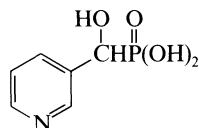
C₁₅H₁₁N₃O₄S M 329.336

Used as 0.5mM DMF soln. for photometric detn. of Cd (λ_{\max} 490 nm, ϵ 21000), Zn, In (λ_{\max} 550 nm, ϵ 24000), Ni, Cu; as a soln. in dil. NaOH for photometric detn. of Cu, Ga (λ_{\max} 550 nm, ϵ 28000), Tl (λ_{\max} 560 nm, ϵ 35000), Hg (λ_{\max} 550 nm, ϵ 46000); metallochromic indicator. Red cryst. powder. Sol. DMF, H₂O, alkalis.

Sommer, L. *et al.*, *Collect. Czech. Chem. Commun.*, 1974, **39**, 396 (*synth, indicator*)

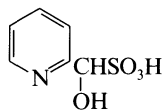
- Kobližhova, V. *et al*, *Collect. Czech. Chem. Commun.*, 1978, **43**, 2711 (*detn*, Cu, Ni)
 Kobližhova, V. *et al*, *Chem. Zvesti*, 1979, **33**, 485 (*detn*, Hg)
 Voznica, P. *et al*, *Collect. Czech. Chem. Commun.*, 1980, **45**, 54 (*detn*, Ga, In, Tl)
 Jančař, L. *et al*, *Collect. Czech. Chem. Commun.*, 1982, **47**, 2654 (*detn*, Cd, Zn)

(Hydroxy-3-pyridinylmethyl)phosphoric acid, 9CI **H-00523**
 [65128-80-5]



- $C_6H_8NO_4P$ M 189.107
 Used as 0.5M soln. in 0.5M HCl for photometric detn. of Ti (λ_{max} 440 nm, ϵ 1700, in the presence of Tiron). Cryst. Sol. H_2O .
 Szczepaniak, W. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1977, **51**, 1633 (*synth*)
 Szczepaniak, W. *et al*, *Chem. Anal. (Warsaw)*, 1980, **25**, 719 (*detn*, Ti)

2-Hydroxy-2-(2-pyridyl)methanesulfonic acid **H-00524**
 α -Hydroxy 2-pyridinemethanesulfonic acid, 8CI
 [3343-41-7]

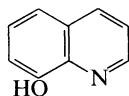


- $C_6H_7NO_4S$ M 189.192
 Used as a 0.02% soln. in dil. NH_3 for photometric detn. of Fe(II) (λ_{max} 525 nm). Commercially available. Cryst. Sol. alkalis; mod. sol. H_2O . Subl. 224°. pK_{a1} 4.05; pK_{a2} 9.7 (25°, 0.1M NaClO₄).

▷ Toxic if inhaled.

- Sigma-Aldrich Library of Chemical Safety Data*, **2**, 3005B (*haz*)
 Banford, L. *et al*, *J. Chem. Soc.*, 1964, 378 (pK_a)
 Pitt, E.E.H. *et al*, *Anal. Chem.*, 1969, **41**, 981 (*detn*, Fe)

8-Hydroxyquinoline **H-00525**
 8-Quinolinol, 9CI. Oxine. Oxyquinoline. Bioquin. Chinoral. Quinophenol
 [148-24-3]



- C_9H_7NO M 145.160
 Disinfectant. Antiseptic. Used as 1% $CHCl_3$ soln. for pptn., extraction and separation of many metals, e.g. Al, Co, Zn, Fe, In, Ti, V, W; extraction-photometric detn. of Al (λ_{max} 390 nm, ϵ 7300, $CHCl_3$), Ce (λ_{max} 495 nm, ϵ 6700), Sc, Fe(III), Ga, In, Zn, Cd, Mg, Ti, U, V; gravimetric detn. of Al, Mg, Ga, Mo; indirect titrimetric detn. of some metals. Reference material used in elemental microanalysis. Needles (EtOH aq.). Sol. $CHCl_3$, C_6H_6 , CCl_4 , EtOH, Me_2CO , alkalis and acids. Mp 75-76°. Bp ca. 267°. pK_{a1} 4.91; pK_{a2} 9.81 (25°). Also used as sulfate (Oxyquinoline sulfate, USAN).

▷ Exp. carcinogen. VC4200000.

- B,HCl*: Yellow needles + $1H_2O$. Mp 234-235°.
 $B_{1/2}H_2SO_4$: [134-31-6]. *Quinosol*. Numerous proprietary names
 Pale-yellow cryst. Mp 175-178°.
 ▷ VC8260000.

B,MeI: Yellow needles + $1H_2O$. Mp 143° dec.
O-Ac: [2598-29-0].

- $C_{11}H_9NO_2$ M 187.198
 Used as soln. in AcOH for pptn. of Mg, Al, U, Th. Cryst. (heptane/diisopropyl ether). Sol. EtOH, H_2O (hydrol.), Et_2O , diisopropyl ether, pet. ether, C_6H_6 . Bp 280°. Easily hydrol. at r.t.

Benzoyl: [86-75-9]. **Benzoxiquine**, USAN, INN. 8-Quinolinol benzoate, 9CI. Dioxylene. NSC 3951. Benzoxyline.

- Oxyquinoline benzoate*
 $C_{16}H_{11}NO_2$ M 249.268
 Disinfectant. Cryst. (EtOH). Mp 118-120°.
 ▷ VC4440000.

N-Oxide: [1127-45-3].

- $C_9H_7NO_2$ M 161.160
 Used as aq. soln. for photometric detn. of Ru(III), Ir (IV); forms chelates with platinum metal chloro-complexes. Cryst. Sol. H_2O , EtOH. Mp 138°.
 ▷ VC8238500.

Me ether: [938-33-0]. 8-Methoxyquinoline. o-Quinanisol

- $C_{10}H_9NO$ M 159.187
 Mp 49-50°, Mp 95-98°.

Et ether: [1555-94-8]. 8-Ethoxyquinoline

- $C_{11}H_{11}NO$ M 173.214
 Needles. Bp₇₁₈ 285-287°, Bp₄ 125°.

Et ether, picrate: Yellow needles (EtOH). Mp 180-181°.

N-Me, inner salt: 1-Methylquinolinium-8-olate. 8-Hydroxy-1-methylquinolinium betaine

- $C_{10}H_9NO$ M 159.187
 Cryst. + $2H_2O$. Mp 130° dec.

Indium complex (3:1): Tris(8-quinolinato)indium. Indium oxyquinoline

- $C_{27}H_{18}InN_3O_3$ M 547.277
¹¹¹In-labelled compd. used as radioactive agent.
 Diagnostic aid.

[134-31-6, 65389-08-4]

- Skraup, Z.H., *Monatsh. Chem.*, 1881, **3**, 536.
 Hollingshead, R.G.W., *Oxine and its Derivatives*, Butterworths, London, 1954 (*bibl*)

- Phillips, J.P., *Chem. Rev.*, 1956, **56**, 271 (*rev*)
 Hollingshead, R.G., *Anal. Chim. Acta*, 1958, **19**, 447.
 Marec, D.J. *et al*, *Talanta*, 1961, **8**, 293 (*O-Ac, detn, Al*)
 Bordner, J. *et al*, *Talanta*, 1961, **8**, 579 (*O-Ac, detn, U*)
 Ramaiah, K. *et al*, *Proc. Indian Acad. Sci., Sect A*, 1962, **55**, 360 (*synth, oxide*)

- Corkins, J.T. *et al*, *Talanta*, 1962, **9**, 49 (*O-Ac, detn, Mg*)
 Fiedler, H. *et al*, *Pharmazie*, 1966, **21**, 233 (*activity*)
 Mottola, H.A. *et al*, *Talanta*, 1967, **14**, 864 (*props*)
 Gupta, R.D. *et al*, *Talanta*, 1970, **17**, 772 (*oxide, detn, Ru, Ir*)
 Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 1845 (*use*)
 Desiderato, R. *et al*, *Acta Crystallogr., Sect. B*, 1971, **27**, 2443 (*cryst struct*)

- Analyst (London)*, 1972, **97**, 740 (*microanal*)
 Sawada, Y. *et al*, *Chem. Pharm. Bull.*, 1978, **26**, 1357 (*metab*)
 Mirth, D.B. *et al*, *J. Dent. Res.*, 1978, **57**, 65 (*activity*)
 Vinogradov, A.V. *et al*, *Hydroxyquinoline*, Nauka, Moscow, 1979.
 Scheffel, U. *et al*, *J. Inorg. Nucl. Chem.*, 1979, **20**, 524 (*In complex*)
 Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 253 (*use*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1614.

- Roemming, C. *et al*, *Acta Chem. Scand., Ser. B*, 1983, **37**, 791 (*deriv, cryst struct*)

- Banerjee, T. *et al*, *Acta Crystallogr., Sect. C*, 1986, **42**, 1408 (*cryst struct*)

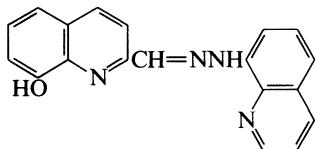
Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 31, 383, 582, 670; *Part II b: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 11.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 220, 623.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1091.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, QPA000, QPS000.

**8-Hydroxy-2-quinolinecarboxaldehyde
8-quinolylhydrazone, 9CI** H-00526
[24430-56-6]



$C_{19}H_{14}N_4O$ M 314.346

Used as soln. in 0.1M KOH for fluorimetric detn. of Ca (pH 11-13); as a 0.002% aq. soln. for luminescent detn. of Ca; fluorescent detn. of Ca. Yellow needles (C_6H_6). Sol. alkalis, Me_2CO , EtOH, $CHCl_3$; insol. H_2O . Mp 201.5-202.5°. pK_{a1} 4.9; pK_{a2} 11.1.

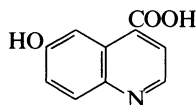
Bozhevolnov, E.A., *Zh. Anal. Khim.*, 1969, 24, 531 (*synth, detn, Ca*)

Krasavrin, I.A. *et al, CA*, 1972, 76, 14293d (*synth*)

Fedorova, L.F. *et al, CA*, 1972, 77, 159848 (*fluoresc detn, Ca*)

Bozhevolnov, E.A. *et al, CA*, 1973, 78, 66597s (*luminescence detn, Ca*)

6-Hydroxy-4-quinolinecarboxylic acid H-00527
6-Hydroxycinchoninic acid. Xanthoquininic acid
[4312-44-1]



$C_{10}H_7NO_3$ M 189.170

Plates (H_2O). Mp 325° dec.

Me ether, Me ester: [19834-77-6].

$C_{12}H_{11}NO_3$ M 217.224

Mp 84°.

B, MeI: Orange-yellow cryst. (EtOH). Mp 302°.

Et ester: [31610-09-0].

$C_{12}H_{11}NO_3$ M 217.224

Mp 185.5°.

Me ether: [86-68-0]. *6-Methoxy-4-quinolinecarboxylic acid.*

Quininic acid

$C_{11}H_9NO_3$ M 203.197

Used as a satd. aq. soln. as acid-base fluorescent indicator (pH range: 4.0-5.0; colour change: yellow → blue). Yellow prisms (dil. HCl). Spar. sol. H_2O ; sol. acids, alkalis. Mp 285° dec. pK_a 3.05. Yellow col. in acid soln. Blue fluor. in EtOH destroyed by H_2O or acids.

Me ether, Et ester: [5345-57-3].

$C_{13}H_{13}NO_3$ M 231.251

Insol. H_2O . Mp 69°.

Et ether: *6-Ethoxy-4-quinolinecarboxylic acid. Optoquinic acid*

$C_{12}H_{11}NO_3$ M 217.224

Yellow needles (propanol). Mp 278°.

Me ether, nitrile: *4-Cyano-6-methoxyquinoline*

$C_{11}H_8N_2O$ M 184.197

Yellow needles (C_6H_6). Mp 157°.

John, H., *Ber.*, 1930, 63, 2657.

John, H., *J. Prakt. Chem.*, 1930, 128, 194 (*synth*)

Rabe, P. *et al, Ber.*, 1931, 64, 2492.

Thielpape, E. *et al, Ber.*, 1939, 72B, 1432.

King, H. *et al, J. Chem. Soc.*, 1942, 401.

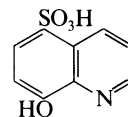
Elderfield, R.C. *et al, J. Org. Chem.*, 1946, 11, 803.

Benassi, C.A. *et al, Gazz. Chim. Ital.*, 1967, 97, 3 (*synth, ir*)

Schultz, O.-E. *et al, Justus Liebigs Ann. Chem.*, 1970, 740, 192.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, Me ether*)

8-Hydroxy-5-quinolinesulfonic acid, 9CI H-00528
Oxine-5-sulfonic acid
[36970-47-5]



$C_9H_7NO_4S$ M 225.225

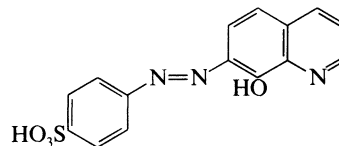
Used as 0.1M aq. soln. for photometric detn. of Mo (λ_{max} 540 nm, ϵ 5200), Nb (λ_{max} 383 nm, ϵ 15000), V. Cryst. Sol. H_2O , alkalis.

Busev, A.I. *et al, Talanta*, 1962, 9, 107 (*detn, Mo*)

Kambara, T. *et al, Bull. Chem. Soc. Jpn.*, 1973, 46, 500 (*detn, V*)

Garcia Alonso, J.I. *et al, Talanta*, 1984, 31, 361 (*detn, Nb*)

4-[(8-Hydroxy-7-quinolinyl)azo]benzenesulfonic acid H-00529
8-Hydroxy-7-(p-sulfophenylazo)quinoline



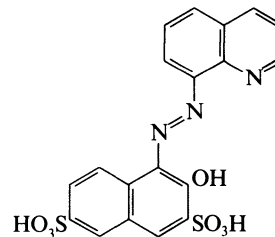
$C_{15}H_{11}N_3O_4S$ M 329.336

Used as a soln. in EtOH as mercurimetric indicator.

Orange-red cryst. Sol. H_2O , EtOH.

Cherkesov, A.I., *Zavod. Lab.*, 1961, 27, 1447 (*use, ind*)

3-Hydroxy-4-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, 9CI H-00530
Quinolinazo R
[28415-92-1]



$C_{19}H_{13}N_3O_7S_2$ M 459.460

Used as 0.2% aq. soln. for photometric detn. of Co.

Brown-red cryst. powder. Sol. H_2O ; sl. sol. EtOH.

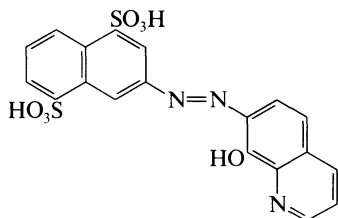
Kuznetsov, V.I., *Tr. Kom. Anal. Khim., Akad. Nauk SSSR*, 1965, 15, 279; *CA*, 63, 2363c (*synth*)

Basargin, N.N. *et al, Zavod. Lab.*, 1969, 35, 16 (*detn, Co*)

3-[(8-Hydroxy-7-quinolinyl)azo]-1,5-naphthalenedisulfonic acid, 8Cl

Azoxin C

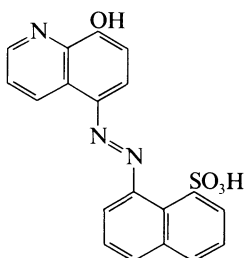
[28832-63-5]

 $C_{19}H_{13}N_3O_7S_2$ M 459.460

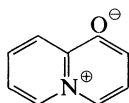
Strictly, the name Azoxin C applies to the dipotassium salt.

Di-K salt: Used in photometric detn. of Hg (λ_{max} 540 nm, ϵ 44000). Red cryst. + 3H₂O. Sol. H₂O, EtOH; spar. sol. Me₂CO; insol. C₆H₆. pK_a 8.41.Cherkesov, A.I. *et al*, *Zh. Anal. Khim.*, 1970, 25, 466.**8-[(8-Hydroxy-5-quinolinyl)azo]-1-naphthalenesulfonic acid, 9Cl**

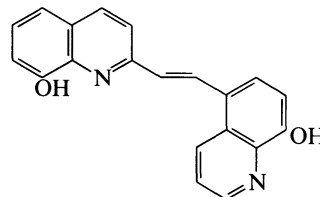
[7526-02-5]

 $C_{19}H_{13}N_3O_4S$ M 379.395Used as a soln. in aq. EtOH for photometric detn. of Cl[⊖]. Cryst.Mustafin, I.S., *Khim. Khim. Tekhnol. (Minsk)*, 1962, 5, 875 (*synth. detn. Cl[⊖]*)Petrova, G.S. *et al*, *CA*, 1972, 77, 139769r (*synth*)**1-Hydroxyquinolizinium betaine**

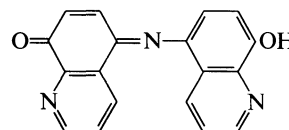
H-00533

 C_9H_7NO M 145.160Used as 1mM soln. for photometric detn. of H₂O in organic solvs. (EtOH, Me₂CO, MeCN, dioxan). Orange cryst. Sol. common org. solvs.Kumoi, S. *et al*, *Talanta*, 1970, 17, 319 (*detn. H₂O*)**1-(8-Hydroxy-2-quinolyl)-2-(8-hydroxy-5-quinolyl)ethylene**

2,5'-Ethenylidenebis-8-quinolinol. 8,8'-Dihydroxy-2,5'-biquinolylethene

 $C_{20}H_{14}N_2O_2$ M 314.343*B, 2HCl*: Used as a satd. soln. in dil. HCl for extraction-photometric detn. of Cu. Orange cryst. (EtOH/HCl). Spar. sol. EtOH; insol. H₂O. Mp 233°. pK_{a1} 3.0.Philips, J.P. *et al*, *Anal. Chim. Acta*, 1960, 23, 131 (*synth. detn. Cu*)**5-[(8-Hydroxy-5-quinolyl)imino-8(5H)-quinolone], 8Cl***Indo-oxine*

[17306-34-2]

 $C_{18}H_{11}N_3O_2$ M 301.304

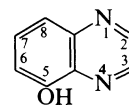
Used as 0.05M soln. in EtOH for pptn. of metals; photometric detn. of Th, Zn. Cryst. Sol. EtOH, MeOH.

Berg, R. *et al*, *Fresenius' Z. Anal. Chem.*, 1940, 119, 81 (*metal pptn*)Svoboda, O. *et al*, *Mikrochim. Acta*, 1954, 122 (*detn. Zn*)Tomic, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1957, 156, 326 (*detn. Th*)Kirkbright, G.F. *et al*, *Chem. Ind. (London)*, 1967, 25, 1091 (*use*)**5-Hydroxyquinoxaline**

H-00536

5-Quinoxalinol

[17056-99-4]

 $C_8H_6N_2O$ M 146.148

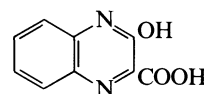
Used as a chelating agent. Cryst. by subl. Mp 101-102.5° (99.5°).

[7556-88-9]

Albert, A. *et al*, *J. Chem. Soc.*, 1952, 4985 (*synth*)Mason, S.F., *J. Chem. Soc.*, 1957, 4874 (*ir*)Mason, S.F., *J. Chem. Soc.*, 1957, 5010 (*uv*)Brignell, P.J. *et al*, *J. Chem. Soc. B*, 1967, 1241 (*pmr*)Oguchi, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1968, 41, 980 (*use*)Verbeek, J. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1976, 95, 285 (*synth*)**3-Hydroxy-2-quinoxalinecarboxylic acid, 8Cl**

H-00537

[1204-75-7]



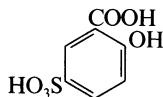
$C_9H_6N_2O_3$ M 190.158

Used as aq. soln. for specific gravimetric detn. of Pd.
Yellow-brown needles (H_2O). Sol. H_2O , EtOH. Mp
264°.

Dutt, N.K. *et al*, *Anal. Chim. Acta*, 1968, **41**, 331 (*synth, detn, Pd*)

2-Hydroxy-5-sulfobenzoic acid H-00538

o-Hydroxybenzoic acid 5-sulfonic acid. Salicylic acid 5-sulfonic acid. 5-Sulfosalicylic acid
[97-05-2]



$C_7H_6O_6S$ M 218.187

In vitro diagnostic aid for proteins. Metal chelating agent.
Used as 0.2M aq. soln. for photometric detn. of U,
Fe(III) (λ_{max} 425 nm, ϵ 5800) and F^{\ominus} (indirectly). Cryst.
(H_2O). Mp 120°. pK_{a2} 2.30; pK_{a3} 11.41 (25°, 0.5M
 $NaClO_4$). Hygroscopic.

► Produces irritation of skin and mucous membranes.
VO6500000.

Di-Et ester:

$C_{11}H_{14}O_6S$ M 274.294

Cryst. (EtOH). Mp 56°.

Sulfonyl chloride: [17243-13-9].

$C_7H_5ClO_5S$ M 236.632

Needles (C_6H_6). Mp 171-172° dec.

Sulfonamide: [5378-41-6].

$C_7H_7NO_5S$ M 217.202

Plates (EtOH). Mp 253-255° dec.

[5965-83-3]

Hirsch, R., *Ber.*, 1900, **33**, 3238.

Cohn, G., *J. Prakt. Chem.*, 1900, **61**, 544.

Eberius, E., *Angew. Chem.*, 1951, **63**, 513 (*detn, Fe*)

Rogers, R.N. *et al*, *Anal. Chem.*, 1959, **31**, 616 (*detn, F[⊖]*)

Pusca, V. *et al*, *Rev. Chim. (Bucharest)*, 1962, **13**, 49 (*synth*)

Quast, R., *Acta Chem. Scand.*, 1967, **21**, 873 (*detn, Fe*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, 1,
1118 (*use*)

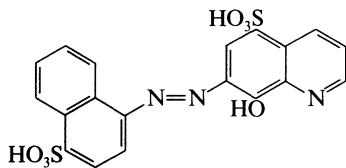
Havel, J. *et al*, *Collect. Czech. Chem. Commun.*, 1968, **33**, 529
(*detn, U*)

Shestakova, M.T. *et al*, *CA*, 1972, **77**, 11912 (*ir*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, SOC500.

8-Hydroxy-7-[(4-sulfo-1-naphthalenyl)azo]-5-quinolinesulfonic acid, 9CI H-00539

Snazox S



$C_{19}H_{13}N_3O_7S_2$ M 459.460

Strictly, the name Snazox S applies to the disodium salt.

pK_{a1} 3.0; pK_{a2} 7.0.

Di-Na salt: [53611-17-9].

Used as 0.1% aq. soln. as a metal indicator in
chelation of Cu, Ni, Zn, Pb, Bi, Ga, In. Red brown
powder. Sol. H_2O .

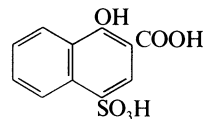
Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 447, 831 (*synth, detn,*
In, Ga)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Vytras, K. *et al*, *Talanta*, 1975, **22**, 529 (*detn, Zn*)

1-Hydroxy-4-sulfo-2-naphthoic acid H-00540

1-Hydroxy-4-sulfo-2-naphthalenecarboxylic acid, 9CI
[66695-90-7]



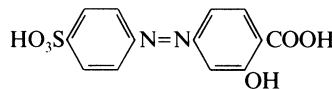
$C_{11}H_8O_6S$ M 268.247

Used as 1% aq. soln. for photometric detn. of Fe. Cryst.
Sol. H_2O , EtOH.

Lajunen, L.H. *et al*, *Talanta*, 1981, **28**, 277, 603 (*synth, use, detn,*
Fe)

2-Hydroxy-4-[(4-sulfophenyl)azo]benzoic acid H-00541

2-Hydroxy-4'-sulfoazobenzene-4-carboxylic acid. C.I.
Mordant yellow 10, 8CI. C.I. 14010
[21542-82-5]



$C_{13}H_{10}N_2O_6S$ M 322.298

pK_{a3} 10.8.

Di-Na salt: Used as 0.1mM aq. soln. for photometric detn.
of Be (λ_{max} 430 nm, ϵ 19300). Yellow cryst. (AcOH).
Sol. AcOH, alkalis; mod. sol. H_2O .

Adamovich, L.P. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 994 (*synth, detn,*
Be)

2-Hydroxy-5-[(4-sulfophenyl)azo]benzoic acid, 9CI H-00542

Hydroxy-4'-sulfoazobenzene-3-carboxylic acid

$C_{13}H_{10}N_2O_6S$ M 322.298

Di-Na salt: [6054-99-5].

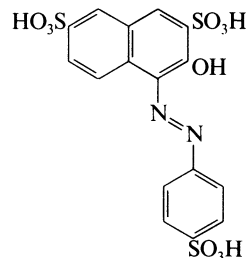
Used for photometric detn. of Pd (λ_{max} 490 nm, ϵ 8100),
Zn, Co, Cd; potentiometric detn. of UO_2 , Pb, Hg, Mg.
Orange-yellow plates (H_2O). Sol. H_2O , EtOH. pK_{a1} 6.32.
Dec. > 250°.

Mohan, P.N. *et al*, *J. Indian Chem. Soc.*, 1972, **49**, 739, 1109 (*pKa,*
detn, UO₂, Pb, Hg, Mg)

Mohan, P.N. *et al*, *Indian J. Chem.*, 1973, **11**, 73, 196 (*synth, detn,*
Co, Cd, Zn)

Joseph, P.T. *et al*, *Indian J. Chem.*, 1975, **13**, 742 (*detn, Pd*)

3-Hydroxy-4-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid H-00543



$C_{16}H_{12}N_2O_{10}S_3$ M 488.476

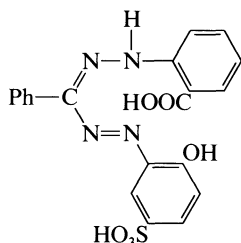
Tri-Na salt: [50880-65-4]. *Sulf-R-azo*

Used as aq. soln. for photometric detn. of Co (λ_{max} 560
nm). Brown cryst. powder. Sol. H_2O , EtOH.

Kuznetsov, V.I. *et al*, *CA*, 1977, **87**, 177125s, 193161f.

1-(2-Hydroxy-5-sulfo-phenyl)-3-phenyl-5-(2-carboxyphenyl)formazan **H-00544**

2-[1-(2-Hydroxy-5-sulfo-phenyl)-3-phenyl-5-formazano] benzoic acid, 9CI. Zincon
[135-52-4]



$C_{20}H_{16}N_4O_6S$ M 440.436

Metallochromic indicator for direct titrations of Zn; used as 0.1% soln. in EtOH for photometric detn. of Zn (λ_{max} 620 nm, ϵ 20000), Cu (λ_{max} 625 nm, ϵ 23000). Brown violet powder. Sol. alkalis, EtOH; insol. H_2O . Mp 203° dec.

[62625-22-3]

Yoe, J.H. *et al.*, *Anal. Chim. Acta*, 1952, **6**, 526.

Rush, R.M. *et al.*, *Anal. Chem.*, 1954, **26**, 1345 (detn, Zn, Cu)

McCall, J.T. *et al.*, *Anal. Chem.*, 1958, **30**, 1345 (use)

Scroggie, L.E. *et al.*, *Anal. Chim. Acta*, 1959, **21**, 282 (use)

Sugawara, M. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1219 (detn, Cu)

Vytrasova, J. *et al.*, *Collect. Czech. Chem. Commun.*, 1976, **41**, 47 (use)

Cheng, K.L. *et al.*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 284 (use)

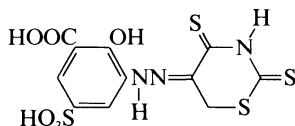
Koupparis, M.A. *et al.*, *Analyst (London)*, 1986, **111**, 1311 (use)

West, T.S. *et al.*, *The Determination of Trace Metals in Natural Waters*, Blackwell, Oxford, 1988, 23.

Onishi, H., *Photometric Determination of Traces of Metals, Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 719.

2-Hydroxy-5-sulfo-3-[(tetrahydro-2,4-dithioxo-2H-1,3-thiazin-5-yl)azo]benzoic acid, 9CI **H-00545**

Carboxysulfo-phenolazothio-propriodanin
[67627-62-7]



$C_{11}H_9N_3O_6S_4$ M 407.473

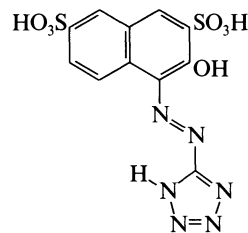
Various tautomers known. Used as 0.1% aq. soln. for photometric detn. of Ag, Au, Pd, Pt. Orange cryst. Sol. H_2O , EtOH, Me_2CO .

Gur'eva, R.F. *et al.*, *Zh. Anal. Khim.*, 1978, **33**, 632 (synth, detn, Ag)

Savvin, S.B. *et al.*, *Zh. Anal. Khim.*, 1987, **34**, 87 (rev)

3-Hydroxy-4-(1H-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, 9CI **H-00546**

[35332-95-7]



$C_{11}H_8N_6O_7S_2$ M 400.352

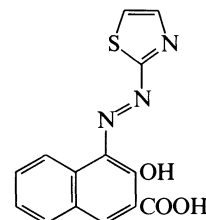
Used as 1mM aq. soln. for photometric detn. of Pd (λ_{max} 665 nm, ϵ 10000). Orange cryst. Sol. H_2O .

Fulle Soldi, T. *et al.*, *Gazz. Chim. Ital.*, 1977, **107**, 347 (synth)

Pesavento, M. *et al.*, *Analyst (London)*, 1985, **110**, 801 (detn, Pd)

3-Hydroxy-4-(2-thiazolylazo)-2-naphthalenecarboxylic acid, 9CI **H-00547**

1-(2-Thiazolylazo)-2-naphthol-3-carboxylic acid
[22026-06-8]



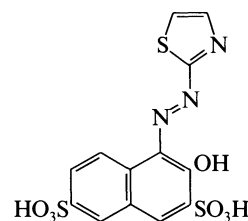
$C_{14}H_9N_3O_3S$ M 299.309

Used as a 1mM soln. in DMF for photometric detn. of Ga (λ_{max} 690 nm, ϵ 3300), In (λ_{max} 580 nm, ϵ 11000). Cryst. (AcOH). pK_{a1} 3.4; pK_{a2} 10.0 (0.1M KCl).

Busev, A.I. *et al.*, *Zh. Anal. Khim.*, 1972, **27**, 686; 1977, **32**, 1847 (synth, detn, Ga, In)

3-Hydroxy-4-(2-thiazolylazo)-2,7-naphthalenedisulfonic acid, 9CI **H-00548**

1-(2-Thiazolylazo)-2-naphthol-3,6-disulfonic acid
[2172-27-2]



$C_{13}H_9N_3O_7S_3$ M 415.428

Used as a 1mM aq. soln. for modification of anion exchangers for preconcentration of Pd, titrimetric detn. of Ga, In; mercurimetric indicator; photometric detn. of Ga (λ_{max} 570 nm, ϵ 23300), In (λ_{max} 570 nm, ϵ 24700), Ni (λ_{max} 596 nm, ϵ 26500), Tl (λ_{max} 580 nm, ϵ 29800); as metallochromic indicator in titrimetric detn. of Cd, Co, Cu, Ni, Pb. Cryst. Sol. H_2O .

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)

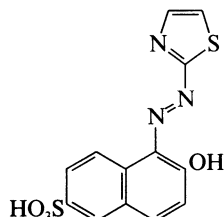
Busev, A.I. *et al.*, *Zh. Anal. Khim.*, 1972, **27**, 2165, 2361; 1974, **29**, 1758 (detn, Ga, In, Tl, Ni)

Zholondkovskaya, T.N. *et al.*, *CA*, 1973, **78**, 143481d; **79**, 121519r (photometric, titrimetric, detn, Ga, In)

Ciba, J. *et al.*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 3405 (*use, ind*)
 Andreeva, Z.F. *et al.*, *CA*, 1974, **80**, 36186f (*detn, Ni*)
 Vostova, J. *et al.*, *Collect. Czech. Chem. Commun.*, 1976, **41**, 1139 (*detn, Pd*)
 Marchak, T.V. *et al.*, *Zh. Anal. Khim.*, 1981, **36**, 2361 (*detn, Pd*)
 Pesavento, M. *et al.*, *Analyst (London)*, 1983, **108**, 1128 (*use, ind*)

6-Hydroxy-5-(2-thiazolylazo)-2-naphthalenesulfonic acid **H-00549**

1-(2-Thiazolylazo)-2-naphthol-6-sulfonic acid



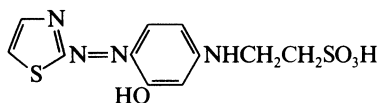
$C_{13}H_9N_3O_4S_2$ M 335.364
 Used as a 0.1% soln. in MeOH as metallochromic indicator for titrimetric detn. of Co, Cu, Ni, Pb, Zn.
 Cryst. Sol. H_2O . pK_{a1} 8.38 (H_2O), pK_{a1} 8.44 (50% MeOH aq.).

Skytte Jensen, B., *Acta Chem. Scand.*, 1960, **14**, 927 (*detn, Co, Cu, Ni*)

Nickless, G. *et al.*, *Anal. Chim. Acta*, 1967, **39**, 37 (*pKa*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

2-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]ethanesulfonic acid, 9CI **H-00550**

2-(2-Thiazolylazo)-5-[N-(sulfoethyl)amino]phenol
 [104932-68-5]

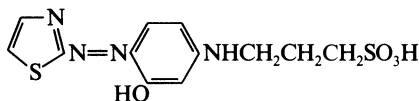


$C_{11}H_{12}N_4O_4S_2$ M 328.372
 Used as 0.1% aq. soln. for photometric detn. of Fe(II) (λ_{max} 732 nm, ϵ 19000, pH 8), Co, Ni, Cu, Zn. Dark red powder. Sol. H_2O . Mp $> 280^\circ$ dec. pK_{a2} 3.0; pK_{a3} 8.4 ($\mu = 0.1$, 25°).

Ueda, K. *et al.*, *Analyst (London)*, 1986, **111**, 733 (*synth, use*)

3-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, 9CI **H-00551**

2-(2-Thiazolylazo)-5-[N-(sulfopropyl)amino]phenol
 [104932-69-6]

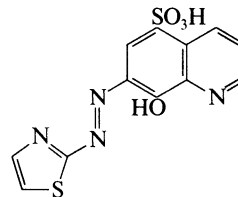


$C_{12}H_{14}N_4O_4S_2$ M 342.399
 Used as 0.1% aq. soln. for photometric detn. of Fe(II) (λ_{max} 742 nm, ϵ 25400, pH 9.5), Co, Ni, Zn. Dark red powder. Sol. H_2O . Mp $> 280^\circ$ dec. pK_{a2} 3.24; pK_{a3} 9.0 ($\mu = 0.1$, 25°).

Ueda, K. *et al.*, *Analyst (London)*, 1986, **111**, 733 (*synth, use*)

8-Hydroxy-7-(2-thiazolylazo)-5-quinolinesulfonic acid, 9CI **H-00552**

[3885-61-8]



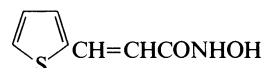
$C_{12}H_8N_4O_4S_2$ M 336.352

Used as a 0.4mM soln. in aq. DMF/Me₂CO for photometric detn. of Zn (λ_{max} 510 nm, ϵ 87100); gives colour reactions with Mn(II), U(VI), Zn. Cryst. Sol. DMF.

Rudometkina, T.F. *et al.*, *Zh. Anal. Khim.*, 1976, **31**, 877, 1945 (*detn, Mn, U, Zn*)

N-Hydroxy-3-(2-thienyl)-2-propenamamide **H-00553**

2-Thiophenylacrylohydroxamic acid



$C_7H_7NO_2S$ M 169.204

N-(3-Methylphenyl): [119581-99-6]. N-Hydroxy-N-(3-methylphenyl)-3-(2-thienyl)-2-propenamamide, 9CI. N-m-Tolyl-2-thiophenylacrylohydroxamic acid

$C_{14}H_{13}NO_2S$ M 259.328
 Used as 0.1M soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 540 nm, ϵ 7600, 3.5-7.5M HCl). Cryst. (C_6H_6). Sol. $CHCl_3$, C_6H_6 .

N-(4-Methylphenyl): [119581-98-5]. N-Hydroxy-N-(4-methylphenyl)-3-(2-thienyl)-2-propenamamide, 9CI
 Used as 0.1M soln. in $CHCl_3$ for extraction-photometric detn. of V(V) (λ_{max} 540 nm, ϵ 8000, 3.5-7.5M HCl). Cryst. (C_6H_6). Sol. $CHCl_3$, C_6H_6 .

Abbasi, S.A. *et al.*, *Analyst (London)*, 1988, **113**, 1561 (*synth, detn, V*)

N-Hydroxy-2-thiophenecarboxamide, 9CI **H-00554**

2-Thenoylhydroxamic acid. 2-Thiophenecarbohydroxamic acid, 8CI

[17698-15-6]



$C_5H_5NO_2S$ M 143.166

Cryst. (H_2O). Mp 123-124.5°.

N-Ph: [29556-13-6].

$C_{11}H_9NO_2S$ M 219.264

Used as a 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V(λ_{max} 530 nm, ϵ 5450). Cryst. (pet. ether). Mp 98°.

N-(4-Methylphenyl): [29556-14-7].

$C_{12}H_{11}NO_2S$ M 233.290

Used as a 0.1% soln. in $CHCl_3$ for extraction-photometric detn. of V. Cryst. (C_6H_6 /pet. ether). Mp 123°.

N-(3-Chlorophenyl): [78181-58-5].

$C_{11}H_8ClNO_2S$ M 253.708

Used as 0.5% soln. in EtOH for extraction-photometric detn. of Sn(IV) (λ_{max} 470 nm, ϵ 48800, $CHCl_3$ /EtOH), U(VI) (λ_{max} 560 nm, ϵ 15000). Cryst. Sol. EtOH.

N-(4-Chlorophenyl): [68166-12-1].

Used for extraction-photometric detn. of V (λ_{\max} 530 nm, ϵ 5500, CHCl_3), Sn(IV) (λ_{\max} 480 nm, ϵ 51800, $\text{CHCl}_3/\text{EtOH}$). Cryst. Sol. EtOH, Me_2CO , C_6H_6 , CHCl_3 ; insol. H_2O .

N-(2-Methoxyphenyl): [59995-19-6]. N-Hydroxy-N-(2-methoxyphenyl)-2-thiophenecarboxamide, 9CI

$\text{C}_{12}\text{H}_{11}\text{NO}_3\text{S}$ M 249.290

Used for extraction-photometric detn. of V(V) (λ_{\max} 545 nm, ϵ 7200). Cryst. (C_6H_6). Mp 161°.

Jones, L.W. *et al*, *J. Am. Chem. Soc.*, 1921, **43**, 2422 (*synth*)

Tandon, S.G. *et al*, *Anal. Chem.*, 1961, **33**, 1267; 1964, **36**, 1378.

Hase, *Chem. Pharm. Bull.*, 1971, **19**, 363 (*synth*)

Agrawal, Y.K. *et al*, *J. Chem. Eng. Data*, 1971, **16**, 371, 495

(*synth, deriv*)

Abbasi, S.A., *Anal. Lett.*, 1976, **9**, 113; 1979, **12**, 1027 (*deriv, use*)

Pande, K.R. *et al*, *CA*, 1979, **90**, 179561s (*detn, V*)

Agrawal, Y.K. *et al*, *Analyst (London)*, 1985, **110**, 1325 (*detn, Sn*)

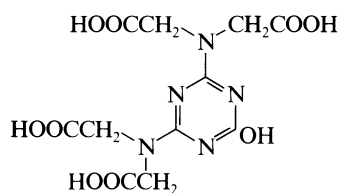
Agrawal, Y.K. *et al*, *J. Radioanal. Nucl. Chem.*, 1986, **97**, 255

(*detn, U*)

6-Hydroxy-1,3,5-triazine-2,4-diyldinitrilotetraacetic acid

H-00555

2,4-Diamino-6-hydroxy-s-triazine-N-tetraacetic acid



$\text{C}_{11}\text{H}_{13}\text{N}_5\text{O}_9$ M 359.252

Used as complexing agent for many metals. Cryst. (H_2O).

Sol. H_2O , alkalis; spar. sol. EtOH; insol. Me_2CO , C_6H_6 , CHCl_3 .

Lastovsky, R.P. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 419 (*synth, use*)

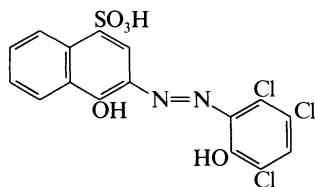
4-Hydroxy-3-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid

H-00556

2-(2-Hydroxy-3,5,6-trichlorophenylazo)-1-naphthol-4-sulfonic acid. Fast violet BS. Diamond chrome blue 8RL.

Metachrome brilliant blue 8RL. Solochrome fast violet B.

C.I. Mordant violet 4. C.I. 14760



$\text{C}_{16}\text{H}_9\text{Cl}_3\text{N}_2\text{O}_5\text{S}$ M 447.682

Na salt: [5858-47-9].

Used as aq. soln. as indicator for titrimetric detn. of Cu, Mn, Pb. Dark red cryst. powder. Sol. H_2O ; mod. sol. EtOH; insol. C_6H_6 .

Belcher, R. *et al*, *Chemist-Analyst*, 1957, **46**, 86 (*use*)

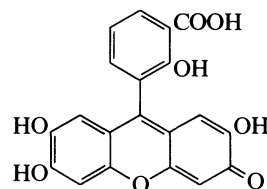
Colour Index, 3rd Edn., 1971, **4**, 4069 (*synth*)

2-Hydroxy-3-(2,6,7-trihydroxy-3-oxo-3H-xanthen-9-yl)benzoic acid, 9CI

H-00557

2-Hydroxy-3-carboxyphenylfluorone

[68925-71-3]



$\text{C}_{20}\text{H}_{12}\text{O}_8$ M 380.310

Used for photometric detn. of Hf, Ti, Zr. Orange cryst.

Mod. sol. H_2O .

Holler, P. *et al*, *CA*, 1979, **90**, 47862f; 1980, **93**, 87916v (*detn, Hf,*

Zr, Ti)

2-Hydroxy-4-(2,6,7-trihydroxy-3-oxo-3H-xanthen-9-yl)benzoic acid, 9CI

H-00558

(3-Hydroxy-4-carboxyphenyl)fluorone

[68925-73-5]

$\text{C}_{20}\text{H}_{12}\text{O}_8$ M 380.310

Used for photometric detn. of Hf, Ti, Zr. Orange cryst.

Mod. sol. H_2O .

Holler, P. *et al*, *CA*, 1979, **90**, 47862f; 1980, **93**, 87916v (*detn, Hf,*

Zr, Ti)

3-Hydroxy-2-(2,6,7-trihydroxy-3-oxo-3H-xanthen-9-yl)benzoic acid, 9CI

H-00559

(2-Hydroxy-6-carboxyphenyl)fluorone

[68925-72-4]

$\text{C}_{20}\text{H}_{12}\text{O}_8$ M 380.310

Used for photometric detn. of Hf, Ti, Zr. Orange cryst.

Mod. sol. H_2O .

Holler, P. *et al*, *CA*, 1979, **90**, 47862f (*detn, Hf, Zr*)

Holler, P. *et al*, *CA*, 1980, **93**, 87916v (*detn, Ti*)

2-Hydroxy-N,N,N-trimethyl-1-dodecanaminium(1+), 9CI

H-00560

[50595-48-7]

$\text{H}_3\text{C}(\text{CH}_2)_{10}\text{CH}(\text{OH})\text{N}^+\text{Me}_3$

$\text{C}_{15}\text{H}_{34}\text{NO}^{\oplus}$ M 244.440 (ion)

Bromide:

$\text{C}_{15}\text{H}_{34}\text{BrNO}$ M 324.344

Used as a 0.3% aq. soln. to increase sensitivity of detn. of Mo(VI), Ni with Chromazurol S and Pyrogallol Red. Cryst. Sol. H_2O .

Takeuchi, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1966, **15**, 473.

Shijo, Y. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1966, **15**, 1063; 1968, **17**, 1192 (*detn, Ni, Cu*)

Japan. Pat., 73 52 712, (1973); *CA*, **80**, 26738y (*synth*)

N-Hydroxy-3,5,5-trimethyl-N-phenylhexanamide, 9CI

H-00561

N-Phenyl-N-(3,5,5-trimethylhexanoyl)hydroxylamine

[132499-92-4]

$(\text{H}_3\text{C})_3\text{CCH}_2\text{CH}(\text{CH}_3)\text{CH}_2\text{CON}(\text{OH})\text{Ph}$

$\text{C}_{15}\text{H}_{23}\text{NO}_2$ M 249.352

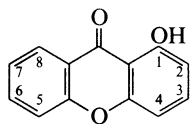
Used as 0.1mM CCl₄ soln. for extraction separation of lanthanides. Cryst. (Et₂O/hexane). Sol. Et₂O, EtOAc, CCl₄, hexane. Mp 90-91°.

Haraguchi, K. *et al*, *Anal. Sci.*, 1990, **6**, 877 (*synth*, use)

1-Hydroxyxanthone**H-00562**

1-Hydroxy-9H-xanthen-9-one, 9CI

[719-41-5]



C₁₃H₈O₃ M 212.204

Used as a 0.015mM aq. soln. for photometric and fluorimetric detn. of many metals. Yellow needles (EtOH). Mp 148-149°. pK_a 4.1.

Ac: [51584-72-6].

C₁₅H₁₀O₄ M 254.242

Prisms (EtOH). Mp 170°.

Me ether: [6563-60-6]. 2-Methoxyxanthone

C₁₄H₁₀O₃ M 226.231

Yellow needles (C₆H₆/ligroin or EtOH). Mp 138°.

Konig, E. *et al*, *Ber.*, 1894, **27**, 1996 (*synth*)

Ullman, F. *et al*, *Justus Liebigs Ann. Chem.*, 1906, **350**, 113 (*synth*)

Pankajamani, K.S. *et al*, *J. Sci. Ind. Res., Sect. B*, 1954, **13**, 369 (*synth*)

de Barros Correa, D. *et al*, *Phytochemistry*, 1970, **9**, 447 (*uv*)

Murata, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1972, **21**, 487 (*use*)

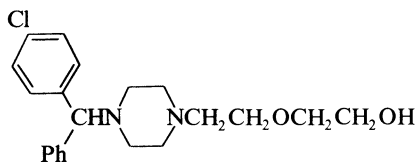
Akhtar, Z.M. *et al*, *Org. Mass Spectrom.*, 1973, **7**, 647 (*ms*)

Mizutani, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 1596 (*pKa*)

Hydroxyzine, BAN, INN**H-00563**

2-[2-[4-[(4-Chlorophenyl)phenylmethyl]-1-piperazinyl]ethoxy] ethanol, 9CI. Numerous proprietary names

[68-88-2]



C₂₁H₂₇ClN₂O₂ M 374.909

▷ KK2275000.

(±)-form

Tranquilliser. Antihistamine. Oil. Bp_{0.5} 220°.

B,2HCl: [2192-20-3]. Atarax. Vistaril parenteral.

Hydroxyzine hydrochloride, USAN

Used for photometric detn. of Co. Sol. H₂O. Mp 193°.

▷ KK2280000.

Embonate (1:1): [10246-75-0]. Hydroxyzine pamoate, USAN.

JAN. Masmoran. Paxistil. Equipose

3,4,5-Trimethoxybenzoyl: [18465-25-3]. Hydroxyzine

trimethoxybenzoate. SAS 521

C₃₁H₃₇ClN₂O₆ M 569.096

Antiarrhythmic agent.

3,4,5-Trimethoxybenzoyl; B,2HCl: [20541-83-7].

Mp 190-192°.

▷ KK2355000.

Belg. Pat., 523 899, (1954); CA, **53**, 18072d (*synth*)

Cannizarro, G., *Boll. Chim. Farm.*, 1965, **104**, 39 (*pharmacol*, *metab*)

Thompson, W.E. *et al*, *J. Pharm. Sci.*, 1965, **54**, 1819 (*ir*)

Torrielli, M.V. *et al*, *Eur. J. Med. Chem.*, 1968, **3**, 210; *Boll. Chim.*

Farm., 1968, **107**, 606 (*trimethoxybenzoate*)

Siek, T.J., *J. Forensic Sci.*, 1974, **19**, 193 (*w*)

Marozzi, E. *et al*, *Farmaco, Ed. Prat.*, 1976, **31**, 180 (*glc*)

Tsau, J. *et al*, *Anal. Profiles Drug Subst.*, 1978, **7**, 319 (*rev*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 6138, 6139.

Palmier, L. *et al*, *Drugs Exp. Clin. Res.*, 1984, **10**, 119 (*pharmacol*)

Simons, F.E.R. *et al*, *J. Allergy Clin. Immunol.*, 1984, **73**, 69.

Nacea, V. *et al*, *CA*, 1985, **103**, 167076m (*use*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,

Akademie-Verlag, Berlin, 1987, 6215 (*synonyms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

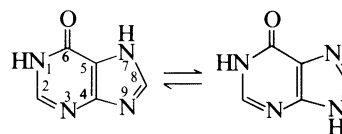
Ed., Van Nostrand-Reinhold, 1992, CJR909.

Hypoxanthine**H-00564**

1,7-Dihydro-6H-purin-6-one, 9CI. 6(1H)-Purinone. Sarcine.

Sarkine

[68-94-0]



1,7-Dihydro-form 1,9-Dihydro-form

C₅H₄N₄O M 136.113

Many alternative tautomeric forms possible. Occurs widely in plant and animal tissue. Used as a 0.8% soln. in DMF for pptn. detn. of Ag, Bi, Pd. Needles. Mp > 360°.

▷ UP0791000.

1,7-Dihydro-form

1,7-Di-Me:

C₇H₈N₄O M 164.166

Cryst. Mp 245-246°.

1-Oxide:

C₅H₄N₄O₂ M 152.112

▷ Carcinogenic.

1,9-Dihydro-form [51953-23-2]

1,9-Di-Me:

C₇H₈N₄O M 164.166

Cryst. (EtOH). Mp 255-256°.

3,7-Dihydro-form

Minor tautomer.

3,7-Di-Me:

C₇H₈N₄O M 164.166

Cryst. Mp 242-245°.

3,9-Dihydro-form

Minor tautomer.

7,9-Dihydro-form

Imidazolium betaine-form

7,9-Di-Me: [5752-16-9]. 6-Hydroxy-7,9-dimethyl-7H-purinium hydroxide inner salt, 9CI

C₇H₈N₄O M 164.166

Cryst. (MeOH). Mp 330-332°.

Jones, J.W. *et al*, *J. Am. Chem. Soc.*, 1962, **84**, 1914 (*derivs*)

Bullock, F.J. *et al*, *J. Org. Chem.*, 1964, **29**, 1988 (*pmr*)

Lister, J.H., *Chem. Heterocycl. Compd.*, (Weissberger, A. *et al*, Ed.), Part II, 1971 (*rev*)

Sekiya, M. *et al*, *Chem. Pharm. Bull.*, 1972, **20**, 209 (*synth*)

Lichtenberg, D. *et al*, *Isr. J. Chem.*, 1972, **10**, 805 (*nmr*, *uv*, *tautom*)

Karrer, W. *et al*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 2553 (*occur*)

-
- Chenon, M.T. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 4636 (*cmr*,
tautom)
Raurez, G. *et al*, *Quim. Anal. (Madrid)*, 1975, **29**, 216 (*use*)
Schmalle, H.W. *et al*, *Acta Crystallogr., Sect. C*, 1988, **44**, 732
(*cryst struct*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, DMC000.

I

1*H*-Imidazole, 9CI

Glyoxaline. Iminazole

[288-32-4]



$C_3H_4N_2$ M 68.078

Isol. from the seeds of *Lens culinaris*. Also present in the seeds of other legumes: *Adenanthera pavonina*, *Amphimas pterocarpoides*, *Cathormion altissimum*, *Erythrophleum* sp., *Lathyrus rotundifolius*, *L. sylvestris*, *Macrotyloma uniflorum*, *Parkia bicolor*, *Psophocarpus tetragonolobus*, *Tephrosia platycarpa*, *Vigna radiata*. Used as aq. soln. to accelerate the colour reaction in photometric detn. of Co with porphine. Sol. H_2O . Mp 88-90°. Bp 255°. pK_{a1} 7.0 (basic); pK_{a2} 14.52 (acidic) (25°).

▷ NI3325000.

N-Formyl: [3197-61-3]. 1*H*-Imidazole-1-carboxaldehyde, 9CI. 1-Formylimidazole

$C_4H_4N_2O$ M 96.088

Formylating agent for amines effective at r.t.

Hygroscopic cryst. Mp 53-55°. Loses CO at 60°.

N-Ac: [2466-76-4]. *N*-Acetylimidazole

$C_5H_6N_2O$ M 110.115

Transfer acetylating agent. Derivatisation reagent in anal., e.g. for ms of sugars. Mp 104-105°, Mp 101.5-102.5°.

▷ Exp. neoplastic agent. NI3400000.

N-Benzoyl: [10364-94-0].

$C_{10}H_8N_2O$ M 172.186

Mp 202-203°.

N-Methoxycarbonyl: [61985-23-7].

$C_5H_6N_2O_2$ M 126.115

Cryst. (C_6H_6 /heptane). Mp 35-39°.

N-Ethoxycarbonyl: [19213-72-0].

$C_6H_8N_2O_2$ M 140.141

Bp₆₀ 135-138°.

N-Me: see 1-Methylimidazole, M-00190

1-Amino:

$C_3H_5N_3$ M 83.093

Oil.

Boyer, J.H., *J. Am. Chem. Soc.*, 1952, **74**, 6274 (*deriv*)

Crosby, D.G. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 4458 (*deriv*)

Org. Synth., *Coll. Vol.*, 3, 1955, 471.

Brown, D.J., *J. Chem. Soc.*, 1958, 1974.

Reddy, J.S. *et al*, *J. Chem. Soc.*, 1963, 1414 (*deriv*)

Bredereck, H. *et al*, *Chem. Ber.*, 1964, **97**, 827 (*synth*)

Reddy, J.S. *et al*, *Chem. Ind. (London)*, 1965, 1426 (*deriv*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 407; 1969, **2**, 220.

Grimmett, M.R., *Adv. Heterocycl. Chem.*, 1970, **12**, 103; 1980, **27**, 241 (*bibl*)

Bosso, C. *et al*, *Org. Mass Spectrom.*, 1977, **12**, 493 (*use, acetyl deriv*)

Ishii, H. *et al*, *Mikrochim. Acta*, 1983, **1**, 279.

Hayman, A.R. *et al*, *Phytochemistry*, 1987, **26**, 3247 (*isol, pmr, ms*)

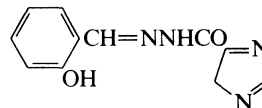
I-00001

Foces-Foces, M. de La.C. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1990, 237 (*1-Amino*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ACO250, IAL000.

5*H*-Imidazole-4-carboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, 9CI

I-00002



$C_{11}H_{10}N_4O_2$ M 230.226

Used as a 0.5% soln. in EtOH for photometric detn. of Ti; extraction-photometric detn. of Fe, Ti, V. Cryst. (EtOH aq.). Sol. EtOH. Mp 273°.

[71112-97-5]

Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1093 (*detn, Fe, Ti, V*)

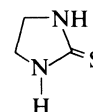
2-Imidazolidinethione, 9CI, 8CI

I-00003

2-Mercapto-4,5-dihydroimidazole. Ethylene thiourea. ETU.

Accel 22. Accel 22S

[96-45-7]



$C_3H_6N_2S$ M 102.160

Polymer vulcanising and curing agent. Reagent for the characterization of alkyl halides. Used as 0.5% Me_2CO soln. as a displacing agent in the complexometric (EDTA) detn. of $Hg(II)$; as 1% soln. for extraction-photometric detn. of Bi (λ_{max} 485 nm, ϵ 1000). Needles or prisms (EtOH or pentanol). Sol. H_2O ; insol. Et_2O , $CHCl_3$, C_6H_6 , Me_2CO . Mp 197-200°.

▷ Exp. carcinogen and teratogen. Industrial use subject to severe restriction. NI9625000.

1-Me: [13431-10-2].

$C_4H_8N_2S$ M 116.187

Mp 132°.

1,3-Di-Me: [13461-16-0].

$C_5H_{10}N_2S$ M 130.213

Used as 1% aq. soln. for extraction-photometric detn. of Bi (λ_{max} 430 nm, ϵ 13000, toluene), Sb. Cryst. (pentane/ Me_2CO). Mp 152°.

▷ NI9680000.

Org. Synth., *Coll. Vol.*, 3, 1955, 394 (*synth*)

Boyd, R.N. *et al*, *Anal. Chem.*, 1960, **32**, 551 (*use*)

Matolcsy, G., *Chem. Ber.*, 1968, **101**, 522 (*synth*)

Cumper, C.W.N. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1972, 2045 (*synth*)

Kohn, H. *et al*, *J. Org. Chem.*, 1977, **42**, 941 (*synth, ir, pmr, cmr, ms*)

Dwarakanath, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1979, **52**, 2699 (*ir*)

Assef, G. *et al*, *Bull. Soc. Chim. Fr.*, 1979, 165 (*synth*)

Chieh, C. *et al*, *Can. J. Chem.*, 1982, **61**, 211 (*cryst struct, deriv*)

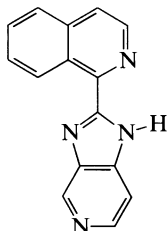
Shelikhina, E.I. *et al*, *Zh. Neorg. Khim.*, 1982, **27**, 2065 (*synth, detn, Bi*)

Broda, W. *et al*, *Justus Liebigs Ann. Chem.*, 1983, 1839 (*synth*)

Bogatskii, A.V. *et al.* *Synthesis*, 1984, 136 (*synth*, *Di-Me*)
 Narayana, B. *et al.* *Talanta*, 1988, **35**, 719 (*detn*, *Hg*)
 Presnyak, I.S. *et al.* *Zh. Anal. Khim.*, 1990, **45**, 1548 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IAQ000.

1-(1*H*-Imidazo[4,5-*c*]pyridin-2-yl)isoquinoline, 8CI **I-00004**

2-(1-Isoquinoly)-1*H*-imidazo[4,5-*c*]pyridine
 [17583-65-2]

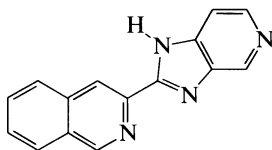


$C_{15}H_{10}N_4$ M 246.271
 Used as 5*mM* soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 654 nm, ϵ 1190). Cryst. (C_6H_6). Sol. common org. solvs. Mp 221-222°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)
 Schilt, A.A. *et al.* *Talanta*, 1970, **17**, 649 (*detn*, *Fe*)

3-(1*H*-Imidazo[4,5-*c*]pyridin-2-yl)isoquinoline, 8CI **I-00005**

2-(3-Isoquinoly)-1*H*-imidazo[4,5-*c*]pyridine
 [17583-66-3]

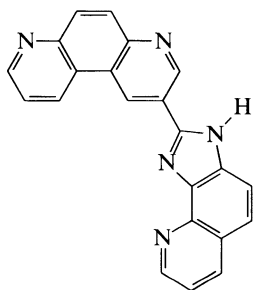


$C_{15}H_{10}N_4$ M 246.271
 Used as 5*mM* soln. in aq. EtOH to give colour reaction with Fe(II). Cryst. (EtOH). Sol. common org. solvs. Mp 278-279°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)
 Schilt, A.A. *et al.* *Talanta*, 1970, **17**, 649 (*use*)

2-(3*H*-Imidazo[4,5-*h*]quinolin-2-yl)-4,7-phenanthroline, 8CI **I-00006**

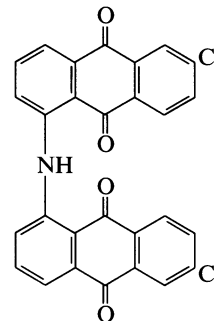
2-(2-Phenanthroly)-2*H*-imidazo[4,5-*h*]quinoline
 [14241-37-3]



$C_{22}H_{13}N_5$ M 347.378
 Used as a 5*mM* soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 597 nm, ϵ 10700). Cryst. (C_6H_6). Sol. common org. solvs. Mp 269-270°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)
 Schilt, A.A. *et al.* *Talanta*, 1968, **15**, 1055 (*detn*, *Fe*)

1,1'-Iminobis[6-chloroanthraquinone], 8CI **I-00007**
 1,1'-Iminobis[6-chloro-9,10-anthracenedione]. 1,1'-Bis(6-chloroanthraquinoly)amine. 6,6'-Dichloro-1,1'-dianthrimide
 [17401-57-9]



$C_{28}H_{13}Cl_2NO_4$ M 498.320
 Used as 1*mM* soln. in conc. H_2SO_4 for photometric detn. of B. Dark red cryst. powder. Sol. conc. acids, C_6H_6 , $CHCl_3$. Mp 305-315°.

Grob, R.L. *et al.* *Anal. Chim. Acta*, 1967, **39**, 115.

3,3'-Iminobis[1-(4-methylphenyl)-2-propen-1-one], 9CI **I-00008**

Bis[2-(4-methylbenzoyl)vinyl]amine
 [53669-99-1]



$C_{20}H_{19}NO_2$ M 305.376
 Used as acid-base indicator (colour change: yellow → orange). Yellow cryst. (PhCl). Mp 232-233°.

Ollinger, P. *et al.* *Monatsh. Chem.*, 1974, **105**, 346 (*synth*, *nmr*, *use*, *ind*)

3,3'-Iminobis[1-phenyl-2-propen-1-one], 9CI **I-00009**

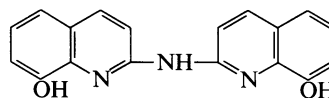
Bis(2-benzoylvinyl)amine
 [30091-50-0]



$C_{18}H_{15}NO_2$ M 277.322
 Used as acid-base indicator (colour change: yellow → orange). Yellow cryst. (PhCl). Mp 230-231°.

Ollinger, P. *et al.* *Monatsh. Chem.*, 1974, **105**, 346 (*synth*, *nmr*, *use*, *ind*)

2,2'-Iminobis-8-quinolinol, 9CI **I-00010**
 [85139-11-3]



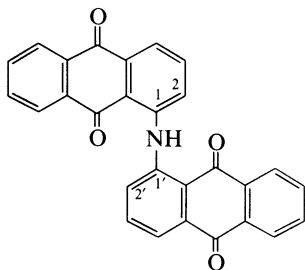
$C_{18}H_{13}N_3O_2$ M 303.320
 Used as 0.02*mM* EtOH soln. for fluorimetric detn. of Y, La, Lu. Cryst. Sol. EtOH, DMF.

N-Butyl: [82361-90-8]. 2,2'-(Butylimino)bis-8-quinolinol, 9CI
 $C_{22}H_{21}N_3O_2$ M 359.427
 Used as 0.02*mM* EtOH soln. for fluorimetric detn. of Y, La, Lu. Cryst. Sol. EtOH, DMF.

Kachin, S.V. *et al.* *Zh. Anal. Khim.*, 1983, **38**, 1390 (*synth*, *use*)

1,1'-Iminodianthraquinone, 8CI **I-00011**

1,1'-Iminobis-9,10-anthracenedione, 9CI. 1,1'-Dianthrime.
Anthrimide. 1,1'-Dianthraquinolylamine
[82-22-4]



$C_{28}H_{15}NO_4$ M 429.431

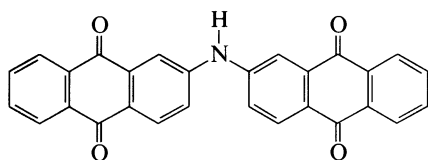
Used as 0.04% soln. in conc. H_2SO_4 for photometric detn. of B (λ_{max} 630 nm, ϵ 19000), Ge, Se, Te. Deep-red needles (PhCl), rhombs (PhNO₂). Sol. conc. H_2SO_4 ; spar. sol. aniline, PhCl, PhNO₂; insol. org. solvs.

▷ CB7780000.

Ger. Pat., 162 824, (1905); Chem. Zentralbl., 1905, 2, 1206 (synth)
Eckert, A. et al, Monatsh. Chem., 1914, 35, 1129 (synth)
Skaar, O.B. et al, Anal. Chim. Acta, 1959, 21, 370 (detn, Ge)
Danielsson, L., Talanta, 1959, 3, 138, 203 (detn, B)
Langmyhr, F.S. et al, Anal. Chim. Acta, 1961, 25, 262; 1966, 35, 212 (detn, B, Se)
Kaczmarczyk, A. et al, Anal. Chem., 1971, 43, 271 (detn, B)
Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, IB1000.

2,2'-Iminodianthraquinone **I-00012**

2,2'-Iminobis-9,10-anthracenedione, 9CI. 2,2'-Dianthrime.
2,2'-Dianthraquinolylamine
[572-82-7]



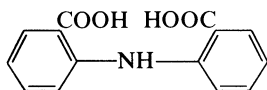
$C_{28}H_{15}NO_4$ M 429.431

Used in photometric detn. of Se (conc. H_2SO_4). Red cryst.
Sol. conc. H_2SO_4 .

Langmyhr, F.J., Anal. Chim. Acta, 1960, 23, 565; 1963, 29, 377; 1966, 35, 24.

2,2'-Iminodibenzoic acid, 8CI **I-00013**

2,2'-Iminobisbenzoic acid, 9CI. Diphenylamine-2,2'-dicarboxylic acid. Vanadox
[579-92-0]



$C_{14}H_{11}NO_4$ M 257.245

Used as a 0.1 or 1% soln. in conc. H_2SO_4 for photometric detn. of V (λ_{max} 610 nm, ϵ 23000); redox indicator (colour change: colourless → blue). Cryst. (EtOH). Sol. alkalis, conc. acids. Mp 314-316° (295°). $E^\circ + 0.88$ V (9M H_2SO_4); $E^\circ + 1.26$ V (1M H_2SO_4).

▷ DH2960000.

Di-Me ester: [34069-89-1].

$C_{16}H_{15}NO_4$ M 285.299

Cryst. (MeOH). Mp 102-103°.

Dichloride: [32621-46-8].

$C_{14}H_9Cl_2NO_2$ M 294.136

Yellow prisms. Mp 161-163° (155°).

Diamide: [32615-84-2]. 2,2'-Iminobisbenzamide, 9CI. 2,2'-Dicarbamoyldiphenylamine

$C_{14}H_{13}N_3O_2$ M 255.276

Pale-yellow needles (DMF/MeOH). Mp 219-220°.

Kissanov, A.V. et al, Bull. Soc. Chim. Fr., 1936, 3, 2037 (use)

Frumina, N.S. et al, Talanta, 1969, 16, 138 (use)

Hellwinkel, D. et al, Chem. Ber., 1971, 104, 1001 (ester)

Banerji, A. et al, J. Chem. Soc., Perkin Trans. 1, 1977, 1162 (synth)

Ozaki, K. et al, J. Org. Chem., 1981, 46, 1571 (diamide)

2,3'-Iminodibenzoic acid, 8CI **I-00014**

2,3'-Iminobisbenzoic acid, 9CI. Diphenylamine-2,3'-dicarboxylic acid

[27693-67-0]

$C_{14}H_{11}NO_4$ M 257.245

Used as a 0.1 or 1% soln. in conc. H_2SO_4 for photometric detn. of V (λ_{max} 578 nm, ϵ 10400); redox indicator (colour change; colourless → blue). Needles (EtOH). Sol. alkalis, conc. acids. Mp 296°. $E^\circ + 1.12$ V (0.1M H_2SO_4).

Ullmann, F. et al, Justus Liebigs Ann. Chem., 1907, 355, 355

(synth)

Kirsanov, A.V. et al, Bull. Soc. Chim. Fr., 1936, 3, 2037 (use)

Frumina, N.S. et al, Talanta, 1969, 16, 138 (use)

2,4'-Iminodibenzoic acid, 8CI **I-00015**

2,4'-Iminobisbenzoic acid, 9CI. Diphenylamine-2,4'-dicarboxylic acid

[17332-57-9]

$C_{14}H_{11}NO_4$ M 257.245

Used as a 0.1 or 1% soln. in conc. H_2SO_4 for photometric detn. of V (λ_{max} 568 nm, ϵ 18000); redox indicator (colour change; colourless → blue). Needles (EtOH). Sol. alkalis, conc. acids. Mp 290° (278-279°).

Di-Me ester:

$C_{16}H_{15}NO_4$ M 285.299

Mp 180-181°.

Ullmann, F. et al, Justus Liebigs Ann. Chem., 1907, 355, 356

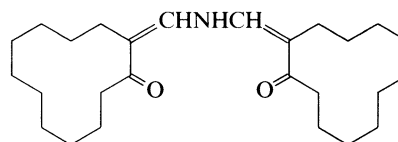
(synth)

Picciola, G. et al, Farmaco, Ed. Sci., 1968, 23, 502 (synth, props)

Frumina, N.S. et al, Talanta, 1969, 16, 138 (use)

2,2'-(Iminodimethylidene) biscyclododecanone, 9CI **I-00016**

[53670-00-1]



$C_{26}H_{43}NO_2$ M 401.631

Used as acid-base indicator (colour change: pale yellow → pale orange). Yellow cryst. Mp 150-152°.

Ollinger, P. et al, Monatsh. Chem., 1974, 105, 346 (synth, nmr, use)

2,2'-(Iminodimethylidene)bis(cyclohexanone), 9CI

I-00017

[53670-01-2]

C₁₄H₁₉NO₂ M 233.310

Used as acid-base indicator (colour change: yellow → orange). Yellow cryst. Mp 164-165°.

Ollinger, P. *et al.*, *Monatsh. Chem.*, 1974, **105**, 346 (*synth, nmr, use, ind*)**2,2'-(Iminodimethylidene)bis[3,4-dihydro-5,7-dimethyl-1(2H)-naphthalenone], 9CI**

I-00018

[53670-02-3]

As 2,2'-(Iminodimethylidene)bis[3,4-dihydro-1(2H)-naphthalenone], I-00019 with

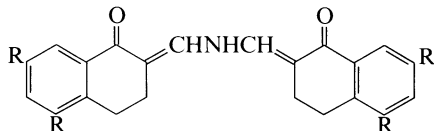
R = CH₃C₂₆H₂₇NO₂ M 385.505

Used as acid-base indicator (colour change: yellow → dark red). Yellow cryst. Mp 196-198°.

Ollinger, P. *et al.*, *Monatsh. Chem.*, 1974, **105**, 346 (*synth, nmr, use*)**2,2'-(Iminodimethylidene)bis[3,4-dihydro-1(2H)-naphthalenone], 9CI**

I-00019

[36705-73-4]



R = H

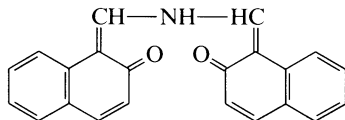
C₂₂H₁₉NO₂ M 329.398

Used as acid-base indicator (colour change: yellow → dark red). Yellow cryst. Mp 182-183°.

Ollinger, P. *et al.*, *Monatsh. Chem.*, 1974, **105**, 346 (*synth, nmr, use*)**1,1'-(Iminodimethylidene)bis-2(1H)-naphthalenone, 9CI**

I-00020

[53732-90-4]

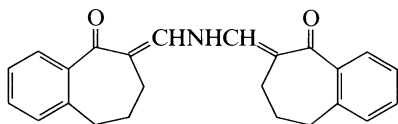
C₂₂H₁₅NO₂ M 325.366

Used as acid-base indicator (colour change: bright yellow → blue-green). Yellow cryst. Mp 272-273°.

Ollinger, P. *et al.*, *Monatsh. Chem.*, 1974, **105**, 346 (*synth, nmr, use*)**6,6'-(Iminodimethylidene)bis[6,7,8,9-tetrahydro-5H-benzocyclohepten-5-one], 9CI**

I-00021

[53670-03-4]

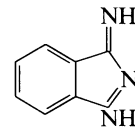
C₂₄H₂₃NO₂ M 357.451

Used as acid-base indicator (colour change: yellow → bright red). Yellow cryst. Mp 215-216°.

Ollinger, P. *et al.*, *Monatsh. Chem.*, 1974, **105**, 346 (*synth, nmr, use*)**1-Imino-1H-isoindol-3-amine, 8CI**

I-00022

3-Amino-1-iminoisoindole. 1,3-Diiminoisoindolenine. 1,3-Diiminoisoindoline. Phthalimidimide. Phthalocyanine blue 01216. Phthalogene brilliant blue IF3G. Fastogen blue 5040 [3468-11-9]

C₈H₇N₃ M 145.163Commercially available. Used as aq. soln. for sensitive spot tests for Cu, Co, Ni, Zn, Cd. Yellow cryst. Sol. alcohols, acids; sl. sol. H₂O. Mp 199° dec.

▷ Severe irritant. NR3500000.

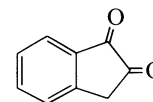
[57500-34-2]

Ackermann, G., *Mikrochim. Acta*, 1964, 222 (*use*)*Sigma-Aldrich Library of Chemical Safety Data*, 1988, **1**, 1283B.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DNE400.**1,2-Indanedione**

I-00023

1H-Indene-1,2(3H)-dione, 9CI. 1,2-Dioxohydrindene. Oxindone

[16214-27-0]

C₉H₆O₂ M 146.145Yellow leaflets. Sol. hot H₂O. Mp 114-116°, Mp 95-115°, 95°.

2-Oxime: [15028-10-1]. 1H-Indane-1,2(3H)-dione-2-oxime

C₉H₇NO₂ M 161.160

Used as EtOH soln. for pptn. of Pd. Needles. Mp 215° dec.

2-Semicarbazone: Mp 230-233° dec.

Phenylhydrazone: Mp 123-124°.

Bisphenylhydrazone: Mp 230-235° (222-223°).

Perkin, W.H. *et al.*, *J. Chem. Soc.*, 1912, **101**, 234.Ishiwara, F., *J. Prakt. Chem.*, 1924, **108**, 194.Hock, H., *Chem. Ber.*, 1957, **84**, 122.Cava, P. *et al.*, *J. Am. Chem. Soc.*, 1958, **80**, 2255.House, H.O. *et al.*, *J. Am. Chem. Soc.*, 1960, **82**, 1463.Bark, L.S. *et al.*, *Talanta*, 1963, **10**, 1189 (*pptn, Pd, oxime*)Undheim, K. *et al.*, *Acta Chem. Scand., Ser. B*, 1975, **29**, 503.Gupta, S.K. *et al.*, *J. Pharm. Sci.*, 1976, **65**, 134.**1,3-Indanedione**

I-00024

1,3-Dioxohydrindene

[606-23-5]

C₉H₆O₂ M 146.145Needles (ligroin). Spar. sol. H₂O, sol. hot EtOH, C₆H₆. Mp 130-131°. pK_a 7.2 (20°, 1% EtOH). Deep-yellow soln. in alkali (enol form).

▷ NK5070000.

Dioxime: [6624-48-2].

C₉H₈N₂O₂ M 176.174

Mp 220-225° dec.

Phenylhydrazone: Mp 162-163°.

Bisphenylhydrazone: Pink needles. Mp 171°.

Bis(thiosemicarbazone): [3401-45-4]. 2,2'-(1*H*-Indene-1,3(2*H*)-diylidene)bishydrazinecarbothioamide, 9*CI*

$C_{11}H_{12}N_6S_2$ M 292.388

Used as 0.8% DMF soln. for photometric detn. of IO_4^- (λ_{max} 520 nm, ϵ 4800, pH 1.7-2.5). Grey powder (Py aq.). Sol. Py, DMF; insol. H_2O , EtOH, Et₂O, C₆H₆. Mp 236-242° dec.

Horn, O. *et al*, *Chem. Ber.*, 1951, **84**, 607.

Grinsteins, V. *et al*, *Zh. Obshch. Khim.*, 1962, **32**, 1077 (*synth*)

Norcross, B.E., *J. Chem. Educ.*, 1965, **42**, 268.

Bravic, G. *et al*, *Cryst. Struct. Commun.*, 1976, **5**, 1 (*cryst struct*)

Hughes, D.W. *et al*, *Can. J. Chem.*, 1977, **55**, 3304 (*cmr*)

Shapiro, B.L. *et al*, *J. Phys. Chem. Ref. Data*, 1977, **6**, 919.

Callejon Mochon, M. *et al*, *Microchem. J.*, 1986, **23**, 83 (*detn*, IO_4^-)

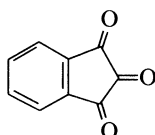
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IBS000.

1,2,3-Indanetrione

I-00025

1*H*-Indene-1,2,3-trione, 9*CI*

[938-24-9]



$C_9H_4O_3$ M 160.129

Used as soln. (pH 5.5) in aq. 2-methoxyethanol for photometric detn. of NH_3 . Cryst. Sol. 2-methoxyethanol; spar. sol. H_2O . Mp 241-243°.

2-*Oxime*: [13167-95-8].

$C_9H_5NO_3$ M 175.143

Cryst. (AcOH). Mp 200-201°.

2-(4-Nitrophenyl)hydrazone: [35117-30-7].

Orange-red cryst. (AcOH). Mp 310°.

Covalent hydrate: see *Ninhydrin*, N-00071

2-(*Thiosemicarbazone*): [102036-43-1].

$C_{10}H_7N_3O_2S$ M 233.250

Used as 5mM soln. in DMF for photometric detn. of Os (λ_{max} 440 nm, ϵ 64000). Orange needles (EtOH). Sol. DMF; spar. sol. EtOH, CHCl₃, C₆H₆. Mp 260-262°. pK_{a1} 4.60; pK_{a2} 8.10.

Trioxime: [112359-95-2].

$C_9H_7N_3O_3$ M 205.173

Used as a 0.01M soln. in aq. DMF for photometric detn. of Co (λ_{max} 320 nm, ϵ 53200, pH 4.5-7.5). Cryst. Sol. DMF, H_2O .

Ruhemann, S., *J. Chem. Soc.*, 1910, **97**, 1438, 2025 (*synth*)

Shriner, R.L. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 3026.

Vanags, G. *et al*, *Ber.*, 1938, **71**, 1267 (*synth*)

Jacobs, S., *Analyst (London)*, 1960, **85**, 257.

Regitz, M. *et al*, *Justus Liebigs Ann. Chem.*, 1965, **690**, 125.

Brown, R.F.C. *et al*, *Aust. J. Chem.*, 1966, **19**, 1045 (*ms*)

Lepley, A.R. *et al*, *Tetrahedron*, 1966, **22**, 101 (*ir*)

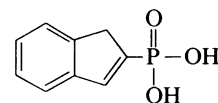
Reddy, K.H. *et al*, *Mikrochim. Acta*, 1985, **2**, 319 (*synth*, *detn*, Os)

Rao, D.M. *et al*, *Indian J. Chem., Sect. A*, 1987, **26**, 363 (*trioxime*, *synth*)

Rao, D.M. *et al*, *Mikrochim. Acta*, 1987, **2**, 57 (*trioxime*, *use*)

1*H*-Inden-2-ylphosphonic acid, 9*CI*

I-00026



$C_9H_9O_3P$ M 196.142

Used as a 1% aq. soln. for pptn. sepn. of Th, Zr. Cryst. (AcOH) or plates (H_2O). Mp 184°.

Di-Et ester: Diethyl 1*H*-inden-2-ylphosphonate

$C_{13}H_{17}O_3P$ M 252.249

Liq. Bp₁ 150°.

Bergmann, E. *et al*, *Ber.*, 1930, **63**, 1158 (*synth*)

Willard, H. *et al*, *Anal. Chem.*, 1948, **20**, 165 (*detn*, Zr)

Anisimov, K.N. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1956, **16**; *CA*, **50**, 13784 (*ester*)

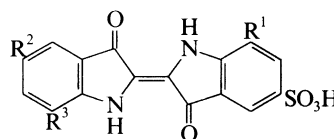
Lukianov, V.F. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 1097 (*detn*, Th)

Kenyon, G.L. *et al*, *J. Am. Chem. Soc.*, 1966, **88**, 3557 (*synth*, *pmr*)

Indigo-5-sulfonic acid

I-00027

2-(1,3-Dihydro-3-oxo-2*H*-indol-2-ylidene)-2,3-dihydro-3-oxo-1*H*-indole-5-sulfonic acid, 9*CI*. 3,3'-Dioxo-[$\Delta^{2,2}$ -biindoline]-5-sulfonic acid, 8*CI*. Indigo 5-monosulfonic acid [605-18-5]



$R^1 = R^2 = R^3 = H$

$C_{16}H_{10}N_2O_5S$ M 342.331

Redox indicator used as aq. soln.; used in detn. of Mn(II).

Dark bluish-red cryst. powder. Sol. H_2O ; spar. sol.

EtOH. $E^\circ + 0.262$ V (30°).

[72629-95-9]

Brant, L.Z., *Fresenius' Z. Anal. Chem.*, 1914, **53**, 1 (*use*)

Rao, G.G. *et al*, *Talanta*, 1967, **14**, 849 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Rukmini, N. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **298**, 159 (*detn*)

Sychev, A.Ya. *et al*, *CA*, 1980, **92**, 68967a (*detn*, Mn)

Indigo-5,5',7,7'-tetrasulfonic acid

I-00028

2-(1,3-Dihydro-3-oxo-5,7-disulfo-2*H*-indol-2-ylidene)-2,3-dihydro-3-oxo-1*H*-indole-5,7-disulfonic acid. 3,3'-Dioxo-[$\Delta^{2,2}$ -biindoline]-5,5',7,7'-tetrasulfonic acid, 8*CI*. C.I. 73020 Acid dye. Indigotine P

As Indigo-5-sulfonic acid, I-00027 with

$R^1 = R^2 = R^3 = SO_3H$

$C_{16}H_{10}N_2O_{14}S_4$ M 582.524

$E^\circ + 0.365$ V (30°).

Tetra-Na salt: [6371-42-2].

Redox indicator used as aq. soln. Dark bluish-red cryst. powder. Sol. H_2O ; insol. EtOH.

Tetra-K salt: [28699-96-9].

Commercially available. Light sensitive.

[67627-19-4]

Brandt, L.Z., *Fresenius' Z. Anal. Chem.*, 1914, **53**, 1 (*use*)

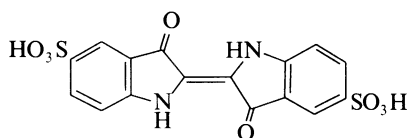
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Indigotindisulfonic acid

I-00029

2-(1,3-Dihydro-3-oxo-5-sulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid, 9CI. 3,3'-Dioxo[Δ^{2,2}-biindoline]-5,5'-disulfonate, 8CI. Indigodisulfonic acid

[483-20-5]

C₁₆H₁₀N₂O₈S₂ M 422.396

Obt. by sulfonating indigo with conc. or sl. fuming H₂SO₄ (Barth, 1740). Cryst. Sol. H₂O.

Di-Na salt: [860-22-0]. Indigo carmine. Soluble indigo blue. C.I. Acid blue 74. C.I. Food blue 1. Amacid brilliant blue. Carmine blue. Indigotine. C.I. Pigment blue 63. C.I. 73015

Dye used in cytology as diagnostic aid, in indicators and cosmetics. Used as 0.2% aq. soln. as indicator in titrimetric detn. of Cr(II), Sn(II), Fe(III), Ti(III); used for photometric detn. of O₂ (λ_{max} 620 nm), Cl₂, NO₃[⊖], MnO₄[⊖]; indirect photometric detn. of O₃ (λ_{max} 610 nm, ε 22000). Biological stain. Dark blue solid. Sol. H₂O; sl. sol. EtOH; insol. C₆H₆, CHCl₃. Sensitive to light and oxidizing agents.

▷ DU3000000.

Heymann, B., *Ber.*, 1891, **24**, 1476, 3066 (*synth*)Vorländer, D. *et al.*, *Ber.*, 1901, **34**, 1860 (*struct*)Holness, H. *et al.*, *Analyst* (London), 1942, **67**, 221 (*detn.*, Ti)Welcher, F.J., *Organic Analytical Reagents*, van Nostrand, N.Y., 1947, **4**, 505 (*detn.*, Cl₂, NO₃[⊖], MnO₄[⊖])Loomis, W.F., *Anal. Chem.*, 1956, **28**, 1347 (*detn.*, O₂)Tandon, J.P. *et al.*, *Fresenius' Z. Anal. Chem.*, 1962, **187**, 410 (*detn.*, Cr)Henze, G. *et al.*, *Fresenius' Z. Anal. Chem.*, 1964, **200**, 434 (*detn.*, Sn)Hooson, J. *et al.*, *Food Cosmet. Toxicol.*, 1975, **13**, 177 (*tox*)Bergshoeff, G. *et al.*, *Analyst* (London), 1984, **109**, 1165 (*detn.*, O₃)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FAE100.**Indigo-5,5',7-trisulfonic acid**

I-00030

2-(1,3-Dihydro-3-oxo-5-sulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5,7-disulfonic acid. 3,3'-Dioxo[Δ^{2,2}-biindoline]trisulfonic acid, 8CI

[109715-11-9]

As Indigo-5-sulfonic acid, I-00027 with

R¹ = H, R² = R³ = SO₃HC₁₆H₁₀N₂O₁₁S₃ M 502.460

Commercially available as trisodium salt. Redox indicator used as aq. soln. Used in detn. of O₃ in H₂O. Dark bluish-red cryst. powder. Sol. H₂O; spar. sol. EtOH. E[⊖] +0.332 V (30°).

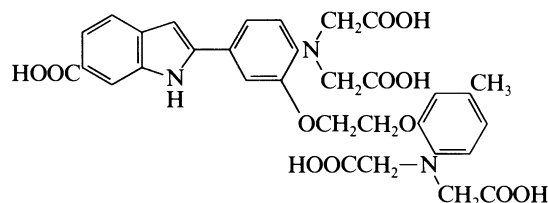
[28606-01-1, 67627-18-3]

Brandt, L.Z., *Fresenius' Z. Anal. Chem.*, 1914, **53**, 1 (*use*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)Baden, H. *et al.*, *Water Res.*, 1981, **15**, 449 (*detn.*, O₃)*Sigma-Aldrich Library of Chemical Safety Data*, 1988, 2905b (*haz*)**Indo 1**

I-00031

2-[4-[Bis(carboxymethyl)amino]-3-[2-[2-[bis(carboxymethyl)amino]-5-methylphenoxy]ethoxy]phenyl]-1H-indole-6-carboxylic acid, 9CI

[96314-96-4]

C₃₂H₃₁N₃O₁₂ M 649.610

Fluorescent indicator for intracellular Ca.

Penta-K salt: [132319-56-3].

Fluorimetric reagent for Ca.

Tetra-K salt: [132299-21-9].

Fluorimetric reagent for Mg.

Pentakis(acetoxymethyl ester): [112926-02-0]. Indo 1AM

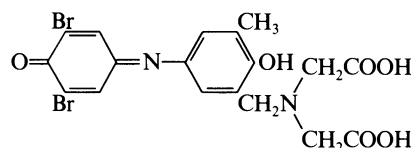
Fluorescent indicator for Ca.

Gryniewicz, G. *et al.*, *J. Biol. Chem.*, 1985, **260**, 3440 (*synth*)**Indoferron**

I-00032

N-(Carboxymethyl)-N-[[5-[(3,5-dibromo-4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-hydroxy-3-methylphenyl]methyl]glycine, 9CI. 2,6-Dibromoindo-3'-methyl-5'-N,N-dicarboxymethylaminomethylphenol. 2,6-Dibromophenolindo-o-cresol complexan

[27728-33-2]

C₁₈H₁₆Br₂N₂O₆ M 516.142

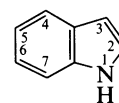
Used as a 0.2% aq. soln. of di-Na salt for extraction-photometric detn. of Fe(III), Sc, Zr (CHCl₃); metallochromic indicator for chelatometric detn. of Bi, Sc, Th. Dark violet cryst. powder. Sol. alkalis; spar. sol. H₂O. pK_{a1} 3.01; pK_{a2} 5.49; pK_{a3} 9.20 (25°, μ = 0.1).

▷ AG5985000.

Körbl, J. *et al.*, *Chem. Ind. (London)*, 1958, 1233 (*synth.*, ind)Shimizu, T. *et al.*, *Talanta*, 1969, **16**, 1527 (*detn.*, Sc)Sakai, T., *Bull. Chem. Soc. Jpn.*, 1970, **43**, 3171 (*detn.*, Fe, Zr)Wakamatsu, Y. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1970, **19**, 537 (*detn.*, Fe)**Indole**

I-00033

[120-72-9]

C₈H₇N M 117.150

Constit. of several flower oils, esp. of *Jasminum* and *Citrus* spp. (Oleaceae, Rutaceae). A prod. of bacterial dec. of proteins, ubiquitous in faeces. Also a constit. of coal tar. Constit. of anal gland secretion of aard wolf (*Proteles cristatus*). Perfumery and flavouring ingredient. Used as 0.5% EtOH soln. for photometric detn. of NO₂[⊖] (λ_{max} 530 nm, ε 9500, 2.5-5M HCl). Cryst. (H₂O). Sol. EtOH. Mp 52°. Bp 253-254°, Bp₅ 122.5-124°.

▷ Mod. toxic. NL2450000.

N-Formyl:

C_9H_7NO M 145.160

Mp 52°. Bp₈ 125-126°.

N-Ac: [576-15-8].

$C_{10}H_9NO$ M 159.187

Bp₁₄ 152-153°.

N-Benzoyl: [1496-76-0].

$C_{15}H_{11}NO$ M 221.258

Mp 44°, Mp 67-68°. Bp₁₆ 213°.

N-Nitroso:

$C_8H_6N_2O$ M 146.148

Mp 171-172° dec.

▷ Exp. carcinogen.

N-Benzyl:

$C_{15}H_{13}N$ M 207.274

Bp₂ 155°.

N-Butyl: [22014-99-9].

$C_{12}H_{15}N$ M 173.257

Bp₂ 125°.

Stowe, B.B., *Fortschr. Chem. Org. Naturst.*, 1959, **17**, 250 (occur)

Sawicki, E. *et al*, *Talanta*, 1963, **10**, 641 (use)

Jennings, A.L. *et al*, *J. Org. Chem.*, 1964, **29**, 2065 (ms)

Black, P.J. *et al*, *Aust. J. Chem.*, 1965, **18**, 353 (pmr)

Bravo, P. *et al*, *Gazz. Chim. Ital.*, 1970, **100**, 652 (synth)

Sundberg, R.J., *The Chemistry of Indoles*, Academic Press, N.Y., 1970 (rev)

Roychowdhury, P. *et al*, *Acta Crystallogr., Sect. B*, 1975, **31**, 1559 (cryst struct)

Lieto, J. *et al*, *Bull. Soc. Chim. Fr.*, 1976, 1246 (synth)

Nakazuki, M. *et al*, *J. Org. Chem.*, 1976, **41**, 1877 (synth)

Ito, Y. *et al*, *J. Am. Chem. Soc.*, 1977, **99**, 3532.

Chem. Heterocycl. Compd., (Houlihan, W., Ed.), Parts I-III, Wiley, N.Y., 1978 (rev)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **13**, 213 (rev)

Rahim, S.A. *et al*, *Microchem. J.*, 1983, **28**, 479 (use)

Apps, P.J. *et al*, *J. Chem. Ecol.*, 1989, **15**, 1681.

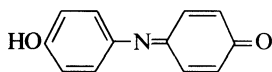
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ICM000.

Indophenol

I-00034

4-[(4-Hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, 9CI

[500-85-6]



$C_{12}H_9NO_2$ M 199.209

Dye produced in photometric detn. of NH_3 with use of phenol and ClO^- (Bertollet's reaction). Cryst.

(Me_2CO /pet. ether). Mp 160°.

B, HCl: Mp 310°.

Ac: [7761-80-0].

$C_{14}H_{11}NO_3$ M 241.246

Cryst. (pet. ether). Mp 115-116°.

Heller, G., *Justus Liebigs Ann. Chem.*, 1912, **392**, 16 (synth)

Meyer, K.H. *et al*, *Ber.*, 1921, **54**, 337 (synth)

Kehrmann, F. *et al*, *Ber.*, 1921, **54**, 2435 (synth)

Riley, J.P., *Anal. Chim. Acta*, 1953, **9**, 575.

Bohnstedt, U., *Fresenius' Z. Anal. Chem.*, 1958, **163**, 415.

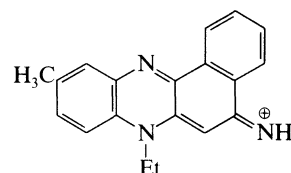
Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986.

Induline scarlet

I-00035

5-Amino-7-ethyl-10-methylbenzo[a]phenazinium(1+). C.I.

50080 Basic dye



$C_{19}H_{18}N_3^+$ M 288.371 (ion)

Strictly, the name Induline scarlet applies to the chloride salt.

Chloride: [2611-49-6].

$C_{19}H_{18}ClN_3$ M 323.824

Redox indicator used as a soln. in EtOH or H_2O . Dark blue cryst. Sol. EtOH, H_2O . $E^\circ +0.047$ V (30°).

Stiehler, R.D. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 4097 (use)

Iodoacetic acid, 9CI, 8CI

I-00036

Iodoethanoic acid

[64-69-7]

ICH_2COOH

$C_2H_3IO_2$ M 185.949

Used as a chromatographic derivatisation reagent for the S-carboxymethylation of cystine and cysteine in peptides. Plates (ligroin). V. sol. Et_2O , sol. H_2O , EtOH. Mp 82-83°. pK_a 3.18 (25°, H_2O).

▷ Highly toxic and irritant, causes severe burns. AI3500000.

Me ester: [5199-50-8].

$C_3H_5IO_2$ M 199.976

Liq. Bp 169-171°.

Chloride: [38020-81-4]. Iodoacetyl chloride

C_2H_2ClIO M 204.394

Yellow-brown oil. d^{25} 2.25. Bp₁₅ 49-52°.

Anhydride: [54907-61-8].

$C_4H_4I_2O_3$ M 353.883

Cryst. (EtOH aq.). V. sol. $CHCl_3$, EtOAc, Et_2O , less sol.

H_2O , EtOH. Mp 46°.

Nitrile: [624-75-9].

C_2H_2IN M 166.949

Oil. Bp₁₂ 76-77°.

v. Braun, J., *Ber.*, 1908, **41**, 2130 (synth nitrile)

Abderhalden, E. *et al*, *Ber.*, 1908, **41**, 2852 (synth)

Heritage, A.M., *CA*, 1919, **13**, 3288.

Moodie, I.M. *et al*, *J. Chromatogr.*, 1976, **124**, 315 (use)

Karpitskaya, L.G. *et al*, *Zh. Org. Khim.*, 1976, **12**, 462 (synth)

Cooper, J.D.H. *et al*, *J. Chromatogr.*, 1982, **227**, 158 (use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 364.

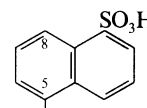
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IDZ000.

5-[[2-[(Iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, 9CI

I-00037

1,5-I-AEDANS

[36930-63-9]



$ICH_2CONHCH_2CH_2NH$

$C_{14}H_{15}IN_2O_4S$ M 434.254

Fluorescent reagent for thiols. Light- and moisture-sensitive.

Hudson, E.N. *et al*, *Biochemistry*, 1973, **12**, 4154 (*synth, use*)

8-[[2-[(Iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, 9CI **I-00038**

1,8-I-AEDANS

[36930-64-0]

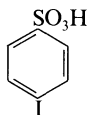
$C_{14}H_{15}IN_2O_4S$ M 434.254

Fluorescent reagent for thiols. Mp 226° dec. Light- and moisture-sensitive.

Hudson, E.N. *et al*, *Biochemistry*, 1973, **12**, 4154 (*synth, use*)

4-Iodobenzenesulfonic acid **I-00039**

[13035-63-7]



$C_6H_5IO_3S$ M 284.074

Hygroscopic cryst. V. sol. H_2O . Mp 70°.

Chloride: [98-61-3]. *4-Iodobenzenesulfonyl chloride. Pipsyl chloride*

$C_6H_4ClIO_2S$ M 302.520

Used in detn. of free side-chain amino groups in proteins. Cryst. (pet. ether). Mp 86-87°.

Anhydride: [2828-64-0]. *Pipsan*

$C_{12}H_8I_2O_5S_2$ M 550.133

^{131}I or ^{35}S -labelled compds. used in the detn. of steroid hormones. Cryst. ($CHCl_3$ /pentane). Mp 220-221°.

Keston, A.S. *et al*, *J. Am. Chem. Soc.*, 1949, **71**, 249 (*synth, chloride*)

Bojeson, E., *Scand. J. Clin. Lab. Invest.*, 1956, **8**, 55 (*synth, use, anhydride*)

Christensen, N.H., *Acta Chem. Scand.*, 1961, **15**, 219 (*synth*)

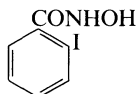
Oratz, M. *et al*, *Biochim. Biophys. Acta*, 1966, **115**, 88 (*use, chloride*)

Fletcher, J.C., *Biochem. J.*, 1967, **102**, 815 (*use, chloride*)

2-Iodobenzohydroxamic acid **I-00040**

N-Hydroxy-2-iodobenzamide, 9CI

[79271-23-1]



$C_7H_6INO_2$ M 263.034

N-Ph: [37433-80-0]. *N-(o-Iodobenzoyl)phenylhydroxylamine.*

N-Hydroxy-2-iodo-N-phenylbenzamide, 9CI

$C_{13}H_{10}INO_2$ M 339.132

Used for pptn. of Al, Cu, Fe(III), Hf, Mn, Pb, Sn(II), Sn(IV), Ti, Zr. Cryst. Sol. common org. solvs.; spar. sol.

H_2O . Mp 128°. pK_{a1} 10.75 (25°, 50% dioxan), pK_{a2} 10.63 (35°, 50% dioxan).

N-(2-Methylphenyl): [34661-22-8]. *N-o-Tolyl-o-iodobenzohydroxamic acid. N-Hydroxy-2-iodo-N-(2-methylphenyl)benzamide, 9CI*

$C_{14}H_{12}INO_2$ M 353.159

Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(I) (λ_{max} 510 nm, ϵ 4750, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

N-(3-Methylphenyl): [34661-31-9]. *N-m-Tolyl-o-iodobenzohydroxamic acid. N-Hydroxy-2-iodo-N-(3-methylphenyl)benzamide, 9CI*

$C_{14}H_{12}INO_2$ M 353.159

Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(I) (λ_{max} 530 nm, ϵ 3800, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .

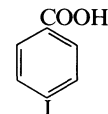
Gupta, V.K. *et al*, *J. Indian Chem. Soc.*, 1971, **48**, 753 (*synth*)

Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn, V*)

Baldwin, R.M. *et al*, *J. Radioanal. Chem.*, 1981, **65**, 269.

4-Iodobenzoic acid, 9CI **I-00041**

[619-58-9]



$C_7H_5IO_2$ M 248.020

Reference material used in elemental microanalysis.

Leaflets by subl. Mp 267°. pK_a 3.93 (25°, H_2O), pK_a 4.00 (25°), pK_a -7.50 (H_2SO_4).

Me ester: [619-44-3].

$C_8H_7IO_2$ M 262.047

Needles ($Et_2O/EtOH$). Mp 114°.

Et ester: [51934-41-9].

$C_9H_9IO_2$ M 276.073

Liq. Bp₁₆ 154°.

Chloride: [1711-02-0].

C_7H_4ClIO M 266.465

Needles (Et_2O). Mp 83° (77-78°). Bp₃₂ 163-164°, Bp₉ 126°.

Anhydride:

$C_{14}H_8I_2O_3$ M 478.024

Prisms ($CHCl_3$). Mp 228°.

Amide: [3956-07-8].

C_7H_6INO M 247.035

Mp 217.6° (209°).

Nitrile: [3058-39-7]. *1-Cyano-4-iodobenzene*

C_7H_4IN M 229.020

Mp 128-129°.

Org. Synth., Coll. Vol., 1, 1932, 325 (*synth*)

Sah, P.P.T. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1940, **59**, 364 (*synth*)

Robinson, R.A. *et al*, *J. Chem. Soc.*, 1959, 2314 (*w*)

Cox, R.H., *Spectrochim. Acta, Part A*, 1969, **25**, 1189 (*pmr*)

Analyst (London), 1972, **97**, 740 (*microanal*)

Lynch, B.M., *Can. J. Chem.*, 1977, **55**, 541 (*cmr*)

Green, J.H.S., *Spectrochim. Acta, Part A*, 1977, **33**, 575 (*ir*)

Baughman, R.G. *et al*, *Acta Crystallogr., Sect. C*, 1984, **40**, 204 (*cryst struct*)

Katritzky, A.R. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1990, 1515 (*ir, w, cmr*)

1-Iodobutane, 9CI **I-00042**

Butyl iodide

[542-69-8]



C_4H_9I M 184.020

Used to esterify fatty acids for gc anal. Liq. d_4^{20} 1.6166. Fp -103°. Bp 130.4-131°.

▷ EK4400000.

Adams, R. *et al*, *J. Am. Chem. Soc.*, 1919, **41**, 789 (*synth*)

Org. Synth., 1971, **51**, 44 (*synth*)

Greeley, R.H., *J. Chromatogr.*, 1974, **88**, 229 (*use*)

Miyano, S. *et al*, *Nippon Kagaku Kaishi*, 1977, 138 (*synth*)

Eweiss, N.F. *et al*, *Synthesis*, 1977, 634 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BRQ250.

Iodoethane, 9CI, 8CI

Ethyl iodide

[75-03-6]

C₂H₅I M 155.966

Used to esterify fatty acids for gc anal. Heavy, refractive liq. with ethereal odour, turns red in light. Misc. org. solvs., v. spar. sol. H₂O (gradual dec.). d¹⁵ 1.948. Fp –108°. Bp 72.3°. Light sensitive. Silver leaf retards dec.

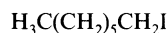
▷ Mod. toxic and irritant vapour. KI4750000.

Hunt, B.A., *J. Chem. Soc.*, 1920, **117**, 1592 (*synth*)
 Hirao, N., *Nippon Kagaku Kaishi*, 1931, **52**, 269 (*synth*)
 Greeley, R.H., *J. Chromatogr.*, 1974, **88**, 229 (*use*)
 Jung, M.E. *et al.*, *J. Org. Chem.*, 1977, **42**, 3761 (*synth*)
 Jung, M.E. *et al.*, *Tetrahedron Lett.*, 1977, 2659 (*synth*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 365.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ELP500.

1-Iodoheptane, 9CI, 8CI

n-Heptyl iodide

[4282-40-0]

C₇H₁₅I M 226.100

Reagent used in gc anal. of acetaminophen (paracetamol).

Liq. d₄²⁰ 1.3774. Bp 204°, Bp₁₇ 91°.

Sherrill, M.L., *J. Am. Chem. Soc.*, 1930, **52**, 1982 (*synth*)
 Corey, E.J. *et al.*, *J. Org. Chem.*, 1967, **32**, 4160 (*synth*)
 Dechtiaruk, W.A. *et al.*, *Clin. Chem. (Winston-Salem, N.C.)*, 1976, **22**, 879 (*use*)
 Stahl, D. *et al.*, *Org. Mass Spectrom.*, 1977, **12**, 761 (*ms*)
 Gavrilenko, V.V. *et al.*, *Zh. Obshch. Khim.*, 1978, **48**, 2073 (*synth*)

Iodomethane, 9CI

Methyl iodide

[74-88-4]

CH₃I M 141.939

Methylating agent. Liq. with pleasant odour. Spar. sol.

H₂O. d₄²⁰ 2.28. Fp –66.5°. Bp 42.5°. n_D²⁰ 1.5317. Darkens on exp. to light.

▷ Toxic by inhalation and skin absorption. Suspected carcinogen. TLV 28. PA9450000.

Hydrate: Mp –4°.

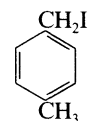
Timmermans, J. *et al.*, *J. Chem. Phys.*, 1934, **31**, 85 (*synth*)
 Vogel, A.I., *J. Chem. Soc.*, 1943, 636 (*synth, props*)
Org. Synth., Coll. Vol., 2, 1943, 399, 404 (*synth*)
 Kawaguchi, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 53 (*cryst struct*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 342.
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 304.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 366.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MKW200.

I-00043

1-(Iodomethyl)-4-methylbenzene, 9CI

α-Iodo-p-xylene. p-Xylyl iodide. p-Methylbenzyl iodide

[4484-74-6]

C₈H₉I M 232.064

Derivatization reagent for gc analysis of carboxylic acids.

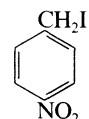
Needles (Et₂O or pet. ether). Mp 46-47°.

Zeltner, T., *Ber.*, 1910, **43**, 944.
 Watson, J.R. *et al.*, *J. Chromatogr.*, 1970, **52**, 63 (*use*)
 Anderson, S.N. *et al.*, *J. Chem. Soc., Perkin Trans. 2*, 1973, 311 (*nmr*)
 Lorenzo, A. *et al.*, *Synthesis*, 1980, 853 (*synth*)

1-Iodomethyl-4-nitrobenzene

α-Iodo-4-nitrotoluene. p-Nitrobenzyl iodide

[3145-86-6]

C₇H₆INO₂ M 263.034

Fungicide and antimicrobial agent. Reagent for derivatising carboxylic acids for gc anal. Needles (EtOH). Mp 127°.

Kumpf, G., *Justus Liebigs Ann. Chem.*, 1884, **224**, 96 (*synth*)
 Finkelstein, H., *Ber.*, 1910, **43**, 1528.
 Watson, J.R. *et al.*, *J. Chromatogr.*, 1970, **52**, 63 (*use*)
 Issa, R.M. *et al.*, *Spectrochim. Acta, Part A*, 1975, **31**, 199 (*ir, uv*)
 Inamoto, T. *et al.*, *Synthesis*, 1983, 460 (*synth*)

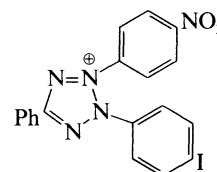
I-00044

I-00045

Iodonitrotetrazolium violet

2-(4-Iodophenyl)-3-(4-nitrophenyl)-5-phenyl-2H-tetrazolium(1+), 9CI

I-00048

C₁₉H₁₃IN₅O₂[⊕] M 470.248 (ion)

Strictly, the name Iodonitrotetrazolium violet applies to the chloride.

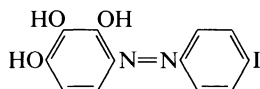
Chloride: [146-68-9]. INT

C₁₉H₁₃ClIN₅O₂ M 505.701

Used as 0.2% aq. soln. for photometric detn. of creatine phosphokinase isoenzymes; photometric detn. of S²⁻ (λ_{max} 630 nm, ε 110000, pH 10.3-11.5). Pale yellow cryst. Sol. hot H₂O, EtOH, alkalis, DMF.

Hoag, G.N. *et al.*, *Clin. Biochem.*, 1977, **10**, 94 (*detn, enzymes*)
 Alexandrov, A. *et al.*, *Fresenius' Z. Anal. Chem.*, 1977, **288**, 187 (*detn, S²⁻*)
 Kolesnikova, A.M. *et al.*, *Zavod. Lab.*, 1985, **51**, 1 (*detn, S²⁻*)

4-[(4-Iodophenyl)azo]-1,2,3-benzenetriol, 9CI
2,3,4-Trihydroxy-4'-iodoazobenzene
[80527-63-5]



$C_{12}H_9IN_2O_3$ M 356.119
Used as 1mM Me₂CO soln. for photometric detn. of Mo(VI) (λ_{max} 480 nm, ϵ 37500, 0.005-0.07M H₂SO₄).
Dark brown powder. Sol. Me₂CO, EtOH.

Gambarov, D.G. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 2190 (*synth, detn, Mo*)

1-Iodopropane, 9CI, 8CI
Propyl iodide
[107-08-4]

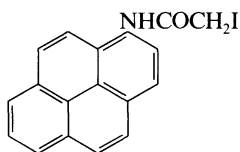


C_3H_7I M 169.993
Used to prepare propyl derivs. for gc. studies. Colourless or sl. yellow liq. Prac. insol. H₂O, misc. EtOH, Et₂O. d_4^{20} 1.7471. Fp –101.3°, Mp ~ –98.7°. Bp 102.5°.

▷ TZ4100000.

Adams, R. *et al*, *J. Am. Chem. Soc.*, 1919, **41**, 789 (*synth*)
Hirao, N., *Nippon Kagaku Kaishi*, 1931, **52**, 269 (*synth*)
Houriet, R. *et al*, *Helv. Chim. Acta*, 1976, **59**, 119 (*ms*)
Arbin, A., *J. Chromatogr.*, 1977, **144**, 85 (*use*)
Gusev, Yu. *et al*, *Zh. Obshch. Khim.*, 1977, **47**, 45 (*synth*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PNO750.

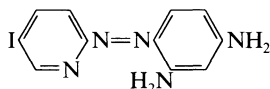
2-Iodo-N-1-pyrenylacetamide, 9CI I-00051
N-(1-Pyrene)iodoacetamide. 1-(Iodoacetyl)amino)pyrene. N-(Iodoacetyl)-1-pyrenamine
[76936-87-3]



$C_{18}H_{12}INO$ M 385.203
Fluorescent label for thiols.

Kouyama, T. *et al*, *Eur. J. Biochem.*, 1981, **114**, 33 (*use*)
Lin, T.L. *et al*, *Biophys. Chem.*, 1982, **15**, 289 (*use*)
Ikkai, T. *et al*, *FEBS Lett.*, 1986, **207**, 177 (*use*)

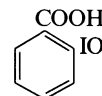
4-[(5-Iodo-2-pyridinyl)azo]-1,3-benzenediamine, 9CI I-00052
2-(2,4-Diaminophenylazo)-5-iodopyridine
[50768-77-9]



$C_{11}H_{10}IN_5$ M 339.138
Used as a 1mM soln. in EtOH for extraction-photometric detn. of Co (λ_{max} 590 nm, ϵ 118000). Dark red cryst. (EtOH aq.). Sol. EtOH; spar. sol. H₂O. Mp 248-250°.

Kiss, E., *Anal. Chim. Acta*, 1973, **66**, 385 (*synth, use*)

2-Iodosylbenzoic acid, 9CI I-00053
o-Iodosobenzoic acid
[304-91-6]

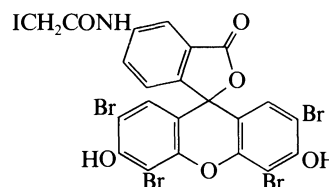


$C_7H_5IO_3$ M 264.019
Reagent for the α -hydroxylation of ketones. Used as 0.5mM aq. soln. for photometric detn. of S₂O₃²⁻, ascorbic acid and other reducing substances (indirectly).
Cryst. Sol. H₂O. pK_{a1} 7.0.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 509.

Lee, K.T. *et al*, *Mikrochim. Acta*, 1975, 93 (*use*)
Moriarty, R.M. *et al*, *Tetrahedron Lett.*, 1984, **25**, 691 (*use*)
Katritzky, A.R. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1990, 1515, 1657 (*ir, uv, cmr, cryst struct*)

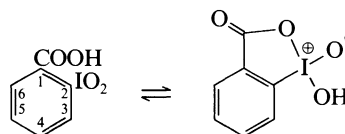
2-Iodo-N-(2',4',5',7'-tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'[9H]xanthen]-5-yl)acetamide, 9CI I-00054
Eosin-5-iodoacetamide
[69414-31-9]



$C_{22}H_{10}Br_4INO_6$ M 830.845
Fluorescent label for thiol groups.

Eshaghpour, H. *et al*, *Nucleic Acids Res.*, 1979, **7**, 1485 (*use*)
Chen, R.F. *et al*, *Anal. Lett.*, 1985, **18**, 393 (*use*)

2-Iodylbenzoic acid, 9CI I-00055
2-Iodoxybenzoic acid
[64297-64-9]



$C_7H_5IO_4$ M 280.019
Used in image intensifier solns. in colour photography and for photometric detn. of drugs. Used as titrant in the anal. of anhydrides by photometric titration. Silver-white cryst. Sol. H₂O; prac. insol. Et₂O. Mp 230° (222°) (explodes). pK_a 7.6.

▷ Explodes violently on heating. Shock-sensitive explosive.

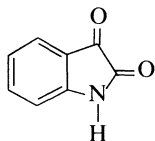
Ammonium salt: Amidoxyl
Antiarthritic agent. Cryst. V. sol. H₂O; spar. sol. EtOH; insol. C₆H₆, Et₂O.
▷ Highly toxic.

Hartmann, C. *et al*, *Ber.*, 1893, **26**, 1727 (*synth, haz*)
Greenbaum, F.R., *Am. J. Pharm.*, 1936, **108**, 17 (*synth*)
Careway, W.T. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 5334 (*props*)
Bell, R. *et al*, *J. Chem. Soc.*, 1960, 1209 (*ir*)
Banerjee, A. *et al*, *J. Indian Chem. Soc.*, 1981, **58**, 605 (*synth, ir*)
Verma, K.K. *et al*, *Anal. Chem.*, 1984, **56**, 2154 (*use*)
Verma, K.K. *et al*, *Analyst (London)*, 1984, **109**, 735 (*use*)

Plumb, J.B. *et al*, *Chem. Eng. News*, July 16, 1990, 3 (*synth, haz*)
 Katritzky, A.R. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1990, 1515,
 1657 (*ir, uv, cmr, cryst struct*)

Isatin

1*H*-Indole-2,3-dione, 9CI
 [91-56-5]



$C_8H_5NO_2$ M 147.133

Isol. from the fungal pigment of a mutant of *Schizophyllum commune*. Intermediate for indigoid dyestuffs. Used as 0.2% MeOH soln. for photometric detn. of thiophene, proline, hydroxyproline. Orange cryst. Spar. sol. H_2O . Mp 203.5° dec. Sublimes.

▷ NL7873000.

2-Oxime: [3265-35-8].

$C_8H_6N_2O_2$ M 162.148

Used for photometric detn. of Cu (λ_{max} 564 nm, ϵ 95000), transition metals. Yellow-orange needles (EtOH, H_2O). Sol. Et_2O , Me_2CO , AcOH; mod. sol. H_2O , EtOH. Mp 198-200°.

3-Oxime: [607-28-3].

$C_8H_6N_2O_2$ M 162.148

Used for photometric detn. of transition metals. Yellow-orange needles (EtOH aq.). Sol. Et_2O , Me_2CO , AcOH; mod. sol. H_2O , EtOH. Mp 214°, Mp 225° dec.

▷ NL7980000.

3-Semicarbazone: Mp 266° dec.

N-Ac: [574-17-4].

$C_{10}H_7NO_3$ M 189.170

Mp 141°.

▷ NL7873800.

1-Methoxycarbonyl: [41042-18-6].

$C_{10}H_7NO_4$ M 205.170

Mp 170° dec.

1-Ethoxycarbonyl: [27008-84-0].

$C_{11}H_9NO_4$ M 219.196

Yellow cryst. (pet. ether). Mp 117°.

3-Hydrazone: [2365-44-8]. Isatin hydrazone

$C_8H_7N_3O$ M 161.163

Used for photometric detn. of 3-ketosteroids. Mp 222-223°.

3-(4-Nitrophenylhydrazone): [31107-06-9].

$C_{14}H_{10}N_4O_3$ M 282.258

Used as a 0.02% soln. in 5% NaOH for detn. of Mg. Cryst.

[73859-64-0, 73859-66-2]

Hantzsch, A., *Ber.*, 1921, **54**, 1242.

Org. Synth., 1925, **5**, 71.

Barnett, H.A. *et al*, *Anal. Chem.*, 1960, **32**, 842 (*use*)

Goldstein, D., *Mikrochim. Acta*, 1962, 352 (*detn, Mg*)

Epstein, E. *et al*, *CA*, 1966, **66**, 102443 (*isol*)

Divis, L. *et al*, *CA*, 1970, **73**, 10333g, 126626j (*detn, transition metals, Cu*)

Bocor, F.N., *Anal. Biochem.*, 1971, **43**, 66 (*detn, thiophene, proline*)

Heinisch, L. *et al*, *J. Prakt. Chem.*, 1972, **314**, 682 (*deriv*)

Popp, F.D., *Adv. Heterocycl. Chem.*, 1975, **18**, 1 (*rev*)

Gassmann, P.G. *et al*, *J. Org. Chem.*, 1977, **42**, 1344 (*synth*)

Dochinets, D.I. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 510; *CA*, **110**, 219165f (*hydrazone, use*)

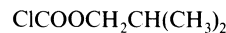
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ICR000.

Isobutyl chloroformate

I-00057

2-Methylpropyl carbonochloridate, 9CI

[543-27-1]



$C_5H_9ClO_2$ M 136.578

Peptide coupling reagent. Reagent for gc anal. of amino acids. Liq. Bp 128-129°.

Lazur'evskii, G.V. *et al*, *Zh. Obshch. Khim.*, 1959, **29**, 3498 (*synth*)

Makita, M. *et al*, *Chem. Ind. (London)*, 1975, 355 (*use*)

Makita, M. *et al*, *J. Chromatogr.*, 1976, **124**, 92 (*use*)

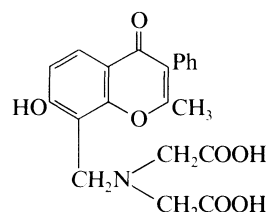
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 307 (*use*)

Isocein

I-00058

N-(Carboxymethyl)-N-[(7-hydroxy-2-methyl-4-oxo-3-phenyl-4*H*-1-benzopyran-8-yl)methyl]glycine, 9CI

[54462-49-6]



$C_{21}H_{19}NO_7$ M 397.384

Used as 3mM aq. soln. for fluorimetric detn. of Ca. Cryst. (Me_2CO). Sol. Me_2CO , alkalis; spar. sol. H_2O . Mp 179-181° dec.

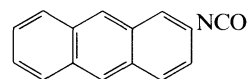
Huitnik, G.M., *Anal. Chim. Acta*, 1974, **70**, 311 (*synth, use, detn, Ca*)

2-Isocyanatoanthracene, 9CI

I-00059

2-Anthryl isocyanate, 8CI. Anthracene-2-isocyanate

[17017-03-7]



$C_{15}H_9NO$ M 219.242

Fluorescent label for hydroxy groups. Faint yellow needles. Mp 207.5-208°.

Fieser, L.F. *et al*, *J. Am. Chem. Soc.*, 1939, **61**, 3502 (*synth*)

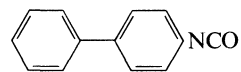
Wintersteiger, R., *J. Liq. Chromatogr.*, 1982, **5**, 897 (*use*)

4-Isocyanato-1,1'-biphenyl, 9CI

I-00060

4-Biphenyl isocyanate. p-Xenyl isocyanate

[92-95-5]



$C_{13}H_9NO$ M 195.220

Reagent for the identification of alcohols and phenols.

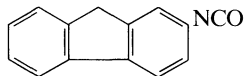
Cryst. (pet. ether). Mp 56°. Bp 283° dec.

Morgan, G.T. *et al*, *J. Chem. Soc.*, 1931, 1124 (*synth, use*)

Hardy, D.V.N., *J. Chem. Soc.*, 1934, 2011 (*synth*)

2-Isocyanato-9H-fluorene, 9CI*2-Fluorenyl isocyanate*

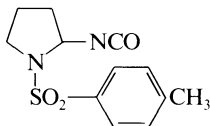
[81741-69-7]

C₁₄H₉NO M 207.231

Reagent for characterisation of alcohols. Cryst. (pet. ether). Mp 69-70°.

Witten, B. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 2470 (*use*)**2-Isocyanato-1-[(4-methylphenyl)sulfonyl]pyrrolidine, 9CI***N-(p-Toluenesulfonyl)prolyl isocyanate. TSPI*

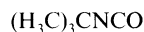
[129665-92-5]

C₁₂H₁₄N₂O₃S M 266.320

Derivatisation reagent for resolu. of amine and alcohol enantiomers by hplc.

Zhou, Y. *et al*, *J. Liq. Chromatogr.*, 1990, **13**, 875 (*synth, use*)**2-Isocyanato-2-methylpropane, 9CI***tert-Butyl isocyanate. Isocyanic acid tert-butyl ester, 8CI*

[1609-86-5]

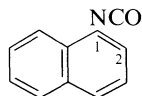
C₅H₉NO M 99.132

Reagent for the gc anal. of amines and for gc enantiomer sepn. Liq. Bp 85-86°.

▷ Irritant, lachrymator. NQ8300000.

Stowell, J.C. *et al*, *J. Org. Chem.*, 1971, **36**, 3056 (*synth, ir, pmr*)Slemrova, J. *et al*, *J. Chromatogr.*, 1974, **94**, 65 (*use*)Benecke, I. *et al*, *Angew. Chem.*, 1982, **94**, 709 (*use*)Danopoulos, A. *et al*, *Synthesis*, 1985, 682 (*synth*)**1-Isocyanatonaphthalene, 9CI***Isocyanic acid 1-naphthyl ester, 8CI. 1-Naphthyl isocyanate*

[86-84-0]

C₁₁H₇NO M 169.182

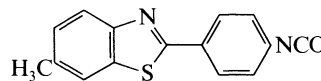
Reagent for characterisation of alcohols and amines and for end-group analysis of proteins. Liq. Bp 269-270°.

Vittenet, H., *Bull. Soc. Chim. Fr.*, 1899, **21**, 952.Ruth, J.M. *et al*, *Anal. Chem.*, 1966, **38**, 720 (*ms*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 718.Emsley, J.W. *et al*, *J. Chem. Soc. B*, 1970, 1513 (*pmr*)Wintersteiger, R. *et al*, *Fresenius' Z. Anal. Chem.*, 1981, **309**, 201 (*use*)Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 846.

I-00061

2-(4-Isocyanatophenyl)-6-methylbenzothiazole, 9CI*(6-Methylbenzothiazol-2-yl)phenyl isocyanate*

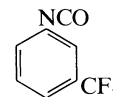
[67229-93-0]

C₁₅H₁₀N₂OS M 266.323

Reagent used for the fluorescence derivatisation of alcohols, amines and thiols. Cryst. (cyclohexane). Mp 142°.

Wintersteiger, R. *et al*, *Fresenius' Z. Anal. Chem.*, 1982, **312**, 455 (*use*)Wolfbeis, O.S. *et al*, *Monatsh. Chem.*, 1983, **114**, 599 (*synth, use*)**1-Isocyanato-3-(trifluoromethyl)benzene, 9CI***α,α,α-Trifluoro-m-tolyl isocyanate, 8CI. 3-(Trifluoromethyl)phenyl isocyanate*

[329-01-1]

C₈H₄F₃NO M 187.121Derivatisation reagent for gc analysis of amines. d₄²⁰ 1.3455. Bp₁₁ 54-55°. n_D²⁰ 1.4742.Inukai, K. *et al*, *Kogyo Kagaku Zasshi*, 1964, **67**, 807; *CA*, **61**, 9418e (*synth*)Hardy, W.B. *et al*, *Tetrahedron Lett.*, 1967, 961 (*synth*)Nitsche, I. *et al*, *J. Chromatogr.*, 1974, **94**, 65 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TKJ250.**(1-Isocyanoethyl)benzene, 9CI***1-Phenylethyl isocyanate. 1-Isocyano-1-phenylethane*

[1837-73-6]

C₉H₉NO M 147.176**(R)-form** [33375-06-3]

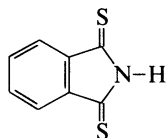
Resolving agent for alcohols and amines.

(S)-form [14649-03-7]Resolving agent for alcohols and amines. [α]_D -17.4° (c. 1.38 in C₆H₆).**(±)-form** [65451-96-9]Bp₁₂ 86-89°, Bp_{0.4} 38°. n_D²⁰ 1.5151.Cairns, T.L., *J. Am. Chem. Soc.*, 1941, **63**, 871 (*synth*)Hoover, F.W. *et al*, *J. Org. Chem.*, 1964, **29**, 163 (*synth*)Freytag, W. *et al*, *J. Chromatogr.*, 1969, **41**, 473 (*use*)Hamberg, M., *Chem. Phys. Lipids*, 1971, **6**, 152 (*use*)Maibaum, J., *J. Chromatogr.*, 1988, **436**, 269 (*use*)

1*H*-Isoindole-1,3(2*H*)-dithione, 9CI

Dithiophthalimide

[18138-19-7]

C₈H₅NS₂ M 179.266

Used as a 0.05% soln. in EtOH for extraction-photometric detn. of Ru (λ_{\max} 660 nm, CHCl₃). Brown needles. Mp 180-184°.

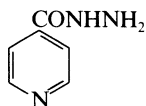
Drew, H.D.K. *et al*, *J. Chem. Soc.*, 1941, 625 (*synth*)
Shlenskaya, V.I. *et al*, *Vestn. Mosk. Univ., Ser. 2: Khim.*, 1961, 51.
Johar, G.S. *et al*, *Mikrochim. Acta*, 1974, 437 (*detn, spot test*)

Isoniazid, BAN, USAN, INN

4-Pyridinecarboxylic acid hydrazide, 9CI.

Isonicotinohydrazide. Numerous proprietary names

[54-85-3]

C₆H₇N₃O M 137.141

Used as 0.2% aq. soln. for simultaneous photometric detn. of IO₃[⊖] and BrO₃[⊖]. Tuberculostatic. Used for photometric detn. of Os. Cryst. (EtOH). Sol. EtOH, Et₂O. Mp 171.4°.

▷ NS1750000.

N²-Methanesulfonyl: [13447-95-5]. 4-Pyridinecarboxylic acid 2-(sulfomethyl)hydrazide. Isoniazid methanesulfonate.

Methaniazide, INN. MetaniazideC₇H₉N₃O₄S M 231.232

Tuberculostatic. Cryst. Dec. at 187-189°.

N²-Methanesulfonyl, Na salt: [3804-89-5]. Isonate sodium.

Erbazid. Neo-Iscotin. Nesticide. Neo-Tizide

Yellow cryst. (H₂O). Dec. at 164-167°.

▷ NS2275000.

Meyer, H. *et al*, *Monatsh. Chem.*, 1912, 33, 400 (*synth*)Ceriotti, G. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1953, 93, 105

(Methaniazide)

Ceriotti, G. *et al*, *Br. J. Pharmacol.*, 1953, 8, 356 (Methaniazide)

U.S. Pat., 2 759 944, (1956); CA, 51, 11398 (Methaniazide)

Hashmi, M.H. *et al*, *Anal. Chem.*, 1964, 36, 2471 (*detn, IO₃[⊖], BrO₃[⊖]*)Bhat, T.N. *et al*, *Acta Crystallogr., Sect. B*, 1974, 30, 2921 (*cryst struct*)Krishna Murti, C.R. *et al*, *Antibiotics (N.Y.)*, 1975, 3, 623 (*rev*)Gowda, H.S. *et al*, *Curr. Sci.*, 1976, 45, 818 (*detn, Os*)Brewer, G.A. *et al*, *Anal. Profiles Drug Subst.*, 1977, 6, 183 (*rev, synth, props, anal*)Takayama, K. *et al*, *Antibiotics (N.Y.)*, 1979, 5, 98 (*rev*)Weber, W.W. *et al*, *Clin. Pharmacokinet.*, 1979, 4, 401 (*rev*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

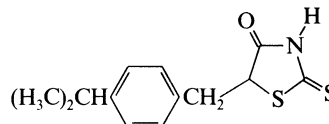
Pharmaceutical Press, London, 1982/1989, 7559, 7560, 7562.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 438 (*synonyms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ILD000, SIJ000.

I-00068

5-(4-Isopropylbenzyl)-2-thioxo-4-thiazolidinone

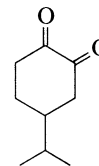
Tetrahydro-5-[[4-(1-methylethyl)phenyl]methyl]-2-thioxo-4-thiazolidinone

C₁₃H₁₅NOS₂ M 265.400

Used as 0.2% soln. in EtOH for photometric detn. of Ag, Au, Cu, Hg, Pd, Pt. Cryst. Sol. EtOH, Me₂CO, Et₂O. Mp 158-159°.

Kulberg, L.M. *et al*, *Zh. Anal. Khim.*, 1954, 9, 85 (*use*)**4-Isopropyl-1,2-cyclohexanedione**

I-00071

C₉H₁₄O₂ M 154.208Solid. Mp 65-70°. Bp₁ 77-84°.

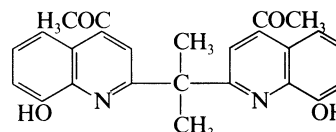
Dioxime: [18310-20-8]. 4-Isopropylnoxime

C₉H₁₆N₂O₂ M 184.238

Used as 4mM aq. soln. for extraction-photometric detn. of Ni. Cryst. (EtOH aq.). Spar. sol. H₂O. Mp 184-185°.

Banks, C.V. *et al*, *J. Org. Chem.*, 1956, 21, 547 (*synth*)McDowell, B.L. *et al*, *Anal. Chem.*, 1959, 31, 931 (*synth, use, detn, Ni*)**2,2'-Isopropylidenebis(4-acetyl-8-hydroxyquinoline)**

I-00072

C₂₅H₂₂N₂O₄ M 414.460

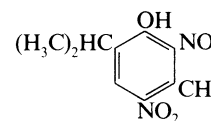
Used as chelating agent for Cu, Ni, Zn. Yellow needles (toluene). Sol. EtOH, C₆H₆, Me₂CO; spar. sol. H₂O. Mp 200.5-201.5°.

Yamamoto, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1980, 53, 809 (*synth, ir, use*)**6-Isopropyl-3-methyl-2,4-dinitrophenol**

I-00073

3-Methyl-6-(1-methylethyl)-2,4-dinitrophenol, 9CI. 2,4-Dinitrothymol

[303-21-9]

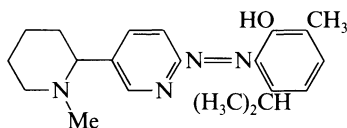
C₁₀H₁₂N₂O₅ M 240.215

Used as acid-base indicator (pH range: 2.2 - 3.4; colour change: straw → lemon yellow). Yellow prisms (pet. ether). V. sol. Me₂CO, EtOH; sol. alkalis; sl. sol. H₂O. Mp 55°.

Van den Haute, J., *CA*, 1935, **29**, 5767 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVG200.

3-Isopropyl-6-methyl-2-[[5-(1-methylpiperidinyl)-2-pyridinyl]azo]phenol **I-00074**

6-[(1-Methyl-2'-anabasinylo)azo]thymol, 8CI
 [31311-06-5]

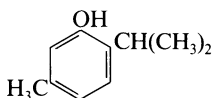


$C_{21}H_{28}N_4O$ M 352.478
 Used as a 0.005% soln. in EtOH for extraction-
 photometric detn. of V (λ_{max} 610 nm, ϵ 3700, $CHCl_3$).
 Orange red cryst. Sol. EtOH, Me_2CO , Et_2O .

Mirzakasimov, T.M. *et al*, *Uzb. Khim. Zh.*, 1968, **12**, 29; *CA*, **74**, 71346f (*detn*, *V*)

2-Isopropyl-5-methylphenol **I-00075**

5-Methyl-2-(1-methylethyl)phenol, 9CI. p-Mentha-1,3,5-trien-3-ol. p-Cymen-3-ol, 8CI. 6-Isopropyl-m-cresol. 3-Hydroxy-4-isopropyltoluene. 3-Hydroxy-p-cymene. **Thymol**. Thymianic acid (*obsol.*). Thymianic camphor (*obsol.*)
 [89-83-8]



$C_{10}H_{14}O$ M 150.220
 Found in many essential oils. Esp. found in the Labiateae.
 Rich sources are thyme oil, seed oil of *Ptychotis ajowan* and oils of *Monarda punctata* and *Ocimum* spp.
 Perfumery and flavour ingredient. Gives red or orange products with Ti, W (in conc. H_2SO_4). Plates ($EtOAc$ or $AcOH$ or Me_2CO) with odour of thyme. Mp 51.5°. Bp 233.5°, Bp₁₀ 115°.

▷ XP2275000.

Ac: [528-79-0].
 $C_{12}H_{16}O_2$ M 192.257
 Bp 242-243°.

Benzoyl: [6380-29-6].
 $C_{17}H_{18}O_2$ M 254.328
 Plates. Mp 33°.

O-β-D-Glucopyranoside:
 $C_{16}H_{24}O_6$ M 312.362
 Constit. of *Jasonia montana*.

Me ether: [1076-56-8]. 1-Isopropyl-2-methoxy-4-methylbenzene. 2-Isopropyl-5-methylanisole. **Thymol methyl ether**

$C_{11}H_{16}O$ M 164.247
 Naturally occurring, e.g. in oil of *Crithmum maritimum* and *Orthodon hadai*, *Citrus* spp., *Pulicaria dysenterica*, *Arnica montana*. Gives red or orange products with Ti, W (in conc. H_2SO_4). Oil with ethereal odour. Bp₇₄₅ 211-212°, Bp₁₅ 94-96°.

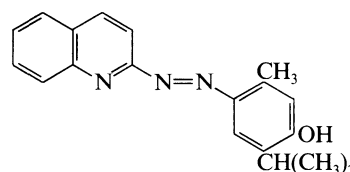
Et ether: [4732-12-1]. 2-Ethoxy-1-isopropyl-4-methylbenzene
 $C_{12}H_{18}O$ M 178.274
 Bp 224-228°.

Austerweil, G. *et al*, *Bull. Soc. Chim. Fr.*, 1927, **41**, 454.
 Fujita, Y., *CA*, 1947, **41**, 3585 (*isol*, *deriv*)
 v. Sydow, E., *Acta Chem. Scand.*, 1963, **17**, 2504 (*ms*)
 Schulte, K.E. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1963, **296**, 353 (*isol*, *synth*, *deriv*)

Yamazaki, M. *et al*, *Chem. Pharm. Bull.*, 1963, **11**, 363 (*biosynth*)
 Kraus, M. *et al*, *Collect. Czech. Chem. Commun.*, 1963, **28**, 1877 (*synth*)
 Uldrickies, J. *et al*, *CA*, 1965, **63**, 11408 (*synth*)
 Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)
 Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals*, General Aspects, Wiley, New York, 1978, 301.
 Ahmed, A.A. *et al*, *Phytochemistry*, 1990, **29**, 3658 (*glucoside*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TFX810.

2-Isopropyl-5-methyl-4-[(2-quinolinyl)azo]phenol **I-00076**

4-[(2-Quinolinyl)azo]thymol, 8CI. 2-(4-Hydroxy-5-isopropyl-2-methylphenylazo)quinoline
 [23079-09-6]



$C_{19}H_{19}N_3O$ M 305.379
 Used as 0.2% EtOH soln. for extraction-photometric detn. of Ni (λ_{max} 640 nm, ϵ 36000, $CHCl_3$). Cryst. Sol. EtOH, $CHCl_3$.

Mirzakasimov, T.M. *et al*, *Uzb. Khim. Zh.*, 1968, **12**, 29; *CA*, **70**, 73927n (*synth*, *use*)

Isopropylphosphonic acid **I-00077**

(1-Methylethyl)phosphonic acid, 9CI. 2-Phosphonopropane
 [4721-37-3]



$C_3H_7O_3P$ M 124.076
 Several esters are used in the extraction and sepn. of lanthanides. Cryst. (C_6H_6). Mp 74-75°. pK_{a1} 2.66; pK_{a2} 8.44 (H_2O , 25°).

Monoanilinium salt: Cryst. (MeCN). Mp 175-177°.
Di-Me ester: [54552-77-1]. *Dimethyl isopropylphosphonate*
 $C_5H_{13}O_3P$ M 152.130
 Liq. Bp₁₃ 73-74°. n_D^{20} 1.4203.

Di-Et ester: [1538-69-8]. *Diethyl isopropylphosphonate*
 $C_7H_{17}O_3P$ M 180.183
 Liq. Bp₁₉ 83°. n_D^{20} 1.4149.

Di-Ph ester: [1538-72-3]. *Diphenyl isopropylphosphonate*
 $C_{15}H_{17}O_3P$ M 276.271
 Cryst. (pet. ether). Mp 42.5-43°.

Difluoride: [677-42-9].
 $C_3H_7F_2OP$ M 128.058
 Liq. Bp 114-115°.

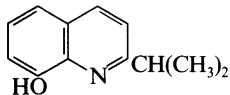
Diisocyanate: [2736-47-2].
 $C_5H_7N_2O_3P$ M 174.096
 Liq. d_4^{20} 1.26. Bp₄ 60-61°. n_D^{20} 1.4628.

Crofts, P.C. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 3379 (*synth*, *props*)
 Myers, T.C. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 4172 (*ester*)
 Haven, A.C., *J. Am. Chem. Soc.*, 1956, **78**, 842 (*diisocyanate*)
 Ivanova, Zh.M. *et al*, *Zh. Obshch. Khim.*, 1968, **38**, 1334; *J. Gen. Chem. USSR (Engl. Transl.)*, 1284 (*difluoride*)
 Ivanova, Zh.M. *et al*, *Zh. Obshch. Khim.*, 1969, **39**, 1037; *J. Gen. Chem. USSR (Engl. Transl.)*, 1008 (*diisocyanate*)
 Griffiths, W.R. *et al*, *Phosphorus Relat. Group V Elem.*, 1975, **5**, 273 (*ms*)
 Villieras, J. *et al*, *J. Organomet. Chem.*, 1978, **144**, 17 (*ester*, *synth*, *ir*, *pmr*)
 Griffiths, W.R. *et al*, *Phosphorus Sulfur Relat. Elem.*, 1978, **5**, 101 (*esters*, *ms*)

2-Isopropyl-8-quinolinol

I-00078

2-(1-Methylethyl)-8-quinolinol, 9CI. 8-Hydroxy-2-isopropylquinoline. 2-Isopropyl-8(IH)-quinolinone [7545-73-5]



$C_{12}H_{13}NO$ M 187.241

Used as a 1% soln. in $CHCl_3$, BuOH, 2-4% soln. in HCl for pptn. or extraction sepn. of Al. Cryst. (EtOH). Sol. acids, Et_2O , C_6H_6 , $CHCl_3$, CCl_4 .

Narayanan, A. *et al*, *Analyst (London)*, 1981, **106**, 1137, 1145 (sepn, Ac)

Isopropyltriphenylphosphonium(1+), 8CI

I-00079

(1-Methylethyl)triphenylphosphonium(1+), 9CI



$C_{21}H_{22}P^{\oplus}$ M 305.378 (ion)

With butyllithium, salts give the ylide.

Chloride: [35171-77-8].

$C_{21}H_{22}ClP$ M 340.831

Used as a 2-5% aq. soln. for extraction of Pt, detn. of Au.

Bromide: [1530-33-2].

$C_{21}H_{22}BrP$ M 385.282

Used as $CHCl_3$ soln. for extraction-photometric detn. of Mo(VI). Solid. Sol. EtOH, 4-methyl-2-pentanone, $CHCl_3$, CH_2Cl_2 , Mp 239-240°.

Iodide: [24470-78-8].

$C_{21}H_{22}IP$ M 432.283

Cryst. (EtOH/ Et_2O). Mp 195-196°.

Perchlorate:

$C_{21}H_{22}ClO_4P$ M 404.829

Cryst. (EtOH). Mp 182-183°.

Senise, P. *et al*, *Anal. Chim. Acta*, 1962, **26**, 89 (detn, Au)

Senise, P. *et al*, *Talanta*, 1964, **11**, 1185 (detn, Pt)

Hendrickson, J. *et al*, *Tetrahedron*, 1964, **20**, 449 (iodide, synth, pmr)

Vrchlabsky, M. *et al*, *Talanta*, 1968, **15**, 887 (detn, Mo)

Gibson, N.A. *et al*, *Anal. Chim. Acta*, 1972, **58**, 159 (partition coefficient)

Grebeňova, B. *et al*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 379 (detn, Mo)

Jaenicke, L. *et al*, *Justus Liebigs Ann. Chem.*, 1973, 1252 (bromide)

Albright, T.A. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 940, 2942; 1976, **98**, 6249 (cmr, nmr)

Reid, D.H. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1979, 2334 (synth)

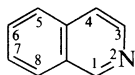
Smith, K.M. *et al*, *J. Am. Chem. Soc.*, 1980, **102**, 2437 (iodide)

Isoquinoline

I-00080

2-Benzazine

[119-65-3]



C_9H_7N M 129.161

Isol. from the upper parts of *Spigelia anthelmia*

(Spigeliaceae). Used for photometric detn. of Ni (λ_{max} 410 nm, ϵ 7900). Hygroscopic cryst. or oil. Sol. EtOH, Et_2O , Me_2CO , C_6H_6 . d_4^{20} 1.10. Mp 24.6°. Bp 242°, Bp₄₀ 142°.

▶ Mod. toxic by skin absorption. NW6825000.

Picrate: Mp 226°.

B,MeI: Cryst. + $1H_2O$ (H_2O). Mp 159°.

B,EtI: Mp 148°.

B, $CH_3(CH_2)_{11}Br$: [93-23-2]. Laurylisoquinolinium bromide, INN. Isothan Q5

$C_{21}H_{32}BrN$ M 378.394

Antiinfective agent.

▶ NX5250000.

B, $PhCH_2I$: Mp 175-176°.

Oxide: [1532-72-5].

C_9H_7NO M 145.160

Oil, cryst. on cooling (+ $2H_2O$). Sol. H_2O , EtOH. Mp 98°.

Oxide; B,HCl: Needles (EtOH). Mp 180-181°.

Meisenheimer, J., *Ber.*, 1926, **59**, 1848 (oxide)

Manske, R.H.F., *Chem. Rev.*, 1942, **30**, 145 (rev)

Narasimhan, N.S. *et al*, *Chem. Ind. (London)*, 1967, 120 (synth)

Johns, S.A. *et al*, *Aust. J. Chem.*, 1976, **29**, 1617 (cmr)

Gansow, O.A. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 4250 (pmr)

Raju, A.M. *et al*, *Indian J. Chem., Sect. A*, 1977, **15**, 1005 (use)

Kirk-Othmer *Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **19**, 499 (rev)

Dyke, S.F. *et al*, *Chem. Heterocycl. Compd.*, 1981, **38**, 1 (rev)

Kametani, T. *et al*, *Chem. Heterocycl. Compd.*, 1981, **38**, 139 (rev)

Wagner, H. *et al*, *Planta Med.*, 1986, 378 (isol, uv, pmr, ms)

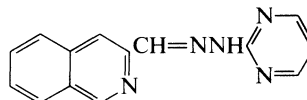
Goto, M. *et al*, *Chem. Pharm. Bull.*, 1992, **40**, 1612 (cryst struct)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IRX000, LBW000.

3-Isoquinolinecarboxaldehyde 2-pyrimidinylhydrazone, 9CI

I-00081

[73568-99-7]



$C_{14}H_{11}N_5$ M 249.274

Used as 5mM soln. in EtOH aq. for photometric detn. of Co (λ_{max} 448 nm, ϵ 34200), Cu(I) (λ_{max} 430 nm, ϵ 20700), Fe(II) (λ_{max} 488 nm, ϵ 10800), Ni (λ_{max} 415 nm, ϵ 48500). Cryst. + $1H_2O$ (MeOH). Sol. common org. solvs. Mp 220°.

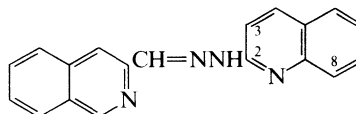
Schilt, A. *et al*, *Talanta*, 1980, **27**, 55 (synth, use)

3-Isoquinolinecarboxaldehyde 2-quinolinylhydrazone, 9CI

I-00082

3-Isoquinolyl-N-2-quinolylhydrazone

[82633-04-3]



$C_{19}H_{14}N_4$ M 298.346

Used as 0.01M soln. in 0.05M HCl/EtOH for photometric detn. of Co (λ_{max} 495 nm, ϵ 31200, pH 7), Fe(II), Ni, Zn, Cu(I). Cryst. (2-methoxyethanol). Sol. common org. solvs. Mp 230°.

Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (synth, detn, Co, Fe)

3-Isoquinolinecarboxaldehyde 3-quinolinylhydrazone, 9CI

I-00083

[82644-63-1]

$C_{19}H_{14}N_4$ M 298.346

Used as 0.01M soln. in 0.05M HCl/EtOH for photometric detn. of Cu(I) (λ_{\max} 500 nm, ϵ 3000). Cryst. + 1H₂O (EtOH). Sol. common org. solvs. Mp 229°.

Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth*, *detn*, Cu)

3-Isoquinolinecarboxaldehyde 8-quinolinylhydrazone, 9CI **I-00084**

3-Isoquinolyl-N-8-quinolylhydrazone

[82633-17-8]

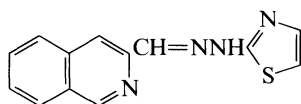
C₁₉H₁₄N₄ M 298.346

Used as 0.01M soln. in 0.05M HCl/EtOH for photometric detn. of Co, Cu(I) (λ_{\max} 488 nm, ϵ 19500), Fe(II) (λ_{\max} 501 nm, ϵ 13800), Ni. Cryst. (2-methoxyethanol). Sol. common org. solvs. Mp 228°.

Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth*, *use*)

3-Isoquinolinecarboxaldehyde 2-thiazolylhydrazone, 9CI **I-00085**

[73568-88-4]



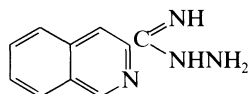
C₁₃H₁₀N₄S M 254.315

Used as 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 462 nm, ϵ 34900), Cu(I) (λ_{\max} 441 nm, ϵ 19900), Fe(II) (λ_{\max} 556 nm, ϵ 10400), Ni (λ_{\max} 462 nm, ϵ 40000). Cryst. (EtOH). Sol. common org. solvs. Mp 219°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth*, *use*)

3-Isoquinolinecarboximidic acid hydrazide, 8CI **I-00086**

[17583-53-8]



C₁₀H₁₀N₄ M 186.216

Used as 5mM soln. in EtOH aq. to give colour reactions with Co, Cu(I), Fe(II). Cryst. (C₆H₆). Sol. common org. solvs. Mp 122-123°.

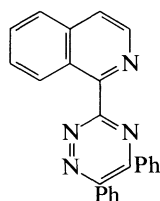
Case, F.H. *et al*, *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*detn*, Co, Cu, Fe)

3-(Isoquinolyl)-5,6-diphenyl-1,2,4-triazine **I-00087**

1-(5,6-Diphenyl-1,2,4-triazin-3-yl)isoquinoline, 9CI

[93372-15-7]



C₂₄H₁₆N₄ M 360.417

Used for photometric detn. of Fe(II) (λ_{\max} 592 nm, ϵ 26800). Yellow green needles (AcOH aq.). Mp 224-226°.

Tris-SO₃H deriv.: [93527-68-5].

C₂₄H₁₆N₄O₉S₃ M 600.610

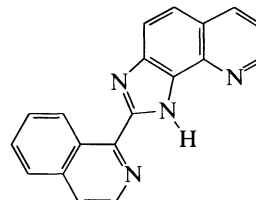
Used as a 0.01M aq. soln. for photometric detn. of Fe(II) (λ_{\max} 596 nm, ϵ 23700). Bright yellow powder (as tri-NH₄ salt). Exact. posns. of SO₃H groups not known.

[93365-11-8]

Kiss, E., *Anal. Chim. Acta*, 1974, **72**, 127; 1984, **161**, 231 (*synth. detn*, Fe)

2-(1-Isoquinolyl)-3H-imidazo[4,5-h]quinoline, 8CI **I-00088**

[17583-63-0]



C₁₉H₁₂N₄ M 296.331

Used as 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(I), Fe(II). Cryst. (C₆H₆). Sol. common org. solvs. Mp 219-220°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*use*)

2-(3-Isoquinolyl)-3H-imidazo[4,5-h]quinoline, 8CI **I-00089**

[17583-64-1]

C₁₉H₁₂N₄ M 296.331

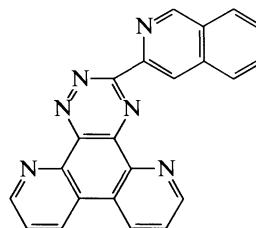
Used as 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(I), Fe(II). Cryst. (C₆H₆). Sol. common org. solvs. Mp 235-236°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*use*)

3-(3-Isoquinolyl)-1,2,4-triazino[5,6-f][4,7]phenanthroline **I-00090**

[17583-56-1]



C₂₂H₁₂N₆ M 360.377

Used as 5mM soln. in aq. EtOH for photometric detn. of Co, Cu(I), Fe(II) (λ_{\max} 605 nm, ϵ 1780). Cryst. (DMF). Sol. common org. solvs. Mp 350-351°.

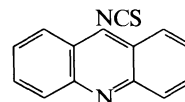
Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*detn*, Co, Cu, Fe)

9-Isothiocyanatoacridine, 9CI **I-00091**

9-Acridinyl isothiocyanate, 8CI

[7620-46-4]



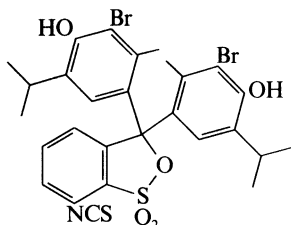
C₁₄H₈N₂S M 236.297

Reagent for fluorescence anal. of amines and amino acids.
Yellow needles. Mp 132-133°.

Sinsheimer, J.E. *et al*, *J. Pharm. Sci.*, 1971, **60**, 141 (*use*)
Vlassa, M. *et al*, *J. Prakt. Chem.*, 1985, **327**, 1007 (*synth*)
Sarbu, C. *et al*, *Talanta*, 1987, **34**, 438 (*use*)

Isothiocyanatobromothymol blue **I-00092**

4,4'-(7-Isothiocyanato-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromo-3-methyl-6-(1-methylethyl)pheno] *S,S*-dioxide
[134141-75-6]



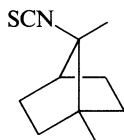
$C_{28}H_{27}Br_2NO_5S_2$ M 681.465

Used as 0.1% EtOH soln. as an acid-base indicator (pH range 6.5-8.5; colour change: yellow → blue). Pink cryst. powder. Sol. EtOH. pK_{a1} 7.6.

Puschett, J.B. *et al*, *Talanta*, 1991, **38**, 335 (*synth, use*)

7-Isothiocyanato-1,7-dimethylbicyclo[2.2.1]heptane, 9CI **I-00093**

1,7-Dimethyl-7-norbornyl isothiocyanate



$C_{10}H_{15}NS$ M 181.301

(-)-*form* [69623-92-3]

Reagent for the hplc resolu. of amino acid enantiomers.
Oil. Bp₅ 94°. $[\alpha]_D^{20}$ -69.9° (c, 1.3 in CHCl₃).

Nambara, T. *et al*, *Anal. Chem.*, 1978, **101**, 111 (*synth, use*)

4-Isothiocyanato-*N,N*-dimethyl-1-naphthalenamine, 9CI **I-00094**

4-(Dimethylamino)-1-naphthyl isothiocyanate. *DNTC*
[29711-79-3]



$C_{13}H_{12}N_2S$ M 228.317

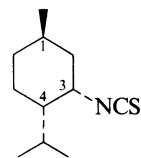
Fluorogenic Edman reagent for peptide sequence anal.

Pale yellow needles. Mp 67°.

Ichikawa, H. *et al*, *Chem. Pharm. Bull.*, 1970, **18**, 1493 (*synth, use*)
Miyano, H. *et al*, *Biomed. Chromatogr.*, 1987, **2**, 139 (*use*)

3-Isothiocyanato-*p*-menthane **I-00095**

2-Isothiocyanato-4-methyl-1-(1-methylethyl)cyclohexane, 9CI



$C_{11}H_{19}NS$ M 197.344

(1*R*,3*S*,4*S*)-*form* [69623-93-4]

(+)-*form*. Neomenthyl isothiocyanate

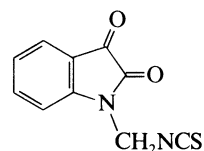
Derivatisation reagent for hplc resolu. of amino acid enantiomers. Oil. Bp₅ 55°. $[\alpha]_D^{17}$ +34.5° (c, 2.0 in CHCl₃).

Nambara, T. *et al*, *Anal. Chim. Acta*, 1978, **101**, 111 (*use*)

1-(Isothiocyanatomethyl)-1*H*-indole-2,3-dione, 9CI **I-00096**

1-(Isothiocyanatomethyl)isatin

[28150-74-5]



$C_{10}H_6N_2O_2S$ M 218.236

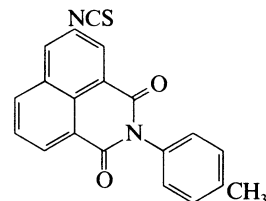
Reagent for the identification of amines. Orange-yellow cryst. (Me₂CO). Mp 127°.

Knotz, F., *Sci. Pharm.*, 1970, **38**, 26; *CA*, **73**, 7318a (*synth, use*)
Bohme, H. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1974, **307**, 775 (*synth*)

5-Isothiocyanato-2-(4-methylphenyl)-1*H*-benz[de]isoquinoline-1,3(2*H*)-dione, 9CI **I-00097**

5-Isothiocyanato-1,3-dioxo-2-*p*-tolyl-2,3-dihydro-1*H*-benz[de]isoquinoline

[62903-82-6]



$C_{20}H_{12}N_2O_2S$ M 344.393

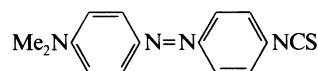
Used as 0.1% soln. for photometric detn. of H₂O in organic solvs. Cryst. Sol. C₆H₆, Et₂O.

Khalaf, H. *et al*, *Z. Physiol. Chem.*, 1977, **358**, 505 (*synth*)
Khalaf, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1980, **302**, 204 (*detn, H₂O*)

4-[(4-Isothiocyanatophenyl)azo]-*N,N*-dimethylbenzenamine, 9CI **I-00098**

4-(Dimethylamino)azobenzene-4-isothiocyanate. 4-Dimethylamino-4'-isothiocyanatoazobenzene. *DABITC*

[7612-98-8]



$C_{15}H_{14}N_4S$ M 282.368

Reagent for amino acid sequencing. Orange leaflets
(Me₂CO). Mp 171-172°.

Martvon, A. *et al*, *Collect. Czech. Chem. Commun.*, 1969, **34**, 3912
(*synth, ir, uv*)

Chang, J.Y. *et al*, *Biochem. J.*, 1976, **153**, 607 (*use*)

Chang, J.Y. *et al*, *J. Chromatogr.*, 1977, **132**, 303 (*use*)

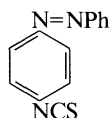
Wittmann-Leibold, B. *et al*, *FEBS Lett.*, 1978, **93**, 205; 1979, **101**,
157; 1979, **108**, 69, 75 (*use*)

Liu, W. *et al*, *Anal. Biochem.*, 1982, **127**, 426 (*synth*)

(4-Isothiocyanatophenyl)phenyldiazene,
9CI

p-(Phenylazo)phenyl isothiocyanate, 8CI. 4-
Isothiocyanatoazobenzene

[7612-96-6]



C₁₃H₉N₃S M 239.300

Reagent for protein *N*-terminal aminoacid detn. Salmon-
coloured needles (AcOH aq.). Mp 94-95°, Mp 125°.

▷ NX9125000.

Bolser, C.F. *et al*, *J. Am. Chem. Soc.*, 1923, **45**, 2349 (*synth*)

Martvon, A. *et al*, *Collect. Czech. Chem. Commun.*, 1969, **34**, 3912
(*synth, ir, uv*)

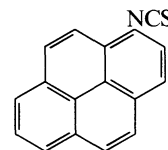
Datta, S. *et al*, *Biochem. Biophys. Res. Commun.*, 1976, **72**, 1296
(*use*)

1-Isothiocyanatopyrene, 9CI

I-00100

1-Pyrene isothiocyanate. 3-Pyrene isothiocyanate (*obsol.*)

[24722-90-5]



C₁₇H₉NS M 259.331

Fluorescent label for amines. Light yellow needles (2-
propanol). Mp 125-126°.

Picrate: Copper-coloured needles (2-propanol). Mp 145°.

Neunhoeffer, O. *et al*, *Justus Liebigs Ann. Chem.*, 1961, **647**, 108
(*synth*)

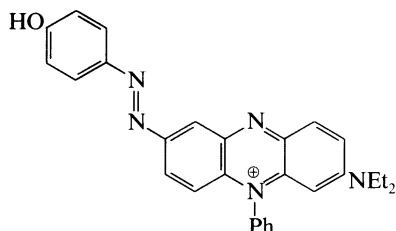
Hansen, P.E. *et al*, *Acta Chem. Scand., Ser. B*, 1981, **35**, 131 (*ir*)

J

Janus black

J-00001

3-(Diethylamino)-7-[(4-hydroxyphenyl)azo]-5-phenylphenazinium(1+), 9CI. C.I. Basic black 2, 8CI. C.I. 11825. Aizen cathilon grey BLH. Sevron charcoal MF. Sumiacryl black G [4443-99-6]



$C_{28}H_{26}N_5O^{\oplus}$ M 448.546 (ion)
Strictly, the name Janus black applies to the chloride.

Chloride:

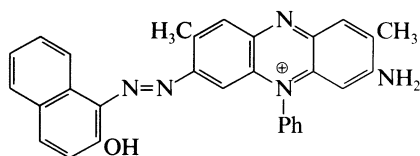
$C_{28}H_{26}ClN_5O$ M 483.999
Used for photometric detn. of org. and inorg. solvents.
Dark blue cryst. powder. Sol. H_2O , EtOH.

Colour Index, 3rd Edn., 1971, 4, 4026.
Yanagii, K., CA, 1986, 104, 141424u (use)

Janus blue

J-00002

3-Amino-7-[(2-hydroxy-1-naphthalenyl)azo]-2,8-dimethyl-5-phenylphenazinium(1+). C.I. Basic blue 16. Indoin blue. C.I. 12210



$C_{30}H_{24}N_5O^{\oplus}$ M 470.552 (ion)
Strictly, the name Janus blue applies to the chloride salt.

Chloride: [4569-88-4].

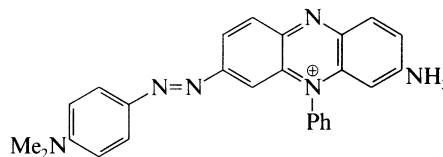
$C_{30}H_{24}ClN_5O$ M 506.005
Used for extraction-photometric detn. of Au, Fe, Sb, Ta. Dark blue cryst. powder. λ_{max} = 589 nm (H_2O).
▷ SG1608000.

Guseinov, I.K. et al, CA, 1977, 86, 114777q (detn, Au)
Guseinov, I.K. et al, Azerb. Khim. Zh., 1982, 6, 83; 1984, 4, 92; 1985, 6, 105 (detn, Sb, Fe, Ta)

Janus green

J-00003

3-Amino-7-[[4-(dimethylamino)phenyl]azo]-5-phenylphenazinium(1+)



$C_{26}H_{23}N_6^{\oplus}$ M 419.508 (ion)
Strictly, the name Janus green applies to the chloride.

Chloride: [4618-88-6].

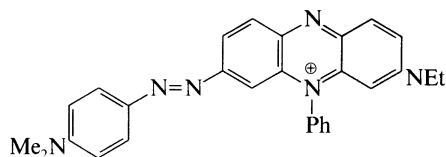
$C_{26}H_{23}ClN_6$ M 454.961
Used for photometric detn. of Sb. Dark blue cryst. powder. Sol. EtOH.

Guseinov, I.K. et al, Azerb. Khim. Zh., 1982, 6, 83.

Janus green B

J-00004

3-Diethylamino-7-[[4-(dimethylamino)phenyl]azo]-5-phenylphenazinium(1+). Diazin green S. Union green B



$C_{30}H_{31}N_6^{\oplus}$ M 475.615 (ion)
Strictly, the name Janus green B applies to the chloride salt.

Chloride: [2869-83-2]. C.I. 11050 Basic dye

$C_{30}H_{31}ClN_6$ M 511.068
Used for extraction-photometric detn. of Sb. Biological stain. Dark green cryst. powder. λ_{max} 660 nm.
▷ SG1633000.

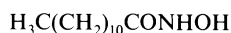
Guseinov, I.K. et al, Azerb. Khim. Zh., 1982, 83 (detn, Sb)
Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, DHM500.

L

Laurohydroxamic acid

L-00001

N-Hydroxydodecanamide, 9CI
[10335-68-9]



$\text{C}_{12}\text{H}_{25}\text{NO}_2$ M 215.335

Used as EtOH soln. for photometric detn. of V(V) (λ_{max} 450 nm). Plates (C_6H_6). Sol. EtOH, Me_2CO . Mp 93°.

N-Ph: [13663-53-1]. N-Hydroxy-N-phenyldodecanamide, 9CI. N-Phenyllaurohydroxamic acid

$\text{C}_{18}\text{H}_{29}\text{NO}_2$ M 291.433

Used as 0.02% soln. in hexane for extraction-photometric detn. of Ti (in the presence of phenylfluorone, λ_{max} 560 nm, ϵ 183000). Cryst. (EtOH aq.). Sol. hexane, EtOH, alkalis.

[34097-44-4]

Bass, V.C. *et al*, *Talanta*, 1966, **13**, 735 (detn, V)

Hase, J. *et al*, *Chem. Pharm. Bull.*, 1971, **19**, 363 (synth)

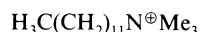
Gunawardhana, H.D. *et al*, *Indian J. Chem.*, 1982, **21**, 338 (synth, deriv)

Gunawardhana, H.D., *Analyst (London)*, 1983, **108**, 952 (detn, Ti)

Lauryltrimethylammonium(1+)

L-00002

N,N,N-Trimethyl-1-dodecanaminium(1+), 9CI.
Dodecyltrimethylammonium(1+)
[10182-91-9]



$\text{C}_{15}\text{H}_{34}\text{N}^{\oplus}$ M 228.440 (ion)

Bromide: [1119-94-4].

$\text{C}_{15}\text{H}_{34}\text{BrN}$ M 308.344

Forms extractable ion-pairs with anionic complexes of transition metals; used for extraction-photometric detn. of Nb, V; flotation separation of Cd(II). Commercially available. Hygroscopic off-white cryst. (HBr aq.). Sol. H_2O . Mp 246° dec.

► Eye and skin irritant. BQ3195000.

Chloride: [112-00-5].

$\text{C}_{15}\text{H}_{34}\text{ClN}$ M 263.893

Cryst. (dil. HCl aq.). Sol. H_2O .

Nardillo, A.M. *et al*, *Anal. Chim. Acta*, 1973, **66**, 359 (detn, Nb)

Lessing, J.G.V. *et al*, *J. Inorg. Nucl. Chem.*, 1973, **35**, 2009 (detn, Ni, Zn, Ir, Os, Ag, Pt)

Nardillo, A.M. *et al*, *Anal. Chim. Acta*, 1975, **74**, 85 (detn, V)

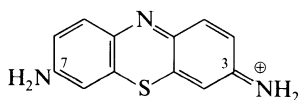
Kobayashi, K., *Bull. Chem. Soc. Jpn.*, 1975, **48**, 1745 (detn, Cd)

Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 1496B (haz)

Lauth's violet

L-00003

3,7-Diaminophenothiazin-5-ium(1+), 9CI
[26754-93-8]



$\text{C}_{12}\text{H}_{10}\text{N}_3\text{S}^{\oplus}$ M 228.297 (ion)

Strictly the name Lauth's violet refers to the chloride.

Chloride: [581-64-6]. Thionine hydrochloride. C.I. 52000
Basic dye

$\text{C}_{12}\text{H}_{10}\text{ClN}_3\text{S}$ M 263.750

Bacteriological stain, antioxidant. Used as C_6H_6 soln. for extraction-photometric detn. of Ge; as a 0.05% aq. soln. for photometric detn. of Ga and as an indicator in visual titrations with TiCl_3 soln; fluorimetric detn. of S; indicator in complexometric titrimetric detn. of Al. Blackish-green needles (HCl aq.). Sol. hot H_2O , H_2SO_4 ; sl. sol. cold H_2O . Blue or violet soln. in H_2O , λ_{max} 602.5 nm. Forms colourless leuco-dye on redn. with Zn/H^+ or $\text{Na}_2\text{S}_2\text{O}_4$; derivs. behave similarly. Used as a mixture with Methylene blue, M-00175 (Azure II) for extraction-photometric detn. of Hg(II), Sb(V).

► LD₅₀ 400 mg/kg (mouse, i.p.). SN5425000.

N(3)-Me, chloride: [531-57-7]. Azure C

$\text{C}_{13}\text{H}_{12}\text{ClN}_3\text{S}$ M 277.777

Biological stain. Used as a 0.05% aq. soln. as an indicator in iodometry. Green cryst. (HCl aq.). Sol. EtOH, Me_2CO , H_2O ; insol. CCl_4 . Blue soln. in H_2O ; λ_{max} 608-612 nm.

► SP5680000.

N(3),N(3)-Di-Me, chloride: [531-53-3]. Azure A. 3-Amino-7-(dimethylamino)phenothiazin-5-ium chloride. C.I. 52005

$\text{C}_{14}\text{H}_{14}\text{ClN}_3\text{S}$ M 291.803

Thiazine basic dye. Biological stain. Used as 0.05% aq. soln. as indicator in iodometric titrimetry. Green cryst. (HCl aq.). Sol. H_2O , EtOH, Me_2CO ; insol. CCl_4 . Mp 290° dec. Blue soln. in H_2O ; λ_{max} 620-634 nm.

► SP5660000.

N(3),N(7)-Di-Me, chloride: [34185-21-2].

$\text{C}_{14}\text{H}_{14}\text{ClN}_3\text{S}$ M 291.803

Green cryst.

N(3),N(3),N(7)-Tri-Me, chloride: [531-55-5]. Azure B. Azure I. C.I. 52010

$\text{C}_{15}\text{H}_{16}\text{ClN}_3\text{S}$ M 305.830

Biological stain. Used as a 0.1% aq. soln. for photometric detn. of Si. Green cryst. (HCl aq.). Sol. H_2O ; spar. sol. EtOH; insol. C_6H_6 . Red-brown fluorescence in EtOH soln. Blue soln. in H_2O ; λ_{max} 648-655 nm. A mixt. with Methylene blue, M-00175 is sometimes mistakenly referred to as Azure II.

► SO5550000.

N-Tetra-Me: see Methylene blue, M-00175

[37247-10-2]

Lauth, C., *C. R. Hebd. Seances Acad. Sci.*, 1876, **82**, 1441 (synth)

MacNeal, W.J. *et al*, *J. Am. Chem. Soc.*, 1926, **48**, 740 (synth)

Rabinowitch, E. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 69 (props)

Ružička, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **195**, 411 (indicator, titanometry)

Meites, L., *Handbook of Analytical Chemistry*, McGraw-Hill, New York, 1963 (detn, Al)

Loach, K.W., *J. Chromatogr.*, 1971, **60**, 119 (derivs, chromatog)

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 128 (use, Lauth's violet)

Tarayan, V.M. *et al*, *Arm. Khim. Zh.*, 1973, **26**, 643; *CA*, **80**, 22328s (Azure II, detn, Hg)

Tarayan, V.M. *et al*, *CA*, 1973, **78**, 79350f (Azure II, detn, Sb)

Muralikrishna, U. *et al*, *Curr. Sci.*, 1976, **45**, 276 (use, Azure C)

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (detn, S)

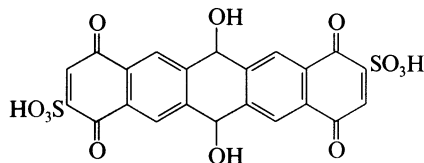
Mirzoyan, F.V. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 1293 (use, Azure B)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AKK750.

Lead blue

L-00004

1,4,6,8,11,13-Hexahydro-6,13-dihydroxy-1,4,8,11-tetraoxo-2,9-pentacenedisulfonic acid. 6,13-Dihydro-6,13-dihydroxy-1,4:8,11-pentacenequinone-2,9-disulfonic acid



$C_{22}H_{12}O_{12}S_2$ M 532.462

Indicator used as a 0.05% aq. soln. in titrimetric detn. of Pb. Dark red cryst. powder. Sol. H_2O .

Junek, H. *et al*, *Mikrochim. Acta*, 1962, 114 (*detn.*, Pb)
Blantner, H., *Mikrochim. Acta*, 1962, 125 (*synth.*, *detn.*, Pb)
Bishop, E., *Indicators*, Oxford, Pergamon, 1972 (*detn.*, Pb)

Leucylalanine

L-00005

$(H_3C)_2CHCH_2CH(NH_2)CONHCH(CH_3)COOH$

$C_9H_{18}N_2O_3$ M 202.253

(*S,S*)-form [7298-84-2]

L,L-form

Used in the fluorimetric detn. of secondary amines and of phenylalanine. Cryst. (EtOH). Mp 255-256°. $[\alpha]_D^{24} + 23^\circ$ (c, 5 in MeOH), $[\alpha] + 76^\circ$ (H_2O).

N-Benzyloxycarbonyl, *Me* ester: Mp 129-130°.

(*S*)-(*R*)-form [17664-98-1]

N-L-Leucyl-*D*-alanine

Plates (EtOH). Sol. H_2O , MeOH. Mp 257°. $[\alpha]_D^{20} + 22.9^\circ$ (MeOH).

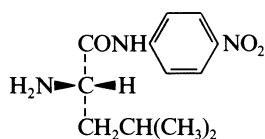
N-Benzyloxycarbonyl, *Me* ester: Mp 92-93°.

Fischer, E. *et al*, *Justus Liebigs Ann. Chem.*, 1905, **340**, 160 (*synth*)
McGregor, W.M. *et al*, *J. Org. Chem.*, 1961, **26**, 1849 (*synth*)
McCaman, M.W. *et al*, *J. Lab. Clin. Med.*, 1962, **59**, 885 (*use*)
Noda, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1968, **41**, 401 (*synth.*, *sepn*)
Karczynski, F. *et al*, *CA*, 1970, **72**, 26620p (*ord*)
Conti, F. *et al*, *Org. Magn. Reson.*, 1970, **2**, 131, (*pmr*)
Nakamura, H. *et al*, *Anal. Chem.*, 1980, **52**, 2087 (*use*)

Leucyl-*p*-nitroanilide

L-00006

2-Amino-4-methyl-*N*-(4-nitrophenyl)pentanamide, 9CI. 2-Amino-4-methyl-4'-nitrovaleranilide



$C_{12}H_{17}N_3O_3$ M 251.285

S-form [4178-93-2]

L-form

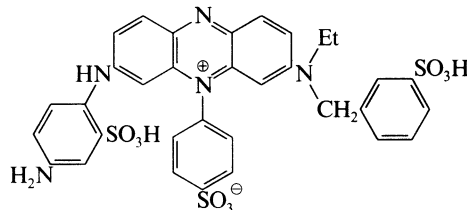
Substrate for leucine aminopeptidase and bromelin.

Wachsmuth, E.D. *et al*, *Biochemistry*, 1966, **2**, 169 (*use*)
Henrich, N. *et al*, *FEBS Lett.*, 1969, **2**, 278 (*use*)

Lissamine blue BF

L-00007

3-[(4-Amino-3-sulfophenyl)amino]-7-[ethyl[(3-sulfophenyl)methyl]amino]-5-(4-sulfophenyl)phenazinium hydroxide inner salt. C.I. 50230. C.I. Acid blue 18



$C_{33}H_{29}N_5O_9S_3$ M 735.818

Strictly, the name Lissamine blue BF applies to the disodium salt.

Di-Na salt: [6448-97-1].

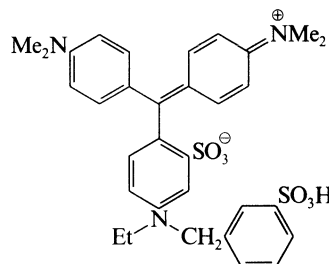
Redox indicator used as a soln. in EtOH or H_2O . Dark reddish blue cryst. powder. Sl. sol. EtOH, H_2O . $E^\circ + 0.196V$ (25°).

Horrobin, S. *et al*, *Trans. Faraday Soc.*, 1954, **50**, 803 (*use*)
Colour Index, 3rd Edn., 1971, **4**, 4451 (*synth*)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Lissamine violet 10B

L-00008

N-[4-[[4-(Dimethylamino)phenyl][4-[ethyl[(3-sulfophenyl)methyl]amino]-2-sulfophenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium hydroxide inner salt, 9CI. C.I. Acid blue 13. Xylene fast blue 10B. C.I. 42571. Acid violet 10B. Acidal fast violet 10B. Dermina violet 10B. Hispacid fast violet 10B [5863-53-6]



$C_{32}H_{36}N_3O_6S_2$ M 622.785

Strictly the name Lissamine violet 10B refers to the sodium salt. Redox indicator used as a 0.1% aq. soln. Dark violet cryst. powder. Sol. H_2O ; spar. sol. EtOH. $E^\circ + 1.12 V$ (1 *N* H_2SO_4).

Brazier, J.N. *et al*, *Anal. Chim. Acta*, 1965, **33**, 625 (*use*)
Colour Index, 3rd Edn., 1971, **4**, 4393 (*synth*)

Lithmus

L-00009

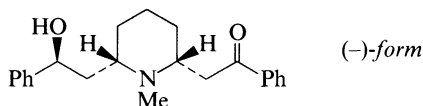
Lacmus

MW ca. 3300. Blue colouring material isol. from various species of lichens. Used as acid-base indicator (pH range 4.5 → 8.3: colour change red → blue); used for detn. of NH_3 . Blue powder. Spar. sol. H_2O , EtOH.

Feigl, F., *Mikrochemie*, 1933, **15**, 129.
Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4** (*detn.*, NH_3)
Vogel, A.I., *A Textbook of Quantitative Inorganic Analysis*, Longmans, London, 1961.
Becken, H. *et al*, *Angew. Chem.*, 1961, **73**, 665.

Lobeline, INN**L-00010**

2-[6-(2-Hydroxy-2-phenylethyl)-1-methyl-2-piperidinyl]-1-phenylethanone, 9CI, 8,10-Diphenyllobelionol

C₂₂H₂₇NO₂ M 337.461

(-)-form [90-69-7]

α-Lobeline. Inflatine. Other proprietary names
Alkaloid from *Lobelia inflata*, *L. nicotianaefolia*, *L. hassleri*, *L. stallfeldii* and several other *L.* spp. Also isol. from seeds of *Campanula medium* (Campanulaceae). Used in antismoking preparations. Has been used as a respiratory stimulant. Used as a 0.1M aq. soln. for photometric detn. of Mo (λ_{\max} 465 nm, ϵ 13800). Needles (EtOH). Mp 130-131°. $[\alpha]_D^{25} -42.85^\circ$ (EtOH). Oxidn. gives the symmetrical Lobelanine which is *meso*-

▷ OJ8480000.

B, HCl: [134-63-4]. Zoolobelin. Lobran

Needles (EtOH). Mp 182°.

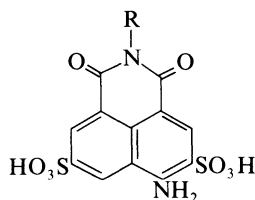
▷ OJ8490100.

B, $\frac{1}{2}$ H₂SO₄: [134-64-5].Cryst. (EtOH). $[\alpha]_D^{25} -25^\circ$ (c, 0.2 in CHCl₃).*Benzoyl*: Mp 155-157°.

(±)-form [134-65-6]

*Lobelidine*Alkaloid from *L. inflata* and *L. salicifolia* (Campanulaceae). Analeptic agent. Prisms. Mp 110°.*B, HCl*: Mp 170°.

[10122-32-4]

Wieland, H. *et al*, *Justus Liebigs Ann. Chem.*, 1929, **473**, 118 (*isol*)Schöpf, C. *et al*, *Justus Liebigs Ann. Chem.*, 1965, **682**, 206; **687**, 241 (*abs config*)Cambar, P.J. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1969, **177**, 1 (*pharmacol*)Korczyński, A.D. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1969, **182**, 370 (*pharmacol*)Döpke, W. *et al*, *Pharmazie*, 1970, **25**, 128 (*isol*)Krochmal, A. *et al*, *J. Nat. Prod. (Lloydia)*, 1972, **35**, 303 (*isol*)Shah, C.S. *et al*, *Phytochemistry*, 1972, **11**, 2884 (*isol, occur*)Mansuri, S.M. *et al*, *Arzneim.-Forsch.*, 1973, **23**, 1721 (*pharmacol*)O'Donovan, D.G. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1975, 415 (*biosynth*)Alhadeff, M., *Med. Actual.*, 1977, **13**, 236 (*rev*)Nytko, K. *et al*, *Microchem. J.*, 1980, **25**, 548 (*detn, Mo*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1427.Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 6579.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, LHY000, LHZ000.**Lucifer yellow****L-00011**CH; R = NHCONHNH₂VS; R = *m*-C₆H₄SO₂CH=CH₂

Dyes used as intracellular markers in biol. systems.

Lucifer yellow CHC₁₃H₁₁N₅O₉S₂ M 445.390Fluorescent dye used in marking nerve cells. λ_{\max} 280, 430 nm (H₂O). Used as Di-Li salt.*Di-K salt*: [71206-95-6].Cryst. (H₂O).*Di-Li salt*: [67769-47-5].

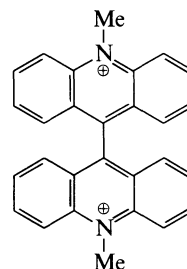
Fluffy orange hygroscopic powder.

Lucifer yellow VS [71231-14-6]C₂₀H₁₄N₂O₁₀S₃ M 538.536 λ_{\max} 280, 430 nm (H₂O). Used as Di-Li salt.*Di-K salt*: Cryst. (H₂O).

[71206-95-6]

Stewart, W.W., *Cell (Cambridge, Mass.)*, 1978, **14**, 741 (*use*)Stewart, W.W., *J. Am. Chem. Soc.*, 1981, **103**, 7615 (*synth*)Stewart, W.W., *Nature (London)*, 1981, **292**, 17 (*use, bibl*)**Lucigenine****L-00012**

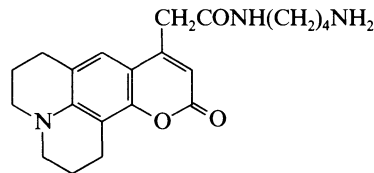
10,10'-Dimethyl-9,9'-biacridinium

C₂₈H₂₂N₂²⁺ M 386.495 (ion)*Dinitrate*: [2315-97-1].

Used as a 0.001mM soln. in aq. MeOH for chemiluminescent detn. of Cu, Cr, Ir, Mn, Os, Pt, Rh, Tl; chemiluminescent acid-base indicator. Cryst.

Brin, A.Y. *et al*, *CA*, 1973, **78**, 66575h (*detn, Os*)Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1135 (*detn, Pt, Rh, Ir*)Dubovenko, L.I. *et al*, *CA*, 1974, **80**, 103572u, 150583 (*detn, W, Mn*)Tovmasyan, A.P., *CA*, 1975, **83**, 187824a (*detn, Mn, Cu, Tl, Fe*)Dubovenko, L.I. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1975, **18**, 1211; *CA*, **84**, 38257m (*detn, Cr*)**Luminarin 4****L-00013**

N-(4-Aminobutyl)-2,3,6,7-tetrahydro-11-oxo-1H,5H,11H-benzopyrano[6,7,8-ij]quinoline-9-acetamide, 9CI [127697-01-2]

C₂₁H₂₇N₃O₃ M 369.463

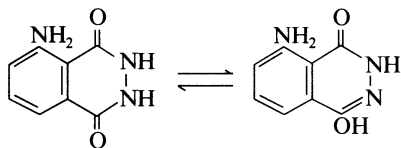
Labelling reagent for carboxylic acids in liq. chromatog. with peroxyoxalate chemiluminescence detection.

Pat. Coop. Treaty (WIPO), 89 12 052, (1989); *CA*, 1990, **113**, 23889n (*synth, use*)Tod, M. *et al*, *J. Chromatogr.*, 1991, **542**, 295 (*use*)

Luminol**L-00014**

5-Amino-2,3-dihydro-1,4-phthalazinedione. 3-Aminophthalic hydrazide

[521-31-3]

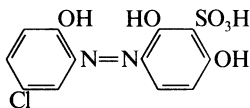
 $C_8H_7N_3O_2$ M 177.162

Strongly chemiluminescent on oxidn. Anal. reagent for metals e.g. Cu, peroxides, cyanides. Yellow cryst. Mp 329-332°.

Huntress, E.H. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 241.*Org. Synth.*, 1949, **29**, 78.White, E.H. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 941.White, E.H. *et al*, *Acc. Chem. Res.*, 1970, **3**, 54 (rev)**Lumogallion****L-00015**

5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxybenzenesulfonic acid, 8CI. C.I. Mordant red 72

[4386-25-8]

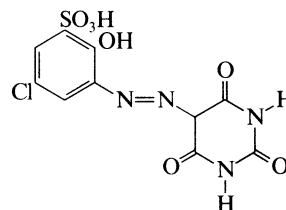
 $C_{12}H_9ClN_2O_6S$ M 344.732Used as 0.4mM aq. soln. for photometric detn. of Sc (ϵ 34000), Ga, In, Bi, Pd; metal indicator. Reddish cryst. powder. Sol. H_2O , EtOH, Me_2CO .

▷ DB5300000.

Salikhov, V.D. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 1299; 1967, **22**, 998 (detn. Ga, In)Alimarin, I.P. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 2336 (detn. Sc)Woodward, C. *et al*, *Talanta*, 1973, **20**, 417 (use, ind)Kotelanskaya, L.I. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1095 (detn. Bi)Tataev, O.A., *Zavod. Lab.*, 1980, **46**, 884 (detn. Pd)**Lumomagneson****L-00016**

5-Chloro-3-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-2-hydroxybenzenesulfonic acid, 8CI

[3773-16-8]

 $C_{10}H_7ClN_4O_7S$ M 362.707Used for fluorimetric detn. of Mg, photometric detn. of Sc. Orange-yellow cryst. powder. Sol. H_2O , EtOH, Me_2CO .Kurbatova, I.I., *Zavod. Lab.*, 1966, **32**, 1064 (detn. Mg)Akmedli, M.K. *et al*, *CA*, 1967, **66**, 16338 (detn. Sc)

M

Macrocylic formazan I

M-00001

6,7,9,10,12,13-Hexahydro-19H-dibenzo[b,i][1,11,14,17,4,5,7,8]tetraoxatetraazacyclononadecine-21-carbonitrile, 9CI. 2,3,5,6,8,9-Hexahydro-7-cyano-5H-dibenzo[k,r]-1,4,7,10,13,14,16,17-tetraoxatetraazacyclononadecine [80473-47-8]

As Macrocylic formazan II, M-00002 with

R = CN

C₂₀H₂₁N₅O₄ M 395.417

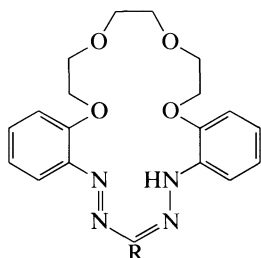
Used as Me₂CO soln. as selective chelating reagent for alkali metals. Used as 1mM soln. in CHCl₃ or in EtOH for extraction-separation of Cu(II), Hg(II) (pH 6.5-8.5); photometric detn. of Hg(II) (λ_{max} 568 nm). Red cryst. Sol. C₆H₆, CHCl₃, DMF, Py; spar. sol. EtOH, H₂O. Mp 205-206°. pK_{a1} 10.9.

Dziomko, V.M. et al, Zh. Obshch. Khim., 1981, 51, 2324 (synth)
Isakova, N.V. et al, Zh. Anal. Khim., 1989, 44, 1045 (detn, Cu, Hg)

Macrocylic formazan II

M-00002

6,7,9,10,12,13-Hexahydro-21-phenyl-19H-dibenzo[b,i][1,11,14,17,4,5,7,8]tetraoxatetraazacyclononadecine, 9CI [90906-67-5]



R = Ph

C₂₅H₂₆N₄O₄ M 446.505

Cycloformazan. Used as 1 mM soln. in CHCl₃ for selective extraction Cu and Hg (in the presence of picrate). Cryst. Sol. CHCl₃, 4-methyl-2-pentanone, EtOH; sl. sol. H₂O.

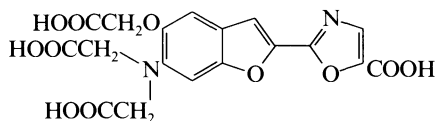
Niz'eva, N.V. et al, Dokl. Akad. Nauk SSSR, Ser. Khim., 1984, 274, 611 (synth, use)

Isakova, N.V. et al, Zh. Anal. Khim., 1989, 44, 1045 (detn, Cu, Hg)

Mag-fura-2

M-00003

Furaptra
[120551-15-7]



C₁₈H₁₄N₂O₁₁ M 434.315

Fluorescent probe for intracellular Mg. Mp 222-226°.

Tetrakis(acetoxymethyl)ester: [130100-20-8].

C₃₀H₃₀N₂O₁₉ M 722.569

Fluorescent probe for intracellular Mg.

[120551-16-8]

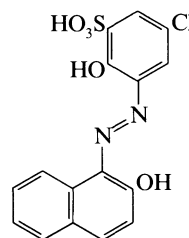
Raju, B. et al, Am. J. Physiol., 1989, 256, C540 (synth, pmr, use)

Murphy, E. et al, Proc. Natl. Acad. Sci. U.S.A., 1989, 86, 2981 (use)

Magneson IREA

M-00004

5-Chloro-2-hydroxy-3-[(2-hydroxy-1-naphthalenyl)azo]benzenesulfonic acid, 9CI. 1-(2-Hydroxy-3-sulfo-5-chlorobenzeneazo)-2-naphthol. C.I. Mordant violet 31. C.I. Mordant blue 12 (discontinued). Chrome fast blue RLL [3567-23-5]



C₁₆H₁₁ClN₂O₅S M 378.792

Used for extraction-photometric detn. of Ga (CHCl₃), Sc (λ_{max} 520 nm, ε 15000, Et₂O); as an aq. soln. as an indicator in complexometric indicator in EDTA titrations (Ca, Mg); photometric detn. of codeine, Nb (λ_{max} 540 nm, ε 16000), as 0.1% soln. in Me₂CO for extraction-fluorimetric detn. of Al (pH 3.2-5.3, butanol). Orange-red cryst. Sol. H₂O, Me₂CO, EtOH, CHCl₃, C₆H₆.

Belcher, R., Chemist-Analyst, 1958, 47, 2 (use, ind)

Alimarin, I.P. et al, CA, 1970, 72, 50638w (detn, Sc)

Severina, A.I. et al, CA, 1971, 74, 130413a (detn, Codeine)

Elinson, S.V. et al, Zh. Anal. Khim., 1971, 26, 1535 (detn, Nb)

Bishop, E., Indicators, Pergamon, Oxford, 1972 (detn, Ca, In)

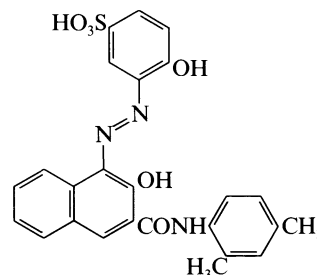
Savvin, S.B. et al, Zh. Anal. Khim., 1981, 36, 1945 (synth, detn, Al)

Pyatnitskii, I.V. et al, Uzb. Khim. Zh., 1982, 48, 1287 (detn, Ga)

Magon

M-00005

3-[[4-[[[(2,4-Dimethylphenyl)amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-4-hydroxybenzenesulfonic acid, 9CI. 1-Azo-2-hydroxy-3-(2,4-dimethylcarboxanilido)naphthalene-1'-(2-hydroxybenzene-5-sulfonic acid). Xylidyl blue I [36505-52-9]



C₂₅H₂₁N₃O₆S M 491.523

Used as 0.015% soln. in EtOH for photometric detn. of Mg (λ_{max} 510 nm, pH ~9). Brilliant red cryst. Sol. H₂O, EtOH.

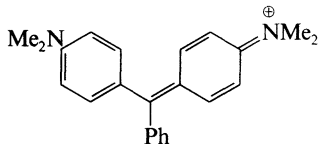
[14936-97-1]

Mann, C.K. et al, Anal. Chem., 1956, 28, 202 (synth, detn, Mg)

Mann, C.K. *et al*, *Anal. Chim. Acta*, 1957, **16**, 155 (*detn*, Mg)
 Apple, R.F. *et al*, *Talanta*, 1961, **8**, 419 (*detn*, Mg)
 Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC
 Press, Boca Raton, 1982, 154 (*use*)

Malachite green**M-00006**

N-[4-[[4-(Dimethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+). *C.I. Basic green 4. Aniline green. China green. Diamond green B. Victoria green B. C.I. 42000*
 [569-64-2]



$C_{23}H_{25}N_2^+$ M 329.464 (ion)

Strictly, the name Malachite green refers to the chloride (or oxalate salt).

Chloride:

$C_{23}H_{25}ClN_2$ M 364.917

Used for photometric *detn.* of many elements (e.g. As, Sb, Bi, B, Ga, In, Ge, Si, Re, Ir, Rh, Au(III), Hg, Pd, Ta, U, ClO_4^-); biological stain. Acid-base indicator. Clinical reagent for inorganic phosphate assay. Dark green *cryst.* powder. Sol. H_2O , EtOH. Forms colourless leuco-form (4,4'-Bis(dimethylamino)triphenylmethane, B-00327-1) on reduction.

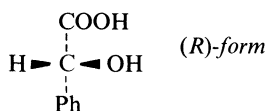
▷ LD₅₀ 275 mg/kg (rat, oral).

Jankovsky, J., *Talanta*, 1959, **2**, 29 (*detn*, Ga)
 Eberle, A.R. *et al*, *Anal. Chem.*, 1967, **39**, 662 (*detn*, Ta)
Colour Index, 3rd Ed., 1971, **4**, 4380 (*synth*)
 Hohenwallner, W. *et al*, *Clin. Chim. Acta*, 1973, **45**, 169 (*detn*, PO_4^{3-})
 Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 52 (*detn*, In)
 Marczenko, K. *et al*, *Anal. Chim. Acta*, 1979, **108**, 261 (*detn*, Rh)
 De, A.K. *et al*, *Mikrochim. Acta*, 1979, **2**, 201 (*detn*, Hg)
 Marczenko, Z. *et al*, *Mikrochim. Acta*, 1983, **2**, 169 (*detn*, Ir)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AFG500.

Mandelic acid**M-00007**

α-Hydroxybenzeneacetic acid, 9CI. 2-Hydroxy-2-phenylacetic acid. *α*-Hydroxyphenylacetic acid. Phenylglycollic acid. Amygdalinic acid

[90-64-2]



$C_8H_8O_3$ M 152.149

Prior to 1923 confusion existed between the (R)- and (S)-forms.

▷ Mod. toxic orally. OO6300000.

(R)-form [611-71-2]

D-form (*obsol.*)

Found in some plants, e.g. *Poria sinuosa*. Plates. Mp 133°. $[\alpha]_D^{20} -159.73^\circ$ (EtOH), $[\alpha]_D -187.44^\circ$ (AcOH). pK_a 3.37. Slowly racemises at 160°.

Me ester: [20698-91-3].

$C_9H_{10}O_3$ M 166.176

Mp 55°. Bp₁₂ 135°. $[\alpha]_D^{18} -214^\circ$ (CS₂).

(S)-form [17199-29-0]

L-form (*obsol.*)

Plates. Mp 133.8°. $[\alpha]_D^{20} +156.57^\circ$ (H₂O).

Ac: [7322-88-5].

Cryst. Mp 102-104°. $[\alpha]_D^{20} +154.4^\circ$ (c, 2.1 in CHCl₃).

(±)-form [611-72-3]

Used as aq. soln. for *detn.* of Cu; gravimetric *detn.* of Zr, Hf; extraction-photometric *detn.* of B. Plates (H₂O). d_4^{20} 1.30. Mp 118-119°. pK_{a1} 3.19 (25°, 0.1M KNO₃).

Me ester: [4358-87-6].

Plates (C₆H₆/ligroin). Mp 58°. Bp 250° sl. dec., Bp₂₀ 144°.

Ac: [5438-68-6].

Cryst. (C₆H₆), *cryst.* + 1H₂O (H₂O). Mp 79-80° (anhyd.), Mp 38-39° (hydrate).

Me ether: [7021-09-2].

Used as 10% soln. in EtOH/KOH for *detn.* and gravimetric *detn.* of Na. Plates (ligroin). Sol. CHCl₃, Me₂CO, Et₂O, EtOH, alkalis. Mp 71-72°. pK_a 3.13.

Me ether, chloride: [56271-12-6]. *α*-Methoxybenzeneacetyl chloride

$C_9H_9ClO_2$ M 184.622

Resolving agent for amines by gc or hplc. Bp_{0.1} 80-81°.

Dec. on dist. at 15 mm.

[1701-77-5]

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **2**, 112 (*synth*, *use*)

Org. Synth., *Coll. Vol.*, 3, 1955, 538 (*synth*)

Brewster, J.H., *J. Am. Chem. Soc.*, 1956, **78**, 4061 (*abs config*)

Reeve, W., *Anal. Chem.*, 1959, **31**, 1066 (*synth*, *detn*, Na)

Cambie, R.C. *et al*, *J. Chem. Soc.*, 1963, 2056 (*isol*)

Erdey, L., *Theorie und Praxis der Gravimetrischen Analyse*,

Akademiai Kiado, Budapest, 1964, **2**.

Feigl, D.M. *et al*, *J. Chem. Soc.*, *Chem. Commun.*, 1965, 615 (*chloride*, *use*)

Adamovich, L.P. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 782 (*synth*, *detn*, Na)

Analyst (London), 1972, **97**, 740 (*microanal*)

Helmchen, G. *et al*, *Chromatographia*, 1974, **7**, 713 (*chloride*, *use*)

Måkansson, R. *et al*, *Tetrahedron*, 1976, **32**, 2973 (*cd*)

Wei, K.-T. *et al*, *Acta Crystallogr.*, *Sect. B*, 1977, **33**, 797 (*cryst struct*)

Sato, S., *Anal. Chim. Acta*, 1983, **151**, 465 (*detn*, B)

Whitesell, J.K. *et al*, *J. Org. Chem.*, 1983, **48**, 3548 (*use*)

Brouillette, W.J. *et al*, *J. Med. Chem.*, 1984, **27**, 202 (*deriv*, *synth*, *pmr*, *ir*)

Wikstroem, H. *et al*, *J. Med. Chem.*, 1984, **27**, 1030 (*chloride*, *use*)

Wu, B. *et al*, *J. Org. Chem.*, 1986, **51**, 1904 (*deriv*, *synth*)

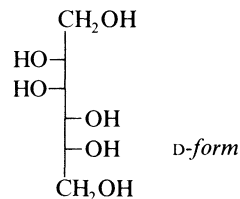
Takano, S. *et al*, *Synthesis*, 1989, 39 (*Me ether*, *synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MAP000.

Mannitol**M-00008**

Kurrine (obsol.)

[87-78-5]



$C_6H_{14}O_6$ M 182.173

D-form [69-65-8]

Cordycepic acid. Osmitol. Resectisol. Other proprietary names

Widespread in plants and their exudates particularly olive and plane trees. Obt. from manna and seaweeds.

Diagnostic aid (renal function determination); diuretic.

Used as solid in alkalimetric titration of boric acid and

Ge(IV); masking agent for metals. Reference material used in elemental microanalysis. Needles. Sol. H₂O, Py; sl. sol. EtOH; insol. Et₂O. Mp 166°. Bp_{3,5} 295°. $[\alpha]_D^{25}$ –0.21° (c, 17.6 in H₂O), $[\alpha]_D^{25}$ +28.61° (c, 10 in 12.8% borax aq.). pK_{a1} 13.29 (25°). Cordycepic acid was originally given the struct. of a stereoisomer of quinic acid.

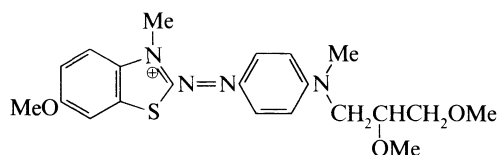
▷ OP2060000.

- Lohmar, R. *et al.* *Carbohydr. Res.*, 1949, **4**, 211 (rev)
 Kolthoff, I.M. *et al.* *Volumetric Analysis*, Interscience, NY, 1954, **2** (use)
 Wright, L. *et al.* *J. Org. Chem.*, 1961, **26**, 1588 (synth)
Analyst (London), 1972, **97**, 740 (microanal)
 Brimacombe, J.S. *et al.* *The Carbohydrates*, Academic Press, 1972, **1A**, 479.
 Holzbecher, Z. *et al.* *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (use)
 Benson, F.R., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978, **1**, 754 (rev)
 Matsuiro, B. *et al.* *Carbohydr. Res.*, 1981, **89**, 326 (cmr)
 Makkee, M. *et al.* *Starch/Staerke*, 1985, **37**, 136 (rev, synth)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HER000, MAW250, MAW800.

Maxilon blue GRL**M-00009**

2-[[4-[(2,3-Dimethoxypropyl)methylamino]phenyl]azo]-6-methoxy-3-methylbenzothiazolium(1+), 9CI. C.I. Basic blue 41

[12270-13-2]

C₂₁H₂₇N₄O₃S⁺ M 415.535 (ion)

Strictly the name Maxilon blue GRL applies to the chloride salt.

Chloride:

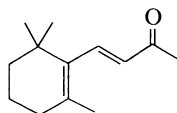
C₂₁H₂₇ClN₄O₃S M 450.988

Used for extraction-photometric detn. of Au (λ_{\max} 578 nm, ϵ 96200, C₆H₆). Dark red cryst.

Constantinescu, G.C. *et al.* *CA*, 1975, **82**, 105931a.**5,7-Megastigmadien-9-one****M-00010**

4-(2,6,6-Trimethyl-1-cyclohexen-1-yl)-3-buten-2-one, 9CI. β -Ionone. Boronione

[14901-07-6]

C₁₃H₂₀O M 192.300

Found in many essential oils including oil of *Boronia megastigma*. Constit. of coml. Ionone. Perfumery ingredient. Oil. Bp₂₄ 150-151°.

▷ EN0350000.

Semicarbazone: Cryst. Mp 149°.

Thiosemicarbazone: [2302-90-1]. β -IononethiosemicarbazoneC₁₄H₂₃N₃S M 265.422

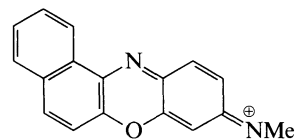
Used as a 0.1% soln. in EtOH for extraction-photometric detn. of Cu (λ_{\max} 380 nm, ϵ 17000, CHCl₃). Cryst. Sol. common org. solvs.; spar. sol. H₂O. Mp 167-169°.

9-Alcohol: [22029-76-1]. β -IonolC₁₃H₂₂O M 194.316Bp₂ 105°.

- Naves, Y.R., *Perfum. Essent. Oil Rec.*, 1964, **55**, 658,667 (occur)
 Thomas, A.F. *et al.* *Tetrahedron Lett.*, 1967, 5129 (ms)
 Shervi, V.B. *et al.* *Some Recent Dev. Chem. Nat. Prod.*, (Rangoswami, S. et al. Ed.), Prentice-Hall, India, 1972, 1 (rev)
 Guzman, M. *et al.* *Inf. Quim. Anal.*, 1973, **23**, 209; *CA*, **80**, 103445e (synth, ir, use)
 Ishihara, T. *et al.* *Agric. Biol. Chem.*, 1974, **38**, 439 (synth)
 Schmidt, C. *et al.* *Can. J. Chem.*, 1974, **52**, 1732 (β -Ionol)
 Englert, G., *Helv. Chim. Acta*, 1975, **58**, 2367 (cmr)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IFX000.

Meldola's blue**M-00011**

9-(Dimethylamino)benzo[a]phenoxazin-7-ium(1+), 9CI. C.I. Basic black 6. C.I. 51175

C₁₈H₁₅N₂O⁺ M 275.329 (ion)

Strictly, the name Meldola's blue applies to the chloride.

Chloride: [7057-57-0].

C₁₈H₁₅ClN₂O M 310.782

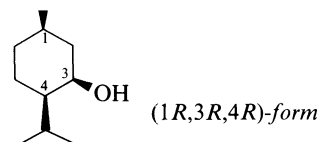
Used as 0.2% soln. in dil. H₂SO₄ for extraction-photometric detn. of B (as BF₄⁻), Ga, Tl(III), Ta (λ_{\max} 580 nm, ϵ 29000, PhCl). Black-violet cryst. powder. Sol. H₂O, EtOH.

- Skaar, O.B., *Anal. Chim. Acta*, 1965, **32**, 508 (detn. B)
 Pilipenko, A.T., *Ukr. Khim. Zh. (Russ. Ed.)*, 1968, **34**, 703, 1291; 1969, **35**, 303 (detn. Ta, Tl)
 Burd, J. *et al.* *Anal. Chim. Acta*, 1973, **46**, 223 (detn. Ta)

p*-Menthan-3-ol*M-00012**

5-Methyl-2-(1-methylethyl)cyclohexanol. 2-Isopropyl-5-methylcyclohexanol

[1490-04-6]

C₁₀H₂₀O M 156.267

Found in many essential oils.

▷ Irritant, allergen.

(1R,3R,4R)-form [20752-34-5]

(+)-Neoisomenthol

Oil. Mp –8°. Bp 214.6°. $[\alpha]_D^{18}$ +3.8° (c, 6 in EtOH).

(1R,3R,4S)-form [2216-51-5] (–)-Menthol. Menthamphor.

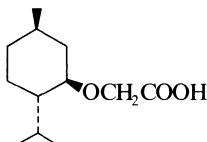
Peppermint camphor

Present in large amts. in peppermint oil (*Mentha piperita*), also in other *M. spp.*, *Artemisia spp.*, *Glechoma hederacea* and others. Used in confectionery, perfumery, menthol cigarettes, inhalers, etc. Mild local anaesthetic, analgesic, antipruritic and internally as a carminative. Used to determine the optical purity of amino acids. Cryst. (MeOH) with strong peppermint odour. Sl. sol. H₂O; v. sol. org. solvs. Mp 42.5-43°. Bp 216°. $[\alpha]_D^{20}$ –50.0° (c, 2 in CHCl₃). Exists in four cryst. modifications; Mp given is the highest. Component of Larylgan.

▷ OT0700000.

Vitt, S.V. *et al.* *Tetrahedron Lett.*, 1965, 2575 (use)

Katsuhara, J. *et al*, *Bull. Chem. Soc. Jpn.*, 1966, **39**, 617 (*synth, menthol*)
 Oritani, T. *et al*, *Agric. Biol. Chem.*, 1973, **37**, 1695 (*synth, neoisomenthol*)
 Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)
 Leffingwell, J.C. *et al*, *Cosmet. Perfum.*, 1974, **89**, 69 (*rev*)
 Hasegawa, M. *et al*, *Anal. Biochem.*, 1975, **63**, 308 (*use*)
 Yamaguchi, S. *et al*, *Tetrahedron Lett.*, 1977, 89 (*abs config*)
 Nakatani, Y. *et al*, *Synthesis*, 1978, 147 (*synth*)
 Dauzonne, D. *et al*, *Org. Magn. Reson.*, 1981, **17**, 18 (*cmr*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 266.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MCG250.

3-Menthoxycetic acid**M-00013**C₁₂H₂₂O₃ M 214.304**(-)-form** [6070-21-9]

Used for the resolution of organic bases and alcohols.
 Cryst. (Et₂O). Mp 53-54°. Bp₁₁ 171°. [α]_D²⁰ -92.9° (MeOH). (+)- and (±)-forms are also known.

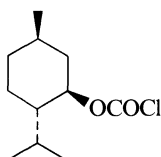
Chloride: [15356-62-4].C₁₂H₂₁ClO₂ M 232.749

Used for the resolution of diols. Bp_{8,5} 124-130°. [α]_D¹³ -84.8° (CHCl₃).

Booth, J. *et al*, *J. Chem. Soc.*, 1950, 2808 (*use, chloride*)
 Baker, R.H. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 699.
 Akujama, F. *et al*, *Bull. Chem. Soc. Jpn.*, 1967, **40**, 359.
 Harvey, R.G. *et al*, *Anal. Biochem.*, 1977, **80**, 540 (*use, chloride*)

Menthyl chloroformate**M-00014**

5-Methyl-2-(1-methylethyl)cyclohexyl carbonochloridate, 9CI
 [51259-57-5]

C₁₁H₁₉ClO₂ M 218.723Usually prepd. in soln. in toluene or C₆H₆.**(-)-form** [14602-86-9]

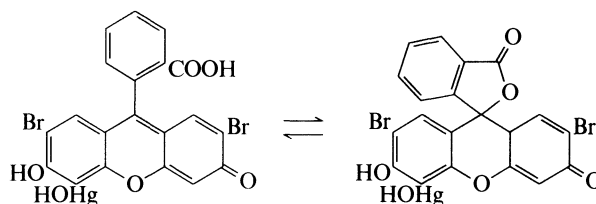
Reagent for the chromatog. resolution and anal. of optical isomers, e.g. warfarin and its analogs. Bp₁₁ 108-109°, Bp₅ 96°. n_D²⁰ 1.4712.

[50277-59-3]

Kost, A.N., *CA*, 1953, **47**, 9907h (*synth*)
 Westley, J.W. *et al*, *J. Org. Chem.*, 1968, **33**, 3978 (*synth, use*)
 Annett, R.G. *et al*, *Anal. Biochem.*, 1972, **47**, 638 (*synth, use*)
 Jeyaraj, G.L. *et al*, *J. Chromatogr.*, 1984, **315**, 378 (*use*)

Merbromin, INN**M-00015**

(2',7'-Dibromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H)-9'[9H]xanthen]-4'-yl)hydroxymercury, 9CI. 2,7-Dibromo-4-hydroxymercurifluorescein. *Mercurochrome*. Numerous proprietary names
 [55728-51-3]

C₂₀H₁₀Br₂HgO₆ M 706.693
Antibacterial agent. Red powder.**Di-Na salt:** [129-16-8].

Used as a 0.1-0.3% aq. soln. for detn. of Cd, Cu, Fe(II), Fe(III), Tl(I), Br[⊖] and thio compds. Iridescent green scales + 3H₂O. Sol. H₂O (soln. carmine-red); insol. EtOH, Me₂CO, CHCl₃, Et₂O.

▷ LM5250000.

White, E.C., *J. Am. Chem. Soc.*, 1920, **42**, 2355 (*synth*)
 Rymill, F.E. *et al*, *Q. J. Pharm. Pharmacol.*, 1934, **7**, 543 (*synth*)
 Johar, G.S., *Talanta*, 1972, **19**, 1231 (*detn, Fe(II)*)
 Johar, G.S., *Mikrochim. Acta*, 1974, 729 (*use*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2256.
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 5539.
 Korany, M.A. *et al*, *Anal. Lett.*, 1989, **22**, 1909 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MCV000 (PG5900)

Mercaptoacetic acid, 9CI, 8CI**M-00016***Thioglycollic acid*

[68-11-1]

HSCH₂COOHC₂H₄O₂S M 92.118

Reduces sulphoxides to sulphides. Used as 0.1M aq. soln. for photometric detn. of Co, Ni, Mo, Nb, Re, Te. Liq. d²⁰ 1.325. Fp -16.5°. Bp₁₆ 107-108°. pK_{a1} 3.55; pK_{a2} 10.22 (25°). Oxidises in air.

▷ Irritant, causes burns. TLV 5. The NH₄ salt is highly toxic and a strong allergen. It emits toxic fumes on heating or in contact with acids. AI5950000.

Me ester: [2365-48-2].C₃H₆O₂S M 106.145Bp₁₅ 49°.

▷ AI7350000.

Et ester: [623-51-8].C₄H₈O₂S M 120.172Bp 156-158°, Bp₁₇ 55°.

▷ AI6650000.

6-Methylheptyl ester: [25103-09-7]. *Isooctyl thioglycolate*C₁₀H₂₀O₂S M 204.333Used for extraction of Ag, Au, Bi, Cu, Hg. Liq. Bp₁₇ 125°.

▷ AI7300000.

2-Ethylhexyl ester: [7859-86-1].C₁₀H₂₀O₂S M 204.333Used as 1% Me₂CO soln. for extraction-photometric detn. of Co (λ_{max} 495 nm, ε 16700, pH 8, CHCl₃). Liq. Sol. Me₂CO, C₆H₆. Bp 115°. pK_a 12.6.**Amide:** [758-08-7].C₂H₅NOS M 91.134

Needles. V. sol. H₂O; spar. sol. EtOH. Mp 52°.
 ▷ AC4600000.

Anilide: [4822-44-0]. 2-Mercapto-N-phenylacetamide, 9CI
 C₈H₉NOS M 167.231
 Gives colour reaction with Co; used as 5% soln. in MeOH for extraction photometric detn. of Pd (λ_{\max} 370 nm, ϵ 8000). Needles (EtOH or H₂O). Mp 110.5-111°.
 ▷ AE4375000.

Nitrile: [54524-31-1]. Mercaptoacetonitrile, 9CI.
 Cyanomethanethiol. Thiocyanohydrin.
 Cyanomercaptomethane
 C₂H₃NS M 73.118
 Bp₂ 34°.
 ▷ Unstable, can polymerise spontaneously.

S-Me: [2444-37-3]. Methylmercaptoacetic acid. S-Methylthioglycollic acid. Dimethyl sulfide carboxylic acid
 C₃H₆O₂S M 106.145
 d₂₀²⁰ 1.223. Bp₂₇ 130-131°. n_D²⁰ 1.495.

S-Me, Me ester: [16630-66-3].
 C₄H₈O₂S M 120.172
 Bp₁₁ 53-55°.

S-Me, anilide: [10156-36-2].
 C₉H₁₁NOS M 181.258
 Needles (Et₂O/pet. ether). Mp 80°.

S-Et: [627-04-3].
 C₄H₈O₂S M 120.172
 Oil. Fp –8.7°. Bp₁₁ 117-118°.

S-Et, Et ester: [17640-29-8].
 C₆H₁₂O₂S M 148.226
 Bp 187-189°.

S-Et, amide: [60247-87-2].
 C₄H₉NOS M 119.187
 Mp 44°.

S-Ac: [1190-93-8].
 C₄H₆O₃S M 134.156
 Yellow oil. Bp₁₇ 158-159°.
 ▷ AF1665000.

S-Ac, chloride:
 C₄H₅ClO₂S M 152.601
 Bp₂₀ 93.5°.

Larsson, E., *Chem. Zentralbl.*, 1928, **2**, 234; *Ber.*, 1930, **63**, 1349
 (*synth, deriv*)

Holmberg, B., *J. Prakt. Chem.*, 1934, **141**, 93 (*synth*)

Boehme, H. et al, *Arch. Pharm. (Weinheim, Ger.)*, 1961, **294**, 475
 (*synth*)

Fritz, J.S. et al, *Anal. Chem.*, 1966, **38**, 1869 (*use, isoctyl ester*)

Kirkbright, G.F. et al, *Anal. Chim. Acta*, 1966, **35**, 116 (*detn, Te*)

Pfibil, R. et al, *Talanta*, 1971, **18**, 349 (*detn, Mo*)

Dutta, R.K. et al, *Talanta*, 1974, **21**, 1091 (*detn, Nb*)

Yamida, M. et al, *J. Org. Chem.*, 1977, **42**, 2180 (*synth*)

Nacu, A. et al, *Rev. Roum. Chim.*, 1977, **28**, 1091 (*anilide, detn, Pd*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 366.

Wünsch, G. et al, *Fresenius' Z. Anal. Chem.*, 1979, **295**, 119 (*detn, W*)

Gambarov, D.G. et al, *Zh. Anal. Khim.*, 1979, **34**, 738 (*synth, detn, Co*)

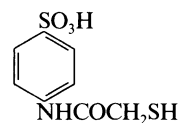
Mathias, E. et al, *J. Chem. Soc., Chem. Commun.*, 1981, 569
 (*nitrile, synth, pmr, cmr, ir, haz*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 380.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ACQ250, EMB200, ILR000, MCK000, MCK300, MLE750, TFI100.

4-[(Mercaptoacetyl)amino]benzenesulfonic acid, 9CI

M-00017



C₈H₉NO₄S₂ M 247.295

Na salt: [6155-24-4].

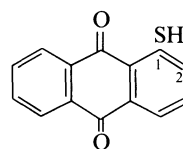
Used as a 1% aq. soln. for photometric detn. of Co.
 Cryst. Sol. H₂O; spar. sol. EtOH, Me₂CO.

Gupta, H.K.L. et al, *Anal. Chem.*, 1959, **31**, 918 (*synth, use, detn, Co*)

1-Mercaptoanthraquinone, 8CI

M-00018

1-Mercapto-9,10-anthracenedione. Anthraquinone-1-thiol
 [6338-09-6]



C₁₄H₈O₂S M 240.282

Gives colour reaction with Cd, Co, Cu, Ni, Pd. Orange prisms or yellow needles (AcOH). Mp 187°.

▷ CB7875000.

Fries, K., *Ber.*, 1919, **52**, 217 (*synth*)

Baltrop, J.A. et al, *J. Chem. Soc.*, 1956, 4245 (*uv, ir*)

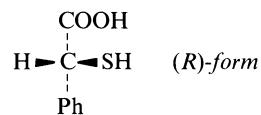
Berger, H., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1963, **82**, 773.

Capitan, F. et al, *Inf. Quim. Anal.*, 1969, **23**, 156 (*synth, use*)

α -Mercaptobenzeneacetic acid, 9CI

M-00019

2-Mercapto-2-phenylacetic acid. α -Mercaptophenylacetic acid. Thiomandelic acid
 [4695-09-4]



C₈H₈O₂S M 168.216

(*R*)-form [16201-51-7]

Mp 88-88.5°. [α]_D²⁵ –106.2° (c, 0.5 in EtOH).

Me ester: [16201-52-8].

C₉H₁₀O₂S M 182.243

[α]_D²⁵ –101.2° (c, 1.4 in EtOH).

S-Benzyl: [13136-52-2].

C₁₅H₁₄O₂S M 258.340

Mp 91.5-92°. [α]_D –161° (c, 1.05 in EtOH).

(*S*)-form [103616-08-6]

Needles (C₆H₆/hexane). Mp 88.5-90°. [α]_D²⁵ +112.2° (c, 2 in 95% EtOH). Optical purity 85%.

S-Benzyl: [13136-51-1].

Mp 91-91.5°. [α]_D²⁵ +161° (c, 0.89 in EtOH).

(\pm)-form [16201-50-6]

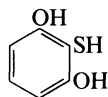
Used as 1% EtOH soln. Forms precipitates or soluble coloured complexes with Cu(II), Pd, Mo(VI), Cr(III), Fe, Co, Ni, U(V) (pH 4.4-6.6). Vile-smelling oil or cryst. (C₆H₆). Sol. EtOH, pet. ether; mod. sol. H₂O. Mp 64-65°, Mp 60.5°. Bp_{0.5} 147°. pK_{a1} 3.40; pK_{a2} 10.3 (0.1M KNO₃, 80% EtOH, 25°). n_D²⁴ 1.5665.

S-Benzyl: Mp 86°.

Parravano, N. *et al*, *Gazz. Chim. Ital.*, 1909, **39**, 62 (*synth*)
 Janczewski, M. *et al*, *CA*, 1964, **60**, 52989 (*synth*)
 Bonner, W.A., *J. Org. Chem.*, 1967, **32**, 2495; 1968, **33**, 1831
 (*synth, resoln, abs config, ir, nmr*)
 Izquierdo, A. *et al*, *Mikrochim. Acta*, 1985, **32**, 191 (*use*)
 Strijtveen, B. *et al*, *J. Org. Chem.*, 1986, **51**, 3664 (*synth*)

2-Mercapto-1,3-benzenediol, 9CI **M-00020**

2-Mercaptoresorcinol. 2-Thiopyrogallol
 [2103-60-8]



$C_6H_6O_2S$ M 142.178

Used as 0.4% aq. soln. for extraction-photometric detn. of
 Re (λ_{max} 535 nm, ϵ 15900, 9M HCl,
 $CHCl_3$ /isopentanol). Needles. Sol. H_2O , EtOH, Et_2O ,
 alkalis. Mp 83-84°.

Bag, S.P. *et al*, *J. Indian Chem. Soc.*, 1984, **61**, 159 (*synth, detn, Re*)

4-Mercapto-1,3-benzenediol, 9CI **M-00021**

4-Mercaptoresorcinol

[2553-70-0]

$C_6H_6O_2S$ M 142.178

Gives colour reactions with Bi, Co, Cu, Fe (in basic
 media), Pd, Sb, Ti, V (in acidic media). Cryst. Mp 110-
 111°.

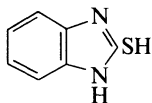
Urushibara, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1956, **29**, 419 (*synth*)

Buscaróns, F. *et al*, *Inf. Quim. Anal.*, 1965, **19**, 12 (*use*)

Traxler, J.T., *J. Org. Chem.*, 1979, **44**, 4971 (*synth*)

2-Mercaptobenzimidazole **M-00022**

1H-Benzimidazole-2-thiol, 9CI



$C_7H_6N_2S$ M 150.204

Used as 1% EtOH soln. for photometric detn. of Se (λ_{max}
 325 nm, ϵ 10500); gravimetric detn. of Bi, Cu, Cd, Pb,
 Hg, Au. Cryst. Sol. EtOH; sl. sol. H_2O . Mp 292-293°.

S-Me: [7152-24-1].

$C_8H_8N_2S$ M 164.231
 Mp 201°.

▷ DD9480000.

S-Et: [14610-11-8].

$C_9H_{10}N_2S$ M 178.257
 Mp 170-170.5°.

S-Benzyl: [51290-77-8].

$C_{14}H_{12}N_2S$ M 240.328
 Mp 186-187°.

Billeter, S. *et al*, *Ber.*, 1887, **20**, 231.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New
 York, 1948, **4**, 127 (*synth, use*)

Futaki, K. *et al*, *Yakugaku Zasshi*, 1954, **74**, 1365; *CA*, **49**, 15876.

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 1091 (*detn, Se*)

Busev, A.I., *Talanta*, 1964, **11**, 485 (*detn, Se*)

Klanderma, B.H., *J. Org. Chem.*, 1965, **39**, 2469.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, MPS500.

2-Mercaptobenzoic acid**M-00023**

o-Thiosalicylic acid. *o*-Mercaptobenzoic acid

[147-93-3]



$C_7H_6O_2S$ M 154.189

Used in manuf. of thioindigo dyes. Analgesic. Used as 2%
 Py soln. for extraction-photometric detn. of Co (ϵ
 16500), Pd (λ_{max} 370 nm, ϵ 17000, $CHCl_3$). Yellow
 leaflets or needles (EtOH aq.). Sol. Py. Mp 165.5°. pK_{a1}
 3.54; pK_{a2} 8.60 (25°), pK_a 5.02 (48.9% EtOH). Used as
 Na salt (Reocyl).

▷ DH3325000.

Me ester: [4892-02-8].

$C_8H_8O_2S$ M 168.216

Oil. Bp₇₂₈ 262-263°, Bp₁₁ 123°. Steam-volatile.

▷ DH3500000.

Ph ester: [15570-18-0]. 2-(Phenylthio)benzoic acid. Thiosalol

$C_{13}H_{10}O_2S$ M 230.287

Cryst. (MeOH). Mp 91°.

Ac: [55819-78-8]. Thioaspirin

$C_9H_8O_3S$ M 196.226

Needles (C_6H_6). Mp 125°.

▷ DH3350000.

Amide: [5697-20-1]. Thiosalicylamide. 2-Mercaptobenzamide

C_7H_7NOS M 153.204

Used as a 1% soln. in 20% aq. EtOH for extraction-
 photometric and gravimetric detn. of Au, Ir, Os, Pt, Rh,
 Ru, Ta (λ_{max} 460 nm, $CHCl_3$). Cryst. (hot H_2O). Mp
 121°.

Schwarzenbach, G. *et al*, *Helv. Chim. Acta*, 1939, **22**, 360.

Org. Synth., *Coll. Vol.*, 2, 1943, 580.

Shona, S.C., *Anal. Chim. Acta*, 1969, **46**, 155 (*detn, Ta*)

Sur, K. *et al*, *Anal. Chim. Acta*, 1969, **48**, 145; 1971, **51**, 201; 1972,

59, 306 (*detn, Au, Pd, Rh, Ru, Pt, Os*)

Khosla, M.M. *et al*, *Microchem. J.*, 1972, **17**, 388; 1973, **18**, 640
 (*detn, Co, Pd*)

Atlas of Physical Constants and Spectral Data of Organic

Compounds, CRC Press, 1973, b1053 (*ir, uv, ms, nmr*)

Ray, M.P. *et al*, *J. Indian Chem. Soc.*, 1974, **51**, 515 (*detn, Ir*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

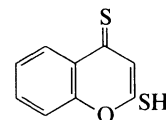
Pharmaceutical Press, London, 1982/1989, 16988.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, MCK750.

2-Mercapto-4H-1-benzopyran-4-thione **M-00024**

9CI

γ -Thiobenzopyrone- α -thiol



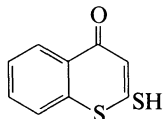
$C_9H_6OS_2$ M 194.278

K salt: [53046-93-8].

Used as a 1% aq. soln. for photometric detn. of Ni.
 Cryst.

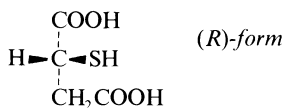
Arunachalam, M.K. *et al*, *Indian J. Chem.*, 1974, **12**, 1006 (*detn, Ni*)

2-Mercapto-4H-1-benzothiopyran-4-one, 9CI **M-00025**
 2-Mercaptobenzo- γ -thiopyrone
 [52164-99-5]



$C_9H_6OS_2$ M 194.278
 Used as a 1% aq. soln. for extraction-photometric detn. of Co, Mo. Cryst. ($CHCl_3/Et_2O$). Sol. H_2O .
 Savariar, C.P. *et al*, *Anal. Chim. Acta*, 1974, **69**, 305 (*synth, detn, Mo*)
 Savariar, C.P. *et al*, *J. Indian Chem. Soc.*, 1977, **54**, 274 (*detn, Co*)

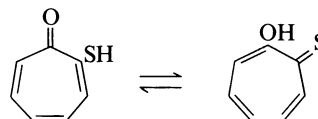
Mercaptobutanedioic acid, 9CI **M-00026**
 Mercaptosuccinic acid, 8CI. Thiomalic acid
 [70-49-5]



$C_4H_6O_4S$ M 150.155
 ▶ WM8225000.
 (*R*)-form [20182-99-4]
 Mp 152-153°. $[\alpha]_D^{17} + 64.4^\circ$ (EtOH).
 4-Monoamide: $C_4H_7NO_3S$ M 149.170
 Mp 125°. $[\alpha]_D^{18} + 82.5^\circ$ (Me_2CO).
 S-Benzyl: $C_{11}H_{12}O_4S$ M 240.279
 Mp 182-183°. $[\alpha]_D^{20} + 124^\circ$. Sinters at 175°.
 (*S*)-form
 Mp 152-153°. $[\alpha]_D^{17} - 64.8^\circ$ (EtOH).
 4-Monoamide: Mp 125°. $[\alpha]_D^{18} - 82.9^\circ$ (Me_2CO).
 S-Benzyl: Mp 182-183°. $[\alpha]_D^{20} - 123^\circ$ (c, 0.5028 in Me_2CO). Sinters at 175°.
 (\pm)-form [644-87-1]
 Used as metallochromic indicator for titrimetric detn. of Cu and for photometric detn. of Mo (0.5M HCl medium), Pd, Rh. Cryst. Sol. H_2O , EtOH, Me_2CO . Mp 157° (151°). pK_a 3.28 (25°, H_2O).
 Di-Et ester: [23060-11-9].
 $C_8H_{14}O_4S$ M 206.262
 Oil. Bp ca. 246° part. dec.
 4-Monoamide: Cryst. (EtOH). Mp 103°.
 S-Benzyl: [22119-10-4].
 Needles (EtOH aq.). Mp 181°.
 Anhydride, S-Ac: [6953-60-2]. S-Acetylmercaptosuccinic anhydride
 $C_6H_6O_4S$ M 174.177
 Reagent for introduction of SH groups into proteins and polymers. Mp 77°.
 Au compd., Na salt: [39377-38-3]. **Gold sodium thiomalate, USAN, JAN. Sodium aurothiomalate, INN. Chrysothios. Kidon. Miocrin. Myochrysin. Myocrisin. Shiosol. Tauredon**
 Antirheumatic. Hygroscopic yellowish-white powder.
 Mixt. of mono- and di-Na salts of gold thiomalic acid.
 [12244-57-4, 16905-00-3, 41581-85-5]
 Billmann, E., *Justus Liebig's Ann. Chem.*, 1905, **339**, 371 (*synth*)
 Levene, P.A. *et al*, *J. Biol. Chem.*, 1924, **60**, 685 (*synth*)
 U.S. Pat., 1 994 213, (1935) (*synth, Au compd*)
 Holmberg, B. *et al*, *CA*, 1941, **35**, 2113 (*synth*)

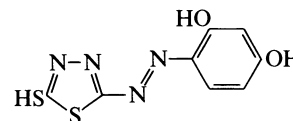
Wagner, V.L. *et al*, *Talanta*, 1959, **2**, 223, 239 (*detn, Pd, Rh*)
 Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 171 (*detn, Mo*)
 Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 13 (*deriv*)
 Polyak, L.Y. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 200 (*detn, Mo*)
 Yamada, S. *et al*, *Tetrahedron Lett.*, 1968, 1501 (*abs config*)
 Patel, N.K. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 636 (*use*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 5296.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MCR000.

2-Mercapto-2,4,6-cycloheptatrien-1-one, 9CI **M-00027**
 2-Hydroxy-2,4,6-cycloheptatriene-1-thione. 2-Mercaptotropolone. 2-Hydroxytropothione. Thiotropolone
 [1073-38-7]



C_7H_6OS M 138.190
 Hydroxythione struct. predominates. Used as 0.01M soln. in $CHCl_3$ for simultaneous photometric detn. of Co (λ_{max} 500 nm, ϵ 19000) and Ni (λ_{max} 580 nm, ϵ 12000) (pH 6-9). Reddish-orange cryst. Mod. sol. H_2O . Mp 55°. pK_a 5.89. Alkylation gives S-alkyl derivs.
 S-Ac: $C_9H_8O_2S$ M 180.227
 Mp 170°.
 S-Me: C_8H_8OS M 152.217
 Mp 42.5-44°.
 S-Benzyl: $C_{14}H_{12}OS$ M 228.314
 Mp 106°.
 Nozoe, T. *et al*, *CA*, 1954, **48**, 5172 (*derivs*)
 Nozoe, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1961, **34**, 616, 1382 (*synth, struct, w, ir, pmr*)
 Wilson, J.M. *et al*, *Tetrahedron*, 1963, **19**, 2247 (*ms*)
 Srivastava, J.N. *et al*, *Talanta*, 1973, **20**, 1210 (*detn, Co, Ni*)

2-Mercapto-5-(2,4-dihydroxyphenylazo)-1,3,4-thiadiazole **M-00028**
 5-[(2,4-Dihydroxyphenyl)azo]-1,3,4-thiadiazole-2(3H)-thione, 9CI
 [60592-98-5]



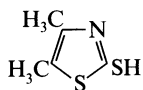
$C_8H_6N_4O_2S_2$ M 254.293
 Used as 0.1-0.3mM soln. in MeOH or buffer (acetate, borate) to give colour reactions with Co (λ_{max} 514 nm, ϵ 16700), Cu, Fe (λ_{max} 502 nm, ϵ 19000), Ni (λ_{max} 516 nm, ϵ 23600). Dark red amorph. powder. Sol. EtOH. Mp 205-207°. pK_{a1} 4.48; pK_{a2} 7.76; pK_{a3} 10.92.
 Domagalina, E., *Chem. Anal. (Warsaw)*, 1976, **21**, 105, 411 (*synth, pKa, use*)

2-Mercapto-4,5-dimethylthiazole

M-00029

4,5-Dimethyl-2(3H)-thiazolethione, 9CI

[5351-51-9]

C₅H₇NS₂ M 145.249Used as a 0.6% soln. in 50% EtOH aq. for photometric detn. of Rh (λ_{\max} 430 nm). Cryst. (25% EtOH aq.).Haines, R.L. *et al*, *Can. J. Res.*, 1949, **27**, 72.Ryan, D.E., *Analyst (London)*, 1950, **75**, 557.Westland, A.D. *et al*, *Mikrochim. Acta*, 1956, 1474.**3-Mercapto-1,3-diphenyl-2-propen-1-one, 9CI**

M-00030

3-Hydroxy-1,3-diphenyl-2-propene-1-thione. 1,3-Diphenyl-3-thioxo-1-propanone. Thiodibenzoylmethane

[2276-40-6]

C₁₅H₁₂OS M 240.325

Tautomeric with the enol (major) and SH-enone (minor) forms. Used as 1mM soln. in C₆H₆, hexane or cyclohexane for extraction-photometric detn. of Ag (λ_{\max} 420 nm), Bi (λ_{\max} 470 nm, ϵ 1840, C₆H₆), Co, Cd, Pd, Cl, Zn, Cu (λ_{\max} 410 nm, ϵ 23700, hexane), Hg, Ni (λ_{\max} 430 nm), Tl; gravimetric detn. of Co. Red needles (pet. ether). Sol. C₆H₆, hexane, cyclohexane, CCl₄, CHCl₃; insol. H₂O. Mp 83-84° (78°). pK_{a1} 6.3.

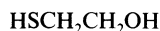
[1215-43-6, 13302-76-6]

Chaston, S.H.H. *et al*, *Aust. J. Chem.*, 1965, **18**, 673 (*synth*)Uhlemann, E. *et al*, *Anal. Chim. Acta*, 1969, **48**, 115; 1971, **56**,185; 1973, **64**, 236; 1974, **69**, 79; 1977, **90**, 173 (*detn. Cu, Co, Ni, Zn, Hg, Tl*)Schuknecht, B. *et al*, *Anal. Chim. Acta*, 1974, **69**, 329 (*detn. Cd*)Mulye, R.R. *et al*, *Anal. Chim. Acta*, 1975, **76**, 204 (*detn. Ag*)Prabhhu, B.N. *et al*, *Indian J. Chem., Sect. A*, 1976, **14**, 198 (*detn. Bi*)Power, L.F. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1976, 249 (*cryst struct*)Prabhhu, B.N. *et al*, *Mikrochim. Acta*, 1977, **1**, 385 (*detn. Zn*)**2-Mercaptoethanol, 9CI**

M-00031

Ethylene thioglycol. 2-Hydroxy-1-ethanethiol. Thioethylene glycol. Thioglycol

[60-24-2]

C₂H₆OS M 78.135

Reagent for synth. of ethylenehemithioketals from ketones.

Fluorogenic reagent (with *o*-phthalaldehyde) for amines.

Used as 0.5M aq. soln. in 0.1M NaOH for photometric

detn. of Se (λ_{\max} 380 nm, ϵ 3200). Liq. with faintcharacteristic odour. Misc. H₂O, org. solvs. d_4^{20} 1.114.Bp₇₄₂ 157-158° slight dec., Bp₁₈ 58°. pK_{a1} 9.72 (25°).

▷ Highly toxic. KL5600000.

Hg *compd.*: Silvery plates (H₂O or EtOH). Sol. Me₂CO, EtOAc. Mp 123°.

O-Ac: [5862-40-8].

C₄H₈O₂S M 120.172Bp₁₃ 55°.

S-Ac:

C₄H₈O₂S M 120.172Bp₁₅ 95°.

Di-Ac:

C₆H₁₀O₃S M 162.209Bp₁₅ 104°.

S-Et: [110-77-0].

C₄H₁₀OS M 106.188

Bp 182-184°.

▷ KL1225000.

Bennett, G., *J. Chem. Soc.*, 1921, **119**, 418 (*synth*)Fromm, E. *et al*, *Ber.*, 1925, **58**, 304 (*synth, derivs*)Thompson, H.W., *J. Am. Chem. Soc.*, 1939, **61**, 1398 (*ir*)Tseon, H.F. *et al*, *J. Chin. Chem. Soc. (Peking)*, 1939, **7**, 29.Woodward, F.N., *J. Chem. Soc.*, 1948, 1892 (*synth*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 643.Roth, M., *Anal. Chem.*, 1971, **43**, 880 (*use*)Benson, J.R. *et al*, *Proc. Natl. Acad. Sci. U.S.A.*, 1975, **72**, 619

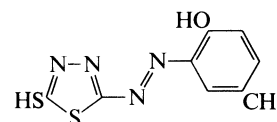
(use)

Stobaugh, J.B. *et al*, *Anal. Biochem.*, 1983, **135**, 494 (*use*)Simpson, R.C. *et al*, *J. Chromatogr.*, 1983, **261**, 407 (*use*)Afsar, H. *et al*, *Analyst (London)*, 1989, **114**, 1315, 1319 (*detn, Se*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EPP500, MCN250.**2-Mercapto-5-(2-hydroxy-5-methylphenylazo)-1,3,4-thiadiazole-2(3H)-thione, 9CI**

M-00032

5-[(2-Hydroxy-5-methylphenyl)azo]-1,3,4-thiadiazole-2(3H)-thione, 9CI

[60592-99-6]

C₉H₈N₄OS₂ M 252.320

Na salt: Used as 0.1-0.3mM soln. in MeOH or buffer

(acetate, borate) to give colour reactions with Co, Cu,

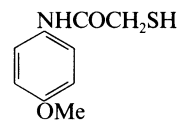
Fe, Ni. Dark red amorph. powder. Sol. EtOH. Mp 200-

202°. pK_{a1} 4.47; pK_{a2} 8.98.Domagalina, E., *Chem. Anal. (Warsaw)*, 1976, **21**, 105, 411 (*synth, pKa, use*)**2-Mercapto-N-(4-methoxyphenyl)acetamide, 9CI**

M-00033

N-Mercaptoacetyl-p-anisidine

[34282-29-6]

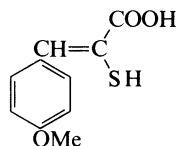
C₉H₁₁NO₂S M 197.257Used for photometric detn. of Se (λ_{\max} 360 nm, ϵ 1800).

Cryst. (MeOH aq.). Sol. MeOH, EtOH. Mp 115-116°.

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 360 (*synth, detn, Se*)Busev, A.I., *Talanta*, 1969, **11**, 485 (*detn, Se*)**2-Mercapto-3-(4-methoxyphenyl)-2-propenoic acid, 9CI**

M-00034

[5740-35-2]

C₁₀H₁₀O₃S M 210.253

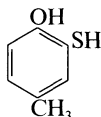
Used as 1% EtOH soln. for extraction-photometric detn. of Ni (λ_{\max} 410 nm, ϵ 9500, isopentanol). Cryst. (C_6H_6). Sol. EtOH, Me_2CO ; sl. sol. C_6H_6 , Mp 178-179°.

Izquierdo, A. *et al*, *Analyst (London)*, 1984, **109**, 605 (*synth, detn, Ni*)

2-Mercapto-4-methylphenol, 9CI**M-00035**

2-Hydroxy-5-methylthiophenol. 4-Hydroxy-3-mercaptotoluene

[60774-07-4]

 C_7H_8OS M 140.206

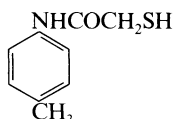
Used as 3mM soln. in isobutanol for extraction-photometric detn. of Cu(II) (λ_{\max} 490 nm, ϵ 25000). Liq. Sol. many org. solvs.; insol. H_2O .

Karaev, Z.S. *et al*, *Izv. Vyssh. Uchebn. Zaved., Khim. Khim. Tekhnol.*, 1989, **32**, 32; *CA*, **111**, 224415n (*synth, detn, Cu*)

2-Mercapto-N-(4-methylphenyl)acetamide, 9CI**M-00036**

N-(Mercaptoacetyl)-p-toluidine

[34282-30-9]

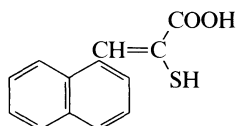
 $C_9H_{11}NOS$ M 181.258

Used as 0.2% soln. in EtOH for photometric detn. of Sc (λ_{\max} 360 nm, ϵ 520). Cryst. (MeOH aq.). Sol. EtOH. Mp 125°.

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 360 (*synth, detn, Sc*)
Busev, A.I. *et al*, *Talanta*, 1964, **11**, 485 (*detn, Sc*)

2-Mercapto-3-(1-naphthalenyl)-2-propenoic acid, 9CI**M-00037**

[88220-26-2]

 $C_{13}H_{10}O_2S$ M 230.287

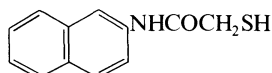
Used as 0.1-1% EtOH solns. to give colour reactions with Ti, Ni, Co, V, Cu. Cryst. (toluene). Sol. EtOH, C_6H_6 , toluene; sl. sol. H_2O . Mp 178°. pK_{a1} 4.18; pK_{a2} 9.80 (25%, $\mu = 0.2M$ EtOH aq.).

Campaigne, E. *et al*, *J. Org. Chem.*, 1956, **21**, 32 (*synth*)
Izquierdo, A. *et al*, *Talanta*, 1984, **31**, 475 (*use*)

2-Mercapto-N-2-naphthylacetamide, 8CI**M-00038**

2-Mercapto-N-2-naphthalenylacetamide, 9CI. N-(Mercaptoacetyl)-2-naphthylamine. Thioglycollic β -aminonaphthalide. Thionalide

[93-42-5]

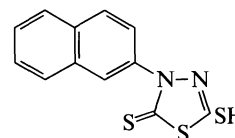
 $C_{12}H_{11}NOS$ M 217.291

Corrosion inhibitor. Used as 5% soln. in Me_2CO for pptn. separation and gravimetric detn. of Cu, Ag, Hg, Bi, Pb, Sb, Os, Tl. Cryst. Sol. EtOH, Me_2CO , AcOH; sl. sol. H_2O . Mp 111-112°.

U.S.S.R. *Pat.*, 47 296, (1936); *CA*, **33**, 3392 (*synth*)Berg, R. *et al*, *Fresenius' Z. Anal. Chem.*, 1937, **109**, 305; 1938, **112**, 161 (*detn, Tl, Bi, W, Sb*)Hoffman, I. *et al*, *Anal. Chem.*, 1953, **25**, 1091 (*detn, Os*)Cimerman, C. *et al*, *Anal. Chim. Acta*, 1956, **14**, 48; **15**, 213 (*detn, Pb, Tl*)Nakaya, S., *CA*, 1974, **83**, 104209e (*uv*)**5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione****M-00039**

3-(2-Naphthalenyl)-1,3,4-thiadiazolidine-2,5-dithione, 9CI. Naphthylobismuthiol. Bismuthiol III

[15546-36-8]

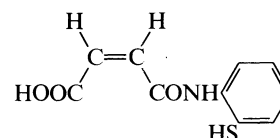
 $C_{12}H_8N_2S_3$ M 276.407

Used as 0.1% aq. soln. for extraction-photometric detn. of Te (λ_{\max} 326 nm, ϵ 30000, $CHCl_3$), amperometric titrn. of Au. Cryst. (C_6H_6). Sol. EtOH, C_6H_6 , $CHCl_3$, alkalis; spar. sol. H_2O . Mp 158°.

K salt: Used as a 0.1-1mM aq. soln. for extraction-photometric detn. of Bi (λ_{\max} 325 nm, ϵ 29700, $CHCl_3$), Pd (λ_{\max} 345 nm, ϵ 21000, cyclohexane), Te (λ_{\max} 326 nm, ϵ 30000, $CHCl_3$). Yellow cryst. (EtOH). Sol. H_2O .

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1850; 1968, **23**, 59;1972, **27**, 1209; 1974, **29**, 1234 (*synth, detn, Te, Au, Bi, Pd*)Busev, A.I. *et al*, *CA*, 1970, **72**, 128316m (*detn, Te*)Nazarenko, I.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1389 (*detn, Te*)**4-[(2-Mercaptophenyl)amino]-2-butenoic acid, 9CI****M-00040**

2'-Mercaptomaleanilic acid

 $C_{10}H_9NO_3S$ M 223.252**(Z)-form** [90704-68-0]

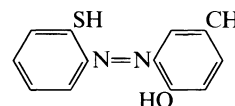
Used as 1% aq. soln. for gravimetric detn. of Zr (pH 5.5-6.8), Th. Cryst. Sol. alkalis; mod. sol. H_2O .

Singh, N. *et al*, *J. Indian Chem. Soc.*, 1984, **61**, 94 (*synth, detn, Zr, Th*)

2-[(3-Mercaptophenyl)azo]-4-methylphenol, 9CI**M-00041**

2-Hydroxy-2'-mercapto-5-methylazobenzene

[85261-26-3]

 $C_{13}H_{12}N_2OS$ M 244.317

Used as CHCl_3 soln. for extraction-photometric detn. of $\text{Cu}(II)$ (λ_{max} 570 nm, ϵ 35800, CHCl_3). Yellow powder. Sol. C_6H_6 , CHCl_3 , EtOH. Mp 121-123°.

S-Me: [85261-27-4]. 4-Methyl-2-[[2-(methylthio)phenyl]azo]phenol, 9CI

$\text{C}_{14}\text{H}_{14}\text{N}_2\text{OS}$ M 258.343

Used as EtOH soln. for photometric detn. of $\text{Cu}(II)$ (λ_{max} 520 nm, ϵ 14000), Ni. Orange-red needles (MeOH). Sol. EtOH, MeOH, C_6H_6 . Mp 103-104°.

S-Benzyl: [65568-49-2]. 4-Methyl-2-[[2-[(phenylmethyl)thio]phenyl]azo]phenol, 9CI

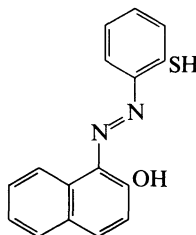
$\text{C}_{20}\text{H}_{18}\text{N}_2\text{OS}$ M 334.441

Used as EtOH soln. for photometric detn. of $\text{Cu}(II)$ (λ_{max} 520 nm, ϵ 10600), Ni. Orange-red needles (EtOH). Sol. EtOH, MeOH. Mp 101-102°.

Pringle, D.L. *et al*, *Talanta*, 1982, **29**, 1097 (*synth*, detn. Cu)

1-[(2-Mercaptophenyl)azo]-2-naphthalenol, 9CI M-00042

[81711-02-6]



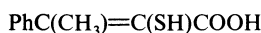
$\text{C}_{16}\text{H}_{12}\text{N}_2\text{OS}$ M 280.350

Used as EtOH soln. for photometric detn. of $\text{Fe}(III)$ (λ_{max} 525 nm, ϵ 38300). Reddish-orange powder. Sol. C_6H_6 , EtOH. Mp 113-114° (118°).

Pringle, D.L. *et al*, *Talanta*, 1982, **29**, 1097 (*synth*, use)

2-Mercapto-3-phenyl-2-butenic acid, 9CI M-00043

[93628-49-0]



$\text{C}_{10}\text{H}_{10}\text{O}_2\text{S}$ M 194.254

Used as soln. in 6% EtOH for extraction-photometric detn. of Ti (λ_{max} 439 nm, ϵ 16500). Cryst. Sol. EtOH, C_6H_6 ; sl. sol. H_2O .

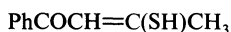
Izquierdo, A. *et al*, *An. Quim.*, 1983, **79**, 254 (*synth*)

Izquierdo, A. *et al*, *Mikrochim. Acta*, 1984, **2**, 331.

Izquierdo, A. *et al*, *Microchem. J.*, 1985, **31**, 251 (*detn*, Ti)

3-Mercapto-1-phenyl-2-buten-1-one, 9CI M-00044

[4394-99-4]



$\text{C}_{10}\text{H}_{10}\text{OS}$ M 178.254

Used for extraction-photometric detn. of Ag (λ_{max} 370 nm, ϵ 12000, C_6H_6 /butanol). Sol. EtOH, Me_2CO .

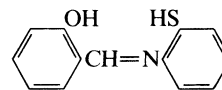
[65581-05-7]

Murti, M.V.R. *et al*, *Chem. Era*, 1978, **13**, 404; *CA*, **89**, 19041 (*detn*, Ag)

N-[(2-Mercaptophenyl)imino]methyl]phenol, 9CI M-00045

N-(2-Hydroxybenzylidene)-2-mercaptoaniline. 2-Hydroxybenzaldehyde 2-mercaptoanil. Salicylaldehyde 2-mercaptoanil. 2-Mercapto-N-salicylideneaniline

[3449-05-6]



$\text{C}_{13}\text{H}_{11}\text{NOS}$ M 229.302

Used as a 0.5% soln. in EtOH for photometric detn. of Pt(IV) (λ_{max} 725 nm, ϵ 52600), Sn(II), extraction-photometric detn. of Zn (λ_{max} 415 nm, ϵ 10700). Cryst. (EtOH). Sol. acids, Me_2CO ; sl. sol. EtOH, MeOH. Mp 133-136°, Mp 137-139°.

Gregory, G.R. *et al*, *Analyst (London)*, 1967, **92**, 293 (*synth*, detn. Sn)

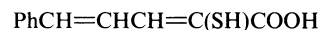
Ishii, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1971, **20**, 1018 (*detn*, Zn)

Bag, S. *et al*, *Indian J. Chem., Sect. A*, 1977, **15**, 543 (*detn*, Pt)

2-Mercapto-5-phenyl-2,4-pentadienoic acid, 9CI M-00046

3-Styryl-2-mercaptoacetic acid

[15289-17-5]



$\text{C}_{11}\text{H}_{10}\text{O}_2\text{S}$ M 206.265

Used as 0.1-1% EtOH solns. for colour reactions with Ti, Ni, Co, V, Cu. Cryst. (toluene). Sol. EtOH, C_6H_6 , toluene; sl. sol. H_2O . Mp 159°. $\text{p}K_{a1}$ 4.34; $\text{p}K_{a2}$ 8.91 (25°, $\mu = 0.2$, EtOH aq.).

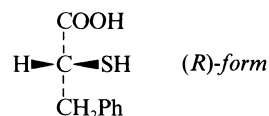
Campaigne, E. *et al*, *J. Org. Chem.*, 1956, **21**, 32 (*synth*)

Izquierdo, A. *et al*, *Talanta*, 1984, **31**, 475 (*use*)

2-Mercapto-3-phenylpropanoic acid M-00047

α -Mercaptobenzenepropanoic acid, 9CI. α -Mercaptohydrocinnamic acid, 8CI

[90536-15-5]



$\text{C}_9\text{H}_{10}\text{O}_2\text{S}$ M 182.243

(R)-form [84800-12-4]

$[\alpha]_D^{20} -9.5^\circ$ (c, 1 in MeOH) (o.p. 93%).

Me ester: [103499-59-8].

$\text{C}_{10}\text{H}_{12}\text{O}_2\text{S}$ M 196.270

Bp₂ 100-105°.

(±)-form [72772-24-8]

Used as EtOH soln. to give colour reactions with Cu, Pd, Mo, Fe, Co, Ni. Cryst. (pet. ether). Sol. EtOH, C_6H_6 , pet. ether. Mp 48-49°, 47-48. Bp_{4.5} 146-150°. $\text{p}K_{a1}$ 3.96; $\text{p}K_{a2}$ 10.5 (25°, $\mu = 0.1$).

Fischer, E. *et al*, *Ber.*, 1914, **47**, 2469 (*synth*)

Schöberl, A. *et al*, *Justus Liebigs Ann. Chem.*, 1936, **522**, 97 (*synth*)

Ravazzoni, C. *et al*, *Ann. Chim. (Rome)*, 1962, **52**, 305 (*synth*)

Izquierdo, A. *et al*, *Talanta*, 1985, **32**, 669 (*reactions*)

Strijtveen, B. *et al*, *J. Org. Chem.*, 1986, **51**, 3664 (*synth*)

3-Mercapto-3-phenylpropanoic acid**M-00048**

β-Mercaptobenzenepranoic acid, 9CI. *β*-Mercaptohydrocinnamic acid, 8CI
[7328-39-4]



C₉H₁₀O₂S M 182.243

(±)-form

Used as a 1mM aq. soln. for photometric detn. of Co (λ_{max} 360 nm, ϵ 7090). Cryst. (H₂O). Mod. sol. H₂O; sol. alkalis. Mp 108°, Mp 111.5-112.5°. p*K*_{a1} 4.92; p*K*_{a2} 9.89.

Me ester: [7328-40-7].

C₁₀H₁₂O₂S M 196.270

Used as a 0.5% soln. in EtOH for photometric detn. of Ni (λ_{max} 455 nm, ϵ 7500, CHCl₃), Pd (λ_{max} 412 nm, ϵ 13700, EtOAc). Sol. common org. solvs. Bp 135-136.5°, Bp₈ 124°.

Et ester: [7328-41-8].

C₁₁H₁₄O₂S M 210.296

Used as a 0.5% soln. in EtOH for photometric detn. of Ni (λ_{max} 455 nm, ϵ 8200, CHCl₃), Pd (λ_{max} 412 nm, ϵ 12600, C₆H₆). Sol. common org. solvs. Bp₆ 157°.

Butyl ester: [7328-43-0].

C₁₃H₁₈O₂S M 238.350

Used as a 0.5% soln. in EtOH for photometric detn. of Ni (λ_{max} 455 nm, ϵ 9200, CHCl₃), Pd (λ_{max} 414 nm, ϵ 17000, C₆H₆). Sol. common org. solvs. Bp_{0.5} 149-150°.

2-Methylpropyl ester: [7328-44-1].

C₁₃H₁₈O₂S M 238.350

Used as a 0.5% soln. in EtOH for photometric detn. of Ni (λ_{max} 455 nm, ϵ 9000, CHCl₃). Sol. common org. solvs.

Pentyl ester: [7328-45-2].

C₁₄H₂₀O₂S M 252.377

Used as a 0.5% soln. in EtOH for photometric detn. of Ni (λ_{max} 455 nm, ϵ 9500, CHCl₃), Pd (λ_{max} 415 nm, ϵ 14400, C₆H₆). Sol. common org. solvs. Bp_{0.8} 154°.

3-Methylbutyl ester: [7328-46-3].

C₁₄H₂₀O₂S M 252.377

Used as a 0.5% soln. in EtOH for photometric detn. of Ni (λ_{max} 455 nm, ϵ 9600, CHCl₃), Pd (λ_{max} 414 nm, ϵ 17900, C₆H₆). Sol. common org. solvs. Bp_{0.5} 155°.

Ph ester: [14044-80-5].

C₁₅H₁₄O₂S M 258.340

Used as a 0.5% soln. in EtOH for photometric detn. of Ni (λ_{max} 455 nm, ϵ 5000, CHCl₃), Pd. Sol. common org. solvs.

Fischer, E. *et al*, *Ber.*, 1914, **47**, 2469 (*synth*)

Tanaka, H. *et al*, *Chem. Pharm. Bull.*, 1961, **9**, 66 (*synth*)

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 976, 1208, 1347; 1966, **21**, 1082, 1311 (*synth*, p*K*_a, detn., Ni, Pd, Co)

2-Mercapto-3-phenyl-2-propenoic acid, 9CI**M-00049**

α-Mercaptocinnamic acid, 8CI

[5740-34-1]



C₉H₈O₂S M 180.227

Used as EtOH soln. to give colour reactions with Cu, Pd, Mo, Fe, Co, Ni, Mn, Ti. Cryst. (C₆H₆). Sol. EtOH, C₆H₆, pet. ether. Mp 133-134°, 134-135°. p*K*_{a1} 3.77; p*K*_{a2} 8.98 (25°, $\mu = 0.1$).

S-Me: [4890-72-6].

C₁₀H₁₀O₂S M 194.254

Mp 94-96°.

Campaigne, E. *et al*, *J. Org. Chem.*, 1956, **21**, 32 (*synth*)

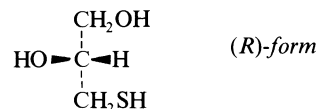
Owen, T.C. *et al*, *J. Chem. Soc.*, 1962, 656 (*synth*)

Izquierdo, A. *et al*, *Talanta*, 1985, **32**, 669 (*reactions*)

3-Mercapto-1,2-propanediol, 9CI**M-00050**

Thiovanol. 1-Thioglycerol

[96-27-5]



C₃H₈O₂S M 108.161

Used as 1% aq. soln. in indirect alkalimetric detn. of Hg(II); as 0.1M aq. soln. for photometric detn. of Pd. Liq. Sol. H₂O. d 1.295. Bp₅ 118°. n_{D}^{20} 1.5260.

▷ TY8140000.

(R)-form [16495-21-9]

Bp_{0.9} 102°. [α]_D²⁵ -8° (c, 11 in EtOH).

(S)-form

S-Ph: 3-Phenylthio-1,2-propanediol

C₉H₁₂O₂S M 184.259

Chiral intermediate. Cryst. (C₆H₆). Mp 89-90°. [α]_D²³ +20.7° (c, 0.996 in EtOH).

(±)-form [53023-42-0]

Bp₁₅ 136-139°. p*K*_{a1} 9.46 (25°, 0.1M NaCl).

Tri-Ac:

C₉H₁₄O₅S M 234.273

Bp_{0.01} 120-140°.

[5149-48-4]

Smith, L. *et al*, *Ber.*, 1936, **69**, 678 (*synth*)

Sjoberg, B., *Ber.*, 1942, **75**, 13 (*synth*)

Burke, R.W. *et al*, *Talanta*, 1963, **10**, 1267 (*detn*, Pd)

Anisuzzaman, A.K.M. *et al*, *J. Chem. Soc. C*, 1967, 1021 (*synth*)

Netherlands Pat., 6 510 637, (1967); *CA*, **67**, 53674n (*synth*)

Fujisawa, T. *et al*, *Tetrahedron Lett.*, 1985, **26**, 771 (*synth*, use, deriv)

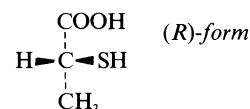
Verma, K.K. *et al*, *Talanta*, 1988, **35**, 725 (*detn*, Hg)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MRM750.

2-Mercaptopropanoic acid, 9CI**M-00051**

Thiolactic acid

[79-42-5]



C₃H₆O₂S M 106.145

▷ UF5250000.

(R)-form [33178-96-0]

Oil. Bp₁₆ 95-100°. [α]_D²³ +56.4° (c, 5 in EtOAc). Optically pure.

Et ester: [103616-07-5].

C₈H₁₀O₂S M 134.199

Liq. Bp₁₅ 75°. [α]_D²² +60.5° (c, 3 in CHCl₃). >98% e.e.

S-Benzoyl: [33179-02-1].

C₁₀H₁₀O₃S M 210.253

Needles (cyclohexane). Mp 62.5-63°. [α]_D²³ +102.0° (c, 3.5 in CHCl₃).

Et ester, S-Ac: [78560-77-7].

C₇H₁₂O₃S M 176.236

Oil. Bp₇ 50°. [α]_D²⁰ +137.5° (c, 3 in CHCl₃). Optically pure.

(S)-form [57965-30-7]Oil. $d_{19.2}^{15}$ 1.19. $[\alpha]_{D}^{15}$ –45.47°.**(±)-form** [71563-86-5]Used in depilatory and hair-wave preparations. Used for photometric detn. of Mo (λ_{\max} 365 nm, pH 1-1.6). Oil with disagreeable odour. Sol. H₂O, EtOH, Et₂O. d_4^{15} 1.22. Mp ca. 10°. Bp₂₀ 110-115°, Bp₁₄ 98.5-99°. pK_{a1} 3.63; pK_{a2} 10.24 (20°).*Me ester, S-Me ether*: [61366-76-5].C₅H₁₀O₂S M 134.199

Mp 272°.

Et ester: [66707-26-4].Liq. Spar. sol. H₂O.*S-Ac*: [6431-92-1].C₅H₈O₃S M 148.182Bp₃ 55°.*Amide*:C₃H₇NOS M 105.160

Mp 123-124°.

S-Me: [58809-73-7]. 2-(Methylthio)propanoic acid, 9CIC₄H₈O₂S M 120.172Mp 17.3°. Bp₉ 106.5°. Known also in opt. active forms.*Anilide*: [67201-68-7]. 2-Mercapto-N-phenylpropanamide, 9CIC₉H₁₁NOS M 181.258Used for extraction-photometric detn. of Pd (λ_{\max} 405 nm, ϵ 12500, CHCl₃). Cryst.Billmann, E., *Justus Liebigs Ann. Chem.*, 1906, **348**, 120 (*synth*)Mellander, A., *Ark. Kemi, Sect. B*, 1936, **12**, 27; *Ark. Kemi, Sect. A*, 1937, **12**, 16 (*deriv*)Eugster, C.H. *et al*, *Helv. Chim. Acta*, 1962, **45**, 1750 (*synth*)Solladié-Cavallo, A. *et al*, *Bull. Soc. Chim. Fr.*, 1967, 517 (*synth, ir*)Scopes, P.M. *et al*, *J. Chem. Soc. C*, 1971, 1671 (*cd, abs config*)Fritz, J.S. *et al*, *Talanta*, 1972, **19**, 366 (*detn, Mo*)Nacu, A. *et al*, *Rev. Roum. Chim.*, 1977, **28**, 1091 (*detn, Pd*)Skiles, J.W. *et al*, *J. Med. Chem.*, 1986, **29**, 784 (*derivs*)Strijtveen, B. *et al*, *J. Org. Chem.*, 1986, **51**, 3664 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TFK250.**3-Mercaptopropanoic acid, 9CI****M-00052***Thiohydracrylic acid*

[107-96-0]

HSCH₂CH₂COOHC₃H₆O₂S M 106.145Used for photometric detn. of Re(VII) (λ_{\max} 470 nm, ϵ 13500). Cryst. Sol. H₂O, EtOH, Et₂O. Mp 16.8°. Bp₁₃ 114-115.5°, Bp₃ 85-86°. pK_{a1} 4.38; pK_{a2} 10.38 (25°).

▷ UF5270000.

Me ester: [2935-90-2].C₄H₈O₂S M 120.172Bp₂₀ 67-68°.*S-Me*: [646-01-5]. 3-Methylmercaptopropanoic acid. 3-Methylthiopropionic acid. Methylthiohydracrylic acidC₄H₈O₂S M 120.172Bp_{0.5} 102-104°.*S-Me, Me ester*: [13532-18-8].C₅H₁₀O₂S M 134.199Bp₁₁ 69°.*Anilide*: [10220-66-3]. 3-Mercapto-N-phenylpropanamide, 9CIC₉H₁₁NOS M 181.258Used as a 5% soln. in MeOH for extraction-photometric detn. of Pd (λ_{\max} 400 nm, ϵ 4500, CHCl₃). Cryst.Billmann, E., *Justus Liebigs Ann. Chem.*, 1906, **348**, 120 (*synth*)Holmberg, B., *Ark. Kemi, Sect. B*, No. 7, 1945, **21** (*deriv*)Cheney, L.C. *et al*, *J. Am. Chem. Soc.*, 1945, **67**, 731 (*synth*)Danehy, J.P. *et al*, *J. Org. Chem.*, 1967, **32**, 1491 (*synth*)Talipova, L.L. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 106 (*detn, Re*)Nacu, A. *et al*, *Rev. Roum. Chim.*, 1977, **28**, 1091 (*detn, Pd*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MCC000.**3-Mercapto-1-propanol, 9CI****M-00053**

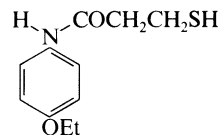
[19721-22-3]

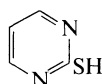
HOCH₂CH₂CH₂SHC₃H₈OS M 92.162

Derivatization reagent in hplc. anal. of primary amines.

Bp₁₄ 87°, Bp₉ 72-73°.*O-Ac*: [26473-61-0].C₅H₁₀O₂S M 134.199Bp₂₀ 87°, Bp_{1.5} 58°.*S-Ac*:C₅H₁₀O₂S M 134.199Bp₄ 92°, Bp_{0.3} 57°.*Di-Ac*:C₇H₁₂O₃S M 176.236Bp₁₉ 120-121°.*S-Me*: [505-10-2]. 3-Methylthio-1-propanol. 3-*Hydroxypropyl methyl sulfide*C₄H₁₀OS M 106.188Aroma constit. of wines etc., fermentation prod. of *Saccharomyces cerevisiae*. Bp₁₃ 89-90°, Bp₆ 72-72.5°.*S-Me, O-Ac*: [16630-55-0].C₆H₁₂O₂S M 148.226Bp₁₄ 96°.*O-Et*: [33441-49-5]. Ethyl 3-mercaptopropyl ether. 3-*Ethoxypropanethiol*C₅H₁₂OS M 120.215Bp₂₅ 55-57°.*S-Et*: [18721-61-4]. 3-Ethylthio-1-propanol. Ethyl 3-*hydroxypropyl sulfide*C₅H₁₂OS M 120.215Bp₁₅ 104°, Bp₁₀ 98-99°.*Disulfide*: [30453-21-5]. 3,3'-Dithiobis-1-propanol, 9CI. 3,3'-*Dithiodipropyl sulfide*C₆H₁₄O₂S₂ M 182.307Bp_{0.8} 160°.Sjöberg, B., *Chem. Ber.*, 1942, **75**, 13 (*disulfide*)Djerassi, C. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 3704 (*synth*)Harding, J.S. *et al*, *J. Chem. Soc.*, 1954, 1536 (*synth*)Truce, W.E. *et al*, *J. Org. Chem.*, 1961, **26**, 1463 (*deriv*)Stobaugh, J.F. *et al*, *Anal. Biochem.*, 1983, **135**, 495 (*use*)Doi, J.T. *et al*, *J. Org. Chem.*, 1985, **50**, 5716 (*disulfide*)Evans, B.J. *et al*, *J. Org. Chem.*, 1990, **55**, 2580 (*disulfide*)**3-Mercapto-*p*-propionophenetidine, 8CI****M-00054***β*-Mercaptopropionic acid *p*-phenetidine. *β*-Merprofen

[22919-65-9]

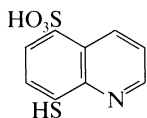
C₁₁H₁₅NO₂S M 225.311Used as 1% aq. soln. for extraction-photometric detn. of Co. Cryst. Sol. H₂O, EtOH. Mp 108°.Nacu, A. *et al*, *CA*, 1969, **70**, 83943d; 1971, **75**, 44578x (*synth, detn, Co*)

2-Mercapto-*N*-2-pyridinylacetamide, 9CI **M-00055**2-(Mercaptoacetamido)pyridine
[66278-86-2]C₇H₈N₂OS M 168.219Used as a soln. in 30% EtOH for photometric detn. of Pd (λ_{\max} 440 nm, ϵ 30500); extraction-photometric detn. of Ag (λ_{\max} 425 nm, ϵ 11500, CCl₄). Cryst. (EtOH aq.). Sol. EtOH, Me₂CO.Mathur, S.P., *Chem. Anal. (Warsaw)*, 1977, **22**, 819; 1979, **24**, 921 (synth, detn, Pd, Ag)**2-Mercaptopyrimidine** **M-00056**2-Pyrimidinethiol, 9CI. 2(1H)-Pyrimidinethione, 9CI
[1450-85-7]C₄H₄N₂S M 112.155

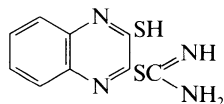
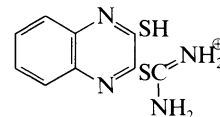
Gives colour reaction with Pd, Pt. Yellow needles. Mp 230° dec., Mp 218-219° (sealed tube).

Boarland, M.P.V. *et al*, *J. Chem. Soc.*, 1951, 1218 (synth) *Org. Synth.*, 1963, **43**, 68 (synth)Izquierdo, A. *et al*, *Inf. Quim. Anal.*, 1971, **25**, 203 (use)Turner, C.J. *et al*, *Org. Magn. Reson.*, 1976, **8**, 357 (cmr)Rye, R.T.B. *et al*, *Can. J. Chem.*, 1984, **62**, 2340 (ms)Goel, R.K. *et al*, *Indian J. Pure Appl. Phys.*, 1985, **23**, 344 (ir, raman, uv)**8-Mercapto-5-quinolinesulfonic acid** **M-00057**

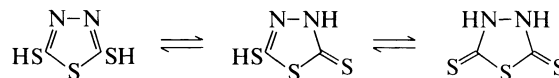
[5825-36-5]

C₉H₇NO₃S₂ M 241.291

Copper-coloured needles.

S-(2-Propenyl): [42166-62-1]. 8-(2-Propenylthio)-5-quinolinesulfonic acid, 9CI. 5-SulfoallthioxC₁₂H₁₁NO₃S₂ M 281.356Used as 1-3mM soln. in 50% EtOH for photometric detn. of Rh (λ_{\max} 430 nm, ϵ 7400). Cryst. (EtOH) (as Na salt). Sol. EtOH, H₂O.Vogt, K.H. *et al*, *J. Prakt. Chem.*, 1966, **31**, 240 (synth)Bankovskis, J. *et al*, *CA*, 1968, **68**, 114392p (synth)Dedkov, Yu.M. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 2367 (synth, deriv, detn, Rh)**2-(3-Mercapto-2-quinoxaliny)-2-thiopseudourea, 8CI** **M-00058**C₉H₈N₄S₂ M 236.321*B*, *HCl*: [21659-28-9].Used as a 0.1% soln. in aq. EtOH for simultaneous photometric detn. of Co, Ni. Golden-yellow cryst. (EtOH). Sl. sol. H₂O, EtOH. Mp 273° dec.Dalziel, J.A.W. *et al*, *Talanta*, 1968, **15**, 367 (synth, use)***S*-(3-Mercapto-2-quinoxaliny)thiuronium(1+)** **M-00059**C₉H₉N₄S₂⁺ M 237.329 (ion)

Chloride:

C₉H₉ClN₄S₂ M 272.782Used as a 0.1% soln. in aq. EtOH for simultaneous photometric detn. of Co (λ_{\max} 472 nm, ϵ 35500) and Ni (λ_{\max} 520 nm, ϵ 20800). Yellow cryst. (EtOH). Spar. sol. H₂O (0.46 g per 100 cm³, 20°), EtOH (0.34 g per 100 cm³, 20°). Mp 273° dec.Dalziel, J.A.W. *et al*, *Talanta*, 1968, **15**, 367 (detn, Co, Ni)**5-Mercapto-1,3,4-thiadiazoline-2-thione** **M-00060**1,3,4-Thiadiazolidine-2,5-dithione, 9CI. 2,5-Dimercapto-1,3,4-thiadiazole. Bismuthiol I. Bismuthone I
[1072-71-5]C₂H₂N₂S₃ M 150.249

5-Mercapto-2-thione-form predominates in solid phase.

Used as 1mM aq. soln. for photometric detn. of Pt, Pd, Os, Cu (λ_{\max} 428 nm); undergoes colour reactions with and used to ppt. Bi, Se, Te, Au, Pd. Yellow cryst. (MeOH). Sol. H₂O. Mp 168°.

► Irritant. XI3850000.

Di-K salt: [4628-94-8].

Cryst. Mp 274-276° dec.

S-Me: [6264-40-0]. 5-Methylthio-1,3,4-thiadiazole-2(3H)-thione, 9CI. 2-Mercapto-5-(methylthio)-1,3,4-thiadiazole
C₃H₄N₂S₃ M 164.276Cryst. (H₂O). Mp 136-137°.*S-Di-Me*: [7653-69-2]. 2,5-Bis(methylthio)-1,3,4-thiadiazole, 9CIC₄H₆N₂S₃ M 178.303Bp_{0.3} 95°.*3-Me*: [29546-26-7]. 3-Methyl-1,3,4-thiadiazolidine-2,5-dithione, 9CIC₃H₄N₂S₃ M 164.276Cryst. (Et₂O). Mp 65-66°.*N³,S-Di-Me*: [33682-80-3]. 3-Methyl-5-(methylthio)-1,3,4-thiadiazole-2(3H)-thione, 9CIC₄H₆N₂S₃ M 178.303

Cryst. (EtOH). Mp 81-82°.

N³-Phenyl: [17654-88-5]. Bismuthiol II. 5-Mercapto-3-phenyl-1,3,4-thiadiazole-2-thione. 3-Phenyl-1,3,4-thiadiazolidine-2,5-dithione, 9CI. Bismuthone IIC₈H₆N₂S₃ M 226.347Used as 0.25% aq. soln. for photometric detn. of Te (λ_{\max} 330 nm, ϵ 36000); also in pptn. and colour reactions with Bi, Fe, Os, Re. Yellow needles. Sol. H₂O, EtOH. Mp 245-247.5°.*N³-p-Benzenesulfonic acid*: [100499-11-4]. Bismuthiol II sulfonic acid. 4-(2,5-Dithioxo-1,3,4-thiadiazolidin-3-yl) benzenesulfonic acid

$C_8H_6N_2O_3S_4$ M 306.411

Used as dipotassium salt for extraction-chromatographic separation of Se(IV) from Se(VI). Cryst. (H_2O) (as di-K salt). Sol. H_2O (di-K salt).

N-(2-Naphthalenyl): see 5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione, M-00039 [21701-41-7]

Busch, M., *Ber.*, 1894, **27**, 2507 (synth)

Busch, M. et al, *J. Prakt. Chem.*, 1899, **60**, 25 (synth, deriv)

Losanitsch, S.M., *J. Chem. Soc.*, 1922, 2542 (synth, deriv)

Majumdar, A.K. et al, *Anal. Chim. Acta*, 1958, **19**, 372; 1972, **62**, 223 (use, Pd, Au)

Thorn, G.D., *Can. J. Chem.*, 1960, **38**, 1439 (tautom, deriv)

Jankovsky, J. et al, *Talanta*, 1960, **5**, 238 (detr, Te)

Cheng, K.L., *Talanta*, 1961, **8**, 301 (detr, Te)

Stanovnik, B. et al, *Croat. Chem. Acta*, 1965, **37**, 17 (tautom, deriv, w, ir)

Yoshida, H. et al, *Talanta*, 1966, **13**, 185 (detr, Te)

Busev, A.I. et al, *Zh. Anal. Khim.*, 1967, **22**, 1850; 1968, **23**, 59; 1970, **25**, 1880; 1974, **29**, 1986 (use, Bi, Au)

Gregorowicz, Z. et al, *Fresenius' Z. Anal. Chem.*, 1968, **239**, 87 (detr, Pd, Pt, Os)

Fogg, A.G. et al, *Anal. Chim. Acta*, 1969, **45**, 196; **47**, 151 (detr, Fe)

Klima, Z. et al, *CA*, 1973, **78**, 118845t (detr, Cu)

Bats, J.W., *Acta Crystallogr., Sect. B*, 1976, **32**, 2866 (cryst struct)

Bottini, F. et al, *Org. Magn. Reson.*, 1981, **16**, 1 (deriv, synth, struct)

Cheng, K.L. et al, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 411 (use)

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 557.

Pappalardo, S. et al, *J. Org. Chem.*, 1987, **52**, 405 (deriv, pmr, cmr, props)

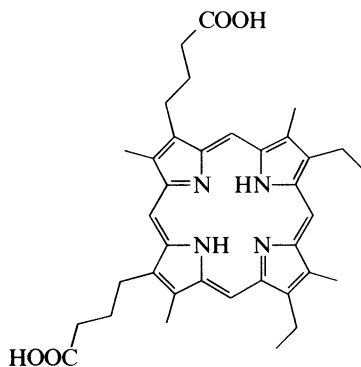
Nakayama, M. et al, *Talanta*, 1987, **34**, 435 (synth, use, Bismuthiol II sulfonic acid)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MCP500, TES250.

Mesoporphyrin IX

M-00061

7,12-Diethyl-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoic acid



$C_{36}H_{42}N_4O_4$ M 594.752

Used as 0.25mM DMF soln. for fluorimetric detn. of Zn (λ_{max} 580 nm, EtOH). Cryst. Sol. DMF, EtOH, Me_2CO , dioxan, $CHCl_3$.

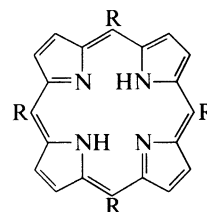
Falseva, O.A. et al, *Zh. Anal. Khim.*, 1988, **43**, 827 (synth, detn, Zn)

Mesotetraethylporphine

M-00062

5,10,15,20-Tetraethyl-21H,23H-porphine, 9CI

[28924-87-0]



R = CH_2CH_3

$C_{28}H_{30}N_4$ M 422.572

Used as 0.25mM DMF soln. for fluorimetric detn. of Zn (λ_{max} 612 nm, EtOH). Cryst. Sol. DMF, EtOH, Me_2CO , dioxan, $CHCl_3$.

Falseva, O.A. et al, *Zh. Anal. Khim.*, 1988, **43**, 827 (synth, detn, Zn)

Mesotetraisobutylporphine

M-00063

5,10,15,20-Tetrakis(2-methylpropyl)-21H,23H-porphine, 9CI

[98630-04-7]

As Mesotetraethylporphine, M-00062 with

R = $CH_2CH(CH_3)_2$

$C_{36}H_{46}N_4$ M 534.786

Used as 0.25mM DMF soln. for fluorimetric detn. of Zn (λ_{max} 610 nm, EtOH). Cryst. Sol. DMF, EtOH, Me_2CO , dioxan, $CHCl_3$.

Falseva, O.A. et al, *Zh. Anal. Khim.*, 1988, **43**, 827 (synth, detn, Zn)

Mesotetraoctylporphine

M-00064

5,10,15,20-Tetraoctyl-21H,23H-porphine, 9CI

[57134-50-6]

As Mesotetraethylporphine, M-00062 with

R = $(CH_2)_7CH_3$

$C_{52}H_{78}N_4$ M 759.215

Used as 0.25mM DMF soln. for fluorimetric detn. of Zn (λ_{max} 618 nm, EtOH). Cryst. Sol. DMF, EtOH, Me_2CO , dioxan, $CHCl_3$.

Falseva, O.A. et al, *Zh. Anal. Khim.*, 1988, **43**, 827 (synth, detn, Zn)

Mesotetrapropylporphine

M-00065

5,10,15,20-Tetrapropyl-21H,23H-porphine, 9CI

[22112-75-0]

As Mesotetraethylporphine, M-00062 with

R = $CH_2CH_2CH_3$

$C_{32}H_{38}N_4$ M 478.679

Used as 0.25mM DMF soln. for fluorimetric detn. of Zn (λ_{max} 612 nm, EtOH). Cryst. Sol. DMF, EtOH, Me_2CO , dioxan, $CHCl_3$.

Falseva, O.A. et al, *Zh. Anal. Khim.*, 1988, **43**, 827 (synth, detn, Zn)

Methanesulfonic acid, 9CI, 8CI**M-00066***Methylsulfonic acid. Sulfomethane*

[75-75-2]

CH₄O₃S M 96.107

Reagent for ester cleavage and removal of *N*-benzyl protecting groups. Solid or liq. Sol. H₂O, EtOH, Et₂O. d₄¹⁸ 1.48. Mp 20°. Bp 122°, Bp₁₀ 167.0-167.5°. p*K*_{a1} -1.86 (25°).

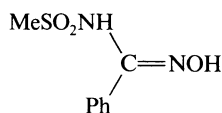
▷ Highly irritant, corrosive. PB1140000.

*NH*₄ salt: Plates. Sol. H₂O.*Me ester*: [66-27-3].C₂H₆O₃S M 110.134Liq. d₄²⁰ 1.29. Bp₇₅₃ 203°, Bp_{0,6} 59°.

▷ PB2625000.

Anhydride: [7143-01-3].C₂H₆O₅S₂ M 174.198Acylation agent. Prisms (Et₂O). Sol. CHCl₃, C₆H₆, hot Et₂O. Mp 71°. Bp₁₀ 138°.*Chloride*: [124-63-0]. *Mesyl chloride*CH₃ClO₂S M 114.552Mesylation agent, synthetic intermed. Anal. reagent for monoglycerides. Insol. H₂O. d₄¹⁸ 1.48. Bp₇₃₀ 161-161.5°, Bp₁₈ 62°.*Amide*: [3144-09-0].CH₅NO₂S M 95.122Prisms (H₂O). Mp 88°.Billeter, O.C., *Ber.*, 1905, **38**, 2015 (*derivs*)Latimer, P.H. *et al.*, *J. Org. Chem.*, 1940, **5**, 24 (*synth*)McInnes, A.G., *J. Am. Oil Chem. Soc.*, 1960, **37**, 7 (*use, chloride*)*Org. Synth.*, *Coll. Vol.*, 4, 1963, 571 (*chloride*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 667; **4**, 326; **7**, 225.Lowe, O.G., *J. Org. Chem.*, 1976, **41**, 2061 (*synth*)Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 315.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MDR250, MLH500.***N*-Methanesulfonylbenzamidoxime****M-00067***N*-Hydroxy-*N'*-(methylsulfonyl)benzenecarboximidamide,9CI. *N*-(Methylsulfonyl)benzamidoxime, 8CI

[32748-18-8]

C₈H₁₀N₂O₃S M 214.245

Used for extraction-photometric detn. of Ru(VI) (λ_{max} 640 nm, ε 3000). Cryst. Sol. Et₂O, EtOH, C₆H₆. p*K*_{a1} 6.19; p*K*_{a2} 11.9.

Klimkovich, E.A. *et al.*, *Izv. Vyssh. Uchebn. Zaved., Khim. Khim.**Tekhnol.*, 1971, **14**, 346; *CA*, **75**, 29560s (*detn, Ru*)Fedorova, N.G., *Zh. Anal. Khim.*, 1971, **26**, 664 (*use*)**Methanol, 9CI, 8CI****M-00068***Methyl alcohol. Hydroxymethane. Wood alcohol*

[67-56-1]

CH₄O M 32.042

For esters see the relevant acids. Obt. industrially from H₂ + CO and on a lesser scale from H₂ + CO₂, by oxidn. of hydrocarbons etc. Obt. by dist. of wood and possibly first identified by Boyle in 1661. Industrial solvent, raw

material for the prep. of Formaldehyde, Me esters etc. Fuel. Used to methylate acids for anal. Important industrial chemical, 21st in order of volume for USA in 1990 (production 3.99 million tons/year). Liq. Misc. H₂O, most org. solvs., part. misc. pet. ether. d₄²⁰ 0.79. Mp -97.8°. Bp 64.7°, Bp₂₀₀ 34.8°, Bp₄₀ 5°. p*K*_a 15.5 (25°). n_D²⁰ 1.3287. Dissolves many inorg. salts. Combines with CaCl₂. Crit. point 242°/78.6 atm. Forms constant-boiling mixts. with nearly all common solvs.

▷ Mod. toxic vapour, can damage eyes. Highly flammable, flash p. 10°. Violent reaction with a range of materials. PC1400000.

Na deriv.: *Sodium methoxide*

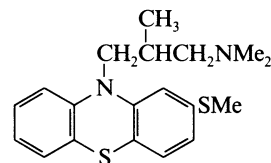
Base for dehydrohalogenations, nucleophilic displacements and condensations. Solid. Sol. pentane.

▷ Causes burns.

Rodd's Chem. Carbon Compd. (2nd Ed.), 2nd Ed., Vol 1B, 1965, 16 (*rev*)*Ger. Pat.*, 20 13 297, (1970); *CA*, **75**, 151351 (*manuf*)*Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **15**, 398 (*rev*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1980, **8**, 463.Gesser, H.D. *et al.*, *Chem. Rev.*, 1985, **85**, 235 (*rev, manuf*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 386, 479.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MGB150.**Methiopropazine, INN****M-00069**

N,N,β-Trimethyl-2-(methylthio)-10*H*-phenothiazine-10-propanamine, 9CI. 10-[3-(Dimethylamino)-2-methylpropyl]-2-(methylthio)phenothiazine, 8CI

[13405-77-1]

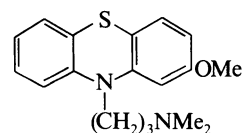
C₁₉H₂₄N₂S₂ M 344.544(–)-*form* [1759-09-7] *Levomethiopropazine, INN. Phenaceda*(±)-*form* [7009-43-0]SKF 6270. 7238 *RP*

Used as a 0.2% aq. soln. for photometric detn. of Se (λ_{max} 644 nm, ε 29800). Antiemetic, neuroleptic agent.

Yellow cryst. Sol. H₂O. Mp 88-89°. Bp_{0,1} 218-221°.*B,HCl*: Cryst. (2-propanol). Mp 173-174°.*Picrate*: Cryst. (EtOH). Mp 145°.Craig, P.N., *J. Org. Chem.*, 1960, **25**, 944 (*synth, pharmacol*)De Leenheer, A., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 105 (*uv*)Gowda, H.S. *et al.*, *Indian J. Chem., Sect. A*, 1980, **19**, 178.**Methopromazine, INN****M-00070**

2-Methoxy-*N,N*-dimethyl-10*H*-phenothiazine-10-propanamine, 9CI. Methoxypropazine. Vetamozine. Neoproma. CL 22373. FI 5631

[61-01-8]

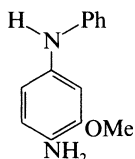
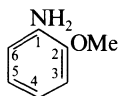
C₁₈H₂₂N₂OS M 314.451

Antipsychotic agent. Cryst. Mp 44-48°.

▷ SO7600000.

Maleate: [3403-42-7]. *Tentone*. *Mopazine*Used as 0.5% aq. soln. for extraction-photometric detn. of Pt (λ_{\max} 665 nm, ϵ 26000, $\text{CHCl}_3/\text{MeOH}$). Cryst. Sol. acids. Mp 141-145°. Dec. by light.

▷ SO7700000.

Oxalate: Cryst. Dec. at 178-9°.*Picrate*: Reddish cryst. Mp 141-142°.Charpentier, P. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1952, **235**, 59 (*synth*)U.K. Pat., 789 276, (1958); *CA*, **52**, 11966 (*synth*)Marsau, P. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 992 (*cryst struct*)Kreyenbuehl, B. *et al*, *Pharm. Acta Helv.*, 1979, **54**, 197 (*uv, ir, pmr*)Kojlo, A. *et al*, *Talanta*, 1983, **30**, 529 (*detn, Pt*)Thimmegowda, A. *et al*, *Anal. Chem.*, 1984, **56**, 358 (*detn, Pt*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MFK500, MFK750.**3-Methoxy-4-aminodiphenylamine****M-00071***2-Methoxy-N'-phenyl-1,4-benzenediamine*, 8CI
[5840-10-8] $\text{C}_{13}\text{H}_{14}\text{N}_2\text{O}$ M 214.266Used as redox indicator. Cryst. Sol. AcOH, acids, C_6H_6 , $E^\circ +0.64$ V.Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)**2-Methoxyaniline****M-00072***2-Methoxybenzenamine*, 9CI. *o-Anisidine*, 8CI. *o-Aminophenol methyl ether*. *o-Aminoanisole*
[90-04-0] $\text{C}_7\text{H}_9\text{NO}$ M 123.154Used for detn. of HCN. Yellowish liq. Sol. acids; insol. H_2O ; misc. EtOH, Et_2O , C_6H_6 . Mp 5°. Bp 225° (218-222°). pK_a 9.72 (15°). Steam-volatile.

▷ V. highly toxic by inhalation or in contact with skin, TLV 0.5, irritant. BZ5410000.

N-Ac: [93-26-5]. *2-Methoxyacetanilide*. *o-Acetanisidide* $\text{C}_9\text{H}_{11}\text{NO}_2$ M 165.191

Cryst. Mp 87-88°. Bp 303-305°.

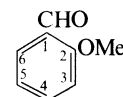
▷ AE8280000.

N-Me: [10541-78-3]. *2-Methoxy-N-methylaniline* $\text{C}_8\text{H}_{11}\text{NO}$ M 137.181Mp 33-33.5°. Bp 218-220°, Bp₁₀ 103-105°.Kozlovskii, M.T. *et al*, *Mikrochemie*, 1936, **21**, 82 (*use*)Sekiya, M. *et al*, *Chem. Pharm. Bull.*, 1966, **14**, 1007 (*deriv*)Lalancette, J.M. *et al*, *Can. J. Chem.*, 1971, **49**, 2990 (*synth*)Rosenkranz, H.J. *et al*, *Helv. Chim. Acta*, 1974, **57**, 887 (*deriv*)Gould, S.J. *et al*, *J. Am. Chem. Soc.*, 1989, **111**, 7932 (*N-Ac, synth, pmr, cmr*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 184.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AAR000, AOV900.**4-Methoxyaniline****M-00073***4-Methoxybenzenamine*, 9CI. *p-Anisidine*, 8CI. *p-Aminophenol methyl ether*. *p-Aminoanisole*
[104-94-9] $\text{C}_7\text{H}_9\text{NO}$ M 123.154Used in photometric detn. of Ce(IV). Cryst. Sol. acids, EtOH, Et_2O , C_6H_6 ; insol. H_2O . Mp 57°. Bp 246°. pK_a 8.82 (25°).

▷ V. highly toxic by inhalation and skin contact, TLV (skin) 0.5. BZ5450000.

Thiocyanate salt: Used as a metal indicator for titrimetric detn. of Fe(III). Cryst. Sol. H_2O ; insol. Et_2O , C_6H_6 .*N-Ac*: [51-66-1]. *N-(4-Methoxyphenyl)acetamide*, 9CI. *p-Acetanisidide*. *Methacetin* $\text{C}_9\text{H}_{11}\text{NO}_2$ M 165.191Antipyretic, antineuralgic. Plates (H_2O). Mp 130-132°. Bp_{0.5} 84-89°.

▷ AE8290000.

N-Me: [5961-59-1]. *4-Methoxy-N-methylaniline* $\text{C}_8\text{H}_{11}\text{NO}$ M 137.181Cryst. (pet. ether). Mp 40°. Bp₁₉ 135-136°.*N,N-Di-Me*: [701-56-4]. *4-Methoxy-N,N-dimethylaniline* $\text{C}_9\text{H}_{13}\text{NO}$ M 151.208Solid. Mp 37-38°. Bp₇₄₀ 233-234°.Thomas, D.G. *et al*, *J. Am. Chem. Soc.*, 1946, **68**, 895 (*deriv, synth*)Mann, F.G. *et al*, *J. Chem. Soc.*, 1957, 3352 (*deriv*)Grillot, G.F. *et al*, *J. Org. Chem.*, 1959, **24**, 1035 (*deriv*)Singh, B. *et al*, *Bull. Chem. Soc. Jpn.*, 1964, **37**, 1412 (*thiocyanate, use*)Staskun, B. *et al*, *J. Chem. Soc. C*, 1966, 531.Ho, T.L., *Synthesis*, 1974, 45 (*synth*)Sane, R.I. *et al*, *Indian J. Chem., Sect. A*, 1977, **15**, 160 (*detn, Ce*)Du Plessis, M.P. *et al*, *J. Org. Chem.*, 1982, **47**, 2313 (*cryst struct*)Iizuka, K. *et al*, *Chem. Pharm. Bull.*, 1984, **32**, 2560 (*synth, deriv*)Watanabe, Y. *et al*, *J. Org. Chem.*, 1984, **49**, 4451 (*synth, deriv, ir, pmr*)Gribble, G.W. *et al*, *Synthesis*, 1987, 709 (*deriv, synth, pmr*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 184.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AAR250, AOW000.**2-Methoxybenzaldehyde, 9CI****M-00074***o-Anisaldehyde*, 8CI. *Salicylaldehyde methyl ether*
[135-02-4] $\text{C}_8\text{H}_8\text{O}_2$ M 136.150Used as 0.2% aq. soln. as an acid-base fluorescent indicator (pH 3.1-4.4). Cryst. Sol. H_2O . Mp 39°. Bp_{1.5} 70-75°.

▷ Mod. toxic orally. BZ2610000.

Semicarbazone: Mp 219°.(E)-*Oxime*: [54582-20-6]. $\text{C}_8\text{H}_9\text{NO}_2$ M 151.165

Mp 95°.

(Z)-*Oxime*: [54582-27-3].

Mp 101°. Unstable.

2,4-Dinitrophenylhydrazone: Mp 249°.*Hydrate, di-Ac*: *o-Methoxybenzylidene diacetate* $\text{C}_{12}\text{H}_{14}\text{O}_5$ M 238.240

Prisms. Mp 75°.

Brady, O.L. *et al*, *J. Chem. Soc.*, 1927, 894 (*oximes*)Grammaticakis, P., *Bull. Soc. Chim. Fr.*, 1940, 527 (*synth*)Kocsis, E.A. *et al*, *Fresenius' Z. Anal. Chem.*, 1942, **124**, 45.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.
Org. Synth., 1974, **54**, 42 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1979, AOT525.

4-Methoxybenzaldehyde, 9CI**M-00075**

p-Anisaldehyde, 8CI. *Aubepine*
 [123-11-5]

$C_8H_8O_2$ M 136.150

Found in many essential oils. Also found in algae and fungi. Component of scent material from cotton-top tamarin (*Saguinus oedipus*). Used in perfumery. Chromogenic reagent for the detn. of amines. d_4^{15} 1.119. Mp 0°. Bp 248°, Bp₂₁₀ 199-200°, Bp₁₂ 134-135°. pK_a 15.96 (hydrate) (25°, 1% EtOH). Steam-volatile.

▷ BZ2625000.

(E)-*Oxime*: [3717-21-3]. *α*-Anisaldoxime

$C_8H_9NO_2$ M 151.165

Leaflets, needles. Mp 45°, Mp 65°.

(Z)-*Oxime*: [3717-22-4]. *β*-Anisaldoxime

$C_8H_9NO_2$ M 151.165

Needles (C_6H_6). Mp 133°.

2,4-Dinitrophenylhydrazone: [1773-49-5].

Red leaflets (xylene). Mp 254°.

Semicarbazone: [6292-71-3].

Needles (EtOH), prisms (Me_2CO). Mp 168°, Mp 209°.

Thiosemicarbazone: [4334-74-1].

$C_9H_{11}N_3OS$ M 209.271

Used for photometric detn. of Pd(II) (λ_{max} 370 nm, ϵ 94000), Cu(II). Cryst. (EtOH). Sol. DMF, EtOH.

Hydrazone: [5953-85-5].

$C_8H_{10}N_2O$ M 150.180

Yellow leaflets. Mp 167°.

Di-Me acetal: [2186-92-7]. Dimethoxy(4-methoxyphenyl) methane

$C_{10}H_{14}O_3$ M 182.219

d^{15} 1.079. Bp 253°.

Tiemann, F. *et al*, *Ber.*, 1877, **10**, 63 (*synth*)

Hinkel, L.E. *et al*, *J. Chem. Soc.*, 1932, 2793 (*synth*)

Niedzielski, E.L. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 1492 (*synth*)

Birkinshaw, J.H. *et al*, *Biochem. J.*, 1955, **60**, 255 (*isol*)

Kotake, M. *et al*, *Justus Liebig's Ann. Chem.*, 1957, **607**, 153 (*isol*)

v. Es, T. *et al*, *J. Chem. Soc.*, 1965, 5775.

Dhami, K.S. *et al*, *Can. J. Chem.*, 1966, **44**, 2855 (*cmr*)

Bowie, J.H. *et al*, *J. Chem. Soc. B*, 1969, 89 (*ms*)

Org. Synth., 1971, **51**, 20 (*synth*)

Karrer, W. *et al*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 392 (*occur*)

Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)

Thimmaiah, K.N. *et al*, *Indian J. Chem., Sect. A*, 1983, **22**, 690 (*deriv, detn, Pd, Cu*)

Salem, F.B. *et al*, *Analyst (London)*, 1985, **110**, 1125 (*use*)

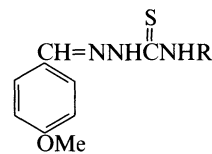
Belcher, A. *et al*, *J. Chem. Ecol.*, 1988, **14**, 1367.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AOT530.

4-Methoxybenzaldehyde**M-00076****phenylthiosemicarbazone**

2-[(4-Methoxyphenyl)methylene]-N-phenylhydrazinecarbothioamide, 9CI. *p*-Anisaldehyde phenylthiosemicarbazone

[74959-64-1]



R = Ph

$C_{15}H_{15}N_3OS$ M 285.369

Used as EtOH soln. for extraction-photometric detn. of Au (λ_{max} 365 nm, ϵ 21200, EtOAc), Cu, Pt. Cryst. Sol. DMF, EtOH.

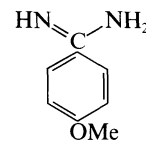
Prakash, K.M. *et al*, *Analyst (London)*, 1986, **111**, 1301 (*synth, detn, Au*)

Prakash, K.M. *et al*, *Curr. Sci.*, 1986, **55**, 563 (*detn, Cu*)

Prakash, K.M. *et al*, *Anal. Lett.*, 1987, **20**, 959 (*detn, Pt*)

4-Methoxybenzamidine**M-00077**

4-Methoxybenzenecarboximidamide, 9CI. *p*-Anisamidine, 8CI
 [22265-37-8]



$C_8H_{10}N_2O$ M 150.180

Fluorogenic reagent for anal. of reducing carbohydrates. Mp 119°.

Picrate: Mp 212-213°.

B,HCl: [51721-68-7].

Mp 220°.

B,HBr: Cryst. (MeCN). Mp 236-237°.

Benzenesulfonate salt: Mp 212°.

p-Toluenesulfonate salt: Mp 206°.

Oxley, P. *et al*, *J. Chem. Soc.*, 1946, 147; 1947, 382; 1949, 449 (*synth*)

Schaefer, F.C. *et al*, *J. Org. Chem.*, 1962, **27**, 1255 (*synth*)

Kai, M. *et al*, *Anal. Sci.*, 1985, **1**, 59 (*use*)

Methoxybenzene, 9CI**M-00078**

Anisole, 8CI. Phenol methyl ether. Methyl phenyl ether
 [100-66-3]

PhOMe

C_7H_8O M 108.140

Can be used as solvent, e.g. for hydroborations. Reagent for the spectrophotometric anal. of formic acid. Mp -37.5°. Bp 155°.

▷ Mod. toxic (oral). Flammable. BZ8050000.

Org. Synth., Coll. Vol., 1, 1932, 58 (*synth*)

Qureshi, M. *et al*, *Anal. Chem.*, 1963, **35**, 1592 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 41.

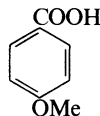
Brieger, G. *et al*, *J. Chem. Eng. Data*, 1968, **13**, 581 (*props*)

Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (*cmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AOX750.

4-Methoxybenzoic acid, 9CI**M-00079***p*-Anisic acid, 8CI. Umbellinic acid. Dragonic acid. Badianic acid

[100-09-4]

 $C_8H_8O_3$ M 152.149Isol. from a few plant sources. Needles or prisms. Mp 184°. Bp 275-280°. pK_a 4.50 (25°).

▷ Highly toxic.

Me ester: [121-98-2]. $C_9H_{10}O_3$ M 166.176Isol. from plants, eg. *Trametes suaveolens*, *Ferula jaeschkeana*. Flakes (EtOH or Et₂O). Mp 48°. Bp 256°, Bp₂₀ 160°.

▷ BZ4925000.

Et ester: [94-30-4]. $C_{10}H_{12}O_3$ M 180.203

Mp 7-8°. Bp 263°.

▷ BZ4697000.

Ph ester: [4181-97-9]. $C_{14}H_{12}O_3$ M 228.247

Mp 75-76°.

Chloride: [100-07-2]. Anisoyl chloride $C_8H_7ClO_2$ M 170.595Used to derivatise hexachlorophene for detn. by uv lif. chromatog. Mp 22°. Bp₃₅ 160-164°, Bp₁₄ 145°.

▷ Highly irritant. Evolves HCl on hydrol. Can explode spont. at r.t.. CA0270000.

Anhydride: [794-94-5]. $C_{16}H_{14}O_5$ M 286.284

Mp 99°.

▷ BZ5300000.

Amide: [3424-93-9]. Anisamide $C_8H_9NO_2$ M 151.165Needles or tablets (H₂O). Mp 163°. Bp 295°.*Nitrile*: [874-90-8]. 4-Methoxybenzonitrile. 1-Cyano-4-

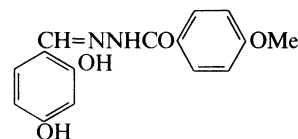
methoxybenzene. Anisonitrile

 C_8H_7NO M 133.149

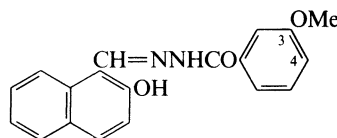
Mp 61-62°. Bp 256-257°, 240°.

Anilide: $C_{14}H_{13}NO_2$ M 227.262Leaflets (C₆H₆). Mp 171°.Rossel, A., *Justus Liebigs Ann. Chem.*, 1869, **151**, 25 (*bibl*)Gilman, H. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 346 (*synth*)Sah, P.P.T. *et al*, *J. Chin. Chem. Soc. (Taipei)*, 1946, **13**, 77; *CA*, **41**, 5869 (*synth*)Cox, R.H., *Spectrochim. Acta, Part A*, 1969, **25**, 1189 (*nmr*)Porcaro, P.J. *et al*, *Anal. Chem.*, 1972, **44**, 1865 (*use, chloride*)Beistel, D.W. *et al*, *J. Phys. Chem.*, 1976, **80**, 2023 (*cmr*)Brunet, J.-J. *et al*, *Tetrahedron Lett.*, 1981, **22**, 1013 (*synth*)Chatani, N. *et al*, *J. Org. Chem.*, 1986, **51**, 4714 (*deriv, synth, pmr, ir*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AOV000, AOV750, AOY250.**4-Methoxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, 9CI****M-00080***Anisic acid resorcylaldehyde*. 2,4-Dihydroxybenzaldehyde 4-methoxybenzoylhydrazone

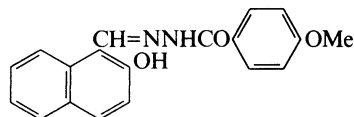
[73703-09-0]

 $C_{15}H_{14}N_2O_4$ M 286.287Used as 2mM Me₂CO soln. for photometric detn. of V(V)(λ_{max} 395 nm, ε 18800, pH ~4). Cryst. (EtOH). Sol.EtOH, Me₂CO; mod. sol. H₂O. pK_{a1} 2.8; pK_{a2} 5.6; pK_{a3} 6.9.Dudarev, V.I. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 289 (*synth, detn, V*)**3-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, 9CI****M-00081***2-Hydroxy-1-naphthalenecarboxaldehyde 3-methoxybenzoylhydrazone*

[69762-14-7]

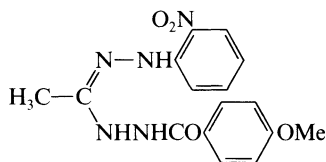
 $C_{19}H_{16}N_2O_3$ M 320.347Used as 0.1mM Me₂CO soln. for fluorimetric detn. of Al(λ_{max} 475 nm, pH 3-4, 60% Me₂CO). Yellow cryst.(EtOH). Sol. EtOH, Me₂CO; sl. sol. H₂O. pK_{a2} 9.06.Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 2357 (*synth, dem, Al*)**4-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, 9CI****M-00082***Anisic acid hydroxynaphthalhydrazide*. 2-Hydroxy-1-naphthaldehyde 4-methoxybenzoylhydrazone

[40111-51-1]

 $C_{19}H_{16}N_2O_3$ M 320.347Used as 0.1mM soln. in Me₂CO for fluorimetric detn. ofSc (λ_{max} 460 nm, 0.01-0.5 μg/ml, pH ~2), Al (λ_{max} 475 nm, pH 3-4). Yellow cryst. (EtOH). Sol. Me₂CO, EtOH; sl. sol. H₂O. pK_{a2} 9.32.Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 2357; 1979, **34**, 106 (*synth, detn, Sc, Al*)

4-Methoxybenzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, 9CI

M-00083

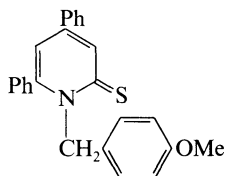
2-(4-Methoxybenzoyl)-4-(2-nitrophenyl)acetohydrazine
[93245-57-9]

$C_{16}H_{17}N_5O_4$ M 343.341
Used as 6mM Me_2CO soln. for photometric detn. of Ni
(λ_{max} 340 nm, ϵ 20500, pH 6.9-10, 20% Me_2CO). Red
cryst. Sol. Me_2CO , DMF; insol. H_2O , EtOH. Mp 192°. pK_{a1} 4.5; pK_{a2} 9.3.

Dudareva, G.N. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 1285 (*synth, detn, Ni*)

1-(p-Methoxybenzyl)-4,6-diphenylpyridine-2-thione

M-00084

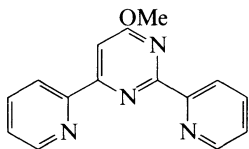
1-[(4-Methoxyphenyl)methyl]-4,6-diphenyl-2(1H)-pyridinethione, 9CI
[76950-87-3]

$C_{25}H_{21}NOS$ M 383.513
Used as a 0.25mM soln. in EtOH for photometric detn. of
Hg (λ_{max} 314 nm, ϵ 47200). Yellow cryst. (EtOH). Sol.
EtOH. pK_a 10.68.

Lorenzo, A. *et al*, *Synthesis*, 1980, 853 (*synth*)
Pérez Ruiz, T. *et al*, *Mikrochim. Acta*, 1984, **1**, 183 (*detn, Hg*)

4-Methoxy-2,6-bis(2-pyridyl)pyrimidine

M-00085

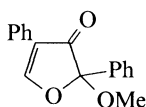
4-Methoxy-2,6-di-2-pyridylpyrimidine, 8CI
[10198-73-9]

$C_{15}H_{12}N_4O$ M 264.286
Used as a 5mM soln. in EtOH aq. for photometric detn.
of Co, Fe(II) (λ_{max} 563 nm, ϵ 10600). Cryst. (Et_2O). Sol.
 C_6H_6 , mod. sol. Me_2CO , Et_2O , EtOH. Mp 139-140°.

Lafferty, J.J. *et al*, *J. Org. Chem.*, 1967, **32**, 1591 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*use*)

2-Methoxy-2,4-diphenyl-3(2H)-furanone, 9CI

M-00086

MDPF
[50632-57-0] $C_{17}H_{14}O_3$ M 266.296Used for fluorimetric detn. of amines and amino acids;
derivatising reagent for hplc analysis of primary and
secondary amines. Cryst. (MeOH). Mp 93-95°.

Weigele, M. *et al*, *J. Org. Chem.*, 1976, **41**, 388 (*synth*)
Nakamura, H. *et al*, *Anal. Chem.*, 1982, **54**, 2482; 1984, **56**, 919
(*use*)

2-Methoxyethanol, 9CI

M-00087

Ethylene glycol monomethyl ether. 2-Hydroxyethyl methyl
ether. Methylcellosolve
[109-86-4]MeOCH₂CH₂OH $C_3H_8O_2$ M 76.095Used as aq. soln. in flotation sepn. of Zn and Cu or Ag
and Cu (with dithizone). Liq. Misc. H_2O , Et_2O , C_6H_6 . d
0.975. Fp -86.5°. Bp₇₆₇ 124.9°. pK_a 14.8 (25°).

▷ Irritant, TLV 80. Flammable. KL5775000.

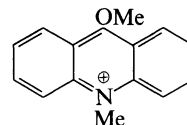
Ac: [110-49-6]. 2-Methoxyethyl acetate

 $C_5H_{10}O_3$ M 118.132
Sol. H_2O . Bp 145°.▷ Mod. toxic by inhalation and skin contact, TLV120.
Flammable. KL5950000.4-Nitrobenzoyl: d^{20} 1.25. Mp 49°. Bp_{0.07} 118-119.5°.

Palomaa, M.H., *Ber.*, 1909, **42**, 3873 (*synth*)
Cretcher, L.H. *et al*, *J. Am. Chem. Soc.*, 1924, **46**, 1503 (*synth*)
Komarova, L.F. *et al*, *Zh. Org. Khim.*, 1971, **7**, 2507 (*props*)
Hiraide, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1974, **23**, 522; *CA*,
84, 68983n (*sepn, Zn, Cu*)
Hiraide, M. *et al*, *Talanta*, 1975, **22**, 539 (*sepn, Ag, Cu*)
Evsikov, G.I. *et al*, *CA*, 1978, **88**, 61926v (*synth*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,
Royal Society of Chemistry, London, 1981, 387.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, EJJ500, EJJ500.

9-Methoxy-10-methylacridinium(1+), 9CI

M-00088

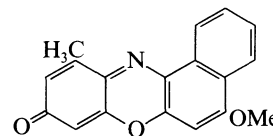
 $C_{15}H_{14}NO^{\oplus}$ M 224.282 (ion)

Trifluoromethanesulfonate: [133393-21-2].

 $C_{16}H_{14}F_3NO_4S$ M 373.352Spectrophotometric derivatisation reagent for primary
amines. Yellow cryst. Mp 193-195°.Dunning, J.W. *et al*, *Talanta*, 1991, **38**, 631 (*synth, use, uv, ir, pmr*)**5-Methoxy-11-methyl-9H-benzo[a]phenoxazin-9-one, 8CI**

M-00089

[17800-00-9]

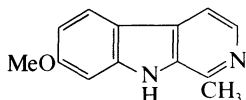
 $C_{18}H_{13}NO_3$ M 291.306

Used as a 0.1mM soln. in EtOH as redox indicator for titanometric detn. of Fe, Au, Cr₂O₇²⁻, vanadate and some org. compds. Orange cryst. Sol. C₆H₆, Et₂O; sl. sol. EtOH. p*K*_{a2} 12.15 (50% EtOH, μ = 0.07). E° +0.350 V (1 N HCl, propanol, μ = 0.07).

Ruzička, E. *et al*, *Monatsh. Chem.*, 1968, **99**, 838 (*synth*)
Ruzička, E. *et al*, *Mikrochim. Acta*, 1969, 698 (*redox ind*)

7-Methoxy-1-methyl-β-carboline **M-00090**

7-Methoxy-1-methyl-9H-pyrido[3,4-b]indole, 9CI. *Harmine*.
Telepathine. *Yageine*. *Banisterine*
[442-51-3]



C₁₃H₁₂N₂O M 212.251

Alkaloid from *Peganum harmala*, several *Banisteriopsis* spp., *Passiflora edulis* and several other spp. (Zygophyllaceae, Malpigiaceae, Passifloraceae). Used as an acid-base fluorescence indicator (pH 7.2-8.9, colour change blue → yellow). Cryst. Mp 264-265° (257-259°).

▷ LD₅₀ 243 mg/kg (mouse, s.c.). UV0175000.

B.HCl: Mp 321°.

Picrate: Mp 249-250° dec.

N-Oxide: [57498-78-9]. *Harmine N-oxide*

C₁₃H₁₂N₂O₂ M 228.250

Alkaloid from *B. caapi* (Malpigiaceae). Needles (MeOH). Mp 226-227° dec.

1-De-Me: Norharmine. 7-Methoxy-9H-pyrido[3,4-b]indole, 9CI. 7-Methoxy-β-carboline

C₁₂H₁₀N₂O M 198.224

Alkaloid from the seeds of *P. harmala* (Zygophyllaceae). Mp 213-215°.

Späth, E. *et al*, *Ber.*, 1930, **63**, 120 (*synth*)

Ismailov, N.A. *et al*, *Farmaz. Farmakol.*, 1938, **4**, 8 (*use*)

Doig, G.G. *et al*, *J. Chem. Soc.*, 1952, 3912 (*uv*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 695 (*use*)

Hashimoto, Y. *et al*, *Phytochemistry*, 1975, **14**, 1633 (*oxide*)

Shoemaker, D.W. *et al*, *J. Chromatogr.*, 1979, **174**, 159 (*gle, ms*)

Siddiqui, S. *et al*, *Heterocycles*, 1989, **29**, 521 (*isol, uv, ir, pmr, ms, bibl, Norharmine*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HA1500.

6-Methoxy-3-methyl-2-[[4- **M-00091**

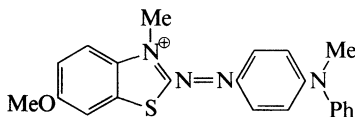
(methylphenylamino)phenyl]azo]

benzothiazolium(1+), 9CI

6-Methoxy-3-methyl-2-[[4-(N-methylanilino)phenylazo]

benzothiazolium, 8CI. 4-(6-Methoxy-3-methylbenzothiazolylazo)-N-methyldiphenylamine

[27200-96-0]



C₂₂H₂₁N₄OS⁺ M 389.500 (ion)

Chloride: [18256-44-5].

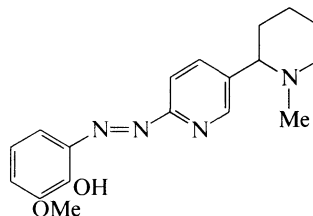
Used as a 1mM aq. soln. for extraction-photometric detn. of Fe (λ_{max} 643 nm, ε 78000, C₆H₆/PhNO₂), Hg, Zn (λ_{max} 640 nm, C₆H₆/tributyl phosphate). Orange cryst. Sol. H₂O.

Kish, P.P. *et al*, *Zavod. Lab.*, 1969, **35**, 541; 1970, **36**, 526; 1972, **38**, 5 (*detn, Hg, Zn*)

Kotelyanskaya, L.I. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1128 (*detn, Fe*)

2-Methoxy-6-[[5-(1-methyl)-2-piperidinyl-2-pyridyl]azo]phenol, 9CI **M-00092**

N-Methylanabasine-α-azoguaiacol. *N-Methylanabasine-α-azo-2-methoxyphenol*. *N-Methyl-2-(3-pyridyl)piperidine-α-azo-2-methoxyphenol*



C₁₈H₂₂N₄O₂ M 326.397

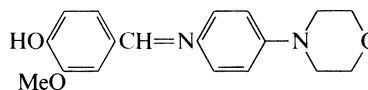
Used as a 0.2% aq. soln. for photometric detn. of Co, Cu, Ni, Pd (λ_{max} 600 nm, ε 25000); metallochromic indicator for titrimetric detn. of Cu. Orange-red cryst. Sol. H₂O, EtOH.

Kamaeva, G. *et al*, *CA*, 1972, **77**, 172200w, 172203z (*detn, Cu*)

Mansurkhodzhaev, U.M. *et al*, *CA*, 1973, **79**, 61207a; 1974, **81**, 154511b; 1976, **84**, 12024h (*synth, detn, Pd, Ni, Co*)

2-Methoxy-4-[N-(p-morpholinophenyl)formimidoyl]phenol **M-00093**

N-(4-Hydroxy-3-methoxybenzylidene)-4-morpholinylaniline



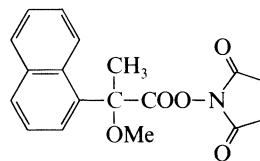
C₁₈H₂₀N₂O₃ M 312.368

Used as a 2mM soln. in DMF/EtOH for photometric detn. of Os (λ_{max} 615 nm, ε 35000). Flaky yellow cryst. (EtOH). Sol. DMF; sl. sol. H₂O, EtOH. Mp 207-208°.

Ayres, G.H. *et al*, *Anal. Chim. Acta*, 1964, **30**, 40 (*synth, detn, Os*)

1-[2-Methoxy-2-(1-naphthalenyl)-1-oxopropoxy]-2,5-pyrrolidinedione, 9CI **M-00094**

Succinimide α-methoxy-α-methyl-1-naphthaleneacetate

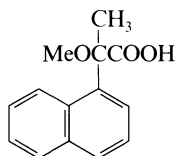


C₁₈H₁₇NO₅ M 327.336

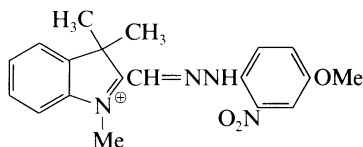
(+)-*form*

Reagent for hplc anal. of enantiomers of amphetamine derivs. Needles (Et₂O). Mp 115-116°. [α]_D²⁵ +85.0° (c, 0.1 in CHCl₃).

Goto, J. *et al*, *J. Liq. Chromatogr.*, 1979, **2**, 1179 (*synth, use*)

2-Methoxy-2-(1-naphthyl)propanoic acid M-00095*α*-Methoxy-*α*-methyl-1-naphthaleneacetic acid, 9CIC₁₄H₁₄O₃ M 230.263**(-)-form** [63628-26-2]Derivatisation reagent for the resolu. of amino acids by hplc. Plates (Et₂O/hexane). Mp 111-112°. [α]_D¹³ -106.3° (c, 0.16 in CHCl₃).**(±)-form** [63628-25-1]Plates (Me₂CO/hexane). Mp 161-162°.

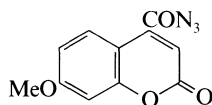
[102691-93-0]

Goto, J. *et al*, *Chem. Pharm. Bull.*, 1977, **25**, 847 (*synth, use*)Goto, J. *et al*, *J. Chromatogr.*, 1978, **152**, 413 (*synth*)**2-[[[(4-Methoxy-2-nitrophenyl)hydrazono]methyl]-1,3,3-trimethyl-3H-indolium(1+), 9CI** M-00096*1,3,3-Trimethyl-2-formylindolinium 4-methoxy-2-nitrophenylhydrazone*C₁₉H₂₁N₄O₃[⊕] M 353.400 (ion)

Perchlorate: [72386-19-7].

C₁₉H₂₁ClN₄O₇ M 452.850Used as a 0.7mM soln. in aq. Me₂CO for extraction-photometric detn. of Sb (λ_{\max} 490 nm, toluene). Cryst. Mp 217-219°.Bagdasarov, K.N. *et al*, *Zavod. Lab.*, 1980, **46**, 583 (*detn, Sb*)**7-Methoxy-2-oxo-2H-1-benzopyran-4-carbonyl azide, 9CI** M-00097*7-Methoxycoumarin-4-carbonyl azide*

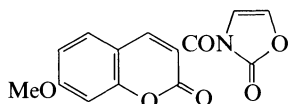
[97632-68-3]

C₁₁H₇N₃O₄ M 245.194

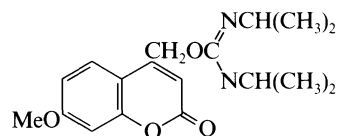
Labelling reagent for alcohols in fluorescence hplc. Yellow needles. Mp 120-121°.

Takadate, A. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 1164 (*synth, use*)**3-[(7-Methoxy-2-oxo-2H-1-benzopyran-3-yl)carbonyl]-2(3H)-oxazolone, 9CI** M-00098*3-(7-Methoxycoumarin-3-carbonyl)-2-oxazolone*

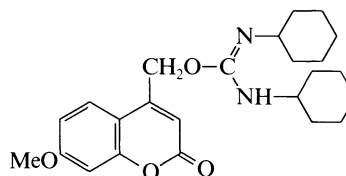
[122607-16-3]

C₁₄H₉NO₆ M 287.228

Fluorescent labelling reagent for hplc of amines. Prisms (MeCN). Mp 229-232°.

Takadate, A. *et al*, *Chem. Pharm. Bull.*, 1989, **37**, 373 (*synth, use*)**(7-Methoxy-2-oxo-2H-1-benzopyran-4-yl) methyl-N,N'-bis(1-methylethyl) carbamimidate, 9CI** M-00099*N,N'-Diisopropyl-O-(7-methoxy-4-coumarinyl)methylisourea* [82002-83-3]C₁₈H₂₄N₂O₄ M 332.399Reagent for fluorescent labelling of α -keto carboxylic acids. Mp 88-89°.Goya, S. *et al*, *Yakugaku Zasshi*, 1982, **102**, 63; *CA*, **97**, 6108r.**(7-Methoxy-2-oxo-2H-1-benzopyran-4-yl) methyl N,N'-dicyclohexylcarbamimidate, 9CI** M-00100*N,N'-Dicyclohexyl-O-(7-methoxycoumarin-4-yl)methylisourea*

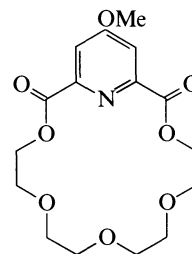
[76196-64-0]

C₂₄H₃₂N₂O₄ M 412.528

Fluorescent labelling reagent for carboxylic acids. Mp 126-127°.

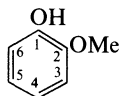
Goya, S. *et al*, *Yakugaku Zasshi*, 1980, **100**, 744; *CA*, **94**, 47074h (*synth, use*)**19-Methoxy-3,6,9,12,15-pentaoxa-21-aza-bicyclo[15.3.1]heneicosa-1(21),17,19-triene-2,16-dione, 9CI** M-00101*3,17-Diketo-(4-methoxypyridine)-18-crown-6*

[71022-77-0]

C₁₆H₂₁NO₈ M 355.344Used as 1mM soln. in CHCl₃ as carrier in Pb-selective electrode for potentiometry. Cryst. Sol. CHCl₃.Shpigun, L.K. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 617 (*use*)

2-Methoxyphenol, 9CI

M-00102

Guaiacol. Catechol methyl ether. o-Hydroxyanisole
[90-05-1] $C_7H_8O_2$ M 124.139Isol. from plant oils and present in wood distillates and sulfite liquors. Used for photometric detn. of NH_3 , Cu. Prisms or needles. d_4^{25} 1.13. Fp -3.2° (needles), Fp 28.2° , Mp 32° (prisms). Bp₂₄ 106.5° .

▷ Toxic. SL7525000.

Ac: [613-70-7].

 $C_9H_{10}O_3$ M 166.176 d_4^{25} 1.13. Bp₂₂ 107° , Bp₁₃ $123-124^\circ$.

Benzoyl: [531-37-3].

 $C_{14}H_{12}O_3$ M 228.247Mp $57-58^\circ$.3,5-Dinitrobenzoyl: Mp $141-142^\circ$.

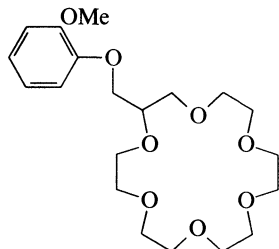
Me ether: see 1,2-Dimethoxybenzene, D-00766

Hirao, N., *Nippon Kagaku Kaishi*, 1932, **53**, 488; *CA*, **27**, 276.Briggs, A.I., *Trans. Faraday Soc.*, 1956, **52**, 35.Vas'kova, A.G. *et al*, *CA*, 1969, **75**, 94294x (detn, Cu)Yamaguchi, R. *et al*, *Yakugaku Zasshi*, 1969, **89**, 804; *CA*, **71**, 108850g (detn, NH_3)Karrer, W. *et al*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 180 (occur)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, GKI000.**2-[(2-Methoxyphenoxy)methyl]-**

M-00103

1,4,7,10,13,16-hexaoxacyclooctadecane,**9CI***(2-Methoxyphenyl)oxymethyl-18-crown-6*

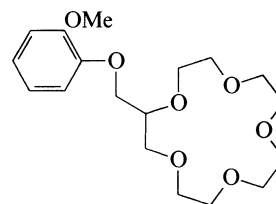
[83416-16-4]

 $C_{20}H_{32}O_8$ M 400.468Used as 0.1mM soln. in $CHCl_3$ for extraction sepn. of Na, K, Rb and Cs. Viscous oil. Sol. $CHCl_3$, 1,2-dichloroethane. Bp_{0.0002} $175-200^\circ$.Nakamura, H. *et al*, *Anal. Chim. Acta*, 1982, **139**, 219 (synth)Otsuka, H. *et al*, *Anal. Chim. Acta*, 1983, **147**, 227 (use)**2-[(2-Methoxyphenoxy)methyl]-**

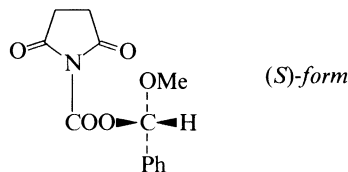
M-00104

1,4,7,10,13-pentaoxacyclopentadecane,**9CI***(2-Methoxyphenyl)oxymethyl-15-crown-5*

[76719-75-0]

 $C_{18}H_{28}O_7$ M 356.415Used as 0.1mM soln. in $CHCl_3$ for extraction sepn. of Na and K. Viscous oil. Sol. $CHCl_3$, 1,2-dichloroethane. Bp_{0.0008} 203° .Nakamura, H. *et al*, *Anal. Chim. Acta*, 1982, **139**, 219 (synth)Otsuka, H. *et al*, *Anal. Chim. Acta*, 1983, **147**, 227 (sepn, K)**1-[(Methoxyphenylacetyl)oxy]-2,5-**

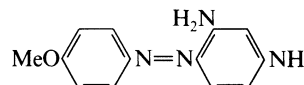
M-00105

pyrrolidinedione, 9CI*N-Succinimidyl methoxyphenylacetate* $C_{13}H_{13}NO_5$ M 263.249*(S)-form* [122607-12-9]Resolving agent for chiral amines. Cryst. (EtOH). Mp $95.7-96.3^\circ$.Husain, P.A. *et al*, *Anal. Biochem.*, 1989, **178**, 177 (synth, use)**4-[(4-Methoxyphenyl)azo]-1,3-**

M-00106

benzenediamine, 9CI*4'-Methoxy-2,4-diaminoazobenzene*

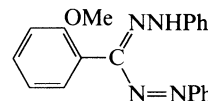
[20311-41-5]

 $C_{13}H_{14}N_4O$ M 242.280Used as acid base indicator (pH range: 4.4-4.6; colour change: red → yellow). Orange cryst. Sol. EtOH, C_6H_6 , Et_2O .Schulek, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1948, **128**, 398 (use, ind)**3-(2-Methoxyphenyl)-1,5-**

M-00107

diphenylformazan, 9CI

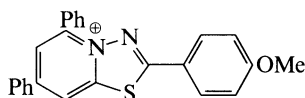
[62164-45-8]

 $C_{20}H_{18}N_4O$ M 330.388

Used as 1mM EtOH soln. for photometric detn. of Hg(II) (λ_{\max} 400 nm, ϵ 39000, pH 5-6, EtOH). Cryst. Sol. EtOH, Me₂CO.

Dubinina, L.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1547 (*synth, detn, Hg*)

2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazolo[3,2-*a*]pyridin-4-ium(1+), 9CI M-00108



C₂₅H₁₉N₂OS[⊕] M 395.504 (ion)

Chloride: [84425-51-4].

C₂₅H₁₉ClN₂OS M 430.957

Used as 0.5mM soln. in 50% EtOH for extraction-photometric detn. of Au (as AuCl₄[⊖], λ_{\max} 353 nm, ϵ 38000, isopentyl acetate), Tl(III). Cryst. Sol. EtOH, MeOH.

Molina, P. *et al*, *An. Quim.*, 1978, **74**, 1018 (*synth*)

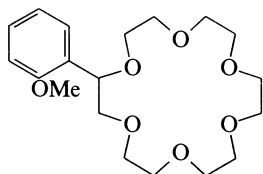
Perez Ruiz, T. *et al*, *Anal. Chim. Acta*, 1982, **143**, 185 (*detn, Au*)

Peruz Ruiz, T. *et al*, *Mikrochim. Acta*, 1983, **1**, 395 (*detn, Au*)

2-(2-Methoxyphenyl)-1,4,7,10,13,16-hexaoxacyclooctadecane, 9CI M-00109

o-Methoxyphenyl-18-crown-6

[85777-05-5]

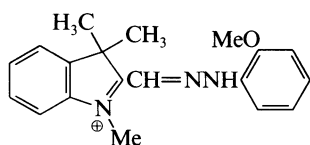


C₁₉H₃₀O₇ M 370.442

Used as 0.1mM CHCl₃ soln. for extraction sepn. of K from Na. Pale yellow viscous oil. Sol. CHCl₃, 1,2-dichloroethane. Bp_{0.004} 138-141°.

Otsuka, H. *et al*, *Anal. Chim. Acta*, 1983, **147**, 227 (*synth, sepn, K*)

2-[(2-Methoxyphenyl)hydrazono]methyl]-1,3,3-trimethyl-3H-indolinium(1+), 9CI M-00110



C₁₉H₂₂N₃O[⊕] M 308.402 (ion)

Perchlorate: [67509-28-8].

C₁₉H₂₂ClN₃O₅ M 407.853

Used as a 0.7mM soln. in aq. Me₂CO for extraction-photometric detn. of Tl (λ_{\max} 480 nm, ϵ 31000, C₆H₆). Orange-red cryst. Sol. Me₂CO, EtOH; sl. sol. H₂O.

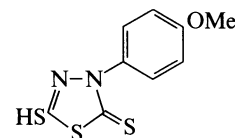
Bagdasarov, K.N. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1978, **21**, 361; *CA*, 1978, **89**, 122515e (*detn, Tl*)

Bagdasarov, K.N. *et al*, *Zavod. Lab.*, 1978, **44**, 392 (*detn, Tl*)

3-(*p*-Methoxyphenyl)-5-mercapto-1,3,4-thiadiazole-2-thione M-00111

2-Mercapto-4-(*p*-methoxyphenyl)- Δ^2 -1,3,4-thiadiazoline-5-thione, 8CI

[27831-56-7]



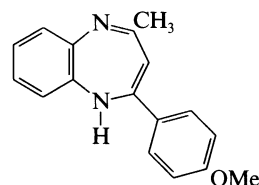
C₉H₈N₂OS₃ M 256.373

Used as a 0.05M soln. in dil. KOH for extraction-photometric detn. of Bi (λ_{\max} 340 nm, ϵ 19100), Te. Yellow cryst. Sol. hot EtOH, hot C₆H₆; spar. sol. CHCl₃, dil. alkalis; insol. H₂O.

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 59 (*synth, detn, Bi*)

2-(4-Methoxyphenyl)-4-methyl-1H-1,5-benzodiazepine M-00112

[73980-69-5]



C₁₇H₁₆N₂O M 264.326

Used as 0.1% MeOH soln. as an acid-base indicator (pH range 5-9; colour change: violet → colourless). Cryst. Sol. MeOH; sl. sol. H₂O. pK_a 6.86 (H₂O).

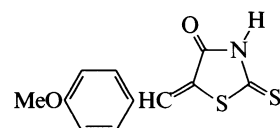
Omar, N.M., *Indian J. Chem.*, 1974, **12**, 498 (*synth*)

El-Rabbat, N.A. *et al*, *Analyst (London)*, 1980, **105**, 165 (*use*)

5-[(4-Methoxyphenyl)methylene]-2-thioxo-4-thiazolidinone, 9CI M-00113

5-(*p*-Methoxybenzylidene)rhodanine

[5462-97-5]



C₁₁H₉NO₂S₂ M 251.330

Several tautomers possible. Used as a 0.01% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt, Tl. Orange-red cryst. Sol. EtOH.

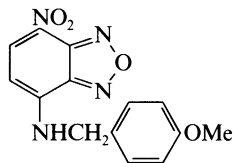
▷ VI8190000.

Kulberg, L.M. *et al*, *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)

Turkiewicz, N.M., *Zh. Anal. Khim.*, 1956, **11**, 180 (*use*)

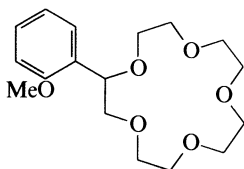
V'yunov, K.A. *et al*, *Zh. Org. Khim.*, 1973, **9**, 817 (*use*)

N-[(4-Methoxyphenyl)methyl]-7-nitro-4-benzofurazanamine, 9CI M-00114
7-(p-Methoxybenzylamino)-4-nitrobenzoxadiazole. MBD [33984-50-8]



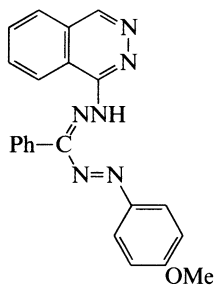
$C_{14}H_{12}N_4O_4$ M 300.273
Fluorescent labelling reagent for amino acids, peptides and proteins. Red-brown cryst. (EtOH). Mp 174-177°. Kenner, R.A. *et al*, *Biochemistry*, 1971, **10**, 4433 (*synth, use*)

2-(2-Methoxyphenyl)-1,4,7,10,13-pentaoxacyclopentadecane, 9CI M-00115
2-(2-Methoxyphenyl)-15-crown-5 [85777-06-6]



$C_{17}H_{26}O_6$ M 326.389
Used as 0.1mM $CHCl_3$ soln. for extraction sepn. of K from Na. Pale yellow viscous oil. Sol. $CHCl_3$, 1,2-dichloroethane. Bp_{0.0004} 120-125°. Otsuka, H. *et al*, *Anal. Chim. Acta*, 1983, **147**, 227 (*synth, use*)

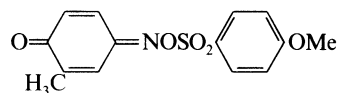
1-(4-Methoxyphenyl)-3-phenyl-5-(1-phthalazinyl)formazan M-00116
1(2H)-Phthalazinone [(4-methoxyphenyl)azo] phenylmethylene]hydrazone, 9CI [67073-42-1]



$C_{22}H_{18}N_6O$ M 382.424
Used as 2mM soln. in EtOH for extraction-photometric detn. of Hg (λ_{max} 520 nm, ϵ 40000, $CHCl_3$). Brown cryst. (cyclohexane). Sol. EtOH, cyclohexane, $CHCl_3$, DMF.

Barbina, T.M. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1222 (*synth, detn, Hg*)

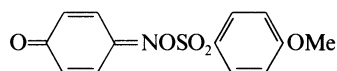
O-(p-Methoxyphenylsulfonyl)-o-methylquinone monoxime M-00117



$C_{14}H_{13}NO_5S$ M 307.326
Used as a 0.34mM soln. in DMSO for fluorimetric detn. of CN^\ominus . Yellow cryst. (CCl_4). Sol. EtOH, $CHCl_3$, Me_2CO . Mp 160-161°.

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn, CN^\ominus*)

O-(p-Methoxyphenylsulfonyl)quinone monoxime M-00118

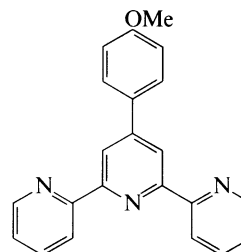


$C_{13}H_{11}NO_5S$ M 293.300
Used as a 0.034mM soln. in DMSO for fluorimetric detn. of CN^\ominus . Yellow cryst. (CCl_4). Sol. EtOH, $CHCl_3$, Me_2CO . Mp 170-171°.

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn, CN^\ominus*)

4'-(4-Methoxyphenyl)-2,2':6',2''-terpyridine, 9CI M-00119

2,6-Di-(2-pyridyl)-4-(4-methoxyphenyl)pyridine [13104-56-8]



$C_{22}H_{17}N_3O$ M 339.396
Used as a 0.04% soln. in dil. HCl for photometric detn. of Co, Fe; as 0.5mM EtOH soln. for photometric detn. of Fe(II) (λ_{max} 570 nm, ϵ 26900). Cryst. Sol. Me_2CO , EtOH, Et_2O , C_6H_6 , dil. acids; insol. H_2O .

Deggau, E. *et al*, *Z. Klin. Chem.*, 1965, **3**, 102 (*detn, Fe*)

Stamm, D. *et al*, *Z. Klin. Chem.*, 1966, **4**, 222 (*detn, Fe*)

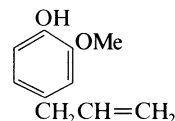
Schmidt, R. *et al*, *Z. Klin. Chem.*, 1967, **5**, 304 (*detn, Fe*)

Stanchev, P., *Chem. Anal. (Warsaw)*, 1971, **16**, 243.

Nagahiro, T. *et al*, *Analyst (London)*, 1984, **109**, 163 (*detn, Co*)

2-Methoxy-4-(2-propenyl)phenol, 9CI M-00120

1-Allyl-4-hydroxy-3-methoxybenzene. 4-Allyl-2-methoxyphenol. 5-Allylguaiacol. **Eugenol, USAN** [97-53-0]



$C_{10}H_{12}O_2$ M 164.204
Very widespread occurrence in essential oils. Major component of clove oil. Also found in those of *Cinnamomum* spp., *Cistus* spp., *Camellia* spp., *Pelargonium* spp., and *Thymus* spp. Used in dental cement preparations, insect attractants and extensively

in the perfumery and flavour industries. Dental analgesic. Used for the photometric detn. of ozone. Oil. Spar. sol. H₂O. Fp –9°. Bp 248°, Bp₁₅ 128-130°. Bp also given as 254°.

▷ LD₅₀ 500 mg/kg (mouse, i.p.). SJ4375000.

Ac: [93-28-7]. *Aceteugenol*

C₁₂H₁₄O₃ M 206.241

Found in oil from *Eugenia caryophyllata* and *Cinnamomum zeylanica*. Liq. or plates (EtOH). Mp 30-31°. Bp₇₅₂ 280-281°, Bp₁₃ 163-164°.

▷ SJ4550000.

3-Methylbutanoyl:

C₁₅H₂₀O₃ M 248.321

Constit. of *Felicia wrightii*. Oil.

O-Hexadecanoyl: *Oryzarol*. *Eugenol palmitate*

C₂₆H₄₂O₃ M 402.616

Isol. from rice (*Oryza sativa*). Needles (EtOH). Mp 39-40°.

O-β-D-Glucopyranoside: [18604-50-7]. *Citrusin C*

C₁₆H₂₂O₇ M 326.346

Constit. of *Perilla frutescens*. Powder. Mp 130-131°. [α]_D²² –50.7° (c, 0.13 in MeOH).

Erdmann, F. *et al*, *J. Prakt. Chem.*, 1897, **56**, 143 (*synth*)

Naves, Y.-R., *Helv. Chim. Acta*, 1948, **31**, 378 (*isol*)

Tamari, K. *et al*, *CA*, 1963, **59**, 6717 (*Oryzarol*)

Sachdev, S.L. *et al*, *Anal. Chim. Acta*, 1972, **58**, 141 (*detn*, O₃)

Popa, G. *et al*, *Rev. Chim. (Bucharest)*, 1973, **24**, 635; *CA*, **80**, 103486u.

Manito, P. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1974, 1727; 1975, 1548 (*biosynth*)

Yamaguchi, H. *et al*, *Chem. Pharm. Bull.*, 1975, **23**, 1169 (*pmr*)

Khischies, M. *et al*, *J. Chem. Soc., Chem. Commun.*, 1975, 879 (*biosynth*)

Massow, F. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1976, 977 (*cmr*)

Bohlmann, F. *et al*, *Phytochemistry*, 1976, **15**, 1318 (*isol*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 4645.

Wenkert, E. *et al*, *Synthesis*, 1983, 701 (*synth*)

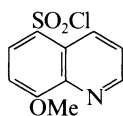
Fujita, T. *et al*, *Phytochemistry*, 1992, **31**, 3265 (*Citrusin C*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EQR500, EQS000.

8-Methoxy-5-quinolinesulfonyl chloride, M-00121

9CI

[90429-62-2]



C₁₀H₈ClNO₃S M 257.697

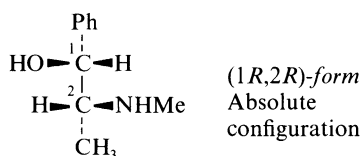
Fluorogenic reagent for the detn. of amines and amino acids.

Tochilkin, A.T. *et al*, *Bioorg. Khim.*, 1990, **16**, 956; *CA*, **113**, 164723r (*synth*, use)

2-Methylamino-1-phenyl-1-propanol M-00122

α-[1-(Methylamino)ethyl]benzenemethanol, 9CI

[53214-57-6]



C₁₀H₁₅NO M 165.235

▷ Highly toxic orally. DO9500000.

(1*R*,2*R*)-form [321-97-1]

(–)-*ψ*-Ephedrine

Synthetic. Mp 118-118.5°. [α]_D²⁰ –52° (EtOH).

(1*R*,2*S*)-form [299-42-3] *Ephedrine*

Main alkaloid from the Chinese drug “Ma-Huang”, and from many *Ephedra* spp., also in *Aconitum napellus*, *Catha edulis*, *Taxus baccata*, *Sida cordifolia*, *Roemeria refracta* and some other spp. (Ephedraceae, Ranunculaceae, Celastraceae, Taxaceae, Malvaceae, Papaveraceae). Sympathomimetic agent active by mouth. Weaker but longer-acting than adrenaline. Hypertensive, cardiac stimulant, bronchodilator, hyperglycaemic agent. Low toxicity. Has been used clinically against bronchial asthma, hay fever, whooping cough, myasthenia gravis, dysmenorrhea and heart block (Stokes-Adam syndrome). Resolving agent for aldehydes and ketones *via* chiral oxazolidine formn. Used as 0.2% soln. in CHCl₃ for photometric detn. of As. Sol. CHCl₃. Mp 40°. Bp 225°. [α]_D –6.3° (EtOH).

▷ LD₅₀ 350 mg/kg (mouse, i.p.). KB0700000.

B,HCl: [50-98-6]. *Ephedrine hydrochloride*, *USAN*

Mp 218°. [α]_D²⁰ –37° (H₂O). Component of Amesec, Bronkotabs, Primatene M, Primatene P, Quadrinal, Quibron Plus and Tedral.

▷ KB1750000.

B,H₂SO₄: *Ephedrine sulfate*, *USAN*. *Isopedrol*

Component of Wyanooids.

N-Ac:

C₁₂H₁₇NO₂ M 207.272

Mp 85-86°. [α]_D²⁰ +8° (EtOH), [α]_D²⁰ –63° (CHCl₃).

(1*S*,2*S*)-form [90-82-4] *ψ*-*Ephedrine*. *Pseudoephedrine*, *INN*, *BAN*. *Isoephedrine*

Alkaloid from *E. vulgaris* var. *helvetica* and many other *E.* spp., and from *R. refracta* and *S. cordifolia* (Ephedraceae, Papaveraceae, Malvaceae). Shows somewhat similar pharmacol. activity to Ephedrine but is less potent. Mp 117-118°. [α]_D +52° (EtOH).

▷ LD₅₀ 500 mg/kg (mouse, oral). UL5800000.

B,HCl: [345-78-8]. *Pseudoephedrine hydrochloride*, *USAN*.

Dorrol. *Novafed*. *Sudafed*

Adrenergic (vasoconstrictor). Mp 182-182.5°. [α]_D²⁰ –62° (H₂O). Component of Actifed, Phenergan and numerous proprietary cpds.

▷ LD₅₀ 202 mg/kg (mouse, i.p.). UL5950000.

B,H₂SO₄: [7460-12-0]. *Pseudoephedrine sulfate*, *USAN*.

Afrinol. *D-Isoephedrine sulfate*, *JAN*

Component of Disophrol, Drixoral and Trinalin.

(1*S*,2*R*)-form [321-98-2]

(+)-*Ephedrine*

Synthetic. Resolving agent for aldehydes and ketones. Shows about ½ the pharmacol. activity of (–)-ephedrine. Mp 40-40.5°.

▷ KB0600000.

B,HCl: [24221-86-1].

Mp 217-218°. [α]_D²⁰ +34° (H₂O).

▷ KB1925000.

(1*R*,2*R*)-form [4125-58-0]

(±)-*ψ*-*Ephedrine*

Synthetic. Mp 118°.

(1*R*,2*S*)-form [90-81-3]

(±)-*Ephedrine*

Mp 76°.

B,HCl: [134-71-4].

Mp 188-189.5°.

▷ KB1575000.

N-Ac:

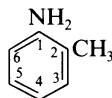
C₁₂H₁₇NO₂ M 207.272
Mp 77-78.5°.

[670-40-6, 50906-05-3, 56979-55-6]

Emde, H., *Helv. Chim. Acta*, 1929, **12**, 365, 405 (*struct. rel config*)Freudenberg, K. *et al*, *J. Am. Chem. Soc.*, 1932, **54**, 234.Freudenberg, K. *et al*, *Justus Liebigs Ann. Chem.*, 1934, **510**, 223 (*abs config*)Phillips, D.C. *et al*, *Acta Crystallogr.*, 1954, **7**, 159 (*rel config*)Kopp, J.F., *Anal. Chem.*, 1973, **45**, 1786 (*use, ephedrine*)Milne, J.W.A. *et al*, *Anal. Chem.*, 1973, **45**, 1952 (*ms*)Yamasaki, K. *et al*, *Phytochemistry*, 1973, **12**, 2877 (*biosynth*)Furlei, R.R. *et al*, *CA*, 1974, **80**, 144 913z (*ms*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1975, **5**, 289.Ghosal, S. *et al*, *Phytochemistry*, 1975, **14**, 830 (*isol*)Lovgren, K. *et al*, *Acta Pharm. Suec.*, 1977, **14**, 30 (*pmr*)Smith, T.A., *Phytochemistry*, 1977, **16**, 9 (*occur*)Benz Ezra, S.A. *et al*, *Anal. Profiles Drug Subst.*, 1979, **8**, 489 (*rev. w, ir, pmr, ms, anal, pseudoephedrine*)Baudet, M. *et al*, *Analyst (London)*, 1979, **12**, 641 (*cmr*)Ali, S.L., *Anal. Profiles Drug Subst.*, 1986, **15**, 255 (*rev. w, ir, ms, pmr, anal*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EAW000, EAW500, EAX000, EAX500, EAY000, POH000, POH250, POH500.**2-Methylaniline****M-00123**

2-Methylbenzenamine, 9CI. o-Toluidine, 8CI. 2-Aminotoluene. o-Tolylamine

[95-53-4]

C₇H₉N M 107.155Colorimetric reagent for glucose anal. Colourless liq. d₂₀²⁰ 1.005. Mp ca. -21°, Mp ca. -15.5° (*dimorph.*). Bp₁₈ 92°, Bp 200-202°. n_D²⁰ 1.5688. Steam-volatile.▷ Toxic by inhalation and skin absorption, TLV 22. Ignites with fuming HNO₃, XU2975000.

B, HCl: Mp 215°. Bp 242.2°.

N-Ac: [120-66-1]. *Acet-o-toluidide*. N-(2-Methylphenyl)acetamide, 9CIC₉H₁₁NO M 149.192Used as 0.2M soln. in C₆H₆ for extraction-photometric detn. of Au(III) (λ_{max} 400 nm, ε 4600, Br[⊖]/5M HCl), W (λ_{max} 405 nm, ε 14300, SCN[⊖]). Needles. Sol. C₆H₆, CHCl₃. Mp 110°. Bp 296°.

▷ AN2900000.

Shriner, R.L. *et al*, *Chem. Rev.*, 1944, **35**, 351 (*synth*)Dubowski, K.M., *Clin. Chem. (Winston-Salem, N.C.)*, 1962, **8**, 215 (*use*)Stepanova, T.F. *et al*, *CA*, 1970, **72**, 31343 (*synth*)Yamamoto, O. *et al*, *Anal. Chem.*, 1972, **44**, 1794 (*pmr*)Watanabe, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 1478 (*synth*)Cameron, T.S. *et al*, *Cryst. Struct. Commun.*, 1976, **5**, 927 (*cryst struct*)Yoder, C.H. *et al*, *J. Org. Chem.*, 1976, **41**, 1511 (*cmr*)Patel, K.S. *et al*, *Anal. Chem.*, 1986, **58**, 1547 (*detn, Au*)Mishra, N. *et al*, *Analyst (London)*, 1987, **112**, 1131 (*detn, W*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 509.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ABJ000, TGQ750.**4-Methylaniline****M-00124**

4-Methylbenzenamine, 9CI. p-Toluidine, 8CI. p-Tolylamine.

4-Aminotoluene

[106-49-0]

C₇H₉N M 107.155Used as 0.1-0.01M aq. soln. for photometric detn. of Tl(III) (redox reaction). Cryst. + 1H₂O (H₂O or EtOH aq.). Sol. H₂O, acids. Mp 42°, Mp 45° (*anhyd.*). Bp₁₀ 82.2°. pK_a 8.83 (25°). Steam-volatile.▷ Toxic by inhalation and skin absorption. Ignites on contact with fuming HNO₃, XU3150000.

B, HCl: [540-23-8].

Cryst. (AcOH/Et₂O). Mp 243°. Bp 257.5°.

Picrate: Mp 180-181° dec.

N-Formyl: [3085-54-9].

C₈H₉NO M 135.165Needles. Sol. H₂O. Mp 53°.

N-Ac: [103-89-9].

C₉H₁₁NO M 149.192Used as 0.2M soln. in C₆H₆ for extraction-photometric detn. of Au(III) (λ_{max} 400 nm, ε 4500, Br[⊖]/5M HCl), W (λ_{max} 405 nm, ε 12000, SCN[⊖]). Cryst. (EtOH aq.). Mp 146°. Bp 307°. Sublimes.

▷ Mod. oral toxicity.

N-Di-Ac: [7472-91-5].

C₁₁H₁₃NO₂ M 191.229Mp 48°. Bp₁₅ 160-161°.

N-Benzoyl: [582-78-5].

C₁₄H₁₃NO M 211.263

Cryst. (EtOH). Mp 158°. Bp 232°.

N-Dibenzoyl: [77930-24-6].

C₂₁H₁₇NO₂ M 315.371

Cryst. (EtOH). Mp 142-144°.

N-(4-Methylbenzenesulfonyl): Mp 193-194.5°.

N-Ethoxycarbonyl: [5255-66-3].

C₁₀H₁₃NO₂ M 179.218Mp 51°. Bp 243°, Bp₁₂ 128°.

N-Et: [622-57-1].

C₉H₁₃N M 135.208

Bp 217°.

▷ XU6450000.

N-Di-Et: [613-48-9].

C₁₁H₁₇N M 163.262

Bp 229°.

N-Benzyl: [5405-15-2].

C₁₄H₁₅N M 197.279Leaflets. Mp 19-20°. Bp 312-313°, Bp₁₀ 181°.

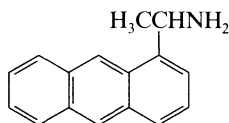
N-Ph: see 4-Methyldiphenylamine, M-00162

N-Benzylidene: [2272-45-9].

C₁₄H₁₃N M 195.263Yellowish cryst. Mp 35°. Bp₁₁ 178°.Shriner, R.L., *Chem. Rev.*, 1944, **35**, 351 (*synth, N-Ac*)Pfrepper, G., *Fresenius' Z. Anal. Chem.*, 1963, **193**, 179 (*detn, Tl*)Yamamoto, O. *et al*, *Anal. Chem.*, 1972, **44**, 1794 (*pmr*)Osmon, M.A., *Z. Naturforsch., B*, 1976, **31**, 801 (*synth*)Miyata, T. *et al*, *Synthesis*, 1978, 834 (*synth*)Patel, K.S. *et al*, *Anal. Chem.*, 1986, **58**, 1547 (*detn, Au*)Mishra, N. *et al*, *Analyst (London)*, 1987, **112**, 1131 (*detn, W*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 509.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ABJ250, TGR000, TGS750.

α -Methyl-1-anthracenemethanamine, 9CI **M-00125**

1-(1-Anthryl)ethylamine

 $C_{16}H_{15}N$ M 221.301

Reagent for optical resolution of carboxylic acids by hplc.

(+) **-form** [102691-90-7]*B, HCl*: Needles. Mp 235-238° dec. $[\alpha]_D^{25} + 34.0^\circ$ (c, 0.30 in MeOH).(–) **-form** [102691-89-4]*B, HCl*: Needles. Mp 236-238° dec. $[\alpha]_D^{25} - 33.2^\circ$ (c, 0.20 in MeOH).(±) **-form** [102691-92-9]*B, HCl*: Needles (EtOAc/EtOH). Mp 235-238° dec.Goto, J. *et al*, *J. Liq. Chromatogr.*, 1986, 9, 683 (*synth, use*) **α -Methyl-2-anthracenemethanamine, 9CI** **M-00126**

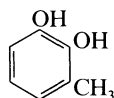
1-(2-Anthryl)ethylamine

 $C_{16}H_{15}N$ M 221.301

Reagent for the optical resolution of carboxylic acids by hplc.

(+) **-form** [102819-15-8]*B, HCl*: Needles. Mp 277-279° dec. $[\alpha]_D^{25} + 25.8^\circ$ (c, 0.4 in MeOH).(–) **-form** [102691-91-8]*B, HCl*: Needles. Mp 278-280° dec. $[\alpha]_D^{25} - 27.4^\circ$ (c, 0.9 in MeOH).(±) **-form** [102691-87-2]*B, HCl*: Needles (EtOAc/EtOH). Mp 278-280° dec.Goto, J. *et al*, *J. Liq. Chromatogr.*, 1986, 9, 683 (*synth, use*)**3-Methyl-1,2-benzenediol, 9CI** **M-00127**

3-Methylpyrocatechol, 8CI. 2,3-Dihydroxytoluene. 3-Methylcatechol. Isohomopyrocatechol

 $C_7H_8O_2$ M 124.139Used as 2mM aq. soln. for extraction-photometric detn. of V; extraction separation of Nb. Leaflets (C_6H_6). Mp 68°.Bp 241°, Bp₁₄ 136-137°. pK_{a1} 9.51; pK_{a2} 10.90 (20°).

Dibenzoyl:

 $C_{21}H_{16}O_4$ M 332.355

Mp 121°.

2-Me ether: [18102-31-3]. 2-Methoxy-3-methylphenol. 6-Methylguaiacol

 $C_8H_{10}O_2$ M 138.166

Mp 39°. Bp 209°.

Di-Me ether: [4463-33-6]. 1,2-Dimethoxy-3-methylbenzene, 9CI. 2,3-Dimethoxytoluene, 8CI. o-Homoveratrole. 3-Methylveratrole. Isohomoveratrole

 $C_9H_{12}O_2$ M 152.193Oil. Bp 202-203°, Bp₈ 92-93°. Bp also given as 214°.

[35236-40-9]

Perkin, W., *J. Chem. Soc.*, 1916, 109, 920.Wasserman, D. *et al*, *J. Org. Chem.*, 1943, 8, 73 (*deriv*)Hornbacher, E.D. *et al*, *J. Am. Chem. Soc.*, 1959, 77, 5314 (*deriv*)Birkofer, L. *et al*, *Chem. Ber.*, 1962, 95, 183.Nardillo, A.M. *et al*, *Anal. Chim. Acta*, 1973, 66, 359; 1975, 74,85; 1976, 86, 299 (*detn, V, Nb*)Popoff, T. *et al*, *Carbohydr. Res.*, 1976, 48, 13.Tsuchiya, T. *et al*, *Nippon Kagaku Kaishi*, 1979, 370; *CA*, 90, 203616 (*synth*)**5-Methyl-1,3-benzenediol, 9CI** **M-00128**

5-Methylresorcinol, 8CI. 3,5-Dihydroxytoluene. Orcinol.

Orcin

[504-15-4]

 $C_7H_8O_2$ M 124.139Prod. by *Aspergillus fumigatus* and *Gliocladium roseum*.

Present in trace amts. in lichens. Reagent for the detn.

of aromatic aldehydes and of carbohydrates. Cryst. +

1H₂O (H₂O), leaflets (CHCl₃). Mp 107.5°. Bp 287-290°. pK_{a1} 9.48; pK_{a2} 11.20 (20°). Used as 0.55% soln. in

acidified EtOH with 0.9% ferric chloride, Bial's reagent, for detn. of sugars, glycosides and sulfolipids.

▷ VH2100000.

Di-Ac:

 $C_{11}H_{12}O_4$ M 208.213

Mp 25°.

Dibenzoyl:

 $C_{21}H_{16}O_4$ M 332.355

Mp 88°.

Mono-Me ether: [4179-19-5]. 3-Methoxy-5-methylphenol

 $C_8H_{10}O_2$ M 138.166Found in lichens. Mp 61-62°. Bp 259°, Bp_{6.5} 130°.

Di-Me ether: 1,3-Dimethoxy-5-methylbenzene. 3,5-

Dimethoxytoluene

 $C_9H_{12}O_2$ M 152.193Found in lichens. Bp 244°, Bp₈ 102°.

[20982-28-9]

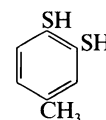
Anger, V. *et al*, *Fresenius' Z. Anal. Chem.*, 1964, 203, 422 (*use*)Marmor, R.S. *et al*, *J. Org. Chem.*, 1972, 37, 2901 (*synth, pmr*)*Org. Synth.*, 1973, 53, 90 (*deriv*)Voelter, W. *et al*, *J. Chromatogr.*, 1976, 126, 693 (*use*)Evans, G.E. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1988, 755 (*deriv*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, MPH500.

4-Methyl-1,2-benzenedithiol, 9CI **M-00129**

Toluene-3,4-dithiol, 8CI. 3,4-Dimercaptotoluene. 1,2-Dimercapto-4-methylbenzene. Dithiol

[496-74-2]

 $C_7H_8S_2$ M 156.272Used as 0.2% alk. soln. (stabilised by SnCl₂ or ascorbic

acid) in extraction separation of Se; photometric detn.

of Sn (ϵ 5800), Mo (ϵ 21000), W, Re, Ag. Cryst. Sol.alkalis, CHCl₃, pentyl acetate. Mp 35°. Bp_{0.84} 185-187°.Bp_{0.17} 135-137°. pK_{a1} 5.34; pK_{a2} 11.0 (H₂O, 25°). Readily

oxidised by atm. oxygen.

▷ XT2275000.

Di-Ac: Acetyl dithiol. Toluene-3,4-dithiol diacetate

 $C_{11}H_{12}O_2S_2$ M 240.347

Used as 0.2% soln. in EtOH for precipitation separation

of Mo, Pd, Re, Se, Te, W. Cryst. (cyclohexane). Sol.

EtOH, C₆H₆; insol. H₂O. Mp 48°.

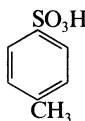
Dibenzoyl: Benzoyl dithiol

 $C_{21}H_{16}O_2S_2$ M 364.488

Used as soln. in EtOH for photometric detn. of Pd(II). Cryst. (EtOH). Sol. EtOH, Me₂CO, C₆H₆; spar. sol. H₂O. Mp 92°.

Aldrich Library of IR Spectra, 3rd Ed., 709D (ir)
Aldrich Library of NMR Spectra, 2nd Ed., 1, 980D (pmr)
 Mills, W.H. et al, *J. Chem. Soc.*, 1936, 175 (synth)
 Onishi, H. et al, *Anal. Chim. Acta*, 1956, **14**, 153 (detn, Sn)
 Clark, R.E.D., *Analyst (London)*, 1957, **82**, 182; 1958, **83**, 103 (synth, detn, Pd, Re, Se, Te, Mo, W)
 Gilbert, T.W. et al, *J. Am. Chem. Soc.*, 1960, **82**, 1087 (detn, Mo)
 Kreimer, S.E. et al, *Zh. Anal. Khim.*, 1962, **17**, 674 (detn, Ag)
 Gagliardi, E. et al, *Monatsh. Chem.*, 1971, **102**, 308 (use)
 Landsberger, S. et al, *Anal. Chim. Acta*, 1979, **89**, 281 (use, Se)
 Hobart, E.W. et al, *Anal. Chim. Acta*, 1982, **27**, 144.
 Cheng, K.L. et al, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 403 (use)
 Marzenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 384, 605.
 Onishi, H., *Photometric Determination of Traces of Metals, Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed, 1989, 96, 502.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TGN000.

4-Methylbenzenesulfonic acid, 9CI **M-00130**
p-Toluenesulfonic acid, 8CI
 [104-15-4]



C₇H₈O₃S M 172.204
 Acid catalyst for many reactions, can be used for selective cleavage of *t*-BOC protecting group. Used as Na salt. Hygroscopic plates + 1H₂O (H₂O). Mp 104-105° (92°). pK_a – 6.62 (H₂SO₄).

▷ Irritant, causes burns. XT6300000.

Me ester: [80-48-8].

C₈H₁₀O₃S M 186.231
 Mp 28°.

▷ Vesicant and skin sensitizer. XT7000000.

Et ester: [80-40-0].

C₉H₁₂O₃S M 200.258
 Cryst. (EtOAc). Mp 33-34°. Bp₁₅ 173°.

▷ Exp. carcinogen. XT6825000.

Ph ester: [640-60-8].

C₁₃H₁₂O₃S M 248.302
 Needles (EtOH). Mp 95-96°.

Chloride: [98-59-9]. *Tosyl chloride*

C₇H₇ClO₂S M 190.650
 Tosylating reagent. Plates (Et₂O). Mp 71°. Bp₁₅ 145-146°, Bp₂₀ 151.6°.

Fluoride: [455-16-3].

C₇H₇FO₂S M 174.195
 Needles (pet. ether). Mp 43-44°. Bp₁₆ 112.5°.

▷ XT8050000.

Anhydride: [4124-41-8].

C₁₄H₁₄O₅S₂ M 326.394
 Cryst. (Et₂O). Mp 122-125°.

Amide: [70-55-3].

C₇H₉NO₂S M 171.220
 Leaflets (EtOH), plates + 2H₂O (H₂O). Mp 138° (anhyd.), Mp 105° (hydrate). pK_{a1} 10.17 (20°, 0.1 M KCl).

▷ Highly toxic orally. XT5075000.

Amide, N-chloro: [127-65-1]. *Chloramine T*. *N-Chloro-4-methylbenzenesulfonamide, 9CI*. *N-Chloro-p-toluenesulfonamide*

C₇H₈ClNO₂S M 205.664

Used as Na salt. Oxidizing agent in photometric detn. of NH₃, CN[⊖], SCN[⊖]. Faintly yellow cryst. powder (as Na salt). Mod. sol. H₂O; insol. C₆H₆, CHCl₃; dec. in EtOH (Na salt). Mp 167-170° (as Na salt).

▷ May dec. violently if heated above 130°. XT5617000.

Amide, N-bromo: [41085-71-6]. *N-Bromo-4-methylbenzenesulfonamide, 9CI*. *Bromamine T*

C₇H₈BrNO₂S M 250.116

Used as a 0.05 M aq. soln. of Na salt as an oxidimetric titrant; detn. of As(III), Sb(III), Fe(II). Pale yellow cryst. Sol. H₂O, EtOH. CA no. refers to Na salt.

Anilide: [68-34-8].

C₁₃H₁₃NO₂S M 247.317
 Needles (Et₂O/EtOH). Mp 103°.

Dipropylamide: [723-42-2]. *4-Methyl-N,N-dipropylbenzenesulfonamide, 9CI*. *N,N-Dipropyl-p-toluenesulfonamide*. *Ditolamide, INN*. A17624

C₁₃H₂₁NO₂S M 255.380
 Uricosuric agent. Mp 36-37°. Bp_{0.5} 154-156°.

Hydrazide: [1576-35-8]. *p-Toluenesulfonylhydrazine*.

Tosylhydrazine

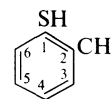
C₇H₁₀N₂O₂S M 186.234

Reagent for characterisation of alcohols and sugars, dehydrations and epoxy ketone fragmentations. Mp 108-110°.

▷ MW0210000.

Aldrich Library of IR Spectra, 844H, 1024B (ir)
Aldrich Library of NMR Spectra, **10**, 27B, 49B (pmr)
Sadtler Standard C-13 NMR Spectra, 1556 (cmr)
Sadtler Standard Ultraviolet Spectra, 9703 (uv)
 Holleman, A.F. et al, *Ber.*, 1911, **44**, 2504.
 Einstein, J., *Anal. Chem.*, 1947, **19**, 272 (*Chloramine T*, use)
 Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4**, 316 (*Chloramine T*, use)
Org. Synth., 1960, **40**, 93 (deriv)
 Klibus, A.K., *Zh. Anal. Khim.*, 1961, **16**, 79 (detn, NH₃)
Fr. Pat., M2587, (1964); *CA*, **62**, 489f (synth, pharmacol, Ditolamide)
 Wiley, R.H., *Org. Mass Spectrom.*, (Suppl.), 1970, **4**, 55 (ms)
 Singer, G.M. et al, *Org. Mass Spectrom.*, 1975, **10**, 473 (ms, Ditolamide)
 Campbell, M.M. et al, *Chem. Rev.*, 1978, **78**, 65 (synth, rev)
 Nair, C.G.R. et al, *Talanta*, 1978, **25**, 525 (*Bromamine T*, synth, use)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 3314.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 489.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, CDP000, EPW500, MLL250, SFV550, TGN500, TGO000, TGO250, TGO500, THE250.

2-Methylbenzenethiol, 9CI **M-00131**
o-Toluenethiol, 8CI. *o-Thiocresol*. *o-Mercaptotoluene*
 [137-06-4]



C₇H₈S M 124.206

Used for photometric detn. of Te. Leaves or liq. Insol. H₂O; sol. common org. solvs. Mp 15°. Bp 194.3°, Bp₅₀ 106°. pK_a 6.64 (26°).

▷ XT8750000.

S-Et: *1-(Ethylthio)-2-methylbenzene*. *Ethyl o-tolyl sulfide*

C₉H₁₂S M 152.260
 Bp 120°.

[34878-60-9]

Aldrich Library of IR Spectra, 524E (ir)
 Hirota, M. et al, *Tetrahedron*, 1969, 5953 (pmr)
 Jones, I.W. et al, *J. Chem. Soc., Perkin Trans. 2*, 1973, 1125 (uv)
 Holzbecher, Z. et al, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (detn, Te)
 Schroth, W. et al, *Z. Chem.*, 1977, 17, 411 (synth)
 Shagun, L.G. et al, *Zh. Org. Khim.*, 1978, 14, 187 (synth)
 Shaw, J.E. et al, *J. Org. Chem.*, 1991, 56, 3728 (synth)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TGP000.

3-Methylbenzenethiol, 9CI**M-00132**

m-Toluenethiol, 8CI. m-Thiocresol. m-Mercaptotoluene

[108-40-7]

C₇H₈S M 124.206

Used for photometric detn. of Te. Liq. Insol. H₂O; sol. common org. solvs. d₄²⁵ 1.063. Bp 195-200°, Bp₅₀ 107.5°. Steam-volatile.

[51679-09-5]

Aldrich Library of IR Spectra, 524F (ir)
 Aldrich Library of NMR Spectra, 5, 28A (pmr)
 Sadtler Standard C-13 NMR Spectra, 2006 (cmr)
 Org. Synth., Coll. Vol., 3, 1955, 809 (synth)
 Jones, I.W. et al, *J. Chem. Soc., Perkin Trans. 2*, 1973, 1125 (uv)
 Holzbecher, Z. et al, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (detn, Te)
 Shagun, L.G. et al, *Zh. Org. Khim.*, 1978, 14, 187 (synth)

4-Methylbenzenethiol, 9CI**M-00133**

p-Toluenethiol, 8CI. p-Thiocresol. p-Mercaptotoluene

[106-45-6]

C₇H₈S M 124.206

Used as 5% soln. in glac. AcOH for photometric detn. of Re, Te. Leaflets (EtOH aq.). Sol. AcOH. Mp 43-44°. Bp 195°, Bp₃₅ 101°.

▷ XT8925000.

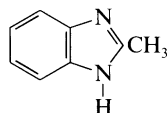
S-Et: 1-Methyl-4-(ethylthio)benzene. Ethyl p-tolyl sulfide

C₉H₁₂S M 152.260Bp 220-221°, Bp₁₅ 105°.

Aldrich Library of IR Spectra, 524H (ir)
 Aldrich Library of NMR Spectra, 5, 28C (pmr)
 Lawesson, S.O. et al, *Acta Chem. Scand.*, 1960, 20, 2325 (ms)
 Miller, S.I. et al, *J. Org. Chem.*, 1962, 27, 645 (uv)
 Al-Kayssi, M. et al, *Talanta*, 1963, 10, 1047 (detn, Re)
 Holzbecher, Z. et al, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.
 Shapiro, M.J. et al, *J. Org. Chem.*, 1978, 43, 212 (cmr)
 Shagun, L.G. et al, *Zh. Org. Khim.*, 1978, 14, 187 (synth)
 Shaw, J.E. et al, *J. Org. Chem.*, 1991, 56, 3728 (synth)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TGP250.

2-Methylbenzimidazole, 9CI, 8CI**M-00134**

[615-15-6]

C₈H₈N₂ M 132.165

Has bactericidal, fungicidal props. Reference material used in elemental microanalysis. Sol. H₂O. Mp 176-177°. pK_{a1} 6.15; pK_{a2} 11.48 (25°).

▷ DD9100000.

N-Ac: [14678-81-0].

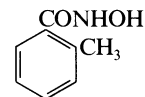
C₁₀H₁₀N₂O M 174.202Needles (C₆H₆/pet. ether). Mp 85-86°.

Phillips, M.A., *J. Chem. Soc.*, 1928, 2393 (synth)
 Jasinska, J., *Pol. J. Chem. (Rocz. Chem.)*, 1966, 40, 1429 (uv)
 Kjeldgaard, K. et al, *Arzneim.-Forsch.*, 1967, 17, 767 (pharmacol)
 Joeckle, R. et al, *Z. Naturforsch., A*, 1967, 22, 755 (ir)
 Lawesson, S.O. et al, *Tetrahedron*, 1968, 24, 1875 (ms)
 Analyst (London), 1972, 97, 740 (microanal)
 Cohen, V. et al, *J. Heterocycl. Chem.*, 1977, 14, 1321 (nmr)
 Catalán, J. et al, *J. Heterocycl. Chem.*, 1984, 21, 269 (basicity)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MHC250.

2-Methylbenzohydroxamic acid**M-00135**

N-Hydroxy-2-methylbenzamide, 9CI

[17512-73-1]

C₈H₉NO₂ M 151.165

Cryst. (EtOAc). Mp 130.5-131°.

N-(2-Methylphenyl): [33284-30-9]. N-Hydroxy-2-methyl-N-(2-methylphenyl)benzamide, 9CI

C₁₅H₁₅NO₂ M 241.289

Used as 5mM CHCl₃ soln. for extraction photometric detn. of V(V) (λ_{max} 510 nm, ε 4500, 4M HCl). Cryst.

Sol. CHCl₃, C₆H₆.

N-(3-Methylphenyl): [33405-93-5]. N-Hydroxy-2-methyl-N-(3-methylphenyl)benzamide, 9CI

C₁₅H₁₅NO₂ M 241.289

Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 530 nm, ε 4700, 4M HCl). Cryst.

Sol. CHCl₃, C₆H₆.Gupta, V.K. et al, *J. Indian Chem. Soc.*, 1969, 46, 831; 1971, 48, 753 (synth, derivs)Gupta, V.K. et al, *Anal. Chim. Acta*, 1973, 66, 39 (detn, V)Berndt, D.C. et al, *J. Org. Chem.*, 1974, 39, 841 (synth)Bittner, S. et al, *Tetrahedron Lett.*, 1974, 23, 1965.**4-Methylbenzohydroxamic acid****M-00136**

N-Hydroxy-4-methylbenzamide, 9CI

C₈H₉NO₂ M 151.165

N-(3-Methylphenyl): [33284-35-4]. N-Hydroxy-4-methyl-N-(3-methylphenyl)benzamide, 9CI

C₁₅H₁₅NO₂ M 241.289

Used as 5mM CHCl₃ soln. for extraction-photometric detn. of V(V) (λ_{max} 520 nm, ε 5350, 4M HCl). Cryst.

Sol. CHCl₃, C₆H₆.

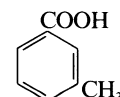
N-(4-Methylphenyl): [33284-34-3]. N-Hydroxy-4-methyl-N-(4-methylphenyl)benzamide, 9CI

Used for extraction-photometric detn. of V(V) (λ_{max} 510 nm, ε 5500).

Gupta, V.K. et al, *J. Indian Chem. Soc.*, 1971, 48, 753 (synth, deriv)Gupta, V.K. et al, *Anal. Chim. Acta*, 1973, 66, 39 (detn, V)**3-Methylbenzoic acid****M-00137**

m-Toluic acid

[99-04-7]

C₈H₈O₂ M 136.150

Prisms (MeOH or H₂O). Mod. sol. hot H₂O. Mp 111°. Bp 263°. pK_a 4.25 (25°). Sublimes, steam-volatile.

▷ XU1200000.

Me ester: [99-36-5].

$C_9H_{10}O_2$ M 150.177

Oil. d_{15}^{20} 1.066. Bp 215°.

Et ester: [120-33-2].

$C_{10}H_{12}O_2$ M 164.204

Bp 227°, Bp₁₀ 103-105°.

Ph ester: [41998-14-5].

$C_{14}H_{12}O_2$ M 212.248

Mp 61°.

Anhydride:

$C_{16}H_{14}O_3$ M 254.285

Cryst. (pet. ether). Mp 71°. Bp₁₇ 230°.

Chloride: [1711-06-4].

C_8H_7ClO M 154.595

Reagent for the hplc anal. of polyfunctional amines. d_4^{20} 1.173. Mp –23°. Bp₇₇₃ 219-220°, Bp₁₅ 109°.

Amide: [618-47-3]. *m-Toluamide*

C_8H_9NO M 135.165

Needles (Et₂O). Mp 97°.

Dimethylamide: [6935-65-5].

$C_{10}H_{13}NO$ M 163.219

Bp₁₂ 148°.

Diethylamide: [134-62-3]. *Diethyltoluamide*, USAN.

Metadelphene. Detamide

$C_{12}H_{17}NO$ M 191.272

Isol. from the female pink bollworm moth *Pectinophora gossypiella*. Insect repellent. Liq. d_4^{20} 0.996. Bp₁₉ 160°.

▷ XS3675000.

Nitrile: [620-22-4]. *1-Cyano-3-methylbenzene. m-Cyanotoluene*

C_8H_7N M 117.150

Liq. d^{20} 1.032. Mp –23.5° to –23°. Bp 210-212°, Bp₁₀ 84.5°.

▷ XV0525000.

McCabe, E.T. *et al*, *J. Org. Chem.*, 1954, **19**, 493 (*deriv*)

Hay, A.S. *et al*, *J. Org. Chem.*, 1960, **25**, 616 (*synth*)

Jones, W.A. *et al*, *Science (Washington, D.C.)*, 1968, **159**, 99 (*isol, deriv*)

Yamamoto, O. *et al*, *Anal. Chem.*, 1972, **44**, 1794 (*pmr*)

Benkeser, R.A. *et al*, *J. Org. Chem.*, 1973, **38**, 3660 (*synth*)

Wellons, S.L. *et al*, *J. Chromatogr.*, 1978, **154**, 219 (*use, chloride*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DKC800, TGP750, TGT250.

4-Methylbenzoic acid, 9CI

M-00138

p-Toluic acid. Crithmic acid

[99-94-5]

$C_8H_8O_2$ M 136.150

Isol. from horseradish. Spar. sol. H₂O. Mp 181°. Bp 274-275°. pK_a 4.37. Sublimes. Steam-volatile.

▷ XU1575000.

Me ester: [99-75-2].

$C_9H_{10}O_2$ M 150.177

Cryst. with intense unpleasant odour (MeOH aq.). Mp 33°. Bp 217°.

▷ XU2150000.

Et ester: [94-08-6].

$C_{10}H_{12}O_2$ M 164.204

Bp 228°, Bp₁₂ 110°.

Ph ester: [1900-85-2].

$C_{14}H_{12}O_2$ M 212.248

Mp 83°.

Anhydride: [13222-85-0].

$C_{16}H_{14}O_3$ M 254.285

Mp 95°. Stable to boiling H₂O.

Chloride: [874-60-2].

C_8H_7ClO M 154.595

Mp –2° to –1.5°. Bp 214-216°.

▷ XV1660000.

Bromide: [874-58-8].

C_8H_7BrO M 199.047

Bp₄₂ 145°.

Amide: [619-55-6].

C_8H_9NO M 135.165

Cryst. (H₂O). Mp 155°, Mp 165°.

Amide, oxime: [19227-13-5]. *N-Hydroxy-4-*

methylbenzenecarboximidamide, 9CI. p-Toluamidoxime

$C_8H_{10}N_2O$ M 150.180

Used for extraction-photometric detn. of Co (λ_{max} 580 nm, ϵ 4000). Cryst. (H₂O). Mp 145-146°. pK_{a1} 5.15; pK_{a2} 12.23.

Methylamide: [18370-11-1].

$C_9H_{11}NO$ M 149.192

Mp 145.5-146.5°.

Dimethylamide: [14062-78-3].

$C_{10}H_{13}NO$ M 163.219

Mp 41°.

Anilide: [6833-18-7].

$C_{14}H_{13}NO$ M 211.263

Mp 147-148°.

Nitrile: [104-85-8]. *p-Tolunitrile. p-Cyanotoluene*

C_8H_7N M 117.150

Needles (EtOH). Mp 25°. Bp 217.6°.

▷ XV0700000.

Hydrazide: [3619-22-5].

$C_8H_{10}N_2O$ M 150.180

Mp 117°.

Org. Synth., Coll. Vol., 1, 1932, 500 (*nitrile*)

Org. Synth., Coll. Vol., 3, 1955, 822 (*synth*)

Kaiser, E.M. *et al*, *J. Org. Chem.*, 1970, **36**, 1198 (*synth*)

Takwale, M.G. *et al*, *Acta Crystallogr., Sect. B*, 1971, **27**, 1152 (*cryst struct*)

Org. Synth., 1971, **51**, 96 (*synth*)

Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1133 (*amidoxime, detn, Co*)

Yamamoto, O. *et al*, *Anal. Chem.*, 1972, **44**, 1794 (*pmr*)

Brunet, J.J. *et al*, *J. Org. Chem.*, 1979, **44**, 2199 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MPX850, TGQ250, TGT750, TGU000.

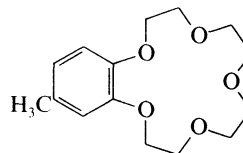
15-Methyl-1,4,7,10,13-

benzopentaoxacyclopentadecin, 9CI

M-00139

4-Methylbenzo-15-crown-5

[32702-27-5]



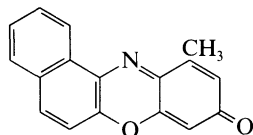
$C_{15}H_{22}O_5$ M 282.336

Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. (C₆H₆/Et₂O). Sol. C₆H₆, Et₂O. Mp 46.5-49°.

Pedersen, C.J., *J. Am. Chem. Soc.*, 1969, **89**, 7017 (*synth*)

Petraneck, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (*use*)

11-Methyl-9H-benzo[a]phenoxazin-9-one, 8CI **M-00140**
[17799-73-4]



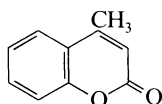
$C_{17}H_{11}NO_2$ M 261.279

Used as a 0.1mM soln. in 96% EtOH as redox indicator for titanometric detn. of Fe(III), Au(III), Ce(IV), $Cr_2O_7^{2-}$, VO_4^{3-} and organic compounds. Needles. Spar. sol. C_6H_6 . pK_{a1} 5.33; pK_{a2} 10.96 (20% EtOH, $\mu = 0.07$). $E^\circ + 0.445$ V (1N HCl, 50% EtOH, $\mu = 0.07$).

Ruzička, E. *et al*, *Mikrochim. Acta*, 1968, 1299; 1969, 698 (use)

Ruzička, E. *et al*, *Monatsh. Chem.*, 1968, **99**, 838 (synth)

4-Methyl-2H-1-benzopyran-2-one, 9CI **M-00141**
4-Methylcoumarin, 8CI. β -Methylcoumarin
[607-71-6]



$C_{10}H_8O_2$ M 160.172

Used as a 0.1% aq. soln. as metal fluorescent indicator for detn. of Ca, Cu. Needles (H_2O), prisms (C_6H_6). Sl. sol. H_2O ; sol. Me_2CO , EtOH. Mp 182° . pK_{a1} 7.8.

▷ GN7791000.

Ghosh, B.N., *J. Chem. Soc.*, 1915, **107**, 1600.

Org. Synth., 1941, **21**, 23; 1944, **24**, 69.

Huitnik, G.M. *et al*, *Talanta*, 1974, **21**, 1193, 1221 (synth, use, detn, Ca, Cu)

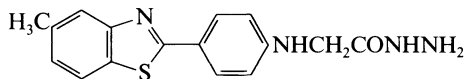
Cussans, N.J. *et al*, *Tetrahedron*, 1975, **31**, 2591 (cmr)

Ahluwalia, V.K. *et al*, *Indian J. Chem., Sect. B*, 1977, **15**, 816 (ms)

Mali, R.S. *et al*, *Synthesis*, 1977, 464.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MIP500.

[[4-(5-Methyl-2-benzothiazolyl)phenyl]amino]acetohydrazide **M-00142**
N-[4-(5-Methyl-2-benzothiazolyl)phenyl]glycine hydrazide, 9CI. *Apmayl hydrazide*
[100343-95-1]

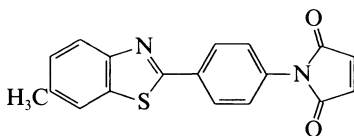


$C_{16}H_{16}N_4OS$ M 312.395

Fluorescent reagent for hplc anal. of carbonyl compds.

Anderson, J.M., *Anal. Biochem.*, 1986, **152**, 146 (use)

1-[4-(6-Methyl-2-benzothiazolyl)phenyl]-1H-pyrrole-2,5-dione, 9CI **M-00143**
2-(4-Maleimidophenyl)-6-methylbenzothiazole
[19735-68-3]

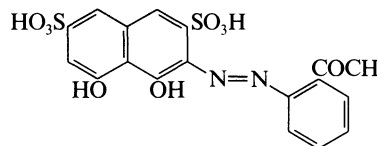


$C_{18}H_{12}N_2O_2S$ M 320.371

Reagent for fluorescence derivatisation of thiols and alcohols. Mp 221° .

Nicholson, B.H. *et al*, *Eur. J. Biochem.*, 1973, **37**, 575 (synth, use)

[2-(o-Methylbenzoyl)azo]-1,8-dihydroxynaphthalene-3,6-disulfonic acid **M-00144**
3-[(2-Acetylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI
[34373-38-1]

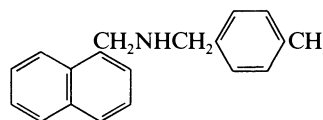


$C_{18}H_{14}N_2O_9S_2$ M 466.449

Gives colour reactions with Ba, Ca, Mg, Sr. Orange cryst. Sol. H_2O .

Katayama, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 2712 (use)

N-(4-Methylbenzyl)-1-naphthylmethylamine **M-00145**
N-[(4-Methylphenyl)methyl]-1-naphthalenemethanamine
[14393-23-8]



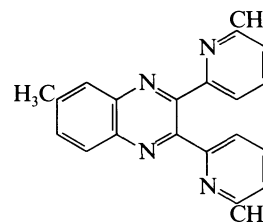
$C_{19}H_{19}N$ M 261.366

Used as a 1% soln. in dil. HCl for gravimetric detn. of NO_3^- .

B, HCl: Cryst. Mp 176° .

Hutton, R.C. *et al*, *J. Chem. Soc. A*, 1966, 1573 (synth, detn, NO_3^-)

6-Methyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, 9CI **M-00146**
[17401-63-7]



$C_{21}H_{18}N_4$ M 326.400

Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{max} 521 nm, ϵ 6040, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 109° .

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (synth, detn, Cu)

3-Methyl-1-butanol, 9CI **M-00147**
Isopentyl alcohol, 8CI. *Isoamyl alcohol*
[123-51-3]



$C_5H_{12}O$ M 88.149

Major component of fusel oil and coml. amyl alcohol.

Also a common constit. of plant oils, free and as esters. Volatile component of faeces of wild male mouse *Mus musculus*. Solvent for fats, resins etc. Used to esterify amino acids for glc. Freq. used as solvent in extraction-photometric methods, e.g. in detn. of Zr with chlorophosphonazo(III) (λ_{\max} 675 nm, ϵ 210000). Pungent liq. Spar. sol. H_2O . d_4^{15} 0.813. Mp -117.2° . Bp 132° . n_D^{20} 1.4075.

▷ Mod. toxic. An exp. carcinogen. EL5425000.

Ac: [123-92-2]. *Isopentyl acetate*. *Isoamyl acetate*

$C_7H_{14}O_2$ M 130.186

d_4^{15} 0.876. Bp 142° . n_D^{21} 1.3999.

3,5-Dinitrobenzoyl: Mp 60-62°.

1-Naphthylurethane: Mp 76°.

Me ether: [626-91-5]. *1-Methoxy-3-methylbutane*, 9CI

$C_6H_{14}O$ M 102.176

d_4^{11} 0.687. Bp 91°.

Et ether: [628-04-6]. *1-Ethoxy-3-methylbutane*, 9CI. *Ethyl 3-methylbutyl ether*. *Ethyl isopentyl ether*

$C_7H_{16}O$ M 116.203

Liq. d^{18} 0.764. Bp 112°.

Peter, A.H., *Ber.*, 1899, **32**, 1419 (*deriv*)

Cerchez, V., *Bull. Soc. Chim. Fr.*, 1928, **43**, 766 (*deriv*)

Brown, H.C. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 1504 (*synth*)

Zanetta, J.P. *et al*, *J. Chromatogr.*, 1973, **76**, 91 (*use*)

Felker, P. *et al*, *Anal. Biochem.*, 1975, **67**, 245 (*use*)

Blackburn, T.F. *et al*, *Tetrahedron Lett.*, 1975, 3041 (*synth*)

Debal, A. *et al*, *Synthesis*, 1976, 391 (*synth*)

Yamamoto, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1977, **26**, 515;

CA, **88**, 181841k (*detm*, Zr)

Bieber, H., *Encycl. Chem. Process. Des.*, 1977, **3**, 278 (*rev*)

Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals. General Aspects*, Wiley, N.Y., 1978.

Kirk-Othmer *Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **2**, 570 (*rev*)

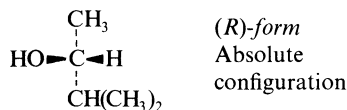
Goodrich, B.S. *et al*, *J. Chem. Ecol.*, 1990, **16**, 2091, 2107.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IHO850, IHP000.

3-Methyl-2-butanol, 9CI

M-00148

sec-Isoamyl alcohol. *Isopropylmethylcarbinol*
[598-75-4]



$C_5H_{12}O$ M 88.149

(R)-form [1572-93-6]

$[\alpha]_D^{25} -1.91^\circ$ (36% opt. purity).

(S)-form [1517-66-4]

Reagent for gc sepn. of amino acid diastereoisomers. Bp 110-112°. $[\alpha]_D^{20} +5.34^\circ$ (EtOH).

Ac: [56640-64-3].

$C_7H_{14}O_2$ M 130.186

Bp 128.5-129°.

(±)-form

Bp 112.9-123.9°.

Me ether:

$C_6H_{14}O$ M 102.176

Bp 81.2-81.5°.

Stevens, P.G., *J. Am. Chem. Soc.*, 1932, **54**, 3732; 1933, **55**, 4237 (*abs config*)

Org. Synth., Coll. Vol., 2, 1943, 406 (*synth*)

Brown, H.C. *et al*, *J. Am. Chem. Soc.*, 1959, **81**, 6423 (*synth*)

Cook, P.L., *J. Org. Chem.*, 1962, **27**, 3873 (*synth*)

Giacomelli, G. *et al*, *J. Org. Chem.*, 1974, **39**, 1757 (*synth*)

Rahn, W. *et al*, *Hoppe Seyler's Z. Physiol. Chem.*, 1976, **357**, 1223 (*use*)

Meek, A.G. *et al*, *J. Org. Chem.*, 1976, **41**, 323 (*synth*)

Koenig, W.A. *et al*, *J. Chromatogr.*, 1977, **133**, 141 (*use*)

Krishnamurphy, S. *et al*, *J. Org. Chem.*, 1977, **47**, 2534 (*synth*)

Kirk-Othmer *Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **2**, 570 (*rev*)

White, J.D. *et al*, *J. Org. Chem.*, 1988, **53**, 5909 (*synth*, *ir*, *pmr*, *cmr*, *ms*)

2-Methyl-1-buten-3-yne, 9CI

M-00149

Isopropenylacetylene

[78-80-8]



C_5H_6 M 66.102

Used as 10% soln. in CH_2Cl_2 for extraction-photometric detn. of Pd (λ_{\max} 317 nm). Liq. Sol. Me_2CO . Bp 34°.

▷ Extremely flammable, flash p. $< -7^\circ$. EN0960000.

Alder, K. *et al*, *Justus Liebigs Ann. Chem.*, 1957, **608**, 195 (*synth*)

Nazarov, I.N. *et al*, *CA*, 1958, **52**, 12751 (*synth*)

Chini, P. *et al*, *Chim. Ind. (Milan)*, 1964, **46**, 1049; *CA*, **62**, 1553 (*synth*)

Ziegler, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **210**, 344 (*detn*, Pd)

Guittet, E. *et al*, *Bull. Soc. Chim. Fr.*, 1986, 325 (*pmr*)

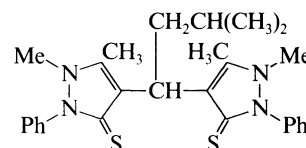
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MHU250.

4,4'-(3-Methylbutylidene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazole-3-thione], 9CI

M-00150

Isobutylidithiopyrylmethane

[73429-89-7]



$C_{27}H_{32}N_4S_2$ M 476.709

Used as 0.02% soln. in dil. H_2SO_4 for photometric detn. of Te (λ_{\max} 358 nm, ϵ 51000). Powder. Sol. $CHCl_3$, C_6H_6 , EtOH; insol. H_2O . Mp 209°.

Dolgorev, A.V. *et al*, *Zavod. Lab.*, 1980, **46**, 17 (*detm*, Te)

Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 854 (*synth*)

3-Methyl-1-butyl nitrite

M-00151

Nitrous acid 3-methylbutyl ester, 9CI. *Amyl nitrite*. *Isopentyl nitrite*. Other proprietary names

[110-46-3]



$C_5H_{11}NO_2$ M 117.147

Coronary vasodilator, spasmolytic. Anal. reagent for primary amines. Liq. d_4^{20} 0.871. Bp 99°. n_D^{20} 1.3871.

▷ NT0187500.

Von Oettingen, W.F., *Natl. Inst. Health Bull.*, 1946, **186** (*rev*, *pharmacol*)

Olah, G. *et al*, *Chem. Ber.*, 1956, **89**, 2374 (*synth*)

Bevillard, P. *et al*, *Bull. Soc. Chim. Fr.*, 1957, 337 (*synth*)

Kainz, G. *et al*, *Mikrochim. Acta*, 1968, 71, 92 (*use*)

Das, R.C. *et al*, *Bull. Chem. Soc. Jpn.*, 1979, **52**, 65 (*ms*)

Sugawara, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1979, **52**, 3391 (O-17 *nmr*)

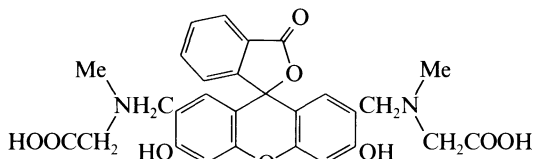
Haley, T.J. *et al*, *Clin. Toxicol.*, 1980, **16**, 317 (*rev*)

True, N.S. *et al*, *J. Phys. Chem.*, 1982, **86**, 2327 (*conformn*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 9205.
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 343.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IMB000.

Methylcalcein **M-00152**

N,N'-[(3',6'-Dihydroxy-3-oxospiro[isobenzofuran-1-(3H),9'-[9H]xanthene]-2',7'-diyl)bis(methylene)]bis(N-methylglycine) [000000-00-0]



C₂₈H₂₆N₂O₉ M 534.521
 Sol. alkalis; sl. sol. H₂O.

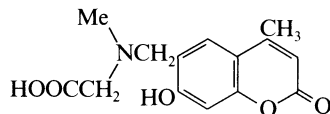
Di-Na salt: [136132-74-6].

Used as 0.1% aq. soln. as metal fluorescent indicator in titrimetric detn. of Cu, Mn. Orange cryst.

Lassner, E. *et al*, *Chemist-Analyst*, 1962, **51**, 49 (*use, ind*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Methylcalcein blue **M-00153**

N-(7-Hydroxy-4-methyl-2-oxo-2H-1-benzopyran-8-yl)-N-methylglycine. 4-Methylumbelliferone-8-methylenesarcosine [54696-41-2]



C₁₄H₁₅NO₅ M 277.276

Used as a 0.1% aq. soln. as metal fluorescent indicator in titrimetric detn. of Ca. Yellow cryst. (aq. HCl). Sol. alkalis; sl. sol. H₂O. Mp > 300°. pK_{a1} 6.7.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*detn, Ca*)
 Huitink, G.M. *et al*, *Talanta*, 1974, **21**, 1196 (*synth, nmr*)

Methylcarbamothioic acid, 9CI **M-00154**

Methylthiocarbamic acid, 8CI [36887-74-8]

MeNHCSOH

C₂H₅NOS M 91.134

O-Et ester: [817-73-2]. *Ethyl N-methylthiocarbamate*

C₄H₉NOS M 119.187

Liq. Bp₁₀ 93°, Bp_{1.4} 60-62°.

O-Isopropyl ester: [20753-31-5]. *Isopropyl N-methylthiocarbamate*

C₅H₁₁NOS M 133.214

Used as 0.05M soln. in CHCl₃ for extraction separation of Ag (from HNO₃, H₂SO₄ or HClO₄). Liq. Sol. CHCl₃, CCl₄, toluene.

Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1720.

Vall, G.A. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 260 (*use*)

Zolotov, Yu.A. *et al*, *Mikrochim. Acta*, 1985, **1**, 281 (*use*)

Scully, F.E. *et al*, *J. Org. Chem.*, 1989, **54**, 2978 (*synth, pmr*)

Methyl chloroformate **M-00155**

Carbonochloridic acid methyl ester, 9CI

[79-22-1]

CICOOme

C₂H₃ClO₂ M 94.477

Reagent for *N*-demethylations and other reactions.

Derivatisation reagent for catecholamines in aq. soln. for quantitative anal. Liq. d₄²⁰ 1.223. Bp 72-73°. n_D²⁰ 1.3868.

► Toxic vapour, highly irritant. Highly flammable, flash p. 12°. FG3675000.

Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **4**, 386 (*rev*)

Barlos, K. *et al*, *Chem. Ber.*, 1977, **110**, 2774 (*nmr*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 376; **7**, 236.

Shen, Q., *Acta Chem. Scand., Ser. A*, 1978, **32**, 245 (*struct*)

De Jong, A.P.J.M. *et al*, *J. Chromatogr.*, 1983, **276**, 267 (*use*)

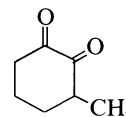
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 392.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MIG000.

3-Methyl-1,2-cyclohexanedione, 9CI **M-00156**

2-Hydroxy-3-methyl-2-cyclohexen-1-one

[3008-43-3]



C₇H₁₀O₂ M 126.155

Enolised α-diketone. Constit. of coffee. Cryst. (pet. ether). Sol. H₂O. Mp 64-65°. Bp 160-162°, Bp₁₂ 80-85°.

1-Oxime: [24863-57-8].

C₇H₁₁NO₂ M 141.169

Mp 78-80°.

Dioxime: [18310-18-4]. *3-Methylniroxime*

C₇H₁₂N₂O₂ M 156.184

Used as EtOH soln. for extraction-photometric detn. of Ni (CHCl₃); gravimetric detn. of Bi, Ni, Pd. Cryst. (EtOH or C₆H₆). Sol. EtOH, C₆H₆; spar. sol. H₂O. Mp 165°. pK_{a1} 10.6 (25°).

1-Phenylhydrazone: [14192-51-9].

Mp 190-191°.

Banks, C.V. *et al*, *J. Org. Chem.*, 1956, **21**, 547 (*synth*)

Giammarino, A.S. *et al*, *Tetrahedron*, 1963, **19**, 2051 (*isol*)

Cumper, C.W.N. *et al*, *J. Chem. Soc.*, 1965, 2067 (*synth*)

Giammarino, A.S. *et al*, *Nature (London)*, 1966, **210**, 1358 (*isol*)

Bassett, J. *et al*, *Analyst (London)*, 1967, **92**, 279 (*detn, Bi, Ni, Pd*)

Bassett, J. *et al*, *J. Chem. Soc. A*, 1969, 2873 (*synth*)

Plekhanov, N.A. *et al*, *Vestn. Mosk. Univ., Ser. 2: Khim.*, 1974, **15**, 492; *CA*, **82**, 77689g (*detn, Ni*)

Moriuchi, C.A. *et al*, *Synthesis*, 1989, 785 (*synth, ir, pmr, cmr*)

Matsumoto, K. *et al*, *J. Am. Chem. Soc.*, 1990, **112**, 9614 (*synth*)

4-Methyl-1,2-cyclohexanedione, 9CI **M-00157**

[3008-42-2]

C₇H₁₀O₂ M 126.155

(±)-*form*

Needles. Sol. H₂O. Mp 35°. Bp 167°, Bp₁₆ 90-95°.

1-Oxime: [24858-31-9].

C₇H₁₁NO₂ M 141.169

Mp 161°.

2-Oxime: [24858-29-5].

C₇H₁₁NO₂ M 141.169

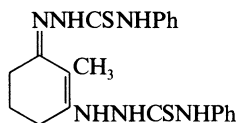
Mp 118°.

Dioxime: [18310-19-5]. 4-MethylnoximeC₇H₁₂N₂O₂ M 156.184Used as a satd. aq. soln. for photometric detn. of Re (λ_{\max} 436 nm, ϵ 69000); extraction-photometric detn. of Pd (λ_{\max} 280 nm, CHCl₃); gravimetric detn. of Bi, Ni, Pd. Cryst. (MeOH). Sol. EtOH; spar. sol. H₂O. Mp 180°, Mp 181-182° (dec.).

▷ GV0750000.

Banks, C.V. *et al*, *Anal. Chem.*, 1956, **28**, 79 (*grav. detn. Ni, Pd*)Banks, C.V. *et al*, *J. Org. Chem.*, 1956, **21**, 547 (*synth*)Banks, C.V. *et al*, *Anal. Chim. Acta*, 1959, **21**, 308 (*photom. detn. Pd*)Kassner, J.L. *et al*, *Talanta*, 1961, **7**, 269 (*detn. Re*)Bassett, J. *et al*, *J. Chem. Soc. A*, 1969, 2873 (*synth*)**2-Methyl-1,3-cyclohexanedione bis(phenylthiosemicarbazone) M-00158**

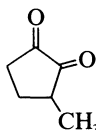
2-[2-Methyl-3-[2-[(phenylamino)thioxomethyl]hydrazino]-2-cyclohexen-1-ylidene]-N-phenylhydrazinecarbothioamide, 9CI [77783-18-7]

C₂₁H₂₄N₆S₂ M 424.593

Used as 0.1% soln. in DMF for kinetic photometric detn. of Cu(II) (pH < 2). Yellow cryst. (EtOH). Sol. DMF, EtOH. Mp 214-216°.

Rodriguez, J. *et al*, *Talanta*, 1981, **28**, 131 (*synth*)Rodriguez, J. *et al*, *Anal. Chim. Acta*, 1984, **156**, 319 (*detn. Cu*)**3-Methyl-1,2-cyclopentanedione, 9CI M-00159**

2-Hydroxy-3-methyl-2-cyclopenten-1-one [765-70-8]

C₆H₈O₂ M 112.128Enolised β -diketone. Constit. of coffee. Important flavouring ingredient. Cryst. + 2H₂O. Mp 78-79° (hydrate), Mp 106.5-107° (anhyd.).*Dihydrazone*:C₆H₁₂N₄ M 140.188

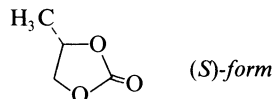
Mp 143°.

Dioxime: [41330-47-6].C₆H₁₀N₂O₂ M 142.157

Mp 148-149° dec.

Disemicarbazone: Mp 280°.*Bis(thiosemicarbazone)*: [15899-61-3]. 2,2'-(3-Methyl-1,2-cyclopentanediylydene)bishydrazinecarbothioamide, 9CI C₈H₁₄N₆S₂ M 258.371Used as 0.06% soln. in DMF/Me₂CO for photometric detn. of Zn (λ_{\max} 415 nm, ϵ 10000), Bi (λ_{\max} 420 nm, ϵ 11000), Cd, Hg, Cu, Co; as soln. in EtOH for photometric detn. of Pb and Ag (λ_{\max} 430 nm, ϵ 10000, pH8). Yellow cryst. Sol. EtOH, CHCl₃, DMF, Me₂CO. Mp 240°.Sato, K. *et al*, *J. Org. Chem.*, 1967, **32**, 339 (*synth. bibl*)Rojas, J. *et al*, *Microchem. J.*, 1982, **27**, 433, 445 (*synth. use*)Salim, R. *et al*, *Spectrosc. Lett.*, 1985, **18**, 583, 593; *CA*, **104**, 14178s (*detn. Ag, Pb*)**4-Methyl-1,3-dioxolan-2-one, 9CI M-00160**

Carbonic acid cyclic propylene ester. Methylene carbonate. 1,2-Propylene carbonate [108-32-7]

C₄H₆O₃ M 102.090

▷ FF9650000.

(S)-form [51260-39-0]Bp₂₅ 100-105°. [α]_D²⁵ -1.7° (c, 0.92 in EtOH).*(±)-form*Much-patented industrial intermed. for polymerisations, etc. Used as an extraction solvent with CHCl₃. Liq. d₄²³ 1.21. Bp_{4.5} 92°, Bp_{0.08} 79-80°.Chabrier, P. *et al*, *Bull. Soc. Chim. Fr.*, 1954, 1142 (*synth. props*)Trudell, L.A. *et al*, *Anal. Chim. Acta*, 1970, **52**, 343.Jakubiec, R.J. *et al*, *Mikrochim. Acta*, 1970, 1199 (*use*)Usieli, V. *et al*, *J. Org. Chem.*, 1974, **39**, 2073 (*synth. ir, uv, pmr*)Mizuno, T. *et al*, *Synthesis*, 1989, 636 (*synth. ir, pmr, ms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CBW500.**3-Methyldiphenylamine M-00161**

3-Methyl-N-phenylbenzenamine, 9CI. N-Phenyl-m-toluidine, 8CI. Phenyl-m-tolylamine [1205-64-7]

C₁₃H₁₃N M 183.252Used as redox indicator. Cryst. Sol. Me₂CO, Et₂O, CS₂.Mp 29-30°. Bp₇₂₅ 315°.Ullmann, F., *Justus Liebigs Ann. Chem.*, 1907, **355**, 312.Zarosov, V.A. *et al*, *CA*, 1945, **39**, 4412.Scardiglia, F. *et al*, *J. Org. Chem.*, 1958, **23**, 629.Bishop, E., *Indicators*, Pergamon, Oxford, 1972.**4-Methyldiphenylamine M-00162**

4-Methyl-N-phenylbenzenamine, 9CI. N-Phenyl-p-toluidine, 8CI. Phenyl-p-tolylamine [620-84-8]

C₁₃H₁₃N M 183.252Used as a redox indicator. Cryst. Sol. Me₂CO, Et₂O, CS₂.Mp 89°. Bp₇₂₇ 318°. pK_a 23.1 (25°, DMSO aq.).

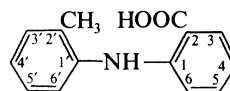
N-Ac:

C₁₅H₁₅NO M 225.290

Cryst. (EtOH). Mp 52°.

Merz, V. *et al*, *J. Prakt. Chem.*, 1893, **48**, 454.Goldberg, I. *et al*, *Ber.*, 1907, **40**, 4541.Ullmann, F., *Justus Liebigs Ann. Chem.*, 1907, **355**, 312.Scardiglia, F. *et al*, *J. Org. Chem.*, 1958, **23**, 629.Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)Cox, R.A. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 488.**2'-Methyldiphenylamine-2-carboxylic acid M-00163**

2-[(2-Methylphenyl)amino]benzoic acid, 9CI. N-o-Tolylantranilic acid, 8CI. 2-o-Toluidinobenzoic acid [16610-44-9]



$C_{14}H_{13}NO_2$ M 227.262

Used as a redox indicator for titrimetric detn. of Fe(II).

Leaflets (C_6H_6). Sol. alkalis, EtOH, Et₂O, C_6H_6 ; insol.

H₂O. Mp 189°. Bp_{0.01} 200°. E° + 1.11V.

▷ CB4172000.

Locher, J., *Justus Liebigs Ann. Chem.*, 1894, **279**, 275.

Lehmstedt, K. *et al. Ber.*, 1936, **69**, 2399.

Lederer, M. *et al. Anal. Chim. Acta*, 1952, **6** (detn. Fe)

Massie, S.P. *et al. J. Org. Chem.*, 1956, **21**, 347.

3'-Methyldiphenylamine-2-carboxylic acid M-00164

2-[(3-Methylphenyl)amino]benzoic acid, 9CI. N-m-

Tolylanthranilic acid, 8CI. 2-m-Toluidinobenzoic acid

[16524-22-4]

$C_{14}H_{13}NO_2$ M 227.262

Used as a redox indicator for titrimetric detn. of Fe(II).

Leaflets (C_6H_6). Sol. alkalis, EtOH, Et₂O, C_6H_6 ; insol.

H₂O. Mp 139°. E° + 0.84 - 0.86V.

▷ CB4170000.

[23554-55-4]

Ullmann, F., *Justus Liebigs Ann. Chem.*, 1907, **355**, 312.

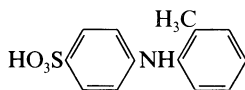
Lederer, M. *et al. Anal. Chim. Acta*, 1952, **6**, 1 (detn. Fe)

2-Methyldiphenylamine-4-sulfonic acid M-00165

4-(2-Methylphenylamino)benzenesulfonic acid, 9CI. o-

Tolylphenylamine monosulfonic acid

[6052-39-7]



$C_{13}H_{13}NO_3S$ M 263.317

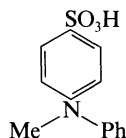
Used as redox indicator. Cryst. Sol. H₂O.

Cohen, S. *et al. Ind. Eng. Chem., Anal. Ed.*, 1936, **8**, 364 (use, ind)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)

N-Methyldiphenylamine-4-sulfonic acid M-00166

4-(N-Methyl-N-phenylamino)benzenesulfonic acid



$C_{13}H_{13}NO_3S$ M 263.317

Used as 0.1% aq. soln. for photometric detn. of V (λ_{max}

522 nm, ϵ 26400); redox indicator. E° + 0.80 V; λ_{max}

520-525 nm.

Ba salt: Plates (H₂O).

Na salt: Cryst. (H₂O). Sol. H₂O.

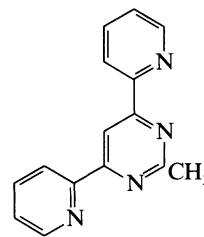
Knop, J. *et al. Fresenius' Z. Anal. Chem.*, 1941, **122**, 183 (synth)

Bishop, E. *et al. Talanta*, 1969, **16**, 138 (detn. V)

Frumina, N.S. *et al. Analyst (London)*, 1971, **96**, 26 (ind)

2-Methyl-4,6-di-2-pyridinylpyrimidine, 9CI M-00167

[61097-51-6]



$C_{15}H_{12}N_4$ M 248.287

Used for photometric detn. of Cu(I) (λ_{max} 495 nm, ϵ 8800,

pH 7, 50% EtOH). Cryst. (MeOH). Sol. MeOH, EtOH.

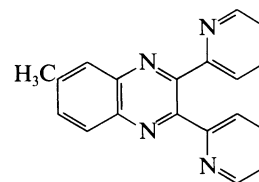
Mp 138°.

Schilt, A.A. *et al. Talanta*, 1976, **23**, 543 (synth, detn. Cu)

6-Methyl-2,3-di-2-pyridylquinoxaline, 8CI M-00168

2,3-Bis(2-pyridyl)-6-methylquinoxaline

[17401-62-6]



$C_{19}H_{14}N_4$ M 298.346

Used as 0.1% EtOH soln. for extraction-photometric detn.

of Cu(I) (λ_{max} 515 nm, ϵ 3950, pentanol). Cryst. (EtOH).

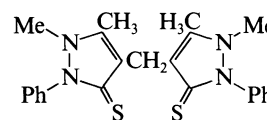
Sol. EtOH, pet. ether. Mp 138°.

Stephen, W.I. *et al. Anal. Chim. Acta*, 1967, **39**, 357 (synth, detn, Cu)

4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-thione], 9CI M-00169

Bis(thioantipyryl)methane

[53799-78-3]



$C_{23}H_{24}N_4S_2$ M 420.601

Used as a 0.01M soln. in AcOH to give colour reactions

with Au, Mo, Sb, Os, Sn, Re; used for extraction-

photometric detn. of Bi (in the presence of SCN⁻;

dichloroethane), and photometric detn. of Pd (λ_{max} 500

nm, ϵ 29000), Te (λ_{max} 360 nm, ϵ 52000), Os (λ_{max} 680

nm, ϵ 3100). Cryst. (EtOH). Sol. acids, alcohols, EtOH,

Me₂CO, CHCl₃; insol. H₂O. Mp 237.5°.

Dologorev, A.V. *et al. Zavod. Lab.*, 1974, **40**, 146, 247, 1182; 1978, **44**, 1050 (colour reactions, detn. Pd, Bi)

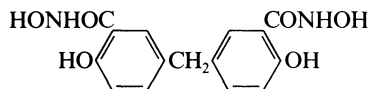
Dologorev, A.V. *et al. Zh. Anal. Khim.*, 1974, **29**, 1766; 1979, **34**,

2192 (synth, detn. Te)

Akimov, V.K. *et al. Zh. Anal. Khim.*, 1977, **32**, 1004 (synth, use)

3,3'-Methylenebis[N,6-dihydroxybenzamide], 9CI

5,5'-Methylenebis(salicylohydroxamic acid)
[82085-22-1]



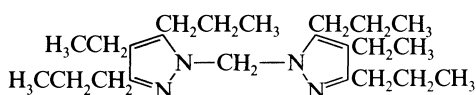
$C_{15}H_{14}N_2O_6$ M 318.285

Used as a 1mM soln. in EtOH for photometric detn. of V(V) (λ_{max} 495 nm, ϵ 5100). Cryst.

Salinas, F. *et al*, *Microchem. J.*, 1982, **27**, 188 (*detn.*, V)

1,1'-Methylenebis[4-ethyl-3,5-dipropyl-1H-pyrazole], 9CI

Bis(4-ethyl-3,5-dipropyl-1-pyrazolyl)methane
[40012-16-6]



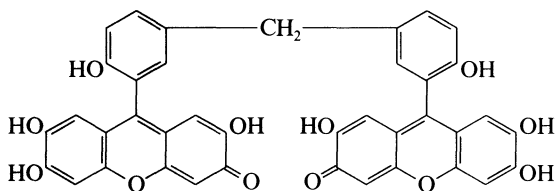
$C_{23}H_{40}N_4$ M 372.596

Used as 0.1M CHCl₃ soln. for extraction-separation of Zn (from Cd, halide or SCN[⊖]). Cryst. Sol. CHCl₃.

Dziomko, V.M., *Zh. Neorg. Khim.*, 1974, **19**, 1051 (*synth*)
Sukhanovskaya, A.I. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1539 (*sepn.*, Zn)

9,9'-[Methylenebis(6-hydroxy-3,1-phenylene)]bis-[2,6,7-trihydroxy-3H-xanthen-3-one], 9CI

5,5'-Methylenebissalicylfluorone
[54703-61-6]



$C_{39}H_{24}O_{12}$ M 684.611

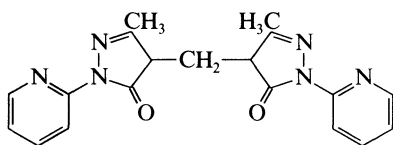
Used as 1mM soln. in EtOH for photometric detn. of Te (λ_{max} 530 nm, ϵ 35000). Cryst. (EtOH). Sol. EtOH, MeOH.

Nazerenko, V.A. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1850 (*synth.*, *detn.*, Te)

Antonovich, V.A. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 2341 (*synth*)

4,4'-Methylenebis[3-methyl-1-(2-pyridyl)-5-pyrazol-ol], 8CI

Bis[1-(2-pyridyl)-3-methyl-5-pyrazolon-4-yl]methane



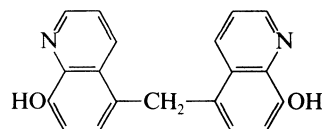
$C_{19}H_{18}N_6O_2$ M 362.390

Used as a 0.3% soln. in aq. NH₃ for fluorimetric detn. of Dy, Tl. Cryst. Mp 213° dec.

Butter, E. *et al*, *Talanta*, 1968, **15**, 901 (*synth.*, *uv.*, *ir.*, *nmr.*, *use*)

M-00170 5,5'-Methylenebis[8-quinolinol], 9CI

8,8'-Dihydroxy-5,5'-biquinolylmethane
[2536-71-2]



$C_{19}H_{14}N_2O_2$ M 302.332

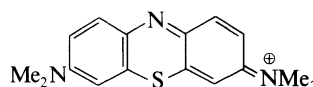
Used as a satd. soln. in dil. HCl for extraction-photometric detn. of Al, Cu, Fe, Ni, Zn. Cryst. powder. Sol. EtOH; spar. sol. H₂O, HCl aq. (0.76mg per 100cm³). pK_{a1} 4.2; pK_{a2} 10.0 (20% EtOH).

Schüller, J., *J. Prakt. Chem.*, 1913, **88**, 180 (*synth*)

Philips, J.P. *et al*, *Anal. Chim. Acta*, 1960, **23**, 131 (*use*)

Methylene blue, USAN

3,7-Bis(dimethylamino)phenothiazin-5-ium(1+), 9CI. Swiss blue. Calcozine blue ZF. C.I. Basic blue 9. C.I. 52015. Other proprietary names



$C_{16}H_{18}N_3S^{\oplus}$ M 284.404 (ion)

Chloride: [61-73-4]. Methylthionium chloride, INN

$C_{16}H_{18}ClN_3S$ M 319.857

Bacteriological stain, redox indicator, antiseptic.

Antimethaemoglobinaemic, cyanide antidote. Used as 0.05% aq. soln. for extraction-photometric detn. of many elements as anionic complexes, e.g. B (as BF₄[⊖], λ_{max} 665 nm, ϵ 82000, 1,2-dichloroethane), Sb, Ga, In, Au, Pd, Os, Ta, Tl(III), Ge, P(V), Si(IV), SCN[⊖], ClO₄[⊖]. Dark bronze-green cryst. with bronze lustre + ca. 3H₂O (HCl aq.). Sol. H₂O, EtOH. Blue soln. in H₂O, λ_{max} 668, 609 nm. Bleached reversibly by Zn/HCl or Na₂S₂O₄. A mixt. with Lauth's violet, L-00003 is sometimes mistakenly referred to as Azure II.

▷ LD₅₀ 82mg/kg (mouse, iv). SO5600000.

[7220-79-3]

Bernthsen, A., *Justus Liebigs Ann. Chem.*, 1885, **230**, 73, 137; 1888, **251**, 1 (*synth.*, *props*)

Fierz-David, H.E. *et al*, *Fundamental Processes of Dye Chemistry*, Interscience, N.Y., 1949, 311 (*rev*)

Serge, G. *et al*, *Angew. Chem.*, 1956, **68**, 486 (*use*)

Ducret, L., *Anal. Chim. Acta*, 1957, **17**, 213 (*detn.*, B)

Iwasaki, I. *et al*, *Bull. Chem. Soc. Jpn.*, 1963, **36**, 325 (*detn.*, ClO₄[⊖])

Nazerenko, V.A. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 128 (*detn.*, Ge)

Marczenko, Z. *et al*, *Analyst (London)*, 1981, **106**, 751 (*detn.*, Os)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1042.

Köthe, J. *et al*, *Fresenius' Z. Anal. Chem.*, 1985, **320**, 545 (*detn.*, B)

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 183.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 4021.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BJI250.

2-Methylenebutanedioic acid, 9CI

Methylenesuccinic acid, 8CI. 2-Propene-1,2-dicarboxylic acid. Itaconic acid

[97-65-4]



$C_5H_6O_4$ M 130.100

Prod. comly. by fermentation of molasses, glucose etc.

with *Aspergillus terreus*. Pyrol. prod. of citric acid. Prod. by various microorganisms and isol. from plants, e.g. roots of *Vicia faba*. Speciality monomer imparting performance advantages to surface coating polymers etc. Hygroscopic cryst. Mod. sol. H₂O, EtOH; spar. sol. Et₂O, C₆H₆. Mp 167-168° (162-164° dec.). p*K*_{a1} 3.68; p*K*_{a2} 5.14 (25°, 0.1*M* NaClO₄). V. low toxicity. Interconverts with citraconic and mesaconic acids under strongly basic conds. or on hgt.

4-Mono-Me ester: [7338-27-4].

C₆H₈O₄ M 144.127

Mp 70°. Bp₁₂ 149°.

Di-Me ester: [617-52-7].

C₇H₁₀O₄ M 158.154

Mp 38°. Bp 208°, Bp₁₁ 108°.

Di-Et ester: [2409-52-1].

C₉H₁₄O₄ M 186.207

Bp_{0.3} 81°. n_D³⁰ 1.4355.

Dibutyl ester: [2155-60-4].

C₁₃H₂₂O₄ M 242.314

Bp_{1.3} 145°. n_D²⁵ 1.442.

Diamide: [3786-29-6].

C₅H₈N₂O₂ M 128.130

Mp 192°.

Dichloride: [1931-60-8].

C₅H₄Cl₂O₂ M 166.991

Bp₁₇ 89°.

▷ WN4950000.

Anhydride: [2170-03-8].

C₈H₄O₃ M 112.085

Used for detn. of tertiary amines. Mp 68°. Bp₃₀ 139-140°.

Org. Synth., *Coll. Vol.*, 2, 1943, 368 (*synth*)

Pfeifer, V.F. *et al*, *Ind. Eng. Chem.*, 1952, **44**, 2975 (*manuf*)

Jones, E.R.H., *J. Chem. Soc.*, 1954, 1865 (*synth*)

Chiusoli, G.P., *Angew. Chem.*, 1960, **72**, 74 (*synth*)

Coïc, Y. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1960, **250**, 914 (*isol*)

Org. Synth., *Coll. Vol.*, 4, 1963, 554 (*chloride*)

Wronski, M., *Chem. Anal. (Warsaw)*, 1966, **11**, 799; *CA*, **66**, 8157n (*anhydride, use*)

Harlow, R.L. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 2965 (*cryst struct*)

Kirk-Othmer *Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **13**, 865 (*rev. bibl*)

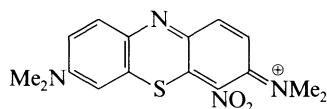
Kita, Y. *et al*, *Tetrahedron Lett.*, 1984, **25**, 6027 (*deriv*)

Kita, Y. *et al*, *J. Org. Chem.*, 1986, **51**, 4150 (*deriv, synth, ir, pmr*)

Methylene green

M-00177

3,7-Bis(dimethylamino)-4-nitrophenothiazin-5-ium(1+), 9CI.
C.I. Basic green 5. C.I. 52020



C₁₆H₁₇N₄O₂S[⊕] M 329.402 (ion)

Strictly, the name Methylene green applies to the chloride.

Chloride: [2679-01-8].

C₁₆H₁₇ClN₄O₂S M 364.855

Used as 1*mM* aq. soln. for extraction-photometric detn. of B (as BF₄[⊖]), Si, Ta, Tl(III). Bluish-green cryst. powder. Sol. H₂O; sl. sol. EtOH.

▷ SP5775000.

Pasztor, V.M. *et al*, *Anal. Chim. Acta*, 1961, **24**, 467 (*detn, B*)

Tarayan, V.M. *et al*, *Zavod. Lab.*, 1969, **35**, 1435 (*detn, Tl*)

Tarayan, V.M. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1970, **13**, 1573 (*detn, Ta*)

Mirzoyan, F.V. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 1293 (*detn, Si*)

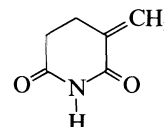
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MJU250.

3-Methylene-2,6-piperidinedione

M-00178

α-Methyleneglutarimide

[34573-74-5]



C₆H₇NO₂ M 125.127

Cryst. (CH₂Cl₂/Et₂O). Mp 116-117°.

Dioxime: [79162-60-0]. 2,6-Dihydroxyimine-3-methylenepiperidine

C₆H₉N₃O₂ M 155.156

Used as a 0.25% soln. in glycol for photometric detn. of Fe(III) (λ_{max} 475 nm). Cryst. Sol. EtOH, Me₂CO, glycol. p*K*_{a1} 11.28.

Ruis, J. *et al*, *Afinidad*, 1981, **38**, 235; *CA*, **95**, 143425q (*detn, Fe*)

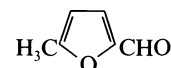
Wanner, M.J. *et al*, *Synthesis*, 1988, 325 (*synth, ir, pmr*)

5-Methyl-2-furancarboxaldehyde, 9CI

M-00179

5-Methylfurfural. 2-Formyl-5-methylfuran

[620-02-0]



C₆H₆O₂ M 110.112

Isol. from brown algae and other plant sources, doubtless as a secondary prod. from saccharides. Oil. d₄¹⁸ 1.1072. Bp 187°, Bp₁₂ 79-81°.

▷ LT7032500.

Oxime, (E-): [57784-58-4].

C₆H₇NO₂ M 125.127

Prisms (ligroin). Mp 51-52°.

Oxime, (Z-): [57784-53-9].

C₆H₇NO₂ M 125.127

Needles (ligroin). Mp 112°.

Phenylhydrazone: Mp 147-148°.

Thiosemicarbazone: [6823-95-6]. 5-Methyl-2-furancarboxaldehyde thiosemicarbazone

C₇H₉N₃OS M 183.234

Used as a 0.4*mM* soln. in EtOH to give colour reaction with Pd (λ_{max} 393 nm, ε 44000). Cryst.

Fromherz, K. *et al*, *Ber.*, 1907, **40**, 404.

Reichstein, T., *Helv. Chim. Acta*, 1930, **13**, 346.

Org. Synth., 1934, **14**, 62.

Grigg, R. *et al*, *Tetrahedron*, 1965, **21**, 3441 (*ms*)

Mas'ko, L.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 315 (*detn, Pd*)

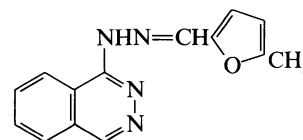
Comins, D.L. *et al*, *J. Org. Chem.*, 1987, **52**, 104 (*synth, pmr*)

5-Methyl-2-furancarboxaldehyde 1-phthalazinylhydrazone, 9CI

M-00180

5-Methylfurfural 1-phthalazinehydrazone

[83728-76-1]



C₁₄H₁₂N₄O M 252.275

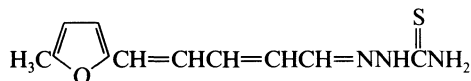
Used as 0.01*M* soln. in 10% Triton X-100 soln. for photometric detn. of Ni. Cryst. Sol. EtOH, CHCl₃; insol. H₂O, C₆H₆. Mp 239-241°.

Ishii, H. *et al*, *Analyst (London)*, 1982, **107**, 885 (*detn, Ni*)

5-(5-Methyl-2-furanyl)-2,4-pentadienal thiosemicarbazone

M-00181

2-[5-(5-Methyl-2-furanyl)-2,4-pentadienylydene]hydrazinecarbothioamide, 9CI
[53652-14-5]

C₁₁H₁₃N₃OS M 235.309

Used as a 0.4mM soln. in EtOH for photometric detn. of Pd (λ_{\max} 442 nm, ϵ 86000). Cryst.

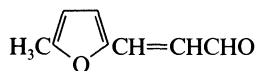
[53652-22-5]

Mas'ko, L.I. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1490; 1975, **30**, 315 (*uv, detn, Pd*)

3-(5-Methyl-2-furanyl)-2-propenal

M-00182

3-(5-Methyl-2-furyl)acrolein
[5555-90-8]

C₈H₈O₂ M 136.150

Liq. d_{20} 1.1006. Bp₅ 100-102°. n_D^{20} 1.6089.

Thiosemicarbazone: [34161-38-1].

C₉H₁₁N₃OS M 209.271

Used as a 0.4mM soln. in EtOH for photometric detn. of Pd (λ_{\max} 400 nm, ϵ 38000), Pt (λ_{\max} 400 nm, ϵ 46000). Cryst. (EtOH). Mp 141-142°. pK_{a1} 0.56; pK_{a2} 11.56.

[108576-22-3]

Ponomarev, A.A. *et al*, *Zh. Obshch. Khim.*, 1953, **23**, 1719; *CA*, **48**, 13677i (*synth*)

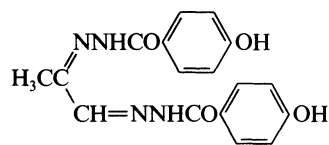
Kallinich, G., *Arch. Pharm. (Weinheim, Ger.)*, 1961, **294**, 90 (*synth*)

Kerentseva, V.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1144; 1972, **27**, 719 (*deriv, synth, pKa, detn, Pd, Pt*)

Methylglyoxal bis(4-hydroxybenzoylhydrazone)

M-00183

4-Hydroxybenzoic acid (1-methyl-1,2-ethanediylidene)dihydrazide, 9CI

C₁₇H₁₆N₄O₄ M 340.338

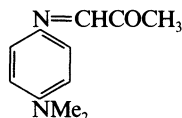
Used as a 1mM soln. in 0.01M NaOH for photometric detn. of Bi, Ca, Cd, La. Cryst. (EtOH). Sol. EtOH, DMF, alkalis.

Lever, M., *Anal. Chim. Acta*, 1973, **65**, 311 (*use*)

Methylglyoxal 4-dimethylaminoanil

M-00184

[p-(Dimethylaminophenyl)]formimidoylacetaldhyde
[27794-05-4]

C₁₁H₁₄N₂O M 190.244

Used as complexing agent for Cd, Hg, Zn. Cryst.

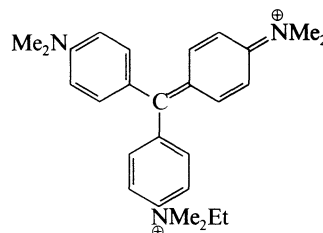
Saxena, R.C. *et al*, *CA*, 1969, **71**, 74806e (*use*)

Saxena, R.C. *et al*, *Indian J. Appl. Chem.*, 1969, **32**, 117, 328 (*use*)

Methyl green

M-00185

4-[[4-(Dimethylamino)phenyl][4-(dimethylimino)-2,5-cyclohexadien-1-ylidene]methyl]-N-ethyl-N,N-dimethylbenzenaminium(2+), 9CI. C.I. 42590
[22244-13-9]

C₂₇H₃₅N₃²⁺ M 401.594 (ion)

Basic dye. Strictly the name Methyl green applies to the bromide chloride salt and is also applied to the trimethyl analogue.

Bromide chloride: [14855-76-6].

C₂₇H₃₅BrClN₃ M 516.950

Used as aq. soln. for extraction-photometric detn. of Bi, Sb, Ga, Tl(III), Ta, Hg(II), Pt (ϵ 145000, 1,2-dichloroethane), Re (λ_{\max} 640 nm, ϵ 120000, C₆H₆). Used as biological stain, and in dyeing and printing textiles. Commercially available as double salt with ZnCl₂. Green cryst. Sol. H₂O.

[7114-03-6]

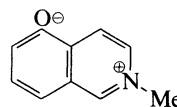
Shestidesyatnaya, P.P. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 1547 (*detn, Bi*)

Tarayan, V.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1745; 1972, **27**, 19; 1977, **32**, 1456 (*detn, Ta, Tl*)

Ovsepyan, E.N. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1277 (*detn, Pt*)

2-Methyl-5-hydroxyisoquinolinium betaine M-00186

5-Hydroxy-2-methylisoquinolinium hydroxide inner salt

C₁₀H₉NO M 159.187

Used for photometric detn. of H₂O in organic solvs. (EtOH, 2-propanol, Me₂CO, MeCN, dioxan). Orange cryst. (CHCl₃/C₆H₆). Sol. common org. solvs.

Kumoi, S. *et al*, *Talanta*, 1970, **17**, 319 (*use*)

O-Methylhydroxylamine, 9CI

M-00187

Methoxylamine. Hydroxylamine methyl ether.

Methoxyamine

[67-62-9]

MeONH₂CH₃NO M 47.057

Reagent for introducing the methoxyimino group for ketones, esp. steroids. Derivatisation reagent for anal. of steroid and prostaglandin ketones. Mp -86.4°. Bp 48.1°. Reduces AgNO₃.NH₃ but not Fehling's soln.

▷ Highly irritant. NC3850000.

B, HCl: [593-56-6].

Prisms. Mp 149°.

▷ NC3980000.

Picrate: Mp 175°.

Traube, W. *et al*, *Ber.*, 1920, **53**, 1477 (*synth*)

Goldfarb, A.R., *J. Am. Chem. Soc.*, 1945, **67**, 1852 (*synth*)

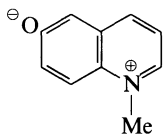
Theilacker, W. *et al*, *Angew. Chem.*, 1956, **68**, 303 (*synth*)

Bissot, T.C. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 796 (*synth, props*)

Davies, M. *et al*, *J. Chem. Soc.*, 1959, 3971 (*ir*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, 1, 670.
 Green, K., *Chem. Phys. Lipids*, 1969, 3, 254 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MKQ880, MNG500.

1-Methyl-6-hydroxyquinolinium betaine **M-00188**

6-Hydroxy-1-methylquinolinium hydroxide inner salt

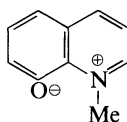
C₁₀H₉NO M 159.187

Used for photometric detn. of H₂O in organic solvents (EtOH, 2-propanol, Me₂CO, MeCN, dioxan). Orange cryst. (CHCl₃/C₆H₆). Sol. common org. solvents.

Prince, A.K., *Arch. Biochem. Biophys.*, 1966, 113, 195 (*synth*)
 Kumoi, S. *et al*, *Talanta*, 1970, 17, 319 (*use, detn, H₂O*)

1-Methyl-8-hydroxyquinolinium betaine **M-00189**

8-Hydroxy-1-methylquinolinium hydroxide inner salt, 9CI [22544-89-4]

C₁₀H₉NO M 159.187

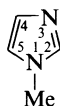
Used for photometric detn. of H₂O in organic solvs. (EtOH, 2-propanol, Me₂CO, MeCN, dioxan). Orange cryst. (CHCl₃/pet. ether). Sol. common org. solvs.

[90142-20-4]

Saxena, J.P. *et al*, *J. Chem. Soc.*, 1959, 1579 (*synth*)
 Foye, W.O. *et al*, *J. Pharm. Sci.*, 1966, 53, 1338 (*synth*)
 Kumoi, S. *et al*, *Talanta*, 1970, 17, 319 (*use*)

1-Methylimidazole, 9CI

[616-47-7]

C₄H₆N₂ M 82.105

Reagent for phosphorylation of alcohols, in conjunction with HgCl₂ and H₃PO₄. Catalyst for acetylation of hydroxy compds. for gc. anal. Misc. H₂O. d¹⁰ 1.036. Fp -6°. Bp 195-196°, Bp₁₄₋₁₅ 94-95°. pK_a 6.95 (25°, H₂O).

▷ NI7000000.

Picrate: Yellow needles. Mp 158-159°.*B.MeI*: Cryst. Very hygroscopic.

Wohl, A. *et al*, *Ber.*, 1889, 22, 1353.
 Sarasin, J., *Helv. Chim. Acta*, 1923, 6, 370.
 v. Auwers, K. *et al*, *Ber.*, 1926, 59, 539.
 Kohlrausch, K.W.F. *et al*, *Ber.*, 1938, 71, 985.
 v. Thuijl, J. *et al*, *Org. Mass Spectrom.*, 1973, 7, 1165 (*ms*)
 Sattler, H.J. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1975, 308, 795 (*cmr*)

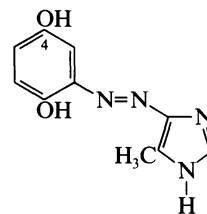
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, 5, 447.

Wachowiak, R. *et al*, *Anal. Chem.*, 1979, 51, 27 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MKT500.

2-(4-Methyl-3-imidazolylazo)-1,4-benzenediol **M-00191**

4-(2,5-Dihydroxyphenylazo)-5-methylimidazole

C₁₀H₁₀N₄O₂ M 218.215

4-Me ether: [13182-98-4]. 4-Methoxy-2-[(5-methylimidazol-4-yl)azo]phenol, 9CI. 4-(2-Hydroxy-5-methoxyphenylazo)-5-methylimidazole

C₁₁H₁₂N₄O₂ M 232.241

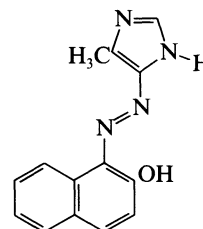
Used as metallochromic indicator for titrimetric detn. of Cd, Co, Cu, Ni, Zn. Yellowish-brown powder (EtOH). Mp 232-233° dec. pK_{a1} 3.9; pK_{a2} 11.0 (50% dioxan, 25°).

Yamauchi, O. *et al*, *Chem. Pharm. Bull.*, 1966, 14, 948 (*synth, deriv*)

Yamauchi, O. *et al*, *Talanta*, 1968, 15, 177, 459 (*use*)

1-[(5-Methylimidazol-4-yl)azo]-2-naphthol, 8CI **M-00192**

[3932-14-7]

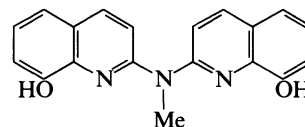
C₁₄H₁₂N₄O M 252.275

Used as a 0.1% soln. in EtOH as a metallochromic indicator for titrimetric detn. of Cu, Cd, Co, Ni, Zn. Orange-red cryst. Sol. Et₂O, EtOH. pK_{a1} 3.8; pK_{a2} 11.6 (50% dioxan, 25°).

Tanaka, H. *et al*, *Chem. Pharm. Bull.*, 1964, 12, 1268 (*detn, Cu*)
 Yamauchi, O. *et al*, *Talanta*, 1968, 15, 177, 459 (*use, detn, Cd, Co, Ni, Zn*)

2,2'-(Methylimino)bis-8-quinolinol, 9CI **M-00193**

[65165-14-2]

C₁₉H₁₅N₃O₂ M 317.346

Used as 0.05mM EtOH soln. for fluorimetric detn. of Y (pH ~ 9, in the presence of excess Al), La, Lu. Cryst. Sol. EtOH, DMF.

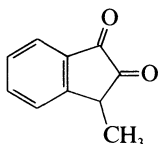
Golovina, A.P. *et al*, *Zh. Anal. Khim.*, 1982, 37, 1816 (*synth, detn, Y*)

Kachin, S.V. *et al*, *Zh. Anal. Khim.*, 1983, 38, 1390 (*synth, use*)

3-Methyl-1,2-indandione, 8CI

M-00194

3-Methyl-1H-indene-1,2(3H)-dione, 9CI
[80070-43-5]



$C_{10}H_8O_2$ M 160.172

Viscous red oil.

2-Oxime: [24273-33-4].

Needles (C_6H_6 or EtOH). Mp 138-139°, Mp 98°.

Dimorphic.

Dioxime: [24273-34-5].

$C_{10}H_{10}N_2O_2$ M 190.201

Used for pptn. of Au, Co, Cu, Fe(II), Pd. Cryst.

Von Braun, J. *et al.*, *Ber.*, 1913, **46**, 3041 (*synth*)

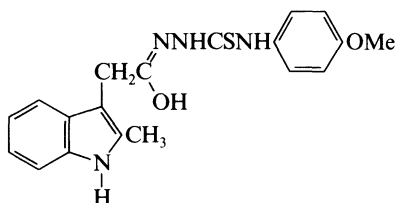
Bark, L.S. *et al.*, *Talanta*, 1969, **16**, 497 (*dioxime, use*)

Chatterjea, J.N. *et al.*, *Justus Liebigs Ann. Chem.*, 1981, 52 (*synth, oxime*)

1-(2-Methylindol-3-ylacetyl)-4-(p-methoxyphenyl)thiosemicarbazide

M-00195

2-Methyl-1H-indole-3-acetic acid 2-[[4-methoxyphenyl amino]thioxomethyl]hydrazide
[54686-44-1]



$C_{19}H_{20}N_4O_2S$ M 368.459

Used as a 0.01M soln. in MeOH for photometric and gravimetric detn. of Co, Cu, Hg, Zn. Cryst.

Barsoum, B.N. *et al.*, *J. Chin. Chem. Soc. (Peking)*, 1985, **32**, 117; *CA*, **103**, 205016b (*use*)

Methyl isothiocyanate

M-00196

Isothiocyanatomethane, 9CI. Methyl mustard oil
[556-61-6]

MeNCS

Isol. from seeds of *Cleome spinosa*. Isol. from mustard oil, present as glucoside in Capparidaceae. Reagent used in amino acid sequence anal. Cryst. Mp 36°. Bp 119°. n_D 1.5258.

▷ Highly irritant. PA9625000.

[49582-15-2]

Delépine, M., *Bull. Soc. Chim. Fr.*, 1908, **3**, 642 (*synth*)

Kjaer, A. *et al.*, *Acta Chem. Scand.*, 1955, **9**, 857; 1963, **17**, 2143 (*isol, ms*)

Org. Synth., *Coll. Vol.*, **3**, 1955, 599 (*synth*)

Mathias, A. *et al.*, *Tetrahedron*, 1965, **21**, 1073 (*pmr*)

Attril, J.E. *et al.*, *Anal. Lett.*, 1970, **3**, 59 (*use*)

Waterfield, M. *et al.*, *Biochemistry*, 1970, **9**, 832 (*use*)

Anderson, D.W.W. *et al.*, *J. Mol. Struct.*, 1972, **14**, 385 (*struct*)

Fairwell, T. *et al.*, *Anal. Biochem.*, 1973, **53**, 115 (*use*)

Molina, P. *et al.*, *Synthesis*, 1982, 596 (*synth*)

Durig, J.R. *et al.*, *J. Mol. Struct.*, 1983, **100**, 241 (*ir, raman*)

Giffard, M. *et al.*, *J. Chem. Soc., Perkin Trans. 2*, 1985, 157 (*pmr, cmr, N-15 nmr*)

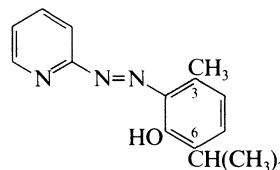
Giesselmann, G. *et al.*, *Chem.-Ztg.*, 1990, **114**, 215 (*rev, synth, use, props*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ISE000.

3-Methyl-6-(1-methylethyl)-2-(2-pyridinylazo)phenol, 9CI

M-00197

6-Isopropyl-3-methyl-2-(2-pyridinylazo)phenol. 2-(2-Hydroxy-3-isopropyl-6-methylphenylazo)pyridine
[67520-57-4]



$C_{15}H_{17}N_3O$ M 255.319

Used as 1mM EtOH soln. for extraction-photometric detn. of Pd, Co, Ni (λ_{max} 600 nm, ϵ 23000, 0.02-2M NH_3 , $CHCl_3$). Cryst. (EtOH aq.). Sol. pet. ether, EtOH. Mp 180°.

Gusev, S.I. *et al.*, *Zh. Anal. Khim.*, 1978, **33**, 734 (*synth, use*)

5-Methyl-2-(1-methylethyl)-4-(2-pyridinylazo)phenol, 9CI

M-00198

6-(2-Pyridylazo)thymol, 8CI. 2-Isopropyl-5-methyl-4-(2-pyridinylazo)phenol
[24114-27-0]

$C_{15}H_{17}N_3O$ M 255.319

Used as 0.2% EtOH soln. for extraction-photometric detn. of V (λ_{max} 640 nm, ϵ 3700, $CHCl_3$), Pd (λ_{max} 590 nm, ϵ 16500, pH 4.2-7, $CHCl_3$). Cryst. Sol. EtOH. Mp 70°.

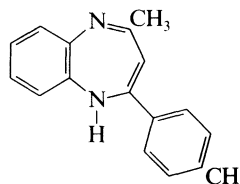
Mirzakasimov, T.M. *et al.*, *Uzb. Khim. Zh.*, 1968, **12**, 29; 1970, **14**, 15; *CA*, **70**, 73927n; **74**, 71346f (*synth, detn, V*)

Gusev, S.I. *et al.*, *Zh. Anal. Khim.*, 1978, **33**, 734 (*synth, use*)

4-Methyl-2-(4-methylphenyl)-1H-1,5-benzodiazepine

M-00199

[73980-68-4]



$C_{17}H_{16}N_2$ M 248.327

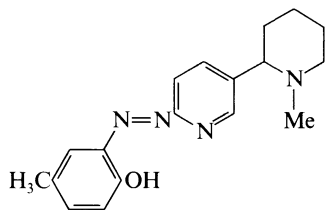
Used as 0.1% MeOH soln. as an acid-base indicator (colour change: violet → colourless). Cryst. Sol. MeOH; sl. sol. H_2O . pK_a 6.70 (H_2O).

Omar, N.M., *Indian J. Chem.*, 1974, **12**, 498 (*synth*)

El-Rabbat, N.A. *et al.*, *Analyst (London)*, 1980, **105**, 165 (*use*)

4-Methyl-2-[[5-(1-methyl-2-piperidiny)-2-pyridinyl]azo]phenol, 9CI **M-00200**

N-Methylanabasine- α' -azo-*p*-cresol
[25356-40-5]



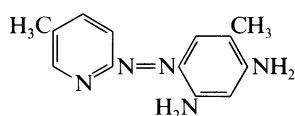
$C_{18}H_{22}N_4O$ M 310.398

Used as 1.5mM aq. soln. for photometric detn. of V (λ_{max} 550 nm, ϵ 7400; in the presence of H_2O_2). Cryst. Sol. H_2O , EtOH.

Krukovskaya, E.L. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 446 (*detn*, V)

4-Methyl-6-[(5-methyl-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, 9CI **M-00201**

2-(2,4-Diamino-5-methylphenylazo)-5-methylpyridine. 5-(5-Methyl-2-pyridylazo)-2,4-diaminotoluene. 5-Me-PADAT
[54776-49-7]



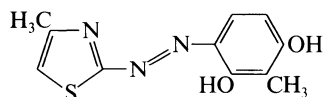
$C_{13}H_{15}N_5$ M 241.295

Used as a 0.1% soln. in EtOH for extraction-photometric detn. of Co (λ_{max} 573.5 nm, ϵ 107000). Reddish brown needles (EtOH aq.). Sol. C_6H_6 , $CHCl_3$, EtOH, Me_2CO ; spar. sol. H_2O .

Shibata, S. *et al*, *Anal. Chim. Acta*, 1974, **73**, 107 (*detn*, Co)

2-Methyl-4-[(4-methyl-2-thiazoly)azo]-1,3-benzenediol, 9CI **M-00202**

4-(4-Methyl-2-thiazolylazo)-2-methylresorcinol. 2-(2,4-Dihydroxy-3-methylphenylazo)-4-methylthiazole
[75757-69-6]



$C_{11}H_{11}N_3O_2S$ M 249.293

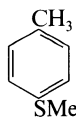
Used as 0.1% EtOH soln. for photometric detn. of V (λ_{max} 560 nm, ϵ 25000), Ga. Cryst. Sol. EtOH.

Garcia Montelongo, F. *et al*, *Microchem. J.*, 1980, **25**, 410 (*synth*, *detn*, V)

Jimenez, A.I. *et al*, *Collect. Czech. Chem. Commun.*, 1990, **55**, 1500 (*detn*, Ga)

1-Methyl-4-(methylthio)benzene, 9CI **M-00203**

Methyl *p*-tolyl sulfide, 8CI. *p*-Thiocresol methyl ether. 1-Methyl-4-methylmercaptobenzene
[623-13-2]



$C_8H_{10}S$ M 138.233

Reagent for the glc anal. of peracids. d_4^{16} 1.03. Bp_{747} 209°, Bp_{20} 104-105°.

S-Dioxide: [3185-99-7]. 1-Methyl-4-(methylsulfonyl)benzene, 9CI. Methyl *p*-tolyl sulfone, 8CI

$C_8H_{10}O_2S$ M 170.232

Prisms (EtOH). Mp 88°.

Kehrmann, F. *et al*, *Ber.*, 1912, **45**, 2891.

Gilman, H. *et al*, *J. Am. Chem. Soc.*, 1925, **47**, 1499; 1949, **71**, 4002.

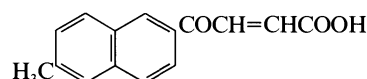
Gilbert, E.E. *et al*, *J. Org. Chem.*, 1963, **28**, 1945 (*sulphone*)

Org. Synth., *Coll. Vol.*, 4, 1963, 674 (*sulphone*)

Di Furio, F. *et al*, *Analyst (London)*, 1984, **109**, 985 (*use*)

4-(6-Methyl-2-naphthalenyl)-4-oxo-2-butenic acid, 9CI **M-00204**

[108011-98-9]



$C_{15}H_{12}O_3$ M 240.258

Reagent for the spectrometric and fluorimetric anal. of thiols. Golden-yellow needles (AcOH or $C_6H_6/CHCl_3$). Mp 169-170°.

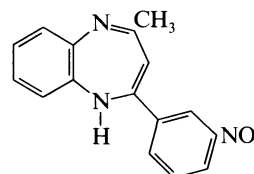
Makar, S.M. *et al*, *J. Chem. Soc.*, 1958, 2437 (*synth*)

Cavrini, V. *et al*, *Analyst (London)*, 1988, **113**, 1447 (*use*)

Cavrini, V. *et al*, *Chromatographia*, 1989, **27**, 185 (*use*)

4-Methyl-2-(3-nitrophenyl)-1H-1,5-benzodiazepine **M-00205**

[73980-70-8]



$C_{16}H_{13}N_3O_2$ M 279.298

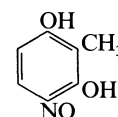
Used as 0.1% MeOH soln. as an acid-base indicator (pH range: 5-9; colour change: pink \rightarrow pale yellow). Cryst. Sol. MeOH; sl. sol. H_2O . pK_a 5.53 (H_2O).

Omar, N.M., *Indian J. Chem.*, 1974, **12**, 498 (*synth*)

El-Rabbat, N.A. *et al*, *Analyst (London)*, 1980, **105**, 165 (*use*)

2-Methyl-4-nitroso-1,3-benzenediol, 9CI **M-00206**

[65882-00-0]



$C_7H_7NO_3$ M 153.137

Used for photometric detn. of Co (λ_{max} 400 nm, ϵ 37500).

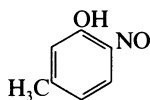
Yellow cryst. (H_2O). Sol. H_2O , Me_2CO , EtOH, Et_2O .

pK_{a1} 4.03; pK_{a2} 8.70.

Gonzalez Diaz, V. *et al*, *An. Quim.*, 1977, **73**, 1300.

5-Methyl-2-nitrosophenol, 9CI

M-00207

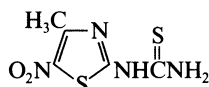
1-Methyl-3-hydroxy-4-nitrosobenzene
[24542-06-1]C₇H₇NO₂ M 137.138

Used for extraction-photometric detn. of Co (ligroin).

Yellow needles. Sol. EtOH, Me₂CO; spar. sol. H₂O.Ellis, G.H. *et al*, *Ind. Eng. Chem., Anal. Ed.*, 1945, **17**, 254 (*detn. Co*)Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, **3**, 296 (*synth, use*)Korenaga, T. *et al*, *Nippon Kagaku Kaishi*, 1972, 2445 (*synth, detn. Co, Fe*)**(4-Methyl-5-nitro-2-thiazolyl)thiourea, 9CI**

M-00208

[86107-96-2]

C₃H₆N₄O₂S₂ M 218.260Used as a 2mM soln. in Me₂CO for extraction-photometric detn. of Pd (CHCl₃). Orange needles (Me₂CO/cyclohexane). Sol. Me₂CO, EtOH, CHCl₃, cyclohexane; spar. sol. H₂O. Mp 242°.

N-Me: [86107-97-3]. N-Methyl-N'-(4-methyl-5-nitro-2-thiazolyl)thiourea, 9CI

C₆H₈N₄O₂S₂ M 232.287Used as 1mM MeOH soln. for extraction-photometric detn. of Pd (λ_{\max} 401 nm, ϵ 24300, CHCl₃). Orange cryst. Sol. MeOH, CHCl₃.Yoda, R. *et al*, *Mikrochim. Acta*, 1983, **2**, 75 (*detn. Pd*)**7-Methyl-2,4-octanedione, 9CI**

M-00209

[999-05-3]

C₉H₁₆O₂ M 156.224

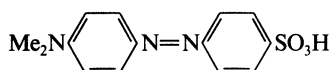
Used for extraction of Ag, Co, Hg, In, Sc, Th, Zn. Liq.

Sol. EtOH, Me₂CO. Bp₄ 88°. pK_a 9.72. n_D²⁴ 1.4611.

Cu salt: Cryst. Mp 122-123°.

Schweitzer, G.K. *et al*, *Anal. Chim. Acta*, 1966, **36**, 77 (*synth, use*)**Methyl orange**

M-00210

4-[[4-(Dimethylamino)phenyl]azo]benzenesulfonic acid, 9CI.
Acid orange 52. C.I. 13025C₁₄H₁₅N₃O₃S M 305.357

Strictly, the name Methyl orange applies to the sodium salt.

Na salt: [547-58-0].

Used as 0.1% aq. soln. as an acid-base indicator. (pH range: 3.1-4.4; colour change: red → yellow); indicator in bromatometry; photometric detn. of Cl₂ (ϵ 40000)Br₂, extraction-photometric detn. of Fe(II). Biological stain. Orange-yellow cryst. powder. Sol. H₂O; insol.

EtOH.

▷ DB6327000.

Chloride: [56512-49-3]. 4'-Dimethylaminoazobenzene-4-sulfonyl chloride. Dabsyl chloride

C₁₄H₁₄ClN₃O₂S M 323.802

Fluorogenic reagent for amines, amino acids and alcohols. Deep red cryst. Mp 186-188°.

Hydrazide: [72565-41-4]. Dabsyl hydrazine. DABS-hydrazide

C₁₄H₁₇N₅O₂S M 319.387

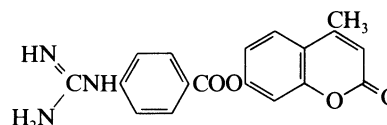
Reagent for the hplc anal. of monosaccharides and aldehydes. Orange cryst. (EtOH). Mp 163-164°.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4**, 531 (*synth*)Vogel, A.I., *A Textbook of Quantitative Inorganic Analysis*, Longmans, London, 1961 (*use*)Athavale, V.T. *et al*, *Analyst (London)*, 1962, **87**, 707 (*detn. Cl₂*)Laitinen, H.A. *et al*, *Anal. Chem.*, 1972, **44**, 920 (*detn. Cl₂, Br₂*)Hulanicki, A. *et al*, *Talanta*, 1974, **21**, 896 (*detn. Fe*)Lin, J.K. *et al*, *Anal. Chem.*, 1975, **47**, 1634; 1980, **52**, 630; 1987, **59**, 1320 (*synth, use*)Knecht, R. *et al*, *Anal. Chem.*, 1986, **58**, 2375 (*use, chloride*)Vendrell, J. *et al*, *J. Chromatogr.*, 1986, **358**, 401 (*use, chloride*)Wolski, T. *et al*, *J. Chromatogr.*, 1986, **362**, 217 (*use, chloride*)Muramoto, K. *et al*, *Anal. Biochem.*, 1987, **162**, 435 (*synth, use*)Koizumi, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1988, **37**, 190; *CA*, **109**, 162639m (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MND600.**4-Methyl-2-oxo-2H-1-benzopyran-7-yl 4-[(aminoiminomethyl)amino]benzoate**

M-00211

4-Methylumbelliferyl p-guanidinobenzoate

[57817-70-6]

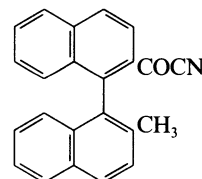
C₁₈H₁₅N₃O₄ M 337.334

B, HCl: [34197-46-1]. MUGB

Fluorescent substrate for the detn. of trypsin and related enzymes. Light yellow cryst. (AcOH/Et₂O). Mp 219-221°.Jameson, G.W. *et al*, *Biochem. J.*, 1973, **131**, 107 (*synth, use*)**2'-Methyl- α -oxo-[1,1'-binaphthalene]-2-acetonitrile, 9CI**

M-00212

2-Methyl-1,1'-binaphthalene-2'-carbonyl nitrile

C₂₃H₁₅NO M 321.378

Derivatisation reagent for hplc sepn. of enantiomeric alcohols.

(+) -form [85464-95-5]

[α]_D²⁰ +35.8° (c, 1.90 in CHCl₃).

(-) -form [85464-96-6]

[α]_D²⁰ -42.8° (c, 1.05 in CHCl₃).

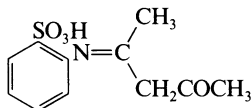
(±) -form [85464-94-4]

Mp 110°.

Goto, J. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 4597 (*synth, use*)Goto, J. *et al*, *Anal. Sci.*, 1990, **6**, 261 (*use*)

2-[(1-Methyl-3-oxobutylidene)amino] benzenesulfonic acid

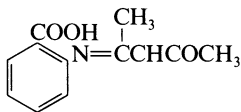
M-00213

o-(Imine-N-acetylacetone)benzenesulfonic acid
[58943-48-9]C₁₁H₁₃NO₄S M 255.294

Used as a 5% soln. in aq. EtOH for gravimetric detn. of Co, Cu, Ni. Cryst.

Ozha, D.D. *et al.*, *J. Indian Chem. Soc.*, 1975, **52**, 1104.
Mali, M.R. *et al.*, *J. Indian Chem. Soc.*, 1976, **53**, 696 (use)**2-[(1-Methyl-3-oxobutylidene)amino] benzoic acid, 9CI**

M-00214

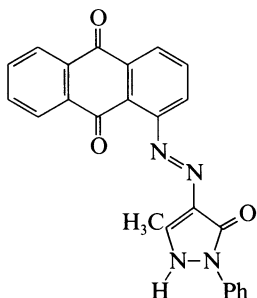
N-Acetylacetoneanthranilic acid
[34283-37-9]C₁₂H₁₃NO₃ M 219.240

Used as 10% soln. in aq. EtOH for gravimetric detn. of Cu. Yellow cryst. (MeOH). Sol. alcohols.

Mehta, R.K. *et al.*, *Talanta*, 1972, **19**, 687 (synth, use)**1-[(3-Methyl-5-oxo-1-phenyl-3-pyrazolin-4-yl)azo]anthraquinone, 8CI**

M-00215

[86444-19-1]

C₂₄H₁₆N₄O₃ M 408.415Used for photometric detn. of Na. Orange cryst. (DMF). Sol. DMF; spar. sol. Me₂CO, CHCl₃. Mp 239-240°.
[21736-60-7]Markovich, I.S. *et al.*, *Zh. Anal. Khim.*, 1971, **26**, 1097 (detn, Na)**2-Methyl-2,4-pentanediol, 9CI**

M-00217

Hexylene glycol
[107-41-5]C₆H₁₄O₂ M 118.175

▷ Irritant, TLV 125. SA0810000.

(±)-form

Reagent for characterisation of aldehydes as the cyclic acetals. Used as 20% soln. in 4-methyl-2-pentanone for extraction separation of B. Liq. Sol. 4-methyl-2-pentanone, EtOH. d 0.925. Mp -40°. Bp 198°.

Di-Ac:

C₁₀H₁₈O₄ M 202.250Bp₁₈ 92°.*Bis-4-nitrobenzoyl*: Pale-yellow flakes (EtOH aq.). Mp 155-157°.Sullivan, W.J. *et al.*, *J. Org. Chem.*, 1960, **25**, 2128 (synth)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 693.Pihlaja, K. *et al.*, *Acta Chem. Scand.*, 1969, **23**, 715 (synth)Kirmse, W. *et al.*, *Chem. Ber.*, 1976, **109**, 2296 (synth)Aznarez, J. *et al.*, *An. Quim.*, 1978, **74**, 756.Aznarez, J. *et al.*, *Analyst (London)*, 1983, **108**, 368 (detn, B)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 349.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HFP875.**4-Methyl-2-pentanone, 9CI**

M-00218

Isobutyl methyl ketone. Isopropylacetone. Hexone. MIBK
[108-10-1]C₆H₁₂O M 100.160

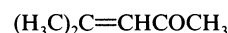
Solv. for cellulose esters and other coating system.

Frequently used in adhesives. Used as extractant in extraction-separation and extraction-photometric detns., e.g. extraction of Fe(III), Mo, W, Nb, Au(III) (from halide and SCN[⊖] media). Misc. organic solvs.; Sol. H₂O (2%). d₄²⁰ 0.801. Bp 116.8°. n_D¹⁷ 1.3969.

▷ Irritant, TLV 410. Highly flammable, flash pt. 17°. SA9275000.

Semicarbazone: Mp 134°.*2,4-Dinitrophenylhydrazone*: Mp 95°.Law, H.O., *J. Chem. Soc.*, 1912, **101**, 1547 (synth)Grignard, V. *et al.*, *Ann. Chim. (Paris)*, 1928, **9**, 13 (synth)Fuge, E.T.J. *et al.*, *J. Phys. Chem.*, 1952, **56**, 1013 (synth)Morrison, G.H. *et al.*, *Solvent Extr. Anal. Chem.*, Wiley, New York, 1957 (use)Zolotov, Y.A. *et al.*, *Extraction of Halide Metal Complexes (in Russian)*, Izdat.Nauka, Moscow, 1973 (use)Sandell, E.B. *et al.*, *Photometric Determination of Traces of Metals, General Aspects*, Wiley, New York, 1978 (use)Ejchart, A., *Org. Magn. Reson.*, 1980, **13**, 368 (cmr)Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 601.*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 401.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HFG500.**4-Methyl-3-penten-2-one, 9CI**

M-00219

Mesityl oxide
[141-79-7]C₆H₁₀O M 98.144

Solv. for nitrocellulose and vinyl resins. Intermed. for heterocyclic synth. Used as a solvent in extraction-separation of elements, e.g. Cr(VI), Ga, Ge, Mo, W, U, V, Zn, Cd, Pb (from HCl or KI/H₂SO₄ media). Liq. with odour of honey. Spar. sol. H₂O. d_4^{25} 0.851. Mp –41.5° (–59°). Bp 130-131°, Bp₃₇ 50°. n_D^{13} 1.4484.

▷ Mod. toxic by inhalation and skin absorption, TLV 60. Flammable. SB4200000.

Oxime:

C₆H₁₁NO M 113.159

Bp₁₁ 84°. (*E*-) and (*Z*-) forms separated with difficulty.

4-Nitrophenylhydrazone: Orange needles (EtOH aq.). Mp 207°.

2,4-Dinitrophenylhydrazone: [964-83-0].

Carmine cryst. (EtOH). Mp 200°.

[28052-09-7, 28052-10-0]

Wilson, F.J.W. *et al.*, *J. Chem. Soc.*, 1923, **123**, 394 (*deriv*)

v. Auwers, K. *et al.*, *Ber.*, 1924, **57**, 446.

Allen, C.F.H., *J. Am. Chem. Soc.*, 1930, **52**, 2958 (*deriv*)

Org. Synth., Coll. Vol., 1, 1932, 345 (*synth*)

Klein, F.G. *et al.*, *Ind. Eng. Chem.*, 1956, **48**, 1278 (*synth*)

Dhara, S.C. *et al.*, *Mikrochim. Acta*, 1965, 931 (*detn.*, *U*)

Dhond, P.V. *et al.*, *Anal. Chim. Acta*, 1972, **59**, 161 (*detn.*, *Ge*)

Sato, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 1176 (*oxime*)

Sandell, E.B. *et al.*, *Photometric Determination of Traces of Metals*, Wiley, New York, 1977 (*use*)

Rao, T.P. *et al.*, *Talanta*, 1982, **29**, 227 (*detn.*, *Zn*, *Cd*, *Pd*)

Baekström, P. *et al.*, *Acta Chem. Scand., Ser. B*, 1987, **41**, 442 (*purifn*)

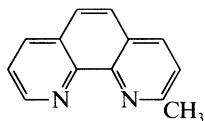
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 401.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MDJ750.

2-Methyl-1,10-phenanthroline, 9CI

M-00220

[3002-77-5]



C₁₃H₁₀N₂ M 194.235

Used as redox indicator. Pale yellow cryst. (pet. ether).

Sol. Me₂CO, EtOH, C₆H₆. Mp 84-85°.

Majeda, K., *J. Prakt. Chem.*, 1962, **17**, 97 (*synth*)

Heindel, N.D. *et al.*, *J. Heterocycl. Chem.*, 1968, **5**, 869 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*, *ind*)

5-Methyl-1,10-phenanthroline, 9CI

M-00221

[3002-78-6]

C₁₃H₁₀N₂ M 194.235

Used as redox indicator. Forms complexes with transition metals. Bactericide. Cryst. (C₆H₆/pet. ether). Sol.

Me₂CO, EtOH, C₆H₆. Mp 114°.

Picrate: Fine yellow needles (EtOH). Mp 203-204°.

[61626-14-0]

Richter, F. *et al.*, *J. Am. Chem. Soc.*, 1944, **66**, 396 (*synth*)

Carman, R.M. *et al.*, *Aust. J. Chem.*, 1964, **17**, 1354 (*pmr*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Lahiri, S.C., *Z. Phys. Chem. (Leipzig)*, 1974, **255**, 23 (*uv*)

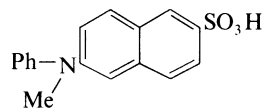
Rollick, K.L. *et al.*, *J. Org. Chem.*, 1982, **47**, 435 (*synth*, *pmr*, *cmr*)

6-(Methylphenylamino)-2-naphthalenesulfonic acid, 9CI

M-00222

6-(Methylanilino)-2-naphthalenesulfonic acid. 2,6-Mansic acid

[23731-35-3]



C₁₇H₁₅NO₃S M 313.376

Cryst.

Na salt: Cryst. (H₂O).

Chloride: [18392-55-7]. *2,6-Mansyl chloride*

C₁₇H₁₄ClNO₂S M 331.822

Used for fluorescent labelling of proteins. Lemon-yellow needles and prisms (C₆H₆/pet. ether). Mp 137-137.5° (128-133°).

Hydrazide: [55141-44-1]. *Mansylhydrazine*

C₁₇H₁₇N₃O₂S M 327.406

Reagent for the fluorimetric detn. of carbonyl compds.

Long needles. Mp 150-151° dec.

Cory, R.P. *et al.*, *J. Am. Chem. Soc.*, 1968, **90**, 1643 (*synth*, *use*)

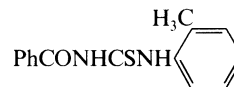
Zeiler, H., *Anal. Biochem.*, 1978, **88**, 649 (*synth*, *uv*, *use*)

N-[[2-(Methylphenyl)amino]thioxomethyl] benzamide, 9CI

M-00223

β-Benzoyl-α-(o-tolyl)thiourea

[4949-88-6]



C₁₅H₁₄N₂OS M 270.354

Used as a 0.5% soln. in EtOH for photometric detn. of Os (λ_{\max} 400 nm, ϵ 6800/CHCl₃). Cryst. (EtOH). Sol.

EtOH, Me₂CO; spar. sol. H₂O.

▷ YS1575000.

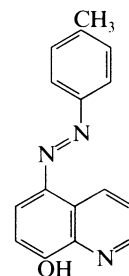
Bhoval, S.K., *Curr. Sci.*, 1975, **44**, 157 (*detn.*, *Os*)

5-[(4-Methylphenyl)azo]-8-quinolinol

M-00224

8-Hydroxy-5-p-tolylazoquinoline

[32903-07-4]



C₁₆H₁₃N₃O M 263.298

Chocolate brown needles. Mp 174°. λ_{\max} 405 nm (EtOH).

1-Oxide: [63319-29-9].

C₁₆H₁₃N₃O₂ M 279.298

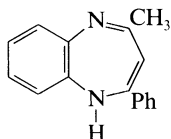
Used as a soln. in NH₃ aq. for photometric detn. of Al, Co, Cu, Pb, Pd, Zn. Dark yellow cryst. powder. Sol. alkalis; insol. H₂O; spar. sol. EtOH (0.052 g per 100 cm³); sl. sol. Me₂CO (0.49 g per 100 cm³). Mp 178-179°.

Fox, J.J., *J. Chem. Soc.*, 1910, **97**, 1337 (*synth*)

Nemodruk, A.A. *et al.*, *Zh. Anal. Khim.*, 1977, **32**, 457 (*1-oxide*, *use*)

4-Methyl-2-phenyl-1H-1,5-benzodiazepine, 9CI **M-00225**

[73980-65-1]

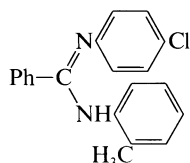
C₁₆H₁₄N₂ M 234.300

Used as 0.1% MeOH soln. as an acid-base indicator (pH range 5-9; colour change: violet → yellow). Cryst. Sol. MeOH; sl. sol. H₂O. pK_a 6.50 (H₂O).

Omar, N.M., *Indian J. Chem.*, 1974, **12**, 498 (*synth*)El-Rabbat, N.A., *Analyst (London)*, 1980, **105**, 165 (*use*)**N-(2-Methylphenyl)-N'-(4-chlorophenyl) benzamidine** **M-00226**

N-(4-Chlorophenyl)-N'-(2-methylphenyl) benzenecarboximidamide, 9CI

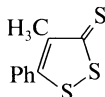
[117001-32-8]

C₂₀H₁₇ClN₂ M 320.820

Used as 0.3% C₆H₆ soln. (10% 1-pentanol) for extraction-photometric detn. of W(I) (λ_{max} 405 nm, ε 15800, in the presence of SCN[⊖]). Cryst. Sol. C₆H₆, toluene.

Shukla, A. *et al*, *Anal. Chim. Acta*, 1988, **208**, 91 (*synth, detn, W*)**4-Methyl-5-phenyl-3H-1,2-dithiole-3-thione, 9CI** **M-00227**

[10269-25-7]

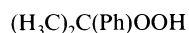
C₁₀H₈S₃ M 224.371

Used as a 0.3% soln. in CCl₄ for extraction-photometric detn. of Pd (λ_{max} 470 nm, ε 15000, CHCl₃), pptn. of Ag, Au, Cu, Hg, Pd, Sn. Orange-red cryst. (Me₂CO). Sol. Me₂CO, hot EtOH, CHCl₃, C₆H₆, CCl₄; insol. H₂O. Mp 104.8°. Bp_{1.5} 208-209°.

Voronkov, M.G. *et al*, *Zh. Org. Khim.*, 1949, **19**, 1927 (*synth*)Voronkov, M.G. *et al*, *Zh. Anal. Khim.*, 1951, **6**, 331 (*pptn*)Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1951, **6**, 331; 1970, **25**, 953 (*synth, detn, Pd*)**1-Methyl-1-phenylethyl hydroperoxide, 9CI** **M-00228**

α,α-Dimethylbenzyl hydroperoxide, 8CI. Isopropylbenzene hydroperoxide. Cumene hydroperoxide. 2-Hydroperoxy-2-phenylpropane

[80-15-9]

C₉H₁₂O₂ M 152.193

Formed by autoxidation of cumene. Strong oxidizing agent. Used in phenol manuf. Polymerization initiator. End point indicator in the titration of bases by catalytic thermometric titrimetry. Liq. Bp 153°. n_D²⁰ 1.5242.

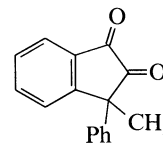
▷ Toxic. May dec. explosively. MX2450000.

Budinger, P.A. *et al*, *Anal. Chem.*, 1981, **53**, 884 (*spectra*)Pryor, W.A. *et al*, *J. Am. Chem. Soc.*, 1983, **105**, 3614 (*pmr, cmr*)*Dangerous Prop. Ind. Mater. Rep.*, 1985, **5**, 20 (*rev, hazards*)Sotelo, J.L. *et al*, *Ind. Eng. Chem. Prod. Res. Dev.*, 1985, **24**, 650 (*synth*)Godinho, O.E.S. *et al*, *Analyst (London)*, 1990, **115**, 761 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IOB000.**1-Methyl-1-phenylhydrazine, 9CI, 8CI** **M-00229**

[618-40-6]

C₇H₁₀N₂ M 122.169

Reagent for pptn. and characterisation of sugars. Oil which darkens on standing. Misc. EtOH, Et₂O, CHCl₃, C₆H₆, spar. sol. H₂O. Bp₁₃ 106-109°. n_D²² 1.5824. Reduces Fehling's soln.

Org. Synth., Coll. Vol., 2, 1943, 418 (*synth*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 694.Hayes, B.T. *et al*, *J. Chem. Soc. C*, 1970, 1088 (*synth*)Lerch, U. *et al*, *Synthesis*, 1983, 157 (*synth*)Smith, R.F. *et al*, *Synth. Commun.*, 1986, **16**, 585 (*synth, pmr*)Gonzalez, A., *Synth. Commun.*, 1988, **18**, 1225 (*synth*)**3-Methyl-3-phenyl-1,2-indanedione** **M-00230**C₁₆H₁₂O₂ M 236.270

(±)-form

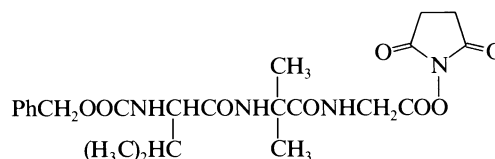
Orange plates (EtOH). Mp 115-116°.

Dioxime: [24273-39-0].C₁₆H₁₄N₂O₂ M 266.299

Used for pptn. of Au, Co, Cu, Fe(II), Ni, Os, Pd, Pr. Cryst. (EtOH).

Koelsch, C.F. *et al*, *J. Am. Chem. Soc.*, 1943, **65**, 59 (*synth*)Bark, L.S. *et al*, *Talanta*, 1969, **16**, 497 (*deriv, use*)**1-[[N-[2-Methyl-N-[N-[(phenylmethoxy) carbonyl]-L-valyl]alanyl]glycyl]oxy]-2,5-pyrrolidinedione, 9CI** **M-00231**

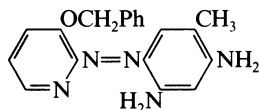
[131716-71-7]

C₂₃H₃₀N₄O₈ M 490.512

Reagent for enantiomeric analysis of amino acids. Cryst. (EtOAc). Mp 120-121°. [α]_D²⁵ +3.8°.

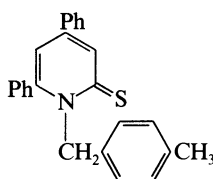
Yamada, T. *et al*, *J. Chromatogr.*, 1990, **515**, 475 (*synth, use*)

4-Methyl-6-[[2-(phenylmethoxy)-2-pyridinyl]azo]-1,3-benzenediamine, 9CI
5-(3-Benzoyloxy-2-pyridylazo)-2,4-diaminotoluene
[51833-07-9]



$C_{19}H_{19}N_5O$ M 333.392
Used as a 0.1% soln. in EtOH for extraction-photometric detn. of Co (λ_{max} 591 nm, ϵ 110000). Light brown needles (EtOH aq.). Sol. EtOH; spar. sol. H_2O .
Shibata, S. *et al*, *Anal. Chim. Acta*, 1974, **73**, 107 (??, detn, Co)

1-[(4-Methylphenyl)methyl]-4,6-diphenyl-2(1H)-pyridinethione, 9CI
[76950-85-1]



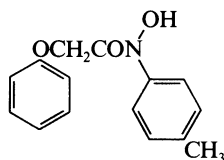
$C_{25}H_{21}NS$ M 367.514
Used as a 0.25mM soln. in EtOH for photometric detn. of Hg (λ_{max} 314 nm, ϵ 47500). Yellow cryst. (EtOH). Sol. EtOH. pK_a 10.73.
Lorenzo, A. *et al*, *Synthesis*, 1980, 853 (synth)
Pérez Ruiz, T. *et al*, *Mikrochim. Acta*, 1984, **2**, 183 (detn, Hg)

1-(4-Methylphenyl)-3-[(4-nitrophenyl)methyl]-1-triazene, 9CI
1-p-Nitrobenzyl-3-p-tolyltriazene. PNBTT
[60259-80-5]



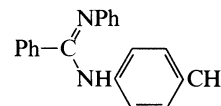
$C_{14}H_{14}N_4O_2$ M 270.290
Reagent for the derivatisation of bile acids for gc sepn.
Okuyama, S. *et al*, *Chem. Lett.*, 1976, 679 (use)
Takade, D.Y. *et al*, *J. Agric. Food Chem.*, 1979, **27**, 746 (use)

N-(4-Methylphenyl)-2-phenoxyacetohydroxamic acid
2-Phenoxy-N-p-tolylacetohydroxamic acid, 8CI. N-p-Tolylphenoxyacetohydroxamic acid
[25310-24-1]



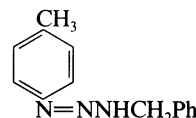
$C_{15}H_{15}NO_3$ M 257.288
Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 495 nm, ϵ 4230, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .
Gupta, V.K. *et al*, *J. Indian Chem. Soc.*, 1969, **46**, 831 (synth)
Gupta, V.K. *et al*, *Anal. Chim. Acta*, 1973, **66**, 39 (detn, V)

N-(4-Methylphenyl)-N'-phenylbenzenecarboximidamide, 9CI
N-Phenyl-N'-p-tolylbenzamidine
[52806-50-5]



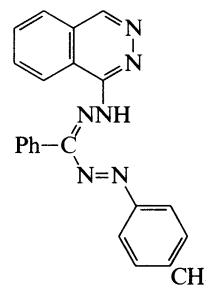
$C_{20}H_{18}N_2$ M 286.376
Used as 0.1% soln. in C_6H_6 for extraction-photometric detn. of Mo (λ_{max} 470 nm, ϵ 17500, 1.2-5.4M HCl, in the presence of SCN^-). Cryst. (EtOH + HCl). Sol. EtOH, C_6H_6 , $CHCl_3$.
Patel, K.S. *et al*, *Anal. Chem.*, 1982, **54**, 52 (synth, detn, Mo)

1-(4-Methylphenyl)-3-(phenylmethyl)-1-triazene, 9CI
3-Benzyl-1-p-tolyltriazene, 8CI
[17683-09-9]



$C_{14}H_{15}N_3$ M 225.293
Used as benzylation derivatisation reagent for hplc analysis of fatty acids. Mp 76-77°.
Goldschmidt, G. *et al*, *Ber.*, 1888, **21**, 106 (synth)
Terent'ev, A.P. *et al*, *Zh. Org. Khim.*, 1968, **4**, 125 (synth)
Politzer, I.R. *et al*, *Anal. Lett.*, 1973, **6**, 539 (use)
Jones, C.C. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1982, 1655 (synth)

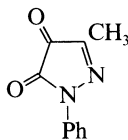
1-(4-Methylphenyl)-3-phenyl-5-(1-phthalazinyl)formazan
1(2H)-Phthalazinone [[(4-methylphenyl)azo]phenylmethylene]hydrazone, 9CI
[67073-41-0]



$C_{22}H_{18}N_6$ M 366.424
Used as 2mM soln. in EtOH for extraction-photometric detn. of Hg (λ_{max} 520 nm, ϵ 41000, $CHCl_3$). Brown cryst. (cyclohexane). Sol. EtOH, cyclohexane, $CHCl_3$, DMF.
Barbina, T.M. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1222 (synth, detn, Hg)

3-Methyl-1-phenyl-1*H*-pyrazole-4,5-dione **M-00239**

[881-05-0]



$C_{10}H_8N_2O_2$ M 188.185
Deep red cryst. (Et₂O). Mp 120-121°.

4-Oxime: Methylphenylpyrazolone oxime

$C_{10}H_9N_3O_2$ M 203.200

Used as 1% soln. in EtOH for detn. of Sb, Bi, Co, Cu, Fe (colour pptn.); gravimetric detn. of Cu. Orange cryst. (AcOH). Sol. AcOH, EtOH, alkalis; sl. sol. H₂O. Mp 157°.

[62349-60-4, 62386-05-4]

Welcher, F.J., *Organic Analytical Reagents*, Vol. 3, Van Nostrand, New York, 1947 (*synth, use, oxime*)

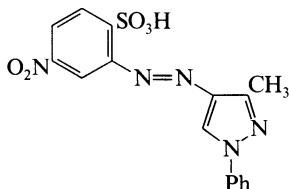
Popa, G. *et al*, *CA*, 1967, **67**, 78674a (*detn, Cu*)

Youssef, M.S.K. *et al*, *J. Heterocycl. Chem.*, 1984, **21**, 1747 (*synth, oxime*)

El-Zohry, M.F. *et al*, *Synthesis*, 1984, 972 (*synth*)

2-[(3-Methyl-1-phenyl-4-pyrazolyl)azo]-4-nitrobenzenesulfonic acid **M-00240**

3-Methyl-4-(4-nitro-2-sulfonylazo)-1-phenylpyrazole



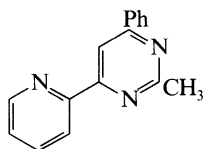
$C_{16}H_{13}N_5O_5S$ M 387.375

Used as a 4mM soln. in DMF for photometric detn. of Na. Orange cryst. Sol. DMF; spar sol. H₂O.

Markovich, I.S. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 227 (*synth, detn, Na*)

2-Methyl-4-phenyl-6-(2-pyridinyl)pyrimidine, 9CI **M-00241**

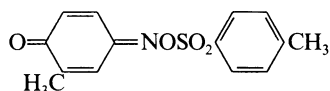
[61097-50-5]



$C_{16}H_{13}N_3$ M 247.299

Used for photometric detn. of Cu(I) (λ_{max} 484 nm, ϵ 8700, pH ~ 7, 50% EtOH). Cryst. (MeOH). Sol. MeOH, EtOH. Mp 90°.

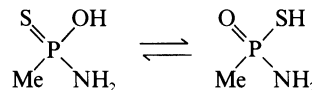
Schilt, A.A. *et al*, *Talanta*, 1976, **23**, 543 (*synth, detn, Cu*)

***O*-(*p*-Methylphenylsulfonyl)-*o*-methylquinone monoxime** **M-00242**

$C_{14}H_{13}NO_4S$ M 291.327

Used as a 0.34mM soln. in DMSO for fluorimetric detn. of CN[⊖]. Yellow cryst. (CCl₄). Sol. EtOH, CHCl₃, Me₂CO. Mp 156-157°.

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395 (*detn, CN[⊖]*)

***P*-Methylphosphonamidithioic acid, 9CI** **M-00243**

CH₆NOPS M 111.104

S-Me ester: [67242-52-8]. *S-Methyl P-methylphosphonamidithioate*

C_2H_8NOPS M 125.131

Solid. Mp 76-78°.

O-Me ester: [40334-37-0]. *O-Methyl P-methylphosphonamidithioate*

C_2H_8NOPS M 125.131

No phys. props. reported.

S-Et ester: [65331-55-7]. *S-Ethyl P-methylphosphonamidithioate*

$C_3H_{10}NOPS$ M 139.158

Solid. Mp 44-45°.

O-Et ester: [34255-89-5]. *O-Ethyl P-methylphosphonamidithioate*

$C_3H_{10}NOPS$ M 139.158

Liq. d_4^{25} 1.14. Bp_{0.4} 90-91°. n_D^{25} 1.5170.

O-Ph ester: [58324-47-3].

$C_7H_{10}NOPS$ M 187.202

Used as 0.1M CHCl₃ soln. for extraction-photometric detn. of Pd (λ_{max} 400 nm, ϵ 4000). Cryst. Sol. CHCl₃, C₆H₆.

Fluoride: [21693-81-2].

CH₅FNPS M 113.095

Liq. d_4^{20} 1.33. Bp_{0.02} 44-46°. n_D^{20} 1.5110.

Roesky, H.W., *Z. Naturforsch.*, B, 1969, **24**, 5 (*fluoride, synth, ir, pmr, F nmr*)

Razvodovskaja, L.V. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 1452), 1971, **41**, 1446 (*ester, synth, props*)

Danilova, V.N. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1975, **41**, 1209 (*synth*)

Hammock, B.D. *et al*, *Pestic. Biochem. Physiol.*, 1977, **7**, 517 (*esters, tox*)

Wustner, D.A. *et al*, *J. Agric. Food Chem.*, 1978, **26**, 1104 (*S-alkyl esters, synth, tox*)

Pilipenko, A.T. *et al*, *Zavod. Lab.*, 1978, **44**, 927 (*O-Ph ester, detn, Pd*)

Methylphosphonic acid, 9CI **M-00244**

Methanephosphonic acid

[993-13-5]

MeP(O)(OH)₂

CH₅O₃P M 96.022

Hygroscopic cryst. Sol. H₂O, EtOH, Et₂O. Mp 105°. pK_{a1} 2.41; pK_{a2} 7.35 (25°), pK_{a1} 2.38; pK_{a2} 7.74 (H₂O, 25°).

▷ Highly irritant. Corrosive.

Anilinium salt: Cryst. (propanol). Mp 149-150°.

Monopropyl ester: [4546-11-6]. *Propyl hydrogen methylphosphonate*

$C_4H_{11}O_3P$ M 138.103

Liq. Bp_{0.05} 106°. n_D^{25} 1.4259.

Dipropyl ester: [6410-56-6]. *Dipropyl methylphosphonate*

$C_7H_{17}O_3P$ M 180.183

Liq. d_4^{20} 1.01. Bp₉ 93-96°, Bp_{0.25} 115.5°. n_D^{20} 1.4210.

Di-2-propenyl ester: Di-2-propenyl methylphosphonate.

Diallyl methylphosphonate

$C_7H_{13}O_3P$ M 176.152

Liq. d_4^{25} 1.04. Bp_{0.5} 77-85°. n_D^{25} 1.4468.

Diisopropyl ester: [1445-75-6]. Diisopropyl methylphosphonate

$C_7H_{17}O_3P$ M 180.183

Forms complexes with many metal salts. Bp₃ 66°. $n_D^{16.5}$ 1.4120. Nontoxic; nonmutagenic when pure.

▷ SZ9090000.

Dibutyl ester: [2404-73-1]. Dibutyl methylphosphonate

$C_9H_{21}O_3P$ M 208.237

Extractant for metals. Liq. d_4^{20} 0.95. Bp₁₅ 132-135°, Bp_{1.5} 86-91°. n_D^{20} 1.4240.

Di-tert-butyl ester: [17123-05-6]. Di-tert-butyl methylphosphonate

$C_9H_{21}O_3P$ M 208.237

Oil.

Monocyclohexyl ester: [1932-60-1]. Cyclohexyl hydrogen methylphosphonate

$C_7H_{15}O_3P$ M 178.167

Mp 45-48°.

Bis(trimethylsilyl) ester: [18279-83-9].

$C_7H_{21}O_3PSi_2$ M 240.386

Liq. Bp₂₇ 105-107.5°.

Dichloride: see Methylphosphonic dichloride, M-00245

Dibromide: [19430-64-9].

CH_3Br_2OP M 221.816

Liq. d_4^{20} 2.43. Bp₇₂₈ 191-195°, Bp_{0.5} 58°. n_D^{20} 1.5829.

Dicyanide: [31641-59-5].

$C_3H_3N_2OP$ M 114.043

No phys. props. reported.

Diisocyanate: [1068-20-8].

$C_3H_3N_2O_3P$ M 146.042

Liq. d_4^{20} 1.33. Bp₂ 71°. n_D^{20} 1.4680.

Diisothiocyanate: [4519-65-7].

$C_3H_3N_2OPS_2$ M 178.175

Liq. d_4^{20} 1.37. Bp₁₈ 148°, Bp_{0.05} 99-102°. n_D^{20} 1.6215.

Diazide: [33078-24-9].

CH_3N_6OP M 146.048

Liq. d_4^{20} 1.38. Bp_{0.03} 49-50°. n_D^{20} 1.4980.

Bis(3-methylbutyl) ester: [2452-70-2].

$C_{11}H_{25}O_3P$ M 236.290

Used in extractive separation of rare earth elements of the Ce subgroup (xylene) from 0.1-0.2M HNO₃. Liq. Sol. xylene.

Ford-Moore, A.H. *et al*, *J. Chem. Soc.*, 1947, 1465 (*synth, esters*)

Crofts, P.C. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 3379 (*synth, esters*)

Maier, L., *Helv. Chim. Acta*, 1963, **46**, 2667 (*dibromide, ir, P nmr*)

Rabinowitz, R., *J. Org. Chem.*, 1963, **28**, 2975 (*silyl ester, synth*)

Mark, V. *et al*, *J. Org. Chem.*, 1964, **29**, 1006 (*di-tert-butyl ester, synth, pmr, ir*)

Petrov, K.A. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 2608),

1964, **34**, 2586 (*dipropyl ester*)

Bai, L.I. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 3656), 1964, **34**, 3609 (*diisocyanate*)

Mikhlin, E.B. *et al*, *Zh. Neorg. Khim.*, 1965, **10**, 2787 (*use*)

Petrov, K.A. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 723), 1965, **35**, 723 (*monocyclohexyl ester*)

Cadogan, J.I.G. *et al*, *J. Chem. Soc. B*, 1971, 1988 (*monoalkyl esters*)

Shokol, V.A. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 539), 1971, **41**, 545 (*diazide, synth, ir*)

Riess, J.G. *et al*, *Bull. Soc. Chim. Fr.*, 1972, 3700 (*dibromide, diisothiocyanate, synth, ir, pmr*)

Harvey, D.J. *et al*, *Org. Mass Spectrom.*, 1974, **9**, 111 (*silyl ester, ms*)

Tebby, J.C. *et al*, *Phosphorus Relat. Group V Elem.*, 1975, **5**, 273 (*ms*)

Rueppel, M.L. *et al*, *Org. Magn. Reson.*, 1976, **8**, 19 (*P nmr, pmr*)

Kodolov, V.I. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl. p.* 142), 1977, 165 (*pe*)

Sass, S. *et al*, *Org. Mass Spectrom.*, 1979, **14**, 257 (*diisopropyl ester, ms*)

Pudovik, A.N. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 1248), 1979, **49**, 1425 (*diisothiocyanate*)

Holtzclaw, J.R. *et al*, *Org. Mass Spectrom.*, 1985, **20**, 90 (*dimethyl ester, ms, struct*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DNQ875.

Methylphosphonic dichloride, 9CI

M-00245

[676-97-1]

MeP(O)Cl₂

CH₃Cl₂OP M 132.913

Dehydrating agent, synthetic intermediate. Reagent for detn. of enantiomeric excess in chiral thiols. Low melting solid with pungent odour. Easily hydrolysed. Mp 32°. Bp 162°, Bp₅₃ 98°, Bp₁₇ 55°.

▷ TA1840000.

Durig, J.R. *et al*, *Spectrochim. Acta*, 1965, **21**, 1105 (*ir, raman*)

Geiseler, G. *et al*, *Ber. Bunsen-Ges. Phys. Chem.*, 1967, **71**, 478 (*ir, raman*)

Maier, L., *Helv. Chim. Acta*, 1973, **56**, 492 (*synth, pmr, P nmr*)

Bel'skii, V.E. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl. p.* 260), 1974, **215**, 355 (*ir, nqr*)

Moedritzer, K. *et al*, *Synth. React. Inorg. Met.-Org. Chem.*, 1974, **4**, 417 (*synth, pmr, P nmr*)

Quast, H. *et al*, *Synthesis*, 1974, 490 (*synth*)

Elbel, S. *et al*, *J. Chem. Soc., Dalton Trans.*, 1976, 1762 (*pe*)

Griffiths, W.R. *et al*, *Phosphorus Sulfur Relat. Elem.*, 1978, **4**, 341 (*ms*)

Zverev, V.V. *et al*, *Zh. Obshch. Khim.*, 1979, **49**, 1737; (*Engl. transl. pp.* 1522, 2172), 1980, **50**, 2690 (*pe, struct*)

Morita, T. *et al*, *Chem. Lett.*, 1980, 435 (*synth*)

Stritjven, B. *et al*, *Tetrahedron*, 1987, **43**, 123 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MOB399.

Methylphosphonothioic dichloride, 9CI

M-00246

Methylthiophosphonic dichloride

[676-98-2]

MeP(S)Cl₂

CH₃Cl₂PS M 148.980

Reagent for detn. of enantiomeric excess in chiral amines.

Liq. with pungent odour. d_4^{20} 1.35-1.43. Bp 177-178°, Bp₁₉ 49-51°. n_D^{20} 1.5428.

▷ TB2100000.

Hoffmann, F.W. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 3945 (*synth*)

Christol, C. *et al*, *J. Chim. Phys. Phys.-Chim. Biol.*, 1965, **62**, 246 (*ir, raman*)

Kavavanov, K.V. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 76), 1965, **35**, 78 (*synth*)

Nesterov, L.V. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 1228), 1970, **40**, 1237 (*ir, pmr, P nmr*)

Shagidullin, R.R. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl. p.* 564), 1975, **222**, 897 (*uw*)

Elbel, S. *et al*, *J. Chem. Soc., Dalton Trans.*, 1976, 1762 (*pe*)

Khairullin, V.K. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl. p.* 1813), 1978, **48**, 1993 (*synth*)

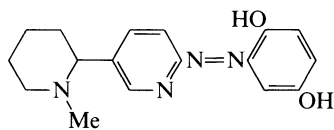
Feringa, B.L. *et al*, *J. Org. Chem.*, 1986, **51**, 5484 (*use*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 830.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MOC000.

2-[[5-(1-Methyl-2-piperidiny)-2-pyridiny] azo]-1,4-benzenediol **M-00247**

6'-[(2,5-Dihydroxyphenyl)azo]-1-methylanabasine, 8CI. 2-[(2,5-Dihydroxyphenyl)azo]-5-(1-methyl-2-piperidiny)pyridine
[24595-19-5]



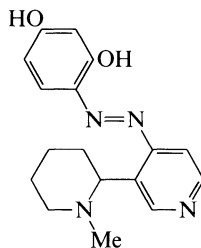
$C_{17}H_{20}N_4O_2$ M 312.371

Gives colour reactions with Cd, Co, Cu, Ga, Ni, Pd, U, Zn. Orange-red cryst. Sol. EtOH, Me₂CO.

Kagramanova, N.G. *et al*, CA, 1969, **71**, 56314p (use)

4-[[3-(1-Methyl-2-piperidiny)-4-pyridiny] azo]-1,3-benzenediol, 9CI **M-00248**

4-(2,4-Dihydroxyphenylazo)-3-(1-methyl-2-piperidiny)pyridine. 4-(N-Methyl-2-anabasinazo)resorcinol
[6098-88-0]



$C_{17}H_{20}N_4O_2$ M 312.371

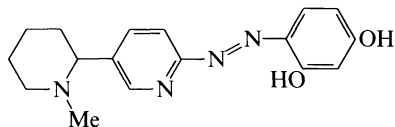
Used as a 1-10mM aq. soln. for photometric detn. of Sb (λ_{max} 540 nm, ϵ 10600); metallochromic indicator in titrimetric detn. of Bi, In. Brown red cryst. (EtOH). Sol. H₂O, EtOH, Me₂CO; spar. sol. CHCl₃, CCl₄, Et₂O. Mp > 105° (dec.). pK_{a1} 5.2; pK_{a2} 12.1.

Talipov, S.T. *et al*, Uzb. Khim. Zh., 1964, **8**, 18; 1965, **9**, 34; CA, **62**, 9779; **63**, 2365 (detn, In, pKa)

Talipov, S.T. *et al*, Zh. Anal. Khim., 1964, **19**, 851; 1972, **27**, 1550 (detn, Bi, Sb)

4-[[5-(1-Methyl-2-piperidiny)-2-pyridiny] azo]-1,3-benzenediol, 9CI **M-00249**

2-[(2,4-Dihydroxyphenyl)azo]-1-methylanabasine, 8CI. 2-(2,4-Dihydroxyphenylazo)-5-(1-methyl-2-piperidiny)pyridine. 4-(2-N-Methylanabasinazo)resorcinol
[20212-96-8]



$C_{17}H_{20}N_4O_2$ M 312.371

Used as metallochromic indicator for titrimetric detn. of Cu; photometric detn. of Cu, Pd. Cryst.

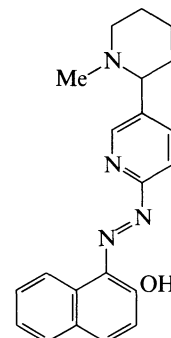
[21495-00-1]

Kamaeva, G. *et al*, Uzb. Khim. Zh., 1967, **11**(4), 14; CA, **68**, 111062v; 1967, **11**(5), 14; CA, **68**, 111064x (phot detn, Cu)

Talipov, S.T. *et al*, CA, 1968, **69**, 8152w (detn, Pd)

1-[[5-(1-Methyl-2-piperidiny)-2-pyridiny] azo]-2-naphthalenol **M-00250**

6'-[(2-Hydroxy-1-naphthyl)azo]-1-methylanabasine, 8CI. N-Methylanabasine- α -azo- β -naphthol
[23300-91-6]



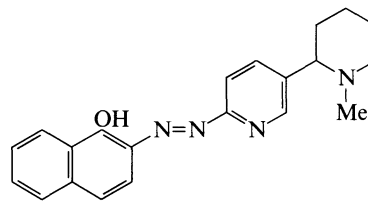
$C_{21}H_{22}N_4O$ M 346.431

Used as a 4mM soln. in EtOH for extraction-photometric detn. of Pd (λ_{max} 640 nm, ϵ 9420, CHCl₃); photometric detn. of In. Orange-red cryst. Sol. EtOH.

Chaprasova, L.V. *et al*, CA, 1968, **69**, 56784a; 1971, **74**, 134590d (detn, Pd, In)

2-[[5-(1-Methyl-2-piperidiny)-2-pyridiny] azo]-1-naphthalenol, 9CI **M-00251**

[20229-81-6]



$C_{21}H_{22}N_4O$ M 346.431

Used as a 0.2% soln. in EtOH for extraction-photometric detn. of Cd (λ_{max} 582 nm, ϵ 21000, CHCl₃), Co, U, In (λ_{max} 570 nm); metallochromic indicator for titrimetric detn. of Bi, Ni. Red cryst. Sol. EtOH, Me₂CO.

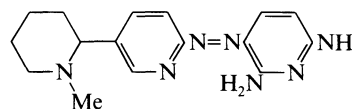
[27215-66-3, 28518-02-7]

Podgornova, V.S. *et al*, Uzb. Khim. Zh., 1967, **11**, 25 (detn, In)

Amirkhanova, T.B. *et al*, CA, 1968, **68**, 119113h; **69**, 8086c, 73649c, 8171b (detn, Cd, Bi, Ni, Co)

3-[[5-(1-Methyl-2-piperidiny)-2-pyridiny] azo]-2,6-pyridinediamine **M-00252**

6'-[(2,6-Diamino-3-pyridyl)azo]-1-methylanabasine, 8CI. 2-[(2,6-Diamino-3-pyridiny)azo]-5-(1-methyl-2-piperidiny)pyridine
[24613-90-9]



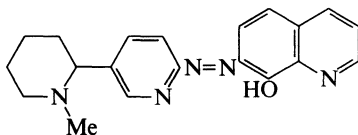
$C_{16}H_{21}N_7$ M 311.389

Used as a 0.05% aq. soln. for photometric detn. of Co. Orange red cryst. Sol. H₂O, acids.

Podgornova, S. *et al*, Zh. Anal. Khim., 1969, **24**, 945 (synth, detn, Co)

7-[[5-(1-Methyl-2-piperidiny)-2-pyridinyl] azo]-8-quinolinyl M-00253

6'-(8-Hydroxy-7-quinolinyl)azo-1-methylanabasine, 8CI. 2-[[8-Hydroxy-7-quinolinyl]azo]-5-(1-methyl-2-piperidiny)pyridine



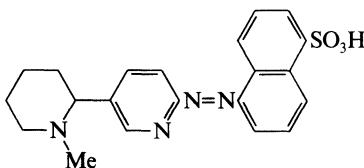
$C_{20}H_{21}N_5O$ M 347.419

Used as a 0.2% aq. soln. for photometric detn. of Cd, Tl (λ_{max} 570 nm, ϵ 13100). Orange red cryst. V. sol. EtOH, common org. solvs.; sl. sol. H_2O . pK_a 7.5.

Yusupov, M. *et al*, *CA*, 1968, **69**, 8080w, 83154b; 1970, **70**, 5210y (detn. Cd, Tl, synth)

5-[[5-(1-Methyl-2-piperidiny)-2-pyridyl] azo]-1-naphthalenesulfonic acid, 8CI M-00254

α' -(N-Methylanabasinazo)-1-naphthalene-5-sulfonic acid [20229-82-7]



$C_{21}H_{22}N_4O_3S$ M 410.496

Used for photometric detn. of Pd. Orange red cryst. Sol. H_2O , EtOH.

Sharipova, S.T. *et al*, *CA*, 1969, **68**, 119170z (detn. Pd)

2-Methyl-1-propanol M-00255

Isobutanol. Isobutyl alcohol [78-83-1]



$C_4H_{10}O$ M 74.122

Present in fusel oil and produced by fermentation of carbohydrates. Used as a varnish remover and in the manufacture of flavouring essences. Used to esterify carboxylic acids and amino acids for gc anal. Colourless, refractive liq. Flammable. Misc. EtOH, Et_2O , spar. sol. H_2O . Fp -108° . Bp 108.1° .

► Mod. toxic, eye irritant. TLV 150. NP9625000.

3,5-Dinitrobenzoyl: [10478-01-0]. Isobutyl 3,5-dinitrobenzoate

Mp 86° .

Acid phthalate: [30833-53-5].

Mp 65° .

► TI2550000.

U.K. Pat., 324 897, (1928); *CA*, **24**, 3802 (manuf)

Hückel, W. *et al*, *J. Prakt. Chem.*, 1933, **136**, 15.

Mackenzie, S.L. *et al*, *J. Chromatogr.*, 1975, **111**, 413 (use)

Harrison, A.G. *et al*, *Can. J. Chem.*, 1976, **54**, 2029 (ms)

Loeffler, C.E. *et al*, *Encycl. Chem. Process. Des.*, (McKetta, J.J. *et al*, Eds.), Dekker, N.Y., 1977, 358 (rev)

Siezen, R.J. *et al*, *J. Chromatogr.*, 1977, **130**, 151 (use)

Molnar-Peri, I. *et al*, *Chromatographia*, 1983, **17**, 493 (use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 368.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, IIL000, MRI775.

2-Methyl-2-propenoic acid, 9CI M-00256

2-Methylacrylic acid, 8CI. Methacrylic acid [79-41-4]



$C_4H_6O_2$ M 86.090

Isol. from *Scarites subterraneus*. Polymers used as synthetic resins. Long prisms or liq. Sol. H_2O , EtOH, Et_2O . d_4^{20} 1.02. Mp $15-16^\circ$. Bp 160.5° , Bp₁₄ 72° . pK_{a1} 4.65. n_D^{20} 1.4314. Polymerises on repeated dist. or on heating under press. with HCl.

► Highly irritant, causes burns. OZ2975000.

Me ester: [80-62-6]. Methyl methacrylate

$C_5H_8O_2$ M 100.117

Monomer for prodn. of synthetic resins (perspex). Used for extraction-separation of Se and Au. Liq. Sol.

Me_2CO . Bp $100-101^\circ$. Polymerises on exp. to light or on heating in air.

► Irritant, TLV 410. Highly flammable, flash p. -10° . OZ5075000.

Et ester: [97-63-2]. Ethyl methacrylate

$C_6H_{10}O_2$ M 114.144

Monomer. Bp $115-120^\circ$, Bp₁₈ 30° .

Chloride: [920-46-7].

C_4H_6ClO M 104.536

Bp $95-96^\circ$, Bp₁₃₅ $50-52^\circ$.

► OZ5791000.

Amide: [79-39-0]. Methacrylamide

C_4H_7NO M 85.105

Mp $105-107^\circ$. Polymerises on heating in solid state or soln.

► UC6475000.

Nitrile: [126-98-7]. 2-Cyanopropene. Methacrylonitrile

C_4H_5N M 67.090

Insol. H_2O . d_4^{20} 0.80. Bp $90-92^\circ$.

► Highly toxic by inhalation and skin absorption, TLV 3. UD1400000.

Burns, R. *et al*, *J. Chem. Soc.*, 1935, 714 (synth)

Porter, R.W., *CA*, 1947, **41**, 4673.

Mowry, D.T. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 1831 (nitrile)

Org. Synth., Coll. Vol., 3, 1955, 30 (synth)

Org. Synth., Coll. Vol., 3, 1955, 560 (amide)

Rodd's Chem. Carbon Compd. (2nd Ed.), 2nd Ed., Vol ID, 1965, 232 (synth, manuf, bibl)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **15**, 346 (rev)

Futekov, L. *et al*, *Fresenius' Z. Anal. Chem.*, 1981, **306**, 378, 381 (Me ester, detn, Se, Au)

Attygalle, A.B. *et al*, *Tetrahedron Lett.*, 1991, **32**, 4849 (biosynth)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 532.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 384, 385, 389.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EMF000, MDN250, MDN500, MDN899, MGA750, MLH750.

2-Methylpropyl acetate, 9CI M-00257

Isobutyl acetate, 8CI

[110-19-0]



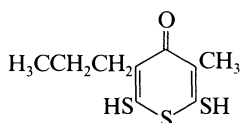
C₆H₁₂O₂ M 116.160

Found in wines, cider, apples, figs and melons. Used as solvent, and in flavouring agents. Alarm pheromone of the honeybee. Used for extraction separation of Zn and Cd from iodide-H₂SO₄ media. Liq. Sol. EtOH, prac. insol. H₂O. Fp –98.85°. Bp 118°.

▷ AI4025000.

Hückel, W. *et al*, *J. Prakt. Chem.*, 1933, **136**, 15 (*synth*)
 Birkinshaw, J.H. *et al*, *Biochem. J.*, 1950, **47**, 55 (*isol*)
 Karpov, O.N. *et al*, *CA*, 1969, **70**, 114 556 (*synth*)
 Shikhmamedbekova, A.Z. *et al*, *CA*, 1972, **76**, 13306 (*ms*)
 Scrivener, H.W., *Encycl. Chem. Process. Des.*, (McKetta, J.J. *et al*, Eds.), Dekker, N.Y., 1977, 317 (*rev*)
 Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals*, Wiley, New York, 1977 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, I1J000.

3-Methyl-5-propyl-2,6-dimercapto-4H-thiopyran-4-one, 9CI M-00258

C₉H₁₂OS₃ M 232.391

Used as a 0.1mM aq. soln. for photometric detn. of Bi (λ_{max} 430 nm, ε 25200), Sn (λ_{max} 420 nm, ε 25400). Cryst.

Usatenko, Y.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 462; 1967, **22**, 1823 (*detn*, Bi, Sn)

O-(1-Methylpropyl)hydroxylamine, 9CI M-00259

Hydroxylamine sec-butyl ether. O-sec-Butylhydroxylamine. sec-Butoxyamine

[41109-12-0]

C₄H₁₁NO M 89.137

Derivatisation reagent for gc anal. of keto steroids. Bp 103-104°.

B, HCl: [6084-59-9].

Cryst. (THF/Et₂O). Mp 68-70°.

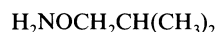
[83153-73-5]

Theilacker, W. *et al*, *Angew. Chem.*, 1956, **68**, 303 (*synth*)Baillie, T.A. *et al*, *Anal. Lett.*, 1972, **5**, 351 (*use*)Grochowski, E. *et al*, *Synthesis*, 1976, 682 (*synth*)

O-(2-Methylpropyl)hydroxylamine, 9CI M-00260

Hydroxylamine isobutyl ether. O-Isobutylhydroxylamine. Isobutoxyamine

[5618-62-2]

C₄H₁₁NO M 89.137

Derivatisation reagent for gc anal. of keto steroids. Oil. Bp 95-97°.

B, HCl: [6084-58-8].

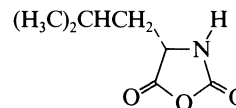
Leaflets (EtOAc). Mp 134-135°.

Theilacker, W. *et al*, *Angew. Chem.*, 1956, **68**, 303 (*synth*)Mamalis, P. *et al*, *J. Chem. Soc.*, 1960, 229 (*synth*)Baillie, T.A. *et al*, *Anal. Lett.*, 1972, **5**, 351 (*use*)

4-(2-Methylpropyl)-2,5-oxazolidinedione, 9CI M-00261

4-Isobutyl-2,5-oxazolidinedione, 8CI. Leucine N-carboxyanhydride

[51248-35-2]



(S)-form

C₇H₁₁NO₃ M 157.169

(S)-form [3190-70-3]

L-form

Polymerizes rapidly. Used in peptide synthesis and in detn. of optical purity of amino acids by hplc. Cryst. (Et₂O/pet. ether). Mp 76-77°.

[26334-33-8, 51018-87-2]

Coleman, D., *J. Chem. Soc.*, 1950, 3222 (*synth*)Konopinska, D. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1967, **6**, 248 (*synth*)Manning, J.M. *et al*, *J. Biol. Chem.*, 1968, **243**, 5591 (*use*)Fuller, W.D. *et al*, *Biopolymers*, 1976, **15**, 1869 (*synth*)Kanazawa, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1978, **51**, 2205 (*cryst struct*)Takaya, T. *et al*, *CA*, 1980, **93**, 88144d (*use*)Kircher, K. *et al*, *Justus Liebigs Ann. Chem.*, 1980, 275 (*use*)Kricheldorf, H.R. *et al*, *Org. Magn. Reson.*, 1980, **14**, 198 (*cmr*, 15 nmr)Daly, W.H. *et al*, *Tetrahedron Lett.*, 1988, **29**, 5859 (*synth*)

(2-Methylpropyl)phosphonic acid, 9CI M-00262

Isobutylphosphonic acid

[4721-34-0]

C₄H₁₁O₃P M 138.103

Cryst. (cyclohexane). Mp 125-126°. pK_{a1} 2.70; pK_{a2} 8.43 (H₂O, 25°).

Di-Et ester: [50655-63-5]. *Diethyl (2-methylpropyl) phosphonate. Diethyl isobutylphosphonate*

C₈H₁₉O₃P M 194.210Liq. Bp₁₃ 86-93°, Bp₃ 83°.

Bis(2-methylpropyl) ester: [52928-43-5]. *Bis(2-methylpropyl) (2-methylpropyl)phosphonate. Diisobutyl isobutylphosphonate*

C₁₂H₂₇O₃P M 250.317

Extractant for Cd and Zn from aq. soln. Liq. Bp₁₀ 133-134°.

Di-Ph ester: [53235-71-5]. *Diphenyl (2-methylpropyl) phosphonate. Diphenyl isobutylphosphonate*

C₁₆H₁₉O₃P M 290.298

Characterised spectroscopically.

Dichloride: [5021-98-7].C₄H₉Cl₂OP M 174.994Liq. d₄²⁰ 1.25. Bp₂₀ 90-92°. n_D²⁰ 1.4641.

Arbuzov, A.E. *et al*, *Zh. Fiz. Khim.*, 1913, **45**, 690; *CA*, **7**, 3599 (*synth. deriv*)

Fields, E.K. *et al*, *Chem. Ind. (London)*, 1960, 999 (*ester*)Jason, E.F. *et al*, *J. Org. Chem.*, 1962, **27**, 1402 (*ester*)

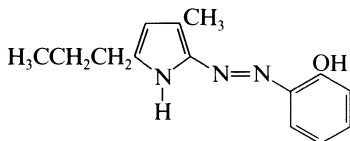
Tsvetkov, E.N. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1967, 2375; *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Engl. Transl.)*, 2267 (*dichloride*)

Hudson, H.R. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1974, 982 (*ester, P nmr*)

Ernst, L., *Org. Magn. Reson.*, 1977, **9**, 35 (*ester, cmr, P nmr*)

2-[(3-Methyl-5-propyl-2-pyrrolidinyl)azo]phenol **M-00263**

2-(2-Hydroxyphenylazo)-3-methyl-5-propylpyrrolidine
[10418-07-2]



$C_{14}H_{17}N_3O$ M 243.308

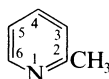
Used as 1mM soln. in aq. dioxan for photometric detn. of Co (λ_{max} 560 nm, ϵ 40000). Cryst. Sol. dioxan, EtOH.

Cherepakhin, A.I., *Zh. Anal. Khim.*, 1966, **21**, 502 (synth, detn, Co)

2-Methylpyridine, 9CI **M-00264**

α -Picoline

[109-06-8]



C_6H_7N M 93.128

Isol. from leaves of *Rumex obtusifolius* (Polygonaceae).

Found in coal tar oil. Oil with strong unpleasant odour.

d_4^{15} 0.950. Mp -70° . Bp 129° . pK_a 7.98 (25°). n_D^{17} 1.5029.

▷ Toxic, irritant. Flammable. TJ4900000.

B, HCl: Hygroscopic cryst. + $\frac{1}{2}H_2O$. Mp 200° (anhyd.).

B, HBr, Br₂ addn. compd.: Red cryst. Mp 76° .

B, MeI: [872-73-1]. 2-Picoline methiodide

$C_7H_{10}IN$ M 235.067

Reagent for the detn. of aromatic aldehydes (forms 2-stilbazole methiodide). Needles (EtOH). Mp $229-231^\circ$.

B, EtBr: Mp 97° .

B, EtI: Mp 123° .

Picrate: Needles. Mp $169-171^\circ$.

[18241-33-3]

Heap, T. *et al*, *J. Am. Chem. Soc.*, 1921, **43**, 1936.

Wilkie, K. *et al*, *J. Soc. Chem. Ind., London*, 1927, **46**, 469.

Cartwright, C.H. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1935, **200**, 914.

Cullinane, N.M. *et al*, *J. Soc. Chem. Ind., London*, 1948, **67**, 142.

Coulson, E.A. *et al*, *J. Chem. Soc.*, 1954, 1957.

Kosower, E.M. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 3493 (synth, methiodide)

Wilkinson, S., *Nature (London)*, 1958, **181**, 636 (isol)

Weissberger, A., *Chem. Heterocycl. Compd.*, 1960, **14**, 99.

Salsmans, R. *et al*, *Org. Mass Spectrom.*, 1974, **8**, 357 (ms)

Tarek, M. *et al*, *Anal. Lett.*, 1987, **20**, 2049; 1989, **22**, 3091 (use, methiodide)

Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (cmr)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 403.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MOY000.

4-Methylpyridine, 9CI **M-00265**

γ -Picoline

[108-89-4]

C_6H_7N M 93.128

Used as mixture with barbituric acid for photometric detn.

of CN^\ominus (λ_{max} 605 nm). Used as 5% aq. soln. for

extraction-photometric detn. of Fe with α -benzildioxime

(λ_{max} 559 nm, $CHCl_3$). Liq. Sol. H_2O , EtOH, Et_2O . d_4^{15}

0.957. Bp 143.1° . pK_a 7.96 (25°). n_D^{10} 1.5064.

▷ Toxic, irritant, flammable. UT5425000.

B, MeI: Flat prisms (Me_2CO). Mp $149-150^\circ$.

Picrate: Mp 167° .

N-Oxide: [1003-67-4].

C_6H_7NO M 109.127

Bp_{0.05} $101-102^\circ$.

▷ Emits highly toxic fumes on heating.

[1333-41-1]

Meisenheimer, J., *Justus Liebigs Ann. Chem.*, 1920, **420**, 197.

U.K. Pat., 283 163, (1928); *CA*, **22**, 3892.

Bailey, C.F. *et al*, *J. Am. Chem. Soc.*, 1930, **52**, 1633.

Clemo, G.R. *et al*, *J. Chem. Soc.*, 1938, 478.

Coulson, E.A., *J. Chem. Soc.*, 1954, 1957.

Weissberger, A., *Chem. Heterocycl. Compd.*, 1960, **14/1**, 99 (bibl)

Einaga, H., *Mikrochim. Acta*, 1976, **1**, 67 (detn, Fe)

Nagashima, S., *Anal. Chim. Acta*, 1977, **91**, 303 (detn, CN)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 403.

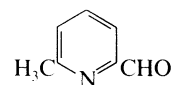
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, MOY250.

6-Methyl-2-pyridinecarboxaldehyde, 9CI **M-00266**

6-Methylpicolinaldehyde, 8CI. 2-Formyl-6-methylpyridine

[1122-72-1]



C_7H_7NO M 121.138

Cryst. Mp 33° . Bp₁₂ $77-78^\circ$. pK_a 4.55.

B, HCl: Cryst. Mp $146-147^\circ$.

(*E*)-*Oxime*: [1195-40-0].

$C_7H_8N_2O$ M 136.153

Cryst. (EtOH aq.). Mp $170-171^\circ$ ($168-169.5^\circ$).

l-Oxide:

$C_7H_7NO_2$ M 137.138

Yellow cryst. (C_6H_6). Mp 84° .

Dimethylhydrazone:

$C_9H_{13}N_3$ M 163.222

Cryst. Mp $51-53^\circ$.

Phenylhydrazone: Yellow cryst. (EtOH). Mp $203-205^\circ$.

2,4-Dinitrophenylhydrazone: Mp $231-233^\circ$ dec.

Semicarbazone: Mp 218° .

Thiosemicarbazone: [6853-69-6].

$C_8H_{10}N_4S$ M 194.260

Used as 1% EtOH soln. for photometric detn. of $Hg(II)$

(λ_{max} 363 nm, ϵ 23800). Yellow cryst. Sol. EtOH, DMF;

spar. sol. H_2O .

Mathes, W. *et al*, *Chem. Ber.*, 1951, **84**, 452 (synth)

Furukawa, S. *et al*, *Chem. Pharm. Bull.*, 1955, **3**, 232 (synth)

Ginsburg, S. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 481 (oxime)

Wiley, R.H. *et al*, *J. Org. Chem.*, 1957, **22**, 204

(*dimethylhydrazone*)

Tirouflet, J. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1958, **247**, 217

(*props*)

Baker, W. *et al*, *J. Chem. Soc.*, 1958, 3594 (*w*)

Mathes, W. *et al*, *Justus Liebigs Ann. Chem.*, 1958, **618**, 152

(*oxide*)

Callaghan, R.H. *et al*, *J. Org. Chem.*, 1961, **26**, 4912 (synth)

Kasuga, S. *et al*, *Chem. Pharm. Bull.*, 1965, **13**, 233 (synth)

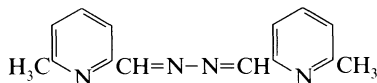
Papadopoulos, E.P. *et al*, *J. Org. Chem.*, 1966, **31**, 615 (synth)

Kowalewski, V. *et al*, *J. Magn. Reson.*, 1972, **8**, 101 (*pmr*)

Gallardo Cespedes, A. *et al*, *Microchem. J.*, 1984, **30**, 105 (synth, detn, Hg)

6-Methyl-2-pyridinecarboxaldehyde azine M-00267

6-Methyl-2-pyridinecarboxaldehyde [(6-methyl-2-pyridinyl)methylene]hydrazone, 9CI. 6-Methylpicolinaldehyde azine [6955-47-1]



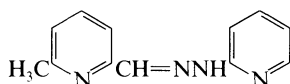
$C_{14}H_{14}N_4$ M 238.291

Used for indirect extraction-photometric detn. of ClO_4^- (λ_{max} 480 nm, ϵ 3250, $CHCl_3$; λ_{max} 480 nm, ϵ 41400, butanol). Cryst.

Valcarcel, M. *et al.*, *An. Quim.*, 1972, **68**, 382 (detn, ClO_4^-)

6-Methyl-2-pyridinecarboxaldehyde 2-pyridinylhydrazone M-00268

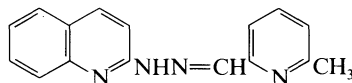
[58333-11-2]



$C_{12}H_{12}N_4$ M 212.254

Used as complexing agent for Zn. Needles. Mp 208-210°.

Geldard, J.F. *et al.*, *J. Am. Chem. Soc.*, 1962, **84**, 2262 (synth, detn, Zn)

6-Methyl-2-pyridinecarboxaldehyde 2-quinolinylhydrazone M-00269

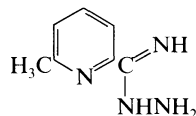
$C_{16}H_{14}N_4$ M 262.313

Used for photometric detn. of Pd. Cryst.

Capitan Garcia, F. *et al.*, *Afinidad*, 1977, **34**, 214 (detn, Pd)
Singh, R.B. *et al.*, *Talanta*, 1982, **29**, 77 (rev)

6-Methyl-2-pyridinecarboximidic acid hydrazide, 9CI M-00270

6-Methylpicolinimidic acid hydrazide, 8CI [18895-94-8]



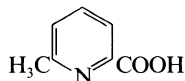
$C_7H_{10}N_4$ M 150.183

Used as a 0.6% soln. in 2-propanol for photometric detn. of Cu (λ_{max} 426 nm, ϵ 700). Plates (2-propanol or C_6H_6). Sol. EtOH, Me_2CO . Mp 115°, Mp 112-113°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, **5**, 413 (synth)
Stookey, L.L., *Talanta*, 1970, **17**, 644.
Schilt, A.A. *et al.*, *Talanta*, 1970, **17**, 649 (use)

6-Methyl-2-pyridinecarboxylic acid, 9CI M-00271

6-Methylpicolinic acid. α -Picoline-6-carboxylic acid [934-60-1]



$C_7H_7NO_2$ M 137.138

Needles. Mp 124-128°. pK_{a1} 0.9; pK_{a2} 5.77 (20°, 0.5M NaCl).

l-Oxide: [1125-34-4].

$C_7H_7NO_3$ M 153.137

Mp 174-176° dec.

Me ester: [13602-11-4].

$C_8H_9NO_2$ M 151.165

Bp₄ 96-97°.

Thioamide: [5933-30-2]. 6-Methylthiopicolinamide, 8CI

$C_7H_8N_2S$ M 152.220

Used as 1mM soln. in pentanol for extraction-photometric detn. of Cu(I) (λ_{max} 495 nm, in the presence of ascorbic acid). Cryst. Sol. pentanol.

Amide, oxime: [24283-36-1]. 6-Methyl-2-pyridinecarboxamidoxime, 9CI. 6-Methylpicolinamidoxime, 8CI

$C_7H_9N_3O$ M 151.168

Used as a 0.1% aq. soln. for photometric detn. of Cu (λ_{max} 405 nm, ϵ 7200, 2-pentanol). Cryst. (C_6H_6). Sol. H_2O , EtOH, Me_2CO ; mod. sol. C_6H_6 , Mp 138°.

Szafran, M., *Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1965, **13**, 245 (ir)

Wawschinek, O., *Mikrochim. Acta*, 1965, 860 (detn. Cu)

Pemberton, J.R. *et al.*, *Talanta*, 1969, **16**, 542 (synth, use, nmr)

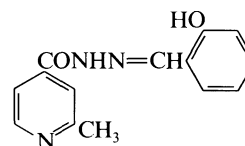
Campbell, A.D. *et al.*, *Aust. J. Chem.*, 1971, **24**, 377 (synth)

Deady, L.W. *et al.*, *Org. Magn. Reson.*, 1975, **7**, 41 (nmr)

Deady, L.W. *et al.*, *Spectrochim. Acta, Part A*, 1975, **31**, 1671 (uv)

2-Methyl-4-pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, 9CI M-00272

2-Methylisonicotinic acid salicylhydrazide [50366-17-1]



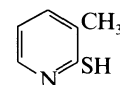
$C_{14}H_{13}N_3O_2$ M 255.276

Used as a 0.5% soln. in EtOH for photometric detn. of Ti; extraction-photometric detn. of Fe, Ti, V. Cryst. (EtOH aq.). Sol. EtOH. Mp 181°.

Dolgorev, A.V. *et al.*, *Fresenius' Z. Anal. Chem.*, 1973, **28**, 1093 (use)

3-Methyl-2-pyridinethiol M-00273

3-Methyl-2(1H)-pyridinethione [18368-66-6]



C_6H_7NS M 125.194

Cryst. (C_6H_6). Mp 172-173°.

N-Oxide: [55154-51-3].

C_6H_7NOS M 141.193

Used for photometric detn. of Fe, Hg, Pd. Cryst. Spar. sol. H_2O . Mp 70-72°.

N-Oxide, Na salt: Mp 242-244°. pK_{a1} 5.3 (25°).

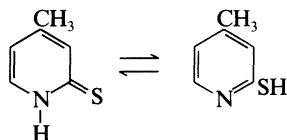
Bell, C.L. *et al.*, *J. Heterocycl. Chem.*, 1965, **2**, 420; 1968, **5**, 647 (synth, nmr, ms)

Edrissi, M. *et al.*, *Microchem. J.*, 1971, **16**, 538 (use, deriv)

4-Methyl-2(1H)-pyridinethione, 8CI

4-Methyl-2-pyridinethiol

[18368-65-5]

C₆H₇NS M 125.194Cryst. (C₆H₆). Mp 178-180°.

N-Oxide: [34341-26-9]. 1-Hydroxy-4-methyl-2(1H)-pyridinethione. 4-Methyl-2-pyridinethiol 1-oxide

C₆H₇NOS M 141.193Used for photometric detn. of Fe, Hg, Pd, Cu; gravimetric detn. of Fe. Cryst. Spar. sol. H₂O. Mp 58-60°. pK_{a1} 4.93 (25°).

N-Oxide, Na salt: [55154-52-4].

Cryst. (Me₂CO aq.). Mp 238-240°. pK_a 4.93 (25°).

N-Oxide, tris Fe(III) complex: [34387-32-1].

C₁₈H₁₈FeN₃O₃S₃ M 476.403

Used for photometric detn. of Hg. Purple cryst. Dec. at 180-181°.

N-Ac: [34317-06-1]. 1-Acetoxy-4-methyl-2(1H)-pyridinethione, 8CI

C₈H₉NOS M 167.231

Used for gravimetric detn. of Cu. Cryst. (EtOH). Mp 84-86°.

[3354-06-1, 25363-69-3]

Shaw, E. et al, *J. Am. Chem. Soc.*, 1950, **72**, 4362 (*synth*)Bell, C.L. et al, *J. Heterocycl. Chem.*, 1965, **2**, 420; 1968, **5**, 647 (*synth, nmr, ms*)Delarge, J., *Farmaco, Ed. Sci.*, 1967, **22**, 1069 (*synth*)Edrissi, M. et al, *Microchem. J.*, 1971, **16**, 526, 538; 1973, **18**, 59 (*synth, use*)**5-Methyl-2(1H)-pyridinethione**

5-Methyl-2-pyridinethiol

[18368-58-6]

C₆H₇NS M 125.194Cryst. (C₆H₆). Mp 199-200°.

N-Oxide: [40313-38-0].

C₆H₇NOS M 141.193Used for photometric detn. of Fe, Hg, Pd. Cryst. Spar. sol. H₂O. Mp 100-102°.N-Oxide, Na salt: Mp 246-248°. pK_{a1} 4.71 (25°).Bell, C.L. et al, *J. Heterocycl. Chem.*, 1965, **2**, 420; 1968, **5**, 647 (*synth, nmr, ms*)Edrissi, M. et al, *Microchem. J.*, 1971, **16**, 538 (*use, deriv*)**6-Methyl-2(1H)-pyridinethione**

6-Methyl-2-pyridinethiol

[18368-57-5]

C₆H₇NS M 125.194Cryst. (C₆H₆). Mp 154-156°.

N-Oxide: [51583-70-1].

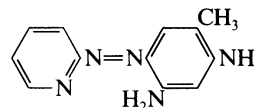
C₆H₇NOS M 141.193Used for photometric detn. of Fe, Hg, Pd. Cryst. Spar. sol. H₂O. Mp 50-52°.N-Oxide, Na salt: Mp 233-235°. pK_{a1} 5.18 (25°).Bell, C.L. et al, *J. Heterocycl. Chem.*, 1965, **2**, 420; 1968, **5**, 647 (*synth, nmr, ms*)Edrissi, M. et al, *Microchem. J.*, 1971, **16**, 538 (*use, deriv*)

M-00274

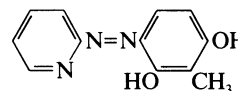
4-Methyl-6-(2-pyridinylazo)-1,3-benzenediamine, 9CI

5-(2-Pyridylazo)-2,4-diaminotoluene. 2-(4,6-Diamino-3-methylphenylazo)pyridine. PADAT

[51833-06-8]

C₁₂H₁₃N₅ M 227.268Used as 0.1% EtOH soln. for photometric detn. of Co (λ_{max} 561 nm, ε 116000). Red needles (EtOH aq.). Sol. EtOH. Mp 188°.Shibata, S. et al, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1077 (*synth*)Shibata, S. et al, *Anal. Chim. Acta*, 1974, **73**, 107 (*detn, Co*)**2-Methyl-4-(2-pyridinylazo)-1,3-benzenediol**

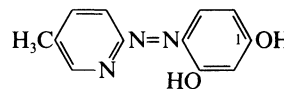
2-(2,4-Dihydroxy-3-methylphenylazo)pyridine

C₁₂H₁₁N₃O₂ M 229.238

1-Me ether: [77350-03-9]. 3-Methoxy-2-methyl-6-(2-pyridinylazo)phenol, 9CI

C₁₃H₁₃N₃O₂ M 243.265Used as 0.2% MeOH soln. for extraction-photometric detn. of Ni (λ_{max} 545 nm, ε 95000, CHCl₃), Cu, Co. Cryst. Sol. MeOH, EtOH, dioxan; sl. sol. H₂O. Mp 190°. pK_{a1} 3.00; pK_{a2} 8.15 (aq. dioxan, 25°, 0.1M KNO₃).Ohshita, K. et al, *Anal. Chim. Acta*, 1981, **124**, 193 (*synth, use*)**4-[(5-Methyl-2-pyridinyl)azo]-1,3-benzenediol**

[17091-07-5]

C₁₂H₁₁N₃O₂ M 229.238

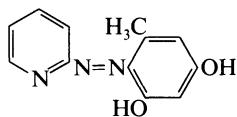
1-Me ether: [77350-00-6]. 5-Methoxy-2-[(5-methyl-2-pyridinyl)azo]phenol, 9CI. 2-(2-Hydroxy-4-methoxyphenylazo)-5-methylpyridine

C₁₃H₁₃N₃O₂ M 243.265Used as 0.2% MeOH soln. for extraction-photometric detn. of Ni (λ_{max} 565 nm, ε 42000, CHCl₃), Cu, Co. Colour cryst. Sol. MeOH, EtOH, dioxan; sl. sol. H₂O. Mp 267°. pK_{a1} 2.95; pK_{a2} 9.55 (aq. dioxan, 25°, 0.1M KNO₃).Geary, W.J. et al, *Talanta*, 1967, **15**, 537.Ohshita, K. et al, *Anal. Chim. Acta*, 1981, **124**, 193 (*synth, detn, Ni*)

M-00276

5-Methyl-4-(2-pyridinylazo)-1,3-benzenediol

(5-Methyl-2-pyridylazo)resorcinol, 8Cl. 2-(2,4-Dihydroxy-6-methylphenylazo)pyridine
[29660-56-8]



$C_{12}H_{11}N_3O_2$ M 229.238

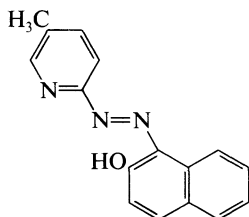
Used as a 0.1% aq. soln. to give colour reactions with transition metals; indicator for titrimetric detn. of Cd, Co, Pb. Sol. alkalis, EtOH, Et₂O; insol. H₂O.

Hnilickova, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, 117, 425 (synth, detn, Cu)

Carducci, C.N., *CA*, 1967, 66, 61454k (reactions)

1-[(5-Methyl-2-pyridinyl)azo]-2-naphthalenol, 9Cl

1-(5-Methyl-2-pyridylazo)-2-naphthol. 5-Methyl-β-PAN
[39484-77-0]



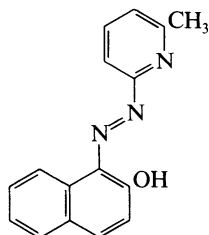
$C_{16}H_{13}N_3O$ M 263.298

Used as a 0.1% soln. in MeOH for photometric detn. of Y (λ_{max} 530 nm, ϵ 64000), U (λ_{max} 560 nm, ϵ 21000). Cryst. (MeOH). Sol. EtOH, MeOH.

Shibata, S. *et al*, *Mikrochim. Acta*, 1973, 325; 1974, 129 (detn, Y, U)

1-[(6-Methyl-2-pyridinyl)azo]-2-naphthalenol

[112828-31-6]



$C_{16}H_{13}N_3O$ M 263.298

N-Oxide: [74108-95-5].

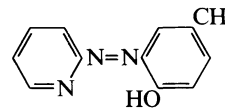
$C_{16}H_{13}N_3O_2$ M 279.298

Used as 0.05% EtOH soln. for extraction-photometric detn. of V(V) (λ_{max} 562 nm, 3M HCl, CHCl₃). Deep crimson needles (EtOH). Sol. EtOH. Mp 225-227°.

Beaupré, P.W. *et al*, *Mikrochim. Acta*, 1980, 1, 371 (synth, detn, V)

4-Methyl-2-(2-pyridinylazo)phenol, 9Cl

2-(2-Hydroxy-5-methylphenylazo)pyridine
[19406-16-7]



$C_{12}H_{11}N_3O$ M 213.238

Used as a 0.1% soln. in propan-1-ol for photometric detn. of Ir (λ_{max} 570 nm, ϵ 28000), Rh (λ_{max} 590 nm, ϵ 85000). Orange cryst.

Goroshko, G.G. *et al*, *Zh. Anal. Khim.*, 1978, 33, 1114 (detn, Ir, Rh)

Goroshko, G.G. *et al*, *Zavod. Lab.*, 1984, 50, 11 (detn, Ir, Rh)

5-Methyl-2-(2-pyridinylazo)phenol, 9Cl

M-00284

[101645-04-9]

$C_{12}H_{11}N_3O$ M 213.238

Used as 1.7mM soln. in 0.08M HCl for extraction-photometric detn. of Ni (λ_{max} 555 nm, ϵ 25500), Zn, Cd, Cu. Cryst. Sol. acids, EtOH.

Kawamorita, S. *et al*, *Anal. Sci.*, 1985, 1, 41 (use)

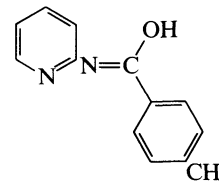
Watanabe, H. *et al*, *Anal. Sci.*, 1987, 3, 433 (use)

4-Methyl-N-2-pyridinylbenzamide, 9Cl

M-00285

2-(p-Tolylamido)pyridine

[14547-80-9]



$C_{13}H_{12}N_2O$ M 212.251

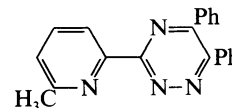
Used as 1% C₆H₆ soln. for extraction-photometric detn. of Mo (λ_{max} 470 nm, ϵ 18800, 1.5-6.6M HCl). Cryst. Sol. C₆H₆, CHCl₃, CCl₄, acids, alkalis; insol. H₂O.

Patel, K.S. *et al*, *Talanta*, 1982, 29, 791 (detn, Mo)

3-(6-Methyl-2-pyridinyl)-5,6-diphenyl-1,2,4-triazine, 9Cl

M-00286

[18895-96-0]



$C_{21}H_{16}N_4$ M 324.384

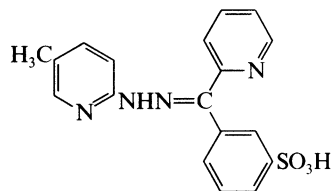
Used as a 0.65% soln. in hot MeOH or 5mM soln. in EtOH for photometric detn. of Cu (λ_{max} 492 nm, ϵ 950). Yellow cryst. (C₆H₆/pet. ether). Sol. EtOH, C₆H₆. Mp 179°, Mp 154-155°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, 5, 413 (synth)

Stokey, L.L., *Talanta*, 1970, 17, 644.

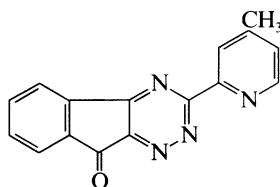
Schilt, A.A. *et al*, *Talanta*, 1970, 17, 649 (detn, Cu)

3-[[5-Methyl-2-pyridinyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, 9CI
 (2-Pyridyl)(3-sulfohenyl)methanone 2-(5-methylpyridyl)hydrazone
 [106288-59-9]



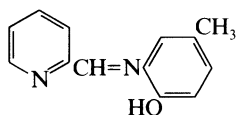
$C_{18}H_{16}N_4O_3S$ M 368.415
 Used as 2mM soln. in 0.01M NaOH for photometric detn. of Co (λ_{max} 488 nm, ϵ 31000, pH 4), Fe(II,III), Pd, V, Zn. Cryst. (EtOH aq.). Sol. alkalis, H₂O, EtOH. pK_{a1} 3.75; pK_{a2} 6.24 ($\mu = 0.2$, 25°).
 Odashima, T. *et al*, *Analyst (London)*, 1986, **111**, 1383 (*synth, use*)

3-(4-Methyl-2-pyridinyl)-9H-indeno[1,2-e]-1,2,4-triazin-9-one, 9CI
 [37004-79-8]



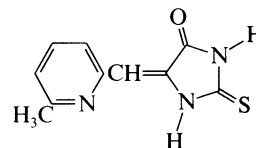
$C_{16}H_{10}N_4O$ M 274.281
 Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 481 nm, ϵ 7000), Fe(II) (λ_{max} 585 nm, ϵ 24900). Cryst. (EtOH). Sol. common org. solvents. Mp 200°.
 Case, F.H., *J. Heterocycl. Chem.*, 1972, **9**, 457 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn. Cu, Fe*)

4-Methyl-2-[(2-pyridinylmethylene)amino]phenol, 9CI
 Picolinaldehyde 2-hydroxy-5-methylanil
 [20211-19-2]



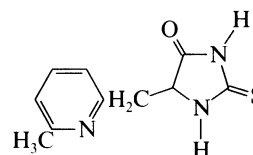
$C_{13}H_{12}N_2O$ M 212.251
 Used as 1mM CHCl₃ soln. for extraction-photometric detn. of Pd (λ_{max} 620 nm, ϵ 4620). Yellow-orange needles (pet. ether). Sol. CHCl₃, 1,2-dichloroethane, 1,2-dichlorobenzene.
 Otomo, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 2421 (*synth, use*)
 Otomo, M. *et al*, *Anal. Chim. Acta*, 1976, **83**, 275 (*detn. Pd*)

5-[(6-Methyl-2-pyridinyl)methylene]-4-imidazolidinone, 9CI
 5-(6-Methyl-2-pyridyl)-2-thiohydantoin
 [69580-22-9]



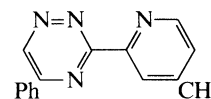
$C_{10}H_9N_3OS$ M 219.267
 (E)-form
 Used as 4mM DMF soln. for photometric detn. of Au(III), Cu(II), Pt (λ_{max} 420 nm, ϵ 20000). Yellow cryst. (EtOH). Sol. EtOH, DMF. Mp 245-247°.
 Montana Gonzalez, M.T. *et al*, *Talanta*, 1978, **25**, 331 (*synth, use*)

5-[(6-Methyl-2-pyridinyl)methylene]-2-thioxo-4-imidazolidinone, 9CI
 5-(6-Methyl-2-pyridyl)methylene-2-thiohydantoin
 [76748-66-8]



$C_{10}H_{11}N_3OS$ M 221.282
 Used as 0.1% soln. in EtOH for photometric detn. of Hg (λ_{max} 444 nm, ϵ 16000). Cryst. (EtOH). Sol. EtOH, Me₂CO. Mp 245-247°.
 Barragan de la Rosa, F. *et al*, *Microchem. J.*, 1980, **25**, 524 (*synth, detn. Hg*)

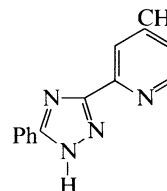
3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazine, 9CI
 [42838-33-5]



$C_{15}H_{12}N_4$ M 248.287
 Used as 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 525 nm, ϵ 1360), Cu(I) (λ_{max} 495 nm, ϵ 8900), Fe(II) (λ_{max} 560 nm, ϵ 29800). Cryst. (C₆H₆/pet. ether). Sol. common org. solvs. Mp 111-112°.

Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn. Co, Cu, Fe*)

3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazole
 4-Methyl-2-(5-phenyl-1,2,4-triazol-3-yl)pyridine. 2-(5-Phenyl-1,2,4-triazol-3-yl)-4-picoline

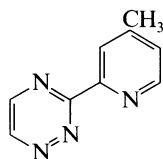


$C_{14}H_{12}N_4$ M 236.276

Used as a 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 470 nm, ϵ 2600). Cryst. (EtOH). Sol. common org. solvs. Mp 221-222°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, 7, 1001 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1974, 21, 831 (*detn*, Fe)

3-(4-Methyl-2-pyridinyl)-1,2,4-triazine, 9CI **M-00294**
[30091-55-5]

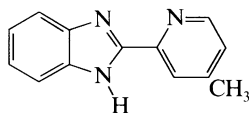


$C_9H_8N_4$ M 172.189

Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 460 nm, ϵ 5200), Fe(II) (λ_{\max} 531 nm, ϵ 12100). Cryst. (C_6H_6). Sol. common org. solvs. Mp 106-107°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, 7, 1001 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1974, 21, 831 (*detn*, Cu, Fe)

2-(4-Methyl-2-pyridyl)benzimidazole, 8CI **M-00295**
[14044-47-4]

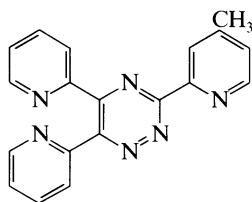


$C_{13}H_{11}N_3$ M 209.250

Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{\max} 502 nm, 525 nm, ϵ 2200). Cryst. (C_6H_6). Sol. common org. solvs. Mp 224-225°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, 4, 157 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, 15, 1055 (*detn*, Fe)

3-(4-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine **M-00296**
3-(4-Methyl-2-pyridyl)-5,6-di-2-pyridyl-as-triazine

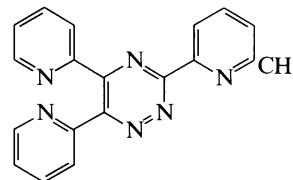


$C_{19}H_{14}N_6$ M 326.360

Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 570 nm, ϵ 22600), Cu(I) (λ_{\max} 505 nm, ϵ 5100). Cryst. (2-methoxyethanol aq.). Sol. 2-methoxyethanol, EtOH. Mp 204-205°.

Case, F.H., *J. Org. Chem.*, 1965, 30, 931 (*synth*)
Schilt, A.A., *Talanta*, 1966, 13, 895 (*use*)

3-(6-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine **M-00297**
3-(6-Methyl-2-pyridyl)-5,6-di-2-pyridyl-as-triazine, 8CI
[18895-98-2]

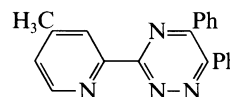


$C_{19}H_{14}N_6$ M 326.360

Used as a 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(I), Fe(II). Cryst. (C_6H_6 /pet. ether). Sol. common org. solvs. Mp 139-140°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, 5, 413 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1970, 17, 649 (*use*)

3-(4-Methyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine **M-00298**

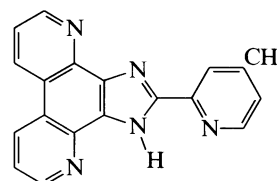


$C_{21}H_{16}N_4$ M 324.384

Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 564 nm, ϵ 24600), Cu(I) (λ_{\max} 478 nm, ϵ 5700). Cryst. (2-methoxyethanol). Sol. 2-methoxyethanol, EtOH. Mp 169-170°.

Case, F.H., *J. Org. Chem.*, 1965, 30, 931 (*synth*)
Schilt, A.A., *Talanta*, 1966, 13, 895 (*detn*, Fe, Cu)

2-(4-Methyl-2-pyridyl)-1H-imidazo[4,5-f][4,7]phenanthroline, 8CI **M-00299**
[14040-61-0]

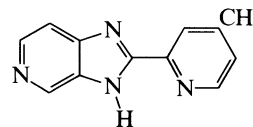


$C_{19}H_{13}N_5$ M 311.345

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II). Cryst. (EtOH). Sol. common org. solvs., dil. HCl. Mp 251-252°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, 4, 157 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1968, 15, 1055 (*detn*, Fe)

2-(4-Methyl-2-pyridyl)-1H-imidazo[4,5-c]pyridine, 8CI **M-00300**
[14060-63-0]



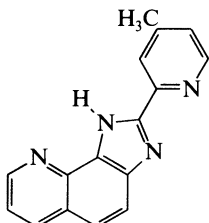
$C_{12}H_{10}N_4$ M 210.238

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 548 nm, ϵ 2800). Cryst. (H₂O). Sol. common org. solvs., dil. HCl. Mp 289-290°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, **15**, 1055 (detn, Fe)

2-(4-Methyl-2-pyridyl)-2H-imidazo[4,5-*h*]quinoline, 8CI **M-00301**

[14060-60-7]



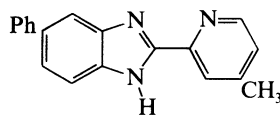
C₁₆H₁₂N₄ M 260.298

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II). Cryst. (C₆H₆). Sol. dil. HCl. Mp 173-174°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, **15**, 1055 (detn, Fe)

2-(4-Methyl-2-pyridyl)-5-phenylbenzimidazole, 8CI **M-00302**

[14040-57-4]



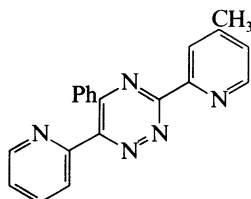
C₁₉H₁₅N₃ M 285.348

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 520 nm, ϵ 2500). Cryst. (C₆H₆). Sol. common org. solvs. Mp 171-172°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, **15**, 1055 (detn, Fe)

3-(4-Methyl-2-pyridyl)-5-phenyl-6-(2-pyridyl)-1,2,4-triazine **M-00303**

[18895-92-6]



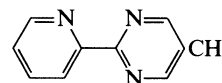
C₂₀H₁₅N₅ M 325.372

Used as a 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(I); for photometric detn. of Fe(II) (λ_{\max} 564 nm, ϵ 2330). Cryst. (EtOH). Sol. common org. solvs. Mp 205-206°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, **5**, 413 (synth)
Schilt, A.A. et al, *Talanta*, 1970, **17**, 649 (detn, Co, Cu, Fe)

5-Methyl-2-(2-pyridyl)pyrimidine, 8CI **M-00304**

[10198-79-5]

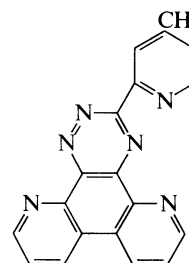


C₁₀H₉N₃ M 171.201

Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 488 nm, ϵ 2700), Fe(II) (λ_{\max} 423 nm, ϵ 6800). Cryst. (hexane). Sol. C₆H₆, Me₂CO, EtOH, dil. HCl. Mp 79-80°.

Lafferty, J.J. et al, *J. Org. Chem.*, 1967, **32**, 1591 (synth)
Schilt, A.A. et al, *Talanta*, 1969, **16**, 519 (detn, Cu, Fe)

(4-Methyl-2-pyridyl)-1,2,4-triazino[5,6-*f*][4,7]-phenanthroline **M-00305**



C₁₉H₁₂N₆ M 324.344

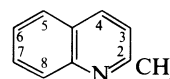
Used as a 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 601 nm, ϵ 20000), Cu(I) (λ_{\max} 516 nm, ϵ 7700). Cryst. (DMF). Sol. EtOH, DMF. Mp 321-322°.

Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (synth)
Schilt, A.A., *Talanta*, 1966, **13**, 895 (detn, Fe, Cu)

2-Methylquinoline, 9CI **M-00306**

Quinaldine, 8CI

[91-63-4]



C₁₀H₉N M 143.188

Present in coal tar and shale oil. Chemical scent constituent of the urine of *Vulpes vulpes* (red fox). Used as soln. in dil. H₂SO₄ for gravimetric detn. of Bi. Oil; turns reddish brown in air. Insol. H₂O; sol. Et₂O, CHCl₃. d_4^{20} 1.059. Mp -2° to -1°. Bp 248°, Bp₁₀₀ 171.5°. n_D^{20} 1.6126.

▷ Mod. toxic. UZ9625000.

B, HCl: Needles (EtOH/Et₂O). Mp 224°.

B, MeI: see 1,2-Dimethylquinolinium(1+), D-00913

Picrate: [1773-07-5].

Yellow needles. Spar. sol. H₂O, EtOH. Mp 193-194°.

N-Oxide: [1076-28-4].

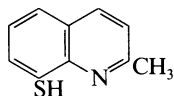
C₁₀H₉NO M 159.187

Needles (H₂O) (hydrated). Sol. dil. acids. Mp 77-78°.

Doebner, O. et al, *Ber.*, 1883, **16**, 2464 (synth)
Mills, W.H. et al, *J. Chem. Soc.*, 1921, 1294 (synth)
Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 62 (detn, Bi)
Cervinka, O. et al, *Collect. Czech. Chem. Commun.*, 1963, **28**, 535 (synth)
Draper, P.M. et al, *Can. J. Chem.*, 1968, **46**, 1487 (ms)
Ghersetti, S. et al, *Spectrosc. Lett.*, 1973, **6**, 167 (ir)
Johns, S.R. et al, *Aust. J. Chem.*, 1976, **29**, 1617 (cmr)
Jorgenson, J.W. et al, *Science (Washington, D.C.)*, 1978, **199**, 796.

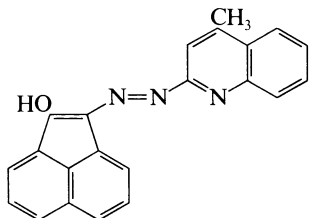
Whitten, W.K. *et al*, *J. Chem. Ecol.*, 1980, **6**, 49.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, QEJ000.

2-Methyl-8-quinolinethiol, 9CI **M-00307**
2-Methyl-8-mercaptoquinoline
[10222-10-3]



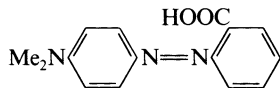
$C_{10}H_9NS$ M 175.254
Gives colour reactions with Bi, Cd, Co, Fe, Ga, Hg, In, Ni, Pb, Pd, Pt, Zn. Unstable orange cryst. Sol. $CHCl_3$, hexane. pK_{a1} 2.28; pK_{a2} 9.15. Stored as hydrochloride.
[10222-11-4, 20335-18-6]
Sturis, A. *et al*, *CA*, 1968, **69**, 27205y (*synth*)
Bankovskis, J. *et al*, *CA*, 1971, **74**, 57843j; **75**, 117657j (*use, ir*)

2-[(4-Methyl-2-quinolyl)azo]-1-acenaphtholenol, 9CI **M-00308**
[71034-55-4]



$C_{22}H_{15}N_3O$ M 337.380
Used for extraction-photometric detn. of Cd, Co, Cu, Ni. Cryst. (MeOH). Sol. EtOH, C_6H_6 , Et_2O . Mp 248°.
Singh, I. *et al*, *J. Chin. Chem. Soc. (Peking)*, 1979, **26**, 121 (*synth, use*)

Methyl red **M-00309**
2-[[4-(Dimethylamino)phenyl]azo]benzoic acid, 9CI. 4'-Dimethylamino-2-azobenzenecarboxylic acid. C.I. Acid red 2. C.I. 13020
[493-52-7]



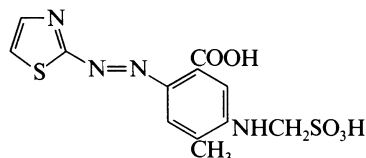
$C_{15}H_{15}N_3O_2$ M 269.302
Strictly, the name Methyl red applies to the sodium salt.

► DG8960000.

Na salt: Used as 0.0005% soln. in 1M H_2SO_4 or 0.1% in EtOH as an acid-base indicator (pH range: 4.4-6.2; colour change: red → yellow); photometric detn. of Cl_2 , Ce, Pd. Orange cryst. powder. Sol. H_2O , EtOH. Mp 179°.

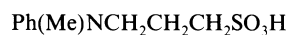
Org. Synth., *Coll. Vol.*, 1, 1932, 366 (*synth*)
Popa, G. *et al*, *Zh. Anal. Khim.*, 1959, **14**, 322 (*detn, Pd*)
Vogel, A.I., *A Textbook of Quantitative Inorganic Analysis*, Longmans, London, 1961 (*use, ind*)
Cherkesov, A.I. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 364 (*detn, Ce*)
Marczenko, Z. *et al*, *Chem. Anal. (Warsaw)*, 1966, **11**, 1221 (*detn, Cl₂*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CCE500.

4-Methyl-5-[(sulfomethyl)amino]-2-(2-thiazolylazo)benzoic acid, 9CI **M-00310**
[82138-69-0]



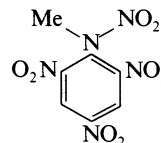
$C_{12}H_{12}N_4O_5S_2$ M 356.383
Used as a 5mM aq. soln. for photometric detn. of Co (λ_{max} 655 nm, ϵ 110000). Orange-red cryst. Sol. H_2O . Mp 240° (dec.).
Wada, H. *et al*, *Anal. Chim. Acta*, 1982, **135**, 333 (*detn, Co*)
Wada, H. *et al*, *Mikrochim. Acta*, 1983, **2**, 139 (*detn, Co*)

N-Methyl-N-sulfopropylaniline **M-00311**
3-(Methylphenylamino)-1-propanesulfonic acid, 9CI
[40567-66-6]



$C_{10}H_{15}NO_3S$ M 229.299
Mp 200-202° dec.
Na salt: [82611-84-5].
Used as a 0.01M aq. soln. for photometric detn. of H_2O_2 . Cryst. (EtOH/ Me_2CO). Sol. H_2O .
Tamaoku, K. *et al*, *Anal. Chim. Acta*, 1982, **136**, 121 (*synth, ir, use*)

N-Methyl-N,2,4,6-tetranitroaniline, 8CI **M-00312**
N-Methyl-N,2,4,6-tetranitrobenzenamine, 9CI. Tetryl. Methylpicrylnitramine. Picrylmethylnitramine. Tetralite. Picoynitromethylamine
[479-45-8]

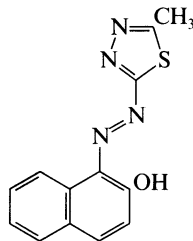


$C_7H_5N_5O_8$ M 287.145
Used in high explosives. Used as 0.1% soln. in 70% EtOH as an acid-base indicator (pH range 10.8-13; colour change: colourless → brown). Yellow prisms (EtOH). Spar. sol. EtOH. Mp 131-132°. pK_a 11.9.

► Explosive (powerful oxidant). Irritant, sensitizer, TLV (skin) 1.5. BY6300000.

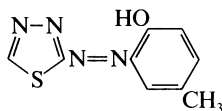
Blanksma, J.J., *Chem. Weekbl.*, 1948, **44**, 46 (*rev*)
Lamberton, A.H. *et al*, *J. Chem. Soc. B*, 1968, 6 (*pmr*)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)
Bulusu, S. *et al*, *J. Chem. Soc., Chem. Commun.*, 1973, 602 (*nmr*)
Zitrin, S. *et al*, *Org. Mass Spectrom.*, 1976, **11**, 388 (*ms*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TEG250.

1-[(5-Methyl-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, 9CI **M-00313**
[79606-13-6]



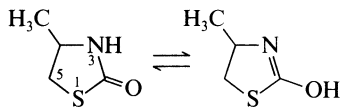
$C_{13}H_{10}N_4OS$ M 270.314
Used as 0.06% EtOH soln. for extraction-photometric detn. of Zn (λ_{max} 568 nm, ϵ 59000, $CHCl_3$), Cd. Cryst. Sol. $CHCl_3$, EtOH, Me_2CO ; insol. H_2O . pK_a 8.19.
Cacho, P.J. *et al*, *Afinidad*, 1981, **38**, 345 (*synth*, *detn*, Cd)
Cacho, P.J. *et al*, *Collect. Czech. Chem. Commun.*, 1983, **48**, 464 (*detn*, Zn)

4-Methyl-2-(1,3,4-thiadiazol-2-ylazo)phenol, 9CI **M-00314**
2-(2-Hydroxy-5-methylphenylazo)-1,3,4-thiadiazole
[14151-96-3]



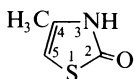
$C_9H_8N_4OS$ M 220.254
Used as a 0.1-0.3mM soln. in MeOH or acetate or borate buffer. Gives colour reactions with Fe, Ru, Co, Cu, Ni. Orange cryst. (MeOH). Sol. EtOH. Mp 183-185°. pK_{a1} 8.71.
Pollard, F.H. *et al*, *Talanta*, 1967, **14**, 123 (*use*)
Domagalina, E., *Chem. Anal. (Warsaw)*, 1976, **21**, 105, 411 (*synth*, pK_a , *use*)

4-Methyl-2-thiazolidinone, 9CI **M-00315**
2-Hydroxy-4-methylthiazole
[15223-44-6]



C_4H_7NOS M 117.171
(\pm)-*form*
Used for photometric detn. of Pb (λ_{max} 385 nm). Sol. EtOH, C_6H_6 , $CHCl_3$, Et_2O . Bp_{10} 165°.
Crawhall, J.C. *et al*, *J. Chem. Soc.*, 1952, 3094.
Joshi, S.R. *et al*, *Indian J. Chem.*, 1973, **11**, 590 (*detn*, Pd)

4-Methyl-2(3H)-thiazolone, 9CI **M-00316**
4-Methyl-2(3H)-thiazolinone, 8CI. 4-Methyl-4-thiazolin-2-one
[32497-10-2]

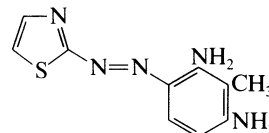


C_4H_5NOS M 115.156
Used for photometric detn. of Pd (λ_{max} 385 nm). Needles (H_2O). Mp 102-103°.

N-Me: [32497-11-3].
 C_5H_7NOS M 129.182
Cryst. (H_2O). Mp 49-50°.

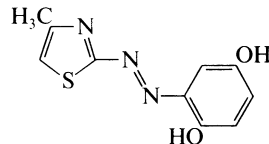
Hantzsch, A., *Ber.*, 1887, **20**, 3127.
Dahlbom, R. *et al*, *Acta Chem. Scand.*, 1963, **17**, 2479.
Zaionts, V.I. *et al*, *CA*, 1973, **78**, 71207u (*props*)
Joshi, S.R. *et al*, *Indian J. Chem.*, 1973, **11**, 248, 590 (*detn*, Pd, pK_a)

2-Methyl-4-(2-thiazolylazo)-1,3-benzenediamine, 9CI **M-00317**
2-(2,4-Diamino-3-methylphenylazo)thiazole
[72815-91-9]



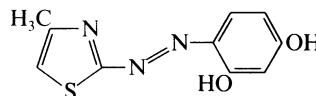
$C_{10}H_{11}N_5S$ M 233.296
Used as a 1mM soln. in $HClO_4$ for photometric detn. of Co (λ_{max} 590 nm, ϵ 97000), Pd (λ_{max} 590 nm, ϵ 53500). Orange-red cryst. Sol. acids; mod. sol. EtOH; spar. sol. H_2O . Mp 186-187°.
Garcia Montelongo, F. *et al*, *Analyst (London)*, 1979, **104**, 1091; 1980, **105**, 762 (*detn*, Pd, Co)

2-[(4-Methyl-2-thiazolyl)azo]-1,4-benzenediol **M-00318**
2-(2,5-Dihydroxyphenylazo)-4-methylthiazole



$C_{10}H_9N_3O_2S$ M 235.266
5-Me ether: [16002-17-8]. 4-Methoxy-2-[(4-methyl-2-thiazolyl)azo]phenol, 9CI. 2-(2-Hydroxy-5-methoxyphenylazo)-4-methylthiazole
 $C_{11}H_{11}N_3O_2S$ M 249.293
Used as metallochromic indicator in titrimetric detn. of Cu, Zn; used as 0.05% soln. in 0.5M NaOH in 50% EtOH for photometric detn. of Fe(II) (λ_{max} 794 nm, ϵ 15200, pH 3.5-9). Orange cryst. Sol. Me_2CO , EtOH, Et_2O , $CHCl_3$, H_2O . Mp 116.3°. pK_{a1} 0.77; pK_{a2} 7.98.
Yanagikara, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1958, **7**, 496, 500; 1959, **8**, 10, 14 (*synth*, *deriv*, pK_a , *detn*, Cu, Zn)
Kamada, H. *et al*, *CA*, 1967, **66**, 120585d (*deriv*, *nmr*)
Ueda, K. *et al*, *Mikrochim. Acta*, 1984, **3**, 103 (*synth*, *detn*, Fe)

4-[(4-Methyl-2-thiazolyl)azo]-1,3-benzenediol **M-00319**
2-(2,4-Dihydroxyphenylazo)-4-methylthiazole



$C_{10}H_9N_3O_2S$ M 235.266
Used as 0.05% soln. in 0.5M NaOH in EtOH for photometric detn. of Fe(II) (λ_{max} 735 nm, ϵ 24900, pH 8.9-11.6). Red cryst. Sol. EtOH, alkalis.
Ueda, K. *et al*, *Mikrochim. Acta*, 1984, **3**, 103 (*detn*, *synth*, Fe)

4-[(5-Methyl-2-thiazolyl)azo]-1,3-benzenediol**M-00320**

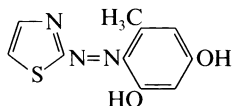
2-(2,4-Dihydroxyphenylazo)-5-methylthiazole

C₁₀H₉N₃O₂S M 235.266

Used as EtOH soln. for photometric detn. of Pd and Rh(III) (EtOH aq.). Cryst. (EtOH). Sol. EtOH. Incorrectly registered in CA.

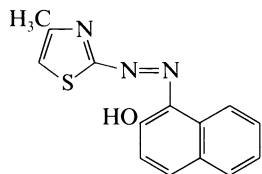
Pilipenko, A.T. *et al.*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1988, **54**, 160; *CA*, **109**, 85162w (detn, Rh)**5-Methyl-4-(2-thiazolylazo)-1,3-benzenediol****M-00321**

5-Methyl-6-(2-thiazolylazo)resorcinol. 2-(2,4-Dihydroxy-6-methylphenylazo)thiazole

C₁₀H₉N₃O₂S M 235.266Used as a 0.1% soln. in MeOH as metallochromic indicator for titrimetric detn. of Ca, Cd, Mg, Mn(II), Pb, Zn. Cryst. Sol. H₂O. Mp 250° dec.Skytte Jensen, B., *Acta Chem. Scand.*, 1960, **14**, 927 (use, ind)**1-[(4-Methyl-2-thiazolyl)azo]-2-naphthalenol, 9CI****M-00322**

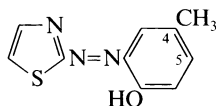
4-Methyl-2-(2-hydroxy-1-naphthylazo)thiazole

[3012-48-4]

C₁₄H₁₁N₃OS M 269.326Used as 1mM soln. in EtOH for extraction-photometric detn. of Zn (λ_{max} 590 nm, ε 75000, CHCl₃), Cu (λ_{max} 585 nm, ε 78000, CHCl₃). Cryst. Sol. EtOH, MeOH.Pilipenko, A.T. *et al.*, *Zh. Anal. Khim.*, 1971, **26**, 1471; 1977, **32**, 1116; 1983, **38**, 1787 (synth, detn, Zu, Cu.)**4-Methyl-2-(2-thiazolylazo)phenol, 9CI****M-00323**

2-Thiazolylazo-p-cresol. 2-(2-Hydroxy-5-methylphenylazo)thiazole

[1823-44-5]

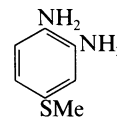
C₁₀H₉N₃OS M 219.267Used as a 0.1% soln. in MeOH as metallochromic indicator for titrimetric detn. of Ca, Co, Ni; photometric detn. of Cu, Fe(II) (λ_{max} 762 nm, ε 13700); complexing agent for Co, Mn, Ni, Zn. Red cryst. Sol. EtOH, alkalis. pK_{a1} 8.95.Skytte Jensen, B., *Acta Chem. Scand.*, 1960, **14**, 927 (detn, Co, Cu, Ni)Douglas, W.R., *Anal. Chim. Acta*, 1965, **33**, 567 (detn, Ca)Nicless, G. *et al.*, *Anal. Chim. Acta*, 1967, **39**, 37 (pKa, detn, Co, Cu, Mn, Ni, Zn)Sommer, L. *et al.*, *Collect. Czech. Chem. Commun.*, 1976, **41**, 1317 (detn, Cu)Ueda, K. *et al.*, *Nippon Kagaku Kaishi*, 1980, 1713 (synth)Ueda, K. *et al.*, *Mikrochim. Acta*, 1984, **3**, 103 (synth, detn, Fe)**5-Methyl-2-(2-thiazolylazo)phenol****M-00324**

2-(2-Hydroxy-4-methylphenylazo)thiazole

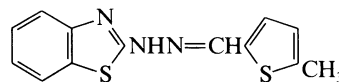
C₁₀H₉N₃OS M 219.267*Me ether*: 2-(2-Methoxy-4-methylphenylazo)thiazole. 5-Methyl-2-(2'-thiazolylazo)anisoleC₁₁H₁₁N₃OS M 233.293Used as 4mM soln. in AcOH for photometric detn. of Pd (λ_{max} 520 nm, ε 11300, pH 3-4). Yellow-orange cryst. (EtOH). Sol. EtOH. Mp 97-98°.Sutthivaiyakit, P. *et al.*, *Fresenius' Z. Anal. Chem.*, 1985, **320**, 769 (synth, detn, Pd)**4-(Methylthio)-1,2-benzenediamine, 9CI****M-00325**

5-Methylthio-o-phenylenediamine

[67469-02-7]

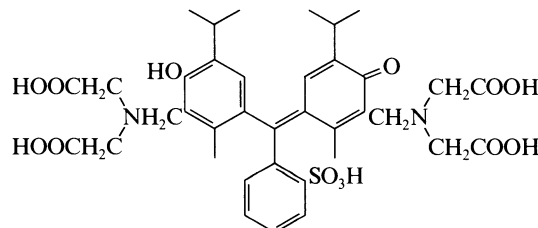
C₇H₁₀N₂S M 154.235Used for photometric detn. of Se. Cryst. Sol. C₆H₆, dil. acids.Cheng, K.L. *et al.*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982 (detn, Se)**5-Methyl-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, 9CI****M-00326**

[61293-49-0]

C₁₃H₁₁N₃S₂ M 273.382Used as a 0.25mM soln. in C₆H₆ for extraction-photometric detn. of Cu (λ_{max} 424 nm, C₆H₆, ε 49000). Cryst. (EtOH). Sol. EtOH, C₆H₆. pK_{a2} 11.4.Odashima, T. *et al.*, *Anal. Chim. Acta*, 1976, **86**, 231.**Methylthymol blue****M-00327**

N,N'-[3H-2,1-Benzoxathiol-3-ylidenebis[[6-hydroxy-2-methyl-5-(1-methylethyl)-3,1-phenylene]methylene]]bis[N-(carboxymethyl)glycine], 9CI. 3,3'-Bis[N,N-di(carboxymethyl)aminomethyl]thymolsulfonephthalein. Thymolphthalexon S

[1945-77-3]

C₃₇H₄₄N₂O₁₃S M 756.826

The CA name refers to the ring-closed form. Used as 0.5mM soln. in dil. formic acid for photometric detn. of Be, Al, Sb, Bi, Ga, In, Fe(III), Cr(III), Cd, La, Sc, Ti,

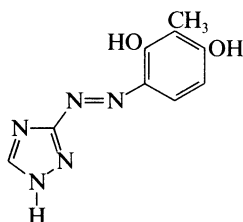
V, Nb, Th (λ_{\max} 580 nm, ϵ 5000), SO_4^{2-} . Dark violet cryst. powder. Sol. H_2O ; insol. EtOH and other common org. solvs. $\text{p}K_{\text{a}5}$ 2.6; $\text{p}K_{\text{a}6}$ 3.2; $\text{p}K_{\text{a}7}$ 7.2; $\text{p}K_{\text{a}8}$ 11.2 ($\mu = 0.2$).

[3778-22-1]

Tikhonov, V.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 359 (detn, V)
 Karadakov, B. *et al*, *Talanta*, 1968, **15**, 525 (detn, Fe)
 Adam, J. *et al*, *Talanta*, 1969, **16**, 1596 (detn, Th)
 Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 829 (detn, Ga)
 Cheng, K.L., *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 231 (use)
 Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986 (use)

2-Methyl-4-(1H-1,2,4-triazol-3-ylazo)-1,3-benzenediol, 9CI **M-00328**

3-(2,4-Dihydroxy-3-methylphenylazo)-1,2,4-triazole
 [87147-65-7]



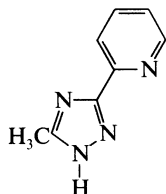
$\text{C}_9\text{H}_9\text{N}_5\text{O}_2$ M 219.202

Used as 1mM soln. in MeOH for photometric detn. of V (λ_{\max} 525 nm, ϵ 25500). Orange-red cryst. (EtOH aq.). Sol. alkalis, acids, DMF, EtOH; spar. sol. CHCl_3 , CCl_4 , CS_2 . Mp 236-238° (subl.).

Montelongo, F.G. *et al*, *Mikrochim. Acta*, 1983, **2**, 349 (synth, use)

2-(5-Methyl-1H-1,2,4-triazol-3-yl)pyridine, 9CI **M-00329**

3-(2-Pyridyl)-5-methyl-1,2,4-triazole
 [25433-36-7]



$\text{C}_8\text{H}_8\text{N}_4$ M 160.178

Used as 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 480 nm, ϵ 3100, EtOH aq.). Cryst. (C_6H_6). Sol. common org. solvs. Mp 165°.

4,5-Dihydro: 2-(4,5-Dihydro-5-methyl-1H-1,2,4-triazol-3-yl)pyridine. 2-(5-Methyl- Δ^2 -1,2,4-triazolin-3-yl)pyridine, 8CI.

4,5-Dihydro-3-(2-pyridyl)-5-methyl-1,2,4-triazole

$\text{C}_8\text{H}_{10}\text{N}_4$ M 162.194

Used as 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 506 nm, ϵ 7300). Cryst. (Et_2O /pet. ether). Sol. common org. solvs. Mp 50°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (synth)

Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (use)

N-Methyl-N-(trimethylsilyl)acetamide, 9CI **M-00330**

Trimethyl(N-methylacetamido)silane
 [7449-74-3]

$\text{Me}_3\text{SiNMeAc}$

$\text{C}_6\text{H}_{15}\text{NOSi}$ M 145.276

Reagent for preparing trimethylsilyl derivs. of org. compds. for gc anal. Liq. d_4^{20} 0.90. Bp₇₇₀ 154°. n_D^{20} 1.4382.

Frainnet, E. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1966, **262**, 1693 (synth)

Birkhofer, L. *et al*, *J. Chromatogr.*, 1967, **26**, 270 (use)

Birkhofer, L. *et al*, *Chem. Ber.*, 1968, **101**, 3579 (ir)

Lutsenko, I.F. *et al*, *J. Organomet. Chem.*, 1969, **17**, 241 (ir, nmr)

Fedotov, N.S. *et al*, *Zh. Obshch. Khim.*, 1972, **42**, 358; *CA*, **77**, 48560 (synth)

N-Methyl-N-(trimethylsilyl)formamide, 9CI **M-00331**

[13889-02-6]

HCONMeSiMe_3

$\text{C}_5\text{H}_{13}\text{NOSi}$ M 131.249

Silylation reagent for preparing derivs. for gc. Liq. Bp₂₀ 75°, Bp₁₀ 61°. n_D^{20} 1.4408.

Birkhofer, L. *et al*, *J. Chromatogr.*, 1967, **26**, 270 (use)

Birkhofer, L. *et al*, *Chem. Ber.*, 1968, **101**, 3579 (synth)

N-Methyl-N-(trimethylsilyl)trifluoroacetamide **M-00332**

2,2,2-Trifluoro-N-methyl-N-(trimethylsilyl)acetamide.
 MSTFA

[24589-78-4]

$\text{F}_3\text{CCONMeSiMe}_3$

$\text{C}_5\text{H}_{12}\text{F}_3\text{NOSi}$ M 199.248

Exists as a tautomeric mixture with the imidate. Silylation reagent for gc anal. of amines and alcohols. Liq. Bp₇₆₀ 131.5°.

▷ AC9800000.

Donicke, M., *J. Chromatogr.*, 1969, **42**, 103; 1975, **115**, 591 (use)

Birkhofer, L. *et al*, *Chem. Ber.*, 1971, **104**, 3831 (synth)

Donicke, M., *Fresenius' Z. Anal. Chem.*, 1976, **279**, 128 (use, rev)

Bassindale, A.R. *et al*, *J. Organomet. Chem.*, 1979, **175**, 273 (tautomerism)

Ende, M. *et al*, *Tetrahedron*, 1984, **40**, 5167 (props)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MQG750.

Methyltrioctylammonium(1+) **M-00333**

N-Methyl-N,N-dioctyl-1-octanaminium(1+), 9CI.
 Tricaprylylmethylammonium

$[\text{H}_3\text{C}(\text{CH}_2)_7]_3\text{N}^+\text{Me}$

$\text{C}_{25}\text{H}_{54}\text{N}^+$ M 368.708 (ion)

Phase-transfer catalyst.

Chloride: Aliquat 336

$\text{C}_{25}\text{H}_{54}\text{ClN}$ M 404.161

Liq. ion-exchanger. Used for extraction-separation of Be, Cr(VI), Mo, U, V, Pt, Au. Yellowish oil. Sol. CHCl_3 , C_6H_6 . A commercially available reagent called Aliquat 336 is usually a mixture of methyl tri-n-alkylammonium chloride ($\text{C}_{27}\text{-C}_{33}$).

Woodward, C. *et al*, *Talanta*, 1968, **15**, 321.

Adam, J. *et al*, *Talanta*, 1971, **18**, 91.

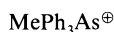
Hartmann, K. *et al*, *Mikrochim. Acta*, 1978, **2**, 235 (synth)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 380 (use, bibl)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 479 (use)

Minczewski, J. *et al*, *Separation and Preconcentration Methods in Inorganic Trace Analysis*, Horwood, Chichester, 1982.

Rao, R.R. *et al*, *Anal. Chem.*, 1983, **55**, 2320.

Methyltriphenylarsonium(1+), 9CI**M-00334**

$\text{C}_{19}\text{H}_{18}\text{As}^\oplus$ M 321.273 (ion)

Treatment of salts with NaNH_3 in liq. NH_3 or THF, or NaH/THF , yield the ylide.

Chloride: [6596-93-6].

$\text{C}_{19}\text{H}_{18}\text{AsCl}$ M 356.725

Used as a 0.5% aq. soln. for extraction-photometric detn. of Co, Cu, Ni (λ_{max} 505 nm, $\text{CHCl}_3/\text{acetophenone}$). Cryst. + $1\text{H}_2\text{O}$. Mp 184-186°. The anhydrous salt has Mp 121°, but is v. hygroscopic.

Bromide: [14002-59-6].

$\text{C}_{19}\text{H}_{18}\text{AsBr}$ M 401.177

Cryst. + $1\text{H}_2\text{O}$. Mp 200-202°, Mp 194-195°.

Iodide: [1499-33-8].

$\text{C}_{19}\text{H}_{18}\text{AsI}$ M 448.177

Pale yellow-brown cryst. ($\text{CHCl}_3/\text{Et}_2\text{O}$ or H_2O). Mp 175-176°, Mp 162-164°.

Triiodide: [42350-74-3].

$\text{C}_{19}\text{H}_{18}\text{AsI}_3$ M 701.986

Solid. Mp 108-109°.

Tetrafluoroborate: [36252-53-6].

$\text{C}_{19}\text{H}_{18}\text{AsBF}_4$ M 408.077

Solid. Mp 132-134°.

Tetraphenylborate: [42568-58-1].

Cryst. ($\text{CHCl}_3/\text{C}_6\text{H}_6/\text{MeOH}$). Mp 186-188°.

Thiocyanate:

$\text{C}_{20}\text{H}_{18}\text{AsNS}$ M 379.356

Used for extraction-photometric detn. of Fe (λ_{max} 478 nm).

Hydroxide:

$\text{C}_{19}\text{H}_{19}\text{AsO}$ M 338.280

Solid. Mp 125-126°.

2,4-Dinitrobenzenesulfonate: Cryst. (EtOH). Mp 191-192.5°.

Picrate: Solid. Mp 142-144°.

[22903-88-4]

Goddard, A.E., *Textbook of Inorg. Chem.*, Vol. XI, *Organometallic Compds.*, pt. II, Charles Griffin and Co., London, 1930, 87.

Blicke, F.F. et al., *J. Am. Chem. Soc.*, 1938, **60**, 423.

Dwyer, F.P. et al., *Analyst (London)*, 1951, **76**, 548 (detn, Fe)

Ellis, K.W. et al., *Anal. Chim. Acta*, 1953, **9**, 275, 368 (detn, Co, Cu)

Henry, M.C. et al., *J. Am. Chem. Soc.*, 1960, **82**, 563.

Cameron, A.J. et al., *Anal. Chim. Acta*, 1961, **24**, 360 (detn, Ni)

Deacon, G.B. et al., *Aust. J. Chem.*, 1963, **16**, 499.

Mallion, K.B. et al., *J. Chem. Soc.*, 1964, 5716.

Loach, K.W., *Anal. Chim. Acta*, 1969, **44**, 323 (synth, props)

Zykova, T.V. et al., *Zh. Obshch. Khim.*, 1971, **41**, 1044; 1977, **47**, 621; *J. Gen. Chem. USSR (Engl. Transl.)*, 1971, **41**, 1049; 1977, **47**, 566.

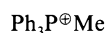
Schiemenz, G.P., *J. Organomet. Chem.*, 1973, **52**, 349 (synth, pmr)

Gavrilov, V.I. et al., *Zh. Obshch. Khim.*, 1982, **52**, 1131; *J. Gen. Chem. USSR (Engl. Transl.)*, 1982, **52**, 989 (iodide, synth)

Watkins, C.L. et al., *Magn. Reson. Chem.*, 1989, **27**, 616 (iodide, pmr, cmr)

Methyltriphenylphosphonium(1+), 9CI**M-00335**

[15912-74-0]



$\text{C}_{19}\text{H}_{18}\text{P}^\oplus$ M 277.325 (ion)

With PhLi , butyllithium, NaNH_2 , NaH or $\text{NaN}(\text{SiMe}_3)_2$, salts yield the ylide.

Chloride: [1031-15-8].

$\text{C}_{19}\text{H}_{18}\text{ClP}$ M 312.778

Used as 1% aq. soln. for extraction-sepn. of Ir and Ru from Rh (CHCl_3). Cryst. ($\text{EtOH}/\text{Et}_2\text{O}$). Sol. H_2O . Mp 221-223°.

Bromide: [1779-49-3].

$\text{C}_{19}\text{H}_{18}\text{BrP}$ M 357.229

Cryst. ($\text{MeOH}/\text{Et}_2\text{O}$). Mp 234-235°.

Iodide: [2065-66-9].

$\text{C}_{19}\text{H}_{18}\text{IP}$ M 404.229

Cryst. (H_2O). Mp 185-187°.

Perchlorate: [20920-23-4].

$\text{C}_{19}\text{H}_{18}\text{ClO}_4\text{P}$ M 376.775

Cryst. ($\text{CH}_2\text{Cl}_2/\text{Et}_2\text{O}$). Mp 157-158°.

Tetrafluoroborate:

$\text{C}_{19}\text{H}_{18}\text{BF}_4\text{P}$ M 364.129

Cryst. ($\text{CH}_2\text{Cl}_2/\text{Et}_2\text{O}$). Mp 122-123°.

Permanganate:

$\text{C}_{19}\text{H}_{18}\text{MnO}_4\text{P}$ M 396.260

Violet powder.

► Explodes at 70°.

Tetraphenylborate:

$\text{C}_{43}\text{H}_{38}\text{BP}$ M 596.558

Mp 195-196°.

Wittig, G. et al., *Justus Liebigs Ann. Chem.*, 1958, **619**, 10 (iodide)

Horner, L. et al., *Justus Liebigs Ann. Chem.*, 1961, **646**, 65

(bromide)

Mallion, K. et al., *J. Chem. Soc.*, 1963, 1327 (iodide, ir)

Hendrickson, J. et al., *Tetrahedron*, 1964, **20**, 449 (iodide, pmr)

Ashy, M.A. et al., *Analyst (London)*, 1974, **99**, 285 (chloride, use)

Albright, T.A. et al., *J. Am. Chem. Soc.*, 1975, **97**, 940, 2942 (cmr, nmr)

Starzewski, K.A.O. et al., *Phosphorus Relat. Group V Elem.*, 1976, **6**, 177 (cmr)

Richter, W. et al., *Chem. Ber.*, 1977, **110**, 1312 (chloride)

Grim, S.O. et al., *J. Org. Chem.*, 1977, **42**, 1236 (nmr)

Nesterov, L.V. et al., *Zh. Obshch. Khim.*, (Engl. transl. p. 1161),

1977, **47**, 1259 (perchlorate, tetrafluoroborate)

Reischl, W. et al., *Tetrahedron*, 1979, **35**, 1109 (permanganate, use)

Vedejs, E. et al., *J. Am. Chem. Soc.*, 1981, **103**, 2823 (bromide, synth, props)

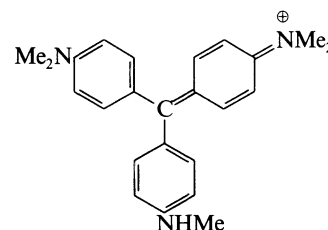
Doleschall, G., *Synthesis*, 1981, 478 (iodide, synth, use)

Willcockson, W.S. et al., *Comp. Biochem. Physiol., C: Comp. Pharmacol.*, 1982, **72**, 101 (pharmacol)

Methyl violet**M-00336**

Basic violet 1, 9CI. C.I. 42535. Paris violet R. Violet powder H 2503

[8004-87-3]



$\text{C}_{24}\text{H}_{28}\text{N}_3^\oplus$ M 358.505 (ion)

Obt. as a mixture of chloride and hydrochlorides. Exact composition unspecified. Used as 0.1% soln. in 0.2M HF for extraction-photometric detn. of As(V), Cr(VI), Au(III) (λ_{max} 600 nm, ϵ 115000, trichloroethylene), I⁻, Hg(II), Re(VII), Tl(III), Ta (λ_{max} 605 nm, ϵ 75000, C_6H_6); acid-base indicator (pH range: 0.1-2.0). Bluish-violet powder. Sol. H_2O , EtOH . Mp 137° dec.

► Toxic by ingestion. Dec. on heating emitting acrid smoke and irritating fumes.

[4353-72-4]

Pilipenko, A.T. et al., *Ukr. Khim. Zh. (Russ. Ed.)*, 1958, **24**, 506; 1960, **26**, 99 (detn, Re)

Ducret, L. et al., *Anal. Chim. Acta*, 1959, **21**, 74 (detn, Au)

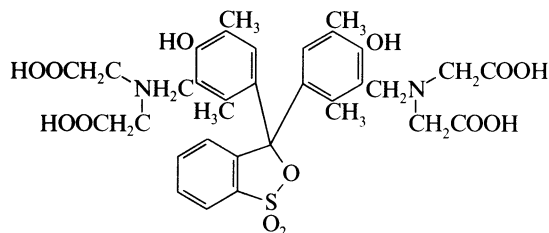
Fujinaga, T. et al., *Bull. Chem. Soc. Jpn.*, 1967, **40**, 817 (detn, Re)

- Gantscheva, A., *Mikrochim. Acta*, 1967, 601 (detn, I^o)
 Vadasdi, K. et al, *Anal. Chem.*, 1971, **43**, 318 (detn, TI)
 Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 551.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MQN025.

Methyl xylenol blue**M-00337**

N,N'-[3H-2,1-Benzoxathiol-3-ylidenebis[(6-hydroxy-2,5-dimethyl-3,1-phenylene)methylene]]bis[N-(carboxymethyl)glycine] S,S-dioxide, 9CI. 3,3'-Bis[N,N-di(carboxymethyl)aminomethyl]-p-xyleneolsulfonephthalein

[35501-54-3]

C₃₃H₃₆N₂O₁₃S M 700.719

Strictly the name Methyl xylenol blue applies to the sodium salt. Violet cryst. powder. pK_{a1} -2.8; pK_{a2} 1.9; pK_{a3} 0.08; pK_{a4} 2.0; pK_{a5} 3.4; pK_{a6} 4.3; pK_{a7} 7.0; pK_{a8} 10.6; pK_{a9} 12.5 (μ = 0.2, 25°).

Na salt: [29412-85-9].

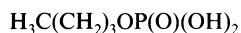
Used for photometric detn. of Sc, Y, lanthanides, extraction-photometric detn. of Al, Be, Bi, Ca, Ce, Fe, Hg. Grey brownish cryst. Sol. alkalis; sl. sol. H₂O.

- Epstein, J., *Acta Chim. Hung.*, 1947, **19**, 272 (detn, CN^o)
 Yoshino, T. et al, *Talanta*, 1969, **16**, 151 (detn, Be)
 Deguchi, M. et al, *Bunseki Kagaku (Jpn. Anal.)*, 1970, **19**, 241, 836; 1971, **20**, 891 (detn, Bi, Fe)
 Ueda, J., *Nippon Kagaku Kaishi*, 1973, 724, 1467 (lanthanides, Sc, Y)
 Cheng, K.L. et al, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1983.

Monobutyl phosphate, 9CI, 8CI**M-00338**

Butyl dihydrogen phosphate. Butyl phosphoric acid

[1623-15-0]

C₄H₁₁O₄P M 154.102

Isol. as amine salt. Extractant for transuranic and rare earth elements. Metab. of Tributyl phosphate, T-00211. pK_{a1} 1.89; pK_{a2} 6.84 (H₂O, 25°).

Monoanilinium salt: Cryst. (EtOH). Mp 144-148° (138-140°).*Monocyclohexylammonium salt*: [14703-66-3].

Solid. Mp 181-182°.

- Obata, T. et al, *J. Org. Chem.*, 1967, **32**, 1063 (synth)
 Zwierzak, A. et al, *Tetrahedron*, 1971, **27**, 3163 (synth, ir, pmr)
 Markowska, A. et al, *Phosphorus Sulfur Relat. Elem.*, 1981, **10**, 245 (synth)
 Solovkin, A.S., *Radiokhimiya*, 1982, **24**, 56; *Sov. Radiochem. (Engl. Transl.)*, 1982, **24**, 49 (props, use, rev)
 Suzuki, T. et al, *J. Agric. Food Chem.*, 1984, **32**, 603.

Mono(2-ethylhexyl) phosphate, 9CI, 8CI**M-00339**

2-Ethylhexyl dihydrogen phosphate. 2-Ethylhexyl phosphoric acid. Phosphoric acid mono(2-ethylhexyl) ester, 9CI

[1070-03-7]

C₈H₁₉O₄P M 210.209

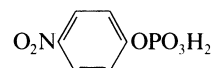
Extractant for many metals incl. U, Mo, rare earths, and transplutonium. Liq. Sol. H₂O, C₆H₆.

- Levin, I.S. et al, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1961, **139**, 158; *CA*, **56**, 11285 (use)
 Kletenik, Y.B. et al, *Zh. Anal. Khim.*, 1969, **24**, 707 (use)
 Kuzin, I.A. et al, *Zh. Anal. Khim.*, 1969, **24**, 800; *CA*, **71**, 56464 (purifn)
 Lee, Te.-Wei. et al, *Sep. Sci. Technol.*, 1981, **16**, 943 (purifn, use)

Mono(4-nitrophenyl) phosphate, 9CI**M-00340**

4-Nitrophenyl dihydrogen phosphate. 4-Nitrophenyl phosphoric acid. PNPP

[330-13-2]

C₆H₆NO₆P M 219.090

Substrate for phosphatase enzymes. Yellow-white needles (CHCl₃/Et₂O). Insol. cold H₂O, sol. EtOH, CHCl₃, C₆H₆. Mp 154-156°. pK_{a1} 0.30; pK_{a2} 4.96 (H₂O, 25°).

Di-Na salt: [4264-83-9].

Substrate for alkaline and acid phosphatase assays.

White to pale-yellow cryst. +6H₂O.*Monoanilinium salt*: Solid. Mp 180-182°.*Bis(cyclohexylammonium) salt*: [52483-84-8].Cryst. (Me₂CO). Mp 165-167°. Forms a dihydrate.

Difluoride: 4-Nitrophenyl phosphorodifluoridate. 4-Nitrophenyl phosphoryl difluoride. 4-Nitrophenyl difluorophosphate

C₆H₄F₂NO₄P M 223.072Liq. Bp_{0.01} 72-75°.*Dianilide*: 4-Nitrophenyl N,N'-diphenylphosphorodiamidateC₁₈H₁₆N₃O₄P M 369.316

Solid. Mp 169-170°.

Hoeflake, J.M.A., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1916, **36**, 24 (synth)

Desjobert, A., *Bull. Soc. Chim. Fr.*, 1963, 683 (synth)Neil, M.W. et al, *Biochem. J.*, 1964, **92**, 217 (synth)Mitsunobu, O. et al, *Bull. Chem. Soc. Jpn.*, 1965, **38**, 2100 (synth)Williams, A. et al, *J. Chem. Soc. B*, 1971, 1973 (synth, derivs, w, ms)Boyer, P.D., *The Enzymes*. 3rd Ed., Academic, New York, 1971, **4**, 373, 417, 449.Bel'skii, V.E. et al, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (Engl. transl. p. 1510), 1979, 1633 (derivs)Effenberger, F. et al, *Synthesis*, 1981, 70 (difluoride, synth, ir, nmr)Jones, P.G. et al, *Acta Crystallogr., Sect. C*, 1984, **40**, 550 (cryst struct)Bourne, N. et al, *J. Org. Chem.*, 1984, **49**, 1200 (props)Beltran, A.M. et al, *Tetrahedron Lett.*, 1985, **26**, 1711 (props)**Monosulfiram, BAN****M-00341**

Tetraethylthiocarbamic acid diamide, 9CI.

Bis(diethylthiocarbamoyl) sulfide, 8CI. **Sulfiram**, INN.*Kutkasin. Sanigal. Sarcocide B. Tetmosol. Tetrucid.**Thiocid. Thiasan. Thioscabin*

[95-05-6]



$C_{10}H_{20}N_2S_3$ M 264.479

Parasiticide, fungicide. Used as a 5% soln. in Me_2CO for detn. of Bi, Fe(II). Cryst. (C_6H_6 /pet. ether). Mp 30-32°. Bp_{0.5} 170°. Component of Oterna.

▷ WQ1660000.

Gordon, R.M. *et al*, *Ann. Trop. Med. Parasitol.*, 1943, **37**, 195 (pharmacol)

Davies, W.H. *et al*, *Biochem. J.*, 1946, **40**, 331 (synth, pharmacol)
Zsolnai, T., *Biochem. Pharmacol.*, 1962, **11**, 271 (synth, pharmacol)
U.K. Pat., 910 071, (1962); *CA*, **58**, 3840h.

Marquardt, F.-H., *Helv. Chim. Acta*, 1966, **49**, 1716 (synth)

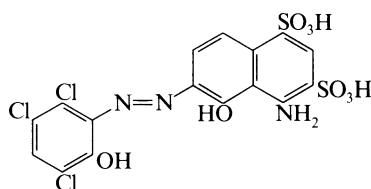
Johar, G.S., *Talanta*, 1972, **19**, 1231 (detn. Bi, Fe)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,
Pharmaceutical Press, London, 1982/1989, 3595.

Mordant blue 44

M-00342

4-Amino-5-hydroxy-6-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1,3-naphthalenedisulfonic acid, 9CI. Chrome fast blue FB. Diamond fast blue FB. Hydron I. Omega chrome fast blue 2G. C.I. 17250



$C_{16}H_{10}Cl_3N_3O_8S_2$ M 542.760

Strictly, the name Mordant blue 44 applies to the disodium salt.

Di-Na salt: [6222-49-7].

Used as a 0.1% aq. soln. as metallochromic indicator in titrimetric detn. of Ca, Mg, Mn(II), Ni. Dark brown reddish cryst. Sol. H_2O , EtOH, conc. H_2SO_4 .

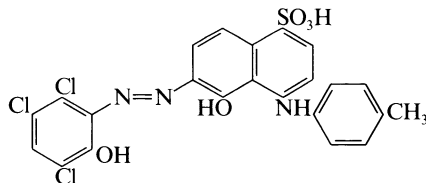
Abd El Raheem, A.A. *et al*, *Fresenius' Z. Anal. Chem.*, 1959, **167**, 98 (use)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)

Mordant green 34

M-00343

5-Hydroxy-4-[(4-methylphenyl)amino]-6-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid. 8-p-Toluidino-2-(3,5,6-trichloro-2-hydroxyphenylazo)-1-naphthol-5-sulfonic acid. Omega chrome blue green BL. Metomega chrome blue green BL. C.I. 17650



$C_{23}H_{16}Cl_3N_3O_5S$ M 552.821

Strictly, the name Mordant green 34 applies to the sodium salt.

Na salt: Used as a 0.1% soln. in EtOH as metallochromic indicator in titrimetric detn. of Ca, Mg. Orange red cryst. Sol. EtOH, Me_2CO , spar. sol. H_2O .

Abd El Raheem, A.A. *et al*, *Anal. Chim. Acta*, 1959, **21**, 379 (use)

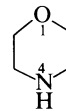
Abd El Raheem, A.A. *et al*, *Fresenius' Z. Anal. Chem.*, 1959, **167**, 98 (use)

Morpholine, 9CI

M-00344

Tetrahydro-1,4-oxazine

[110-91-8]



C_4H_9NO M 87.121

Solvent for resins, waxes and dyes. Synthetic reagent.

Anal. reagent for α , β -unsatd. compds. and for anhydrides. Hygroscopic oil with ammoniacal odour and caustic props. Misc. H_2O . d_4^{20} 0.999. Mp -4.9° . Bp 128.9° , Bp₆ 20° . n_D^{20} 1.4545. Steam-volatile.

▷ Skin and eye irritant. TLV 70. Mod. toxic by inhalation. QD6475000.

B,HCl: [10024-89-2].

Cryst. (HCl aq.). Mp 175-176°.

▷ QE5075000.

N-Formyl: [4394-85-8]. 4-Morpholinecarboxaldehyde

$C_5H_9NO_2$ M 115.132

Formylating reagent. Liq. Mp 17.5° . Bp 234° .

▷ QD9694000.

N-Me: [109-02-4].

$C_5H_{11}NO$ M 101.148

Base used in mixed anhydride peptide synth. which minimises racemisation. Bp $116-117^\circ$.

▷ QE5775000.

N-Me, N-Oxide: [7529-22-8].

$C_5H_{11}NO_2$ M 117.147

Catalyst for oxidn. of alcohols. Dipolar aprotic solvent used in the manuf. of Tencel from cellulose (Courtaulds). Monohydrate. Mp $73-76^\circ$.

N-Et: [100-74-3].

$C_6H_{13}NO$ M 115.175

Solvent. Dissolves $LiAlH_4$. Bp $138-139^\circ$.

▷ QE4025000.

N-Ph: [92-53-5].

$C_{10}H_{13}NO$ M 163.219

Dehydrohalogenating reagent. Mp 57° . Bp 270° .

▷ Highly toxic by skin absorption. QE8575000.

Jones, L.W. *et al*, *J. Am. Chem. Soc.*, 1925, **47**, 2966 (synth)

Medard, M.L., *Bull. Soc. Chim. Fr.*, 1936, 1343 (deriv, synth)

Hampton, B.L. *et al*, *J. Am. Chem. Soc.*, 1936, **58**, 2338 (synth)

Johnson, J.B. *et al*, *Anal. Chem.*, 1955, **27**, 1464 (use)

Critchfield, F.E. *et al*, *Anal. Chem.*, 1956, **28**, 76 (use)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 383, 705; **2**, 278; **7**, 244.

Potnis, S.P. *et al*, *Chem. Process. Eng. (Bombay)*, 1969, **3**, 27 (rev)

Bark, L.S. *et al*, *Analyst (London)*, 1972, **97**, 783 (use)

Takeuchi, Y., *J. Chem. Soc., Perkin Trans. 2*, 1974, 1927 (cmr)

Org. Synth., 1978, **58**, 43 (deriv)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **2**, 295 (rev)

Olah, G.A. *et al*, *J. Org. Chem.*, 1984, **49**, 3856 (deriv, use)

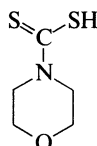
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 406.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ACR750, ENL000, MMA250, MRP750, MRQ600, NKZ000, PFS750.

4-Morpholinecarbodithioic acid

4-Morpholinedithioformic acid

[3581-30-4]

 $C_5H_9NOS_2$ M 163.264

Used as a 0.1-1% aq. soln. for photometric detn. of Cu; extraction-photometric detn. of Bi (λ_{max} 365 nm), as complexing agent for Ir, Pd, Pt, Rh; as a titrant in amperometric detn. of As, Sb, Pd. Ivory needles (MeOH aq.). Subl. 180-182°.

Compd. with morpholine: [5327-10-6].

 $C_9H_{18}N_2O_2S_2$ M 250.385

Used as 0.2% soln. in 0.01M NaOH for photometric detn. of Cu, Co, Pb, Mn, Au, Re; primary substance for standardization of acids. Cryst. (MeOH). Sol. H_2O , MeOH, alkalis. Mp 227° (sealed tube). Subl. unchanged at ~200°.

Me ester: [62604-08-4].

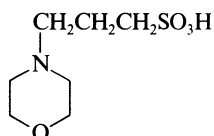
 $C_6H_{11}NOS_2$ M 177.291

Cryst. (MeOH aq.). Mp 82.5-83.5°.

[873-58-5, 49791-54-0]

McMillan, F.H. *et al*, *J. Am. Chem. Soc.*, 1948, **70**, 4143 (*deriv. synth*)Cook, A.H. *et al*, *J. Chem. Soc.*, 1950, 642 (*synth. deriv*)Haas, W., *Mikrochim. Acta*, 1962, 738.Beyer, W. *et al*, *Mikrochim. Acta*, 1965, 1130; 1967, 233, 721; 1971, 610 (*detn*)Hoffmeister, E.H. *et al*, *Tetrahedron*, 1965, **21**, 2857 (*synth*)Likussar, W. *et al*, *Mikrochim. Acta*, 1969, 974 (*props*)Aravamudan, G. *et al*, *J. Chem. Soc. A*, 1971, 2744 (*synth*)Marcotrigiano, G. *et al*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 1018 (*detn. Ir, Pd, Pt, Rh*)Puri, B.K. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 1024; 1985, **40**, 2165 (*detn. Bi*)Rao, A.L. *et al*, *Bull. Chem. Soc. Jpn.*, 1982, **55**, 598 (*detn. As, Sb, Pd*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SIN650.**4-Morpholinepropanesulfonic acid, 9CI**3-(*N*-Morpholino)propanesulfonic acid. MOPS

[1132-61-2]

 $C_7H_{15}NO_4S$ M 209.266

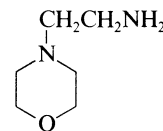
Good's buffer with pH range 6.5-7.9. Hygroscopic cryst. powder. V. sol. H_2O . Mp 283.5-284.5°. pK_a 7.2 (20°).

[71119-22-7]

Allen, C.F.H. *et al*, *Anal. Chem.*, 1965, **37**, 156 (*synth*)Morris, J.E. *et al*, *Biochem. Biophys. Res. Commun.*, 1971, **43**, 1436 (*use*)Sankar, M. *et al*, *Anal. Chem.*, 1978, **50**, 1922 (*props*)Thomas, J.M. *et al*, *Anal. Biochem.*, 1981, **118**, 194 (*use*)Roy, R.N. *et al*, *Cryobiology*, 1985, **22**, 578 (*use*)**M-00345****4-Morpholinethanamine, 9CI**

2-Morpholinoethylamine

[2038-03-1]

 $C_6H_{14}N_2O$ M 130.189

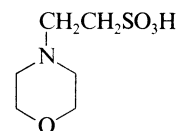
Reagent for the characterisation of esters. Liq. Bp₇₆₈ 204.5°, Bp₆₈ 121-123°. n_D^{25} 1.4742.

▷ QD7350000.

Hultquist, M.E. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 447 (*synth*)Mason, J.P. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 1448 (*synth*)Bost, R.W. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 1967 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AKA750.**2-(*N*-Morpholino)ethanesulfonic acid****M-00348**

4-Morpholineethanesulfonic acid. MES

[4432-31-9]

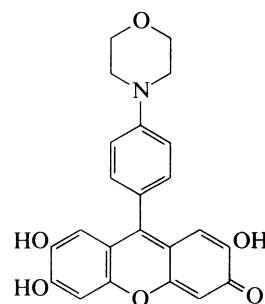
 $C_6H_{13}NO_4S$ M 195.239

Commercially available as monohydrate. Good's buffer with pH range 5.5-7.0. Cryst. + $1H_2O$ (EtOH aq.). Sol. H_2O . Mp >300° dec. pK_a 6.15 (20°).

Good, N.E. *et al*, *Biochemistry*, 1966, **5**, 467 (*synth, use*)Le Berre, A. *et al*, *Bull. Soc. Chim. Fr.*, 1970, 946; 1975, 2531 (*synth*)Amaralis Vega, C. *et al*, *Anal. Chem.*, 1976, **48**, 1293 (*props*)McConnell, B. *et al*, *Biophys. Chem.*, 1984, **20**, 135 (*use*)Wehr, J.D. *et al*, *J. Phycol.*, 1986, **22**, 88 (*use*)**4-(*N*-Morpholinophenyl)fluorone****M-00349**

2,6,7-Trihydroxy-9-[4-(4-morpholinyl)phenyl]-3H-xanthen-3-one, 9CI

[72027-95-3]

 $C_{23}H_{19}NO_6$ M 405.406

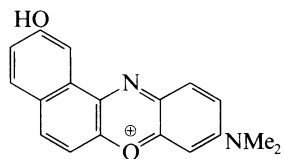
Used as 0.02mM MeOH soln. for photometric detn. of Ge, Sn(IV), Ti, Pb, Cu, U(VI). Cryst. Sol. MeOH, EtOH; sl. sol. H_2O .

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **298**, 150 (*synth, use*)

Muscarine†

M-00350

9-(Dimethylamino)-2-hydroxybenzo[a]phenoxazin-7-ium(1+). C.I. 51205 Basic dye



$C_{18}H_{15}N_2O_2^{\oplus}$ M 291.329 (ion)

Strictly, the name Muscarine applies to the chloride.

Chloride: [6363-82-2].

$C_{18}H_{15}ClN_2O_2$ M 326.781

Used as redox indicator. Cryst. Sol. H_2O . $E^{\circ} +0.05$ V.

Letort, M., *C. R. Hebd. Seances Acad. Sci.*, 1932, **194**, 711.

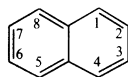
Colour Index, 3rd Edn., 1971, **4**, 4466 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

N

Naphthalene

[91-20-3]



$C_{10}H_8$ M 128.173

Most abundant single hydrocarbon in coal tar (ca. 11% of dry wt.). Formerly an important starting material for dyestuffs synth., now less so. Catalytic air oxidn. on industrial scale yields Phthalic anhydride. Reference material used in elemental microanalysis. Plates (EtOH) with characteristic odour. Spar. sol. pet. ether, insol. H_2O . Mp 80.3°. Bp 218°. Steam-volatile. Sublimes readily.

▷ QJ0525000.

Picrate: Mp 149.5°.

▷ TLV 50. Reacts explosively with N_2O_5 .

Almenningene, A. *et al*, *Acta Crystallogr.*, 1961, **14**, 1056 (*cryst struct*)

Alger, T.D. *et al*, *J. Am. Chem. Soc.*, 1966, **88**, 5397 (*cmr*)

Hathaway, C.E. *et al*, *Spectrochim. Acta, Part A*, 1967, **23**, 881 (*raman*)

Momicchioli, F. *et al*, *J. Chem. Soc. B*, 1970, 1353 (*wv*)

Crecely, R.W. *et al*, *Org. Magn. Reson.*, 1970, **2**, 613 (*nmr*)

Defay, N. *et al*, *Tetrahedron Lett.*, 1971, 1871 (*cmr*)

Analyst (London), 1972, **97**, 740 (*microanal*)

Sakurai, H. *et al*, *J. Am. Chem. Soc.*, 1973, **95**, 955 (*esr*)

Evans, A.G. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1973, 2091 (*esr*)

Palmer, M.H. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1974, 1893 (*struct*)

Obenland, S. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 6633.

Dowdy, D. *et al*, *Chem. Ind. (London)*, 1985, 338 (*purifn*)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 685.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 406.

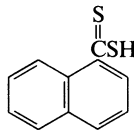
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NAJ500.

Franklin, R.B., *Ethel Browning's Toxicity and Metabolism of Industrial Solvents*, (Snyder, R., Ed.), 2nd Ed., Elsevier, 1987, 1, 153 (*rev, tox*)

1-Naphthalenecarbodithioic acid, 9CI

1-Naphthalenedithiocarboxylic acid

[3682-49-3]



$C_{11}H_8S_2$ M 204.316

Me₄N salt: Used as a 0.01M aq. soln. for extraction-photometric detn. of Tl (λ_{max} 310 nm, ϵ 11800, $CHCl_3$), As(III) (λ_{max} 392 nm, ϵ 17000, $CHCl_3$). Cryst. Sol. H_2O .

Gertners, M. *et al*, *CA*, 1971, **76**, 117904h; 1974, **81**, 85504m; 1977, **87**, 126587m.

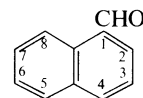
Jansons, E. *et al*, *CA*, 1977, **87**, 145259x (*detn, Tl*)

N-00001

1-Naphthalenecarboxaldehyde, 9CI

1-Naphthaldehyde. 1-Formylnaphthalene

[66-77-3]



$C_{11}H_8O$ M 156.184

Pale-yellow viscous oil. Bp 292°, Bp₀ 150°.

▷ QJ0190000.

Oxime: [13504-46-6].

$C_{11}H_9NO$ M 171.198

Used as 1% soln. in EtOH for gravimetric detn. of Pd. Needles (MeOH aq.). Sol. common org. solvs. Mp 98°.

Semicarbazone: [7510-44-3].

Needles (EtOH). Mp 221°.

Thiosemicarbazone: [5351-81-5].

Needles (EtOH). Mp 217°.

Hydrazone: [16430-29-8].

$C_{11}H_{10}N_2$ M 170.213

Mp 92-93°.

Phenylhydrazone: [24090-98-0].

Light-yellow needles (Et₂O). Mp 82°.

2,4-Dinitrophenylhydrazone: [1773-51-9].

Deep-yellow needles (AcOH). Mp 254°.

[51873-97-3]

Hunsberger, I.M., *J. Am. Chem. Soc.*, 1950, **72**, 5626 (*ir*)

Jensen, K.A. *et al*, *Acta Chem. Scand.*, 1952, **6**, 180 (*synth*)

Org. Synth., Coll. Vol., 4, 1963, 690 (*synth, bibl*)

Emsley, J.W. *et al*, *J. Chem. Soc. B*, 1970, 1513 (*nmr*)

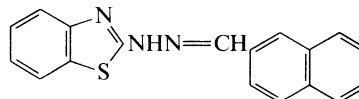
Naidu, R.S. *et al*, *Indian J. Chem., Sect. A*, 1977, **15**, 69 (*oxime, detn, Pd*)

Seita, J. *et al*, *Org. Magn. Reson.*, 1978, **11**, 239 (*cmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NAJ000.

2-Naphthalenecarboxaldehyde 2-benzothiazolylyhydrazone, 9CI

[6298-14-2]



$C_{18}H_{13}N_3S$ M 303.387

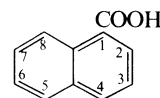
Used for extraction-photometric detn. of Cu (C_6H_6 , λ_{max} 422 nm, ϵ 48000). Orange-red cryst. Sol. C_6H_6 .

Odashima, T. *et al*, *CA*, 1975, **82**, 132546k (*detn, Cu*)

1-Naphthalenecarboxylic acid, 9CI

1-Naphthoic acid

[86-55-5]



$C_{11}H_8O_2$ M 172.183

N-00003

N-00004

N-00005

Aq. solns. of salts used as acid-base fluorescent indicators (pH 2.5-3.5). Cryst. (AcOH aq.). Spar. sol. H₂O. Mp 161°. pK_a 3.7.

▷ Mod. toxic orally.

Et ester: [3007-97-4].

C₁₃H₁₂O₂ M 200.237

Bp 309°, Bp₇₄₁ 220.5°.

Chloride: [879-18-5].

C₁₁H₇ClO M 190.628

Mp 20°. Bp 297.5°, Bp₁₀ 163°.

Amide: [2243-81-4].

C₁₁H₉NO M 171.198

Mp 202°.

Amide, oxime: [40019-43-0]. N-Hydroxy-1-naphthalenecarboximidamide, 9CI

C₁₁H₁₀N₂O M 186.213

Used for extraction-photometric detn. of Co (λ_{max} 581 nm, ϵ 4400, 2-methyl-1-propanol). Cryst. Sol. common org. solvs.

Anhydride: [64985-86-0].

C₂₂H₁₄O₃ M 326.351

Mp 145°.

Nitrile: [86-53-3]. 1-Cyanonaphthalene

C₁₁H₇N M 153.183

Needles (pet. ether). Mp 37.5°. Bp 299°.

Org. Synth., 1931, **11**, 80.

Gilman, H. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 745.

Org. Synth., 1941, **21**, 89 (*nitrile*)

Buu-Hoï, Ng.Ph. *et al*, *Bull. Soc. Chim. Fr.*, 1942, 725.

McCrone, W., *Anal. Chem.*, 1953, **25**, 1126 (*struct*)

Shimizu, N. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 3175 (*pmr*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Ho, T.-L., *Synthesis*, 1972, 560 (*synth*)

Motekov, N. *et al*, *Fresenius' Z. Anal. Chem.*, 1974, **272**, 48 (*synth, detn, Co*)

Adcock, W. *et al*, *J. Org. Chem.*, 1977, **42**, 2411 (*cmr*)

Hansen, P.E. *et al*, *Org. Magn. Reson.*, 1977, **9**, 649 (*cmr*)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed.,

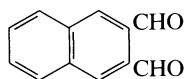
Van Nostrand-Reinhold, 1979, 844.

2,3-Naphthalenedicarboxaldehyde, 9CI

N-00006

2,3-Diformylaphthalene

[7149-49-7]



C₁₂H₈O₂ M 184.194

Used for fluorimetric detn. of CN[⊖]. Needles (H₂O, pet. ether or by subl.). Mp 131-132°.

Bis-2,4-dinitrophenylhydrazone: Orange microcryst. powder. Mp 300° dec.

Carlson, R.G. *et al*, *J. Org. Chem.*, 1886, **51**, 3978 (*synth*)

Cook, J.W. *et al*, *J. Chem. Soc.*, 1949, 5228 (*synth*)

Weygand, F. *et al*, *Chem. Ber.*, 1950, **83**, 394 (*synth*)

Ried, W. *et al*, *Chem. Ber.*, 1956, **89**, 708 (*synth*)

Wilcox, C.F. *et al*, *J. Org. Chem.*, 1986, **51**, 1088 (*synth, pmr, ms*)

Carlson, R.G. *et al*, *J. Org. Chem.*, 1986, **51**, 3978 (*synth*)

Sano, A. *et al*, *Talanta*, 1987, **34**, 743 (*detn, CN[⊖]*)

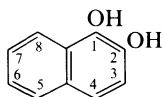
Man, Y.-M. *et al*, *J. Org. Chem.*, 1990, **55**, 3214 (*synth*)

1,2-Naphthalenediol, 9CI

N-00007

1,2-Dihydroxynaphthalene

[574-00-5]



C₁₀H₈O₂ M 160.172

Gives colour reaction with Nb. Needles (CS₂), leaflets + H₂O (H₂O). Sol. alkalis, Et₂O. Sol. H₂O. Mp 108° (anhyd.). Readily oxid. in air.

▷ Sternutator, severe irritant.

Di-Ac: [6336-79-4].

C₁₄H₁₂O₄ M 244.246

Mp 109.5° (104-106°).

1-Me ether: [18515-10-1]. 1-Methoxy-2-naphthol

C₁₁H₁₀O₂ M 174.199

Cryst. (pet. ether). Mp 92°.

1-Me ether, benzoyl: Cryst. (MeOH). Mp 107°.

Di-Me ether: 1,2-Dimethoxynaphthalene

C₁₂H₁₂O₂ M 188.226

Mp 31°. Bp 278-280°.

Di-Me ether, picrate: Red needles. Mp 97°.

Fieser, L.F. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 1565, 1575 (*synth*)

Bell, K.H. *et al*, *Aust. J. Chem.*, 1963, **16**, 101 (*deriv*)

Gibalo, I.M., *Anal. Khim. Niobiya i Tantala*, Moscow, Nauka, 1967 (*use*)

Hewgill, F.R. *et al*, *J. Chem. Soc. C*, 1967, 2316 (*deriv*)

Wilson, H.W. *et al*, *Appl. Spectrosc.*, 1974, **28**, 418 (*ir*)

Dixon, W. *et al*, *Tetrahedron Lett.*, 1976, **8**, 623 (*esr*)

1,3-Naphthalenediol, 9CI

N-00008

1,3-Dihydroxynaphthalene. Naphthoresorcinol

[132-86-5]

C₁₀H₈O₂ M 160.172

Potent inhibitor of prostaglandin synthetase. Reagent for the detn. of aromatic aldehydes and of carbohydrates. Leaflets (H₂O). Sol. H₂O. Mp 124°.

▷ Toxic. QJ4725000.

Di-Ac: [59335-80-7].

C₁₄H₁₂O₄ M 244.246

Prisms (AcOH aq.). Mp 56°.

1-Me ether: 4-Methoxy-2-naphthol

C₁₁H₁₀O₂ M 174.199

Cryst. (pet. ether). Mp 55-56°.

Soliman, G. *et al*, *J. Chem. Soc.*, 1944, 53 (*synth*)

Org. Synth., *Coll. Vol.*, 3, 1955, 637 (*synth*)

Anger, V. *et al*, *Fresenius' Z. Anal. Chem.*, 1964, **203**, 422 (*use*)

Iksander, G.M. *et al*, *J. Chem. Soc. C*, 1970, 1701 (*deriv*)

Wilson, H.W. *et al*, *Appl. Spectrosc.*, 1974, **28**, 418 (*ir*)

Granger, P. *et al*, *J. Magn. Reson.*, 1976, **22**, 405 (*cmr, pmr*)

Dixon, W. *et al*, *Tetrahedron Lett.*, 1976, 623 (*esr*)

Papin, J.P., *J. Chromatogr.*, 1977, **132**, 339 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NAN000.

1,8-Naphthalenediol, 9CI

N-00009

1,8-Dihydroxynaphthalene

[569-42-6]

C₁₀H₈O₂ M 160.172

Used in photometric detn. of Ti. Leaflets (H₂O). Sol. hot H₂O. Mp 140°.

Di-Ac: [6566-25-2].

C₁₄H₁₂O₄ M 244.246

Mp 147-148°.

Mono-Me ether: [3588-75-8]. 8-Methoxy-1-naphthol

C₁₁H₁₀O₂ M 174.199

Isol. from a strain of *Daldinia concentrica*. Cryst. (pet. ether or EtOH). Mp 55-56° (47°).

Di-Me ether: 1,8-Dimethoxynaphthalene

C₁₂H₁₂O₂ M 188.226

Produced by *Daldinia concentrica*. Leaflets (Et₂O or EtOH aq.). Mp 158-161°.

Buu-Hoï, Ng.Ph. *et al*, *J. Chem. Soc.*, 1956, 2412 (*synth*)

Allport, D.C. *et al*, *J. Chem. Soc.*, 1960, 654 (*isol, derivs*)

v. Gemert, J.T., *Aust. J. Chem.*, 1968, **21**, 2203 (*ir*)
 Ashworth, P. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1974, 739 (*esr*)
 Granger, P. *et al*, *J. Magn. Reson.*, 1976, **22**, 405 (*cmr*, *pmr*)
 Eremenko, M.V. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1955 (*detn*, *Ti*)
 Snieckus, V. *et al*, *J. Org. Chem.*, 1986, **57**, 271 (*deriv*)

2,3-Naphthalenediol, 9CI **N-00010**

2,3-Dihydroxynaphthalene

[92-44-4]

C₁₀H₈O₂ M 160.172

Used in manuf. of dyes for reprographic processes. Gives colour reaction with Fe(III), Co, Ni, Ti, Th, U(VI).
 Used as 0.02M soln. in C₆H₆ for extraction-photometric detn. of Fe(III), V(V), Ti, Mo (in the presence of tributylamine, CHCl₃), extraction-photometric detn. of B. Leaflets (H₂O). Sol. hot H₂O, C₆H₆, CHCl₃. Mp 162°.

▷ QJ4750000.

Mono-Me ether: 3-Methoxy-2-naphthol

C₁₁H₁₀O₂ M 174.199

Needles. Mp 108°.

Di-Me ether: [10103-06-7]. 2,3-Dimethoxynaphthalene, 9CI

C₁₂H₁₂O₂ M 188.226

Mp 115-116°.

Buu-Hoi, N.P., *J. Org. Chem.*, 1956, **21**, 21 (*deriv*)v. Gemert, J.T., *Aust. J. Chem.*, 1965, **21**, 2203 (*ir*)Hewgill, F.R. *et al*, *J. Chem. Soc. C*, 1967, 2316 (*deriv*)Patrovsky, V., *Collect. Czech. Chem. Commun.*, 1970, **35**, 1599(*use*)Ashworth, P. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1974, 739 (*esr*)Granger, P. *et al*, *J. Magn. Reson.*, 1976, **22**, 405 (*cmr*, *pmr*)Arcole, A. *et al*, *Chem. Ind. (London)*, 1977, 128 (*synth*)Prajer-Janczewska, L., *Pol. J. Chem. (Rocz. Chem.)*, 1978, **52**, 1675(*ms*)Sato, S. *et al*, *Anal. Chim. Acta*, 1982, **143**, 283 (*detn*, *B*)**2,7-Naphthalenediol, 9CI** **N-00011**

2,7-Dihydroxynaphthalene

[582-17-2]

C₁₀H₈O₂ M 160.172

Reagent for colorimetric detn. of glycolic acid. Needles (H₂O). Sol. hot H₂O. Mp 190°.

▷ QJ4780000.

Di-Ac: [22472-26-0].

C₁₄H₁₂O₄ M 244.246

Mp 136°.

Mono-Me ether: [5060-82-2]. 7-Methoxy-2-naphthol

C₁₁H₁₀O₂ M 174.199Needles (EtOH or pet. ether). Mp 122-124°. Mp 103-105°. Bp_{0.01} 145-148°.

Di-Me ether: 2,7-Dimethoxynaphthalene

C₁₂H₁₂O₂ M 188.226Plates (EtOH). Mp 138°. Bp₇₃₁ 39°. Mod. steam volatile.

Di-Me ether, 1,3,5-trinitrobenzene complex: Orange-yellow needles. Mp 111.5°.

Di-Et ether: 2,7-Diethoxynaphthalene

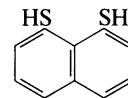
C₁₄H₁₆O₂ M 216.279

Mp 104°.

Fieser, L.F. *et al*, *J. Am. Chem. Soc.*, 1949, **71**, 3615 (*deriv*)Weissburger, A. *et al*, *J. Am. Chem. Soc.*, 1961, **83**, 5015 (*deriv*)Thompson, R.J. *et al*, *Tetrahedron*, 1963, **19**, 1919 (*deriv*)v. Gemert, J.T., *Aust. J. Chem.*, 1968, **21**, 2203 (*ir*)Takahashi, K., *J. Biochem. (Tokyo)*, 1972, **71**, 563 (*use*)Brignac, P.J., *Anal. Lett.*, 1974, **7**, 195 (*props*, *uv*)Granger, P. *et al*, *J. Magn. Reson.*, 1976, **22**, 405 (*cmr*, *pmr*)Prajer-Janczewska, L., *Pol. J. Chem. (Rocz. Chem.)*, 1978, **52**, 1675(*ms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NAO500.**1,8-Naphthalenedithiol, 9CI, 8CI** **N-00012**

1,8-Dimercaptonaphthalene

[25079-77-0]

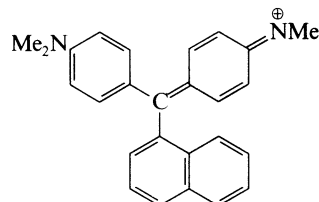
C₁₀H₈S₂ M 192.305

Used as 0.1% EtOH soln. for photometric detn. of Pd (λ_{max} 450 nm, ε 12500). Yellow plates (EtOH/HCl). Sol. EtOH. Mp 113-114°.

Di-Me thioether: [7343-31-9]. 1,8-Bis(methylthio)naphthalene

C₁₂H₁₂S₂ M 220.359Yellow solid (Et₂O/pentane). Mp 83-85°.Price, W.B. *et al*, *J. Chem. Soc.*, 1928, 2373 (*synth*)Pacault, A. *et al*, *Bull. Soc. Chim. Fr.*, 1952, 141 (*struct*)Desai, H.S. *et al*, *J. Sci. Ind. Res., Sect. B*, 1960, **19**, 390 (*synth*)Sugimoto, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1974, **23**, 1078;CA, **82**, 10771j (*detn*, *Pd*)Yui, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1988, **61**, 953 (*synth*, *ir*, *pmr*)Glass, R.S. *et al*, *J. Am. Chem. Soc.*, 1989, **111**, 4036 (*Di-Me**thioether*, *cryst struct*)Gamage, S.A. *et al*, *Tetrahedron*, 1990, **46**, 2111 (*synth*)**Naphthalene green** **N-00013**

N-[4-[[4-(Dimethylamino)phenyl]-1-naphthalenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(I+), 9CI

C₂₇H₂₇N₂[⊕] M 379.524 (ion)

Strictly, the name Naphthalene green applies to the chloride salt.

Chloride: [13158-69-5].

C₂₇H₂₇ClN₂ M 414.976

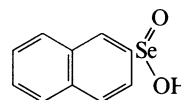
Used as a 0.1% aq. soln. for extraction-photometric detn. of Au (λ_{max} 645 nm, C₆H₆). Cryst.

Baloin, L.M. *et al*, *Rev. Chim. (Bucharest)*, 1980, **31**, 298; CA, **93**, 106366j (*use*)

2-Naphthaleneselenic acid, 9CI **N-00014**

2-Naphthaleneseleninic acid, 8CI

[17932-21-7]

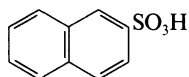
C₁₀H₈O₂Se M 239.132

NH₄ salt: Used as a 0.5% aq. soln. for gravimetric detn. of Zr. Cryst.

Alimarin, I.P. *et al*, *Zh. Anal. Khim.*, 1958, **13**, 332 (*detn*)

2-Naphthalenesulfonic acid

[120-18-3]

 $C_{10}H_8O_3S$ M 208.237

Catalyst for dehydrations. Used for the characterization of amino acids. V. hygroscopic cryst. V. sol. org. solvs. Mp 91°. pK_a 2.6. Forms a trihydrate, Mp 83°, and a monohydrate, Mp 124°.

▷ QK1225000.

Me ester: [5138-53-4]. $C_{11}H_{10}O_3S$ M 222.264Mp 56°. Bp₁₅ 224-225°.*Et ester*: [7619-65-0]. $C_{12}H_{12}O_3S$ M 236.291

Mp 11-12°. Bp 134° (high vac.).

Fluoride: [325-12-2]. $C_{10}H_7FO_2S$ M 210.228

Mp 87-88°.

Chloride: [93-11-8]. $C_{10}H_7ClO_2S$ M 226.683

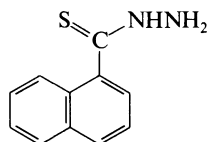
Derivatisation reagent for hplc of amines e.g. spectinomycin and neomycin. Mp 66°, Mp 79°. Bp_{0.6} 148°.

Amide: [1576-47-2]. $C_{10}H_9NO_2S$ M 207.253

Mp 212°, Mp 217°.

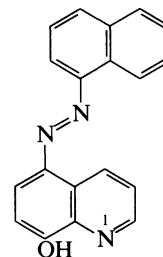
Bergmann, M. *et al*, *J. Biol. Chem.*, 1939, **129**, 609 (*use*)Fierz-David, H.E. *et al*, *Helv. Chim. Acta*, 1945, **28**, 257 (*synth. bibl*)Spryskov, A.A., *J. Gen. Chem. USSR (Engl. Transl.)*, 1946, **16**, 2126 (*synth. bibl*)Daglish, C., *J. Am. Chem. Soc.*, 1950, **72**, 4859 (*w*)Spryskov, A.A. *et al*, *Zh. Obshch. Khim.*, 1953, **23**, 1712.Detoni, S. *et al*, *Spectrochim. Acta*, 1957, 601 (*ir*)Vainshtein, F.M. *et al*, *Zh. Obshch. Khim.*, 1957, **27**, 2559.Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 712.Šnobl, D. *et al*, *Collect. Czech. Chem. Commun.*, 1985, **50**, 1852 (*cmr*)Tsugi, K. *et al*, *J. Chromatogr.*, 1985, **333**, 365; 1986, **369**, 105 (*use, chloride*)Hamada, T. *et al*, *Synthesis*, 1986, 852 (*deriv. synth. pmr. ms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NAP000.**1-Naphthalenethiocarboxhydrazide**

[68062-20-4]

 $C_{11}H_{10}N_2S$ M 202.279

Used as 0.01M EtOH soln. for extraction-photometric detn. of Pt(IV), Ru(III), Os(VI,VIII) (λ_{max} 475 nm, pH 3.3-8.2, $CHCl_3$). Cryst. (C_6H_6 /pet. ether). Sol. C_6H_6 , pet. ether, EtOH. Mp 97-98°.

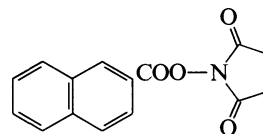
[85908-62-9]

Shome, S.C. *et al*, *Mikrochim. Acta*, 1978, **2**, 343 (*synth. use*)**N-00015****5-(1-Naphthalenylazo)-8-quinolinol****N-00017** $C_{19}H_{13}N_3O$ M 299.331*N¹-Oxide*: [63319-32-4]. $C_{19}H_{13}N_3O_2$ M 315.331

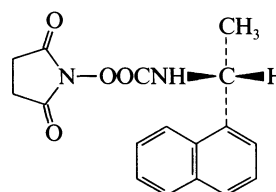
Used as a soln. in aq. NH_3 for photometric detn. of Al, Co, Cu, Pb, Pd, Zn. Orange cryst. powder. Sol. alkalis; v. spar. sol. EtOH, Me_2CO ; insol. H_2O . λ_{max} 425 nm (EtOH).

Nemodruk, A.A. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 457 (*use*)**1-[(2-Naphthalenylcarbonyl)oxy]-2,5-pyrrolidinedione****N-00018***Succinimido β -naphthoate*

[56374-47-1]

 $C_{15}H_{11}NO_4$ M 269.256

Reagent used for ms sequence anal. of peptides.

Falter, H. *et al*, *Anal. Biochem.*, 1975, **67**, 359 (*use*)**1-[[[1-(1-Naphthalenyl)ethyl]amino]carbonyl]oxy]-2,5-pyrrolidinedione, 9CI****N-00019***(R)-form* $C_{17}H_{16}N_2O_4$ M 312.324

Reagent for the optical resolution of enantiomeric amines.

(R)-form [113701-20-5]

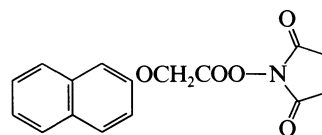
Cryst. (C_6H_6 / Me_2CO). Mp 182°. $[\alpha]_D$ +62.53° (c, 0.43 in $MeCN$).

(S)-form [113701-21-6]

Cryst. (C_6H_6 / Me_2CO). Mp 180-182°. $[\alpha]_D$ -61.99° (c, 0.42 in $MeCN$).

Iwaki, K. *et al*, *Chromatographia*, 1987, **23**, 899 (*synth. use*)**1-[[2-Naphthalenyloxy)acetyl]oxy]-2,5-pyrrolidinedione****N-00020***Succinimido 2-naphthoxyacetate*

[81012-92-2]



$C_{16}H_{13}NO_5$ M 299.282

Used for fluorimetric detn. of aminophospholipids and for amino acid sequencing in peptides. Mp 150-152°.

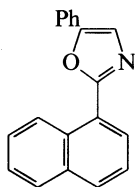
Falter, H. *et al*, *Anal. Biochem.*, 1975, **67**, 359 (use)

Chen, S.S. *et al*, *J. Chromatogr.*, 1983, **276**, 37 (use)

2-(1-Naphthalenyl)-5-phenyloxazole, 9CI **N-00021**

α -NPO

[846-63-9]



$C_{19}H_{13}NO$ M 271.318

Used in liquid scintillation spectrometry. Light green cryst. Mp 110-111°.

Hayes, F.N. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 1850 (synth)

Lidholt, L.R. *et al*, *Opto-electronics (London)*, 1970, **2**, 21 (props)

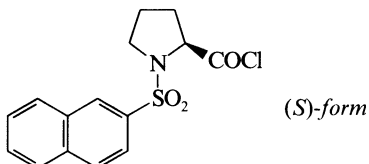
Pavlopoulos, T.G. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 6568

(spectra)

Fouassier, J.P. *et al*, *J. Photochem.*, 1977, **7**, 17 (use)

1-(2-Naphthalenylsulfonyl)-2-pyrrolidinecarbonyl chloride, 9CI **N-00022**

[100331-92-8]



$C_{15}H_{14}ClNO_3S$ M 323.799

(S)-form [91872-31-0]

Reagent for resolution of enantiomers of diltiazem hydrochloride. Cryst. (C_6H_6 /hexane). Mp 107-109°. $[\alpha]_D^{20}$ -81.6° (c, 1 in $CHCl_3$).

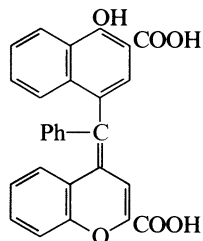
[103129-97-1]

Shimizu, R. *et al*, *J. Chromatogr.*, 1986, **357**, 119 (synth, use)

Nishi, H. *et al*, *Chromatographia*, 1989, **27**, 301 (use)

Naphthochrome green G **N-00023**

4-[(3-Carboxy-4-hydroxy-1-naphthalenyl)phenylmethylene]-1,4-dihydro-1-oxo-2-naphthalenecarboxylic acid, 9CI.
Phenoxydinaphthofuchsone dicarboxylic acid



$C_{28}H_{18}O_6$ M 450.447

Strictly, the name Naphthochrome green G applies to the disodium salt.

Di-Na salt: [5715-76-4].

Used as 1.5mM aq. soln. or 0.5mM EtOH soln. for photometric detn. of Be (λ_{max} 640 nm, pH 11.5-13), Al; complexing agent for Ca. Red-brown cryst. (EtOH aq.). Sol. H_2O , EtOH. Mp 150-151°.

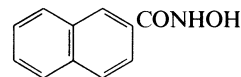
Aldridge, W. *et al*, *Analyst (London)*, 1948, **73**, 607 (detn, Be)

Adamovich, L.P. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 420; 1969, **24**, 1816 (synth, detn, Be)

Adamovich, L.P. *et al*, *Zavod. Lab.*, 1969, **35**, 781 (detn, Al)

Chaplin, A.J. *et al*, *Histochemistry*, 1976, **47**, 263 (detn, Ca)

2-Naphthohydroxamic acid **N-00024**



$C_{11}H_9NO_2$ M 187.198

Used for photometric detn. of V(V) (λ_{max} 450 nm). Pale pink cryst. Sl. sol. H_2O ; sol. common org. solvs.

N-Ph: [34251-29-1]. N-Hydroxy-N-phenyl-2-naphthalenecarboxamide, 9CI. N-Phenyl-2-naphthohydroxamic acid

$C_{17}H_{13}NO_2$ M 263.295

Used as 0.1% EtOH soln. for extraction-photometric detn. of V(V) (λ_{max} 545 nm, ϵ 7100), U. Cryst. Sol. $CHCl_3$, EtOH. Mp 156°.

N-Benzyl: [85407-79-0]. N-Benzyl-2-naphthohydroxamic acid. N-Hydroxy-N-phenylmethyl-2-naphthalenecarboxamide

$C_{18}H_{15}NO_2$ M 277.322

Used as a 0.1% soln. in EtOH-free $CHCl_3$ for extraction-photometric detn. of V. Cryst. Sol. EtOH, $CHCl_3$, Me_2CO ; insol. H_2O . Mp 130°.

Bass, V.C. *et al*, *Anal. Chim. Acta*, 1966, **35**, 337 (detn, V)

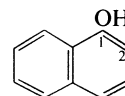
Agrawal, Y.K., *Sep. Sci.*, 1973, **8**, 709 (deriv, detn, U)

Agrawal, Y.K., *Anal. Chem.*, 1975, **47**, 940 (synth, deriv, detn, V)

Sahu, B. *et al*, *Talanta*, 1987, **34**, 653 (N-benzyl, use)

1-Naphthol **N-00025**

1-Naphthalenol, 9CI. 1-Hydroxynaphthalene. α -Naphthol [90-15-3]



$C_{10}H_8O$ M 144.173

Used in manuf. of dyestuffs. Used as 1mM isopentanol soln. for photometric detn. of Tl(III). Prisms with phenolic odour. Sol. isopentanol; spar. sol. H_2O . Mp 94°, Fp 96.1°. Bp 282.5°. Steam-volatile, sublimes. Reduces $AgNO_3 \cdot NH_3$. Darkens in light.

▷ Mod. toxic. QL2800000.

Ac: [830-81-9].

$C_{12}H_{10}O_2$ M 186.210

Mp 48-49°.

Benzoyl: [607-55-6].

$C_{17}H_{12}O_2$ M 248.281

Mp 56°.

3,5-Dinitrobenzoyl: Mp 217.4°.

Franzen, H. *et al*, *Ber.*, 1917, **50**, 103.

Vendelshtein, Y.G. *et al*, *CA*, 1933, **27**, 5320.

U.S. Pat., 1 962 137, (1934); *CA*, **28**, 4798.

Kreshkov, A.P. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 415 (detn, Tl)

Ernst, L., *Chem. Ber.*, 1975, **108**, 2030 (pmr)

Lewis, N.J. *et al*, *J. Org. Chem.*, 1977, **42**, 1479 (synth)

Seita, J. *et al*, *Org. Magn. Reson.*, 1978, **11**, 239 (*cmr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NAW500.

2-Naphthol**N-00026**

2-Naphthalenol, 9CI. 2-Hydroxynaphthalene. β -Naphthol
 [135-19-3]

$C_{10}H_8O$ M 144.173

Used in manuf. of dyestuffs and antioxidants. Acid-base indicator (pH 8.5-9.5). Used for the photometric detn. of malic acid and tartaric acid. Plates by subl. Sol. EtOH, Et₂O; v. spar. sol. H₂O. Mp 123°. Bp 285-286°. Reduces AgNO₃, NH₃. Volatile in steam, EtOH and Et₂O.

▷ Mod. toxic orally. QL2975000.

Ac: [1523-11-1].

$C_{12}H_{10}O_2$ M 186.210

Mp 70°.

Benzoyl: [93-44-7].

$C_{17}H_{12}O_2$ M 248.281

Mp 107°.

3,5-Dinitrobenzoyl: Mp 210-212°.

Franzen, H. *et al*, *Ber.*, 1917, **50**, 104.

Christian, G.D. *et al*, *Anal. Chim. Acta*, 1968, **41**, 269 (*use*)

Christian, G.D. *et al*, *Talanta*, 1969, **16**, 255 (*use*)

Brown, R.F.C. *et al*, *Aust. J. Chem.*, 1974, **27**, 2385 (*synth*)

Ernst, L., *Chem. Ber.*, 1975, **108**, 2030 (*pmr*)

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use, ind*)

Rusek, G. *et al*, *Spectrosc. Lett.*, 1978, **17**, 381 (*uv*)

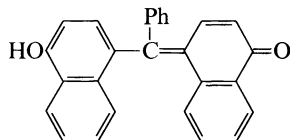
Pant, V.C. *et al*, *Rev. Roum. Chim.*, 1979, **24**, 471 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NAX000.

 α -Naphtholbenzein**N-00027**

4-[(4-Hydroxy-1-naphthalenyl)phenylmethylene]-1-(4H)-naphthalenone, 9CI

[145-50-6]



$C_{27}H_{18}O_2$ M 374.438

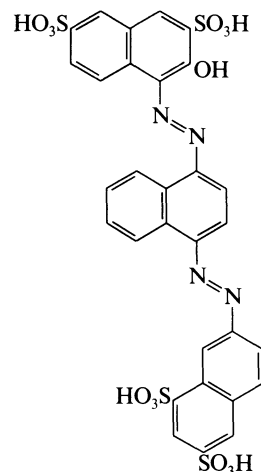
Used as a 0.1% soln. in EtOH as acid-base indicator (pH range: 9.8-11; colour change: brownish → green-blue).

Dark red cryst. Sol. Me₂CO, Et₂O; insol. H₂O.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Naphthol black 3B**N-00028**

1-[4-(6,8-Disulfo-2-naphthalenylazo)-1-naphthalenylazo]-2-hydroxy-3,6-naphthalenedisulfonic acid, 9CI. C.I. Acid black 3. C.I. 27260



$C_{30}H_{20}N_4O_{13}S_4$ M 772.771

Strictly, the name Naphthol black 3B applies to the tetrasodium salt.

Tetra-Na salt: [4197-00-6].

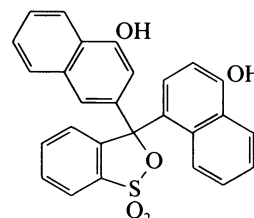
Used as a 1% aq. soln. as metallochromic indicator in titrimetric detn. of Cu, photometric detn. of Mg (λ_{max} 570 nm). Cryst. Sol. H₂O, EtOH.

Goyal, S.S. *et al*, *Bull. Chem. Soc. Jpn.*, 1967, **40**, 994 (*detn, Mg*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*detn, Cu*)

 α -Naphtholsulfonephthalein**N-00029**

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis(1-naphthol) S,S-dioxide



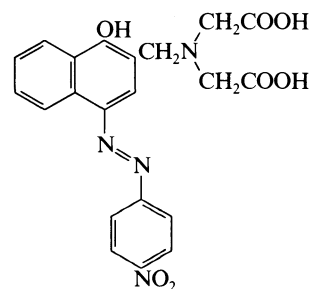
$C_{27}H_{18}O_5S$ M 454.502

Used as an acid-base indicator (colour change: yellow → blue; pH range: 6.0-7.6). Dark red cryst. powder. Sol. EtOH, Me₂CO, EtOAc, alkalis; spar. sol. H₂O.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Naphthol violet**N-00030**

2-(Aminomethyl)-4-(4-nitrophenylazo)-1-naphthol-N,N-diacetic acid



$C_{21}H_{18}N_4O_7$ M 438.396

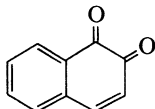
Used as a 1:100 mixture with NaCl as metallochromic indicator in titrimetric detn. of Bi, Cd, Co, Cu, Mg, Mn, Zn. Cryst.

Budesinsky, B. *et al*, *Collect. Czech. Chem. Commun.*, 1957, **22**, 1579 (*use*)

1,2-Naphthoquinone, 8CI

N-00031

1,2-Naphthalenedione, 9CI. β -Naphthoquinone
[524-42-5]



$C_{10}H_6O_2$ M 158.156

Red needles (Et₂O), orange leaflets (C₆H₆) or golden yellow needles. Mp 115-120° dec., Mp 145-147° dec. (golden yellow-form). Not steam-volatile. Dec. → bluish-black col. on standing.

▷ Highly toxic orally, exp. carcinogen. QL7000000.

2-Oxime: see 2-Nitroso-1-naphthol, N-00161

Dioxime (1Z,2E): [64360-72-1].

$C_{10}H_8N_2O_2$ M 188.185

Used as a 1mM soln. in EtOH for extraction-photometric detn. of Ni (λ_{max} 464 nm, ϵ 16500) in the presence of Zephiramine; Co, Fe(II). Yellow needles (EtOH). Mp 169°.

1-p-Nitrophenylhydrazine: [6410-10-2]. 1-(4-Nitrophenylazo)-2-naphthol. Paranitraniline red. Para red
 $C_{16}H_{11}N_3O_3$ M 293.281

Dyestuff. Orange-brown plates (toluene). Insol. EtOH; mod. sol. hot AcOH. Mp 250-251°, Mp 246°. Tautomeric.

▷ QL4510000.

2-Thiosemicarbazone: [22051-53-2]. 2-(1-Oxo-2(1H)-naphthalenyldene)hydrazinecarbothioamide, 9CI

$C_{11}H_9N_3OS$ M 231.278

Used for extraction separation of Zn, Cd; photometric detn. of Hg(II) (λ_{max} 540 nm, ϵ 10300). Yellow cryst. Sol. DMF.

[14140-03-5]

Org. Synth., Coll. Vol., 2, 1943, 430 (*synth*)

Oliver, R.W.A. *et al*, *J. Chem. Soc. B*, 1968, 1141 (*ms*)

Ueda, T. *et al*, *CA*, 1972, **76**, 53993b (*thiosemicarbazone, synth, detn, Cu*)

Kuse, S. *et al*, *Anal. Chim. Acta*, 1974, **70**, 65 (*synth, detn, Ni, Co, Fe(II)*)

Tôei, K. *et al*, *Anal. Chim. Acta*, 1975, **75**, 323 (*synth, detn, Ni*)

Kuboyama, A. *et al*, *Bull. Chem. Soc. Jpn.*, 1976, **49**, 1401 (*w*)

Nasakkala, M. *et al*, *Acta Chem. Scand., Ser. A*, 1977, **31**, 469, 512 (*cryst struct, oxime*)

Luque de Castro, M.D., *An. Quim.*, 1979, **75**, 861; *CA*, **92**, 225936j (*use*)

Silva, M. *et al*, *Mikrochim. Acta*, 1983, **1**, 315 (*sepn, Zn, Cd*)

Gallardo Cespedes, A. *et al*, *Microchem. J.*, 1984, **30**, 105

(*thiosemicarbazone, detn, Hg*)

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1987, **53**, 294 (2-*thiosemicarbazone, use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NBA000.

1,4-Naphthoquinone, 8CI

N-00032

1,4-Naphthalenedione, 9CI. α -Naphthoquinone
[130-15-4]

$C_{10}H_6O_2$ M 158.156

Oxidn. prod. of naphthalene. Used for fluorimetric detn. of CN[⊖]. Yellow needles (EtOH or pet. ether). Spar. sol. H₂O, pet. ether; sol. most org. solvs. Mp 125°. Steam-volatile. Red-brown soln. in alkali.

▷ Highly irritant and vesicant. QL7175000.

4-Nitrophenylhydrazine: 4-p-Nitrobenzeneazo-1-naphthol

$C_{16}H_{11}N_3O_3$ M 293.281

Reagent for Mg. Brown needles with blue reflex (PhNO₂). Spar. sol. most solvs. Mp 277-279°.

2,4-Dinitrophenylhydrazine: Mp 278° dec.

Dioxime: [14140-02-4].

$C_{10}H_8N_2O_2$ M 188.185

Needles (EtOH aq.). Mp 207° dec.

Semicarbazone: Greenish-yellow cryst. (AcOH). Mp 247° dec.

Brown, T.L., *Spectrochim. Acta*, 1962, **18**, 1065 (*ir*)

Org. Synth., Coll. Vol., 4, 1963, 148, 698 (*synth*)

Gaultier, J. *et al*, *Acta Crystallogr.*, 1965, **18**, 179 (*cryst struct*)

Guilbault, G.G. *et al*, *Anal. Chem.*, 1965, **37**, 1395.

Bowie, J.H. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 5094 (*ms*)

Hill, R.K. *et al*, *J. Org. Chem.*, 1965, **30**, 2414 (*synth*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 714 (*purifn, tox*)

Singh, I. *et al*, *Tetrahedron*, 1968, **24**, 6053 (*w*)

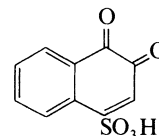
Kobayashi, M. *et al*, *Tetrahedron Lett.*, 1976, 619 (*cmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NBA500.

1,2-Naphthoquinone-4-sulfonic acid

N-00033

3,4-Dihydro-3,4-dioxo-1-naphthalenesulfonic acid, 9CI
[2066-93-5]



$C_{10}H_6O_5S$ M 238.220

Colorimetric reagent for primary and secondary amines; has other anal. uses. Bright-orange needles.

▷ Toxic.

Na salt: [521-24-4].

Golden-yellow needles (EtOH aq.) or orange powder.

Sol. H₂O; mod. sol. Me₂CO; insol. C₆H₆.

▷ QK1490000.

K salt: [5908-27-0].

Yellow or bright-orange needles (H₂O). Mp ca. 240° dec.

2-Semicarbazone: [36307-95-6].

$C_{11}H_9N_3O_5S$ M 295.275

Gives colour reactions with Cd, Co, Cu, Hg(II), Ni, Zn. Cryst. Sol. H₂O.

2-(Thiosemicarbazone): [59558-95-1].

$C_{11}H_9N_3O_4S_2$ M 311.342

Used as metallochromic indicator for titrimetric detn. of Cd, Cu, Pb, Zn. Cryst. Sol. H₂O. pK_a 8.36 (25°).

Dioxime: [43146-51-6].

$C_{10}H_8N_2O_5S$ M 268.250

Used as 1-10mM aq. soln. for extraction-photometric detn. of Ni (λ_{max} 480 nm, ϵ 20300, CHCl₃), Co, Fe, Cu. Cryst. Sol. H₂O, EtOH. Mp 244-246°.

[34947-97-2, 59558-96-2, 59558-97-3]

Elsevier's Encycl. Org. Chem., **12B**, 5619 (*bibl*)

Fieser, L.F. *et al*, *J. Am. Chem. Soc.*, 1935, **57**, 491 (*synth*)

Bartos, J. *et al*, *Bull. Soc. Chim. Fr.*, 1970, 1627 (*use*)
 Kuse, S. *et al*, *Anal. Chim. Acta*, 1974, **70**, 65 (*synth, detn, Co, Fe, Cu*)
 Tôei, K. *et al*, *Anal. Chim. Acta*, 1975, **75**, 323 (*synth, detn, Ni*)
 Vajgand, V., *Chem. Anal. (Warsaw)*, 1975, **20**, 1125 (*synth, use, thiosemicarbazone*)
 Mukherjee, S. *et al*, *CA*, 1984, **100**, 220822q (*use, semicarbazone*)
 Asahi, Y. *et al*, *Chem. Pharm. Bull.*, 1984, **32**, 3093 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DLK000.

1,2-Naphthoquinone-5-sulfonic acid **N-00034**

5,6-Dihydro-5,6-dioxo-1-naphthalenesulfonic acid
 [53130-54-4]

$C_{10}H_6O_5S$ M 238.220
 Gold orange cryst. Sol. H_2O .

Dioxime: [56496-20-9]. *5,6-Dihydro-5,6-bis(hydroxyimino)-1-naphthalenesulfonic acid, 9CI*

$C_{10}H_8N_2O_5S$ M 268.250

Used as 1mM aq. soln. for extraction-photometric detn. of Ni (λ_{max} 468 nm, ϵ 20600, $CHCl_3$). Cryst. Sol. H_2O .

Langenbeck, W. *et al*, *Chem. Ber.*, 1954, **87**, 496 (*synth*)

Tôei, K. *et al*, *Anal. Chim. Acta*, 1975, **75**, 323 (*dioxime, synth, detn, Ni*)

1,2-Naphthoquinone-6-sulfonic acid **N-00035**

5,6-Dihydro-5,6-dioxo-2-naphthalenesulfonic acid

$C_{10}H_6O_5S$ M 238.220
 Gold-orange cryst. Sol. H_2O .

Dioxime: [56496-21-0]. *5,6-Dihydro-5,6-bis(hydroxyimino)-2-naphthalenesulfonic acid, 9CI*

$C_{10}H_8N_2O_5S$ M 268.250

Used as 1mM aq. soln. for extraction-photometric detn. of Ni (λ_{max} 468 nm, ϵ 21900, $CHCl_3$). Cryst. Sol. H_2O .

Langenbeck, W. *et al*, *Chem. Ber.*, 1954, **87**, 496 (*synth*)

Tôei, K. *et al*, *Anal. Chim. Acta*, 1975, **75**, 323 (*synth, detn, Ni*)

1,2-Naphthoquinone-7-sulfonic acid **N-00036**

7,8-Dihydro-7,8-dioxo-2-naphthalenesulfonic acid

$C_{10}H_6O_5S$ M 238.220
 Orange yellow cryst. Sol. H_2O .

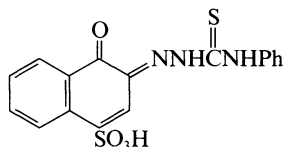
Dioxime: [56496-22-1]. *7,8-Dihydro-7,8-bis(hydroxyimino)-2-naphthalenesulfonic acid, 9CI*

$C_{10}H_8N_2O_5S$ M 268.250

Used as 1mM aq. soln. for extraction-photometric detn. of Ni. Cryst. Sol. H_2O .

Langenbeck, W. *et al*, *Chem. Ber.*, 1954, **87**, 496 (*synth*)

Tôei, K. *et al*, *Anal. Chim. Acta*, 1975, **75**, 323 (*dioxime, synth, detn, Ni*)

1,2-Naphthoquinone-4-sulfonic acid 2-(phenylthiosemicarbazone) **N-00037**

$C_{17}H_{13}N_3O_4S_2$ M 387.439

Na salt: [110484-52-1].

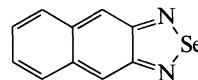
Used as 0.1% soln. in aq. DMF as an indicator in compleximetric (EDTA) titration of Pb, Cd, Bi and Zn (colour change: raspberry \rightarrow yellow). Dark red cryst. Sol. H_2O , DMF.

Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1987, **42**, 422 (*synth, use*)

Naphtho[2,3-c][1,2,5]selenadiazole, 9CI **N-00038**

Naphthoselenadiazole

[269-20-5]



$C_{10}H_6N_2Se$ M 233.131

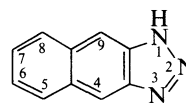
Used as 1mM soln. in EtOH for gravimetric and photometric detn. of Pd (λ_{max} 380 nm). Cryst. (pet. ether). Sol. EtOH. Mp 270° dec.

Kukor, P. *et al*, *Anal. Chim. Acta*, 1964, **30**, 473 (*props*)

Lau, H.K. *et al*, *Talanta*, 1970, **17**, 717 (*synth, detn, Pd*)

1H-Naphtho[2,3-d]triazole **N-00039**

[269-12-5]



$C_{10}H_7N_3$ M 169.185

Used as 2.5% soln. in dil. NH_3 for gravimetric, fluorimetric and photometric detn. of Ag. Yellow needles. Sol. NH_3 . Mp 187°.

I-Amino: [15300-56-8].

$C_{10}H_8N_4$ M 184.200

Cryst. (EtOH). Mp 207-208° dec.

Friedländer, P. *et al*, *Ber.*, 1894, **27**, 761.

Barton, J.W. *et al*, *J. Chem. Soc. C*, 1967, 1276 (*I-amino*)

Wheeler, G.L. *et al*, *Anal. Chim. Acta*, 1969, **46**, 239 (*synth, detn, Ag*)

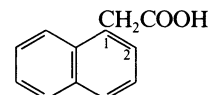
Rees, C.W. *et al*, *J. Chem. Soc. C*, 1969, 756 (*I-amino*)

(1-Naphthyl)acetic acid **N-00040**

1-Naphthaleneacetic acid, 8CI. Planofix. Phymone.

Fruitone N. Rootone. Regenasol. Tre-Hold

[86-87-3]



$C_{12}H_{10}O_2$ M 186.210

Used to promote rooting of plant cuttings. Rhinitic and choleric. Used as 2% soln. of K salt for gravimetric detn. of Th, Zr. Needles (H_2O). Mod. sol. alkalis; spar. sol. H_2O ; v. sol. Me_2CO , EtOH. Mp 134.5-135.5°, Mp 131°. Dec. on dist.

▷ Mod. irritant. QJ0875000.

Me ester: [2876-78-0].

$C_{13}H_{12}O_2$ M 200.237

Root growth promotor. Oil. Bp₁₁ 162-165°. $n_D^{25.5}$ 1.5939.

▷ QJ1225000.

Et ester: [2122-70-5].

$C_{14}H_{14}O_2$ M 214.263

Used to promote root growth and to prevent sprouting from tree trunks. Oil. Bp₂₀ 220-225°, Bp_{0.1-0.2} 100-105°.

▷ QJ0948000.

Chloride: [5121-00-6].

$C_{12}H_9ClO$ M 204.655

Yellow oil. Bp₂₃ 188°, Bp_{0.05} 148-155°.

Amide: [86-86-2].

$C_{12}H_{11}NO$ M 185.225

Needles. Subl. 181-183°.

▷ QJ0590000.

Nitrile: [132-75-2]. *1-(Cyanomethyl)naphthalene*

$C_{12}H_9N$ M 167.210

Waxy solid. Mp 32-33°. Bp 162-164°, Bp₁₈ 191-194°. n_D^{20} 1.6192.

▷ AM1240000.

[61-31-4, 15165-79-4]

Gardiner, F.E. *et al.*, *Science (Washington, D.C.)*, 1939, **90**, 208 (use)

Ogata, Y. *et al.*, *J. Am. Chem. Soc.*, 1950, **72**, 4302 (synth)

Hitzenberger, G. *et al.*, *Wien. Med. Wochenschr.*, 1958, **108**, 504; 1959, **109**, 707 (pharmacol)

Org. Synth., 1970, **50**, 77 (synth, ester)

Gore, R.C. *et al.*, *J. Assoc. Off. Anal. Chem.*, 1971, **54**, 1040 (uv, ir)

Pande, C.S. *et al.*, *Fresenius' Z. Anal. Chem.*, 1972, **262**, 365; 1973, **265**, 31 (detn, Zr, Th)

Rajan, S.S., *Acta Crystallogr., Sect. B*, 1978, **34**, 998 (cryst struct) *Pesticide Manual*, 6th Ed., 1979, 376.

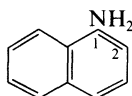
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NAK000, NAK500, NBD500.

1-Naphthylamine, 8CI

N-00041

1-Naphthalenamine, 9CI. α -Naphthylamine. 1-Aminonaphthalene

[134-32-7]



$C_{10}H_9N$ M 143.188

Coupling agent for manuf. of azo dyestuffs. Used as aq. soln. for photometric detn. of NO_2^- (λ_{max} 520 nm, ϵ 40000) (Griess method). Reagent for the hplc detn. of fatty acids. Needles (EtOH aq. or Et₂O). V. sol. EtOH, Et₂O, v. spar. sol. H₂O. Mp 50°. Bp 300.8°. pK_a 10.00. Sublimes, steam-volatile.

▷ Toxic by inhalation or skin absorption. Possible carcinogen; samples often contaminated with the highly carcinogenic 2-isomer. Use controlled in the U.K. by the Carcinogenic Substances Regulations 1967. QM1400000.

B,HCl: Sol. EtOH, sl. sol. H₂O. Sublimes.

Picrate: Greenish-yellow prisms (EtOH). Mp 182° dec.

Ac: [575-36-0]. *N-1-Naphthylacetamide. N-1-Naphthalenylacetamide, 9CI*

$C_{12}H_{11}NO$ M 185.225

Used as 0.15M soln. in $CHCl_3$ for extraction-photometric detn. of Au(III) (λ_{max} 395 nm, ϵ 4100, $Br^{2-}/5M HCl$). Cryst. (EtOH). Sol. $CHCl_3$. V. sol. EtOH; mod. sol. hot H₂O. Mp 160°.

N-Me: Oil. Bp 293-296°, Bp₁₆ 175-176°. Darkens in air.

N-Et:

$C_{12}H_{13}N$ M 171.241

Bp 325-330°, Bp₁₀ 159.5-160.5°.

N-Et; B,HCl: [36101-15-2].

Mp 193°.

N-Di-Et: [84-95-7].

d_{20}^{20} 1.015. Bp 285°, Bp 290°, Bp₃₀ 155-165°. Darkens in air.

N-Ph: see *N-Phenyl-1-naphthylamine, P-00151*

Benzoyl:

$C_{17}H_{13}NO$ M 247.296

Needles (EtOH or AcOH). Sol. AcOH; spar. sol. EtOH. Mp 162°.

N-(4-Methylbenzenesulfonyl): Prisms (EtOH). Mp 147°.

N-2,4-Dinitrophenyl: Orange-red needles (EtOH). Mp 190.5°.

West, R.W., *J. Chem. Soc.*, 1925, **127**, 494 (synth)

Emerson, W.S. *et al.*, *J. Am. Chem. Soc.*, 1941, **63**, 749 (deriv)

Ahriner, R.L. *et al.*, *Chem. Rev.*, 1944, **35**, 351 (synth)

Vogel, A.I., *Practical Organic Chemistry*, Longmans Green, N.Y., 1948, 546 (synth)

Barnes, H. *et al.*, *Analyst (London)*, 1951, **79**, 599 (detn, NO_2^-)

Snyder, H.R., *J. Am. Chem. Soc.*, 1953, **75**, 2014 (detn, synth)

Albert, F.M. *et al.*, *Fresenius' Z. Anal. Chem.*, 1964, **202**, 420 (detn, V)

CRC Atlas of Spectral Data and Physical Constants, 1973 (ir, uv, ms, nmr)

Fox, J.B., *Anal. Chem.*, 1979, **51**, 1493 (detn, NO_2^-)

Ikeda, M. *et al.*, *J. Chromatogr.*, 1983, **272**, 251 (use)

Patel, K.S. *et al.*, *Anal. Chem.*, 1986, **58**, 1547 (detn, Au)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 407.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NBE000.

2-Naphthylamine, 8CI

N-00042

2-Naphthalenamine, 9CI. β -Naphthylamine. 2-Aminonaphthalene

[91-59-8]

$C_{10}H_9N$ M 143.188

Formerly used as a coupling agent for the prep. of azo dyestuffs and in rubber manuf. Manuf. and use now banned owing to carcinogenic properties. Acid-base fluorescent indicator (pH range: 2.8-4.4). Leaflets (H₂O). Sol. H₂O. Mp 113°. Bp 294°. pK_a 9.69. Steam-volatile.

▷ Human carcinogen. Use in the UK prohibited under the Carcinogenic Substances Regulations 1967. QM2100000.

B,HCl: [612-52-2].

Sol. H₂O, EtOH, insol. C₆H₆. Mp 254°.

Picrate: [20717-84-4].

Yellow needles (H₂O). Mp 195° dec.

Ac: [581-97-5].

$C_{12}H_{11}NO$ M 185.225

Leaflets (H₂O or EtOH). Mp 134°.

▷ AC6482700.

Benzoyl: [18271-22-2].

$C_{17}H_{13}NO$ M 247.296

Mp 163°.

4-Methylbenzenesulfonyl: Needles and leaflets (EtOH). Mp 133°.

N-Me: [2216-67-3].

$C_{11}H_{11}N$ M 157.215

Oil. Bp 317°, Bp₁₂ 165-170°.

N-Me; B,HCl: Mp 182-183°.

N-Et: [2437-03-8].

$C_{12}H_{13}N$ M 171.241

Mp 26-28°. Bp 316-317°, Bp_{0.1} 102-103°.

N-Et; B,HCl: Plates. Mp 138°.

N-Di-Et: [13672-17-8].

$C_{14}H_{17}N$ M 199.295

Oil. d_{20}^{20} 1.022. Bp₇₁₇ 316°, Bp_{0.2} 122-128°.

N-Di-Et; B,HCl: Mp 177-178°.

Ger. Pat., 117 471, (1901); *Chem. Zentralbl.*, 1901, **1**, 349 (synth)

Vogel, A.I., *Practical Organic Chemistry*, Longmans Green, N.Y., 1948, 547 (synth)

Snyder, H.R. *et al.*, *J. Am. Chem. Soc.*, 1953, **75**, 2014 (synth)

Ainsworth, C., *J. Am. Chem. Soc.*, 1956, **78**, 1635 (derivs)

Parfitt, R.T., *J. Chem. Soc. C*, 1967, 140 (deriv)

CRC Atlas of Spectral Data and Physical Constants, 1973 (ir, uv)

Holzbecher, Z. *et al.*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (use, ind)

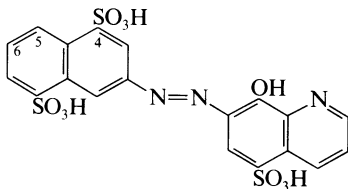
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 407.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NBE500.

Naphthylazoxine 4S

N-00043

8-Hydroxy-7-[(4-sulfo-2-naphthalenyl)azo]-5-quinolinesulfonic acid. 7-(4-Sulfo-2-naphthylazo)-8-hydroxy-5-quinolinesulfonic acid



$C_{19}H_{13}N_3O_7S_2$ M 459.460

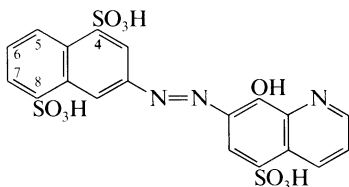
Used as a 0.1% aq. soln. as metallochromic indicator for titrimetric detn. of Ga, In. Dark red cryst. powder. Sol. H_2O .

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (detn, Ga, In)

Naphthylazoxine 4,8S

N-00044

3-[(8-Hydroxy-5-sulfo-7-quinolinylo)azo]-1,5-naphthalenedisulfonic acid. 7-(4,8-Disulfo-2-naphthylazo)-8-hydroxy-5-quinolinesulfonic acid



$C_{19}H_{13}N_3O_{10}S_3$ M 539.524

Used as a 0.5-50mM aq. soln. as metallochromic indicator for titrimetric detn. of Ga, In; photometric detn. of Sc (λ_{max} 420 nm, ϵ 14500). Dark red cryst. Sol. H_2O , alkalis, conc. acids, DMF; spar. sol. EtOH; insol. C_6H_6 .

Busev, A.I. et al, *Zh. Anal. Khim.*, 1962, **17**, 447, 831; 1965, **20**, 1069 (synth, detn, Ga, Sc, In)

Naphthylazoxine 5S

N-00045

8-Hydroxy-7-[(5-sulfo-2-naphthalenyl)azo]-5-quinolinesulfonic acid. 7-(5-Sulfo-2-naphthylazo)-8-hydroxyquinoline-5-sulfonic acid

$C_{19}H_{13}N_3O_7S_2$ M 459.460

Used as 0.5-50mM aq. soln. as metallochromic indicator for titrimetric detn. of Ga, In; photometric detn. of Sc (λ_{max} 420 nm, ϵ 14100). Dark red cryst. Sol. H_2O .

Busev, A.I. et al, *Zh. Anal. Khim.*, 1962, **17**, 447, 831; 1965, **20**, 1069 (synth, detn, In, Ga, Sc)

Naphthylazoxine 5,7S

N-00046

6-[(8-Hydroxy-5-sulfo-7-quinolinylo)azo]-1,3-naphthalenedisulfonic acid, 9CI. 7-(5,7-Disulfo-2-naphthylazo)-8-hydroxy-5-quinolinesulfonic acid [6098-94-8]

$C_{19}H_{13}N_3O_{10}S_3$ M 539.524

Used as a 0.5-50mM aq. soln. as metallochromic indicator for titrimetric detn. of Ga, In, Tl. Dark red cryst. Sol. H_2O .

Busev, A.I. et al, *Uzb. Khim. Zh.*, 1962, **6**, 24; *CA*, **57**, 15799 (detn, Tl)

Busev, A.I. et al, *Zh. Anal. Khim.*, 1962, **17**, 447, 831 (synth, detn, Ga, In)

Naphthylazoxine 6S

N-00047

8-Hydroxy-7-[(6-sulfo-2-naphthalenyl)azo]-5-quinolinesulfonic acid, 9CI. 7-(6-Sulfo-2-naphthylazo)-8-hydroxyquinoline-5-sulfonic acid. Naphthylazoxine S [56932-43-5]

$C_{19}H_{13}N_3O_7S_2$ M 459.460

Used as a 0.5% aq. soln. as metallochromic indicator for titrimetric detn. of Ca, Cd, Cu, Hg, Zn. Orange-red cryst. Sol. H_2O .

Fritz, J.S. et al, *Anal. Chem.*, 1961, **33**, 1381 (use)

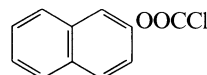
Vytras, K. et al, *Talanta*, 1975, **22**, 529 (use)

2-Naphthyl chloroformate

N-00048

2-Naphthalenyl carbonochloridate, 9CI

[7693-50-7]



$C_{11}H_7ClO_2$ M 206.628

Reagent for the hplc resoln. of pharmaceutical amines.

Cryst. (pet. ether). Mp 66°. Bp₉ 150-152°.

Wolf, G. et al, *J. Am. Chem. Soc.*, 1951, **73**, 2080 (synth)

Guebitz, G. et al, *J. Chromatogr.*, 1981, **218**, 51 (use)

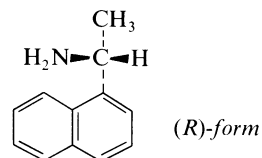
Doyle, T.D. et al, *J. Liq. Chromatogr.*, 1986, **9**, 455 (use)

1-(1-Naphthyl)ethylamine

N-00049

α -Methyl-1-naphthalenemethanamine, 9CI. 1- α -Aminoethyl-naphthalene. 1-Methyl- α -naphthylmethylamine. 1-Amino-1-(1-naphthyl)ethene

[3309-13-5]



$C_{12}H_{13}N$ M 171.241

(*R*)-form [3886-70-2]

Used to determine the enantiomeric purity of org. acids.

Bp₁₁ 153°. $[\alpha]_D^{17} + 82.8^\circ$, $[\alpha]_D^{19} + 61.6^\circ$ (EtOH).

Oxalate: Mp 240°.

(*S*)-form [10420-89-0]

Resolving agent. $[\alpha]_D^{25} - 80.8^\circ$, $[\alpha]_D^{25} - 60.8^\circ$ (EtOH).

B.HCl: Cryst. (H_2O). $[\alpha]_D^{18} + 3.9^\circ$ (c, 3 in H_2O).

Oxalate: Mp 232° dec.

(\pm)-form [42882-31-5]

Bp₁₅ 156°.

Oxalate: Mp 221° dec.

Samuelsson, E., *CA*, 1924, **18**, 1833.

Blicke, F.F. et al, *J. Am. Chem. Soc.*, 1939, **61**, 1780.

Warren, M.E. et al, *J. Am. Chem. Soc.*, 1965, **87**, 1757 (abs config)

Halpern, B. et al, *J. Chem. Soc., Chem. Commun.*, 1966, **34**

(resoln)

Murano, A. et al, *Agric. Biol. Chem.*, 1973, **76**, 437 (resoln)

Menicagli, R. et al, *Chem. Ind. (London)*, 1974, 920 (abs config)

Smith, H.E. et al, *J. Org. Chem.*, 1974, **39**, 2309.

Pirkle, W.H. et al, *J. Org. Chem.*, 1974, **39**, 3904 (nmr)

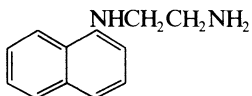
Eberhardt, R. et al, *Tetrahedron Lett.*, 1974, 4365 (use)

Org. Synth., 1976, **55**, 80 (synth)

Westley, J.W. et al, *J. Am. Chem. Soc.*, 1977, **99**, 6057 (resoln)

Trost, B.M. et al, *J. Chem. Soc., Chem. Commun.*, 1978, 436.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 355.

N-(1-Naphthyl)ethylenediamine, 8CI**N-00050**N-1-Naphthalenyl-1,2-ethanediamine, 9CI. 1-Amino-2-(α -naphthylamino)ethane $C_{12}H_{14}N_2$ M 186.256Used in photography. Used as 0.1% aq. soln. for extraction-photometric detn. of NO_2^- (λ_{max} 545 nm, ϵ 60400) (formation of azo dye). Viscous, straw-yellow liq. Sol. H_2O . d_4^{25} 1.114. Bp ca. 320° dec., Bp₉ 204°.

▷ Carcinogen.

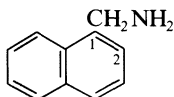
B,2HCl: [1465-25-4].

Mp 188-190°, Mp 209-210°.

▷ KV5330000.

Bratton, A.C. et al, *J. Biol. Chem.*, 1939, **128**, 537 (synth)Natetskaya, G. et al, *CA*, 1969, **71**, 12867s (use)East Ger. Pat., 69 131, (1969); *CA*, **72**, 78764h (synth)Chaube, A. et al, *Talanta*, 1984, **31**, 391 (use)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NBH500.**1-Naphthylmethylamine****N-00051**

1-Naphthalenemethanamine, 9CI. 1-Naphthalenemethylamine, 8CI. 1-(Aminomethyl)naphthalene [118-31-0]

 $C_{11}H_{11}N$ M 157.215Liq. d 1.073. Bp 290-293°, Bp_{0.3} 135°. n_D^{20} 1.6429.

B,HCl: [39110-74-2].

Mp 262-264°.

N-Ac: [19351-91-8].

 $C_{13}H_{13}NO$ M 199.252

Needles (ligroin). Mp 134°.

N-Methyl: [14489-75-9].

Used as fluorescent reagent for hplc analysis of isocyanates. Liq. Bp_{0.3} 90°, Bp_{0.02} 71-81°.

N-Methyl, B,HCl: [65473-13-4].

Cryst. (EtOH/Et₂O). Mp 189.5-190°.

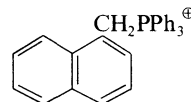
N-Benzyl: [14393-12-5]. N-Benzyl-1-naphthalenemethylamine, 8CI

 $C_{18}H_{17}N$ M 247.339Used for gravimetric detn. of NO_3^- . Mp 167° (as hydrochloride).

[17018-72-3]

Blicke, F.F. et al, *J. Am. Chem. Soc.*, 1939, **61**, 1780.Baltzly, R. et al, *J. Am. Chem. Soc.*, 1943, **65**, 1984 (synth, N-methyl)Dahn, H. et al, *Helv. Chim. Acta*, 1952, **35**, 1348 (synth, N-methyl)Chapman, N.B. et al, *J. Chem. Soc.*, 1953, 1865 (synth, N-methyl)Mandel, L. et al, *Bull. Soc. Chim. Fr.*, 1959, 352.Najer, H. et al, *J. Org. Chem.*, 1963, **28**, 574 (synth, bibl)Hutton, R.C. et al, *J. Chem. Soc. A*, 1966, 1573 (N-benzyl, use)Kormos, L.H. et al, *Anal. Chem.*, 1981, **53**, 1122 (synth, use, N-methyl)Ebmeyer, F. et al, *Chem. Ber.*, 1989, **122**, 1725 (synth, nmr)**(1-Naphthylmethyl)****N-00052****triphenylphosphonium(1+)**

(1-Naphthalenylmethyl)triphenylphosphonium(1+), 9CI

 $C_{29}H_{24}P^+$ M 403.482 (ion)

Chloride: [23277-00-1].

 $C_{29}H_{24}ClP$ M 438.935Source of ylide. Used as 0.5% aq. soln. for extraction-photometric detn. of Cr(VI) (λ_{max} 355 nm, ϵ 2900, 1,2-dichlorobenzene) and Bi (as BiI_4^-). Plates (EtOH). Sol. H_2O . Mp 291-301°. NaOMe → ylide.

Bromide: [39171-65-8].

 $C_{29}H_{24}BrP$ M 483.386

Source of ylide. Cryst. Mp 286-288°. NaOMe → ylide.

Ylide: [60824-80-8]. 1-

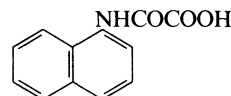
Naphthalenylmethylenetriphenylphosphorane. (1-Naphthylmethylene)triphenylphosphorane

 $C_{29}H_{23}P$ M 402.474

Used in Wittig reactions.

Francis, G.W., *Acta Chem. Scand.*, 1972, **26**, 2969 (ylide, use)Yasuhara, A. et al, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 3638 (chloride, synth, detn, Bi, Cr)Tinnemans, A.H.A. et al, *J. Chem. Soc., Perkin Trans. 2*, 1976, 1104 (bromide, use)Reid, W. et al, *Justus Liebig's Ann. Chem.*, 1976, 1415 (ylide, use)Burns, D.T. et al, *Anal. Chim. Acta*, 1985, **177**, 253; 1988, **244**, 305 (detn, Cr, Bi)**1-Naphthylloxamic acid, 8CI****N-00053**

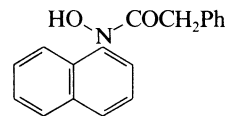
[21660-76-4]

 $C_{12}H_9NO_3$ M 215.208

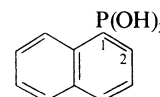
Used for gravimetric detn. of Cu; complexing agent for Cu. Cryst.

Tandon, J.P. et al, *Indian J. Chem.*, 1968, **6**, 334 (detn, Cu)Prakash, O. et al, *CA*, 1969, **70**, 33964r (use)**N-1-Naphthylphenylacetohydroxamic acid****N-00054**

[36237-38-4]

 $C_{18}H_{15}NO_2$ M 277.322Used as 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 505 nm, ϵ 4000, 4M HCl). Cryst. Sol. $CHCl_3$, C_6H_6 .Gupta, V.K. et al, *J. Chem. Eng. Data*, 1972, **17**, 248 (synth)Gupta, V.K. et al, *Anal. Chim. Acta*, 1973, **66**, 39 (detn, V)**1-Naphthylphosphonous acid****N-00055**

1-Naphthalenylphosphonous acid, 9CI

 $C_{10}H_9O_2P$ M 192.154

Free acid exists as the phosphoryl tautomer.

Di-Me ester: Dimethyl 1-naphthylphosphonite

$C_{12}H_{13}O_2P$ M 220.207

Liq. d_4^{20} 1.16. n_D^{20} 1.6096.

Di-Et ester: [84372-47-4]. Diethyl 1-naphthylphosphonite

$C_{14}H_{17}O_2P$ M 248.261

Liq. d_4^{20} 1.10. Bp_{10} 167-168°. n_D^{20} 1.5848.

Diisopropyl ester: Diisopropyl 1-naphthylphosphonite

$C_{16}H_{21}O_2P$ M 276.314

Liq. d_4^{20} 1.07. Bp_{12} 176-178°. n_D^{20} 1.5648.

Di-Ph ester: Diphenyl 1-naphthylphosphonite

$C_{22}H_{17}O_2P$ M 344.349

Liq. d_4^{15} 1.19. Bp_{10} 245-247°. n_D^{15} 1.6178.

Dichloride: [36043-00-2]. Dichloro-1-naphthylphosphine

$C_{10}H_7Cl_2P$ M 229.044

Used as a complexing reagent for Ir(III), Rh(III). Solid.

Sol. C_6H_6 , $CHCl_3$. Mp 55°. Bp_{10} 180°, $Bp_{0.5}$ 135-137°.

Dibromide: [32186-90-6]. Dibromo-1-naphthylphosphine

$C_{10}H_7Br_2P$ M 317.947

Solid. Mp 65-68°.

Kamai, G. *et al*, *CA*, 1957, **51**, 11273 (*ester*)

Green, M. *et al*, *J. Chem. Soc.*, 1958, 3129 (*dichloride, ester, synth*)

Kamai, G. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 3311), 1961,

31, 3550 (*esters*)

Duff, J.M. *et al*, *J. Chem. Soc., Dalton Trans.*, 1972, 2219

(*dichloride, synth, pmr*)

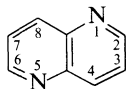
Weinberg, K.G., *J. Org. Chem.*, 1975, **40**, 3586 (*dichloride*)

1,5-Naphthyridine, 9CI

N-00056

Pyrido[3,2-b]pyridine. 1,5-Diazanaphthalene

[254-79-5]



$C_8H_6N_2$ M 130.149

Used as a 0.75M soln. in 1M HCl for microcryst. detn. of Au and Pt group metals. Yellow needles (pet. ether). V. sol. all solvs. Mp 75°. Bp_{15} 112°. Readily subl. Steam-volatile.

B, H₂SO₄: Sol. H₂O, EtOH. Mp ca. 218° dec.

Picrate: Sol. H₂O, EtOH. Mp 200°.

1-Oxide: [27305-48-2].

$C_8H_6N_2O$ M 146.148

Cryst. (cyclohexane). Mp 125-127°.

1,5-Dioxide: [27305-49-3].

$C_8H_6N_2O_2$ M 162.148

Yellow clusters (EtOH). Mp 299-301°.

[38710-24-6]

Allan, C.F.H., *Chem. Rev.*, 1950, **47**, 275 (*rev*)

Schaeffer, H.E. *et al*, *Microchem. J.*, 1969, **14**, 415 (*use*)

Paudler, W.W., *Adv. Heterocycl. Chem.*, 1973, **11**, 123 (*rev*)

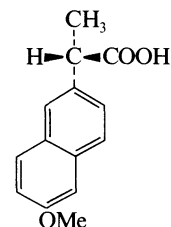
Naproxen, BAN, USAN, INN, JAN

N-00057

6-Methoxy- α -methyl-2-naphthaleneacetic acid, 9CI, 8CI. 2-(6-Methoxy-2-naphthyl)propanoic acid. Naprosyn.

Methoxypropriocin. Equiproxen. Numerous proprietary names

[23981-80-8]



$C_{14}H_{14}O_3$ M 230.263

(*S*)-*form* [22204-53-1]

Antiinflammatory, analgesic, antipyretic. Used as derivatisation reagent for gc resolution of amino acid methyl esters. Mp 155.3°. $[\alpha]_D +65.5^\circ$ (c, 1 in $CHCl_3$).

▷ UF5275000.

Na salt: [26159-34-2]. *Naproxen Sodium, USAN. Anaprox. Other synonyms*

▷ QJ1047000.

(±)-*form* [26159-31-9]

Mp 150-151°.

[70981-66-7]

Harrison, I.T. *et al*, *J. Med. Chem.*, 1970, **13**, 203 (*synth*)

Riegl, J. *et al*, *J. Med. Chem.*, 1974, **17**, 377 (*abs config*)

Dorfman, R.I., *Arzneim.-Forsch.*, 1975, **25**, 281 (*rev*)

Lombardino, J.G. *et al*, *Arzneim.-Forsch.*, 1975, **25**, 1629 (*props*)

Elden, F. *et al*, *Pharm. Ztg.*, 1978, **123**, 1796 (*w, ir, pmr*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2672, 2673.

Arai, N. *et al*, *Tetrahedron Lett.*, 1983, **24**, 1531 (*synth*)

Ravikumar, K. *et al*, *Acta Crystallogr., Sect. C*, 1985, **41**, 280 (*cryst struct*)

Gu, Q.-M. *et al*, *Tetrahedron Lett.*, 1986, **27**, 1763 (*synth*)

Piccolo, O. *et al*, *J. Org. Chem.*, 1987, **52**, 10 (*synth*)

Castaldi, G. *et al*, *J. Org. Chem.*, 1987, **52**, 3018 (*synth*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 3107.

Buyuktimkin, N. *et al*, *Chromatographia*, 1988, **25**, 927 (*use*)

Shishido, K. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1990, 469 (*synth*)

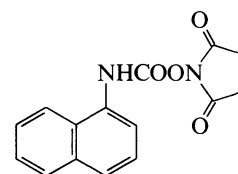
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MFA500, NBO550.

1-[[[(1-Naphthalenylamino)carbonyl]oxy]-2,5-pyrrolidinedione, 9CI

N-00058

Succinimide α -naphthylcarbamate. SINC

[103835-64-9]



$C_{15}H_{12}N_2O_4$ M 284.271

Reagent for fluorimetric anal. of amines and amino acids.

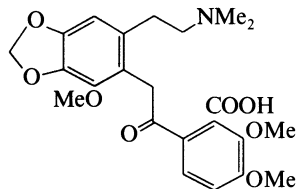
Cryst. (C_6H_6/Me_2CO).

Nimura, N. *et al*, *Anal. Chem.*, 1986, **58**, 2372 (*synth, use*)

Iwaki, K. *et al*, *J. Chromatogr.*, 1987, **407**, 273 (*use*)

Narceine**N-00059**

6-[[6-[2-(Dimethylamino)ethyl]-4-methoxy-1,3-benzodioxol-5-yl]acetyl]-2,3-dimethoxybenzoic acid, 9CI
[131-28-2]



$C_{23}H_{27}NO_8$ M 445.468

Alkaloid from *Papaver somniferum* (Papaveraceae).

Respiratory stimulant, antitussive agent. Shows no analgesic activity. Antihypertensive agent. Intestinal smooth muscle stimulant. Reagent for I_2 . Cryst. (MeOH/Et₂O or H₂O). Mp 176-178° (trihydrate), Mp 145° (anhyd.).

B,HCl: Mp 192-193°.

Picrate: Mp 195°.

B,MeI: Mp 207°.

N-De-Me: [483-89-6]. **Nornarceine**

$C_{22}H_{25}NO_8$ M 431.441

Alkaloid from *P. somniferum* (Papaveraceae). Mp 229° (223-225°).

Rabe, P. *et al*, *Justus Liebigs Ann. Chem.*, 1910, **377**, 223 (*struct*, *bibl*)

Addinall, C.R. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 1202, 2153 (*isol*, *synth*)

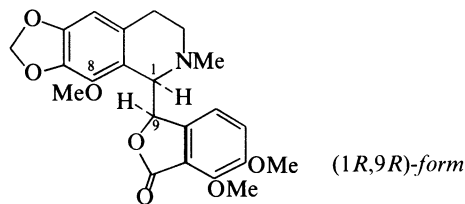
Briggs, L.H. *et al*, *Anal. Chem.*, 1957, **29**, 904 (*ir*)

Klötzer, W. *et al*, *Monatsh. Chem.*, 1972, **103**, 1210 (*synth*, *uv*, *ir*, *pmr*)

Blaskó, G. *et al*, *J. Org. Chem.*, 1982, **47**, 880 (*synth*, *uv*, *pmr*)

Narcotine**N-00060**

6,7-Dimethoxy-3-(5,6,7,8-tetrahydro-4-methoxy-6-methyl-1,3-dioxolo[4,5-g]isoquinolin-5-yl)-1(3H)-isobenzofuranone, 9CI. **Noscopine**, **BAN**, **INN**. **Gnoscopine**. **Opianine**.
Numerous proprietary names



$C_{22}H_{23}NO_7$ M 413.426

(1*R*,9*R*)-*form* [3860-46-6]

(-)- β -Narcotine

Synthetic. Mp 181-182° (176°). $[\alpha]_D^{22}$ -100° (c, 1 in dioxan), $[\alpha]_D^{20}$ -87.5° (c, 1 in CHCl₃).

▷ NP7224500.

(1*R*,9*S*)-*form* [128-62-1]

(-)- α -Narcotine

Alkaloid from *Corydalis cava* (*C. tuberosa*), *Papaver fugax*, *P. paeoniflorum*, *P. persicum* and *P. somniferum*. By prod. in extraction of morphine from opium. One of the first alkaloids to be isol. (Fumariaceae, Papaveraceae). Antitussive agent, of similar potency to and poss. with some advantages over codeine. Mod. effective smooth muscle relaxant. Reference material used in elemental microanalysis. Stout needles (EtOH).

Mp 176°. $[\alpha]_D$ -200° (CHCl₃). Polymorphic. This is prob. the only nat. occurring stereoisomer but it readily epimerises to (-) β -Narcotine which may be isol. as an artifact. Opt. rotn. highly solv. and concn. dependent.

▷ RD2625000.

[912-60-7]

Robiquet, M., *Ann. Chim. (Paris)*, 1817, **5**, 275 (*isol*)

Perkin, W.H. *et al*, *J. Chem. Soc.*, 1911, **99**, 775 (*synth*, *resoln*)

Ohta, M. *et al*, *Tetrahedron Lett.*, 1963, 859 (*abs config*)

Ohta, M. *et al*, *Chem. Pharm. Bull.*, 1964, **12**, 1080 (*isol*)

Battersby, A.R. *et al*, *J. Chem. Soc.*, 1965, 1087 (*abs config*)

Snatzke, G. *et al*, *Tetrahedron*, 1969, **25**, 5059 (*ord*)

Analyst (London), 1972, **97**, 740 (*microanal*)

Kametani, T. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1977, 374 (*synth*)

Shono, T. *et al*, *J. Org. Chem.*, 1983, **48**, 1621 (*synth*)

Moss, D.S. *et al*, *Acta Crystallogr., Sect. C*, 1984, **40**, 1960 (*cryst struct*)

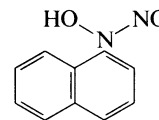
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NBP275, NOA000, NOA500.

Neocupferron**N-00061**

N-Hydroxy-N-nitroso-1-naphthylamine, 9CI.

Nitrosonephthylhydroxylamine

[5487-14-9]



$C_{10}H_8N_2O_2$ M 188.185

Strictly, the name Neocupferron applies to the ammonium salt. Cryst. Mp 55°.

NH₄ salt: [1013-20-3].

Used as 0.2*M* aq. soln. for gravimetric detn. of Cu, Fe Al, rare earth elements. Yellowish cryst. Sol. H₂O (6.0 g per 100 cm³ at 25°). Mp 125-126° dec.

▷ NC4375000.

Baudisch, O. *et al*, *Fresenius' Z. Anal. Chem.*, 1940, **119**, 241 (*synth*, *dtn*, Cu, Al, Fe)

Popov, A.I. *et al*, *Anal. Chem.*, 1954, **26**, 883 (*dtn*, rare earth elements)

Wendlandt, W.W. *et al*, *Anal. Chim. Acta*, 1955, **13**, 550 (*thermolysis*)

Minisci, F. *et al*, *Chim. Ind. (Milan)*, 1964, **46**, 423 (*synth*)

Neocuprizone**N-00062**

Ethanedione bis[(3-ethoxy-1-methyl-3-oxopropylidene)hydrazide], 9CI

[20260-35-9]



$C_{14}H_{22}N_4O_6$ M 342.351

Used as a 0.5% soln. in 50% MeOH for photometric detn. of Cu (λ_{max} 585 nm; ϵ 13900). Cryst. Hydrolyses on heating with alkalis and acids.

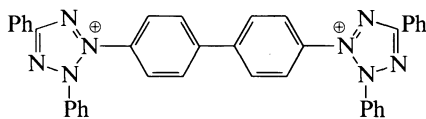
Ackermann, G. *et al*, *Fresenius' Z. Anal. Chem.*, 1968, **234**, 409.

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982.

Neotetrazolium(2+)**N-00063**

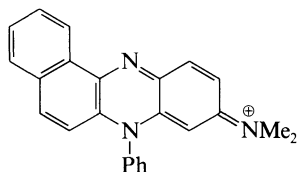
3,3'-[1,1'-Biphenyl]-4,4'-diylbis[2,5-diphenyl-2H-tetrazolium] (2+), 9CI

 $C_{38}H_{28}N_8^{2\oplus}$ M 596.693 (ion)

Dichloride: [298-95-3].

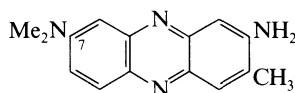
 $C_{38}H_{28}Cl_2N_8$ M 667.598Used as 0.4% soln. in aq. EtOH for extraction-photometric detn. of Co (λ_{max} 620 nm, ϵ 64000), Mo (λ_{max} 420 nm, ϵ 14300). Cryst. Sol. EtOH. Mp 230° dec.Singh, A.K. *et al*, *Anal. Chim. Acta*, 1985, **172**, 303 (detn. Co)Singh, A.K. *et al*, *Analyst (London)*, 1985, **110**, 751 (detn. Mo)**Neutral blue****N-00064**

9-(Dimethylamino)-7-phenylbenzo[a]phenazinium(1+), 9CI. C.I. 50150 basic dye

 $C_{24}H_{20}N_3^{\oplus}$ M 350.442 (ion)

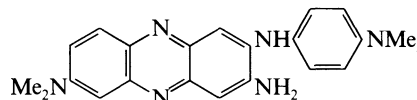
Strictly the name Neutral blue applies to the chloride.

Chloride: [6363-69-5].

 $C_{24}H_{20}ClN_3$ M 385.895Used as redox indicator. Cryst. (ethylene dibromide). Sol. H₂O, EtOH, conc. H₂SO₄. E° +0.170 V (30°).Stiehler, R.D. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 4097 (props)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)**Neutral red****N-00065** $N^8, N^8, 3$ -Trimethyl-2,8-phenazinediamine, 9CI. C.I. Basic red 5. Toluylene red. C.I. 50040. Nuclear fast red (basic dye) [366-13-2] $C_{15}H_{16}N_4$ M 252.318

Strictly the name Neutral red applies to the hydrochloride.

B,HCl: [553-24-2].

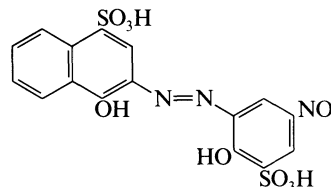
Histological stain used as 0.1% aq. soln. as indicator in bromatometric titrimetric detn. of As(III); acid-base indicator (pH range: 6.8-8.0; colour change: orange → yellow); photometric detn. of Cl[⊖], Hg(II), SCN[⊖], ClO₄[⊖], I[⊖] (λ_{max} 552 nm, ϵ 3300, CHCl₃). Black or v. dark green powder. Sol. H₂O, EtOH. Mp 290° dec. λ_{max} 540 nm. E° -0.34V (pH 7).Tsubouchi, M., *Anal. Chim. Acta*, 1971, **54**, 143 (detn. SCN[⊖], ClO₄[⊖], Hg)Colour Index, 3rd Ed., 1971, **4**, 4446 (synth)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (detn. I[⊖], ind)Venkateswara Rao, N. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **285**, 125 (detn. As)Ramana, P.V. *et al*, *J. Indian Chem. Soc.*, 1980, **57**, 235 (detn. As)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AJQ250.**Neutral violet****N-00066**N²-[4-(Dimethylamino)phenyl]-N⁷,N⁷-dimethyl-2,3,7-phenazinetriamine. 3-Amino-7-(dimethylamino)-2-[4-(dimethylamino)anilino]phenazine. C.I. 50030 $C_{22}H_{24}N_6$ M 372.472

Azine dye. Strictly, the name Neutral violet applies to the hydrochloride.

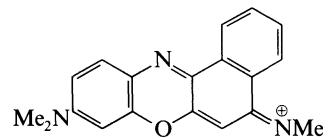
B,HCl: [3562-46-7].

Used as an indicator (0.1% aq. soln.) in bromatometric titrimetric detn. of As(III). Dark reddish blue cryst. powder. Sol. H₂O.Venkateswara Rao, N. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **285**, 125 (use)Ramana, P.V. *et al*, *J. Indian Chem. Soc.*, 1980, **57**, 235 (use)**Nevozol NS****N-00067**

4-Hydroxy-3-[(2-hydroxy-5-nitro-3-sulphophenyl)azo]-1-naphthalenesulfonic acid, 8CI [24801-50-1]

 $C_{16}H_{11}N_3O_{10}S_2$ M 469.409Used as 0.3% aq. soln. for photometric detn. of V(IV) (λ_{max} 565 nm, ϵ 15000); as a 0.6mM aq. soln. for photometric detn. of Ga (λ_{max} 540 nm, ϵ 15400); as 0.1% aq. soln. for photometric detn. of Al (λ_{max} 540 nm, ϵ 10800, pH 2.5-4). Red-brown cryst. Sol. H₂O, EtOH. pK_{a2} 3.46; pK_{a3} 9.1.Basargin, N.N. *et al*, *Zavod. Lab.*, 1969, **35**, 411 (synth, use, detn. V)Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 2350 (detn. Ga)Ermolenko, L.V. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1030 (synth, detn. Al)**New methylene blue NCG****N-00068**

5,9-Bis(dimethylamino)benzo[a]phenoxazin-7-ium(1+). N-[9-(Dimethylamino)-5H-benzo[a]phenoxazin-5-ylidene]-N-methylmethanaminium(1+). C.I. 51195

 $C_{20}H_{20}N_3O^{\oplus}$ M 318.397 (ion)

Basic dye.

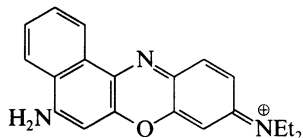
Chloride: [62770-30-3].

 $C_{20}H_{20}ClN_3O$ M 353.850Used as redox indicator (pH range: 3.85-8.50). Cryst. Sol. H₂O, EtOH.Lefort, M., *C. R. Seances Soc. Biol. Ses Fil.*, 1932, **194**, 711.Colour Index, 3rd Edn., 1971, **4**, 4465 (synth)Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Nile blue A

N-00069

5-Amino-9-(diethylamino)benzo[*a*]phenoxazin-7-ium(1+),
9CI. C.I. Basic blue 12. C.I. 51180. Nile blue



$C_{20}H_{20}N_3O^{\oplus}$ M 318.397 (ion)

Basic dye. Strictly the name Nile Blue A applies to the chloride salt.

Chloride: [2381-85-3].

$C_{20}H_{20}ClN_3O$ M 353.850

Used as a 0.005% soln. in 0.12M H_2SO_4 for extraction-photometric detn. of B (as BF_4^{\ominus}), Ge (λ_{max} 626 nm, ϵ 130000, $CHCl_3$), ReO_4^{\ominus} , As, Ta, Sn, Ag, Br. Bright blue cryst. Sol. H_2O , EtOH. Mp > 300° dec.

Sulfate (2:1): [3625-57-8].

$C_{40}H_{40}N_6O_6S$ M 732.859

Biological stain.

▷ Poison.

5-N-Benzyl: Nile blue 2B. 9-(Diethylamino)-5-[(phenylmethyl)amino]benzo[*a*]phenoxazin-7-ium(1+), 9CI. C.I. 51185

$C_{27}H_{26}N_3O^{\oplus}$ M 408.522 (ion)

Strictly, the name Nile blue 2B applies to the chloride.

5-N-Benzyl, chloride: [4451-88-1].

$C_{27}H_{26}ClN_3O$ M 443.975

Used as a redox indicator. Cryst. Sol. H_2O , EtOH.

Gagliardi, E. *et al*, *Mikrochim. Acta*, 1968, 140; 1969, 888; 1972, 385 (detn, B, Ta, Re)

Likussar, W. *et al*, *Anal. Chim. Acta*, 1970, 49, 97; 50, 173 (detn, Br $^{\ominus}$)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 502 (use)

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1972, 27, 128.

Nazarenko, V.A. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1977, 43, 1325 (detn, Ge, Sn)

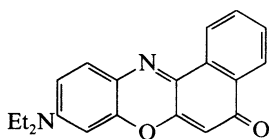
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AJN250.

Nile red

N-00070

9-(Diethylamino)-5H-benzo[*a*]phenoxazin-5-one. Nile blue A oxazone

[7385-67-3]



$C_{20}H_{18}N_2O_2$ M 318.374

Fluorescent probe for intracellular lipids and hydrophobic domains of proteins. Mp 203-205°.

Greenspan, P. *et al*, *J. Cell Biochem.*, 1985, 100, 965 (detn, lipids)

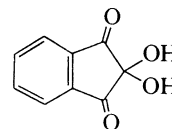
Sackett, D.L. *et al*, *Anal. Biochem.*, 1987, 167, 228 (use)

Ninhydrin

N-00071

2,2-Dihydroxy-1H-indene-1,3(2H)-dione, 9CI. 2,2-Dihydroxy-1,3-indanedione. 1,2,3-Indantrione hydrate. Triketohydrindene hydrate

[485-47-2]



$C_9H_6O_4$ M 178.144

Covalent hydrate of 1,2,3-Indanetrione, I-00025. Sensitive reagent for detn. of amino acids and related substances. Pale-yellow prisms + $1H_2O$ (H_2O). Sol. H_2O . Mp 241-243° (becomes anhyd. with reddening at 125-130°). pK_{a1} 8.82 (30°, 0.1M KCl).

▷ Highly toxic orally. NK5425000.

Bisphenylhydrazone: Cryst. (EtOH). Mp 180°.

Di-Me ether: [65299-21-0], 2,2-Dimethoxy-1,3-indanedione

$C_{11}H_{10}O_4$ M 206.198

Solid (MeOH). Mp 70.5°.

Ruhemann, S., *J. Chem. Soc.*, 1910, 97, 2025 (synth)

Teeters, W.O. *et al*, *J. Am. Chem. Soc.*, 1933, 55, 3026 (synth)

Wanag, G. *et al*, *Ber.*, 1938, 71, 1267 (synth)

Polonovski, M. *et al*, *Bull. Soc. Chim. Fr.*, 1939, 1557 (uv)

McCaldin, D.J., *Chem. Rev.*, 1960, 60, 39 (rev)

Becker, H.-D. *et al*, *J. Org. Chem.*, 1963, 28, 1896 (synth)

Schipper, E. *et al*, *Tetrahedron Lett.*, 1968, 6201 (synth)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1974, 4, 356.

Bischof, P. *et al*, *Helv. Chim. Acta*, 1975, 58, 2130.

Schönberg, A. *et al*, *Chem. Ber.*, 1977, 110, 3954 (deriv)

Gelb, R.I. *et al*, *J. Phys. Chem.*, 1977, 81, 1268 (nmr)

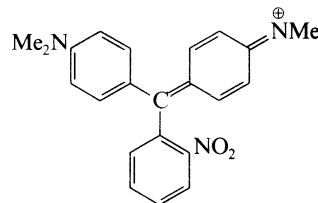
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMV200.

***o*-Nitral green**

N-00072

Bis[4-(dimethylamino)phenyl](2-nitrophenyl)methylum(1+), 9CI

[34074-14-1]



$C_{23}H_{24}N_3O_2^{\oplus}$ M 374.461 (ion)

Strictly, the name *o*-Nitral green applies to the chloride.

Chloride:

$C_{23}H_{24}ClN_3O_2$ M 409.914

Used as a 1mM aq. soln. for extraction-photometric detn. of Al (λ_{max} 635 nm, ϵ 81000, C_6H_6). Cryst.

Constantinescu, G.C. *et al*, *Rev. Roum. Chim.*, 1980, 25, 1259 (synth, detn, Al)

***p*-Nitral green**

N-00073

Bis[4-(dimethylamino)phenyl](4-nitrophenyl)methylum(1+), 9CI

[16044-05-6]

$C_{23}H_{24}N_3O_2^{\oplus}$ M 374.461 (ion)

Strictly, the name *p*-Nitral green applies to the chloride.

Chloride:

$C_{23}H_{24}ClN_3O_2$ M 409.914

Used as a 1mM aq. soln. for extraction-photometric detn. of Al (λ_{\max} 640 nm, ϵ 100000, C₆H₆). Cryst.

Ritchie, C.D. *et al.*, *J. Am. Chem. Soc.*, 1972, **94**, 1589; 1973, **95**, 1882 (*props*)
Constantinescu, G.C. *et al.*, *Rev. Roum. Chim.*, 1980, **25**, 1259 (*synth. detn., Al*)

Nitrilotriacetic acid, 8CI**N-00074**

N,N-Bis(carboxymethyl)glycine, 9CI. Triglycolamidic acid.
Trimethylamine-1,1',1''-tricarboxylic acid.
Tris(carboxymethyl)amine. Complexone I. NTA
[139-13-9]

C₆H₉NO₆ M 191.140

Chelating and sequestering agent; builder in synthetic detergents. Aq. soln. of salts used as masking agent for many metals; extraction separation of Cr(III) (as complex with NTA); photometric detn. of Co. Prismatic cryst. (H₂O). Sl. sol. H₂O. Mp 242° dec. Bp₁₃ 167°. pK_{a1} 0.8; pK_{a2} 1.65; pK_{a3} 2.94; pK_{a4} 10.33 (20°).

▷ AJ0175000.

Monoamide: [26239-55-4]. N-Acetamidoiminodiacetic acid.
N-(2-Amino-2-oxoethyl)-N-(carboxymethyl)glycine, 9CI.
[(Carbamoylmethyl)imino]diacetic acid, 8CI. ADA
C₆H₁₀N₂O₅ M 190.155
Commercially available. Good's buffer with pH range 5.8-7.4. Used as 0.05% aq. soln. for photometric detn. of Bi. Cryst. powder. Sol. H₂O, EtOH. Mp 219° dec. pK_a 6.60 (20°).

Monoamide, di-Me ester:C₈H₁₄N₂O₅ M 218.209
Cryst. Mp 104°.*Tri-Me ester*: [22241-07-2].C₉H₁₅NO₆ M 233.221
Bp₁₃ 167°.*Triamide*:C₆H₁₂N₄O₃ M 188.186
Plates (EtOH/NH₃). Mp 205-206° dec.*Trinitrile*: [7327-60-8]. Nitrilotriacetoneitrile.*Tricyanotrimethylamine*C₆H₆N₄ M 134.140
Manuf. by reacn. of NH₄ salts with HCHO and HCN.
Needles (EtOH). Mp 125-126°.

[98241-37-3]

Martell, A.E. *et al.*, *J. Org. Chem.*, 1950, **15**, 46 (*synth*)
Schwarzenbach, G. *et al.*, *Helv. Chim. Acta*, 1955, **38**, 1147 (*monoamide, synth*)

Good, N.E. *et al.*, *Biochemistry*, 1966, **5**, 467 (*monoamide, synth. buffer*)

Rahim, S.A. *et al.*, *Talanta*, 1970, **17**, 851.

Irving, H.M. *et al.*, *Anal. Chim. Acta*, 1972, **60**, 345 (*detn., Cr*)

Epstein, S.S., *CA*, 1972, **76**, 117232 (*rev*)

McGlothlin, C.D. *et al.*, *Anal. Lett.*, 1976, **9**, 245 (*monoamide, props*)

Fu Chung Chang, *et al.*, *Mikrochim. Acta*, 1979, **2**, 219 (*detn., Co*)

Koch, S. *et al.*, *Talanta*, 1981, **28**, 915.

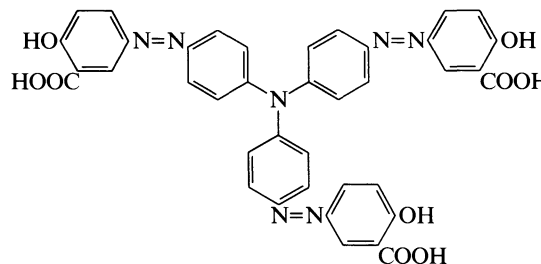
Cheng, K.L. *et al.*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982.

Gonzalez-Portal, A. *et al.*, *Microchem. J.*, 1985, **31**, 368 (*monoamide, use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AMT500.

3,3',3''-[Nitrilotris(4,1-phenyleneazo)] tris[6-hydroxybenzoic acid], 9CI**N-00075**

Triphenylaminetrisazosalicilic acid
[79566-16-8]

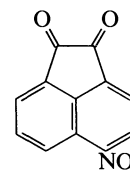
C₃₉H₂₇N₇O₉ M 737.684

Used as 0.05% EtOH soln. for photometric detn. of Be (λ_{\max} 521 nm, ϵ 12800, pH 10). Red cryst. Sol. EtOH; insol. H₂O.

Khalifa, M.E., *Analyst (London)*, 1982, **107**, 446 (*synth. detn., Be*)

5-Nitro-1,2-acenaphthylenedione, 9CI**N-00076**

5-Nitro-1,2-acenaphthenequinone

C₁₂H₅NO₄ M 227.176*Dioxime*: [43084-67-9].C₁₂H₇N₃O₄ M 257.205

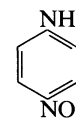
Used as 1mM EtOH soln. for extraction-photometric detn. of Co (λ_{\max} 490 nm, ϵ 6700, PhNO₂), Fe(II), Cu. Cryst. Sol. EtOH. Mp 205-209°.

Kuse, S. *et al.*, *Anal. Chim. Acta*, 1974, **70**, 65 (*synth. use*)

4-Nitroaniline**N-00077**

4-Nitrobenzenamine, 9CI

[100-01-6]

C₆H₆N₂O₂ M 138.126

Used in manuf. of azo dyes. Used as 1mM soln. in aq.

EtOH for photometric detn. of Cl₂ (ϵ 19000), SO₂.

Reference material used in elemental microanalysis.

Pale-yellow needles (H₂O). Mod. sol. hot H₂O. Mp 148°. pK_a 11.96. Not steam-volatile.

▷ Highly toxic by inhalation and skin absorption, TLV 6. The N-chloro deriv. is explosive at r.t.. BY7000000.

B,HCl: [15873-51-5].

Leaflets.

N-Ac: [104-04-1]. N-(2-Nitrophenyl)acetamide, 9CI. 4-Nitroacetanilide

C₈H₈N₂O₃ M 180.163

Prisms. Mp 207°, Mp 215-216°.

▷ AE5075000.

N-Benzylidene: [785-81-9]. 4-Nitro-N-(phenylmethylene) benzenamide, 9CI

C₁₃H₁₀N₂O₂ M 226.234

Yellow needles. Mp 117-118°.

N-Me: [100-15-2].

$C_7H_8N_2O_2$ M 152.152

Brownish-yellow prisms with violet reflex (EtOH). Mp 152°.

N-Di-Me: [100-23-2].

$C_8H_{10}N_2O_2$ M 166.179

Yellow needles with blue reflex (EtOH). Mp 163-166°.

N-Et: [3665-80-3].

$C_8H_{10}N_2O_2$ M 166.179

Yellow cryst. with blue-violet lustre (EtOH). Mp 96°.

N-Di-Et: [2216-15-1].

$C_{10}H_{14}N_2O_2$ M 194.233

Yellow needles (ligroin), plates (EtOH). Mp 77-78°.

N-Ph: see 4-Nitrodiphenylamine, N-00105

Votoček, E. *et al*, *Ber.*, 1915, **48**, 1002.

Shriner, G. *et al*, *J. Am. Chem. Soc.*, 1931, **53**, 1604.

Org. Synth., 1947, **27**, 63.

Bethge, P.O. *et al*, *Talanta*, 1969, **16**, 144 (*detn*, SO_2)

Analyst (London), 1972, **97**, 740 (*microanal*)

Aldrich Library of NMR Spectra, 1974, **5**, 155B (*nmr*)

Aldrich Library of IR Spectra, 1975, 711D (*ir*)

Gabbay, J. *et al*, *Analyst (London)*, 1976, **101**, 128 (*detn*, Cl_2)

Krasnska, E. *et al*, *J. Chromatogr.*, 1978, **147**, 470 (*glc*)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,

Butterworths, London and Boston, 1979, 570.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 409.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

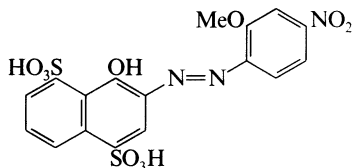
Ed., Van Nostrand-Reinhold, 1992, MMF800, NEK000,

NEO500.

Nitroaniso blue

N-00078

2-(2-Methoxy-4-nitrophenylazo)-1-naphthol-4,8-disulfonic acid. 4-Hydroxy-3-[(2-methoxy-4-nitrophenyl)azo]-1,5-naphthalenedisulfonic acid



$C_{17}H_{13}N_3O_{10}S_2$ M 483.436

Used as acid-base indicator (pH_1 10; colour change: pink → purple). Dark red cryst. Sol. H_2O .

Ferber, K.H., *Ind. Eng. Chem., Anal. Ed.*, 1946, **18**, 631 (*use*, *ind*)

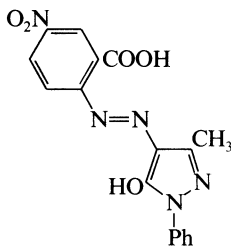
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*, *ind*)

Nitroanthranilazo

N-00079

2-[(3-Methyl-5-oxo-1-phenyl-2-pyrazolin-4-yl)-azo]-5-nitrobenzoic acid, 8CI

[20307-76-0]



$C_{17}H_{13}N_5O_5$ M 367.320

Used as 2mM soln. in DMF for photometric detn. of Li (λ_{max} 530 nm; ϵ 16500, Me_2CO aq.), Na (λ_{max} 540 nm, ϵ 14000, DMF/ Me_2CO aq.). Cryst. Sol. DMF.

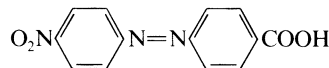
Dziomko, V.M. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 170 (*synth*, *detn*, *Li*)

Markovich, I.S. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1097 (*detn*, *Na*)

4'-Nitro-4-azobenzenecarboxylic acid

N-00080

4-[(4-Nitrophenyl)azo]benzoic acid, 9CI



$C_{13}H_9N_3O_4$ M 271.232

Mp 318°.

Me ester: [15510-04-0].

$C_{14}H_{11}N_3O_4$ M 285.259

Mp 190-191°.

Et ester: [5852-50-6].

$C_{15}H_{13}N_3O_4$ M 299.285

Mp 164-165°.

Chloride: [22286-74-4].

$C_{13}H_8ClN_3O_3$ M 289.677

Chromogenic reagent for isolation and characterisation of alcohols. Anal. reagent for alcohols and amines. Mp 163-165°.

Amide: [39138-50-6].

$C_{13}H_{10}N_4O_3$ M 270.247

Mp 318°.

Anilide: Mp 270°.

Hecker, E., *Chem. Ber.*, 1955, **88**, 1666 (*synth*, *deriv*)

Neurath, G. *et al*, *J. Chromatogr.*, 1968, **34**, 253; **37**, 205 (*chloride*, *use*)

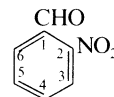
Nutting, W.H. *et al*, *J. Org. Chem.*, 1970, **35**, 505 (*use*, *deriv*)

Bartos, J. *et al*, *Pure Appl. Chem.*, 1984, **56**, 467 (*chloride*, *use*)

2-Nitrobenzaldehyde

N-00081

[552-89-6]



$C_7H_5NO_3$ M 151.121

Anal. reagent for methyl ketones. Bright-yellow needles (H_2O). Mp 43-44°. Bp_{23} 153°. Steam-volatile.

▷ CU7300000.

(E)-Oxime: [4836-00-4].

$C_7H_6N_2O_3$ M 166.136

Mp 102-103°. On irradiation → (Z)-form.

(Z)-Oxime: [3717-25-7].

Cryst. (C_6H_6). Mp 154°. On boiling in C_6H_6 → (E)-form.

Semicarbazone: [5346-31-6].

Yellow needles (H_2O). Mp 256° dec.

Phenylhydrazone: [610-64-0].

Mp 154°.

Di-Me acetal: [20627-73-0]. 1-(Dimethoxymethyl)-2-nitrobenzene, 9CI

$C_9H_{11}NO_4$ M 197.190

Bp 274-276°, Bp_{11} 138-139°.

Di-Et acetal:

$C_{11}H_{15}NO_4$ M 225.244

Bp_{18} 154-156°, Bp_{11} 148°.

Acetal di-Ac: [6345-63-7]. (2-Nitrophenyl)methanediol

diacetate, 9CI. o-Nitrobenzylidene diacetate. α,α -

Diacetoxy-2-nitrotoluene

Prisms (ligroin). Mp 90°.

Hydrazone: o-Nitrobenzylidenehydrazine

$C_7H_7N_3O_2$ M 165.151

Yellow prisms (EtOH). Mp 76°.

Anil:

$C_{13}H_{10}N_2O_2$ M 226.234
Yellow leaflets (EtOH aq.). Mp 69.5°. Bp₁₅ 220°.

Aldrich Library of IR Spectra, 798G (ir)
Aldrich Library of NMR Spectra, 6, 81A (nmr)
Chattaway, K. *et al*, *J. Chem. Soc.*, 1923, **123**, 3041.
Org. Synth., 1956, **36**, 58; 1966, **46**, 81.
Kramer, D.N. *et al*, *Anal. Chem.*, 1972, **44**, 2243 (use)
Freeman, D.J. *et al*, *Aust. J. Chem.*, 1976, **29**, 33.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NEU500.

4-Nitrobenzaldehyde**N-00082**

[555-16-8]

 $C_7H_5NO_3$ M 151.121

Used for photometric detn. of CN^\ominus . Prisms (H_2O). Sol. Et_2O ; sl. sol. H_2O , EtOH. Mp 106°. pK_a 12.79 (hydrate) (25°, 1% EtOH). Subl. Spar. steam-volatile.

▷ CU7350000.

(E)-Oxime: [3717-19-9].

 $C_7H_6N_2O_3$ M 166.136

Needles (H_2O). Mp 182-184°. Irradiation in C_6H_6 → (Z)-form.

(Z)-Oxime: [3717-20-2].

Plates (pentanol). Mp 133°. Fusion → (E)-form.

Semicarbazone: [5315-87-7].

Needles (H_2O). Mp 211°. Dihydrate Mp 220°.

Phenylhydrazone: [2829-27-8].

Dark-red cryst. with metallic lustre (EtOH). Mp 153-154°.

2,4-Dinitrophenylhydrazone: Orange needles (xylene or quinoline). Mp 320°.

Di-Me acetal: [881-67-4]. 1-(Dimethoxymethyl)-4-nitrobenzene, 9CI

 $C_9H_{11}NO_4$ M 197.190

Mp 23-25°. Bp 294-296°.

Di-Me thioacetal:

 $C_9H_{11}NO_3S$ M 213.257

Mp 77-78.5°.

Chattaway, K., *J. Chem. Soc.*, 1923, **123**, 3041.*Org. Synth.*, 1956, **36**, 58.Kondo, T. *et al*, *CA*, 1967, **68**, 75643z (detn. CN^\ominus)Brehm, L. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 3646.Bachechi, F. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 2598.*Aldrich Library of NMR Spectra*, 1974, 6, 85C (nmr)*Aldrich Library of IR Spectra*, 1975, 801F (ir)Freeman, D.J. *et al*, *Aust. J. Chem.*, 1976, **29**, 33.Jackisch, M.A. *et al*, *Acta Crystallogr., Sect. C*, 1989, **45**, 2016 (cryst struct)Penner, G.H. *et al*, *Can. J. Chem.*, 1989, **67**, 525 (cmr)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NEV500.**Nitrobenzene****N-00083**

[98-95-3]

PhNO₂ $C_6H_5NO_2$ M 123.111

Reference material used in elemental microanalysis. Pale-yellow or colourless liq. with almond-like odour. V. spar. sol. H_2O . d_4^{20} 1.205. Mp 6°. Bp 210.8°, Bp₁ 53.1°. n_D^{20} 1.5529. Steam-volatile.

▷ Toxic, hazardous vapour. Absorbed through skin. Causes cyanosis. Fire and explosion hazard. DA6475000.

Analyst (London), 1972, **97**, 740 (microanal)Vogel, A.I. *et al*, *Practical Organic Chemistry*, 4th Ed., Longman, London, 1978, 624, 996 (synth, ir)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **15**, 916 (rev)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 358.

Ritchie, J.P., *Tetrahedron*, 1988, **24**, 7465 (struct)Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (cmr)

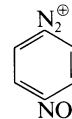
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 574-5.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 410.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NEX000.

4-Nitrobenzenediazonium(1+), 9CI**N-00084**

[14368-49-1]

 $C_6H_4N_3O_2^\oplus$ M 150.116 (ion)

Tetrafluoroborate: [456-27-9].

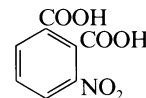
 $C_6H_4BF_4N_3O_2$ M 236.921

Photometric reagent for aromatic amines and phenols.

Cryst. (H_2O). Mp 153-155° dec.Starkey, E.B., *Org. Synth.*, 1939, **19**, 40 (synth)Leibnitz, E. *et al*, *J. Prakt. Chem.*, 1960, **11**, 25 (use)Bugg, C. *et al*, *Acta Crystallogr.*, 1964, **17**, 767 (cryst struct)Doyle, M.P. *et al*, *J. Org. Chem.*, 1979, **44**, 1572 (synth)Bartos, J. *et al*, *Pure Appl. Chem.*, 1984, **56**, 467 (use)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NFA625.**3-Nitro-1,2-benzenedicarboxylic acid****N-00085**

3-Nitrophthalic acid

[603-11-2]

 $C_8H_5NO_6$ M 211.131

Used as a 5% aq. soln. for gravimetric detn. of Zr. Pale-yellow cryst. (H_2O). Sol. H_2O . Mp 218°, Mp 213-216°. pK_{a1} 2.11; pK_{a2} 4.48 (30°).

1-Me ester: [21606-04-2].

 $C_9H_7NO_6$ M 225.157Pale-yellow cryst. (H_2O). Mp 160-162°. pK_{a1} 1.78 (25°).

2-Me ester: [6744-85-0].

 $C_9H_7NO_6$ M 225.157Mp 152-153°. pK_{a1} 2.68 (25°). Forms a monohydrate.

Di-Me ester: [13365-26-9].

 $C_{10}H_9NO_6$ M 239.184

Pale-yellow cryst. (MeOH aq.). Mp 68-69°.

Di-Et ester: [62351-79-5].

 $C_{12}H_{13}NO_6$ M 267.238

Prisms or needles (EtOH or pet. ether). Mp 46°.

1-Amide: [65911-46-8].

 $C_8H_6N_2O_5$ M 210.146Plates (H_2O). Mp 150-156°. At 214-5° converts to imide.

Diamide:

 $C_8H_7N_3O_4$ M 209.161

Cryst. Mp 200-201°.

Imide: [603-62-3]. 4-Nitro-1H-isoindole-1,3(2H)-dione, 9CI

 $C_8H_4N_2O_4$ M 192.131Pale-yellow cryst. (EtOH or Me₂CO). Mp 217-218°.

Sublimes.

Anhydride: [641-70-3]. *4-Nitro-1,3-isobenzofurandione*, 9CI
 $C_8H_3NO_5$ M 193.115
 Protecting reagent for $-NH_2$ group in solid-phase peptide synth. Reagent for characterisation of alcohols.

N-Phenylimide: [19065-85-1]. *4-Nitro-2-phenyl-1H-isindole-1,3(2H)-dione*, 9CI. *3-Nitrophenalanyl*
 $C_{14}H_8N_2O_4$ M 268.228
 Yellow needles (EtOH/Me₂CO). Mp 138°. λ_{max} 223 nm.

1-Nitrile: *2-Cyano-6-nitrobenzoic acid*
 $C_8H_4N_2O_4$ M 192.131
 Needles. Mp 99-100° (resolidifies and remelts at 214-215°).

Me ester, nitrile: [77326-46-6]. *Methyl 2-cyano-3-nitrobenzoate*
 $C_9H_6N_2O_4$ M 206.157
 Powder. Mp 140-142°.

Chapman, E. *et al*, *J. Chem. Soc.*, 1925, 1795.
Org. Synth., Coll. Vol., 1, 1932, 408, 410.
 De Graef, H. *et al*, *Bull. Soc. Chim. Belg.*, 1948, 57, 307 (use, anhydride)
Fr. Pat., 1 470 052, (1968); *CA*, 69, 10295 (derivs)
 Geetha, S. *et al*, *Indian J. Chem.*, 1968, 6, 169 (use)
Aldrich Library of NMR Spectra, 1974, 6, 159; 1974, 7, 51A.
 Nagai, U. *et al*, *Tetrahedron*, 1974, 30, 25 (derivs)
Aldrich Library of IR Spectra, 1975, 847D, 919H (ir)
 Griffiths, J. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1976, 42.
 Harris, N.V. *et al*, *J. Med. Chem.*, 1990, 33, 434 (deriv)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NMJ500.

4-Nitro-1,2-benzenedicarboxylic acid **N-00086**

4-Nitrophthalic acid
 [610-27-5]
 $C_8H_5NO_6$ M 211.131
 Spray reagent for the detn. of indoles in chromatog. Pale-yellow needles (Et₂O). Sol. H₂O. Mp 165°. pK_{a1} 2.02; pK_{a2} 4.44 (30°).

1-Me ester:
 $C_9H_7NO_6$ M 225.157
 Cryst. + 1H₂O (H₂O). Mp 131-132°. pK_{a1} 2.34 (25°).

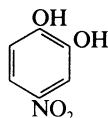
2-Me ester:
 $C_9H_7NO_6$ M 225.157
 Mp 140-142°.

Di-Me ester: [610-22-0].
 $C_{10}H_9NO_6$ M 239.184
 Cryst. (EtOH aq.). Mp 65-66°.

Bogert, *et al*, *J. Am. Chem. Soc.*, 1901, 23, 752.
 Chapman, E. *et al*, *J. Chem. Soc.*, 1925, 1796.
 Hutzinger, O., *J. Chromatogr.*, 1969, 40, 117 (use)
 Blumenthal, T., *Aust. J. Chem.*, 1971, 24, 1853 (ms, deriv)
Aldrich Library of NMR Spectra, 1974, 6, 173A (nmr)
Aldrich Library of IR Spectra, 2nd Ed., 1975, 855e (ir)
 Griffiths, J. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1976, 42 (deriv)

4-Nitro-1,2-benzenediol, 9CI **N-00087**

4-Nitropycatechol, 8CI. *4-Nitrocatechol*. *1,2-Dihydroxy-4-nitrobenzene*
 [3316-09-4]



$C_6H_5NO_4$ M 155.110

Used as EtOH soln. for extraction-photometric detn. of As(V) (as anionic complex associated with Brilliant Green, toluene, λ_{max} 637 nm, ϵ 110000). Yellow needles (H₂O). Sol. EtOH. Mp 176°. pK_{a1} 6.78; pK_{a2} 10.90 (25°, 0.1 M KCl).

1-Me ether: [636-93-1]. *2-Methoxy-5-nitrophenol*. *4-Nitroguaiacol*

$C_7H_7NO_4$ M 169.137
 Pale-yellow needles (H₂O). Mp 105°. pK_a 8.00 (20°).

2-Me ether: [3251-56-7]. *2-Methoxy-4-nitrophenol*. *5-Nitroguaiacol*

$C_7H_7NO_4$ M 169.137
 Yellow needles (H₂O). Mp 103-104°. pK_a 6.63 (20°).

▷ SL7800000.

Di-Me ether: [709-09-1]. *1,2-Dimethoxy-4-nitrobenzene*. *4-Nitroveratrole*

$C_8H_9NO_4$ M 183.163
 Yellow needles (EtOH aq.). Mp 96°. Bp₁₅₋₂₀ 230°.

Di-Ac: [36383-33-2].

$C_{10}H_9NO_6$ M 239.184
 Mp 98°.

Allan, J. *et al*, *J. Chem. Soc.*, 1926, 376.

Rosenblatt, D.M. *et al*, *J. Am. Chem. Soc.*, 1953, 75, 3277 (synth)
 Yoshimura, H. *et al*, *Chem. Pharm. Bull.*, 1966, 14, 939.

Kuwada, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1977, 26, 609; *CA*, 88, 163268z (detn, As)

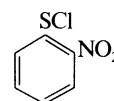
Castelló, A. *et al*, *Tetrahedron Lett.*, 1985, 26, 2489 (derivs)

Stuart, J.G. *et al*, *J. Heterocycl. Chem.*, 1987, 24, 1589 (synth, pmr, deriv)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NHA000.

2-Nitrobenzenesulfonyl chloride, 9CI **N-00088**

2-Nitrophenylsulfonyl chloride. *Benzene-o-nitrosulfonyl chloride*
 [7669-54-7]



$C_6H_4ClNO_2S$ M 189.622

Kinco for protection of amino acid $-NH_2$ groups.
 Anal. reagent for amines. Mp 74.5-75°.

▷ Explodes at ~170°, reacts vigorously with oxidising agents.

Org. Synth., Coll. Vol., 2, 1943, 455 (synth)

Chamberlain, D.L. *et al*, *J. Org. Chem.*, 1958, 23, 381 (uv)

Obtemperanskaya, S.I. *et al*, *Zh. Anal. Khim.*, 1971, 26, 2252; *CA*, 76, 679245 (use)

Aldrich Library of NMR Spectra, 1974, 5, 147A (pmr)

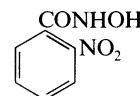
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, 4, 359; 8, 360 (use)

Aldrich Library of Infrared Spectra, 2nd Ed., 1975, 706B (ir)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 405 (haz)

2-Nitrobenzohydroxamic acid **N-00089**

N-Hydroxy-2-nitrobenzamide, 9CI
 [17512-68-4]



$C_7H_6N_2O_4$ M 182.135

Used for extraction-photometric detn. of Mo (λ_{max} 325 nm, ϵ 5250). Yellow needles (H₂O). Mp 131-133°.

N-(3-Methylphenyl): [32939-61-0]. N-Hydroxy-N-(3-methylphenyl)-2-nitrobenzamide, 9CI
 $C_{14}H_{12}N_2O_4$ M 272.260
 Used as a 0.01M soln. in EtOH for gravimetric detn. and pptn. sepn. of Ce, Gd, La, Nd, Pr, Sm. Cryst. Mp 118°.

Stolberg, M.A. *et al.*, *J. Am. Chem. Soc.*, 1957, **79**, 2615 (*synth*)
 Molot, L.A., *Khim. Khim. Tekhnol. (Minsk)*, 1970, **13**, 628 (*detn.*, *Mo*)

Agrawal, Y.K. *et al.*, *J. Chem. Eng. Data*, 1972, **19**, 495 (*synth.*, *deriv*)

Agrawal, Y.K. *et al.*, *Talanta*, 1975, **22**, 193; 1976, **23**, 235 (*detn.*, *Ce, La, Gd, Nd, Pr, Sm*)

3-Nitrobenzohydroxamic acid

N-00090

N-Hydroxy-3-nitrobenzamide, 9CI

[7335-34-4]

$C_7H_6N_2O_4$ M 182.135

N-Ph: [17120-18-2]. N-Hydroxy-3-nitro-N-phenylbenzamide, 9CI

$C_{13}H_{10}N_2O_4$ M 258.233

Used as a 0.5% soln. in 3-methyl-1-butanol for extraction-photometric detn. of V(V) (λ_{max} 435 nm, ϵ 3230).

N-(3-Methylphenyl): [32919-54-3]. N-Hydroxy-N-(3-methylphenyl)-3-nitrobenzamide. N-m-Tolyl-3-nitrobenzohydroxamic acid

$C_{14}H_{12}N_2O_4$ M 272.260

Used as a 0.01M soln. in EtOH for gravimetric detn. of Ba, Sm; extraction-photometric detn. of U (λ_{max} 510 nm, $CHCl_3$); pptn. sepn. and gravimetric detn. of rare earth elements. Cryst. Mp 118°. pK_{a1} 10.33 (25°, 50% dioxan).

N-(4-Methylphenyl): [34661-26-2]. N-Hydroxy-N-(4-methylphenyl)-3-nitrobenzamide

Used as a 5mM $CHCl_3$ soln. for extraction-photometric detn. of V(V) (λ_{max} 515 nm). Cryst.

Ghosh, N.N. *et al.*, *J. Indian Chem. Soc.*, 1968, **45**, 1049 (*N-Ph.*, *synth*)

Ghosh, N.N. *et al.*, *Fresenius' Z. Anal. Chem.*, 1971, **253**, 207 (*N-Ph.*, *detn.*, *V*)

Agrawal, Y.K. *et al.*, *J. Chem. Eng. Data*, 1971, **16**, 371 (*synth*)

Gupta, V.K. *et al.*, *J. Indian Chem. Soc.*, 1971, **48**, 753 (*synth*)

Gupta, V.K. *et al.*, *Anal. Chim. Acta*, 1973, **66**, 39 (*detn.*, *V*)

Agrawal, Y.K. *et al.*, *Analisis*, 1975, 424 (*detn.*, *Sm*)

Verma, P.C. *et al.*, *J. Indian Chem. Soc.*, 1975, **52**, 176 (*detn.*, *Ba*)

Agrawal, Y.K. *et al.*, *Pol. J. Chem. (Rocz. Chem.)*, 1975, **49**, 1431 (*pK*)

Kapoor, H.L. *et al.*, *Talanta*, 1975, **22**, 193 (*detn.*, *La, Ce*)

Agrawal, Y.K. *et al.*, *Talanta*, 1976, **23**, 235 (*detn.*, *rare earths*)

Agrawal, Y.K. *et al.*, *Ann. Chim. (Rome)*, 1977, **66**, 371 (*detn.*, *U*)

2-Nitrobenzoic acid, 9CI

N-00091

[552-16-9]



$C_7H_5NO_4$ M 167.121

Reagent for protection of NH_2 groups. Used as a 1.5% aq. soln. for gravimetric detn. of Hf, Zr. Needles (H_2O). Sol. alkalis. Mp 147-148°. pK_a 2.10 (H_2O , 25°).

▷ DH5050000.

Me ester: [606-27-9].

$C_8H_7NO_4$ M 181.148

d^{20} 1.286. Mp -13°. Bp 275°, Bp₁₉ 169°.

Et ester: [610-34-4].

$C_9H_9NO_4$ M 195.174

Mp 30°. Bp₁₈ 173°.

Anhydride: [49619-45-6].

$C_{14}H_8N_2O_7$ M 316.226

Mp 135°.

▷ Explodes on rapid heating.

Chloride: [610-14-0]. 2-Nitrobenzoyl chloride

$C_7H_4ClNO_3$ M 185.566

Mp 25°. Bp₁₈ 152°.

▷ Distillation residue can explode.

Amide: [610-15-1].

$C_7H_6N_2O_3$ M 166.136

Needles (EtOH aq.). Mp 174-176°. Bp 317°.

▷ CV5600000.

Nitrile: [612-24-8]. 1-Cyano-2-nitrobenzene

$C_7H_4N_2O_2$ M 148.121

Needles (H_2O or AcOH). Mp 111°.

▷ Can explode. DI4903000.

Azide: [1134-10-7].

$C_7H_4N_4O_3$ M 192.134

Mp 36-38°.

Anilide:

$C_{13}H_{10}N_2O_3$ M 242.234

Leaflets (EtOH). Mp 153-154°.

Sah, P.T., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1940, **59**, 238.

Yukawa, Y. *et al.*, *J. Am. Chem. Soc.*, 1958, **80**, 6346 (*deriv*)

Kuleva, V.M. *et al.*, *Zh. Anal. Khim.*, 1966, **21**, 46 (*detn.*, *Hf, Zr*)

Fujimori, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 1564.

Tavale, S.S. *et al.*, *Acta Crystallogr., Sect. B*, 1973, **29**, 2979 (*cryst struct*)

Koul, A.K., *Tetrahedron*, 1973, **29**, 625.

Aldrich Library of NMR Spectra, 1974, **6**, 145 (*pmr*)

Aldrich Library of IR Spectra, 1975, 839B (*ir*)

Niazi, M.K., *Bull. Chem. Soc. Jpn.*, 1989, **62**, 1253 (*pKa*)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 617, 619.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 411.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NFG500, NFI000, NFL000.

3-Nitrobenzoic acid

N-00092

[121-92-6]

$C_7H_5NO_4$ M 167.121

Used as a 0.4% aq. soln. for pptn. separation of Ce, Hf, Hg, Th, Zr. Prisms. Mp 139-142°. pK_a 3.46 (25°).

Known in two labile and one stable modifications.

▷ DH5000000.

Me ester: [618-95-1].

$C_8H_7NO_4$ M 181.148

Needles. Mp 78°. Bp 279°.

Et ester: [618-98-4].

$C_9H_9NO_4$ M 195.174

Mp 41°, Mp 47°. Bp₁₀ 156°.

Anhydride:

$C_{14}H_8N_2O_7$ M 316.226

Cryst. (C_6H_6). Mp 163°.

Chloride: [121-90-4].

$C_7H_4ClNO_3$ M 185.566

Mp 33°, Mp 37°. Bp₂₅ 164°.

▷ Mod. toxic. Can be explosive. DM6650000.

Amide: [645-09-0].

$C_7H_6N_2O_3$ M 166.136

Needles (H_2O). Mp 141-143°. Bp 310-315°.

Nitrile: [619-24-9]. 1-Cyano-3-nitrobenzene

$C_7H_4N_2O_2$ M 148.121

Needles (H_2O). Mp 117-118°.

▷ DI4900000.

Anilide:

$C_{13}H_{10}N_2O_3$ M 242.234
Leaflets (EtOH). Mp 153-154°.

Azide: [3532-31-8].

$C_7H_4N_4O_3$ M 192.134
Cryst. (C_6H_6 /pet. ether) or plates (EtOH). Mp 68-69°.

Org. Synth., Coll. Vol., 1, 1932, 391 (synth)

Osborn, G.H., *Analyst (London)*, 1948, **73**, 381 (use)

Org. Synth., Coll. Vol., 4, 1963, 715 (synth)

Aldrich Library of NMR Spectra, 1974, **6**, 148B (pmr)

Dhaneswar, N.N. *et al*, *Acta Crystallogr., Sect. B*, 1975, **31**, 1978 (cryst struct)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 840F (ir)

Niazi, M.S.K., *Bull. Chem. Soc. Jpn.*, 1989, **62**, 1253 (pKa)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NFG000, NFH500, NFK500.

4-Nitrobenzoic acid**N-00093**

[62-23-7]

$C_7H_5NO_4$ M 167.121

Leaflets (H_2O). Mp 241.5°, Mp 236-239°. pK_a 3.45 (25°, H_2O). Sublimes.

▷ DH5075000.

Me ester: [619-50-1].

$C_8H_7NO_4$ M 181.148
Mp 96°.

▷ DH5775000.

Et ester: [99-77-4].

$C_9H_9NO_4$ M 195.174
Leaflets (EtOH). Mp 57°.

▷ DH5600000.

Anhydride: [902-47-6].

$C_{14}H_8N_2O_7$ M 316.226
Yellowish leaflets (EtOAc). Mp 195°.

Chloride: [122-04-3].

$C_7H_4ClNO_3$ M 185.566

Reagent for characterisation of alcohols and amines and prepn. of highly cryst. *p*-benzoylaminobenzoyl esters of sugars. Used to derivatise sugars for hplc with uv detn. Used as a 0.15M soln. in Py for photometric detn. of H_2O in organic solvents. Yellow needles (CCl_4 or C_6H_6). Sol. Py, toluene. Mp 75°. Bp₇₃ 197°.

▷ Irritant, causes burns.

Amide: [619-80-7].

$C_7H_6N_2O_3$ M 166.136
Needles (H_2O). Mp 206°.

Amide, N-hydroxy: [1613-76-9]. *p*-Nitrobenzohydroxamic acid, 8Cl. *N*-Hydroxy-4-nitrobenzamide, 9Cl

$C_7H_6N_2O_4$ M 182.135
Used as EtOH soln. for photometric detn. of V(V) (λ_{max} 450 nm). Cryst. Sol. EtOH, Me_2CO , $CHCl_3$.

Nitrile: [619-72-7]. *1*-Cyano-4-nitrobenzene

$C_7H_4N_2O_2$ M 148.121
Leaflets (EtOH). Mp 149°.

▷ DI4903500.

Anilide:

$C_{13}H_{10}N_2O_3$ M 242.234
Leaflets (Et₂O). Mp 211°.

Azide: [2733-41-7].

$C_7H_4N_4O_3$ M 192.134
Cryst. (C_6H_6 /pet. ether) or plates (EtOH aq.). Mp 71-72° (69°).

Hydrazide: [636-97-5]. *p*-Nitrobenzhydrazide

$C_8H_7N_3O_3$ M 181.151
Used as 1% soln. in Me_2CO as acid-base indicator (pH range: 8.2-9.5, colour change: colourless → yellow). Cryst. (EtOH). Sol. Me_2CO , EtOH, C_6H_6 . Mp 211-212°.

Org. Synth., Coll. Vol., 1, 1932, 389.

Org. Synth., Coll. Vol., 4, 1963, 715.

Papariello, G.J. *et al*, *Anal. Chem.*, 1964, **36**, 1028 (use, hydrazide)

Bass, V.C. *et al*, *Talanta*, 1966, **13**, 735 (detn, V)

Litvinenko, L.M., *Zh. Anal. Khim.*, 1966, **21**, 200 (use, chloride)

Koehergin, P.M. *et al*, *CA*, 1967, **66**, 10702w (synth)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 736.

Tavale, S.S. *et al*, *Acta Crystallogr., Sect. B*, 1971, **27**, 1479.

Aldrich Library of NMR Spectra, 1974, **6**, 152B (pmr)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 842G (ir)

Nachtmann, F. *et al*, *J. Chromatogr.*, 1976, **122**, 293; 1977, **136**, 279 (use, chloride)

Di Rienzo, F. *et al*, *Acta Crystallogr., Sect. B*, 1977, **33**, 3854 (cryst struct)

Niazi, M.S.K., *Bull. Chem. Soc. Jpn.*, 1989, **62**, 1253 (pKa)

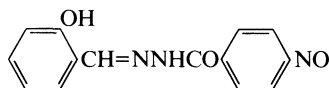
Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 857.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 411.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CCI250, ENO000, MMI000, NFH000, NFK100.

4-Nitrobenzoic acid [(2-hydroxyphenyl) methylene]hydrazide, 9CI**N-00094**

4-Nitrobenzoic acid salicylhydrazide. 2-Hydroxybenzaldehyde 4-nitrobenzoylhydrazone
[50366-20-6]



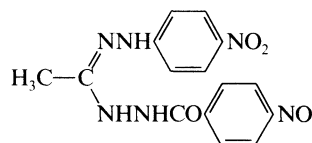
$C_{14}H_{11}N_3O_4$ M 285.259

Used as a 0.5% soln. in EtOH for photometric detn. of Ti (λ_{max} 238 nm, ϵ 18400); extraction-photometric detn. of Fe, Ti, V. Cryst. (EtOH aq.). Sol. EtOH. Mp 272°.

Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1093 (detn, Ti, Fe, V)

4-Nitrobenzoic acid [1-[2-(4-nitrophenyl) hydrazino]ethylidene]hydrazide, 9CI**N-00095**

2-(4-Nitrobenzoyl)-4-(4-nitrophenyl)acetohydrazidine
[54928-45-9]



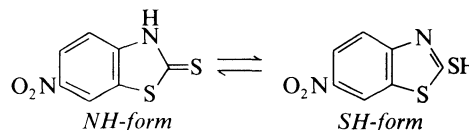
$C_{15}H_{14}N_6O_5$ M 358.313

Used as 6mM Me_2CO soln. for photometric detn. of Ni (λ_{max} 405 nm, ϵ 12800, pH 8.0-10.7, 20% Me_2CO). Orange cryst. Sol. Me_2CO , DMF; insol. H_2O . Mp 234°. pK_{a1} 1.1; pK_{a2} 9.8.

Dudareva, G.N. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 1285 (synth, detn, Ni)

6-Nitro-2(3H)-benzothiazolethione, 9CI**N-00096**

6-Nitro-2-benzothiazolethiol. 2-Mercapto-6-nitrobenzothiazole
[4845-58-3]



$C_7H_4N_2O_2S_2$ M 212.253
Reagent for the identification of alkyl halides.

▷ DL6600000.

NH-form

Yellow needles (AcOH). Mp 255-257°.

SH-form

Minor tautomer.

S-Me: [3621-99-6].

$C_8H_6N_2O_2S_2$ M 226.280
Pale-yellow needles. Mp 128°.

S-Et: [65611-80-5].

$C_9H_8N_2O_2S_2$ M 240.306
Pale-yellow needles. Mp 106-108°.

Disulfide:

$C_{14}H_6N_4O_4S_4$ M 422.490
Pale-yellow needles. Mp 229-231°.

Sebrell, L.B. *et al*, *J. Am. Chem. Soc.*, 1927, **49**, 1780; *U.S. Pat.*, 1 958 770; *CA*, **28**, 4632.

Fr. Pat., 741 910, (1933); *CA*, **27**, 3642.

Takahashi, T. *et al*, *Yakugaku Zasshi*, 1946, **66**, 24; *CA*, **45**, 8532.

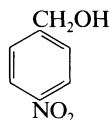
Cutter, H.B. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 831 (use)

Faure, R. *et al*, *Org. Magn. Reson.*, 1978, **11**, 617 (cmr, tautom)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MCP250.

4-Nitrobenzyl alcohol**N-00097**

4-Nitrobenzenemethanol, 9CI. 1-Hydroxymethyl-4-nitrobenzene. α -Hydroxy-4-nitrotoluene
[619-73-8]



$C_7H_7NO_3$ M 153.137

Cryst. (H_2O). Mp 92-93°. Bp₁₂ 185°.

O-Benzoyl: [4457-41-4].

$C_{14}H_{11}NO_4$ M 257.245
Mp 94-95°.

4-Methylbenzenesulfonyl: [4450-68-4].

Protecting reagent for peptides. Uv labelling reagent for carboxylic acids. Mp 103°.

Ph ether: [3048-12-2]. 1-Nitro-4-(phenoxyethyl)benzene. 4-Nitrobenzyl phenyl ether

$C_{13}H_{11}NO_3$ M 229.235
Cryst. (EtOH aq.). Mp 89-91°.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 737.

Koizumi, T. *et al*, *Chem. Pharm. Bull.*, 1973, **21**, 312 (synth)

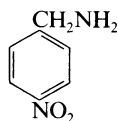
Lane, C.F. *et al*, *J. Org. Chem.*, 1974, **39**, 3052 (synth)

Maslak, P. *et al*, *J. Am. Chem. Soc.*, 1986, **108**, 2628 (deriv, synth, pmr, ms)

Funazo, K. *et al*, *J. Chromatogr.*, 1989, **481**, 211 (use, tosylate)

4-Nitrobenzylamine**N-00098**

1-(Aminomethyl)-4-nitrobenzene. 4-Nitrobenzenemethanamine
[7409-30-5]



$C_7H_8N_2O_2$ M 152.152

Needles. Mp 39-40°.

B, HCl: [18600-42-5].

Mp 256° dec.

▷ DP6705000.

N-Ac: [56222-10-7].

$C_9H_{10}N_2O_3$ M 194.190

Needles (H_2O). Mp 133°.

N-Benzoyl: [34907-24-9].

$C_{14}H_{12}N_2O_3$ M 256.260

Needles (EtOH). Mp 155-156°.

N-Propyl: [62869-74-3].

Used for photometric detn. of isocyanates, reagent for tlc of isocyanates. Mp 230-232° (as hydrochloride).

Feuer, M. *et al*, *J. Org. Chem.*, 1969, **34**, 1817 (synth)

Keller, J. *et al*, *Anal. Chem.*, 1974, **46**, 184; 1979, **51**, 1868 (synth, *N*-propyl, use)

Hastings, V. *et al*, *J. Chromatogr.*, 1977, **134**, 451 (synth, *N*-propyl, use)

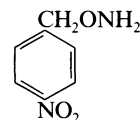
Bagon, D.A. *et al*, *J. Chromatogr.*, 1980, **190**, 175 (*N*-propyl, use)

Graham, J.D., *J. Chromatogr. Sci.*, 1980, **18**, 384 (*N*-propyl, use)

O*-(*p*-Nitrobenzyl)hydroxylamine, 8CI*N-00099**

O-[(4-Nitrophenyl)methyl]hydroxylamine, 9CI. *p*-Nitrobenzylhydroxylamine

[1944-96-3]



$C_7H_8N_2O_3$ M 168.152

Derivatisation reagent for carbonyl compds. used in gc and hplc sugars and for prostaglandin esters. Prisms (pet. ether). Mp 56°. Bp 130°.

B, HCl: [2086-26-2].

Leaflets (2*N* HCl). Mp 217° dec.

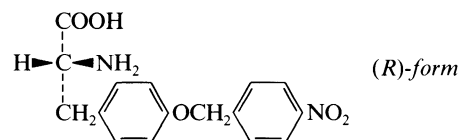
Brady, O.L. *et al*, *J. Chem. Soc.*, 1927, 874 (synth)

Fitzpatrick, F.A. *et al*, *Anal. Chem.*, 1977, **49**, 1032 (use)

Magin, D.F., *J. Chromatogr.*, 1979, **178**, 219 (use)

Lawson, M.A. *et al*, *J. Food Sci.*, 1980, **45**, 1256 (use)

Baldwin, J.E. *et al*, *Tetrahedron*, 1985, **41**, 5241 (synth)

O*-(4-Nitrobenzyl)tyrosine, 9CI*N-00100**

$C_{16}H_{16}N_2O_5$ M 316.313

(*R*)-form

D-form

Me ester: [102937-83-7].

$C_{17}H_{18}N_2O_5$ M 330.340

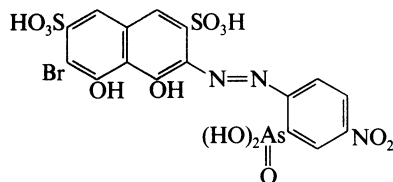
Derivatisation reagent for detn. of optical purity of *N*-protected amino acids. Cryst. (as hydrochloride). Mp 174-176° (as hydrochloride). $[\alpha]_D^{20} +9.0^\circ$ (c, 1 in MeOH).

[102937-82-6]

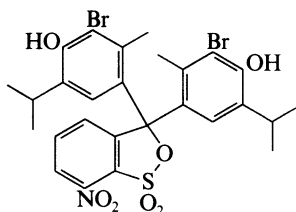
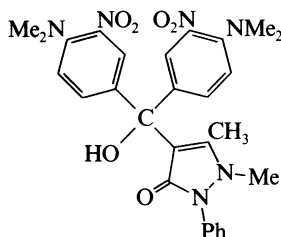
Gorog, S. *et al*, *J. Chromatogr.*, 1986, **353**, 417.

Nitrobromoarsenazo**N-00101**

3-[(2-Arseno-4-nitrophenyl)azo]-6-bromo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 8CI

 $C_{16}H_{11}AsBrN_3O_{13}S_2$ M 672.233

Strictly, the name Nitrobromoarsenazo applies to the disodium salt.

Di-Na salt: [4369-89-5].Used as 0.1mM aq. soln. for photometric detn. of Sc (λ_{\max} 580 nm, ϵ 12000, pH 4.5-5.5). Red cryst. powder. Sol. H_2O .Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 1414 (*synth, use*)**Nitrobromothymol blue****N-00102** $C_{27}H_{27}Br_2NO_7S$ M 669.387Used as acid-base indicator (pH range 7.5-9.5; colour change: yellow \rightarrow blue). Used attached to amino groups on the surface of poly(methylmethacrylate) fibre. Pink cryst. powder. Sol. EtOH, alkalis; insol. H_2O . pK_{a1} 8.5.Puschett, J.B. *et al*, *Talanta*, 1991, **38**, 335 (*synth, use*)**Nitrochromopyrazole****N-00103** $C_{28}H_{30}N_6O_6$ M 546.582Antipyrine basic dye. Used as 0.1% soln. in 1M H_2SO_4 for extraction-photometric detn. of Ta (λ_{\max} 550 nm, ϵ 83000, C_6H_6). Cryst. Sol. acids.Podchainova, V.N. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 1312 (*detn, Ta*)**2-Nitrodiphenylamine, 8CI****N-00104**2-Nitro-N-phenylbenzenamine, 9CI
[119-75-5] $C_{12}H_{10}N_2O_2$ M 214.223Used as a 5mM soln. in dil. H_2SO_4 as redox indicator for titrimetric detn. of Fe(II). Orange plates (EtOH aq.). Mp 75.5°. E° +1.09 V (0.5-2.0M H_2SO_4).*N-Me*: [52997-62-3]. $C_{13}H_{12}N_2O_2$ M 228.250Red oil. Bp_{15} 205°.Ullmann, F. *et al*, *Ber.*, 1908, **41**, 1872 (*synth*)Storrie, F.R., *J. Chem. Soc.*, 1931, 2261 (*deriv*)Gandikota, M. *et al*, *Anal. Chim. Acta*, 1974, **72**, 163 (*use*)Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed.,

Van Nostrand-Reinhold, 1979, 859.

4-Nitrodiphenylamine, 8CI**N-00105**

4-Nitro-N-phenylbenzenamine, 9CI

[836-30-6]

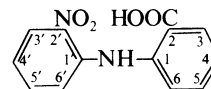
 $C_{12}H_{10}N_2O_2$ M 214.223Used as EtOH soln. as a redox indicator. Yellow needles (EtOH). Mp 134°. E° +1.03V.

▷ JJ9600000.

Ullmann, F. *et al*, *Ber.*, 1908, **41**, 3744 (*synth*)Walden, G.H. *et al*, *Chem. Rev.*, 1935, **16**, 81 (*use, indicator*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 580 (*use, indicator*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NFY000.**2'-Nitrodiphenylamine-2-carboxylic acid****N-00106**

2-(2-Nitrophenylamino)benzoic acid, 9CI

[5933-35-7]

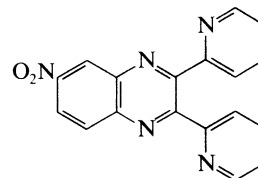
 $C_{13}H_{10}N_2O_4$ M 258.233Used for photometric detn. of V(V) (λ_{\max} 595nm, ϵ 18500); redox indicator. Cryst. (EtOH). Sol. alkalis, conc. H_2SO_4 , EtOH, Et_2O , hot C_6H_6 . Mp 219°, Mp 218-219°. E° + 0.90V (9M H_2SO_4).

▷ CB3710000.

N-Me: Deep-red prisms (EtOH). Mp 136-137°.Ullmann, F. *et al*, *Justus Liebigs Ann. Chem.*, 1907, **355**, 323 (*synth*)Gibson, C.S. *et al*, *J. Chem. Soc.*, 1924, 2502 (*deriv*)Bowden, K. *et al*, *J. Am. Chem. Soc.*, 1966, **88**, 947 (*synth*)Frumina, N.S. *et al*, *Talanta*, 1969, **16**, 138 (*use*)**6-Nitro-2,3-di-pyridylquinoxaline, 8CI****N-00107**

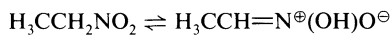
2,3-Bis(2-pyridyl)-6-nitroquinoxaline

[17401-64-8]

 $C_{18}H_{11}N_5O_2$ M 329.317Used as 0.1% EtOH soln. for extraction-photometric detn. of Cu(I) (λ_{\max} 549 nm, ϵ 2040, pentanol). Cryst. (EtOH). Sol. EtOH, pet. ether. Mp 184°.Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, **39**, 357 (*synth, detn, Cu*)

Nitroethane, 9CI

[79-24-3]

 $\text{C}_2\text{H}_5\text{NO}_2$ M 75.067

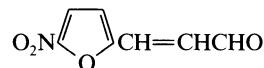
Exists as mixt. of nitro- and *aci*-nitro-forms. Metallic derivs. of *aci*-form are known. Found in cigarette smoke. Used as a liq. propellant in rockets, and in explosives. Solvent, esp. for Friedel-Crafts acylations. Used as an extraction solvent in separation of Ce(IV). Oily liq. with pleasant but slightly irritating odour. Misc. MeOH, EtOH, Et₂O, CHCl₃, sl. sol. hot, insol. cold H₂O. d_{25}^{25} 1.046. Mp -90°. Bp 114°. pK_a 8.60 (25°).

▷ Mod. toxic, TLV 310. Flammable. K15600000.

McCombie, H. *et al.*, *J. Chem. Soc.*, 1944, 24 (*synth*)Reidel, J.C., *Oil Gas J.*, 1956, 54, 110 (*manuf*)Marsh, S.F. *et al.*, *Anal. Chem.*, 1962, 34, 1406 (*use*)Fraser, R.T.M. *et al.*, *J. Chem. Soc. B*, 1968, 1407 (*ms*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1974, 4, 357.Starski, L. *et al.*, *CA*, 1975, 82, 113752 (*hazard*)Barnes, M.W. *et al.*, *J. Org. Chem.*, 1976, 41, 733 (*synth*)Fetell, A.I. *et al.*, *J. Org. Chem.*, 1978, 43, 1238 (*synth, ir, pmr*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 412.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NFY500.**N-00108**Busker, R.W. *et al.*, *Heterocycles*, 1987, 26, 5 (*props*)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 417 (*Nitrofurazone*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NGE500, NGE775.**3-(5-Nitro-2-furanyl)-2-propenal, 9CI****N-00110**

5-Nitro-2-furanacrolein, 8CI

[1874-22-2]

 $\text{C}_7\text{H}_5\text{NO}_4$ M 167.121

Bactericide. Red-brown needles (EtOH). Mp 117-118°.

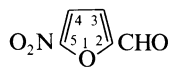
Thiosemicarbazone: [18854-93-8]. $\text{C}_8\text{H}_8\text{N}_4\text{O}_3\text{S}$ M 240.242Used as a 0.4mM soln. in EtOH for photometric detn. of Pd (λ_{max} 485 nm, ϵ 23500), Pt (λ_{max} 500 nm, ϵ 17000). Cryst. (EtOH). Mp 216°. pK_{a1} 0.22; pK_{a2} 10.86.

[52661-56-0]

Takahashi, T. *et al.*, *Yakugaku Zasshi*, 1949, 69, 284 (*synth*)Saikachi, H. *et al.*, *Yakugaku Zasshi*, 1953, 73, 716 (*synth*)Kerentseva, V.P. *et al.*, *Zh. Anal. Khim.*, 1971, 26, 1144; 1972, 27, 719 (*synth, pKa, detn, Pd, Pt*)Dandarova, M. *et al.*, *Collect. Czech. Chem. Commun.*, 1986, 51, 889 (*pmr, cmr*)**5-Nitro-2-furancarboxaldehyde, 9CI****N-00109**

2-Formyl-5-nitrofurane. 5-Nitrofurfuraldehyde

[698-63-5]

 $\text{C}_5\text{H}_3\text{NO}_4$ M 141.083Cryst. (pet. ether). Mod. sol. H₂O. Mp 35-36°. Bp₁₀ 128-132°. Extensively hydrated in aq. soln.

▷ LT7200000.

(E)-*Oxime*: [7197-93-5]. $\text{C}_5\text{H}_4\text{N}_2\text{O}_4$ M 156.098

Cryst. (EtOH). Mp 159-161°.

(Z)-*Oxime*: [6236-05-1]. *Nifuroxime*, INN. *Micofur*

Pale yellow or greenish cryst. (EtOH). Mp 163-164°.

Darkens on exp. to light.

Semicarbazone: [59-87-0]. **Nitrofurazone**, BAN, USAN.*Nitrofurural*, INN. *Furacin*. *Eldezol*. *Amifur*. *Furaciline* $\text{C}_6\text{H}_6\text{N}_4\text{O}_4$ M 198.138Bactericide, topical antiinfective. Used as a 0.5% aq. soln. for photometric detn. of Hg (λ_{max} 420 nm); for extraction-photometric detn. of Pd (λ_{max} 450 nm, ϵ 1400, butanol). Pale yellow needles. Sol. H₂O. Mp 236-240° dec. Component of Furacort, Furadex, Furea, Bifuran, Dermobion, Neovagon, Vagifurin.

▷ LT7700000.

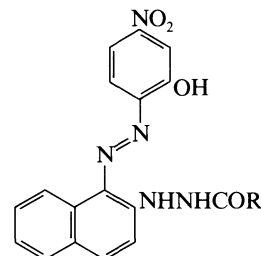
Gilman, H. *et al.*, *J. Am. Chem. Soc.*, 1930, 52, 2552 (*synth*)U.S. Pat., 2 319 481, (1943); *CA*, 37, 6413 (*Nifuroxime*)Raffauf, R.F. *et al.*, *J. Am. Chem. Soc.*, 1946, 68, 1765 (*w*)U.S. Pat., 2 416 234, (1947); *CA*, 41, 3488 (*Nitrofurazone*)U.S. Pat., 2 927 110, (1960); *CA*, 54, 12158 (*Nitrofurazone*)Bagdasarov, K.N. *et al.*, *Zavod. Lab.*, 1968, 34, 390 (*detn, Hg*)Bagdasarov, K.N. *et al.*, *Zh. Anal. Khim.*, 1968, 23, 1002 (*synth, detn, Hg*)Howarth, G.A. *et al.*, *Talanta*, 1969, 16, 967 (*Nifuroxime*)Chamberlain, R.E., *J. Antimicrob. Chemother.*, 1976, 2, 325 (*Nitrofurazone, rev*)Gadzhieva, M.D., *CA*, 1977, 87, 161226g (*detn, Pd*)*Martindale, The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1626, 2594.

Csaszar, J., *Acta Phys. Chem.*, 1984, 30, 71 (*Nitrofurazone*)**1-(4-Nitro-2-hydroxybenzeneazo)-2-(β-acetylhydrazino)naphthalene****N-00111**

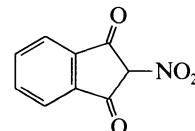
Acetic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, 9CI

[17560-30-4]

R = CH₃ $\text{C}_{18}\text{H}_{15}\text{N}_5\text{O}_4$ M 365.348Used as 0.2mM Me₂CO soln. for photometric detn. of Zn (λ_{max} 646 nm, ϵ 38000, Me₂CO aq.). Red cryst. (DMF aq.). Sol. H₂O, DMF, Me₂CO. Mp 223°.Dziomko, V.M., *CA*, 1968, 68, 104801g (*synth, detn, Zn*)Kamaeva, L.V. *et al.*, *Zh. Anal. Khim.*, 1970, 25, 1718; 1972, 27, 1687 (*synth, Zn, detn*)**2-Nitro-1,3-indanedione****N-00112**

2-Nitro-1H-indene-1,3(2H)-dione, 9CI

[3674-33-7]

 $\text{C}_9\text{H}_5\text{NO}_4$ M 191.143

Exists as the enol form in soln. Reagent for the identification of amines. Used in the photometric anal. of isoniazid. Pale yellow powder. Mp 131°.

Dihydrate: [64887-75-8].

Yellow cryst. (H₂O). Mp 113°, Mp 119° dec.

Vonags, G., *Ber.*, 1936, **69**, 1066; 1937, **70**, 547 (*synth. use*)

Cristensen, B.E. *et al.*, *Anal. Chem.*, 1949, **21**, 1573 (*use*)

Alexander, R.G. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1977, 1191 (*synth*)

Petrenko, V.V. *et al.*, *CA*, 1988, **108**, 10501e (*use*)

Nitromethane, 9CI, 8CI

N-00113

[75-52-5]



CH₃NO₂ M 61.040

Occurs in tobacco smoke. Used as a solvent and as a fuel for rockets and specialised internal combustion engines.

Has bactericidal props. Polar solv., used in synthesis.

Used as an extraction solvent in separation of actinides.

Poisonous, oily liq. with mod. disagreeable odour. Sol.

EtOH, Et₂O, DMF, sl. sol. H₂O. d_4^{25} 1.1322 (1.1297). Fp

–28.5° (–17°). Bp 101–101.5°, Bp₁₀₀ 46.6°. Aq. soln.

reacts acid to litmus.

▶ Mod. toxic vapour, TLV 250. Flammable, explosive.

Forms an explosive Na salt which inflames on contact with H₂O. PA9800000.

Org. Synth., Coll. Vol., 1, 1932, 401 (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 357.

Meyerson, S. *et al.*, *Org. Mass Spectrom.*, 1974, **9**, 485 (*ms*)

Vennestra, G.E. *et al.*, *Synthesis*, 1975, 519 (*synth*)

Holzbecher, Z. *et al.*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.

Fridman, A.L. *et al.*, *Khim.-Farm. Zh.*, 1976, **10**, 53 (*pharmacol*)

Parrett, F.W. *et al.*, *J. Chem. Educ.*, 1977, **54**, 448 (*purifn*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 414.

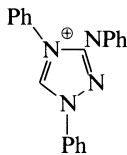
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NHM500.

Nitron

N-00114

1,4-Diphenyl-3-(phenylimino)-1,2,4-triazolidine mesoionic dihydro deriv., 8CI

[487-88-7]



C₂₀H₁₆N₄ M 312.373

Used as 10% soln. in AcOH for gravimetric detn. of NO₃[⊖], ReO₄[⊖], ClO₄[⊖], B (as BF₄[⊖]), W(VI); extraction separation of Au (as ion pair with AuCl₄[⊖]), I[⊖]; extraction-photometric detn. of Mo (as thiocyanate), V (in the presence of PAR). Yellow leaflets. Sol. EtOH, Me₂CO, CHCl₃; insol. H₂O. Mp 189°.

Cope, W.C. *et al.*, *J. Am. Chem. Soc.*, 1917, **39**, 504 (*synth*)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 138 (*synth, use*)

Lucchesi, C.A. *et al.*, *Anal. Chem.*, 1957, **29**, 1169 (*detn, B*)

Evans, G.W. *et al.*, *Aust. J. Chem.*, 1967, **20**, 1779 (*nmr*)

Gantchev, N. *et al.*, *Mikrochim. Acta*, 1971, 476; 1972, 889 (*detn, I, Au*)

Pogranichnaya, R.M. *et al.*, *Zh. Anal. Khim.*, 1975, **30**, 180 (*detn, V*)

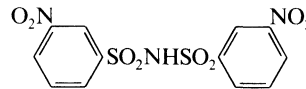
Koralewski, T.J. *et al.*, *Anal. Chim. Acta*, 1980, **113**, 389 (*detn, Mo*)

3-Nitro-N-[(3-nitrophenyl)sulfonyl]benzenesulfonamide, 9CI

N-00115

Bis(3-nitrophenyl)disulfimide

[23847-23-6]



C₁₂H₉N₃O₈S₂ M 387.350

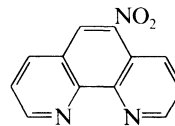
Used as acidimetric standard. Cryst. Sol. H₂O.

Runge, F. *et al.*, *Fresenius' Z. Anal. Chem.*, 1957, **158**, 266 (*use*)

5-Nitro-1,10-phenanthroline, 9CI

N-00116

[4199-88-6]



C₁₂H₇N₃O₂ M 225.206

Pale yellow needles (pet. ether). Mp 202°.

B, HCl: [23484-56-2].

Used as redox indicator. Pale yellow cryst. Sol. EtOH,

CHCl₃, C₆H₆.

Harcrow, B.E. *et al.*, *J. Chem. Soc.*, 1946, 155 (*synth*)

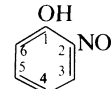
Smith, G.F. *et al.*, *J. Org. Chem.*, 1947, **12**, 781 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

2-Nitrophenol, 9CI

N-00117

[88-75-5]



C₆H₅NO₃ M 139.110

Reagent for prepn. of *O*-nitrophenyl esters used in peptide

synth. Used as EtOH soln. as an acid-base indicator

(pH range: 5.0-7.0; colourless → yellow). Yellow needles

or prisms (EtOH or Et₂O). Sol. EtOH, C₆H₆; spar. sol.

H₂O. Mp 44.9°. Bp 216°. pK_a 7.23 (25°).

▶ Mod. toxic by inhalation and skin absorption.

SM2100000.

Me ether: [91-23-6]. *1-Methoxy-2-nitrobenzene*, 9CI. *o*-Nitroanisole

C₇H₇NO₃ M 153.137

Mp 10°. Bp 272°, Bp₉ 134°. Steam-volatile.

▶ BZ8790000.

Et ether: [610-67-3]. *1-Ethoxy-2-nitrobenzene*, 9CI. *o*-

Nitrophenetole

C₈H₉NO₃ M 167.164

Yellow-green oil. Mp 2.1°. Bp 267°, Bp₁₆ 149°.

▶ SI7942000.

O-Ac: [610-69-5]. *2-Nitrophenyl acetate*, 9CI

C₈H₇NO₄ M 181.148

Needles or prisms (ligroin). Mp 40-41°. Bp 253° dec.

O-Benzoyl: [1523-12-2]. *Benzoic acid 2-nitrophenyl ester*, 9CI

C₁₃H₉NO₄ M 243.218

Prisms (ligroin). Mp 59°.

O-4-Methylbenzenesulfonyl: Mp 81°.

Hart, R.S., *J. Am. Chem. Soc.*, 1910, **32**, 1105 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 91 (*use, indicator*)

- Tomasik, P. *et al*, *Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1974, **22**, 1065 (*uv*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 477.
 Bhave, M.D. *et al*, *J. Appl. Chem. Biotechnol.*, 1976, **26**, 167 (*synth*)
 Smith, W.B. *et al*, *Org. Magn. Reson.*, 1976, **8**, 205 (*nmr*)
 Bogolyubov, G.M. *et al*, *Zh. Obshch. Khim.*, 1976, **46**, 336 (*ms*)
 Iwasaki, F. *et al*, *Acta Crystallogr., Sect. B*, 1978, **34**, 1286 (*cryst struct*)
 Lutskii, A.E. *et al*, *Zh. Obshch. Khim.*, 1979, **49**, 1369 (*ir*)
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 560.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 415.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NER000, NIE500.

3-Nitrophenol, 9CI**N-00118**

[554-84-7]

 $C_6H_5NO_3$ M 139.110

Used as 0.08% aq. soln. or 0.3% EtOH soln. as an acid-base indicator (pH range: 6.8-8.6; colourless → orange-yellow). Cryst. (HCl aq.). Sol. EtOH; spar. sol. H_2O . Mp 97°. Bp₇₀ 194°. p*K*_a 8.36 (25°). Triboluminescent.

▷ Mod. toxic by inhalation and skin absorption.

SM1925000.

Me ether: [555-03-3]. *1-Methoxy-3-nitrobenzene*, 9CI. *m-Nitroanisole*

 $C_7H_7NO_3$ M 153.137

Needles (EtOH), plates (C_6H_6 /ligroin). Mp 38-39°. Bp 258°. Steam-volatile.

▷ BZ8787000.

Et ether: [621-52-3]. *1-Ethoxy-3-nitrobenzene*, 9CI. *m-Nitrophenetole*

 $C_8H_9NO_3$ M 167.164

Yellow cryst. Mp 34°. Bp 284°.

O-*Ac*: [1523-06-4]. $C_8H_7NO_4$ M 181.148

Needles (pet. ether). Mp 55-56°.

O-*Benzoyl*: [1523-13-3]. $C_{13}H_9NO_4$ M 243.218

Mp 95°.

O-4-*Methylbenzenesulfonyl*: Prisms (EtOH). Mp 112-113°.*Org. Synth., Coll. Vol.*, 1, 1932, 396 (*synth*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 91 (*use, indicator*)Brasem, P. *et al*, *Tetrahedron Lett.*, 1972, 685 (*synth*)Granzhan, V.A. *et al*, *Zh. Fiz. Khim.*, 1973, **47**, 515 (*ir*)Fujio, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 2127 (*nmr*)Izmail'skii, V.A. *et al*, *Dokl. Akad. Nauk SSSR*, 1975, **221**, 103 (*uv*)Vasudevan, P. *et al*, *J. Phys. Chem.*, 1976, **80**, 651 (*cryst struct*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 415.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NIE000.

4-Nitrophenol**N-00119**

[100-02-7]

 $C_6H_5NO_3$ M 139.110

Reagent used in peptide synth. Used as EtOH soln. as an acid-base indicator (orange → yellow). Mp 114°. p*K*_a 7.15 (25°). Dimorphous. The metastable α -form is obt. by cryst. from toluene >63° and is light-stable. The β -form is obt. as yellow prisms from toluene <63° and gradually turns red in light. Normally obt. as a mixt. of both forms.

▷ Mod. toxic by inhalation and skin absorption.

SM2275000.

O-*Ac*: [830-03-5]. $C_8H_7NO_4$ M 181.148

Leaflets (EtOH aq.). Mp 81-82°.

▷ AJ1150000.

O-*Benzoyl*: [959-22-8]. $C_{13}H_9NO_4$ M 243.218

Needles. Mp 142.5°.

O-4-*Methylbenzenesulfonyl*: Mp 97°.

Me ether: [100-17-4]. *1-Methoxy-4-nitrobenzene*, 9CI. *p-Nitroanisole*

 $C_7H_7NO_3$ M 153.137

Prisms (EtOH). Mp 54°. Bp 274°.

▷ BZ8800000.

Et ether: [100-29-8]. *1-Ethoxy-4-nitrobenzene*, 9CI. *p-Nitrophenetole*

 $C_8H_9NO_3$ M 167.164

Prisms (Et_2O or EtOH aq.). Mp 60°. Bp 283°.

▷ DA0600000.

Hart, R.S., *J. Am. Chem. Soc.*, 1910, **32**, 1105 (*synth*)Michaelis, L. *et al*, *Biochem. Z.*, 1920, **109**, 165.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 297.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 91 (*use, indicator*)Granzhan, V.A. *et al*, *Zh. Fiz. Khim.*, 1973, **47**, 515 (*ir*)Fujio, M. *et al*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 2127 (*nmr*)Yurchenko, R.I. *et al*, *Zh. Obshch. Khim.*, 1975, **45**, 1735 (*uv*)Karasek, F.W. *et al*, *Anal. Chem.*, 1976, **48**, 1133 (*ms*)Bhave, M.D. *et al*, *J. Appl. Chem. Biotechnol.*, 1976, **26**, 167 (*synth*)

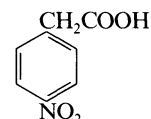
Penner, G.H. *et al*, *Can. J. Chem.*, 1989, **67**, 525 (*cmr*, 4-*nitroanisole*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 415.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ABS750, NER500, NID000, NIF000.

(4-Nitrophenyl)acetic acid**N-00120**4-*Nitrobenzeneacetic acid*, 9CI

[104-03-0]

 $C_8H_7NO_4$ M 181.148

Yellow needles (H_2O). Mp 153° (150°). p*K*_{a1} 3.92 (25°).

▷ AJ1130010.

Me ester: [2945-08-6]. $C_9H_9NO_4$ M 195.174

Needles (pet. ether). Mp 54°.

Et ester: [5445-26-1]. $C_{10}H_{11}NO_4$ M 209.201

Leaflets (pet. ether). Mp 65.5-66°. Bp₂₀ 196-197°.

Chloride: [50434-36-1]. $C_8H_6ClNO_3$ M 199.593

Pale-yellow plates (pet. ether). Mp 46-47°.

Amide: [6321-12-6]. $C_8H_8N_2O_3$ M 180.163

Prisms. Mp 197-198° (191°).

Nitrile: [555-21-5]. *1-(Cyanomethyl)-4-nitrobenzene*. *p-Nitrobenzyl cyanide*. *4-Nitrobenzeneacetonitrile*, 9CI $C_8H_6N_2O_2$ M 162.148

Acid-base indicator (pH range: 11.4-12.9; colour change: orange → red). Plates. Mp 116-117°.

▷ AM1250000.

Azide: $C_8H_6N_4O_3$ M 206.160

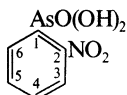
Mp 45° dec.

▷ Explodes on rapid heating.

Org. Synth., Coll. Vol., 1, 1932, 396, 406 (*synth*)
 Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, 3 (*synth, use, oxime*)
 Naidan, U.M. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1963, 34, 1474 (*synth*)
 Issa, R.M. *et al*, *Spectrochim. Acta, Part A*, 1975, 31, 199 (*ir, uv*)
 Bowie, J.H. *et al*, *Org. Mass Spectrom.*, 1977, 12, 436 (*ms*)
 Kalir, A. *et al*, *Synthesis*, 1987, 514 (*nitrile, synth, pmr*)
 Grabowski, S.J. *et al*, *Acta Crystallogr., Sect. C*, 1990, 46, 428 (*cryst struct*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NIJ000.

2-Nitrophenylarsonic acid, 9CI**N-00121**

o-Nitrobenzenearsonic acid, 8CI
 [5410-29-7]



$C_6H_6AsNO_5$ M 247.039

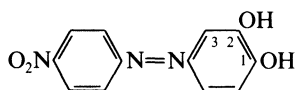
Fungicide, wood preservative, reagent for quantitative precipitation of metal ions. Light-yellow needles. Sol. H_2O . Mp 235°, Mp 224-225° dec. pK_{a1} 3.37; pK_{a2} 8.54 (22°).

▷ CY5950000.

Goddard, A.E., *Textbook of Inorg. Chem.*, Vol XI, *Organometallic Compds.*, pt II, Charles Griffin and Co., London, 1930, 170.
 Pressman, D. *et al*, *J. Am. Chem. Soc.*, 1943, 65, 540 (*pKa*)
 Margeerum, D.W. *et al*, *Anal. Chem.*, 1953, 25, 1219 (*synth*)
U.S. Pat., 2 726 189, (1955); *CA*, 50, 6793 (*use*)
 Freeman, L.D. *et al*, *J. Org. Chem.*, 1959, 24, 1590 (*synth*)
 Nakata, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1962, 35, 1611 (*use*)
 Tsetovskii, V.M. *et al*, *Zh. Obshch. Khim.*, 1972, 42, 2702 (*pKa*)
 Tszchach, A. *et al*, *J. Organomet. Chem.*, 1973, 60, 95 (*props*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NEX500.

4-[(4-Nitrophenyl)azo]-1,2-benzenediol, 9CI**N-00122**

3,4-Dihydroxy-4'-nitroazobenzene. 4-(*p*-Nitrophenylazo)pyrocatechol, 8CI. *p*-Nitrobenzenediazopyrocatechol
 [843-33-4]



$C_{12}H_9N_3O_4$ M 259.221

Used as 0.1% soln. in EtOH or $CHCl_3$ as metallochromic indicator in titrimetric detn. of Bi, Cu, Hf, Th, Zr; extraction-photometric detn. of Zr (λ_{max} 540 nm, $CHCl_3$), Ti(IV) (λ_{max} 520 nm, ϵ 54000), W (λ_{max} 470 nm, ϵ 40000); acid-base indicator (pH range: 10.4-11.7; colour change: orange-red → purple). Red cryst. Mp 188-190°.

Di-Na salt: [35033-46-6].

Orange-red cryst. Sol. EtOH, Me_2CO , alkalis.

Körbl, J. *et al*, *Collect. Czech. Chem. Commun.*, 1957, 22, 1416 (*detn, Bi, Cu, Th*)
 Poluektov, N.S. *et al*, *Zavod. Lab.*, 1957, 23, 660 (*detn, Hf, Zr*)
 Kokkinos, K. *et al*, *Helv. Chim. Acta*, 1971, 54, 335 (*props*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972.
 Pvatnitskii, I.V. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1975, 41, 1090 (*detn, Zr*)
 Myasoedova, A.S. *et al*, *Zh. Anal. Khim.*, 1975, 30, 2398 (*detn, W*)
 Vilkova, O.M. *et al*, *Zh. Anal. Khim.*, 1978, 33, 716 (*synth, detn, Zr*)
 Ivanov, V.M. *et al*, *Zh. Anal. Khim.*, 1980, 35, 2124 (*detn, Ti*)

4-[(4-Nitrophenyl)azo]-1,3-benzenediol, 9CI**N-00123**

4-[(4-Nitrophenyl)azo]resorcinol, 8CI. 2,4-Dihydroxy-4'-nitroazobenzene. Azo violet. *Magneson I*
 [74-39-5]

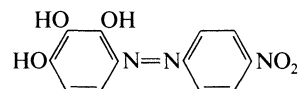
$C_{12}H_9N_3O_4$ M 259.221

Used as 0.5% soln. in 1% NaOH as an acid-base indicator in non-aq. media; as 0.004% soln. in 50% EtOH for photometric detn. of Mg (λ_{max} 550 nm; pH ~ 13); gives colour reaction with Pd; used as a 0.01% soln. in EtOH as an indicator in bromatometric detn. of As, Sb. Dark red cryst. powder ($MeOH$). Sol. alkalis, EtOH, C_6H_6 ; insol. H_2O , acids, common org. solvs. Mp 199-200°.

Kul'berg, L.M. *et al*, *Zh. Obshch. Khim.*, 1947, 17, 601 (*synth*)
 Rusconi, Y. *et al*, *Helv. Chim. Acta*, 1948, 31, 1549 (*detn, Mg*)
 Budanova, L.M. *et al*, *Zavod. Lab.*, 1956, 22, 1419 (*detn, Mg*)
 Popa, G. *et al*, *Zh. Anal. Khim.*, 1959, 14, 322 (*detn, Pd*)
 Cundiff, R.H. *et al*, *Anal. Chem.*, 1961, 33, 1028.
 Marple, L.W. *et al*, *Anal. Chem.*, 1963, 35, 1305.
 Fritz, J.S. *et al*, *Talanta*, 1966, 13, 939.
 Bognar, J. *et al*, *CA*, 1976, 85, 40406y (*detn, As, Sb*)

4-[(4-Nitrophenyl)azo]-1,2,3-benzenetriol, 9CI**N-00124**

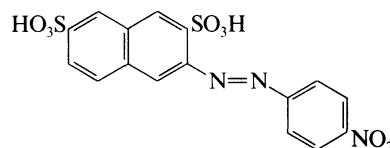
2,3,4-Trihydroxy-4'-nitroazobenzene
 [6370-37-2]



$C_{12}H_9N_3O_5$ M 275.220

Used as 1mM Me_2CO soln. for photometric detn. of Mo(VI) (λ_{max} 540 nm, ϵ 9000, 0.01-0.05M HCl). Dark brown powder. Sol. Me_2CO , EtOH.

Gambarov, D.G. *et al*, *Zh. Anal. Khim.*, 1982, 37, 2190 (*synth, detn, Mo*)

3-[(4-Nitrophenyl)azo]-2,7-naphthalenedisulfonic acid**N-00125**

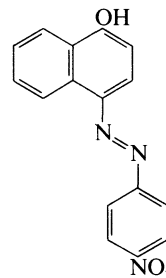
$C_{16}H_{11}N_3O_8S_2$ M 437.410

Used as 0.1% aq. soln. for photometric detn. of Pd (λ_{max} 684 nm, ϵ 14000). Dark red cryst. Sol. H_2O .

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, 26, 558 (*detn, Pd*)

4-[(4-Nitrophenyl)azo]-1-naphthalenol, 9CI**N-00126**

Magneson II
 [5290-62-0]



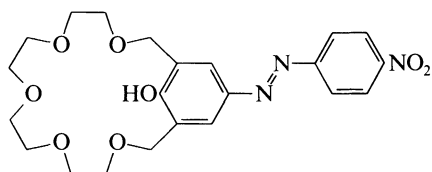
$C_{16}H_{11}N_3O_3$ M 293.281

Used as an aq. soln. for photometric detn. of Mg; adsorption indicator. Red cryst. powder. Sol. EtOH; spar. sol. H₂O. Mp > 300°.

Meldola, R., *J. Chem. Soc.*, 1885, **47**, 661 (*synth*)
 Babko, A.K. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 416, 922; 1969, **24**, 786 (*use*)
 Legradi, L., *Acta Chim. Acad. Sci. Hung.*, 1968, **57**, 247 (*use*)
 Legradi, L., *Hung. Acta Chim.*, 1968, **57**, 241 (*ind, use*)
 Babko, A.K. *et al*, *Zavod. Lab.*, 1968, **34**, 1435 (*detn, Mg*)

19-[(4-Nitrophenyl)azo]-3,6,9,12,15-pentaoxabicyclo[15,3,1]heneicosal(21),17,19-trien-21-ol, 9CI **N-00127**

2-Hydroxy-4-nitrophenylazo-1,3-xylyl-18-crown-5
 [110518-92-8]

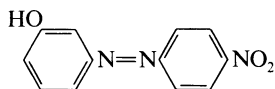


C₂₂H₂₇N₃O₈ M 461.471

Used as 0.1% MeOH soln. for photometric detn. of K (λ_{max} 557 nm, pH 7-8) (optical sensor for K). Orange cryst. (EtOH). Sol. EtOH, MeOH. Mp 107-110°.

Alder, J.F. *et al*, *Analyst (London)*, 1987, **112**, 1191 (*synth, detn, K*)
 Al-Amir, S.M. *et al*, *Talanta*, 1989, **36**, 645 (*detn, K*)

2-[(4-Nitrophenyl)azo]phenol, 9CI **N-00128**
4-(3-Hydroxyphenylazo)nitrobenzene
 [15331-60-9]

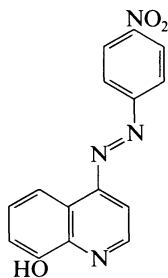


C₁₂H₉N₃O₃ M 243.221

Used as 0.1% soln. in EtOH for titrimetric detn. of Cu. Orange cryst. (EtOH). Sol. EtOH, Me₂CO.

Pribyl, R., *Komplexometrie*, V.II, VEB Deutscher Verlag für Grundstoffindustrie, Leipzig, 1962 (*detn, Cu*)

5-[(4-Nitrophenyl)azo]-8-quinolinol **N-00129**
 [4341-11-1]



C₁₅H₁₀N₄O₃ M 294.269

Brown needles (CHCl₃). Mp 281°.

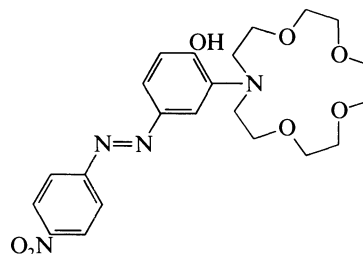
1-Oxide: [63319-31-3].

C₁₅H₁₀N₄O₄ M 310.268

Used as a soln. in NH₃ aq. for photometric detn. of Al, Co, Cu, Pb, Pd, Zn. Yellow-brown cryst. powder. Sol. alkalis, H₂O; spar. sol. EtOH (0.005 g per 100 cm³), Me₂CO (0.01 g per 100 cm³). Mp 243°. λ_{max} 420 nm (EtOH).

Fox, J.J., *J. Chem. Soc.*, 1910, **97**, 1337 (*synth*)
 Nemodruk, A.A. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 457 (*use*)

4-[(4-Nitrophenyl)azo]-2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-yl)phenol, 9CI **N-00130**
 [100852-76-4]

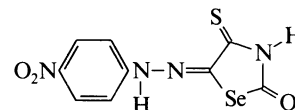


C₂₂H₂₈N₄O₇ M 460.486

Used as 1,2-dichloroethane soln. for extraction sepn. of Li and Na from K. Yellow cryst. Sol. CHCl₃, 1,2-dichloroethane. pK_a 8.97 (25°, μ = 0.1, 10% dioxan).

Katayama, Y. *et al*, *Anal. Sci.*, 1985, **1**, 393 (*synth, use*)

5-[(4-Nitrophenyl)azo]-4-thioxo-2-selenazolidinone **N-00131**
p-Nitrobenzeneazoselenisorhodanine

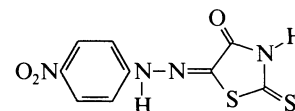


C₉H₆N₄O₃SSe M 329.197

Various tautomers possible. Used as EtOH soln. for photometric detn. of noble metals. Brown cryst. powder. Sol. EtOH, H₂O.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*use*)

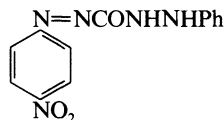
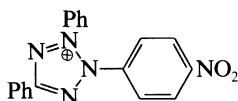
5-[(4-Nitrophenyl)azo]-2-thioxo-4-thiazolidinone, 9CI **N-00132**
p-Nitrobenzeneazorhodanine
 [959-43-3]



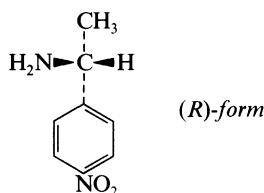
C₉H₆N₄O₃S₂ M 282.303

Various tautomers possible. Used for photometric detn. of Ag, Cd, Co, Ni, Pb, Zn. Orange cryst. powder. Sol. Me₂CO, EtOH.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*use*)

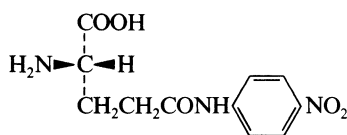
(4-Nitrophenyl)diazene-carboxylic acid 2-phenylhydrazide **N-00133**5-(4-Nitrophenyl)-1-phenylcarbazone
[29639-09-6] $C_{13}H_{11}N_3O_3$ M 285.262Used as 5mM EtOH soln. for photometric detn. of Cu(II)
(λ_{max} 490 nm, ϵ 38000), Hg(II) (λ_{max} 596 nm, ϵ 12000).
Brown cryst. (EtOH). Sol. EtOH. Mp 153°. pK_a 6.2.Czech, N. et al, *Anal. Chim. Acta*, 1980, **121**, 275 (synth, use)**2-(4-Nitrophenyl)-3,5-diphenyl-2H-tetrazolium(1+)** **N-00134** $C_{19}H_{14}N_5O_2^+$ M 344.352 (ion)

Chloride: [20829-03-2].

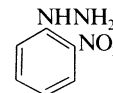
 $C_{19}H_{14}ClN_5O_2$ M 379.805Used as 3mM soln. in 2-propanol for photometric detn. of As (λ_{max} 620 nm). Cryst. Sol. 2-propanol, Me₂CO.Kolesnikova, A.M. et al, *Zh. Anal. Khim.*, 1987, **42**, 1270 (detn, As)**1-(4-Nitrophenyl)ethylamine** **N-00135** α -Methyl-4-nitrobenzenemethanamine, 9CI
[42142-15-4] $C_8H_{10}N_2O_2$ M 166.179**(R)-form** [22038-87-5]Resolving agent for carboxylic acids. Liq. Bp_{0.5} 119-120°. [α]_D²⁴ +16.9° (c, 3.8 in CHCl₃).

B, HCl: [57233-86-0].

Cryst. (EtOH). Mp 243-245°.

(S)-form [4187-53-5]Liq. Bp_{1.1} 127°. [α]_D²⁵ -20.3° (c, 4.5 in CHCl₃).**(±)-form** [73069-55-3] pK_a 8.50. n_D^{20} 1.5680.Cope, A.C. et al, *J. Am. Chem. Soc.*, 1970, **92**, 1243 (synth)Scott, C.G. et al, *J. Chromatogr.*, 1976, **125**, 157 (use)Valentine, D. et al, *J. Org. Chem.*, 1976, **41**, 62 (use)Perry, C.W. et al, *Synthesis*, 1977, **7**, 492 (synth, use)**N-(4-Nitrophenyl)glutamine, 9CI** **N-00136**2-Amino-4'-nitroglutaranilic acid, 8CI. γ -Glutamyl-p-nitroanilide $C_{11}H_{13}N_3O_5$ M 267.241**(S)-form** [7300-59-6]*L*-formSubstrate for the detn. of γ -glutamyltranspeptidase activity in serum and tissues. White to pale yellow cryst. (+ H₂O).Szasz, G., *Clin. Chem. (Winston-Salem, N.C.)*, 1969, **15**, 124 (use)Tate, S.S. et al, *J. Biol. Chem.*, 1974, **249**, 7593 (use)Lindsay, H. et al, *Org. Prep. Proced. Int.*, 1975, **7**, 89 (synth)Selvaraj, P. et al, *Clin. Chim. Acta*, 1982, **121**, 291 (use)**(2-Nitrophenyl)hydrazine, 9CI** **N-00137**

[3034-19-3]

 $C_6H_7N_3O_2$ M 153.140Occasionally used to characterise carbonyl compds., esp. sugars. Anal. reagent for carboxylic acids, anhydrides and acid chlorides. Dark-red needles (C₆H₆). Mp 90°.

▷ MV8210000.

B, HCl: [56413-75-3].

Mp 200-201° dec. (rapid heating).

Ac:

 $C_8H_9N_3O_3$ M 195.177

Yellow needles (EtOH). Mp 140-141°.

Di-Ac:

 $C_{10}H_{11}N_3O_4$ M 237.215

Prisms (EtOH). Mp 57-58°.

Benzoyl:

 $C_{13}H_{11}N_3O_3$ M 257.248

Yellow needles (EtOH). Mp 166°.

Bischler, A., *Ber.*, 1889, **22**, 2801 (synth)Müller, H. et al, *Helv. Chim. Acta*, 1937, **20**, 1468 (synth)Atkinson, C.M. et al, *J. Chem. Soc.*, 1954, 165 (synth)Skripkina, V.T. et al, *CA*, 1966, **65**, 7081 (synth)Rappoport, Z. et al, *J. Chem. Soc. B*, 1968, 277 (w)Benoit, F. et al, *Can. J. Chem.*, 1969, **47**, 3611 (ms)Legradi, L., *Mikrochim. Acta*, 1970, 463; 1971, **1**, 380 (use)Munsen, J.W., *J. Pharm. Sci.*, 1974, **63**, 252 (use)Miwa, M. et al, *Chem. Pharm. Bull.*, 1980, **28**, 599 (use)Horikawa, R. et al, *Anal. Lett.*, 1982, **15**, 1629 (use)Miwa, H. et al, *J. Chromatogr.*, 1985, **321**, 165; 1987, **416**, 237;1987, **421**, 33 (use)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NIQ800.**(4-Nitrophenyl)hydrazine, 9CI** **N-00138**

[100-16-3]

 $C_6H_7N_3O_2$ M 153.140Reagent for the detn. of carbonyl compds. Used as 0.3% soln. in EtOH as acid-base indicator (pH range: 2.5-3.0; colour change: colourless → yellow). Orange-red leaflets or needles (EtOH). Sol. Et₂O, CHCl₃; mod. sol. EtOH. Mp 157°. pK_{a1} 2.7.

▷ Irritant, mod. toxic by skin absorption. MV8225000.

B, HCl: [56413-74-2].

Mp 196-197°, Mp 212°.

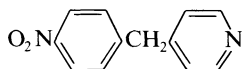
Picrate: Red needles (H₂O). Mp 119-120°.Bamberger, E. et al, *Ber.*, 1896, **29**, 1834 (synth)Kindmann, L., *CA*, 1939, **33**, 4211 (synth)Skripkina, V.T. et al, *CA*, 1966, **65**, 7081 (synth)Rappoport, Z. et al, *J. Chem. Soc. B*, 1968, 277 (w)Benoit, F. et al, *Can. J. Chem.*, 1969, **47**, 3611 (ms)Exner, O. et al, *Collect. Czech. Chem. Commun.*, 1972, **73**, 2156

(ir)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 416.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NIR000.

4-[(4-Nitrophenyl)methyl]pyridine, 9CI **N-00139**
4-(p-Nitrobenzyl)pyridine
[1083-48-3]



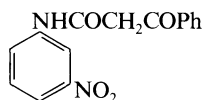
$C_{12}H_{10}N_2O_2$ M 214.223

Chromogenic reagent for determination of relative alkylating potential of alkylating agents e.g. carcinogens and mutagens. Used for photometric detn. of organophosphorus pesticides. Used as a 3% soln. in 2M HCl for detn. of platinum group metals. Cryst. (cyclohexane). Mp 70-71°.

[35466-40-1]

Koenigs, E. *et al*, *Ber.*, 1925, **58**, 933.
Epstein, J. *et al*, *Anal. Chem.*, 1955, **27**, 1435 (use)
Friedman, O.M. *et al*, *Anal. Chem.*, 1961, **33**, 906 (use)
Schaeffer, H.F. *et al*, *Anal. Chem.*, 1964, **36**, 169 (use)
Wheeler, G.P. *et al*, *J. Med. Chem.*, 1967, **10**, 259 (use)
Turner, C.R., *Analyst (London)*, 1974, **99**, 431 (detn. pesticides)
Agarwal, S.G., *Bull. Environ. Contam. Toxicol.*, 1979, **23**, 825; *CA*, **92**, 35257r (use)
Kawazoe, Y. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 2077 (use)

N-(3-Nitrophenyl)-β-oxobenzene-*propenamide*, 9CI **N-00140**
N-(Benzoylacetyl)-m-nitroaniline
[1734-36-7]



$C_{15}H_{12}N_2O_4$ M 284.271

Used as a 1% soln. in EtOH for gravimetric detn. of Hg, Ti, V(IV). Cryst. (C_6H_6). Sol. EtOH, Me_2CO , C_6H_6 ; insol. H_2O .

Chandhuri, N. *et al*, *J. Indian Chem. Soc.*, 1971, **48**, 525; 1973, **50**, 446 (synth, detn. Ti, Hg)
Mandal, S.K. *et al*, *J. Indian Chem. Soc.*, 1975, **52**, 1146 (detn. V)

1-(4-Nitrophenyl)-5-phenylcarbazone **N-00141**
Diazenecarboxylic acid 2-(4-nitrophenyl)hydrazide, 9CI
[76789-98-5]

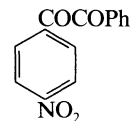


$C_{13}H_{11}N_5O_3$ M 285.262

Used as 5mM EtOH soln. for photometric detn. of Cu(II) (λ_{max} 462 nm, ϵ 28000), Hg(II) (λ_{max} 600 nm, ϵ 16000). Dark red cryst. Sol. EtOH. Mp 137°. pK_a 6.4.

Czech, N. *et al*, *Anal. Chim. Acta*, 1980, **121**, 275 (synth, detn. Cu, Hg)

(4-Nitrophenyl)phenylethanedione, 9CI **N-00142**
4-Nitrobenzil, 8CI. α -4-Nitrophenyl- β -phenylglyoxal
[22711-24-6]



$C_{14}H_9NO_4$ M 255.229

Yellow plates or needles (EtOH). Mp 142°.

Monoxime: [31390-84-8].

$C_{14}H_{10}N_2O_4$ M 270.244

Mp 140°.

Dioxime: [43084-62-4].

$C_{14}H_{11}N_3O_4$ M 285.259

Used as 1mM EtOH soln. for extraction-photometric detn. of Ni (λ_{max} 412 nm, ϵ 13300, $CHCl_3$), Cu. Two forms known. Mp 225° dec. (228-230°), Mp 185° (dimorph.).

Phenylhydrazone: Two forms, yellow plates or orange plates. Mp 200° (yellow form), Mp 162° (orange form).

Womack, E. *et al*, *J. Chem. Soc.*, 1938, 1402.

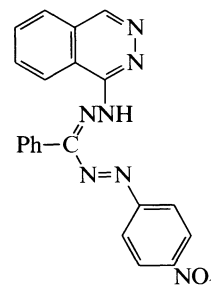
McKillop, A. *et al*, *J. Am. Chem. Soc.*, 1973, **95**, 1296 (synth)

Kuse, S. *et al*, *Anal. Chim. Acta*, 1974, **70**, 65 (dioxime, synth, detn. Ni, Cu)

Dillard, J.G. *et al*, *Org. Mass Spectrom.*, 1975, **10**, 728 (ms)

Tatsugi, J. *et al*, *J. Chem. Res., Synop.*, 1988, 356 (synth)

1-(4-Nitrophenyl)-3-phenyl-5-(1-phthalazinyl)formazan **N-00143**
1(2H)-Phthalazinone [[[4-nitrophenyl]azo]phenylmethylene]hydrazone, 9CI
[67073-45-4]

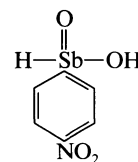


$C_{21}H_{15}N_7O_2$ M 397.395

Used as 2mM soln. in EtOH for extraction-photometric detn. of Hg (λ_{max} 570 nm, ϵ 26000, $CHCl_3$). Brown cryst. (cyclohexane). Sol. EtOH, cyclohexane, $CHCl_3$, DMF.

Barbina, T.M. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1222 (synth, detn. Hg)

4-Nitrophenylstibinic acid **N-00144**



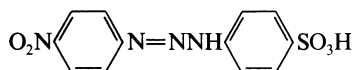
$C_6H_6NO_4Sb$ M 277.868

Used as a 0.15% aq. soln. to give colour reaction with Mg. Cryst.

Pligin, S.G., *Zh. Anal. Khim.*, 1966, **21**, 373 (use)

4-[3-(4-Nitrophenyl)-1-triazenyl]benzenesulfonic acid, 9CI

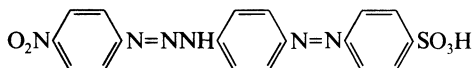
N-00145

C₁₂H₁₀N₄O₅S M 322.301

Na salt: [71369-42-1].

Used as a 0.1% soln. in aq. EtOH for photometric detn. of Hg. Cryst. pK_{a1} 2.69; pK_{a2} 10.48.Danet, A.F. *et al*, *Rev. Chim. (Bucharest)*, 1979, **30**, 376 (*synth, use*)**4-[[4-[3-(4-Nitrophenyl)-2-triazenyl]phenyl]azo]benzenesulfonic acid, 8CI**

N-00146

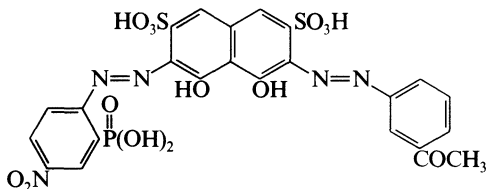
C₁₈H₁₄N₆O₅S M 426.412

Na salt: [18824-38-9].

Used as a 0.05% aq. soln. for photometric detn. of Pb, Hg. Orange-red cryst. Mod. sol. H₂O.Lukin, A.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 295 (*detn, Pb*)Lukin, A.M. *et al*, *CA*, 1968, **68**, 18242u (*detn, Hg*)**Nitrophosphonazo-mA**

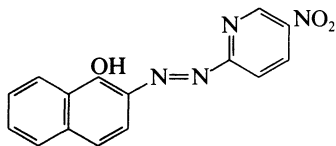
N-00147

3-[(3-Acetylphenyl)azo]-4,5-dihydroxy-6-[(4-nitro-2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI [87454-39-5]

C₂₄H₁₈N₂O₁₄PS₂ M 695.537Used as aq. soln. for photometric detn. of Ce (λ_{max} 600 nm, ε 75000). Cryst. Sol. H₂O.Liu Heng-chuan, *et al*, *Fenxi Huaxue*, 1983, **11**, 418; *CA*, **99**, 168584m (*detn, Ce*)**2-[(5-Nitro-2-pyridinyl)azo]-1-naphthalenol, 9CI**

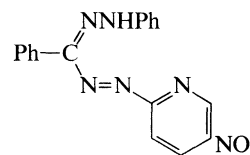
N-00148

[18824-41-4]

C₁₅H₁₀N₂O₃ M 294.269Used as 2mM soln. in dioxan for photometric detn. of Cu (λ_{max} 598 nm, ε 86000), Ni (λ_{max} 632 nm, ε 74000, Triton X-100). Brown-red cryst. (dioxan). Sol. dioxan, EtOH, Me₂CO, CHCl₃; insol. H₂O. Mp 245-246°.Dahl, I., *Anal. Chim. Acta*, 1972, **62**, 145 (*synth, detn, Cu*)Sakai, Y., *Bunseki Kagaku (Jpn. Anal.)*, 1979, **28**, 10 (*detn, Ni*)**1-(5-Nitro-2-pyridinyl)-3,5-diphenylformazan, 9CI**

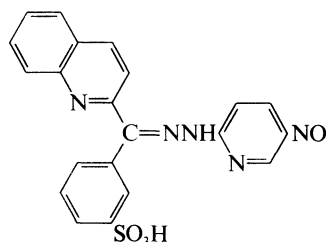
N-00149

[21542-40-5]

C₁₈H₁₄N₆O₂ M 346.348Used for photometric detn. of Cu (λ_{max} 630 nm), Zn (λ_{max} 630 nm, ε 11000). Metalochromic indicator for titrimetric detn. of Cu, Ni; acid-base indicator. Violet cryst. (MeOH). Sol. Me₂CO, EtOH. pK_{a2} 11.83 (50% dioxan).Kiyokawa, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1972, **21**, 244.Tanaka, A. *et al*, *CA*, 1982, **96**, 177289j; 1984, **101**, 187270g (*detn, Cu, Zn*)**3-[(5-Nitro-2-pyridinyl)hydrazone]-3-isoquinolinylmethyl]benzenesulfonic acid, 9CI**

N-00150

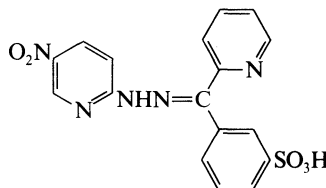
[133303-51-2]

C₂₁H₁₅N₅O₅S M 449.446Used as 1mM soln. in 0.01M NaOH for photometric detn. of Cd, Co (λ_{max} 530 nm, ε 47000), Cu(II) (λ_{max} 507 nm, ε 65500, pH ~ 7), Fe(II), Hg(II), Ni, Zn. Cryst. Sol. H₂O, EtOH, DMF, alkalis. Mp 320° dec. pK_{a4} 4.38; pK_{a5} 11.5.Kohata, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1990, **63**, 3398 (*synth, use*)Ishii, H. *et al*, *Anal. Chim. Acta*, 1991, **244**, 223 (*detn, Co*)**3-[(5-Nitro-2-pyridinyl)hydrazone]-2-pyridinylmethyl]benzenesulfonic acid, 9CI**

N-00151

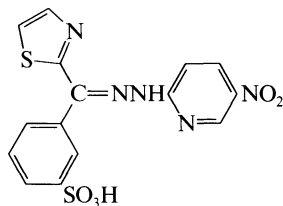
(2-Pyridyl)(3-sulfophenyl)methanone 2-(5-nitropyridyl)hydrazone

[106288-60-2]

C₁₇H₁₃N₅O₅S M 399.386Used as 2mM soln. in 0.01M NaOH for photometric detn. of Co (λ_{max} 496 nm, ε 56000, pH 4), Fe(II,III), Pd, V, Zn. Cryst. (EtOH aq.). Sol. alkalis, H₂O, EtOH. pK_{a1} 0.92; pK_{a2} 4.37; pK_{a3} 11.5 (μ = 0.2, 25°).Odashima, T. *et al*, *Analyst (London)*, 1986, **111**, 1383 (*synth, use*)

3-[[[(5-Nitro-2-pyridinyl)hydrazono]-2-thiazolylmethyl]benzenesulfonic acid, 9CI

[132499-95-7]

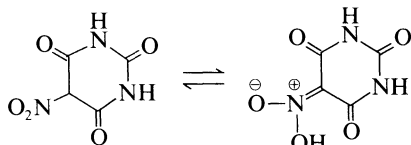
 $C_{15}H_{11}N_5O_5S_2$ M 405.414

Used as 1mM soln. in 0.01M NaOH for photometric detn. of Co (λ_{max} 522 nm, ϵ 36000), Cu(II), Fe(II), Hg(II), Ni, Pd (pH ~ 7). Cryst. Sol. H₂O, EtOH, DMF, alkalis. Mp 320° dec. pK_{a4} 1.72; pK_{a5} 10.7.

Kohata, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1990, **63**, 3398 (*synth, use*)
Ishii, H. *et al.*, *Anal. Chim. Acta*, 1991, **244**, 223 (*detn, Co*)

5-Nitro-2,4,6-(1H,3H,5H)-pyrimidinetrione, 9CI

5-Nitrobarbituric acid, 8CI. Dilituric acid. Nitromalonylurea. 2,6-Dioxo-4-hydroxy-5-nitrotetrahydropyrimidine [480-68-2]

 $C_4H_3N_3O_5$ M 173.085

Used in making electrophotographic papers, as a plant growth stimulator. Used in photometric, gravimetric detn. of K and photometric detn. of Sr. Prisms and leaflets + 3H₂O (H₂O). Sol. hot H₂O, mod. sol. EtOH, alkalis, insol. Et₂O. Mp 176° dec. (anhyd.).

▷ CQ7300000.

Org. Synth., Coll. Vol., 2, 1943, 440 (*synth*)

Palouš, R. *et al.*, *Collect. Czech. Chem. Commun.*, 1959, **24**, 3910 (*detn, K*)

Palouš, R. *et al.*, *Anal. Chem.*, 1961, **24**, 96 (*detn, Sr*)

Bolton, W., *Acta Crystallogr.*, 1963, **16**, 950 (*cryst struct*)

Francis, C.V., *Microchem. J.*, 1963, **7**, 375 (*use*)

Mihai, Fr. *et al.*, *Rev. Roum. Chim.*, 1968, **13**, 39 (*ir, uv*)

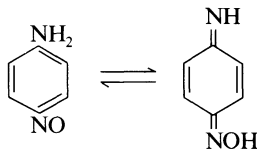
U.S.S.R. Pat., 503 571, (1976); *CA*, **84**, 146142 (*use*)

Sedor, F.A. *et al.*, *Biochem. Biophys. Res. Commun.*, 1977, **75**, 406 (*pharmacol*)

4-Nitrosoaniline

N-00154

4-Nitrosobenzenamine, 9CI. 1,4-Benzoquinoneimine oxime [659-49-4]

 $C_6H_6N_2O$ M 122.126

Steel-blue needles (C₆H₆). Mp 173-174°.

Monopicrate: Mp 166° dec.

N-Ac: [67661-55-6]. p-Nitrosoacetanilide

 $C_8H_8N_2O_2$ M 164.163

Green plates or prisms (EtOH). Mp 174-175° dec.

N-00152

N-Me: [10595-51-4].

 $C_7H_8N_2O$ M 136.153

Bluish plates (C₆H₆). Mp 118°. Amphoteric.

N,N-Dibenzyl: N,N-Diphenylmethyl-4-nitrosobenzenamine

 $C_{20}H_{18}N_2O$ M 302.375

Used as 0.05% aq. soln. for extraction-photometric detn. of Pd (λ_{max} 522 nm, ϵ 110000, CHCl₃). Yellow cryst.

Fischer, O. *et al.*, *Ber.*, 1886, **19**, 2991; 1887, **20**, 2471 (*synth*)

Willenz, J., *J. Chem. Soc.*, 1955, 2049 (*synth*)

Walker, L.A. *et al.*, *J. Org. Chem.*, 1962, **27**, 2762 (*deriv*)

Tabei, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1965, **38**, 965 (*uv*)

Potts, K.T. *et al.*, *Rubber Chem. Technol.*, 1974, **47**, 289 (*deriv, pmr, ms*)

Kothny, E.L., *Mikrochim. Acta*, 1978, **1**, 425 (*synth, use, deriv*)

Nitrosobenzene, 9CI, 8CI

N-00155

[586-96-9]

 C_6H_5NO M 107.112

Used for catalytic detn. of Hg. White cryst. (dimer) forming turquoise monomer in soln. or liq. state. Mp 67.5-68°. Bp₁₈ 57-59°. V. volatile, characteristic pungent odour.

Org. Synth., Coll. Vol., 3, 1955, 668 (*synth*)

Carmichael, P.J. *et al.*, *Int. J. Chem. Kinet.*, 1972, **4**, 339 (*ms*)

Mauser, H. *et al.*, *Z. Phys. Chem.*, 1972, **80**, 21 (*uv*)

Dieterich, D.A. *et al.*, *J. Am. Chem. Soc.*, 1974, **96**, 6372 (*cryst struct*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 478.

Bradley, G.M. *et al.*, *J. Phys. Chem.*, 1975, **79**, 1953 (*ir*)

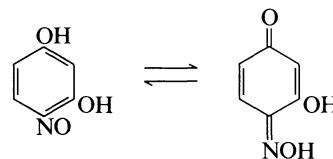
Holzbecher, Z. *et al.*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*detn, Hg*)

Cox, R.H. *et al.*, *Org. Mass Spectrom.*, 1979, **12**, 322 (*nmr*)

4-Nitroso-1,3-benzenediol

N-00156

1,3-Dihydroxy-4-nitrosobenzene. 4-Nitrosoresorcinol. 2-Hydroxy-1,4-benzoquinone 1-oxime [698-31-7]

 $C_6H_5NO_3$ M 139.110

Used for photometric detn. of Ag. Yellow cryst. (CHCl₃), yellow cryst. + H₂O (H₂O). Begins to dec. at 110° and turns black at 145°.

▷ VH2820000.

1-Me ether: [39501-58-1]. 5-Methoxy-2-nitrosophenol

 $C_7H_7NO_3$ M 153.137

Yellow-brown cryst., metastable green dichroic plates (two forms). Mp 158-159°. Green form passes over into yellow form at 140°.

3-Me ether: [13895-38-0]. 3-Methoxy-4-nitrosophenol

 $C_7H_7NO_3$ M 153.137

Used as a 0.4% soln. in AcOH or Me₂CO for photometric detn. of Co (λ_{max} 389 nm), Fe (λ_{max} 710 nm). Yellow leaflets (AcOH). Sol. CHCl₃, C₆H₆, CCl₄, alkalis; sl. sol. H₂O, glac. AcOH. Dec. at 160-170°.

▷ SL7805000.

Di-Me ether: [39501-57-0]. 2,4-Dimethoxy-1-nitrosobenzene

 $C_8H_9NO_3$ M 167.164

Pale-yellow cryst. (pet. ether). Mp 115-117°.

Di-Et ether: 2,4-Diethoxy-1-nitrosobenzene

$C_{10}H_{13}NO_3$ M 195.218

Pale-orange cryst. (C_6H_6 /pet. ether). Mp 91°.

Heinrich, F. *et al*, *Ber.*, 1902, **35**, 1478, 4191 (*synth*)

Heinrich, F., *J. Prakt. Chem.*, 1904, **70**, 317 (*synth*)

Iimura, F., *Bunseki Kagaku (Jpn. Anal.)*, 1955, **4**, 177.

Torii, T. *et al*, *Nippon Kagaku Kaishi*, 1955, **76**, 825.

Reach, S.M., *Analyst (London)*, 1956, **81**, 371 (*synth, detn, Co, Fe*)

Boll, P.M., *Acta Chem. Scand.*, 1958, **12**, 1777 (*synth*)

Lazarev, A.I. *et al*, *CA*, 1972, **77**, 28558b (*detn, Ag*)

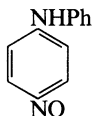
Peshkov, *et al*, *Oximes*, Nauka, Moscow, 1980.

4-Nitrosodiphenylamine, 8CI

N-00157

4-Nitroso-N-phenylbenzenamine

[156-10-5]



$C_{12}H_{10}N_2O$ M 198.224

Used as 0.005% soln. in EtOH for extraction-photometric detn. of Pd, Rh (λ_{max} 520 nm, diethyl oxalate). Dark green cryst. (EtOH). Sol. EtOH, $CHCl_3$, Mp 144-145°.

▷ JK0175000.

Yoe, J.H. *et al*, *J. Am. Chem. Soc.*, 1939, **61**, 2058 (*detn, Pd*)

Marhenke, E.R. *et al*, *Anal. Chim. Acta*, 1963, **28**, 259 (*detn, Pd*)

Stokeley, J.R. *et al*, *Talanta*, 1963, **10**, 43 (*detn, Rh*)

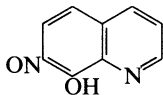
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NKB500.

7-Nitroso-8-hydroxyquinoline

N-00158

7-Nitroso-8-quinolinol, 9CI. 7-Nitrosooxine

[26015-96-3]



$C_9H_6N_2O_2$ M 174.159

Used for photometric detn. of Hg (λ_{max} 485 nm).

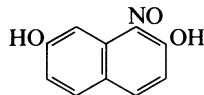
Yellowish green cryst. Mod. sol. H_2O .

Cherkesov, A.I. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1301 (*synth, detn, Hg*)

1-Nitroso-2,7-naphthalenediol, 9CI

N-00159

[27428-79-1]



$C_{10}H_7NO_3$ M 189.170

Used as a 2mM aq. soln. for photometric detn. of Co (λ_{max} 450 nm, ϵ 27000, $PhNO_2$). Cryst. Sol. alkalis; mod. sol. H_2O .

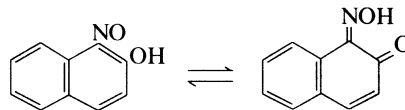
Motomizu, S., *Bunseki Kagaku (Jpn. Anal.)*, 1971, **20**, 590 (*detn, Co*)

1-Nitroso-2-naphthol

N-00160

1-Nitroso-2-naphthalenol, 9CI. 1,2-Naphthoquinone 1-oxime. Cobaltone

[131-91-9]



$C_{10}H_7NO_2$ M 173.171

Complexing agent for transition and rare-earth metals.

Used as 0.5% soln. in AcOH for gravimetric detn. of Co; extraction-photometric detn. of Co (λ_{max} 415 nm, ϵ 29000, $CHCl_3$), Fe, Mo, U; separation of U (in the presence of EDTA). Orange prisms or plates (EtOH or C_6H_6). Sol. AcOH. Mp 109.5°.

▷ Irritant. QL4725000.

Benzoyl: [72771-47-2].

$C_{17}H_{11}NO_3$ M 277.279

Yellow. Mp 114°.

Benzenesulfonyl: Yellow prisms (Me_2CO). Mp 124-125° dec.

Me ether: [53711-03-8]. *2-Methoxy-1-nitrosonaphthalene*

$C_{11}H_9NO_2$ M 187.198

Yellow prisms (ligroin). Mp 75°.

Et ether: *2-Ethoxy-1-nitrosonaphthalene*

$C_{12}H_{11}NO_2$ M 201.224

Needles (EtOH aq. or ligroin). Mp 50-60°.

Benzyl ether:

$C_{17}H_{13}NO_2$ M 263.295

Pale-yellow. Mp 101° (98°).

Lagodzinski, K. *et al*, *Ber.*, 1894, **27**, 3075 (*synth*)

Org. Synth., Coll. Vol., 1, 1932, 411 (*synth*)

Bevillard, P. *et al*, *Bull. Soc. Chim. Fr.*, 1957, 337 (*synth*)

Tedder, J.M. *et al*, *J. Chem. Soc.*, 1958, 2573 (*synth*)

Graue, G. *et al*, *Angew. Chem.*, 1959, **71**, 28 (*detn, Co*)

Titov, V.I. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 129 (*detn, U*)

Erdey, L., *Theorie und Praxis der Gravimetrischen Analyse*,

Akademiai Kiado, Budapest, 1964, **2**, 419 (*use*)

Kesser, G. *et al*, *Anal. Chem.*, 1966, **38**, 221 (*detn, Ru*)

Blank, A.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 978, 1367 (*detn, Fe*)

Shono, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1977, **44**, 3179 (*nmr*)

Peshkova, B.M. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 486 (*detn, Mo*)

Suzuki, J. *et al*, *Chem. Pharm. Bull.*, 1988, **36**, 2204 (*pmr, ms*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 417.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NLB000.

2-Nitroso-1-naphthol

N-00161

2-Nitroso-1-naphthalenol, 9CI. 1,2-Naphthoquinone 2-oxime

[132-53-6]

$C_{10}H_7NO_2$ M 173.171

Complexing agent for transition metals. Used as 0.5% soln. in AcOH for extraction-photometric detn. of Co (λ_{max} 365 nm, ϵ 37000, isopentyl acetate), Ni, Pd, Ru. Yellow needles (H_2O or C_6H_6). Sol. AcOH, EtOH, alkalis. Mp 162-164°. Steam-volatile. Conc. H_2SO_4 → intense red soln.

▷ Exp. carcinogen. QL4550000.

Benzoyl: [72771-48-3].

$C_{17}H_{11}NO_3$ M 277.279

Yellow needles ($Me_2CO/CHCl_3$ or EtOAc). Mp 189-190°, Mp 162°.

Me ether: [53711-02-7]. *1-Methoxy-2-nitrosonaphthalene*

$C_{11}H_9NO_2$ M 187.198

Yellowish-green needles (EtOH aq.). Mp 95°.

Et ether: *1-Ethoxy-2-nitrosonaphthalene*

$C_{12}H_{11}NO_2$ M 201.224
Greenish-yellow needles. Mp 101°.

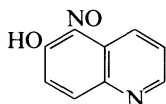
Meisenheimer, J. *et al.*, *Ber.*, 1903, **36**, 4164 (*synth*)
Cheng, K.L., *Anal. Chem.*, 1954, **26**, 1894 (*detn.*, Pd)
Claassen, A. *et al.*, *Anal. Chim. Acta*, 1955, **12**, 28 (*detn.*, Co)
Bevillard, P. *et al.*, *Bull. Soc. Chim. Fr.*, 1957, 337 (*synth*)
Clark, L.J., *Anal. Chem.*, 1958, **30**, 1153 (*detn.*, Co)
Nielsch, W., *Mikrochim. Acta*, 1959, 725 (*detn.*, Co)
Menis, O. *et al.*, *Anal. Chem.*, 1962, **34**, 166 (*detn.*, Ru)
Benson, W.R. *et al.*, *J. Org. Chem.*, 1966, **31**, 2498 (*synth*)
Manson, D., *J. Chem. Soc., Perkin Trans. 1*, 1974, 192 (*synth*)
Shono, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1977, **44**, 3179 (*nmr*)
Motomizu, S. *et al.*, *Anal. Chim. Acta*, 1978, **97**, 335 (*detn.*, Ni)
Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 459; *Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 226.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NLB500.

Used as a 1% aq. soln. for photometric detn. of various dehydrogenases; as 4mM soln. for extraction-photometric detn. of Re(VII) (ϵ 60000, $CHCl_3$). Pale yellow cryst. (MeOH). Sol. EtOH, H_2O . Mp 222-223°.

Nachlas, M.M. *et al.*, *J. Am. Chem. Soc.*, 1956, **78**, 6139 (*synth*)
Cheng, K.L. *et al.*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1983 (*detn.*, dehydrogenases)
Plastinina, E.I. *et al.*, *Zh. Anal. Khim.*, 1989, **44**, 2211 (*detn.*, Re)

5-Nitroso-6-quinolinol, 9CI**N-00162**

6-Hydroxy-5-nitrosoquinoline
[19732-53-7]

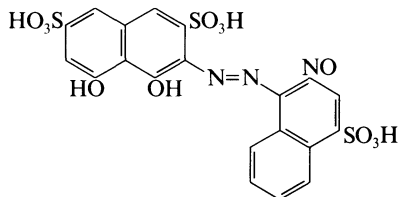


$C_9H_6N_2O_2$ M 174.159
Used for gravimetric detn. of Co; pptn. of transition metals. Cryst.

Travagli, G., *Ann. Chim.*, 1968, **58**, 625, 631 (*detn.*, Co)

3-(2-Nitroso-4-sulfo-1-naphthalenylazo)-4,5-dihydroxynaphthalene-2,7-disulfonic acid**N-00163**

2-(2-Nitroso-4-sulfo-1-naphthylazo)chromotropic acid. 2'-Nitroso-SNADNS

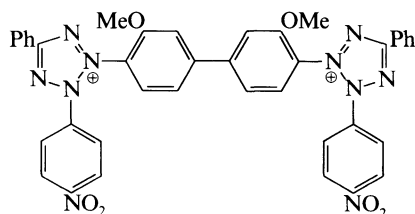


$C_{20}H_{13}N_3O_{12}S_3$ M 583.534
Used as metallochromic indicator for titrimetric detn. of Zr. Dark red cryst. Sol. H_2O .

Datta, S.K., *Chim. Anal. (Paris)*, 1960, **42**, 562.
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 312.

Nitrotetrazolium blue**N-00164**

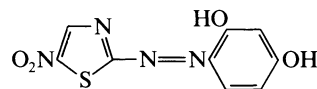
3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2-(4-nitrophenyl)-5-phenyl-2H-tetrazolium](2+)



$C_{40}H_{30}N_{10}O_6^{2\oplus}$ M 746.740 (ion)
Dichloride: [298-83-9]. Nitro TB
 $C_{40}H_{30}Cl_2N_{10}O_6$ M 817.646

4-[(5-Nitro-2-thiazoly)azo]-1,3-benzenediol, 9CI**N-00165**

4-(5-Nitrothiazolyl-2-azo)resorcinol. 2-(2,4-Dihydroxyphenylazo)-5-nitrothiazole. Nitro-TAR
[58874-05-8]

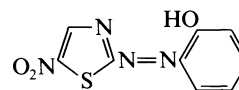


$C_9H_6N_4O_4S$ M 266.237
Used as 0.015 mM aq. soln. for photometric detn. of Ni (λ_{max} 540 nm, ϵ 10000, pH 4-6); as 0.02mM soln. in dioxan for photometric detn. of Pd (λ_{max} 645 nm, ϵ 21300). Red cryst. (EtOH). Spar. sol. H_2O ; sol. EtOH, dioxan. pK_{a2} 5.97; pK_{a3} 12.8.

Yusupov, M.Yu. *et al.*, *Zh. Anal. Khim.*, 1985, **40**, 844 (*synth.*, *detn.*, Pd)
Alikhodzhaev, A.K. *et al.*, *Zh. Anal. Khim.*, 1985, **40**, 2021 (*synth.*, *detn.*, Ni)

2-[(5-Nitro-2-thiazoly)azo]phenol, 9CI**N-00166**

1-(5-Nitrothiazolyl-2-azo)phenol. 2-(2-Hydroxyphenylazo)-5-nitrothiazole
[76845-78-8]

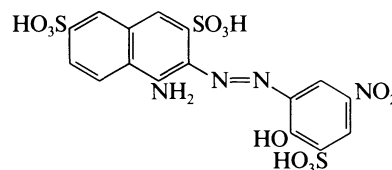


$C_9H_6N_4O_3S$ M 250.237
Used as 0.02mM soln. in dioxan for photometric detn. of Pd (λ_{max} 590 nm, ϵ 35400). Green cryst. (HCOOH). Sol. dioxan, HCOOH, EtOH.

Yusupov, M.Yu. *et al.*, *Zh. Anal. Khim.*, 1985, **40**, 844 (*synth.*, *detn.*, Pd)

Nitroxaminazo**N-00167**

4-Amino-3-[(2-hydroxy-5-nitro-3-sulfophenyl)-azo]-2,7-naphthalenedisulfonic acid, 9CI
[24322-63-2]



$C_{16}H_{12}N_4O_{12}S_3$ M 548.488
Used as 0.2% aq. soln. for photometric detn. of Co (λ_{max} 662 nm, ϵ 33000), Ni (λ_{max} 585 nm, ϵ 25000), Cu, Ga, Pd. Orange-red cryst. Sol. H_2O .

Dedkov, Y.M. *et al.*, *Zh. Anal. Khim.*, 1971, **26**, 558; 1974, **29**, 1374; 1978, **33**, 2338 (*synth.*, *detn.*, Pd, Co, Cu)
Dedkov, Y.M. *et al.*, *Zavod. Lab.*, 1974, **40**, 1325 (*detn.*, Ni)
Tyutunnikova, P.D. *et al.*, *Zh. Anal. Khim.*, 1976, **31**, 470 (*detn.*, Ga)

4,6-Nonanedione, 9CI

[14090-88-1]

 $\text{C}_9\text{H}_{16}\text{O}_2$ M 156.224

Used as soln. in C_6H_6 for extraction-separation of Cu(II),
Fe(III). Sol. common org. solvs. Bp 101-102°, Bp 207-
208°, Bp₈ 81°.

Dioxime:

 $\text{C}_9\text{H}_{18}\text{N}_2\text{O}_2$ M 186.253

Mp 77°.

Bis-2,4-dinitrophenylhydrazone: [51300-82-4].

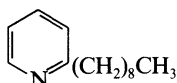
Cryst. (EtOH). Mp 121°.

Sadler Standard C-13 NMR Spectra, 5358 (cmr)

Sadler Standard Infrared Spectra, 31567 (ir)

Adams, J.T. et al, *J. Am. Chem. Soc.*, 1944, **66**, 1220 (synth)Schamp, N. et al, *Bull. Soc. Chim. Belg.*, 1966, **75**, 539 (ms)Nonhebel, D.C., *Tetrahedron*, 1968, **24**, 1869 (pmr)Koshimura, H. et al, *Anal. Chim. Acta*, 1971, **55**, 163 (use)**2-Nonylpyridine, 9CI**

[10523-35-0]

 $\text{C}_{14}\text{H}_{23}\text{N}$ M 205.342Liq. Bp_{3,5} 128°. n_D^{20} 1.4829.

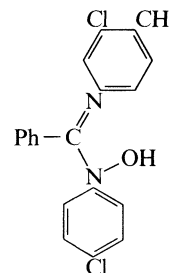
N-Oxide: [3535-72-6].

 $\text{C}_{14}\text{H}_{23}\text{NO}$ M 221.342

Used as 0.1M soln. in 1,2-dichloroethane for extraction
separation of Au(III) (from 3M HCl). Cryst. powder.

Sol. EtOH, 1,2-dichloroethane, CHCl_3 . Mp 39-40°.Birchenough, M.J., *J. Chem. Soc.*, 1951, 1263 (synth)Kotlyarevskii, I.L. et al, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1966,
1224; *CA*, **65**, 16932h (synth)Pronin, V.A. et al, *Zh. Anal. Khim.*, 1980, **35**, 1508 (use)**N-00168****N'-(3-Chloro-4-methylphenyl)-N-(4-chlorophenyl)-N-hydroxybenzenecarboximidamide****N-00170**

N'-(3-Chloro-4-methylphenyl)-N-(4-chlorophenyl)-N-
hydroxy-4-toluamidine

 $\text{C}_{20}\text{H}_{16}\text{Cl}_2\text{N}_2\text{O}$ M 371.265

Used as 0.1% CHCl_3 soln. for extraction-photometric
detr. of V(V) (λ_{max} 615 nm, ϵ 5700, pH 0.5-3.5). Yellow
cryst. (C_6H_6 /pet. ether). Sol. CHCl_3 , C_6H_6 .

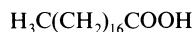
Kharsan, R.S. et al, *Talanta*, 1979, **26**, 50 (synth, detn, V)**N-00169**

O

Octadecanoic acid

O-00001

Stearic acid. Talgic acid. Stearophanic acid. Bassinic acid. Lactaric acid
[57-11-4]



$\text{C}_{18}\text{H}_{36}\text{O}_2$ M 284.481

Constit. of most vegetable and animal fats. Acid and derivatives widely used as additives to industrial preparations. Used as EtOH soln. for nephelometric detn. of Ca. Used (with heptadecanoic acid) for amino acid sequencing in peptides. Leaflets. Sol. EtOH, C_6H_6 , CHCl_3 ; sl. sol. H_2O . Mp 69.7°. Bp₃ 213°.

▷ WI2800000.

Me ester: [112-61-8].

$\text{C}_{19}\text{H}_{38}\text{O}_2$ M 298.508
Mp 39.1°. Bp₁₅ 215°.

▷ WI4460000.

Et ester: [111-61-5].

$\text{C}_{20}\text{H}_{40}\text{O}_2$ M 312.535
Mp 33.4°, Mp 30.9°. Bp₁₀ 199°.

▷ WI3600000.

Chloride: [112-76-5].

$\text{C}_{18}\text{H}_{35}\text{ClO}$ M 302.927
Mp 23°. Bp₆ 202-203°.

Amide: [124-26-5].

$\text{C}_{18}\text{H}_{37}\text{NO}$ M 283.496
Mp 109°. Bp₁₂ 250-251°.

▷ RG0182000.

Anhydride:

$\text{C}_{36}\text{H}_{70}\text{O}_3$ M 550.947
Reagent for anal. detn. of alcohols and phenols.

Nitrile: [638-65-3].

$\text{C}_{18}\text{H}_{35}\text{N}$ M 265.481
Mp 41°. Bp₁₀ 193°.

▷ WI5500000.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, NY, 1947, 2, 82 (use)

Bricas, E. et al, *Biochemistry*, 1965, 4, 2254 (use)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, 1, 1117.

Malta, V. et al, *J. Chem. Soc. B*, 1971, 548 (cryst struct)

Karrer, W. et al, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 705 (occur)

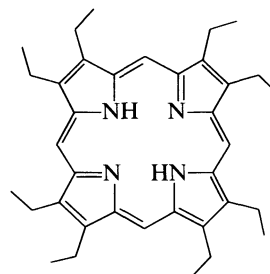
Gunstone, F.D. et al, *Chem. Phys. Lipids*, 1976, 17, 1 (cmr)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MJW000, OAR000, SLK000, SLL500.

Octaethylporphyrin

O-00002

2,3,7,8,12,13,17,18-Octaethyl-21H,23H-porphine, 9CI
[2683-82-1]



$\text{C}_{36}\text{H}_{46}\text{N}_4$ M 534.786

Used as 0.25mM DMF soln. for fluorimetric detn. of Zn (λ_{max} 578 nm, EtOH). Violet cryst. (toluene). Sol. DMF, EtOH, Me_2CO , dioxan, CHCl_3 . Mp 324-325°.

N-Oxide: [67514-01-6].

$\text{C}_{36}\text{H}_{46}\text{N}_4\text{O}$ M 550.786
Purple-black microcryst. ($\text{Me}_2\text{CO}/\text{MeOH}$). Mp > 250°.

Eisner, U. et al, *J. Chem. Soc.*, 1957, 733.

Lauber, J.W. et al, *J. Am. Chem. Soc.*, 1973, 95, 5148 (cryst struct)

Fuhrhop, J.-H. et al, *Laboratory Methods in Porphyrin and Metalloporphyrin Research*, Elsevier, Amsterdam, 1975, 10 (synth)

Paine, J.B. et al, *J. Org. Chem.*, 1976, 41, 3857.

Cheng, D.O. et al, *Tetrahedron Lett.*, 1977, 1469 (synth)

Janson, T.R. et al, *The Porphyrins*, (Dolphin, D., Ed.), Academic Press, N.Y., Vol. IV, 1979, 1 (nmr)

Andrews, L.E. et al, *J. Chem. Soc., Perkin Trans. 1*, 1983, 103 (oxide, synth, ir, pmr, w, ms)

Balch, A.L. et al, *J. Am. Chem. Soc.*, 1985, 107, 2393 (cryst struct)

Fakeeva, A.O. et al, *Zh. Anal. Khim.*, 1988, 43, 827 (synth, detn, Zn)

Ono, N. et al, *Tetrahedron*, 1990, 46, 7483 (synth)

1,1,1,5,5,6,6,6-Octafluoro-2,4-hexanedione, 9CI

O-00003

[20825-07-4]



$\text{C}_6\text{H}_2\text{F}_8\text{O}_2$ M 258.068

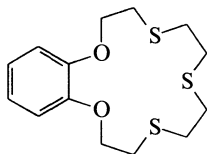
Used as a soln. in CHCl_3 for extraction of Co, Zn. Liq. Sol. common org. solvs. d_4^{23} 1.538. Bp 85-86°.

Scribner, W.G. et al, *CA*, 1968, 69, 62005p; *CA*, 1970, 73, 92153k (synth, nmr, ir, detn, Co, Zn)

Scribner, W.G. et al, *J. Org. Chem.*, 1970, 35, 1696 (synth)

Sievers, R.E., *NMR Shift Reagents*, Academic Press, New York, 1973.

2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatrithiacyclopentadecine, 9CI
Benzothiacrown ether
[114896-72-9]



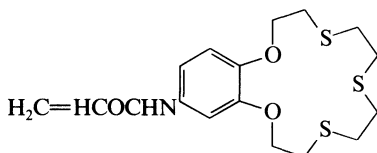
$C_{14}H_{20}O_2S_3$ M 316.509

Used as 0.005mM soln. in CH_2Cl_2 for extraction-fluorimetric detn. of Ag (λ_{max} 559 nm). Cryst. Sol. CH_2Cl_2 , $CHCl_3$, 1,2-dichloroethane. Mp 98.5-100°.

Oue, M. *et al*, *J. Polym. Sci., Polym. Chem. Ed.*, 1985, **23**, 2033 (synth)

Oue, M. *et al*, *Analyst (London)*, 1988, **113**, 551 (detn, Ag)

N-(2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatrithiacyclopentadecin-15-yl)-2-propenamide, 9CI
2,3-(4-Acryloylaminobenzo)-1,4-dioxa-7,10,13-trithiacyclopentadec-2-ene
[81810-60-8]



$C_{17}H_{23}NO_3S_3$ M 385.572

Used as 0.05mM soln. in $CHCl_3$ for selective extraction-separation of Ag from Cu, Hg, Pb, Co, Zn, Cd. Cryst. Sol. $CHCl_3$.

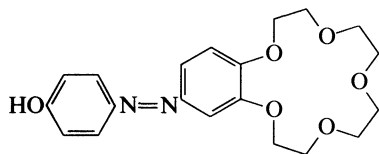
Homopolymer: [81833-45-6]. Poly[2,3-(4'-acryloylaminobenzo)-1,4-dioxa-7,10,13-trithiacyclopentadeca-2-ene]

Used as 0.05mM $CHCl_3$ soln. for extraction separation of Ag. Sol. $CHCl_3$.

Oue, M. *et al*, *J. Polym. Sci., Polym. Chem. Ed.*, 1985, **23**, 2033 (synth)

Oue, M. *et al*, *Anal. Chim. Acta*, 1987, **194**, 293 (sepn, Ag)

4-[(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)azo]phenol, 9CI
2-(p-Hydroxyphenylazo)benzo-15-crown-5
[74567-68-3]

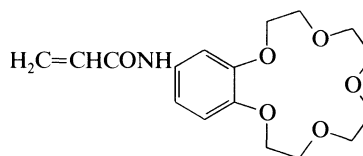


$C_{20}H_{24}N_2O_6$ M 388.419

Used for extraction of K. Cryst. Sol. $CHCl_3$.

Yamashita, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1980, **53**, 1550 (synth, sepn, K)

O-00004 N-(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)-2-propenamide, 9CI
[68865-30-5]



$C_{17}H_{23}NO_6$ M 337.372

Used as 0.02mM $CHCl_3$ soln. for extraction of Ag, Tl(I), alkali and alkaline earth metals (in the presence of picrate). Cryst. Sol. $CHCl_3$, DMF.

Homopolymer: [68865-31-6].

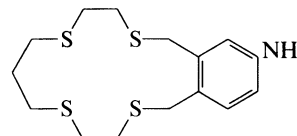
Used for extraction separation of Mg, Ca, Sr, Ba. Cryst. Sol. $CHCl_3$. Exact formulation unknown.

Kimura, K. *et al*, *Anal. Lett.*, 1978, **A11**, 821 (synth)

Maeda, T. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, **298**, 363; 1982, **313**, 407 (detn, Ag, Tl, alkaline earths)

Kimura, K. *et al*, *Talanta*, 1979, **26**, 945 (detn, alkali)

1,3,4,7,8,10,11,13-Octahydro-6H-2,5,9,12-benzotetrathiacyclopentadecin-15-amine, 9CI
4'-Aminobenzo-1,4,8,11-tetrathiacyclopentadec-13-ene
[98701-62-3]

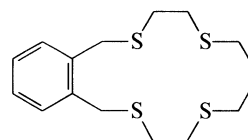


$C_{15}H_{23}NS_4$ M 345.617

Used as 0.05mM soln. in 1,2-dichloroethane for extraction-separation of Ag, Cu(I), Hg(II), Pd(II). Needles (EtOH). Sol. EtOH, 1,2-dichloroethane, dioxan. Mp 122-123°.

Sekido, E. *et al*, *Talanta*, 1985, **32**, 797 (synth, use)

1,3,4,7,8,10,11,13-Octahydro-6H-2,5,9,12-benzotetrathiacyclopentadecine, 9CI
13,14-Benzo-1,4,8,11-tetrathiacyclotetradecane
[25676-64-6]



$C_{15}H_{22}S_4$ M 330.603

Used as 5mM soln. in 1,2-dichloroethane for extraction-separation of Cu(I), Ag, Hg(II), Au. Cryst. ($CHCl_3$ /EtOH). Sol. Et_2O , 1,2-dichloroethane, C_6H_6 , $CHCl_3$, CCl_4 , toluene; insol. H_2O . Mp 84-86°. Bp₁₅ 65°.

Rosen, W. *et al*, *J. Am. Chem. Soc.*, 1969, **91**, 4694 (synth)

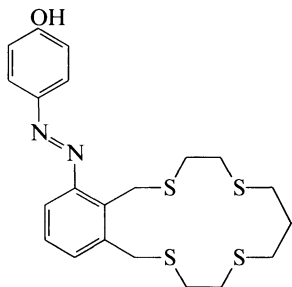
Ohki, A. *et al*, *Anal. Chim. Acta*, 1984, **159**, 245.

Sekido, E. *et al*, *Anal. Sci.*, 1987, **3**, 505 (detn, Ag)

Chayama, K. *et al*, *Anal. Sci.*, 1987, **3**, 535 (use)

4-[(1,3,4,7,8,10,11,13-Octahydro-6H-2,5,9,12-benzotetrathiacyclopentadecin-15-yl)azo]phenol, 9CI

4'-(p-Hydroxyphenylazo)benzo-1,4,8,11-tetrathiacyclopentadec-13-ene
[104951-60-2]



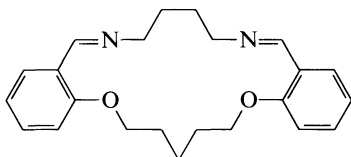
$C_{21}H_{26}N_2OS_4$ M 450.713

Used as a 0.06mM soln. in 1,2-dichloroethane for extraction of Ag, Cu(I). Yellow cryst. (MeNO₂). Sol. EtOH, C₆H₆. Mp 133-134°.

Muroi, M. *et al*, *Anal. Sci.*, 1986, **2**, 351 (*synth, ir, nmr, ms, use*)

7,8,9,10,18,19,20,21-Octahydro-6H-dibenzo[b,l]-[1,14,5,10]**dioxadiazacyclononadecine, 9CI**

8,9:18,19-Dibenzo-1,7-dioxa-11,16-diazacyclononadeca-10,16-diene
[94194-73-7]



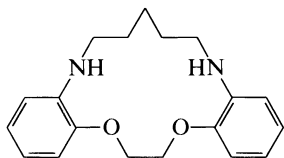
$C_{23}H_{28}N_2O_2$ M 364.486

Used as 1mM CHCl₃ soln. for selective extraction separation of Ag(I). Cryst. (octane). Sol. CHCl₃, 1,2-dichloroethane, 1,2-dimethylbenzene, PhNO₂. Mp 158°.

Zolotov, Yu.A. *et al*, *Mikrochim. Acta*, 1984, **3**, 399 (*synth, sepn, Ag*)

6,7,8,9,10,11,17,18-Octahydro-5H-dibenzo[e,n][1,4,7,13]**dioxadiazacyclopentadecine, 9CI**

2,3:8,9-Dibenzo-4,7-dioxa-1,10-diazacyclopentadecane
[96656-74-5]



$C_{19}H_{24}N_2O_2$ M 312.411

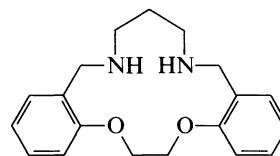
Used as 1mM soln. in CHCl₃ for selective extraction of Hg(II). Cryst. Sol. CHCl₃.

Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 1046 (*sepn, Hg*)

O-00010

6,7,8,9,10,11,17,18-Octahydro-5H-dibenzo[e,n][1,4,8,12]**dioxadiazacyclopentadecine, 9CI**

5,6:14,15-Dibenzo-1,4-dioxa-8,12-diazacyclopentadecane
[65639-43-2]



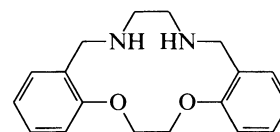
$C_{19}H_{24}N_2O_2$ M 312.411

Used as 0.5mM soln. in CHCl₃ for extraction sepn. of Ag, Hg, Cu, Pd. Cryst. Sol. CHCl₃, 1,2-dichloroethane, 1,2-dimethylbenzene, PhNO₂.

Grimsley, P.G. *et al*, *Aust. J. Chem.*, 1977, **30**, 2095 (*synth*)
Morosanova, E.I. *et al*, *Mikrochim. Acta*, 1984, **3**, 389 (*use*)

5,6,7,8,9,10,16,17-**Octahydrodibenzo[e,m][1,4,8,11]dioxadiazacyclotetradecine, 9CI**

3,4:9,10-Dibenzo-1,12-diaza-5,8-dioxacyclotetradecane
[65639-47-6]



$C_{18}H_{22}N_2O_2$ M 298.384

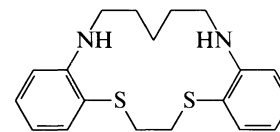
Used as 1mM soln. in CHCl₃ for extraction separation of Ag, Hg, Pd. Cryst. Sol. org. solvs. Mp 168-169°.

Adam, K.R. *et al*, *Inorg. Chem.*, 1981, **20**, 4048 (*synth*)
Morosanova, E.I. *et al*, *Dokl. Akad. Nauk SSSR*, 1984, **277**, 1151 (*use*)

O-00011

6,7,8,9,10,11,17,18-Octahydro-5H-dibenzo[e,n][1,4,7,13]**dithiadiazacyclopentadecine, 9CI**

2,3:8,9-Dibenzo-4,7-dithia-1,10-diazacyclopentadecane
[104184-03-4]



$C_{19}H_{24}N_2S_2$ M 344.544

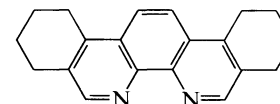
Used as 1mM soln. in CHCl₃ for selective extraction of Hg(II) and Ag. Cryst. Sol. CHCl₃.

Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 1046 (*detn, Hg*)
Podlubnykh, L.P. *et al*, *Zh. Neorg. Khim.*, 1986, **31**, 1812 (*detn, Hg, Ag*)

O-00012

1,2,3,4,9,10,11,12-**Octahydrodibenzo[c,i][1,10]phenanthroline**

(3,4),(7,8)-Dicyclohexeno-1,10-phenanthroline



$C_{20}H_{20}N_2$ M 288.391

O-00013

O-00014

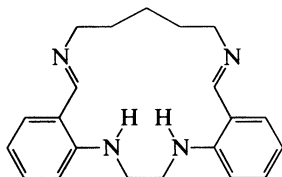
O-00015

O-00016

Used as redox indicator. Cryst. (C₆H₆). Sol. EtOH, C₆H₆; insol. H₂O. Mp 259-260°. pK_{a1} 6.23 (25°).

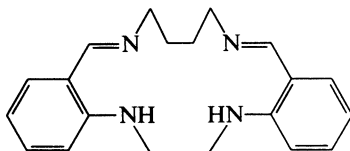
Case, F.H. *et al*, *J. Org. Chem.*, 1956, **21**, 1069 (*synth*)
Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa, use, ind*)

8,9,10,11,18,19,20,21-Octahydro-7H-dibenzo[e,p][1,4,8,14]tetraazacycloheptadecine, 9CI **O-00017**
Macrocyclic schiff's base III
[77037-27-5]



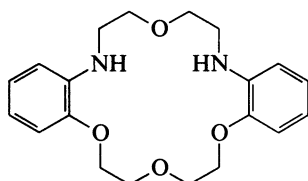
C₂₁H₂₆N₄ M 334.463
Used as 1mM soln. in CHCl₃ for selective extraction-separation of Cu(II) (pH 7.5-9). Cryst. Sol. CHCl₃,
Owston, P.G. *et al*, *J. Chem. Soc., Chem. Commun.*, 1980, 1218 (*synth*)
Zolotov, Yu.A. *et al*, *Dokl. Akad. Nauk SSSR*, 1984, **277**, 1145 (*sepn, Cu*)
Isakova, N.V. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 859 (*sepn, Cu*)

7,8,9,10,17,18,19,20-Octahydrodibenzo[e,o][1,4,8,13]tetraazacyclohexadecine, 9CI **O-00018**
Macrocyclic schiff's base II
[33419-91-9]



C₂₀H₂₄N₄ M 320.436
Used as 0.3mM soln. in CHCl₃ for selective extraction-separation and photometric detn. of Cu(II) (λ_{max} 455 nm, ε 12500, pH 5-5.9). Cryst. Sol. CHCl₃.
Owston, P.G. *et al*, *J. Chem. Soc., Chem. Commun.*, 1980, 1218 (*synth*)
Zolotov, Yu.A. *et al*, *Dokl. Akad. Nauk SSSR*, 1984, **277**, 1145 (*sepn, Cu*)
Isakova, N.V. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 859 (*detn, Cu*)

6,7,9,10,17,18,21,22-Octahydro-16H,20H-dibenzo-[h,q][1,4,7,13,10,16]tetraoxadiazacyclooctadecine, 9CI **O-00019**
Diazadibenzo-18-crown-6
[54533-72-1]

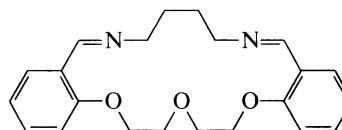


C₂₀H₂₆N₂O₄ M 358.436

Used as 1mM soln. in CHCl₃ as a carrier in Pb-selective electrode for potentiometry. Used as 1mM 1,2-dichloroethane or CHCl₃ soln. for extraction-kinetic detn. of Os(IV) (pH 3.8); extraction-x-ray fluorescence detn. of Tl(I)(pH 11). Cryst. Sol. CHCl₃, 1,2-dichloroethane, CCl₄.

Shpigun, L.K. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 617 (*use*)
Beklemishev, M.K. *et al*, *Zh. Neorg. Khim.*, 1986, **31**, 2617 (*synth*)
Beklemishev, M.K. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 356, 1058 (*detn, Os, Tl*)

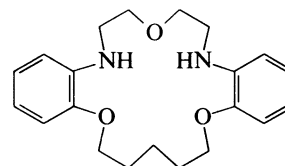
6,7,9,10,18,19,20,21-Octahydrodibenzo[h,r][1,4,7,11,16]-trioxadiazacyclononadecine, 9CI **O-00020**
8,9:18,19-Dibenzo-1,3,7-trioxa-11,16-diazacyclononadeca-10,16-diene
[75909-10-3]



C₂₂H₂₆N₂O₃ M 366.459
Used as 1mM CHCl₃ soln. for selective extraction sepn. of Ag(I). Cryst. Sol. CHCl₃, 1,2-dichloroethane, 1,2-dimethylbenzene, PhNO₂.

Battaglia, L.P. *et al*, *Inorg. Chim. Acta*, 1980, **42**, 191 (*synth*)
Zolotov, Yu.A. *et al*, *Mikrochim. Acta*, 1984, **3**, 399 (*sepn, Ag*)

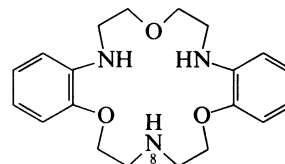
6,7,10,11,18,19,20,21-Octahydro-5H,9H,17H-dibenzo[b,k][1,7,13,4,10]trioxadiazacyclooctadecine, 9CI **O-00021**
[109888-83-7]



C₂₁H₂₈N₂O₃ M 356.464
Used as 1mM 1,2-dichloroethane soln. for extraction-kinetic detn. of Os(IV) (pH 3.8). Cryst. Sol. CHCl₃, 1,2-dichloroethane, CCl₄.

Beklemishev, M.K. *et al*, *Zh. Neorg. Khim.*, 1986, **31**, 2617 (*synth*)
Beklemishev, M.K. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 356 (*detn, Os*)

7,8,9,10,17,18,21,22-Octahydro-6H,16H,20H-dibenzo-[b,k][1,7,13,4,10,16]trioxatriazacyclooctadecine, 9CI **O-00022**
Dibenzotriaza-18-crown-6
[54533-75-4]



C₂₀H₂₇N₃O₃ M 357.452

Used as 1mM 1,2-dichloroethane or CHCl_3 soln. for extraction-kinetic detn. of Os(IV) (pH 3.8); extraction-X-ray fluorescence detn. of Tl(I) (pH 11). Cryst. Sol. CHCl_3 , 1,2-dichloroethane, CCl_4 .

8-(4-Methylbenzenesulfonyl): [109888-82-6].

7,8,9,10,17,18,21,22-Octahydro-8-[(4-methylphenyl)sulfonyl]-6H,16H,20H-dibenzo[b,k][1,7,13,4,10,16]trioxatriazacyclooctadecine, 9CI

$\text{C}_{27}\text{H}_{33}\text{N}_3\text{O}_5\text{S}$ M 511.641

Used as 1mM 1,2-dichloroethane or CHCl_3 soln. for extraction-kinetic detn. of Os(IV) (pH 3.8); extraction-X-ray fluorescence detn. of Tl(I) (pH 11). Cryst. Sol. CHCl_3 , 1,2-dichloroethane, CCl_4 .

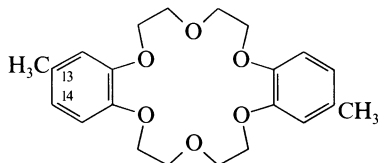
Beklemishev, M.K. *et al.*, *Zh. Neorg. Khim.*, 1986, **31**, 2617, 2618 (synth)

Beklemishev, M.K. *et al.*, *Zh. Anal. Khim.*, 1989, **44**, 356, 1058 (detn, Os, Tl)

6,7,9,10,17,18,20,21-Octahydro-2,13-dimethyldibenzo[b,k][1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI

Dimethyldibenzo-18-crown-6

[34368-73-5]



$\text{C}_{22}\text{H}_{28}\text{O}_6$ M 388.460

Obt. as an undefined isomer or regioisomeric mixt. with the 2,14 isomer. CAS registry no. applies to this prepn. of undefined composition. Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. ($\text{C}_6\text{H}_6/\text{Et}_2\text{O}$). Sol. C_6H_6 , hexane. Mp 126-127°.

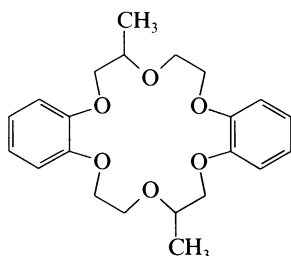
Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 7017 (synth)

Petraneck, J. *et al.*, *Anal. Chim. Acta*, 1974, **72**, 375 (use)

6,7,9,10,17,18,20,21-Octahydro-7,18-dimethyldibenzo[b,k][1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI

7,18-Dimethyldibenzo-18-crown-6

[87834-21-7]



$\text{C}_{22}\text{H}_{28}\text{O}_6$ M 388.460

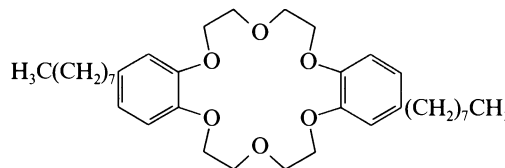
Used as 0.2mM CHCl_3 soln. for extraction separation of Li, Na, K (pH 8-9). Cryst. Sol. CHCl_3 .

Mamedova, Yu.G. *et al.*, *Zh. Anal. Khim.*, 1983, **38**, 1578 (synth, use)

6,7,9,10,17,18,20,21-Octahydro-2,13-dioctyldibenzo[b,k][1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI

2,13-Dioctyldibenzo-18-crown-6

[68725-72-4]



$\text{C}_{36}\text{H}_{56}\text{O}_6$ M 584.835

Used for detn. of K (membrane ion-selective electrode).

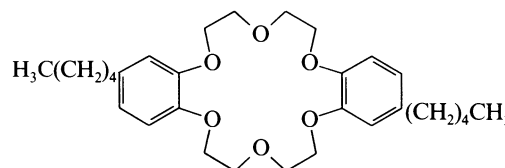
Cryst. Sol. CHCl_3 .

Norov, S.K. *et al.*, *Zh. Anal. Khim.*, 1984, **39**, 613; 1987, **42**, 429 (synth, detn, K)

6,7,9,10,17,18,20,21-Octahydro-2,13-dipentylidibenzo[b,k][1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI

2,13-Dipentylidibenzo-18-crown-6

[68725-69-9]



$\text{C}_{30}\text{H}_{44}\text{O}_6$ M 500.674

Used for detn. of K (membrane ion-selective electrode).

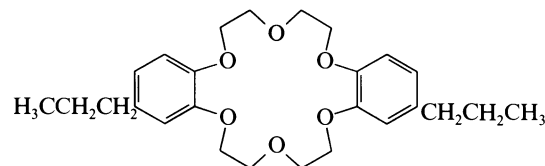
Cryst. Sol. CHCl_3 .

Norov, S.K. *et al.*, *Zh. Anal. Khim.*, 1984, **39**, 613; 1987, **42**, 429 (synth, use)

6,7,9,10,17,18,20,21-Octahydro-2,13-dipropylidibenzo[b,k][1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI

Dipropylidibenzo-18-crown-6

[41376-27-6]



$\text{C}_{26}\text{H}_{36}\text{O}_6$ M 444.567

Exact struct. unknown; may be 2,13 or 2,14 isomer or regioisomeric mixt. of the two. Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. ($\text{C}_6\text{H}_6/\text{Et}_2\text{O}$). Sol. C_6H_6 , Et_2O . Mp 109-112°.

Dodecahydro: [41376-29-8]. Dipropylidicyclohexyl-18-crown-6. Eicosahydro-2,13(or 2,14)-dipropylidibenzo[b,k]-[1,4,7,10,13,16]hexaoxacyclooctadecine, 9CI

$\text{C}_{26}\text{H}_{48}\text{O}_6$ M 456.662

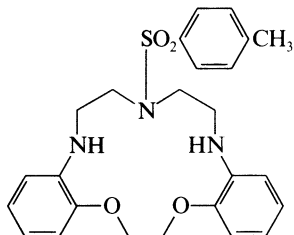
Used as 1% soln. in dipentyl phthalate in K-selective electrode (PVC membrane). Cryst. (hexane/ Et_2O). Sol. hexane, Et_2O . Mp 45-60°.

[68726-13-6]

Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 7017 (synth)

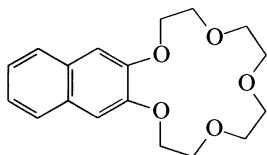
Petránek, J. *et al*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 497 (use)
 Petránek, J. *et al*, *Anal. Chim. Acta*, 1974, **72**, 375 (use)
 Norov, S.K. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 613; 1987, **42**, 429 (synth, use)

6,7,8,9,10,11,17,18-Octahydro-8-[(4-methylphenyl)sulfonyl]-5H-dibenzo[e,n][1,4,7,10,13]dioxatriazacyclopentadecine, 9CI **O-00028**
 2,3,8,9-Dibenzo-13-tosylo-4,7-dioxo-1,10,13-triazacyclopentadecane
 [104700-27-8]



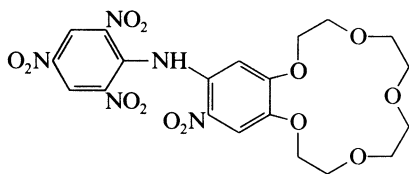
$C_{25}H_{29}N_3O_4S$ M 467.588
 Used as 1mM in $CHCl_3$ for selective extraction sepn. of Hg(II). Cryst. Sol. $CHCl_3$.
 Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 1046 (sepn, Hg)

2,3,5,6,8,9,11,12-Octahydronaphtho[2,3-b]-1,4,7,10,13-pentaoxacyclopentadecine, 9CI **O-00029**
 Naphtho-15-crown-5
 [17454-47-6]



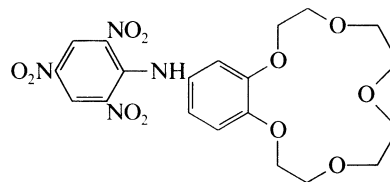
$C_{18}H_{22}O_5$ M 318.369
 Used as an ionophore in ion-selective electrodes (high selectivity for K over Na). Cryst. Mp 117.5-118.5°.
 Yamauchi, M. *et al*, *Anal. Chim. Acta*, 1982, **136**, 399 (synth, detn, K)
 Blair, T.L. *et al*, *Anal. Chim. Acta*, 1989, **222**, 252 (detn, K)

2,3,5,6,8,9,11,12-Octahydro-16-nitro-N-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecine-15-amine, 9CI **O-00030**
 4'-Picrylamino-16-nitrobenzo-15-crown-5
 [70758-89-3]



$C_{20}H_{21}N_5O_{13}$ M 539.412
 Used as 2mM $CHCl_3$ soln. for extraction-photometric detn. of K; extraction of K, Na, Rb, Cs. Orange cryst. (MeOH aq.). Sol. $CHCl_3$, MeOH. Mp 208-209°.
 Nakamura, H. *et al*, *Talanta*, 1979, **26**, 921 (synth, use)

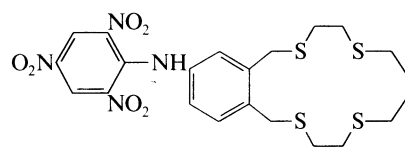
2,3,5,6,8,9,11,12-Octahydro-N-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecine-15-amine, 9CI **O-00031**
 4'-Picrylamino benzo-15-crown-5
 [65932-68-5]



$C_{20}H_{22}N_4O_{11}$ M 494.414
 Used as 2 mM $CHCl_3$ soln. for extraction-photometric detn. of K; extraction of K, Na, Rb, Cs. Deep red cryst. (MeOH). Sol. $CHCl_3$, MeOH. Mp 155°. pK_a 10.5 (10% dioxan, 25°).

Nakamura, H. *et al*, *Talanta*, 1979, **26**, 921 (synth, use)

1,3,4,7,8,10,11,13-Octahydro-N-(2,4,6-trinitrophenyl)-6H-2,5,9,12-benzotetrathiacyclopentadecine-15-amine, 9CI **O-00032**
 4'-Picrylamino benzo-1,4,8,11-tetrathiacyclopentadec-13-ene
 [98701-60-1]



$C_{21}H_{24}N_4O_6S_4$ M 556.708
 Used as 0.5mM soln. in 1,2-dichloroethane for extraction-photometric detn. of Ag (pH 8.3), Cu(I) (λ_{max} 510 nm, pH 7.4). Yellow cryst. (C_6H_6 /EtOH). Sol. 1,2-dichloroethane, $CHCl_3$, C_6H_6 ; insol. H_2O . Mp 161-162°.
 Sekido, E. *et al*, *Talanta*, 1985, **32**, 797 (synth)

4,5-Octanedione, 9CI **O-00033**
 [5455-24-3]



$C_8H_{14}O_2$ M 142.197
 Yellow oil. Bp 168°, Bp₁₂ 60°.

Oxime:

$C_8H_{15}NO_2$ M 157.212
 Bp₁₂ 117-120°.

Dioxime: [61050-68-8]. Dipropylglyoxime

$C_8H_{16}N_2O_2$ M 172.227

Gives colour reactions with Ni, Pd. Needles. Sol. EtOH, Me_2CO , $CHCl_3$. Mp 186-187°.

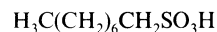
Snell, J.M. *et al*, *J. Am. Chem. Soc.*, 1931, **53**, 750 (synth)

Banks, C.V. *et al*, *Inorg. Chem.*, 1963, **2**, 112 (use)

DeBorgen, L. *et al*, *Bull. Soc. Chim. Belg.*, 1964, **73**, 73 (synth)

Bowie, J.H. *et al*, *Aust. J. Chem.*, 1968, **21**, 1799; 1968, **21**, 1247 (nmr, ms)

1-Octanesulfonic acid, 9CI **O-00034**
 1-Octylsulfonic acid
 [3944-72-7]



C₈H₁₈O₃S M 194.294

Na salt: [5324-84-5].

Ion-pairing reagent used in hplc. Hygroscopic cryst. (EtOH). Mp > 300°.

Me ester: [10307-28-5].

C₉H₂₀O₃S M 208.321Liq. Bp_{0.3} 103°.

Et ester: [5455-54-9].

C₁₀H₂₂O₃S M 222.348Liq. d₄²⁵ 1.0009. Bp₁ 113°. n_D²⁵ 1.4382.

Chloride: [7795-95-1].

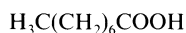
C₈H₁₇ClO₂S M 212.740d₄²⁵ 1.4570. Mp 15.5-16.5°. Bp₁ 94°. n_D²⁰ 1.4591.Reed, R.M. *et al.*, *J. Am. Chem. Soc.*, 1935, **57**, 570 (*synth*)Scott, R.B. *et al.*, *J. Org. Chem.*, 1954, **19**, 830 (*synth, derivs*)Bidlingmeyer, B.A. *et al.*, *Adv. Chromatogr. (Houston) 19th 1984*, 1974, **14**, 435; *CA*, **91**, 217413a (*use*)Hancock, W.S. *et al.*, *J. Chromatogr.*, 1978, **161**, 291 (*use*)Johnson, T.J. *et al.*, *Tetrahedron*, 1978, **34**, 547 (*synth*)Walker, T.A. *et al.*, *J. Liq. Chromatogr.*, 1987, **10**, 161 (*use*)Karrer, W. *et al.*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 694 (*occur*)U.S. Pat., 3 770 782, (1973); *CA*, **80**, 14572 (*synth*)Cahiez, G. *et al.*, *J. Organomet. Chem.*, 1975, **94**, 463 (*synth*)Baer, T.A. *et al.*, *Tetrahedron Lett.*, 1976, 4697 (*synth*)Dinizio, S.E. *et al.*, *J. Am. Chem. Soc.*, 1977, **99**, 182 (*synth*)Belova, V.V. *et al.*, *CA*, 1979, **90**, 128252j (*detn, Rh*)Muehl, P. *et al.*, *Talanta*, 1979, **26**, 227 (*detn, Fe*)Kopacz, S. *et al.*, *Zh. Neorg. Khim.*, 1981, **26**, 1625; *CA*, **95**, 50325s (*detn, Co*)Sokhan, V.F. *et al.*, *Zh. Prikl. Khim. (Leningrad)*, 1981, **54**, 1023; *CA*, **95**, 100983c (*detn, Ti*)Kolomiets, L.L. *et al.*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1982, **48**, 51 (*detn, Al, In, Ga*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2597.Pyatnitskii, I.V. *et al.*, *Zh. Anal. Khim.*, 1985, **40**, 115 (*detn, Ga*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, OCY000, ODE200.**2,4,5,7-Octanetetrono****O-00035**

[1114-91-6]

C₈H₁₀O₄ M 170.165Used as a 0.072M soln. in butyl acetate for extraction-photometric detn. of Fe(III) (λ_{max} 500 nm, ε 2410).Sugimoto, M. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1977, **26**, 257 (*use, detn, Fe*)**Octanoic acid, 9CI****O-00036**

n-Caprylic acid

[124-07-2]

C₈H₁₆O₂ M 144.213Widespread in plant oils, free and as glycerides. Used in perfume and dye manuf. Simple esters have flavour use. Antifungal agent. Used as a soln. in CHCl₃/butanol for extraction-separation of Co, Fe, Rh, Ti, Al, Ga, In. Liq. or cryst. Sol. alkalis. EtOH, CHCl₃; spar. sol. hot H₂O. Mp 16°. Bp 239.7°, Bp₁₀ 124°.

▷ Irritant vapour. RH0175000.

Cu salt: Mp 264-266°.

Me ester: [111-11-5].

C₉H₁₈O₂ M 158.240Bp 193-194°, Bp₁₅ 83°.

4-Bromophenacyl ester: Mp 67.4°.

Chloride: [111-64-8].

C₈H₁₅ClO M 162.659Bp 195-196°, Bp₁₅ 83°.

Anhydride: [623-66-5].

C₁₆H₃₀O₃ M 270.411Mp -1°. Bp 280-285°, Bp₁₅ 186°.

Amide: [629-01-6].

C₈H₁₇NO M 143.228

Mp 110°.

Nitrile: [124-12-9]. Octanenitrile, 9CI. Caprylonitrile. 1-Cyanoheptane. Heptyl cyanide

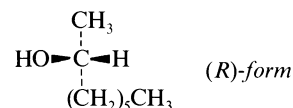
C₈H₁₅N M 125.213Bp 198-200°. n_D²⁰ 1.4200.

▷ RG9700300.

Langenbeck, W. *et al.*, *Chem. Ber.*, 1956, **89**, 202 (*synth*)Markley, K.S., *Fatty Acids*, Part 1, Interscience, N.Y., 2nd Ed., 1960 (*rev*)Trippett, S. *et al.*, *J. Chem. Soc.*, 1960, 2976 (*deriv*)Nakagawa, K. *et al.*, *Chem. Pharm. Bull.*, 1963, **11**, 296 (*deriv*)**2-Octanol, 9CI****O-00037**

Capryl alcohol

[123-96-6]

C₈H₁₈O M 130.230

Isol. from geranium oil. Used as fragrance ingredient.

Reagent for the chromatographic sepn. of amino acids.

(R)-formBp₂₀ 86°. [α]_D¹⁷ -9.9°.Hydrogen phthalate: Needles (pet. ether). Mp 75°. [α]_D²⁴ -48.4°.

Benzoyl: [78687-05-5].

C₁₅H₂₂O₂ M 234.338Bp_{0.6} 90°. [α]_D -34.3° (c, 1.5 in CH₂Cl₂).**(S)-form** [6169-06-8]Bp₂₀ 86°. [α]_D¹⁷ +9.9°.

Benzoyl: [34881-29-3].

Bp_{0.6} 90°. [α]_D¹⁸ +33.5° (MeCl).**(±)-form** [4128-31-8]

Used in manuf. of perfumes and disinfectant soaps.

Antifoaming agent, solv. for waxes and fats. Oily

refractive liq. with aromatic yet unpleasant odour. d₄²⁵ 0.819. n_D²⁰ 1.4203.

Ac: [2051-50-5].

C₁₀H₂₀O₂ M 172.267Bp₇₄₄ 194.5°, Bp₁₅ 84°.

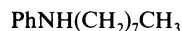
Me ether: [1541-09-9].

C₉H₂₀O M 144.256Bp₄₄ 76-77°.Kenyon, J. *et al.*, *J. Chem. Soc.*, 1923, **123**, 18.Org. Synth., 1926, **6**, 68 (*synth*)Bohnsack, H., *Ber.*, 1942, **75**, 502 (*isol*)Doering von E., W. *et al.*, *J. Am. Chem. Soc.*, 1952, **74**, 2997 (*abs config*)Cristol, S.J., *J. Am. Chem. Soc.*, 1955, **77**, 2512.Goering, H.L., *J. Am. Chem. Soc.*, 1956, **78**, 2270.Gil-Av, E., *J. Chromatogr.*, 1965, **17**, 408 (*use*)Fruwert, J., *Z. Phys. Chem. (Leipzig)*, 1968, **238**, 262 (*ir*)Whitney, T.A. *et al.*, *Polym. Prepr., (Am. Chem. Soc., Div. Polym. Chem.)*, 1971, **13**, 688 (*synth*)Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)Keinan, E. *et al.*, *J. Am. Chem. Soc.*, 1986, **108**, 162 (*synth*)Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 467.

N-Octylaniline

N-Octylbenzenamine, 9CI

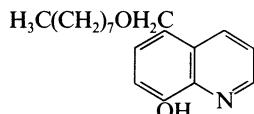
[3007-71-4]

C₁₄H₂₃N M 205.342Used as 2M soln. in toluene for extraction separation of Pt, Pd, Ir, Rh, Ru, Ag, Au. Cryst. Sol. acids, toluene, CHCl₃.Vasilyeva, A.A. *et al*, *Talanta*, 1975, **22**, 745 (use)

O-00038

King, A.T., *J. Chem. Soc.*, 1927, 2639 (synth)Drew, H.D.K. *et al*, *J. Chem. Soc.*, 1938, 298 (use)*Colour Index*, 3rd Edn, 1971, **4**, 4094 (synth)*Sigma-Aldrich Library of Chemical Safety Data*, 1988, **2**, 2655D.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HGC000.**5-[(Octyloxy)methyl]-8-quinolinol, 9CI**

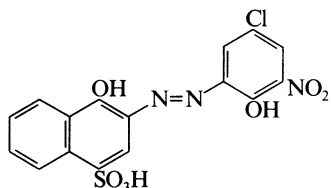
[102269-68-1]

C₁₈H₂₅NO₂ M 287.401Used as 0.01M CHCl₃ soln. for extraction-photometric detn. of Cu(II), Mo (λ_{max} 380 nm, ε 11400). Cryst. (EtOH). Sol. CHCl₃, Mp 43.4-44.0°.Ohashi, K. *et al*, *Anal. Sci.*, 1985, **1**, 467; 1986, **2**, 439 (synth, detn, Cu, Mo)

O-00039

Omega chrome blue 35

3-[(5-Chloro-2-hydroxy-3-nitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid

C₁₆H₁₀ClN₃O₇S M 423.790Used for titrimetric detn. of Fe(II), In. Sol. H₂O.Belcher, R. *et al*, *Chemist-Analyst*, 1958, **47**, 2 (detn, Fe, In)

O-00040

OP 7

α-(Isooctylphenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl), 9CI. Polyhydroxyethylated alkylphenol

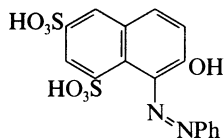
[9004-87-9]

Non-ionic surfactant. Used as a 1% aq. soln. for photometric detn. of Al, Be. Sol. H₂O.Kudryavtseva, L.M. *et al*, *Zavod. Lab.*, 1978, **44**, 522 (detn, Be)Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 2127 (detn, Al)

O-00041

Orange G

7-Hydroxy-8-phenylazo-1,3-naphthalenedisulfonic acid. C.I. 16230. C.I. Acid orange 10. Wool orange 2G. Hispacid fast orange 2G

C₁₆H₁₂N₂O₇S₂ M 408.412

Deep red cryst. with green reflex.

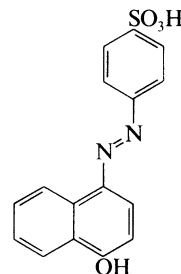
Di-Na salt: [1936-15-8].Biological stain. Hygroscopic. Orange powder. Sol. H₂O; sl. sol. EtOH.

O-00042

Orange I

4-[(4-Hydroxy-1-naphthalenyl)azo]benzenesulfonic acid, 9CI.

4-(4-Sulfophenylazo)-1-naphthol

C₁₆H₁₂N₂O₄S M 328.348

Strictly, the name Orange I applies to the sodium salt.

Na salt: [523-44-4]. C.I. Acid orange 20. α-Naphthol orange. Tropaeolin 000. 1-Naphthol orange. C.I. 14600Dye. Used as acid-base indicator (pH range: 7.6-8.9). Reddish-brown powder giving orange soln. Sol. H₂O; sl. sol. EtOH; insol. common org. solvs. Banned by the FDA for food use.

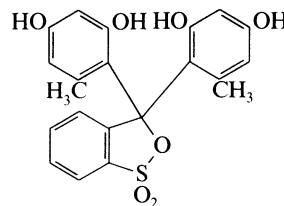
▷ DB7085000.

Whitmore, W.F. *et al*, *J. Am. Chem. Soc.*, 1937, **59**, 1501.Fierz-David, H.E. *et al*, *Helv. Chim. Acta*, 1946, **29**, 1718.*Colour Index*, 3rd Ed., 1971, **4**, 4065 (rev)Holzbecher, Z., *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (use, ind)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FAG010.

O-00043

Orcinsulfonephthalein

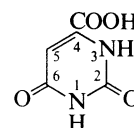
4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis(5-methyl-1,3-benzenediol) S,S-dioxide

C₂₁H₁₈O₇S M 414.435Used as acid-base fluorescent indicator (colour change: no fluoresc. → yellow; pH range: 8.6-10.0). Dark red cryst. powder. Sol. EtOH, Me₂CO, EtOAc, alkalis; sl. sol. H₂O.Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 99.

O-00044

Orotic acid, INN1,2,3,6-Tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid, 9CI. Uracilcarboxylic acid. Vitamin B₁₃. Whey factor. Other proprietary names

[65-86-1]



O-00045

Monoanilide: Oxanilic acidC₈H₇NO₃ M 165.148Needles (C₆H₆). Sol. EtOH, Et₂O, CHCl₃, mod. sol. hot H₂O, spar. sol. C₆H₆.**Monoanilide, Et ester:** [1457-85-8]. Ethyl oxanilateC₁₀H₁₁NO₃ M 193.202

Reagent for the identification of primary alkyl amines.

Cryst. (EtOH). Mp 66-67°.

Dihydrazide: [996-98-5].C₂H₆N₄O₂ M 118.095

Used as complexing agent for Cu; used as 0.1% aq. soln. for photometric detn. of Cu(II). Cryst. Sol. common org. solvs. Mp 241° dec.

▷ RO2840000.

Johnson, E.I. *et al*, *J. Chem. Soc.*, 1930, 1510 (*synth*)Rakuzin, M.A., *Chem.-Ztg.*, 1931, **55**, 128.Sah, P.P.T. *et al*, *J. Am. Chem. Soc.*, 1931, **53**, 3901.*Org. Synth.*, *Coll. Vol.*, 1, 1932, 259 (*ester*)U.S. Pat., 1 948 441, (1934); *CA*, **28**, 2728 (*synth*)Kuras, M., *Collect. Czech. Chem. Commun.*, 1947, **12**, 198 (*detn. Ni*)Voter, R.C. *et al*, *Anal. Chem.*, 1949, **21**, 1320 (*detn. Ni*)Pearse, G.A. *et al*, *Anal. Chem.*, 1960, **32**, 213 (*synth, detn. Ni*)Nivière, P., *Anal. Abstr.*, 1967, **14**, 668 (*detn. Cu*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 767; 1975, **5**, 487.Jankovic, S., *Anal. Abstr.*, 1968, **15**, 3626 (*detn. Cu*)Kolthoff, I.M. *et al*, *Quant. Chem. Anal.*, 4th Edn., MacMillan, New York, 1971 (*use*)Hagen, K. *et al*, *J. Am. Chem. Soc.*, 1973, **95**, 4796 (*bromide*)Denissen, J.L. *et al*, *Acta Crystallogr.*, *Sect. B*, 1974, **30**, 2240 (*cryst struct*)Kuse, S. *et al*, *Anal. Chim. Acta*, 1974, **70**, 65 (*use*)Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use*)Clark, G.R. *et al*, *J. Chem. Soc., Dalton Trans.*, 1976, 1528 (*detn. Cu*)Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986 (*use*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 383, 423, 472.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, OLA000, OLO000.**Oxalohydroxamic acid, 8CI**

O-00049

N,N'-Dihydroxyethanediamide, 9CI. N,N'-Dihydroxyoxamide. Oxalodihydroxamic acid. Oxalyldihydroxamic acid. Dihydroxyglyoxime. Ethanedihydroxamic acid

[1687-60-1]

C₂H₄N₂O₄ M 120.065

Diketo tautomer predominates in cryst. state. Propellant.

Forms metal complexes, used in anal. for metals. Cryst.

(H₂O). V. spar. sol. cold H₂O. Mp 165° (deflagrates).pK_{a1} 6.68; pK_{a2} 8.49; pK_{a3} 10.97, pK_{a1} 6.55; pK_{a2} 8.63 (30%, H₂O).

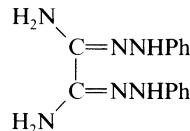
▷ Salts are explosive.

Lossen, W. *et al*, *Ber.*, 1894, **27**, 1105 (*synth*)Ponzio, G., *Gazz. Chim. Ital.*, 1926, **56**, 709; *CA*, **21**, 1097 (*synth. haz*)Przyborowski, L. *et al*, *CA*, 1975, **83**, 125675u (*synth, props*)Lowe-Ma, C.K. *et al*, *Acta Crystallogr.*, *Sect. C*, 1986, **42**, 1648 (*cryst struct*)**Oxamide bisphenylhydrazone**

O-00050

*Bis(phenylhydrazono)oxamide. Oxamide osazone.**Oxalimidic acid bis(2-phenylhydrazide)*

[3449-06-7]

C₁₄H₁₆N₆ M 268.321Used as a 0.1-0.2% soln. in EtOH for extraction-photometric detn. of Fe, Hg. Yellow cryst. (C₆H₆). Sol. EtOH, CHCl₃, C₆H₆, CCl₄; spar. sol. H₂O. Mp 196-197° (dec.). Bp P230°.Koshkin, N.V., *Zh. Anal. Khim.*, 1965, **20**, 534 (*synth, use*)**1,4-Oxathiane, 9CI**

O-00051

Thioxan

[15980-15-1]

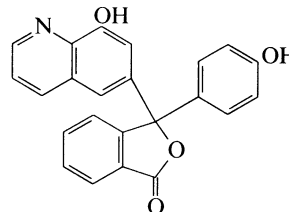
C₄H₈OS M 104.173Used as a 10% soln. in conc. HCl for extraction-photometric detn. of Pd (λ_{max} 315 nm). Liq. Spar. sol. H₂O. d₄²⁰ 1.12. Mp -17°. Bp 147°, Bp₄₇ 69.9°. n_D²⁰ 1.5081.

▷ Highly toxic orally. Flammable. RP4200000.

B,EtI: Yellow cryst. (EtOH). Mp 85°.Clarke, H.T., *J. Chem. Soc.*, 1912, **101**, 1806 (*synth*)Fromm, E. *et al*, *Ber.*, 1923, **56**, 2288.Johnson, J.D.A., *J. Chem. Soc.*, 1933, 1530.Ziegler, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1967, **226**, 405 (*detn. Pd*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, OLY000.**Oxine blue†**

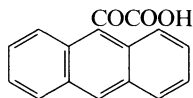
O-00052

3-(4-Hydroxyphenyl)-3-(8-hydroxy-5-quinolinyl)-1(3H)-isobenzofuranone, 9CI. 3-(p-Hydroxyphenyl)-3-(8-hydroxy-5-quinolinyl)phthalide

C₂₃H₁₅NO₄ M 369.376Used as a 0.1% soln. in EtOH for titrimetric detn. of Cd, Co, Cu, Mg, Pb, Zn. Yellow cryst. (EtOH). Sol. EtOH; insol. H₂O. Mp 215-217°. The name Oxine blue is also used for 8-Oxo-5-(p-diethylaminophenylimino)-5,8-dihydroquinoline, O-00062.Wroński, M., *Chem. Anal. (Warsaw)*, 1959, **4**, 641; *CA*, **54**, 9842 (*synth, use*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 342 (*use*)

α -Oxo-9-anthraceneacetic acid

9-Anthraceneglyoxylic acid. 9-Oxalanthracene
[85985-44-0]



$C_{16}H_{10}O_3$ M 250.253

Orange cryst. (toluene). Mp 186° dec.

Me ester: [123230-61-5].

$C_{17}H_{12}O_3$ M 264.280

Yellow cryst. Mp 103-105°.

Et ester:

$C_{18}H_{14}O_3$ M 278.307

Orange plates (pet. ether). Mp 90°.

Nitrile: α -Oxo-9-anthraceneacetonitrile, 9CI. 9-Anthroylnitrile

$C_{16}H_9NO$ M 231.253

Used to derivatise hydroxy steroids for hplc with fluorescence detn. Orange-yellow needles (hexane/ CH_2Cl_2). Mp 143-144°.

Bradley, W. *et al*, *J. Chem. Soc.*, 1956, 1622 (*synth*)

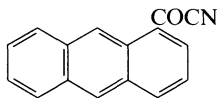
Goto, J. *et al*, *Anal. Chim. Acta*, 1983, **147**, 397 (*synth, use, nitrile*)

Becker, H.-D. *et al*, *Tetrahedron Lett.*, 1989, **30**, 989 (*synth, Me ester*)

 α -Oxo-1-anthraceneacetonitrile, 9CI

1-Anthroyl nitrile

[85985-43-9]



$C_{16}H_9NO$ M 231.253

Used to derivatise hydroxysteroids for hplc with fluorescence detn. Orange-yellow needles (hexane/ CH_2Cl_2). Mp 164-165°.

Goto, J. *et al*, *Anal. Chim. Acta*, 1983, **147**, 397 (*synth, use*)

Goto, J. *et al*, *J. Chromatogr.*, 1983, **276**, 289.

 α -Oxobenzeneacetic acid, 9CI

Phenylglyoxylic acid. Benzoylformic acid

[611-73-4]



$C_8H_6O_3$ M 150.134

Mp 66°. Bp₁₂ 147.5°. Dec. on dist. at atm. press.

▷ DA1480000.

Oxime: Isonitrosophenylacetic acid

$C_8H_7NO_3$ M 165.148

Mp 127°, Mp 145°. The form Mp 127° is metastable.

2,4-Dinitrophenylhydrazone: Yellow. Mp 196-197° dec.

Me ester: [15206-55-0].

$C_9H_8O_3$ M 164.160

Oil. Bp₁₄ 137°.

Chloride: [25726-04-9].

$C_8H_5ClO_2$ M 168.579

Oil. Bp₉ 125°.

Amide: [7505-92-2].

$C_8H_7NO_2$ M 149.149

Mp 91°.

Nitrile: [613-90-1]. Benzoyl cyanide

C_8H_5NO M 131.134

O-00053

Constit. of defensive secretions of millipedes. Reagent for selective benzoylation of sugars. Mp 32-33°. Bp 206-208°.

Thiosemicarbazone: [18465-40-2].

$C_9H_9N_3O_2S$ M 223.255

Used as 0.5mM aq. soln. for catalytic detn. of Rh(III).

Cryst. Sol. H_2O , EtOH.

[25327-35-9, 25327-36-0]

Org. Synth., Coll. Vol., 3, 1955, 114 (*synth*)

Gross, H. *et al*, *Chem. Ber.*, 1967, **100**, 3777 (*synth*)

Paap, R., *Tetrahedron Lett.*, 1969, 3493 (*synth*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1977, **6**, 35.

Duffey, S.S. *et al*, *J. Chem. Ecol.*, 1977, **3**, 101.

Ando, T. *et al*, *Synthesis*, 1983, 637 (*deriv*)

Murahashi, S. *et al*, *Tetrahedron Lett.*, 1985, 925 (*synth, nitrile*)

Ezerskaya, N.A. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 846 (*synth, deriv, detn, Rh*)

 β -Oxobenzenepropanethioamide**O-00056**

C_9H_9NOS M 179.242

N-Ph: [13196-40-2]. β -Oxo-N-

phenylbenzenepropanethioamide, 9CI. 2-

Benzoylthioacetanilide

$C_{15}H_{13}NOS$ M 255.340

Used as 5mM soln. in 0.1M NaOH for extraction-separation of Ir(III or IV) and Ru(III) ($CHCl_3$). Cryst. (EtOH). Sol. alkalis, EtOH.

N,N-Dibutyl: [53354-71-5]. *N,N-Dibutyl- β -oxobenzenepropanethioamide*, 9CI

$C_{17}H_{25}NOS$ M 291.457

Used as a 0.5mM soln. in 0.1M NaOH for extraction-separation of Ir(III,IV). Cryst. (EtOH). Sol. alkalis, EtOH.

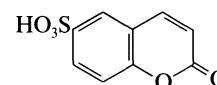
Schroth, W. *et al*, *Z. Chem.*, 1974, **14**, 93 (*N,N-dibutyl, synth*)

Ludwig, E. *et al*, *Z. Chem.*, 1975, **15**, 234 (*synth*)

Röbisch, G. *et al*, *Anal. Chim. Acta*, 1983, **151**, 255 (*detn, Ir, Ru*)

2-Oxo-2H-1-benzopyran-6-sulfonic acid**O-00057**

Coumarin-6-sulfonic acid



$C_9H_6O_5S$ M 226.209

Chloride: [10543-42-7]. 2-Oxo-2H-1-benzopyran-6-sulfonyl chloride, 9CI. 6-(Chlorosulfonyl)coumarin, 8CI. Coumarin-6-sulfonyl chloride

$C_9H_5ClO_4S$ M 244.655

Fluorescent label for amines, phenols and proteins.

Cryst. (C_6H_6). Mp 119-120°.

Merchant, J.R. *et al*, *J. Indian Chem. Soc.*, 1957, **34**, 35 (*synth*)

Akusoba, E.U., *Fresenius' Z. Anal. Chem.*, 1985, **320**, 182 (*use*)

Al-Kindy, S.M. *et al*, *Anal. Chim. Acta*, 1989, **227**, 145; 1989, **227**, 155 (*synth, use*)

2-Oxo-3-butynoic acid, 9CI**O-00058**

[56842-75-2]



$C_4H_2O_3$ M 98.058

Unstable. Reactive alkylating agent *in vivo*.

▷ Possible mutagen.

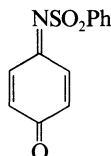
Et ester: [20286-36-6].

$C_6H_6O_3$ M 126.112

Reagent for detn. of amines.
Isopropyl ester: [20286-37-7].
 $C_7H_8O_3$ M 140.138
 Reagent for detn. of amines.

Lapkin, I.I. *et al*, *CA*, 1968, **68**, 65474f (*use*)
 Kaczorowski, G. *et al*, *Biochemistry*, 1975, **14**, 3903.
 Pompon, D. *et al*, *Eur. J. Biochem.*, 1982, **129**, 143 (*synth, purifn*)

N-(4-Oxo-2,5-cyclohexadien-1-ylidene) benzenesulfonamide, 9CI O-00059
N-Phenylsulfonyl-p-quinone imine. p-Quinone monobenzenesulfonimide
 [4056-56-8]



$C_{12}H_9NO_3S$ M 247.274
 Reagent for the kinetic detn. of phenols. Orange-yellow
 cryst. (cyclohexane/ $CHCl_3$). Mp 134° dec.

Adams, R. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 1145 (*synth*)
 Guilbault, G.G. *et al*, *Anal. Chem.*, 1966, **38**, 1897 (*use*)

2-Oxocyclopentanecarboxylic acid, 9CI O-00060
Cyclopentanone-2-carboxylic acid
 [50882-16-1]



$C_6H_8O_3$ M 128.127
 (±)-**form**

Me ester: [10472-24-9].

$C_7H_{10}O_3$ M 142.154
 Bp₁₉ 105°.

Me ester, semicarbazone: Cryst. Mp 167°.

Et ester: [53229-92-8]. 2-Ethoxycarbonylcyclopentanone.
Dieckmann ester

$C_8H_{12}O_3$ M 156.181
 Bp₆ 86-87°.

Nitrile: [2941-29-9]. 2-Cyanocyclopentanone

C_6H_7NO M 109.127
 Bp_{1,0} 93°.

Anilide: [4874-65-1]. 2-Oxo-N-phenylcyclopentanecarboxamide, 9CI

$C_{12}H_{13}NO_2$ M 203.240

Used as 0.3% soln. in 50% EtOH for gravimetric detn.
 of Be, Hg, V, U. Cryst. (EtOH). Sol. EtOH, Me_2CO .

Org. Synth., *Coll. Vol.*, 2, 1943, 116.

Rhoads, S.J. *et al*, *Tetrahedron*, 1963, **19**, 1625.

Bloomfield, J.J. *et al*, *Tetrahedron Lett.*, 1964, 2273.

Zupancic, B.G. *et al*, *Monatsh. Chem.*, 1967, **98**, 369.

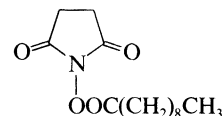
Chaudhuri, N.K. *et al*, *Anal. Chim. Acta*, 1971, **57**, 193 (*synth, anilide*)

Mandal, S.K. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 134 (*detn, V*)

Korobitsyna, I.K. *et al*, *Zh. Org. Khim.*, 1976, **12**, 1251; *CA*, **85**, 142560.

Coates, R.M. *et al*, *J. Am. Chem. Soc.*, 1987, **109**, 1160 (*nitrile*)

1-[(1-Oxodecyl)oxy]-2,5-pyrrolidinedione, 9CI O-00061
N-(Decanoyloxy)succinimide, 8CI. Succinimido decanoate
 [22102-66-5]



$C_{14}H_{23}NO_4$ M 269.340

Reagent for peptide sequence detn. by ms. Solid. Mp 69-70°.

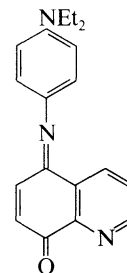
Wulfson, N.S. *et al*, *Tetrahedron Lett.*, 1966, 39 (*use*)

Vinogradova, E.I. *et al*, *Zh. Obshch. Khim.*, 1968, **38**, 777 (*synth*)

Paquet, A., *Can. J. Chem.*, 1979, **57**, 2775 (*synth*)

Higuchi, K. *et al*, *Yukagaku*, 1987, **36**, 16; *CA*, **107**, 197844k (*synth*)

8-Oxo-5-(p-diethylaminophenylimino)-5,8-dihydroquinoline O-00062
Oxine blue†



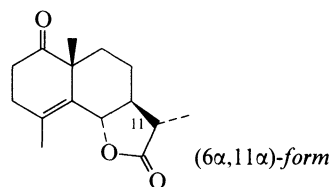
$C_{19}H_{19}N_3O$ M 305.379

Used as a 0.25% soln. in EtOH as acid-base indicator (pH range: 3.9-5.5; colour change: blue → orange). Orange
 cryst. (EtOH). Sol. EtOH. Mp 134-135°. The name
 Oxine blue is also used for Oxine blue‡, O-00052.

Lev, L.E. *et al*, *Zh. Anal. Khim.*, 1956, **11**, 359 (*synth, use*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 127.

1-Oxo-4-eudesmen-12,6-olide O-00063



$C_{15}H_{20}O_3$ M 248.321

(6α,11α)-**form** [23522-05-6] **Taurin**

Constit. of *Artemisia granatensis*, *A. taurica* and *A. hanseniana*. Used as 0.6mM aq. soln. for fluorimetric
 detn. of CN^{\ominus} (λ_{max} 460 nm). Cryst. (EtOH). Mp 118-
 119° (109-110°). $[\alpha]_D^{19} - 120^{\circ}$ (c, 5 in EtOH).

(6α,11β)-**form**

11-Epitaurin. 11-epi-Taurin

Constit. of *A. herba-alba*. Oil. $[\alpha]_D^{23} - 45^{\circ}$ (c, 0.9 in
 $CHCl_3$).

(6β,11α)-**form** [54192-33-5] **Finitin**

Constit. of *A. spp.* Mp 153-155°. $[\alpha]_D - 167.7^{\circ}$ (c, 1.7 in
 $CHCl_3$).

(6β,11β)-**form**

Deoxy-ψ-santonin. Deoxyψseudosantonin

Isol. from *A. spp.* Mp 101-102°. $[\alpha]_D^{25} - 207^{\circ}$ (EtOH).

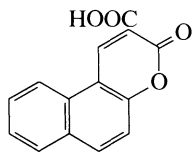
[52918-33-9]

Dauben, W. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 2239 (*Finitin*)
 Kechatova, N.A. *et al*, *Khim. Prir. Soedin.*, 1968, 205 (*Taurin*)
 Gonzalez, A.G. *et al*, *An. Quim.*, 1974, **70**, 231; 1975, **71**, 437 (*isol. pmr*)
 Serkerov, S.V. *et al*, *Khim. Prir. Soedin.*, 1976, 665 (*Taurin*)
 Calleri, M. *et al*, *Acta Crystallogr., Sect. C*, 1983, **39**, 1115 (*cryst struct, 11-Epitaurin*)
 Sano, A. *et al*, *Talanta*, 1985, **34**, 743 (*detn, CN[⊖]*)
 Sano, A. *et al*, *Anal. Sci.*, 1986, **2**, 491 (*detn, CN[⊖]*)
 Sanz, J.F. *et al*, *Phytochemistry*, 1990, **29**, 541 (*11-Epitaurin*)

3-Oxo-3*H*-naphtho[2,1-*b*]pyran-2-carboxylic acid, 9CI

O-00064

5,6-Benzocoumarin-3-carboxylic acid
 [4361-00-6]



$C_{14}H_8O_4$ M 240.215
 Cryst. (AcOH). Mp 234°.

Me ester: [25816-60-8].

$C_{15}H_{10}O_4$ M 254.242
 Cryst. (EtOH aq.). Mp 165°.

Et ester: [734-88-3].

$C_{16}H_{12}O_4$ M 268.268
 Needles (EtOH aq.). Mp 115°.

Chloride: [71942-38-6].

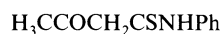
$C_{14}H_7ClO_3$ M 258.660
 Used for fluorimetric detn. of prostaglandins.

Knoevenagel, E. *et al*, *Ber.*, 1904, **37**, 4486 (*synth*)
 Junek, H. *et al*, *Monatsh. Chem.*, 1971, **102**, 1096 (*synth*)
 Wolfbeis, O.S. *et al*, *Monatsh. Chem.*, 1980, **111**, 93 (*synth*)
 Wintersteiger, R. *et al*, *Prostaglandins, Leukotrienes Med.*, 1984, **14**, 25 (*use, chloride*)

3-Oxo-*N*-phenylbutanethioamide, 9CI

O-00065

Acetylthioacetanilide
 [10374-66-0]



$C_{10}H_{11}NOS$ M 193.269
 Used as soln. in 40% EtOH in extraction-photometric detn. of Se; as 0.05*M* soln. in 0.1*M* NaOH for extraction-separation of Ir(III or IV) (CHCl₃, sl. acidic media). Cryst. (EtOH). Sol. EtOH; spar. sol. H₂O. Mp 64°.

Ludwig, E. *et al*, *Z. Chem.*, 1975, **15**, 234 (*synth*)
 Pal, T. *et al*, *J. Indian Chem. Soc.*, 1979, **56**, 791 (*detn, Se*)
 Röbisch, G. *et al*, *Anal. Chim. Acta*, 1983, **151**, 255 (*sepn, Ir*)

1-(1-Oxo-2-phenylbutyl)-1*H*-imidazole, 9CI

O-00066

N-(α -Phenylbutyryl)imidazole
 [52699-46-4]



$C_{13}H_{14}N_2O$ M 214.266

(+) *form*

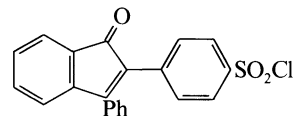
Reagent for determining chirality of amines, alcohols and carboxylic acids. $[\alpha]_{D}^{25} + 13.4^\circ$ (C₆H₆).

Brockmann, H.J. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1974, **86**, 665 (*synth, use*)

4-[1-Oxo-3-phenyl-1*H*-inden-2-yl] benzenesulfonyl chloride, 9CI

O-00067

2-(4-Chlorosulfophenyl)-3-phenylindone. Sulfoindonyl chloride
 [13951-60-5]



$C_{21}H_{13}ClO_3S$ M 380.851

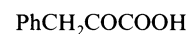
Reagent for fluorescence detn. of amino acids and hexosamines. Orange-red cryst. (C₆H₆). Mp 193-194°.

Ivanov, T.P., *Monatsh. Chem.*, 1966, **97**, 1499 (*synth*)
 Ivanov, C. *et al*, *Biochim. Biophys. Acta*, 1969, **194**, 345 (*use*)
 Ivanov, C.P. *et al*, *J. Chromatogr.*, 1972, **71**, 117; 1974, **90**, 181 (*use*)

2-Oxo-3-phenylpropanoic acid

O-00068

α -Oxobenzenepropanoic acid, 9CI. Phenylpyruvic acid
 [156-06-9]



$C_9H_8O_3$ M 164.160

Occurs in plants, prod. by *Pseudomonas* and other microorganisms. Plates (CHCl₃). Spar. sol. hot H₂O. Mp 157° dec. Oxidises in air. Reduces boiling Fehling's soln.

Na salt: [114-76-1].

Cryst. + 1H₂O. Insol. EtOH. Stable in air. H₂O of cryst. remains at 100°.

Et ester: [6613-41-8].

$C_{11}H_{12}O_3$ M 192.214

Needles. Insol. H₂O. Mp 45°. Bp₁₅ 154.5°. Oxidises in air. Enolic Et esters (*E*- and *Z*-) are also known.

Et ester, oxime:

$C_{11}H_{13}NO_3$ M 207.229
 Prisms or needles (ligroin). Mp 57-58°.

Et ester, phenylhydrazone: Mp 89°.

Et ester, semicarbazone: Plates (EtOH aq.). Mp 167°.

Amide: [6362-62-5].

$C_9H_9NO_2$ M 163.176

Sol. hot EtOH, insol. H₂O, Et₂O, C₆H₆. Mp 190°.

Amide, oxime: [13942-61-5].

$C_9H_{10}N_2O_2$ M 178.190

Needles (H₂O). Mp 147°.

Oxime: [3682-17-5]. α -(Hydroxyimino)benzenepropanoic acid, 9CI

$C_9H_9NO_3$ M 179.175

Used as a 3% soln. in EtOH for gravimetric detn. of Cu; pptn. of heavy metals. Needles (EtOH aq. or H₂O). Mp 159° dec.

Semicarbazone: Mp 180° dec.

4-Nitrophenylhydrazone: Cryst. (EtOH aq.). Mp 187-188° dec.

2-Quinolyhydrazone: see α -(2-Quinolinylhydrazone) benzenepropanoic acid, Q-00035

Org. Synth., Coll. Vol., 2, 1943, 519 (*synth*)

Katyal, M. *et al*, *Curr. Sci.*, 1962, **31**, 373 (*oxime, detn, Cu*)

Weygand, F. *et al*, *Justus Liebigs Ann. Chem.*, 1962, **658**, 128 (*synth*)

Katyal, M. *et al*, *J. Indian Chem. Soc.*, 1963, **40**, 491 (*pptn*)

Kretovich, V.L., *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1964, **158**, 471 (*occur*)
 Igarashi, M. *et al*, *J. Org. Chem.*, 1967, **32**, 3399 (*synth*)
 Anatol, J. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1971, **272**, 1159 (*synth*)
 Kulkarni, B.D. *et al*, *Indian J. Chem.*, 1975, **13**, 1097 (*synth*)
 Haider, Q., *J. Indian Chem. Soc.*, 1975, **552**, 881 (*oxime, detn, Cu*)
 Ramage, R. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1984, 1531 (*synth, ir*)
 Fujita, Y. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 242 (*anal*)

3-Oxo-3-phenylpropanoic acid O-00069

β-Oxobenzenepropanoic acid, 9CI. Benzoylacetic acid
 [614-20-0]



$\text{C}_9\text{H}_8\text{O}_3$ M 164.160

Spar. sol. H_2O , ligroin. Mp 103-104° dec.

Me ester: [614-27-7].

$\text{C}_{10}\text{H}_{10}\text{O}_3$ M 178.187

Oil. Bp₁₅ 152°.

Amide: [3446-58-0].

$\text{C}_9\text{H}_9\text{NO}_2$ M 163.176

Mp 113°.

Anilide: [959-66-0]. 2-Benzoylacetanilide, 9CI. *β*-Oxo-N-phenylbenzenepropanamide

$\text{C}_{15}\text{H}_{13}\text{NO}_2$ M 239.273

Used as a 1% soln. in EtOH for extraction-photometric, gravimetric detn. of Be, Hg, Re, Ti, U, V. Cryst. (C_6H_6 , toluene). Sol. EtOH, Me_2CO , C_6H_6 . Mp 107-108°.

Di-Et acetal: 3,3-Diethoxy-3-phenylpropanoic acid

$\text{C}_{13}\text{H}_{18}\text{O}_4$ M 238.283

Mp 68° dec.

Dorsch, J.B. *et al*, *J. Am. Chem. Soc.*, 1932, **54**, 2960 (*synth*)

Org. Synth., *Coll. Vol.*, 4, 1963, 80, 415 (*deriv*)

Sarkar, A.K. *et al*, *Anal. Chem.*, 1967, **39**, 1608 (*detn, Be, Ti*)

Sarkar, A.K. *et al*, *Anal. Lett.*, 1968, **1**, 323 (*detn, Hg, V*)

Mandal, S.K. *et al*, *J. Indian Chem. Soc.*, 1973, **50**, 424 (*detn, U*)

Das, J., *J. Indian Chem. Soc.*, 1977, **54**, 278 (*detn, Re*)

2-Oxopropanedial, 9CI O-00070

Mesoxalic dialdehyde, 8CI. *Mesoxaldehyde*
 [497-16-5]



$\text{C}_3\text{H}_2\text{O}_3$ M 86.047

Known in hydrated form.

Hydrate: [4464-20-4]. *Dihydroxypropanedial*, 9CI.

Dihydroxymalonaldehyde, 8CI

Viscous syrup. Sol. H_2O . Polymerises on standing.

1,3-Dioxime: [41886-31-1]. *Diisonitrosacetone*

$\text{C}_3\text{H}_4\text{N}_2\text{O}_3$ M 116.076

Gives colour reaction with Fe(III). Prisms or flakes (MeOH). Spar. sol. H_2O . Mp 206-212° dec.

▷ UA1600000.

1,2-Bisphenylhydrazone: Yellow-orange cryst. Mp 198° dec.

2-p-Nitrophenylhydrazone: Brown plates (EtOH). Mp 178°.

Harries, C. *et al*, *Ber.*, 1905, **38**, 1630 (*synth*)

Dubsky, J.V. *et al*, *Chem. Listy*, 1929, **23**, 496; *CA*, 1930, **24**, 801.

Von Euler, H. *et al*, *Justus Liebigs Ann. Chem.*, 1933, **505**, 73

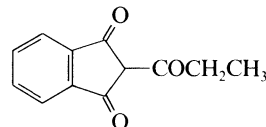
(*synth*)

Geissman, T.A. *et al*, *J. Org. Chem.*, 1946, **11**, 736 (*dioxime*)

Mosher, W.A. *et al*, *J. Org. Chem.*, 1970, **35**, 3689 (*dioxime*)

2-(1-Oxopropyl)-1H-indene-1,3(2H)-dione, 9CI O-00071

2-Propionyl-1,3-indanedione
 [2740-25-2]



$\text{C}_{12}\text{H}_{10}\text{O}_3$ M 202.209

Used as 5mM aq. alkaline soln. for extraction-photometric detn. of Fe(III) (λ_{max} 520 nm, CHCl_3); as 0.01M soln. in Me_2CO for fluorimetric detn. of Eu (λ_{max} 610 nm, pH 3-5). Cryst. (EtOH). Sol. EtOH, Me_2CO , alkalis. Mp 103°.

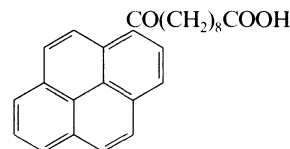
▷ NK6650000.

Apsitis, A., *CA*, 1973, **86**, 50195p (*detn, Fe*)

Bel'tynkova, S.V. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 1103 (*synth, detn, Eu*)

1-Oxo-1-pyrenedecanoic acid, 9CI O-00072

9-Oxo-9-(1-pyrenyl)decanoic acid
 [104180-30-5]



$\text{C}_{26}\text{H}_{26}\text{O}_3$ M 386.490

Fluorescent probe.

Et ester: [70700-34-4].

$\text{C}_{28}\text{H}_{30}\text{O}_3$ M 414.543

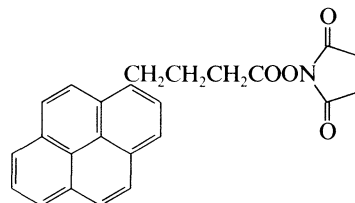
Cryst. (MeOH). Mp 46-48°.

Galla, H.J. *et al*, *Chem. Phys. Lipids*, 1979, **23**, 239 (*synth, deriv*)

Sunamoto, J. *et al*, *J. Am. Chem. Soc.*, 1980, **102**, 1146 (*synth, ir, pmr, deriv*)

1-[1-Oxo-4-(1-pyrenyl)butoxy]-2,5-pyrrolidinedione, 9CI O-00073

Succinimido 4-(1-pyrenyl)butanoate
 [114932-60-4]



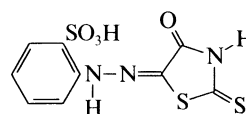
$\text{C}_{24}\text{H}_{19}\text{NO}_4$ M 385.418

Fluorescent label.

Morrison, L.E., *Anal. Biochem.*, 1988, **174**, 101; 1989, **183**, 231 (*use*)

2-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo] benzenesulfonic acid, 9CI O-00074

o-Sulfobenzeneazorhodanine
 [51327-63-0]



$C_9H_7N_3O_4S_3$ M 317.370
 Several tautomers possible. Used as 0.1% soln. in 50% EtOH for photometric detn. of Ag, Au, Pd, Pt. Red cryst. powder. Sol. H_2O , EtOH, DMF.
 Propistsova, detn... R.F. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 250 (*tautom*)
 Gur'eva, R.F. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 660 (*detn, Ag*)
 Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)

3-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo] O-00075**benzenesulfonic acid, 9CI**

m-Sulfobenzeneazorhodanine

[51327-62-9]

$C_9H_7N_3O_4S_3$ M 317.370
 Several tautomers possible. Used as 0.1% soln. in 50% EtOH for photometric detn. of Ag, Au, Pd, Pt. Red cryst. powder. Sol. H_2O , EtOH, DMF.

N-Amino: 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo] benzenesulfonic acid

 $C_9H_8N_4O_4S_3$ M 332.385

Used as an EtOH soln. for photometric detn. of Ag, Au, Pd, Pt.

Propistsova, R.F. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 250 (*tautom*)
 Gur'eva, R.F. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 660 (*detn, Ag*)
 Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)

4-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo] O-00076**benzenesulfonic acid, 9CI**

p-Sulfobenzeneazorhodanine

[42167-63-5]

$C_9H_7N_3O_4S_3$ M 317.370
 Several tautomers possible. Used as 0.1% soln. in 50% EtOH for photometric detn. of Ag, Au, Pd, Pt. Red cryst. powder. Sol. H_2O , EtOH, DMF.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*rev*)**1,1'-Oxybis(2-chloroethane), 9CI O-00077**

Di-2-chloroethyl ether. 2,2'-Dichlorodiethyl ether. Bis(2-chloroethyl) ether. Chlorex

[111-44-4]

ClCH₂CH₂OCH₂CH₂Cl

$C_4H_8Cl_2O$ M 143.012
 Use in the purifn. of oils, as a soil fumigant and to assist in scouring of textiles, also as an extraction solvent, e.g. for Fe(III) from 6 M HCl medium. Liq. Misc. Et₂O, MeOH, C₆H₆. d_{20}^{20} 1.213. Fp – 51.9°. Bp 177-178°, Bp₁₂ 66°.

▶ Highly toxic and irritant by inhalation and skin absorption, TLV 30. KN0875000.

Aldrich Library of IR Spectra, 2nd Ed., 116F (*ir*)Aldrich Library of NMR Spectra, **1**, 134C (*pmr*)Registry of Mass Spectral Data, Wiley-Interscience, 300 (*ms*)Sadtler Standard C-13 NMR Spectra, 20 (*cmr*)Kamm, O. *et al*, *J. Am. Chem. Soc.*, 1921, **43**, 2223 (*synth*)Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals*, Wiley, New York, 1978 (*use*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 200.

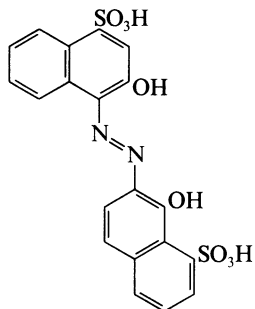
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DFJ050.

P

Palatine fast blue GGNA CF

P-00001

3-Hydroxy-4-[[1-hydroxy-8-sulfo-2-naphthalenyl]azo]-1-naphthalenesulfonic acid. C.I. Acid blue 158. Palatine fast blue GGN. Pilote fast blue GGN. C.I. 14880



$C_{20}H_{14}N_2O_8S_2$ M 474.471

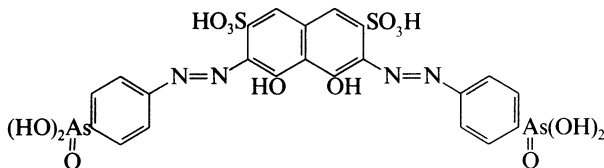
Used as metallochromic indicator in titrimetric detn. of Ca. Cryst. Sol. H_2O , EtOH. pK_{a1} 9.9; pK_{a2} 12.9.

Reilley, C.N. *et al*, *Anal. Chem.*, 1959, **31**, 887 (*pKa*)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Palladiaz

P-00002

3,6-Bis[(4- arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI
[16088-85-0]



$C_{22}H_{18}As_2N_4O_{14}S_2$ M 776.378

Used as 0.1% aq. soln. for photometric detn. of Pd (λ_{max} 540 nm, ϵ 33000); gives colour reactions with Co, Cu, Dy, Fe(III), Lu, Mn, Th, Y, Zn. Dark red cryst. powder. Sol. H_2O ; sl sol. EtOH. Mp > 300° dec.

Perez-Bustamante, J.A. *et al*, *Anal. Chim. Acta*, 1967, **37**, 49; 1969, **44**, 95; 1970, **51**, 277 (*synth, detn, Pd*)

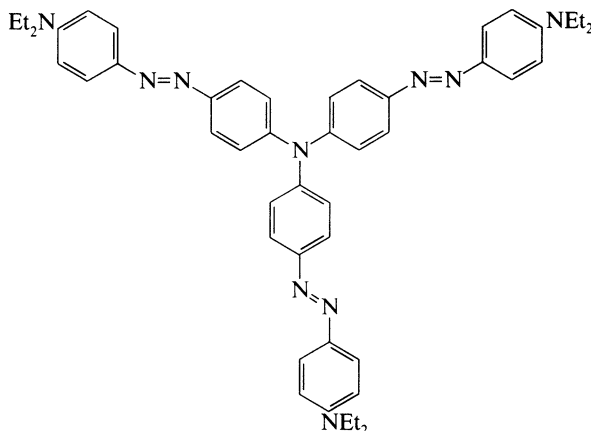
Perez-Bustamante, J.A. *et al*, *Talanta*, 1971, **18**, 183, 717 (*props*)
Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 722 (*detn, Dy, Lu, Th, Y*)

Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1888 (*detn, Co, Cu, Fe, Mn, Zn*)

Pallatriazo

P-00003

4-[[4-(Diethylamino)phenyl]azo]-N,N-bis[4-[[4-(diethylamino)phenyl]azo]phenyl]benzenamine, 9CI. 4,4',4''-Tris(4-diethylaminophenylazo)triphenylamine
[93638-57-4]



$C_{48}H_{54}N_{10}$ M 771.022

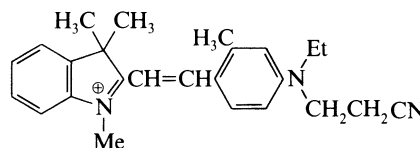
Used as 0.05% DMF soln. for photometric detn. of Pd (λ_{max} 570 nm). Dark blue cryst. Sol. DMF.

Khalifa, M.E. *et al*, *Mikrochim. Acta*, 1984, **2**, 169 (*synth, detn, Pd*)

Panacryl brilliant red

P-00004

2-[2-[4-[(2-Cyanoethyl)ethylamino]-2-methylphenyl]ethyl]-1,3,3-trimethyl-3H-indolium(1+), 9CI
[72208-19-6]



$C_{25}H_{30}N_3^{\oplus}$ M 372.532 (ion)

Chloride:

$C_{25}H_{30}ClN_3$ M 407.985

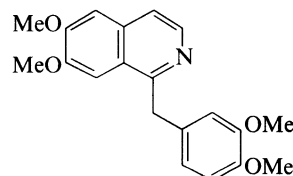
Used as 1mM aq. soln. for extraction-photometric detn. of Tl(III) (λ_{max} 565 nm, ϵ 61000, toluene). Brown red cryst. Sol. H_2O .

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1636 (*detn, Tl*)

Papaverine

P-00005

6,7-Dimethoxy-1-(3,4-dimethoxybenzyl)isoquinoline. Papaveroline tetramethyl ether. NSC 35443
[58-74-2]



C₂₀H₂₁NO₄ M 339.390

Alkaloid from *Papaver somniferum* and *Rauwolfia serpentina* (Papaveraceae, Apocynaceae). Smooth muscle relaxant, vasodilator, antiasthmatic agent. Oral antispasmodic agent which has been used for treating gastrointestinal spasm. Used as 0.05 M soln. in CHCl₃ for extraction-photometric detn. of Zr (λ_{\max} 580 nm, ϵ 51000); flotation-photometric detn. of Te (with bromide). Prisms (EtOH/Et₂O). Mp 147-148°.

▷ LD₅₀ 25mg/kg (mouse, i.v.). NW8450000.

B, HCl: [61-25-6]. *Papaverine hydrochloride*, USAN. Cerespan. Pavabid

Rods (H₂O). Mp 221-222° dec. Component of Copavin. ▷ NW8575000.

B, MeI: Mp 60-65° (hydrate), Mp 195° (anhyd.).

▷ Highly toxic orally.

O³-De-Me: [18694-10-5]. **Palaudine**

C₁₉H₁₉NO₄ M 325.363

Minor alkaloid from opium (Papaveraceae). Prisms (EtOH). Mp 175-176°.

Hofmann, A., *Helv. Chim. Acta*, 1954, **37**, 849 (*uv*)

Guthrie, D.A. *et al*, *Can. J. Chem.*, 1955, **33**, 729 (*synth*)

Popp, F.D. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 3773 (*synth*)

Brochmann-Hanssen, E. *et al*, *J. Pharm. Sci.*, 1968, **57**, 940 (*Palaudine*)

Saferstein, R., *CA*, 1974, **80**, 44458m (*ms*)

Brochmann-Hanssen, E. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1975, 1531 (*biosynth*)

Manske, R.H.F., *The Alkaloids*, Ed., Academic Press, N.Y., 1975, 209 (*pharmacol, tox*)

Neuman, M., *Med. Actual.*, Ed., *The Alkaloids*, Academic Press, N.Y., 1976, **12**, 278 (*rev*)

Shtokalo, M.I. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 2366 (*detn, Zr*)

Whipple, G.H., *Angiology*, 1977, **28**, 737 (*rev*)

Tomimatsu, T. *et al*, *CA*, 1977, **87**, 23573z (*pmr*)

Marsaioli, A.J. *et al*, *Phytochemistry*, 1978, **17**, 1655 (*cmr*)

Wilén, G. *et al*, *J. Pharm. Pharmacol.*, 1982, **34**, 264 (*metab*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 5221-5224.

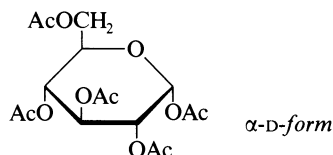
Skripchuk, V.G. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 2198 (*detn, Te*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 5642 (*synonyms*)

Hifnawy, M.S. *et al*, *Anal. Profiles Drug Subst.*, 1988, **17**, 367 (*rev*)

Janssen, R.H.A.M. *et al*, *Phytochemistry*, 1989, **28**, 2833 (*pmr, cmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PAH000, PAH250.

1,2,3,4,6-Penta-O-acetylglucopyranose**P-00006**C₁₆H₂₂O₁₁ M 390.343**α-D-form** [604-68-2]

Reference material used in elemental microanalysis. Mp 112-114°. [α]_D²⁰ +102° (CHCl₃).

β-D-form [604-69-3]

Mp 132-135°. [α]_D²⁰ +4° (CHCl₃).

Wolfrom, M.L. *et al*, *Methods Carbohydr. Chem.*, 1963, **2**, 211 (*synth*)

Stanek, J. *et al*, *The Monosaccharides*, Academic Press, N.Y. and London, 1963, 190 (*rev*)

Horton, D. *et al*, *J. Org. Chem.*, 1967, **32**, 1073 (*synth, pmr*)

Lichtenthaler, F.W. *et al*, *Chem. Ber.*, 1969, **102**, 994 (*config*) *Analyst* (London), 1972, **97**, 740 (*microanal*)

Vignon, M.R. *et al*, *Tetrahedron Lett.*, 1976, 2445 (*cmr*)

Pentadecafluorooctanal, 9CI**P-00007***Perfluorooctanal*

[335-60-4]

FC₃(CF₂)₆CHOC₈HF₁₅O M 398.071

Used to derivatise primary amines for gc analysis. Liq. Bp 122°. n_D^{20} 1.2913.

Pierce, O.R. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 300 (*synth*)

Moffat, A.C. *et al*, *Anal. Lett.*, 1970, **3**, 205 (*use*)

Lang, R.W., *Helv. Chim. Acta*, 1988, **71**, 369 (*synth*)

Pentadecafluorooctanoic acid, 9CI**P-00008***Perfluorooctanoic acid*

[335-67-1]

F₃C(CF₂)₆COOHC₈HF₁₅O₂ M 414.071

Emulsifier, surfactant. Cryst. (CCl₄). Mp 54.9-55.6°.

▷ RH0781000.

Na salt: [335-95-5].

Surfactant. Solid.

NH₄ salt: [3825-26-1].

Surfactant. Solid.

▷ RH0782000.

Me ester: [376-27-2].

C₉H₃F₁₅O₂ M 428.097

Liq. d_4^{27} 1.68. Bp₈ 158-159°.

Et ester: [3108-24-5].

C₁₀H₅F₁₅O₂ M 442.124

Liq. Bp₁₈ 74-76°.

Fluoride: [335-66-0].

C₈F₁₆O M 416.062

Source of Pentadecafluorooctanoic acid, P-00008. Liq.

Chloride: [335-64-8].

C₈ClF₁₅O M 432.516

Derivatisation reagent used in gc anal. of testosterone.

Liq. Bp₇₄₄ 129-130°.

Amide: [423-54-1].

C₈H₂F₁₅NO M 413.086

Solid. Mp 137-139°.

Anhydride: [33496-48-9].

C₁₆F₃₀O₃ M 810.126

Derivatisation reagent used in gc anal. of agricultural chemicals. Bp₁₅ 100°.

Nitrile: [647-12-1].

C₈F₁₅N M 395.071

Liq. Bp₇₀₅ 100-102°.

Kauk, E.A. *et al*, *Ind. Eng. Chem.*, 1951, **43**, 2332 (*synth, use*)

Gunther, R.A. *et al*, *Ind. Eng. Chem. Prod. Res. Dev.*, 1962, **1**, 165 (*use, rev*)

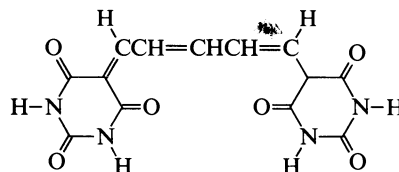
Nakagawa, K. *et al*, *Steroids*, 1966, **7**, 329 (*use, chloride*)

Ryan, J.J. *et al*, *J. Chromatogr.*, 1977, **135**, 117 (*use, anhydride*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ANP625.

5,5'-(1,3-Pentadien-1-yl-5-ylidene)**P-00009****dibarbituric acid, 8CI***Bisbarbiturilpentamethylenecyanine*

[26134-70-3]



$C_{13}H_{10}N_4O_6$ M 318.245

Polymethine dye. Used as a 0.01% soln. in NaOH for photometric detn. of Mg. Grey powder. Insol. H_2O , EtOH, Et₂O, Me₂CO, C₆H₆; sol. DMF. Mp 284°.

▷ CQ7370000.

Anger, V., *Mikrochim. Acta*, 1961, 512 (*synth, detn, Mg*)
Schüller, H. *et al*, *Landwirtsch. Forsch.*, 1968, **21**, 366; *CA*, **71**, 57441q (*detn, Mg*)

Pentafluorobenzaldehyde

P-00010

[653-37-2]

C_6F_5CHO

C_7HF_5O M 196.076

Reagent for anal. of primary amines. Mp 20°. Bp 168-170°.

Hydrazone: [19161-27-4].

$C_7H_3F_5N_2$ M 210.106

Mp 68°.

Oxime: [19292-27-4].

$C_7H_2F_5NO$ M 211.091

Mp 131-132°.

2,4-Dinitrophenylhydrazone: Mp 229-230°.

Di-Et acetal: [19161-33-2].

$C_{11}H_{11}F_5O_2$ M 270.199

Bp₁₂ 81-82°.

[27318-28-1]

Barbour, A.K. *et al*, *J. Chem. Soc.*, 1961, 808 (*synth*)

Aroskar, E.V. *et al*, *J. Chem. Soc.*, 1968, 1569 (*deriv, synth, ir, props*)

Gorfinkel, M.I. *et al*, *Zh. Obshch. Khim.*, 1968, **38**, 1815; *CA*, **69**, 105706n (*ms*)

Dean, R.R. *et al*, *J. Chem. Soc. B*, 1969, 509 (*F nmr*)

Lhuguenot, J.C. *et al*, *J. Chromatogr. Sci.*, 1974, **12**, 411 (*use*)

Hoshika, Y., *Anal. Chem.*, 1977, **49**, 541 (*use*)

Avery, M.J. *et al*, *Anal. Chem.*, 1985, **57**, 790 (*use*)

Pentafluorobenzenesulfonyl chloride, 9CI

P-00011

[832-53-1]

$(C_6F_5)SO_2Cl$

$C_6ClF_5O_2S$ M 266.576

Reagent for gc anal. of carbamate pesticides and of phenylethylamine. Liq. Bp 210-211°.

Robson, P. *et al*, *J. Chem. Soc.*, 1963, 3692 (*synth*)

Moye, H.A., *J. Agric. Food Chem.*, 1975, **23**, 415 (*use*)

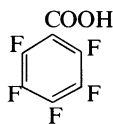
Baker, G.B. *et al*, *J. Chromatogr.*, 1986, **381**, 211 (*use*)

Pentafluorobenzoic acid

P-00012

Perfluorobenzoic acid

[602-94-8]



$C_7HF_5O_2$ M 212.076

Mp 99-101°. Bp 220°. pK_a 1.75 (25°).

▷ DH6195000.

Et ester: [4522-93-4].

$C_9H_5F_5O_2$ M 210.129

Liq. Bp_{0.01} 31-33°.

Chloride: [2251-50-5].

C_7ClF_5O M 230.521

Liq. Bp₂₃ 60-67°.

Amide: [652-31-3].

$C_7H_2F_5NO$ M 211.091

Cryst. (C₆H₆). Mp 150.5°.

Nitrile: [773-82-0]. *Pentafluorobenzonitrile*, 9CI. *1-Cyano-2,3,4,5,6-pentafluorobenzene*

C_7F_5N M 193.076

Liq. Bp₇₅₇ 162.5°.

Anhydride: [15989-99-8].

$C_{14}F_{10}O_3$ M 406.136

Used to derivatise testosterone for gc anal. Cryst. (hexane). Mp 69-69.5°. Bp_{0.01} 104°.

Belf, L.J. *et al*, *J. Chem. Soc.*, 1965, 3372 (*synth*)

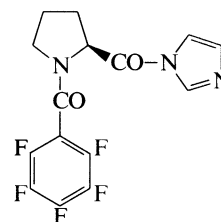
Dehennin, L. *et al*, *J. Chromatogr. Sci.*, 1972, **10**, 224 (*anhydride, use*)

Pearson, D.E. *et al*, *Synthesis*, 1978, 127 (*synth*)

Abdel-Baky, S. *et al*, *J. Org. Chem.*, 1986, **51**, 3390 (*synth, anhydride*)

1-[[1-(Pentafluorobenzoyl)-2-pyrrolidinyl] carbonyl]-1H-imidazole, 9CI

P-00013



$C_{15}H_{10}F_5N_3O_2$ M 359.255

(*S*)-*form* [40550-30-9]

Electron-capture sensitive reagent for detn. of enantiomeric composition of amines. Mp 175-178°. [α]_D – 34° (c, 0.1 in EtOAc).

Martin, S.B. *et al*, *J. Pharm. Sci.*, 1973, **62**, 821 (*synth, use*)

2,3,4,5,6-Pentafluorobenzyl alcohol, 8CI

P-00014

2,3,4,5,6-Pentafluorobenzenemethanol, 9CI

[440-60-8]

$C_6F_5CH_2OH$

$C_7H_3F_5O$ M 198.092

Mp 30-32°. Bp 180-182°, Bp₆₀ 114-115°.

p-Tosylate: [32974-36-0]. *Pentafluorobenzyl p-toluenesulfonate*

$C_{14}H_9F_5O_3S$ M 352.281

Reagent for gc detn. of carboxylic acids, phenols and mercaptans. Blades (hexane). Mp 77-78°.

Barbour, A.K. *et al*, *J. Chem. Soc.*, 1961, 808 (*synth*)

White, W.L. *et al*, *J. Chem. Soc. C*, 1971, 2062 (*synth, deriv*)

Funazo, K. *et al*, *Anal. Sci.*, 1987, **3**, 257 (*use*)

Pentafluorobenzyl chloroformate

P-00015

(*Pentafluorophenyl*)methyl carbonochloridate, 9CI

[53526-74-2]

$(C_6F_5)CH_2OCOCI$

$C_8H_2ClF_5O_2$ M 260.547

Used as derivatising reagent for tertiary amines (electron capture gc).

Hartvig, P. *et al*, *Anal. Lett.*, 1974, **7**, 223 (*synth, use*)

Hartvig, P. *et al*, *J. Chromatogr. Sci.*, 1974, **12**, 722 (*use*)

Sternson, L.A. *et al*, *J. Chromatogr.*, 1978, **150**, 257 (*use*)

O-(Pentafluorobenzyl)hydroxylamine**P-00016**O-[(Pentafluorophenyl)methyl]hydroxylamine, 9CI
[72915-12-9] $\text{C}_7\text{H}_4\text{F}_5\text{NO}$ M 213.107

B, HCl: [57981-02-9].

Derivatisation reagent for carbonyl compds. used in gc anal. Plates (EtOH). Mp 115-116°. Subl. 215°.

Nambara, T. *et al*, *J. Chromatogr.*, 1975, **114**, 81 (*synth, use*)Youngdale, G.A., *J. Pharm. Sci.*, 1976, **65**, 625 (*synth*)Kobayashi, K. *et al*, *J. Chromatogr.*, 1980, **187**, 413; 1980, **202**, 93 (*use*)Hoffmann, G. *et al*, *J. Chromatogr.*, 1987, **421**, 336 (*use*)**1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione, 9CI****P-00017**

[2145-68-8]

 $\text{C}_9\text{H}_{11}\text{F}_5\text{O}_2$ M 246.177

Used as a 1% soln. in DMF for fluorimetric detn. of Eu, Tb; extraction of Co, Zn. Sol. common org. solvs.

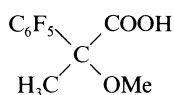
Belcher, R. *et al*, *Analyst (London)*, 1969, **94**, 26 (*detn, Eu, Tb*)Scribner, W.G., *CA*, 1970, **73**, 92153k (*detn, Co, Zn*)**Pentafluoroisothiocyanatobenzene, 9CI****P-00018**

Pentafluorophenyl isothiocyanate

[35923-79-6]

 $\text{C}_7\text{F}_5\text{NS}$ M 225.142Anal. reagent for amino acids. Liq. Bp₁₀ 71°.Lequin, R.M. *et al*, *Biochim. Biophys. Acta*, 1972, **257**, 76 (*use*)Robertson, B.H. *et al*, *Proc. Soc. Exp. Biol. Med.*, 1977, **155**, 287 (*use*)Herkes, F.E. *et al*, *J. Fluorine Chem.*, 1979, **13**, 1 (*synth, F nmr, props*)**2,2,3,4,5,6-Pentafluoro- α -methoxy- α -methylbenzeneacetic acid, 9CI****P-00019** α -Methyl- α -methoxypentafluorophenylacetic acid

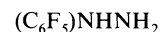
[42011-74-5]

 $\text{C}_{10}\text{H}_7\text{F}_5\text{O}_3$ M 270.155**(S)-form** [50502-39-1]Reagent for detn. of enantiomeric purity in aryethylamines. $[\alpha]_D^{22} + 44^\circ$.**(±)-form** [50505-49-2]*Me ester*: [50505-47-0]. *Methyl 2,3,4,5,6-pentafluoro- α -methoxy- α -methylbenzeneacetate, 9CI* $\text{C}_{11}\text{H}_9\text{F}_5\text{O}_3$ M 284.182Yellow oil. Bp_{0.3} 74-77°.

[50502-38-0]

Pohl, L.R. *et al*, *J. Med. Chem.*, 1973, **16**, 475 (*synth, use*)Valente, E.J. *et al*, *J. Org. Chem.*, 1980, **45**, 543 (*abs config*)**(Pentafluorophenyl)hydrazine, 9CI****P-00020**

[828-73-9]

 $\text{C}_6\text{H}_3\text{F}_5\text{N}_2$ M 198.095

Derivatisation reagent for carbonyl compounds. Plates (pet. ether). Mp 77-78°. Dec. at 180°.

▷ MV8325000.

B, HCl: Cryst. (EtOH/Et₂O). Mp 289-241°.*Benzylidene*: Cryst. (EtOH aq.). Mp 130-131°.Brooke, G.M. *et al*, *J. Chem. Soc.*, 1960, 1768 (*synth*)Birchall, J.M. *et al*, *J. Chem. Soc.*, 1962, 4966 (*synth, ir*)Holland, D.G. *et al*, *J. Org. Chem.*, 1964, **29**, 1562 (*synth*)Bruce, M.I., *J. Chem. Soc. A*, 1968, 1459 (*F-19 nmr*)Lanthier, G.F. *et al*, *Org. Mass Spectrom.*, 1972, **6**, 89 (*ms*)Kobayashi, K. *et al*, *J. Chromatogr.*, 1979, **176**, 118; 1980, **187**, 413 (*use*)Rezvukhin, A.I. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1982, **94**; *CA*, **98**, 16213f (*cmr*)**Pentafluoropropanoic acid****P-00021***Perfluoropropionic acid*

[422-64-0]

 $\text{C}_3\text{HF}_5\text{O}_2$ M 164.032Liq. Sol. H₂O, EtOH, Me₂CO, CCl₄, C₆H₆, Et₂O. d₄²⁰ 1.561. Bp 96-97°. n_D²⁰ 1.2840. Hygroscopic. Fumes in air.*Me ester*: [378-75-6]. $\text{C}_4\text{H}_3\text{F}_5\text{O}_2$ M 178.058Liq. d₄²⁰ 1.393. Bp 61°. n_D²⁰ 1.2884.*Et ester*: [426-65-3]. $\text{C}_5\text{H}_5\text{F}_5\text{O}_2$ M 192.085Liq. d₄²⁰ 1.299. Bp 76.5°. n_D²⁰ 1.3002.*Chloride*: [422-59-3]. $\text{C}_3\text{ClF}_5\text{O}$ M 182.477

Bp 9.4°.

Anhydride: [356-42-3]. $\text{C}_6\text{F}_{10}\text{O}_3$ M 310.048

Reagent for the prepn. of volatile derivs. for gc and ms.

Liq. d₄²⁵ 1.571. Bp 71.5-72°. n_D²⁵ 1.2721.*Amide*: [354-76-7]. $\text{C}_3\text{H}_2\text{F}_5\text{NO}$ M 163.047

Cryst. (MeOH). Mp 96°.

Nitrile: [422-04-8]. $\text{C}_3\text{F}_5\text{N}$ M 145.032

Bp -35°.

Husted, D.R. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 1605 (*synth, anhydride*)Clark, R.F. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 6305 (*synth*)Haszeldine, R.N. *et al*, *J. Chem. Soc.*, 1953, 1548 (*synth*)King, G.S. *et al*, *Clin. Chim. Acta*, 1973, **49**, 295 (*use, anhydride*)Ovenall, D.W. *et al*, *J. Magn. Reson.*, 1977, **25**, 301 (*cmr*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PBF000.**2,2,3,3,3-Pentafluoro-1-propanol, 9CI****P-00022**

[422-05-9]

 $\text{C}_3\text{H}_3\text{F}_5\text{O}$ M 150.048Derivatisation reagent for gc anal. of acids. d₄²⁰ 1.505.Bp₇₄₈ 80°. n_D²⁵ 1.2882.

▷ UB8800000.

3,5-Dinitrobenzoate: Cryst. Mp 96-96.5°.*Methanesulfonate*: $\text{C}_4\text{H}_5\text{F}_5\text{O}_3\text{S}$ M 228.140

Oil. Bp₇₀ 112-114°. n_D^{20} 1.3562.

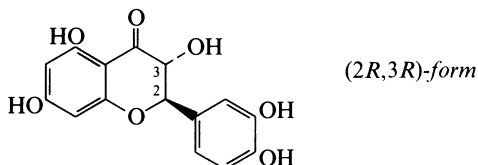
Husted, P.R. *et al.*, *J. Am. Chem. Soc.*, 1953, **75**, 1605 (*synth*)
 McCarthy, E.R., *J. Org. Chem.*, 1963, **28**, 492 (*ms*)
 Watson, E. *et al.*, *J. Neurochem.*, 1973, **21**, 1569 (*use*)
 Watson, E. *et al.*, *Anal. Biochem.*, 1974, **59**, 441 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PBE750.

3,3',4',5,7-Pentahydroxyflavanone P-00023

3',4',5,7-Tetrahydroxydihydroflavonol. Dihydroquercetin.

Taxifolin. *Distylin*

[480-18-2]



C₁₅H₁₂O₇ M 304.256

▷ LK6920000.

(2R,3R)-form [17654-26-1]

Appears to be the most widespread of the dihydroflavonols, present in the free state in the Leguminosae, Labiateae, Cactaceae, Erythroxylaceae, Illiciaceae, Polygonaceae, Salicaceae, Winteraceae, Ericaceae, Moraceae, Dilleniaceae, Eucryphiaceae, Coniferae, Hamamelidaceae, Myrtaceae, Balanophoraceae, Lauraceae, Sapotaceae, Anacardiaceae, Fagaceae, Rosaceae and Ericaceae. Antifungal agent. Used as 0.3% soln. in EtOH for photometric detn. of Mo. Cryst. (EtOH or H₂O). Mp 240-242° (221-222°). $[\alpha]_D^{24} +44^\circ$ (c, 1.03 in 50% Me₂CO aq.).

Penta-Ac: [6685-67-2].

Cryst. Mp 88-89°. $[\alpha]_D^{24} +11.6^\circ$ (c, 1.2 in Me₂CO).

[5117-01-1, 54081-47-9, 54081-48-0, 54141-72-9, 63393-40-8, 64191-31-7, 64191-33-9, 82517-11-1, 83680-48-2, 117894-18-5]

Clark-Lewis, J.W. *et al.*, *J. Chem. Soc.*, 1958, 2367 (*struct, abs config*)

Chan, F.L. *et al.*, *Talanta*, 1960, **3**, 272 (*detn, Mo*)

Aft, H. *et al.*, *J. Org. Chem.*, 1961, **26**, 1958 (*isol, deriv*)

Batterham, T.J. *et al.*, *Aust. J. Chem.*, 1964, **17**, 428 (*pmr*)

Grisebach, H. *et al.*, *Z. Naturforsch., B*, 1965, **20**, 446 (*biosynth*)

Sasaya, T. *et al.*, *CA*, 1966, **65**, 5435e (*Hultenin*)

The Flavonoids, (Eds. Harborne, J.B. *et al.*), Chapman and Hall, London, 1975, 585 (*occur*)

Sukurai, A. *et al.*, *Bull. Chem. Soc. Jpn.*, 1982, **55**, 3051

(*isoglucodistylin*)

The Flavonoids: Advances in Research, (Eds. Harborne, J.B. *et al.*), Chapman and Hall, London, 1982, 375 (*occur*)

Shen, Z. *et al.*, *Phytochemistry*, 1985, **24**, 155.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DMD000.

2',3,4',5,7-Pentahydroxyflavone P-00024

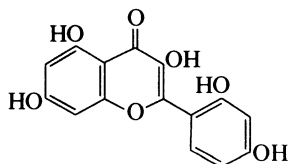
2-(2,4-Dihydroxyphenyl)-3,5,7-trihydroxy-4H-1-benzopyran-

4-one, 9CI. 2',4',5,7-Tetrahydroxyflavonol. *Morin*. 2'-

Hydroxypellargidenolon 1522. C.I. Natural yellow 8. C.I.

Natural yellow 11. C.I. 75660

[480-16-0]



C₁₅H₁₀O₇ M 302.240

Constit. of various woods, e.g. *Morus alba*. First isol. in 1830. Used as fluorescent alumina absorbent for column chromatography. Used as 0.025% soln. in EtOH for photometric detn. of In, rare earth elements, Sc, Th, Sn, W, V, Hf, Zr (λ_{max} 420 nm, ϵ 51000). Textile dye. Pale-yellow needles + 1H₂O (AcOH aq.). Sol. EtOH, alkalis; sl. sol. Et₂O, H₂O. Mp 303-304°.

▷ LK8749000.

Penta-Ac: Prisms (EtOH) and needles (Et₂O). Mp 146-147° (prisms), Mp 115-116° (needles) (dimorph.).

Perkins, R.W. *et al.*, *Anal. Chem.*, 1956, **28**, 1898 (*detn, Th*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 20.

Shnaiderman, S.Ya. *et al.*, *Zh. Anal. Khim.*, 1970, **25**, 2368 (*detn, V*)

Blank, A.B. *et al.*, *Zh. Anal. Khim.*, 1973, **28**, 1331; 1976, **31**, 703; 1978, **33**, 65 (*detn, Zr, rare earths*)

Olenovich, N.L. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 47 (*detn, In*)

Onishi, H., *Photometric Determination of Traces of Metals, Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 765.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MRN500.

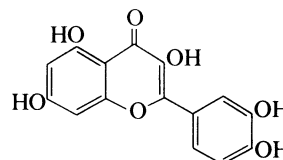
3,3',4',5,7-Pentahydroxyflavone P-00025

2-(3,4-Dihydroxyphenyl)-3,5,7-trihydroxy-4H-1-benzopyran-

4-one, 9CI. 3',4',5,7-Tetrahydroxyflavonol. *Quercetin*.

Sophoretin. *Meletin*. *Quercetol*. *Quertin*. *Ericin*†

[117-39-5]



C₁₅H₁₀O₇ M 302.240

Isol. from many plants, esp. fruits; *inter alia*, *Helichrysum*, *Euphorbia* and *Korwinskia* spp. Present in the Solanaceae, Rhamnaceae, Passifloraceae and many other families. For example detected in almost all studied Umbelliferae. Used as soln. in EtOH for photometric detn. of Th (λ_{max} 422 nm, ϵ 33000), Al, Ga, In, Sc, Ta, Sn, Zr; fluorimetric detn. of Al. Antioxidant. Yellow cryst. + 2H₂O (EtOH aq.). Mp 313-314° dec.

▷ Mutagenic. LK8750000.

3',4',5,7-Tetra-Me ether: [1244-78-6]. 3-Hydroxy-3',4',5,7-tetramethoxyflavone. 3',4',5,7-Tetramethoxyflavonol

C₁₉H₁₈O₇ M 358.347

Isol. from the bark of *Sterculia foetida*. Used as a 0.1% soln. in 75% EtOH for photometric detn. of Ta. Pale yellow needles (EtOH). Sol. EtOH. Mp 193°.

[7215-44-3, 27214-55-7, 90332-36-8, 103666-99-5]

Rigaud, L., *Justus Liebigs Ann. Chem.*, 1854, **90**, 283, 289 (*isol*)

Popa, G. *et al.*, *Fresenius' Z. Anal. Chem.*, 1959, **165**, 16 (*use, detn, Ta*)

Hamaguchi, H. *et al.*, *Anal. Chim. Acta*, 1963, **28**, 61 (*detn, Sc*)

Kovalev, I.P. *et al.*, *Zh. Obshch. Khim.*, 1963, **33**, 1670 (*ir*)

Batterham, T.J. *et al.*, *Aust. J. Chem.*, 1964, **17**, 428 (*pmr*)

Audier, H., *Bull. Soc. Chim. Fr.*, 1966, 2892 (*ms*)

Kirk, R.S. *et al.*, *Analyst (London)*, 1969, **94**, 71 (*detn, Sn*)

Farkas, L. *et al.*, *Chem. Ber.*, 1969, **102**, 2583; 1974, **107**, 1518 (*synth*)

Babko, A.K. *et al.*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1969, **35**, 292 (*detn, Al*)

Nogradi, M. *et al.*, *Chem. Ber.*, 1970, **103**, 3414 (*synth*)

Dumkovich, K. *et al.*, *Chem. Ber.*, 1970, **103**, 3674 (*isol*)

Olenovich, N.L. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 47 (*detn, Al, Ga, In*)

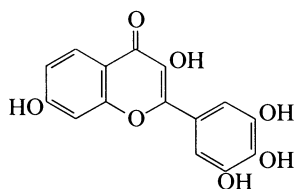
Chernaya, N.V. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 698 (*detn*, *AI*)
 Wagner, H. *et al*, *Tetrahedron Lett.*, 1976, 1799 (*nmr*)
 Wenkert, E. *et al*, *Phytochemistry*, 1977, **16**, 1811 (*nmr*)
 Anjaneyulu, A.S.R. *et al*, *Indian J. Chem., Sect. B*, 1981, **20**, 87 (3-Hydroxy-3',4',5,7-tetramethoxyflavone)
 Nishino, H. *et al*, *Experientia*, 1984, **40**, 184 (*tox*)
 Rossi, M. *et al*, *Bioorg. Chem.*, 1986, **14**, 55 (*cryst struct*)
The Flavonoids: Advances in Research since 1980, (Ed. Harborne, J.B.), Chapman and Hall, London, 1988.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, QCA000, RSU000.

3,3',4',5',7-Pentahydroxyflavone P-00026

3,7-Dihydroxy-2-(3,4,5-trihydroxyphenyl)-4H-1-benzopyran-4-one, 9CI. 3',4',5,7-Tetrahydroxyflavonol. **Robinetin**.

Norkanugin

[490-31-3]



$C_{15}H_{10}O_7$ M 302.240

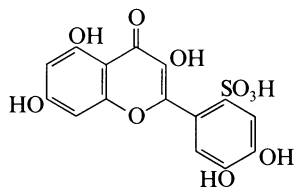
Constit. of *Robinia pseudacacia*, *Gleditsia monosperma* and other plants. Used as 1mM soln. in EtOH for photometric detn. of Zr (λ_{max} 415 nm). Greenish-yellow needles (AcOH aq.). Mp 325-330° dec.

▷ LK8780000.

Charlesworth, E.H. *et al*, *J. Chem. Soc.*, 1933, 269.
 Batterham, T.J. *et al*, *Aust. J. Chem.*, 1964, **17**, 428 (*pmr*)
 Katyal, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1967, **230**, 107 (*detn*, *Zr*)
 De Koster, C.G. *et al*, *Biomed. Mass Spectrom.*, 1985, **12**, 596 (*ms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, RLP000.

3,5,7,3',4'-Pentahydroxyflavone-6'-sulfonic acid P-00027

4,5-Dihydroxy-2-(3,5,7-trihydroxy-4-oxo-4H-1-benzopyran-2-yl)benzenesulfonic acid, 9CI. *Quercetinsulfonic acid* [25001-18-7]



$C_{15}H_{10}O_{10}S$ M 382.304

Used as 1mM aq. EtOH soln. for fluorimetric detn. of Hf and Zr (λ_{max} 440 nm, ϵ 15000, pH 0.1-0.3). Yellowish cryst. Sol. EtOH, alkalis; spar. sol. H_2O .

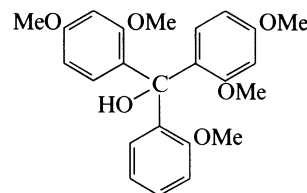
Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 710 (*detn*, *Zr*, *Hf*)
 Ramonaite, C.P. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1361 (*detn*, *Zr*)

Pentamethoxy red

P-00028

α -(2,4-Dimethoxyphenyl)-2,4-dimethoxy- α -(2-methoxyphenyl)benzenemethanol, 9CI. Bis(2,4-dimethoxyphenyl)(o-methoxyphenyl)methanol. 2,4,2',4',2''-Pentamethoxytriphenylcarbinol

[1755-51-7]



$C_{24}H_{26}O_6$ M 410.466

Used as 0.1% soln. in 70% EtOH as acid base indicator (pH range; 1.2-3.2, colour change: purple → colourless). Red cryst. (C_6H_6). Sol. EtOH. pK_a 1.7.

Lund, H., *J. Am. Chem. Soc.*, 1927, **49**, 1346 (*synth*)
 Kolthoff, I.M. *et al*, *J. Am. Chem. Soc.*, 1939, **61**, 16 (*ind*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

2,3-Pentanedione, 9CI

P-00029

Ethyl methyl diketone

[600-14-6]



$C_5H_8O_2$ M 100.117

Flavour ingredient. Yellow liq. Sol. H_2O . d_4^{20} 0.957. Mp -52° . Bp 108° . n_D^{19} 1.4014.

▷ SA1850000.

Di-Me acetal:

$C_7H_{14}O_3$ M 146.186

Bp $162-163^\circ$.

2-Oxime: [32818-79-4]. *Isonitrosodiethyl ketone*

$C_5H_9NO_2$ M 115.132

Leaflets. Mp $69-71^\circ$.

▷ SA2300000.

3-Oxime: [609-29-0]. *Isonitrosopropyl methyl ketone*

$C_5H_9NO_2$ M 115.132

Leaflets. Mp $58-59^\circ$. Bp $183-187^\circ$ part. dec.

▷ SA2350000.

3-Oxime, 4-nitrophenylhydrazone:

$C_{11}H_{14}N_4O_3$ M 250.257

Used as a 0.1% soln. in EtOH for detn. of Co. Yellow cryst. (EtOH). Mp $235-236^\circ$.

Dioxime: [4775-86-4]. *Ethylmethylglyoxime*

$C_5H_{10}N_2O_2$ M 130.146

Used for extraction-photometric detn. of Ni. Needles (EtOH). Mp $172-173^\circ$ part. subl. pK_{a1} 10.51; pK_{a2} 12.02.

Bis-2,4-dinitrophenylhydrazone: [1180-59-2].

Mp $280-281^\circ$.

Disemicarbazone: Mp $251-252^\circ$.

U.K. Pat., 586 754, (1947); CA, **41**, 6894 (*synth*)

Anand, V.D. *et al*, *Mikrochim. Acta*, 1961, 650 (*synth*, *detn*, *Co*)

Egneus, B., *Anal. Chim. Acta*, 1968, **43**, 53; 1969, **48**, 291 (*use*, *dioxime*, *detn*, *Ni*)

Olah, G.A. *et al*, *J. Org. Chem.*, 1975, **40**, 2102 (*cmr*)

Yamashita, M. *et al*, *J. Chem. Soc., Chem. Commun.*, 1977, 691 (*synth*)

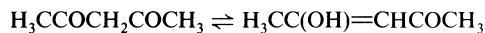
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PBL350.

2,4-Pentanedione, 9CI, 8CI

P-00030

Acetylacetone. Diacetylmethane

[123-54-6]

 $\text{C}_5\text{H}_8\text{O}_2$ M 100.117

Tautomeric. Enol-form predominates in pure liq., vapour and most solvs., oxo-form predominates (88%) in aq. soln. Isol. from ethereal oil of *Pinus sylvestris*.

Protecting reagent for aminoacids. Cleaves phenylhydrazones and semicarbazones, intermed. in heterocyclic synth. Forms many metal complexes. Used for extraction and separation of Al, Be, Ce, Co, Ga, In, Fe(III), Mo, U, V. $\text{p}K_{\text{a}1}$ 9.03 (25°).

▷ Mod. toxic, flammable. SA1925000.

Oxo-form

Liq. Sol. dil. HCl; spar. sol. hot H_2O , misc. org. solvs. d_4^{25} 0.927. Mp –23°. Bp₇₄₆ 139°, Bp 134-136°.

Imine: [870-74-6]. 4-Imino-2-pentanone, 9CI. 4-Amino-3-penten-2-one

 $\text{C}_5\text{H}_9\text{NO}$ M 99.132

Cryst. (EtOAc). Mp 43° (40°).

Monoanil: [880-12-6]. 4-(Phenylimino)-2-pentanone, 9CI. 4-Anilino-3-penten-2-one

 $\text{C}_{11}\text{H}_{13}\text{NO}$ M 175.230

Cryst. (pet. ether). Mp 51-53°. Bp 285-286°.

Monoxime: [14401-90-2]. Isonitrosoacetylacetone

 $\text{C}_5\text{H}_9\text{NO}_2$ M 115.132

Used as a 0.2-5% aq soln. for extraction-photometric detn. of Cu (λ_{max} 450 nm, ϵ 24400, CCl_4), Pd (λ_{max} 400 nm, ϵ 9600, CHCl_3). Cryst. (EtOAc). Mp 73°.

Dioxime: [2157-56-4].

 $\text{C}_5\text{H}_{10}\text{N}_2\text{O}_2$ M 130.146

Used as 0.1M aq. soln. in photometric detn. of Cu (λ_{max} 600 nm). Prisms (Et₂O). Sol. H_2O , EtOH, Et₂O. Mp 151-152°, Mp 105°.

Enol-form [1522-20-9]

4-Hydroxy-3-penten-2-one

Mp –9°. $\text{p}K_{\text{a}}$ 8.93 (25°). Forms salts with many metals. Exhibits intramolecular hydrogen bonding.

Me ether: [2845-83-2]. 4-Methoxy-3-penten-2-one

 $\text{C}_6\text{H}_{10}\text{O}_2$ M 114.144

Bp₁₀ 58-59°. Most preps. give mixt. of (E)- and (Z)-isomers.

Ac: [41002-50-0].

 $\text{C}_7\text{H}_{10}\text{O}_3$ M 142.154Bp₂₀ 95-96°.

Steinbach, J.F. *et al*, *Anal. Chem.*, 1954, **26**, 375 (use, Ga, In) *Org. Synth.*, *Coll. Vol.*, 3, 1955, 16 (synth)

Krishen, A. *et al*, *Anal. Chem.*, 1957, **29**, 288 (use, U)

Cameron, D.W. *et al*, *CA*, 1959, **53**, 16476 (isol)

Ben-Bassat, A.H. *et al*, *Bull. Soc. Chim. Fr.*, 1960, 948 (use, dioxime)

Talwar, U.B. *et al*, *Anal. Chem.*, 1966, **38**, 1929 (monoxime, detn, Pd)

Bowie, J.H. *et al*, *J. Org. Chem.*, 1966, **31**, 1384 (ms)

Chalmers, R.A. *et al*, *Analyst (London)*, 1968, **93**, 629 (use, Al)

Donaldson, E.M., *Talanta*, 1971, **18**, 905 (use, Al)

Koshimura, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 632 (pmr)

Soendergaard, N.C. *et al*, *Acta Chem. Scand., Ser. A*, 1975, **29**, 709 (tautom)

Shapet'ko, N.N. *et al*, *Org. Magn. Reson.*, 1975, **7**, 237 (cmr)

Grens, E. *et al*, *Spectrochim. Acta, Part A*, 1975, **31**, 555 (ir)

Patil, P.S. *et al*, *Analyst (London)*, 1978, **103**, 79 (monoxime, synth, detn, Cu)

Sauerer, A. *et al*, *Talanta*, 1984, **31**, 249 (use, Be)

Hush, N.S. *et al*, *Aust. J. Chem.*, 1987, **40**, 599 (pe, tautom)

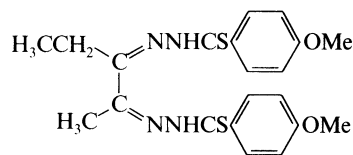
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ABX750.

2,3-Pentanedione bis[*p*-methoxy(thiobenzoyl)hydrazone]

P-00031

4-Methoxybenzenecarbothioic acid (1-ethyl-2-methyl-1,2-ethanediylidene)dihydrazide, 9CI

[37181-49-0]

 $\text{C}_{21}\text{H}_{24}\text{N}_4\text{O}_2\text{S}_2$ M 428.578

Used as a soln. in THF for extraction-photometric detn. of Cd, Cu, Hg, Pb, Zn (CHCl_3). Yellowish cryst. powder (EtOH aq.). Sol. Me_2CO , EtOH; spar. sol. H_2O . Mp 185°.

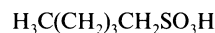
Heizmann, P. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **259**, 110 (use)

1-Pentanesulfonic acid, 9CI

P-00032

1-Pentylsulfonic acid

[35452-30-3]

 $\text{C}_5\text{H}_{12}\text{O}_3\text{S}$ M 152.214Liq. d_4^{25} 1.226. Mp 15.9°. Bp₁ 163°.

Na salt: [22767-49-3].

Ion-pairing reagent used in hplc inc. analysis of peptides and proteins. Mp >300°.

Me ester: [2697-53-2].

 $\text{C}_6\text{H}_{14}\text{O}_3\text{S}$ M 166.241Liq. Bp_{2,2} 96.4°, Bp_{0,3} 80°.

Vivian, D.L. *et al*, *J. Am. Chem. Soc.*, 1935, **57**, 2559 (synth)

Hancock, W.S. *et al*, *J. Chromatogr.*, 1978, **161**, 291 (use)

Johnson, T.J. *et al*, *Tetrahedron*, 1978, **34**, 547 (synth)

Bidlingmeyer, B.A. *et al*, *Adv. Chromatogr. (Houston) 19th 1984*, 1979, **14**, 435; *CA*, **91**, 217413a (use)

Costanzo, S.J., *J. Chromatogr.*, 1984, **314**, 402 (use)

2,3,4-Pentanetrione, 9CI

P-00033

Dimethyl triketone

[921-11-9]

 $\text{C}_5\text{H}_6\text{O}_3$ M 114.101

Orange-red oil. Bp₂₀ 59-60°. Hygroscopic, forming hydrate Mp 52°.

2-Oxime:

 $\text{C}_5\text{H}_7\text{NO}_3$ M 129.115

Needles (EtOAc/ligroin). Mp 75°.

3-Oxime: [29917-12-2].

Used as 2% aq. soln. for extraction-photometric detn. of Pd; colour reactions with Fe, Co, Ni, Cu. Cryst. Sol. H_2O , EtOH. Mp 73°.

2,3-Dioxime: [22512-60-3].

 $\text{C}_5\text{H}_8\text{N}_2\text{O}_3$ M 144.130

Plates (H_2O). Mp 128° dec.

Trioxime: [24509-67-9].

 $\text{C}_5\text{H}_9\text{N}_3\text{O}_3$ M 159.144

Used for photometric detn. of Fe (λ_{max} 550 nm). Cryst. Sol. Me_2CO , EtOH. Mp 100°. $\text{p}K_{\text{a}1}$ 9.5; $\text{p}K_{\text{a}2}$ 13.7.

Semicarbazone: Leaflets. Mp 249°.

Phenylhydrazone: [6134-57-2].

Pale-yellow leaflets. Mp 249°.

▷ SA3360000.

Bisphenylhydrazone: Mp 156°.

Wolff, L., *Justus Liebigs Ann. Chem.*, 1902, **325**, 139 (*synth*)
 Dubsy, J., *Mikrochim. Acta*, 1941, **29**, 213 (*use, 3-oxime*)
 Talwar, U.B. *et al*, *Anal. Chem.*, 1966, **38**, 1929 (*detrn, Pd*)
 Dayer, F. *et al*, *Helv. Chim. Acta*, 1974, **57**, 2201 (*synth*)
 Aznarez Alduan, J.L. *et al*, *CA*, 1977, **86**, 199154g (*synth, use, trioxime*)
 Verhe, R. *et al*, *Bull. Soc. Chim. Belg.*, 1978, **87**, 143 (*synth*)

1-Pentanol, 9CI**P-00034**

n-Amyl alcohol
 [71-41-0]



$\text{C}_5\text{H}_{12}\text{O}$ M 88.149

Widely distributed in plant sources, e.g. peppermint oil, tomatoes, tea, potatoes. Used to esterify amino acids for gc anal. Liq. Sl. sol. H_2O . d_4^{20} 0.815. Mp -79° . Bp 137° , Bp_{13} $49-50^\circ$. n_D^{20} 1.4103.

▷ Mod. toxic vapour, irritant, flammable. Esters are also mod. toxic. SB9800000.

Ac: *Pentyl acetate*. n-Amyl acetate

$\text{C}_7\text{H}_{14}\text{O}_2$ M 130.186

Liq. d_0^{20} 0.896. Fp -70.8° . Bp 173.7° 148° .

4-Nitrobenzoyl: Mp $8.5-10.5^\circ$.

4-Nitrophenylurethane: Mp 86° .

Me ether: [628-80-8]. 1-Methoxypentane. Methyl pentyl ether. Amyl methyl ether

$\text{C}_6\text{H}_{14}\text{O}$ M 102.176

d_4^{22} 0.759. Bp $99-100^\circ$. n_D^{22} 1.3862.

Brown, H.C. *et al*, *J. Am. Chem. Soc.*, 1959, **81**, 6434 (*synth*)

Johnson, D.E. *et al*, *Anal. Chem.*, 1961, **33**, 669 (*use*)

Schollkopf, U. *et al*, *Chem. Ber.*, 1964, **97**, 636 (*synth, deriv*)

Darbre, A. *et al*, *J. Chromatogr.*, 1965, **17**, 31 (*use*)

Blau, K. *et al*, *J. Chromatogr.*, 1965, **17**, 445; 1967, **26**, 35 (*use*)

Bieber, H., *Encycl. Chem. Process. Des.*, 1977, **3**, 278 (*rev*)

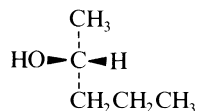
Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **2**, 570 (*rev*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 181, 429, 430.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AOE000.

2-Pentanol, 9CI**P-00035**

[6032-29-7]



(R)-form
 Absolute
 configuration

$\text{C}_5\text{H}_{12}\text{O}$ M 88.149

▷ Mod. toxic vapour, flammable. SA4900000.

(R)-form [31087-44-2]

Bp $116-120^\circ$. $[\alpha]_D^{20}$ -16.1° .

1-Naphthylurethane:

$\text{C}_{16}\text{H}_{19}\text{NO}_2$ M 257.332

Cryst. (EtOH aq.). Mp $71-73^\circ$. $[\alpha]_D^{20}$ -2.8° (EtOH).

(S)-form [26184-62-3]

Bp $118.5-119.5^\circ$. $[\alpha]_D^{20}$ $+16.1^\circ$.

Ac:

$\text{C}_7\text{H}_{14}\text{O}_2$ M 130.186

Bp $130-131^\circ$. $[\alpha]_D^{20}$ $+17.16^\circ$.

1-Naphthylurethane: Mp $88-91^\circ$. $[\alpha]_D^{20}$ $+13.3^\circ$ (EtOH).

(±)-form

Liq. Sol. H_2O . d_4^{20} 0.830. Bp 118.9° . n_D^{25} 1.4041.

Ac: Used for extraction of BiI_3 . Liq. Sol. Et_2O , EtOH. Bp 133.5° .

▷ Mod. toxic, flammable.

Allophanate:

$\text{C}_7\text{H}_{14}\text{N}_2\text{O}_3$ M 174.199

Mp 154° .

1-Naphthylurethane: Cryst. (ligroin). Mp 76° .

Et ether: 2-Ethoxypentane. Ethyl 1-methylbutyl ether

$\text{C}_7\text{H}_{16}\text{O}$ M 116.203

Liq. Bp $113-115^\circ$ ($105-106^\circ$). n_D^{17} 1.3900.

Pickard, R.H. *et al*, *J. Chem. Soc.*, 1911, **99**, 65 (*resoln*)

Brunel, R.F., *J. Am. Chem. Soc.*, 1923, **45**, 1337 (*synth*)

Lemieux, R.U. *et al*, *Can. J. Chem.*, 1951, **29**, 678 (*abs config*)

Guermont, J.P., *Bull. Soc. Chim. Fr.*, 1953, 386 (*deriv*)

Adembri, G., *Ann. Chim. (Rome)*, 1956, **46**, 62; *CA*, **50**, 13714 (*synth*)

Brown, H.C. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 1397 (*synth*)

Vigneron, J.P. *et al*, *Tetrahedron*, 1976, **32**, 939 (*synth*)

Bieber, H., *Encycl. Chem. Process. Des.*, 1977, **3**, 278 (*rev*)

Sandell, E.A. *et al*, *Photometric Determination of Traces of Metals*, Wiley, N.Y., 1978 (*Ac, use*)

Sherman, P.D., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **2**, 570 (*rev*)

Hazards in the Chemical Laboratory, (Muir, G.D., Ed.), 2nd Ed., Chemical Society, London, 1977, 181, 429.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PBM750.

2-Pentanone, 9CI**P-00036**

Methyl propyl ketone

[107-87-9]



$\text{C}_5\text{H}_{10}\text{O}$ M 86.133

Isol. from soya oil (*Glycine max*), pineapple and a few other plant sources. Solvent. Used as a reagent for the gc separation of catecholamines. Liq. d_{15}^{20} 0.812. Bp 102° . n_D^{20} 1.3895.

▷ Irritant, TLV 700. Highly flammable, flash p. 7° .

SA7875000.

Oxime: [623-40-5].

$\text{C}_5\text{H}_{11}\text{NO}$ M 101.148

Bp 167° .

Semicarbazone: Mp 110° .

2,4-Dinitrophenylhydrazone: [1636-82-4].

Orange cryst. Mp 141° .

Di-Et acetal: 2,2-Dimethoxypentane

$\text{C}_9\text{H}_{20}\text{O}_2$ M 160.256

Bp 185° 57.4° .

Meerwein, H., *Justus Liebigs Ann. Chem.*, 1913, **398**, 249 (*synth*)

U.K. Pat., 318 124, (1928); *CA*, **24**, 2140 (*synth*)

Yakovlev, I.P. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1954, **24**, 1163; *CA*, **50**, 4773 (*synth*)

Kawai, S. *et al*, *Chem. Pharm. Bull.*, 1966, **14**, 618 (*use*)

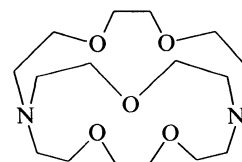
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 429.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PBN250.

4,7,13,16,21-Pentaoxa-1,10-diazabicyclo[8.8.5]tricosane, 9CI**P-00037**

Cryptand 2.2.1. Kryptofix 2.2.1

[31364-42-8]



$C_{16}H_{32}N_2O_5$ M 332.439

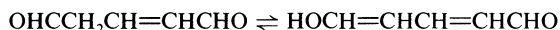
Complexing agent for alkaline earth metals. Used as 2.5mM aq. soln. for photometric detn. of Ca, Mg, Na. Oil or viscous liq. Misc. H_2O . d 1.1. Bp_{0.001} 175°. pK_{a1} 7.5; pK_{a2} 10.53.

Dietrich, B. *et al*, *Tetrahedron*, 1973, **29**, 1629 (*synth*)
 Kolthoff, I.M., *Anal. Chem.*, 1979, **51**, 1R (*rev*)
 Espersen, D. *et al*, *Anal. Chim. Acta*, 1979, **108**, 241 (*detn*, Mg, Ca)
 Foerster, H.G. *et al*, *J. Am. Chem. Soc.*, 1980, **102**, 6984 (*N-15 nmr*)
 Takagi, M. *et al*, *Anal. Chim. Acta*, 1981, **126**, 185 (*detn*, Na)
 Yoshio, M. *et al*, *Anal. Lett.*, 1982, **15**, 1197 (*rev*)
 Anelli, P.L. *et al*, *J. Org. Chem.*, 1985, **50**, 3453 (*synth*)

2-Pentenedial, 9CI**P-00038**

Glutacondialdehyde

[821-42-1]



$C_5H_6O_2$ M 98.101

Parent compd. not known. Salts exist in the (*E,E*)-enol form. Used as a reagent for anal. of amines, hydrazines, sulfonamides.

Na salt: Dark red leaflets + 2H₂O (H₂O).

K salt: Yellow cryst.

Ac: [24338-66-7].

$C_7H_8O_3$ M 140.138

Brownish needles (pet. ether). Mp 75°.

Baumgarten, P. *et al*, *Ber.*, 1926, **59**, 2658 (*synth*)
 Klages, K. *et al*, *Chem. Ber.*, 1953, **86**, 1327 (*tautom*)
 Becher, J., *Acta Chem. Scand.*, 1972, **26**, 3627 (*struct*)
 Kunovits, G., *Mikrochim. Acta*, 1974, 717 (*use*)

Pentetic acid**P-00039**

N,N-Bis[2-[bis(carboxymethyl)amino]ethyl]glycine, 9CI.
 [[(Carboxymethyl)imino]bis(ethylenenitrilo)]tetraacetic acid, 8CI. Nitrilodiethylenedinitriropentaacetic acid.
Diethylenetriaminopentaacetic acid. *DTPA*
 [67-43-6]



$C_{14}H_{23}N_3O_{10}$ M 393.350

Chelating agent, employed as various salts. Used in photometric detn. of Cu (λ_{max} 650 nm); for masking heavy metals. Used as a 0.01M soln. in 80% NaOH aq. (as titrant) or a 0.01M aq. soln. in photometric detn. of Bi, Co, In, Pb, Pr, Tl and for titrimetric detn. of actinides. Cryst. (H₂O). Sol. alkalis, H₂O. Mp 219-220°. pK_{a1} 1.79; pK_{a2} 2.56; pK_{a3} 4.42; pK_{a4} 8.76; pK_{a5} 10.42, pK_{a1} 2.08; pK_{a2} 2.41; pK_{a3} 4.26; pK_{a4} 8.60; pK_{a5} 10.55. Zwitterionic in crystal state. Numerous salts known.

▷ **MB8205000.**

Mono-Ca, tri-Na salt: [1317-31-3]. *Calcium trisodium pentetate*, *BAN*. *Calcium chel 330*. *NSC 34249*
 Chelating agent used medicinally.

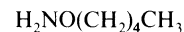
[140-01-2, 1420-46-8, 2531-75-1, 2622-87-9, 7216-95-7, 7578-43-0, 11082-38-5, 12111-24-9, 13078-36-9, 15168-13-5, 17034-67-2, 38761-83-0, 41030-30-2, 41123-85-7, 52168-28-2, 63975-23-5]

Frost, A.E., *Nature (London)*, 1956, **178**, 322 (*synth, props*)
 Nakamoto, K. *et al*, *J. Am. Chem. Soc.*, 1963, **85**, 309 (*struct, ir*)
 Sudmeier, J.L. *et al*, *Anal. Chem.*, 1964, **36**, 1698 (*pmr*)
 Kula, R.J. *et al*, *Inorg. Chem.*, 1964, **3**, 458 (*pmr*)
 Bermejo-Martinez, F. *et al*, *Microchem. J.*, 1966, **11**, 331 (*detn, Cu*)
 Bermejo-Martinez, F. *et al*, *Inf. Quim. Anal.*, 1970, **24**, 77 (*detn, Co*)
 Lin, E. *et al*, *J. Magn. Reson.*, 1971, **4**, 301 (*nmr*)
 Kulba, F.Y. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1009 (*detn, In, Tl*)
 Rykov, A.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 713 (*detn, actinides*)

Lirilov, A.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2262 (*detn, Pr*)
 Strelow, F.W. *et al*, *Talanta*, 1979, **26**, 537 (*masking*)
 Cheng, K.L. *et al*, *Handbook of Organic Reagents*, CRC Press, Boca Raton, 1982 (*rev*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CAY500, DJG800, TNM850.

O-Pentylhydroxylamine, 9CI**P-00040**

Hydroxylamine pentyl ether. *Pentylxyamine*
 [5963-74-6]



$C_5H_{13}NO$ M 103.164

Gc derivatisation reagent for keto steroids. Oil. Bp 139°.

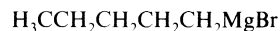
B, HCl: [51951-34-9].

Plates (EtOAc/EtOH). Mp 148°.

Palazzo, G. *et al*, *Gazz. Chim. Ital.*, 1954, **84**, 915 (*synth*)
 Mamalis, P. *et al*, *J. Chem. Soc.*, 1960, 229 (*synth*)
 Baillie, T.A. *et al*, *Anal. Lett.*, 1972, **5**, 351 (*use*)

Pentylmagnesium bromide**P-00041**

Bromopentylmagnesium, 9CI
 [693-25-4]



$C_5H_{11}BrMg$ M 175.351

Grignard reagent. Derivatisation reagent for chromatog. anal. of organotin compds. Used as a 2M soln. in Et₂O as derivatisation reagent for mono-, di- and trimethyl and butyltin compds.

Gilman, H. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 1576 (*synth*)
 Zakharkin, L.I. *et al*, *Tetrahedron Lett.*, 1962, 631 (*synth*)
 Leigh, T., *Chem. Ind. (London)*, 1965, 426 (*synth*)
 Leibfritz, D. *et al*, *Justus Liebigs Ann. Chem.*, 1972, **763**, 173 (*cmr*)
 Maguire, R.J. *et al*, *J. Chromatogr.*, 1981, **209**, 458.
 Martin-Landa, I. *et al*, *Anal. Proc. (London)*, 1989, **26**, 16 (*use*)
 Dirx, W.M.R. *et al*, *Fresenius' Z. Anal. Chem.*, 1989, **335**, 769 (*use*)
 Fehring, N.V. *et al*, *HRC & CC, J. High Resolut. Chromatogr. Chromatogr. Commun.*, 1990, **13**, 575 (*use*)
 Lobinski, R. *et al*, *Anal. Chem.*, 1992, **64**, 165.

Peracetic acid**P-00042**

Ethaneperoxyic acid, 9CI. *Peroxyacetic acid*
 [79-21-0]



$C_2H_4O_3$ M 76.052

Disinfectant. Powerful oxidising agent in organic synth. Reagent for gc determination of *cis-trans* ratios in fatty esters. Liq. with unpleasant odour. Sol. H₂O, EtOH, Et₂O. Fp +0.1°. Bp 105°. pK_a 8.2 (20°).

▷ Explodes violently above 110°. Strong corrosive action on skin. Na salt is explosive when dry and is an exp. neoplastic agent. SD8750000.

tert-Butyl ester: [107-71-1]. *tert-Butyl peracetate*

$C_6H_{12}O_3$ M 132.159

Oxidising agent.

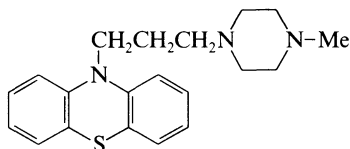
▷ Shock-sensitive explosive in solid state, detonates on rapid heating. SD8925000.

Greenspan, F.P. *et al*, *J. Am. Chem. Soc.*, 1946, **68**, 907 (*synth*)
 Bunton, C.A. *et al*, *Chem. Ind. (London)*, 1954, 191 (*synth*)
 Phillips, B. *et al*, *J. Org. Chem.*, 1958, **23**, 1823 (*synth*)
 Muecke, H. *et al*, *Pharmazie*, 1967, **22**, 444 (*synth, use*)
 Lewis, S.N., *Oxidation*, Rohm and Haas Co., Philadelphia, 1969, 1, 213 (*rev*)
 Emken, E.A., *Lipids*, 1971, **6**, 686; 1972, **7**, 459 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 386.
 Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 220, 380, 485.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BSC250, PCL500.

Perazine**P-00043**

10-[3-(4-Methyl-1-piperazinyl)propyl]-10H-phenothiazine, 9CI. *Psydomin. Taxilan. P 725*
 [84-97-9]



$C_{20}H_{25}N_3S$ M 339.504
 Neuroleptic, tranquilliser. Used as 0.2% aq. soln. for photometric detn. of Mo (λ_{max} 460 nm, in the presence of SCN^- , 4M HCl), Pt. Oil or cryst. Sol. H_2O . Mp 53-56°. Bp_{0.001} 160-170°.

▷ SP1140000.

B,2HCl: Needles. Mp 234-236° dec.

Maleate (1:2): [14516-56-4].

Used as a 0.2% aq. soln. for photometric detn. of Ir(IV) (λ_{max} 515 nm, ϵ 9930). Cryst. (H_2O). Mp 210°.

[14777-25-4]

Nieschulz, O. *et al*, *Arzneim.-Forsch.*, 1958, **8**, 199 (*pharmacol*)
 Wirth, W. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1959, **123**, 78 (*pharmacol*)

Krauss, D. *et al*, *J. Pharm. Pharmacol.*, 1969, **21**, 808 (*metab*)
 Breyer-Pfaff, U. *et al*, *Drug Metab. Dispos.*, 1978, **6**, 114 (*metab*)
 Gowda, H.S. *et al*, *Analyst (London)*, 1979, **104**, 400 (*maleate, detm, Ir*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 7081.

Owen, T.C. *et al*, *J. Heterocycl. Chem.*, 1984, **21**, 265 (*synth, pmr, bibl*)

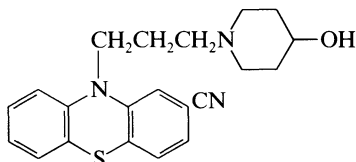
Keshavan, B. *et al*, *Analyst (London)*, 1985, **110**, 1027 (*detm, Ir*)
 Keshavan, B. *et al*, *Mikrochim. Acta*, 1985, **2**, 379 (*detm, Mo*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PCK500.

Pericyazine, BAN**P-00044**

10-[3-(4-Hydroxy-1-piperidinyl)propyl]-10H-phenothiazine-2-carbonitrile, 9CI. 2-Cyano-10-[3-(4-hydroxypiperidino)propyl]phenothiazine. *Periciazine*, INN, JAN. *Propericiazine*.

Neulactil. Other proprietary names

[2622-26-6]



$C_{21}H_{23}N_3OS$ M 365.498
 Tranquilliser, neuroleptic. Used as 0.1% aq. soln. (+ trace HCl) for photometric detn. of Au(III), V(V), Ru(III) (λ_{max} 511 nm, ϵ 11000). Yellow cryst. powder. Sol. acids. Mp 116-117°.

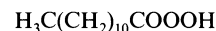
▷ SN7175000.

Fr. Pat., 1 212 031, (1961); *CA*, **55**, 19961 (*synth*)
 Julou, L. *et al*, *C. R. Seances Soc. Biol. Ses Fil.*, 1963, **15**, 1242 (*pharmacol*)
 Azzaro, M. *et al*, *Bull. Soc. Chim. Fr.*, 1967, 1977 (*pmr*)
 Gilbert, J.N.T. *et al*, *Org. Mass Spectrom.*, 1969, **2**, 17 (*ms*)

Barbe, J. *et al*, *Ann. Pharm. Fr.*, 1973, **31**, 227 (*uv*)
 Blazek, J. *et al*, *Cesk. Farm.*, 1975, **24**, 174 (*ir*)
 Gowda, A.T. *et al*, *Curr. Sci.*, 1981, **50**, 395 (*detm, V*)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 7082.
 Gowda, A.T. *et al*, *Anal. Chim. Acta*, 1983, **154**, 347 (*detm, Ru*)
 Gowda, A.T. *et al*, *Microchem. J.*, 1984, **30**, 259 (*detm, Au*)
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 6108 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PIW000.

Peroxydodecanoic acid**P-00045**

Perlauric acid. Peroxylauric acid



$C_{12}H_{24}O_3$ M 216.320

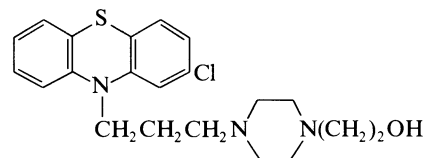
Used in the assignment of the position of ethylenic bonds by ms. Oxidising agent. Mp 52°.

Swern, D. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 4037 (*synth*)
 Swern, D. *et al*, *J. Org. Chem.*, 1962, **27**, 1336 (*synth*)
 Aplin, R.T. *et al*, *J. Chem. Soc., Chem. Commun.*, 1967, 858 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1972, **3**, 220.
 Nedelec, J.Y. *et al*, *Synthesis*, 1976, 821 (*synth*)

Perphenazine, BAN, INN**P-00046**

4-[3-(2-Chlorophenothiazin-10-yl)propyl]-1-piperazineethanol, 9CI, 8CI. 2-Chloro-10-[3-[1-(2-hydroxyethyl)-4-piperazinyl]propyl]phenothiazine. *Chlorpiprazine. Trilatone. Numerous proprietary names*

[58-39-9]



$C_{21}H_{26}ClN_3OS$ M 403.975

Tranquilliser. Used as 0.2% aq. soln. for photometric detn. of Os(VIII) (λ_{max} 528 nm, ϵ 34300). Cryst. (EtOAc). Mp 100-101°. Bp₁ 278-281°, Bp_{0.15} 214-215°. Light-sensitive.

▷ TL7175000.

Ac: [84-06-0]. *Perphenazine acetate. Thiopropazate, BAN, INN. Artalan. Dartal. Dartalan. Dartan. BS 14. SC 7105*
 $C_{23}H_{28}ClN_3O_2S$ M 446.012
 Neuroleptic, tranquilliser. Bp_{0.1} 214-218°.

▷ TL7300000.

Ac; *B,2HCl*: [146-28-1].
 Cryst. (EtOH aq.). Dec. at 223-229°.

▷ TL7350000.

3,4,5-Trimethoxybenzoyl: [388-51-2]. *Perphenazine trimethoxybenzoate. Metofenazate, INN. Methophenazin. Frenolon. Phrenolon. Sylador (obsol.)*

$C_{31}H_{36}ClN_3O_5S$ M 598.161
 Neuroleptic, tranquilliser. Cryst. (EtOH). Mp 102-107°.

▷ DH9600000.

3,4,5-Trimethoxybenzoyl, difumarate: [522-23-6].
 Mp 190-194°.

▷ DH9800000.

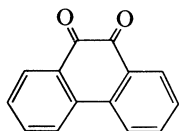
U.S. Pat., 2 766 235, (1956); *CA*, **51**, 7442 (*Thiopropazate*)
U.K. Pat., 805 778, (1958); *CA*, **53**, 8177 (*synth*)
 Irwin, S. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1959, **118**, 358 (*pharmacol*)
 High, J.P. *et al*, *Toxicol. Appl. Pharmacol.*, 1960, **2**, 540 (*pharmacol*)

Toldy, L. *et al*, *Acta Chim. Acad. Sci. Hung.*, 1964, **42**, 351; *CA*, **63**, 14853 (*Metofenazate*)
 Zhuravlev, S.V. *et al*, *Zh. Prikl. Khim. (Leningrad)*, 1965, **38**, 1174 (*synth*)
 Azzaro, M. *et al*, *Bull. Soc. Chim. Fr.*, 1967, 1977 (*pmr*)
 Gilbert, J.N.T. *et al*, *Org. Mass Spectrom.*, 1969, **2**, 17 (*ms*)
 Horovitz, Z.P. *et al*, *Psychopharmacol. Bull.*, 1971, **7**, 24 (*rev. pharmacol*)
 Brazek, J. *et al*, *Cesk. Farm.*, 1975, **24**, 174 (*ir*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 7084, 7112, 12955.
 Hawes, E.M. *et al*, *J. Labelled Compd. Radiopharm.*, 1983, **20**, 757 (*synth*)
 Gowda, A.T. *et al*, *Analyst (London)*, 1984, **109**, 651 (*detn, Os*)
 Krocmar, J. *et al*, *Pharmazie*, 1986, **41**, 571 (*uv, vis*)
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 6185 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CJM250, MDU750, TFP250.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 317.
 Kuse, S. *et al*, *Anal. Chim. Acta*, 1974, **70**, 65 (*use, dioxime*)
 Kamil, F. *et al*, *Mikrochim. Acta*, 1980, **1**, 345 (*synth. semicarbazone, detn, Os*)
 Baker, M.D. *et al*, *Anal. Chem.*, 1981, **53**, 1658 (*detn, guanidines*)
 Sinha, P.P. *et al*, *Ann. Chim. (Rome)*, 1983, **73**, 349 (*detn, Fe*)
 Wasey, A. *et al*, *Bull. Chem. Soc. Jpn.*, 1983, **56**, 3603 (*detn, Rh, Ru*)
 Sinha, P.P. *et al*, *Mikrochim. Acta*, 1983, **1**, 243 (*detn, Ni*)
 Kamil, F. *et al*, *Rev. Roum. Chim.*, 1983, **28**, 413 (*use, semicarbazone*)
 Wasey, A. *et al*, *Analyst (London)*, 1984, **109**, 601 (*detn, Os*)
 Sinha, P.P. *et al*, *Bull. Chem. Soc. Jpn.*, 1984, **57**, 2976 (*synth, thiosemicarbazone, detn, Zn*)
 Shrivah, K. *et al*, *Analyst (London)*, 1986, **111**, 1339 (*detn, Pd*)
 de Vries, J.G. *et al*, *J. Chem. Soc., Chem. Commun.*, 1988, 1172 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PCX250.

9,10-Phenanthraquinone**P-00047**

9,10-Phenanthredione, 9CI. Phenanthraquinone.
 Phenanthrenequinone
 [84-11-7]

C₁₄H₈O₂ M 208.216

Dehydrogenating agent. Used as derivatisation reagent for chromatographic detn. of guanidines and arginine residues in peptides. Orange-yellow needles. Mp 208.5-210°. Bp > 360° subl. Dull-green soln. in conc. H₂SO₄.

▶ SF7875000.

Monoxime: [14140-04-6].C₁₄H₉NO₂ M 223.231

Used as 0.1% EtOH soln. for photometric detn. of Co (λ_{\max} 470 nm, ϵ 17500), Os, Rh, Ru. Cryst. Sol. EtOH. Mp 162°.

Dioxime: [14090-76-7].C₁₄H₁₀N₂O₂ M 238.245

Used as 1-10mM EtOH solns. for photometric detn. of Co (λ_{\max} 420 nm, ϵ 8800, PhNO₂), Cu (λ_{\max} 430 nm, ϵ 5900, PhNO₂), Fe(II) (λ_{\max} 430 nm, ϵ 7000, PhNO₂), Fe(III) (λ_{\max} 408 nm, ϵ 8900, PhNO₂), Ni (λ_{\max} 456 nm, ϵ 25000, PhNO₂). Cryst. Sol. EtOH, MeOH. Mp 208-209°, Mp 202° dec.

Dioxime, di-O-Ac: Mp 184°.*Dioxime, mono-Me ether*: [74378-23-7].C₁₅H₁₁N₃O₂ M 265.271

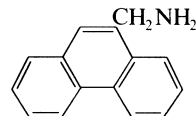
Used for photometric detn. of Os (λ_{\max} 500 nm, ϵ 19000), Cu (λ_{\max} 480 nm, ϵ 7700); as a metallochromic indic. in EDTA titration of Cu(II). Red cryst. Sol. DMF, EtOH. Mp 222-223°, Mp 220° dec.

Dioxime, di-Me ether: Mp 145-146°, Mp 245° (225°).*Monothiosemicarbazone*: [59851-25-1].C₁₅H₁₁N₃OS M 281.337

Used as 2.5mM soln. in DMF for photometric detn. of Zn (λ_{\max} 510 nm, ϵ 35000), Ni, Fe, Pd. Red cryst. (MeOH). Sol. DMF, MeOH. Mp 192-193°.

Schmidt, J. *et al*, *Ber.*, 1907, **17**, 2454 (*synth, dioxime*)v. Auwers, K., *Justus Liebigs Ann. Chem.*, 1911, **378**, 210.Kenner, J. *et al*, *J. Chem. Soc.*, 1927, 1111.Ciusa, W., *Gazz. Chim. Ital.*, 1936, **66**, 591 (*synth, oxime*)*Org. Synth., Coll. Vol.*, **4**, 1963, 757.Yamada, S. *et al*, *Biochim. Biophys. Acta*, 1966, **130**, 538 (*detn, guanidines*)Trikha, K.C. *et al*, *Talanta*, 1967, **14**, 977 (*detn, Co*)**9-Phenanthrenemethylamine****P-00048**

9-Phenanthrenemethanamine, 9CI. 9-(Aminomethyl)phenanthrene
 [15398-91-1]

C₁₅H₁₃N M 207.274Cryst. (Et₂O/pet. ether). Mp 108.2-108.8°.*Picrate*: Mp 241° dec.*N-Ac*:C₁₇H₁₅NO M 249.312

Mp 182-185°.

N-Benzoyl:C₂₂H₁₇NO M 311.382

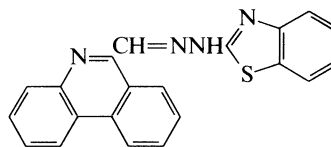
Mp 167°.

N-Benzylidene: Mp 103.5°.

[7470-15-7]

Shoppee, C.W., *J. Chem. Soc.*, 1933, 40.McKay, A.F. *et al*, *J. Org. Chem.*, 1950, **15**, 648.**6-Phenanthridinecarboxaldehyde 2-benzothiazolyhydrazone****P-00049**

[54159-99-8]

C₂₁H₁₄N₄S M 354.434

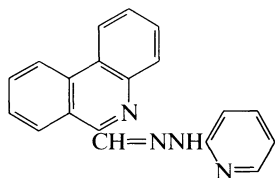
Used as a 1mM soln. in EtOH as metallochromic indicator for titrimetric detn. of Cu. Yellow cryst. Spar. sol. EtOH. Mp 268-270°.

Berger, S.A. *et al*, *Mikrochim. Acta*, 1974, 679 (*synth, detn, Cu*)

**6-Phenanthridinecarboxaldehyde
2-pyridylhydrazone**

DPAPH

[31313-53-8]

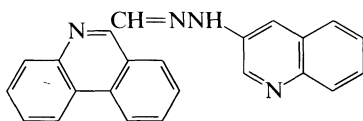
 $C_{19}H_{14}N_4$ M 298.346

Used as C_6H_6 soln. for extraction-photometric detn. of Pd (λ_{max} 635 nm, ϵ 20000) or 1mM soln. in 0.01M HCl for photometric detn. of Cd, Cu, Ni, Pd, Zn (λ_{max} 525 nm, ϵ 70000, $CHCl_3$). Bright yellow solid. Sol. C_6H_6 . Mp 223°.

Ryan, D.E. *et al.*, *Anal. Chim. Acta*, 1971, **54**, 65 (*synth, detn, Pd*)

**6-Phenanthridinecarboxaldehyde
2-quinolinyhydrazone, 9CI**

[31313-54-9]

 $C_{23}H_{16}N_4$ M 348.406

Used as a 1mM soln. in EtOH as metallochromic indicator in titrimetric detn. of Cu. Orange-yellow cryst. Sol. dil. acids; spar. sol. EtOH. Mp 176°.

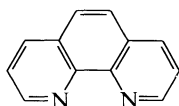
Zatka, V. *et al.*, *Anal. Chim. Acta*, 1971, **54**, 65 (*synth*)

Berger, S.A. *et al.*, *Mikrochim. Acta*, 1974, 679 (*detn, Cu*)

1,10-Phenanthroline, 9CI

o-Phenanthroline

[66-71-7]

 $C_{12}H_8N_2$ M 180.209

Used as soln. in dil. HCl for photometric detn. of Fe(II) (λ_{max} 512 nm, ϵ 11000); chelating agent for Zn, Cd, Co, Ni, Ag, Ru, Os; counter-ion in extn. of anionic complexes (e.g. Ge, Co, Ru). Cryst. + $1H_2O$ (H_2O), cryst. (C_6H_6). Mp 98-100°, Mp 93-94°.

▷ SF8300000.

N-Oxide: [1891-19-6].

 $C_{12}H_8N_2O$ M 196.208

Pale-yellow needles (PhCl). Mp 180-181°. pK_a 6.63 (22°).

N,N'-Dioxide: [72799-24-7].

 $C_{12}H_8N_2O_2$ M 212.207

This compound is unknown: reports of its complexes are erroneous.

Smith, C.R., *J. Am. Chem. Soc.*, 1930, **52**, 397 (*synth*)

Smith, C.R. *et al.*, *Chem. Rev.*, 1935, **16**, 113 (*synth*)

Willink, H.D.T. *et al.*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1935, **54**, 282 (*synth*)

Harvey, A.E. *et al.*, *Anal. Chem.*, 1955, **27**, 26 (*detn, Fe*)

Hibbits, J.O. *et al.*, *Talanta*, 1961, **8**, 163 (*detn, Fe*)

Corey, E.J. *et al.*, *J. Org. Chem.*, 1965, **30**, 288 (*oxide, derivs*)

Schilt, A.A., *Analytical Applications of 1,10-Phenanthroline and Related Compounds*, Pergamon, Oxford, 1969.

Nishigaki, S. *et al.*, *Acta Crystallogr., Sect. B*, 1975, **31**, 1220 (*cryst struct*)

P-00050

Holzbecher, Z., *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.

Summers, L.A., *Adv. Heterocycl. Chem.*, 1978, **22**, 1 (*rev*)

Gillard, R.D., *Inorg. Chim. Acta*, 1981, **53**, L173 (*dioxide*)

Cheng, K.L. *et al.*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982.

Engbersen, J.F.J. *et al.*, *J. Heterocycl. Chem.*, 1986, **23**, 989 (*oxide*)

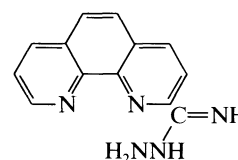
Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PCY250.

**1,10-Phenanthroline-2-carboximidic acid
hydrazide, 9CI**

2-(1,10-Phenanthrolyl)hydrazidine

[1025-07-6]

 $C_{13}H_{11}N_5$ M 237.263

Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 551 nm, ϵ 12300). Cryst. + $2H_2O$ (H_2O). Sol. H_2O , EtOH. Mp 192-193° dec.

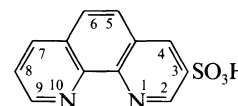
Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (*synth*)

Schilt, A.A., *Talanta*, 1966, **13**, 895 (*detn, Fe*)

1,10-Phenanthroline-3-sulfonic acid, 9CI

P-00054

[33388-35-1]

 $C_{12}H_8N_2O_3S$ M 260.273

Used as redox indicator. Cryst. Sol. H_2O .

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

1,10-Phenanthroline-5-sulfonic acid

P-00055

[33388-36-2]

 $C_{12}H_8N_2O_3S$ M 260.273

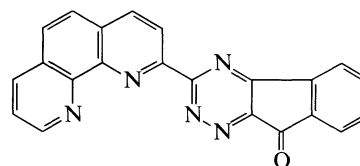
Used as redox indicator. Cryst. Sol. H_2O .

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

**3-(1,10-Phenanthroline-2-yl)-9H-indeno[1,2-
e]-1,2,4-triazin-9-one, 9CI**

P-00056

[37004-82-3]

 $C_{22}H_{11}N_5O$ M 361.362

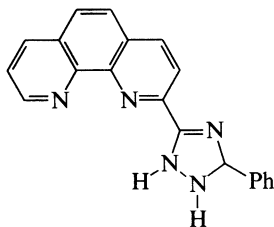
Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 520 nm, ϵ 8700). Cryst. (DMF). Sol. common org. solvs. Mp 285° (as dihydrate).

Case, F.H., *J. Heterocycl. Chem.*, 1972, **9**, 457 (*synth*)

Schilt, A.A. *et al.*, *Talanta*, 1977, **24**, 685 (*detn, Fe*)

3-[(1,10-Phenanthrolin-2-yl)]-5-phenyl-1,2,4-triazoline, 9CI

P-00057

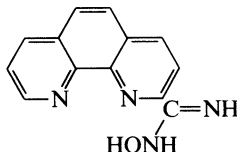
 $C_{20}H_{15}N_5$ M 325.372

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 550 nm, ϵ 13400, aq. EtOH). Cryst. (EtOH). Sol. common org. solvents. Mp 135-136° (as monohydrate).

Case, F.H., *J. Heterocycl. Chem.*, 1970, 7, 1001 (synth)
Schilt, A.A. et al, *Talanta*, 1974, 21, 831 (detn, Fe)

2-(1,10-Phenanthrolyl)amidoxime

P-00058

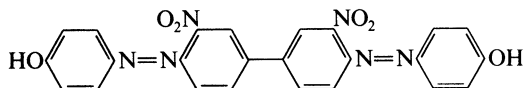
 $C_{13}H_{10}N_4O$ M 238.248

Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 541 nm, ϵ 12600). Cryst. Sol. EtOH, acids. Mp 235-238° dec.

Schilt, A.A., *Talanta*, 1966, 13, 895 (synth, detn, Fe)

Phenazo

P-00059

4,4'-Bis(4-hydroxyphenylazo)-3,3'-dinitrobiphenyl $C_{24}H_{16}N_6O_6$ M 484.427

Used as a 5mM EtOH soln. for photometric detn. of Mg (ϵ 21500). Brown cryst. powder. Sol. EtOH, Me₂CO, CHCl₃, C₆H₆, alkalis; insol. H₂O, acids.

Kuznetsov, V.I. et al, *Zavod. Lab.*, 1958, 24, 1053 (synth, detn, Mg)

Babko, A.K. et al, *Zh. Anal. Khim.*, 1962, 17, 416, 922 (detn, Mg)

Babko, A.K. et al, *Zavod. Lab.*, 1968, 34, 1435 (detn, Mg)

Phenol

P-00060

Hydroxybenzene. Carboic acid

[108-95-2]

PhOH

 C_6H_6O M 94.113

Minor constit. of plant oils in combined form. A major constit. of coal tar. Used as 5% soln. in EtOH for photometric detn. of NO₃[⊖]; binding of Cl₂ and Br₂. Also used (with NaClO) for detn. of NH₃. Disinfectant. Used in manuf. of phenol-formaldehyde resins, bisphenol A, nylon intermediates and alkylphenols. Important industrial chemical, 35th in order of volume for USA in 1990 (production 1.76 million tons/year). Deliquescent needles. Mp 43°, Fp 41°. Bp₂₅ 90.2°. Steam-volatile. Also used as sodium salt (Phenolate sodium, USAN).

▷ Highly toxic by skin contact, causes burns, TLV 19. Salts are irritant. SJ3325000.

Na salt: [139-02-6]. Phenolate sodium, USAN

Disinfectant.

▷ SM8780000.

Picrate: Mp 83.1°.

Phenylurethane: [38064-07-2]. Phenylcarbamic acid hydroxyphenyl ester, 9CI

$C_{13}H_{11}NO_2$ M 213.235

Needles (C₆H₆). Mp 126°.

Hydrogen sulphate: [937-34-8]. Sulfuric acid monophenyl ester, 9CI

$C_6H_6O_4S$ M 174.177

Urinary metab. of phenol in man and animals. Very unstable.

Ac: [122-79-2]. Phenyl acetate

$C_8H_8O_2$ M 136.150

Liq. Spar. sol. H₂O. d₁₅¹⁵ 1.081. Bp 195.7°. n_D²⁵ 1.5017.

▷ AJ2800000.

Benzoyl: [93-99-2]. Phenyl benzoate

$C_{13}H_{10}O_2$ M 198.221

Prisms. Mp 71°. Bp 314°, 299°.

▷ DH6299500.

Formyl: [1864-94-4].

$C_7H_6O_2$ M 122.123

Liq. d⁰ 1.088. Bp 173° sl. dec., Bp₂₅ 107°.

Me ether: see Methoxybenzene, M-00078

Allyl ether: [1746-13-0]. 2-Propenyloxybenzene, 9CI. Allyl phenyl ether

$C_9H_{10}O$ M 134.177

Liq. with geranium odour. d₁₅¹⁵ 0.986. Bp 192-195°.

Steam-volatile.

▷ DA8575000.

[139-02-6]

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, 1, 146 (use)

Kueding, W.W. et al, *J. Org. Chem.*, 1965, 30, 3756 (synth)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, 1, 828, 1102.

Kolthoff, I.M. et al, *Quant. Chem. Anal.*, IV Ed., Macmillan, N.Y., 1971 (use)

Aldrich Library of NMR Spectra, 1974, 4, 96A, 109A (pmr)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 564C, 1310F (ir)

Adams, J.M. et al, *Acta Crystallogr.*, Sect. B, 1976, 32, 1345 (cryst struct, deriv)

Houben-Weyl, *Methoden Org. Chem.* (Houben-Weyl), 4th Ed., Vol. 1, 1976 (bibl)

Thurman, C., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, 181, 373 (rev)

Elton-Bott, R.R., *Anal. Chim. Acta*, 1979, 108, 285 (detn, NO₃[⊖])

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2267.

Velghe, N. et al, *Analyst (London)*, 1983, 108, 1018 (detn, NO₃[⊖])

Hugo, W.B., *Cosmet. Sci. Technol. Ser.*, 1984, 1, 109 (rev, use)

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 415.

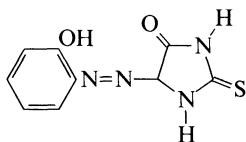
Hazards in the Chemical Laboratory. (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 436.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AGR000, PDN750, PDO000, PDY750, PEL500, SJF000.

o-Phenolazothiohydantoin

P-00061

5-(2-Hydroxyphenylazo)-2-thioxo-4-imidazolidinone

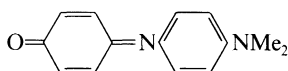
 $C_9H_8N_4O_2S$ M 236.254

Several tautomers possible. Used as EtOH soln. for photometric detn. of Au, Pt, Pd. Yellow cryst. powder. Sol. EtOH, DMF.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87 (*synth, use*)**Phenol blue**

P-00062

4-[[4-(Dimethylamino)phenyl]imino]-2,5-cyclohexadien-1-one, 9CI. N,N-Dimethylindooaniline. 1,4-Benzoquinone 4-(dimethylaminophenyl)anil
[2150-58-5]

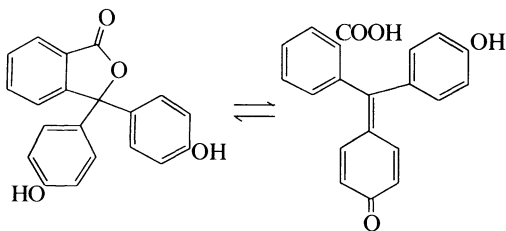
 $C_{14}H_{14}N_2O$ M 226.277

Used as redox indicator. Sol. H_2O . Mp 133-134°. pK_{a1} 5.96; pK_{a2} 9.89 (30°). λ_{max} 608 nm; $E^\circ + 0.677$ V (30°). Hygroscopic.

Schwarzenbach, G. *et al*, *J. Am. Chem. Soc.*, 1938, **66**, 1667.Bishop, E., *Indicators*, Pergamon, Oxford, 1972.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DPS600.**Phenolphthalein, INN**

P-00063

3,3-Bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone, 9CI. 3,3-Bis(4-hydroxyphenyl)phthalide. $\alpha,4,4'$ -Trihydroxytriphenylmethane-2-carboxylic acid lactone. Dihydroxyphthalophenone. Numerous proprietary names
[77-09-8]

 $C_{20}H_{14}O_4$ M 318.328

Laxative. Used as EtOH soln. as an acid-base indicator (pH range 8.0-10) and in photometric detn. of CN^\ominus , Cl^\ominus , N_2H_4 . Needles. Sol. EtOH, Et_2O ; sl. sol. H_2O . Mp 258-262°.

▷ SM8380000.

Mono-Me ether: [42138-12-5].

 $C_{21}H_{16}O_4$ M 332.355Needles (C_6H_6). Mp 80°, Mp 140.5-142.2°, (198-199°).

Di-Me ether: [6315-80-6].

 $C_{22}H_{18}O_4$ M 346.382

Cryst. (MeOH or EtOH). Mp 100.5-101.1°.

Di-Ac: [5449-84-3].

 $C_{24}H_{18}O_6$ M 402.403

Cryst. (EtOH). Mp 146.5-147.3°.

Oxime:

 $C_{20}H_{15}NO_4$ M 333.343

Mp 216°.

Me ester (open-chain form):

 $C_{21}H_{16}O_4$ M 332.355

Orange-red needles. Mp 127-130°.

Et ester, Et ether (open-chain form):

 $C_{24}H_{22}O_4$ M 374.435

Yellow cryst. Mp 98-104°.

Baeyer, A., *Justus Liebigs Ann. Chem.*, 1880, **202**, 69 (*synth*)Underwood, H.W. *et al*, *J. Am. Chem. Soc.*, 1930, **52**, 4084.Blicke, F.F. *et al*, *J. Am. Chem. Soc.*, 1932, **54**, 332.Hubacher, M.H. *et al*, *J. Am. Pharm. Assoc.*, 1953, **42**, 23.Maute, R.L. *et al*, *Anal. Chem.*, 1954, **26**, 1723 (*detn, CN[⊖]*)Davies, M. *et al*, *J. Chem. Soc.*, 1954, 120 (*ir*)Ziegler, E. *et al*, *Monatsh. Chem.*, 1969, **100**, 1604 (*pmr*)Rousselet, R., *J. Pharm. Belg.*, 1971, **26**, 568 (*ir, tlc*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 92, 192 (*use*)Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic**Analysis*, Horwood, Chichester, 1976 (*use*)Houben-Weyl, *Methoden Org. Chem. (Houben-Weyl)*, 4th Ed.,

(Wedemeyer, K.F., Ed.), 1976, 1093.

Shahine, S.A. *et al*, *Microchem. J.*, 1976, **21**, 286 (*detn, Cl[⊖]*)Shahine, S.A. *et al*, *Mikrochim. Acta*, 1978, **2**, 431 (*detn, N₂H₄*)Berger, S., *Tetrahedron*, 1981, **37**, 1607 (*cmr, tautom*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7522.

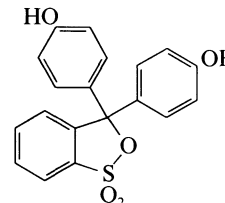
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,Akademie-Verlag, Berlin, 1987, 5553 (*synonyms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, PDO750.

Phenolsulfonephthalein, USAN

P-00064

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bisphenol S,S-dioxide, 8CI. 3,3'-Bis(4-hydroxyphenyl)-3H-2,1-benzoxathiole 1,1-dioxide. Phenol red. Fenolipuna. Sulfonephthal. Sulphental
[143-74-8]

 $C_{19}H_{14}O_5S$ M 354.383

Diagnostic aid for renal function determination. Used as a 0.1% soln. in EtOH as an acid-base indicator (pH range: 6.4-8.2; colour change: yellow → red). Bright-red cryst. Insol. $CHCl_3$, Et_2O ; sol. EtOH, dil. alkalis; sl. sol. H_2O . pK_{a1} 7.92 (20°). λ_{max} 557 nm.

▷ SJ7490000.

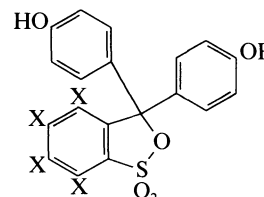
Orndorff, W.R. *et al*, *J. Am. Chem. Soc.*, 1923, **45**, 486 (*synth*)Gault, M.H., *JAMA, J. Am. Med. Assoc.*, 1967, **200**, 871 (*use*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 103, 113.Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2145.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 190.**Phenoltetrabromosulfonephthalein**

P-00065

4,4'-(4,5,6,7-Tetrabromo-3H-2,1-benzoxathiol-3-ylidene)bisphenol S,S-dioxide



X = Br

$C_{19}H_{10}Br_4O_5S$ M 669.967

Used as acid-base indicator (colour change: yellow → violet; pH range: 5.8-7.7); photometric detn. of total milk proteins. Reddish-black cryst. Sol. EtOH, Me_2CO , EtOAc, alkalis; spar. sol. H_2O . pK_{a1} 7.03 (25°).

Harden, W.C. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 562 (*synth*)
 Boyd, W.M. *et al*, *J. Am. Chem. Soc.*, 1930, **52**, 4954 (*synth*)
 Haring, M.M. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 1024 (*synth*)
 Lippi, U. *et al*, *CA*, 1967, **66**, 45549q (*detn, proteins*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Phenoltetrachlorosulfonephthalein P-00066

4,4'-(4,5,6,7-Tetrachloro-3H-2,1-benzoxathiol-3-ylidene) bisphenol S,S-dioxide

As Phenoltetrabromosulfonephthalein, P-00065 with

X = Cl

$C_{19}H_{10}Cl_4O_5S$ M 492.162

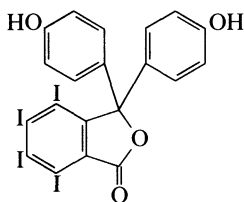
Used as acid-base indicator (pH range: 5.8-7.7; colour change: yellow → violet). Red-pink amorph. powder. Sol. EtOH, Me_2CO , EtOAc, alkalis; spar. sol. H_2O . pK_{a1} 7.04 (25°).

Harden, W.C. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 562 (*synth*)
 Haring, M.M. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 1024 (*synth*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Phenoltetraiodophthalein P-00067

3,3'-Bis(4-hydroxy-2-methylphenyl)-4,5,6,7-tetraiodo-1(3H)-isobenzofuranone, 9CI

[27458-03-3]



$C_{20}H_{10}I_4O_4$ M 821.915

Used as acid-base indicator (pH range: 8.2-10.0; colour change: colourless → bluish violet). Yellow cryst. powder. Sol. Me_2CO , EtOH; spar. sol. H_2O .

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 101.

Phenoltetraiodosulfonephthalein P-00068

4,4'-(4,5,6,7-Tetraiodo-3H-2,1-benzoxathiol-3-ylidene) bisphenol S,S-dioxide

As Phenoltetrabromosulfonephthalein, P-00065 with

X = I

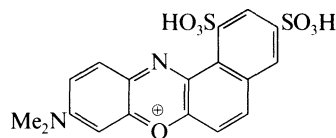
$C_{19}H_{10}I_4O_5S$ M 857.969

Used as acid-base indicator (pH range 6.4-8.0; colour change: yellow → red). Reddish-black cryst. Sol. EtOH, Me_2CO , EtOAc, alkalis; spar. sol. H_2O . Mp 180°.

Boyd, W.M. *et al*, *J. Am. Chem. Soc.*, 1930, **52**, 4954 (*synth*)
 Bishop, E., *Indicators*, Oxford, Pergamon, 1972 (*use, ind*)

Phenonaphthoxazine G acid P-00069

9-(Dimethylamino)benzo[α]pheno.xazin-7-ium-1,3-disulfonic acid(1+)



$C_{18}H_{15}N_2O_7S_2^{\oplus}$ M 435.458 (ion)

Sulfonic acid derivative of Meldola's Blue.

Chloride, di-K salt: Used as 0.2% aq. soln. for photometric detn. of Co. Redox indicator. Dark blue cryst. powder.

Sol. H_2O . pK_{a1} 5.73. E° +0.491 V.

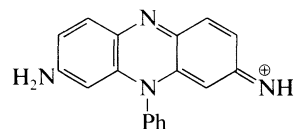
Eggers, H. *et al*, *Biochem. Z.*, 1942, **310**, 233.

Phenosafrafranine P-00070

3,7-Diamino-5-phenylphenazinium(1+). C.I. 50200.

Saframine B

[16177-82-5]



$C_{18}H_{15}N_4^{\oplus}$ M 287.343 (ion)

Strictly the name Phenosafranine applies to the chloride. Basic dye.

Chloride: [81-93-6].

Biological stain. Used as a 0.1-0.2% aq. soln. as redox indicator, compleximetric indicator in titrimetric detn. of Fe(III), Ti. Lustrous green needles (dil. HCl). Sol. H_2O , EtOH. Mp > 300°. pK_{a1} 4.96; pK_{a2} 5.78 (30°). E° +0.280V (30°).

N,N,N',N'-Tetra-Et: 3,7-Bis(diethylamino)-5-phenylphenazinium(1+). Tetraethylphenosafranine. Amethyst violet. C.I. 52055

$C_{26}H_{31}N_4^{\oplus}$ M 399.558 (ion)

N,N,N',N'-Tetra-Et, chloride: [3562-38-7].

$C_{26}H_{31}ClN_4$ M 435.010

Used as 0.1% aq. soln. as redox indicator in dichrometric titrimetric detn. of As(III), Fe(II), V(IV). Dark reddish blue cryst. Sol. H_2O , EtOH.

Stiehler, R.D. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 891 (*use*)

Ellis, C.M. *et al*, *Analyst (London)*, 1956, **81**, 693 (*detn, Fe*)

Murty, B. *et al*, *Talanta*, 1961, **8**, 438 (*detn, Ti*)

Akbarova, D.M. *et al*, *CA*, 1969, **71**, 4493b (*synth, uv-vis, ir*)

Colour Index, 3rd Edn, 1971, **4**, 4449 (*synth, chloride*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, **441**, 492.

Venkateswara Rao, N. *et al*, *J. Indian Chem. Soc.*, 1979, **56**, 430.

Phenosafrazo blue, 9CI P-00071

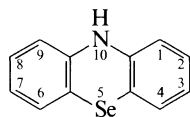
[87435-73-2]

Structure undefined. Used as a 0.05% aq. soln. for extraction-photometric detn. of Ga, Sb (λ_{max} 598 nm, ϵ 64000). Cryst.

Guseinov, I.K. *et al*, *Azerb. Khim. Zh.*, 1982, **83**, 115; *CA*, **99**, 168575j, 205172y (*detn, Sb, Ga*)

10H-Phenoselenazine, 9CI, 8CI*Selenodiphenylamine*

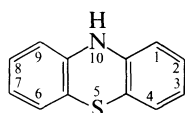
[262-05-5]

 $C_{12}H_9NSe$ M 246.170Used for extraction-photometric detn. of Pd. Yellow leaflets (C_6H_6). Mp 195°. Oxidised in air.Melián, M. *et al*, *Inf. Quim. Anal.*, 1964, **18**, 109 (detn, Pd)
Cordella, G. *et al*, *Farmaco, Ed. Sci.*, 1965, **20**, 446; *CA*, **63**, 8349c.**P-00072** $C_{13}H_8O_2S$ M 228.271

Light yellow cryst. Mp 81.5-82°.

Oxime: [41087-85-8]. $C_{13}H_9NO_2S$ M 243.286Used as a 0.02% soln. in EtOH for extraction-photometric detn. of Pd (λ_{max} 380 nm, C_6H_6). Cryst. (EtOH). Mp 140-141°.Vasiliiu, G. *et al*, *CA*, 1964, **60**, 14499d (synth)Popa, G. *et al*, *Mikrochim. Acta*, 1973, 147 (deriv, detn, Pd)**Phenothiazine, INN, 9CI, 8CI***Thiodiphenylamine (obsol.)*. Numerous proprietary names

[92-84-2]

 $C_{12}H_9NS$ M 199.276Has antibacterial, antelmintic props. Used as antioxidant. Used as 0.05% soln. in aq. EtOH for photometric detn. of Pd (λ_{max} 630 nm, ϵ 71300, 40% EtOH). Yellow plates (EtOH) or yellow cryst. (by subl.). Sol. EtOH. Mp 182°. Bp 371°, Bp₄₀ 290°.

▷ SN5075000.

N-Ac: [1628-29-1]. $C_{14}H_{11}NOS$ M 241.313

Prisms (EtOH). Mp 197-197.5°.

S-Oxide: [1207-71-2]. $C_{12}H_9NOS$ M 215.275

Mp 250° dec. approx.

Massie, S.P., *Chem. Rev.*, 1954, **54**, 797 (rev)Warren, R.J. *et al*, *J. Pharm. Sci.*, 1966, **55**, 144 (ir, uv)Azzaro, M., *Bull. Soc. Chim. Fr.*, 1967, 1977 (pmr)Bodea, C. *et al*, *Adv. Heterocycl. Chem.*, 1968, **9**, 321 (rv)Gilbert, J.N., *Org. Mass Spectrom.*, 1969, **2**, 17 (ms)Gowda, H.S. *et al*, *Mikrochim. Acta*, 1975, **1**, 437 (detn, Pd)McDowell, J.J.H., *Acta Crystallogr., Sect. B*, 1976, **32**, 5; 1977, **33**, 314 (cryst struct)Borbely, A.A. *et al*, *Mod. Pharmacol.-Toxicol.*, 1979, **16**, 403 (rev, pharmacol)Mitchell, S.C., *Drug Metab. Rev.*, 1982, **13**, 319 (rev, metab)Saraf, S. *et al*, *Heterocycles*, 1982, **19**, 935 (uv)*Martindale, The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 798.

Hallberg, A. *et al*, *J. Heterocycl. Chem.*, 1983, **20**, 1453; 1984, **21**, 841 (cmr, ms)Jovanovic, M.V. *et al*, *Org. Magn. Reson.*, 1984, **22**, 491 (cmr)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 2211.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PDP250.**P-00073****2-Phenoxybenzoic acid, 9CI****P-00075***Diphenyl ether 2-carboxylic acid. Salicylic acid phenyl ether*

[2243-42-7]

 $C_{13}H_{10}O_3$ M 214.220

Used as a 0.75% soln. in EtOH for fluorimetric detn. of Tb. Leaflets (EtOH aq.). Mp 113°. Bp 355°.

Me ester: [21905-56-6]. $C_{14}H_{12}O_3$ M 228.247Bp 312°, Bp₄ 150-151°.*Amide*: [72084-13-0]. $C_{13}H_{11}NO_2$ M 213.235

Prisms (EtOH). Mp 131°.

Ullmann, F. *et al*, *Ber.*, 1905, **38**, 2111.Langham, W. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 545.Kosolopoff, G.M. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 1275.Gilman, H. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 3848.Kononenko, L.I. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 1392 (use)**Phenylacetic acid****P-00076***Benzeneacetic acid, 9CI. Phenylethanoic acid. α -Toluic acid*

[103-82-2]

PhCH₂COOH $C_8H_8O_2$ M 136.150Found in essential oils, e.g. neroli, rose oil, free and as esters. Also prod. by microorganisms. Volatile component of tail gland secretion from *Cervus elaphus* (red deer). Used as 1M soln. in CHCl₃ for selective extraction separation of Cu and U (CHCl₃). Important industrial intermediate. Perfumery and flavouring ingredient. Plates (pet. ether). Mp 77-78.5°. Bp 265.5°, Bp_{0.01} 65-70°.

▷ Highly toxic orally. AJ2430000.

Me ester: [101-41-7]. $C_9H_{10}O_2$ M 150.177Odoriferous constit. of many plants. Perfumery ingredient. d_4^{15} 1.063. Bp 215°, Bp₅₀ 131-132°.

▷ Mod. toxic. AJ3175000.

Amide: [103-81-1]. *Benzeneacetamide, 9CI. Phenacetamide* C_8H_9NO M 135.165Plant growth regulator produced by *Actinomyces* spp. Constit. of the leaves of *Allophylus cobbe*. Plates or leaflets. Mp 157-158°.

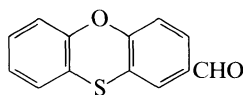
▷ AC7705000.

Nitrile: [140-29-4]. *Benzeneacetonitrile, 9CI. Benzyl cyanide.**Phenylacetoneitrile* C_8H_7N M 117.150Isol. from thick-tailed galago *Galago crassicaudatus*. Used in the detection of nitro compds. Liq. d_4^{15} 1.021. Bp 234°, Bp₁₂ 107°. n_D^{25} 1.5211.

▷ Toxic by inhalation and skin absorption, eye irritant. AM1400000.

2-Phenoxathiincarboxaldehyde, 9CI**P-00074***2-Formylphenoxathiin*

[37947-92-5]



Org. Synth., Coll. Vol., 1, 1932, 101, 436.
Org. Synth., Coll. Vol., 4, 1963, 760 (*amide*)
 Johns, S.R. *et al.* *Aust. J. Chem.*, 1969, **22**, 1315 (*isol*)
 Legradi, L., *Mikrochim. Acta*, 1970, 544 (*nitrile, use*)
 Adam, J. *et al.*, *Talanta*, 1972, **19**, 1105; 1973, **20**, 1344 (*detn.*, Cu, U)
 Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)
Aldrich Library of NMR Spectra, 1974, **6**, 105A (*pmr*)
Aldrich Library of IR Spectra, 2nd Ed., 1975, 814A (*ir*)
 Larson, R.A. *et al.*, *J. Chromatogr.*, 1977, **138**, 186 (*glc*)
 Crew, R.M. *et al.*, *J. Chem. Ecol.*, 1979, **5**, 861.
 Bakke, J.M. *et al.*, *J. Chem. Ecol.*, 1983, **9**, 513.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 437.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EOH000, MHA500, PDX750, PDY850, PEA750.

Phenylacetylene

P-00077

Ethynylbenzene, 9CI, 8CI
 [536-74-3]



C_8H_6 M 102.135

Found in coal tar. Used as a 10% soln. in CH_2Cl_2 for extraction-photometric detn. of Pd (λ_{max} 317 nm). Oil. Sol. Me_2CO , CHCl_3 , C_6H_6 , $d^{12.5}$ 0.94. Fp -45° . Bp 142° , Bp₁₃ $35-36^\circ$. n_D^{20} 1.5490.

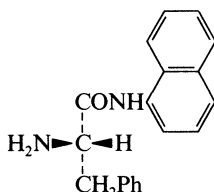
▷ DA0780000.

Freeman, J.P. *et al.*, *J. Am. Chem. Soc.*, 1957, **79**, 1712.
 Buckles, R.E. *et al.*, *J. Org. Chem.*, 1957, **22**, 55.
 Normant, J., *Bull. Soc. Chim. Fr.*, 1963, 1868, 1888.
Org. Synth., Coll. Vol., 4, 1963, 763.
 Ziegler, M. *et al.*, *Fresenius' Z. Anal. Chem.*, 1965, **210**, 344 (*use*)
 Kaluza, F., *Chem. Ind. (London)*, 1967, 2045 (*isol*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PEB750.

Phenylalanine α -naphthylamide

P-00078

α -Amino-N-1-naphthalenylbenzenepropanamide, 9CI



$\text{C}_{19}\text{H}_{18}\text{N}_2\text{O}$ M 290.364

(S)-form [112077-80-2]

Derivatisation reagent for hplc resoln. of carboxylic acids.

Fujimoto, Y. *et al.*, *J. Chromatogr.*, 1987, **402**, 344 (*use*)

Phenylalanine β -naphthylamide

P-00079

α -Amino-N-2-naphthalenylbenzenepropanamide, 9CI
 [14008-99-2]

$\text{C}_{19}\text{H}_{18}\text{N}_2\text{O}$ M 290.364

(S)-form [740-57-8]

Derivatisation reagent for hplc resoln. of carboxylic acids. Mp $128-129^\circ$. $[\alpha]_D^{25} +86.5^\circ$ (c, 1.03 in MeOH).

B, HCl: Cryst. (MeOH/Et₂O). Mp $203-206^\circ$.

(±)-form

Flakes (EtOH aq.). Mp 113° .

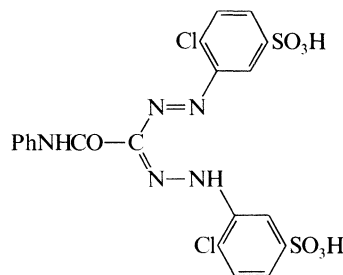
Seligman, A.M. *et al.*, *J. Am. Chem. Soc.*, 1951, **73**, 2086 (*synth*)
 Lefrancier, P. *et al.*, *Bull. Soc. Chim. Fr.*, 1965, 3668 (*synth*)
 Fujimoto, Y. *et al.*, *J. Chromatogr.*, 1987, **402**, 344 (*use*)

3,3'-[3-[(Phenylamino)carbonyl]-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid], 9CI

P-00080

Formazan F32

[88054-84-6]



$\text{C}_{20}\text{H}_{15}\text{Cl}_2\text{N}_5\text{O}_7\text{S}_2$ M 572.405

Used as 0.01M soln. in toluene for extraction separation of Pd(II) and Ag from Pt(IV) and Cu(II). Cryst. Sol. toluene, 1,2-dichloroethane, H₂O.

Di-K salt: [69373-22-4].

Used as 0.25% aq. soln. for photometric detn. of Pd (λ_{max} 625 nm, ϵ 11500, pH 2.5-4.5). Cryst. (MeOH). Sol. MeOH, dioxan, H₂O. Mp $>300^\circ$.

Kettrup, A. *et al.*, *Fresenius' Z. Anal. Chem.*, 1978, **293**, 115 (*synth*, *detn.*, Pd)

Grote, M. *et al.*, *Fresenius' Z. Anal. Chem.*, 1980, **300**, 280; 1982, **310**, 369 (*synth*)

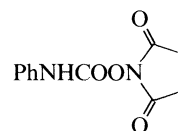
Grote, M. *et al.*, *Talanta*, 1984, **31**, 755 (*use*)

1-[(Phenylamino)carbonyloxy]-2,5-pyrrolidinedione, 9CI

P-00081

Succinimide phenylcarbamate. N-[(Phenylcarbamoyl)oxy]succinimide, 8CI

[23583-11-1]



$\text{C}_{11}\text{H}_{10}\text{N}_2\text{O}_4$ M 234.211

Derivatisation reagent for hplc anal. of amines with spectrophotometric detn. Cryst. ($\text{C}_6\text{H}_6/\text{Me}_2\text{CO}$). Mp $149-154^\circ$ and $243-244^\circ$ (double Mp).

Gross, H. *et al.*, *Justus Liebigs Ann. Chem.*, 1969, **725**, 212 (*synth*)

Kurita, K. *et al.*, *J. Org. Chem.*, 1978, **43**, 2918 (*synth*)

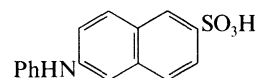
Nimura, N. *et al.*, *Anal. Chem.*, 1986, **58**, 2372 (*use*)

6-(Phenylamino)-2-naphthalenesulfonic acid, 9CI

P-00082

6-Anilino-2-naphthalenesulfonic acid, 8CI

[20096-53-1]



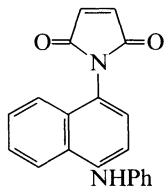
$\text{C}_{16}\text{H}_{13}\text{NO}_3\text{S}$ M 299.350

Used for fluorimetric detn. of K (after extraction-separation with crown ethers). Needles. Sol. acids, alkalis; sl. sol. H₂O.

Antonovich, V.P. *et al.*, *Zh. Anal. Khim.*, 1980, **36**, 992 (*detn.*, K)

1-[4-(Phenylamino)-1-naphthalenyl]-1H-pyrrole-2,5-dione, 9CI

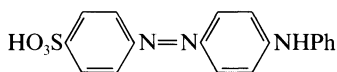
P-00083

N-(4-Anilino-1-naphthyl)maleimide. ANM
[50539-45-2]C₂₀H₁₄N₂O₂ M 314.343

Fluorescent reagent used for labelling thiol groups in proteins. Red prisms (EtOAc). Mp 207-208.5°.

Kanaoka, Y. *et al*, *Biochim. Biophys. Acta*, 1973, **317**, 563 (*synth, use*)Kawato, S. *et al*, *Dev. Biochem.*, 1978, **5**, 241 (*use*)Beliveau, R. *et al*, *Dev. Biochem.*, 1981, **20**, 179 (*use*)Miki, K. *et al*, *J. Biol. Chem.*, 1981, **256**, 9382 (*use*)Yasuoka-Yabe, K. *et al*, *J. Biochem. (Tokyo)*, 1983, **94**, 665 (*use*)**4-[4-(Phenylamino)phenyl]azo] benzenesulfonic acid, 9CI**

P-00084

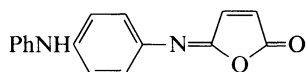
Orange IV. Tropaeolin OO. C.I. Acid orange 5. C.I. 13080
[17040-79-8]C₁₈H₁₅N₃O₃S M 353.401

Strictly, the name Orange IV applies to the sodium salt.

Na salt: [554-73-4].

Used as a 0.04% soln. in aq. EtOH for extraction-photometric detn. of K (λ_{\max} 450 nm), photometric detn. of Mg, detn. of Zn, titrimetric detn. of organic acids, acid-base indicator (pH range: 1.3-3.2; colour change: red → yellow); redox indicator. Orange-yellow cryst. Sol. H₂O, EtOH; spar. sol. Et₂O; insol. C₆H₆.Suten, A. *et al*, *CA*, 1972, **77**, 172202y (*redox indicator*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*detn, Mg, Zn, organic acids, acid-base indicator*)Nazarenko, A.Y. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1719 (*detn, K*)**5-[4-(Phenylamino)phenyl]imino]-2(5H)-furanone, 9CI**

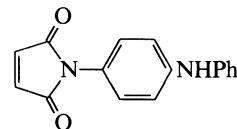
P-00085

N-(4-Anilinophenyl)isomaleimide. APIM
[110090-64-7]C₁₆H₁₂N₂O₂ M 264.283

Derivatisation reagent for amines for hplc with electrochem. detn. Reddish brown needles (EtOAc). Mp 158-159°.

Shimada, K. *et al*, *J. Chromatogr.*, 1983, **280**, 271 (*synth, ir, pmr, use*)**1-[4-(Phenylamino)phenyl]-1H-pyrrole-2,5-dione, 9CI**

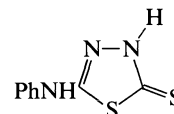
P-00086

N-(p-Anilinophenyl)maleimide, 8CI
[32099-65-3]C₁₆H₁₂N₂O₂ M 264.283

Derivatisation reagent for electrochem. detn. of thiols using hplc. Yellow needles (EtOAc/hexane). Mp 135-136°.

Shimada, K. *et al*, *Anal. Chim. Acta*, 1983, **147**, 375 (*synth, use*)**5-(Phenylamino)-1,3,4-thiadiazole-2(3H)-thione, 9CI**

P-00087

2-Mercapto-5-anilino-1,3,4-thiadiazole
[10253-83-5]C₈H₇N₃S₂ M 209.295Tautomeric with mercapto form. Used as a 1% soln. in 70% EtOH for photometric detn. of Pd, Bi; for separation of Ag, Bi, Cd, Co, Cu, Fe(II), Fe(III), Hg, Ni, Zn. Yellowish cryst. Sol. EtOH, Me₂CO, alkalis. Mp 219°.

▷ XI4810000.

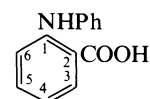
[53689-70-6]

Popper, E. *et al*, *Bull. Soc. Chim. Fr.*, 1963, 99 (*use*)Popper, E. *et al*, *Rev. Roum. Chim.*, 1966, **11**, 283 (*detn, Bi, Cd, Pb*)Roman, L. *et al*, *Mikrochim. Acta*, 1968, 660 (*detn, Pd*)Chattopadhyay, S.S., *CA*, 1973, **79**, 38183f (*detn, Bi*)**N-[(Phenylamino)thioxomethyl] benzenecarbothioamide, 9CI**

P-00088

1-Phenyl-3-thiobenzylthiocarbamide. 1-Phenyl-3-thiobenzoylthiourea
[25310-08-1]C₁₄H₁₂N₂S₂ M 272.394Used as 0.1% soln. in Me₂CO for extraction-photometric detn. of Cu (λ_{\max} 360 nm, ϵ 127000, CHCl₃), Fe(II); as 0.05% EtOH soln. for extraction-photometric detn. of Pt(IV) (λ_{\max} 430 nm, ϵ 17500). Cryst. Sol. Me₂CO, EtOH. Mp 122°.Uttarwar, R.M. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **287**, 317 (*detn, Pt*)Ilyas, S.Q. *et al*, *Mikrochim. Acta*, 1980, **2**, 263; 1983, **3**, 271 (*synth, detn, Cu, Fe*)**N-Phenylanthranilic acid, 8CI**

P-00089

2-(Phenylamino)benzoic acid, 9CI. Diphenylamine-2-carboxylic acid. 2-Anilinobenzoic acid
[91-40-7]

$C_{13}H_{11}NO_2$ M 213.235

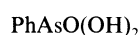
Used as redox indicator for titrimetric detn. of Fe(II).

Prisms. Sol. hot EtOH, C_6H_6 ; spar. sol. hot H_2O ; insol. cold H_2O . Mp 184°. E° +1.08 V.

▷ CB3730000.

Et ester: [23868-11-3]. $C_{15}H_{15}NO_2$ M 241.289Bp₆ 184-187°.Ullmann, F. *et al*, *Justus Liebigs Ann. Chem.*, 1907, **355**, 312.Wieland, H. *et al*, *Ber.*, 1915, **48**, 1117.Bauer, K., *Chem. Ber.*, 1950, **83**, 10.Lederer, M., *Anal. Chim. Acta*, 1952, **6**, 1 (use)*Org. Synth.*, *Coll. Vol.*, 4, 1963, 15.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PEG500.**Phenylarsonic acid, 9CI****P-00090***Benzenearsonic acid, 8CI*

[98-05-5]

 $C_6H_7AsO_3$ M 202.041Used as 5% soln. in dil. NH_3 in gravimetric detn. of Zn, Nb, Sn(IV), Bi, Th and pptn. separation of Nb and Ta. Catalyst for oxidations. Cryst. (H_2O). Sol. H_2O . Mp 158-162° dec. p*K*_{a1} 3.65; p*K*_{a2} 8.77 (25°, c. 0.01). Above Mp → anhydride.

▷ Toxic. CY3150000.

Di-Me ester: Dimethyl phenylarsonate $C_8H_{11}AsO_3$ M 230.095d²³ 1.395. Bp₉₅ 188°. Dec. by H_2O .*Di-Et ester: [37907-80-5]. Diethyl phenylarsonate* $C_{10}H_{15}AsO_3$ M 258.148d¹⁵ 1.318. Bp₁₅ 168-170°.*Org. Synth.*, *Coll. Vol.*, 2, 1943, 494.Alimarin, I.P. *et al*, *Zavod. Lab.*, 1945, **11**, 254 (use)Majumdar, A.K. *et al*, *Anal. Chim. Acta*, 1959, **21**, 330 (detn. Nb)Pietsch, R., *Mikrochim. Acta*, 1964, 1082, 1115 (use)Petrovsky, V., *Collect. Czech. Chem. Commun.*, 1965, **30**, 1727

(detn. Ta)

Dietze, U., *J. Prakt. Chem.*, 1971, **313**, 889 (ir)Stec, W.J. *et al*, *Inorg. Chem.*, 1972, **11**, 219.Zakirov, D.U. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1977, 910

(nqr)

Filowitz, M. *et al*, *Inorg. Chem.*, 1979, **18**, 93 (nmr)Jacobson, S.E. *et al*, *J. Am. Chem. Soc.*, 1979, **101**, 6938, 6946

(use)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*,

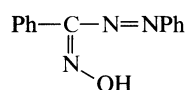
CRC, Boca Raton, 1982, 445 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

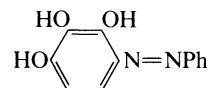
Ed., Van Nostrand-Reinhold, 1992, BBL750.

(Phenylazo)benzaldoxime**P-00091***2-(Phenylazo)benzaldehyde oxime, 9CI*

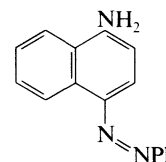
[63257-93-2]

 $C_{13}H_{11}N_3O$ M 225.249Used as EtOH soln. for photometric detn. of Pd (λ_{max} 550 nm, ϵ 3600), Co, Rh. Yellow cryst. Sol. EtOH. Mp 129-130°.Bamberger, E. *et al*, *Chem. Ber.*, 1903, **36**, 57 (synth)Hunter, L. *et al*, *J. Chem. Soc.*, 1941, 823 (detn. Co)Kalia, K.C. *et al*, *Inorg. Chem.*, 1969, **8**, 2586; 1968, **7**, 2016 (detn. Pd, Rh)Mahgoub, A.E. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **284**, 205 (detn. Co)Mahgoub, A.E. *et al*, *Analyst (London)*, 1978, **103**, 879 (synth. detn. Pd)**4-(Phenylazo)-1,2,3-benzenetriol, 9CI****P-00092***2,3,4-Trihydroxyazobenzene*

[6492-47-3]

 $C_{12}H_{10}N_2O_3$ M 230.223Used as 1mM Me_2CO soln. for photometric detn. of Mo(VI) (λ_{max} 460 nm, ϵ 19500). Dark brown powder. Sol. Me_2CO , EtOH.Gambarov, D.G. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 2190 (synth. detn. Mo)**4-Phenylazo-1-naphthylamine****P-00093***4-Benzeneazo-1-naphthylamine. C.I. Solvent yellow 4.**Naphthyl red. α -Naphthylaminoazobenzene*

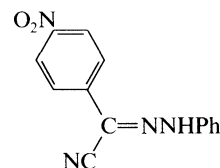
[131-22-6]

 $C_{16}H_{13}N_3$ M 247.299Used as a 0.1% soln. in 70% EtOH aq. as an acid-base indicator (pH range: 3.7-5.0; colour change: red→yellow), for argentometric detn. of Cl^- , Br^- , I^- , SCN^- . Reddish-violet cryst. (EtOH). Sol. EtOH, dil. HCl, C_6H_6 . Mp 123°, Mp 124°.

▷ QJ0360000.

B,HCl: Cryst. Mp 205°.*B,H₂SO₄*: Cryst. Mp 214-215°.Woroshzow, J., *J. Prakt. Chem.*, 1911, **84**, 527 (synth)Thiel, A. *et al*, *Z. Anorg. Allg. Chem.*, 1924, **136**, 393 (synth, w)Ibbotson, D.A. *et al*, *J. Chem. Soc.*, 1961, 5163 (w)Bishop, E., *Indicators*, Pergamon, Oxford, 1972. **α -(Phenylazo)-4-nitrobenzeneacetonitrile,****P-00094****9CI** *α -(Benzeneazo)-4-nitrobenzylcyanide*

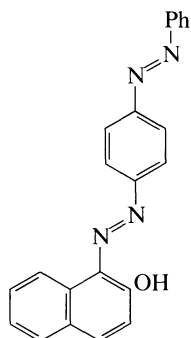
[27822-98-6]

 $C_{14}H_{10}N_4O_2$ M 266.259Acid-base indicator. Red-orange cryst. Sol. EtOH, Me_2CO . Mp 201°. p*K*_{a1} 12.1 (H_2O).Legradi, L., *Talanta*, 1970, **17**, 161 (synth, use)

1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol, 9CI

P-00095

Sudan III. C.I. Solvent red 23. C.I. 26100. Certiquil oil red. Fat red R. Oil scarlet G. Silotras scarlet T.B.. Stearix scarlet. Toney red. Numerous other names
[85-86-9]

C₂₂H₁₆N₄O M 352.395

Commercially available. Stain for fats in animal tissue. Used for photometric detn. of Zr. Dark red cryst. powder. Sol. alkalis, EtOH, C₆H₆, insol. H₂O. Mp 199° dec.

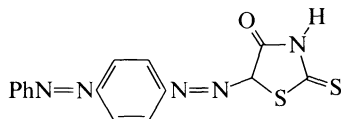
▷ Irritant. QK4250000.

Colour Index, 3rd Edn., 1971, **4**, 4427 (*synth*)
Abasov, G.A. *et al*, *CA*, 1976, **85**, 86745m (*detn*, Zr)
Lillie, R.D., *H.J. Conn's Biological Stains*, 9th Edn., Williams S Wilkins, Baltimore, 1977, 168, 576 (*rev*)
Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 3194A.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, OHA000.

5-[[4-(Phenylazo)phenyl]azo]-2-thioxo-4-thiazolidinone, 9CI

P-00096

Benzeneazobenzeneazorhodanine
[3403-03-0]

C₁₅H₁₁N₅OS₂ M 341.417

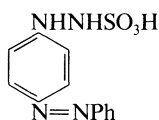
Various tautomers possible. Used as 0.2% soln. in 5% EtOH for photometric detn. of Cu, Hg, Ag, Pd, Au (in the presence of various surfactants). Cryst. Sol. EtOH.

Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87.
Gur'eva, R.F. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 2165 (*synth*, *use*)

2-[(4-Phenylazo)phenyl]hydrazinesulfonic acid, 9CI

P-00097

4-Hydrazinoazobenzene-N'-sulfonic acid
[6004-88-2]

C₁₂H₁₂N₄O₃S M 292.318

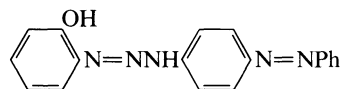
Reagent for the detn. of carbonyl compds. Dark red needles. Dec. < 100°.

Troger, J. *et al*, *J. Prakt. Chem.*, 1908, **78**, 369 (*synth*)
Hunig, S. *et al*, *Chem. Ber.*, 1955, **88**, 423, 1201 (*use*)
Feigl, F., *Spot Tests in Organic Analysis*, Elsevier, 6th Ed., 1960, 228 (*use*)

2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenol, 9CI

P-00098

2-Hydroxybenzenediazoaminoazobenzene. 1-(2-Hydroxyphenyl)-3-(4-phenylazophenyl)triazene
[119191-00-3]

C₁₈H₁₅N₅O M 317.349

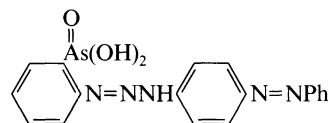
Used as 0.02% EtOH soln. for photometric detn. of Cd (ε 197000, in the presence of Triton X-10). Yellowish brown powder. Sol. EtOH, Me₂CO. Mp > 130° dec.

Hsu Chung-Gin, *et al*, *Mikrochim. Acta*, 1989, **1**, 313 (*synth*, *detn*, Cd)

[2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenyl]arsonic acid, 9CI

P-00099

[101615-74-1]

C₁₈H₁₆AsN₅O₃ M 425.278

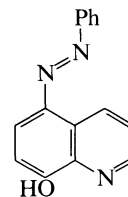
Orange-red cryst. Used as a 0.05% aq. soln. for photometric detn. of Pb (λ_{max} 430 nm), Hg (λ_{max} 500 nm, ε 150000). Mod. sol. H₂O.

Lukin, A.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 295 (*detn*, Pb)
Zhang, B. *et al*, *CA*, 1986, **104**, 161108x (*synth*, *detn*, Hg)

5-Phenylazo-8-quinolinol, 9CI

P-00100

8-Hydroxy-5-phenylazoquinoline
[4312-09-8]

C₁₅H₁₁N₃O M 249.271

Gives colour reaction with Cd, Co, Mn, Ni, Pb, Zn.

Orange cryst. (toluene). Sol. EtOH. Mp 189° dec. pK_{a1} 3.1; pK_{a2} 8.9 (25°, μ 0.1, 50% dioxan).

N-Oxide: [63319-28-8].

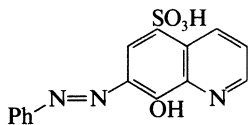
C₁₅H₁₁N₃O₂ M 265.271

Used as a soln. in NH₃ aq. for photometric detn. of Al, Co, Cu, Pb, Pd, Zn. Dark yellow cryst. powder. Sol. alkalis; insol. H₂O; spar. sol. EtOH (0.095 g per 100 cm³); sl. sol. Me₂CO (0.48 g per 100 cm³). λ_{max} 403 nm (EtOH).

Fox, J.J., *J. Chem. Soc.*, 1910, **97**, 1339 (*synth*)
Takamoto, S., *Anal. Chem.*, 1965, **37**, 1249 (*use*)
Nemodruk, A.A. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 457 (*N-oxide*, *use*)

Phenylazoxine S**P-00101**

8-Hydroxy-7-(phenylazo)-5-quinolinesulfonic acid, 8Cl
[483-71-6]



$C_{15}H_{11}N_3O_4S$ M 329.336

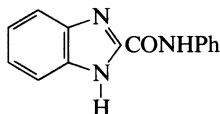
Used as a 0.1% aq. soln. for photometric detn. of Mo (λ_{max} 400 nm, ϵ 13800), V(IV) (λ_{max} 400 nm, ϵ 15000); compleximetric detn. of V. Red cryst. Sol. alkalis; mod. sol. H_2O .

Goyal, S.S. *et al*, *Talanta*, 1967, **14**, 1449 (detn, V)

Goyal, S.S. *et al*, *Z. Naturforsch.*, 1968, **23B**, 142 (detn, Mo)

N-Phenyl-1H-**benzimidazolecarboxaldehyde, 9Cl****P-00102**

2-Benzimidazolecarboxylic acid anilide. 2-Benzimidazolecarboxanilide
[13745-42-1]



$C_{14}H_{11}N_3O$ M 237.260

Needles (EtOH). Mp 235-236°.

Oxime: [62209-31-8]. N-Hydroxy-N'-phenyl-1H-benzimidazole-2-carboximidamide

$C_{14}H_{12}N_4O$ M 252.275

Used as a 0.02% soln. in $CHCl_3$ for extraction-photometric detn. of Co (λ_{max} 343 nm, ϵ 23000, $CHCl_3$), Cu (λ_{max} 337 nm, ϵ 14500, $CHCl_3$). Cryst. (C_6H_6). Sol. EtOH, Et_2O , C_6H_6 , $CHCl_3$.

Gompper, R. *et al*, *Chem. Ber.*, 1959, **92**, 550 (synth)

Bagdasarov, K.N. *et al*, *Zavod. Lab.*, 1976, **42**, 143 (detn, Co)

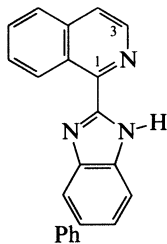
Chernov'yants, M.S. *et al*, *CA*, 1977, **87**, 94945h (detn, Cu)

Papadopoulos, E.P. *et al*, *Org. Magn. Reson.*, 1982, **19**, 188 (cmr, tautomerism)

Katritzky, A.R. *et al*, *J. Org. Chem.*, 1988, **53**, 5685 (synth)

1-(5-Phenyl-2-benzimidazolyl)isoquinoline,**P-00103****8Cl**

2-(1-Isoquinoly)-5-phenylbenzimidazole
[17583-67-4]



$C_{22}H_{15}N_3$ M 321.381

Used as 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(I), Fe(II). Cryst. (MeOH). Sol. common org. solvs. Mp 163-164°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (synth)

Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (use)

3-(5-Phenyl-2-benzimidazolyl)isoquinoline, 8Cl**P-00104**

2-(3-Isoquinoly)-5-phenylbenzimidazole
[17583-68-5]

$C_{22}H_{15}N_3$ M 321.381

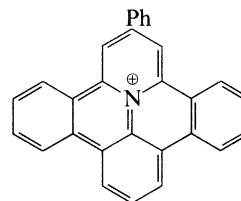
Used as 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(I), Fe(II). Cryst. (C_6H_6). Sol. common org. solvs. Mp 189-190°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 483 (synth)

Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (use)

9-Phenylbenzo(1,2)quinolizino[3,4,5,6-def]phenanthridinium(1+), 9Cl**P-00105**

2-Phenylbenzo[8,9]quinolizino[4,5,6,7-fed]phenanthridinylium(1+)
[76191-74-7]



$C_{29}H_{18}N^{\oplus}$ M 380.468 (ion)

Perchlorate:

$C_{29}H_{18}ClNO_4$ M 479.918

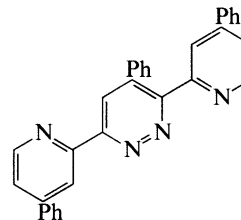
Used as 0.1mM EtOH soln. for extraction-photometric detn. of Au(III) (λ_{max} 460 nm, 0.04-0.4 μ g/ml, isopentyl acetate), Tl(III). Cryst. (MeOH). Sol. MeOH, EtOH. Mp 340°.

Perez-Ruiz, T. *et al*, *Analyst (London)*, 1983, **108**, 733 (synth, detn, Au)

Perez-Ruiz, T. *et al*, *Microchem. J.*, 1985, **31**, 196 (detn, Tl)

4-Phenyl-3,6-bis(4-phenyl-2-pyridyl)pyridazine, 8Cl**P-00106**

[18818-56-9]



$C_{32}H_{22}N_4$ M 462.553

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 563 nm, ϵ 1870); gives colour reactions with Co, Cu(I). Cryst. (C_6H_6 /pet. ether). Sol. common org. solvents. Mp 140-141°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, **5**, 431 (synth)

Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (use)

1-Phenyl-1,3-butanedione, 9Cl**P-00107**

Benzoylacetone. α -Acetylacetophenone. Benzoylpropanone
[93-91-4]



$C_{10}H_{10}O_2$ M 162.188

Used for photometric detn. of Ti. Cryst. (EtOH). Sol. conc. alkali; spar. sol. cold H_2O . Mp 61°. Bp₁₄ 132°.

Dioxime: [53120-17-5]. Benzylmethylglyoxime

$C_{10}H_{12}N_2O_2$ M 192.217

Used as EtOH soln. for detn. of Ni and Pd. Cryst. (EtOH aq.). Sol. EtOH, Me_2CO . Mp 194°.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, 3, 233 (*synth, use, deriv*)

Mair, W.M., *J. Org. Chem.*, 1966, 31, 3790 (*synth*)

Semmlingsen, D., *Acta Chem. Scand.*, 1972, 26, 143 (*cryst struct*)

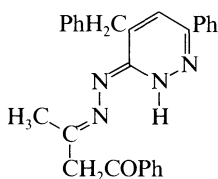
Shapet'ko, N.N., *Org. Magn. Reson.*, 1975, 5, 237 (*cmr*)

Opasova, R.G. *et al*, *Zavod. Lab.*, 1977, 43, 416 (*use*)

Opasova, R.G. *et al*, *Zh. Anal. Khim.*, 1977, 32, 974 (*use*)

1-Phenyl-1,3-butanedione 3-[[6-phenyl-4-(phenylmethyl)-3-pyridazinyl]hydrazone], 9CI P-00108

[85770-93-0]



$C_{27}H_{24}N_4O$ M 420.513

Used as 2mM soln. in 75% dioxan for photometric detn. of Cu (λ_{max} 360 nm), Ni (λ_{max} 346 nm), Co (λ_{max} 370 nm) (pH 3.5-4, 75% dioxan aq.). Reddish brown cryst. (EtOH). Sol. EtOH, dioxan.

Jahine, H. *et al*, *Indian J. Chem., Sect. B*, 1977, 15, 352 (*synth*)

Ramadan, A.A. *et al*, *Talanta*, 1983, 30, 245 (*use*)

1-Phenyl-1,2,3-butanetrione, 9CI P-00109

Methylphenyl triketone

[4435-51-2]



$C_{10}H_8O_3$ M 176.171

Liq. Bp₅ 115-116°.

2-Oxime: [6797-44-0].

$C_{10}H_9NO_3$ M 191.186

Used as 0.25% sol. in C_6H_6 for photometric detn. of Fe(II) (λ_{max} 590 nm, ϵ 3800), Pd, Ru(III). Needles (H_2O). Sol. $CHCl_3$, C_6H_6 . Mp 126-128°.

2,3-Dioxime: [32796-72-8]. Benzoylmethylglyoxime.

Palladon

$C_{10}H_{10}N_2O_3$ M 206.201

Used for gravimetric detn. of Pd. Cryst. V. sol. EtOH, Me_2CO , Et_2O ; insol. H_2O , C_6H_6 . Mp 177-181° (dec.).

Shchekochikhina, R.L. *et al*, *CA*, 1963, 58, 1906a (*use, dioxime*)

Dayar, F. *et al*, *Helv. Chim. Acta*, 1974, 57, 2201 (*synth*)

Ford, B.W. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1974, 1009 (*synth, oxime*)

Desai, B.J. *et al*, *Analyst (London)*, 1979, 104, 160 (*detn, Fe*)

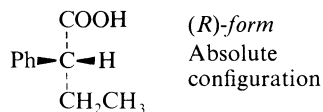
Desai, B.J. *et al*, *Fresenius' Z. Anal. Chem.*, 1979, 295, 412 (*detn, Pd, Ru*)

Hansen, J.F. *et al*, *J. Org. Chem.*, 1985, 50, 3955 (*cryst struct, oxime*)

2-Phenylbutanoic acid P-00110

α -Ethylbenzeneacetic acid, 9CI. Ethylphenylacetic acid

[90-27-7]



$C_{10}H_{12}O_2$ M 164.204

▷ ET5957500.

(R)-form [938-79-4]

$[\alpha]_D -96.5^\circ (C_6H_6)$.

Chloride:

$C_{10}H_{11}ClO$ M 182.649

Bp₁₄ 95°.

(S)-form [4286-15-1]

Bp₄ 138°. $[\alpha]_D +96.5^\circ (C_6H_6)$.

Chloride: [40473-35-6].

Used to determine abs. configs. of sulfoxides. Bp₁₄ 97-98°. $[\alpha]_D^{17} +89^\circ (Et_2O)$.

(±)-form [7782-29-8]

Plates (Et_2O). Mp 44-45°. Bp 270°, Bp₁₄ 145-150°.

Me ester: [2294-71-5].

$C_{11}H_{14}O_2$ M 178.230

Bp 228°.

Amide: [90-26-6].

$C_{10}H_{13}NO$ M 163.219

Mp 86°.

▷ ES4955000.

Nitrile: [69350-73-8].

$C_{10}H_{11}N$ M 145.204

Bp 238-240°, Bp₇ 102-104°.

Anhydride: [1519-21-7].

$C_{20}H_{22}O_3$ M 310.392

Reagent for determination of abs. configs. by the Horeau method.

[769-68-6, 36854-57-6, 39651-08-6, 51260-63-0]

Pettersson, K., *Ark. Kemi*, 1956, 10, 283 (*abs config*)

Horeau, A., *Tetrahedron Lett.*, 1961, 506 (*deriv, use*)

Falle, H. *et al*, *Monatsh. Chem.*, 1965, 96, 276 (*anhydride, use*)

Weidmann, R. *et al*, *Bull. Soc. Chim. Fr.*, 1967, 117 (*anhydride, use*)

Verbit, L. *et al*, *J. Org. Chem.*, 1975, 40, 1649 (*synth*)

Juger, S. *et al*, *Tetrahedron Lett.*, 1975, 2733 (*chloride, use*)

Vigneron, J.-P. *et al*, *Bull. Soc. Chim. Fr.*, 1976, 649 (*resoln*)

Meyers, A.I. *et al*, *J. Am. Chem. Soc.*, 1976, 98, 567 (*synth*)

Org. Synth., 1976, 55, 91 (*synth*)

Chiellini, E. *et al*, *Makromol. Chem.*, 1977, 178, 701 (*resoln, synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PEP250.

Phenyl diazomethane P-00111

(Diazomethyl)benzene, 9CI. Diazophenylmethane

[766-91-6]



$C_7H_6N_2$ M 118.138

Reagent for derivatisation of carboxylic acids for gc anal.

Obt. as deep wine-red soln.

Overberger, C.G. *et al*, *J. Am. Chem. Soc.*, 1964, 86, 658 (*synth*)

Klemm, H.P. *et al*, *J. Chromatogr.*, 1973, 75, 19 (*use*)

Hintze, U. *et al*, *J. Chromatogr.*, 1973, 87, 481 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, 5, 515 (*use*)

Bakker, B.H. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1975, 94, 50 (*synth*)

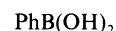
Wulfman, D.S. *et al*, *Synth. Commun.*, 1988, 18, 2349 (*synth*)

Phenylidihydroxyborane P-00112

Phenylboronic acid, 10CI, 9CI. Phenylboric acid.

Benzeneboronic acid. Dihydroxy(phenyl)borane

[98-80-6]



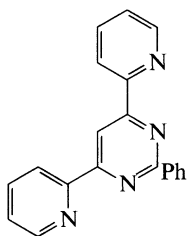
$C_6H_7BO_2$ M 121.931

Used as a derivatizing agent for glc detn. of diols, hydroxyacids, hydroxyamines. Needles (H₂O). Sol. MeOH, EtOH, spar. sol. H₂O, Et₂O. Mp 216°. p*K*_a 8.86 (25°, H₂O). Forms anhydride below Mp.

▷ CY8575000.

Morlyan, N.M. *et al*, *CA*, 1972, **76**, 14619 (*synth*)
 Rettig, S.J. *et al*, *Can. J. Chem.*, 1977, **55**, 3071 (*struct*)
 Gragg, B.R. *et al*, *J. Organomet. Chem.*, 1977, **132**, 29 (*nmr*)
 Shapiro, B.L. *et al*, *J. Phys. Chem. Ref. Data*, 1977, **6**, 919 (*pmr*)
 Poole, C.F. *et al*, *J. Chromatogr.*, 1978, **158**, 33 (*use*)
 Nöth, H. *et al*, *NMR Spectroscopy of Boron Compounds (NMR Basic Principles and Progress)*, (Part 14), Springer, 1978 (*nmr*)
 Ramsey, B.G. *et al*, *J. Org. Chem.*, 1980, **45**, 1322 (*nmr, struct*)
 Bullen, N.P. *et al*, *J. Organomet. Chem.*, 1980, **195**, 147 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, **BBM000**.

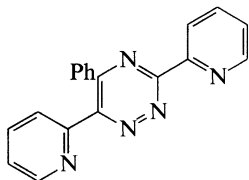
2-Phenyl-4,6-di-2-pyridinylpyrimidine, 9CI **P-00113**
 [61097-53-8]



C₂₀H₁₄N₄ M 310.357
 Used for photometric detn. of Cu(I) (λ_{max} 510 nm, ε 2800, pH ~ 7, aq. EtOH). Cryst. (2-methoxyethanol). Sol. MeOH, EtOH, 2-methoxyethanol. Mp 283°.

Schilt, A.A. *et al*, *Talanta*, 1976, **23**, 543 (*synth, detn, Cu*)

5-Phenyl-3,6-di-2-pyridyl-1,2,4-triazine **P-00114**
 [18895-91-5]



C₁₉H₁₃N₅ M 311.345
 Used as a 5mM soln. in aq. EtOH for photometric detn. of Co, Cu(I), Fe(II) (λ_{max} 558 nm, ε 2310). Cryst. (C₆H₆/hexane). Sol. common org. solvents. Mp 159-160°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, **5**, 413 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1970, **17**, 649 (*use*)

4-Phenyl-3H-1,2-dithiole-3-thione, 9CI **P-00115**
 [3354-37-8]



C₉H₆S₃ M 210.344
 Used as a 0.3% soln. in CCl₄ for pptn. of Ag, Au, Cu, Hg, Pd, Sn. Orange needles (EtOH). Sol. Me₂CO, hot EtOH, CHCl₃, C₆H₆, CCl₄; insol. H₂O. Mp 122°.

B,MeI: Mp 194° dec.

Voronkov, M.G. *et al*, *Zh. Org. Khim.*, 1949, **19**, 1927 (*synth*)
 Voronkov, M.G. *et al*, *Zh. Anal. Khim.*, 1951, **6**, 331 (*use*)

Legrand, L. *et al*, *Bull. Soc. Chim. Fr.*, 1953, 327 (*synth*)
 Fields, E.K., *J. Am. Chem. Soc.*, 1955, **77**, 4255 (*synth, derivs*)
 Pedersen, C.T. *et al*, *Acta Chem. Scand.*, 1972, **26**, 250 (*ms*)
 Plavac, N. *et al*, *Can. J. Chem.*, 1975, **53**, 836 (*cmr*)
 Wentrup, G.J. *et al*, *Synthesis*, 1975, 525 (*synth, uv*)

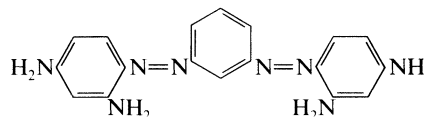
5-Phenyl-3H-1,2-dithiole-3-thione, 9CI **P-00116**
 [3445-76-9]

C₉H₆S₃ M 210.344
 Used as a 0.3% soln. in CCl₄ for pptn. of Ag, Au, Cu, Hg, Pd, Sn. Brown needles (BuOAc) or dark orange needles (EtOH or Me₂CO). Sol. Me₂CO, hot EtOH, CHCl₃, C₆H₆, CCl₄; insol. H₂O. Mp 126°.

Voronkov, M.G. *et al*, *Zh. Org. Khim.*, 1949, **19**, 1927 (*synth*)
 Voronkov, M.G. *et al*, *Zh. Anal. Khim.*, 1951, **6**, 331 (*use*)
 Klingsberg, E. *et al*, *J. Am. Chem. Soc.*, 1961, **83**, 2934 (*synth*)
 Yoshida, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1976, **49**, 3128 (*synth*)
 Frandsen, E.G. *et al*, *Org. Magn. Reson.*, 1977, **10**, 43 (*cmr*)
 Pedersen, B.S. *et al*, *Tetrahedron*, 1979, **35**, 2433 (*synth, cmr*)

4,4'-[1,3-Phenylenebis(azo)]bis-1,3-benzenediamine, 9CI **P-00117**

1,3-Bis(2,4-diaminophenylazo)benzene. Bismarck brown. C.I. 21000. C.I. Basic brown 1
 [1052-38-6]



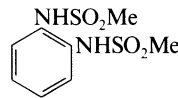
C₁₈H₁₈N₈ M 346.394

B,2HCl: [10114-58-6].

Textile dye. Used as a 0.01% soln. in EtOH to give colour reaction with Pd; biological stain. Blackish-brown powder. V. sol. H₂O; sl. sol. EtOH; prac. insol. Me₂CO, C₆H₆, CCl₄.

Welcher, F.J., *Organic Analytical Reagents*, 1948, 339 (*synth*)
 Popa, G. *et al*, *Zh. Anal. Khim.*, 1959, **14**, 322 (*detn, Pd*)
Colour Index, 3rd Edn., 1971, **4**, 4154 (*synth*)
 Saber, T.M. *et al*, *CA*, 1973, **79**, 77753 (*props*)

N,N'-1,2-Phenylenebismethanesulfonamide, 8CI **P-00118**
N,N'-Bis(methanesulfonyl)phenylenediamine. 1,2-Bis(methanesulfonamido)benzene
 [7596-80-7]

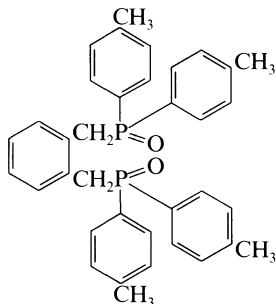


C₈H₁₂N₂O₄S₂ M 264.326

Used as 0.01% soln. in PhCl for extraction separation of Cu(II), Co, Zn, Cd, Pb, Hg(II). Cryst. (MeOH). Sol. PhCl, toluene, MeOH. Mp 217-217.5°.

Ide, S. *et al*, *Anal. Chim. Acta*, 1983, **149**, 235 (*synth, use*)

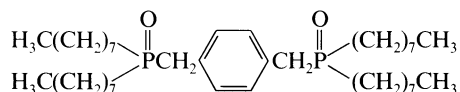
[1,2-Phenylenebis(methylene)]bis[bis(4-methylphenyl)]phosphine oxide, 9CI
[122690-20-4]



$C_{36}H_{36}O_2P_2$ M 562.627
Used as soln. in 2-nitrophenyloctyl ether in Ca selective electrodes. Cryst.
Bessis, S.M. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1769 (*synth*, *use*)

[1,4-Phenylenebis(methylene)]bis[dioctylphosphine oxide], 9CI

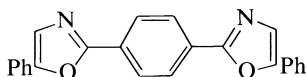
1,4-Bis[(dioctylphosphinyl)methyl]benzene
[79719-14-5]



$C_{40}H_{76}O_2P_2$ M 650.987
Used as 1mM $CHCl_3$ soln. for extraction separation of Ga (from 6M HCl). Cryst. Sol. $CHCl_3$.
Yamashoji, Y. *et al*, *Anal. Sci.*, 1987, **3**, 327 (*detn*, *Ga*)

2,2'-(1,4-Phenylene)bis[5-phenyloxazole], 9CI

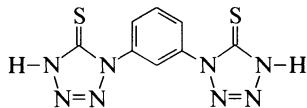
1,4-Bis(5-phenyl-2-oxazolyl)benzene. POPOP
[1806-34-4]



$C_{24}H_{16}N_2O_2$ M 364.403
Used in scintillation counting. Cryst. (Py). Mp 242-244°.
Ott, D.G. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 5448 (*synth*)
Walker, D. *et al*, *J. Heterocycl. Chem.*, 1964, **1**, 72 (*synth*)
Ambats, I. *et al*, *Acta Crystallogr.*, 1965, **19**, 942 (*cryst struct*)
Leggate, P. *et al*, *Mol. Cryst.*, 1968, **4**, 357 (*props*, *uv*)
Dhane, D.L. *et al*, *Indian J. Chem.*, 1975, **13**, 858 (*synth*)

1,1'-[1,3-Phenylene]bis-2-tetrazoline-5-thione

m-Phenylenedi(1-tetrazoline-5-thione)
[24950-73-0]



$C_8H_6N_8S_2$ M 278.321
Used as a 2% soln. in Me_2CO for gravimetric detn. of Ag, Au, Cd, Cu, Ru(III). Leaflets (EtOH). Mp 179° dec.
Lieber, E. *et al*, *J. Org. Chem.*, 1962, **27**, 2214 (*synth*)
Johar, G.S. *et al*, *CA*, 1969, **71**, 77023h (*detn*, *Au*, *Pd*)

P-00119

Johar, G.S. *et al*, *Curr. Sci.*, 1969, **38**, 592; *CA*, **72**, 85908m (*detn*, *Ag*, *Cd*, *Cu*)
Johar, G.S. *et al*, *Talanta*, 1970, **17**, 355 (*detn*, *Ru*)

1,1'-[1,4-Phenylene]bis-2-tetrazoline-5-thione

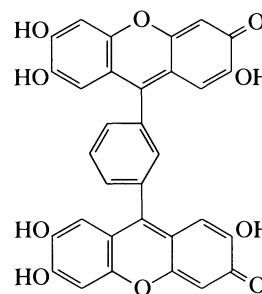
p-Phenylenedi(1-tetrazoline-5-thione)
[24271-29-2]

$C_8H_6N_8S_2$ M 278.321
Leaflets (EtOH). Sol. Me_2CO , EtOH. Mp 210° dec.
Di-Na salt: [32650-57-0].
Used as a 2% soln. in Me_2CO for gravimetric detn. of Ag, Au, Ru(III).
Lieber, E. *et al*, *J. Org. Chem.*, 1962, **27**, 2214 (*synth*)
Johar, G.S. *et al*, *CA*, 1969, **71**, 77023h (*detn*, *Au*, *Pd*)
Agarwala, U. *et al*, *Curr. Sci.*, 1969, **38**, 139 (*detn*, *Ag*)
Johar, G.S. *et al*, *Talanta*, 1970, **17**, 355 (*detn*, *Ru*)

P-00123

9,9'-(1,3-Phenylene)bis[2,6,7-trihydroxy-3H-xanthen-3-one], 9CI

[54886-81-6]

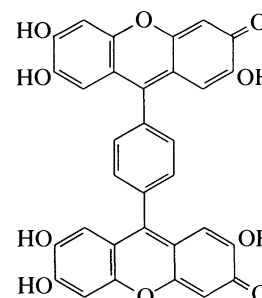


$C_{32}H_{18}O_{10}$ M 562.488
Used as a 1 mM soln. in EtOH for photometric detn. of Te. Cryst. Spar. sol. H_2O .
Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1850 (*detn*, *Te*)

P-00124

9,9'-(1,4-Phenylene)bis[2,6,7-trihydroxy-3H-xanthen-3-one], 9CI

Phenylenebisfluorone
[54696-40-1]

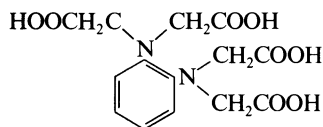


$C_{32}H_{18}O_{10}$ M 562.488
Used as 0.03% soln. in 0.02M NaOH for photometric detn. of Ga (λ_{max} 535 nm, ϵ 49000). Brown cryst. Sol. alkalis.

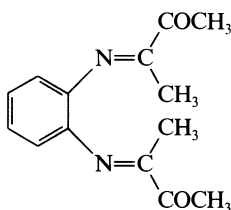
Fedin, A.V. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1734 (*synth*, *detn*, *Ga*)

1,2-Phenylenediamine-*N,N,N',N'*-tetraacetic acid **P-00126**

N,N'-1,2-Phenylenebis[N-(carboxymethyl)glycine], 9CI.
PhDTA
[40774-59-2]



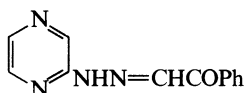
$C_{14}H_{16}N_2O_8$ M 340.289
Used as aq. soln. for indirect complexometric titration of Be (back titration of the excess of PhDTA with copper(II) soln.). Cryst. (H₂O). Sol. H₂O, Me₂CO.
McCandlish, E.F. *et al.*, *J. Inorg. Nucl. Chem.*, 1978, **17**, 1383 (synth)
Nakasuka, N. *et al.*, *Anal. Chim. Acta*, 1988, **207**, 361 (detn, Be)

3,3'-(1,2-Phenylenedinitrilo)bis-2-butanone, 9CI **P-00127**

$C_{14}H_{16}N_2O_2$ M 244.293
Dioxime: [75389-07-0]. Bis(2-hydroxyimino-3-butyldiene)-o-phenylenediimine
 $C_{14}H_{18}N_4O_2$ M 274.322
Used as a 1% soln. in aq. EtOH for gravimetric detn. of Ni, Pd. Pale yellow cryst. (EtOH). 179. Mp 179°.
Mathur, N.K. *et al.*, *Talanta*, 1964, **11**, 647 (synth, detn, Ni, Pd)

1-Phenyl-1,2-ethanedione 2-(2-pyrazinyl)hydrazone **P-00128**

Phenylglyoxal 2-(2-pyrazinyl)hydrazone



$C_{12}H_{10}N_4O$ M 226.237
Used as a soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 470 nm), Co (λ_{max} 485 nm), Ni (λ_{max} 487 nm), Fe(II). Cryst.
Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (synth)
Schilt, A.A. *et al.*, *Talanta*, 1979, **26**, 373 (use)

2-Phenylethenylphosphonic acid, 9CI **P-00129**

β -Styrylphosphonic acid. 2-Phenylvinylphosphonic acid. 1-Phenyl-2-phosphonoethylene
[1707-08-0]



$C_8H_9O_3P$ M 184.131
Used as 1% soln. for pptn. separation of Ag, Au (in the presence of SnCl₂). Lustrous plates (H₂O). Sol. H₂O.
Mp 142°, Mp 154-155°. pK_{a1} 2.22; pK_{a2} 6.69 (H₂O, 25°).
Mono-Me ester: Methyl hydrogen (2-phenylethenyl) phosphonate. Monomethyl styrylphosphonate
 $C_9H_{11}O_3P$ M 198.158

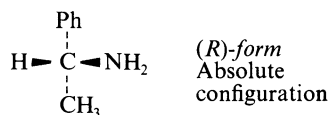
Solid. Mp 83-86°.
Mono-Et ester: Monoethyl (2-phenylethenyl)phosphonate. Monoethyl styrylphosphonate
 $C_{10}H_{13}O_3P$ M 212.185
Solid. Mp 75-76°. pK_a 1.80 (H₂O, 25°).
Di-Et ester: [1018-24-2]. Diethyl (2-phenylethenyl) phosphonate. Diethyl styrylphosphonate
 $C_{12}H_{17}O_3P$ M 240.238
Liq. d_4^{20} 1.09. $Bp_{1,5}$ 134°. n_D^{20} 1.5298.
Monobenzyl ester: Mono(phenylmethyl) (2-phenylethenyl) phosphonate. Benzyl styrylphosphonate
 $C_{15}H_{15}O_3P$ M 274.255
Cryst. (pet. ether). Mp 91-93°.

(E)-form

Di-Me ester: [60190-89-8].
Cryst. (Et₂O). Mp 29-30°. $Bp_{0,1}$ 127°.
Di-Et ester: [20408-33-7].
Liq. $Bp_{0,3}$ 136-138°.
[1707-07-9, 25362-01-0, 33818-56-3]
Maynard, J.A. *et al.*, *Aust. J. Chem.*, 1963, **16**, 609 (esters, synth, w)
Ionin, B.I. *et al.*, *Zh. Obshch. Khim.*, (Engl. transl. p. 2651), 1964, **34**, 2630 (diethyl ester)
Griffin, C.E. *et al.*, *J. Org. Chem.*, 1965, **30**, 1935 (synth, esters)
Chernova, A.V. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (Engl. transl. p. 693), 1972, 722 (ester, w, raman)
Maas, G. *et al.*, *Chem. Ber.*, 1976, **109**, 2039 (ester, synth, ir, pmr)
Berkova, G.A. *et al.*, *Zh. Obshch. Khim.*, (Engl. transl. p. 54), 1978, **48**, 66 (ester, pmr)
Axelrad, G. *et al.*, *J. Org. Chem.*, 1981, **46**, 5200 (esters, synth)
Biryulina, V.N. *et al.*, *Zh. Obshch. Khim.*, (Engl. transl. p. 815), 1981, **51**, 976 (complexes)
Sekine, M. *et al.*, *Bull. Chem. Soc. Jpn.*, 1982, **55**, 224 (esters, synth, pmr)
Hirao, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1982, **55**, 909 (ester, synth)
Turkhina, L.A. *et al.*, *Zh. Neorg. Khim.*, (Engl. transl. p. 297), 1982, **27**, 523 (monoalkyl esters)
Xu, Y. *et al.*, *Synthesis*, 1983, 556 (ester, synth, ir, pmr)
Dietze, U. *et al.*, *Fresenius' Z. Anal. Chem.*, 1985, **322**, 17 (detn, Ag, Au)

1-Phenylethylamine **P-00130**

α -Methylbenzenemethanamine, 9CI. α -Methylbenzylamine, 8CI. α -Aminoethylbenzene
[98-84-0]



$C_8H_{11}N$ M 121.182
▷ Mod. toxic. DP5775000.
(R)-form [3886-69-9]

Used in the detn. of abs. config. of secondary alcohols.
Mp 32.5°. Bp 187.4°, Bp_{15} 81°. $[\alpha]_D^{20}$ +31.0° (c, 2.1 in EtOH).
B.HCl: Cryst. (Me₂CO). Mp 171°. $[\alpha]_D$ +3.5° (c, 3.5 in H₂O), $[\alpha]_D$ +8.27° (c, 31.45 in H₂O).
N-Formyl: [31502-34-8].
 $C_9H_{11}NO$ M 149.192
 $Bp_{0,07}$ 128°. $[\alpha]_D$ +171.5° (c, 6.07 in CHCl₃).
N-Ac: [36283-44-0].
 $C_{10}H_{13}NO$ M 163.219
Mp 104°. $[\alpha]_D$ +168.1° (EtOH).
N-Benzoyl: [20826-48-6].
 $C_{15}H_{15}NO$ M 225.290

Needles (EtOH aq.). Mp 125.5°. $[\alpha]_D^{20} + 40.1^\circ$ (c, 3 in C_6H_6), $[\alpha]_D^{20} - 44.6^\circ$ (DMF).

N-Me:

$C_9H_{13}N$ M 135.208

Bp₁₁ 74-76°. $[\alpha]_D^{22} + 62.7^\circ$ (c, 4 in EtOH), $[\alpha]_D + 78.3^\circ$ (c, 2.18 in $CHCl_3$).

N,N-Di-Me: [19342-01-9].

$C_{10}H_{15}N$ M 149.235

Bp₁₆ 81°. $[\alpha]_D^{22} + 61.76^\circ$ (neat).

N-Et:

$C_{10}H_{15}N$ M 149.235

Bp₁₆ 100°. $[\alpha]_D^{20} + 60.0^\circ$ (neat).

(±)-form [618-36-0]

Oil. Bp 188°, Bp₈ 80-81°.

B,HCl: [13437-79-1].

Needles (EtOH). Mp 160°.

N-Ac: [36065-27-7].

Mp 57°. Mp 75°. Bp 292-293°.

N-Benzoyl: [28623-68-9].

Needles. Mp 121-122.5°.

N-Me: [42882-26-8].

$C_9H_{13}N$ M 135.208

Bp 184°, Bp₁₈ 87°.

N,N-Di-Me: [2449-49-2].

Bp 194-195°, Bp₁₁ 70-72°.

▷ DP6825000.

N-Et: [19302-12-6].

Bp 197°, Bp₁₆ 90°.

EPA/NIH Mass Spectral Data Base, 195 (ms)

Sadtler Standard C-13 NMR Spectra, 2937 (cmr)

Sadtler Standard Ultraviolet Spectra, 1640 (uv)

Org. Synth., Coll. Vol., 3, 1955, 717 (synth)

Nerdel, F. et al, *Justus Liebigs Ann. Chem.*, 1959, **621**, 42 (synth)

Ault, A., *J. Chem. Educ.*, 1965, **42**, 269 (resoln)

Paquette, L.A. et al, *J. Am. Chem. Soc.*, 1969, **91**, 7548 (deriv, synth)

Bush, M.A. et al, *J. Chem. Soc., Chem. Commun.*, 1969, 1491

(cryst struct, abs config)

Brooks, C.J.W. et al, *J. Chem. Soc., Chem. Commun.*, 1973, 194 (use)

Aldrich Library of IR Spectra, 2nd Ed., 1975, 564C (ir)

Fujita, S. et al, *Bull. Chem. Soc. Jpn.*, 1975, 1971.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 441; **6**, 457.

Angres, I. et al, *J. Org. Chem.*, 1975, **40**, 1457 (resoln, pmr)

Chantrapromma, K. et al, *J. Chem. Soc., Perkin Trans. 1*, 1983, 1049 (synth)

Weiberth, F.J. et al, *J. Org. Chem.*, 1986, **51**, 5338 (synth, pmr, ms)

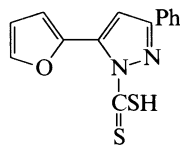
Blagg, J. et al, *J. Chem. Soc., Perkin Trans. 1*, 1987, 1805 (synth, pmr)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ALW250, DSO800.

3-Phenyl-5-(2-furyl)-1-

pyrazolinedithiocarbamic acid

P-00131



$C_{14}H_{10}N_2OS_2$ M 286.378

Na salt: Used as a 0.5% soln. in $CHCl_3$ /isopentanol for extraction-photometric detn. of Re. Yellow needles (C_6H_6/Me_2CO). λ_{max} 331 nm.

Busev, A.I., *Zh. Anal. Khim.*, 1967, **22**, 1029; 1971, **26**, 2225 (synth, detn, Re)

Phenylglyoxal, 8CI

P-00132

α -Oxobenzeneacetaldehyde, 9CI. Benzoylformaldehyde [1074-12-0]

Ph^1CO^2CHO

$C_8H_6O_2$ M 134.134

Used for photometric detn. of Hg(II) and Fe(III). Needles + H_2O (H_2O). Mod. sol. H_2O . Mp 91° (loses H_2O).

Bp₁₂₅ 142°. Steam-volatile.

2-Oxime: [532-54-7]. Isonitrosoacetophenone.

Benzoylformoxime. Hydroxyiminoacetophenone

$C_8H_7NO_2$ M 149.149

Used for detn. of Co, Pb, Mn, Ni. Plates ($CHCl_3$). Sol. alkalis, $CHCl_3$; sl. sol. H_2O . Mp 129° (126-128°).

▷ MD3325000.

2-Oxime, 1-(4-nitrophenyl)hydrazone:

Isonitrosoacetophenone p-nitrophenylhydrazone

$C_{14}H_{12}N_4O_3$ M 284.274

Used for photometric detn. of Co. Dark orange cryst. Mp 212°.

2-Oxime, 1-(2,4-dinitrophenyl)hydrazone:

Isonitrosoacetophenone 2,4-dinitrophenylhydrazone

$C_{14}H_{11}N_5O_5$ M 329.271

Used for photometric detn. of Co. Red cryst. Mp 233°.

Dioxime:

$C_8H_8N_2O_2$ M 164.163

Mp 168°, Mp 180° (2 forms known).

2-Hydrazone: [20292-75-5].

$C_8H_8N_2O$ M 148.164

Needles (C_6H_6). Mp 120-121°.

Bisphenylhydrazone: [33876-74-3]. Phenyllosazone

Yellow needles or leaflets (EtOH). Mp 152°.

Bis-2,4-dinitrophenylhydrazone: [4881-22-5].

Mp 295-297.5°.

Mono(2-pyridyl)hydrazone: [111313-19-0].

$C_{13}H_{11}N_3O$ M 225.249

Used as 0.1% EtOH soln. for photometric detn. of Zn (λ_{max} 465 nm, ϵ 71000, pH 7.2-8.5, 40% EtOH). Cryst. Sol. EtOH.

2-Di-Me acetal: [6956-56-5]. 2,2-Dimethoxy-1-phenylethanone. Benzoyldimethoxymethane

$C_{10}H_{12}O_3$ M 180.203

Bp 247-248°, Bp₁₆ 133-134°.

2-Di-Et acetal: [6175-45-7]. 2,2-Diethoxy-1-phenylethanone. Benzoyldiethoxymethane

$C_{12}H_{16}O_3$ M 208.257

Bp₁₅ 110°.

▷ MD3284000.

[22668-53-7]

Org. Synth., Coll. Vol., 2, 1943, 509 (synth)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, **3**, 279 (synth, use)

Deshmukh, G.S. et al, *Zh. Anal. Khim.*, 1961, **16**, 313 (4-nitrophenylhydrazones, synth, use)

Saxena, R.C. et al, *Indian J. Appl. Chem.*, 1969, **32**, 177, 328; *CA*, **75**, 14560t (detn, Fe, Hg)

Org. Synth., Coll. Vol., 5, 1973, 937 (synth, bibl)

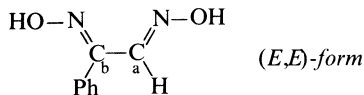
Libman, J., *J. Org. Chem.*, 1974, **39**, 1782 (synth)

Asuero, A.G. et al, *Anal. Chim. Acta*, 1987, **196**, 311 (synth, detn, Zn)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ILH000.

Phenylglyoxime**P-00133**

α -(Hydroxyimino)benzeneacetaldehyde oxime, 9CI.
Phenylglyoxal dioxime
[4589-97-3]



$C_8H_8N_2O_2$ M 164.163

Three isomers characterised. Used for photometric detn. of Co.

(E,E)-form [17016-15-8]

anti-form

Needles ($CHCl_3$ or EtOH aq.). Mp 166-168°. Red Ni complex. There appears also to be a polymorph, Mp 177-80°.

(aE,bZ)-form [26527-40-2]

anti-amphi-form

Cryst. ($Me_2CO/CHCl_3$). Mp 178-180°. Green Ni complex.

(Z,Z)-form [26527-42-4]

syn-form

Cryst. (EtOAc aq.). Mp 168-170°.

Peshkova, V.M. *et al.* *Khim. Khim. Tekhnol.* (Minsk), 1958, **1**, 62; *CA*, **53**, 1976 (use)

Burakevich, J.V. *et al.* *J. Org. Chem.*, 1971, **36**, 1 (bibl)

Peshkova, V.M. *et al.* *Oximes*, Nauka, Moscow, 1977.

Phenylhydrazine, 9CI, 8CI**P-00134**

Hydrazinobenzene

[100-63-0]



$C_6H_8N_2$ M 108.143

Reagent for characterisation of carbonyl compds. and prep. of numerous heterocyclic compds. Reducing agent for azo and nitro compds. Used as 1% aq. soln. for photometric detn. of Mo, Al, Cr, Ti, Zr. Plates (usually an oil with aniline-like odour). d_4^{25} 1.095. Mp 19.6°. Bp 243°, Bp₁₂ 122°. pK_a -5.2 (20°, H_2O). Oxid. in air.

▷ Toxic by inhalation and skin absorption, irritant TLV 20. MV8925000.

B, HCl: [59-88-1].

Leaflets (H_2O). Mp 250-254° dec.

▷ Toxic by inhalation and skin absorption, irritant. MV9000000.

N¹-Ac: [2116-41-8].

$C_8H_{10}N_2O$ M 150.180

Plates (C_6H_6 /ligroin). Mp 126°.

N²-Ac: [114-83-0]. Acetic acid 2-phenylhydrazide, 9CI

$C_8H_{10}N_2O$ M 150.180

Used as a 0.16M soln. in $CHCl_3$ for extraction-photometric detn. of Au(III) (λ_{max} 315 nm, ϵ 5900). Prisms. Sol. $CHCl_3$. Mp 129°.

▷ AJ2900000.

N¹,N²-Di-Ac:

$C_{10}H_{12}N_2O_2$ M 192.217

Needles (EtOH/ C_6H_6). Mp 107-108°.

N¹-Benzoyl:

$C_{13}H_{12}N_2O$ M 212.251

Needles (H_2O). Mp 70°.

N²-Benzoyl:

$C_{13}H_{12}N_2O$ M 212.251

Prisms (EtOH). Mp 172°.

N¹,N²-Dibenzoyl:

$C_{20}H_{16}N_2O_2$ M 316.359

Prisms (EtOH). Mp 178°.

Registry of Mass Spectral Data, Wiley-Interscience, 119 (ms)

Sadtler Standard C-13 NMR Spectra, 2887 (cmr)

Org. Synth., Coll. Vol., 1, 1932, 442 (synth)

Shriner, R.L. *et al.* *Chem. Rev.*, 1944, **35**, 351 (*N²-Ac*, use)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **2**, 442 (synth, use)

Grammaticakis, P., *Bull. Soc. Chim. Fr.*, 1951, 965 (w)

Bozsai, I., *Talanta*, 1963, **10**, 543 (detn, Mo)

Aldrich Library of NMR Spectra, 1974, **5**, 37B (pmr)

Aldrich Library of IR Spectra, 2nd Ed, 1975, 661F (ir)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 284.

Patel, K.S., *Anal. Chem.*, 1986, **58**, 1547 (*N²-Ac*, use)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,

Royal Society of Chemistry, London, 1981, 438.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ACX750, PFI000, PFI250.

N*-Phenylhydroxylamine, 8CI*P-00135***N*-Hydroxybenzenamine, 9CI. β -Phenylhydroxylamine

[100-65-2]

PhNHOH

C_6H_7NO M 109.127

Needles (H_2O). V. sol. EtOH, Et_2O ; sol. H_2O . Mp 81-82°.

pK_a 3.2.

▷ Can explode spontaneously. LD₅₀ 247 mg/kg (mouse, oral). NC4900000.

N-Ac: [1795-83-1]. *N*-Hydroxy-*N*-phenylacetamide, 9CI

$C_8H_9NO_2$ M 151.165

Used for pptn. of Nb. Needles (ligroin). Sol. common org. solvs. Mp 67-67.5°.

N,O-Di-Ac: [32954-65-7].

$C_{10}H_{11}NO_3$ M 193.202

Prisms (C_6H_6 /pet. ether). Mp 43°.

N-Benzoyl: [304-88-1]. *N*-Benzoyl-*N*-phenylhydroxylamine.

N-Hydroxy-*N*-phenylbenzamide. *Benzophenylhydroxamic acid*. **BPHA**

$C_{13}H_{11}NO_2$ M 213.235

Used in extraction-separation of Sb, Bi, Sn, Al, Mo, Nb, Ta, U, Sr, Ca, ($CHCl_3$); in extraction-photometric detn. of V (λ_{max} 525 nm, ϵ 5100), Ce, Ti, Fe(III), SCN^{\ominus} . Needles (H_2O). Sol. EtOH, dioxan, $CHCl_3$, C_6H_6 , acids, aq. NH_3 ; sl. sol. H_2O (0.04 g per 100 cm^3). Mp 123-124°.

N,O-Dibenzoyl: [16817-95-1].

$C_{20}H_{15}NO_3$ M 317.343

Cryst. (EtOH). Mp 121°.

Registry of Mass Spectral Data, Wiley-Interscience, 123 (ms)

Org. Synth., Coll. Vol., 1, 1932, 445 (synth)

Grammaticakis, P., *Bull. Soc. Chim. Fr.*, 1951, 965 (w)

Ryan, D.E., *Analyst (London)*, 1960, **85**, 569 (detn, V)

Alimarin, I.P. *et al.* *Talanta*, 1961, **8**, 317 (detn, Sc)

Das, M.K. *et al.* *Anal. Chim. Acta*, 1968, **43**, 140; 1979, **50**, 243.

Shendrikar, A.D., *Talanta*, 1969, **16**, 51 (deriv. detn, Nb)

Majumdar, A.K. *et al.* *N-Benzoylphenylhydroxylamine and Its Analogues*, Pergamon, Oxford, 1972.

Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Metals, Part 2*, John Wiley, New York, 1978, 1196, 1425.

Mori, K. *et al.* *Chem. Pharm. Bull.*, 1982, **30**, 3097 (derivs)

Cheng, K.L. *et al.* *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 109 (use, *N-Benzoyl*)

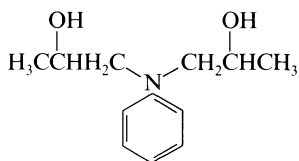
Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 625.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PFJ250.

1,1'-(Phenylimino)bis-2-propanol, 9CI

N,N-Bis(2-hydroxypropyl)aniline

[3077-13-2]

C₁₂H₁₉NO₂ M 209.288Used as 0.02M soln. in dil. HCl for photometric detn. of NO₂[⊖] (λ_{max} 500 nm, ε 20000). Cryst.Motomizu, S. *et al*, *Analyst (London)*, 1987, **112**, 1261 (*use*)

P-00136

Isol. from seed oil of *Putranjiva roxburghii* and other plants. Used for the automatic detn. of amino acid sequences. Reacts with amino acids to form phenylthiohydantoins. Used for chromatog. sepn. Sol. hot H₂O, alkalis. d₄²⁵ 1.13. Fp –21°. Bp 221°, Bp₁₂ 95°.

▷ Highly toxic orally. Emits highly toxic fumes in contact with acid or on heating to dec.. NX9275000.

Org. Synth., Coll. Vol., 1, 1932, 447 (*synth*)

Edman, P. *et al*, *Eur. J. Biochem.*, 1967, **1**, 80 (*use*)

Jochims, J., *Chem. Ber.*, 1968, **101**, 1746 (*synth*)

Katritzky, A.R. *et al*, *J. Am. Chem. Soc.*, 1968, **90**, 1757 (*ir*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 323.

Zeller, K.P. *et al*, *Tetrahedron*, 1972, **28**, 1353 (*ms*)

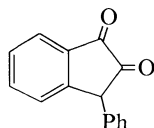
Graffeo, A.P. *et al*, *Anal. Lett.*, 1973, **6**, 505 (*use*)

Heinrikson, R.L. *et al*, *Anal. Biochem.*, 1984, **136**, 65 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ISQ000.

3-Phenyl-1,2-indanedione

3-Phenyl-1H-indene-1,2(3H)-dione, 9CI

C₁₅H₁₀O₂ M 222.243

Needles (pet. ether). Mp 137-138°.

Dioxime: [24273-38-9].

C₁₅H₁₂N₂O₂ M 252.272

Used for pptn. of Au, Co, Cu, Ni, Os, Pd. Cryst. (EtOH).

Disemicarbazone: Yellow needles (EtOH). Mp 252° dec.

Pfeiffer, P. *et al*, *Justus Liebig's Ann. Chem.*, 1935, **520**, 192.Bark, L.S. *et al*, *Talanta*, 1969, **16**, 497 (*use*)

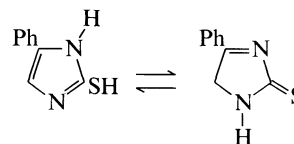
P-00137

4-Phenyl-2-mercaptoimidazole

P-00140

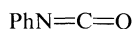
1,3-Dihydro-4-phenyl-2H-imidazole-2-thione, 9CI. 4-Phenylimidazole-2-thiol, 8CI

[6857-34-7]

C₉H₈N₂S M 176.242Used as 0.01M soln. in butanol for extraction-photometric detn. of Pd (λ_{max} 440 nm, ε 4700). Cryst. Sol. H₂O, EtOH.Tserkasevich, K.V. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 532 (*detn*, Pd)**Phenyl isocyanate**

Isocyanatobenzene, 9CI. Phenylcarbimide. Carbanil

[103-71-9]

C₇H₅NO M 119.123Anal. reagents for alcohols and amines. d₄^{19.6} 1.10. Mp –30°. Bp 166°, Bp₁₃ 55°.

▷ Irritant, lachrymator. DA3675000.

Hardy, D.V.N., *J. Chem. Soc.*, 1934, 2011 (*synth*)Arnold, R.G. *et al*, *Chem. Rev.*, 1957, **57**, 47 (*rev*)Tadao, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1963, **36**, 617 (*synth*)Hardy, W.B. *et al*, *Tetrahedron Lett.*, 1967, 961 (*synth*)*Aldrich Library of NMR Spectra*, 1974, **7**, 141B (*pmr*)Rosen, R.T. *et al*, *Appl. Spectrosc.*, 1974, **28**, 200 (*use*)Chantry, G.W. *et al*, *Spectrochim. Acta, Part A*, 1974, **30**, 1717 (*ir*)*Aldrich Library of IR Spectra*, 2nd Ed., 1975, 995D (*ir*)Bjorkqvist, B. *et al*, *J. Chromatogr.*, 1978, **153**, 265; 1981, **204**, 109 (*use*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1980, **8**, 396 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PFK250.

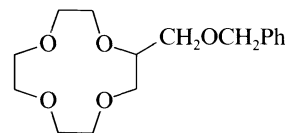
P-00138

2-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclododecane, 9CI

P-00141

2-[(Benzyloxy)methyl]-12-crown-4

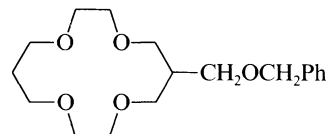
[75507-20-9]

C₁₆H₂₄O₅ M 296.363Used as 0.01M soln. in CH₂Cl₂ for extraction separation of alkali metals. Cryst. Sol. CHCl₃, CH₂Cl₂, toluene.Pacey, G.E. *et al*, *Synth. Commun.*, 1981, **11**, 323 (*synth*)Pacey, G.E. *et al*, *Talanta*, 1984, **31**, 165 (*use*)**6-[(Phenylmethoxy)methyl]-1,4,8,11-tetraoxacyclotetradecane, 9CI**

P-00142

3-[(Benzyloxy)methyl]-14-crown-4

[92818-22-9]

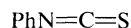
C₁₈H₂₈O₅ M 324.416

Used as an ionophore for Li in ion-selective microelectrodes. Liq.

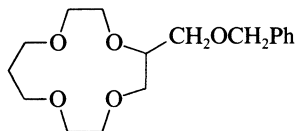
Czech, B.P. *et al*, *J. Org. Chem.*, 1984, **49**, 4805 (*synth*)Attiyat, A.S. *et al*, *Anal. Chem.*, 1988, **60**, 2561 (*use*)**Phenyl isothiocyanate**

Isothiocyanatobenzene, 9CI. Phenyl mustard oil

[103-72-0]

C₇H₅NS M 135.189

P-00139

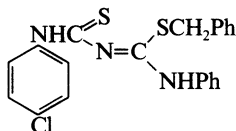
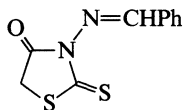
5-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclotridecane, 9CI2-[(*Benzoyloxy*)methyl]-13-crown-4
[92818-15-0]C₁₇H₂₆O₅ M 310.389Used as ionophore for Li in ion-selective microelectrodes.
Liq.Czech, B.P. *et al*, *J. Org. Chem.*, 1984, **49**, 4805 (*synth*)
Attiyat, A.S. *et al*, *Anal. Chem.*, 1988, **60**, 2561 (*use*)**2-[(Phenylmethyl)amino]ethanol, 9CI**N-Benzylethanolamine. 2-Benzylaminoethanol
[104-63-2]C₉H₁₃NO M 151.208Reagent for capillary gc detn. of formaldehyde in air. Oil.
d₂₀²⁰ 1.5086. Bp₂₀ 167-169°, Bp_{0.5} 106-107°. n_D²⁰ 1.5442.

Picrate: [14342-74-6].

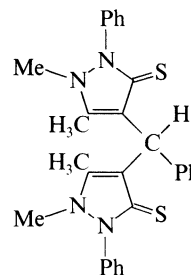
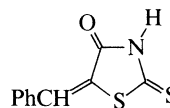
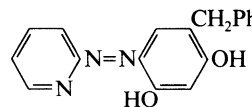
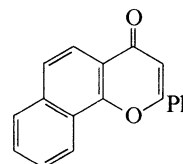
Mp 134°.

B, HCl: [58576-72-0].

Mp 94-95°.

Hunt, J.H. *et al*, *J. Chem. Soc.*, 1957, 2073 (*synth*)Castro, B. *et al*, *Bull. Soc. Chim. Fr.*, 1971, 4368 (*synth*)Kennedy, E.R. *et al*, *Anal. Chem.*, 1982, **54**, 1739 (*use*)Priha, E. *et al*, *Anal. Chem.*, 1986, **58**, 1195 (*use*)**N-Phenylmethyl[(4-chlorophenyl)amino]thioxomethyl]-N'-phenylcarbamimidothioate, 9CI**4-Benzyl-1-(4-chlorophenyl)-5-phenyl-2,4-isodithiobiuret
[63446-61-7]C₂₁H₁₈ClN₃S₂ M 411.978Used as 2mM CHCl₃ soln. for extraction-photometric detn. of Pd(II), Ag (λ_{max} 500 nm, pH 6.1-7.7). Cryst. (EtOH). Sol. EtOH, CHCl₃. Mp 127°.Deshmukh, B.K. *et al*, *J. Indian Chem. Soc.*, 1976, **53**, 980; 1982, **59**, 401 (*synth, use*)**3-[(Phenylmethylene)amino]-2-thioxo-4-thiazolidinone, 9CI**N-Benzylidene-3-aminorhodanine
[4992-28-3]C₁₀H₈N₂OS₂ M 236.318Used for photometric detn. of Pt metals. Orange cryst. (C₆H₆). Sol. EtOH, C₆H₆, Me₂CO; insol. H₂O.Savvin, S.B. *et al*, *Talanta*, 1987, **34**, 87.

P-00143

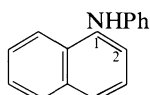
4,4'-(Phenylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], 9CIPhenyldithiopyryl methane
[74713-68-1]C₂₉H₂₈N₄S₂ M 496.699Used as aq. soln. for extraction-photometric detn. of Bi, Au(III), Mo, Pd, Pb, Sn. Yellowish cryst. powder. Sol. acids, C₆H₆, CHCl₃, DMF, AcOH, Me₂CO; sl. sol. H₂O. Mp 160°.Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 854 (*synth, use*)**5-Phenylmethylene-2-thioxo-4-thiazolidinone, 9CI**5-Benzylidenerhodanine
[3806-42-6]C₁₀H₇NOS₂ M 221.303Used as a 0.01 or 0.2% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt, Tl. Orange-red cryst. Sol. EtOH, Me₂CO. pK_a 9.34 (25°).Kulberg, L.M. *et al*, *Zh. Anal. Khim.*, 1954, **9**, 85.Turkiewicz, N.M., *Zh. Anal. Khim.*, 1956, **11**, 180.V'yunov, K.A. *et al*, *Zh. Org. Khim.*, 1973, **9**, 817 (*pKa*)**4-(Phenylmethyl)-6-(2-pyridinylazo)-1,3-benzenediol, 9CI**1-(2-Pyridylazo)-4-benzylresorcinol
[60835-77-0]C₁₈H₁₅N₃O₂ M 305.335Used as EtOH soln. for extraction-photometric detn. of Co (ε 19000; CHCl₃, isopentanol). Brown cryst.Urmanov, N. *et al*, *CA*, 1983, **98**, 190818s (*detn, Co*)**2-Phenyl-4*H*-naphtho[1,2-*b*]pyran-4-one, 9CI**Benzo[h]flavone. 1-Naphthoflavone
[604-59-1]

C₁₉H₁₂O₂ M 272.303

Used as 1% soln. in EtOH for photometric detn. of Cl₂, I₂, as an indicator in iodometry. Orange plates (EtOH). Sol. EtOH, conc. H₂SO₄. Mp 167° (154°).

Smith, F.E. *et al.*, *J. Chem. Soc.*, 1946, 542.Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4** (*synth, use*)Poirier, Y. *et al.*, *Bull. Soc. Chim. Fr.*, 1967, 865.Ruo, M. *et al.*, *CA*, 1972, **78**, 147635.Dorofeenko, E.N. *et al.*, *Zh. Obshch. Khim.*, 1976, **12**, 432; *CA*, **84**, 150455.**N-Phenyl-1-naphthylamine****P-00151***1-Anilidonaphthalene*

[90-30-2]

C₁₆H₁₃N M 219.285

Rubber vulcanisation accelerator. Indicator used in the anal. of organometallic reagents. Fluorescent probe for detn. of detergent critical micelle concentrations. Prisms or needles (EtOH), leaflets (ligroin). Mp 62°. Bp₅₂₈ 335°, Bp₈ 226°.

▷ QM4500000.

N-Ac:

C₁₈H₁₅NO M 261.323

Cryst. (EtOH). Sol. EtOH, CHCl₃, C₆H₆; spar. sol. Et₂O. Mp 115°.

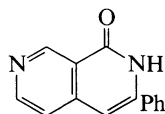
N-Benzoyl:

C₂₃H₁₇NO M 323.393

Cryst. (EtOH). Sol. EtOH, Et₂O, C₆H₆. Mp 152°.

Streiff, J., *Justus Liebigs Ann. Chem.*, 1881, **209**, 154 (*synth*)Knoevenagel, E., *J. Prakt. Chem.*, 1914, **89**, 17 (*synth*)Hodgson, H.H. *et al.*, *J. Soc. Chem. Ind., London*, 1939, **58**, 154 (*synth*)Nakamura, K. *et al.*, *Synthesis*, 1974, 882 (*synth*)Riepe, W. *et al.*, *Org. Mass Spectrom.*, 1978, **13**, 57 (*ms*)Bergbreiter, D.E. *et al.*, *J. Org. Chem.*, 1981, **46**, 219 (*use*)Brito, R.M.M. *et al.*, *Anal. Biochem.*, 1986, **152**, 250 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PFT250.**3-Phenyl-2,7-naphthyridin-1(2H)-one, 9CI****P-00152***1-Hydroxy-3-phenyl-2,7-naphthyridine*

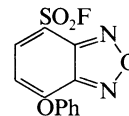
[92905-81-2]

C₁₄H₁₀N₂O M 222.246

Fluorogenic reagent for epoxides. Needles (EtOH). Mp 234.5-235.5°.

Krohnke, F. *et al.*, *Justus Liebigs Ann. Chem.*, 1956, **600**, 198 (*synth*)Bobbitt, J.M. *et al.*, *J. Org. Chem.*, 1964, **29**, 2298 (*synth*)Sano, A., *Anal. Sci.*, 1985, **1**, 441 (*use*)**7-(Phenyloxy)-4-benzofurazansulfonyl fluoride, 9CI****P-00153**

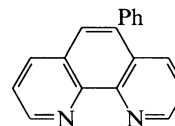
[126165-72-8]

C₁₂H₇FN₂O₄S M 294.263

Fluorogenic reagent for thiols and amines. Needles (hexane). Mp 120-121°.

Toyooka, T. *et al.*, *Analyst (London)*, 1989, **114**, 1233 (*synth, use*)**5-Phenyl-1,10-phenanthroline****P-00154**

[6153-89-5]

C₁₈H₁₂N₂ M 256.306

Cryst. (C₆H₆). Mp 202-203°.

B, HCl: [23484-31-3].

Used as redox indicator. Cryst. Sol. CHCl₃, C₆H₆.

Case, F.H. *et al.*, *J. Org. Chem.*, 1951, **16**, 1541 (*synth*)Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)**[Phenyl(phenylamino)]methylphosphonic acid****P-00155***α-Anilinobenzylphosphonic acid*PhNHCH(Ph)PO(OH)₂C₁₃H₁₄NO₃P M 263.232

Et ester: Cryst. Mp 113°.

Di-Et ester: Cryst. Sol. H₂O, pet. ether. Mp 92-93°.

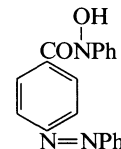
Mono-octyl ester: [1806-41-3].

C₂₁H₃₀NO₃P M 375.447

Used as 0.02M CHCl₃ soln. for photometric detn. of Mo (λ_{max} 470 nm, ε 5800), Ti (λ_{max} 420 nm, ε 27000). Needles. Sol. CHCl₃, C₆H₆. Mp 97-100°.

Jagodić, V., *Ber.*, 1960, **93**, 2308 (*synth, detn, Mo, Ti*)

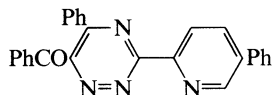
Tamhina, B. *et al.*, *Anal. Chim. Acta*, 1975, **76**, 417; 1976, **86**, 223 (*detn, Mo, Ti*)

N-Phenyl-4-(phenylazo)benzohydroxamic acid**P-00156***4-(N-Hydroxy-N-phenylaminocarbonyl)azobenzene*C₁₉H₁₅N₃O₂ M 317.346

Used as a 0.5% soln. in CHCl₃ to give colour reaction with V (λ_{max} 378 nm, ε 12000, CHCl₃). Red-orange cryst. (EtOH aq.). Mp 178-179°.

Cassidy, R.M. *et al.*, *Can. J. Chem.*, 1968, **46**, 327 (*use*)

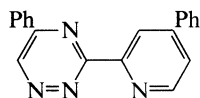
Phenyl[5-phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazin-6-yl]methanone, 9CI P-00157
6-Benzoyl-5-phenyl-3-(4-phenyl-2-pyridyl)-1,2,4-triazine
[37004-75-4]



$C_{27}H_{18}N_4O$ M 414.465
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 497 nm, ϵ 6400), Fe(II) (λ_{max} 573 nm, ϵ 26800). Cryst. (EtOH). Sol. common org. solvs. Mp 156°.

Case, F.H., *J. Heterocycl. Chem.*, 1972, **9**, 457 (synth)
Schilt, A.A. et al, *Talanta*, 1977, **24**, 685 (detn. Co, Fe)

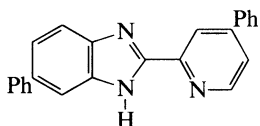
5-Phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, 9CI P-00158
[42838-34-6]



$C_{20}H_{14}N_4$ M 310.357
Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 495 nm, ϵ 10500), Fe(II) (λ_{max} 560 nm, ϵ 34800). Cryst. (EtOH). Sol. common org. solvs. Mp 183°.

Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (synth)
Schilt, A.A. et al, *Talanta*, 1977, **24**, 685 (use)

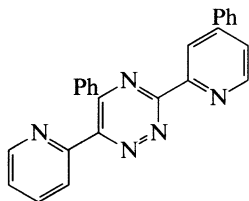
5-Phenyl-2-(4-phenyl-2-pyridyl)benzimidazole, 8CI P-00159
[14040-58-5]



$C_{24}H_{17}N_3$ M 347.418
Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 606 nm, ϵ 7100). Cryst. (C_6H_6). Sol. common org. solvs. Mp 252-253°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, **15**, 1055 (use)

5-Phenyl-3-(4-phenyl-2-pyridyl)-6-(2-pyridyl)-1,2,4-triazine, 8CI P-00160
[18895-93-7]

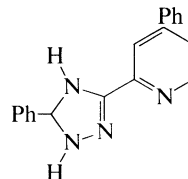


$C_{25}H_{17}N_5$ M 387.443

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co, Cu(I), Fe(II) (λ_{max} 565 nm, ϵ 2440). Cryst. (EtOH). Sol. common org. solvs. Mp 204-205°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, **5**, 413 (synth)
Schilt, A.A. et al, *Talanta*, 1970, **17**, 649 (use)

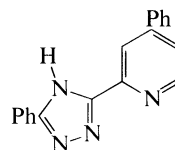
5-Phenyl-3-(4-phenyl-2-pyridyl)-1,2,4-triazoline P-00161
4-Phenyl-2-(5-phenyl- Δ^2 -1,2,4-triazolin-3-yl)pyridine, 8CI



$C_{19}H_{16}N_4$ M 300.362
Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 525 nm, ϵ 16200, aq. EtOH). Cryst. (C_6H_6). Sol. common org. solvs. Mp 149-150°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (synth)
Schilt, A.A. et al, *Talanta*, 1974, **21**, 831 (detn. Fe)

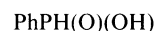
4-Phenyl-2-(5-phenyl-1,2,4-triazol-3-yl)pyridine P-00162
5-Phenyl-3-(4-phenyl-2-pyridyl)-1,2,4-triazole
[30091-76-0]



$C_{19}H_{14}N_4$ M 298.346
Used as a 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 515 nm, ϵ 6400). Cryst. (EtOH). Mp 236-237°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (synth)
Schilt, A.A. et al, *Talanta*, 1974, **21**, 831 (detn. Fe)

Phenylphosphinic acid, 9CI P-00163
[1779-48-2]



$C_6H_7O_2P$ M 142.094
The free acid exists in the phosphinic acid form. Used as aq. soln. for pptn. of rare earth elements and gravimetric detn. of Fe(III). Cryst. Sol. H_2O . Mp 86-87°, Mp 78-80°. pK_{a1} 1.75 (25°), pK_{a1} 2.1 (40% MeOH aq.), pK_{a1} 8.71 (DMF, 25°), pK_{a2} 10.87 (Me_2CO , 25°).

Cyclohexylammonium salt: Solid. Mp 198-200°.
Anilinium salt: Solid. Mp 101°.

Me ester: [7162-15-4]. *Methyl phenylphosphinate*

$C_7H_9O_2P$ M 156.121
Liq. Bp₃ 103-104°.

Et ester: [2511-09-3]. *Ethyl phenylphosphinate*

$C_8H_{11}O_2P$ M 170.147
Prod. of uv irradi. of Inezin. Liq. d_4^{20} 1.13. Bp_{0.2} 102-103°. n_D^{20} 1.5180 (1.5220).

► SZ5600000.

Isopropyl ester: *Isopropyl phenylphosphinate*. *1-Methylethyl phenylphosphinate*

$C_9H_{13}O_2P$ M 184.174

Liq. d_4^{20} 1.09. Bp₁₀ 146°, Bp_{0.5} 80°. n_D^{20} 1.5075, 1.5154.

Ph ester: [52744-21-5]. Phenyl phenylphosphinate

C₁₂H₁₁O₂P M 218.191

Liq. n_D^{25} 1.5924.

(–)-Menthyl ester: Menthyl phenylphosphinate

C₁₆H₂₅O₂P M 280.346

Liq. Bp_{0.1} 165° (bath).

Trimethylsilyl ester: [27262-80-2]. Trimethylsilyl phenylphosphinate

C₉H₁₅O₂PSi M 214.275

Liq. d_4^{20} 1.05. Bp_{0.07} 91°. n_D^{20} 1.4902.

N,N-Diethylamide: [70403-04-2]. N,N-Diethyl-P-phenylphosphinic amide

No phys. props. reported.

Anhydride: [5054-42-2].

C₁₂H₁₂O₃P₂ M 266.172

No phys. props. reported.

Banks, J.E., *Anal. Chem.*, 1957, **29**, 109 (detn, Fe)

Goncalves, H. et al, *Bull. Soc. Chim. Fr.*, 1961, 1595 (synth, ir, esters)

Frank, A.W., *J. Org. Chem.*, 1961, **26**, 850 (synth)

Mukherji, A.K., *Anal. Chim. Acta*, 1964, **30**, 591 (detn, lanthanides)

Budzikiewicz, H. et al, *Monatsh. Chem.*, 1965, **96**, 1739 (ester, ms)

Wolf, R. et al, *Spectrochim. Acta, Part A*, 1967, **23**, 1641 (esters, ir)

Emmick, T.L. et al, *J. Am. Chem. Soc.*, 1968, **90**, 3459 (esters)

Pudovik, A.N. et al, *Zh. Obshch. Khim.*, (Engl. transl., p. 306), 1968, **38**, 305 (ester)

Pudovik, A.N. et al, *Zh. Obshch. Khim.*, (Engl. transl. p. 1681), 1969, **39**, 1715 (ir, props)

Brazier, J.-F. et al, *Bull. Soc. Chim. Fr.*, 1970, 1089 (silyl ester, ir, pmr, nmr)

Benschop, H.P. et al, *J. Chem. Soc., Dalton Trans.*, 1970, 1431 (ester)

Gallagher, M.J. et al, *J. Chem. Soc. C*, 1971, 593 (anhydride)

Wiley, R.H., *Org. Mass Spectrom.*, 1971, **5**, 675 (ms)

Hewitt, D.G., *Aust. J. Chem.*, 1979, **32**, 463 (ester)

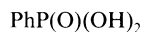
Andreev, N.A. et al, *Zh. Obshch. Khim.*, (Engl. transl. p. 1959), 1979, **49**, 2230 (amide)

Phenylphosphonic acid, 9CI, 8CI

P-00164

Benzenephosphonic acid

[1571-33-1]



C₆H₇O₃P M 158.093

Fire retardant. Used as aq. soln. for pptn. of rare earth elements. Used as a 2% aq. soln. for detn. of lanthanides. Plates (H₂O or EtOAc). Sol. H₂O. Mp 162-164°. pK_{a1} 1.83; pK_{a2} 7.45 (25°). Titrates as a monobasic acid in Me₂CO or ROH but as dibasic in DMF.

▷ TA0350000.

Bis(2-methylpropyl) ester: [2783-48-4]. Bis(2-methylpropyl) phenylphosphonate. Diisobutyl phenylphosphonate

C₁₄H₂₃O₃P M 270.308

Used for extraction of Fe from aq. media, and of U and Th from spent reactor fuel elements.

Bis(4-nitrophenyl) ester: [38873-91-5].

C₁₈H₁₃N₂O₇P M 400.284

Peptide coupling agent causing little racemization. Cryst. (CCl₄). Mp 94-96°.

Doak, G.O. et al, *J. Am. Chem. Soc.*, 1951, **73**, 5658 (synth, props)

Mukherji, A.K., *Anal. Chim. Acta*, 1964, **30**, 591 (pptn, rare earth elements)

Tavs, P. et al, *Tetrahedron*, 1967, **23**, 4677 (esters, synth)

Kharrasova, F.M. et al, *Zh. Obshch. Khim.*, (Engl. transl. p. 1215), 1968, **38**, 1262 (esters)

Dietze, U., *J. Prakt. Chem.*, 1974, **316**, 485 (ir)

Griffiths, W.R. et al, *Phosphorus Relat. Group V Elem.*, 1975, **5**, 273 (ms)

Weakley, T.J.R., *Acta Crystallogr., Sect. B*, 1976, **32**, 2889 (cryst struct)

Kodolov, V.I. et al, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (Engl. transl. p. 142), 1977, 165 (pe)

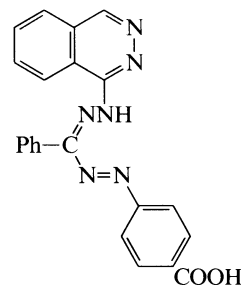
Modro, T.A. et al, *J. Chem. Soc., Perkin Trans. 2*, 1977, 1479 (cmr)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PFV500, PFV750.

3-Phenyl-1-(1-phthalazinyl)-5-(p-carboxyphenyl)formazan

P-00165

4-[3-Phenyl-5-(1-phthalazinyl)-1-formazano]benzoic acid, 9CI [67073-44-3]



C₂₂H₁₆N₆O₂ M 396.407

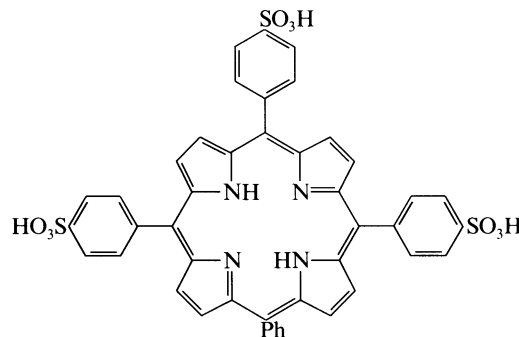
Used as 2mM soln. in EtOH for extraction-photometric detn. of Hg (λ_{max} 530 nm, ϵ 36000, CHCl₃). Brown cryst. (cyclohexane). Sol. EtOH, cyclohexane, CHCl₃, DMF.

Barbina, T.M. et al, *Zh. Anal. Khim.*, 1983, **38**, 1222 (synth, detn, Hg)

4,4',4''-(20-Phenyl-21H,23H-porphine-5,10,15-triyl)trisbenzenesulfonic acid, 9CI

P-00166

$\alpha,\beta,\gamma,\delta$ -Tetraphenylporphinetrisulfonic acid [36951-71-0]



C₄₄H₃₀N₄O₉S₃ M 854.940

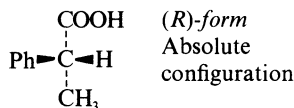
Used as a 1mM aq. soln. for photometric detn. of Cu (λ_{max} 413 nm). Cryst. Sol. H₂O.

Pasternak, R.F. et al, *J. Am. Chem. Soc.*, 1972, **94**, 4511 (synth)

Itoh, J. et al, *Anal. Chim. Acta*, 1975, **74**, 53 (detn, Cu)

2-Phenylpropanoic acid

P-00167

α-Methylbenzeneacetic acid, 9CI. Hydratropic acid
[492-37-5] $\text{C}_9\text{H}_{10}\text{O}_2$ M 150.177**(R)-form** [7782-26-5]Bp₆ 133-135°. [α]_D²¹ –73.1° (CHCl₃).**(S)-form** [7782-24-3]Bp_{0.4} 101-103°. [α]_D²⁰ +81.1° (c, 3.108 in EtOH), [α]_D²² +97.0° (neat).*Me ester*: [28645-07-0]. $\text{C}_{10}\text{H}_{12}\text{O}_2$ M 164.204Bp₂ 60-65°. [α]_D²² +103.5° (neat).**(±)-form** [2328-24-7]Mp 36-37°. Bp 264-265°, Bp₁₁ 147°. p*K*_{a1} 4.3 (25°).*Me ester*: [31508-44-8].Bp 221°, Bp₂₂ 119°.*Chloride*: [22414-26-2]. $\text{C}_9\text{H}_9\text{ClO}$ M 168.622

Reagent for gc resoln. of hydroxy acids and alcohols.

Bp_{12.5} 97-98°.*Amide*: [2328-25-8]. $\text{C}_9\text{H}_{11}\text{NO}$ M 149.192

Needles (EtOH aq.). Mp 97.5°.

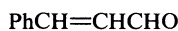
Nitrile: [42253-96-3]. *α*-Methylbenzeneacetonitrile, 9CI. 1-Cyano-1-phenylethane $\text{C}_9\text{H}_9\text{N}$ M 131.177

Bp 230-232°.

[1125-70-8, 1823-91-2, 25145-43-1, 36240-11-6, 42412-76-0]

Eliel, E.L. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 923 (*synth*)Bonner, W.A., *J. Am. Chem. Soc.*, 1952, **74**, 1034 (*synth*)Hammarstram, S. *et al*, *Anal. Biochem.*, 1973, **52**, 169 (*chloride, use*)Cervinka, O. *et al*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 1159 (*synth, resoln*)Angres, I. *et al*, *J. Org. Chem.*, 1975, **40**, 1457 (*synth, resoln*)Fujii, K. *et al*, *Synthesis*, 1983, 444 (*synth*)Giordano, C. *et al*, *Synthesis*, 1985, 436 (*synth*)Maruoka, K. *et al*, *Synthesis*, 1986, 130 (*synth*)Yamauchi, T. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1987, 1255, 1433 (*synth, deriv*)**3-Phenyl-2-propenal, 9CI**

P-00168

Cinnamaldehyde, 8CI. *Cinnamic aldehyde*. 3-Phenylacrolein
[104-55-2] $\text{C}_9\text{H}_8\text{O}$ M 132.162

Used in perfumery and flavour industries.

▷ Mod. toxic. GD6475000.

(E)-form [14371-10-9]Constit. of cinnamon and cassia oils. Liq. d₄²⁰ 1.05. Fp–7.5°. Bp ca. 250° part. dec., Bp₂₀ 130°. Steam-volatile.

Forms bisulfite compd.

(E,E)-Oxime: [40212-77-9]. $\text{C}_9\text{H}_9\text{NO}$ M 147.176Needles (C₆H₆ or H₂O). Mp 138.5°.**(E,E)-Oxime, Ac**: Prisms (Et₂O). Mp 69-70°.**(E,Z)-Oxime**: [40412-97-3].

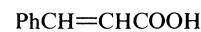
Mp 64-65°.

(E,Z)-Oxime, Ac: Leaflets (pet. ether). Mp 35.5°.*Semicarbazone*: Leaflets (H₂O). Mp 217°.*Phenylhydrazone*: Mp 168°.*2,4-Dinitrophenylhydrazone*: Mp 255°.*Thiosemicarbazone*: [5351-70-2]. $\text{C}_{10}\text{H}_{11}\text{N}_3\text{S}$ M 205.283Used as a 0.4mM soln. in EtOH for photometric detn. of Pd (λ_{max} 373 nm, ϵ 31000), Pt (λ_{max} 390 nm, ϵ 39000). Cryst. (EtOH). Mp 82-84°. p*K*_{a1} 0.22; p*K*_{a2} 11.69.

▷ VT3270000.

Di-Me acetal: [4364-06-1]. (3,3-Dimethyl-1-propenyl)benzene, 9CI $\text{C}_{11}\text{H}_{14}\text{O}_2$ M 178.230Liq. Bp₁₁ 125-127°.*Di-Et acetal*: [7148-78-9]. (3,3-Diethoxy-1-propenyl)benzene, 9CI $\text{C}_{13}\text{H}_{18}\text{O}_2$ M 206.284Liq. Bp ca. 264-268°, Bp₁₂ 140-142°.**(Z)-form** [57194-69-1]Liq. d²⁰ 1.04. Bp_{0.4} 67-69°.*Semicarbazone*: Mp 196°.*Phenylsemicarbazone*: Mp 187°.Andrews, L.J., *J. Am. Chem. Soc.*, 1947, **69**, 3062 (*uv*)Jun, N., *Bull. Chem. Soc. Jpn.*, 1967, **40**, 1512 (*pmr*)Hayes, W.P. *et al*, *Spectrochim. Acta, Part A*, 1968, **24**, 323 (*ir*)*Org. Synth.*, 1971, **51**, 11, 20; 1974, **54**, 42 (*synth*)Kerentseva, V.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1144; 1972, **27**, 719 (*synth, pKa, detn, Pd, Pt*)Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)Luedemann, H.D. *et al*, *Makromol. Chem.*, 1974, **175**, 2393 (*cmr*)Bestmann, H.J. *et al*, *Chem. Ber.*, 1982, **115**, 161 (*synth*)Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 674.*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 255.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CMP969.**3-Phenyl-2-propenoic acid, 9CI**

P-00169

Cinnamic acid, 8CI. 3-Phenylacrylic acid
[621-82-9] $\text{C}_9\text{H}_8\text{O}_2$ M 148.161

Reference material used in elemental microanalysis. Used in photometric detn. of U (anionic complex associated with Rhodamine B). Simple esters are used as perfumery and flavouring ingredients.

▷ GD7800000.

(E)-form [140-10-3]*Cinnamamide*Occurs as free acid and esters in storax, Peruvian balsam and other resins. Needles or prisms (EtOH). Mp 133°. Bp 300°. p*K*_a 4.46 (25°). Steam-volatile.*Me ester*: [103-26-4]. *Methyl cinnamate* $\text{C}_{10}\text{H}_{10}\text{O}_2$ M 162.188

Occurs in essential oils. Mp 36°. Bp 263°.

▷ GE0190000.

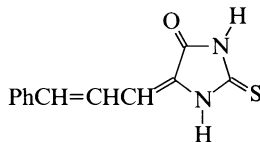
Anhydride: $\text{C}_{18}\text{H}_{14}\text{O}_3$ M 278.307Used in the spectrophotometric titration of aliphatic amines. Needles (C₆H₆). Mp 136°.**(Z)-form** [102-94-3]Cryst. in three forms. Mp 68°, Mp 58°, Mp 42°. Bp 95° (high vac.). p*K*_a 3.85 (25°). The highest-melting (*Z*)-form has been known as Allocinnamic acid. The other two forms have both been referred to as Isocinnamic acid.

[102-92-1, 621-79-4, 39124-46-4, 59015-50-8]

de Jong, A.W.K., *Ber.*, 1922, **55**, 463 (*isom*)Berthoud, A. *et al*, *Helv. Chim. Acta*, 1930, **13**, 437 (*synth*)Wittstruck, T.A. *et al*, *J. Am. Chem. Soc.*, 1967, **89**, 3803 (*pmr*)

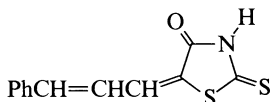
- Connors, K.A. *et al*, *Anal. Chim. Acta*, 1968, **43**, 334 (*anhydride, detn, amines*)
 Mendez, J. *et al*, *Microchem. J.*, 1968, **13**, 232 (*w*)
Analyst (London), 1972, **97**, 740 (*microanal*)
 Poluektov, N.S. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1972, **38**, 271 (*detn, U*)
 Morris, W.W., *J. Assoc. Off. Anal. Chem.*, 1973, **56**, 1037 (*ir*)
 v. Massow, F. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1973, 1480 (*cmr*)
 Glover, G.I. *et al*, *Sep. Sci. Technol.*, 1975, **10**, 795.
 Brunet, J.-J. *et al*, *Tetrahedron Lett.*, 1981, **22**, 1013 (*synth*)
 Babler, J.H. *et al*, *Tetrahedron Lett.*, 1983, **24**, 3835 (*derivative, synth, bibl*)
 Murakami, T. *et al*, *Fortschr. Chem. Org. Naturst.*, 1988, **54**, 1 (*isol, amide*)
 Wierda, D.A. *et al*, *Acta Crystallogr., Sect. C*, 1989, **45**, 338 (*cryst struct*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CMP975, MIO500.

5-(3-Phenyl-2-propenylidene)-2-thioxo-4-imidazolidinone, 9CI **P-00170**
 [53514-60-6]



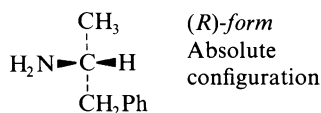
- $C_{12}H_{10}N_2OS$ M 230.290
 Used as 0.5mM EtOH soln. to give colour reactions with Pd, Cu, Ag (pH 4.5). Yellow cryst. (EtOH). Sol. EtOH, DMF. Mp 245-247°. pK_{a1} 8.1; pK_{a2} 12.9.
 Montana Gonzalez, M.T. *et al*, *Mikrochim. Acta*, 1982, **2**, 363 (*synth, use*)

5-(3-Phenyl-2-propenylidene)-2-thioxo-4-thiazolidinone, 9CI **P-00171**
 [15328-87-7]



- $C_{12}H_9NOS_2$ M 247.341
 Used as a 0.2% soln. in EtOH for photometric detn. of Ag, Au, Cu, Hg, Pd, Pt. Cryst. Sol. EtOH, Me₂CO, Et₂O. Mp 218-219°.
 Kulberg, L.M. *et al*, *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)
 Singh, C. *et al*, *Curr. Sci.*, 1983, **52**, 1305 (*synth*)

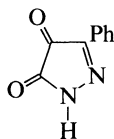
1-Phenyl-2-propylamine **P-00172**
 α -Methylbenzeneethanamine, 9CI. 2-Amino-1-phenylpropane. 1-Benzylethylamine. β -Aminopropylbenzene. Amphetamine. Benzedrine. **Amfetamine**, INN. Numerous proprietary names [60-15-1]



- $C_9H_{13}N$ M 135.208
 ▶ Highly toxic. SH9000000.
 (*R*)-form [156-34-3] **Levamphetamine**, BAN. **Levamphetamine**, INN
 Sympathomimetic drug. Less potent than (*S*)-isomer. Resolving agent.

- B, H_2SO_4 : [51-62-7]. **Levedrine**
 ▶ SI1575000.
Succinate: [5634-40-2]. **Levamphetamine succinate**, USAN.
Amodril. Cydril. Miagret
 Anorexic agent.
N-Me; B, HCl: [826-10-8].
 ▶ SH5250000.
N-Me; B, MeI:
 $C_{11}H_{18}IN$ M 291.174
 Columns. Mp 197-198°. $[\alpha]_D^{18}$ -3.7°.
N,N-Di-Me: [52691-87-9].
 $C_{11}H_{17}N$ M 163.262
 Bp₃₂ 116-120°. $[\alpha]_D^{25}$ +7.8° (c, 1.96 in MeOH).
 (*S*)-form [51-64-9] **Dexamphetamine**, BAN, INN.
Dextroamphetamine, USAN
 CNS stimulant, appetite suppressant. Resolving agent.
 Oil. Bp₁₆ 102°. $[\alpha]_D$ +33.5° (c, 10.0 in EtOH). n_D^{20} 1.4704.
 ▶ SH9100000.
B, HCl: [1462-73-3].
 ▶ SH9798400.
 B, H_2SO_4 : [51-63-8]. **Dextroamphetamine sulfate**, USAN.
Dexedrine. Diphylets. Hetamine. Apetain. Dexamed
 Plates. Mp >300°. $[\alpha]_D^{20}$ +21.8°.
 ▶ SI1400000.
N-Me; B, HCl: [51-57-0]. **Methedrine**
 Sympathomimetic, central stimulant. Cryst. (EtOH). Mp 172°. $[\alpha]_D^{20}$ +18° (H₂O).
 ▶ SH5425000.
N,N-Di-Me: [17279-39-9]. **Dimetamphetamine**, INN
 Psychotherapeutic.
 ▶ SI3800000.
N,N-Di-Me; B, HCl: [36913-04-9].
 Mp 183-186°. $[\alpha]_D$ +15.1°.
 (±)-form [300-62-9]
 Oil. Sl. sol. H₂O. d_4^{25} 0.913. Bp 203°.
 ▶ SH9450000.
B, HCl: Mp 145-147°. Hygroscopic.
 B, H_2SO_4 : [60-13-9]. **Amphetamine sulfate**, USAN.
Ibizoedrine. Bennie
 ▶ SI1750000.
 B, H_3PO_4 : [139-10-6]. **Profetamine phosphate**
 Sinters at ca. 150°. Dec. at ca. 300°.
 ▶ SI0875000.
N-Me: 2-Methylamino-1-phenylpropane. Metamphetamine, INN
 $C_{10}H_{15}N$ M 149.235
 CNS stimulant. Oil. Bp₆₃₋₆₅ 126-127°.
N-Me; B, HCl: [300-42-5].
 Cryst. (EtOH/Et₂O). Mp 135-136°.
 ▶ SH5075000.
N-Formyl: [15302-18-8]. *N-(α -Methylphenethyl)formamide*, 8CI. **Formetorex**, INN. **Formetamide**
 $C_{10}H_{13}NO$ M 163.219
 Anorexic agent. Bp₃ 155-157°.
N-Ac:
 $C_{11}H_{15}NO$ M 177.246
 Needles (EtOH aq.). Mp 64°, becomes 93° on standing.
N-Et: [457-87-4]. **Etilamphetamine**, INN. **Etamphetamine**.
Apetinil
 $C_{11}H_{17}N$ M 163.262
 Neuroleptic and anorexic agent. Bp₁₄ 104.5-106°.
 ▶ SH6810000.
N,N-Di-Me: [49681-82-5].
 Bp₂₀ 115-118°. [1858-47-5, 7528-00-9]

- Hartung, W.H. *et al*, *J. Am. Chem. Soc.*, 1931, **53**, 1875 (*synth*)
 Freudenberg, K. *et al*, *Justus Liebigs Ann. Chem.*, 1934, **510**, 223 (*abs config*)
 Leonard, N.J. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 4858 (*synth*)
 Craig, J.C. *et al*, *Tetrahedron*, 1967, **23**, 3573 (*ord, cd*)
 Cervinka, O. *et al*, *Z. Chem.*, 1968, **8**, 24 (*Formetorex*)
 Vree, T.B. *et al*, *J. Pharm. Pharmacol.*, 1969, **21**, 774 (*props, deriv*)
 Bergin, R. *et al*, *Acta Crystallogr., Sect. B*, 1971, **27**, 2146 (*cryst struct*)
 Bright, S. *et al*, *J. Org. Chem.*, 1973, **38**, 2554 (*conformn*)
 Groot-Wassink, B.H. *et al*, *J. Chem. Educ.*, 1974, **51**, 671 (*synth*)
 Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1975, 5, 18.
Handb. Exp. Pharmacol., 1977, **45**, 3 (*revs*)
Handb. Psychopharmacol., 1978, **11**, 1 (*revs*)
 Caldwell, J., *Amphetamines Relat. Stimul. : Chem. Biol. Clin. Sociol. Aspects*, (Ed.), CRC Press, Boca Raton, Flo., 1980 (*book*)
 Testa, B. *et al*, *J. Pharm. Sci.*, 1980, **69**, 497 (*pharmacol, Dimetamfetamine*)
 Bailey, K. *et al*, *Anal. Chim. Acta*, 1981, **123**, 75 (*cmr*)
 Morgan, J.P., *Subst. Abuse: Clin. Prob. Perspect.*, Williams and Willimas, Baltimore, 1981 (*revs*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1412-1415.
 Smith, H.C. *et al*, *J. Am. Chem. Soc.*, 1983, **105**, 1578 (*synth, Dimetamfetamine*)
 Paulsen-Sörman, U.B. *et al*, *J. Med. Chem.*, 1984, **27**, 342 (*synth, props*)
 Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1273-1275 (*synonyms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AOA250, AOA500, AOB250, AOB500, BBK000, BBK500, BBK750, DBA800, EGI500, MDT600.

3-Phenyl-1H-pyrazole-4,5-dione**P-00173** $C_9H_6N_2O_2$ M 174.159

4-Oxime: [1688-32-0].

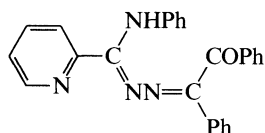
 $C_9H_7N_3O_2$ M 189.173

Used as 1% soln. in EtOH for gravimetric detn. of Cu(I). Red cryst. (AcOH). Sol. AcOH, EtOH, MeOH. Mp 184°.

- Ponzio, G. *et al*, *Gazz. Chim. Ital.*, 1926, **56**, 701 (*synth, oxime*)
 Hovorka, V. *et al*, *Chem. Listy*, 1942, **36**, 73; *CA*, **37**, 4321 (*detn. Cu*)
 Welcher, F.J., *Organic Analytical Reagents*, Vol. 3, Van Nostrand, New York, 1947 (*synth, use, oxime*)
 Makhija, K.K. *et al*, *Indian J. Pure Appl. Phys.*, 1990, **28**, 481 (*cryst struct, oxime*)

N-Phenyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, 9CI**P-00174**

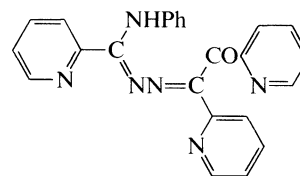
[59158-16-6]

 $C_{26}H_{20}N_4O$ M 404.470

Used as 0.01M soln. in EtOH for photometric detn. of Cu(I) (λ_{max} 475 nm, ϵ 400). Cryst. (EtOH). Sol. EtOH. Mp 147-148°.

Schilt, A.A. *et al*, *Talanta*, 1975, **22**, 915 (*synth, detn, Cu*)**N-Phenyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, 9CI****P-00175**

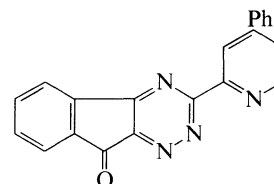
[59158-17-7]

 $C_{24}H_{18}N_6O$ M 406.446

Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 618 nm, ϵ 8300), Cu(I), Co, Ni. Cryst. (EtOH). Sol. EtOH. Mp 173-174°.

Schilt, A.A. *et al*, *Talanta*, 1975, **22**, 915 (*synth, use*)**3-(4-Phenyl-2-pyridinyl)-9H-indeno[1,2-e]-1,2,4-triazin-9-one, 9CI****P-00176**

[37004-80-1]

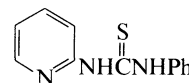
 $C_{21}H_{12}N_4O$ M 336.352

Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 493 nm, ϵ 9300), Fe(II) (λ_{max} 581 nm, ϵ 28900). Cryst. (2-methoxyethanol). Sol. common org. solvs. Mp 229-230°.

Case, F.H., *J. Heterocycl. Chem.*, 1972, **9**, 457 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn. Cu, Fe*)

N-Phenyl-N'-pyridinylthiourea, 9CI**P-00177**

[886-60-2]

 $C_{12}H_{11}N_3S$ M 229.305

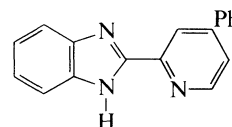
Used as 1mM soln. in aq. Me₂CO for photometric detn. of Sb (λ_{max} 410 nm, ϵ 30000), Rh (λ_{max} 335 nm, ϵ 28000). Yellow cryst. Sol. Me₂CO. Mp 172°.

▷ YU1380000.

Mathur, S.P. *et al*, *Rev. Latinoam. Quim.*, 1975, **6**, 160; *CA*, **84**, 98852m (*detn. Sb*)
 Usatenko, Yu.I. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1211 (*detn. Rh*)

2-(4-Phenyl-2-pyridyl)benzimidazole, 8CI**P-00178**

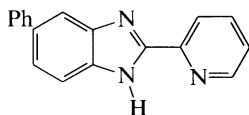
[14060-59-4]

 $C_{18}H_{13}N_3$ M 271.321

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 540 nm, ϵ 4200). Cryst. (C₆H₆). Sol. common org. solvs. Mp 209-210°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, 4, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, 15, 1055 (use)

5-Phenyl-2-(2-pyridyl)benzimidazole, 8CI P-00179
[14060-65-2]

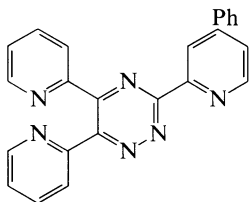


C₁₈H₁₃N₃ M 271.321

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 550 nm, ϵ 2600). Cryst. (C₆H₆/pet. ether). Sol. common org. solvents. Mp 150-151°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, 4, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, 15, 1055 (use)

3-(4-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine P-00180

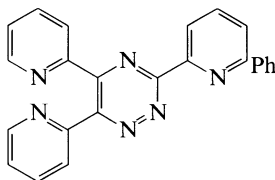


C₂₄H₁₆N₆ M 388.431

Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 571 nm, ϵ 22700), Cu(I) (λ_{\max} 504 nm, ϵ 5200). Cryst. (2-methoxyethanol aq.). Sol. EtOH, 2-methoxyethanol; sl. sol. H₂O. Mp 171-172°.

Case, F.H., *J. Org. Chem.*, 1965, 30, 931 (synth)
Schilt, A.A., *Talanta*, 1966, 13, 895 (use)

3-(6-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine P-00181
[18895-99-3]

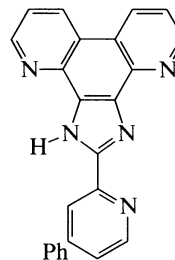


C₂₄H₁₆N₆ M 388.431

Used as a 5mM soln. in aq. EtOH to give colour reactions with Co, Cu(I), Fe(II). Cryst. (EtOH). Sol. common org. solvs. Mp 175-176°.

Case, F.H., *J. Heterocycl. Chem.*, 1968, 5, 413 (synth)
Schilt, A.A. et al, *Talanta*, 1970, 17, 649 (use)

2-(4-Phenyl-2-pyridyl)-1H-imidazo[4,5-f][4,7]phenanthroline, 8CI P-00182
[14040-62-1]

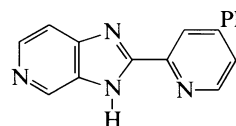


C₂₄H₁₅N₅ M 373.416

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II). Cryst. (C₆H₆). Sol. common org. solvs., dil. HCl. Mp 167-168°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, 4, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, 15, 1055 (use)

2-(4-Phenyl-2-pyridyl)-1H-imidazo[4,5-c]pyridine, 8CI P-00183
[14060-64-1]

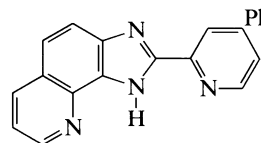


C₁₇H₁₂N₄ M 272.309

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 566 nm, ϵ 9600). Cryst. (EtOH). Sol. common org. solvs., dil. HCl. Mp 253-254°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, 4, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, 15, 1055 (use)

2-(4-Phenyl-2-pyridyl)-3H-imidazo[4,5-h]quinoline, 8CI P-00184
[14044-51-0]

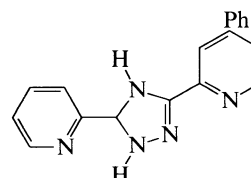


C₂₁H₁₄N₄ M 322.368

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II). Cryst. (C₆H₆). Sol. common org. solvs. Mp 110-111°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, 4, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, 15, 1055 (use)

3-(4-Phenyl-2-pyridyl)-5-(2-pyridyl)-1,2,4-triazoline P-00185
4-Phenyl-2,2'- Δ^2 -1,2,4-triazoline-3,5-diyl dipyridine, 8CI

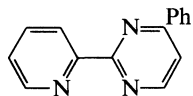


C₁₈H₁₅N₅ M 301.350

Used as a 5mM soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 531 nm, ϵ 7700). Cryst. (C₆H₆). Sol. common org. solvs. Mp 148°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, 7, 1001 (synth)
Schilt, A.A. et al, *Talanta*, 1974, 21, 831 (detn, Fe)

4-Phenyl-2-(2-pyridyl)pyrimidine, 8CI **P-00186**
[10198-69-3]

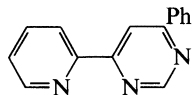


C₁₅H₁₁N₃ M 233.272

Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 425 nm, ϵ 4200), Fe(II) (λ_{\max} 531 nm, ϵ 10800). Cryst. (Et₂O). Sol. C₆H₆, Me₂CO, EtOH, dil. HCl. Mp 76-77°.

Lafferty, J.J. et al, *J. Org. Chem.*, 1967, 32, 1591 (synth)
Schilt, A.A. et al, *Talanta*, 1969, 16, 519 (use)

4-Phenyl-6-(2-pyridyl)pyrimidine, 8CI **P-00187**
[10198-90-0]



C₁₅H₁₁N₃ M 233.272

Used as 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 487 nm, ϵ 3400), Fe(II) (λ_{\max} 569 nm, ϵ 7600). Cryst. Sol. C₆H₆, dil. HCl.

Schilt, A.A. et al, *Talanta*, 1969, 16, 519 (use)

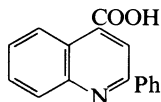
5-Phenyl-2-(2-pyridyl)pyrimidine, 8CI **P-00188**
[10198-81-9]

C₁₅H₁₁N₃ M 233.272

Used as a 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 425 nm, ϵ 4600), Fe(II) (λ_{\max} 525 nm, ϵ 7000). Cryst. (C₆H₆). Sol. C₆H₆, Me₂CO, EtOH, dil. HCl. Mp 159-160°.

Lafferty, J.J. et al, *J. Org. Chem.*, 1967, 32, 1591 (synth)
Schilt, A.A. et al, *Talanta*, 1969, 16, 519 (use)

2-Phenyl-4-quinolinecarboxylic acid, 9CI **P-00189**
2-Phenylcinchoninic acid. Cinchophen, INN. Atophan. Quinophen. Aciphenoquinoline
[132-60-5]



C₁₆H₁₁NO₂ M 249.268

Analgesic, antiinflammatory, no longer in widespread use. Used as 0.01M aq. soln. of Na salt for extraction-photometric detn. of Sc and lanthanides. Cryst. (MeOH). Insol. H₂O. Mp 218°.

▷ GD4025000.

B, HCl: Lemon-yellow cryst. Mp 223°.

B, HBr: Brownish-yellow cryst. Mp 255°.

B, HI: Orange cryst. Mp 243°.

Me ester: [4546-48-9].

C₁₇H₁₃NO₂ M 263.295

Mp 61°. Bitter taste.

Et ester: [4420-46-6].

C₁₈H₁₅NO₂ M 277.322

Cryst. (EtOH). Mp 51°.

2-Propenyl ester: [524-34-5]. *Allylcinchophen. Atoquinol*

C₁₈H₁₅NO₂ M 289.333

Antiinflammatory. Analgesic. Cryst. (EtOH). Mp 30°.

Bp₁₅ 265°, Bp_{0.8} 215°.

Amide: [29197-45-3].

C₁₆H₁₂N₂O M 248.284

Mp 196°.

Nitrile: [2973-26-4]. *2-Phenyl-4-quinolinecarbonitrile. 4-Cyano-2-phenylquinoline*

C₁₆H₁₀N₂ M 230.268

Cryst. (EtOH). Mp 140°.

B, MeI: Red cryst. (EtOH aq.). Mp 160-165° dec.

1-Oxide: [20389-12-2].

C₁₆H₁₁NO₃ M 265.268

Cryst. (EtOH). Mp 255-256°.

Doebner, O. et al, *Justus Liebig's Ann. Chem.*, 1887, 242, 290 (synth)

Pfützing, W., *J. Prakt. Chem.*, 1897, 56, 293 (synth)

U.S. Pat., 1 336 952, (1920); *CA*, 14, 1736 (deriv)

Rosenmund, K.W., *Ber.*, 1921, 54, 2893 (deriv)

Du Puis, R.N. et al, *J. Am. Chem. Soc.*, 1934, 56, 471.

Poluektov, N.S. et al, *Zh. Anal. Khim.*, 1972, 27, 266 (detn, rare earths)

Belt'yukova, S.V., *Zh. Anal. Khim.*, 1975, 30, 1321 (detn, Sc)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2627.

Ozawa, F. et al, *J. Org. Chem.*, 1986, 51, 415 (synth)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 5813.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PGG000.

1-Phenyl-3-(selenophen-2-yl)-1,3-propanedione, 9CI **P-00190**

Benzoylselenoylmethane. 2-(Benzoylacetyl)selenophene
[10471-68-8]

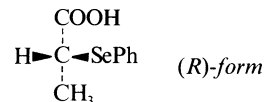


C₁₃H₁₀O₂Se M 277.181

Used as a satd. EtOH soln. for extraction-photometric detn. of Cu (λ_{\max} 355 nm, ϵ 45700, CHCl₃). Yellow cryst. (MeOH). Sol. common org. solvents. Mp 65-66°. Bp₆ 276-277°.

Yurev, Y.K. et al, *Zh. Obshch. Khim.*, 1961, 31, 1449; *CA*, 55, 23491g (synth, detn, Cu)

2-(Phenylseleno)propanoic acid **P-00191**
[34598-65-7]



C₉H₁₀O₂Se M 229.137

Reagent for enantiomer analysis of alcohols by ⁷⁷Se NMR and for enantioselective synth.

(R)-form

$[\alpha]_D^{25} + 93.0^\circ$ (c, 1.986 in EtOH).

(S)-form

$[\alpha]_D^{25} - 93.0^\circ$ (c, 1.632 in EtOH).

(±)-form

Mp 49-50°.

Petragnani, N. et al, *Synthesis*, 1978, 476 (synth)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, 8, 397 (use)
 Michelsen, P. et al, Chem. Scr., 1984, 24, 251 (synth, use)
 Michelsen, P. et al, J. Chromatogr., 1985, 331, 295 (use)

2-Phenylsemicarbazide**P-00192**

1-Phenylhydrazinecarboxamide, 9CI
 [39538-93-7]



$\text{C}_7\text{H}_9\text{N}_3\text{O}$ M 151.168

Used as a 0.1% soln. in EtOH for photometric detn. of Cu. Needles (EtOH). Mp 118-119°.

4-Et:

$\text{C}_9\text{H}_{13}\text{N}_3\text{O}$ M 179.221

Plates (EtOH aq.). Mp 88°.

Picrate: Yellow needles (EtOH). Mp 163°.

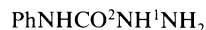
Skibina, E.H., Zh. Anal. Khim., 1952, 7, 244 (use)

Fischer, A. et al, J. Chem. Soc., 1965, 7444 (synth)

Pilgram, K. et al, J. Heterocycl. Chem., 1976, 13, 1257 (synth)

4-Phenylsemicarbazide**P-00193**

N-Phenylhydrazinecarboxamide, 9CI
 [537-47-3]



$\text{C}_7\text{H}_9\text{N}_3\text{O}$ M 151.168

Reagent for the identification of aldehydes and ketones.

Plates (H_2O), needles (C_6H_6). Mp 128°.

B.HCl: Prisms. Mp 215°.

2-Me: [19102-24-0].

$\text{C}_8\text{H}_{11}\text{N}_3\text{O}$ M 165.194

Mp 93-94°.

1,1-Di-Me: [6297-20-7].

$\text{C}_9\text{H}_{13}\text{N}_3\text{O}$ M 179.221

Mp 108°.

Org. Synth., Coll. Vol., 1, 1932, 439 (synth)

Sah, P.P.T. et al, J. Chin. Chem. Soc. (Peking), 1934, 2, 32; CA, 28, 3713 (use)

N-(Phenylsulfonyl)benzamide**P-00194**

[3559-04-4]



$\text{C}_{13}\text{H}_{11}\text{NO}_3\text{S}$ M 261.301

Cryst. (EtOH aq.). Mp 146-147°. $\text{p}K_{\text{a}1}$ 6.03; $\text{p}K_{\text{a}2}$ 11.8.

Oxime: [20037-46-1]. Benzohydroxamic acid benzenesulfonamide. N-(Phenylsulfonyl)benzamidoxime, 8CI

$\text{C}_{13}\text{H}_{12}\text{N}_2\text{O}_3\text{S}$ M 276.315

Used as a 0.05M aq. soln. for extraction-photometric detn. of Fe (λ_{max} 540 nm, ϵ 2300), Ru(IV) (λ_{max} 640 nm, ϵ 3200, butanol/ CHCl_3). Cryst. (CCl_4 , H_2O). Sol. EtOH, hot C_6H_6 , Me_2CO , CCl_4 , Et_2O , H_2O .

Thompson, Q.E., J. Am. Chem. Soc., 1951, 73, 5841 (synth)

McFarland, J.W. et al, J. Org. Chem., 1966, 31, 1903 (synth)

Abrazhanova, E.A. et al, Zh. Anal. Khim., 1968, 23, 1418 (synth, oxime, detn, Fe)

Khinkovich, E.A. et al, Khim. Khim. Tekhnol. (Minsk), 1971, 14, 346; CA, 75, 29560s (detn, Ru)

Fedorova, N.G., Zh. Anal. Khim., 1971, 26, 664 (pKa)

(Phenylsulfonyl)carbonimidodithioic acid, 9CI**P-00195**

Benzenesulfodithiocarbamic acid
 [5706-64-9]



$\text{C}_7\text{H}_7\text{NO}_2\text{S}_3$ M 233.336

Di-K salt: Used for photometric detn. of Co. Red-orange cryst. (EtOH). Sol. H_2O . Mp 310° dec.

Tandon, S.N. et al, Fresenius' Z. Anal. Chem., 1971, 253, 36 (synth, use)

N-(Phenylsulfonyl)glycine, 9CI**P-00196**

N-Benzenesulfonylglycine
 [5398-96-9]



$\text{C}_8\text{H}_9\text{NO}_4\text{S}$ M 215.229

Used as soln. in Me_2CO for titrimetric detn. of Hg(II). Cryst. (EtOH). Sol. hot H_2O , EtOH, dioxan, Me_2CO ; spar. sol. cold H_2O , toluene, C_6H_6 , Et_2O . Mp 165-166°.

Ghosh, N.N. et al, J. Indian Chem. Soc., 1963, 40, 945; 1964, 41, 286 (detn, Hg)

Phenyltellurous acid**P-00197**

Benzenetellenic acid



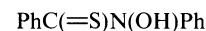
$\text{C}_6\text{H}_6\text{O}_2\text{Te}$ M 237.712

Used for pptn. of Ag, Bi, Cr, Fe, Hf, Nb, Pb, Sn, Ta, Ti, Th, Zr. Cryst.

Alimarin, I.P., Chem. Anal. (Warsaw), 1957, 2, 222 (use)

N-Phenylthiobenzohydroxamic acid, 8CI**P-00198**

[13034-85-0]



$\text{C}_{13}\text{H}_{11}\text{NOS}$ M 229.302

Used as 1% soln. in EtOH for gravimetric detn. of Cu, Fe. Cryst. (EtOH). Mp 101-102°. $\text{p}K_{\text{a}1}$ 8.1.

Brydon, G.A. et al, Anal. Chim. Acta, 1966, 35, 190 (synth, pKa)

Cassidy, R.H. et al, Anal. Chim. Acta, 1968, 41, 319 (detn, Cu)

Abraham, D. et al, Anal. Chim. Acta, 1969, 48, 93 (detn, Fe)

1-Phenylthiosemicarbazide**P-00199**

[645-48-7]



$\text{C}_7\text{H}_9\text{N}_3\text{S}$ M 167.234

Used as 0.5% soln. in Me_2CO for photometric detn. of Co. Cryst. (EtOH). Mp 200-201° dec.

▶ VT3850000.

Fischer, E., Justus Liebigs Ann. Chem., 1882, 212, 324 (synth)

Koshkin, N.V. et al, Zh. Anal. Khim., 1963, 18, 757 (detn, Co)

Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, PGM750.

4-Phenylthiosemicarbazide**P-00200**

N-Phenylhydrazinecarbothioamide, 9CI
 [5351-69-9]



$\text{C}_7\text{H}_9\text{N}_3\text{S}$ M 167.234

Used for photometric detn. of Se and Te (reagent acts as reductor in acid medium). Plates (EtOH). Sol. EtOH. Mp 138-140°.

▷ VT4025000.

Czugler, M. *et al*, *Cryst. Struct. Commun.*, 1973, **6**, 645 (*cryst struct*)

Furlani, C. *et al*, *Gazz. Chim. Ital.*, 1973, **103**, 951 (*synth*)

Florean, E. *et al*, *Chujul Med.*, 1982, **55**, 144; *CA*, **98**, 154478x (*detn, Se, Te*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PGN000.

Phenylthiourea, 9CI

P-00201

[103-85-5]



$\text{C}_7\text{H}_8\text{N}_2\text{S}$ M 152.220

Used as 2.5% soln. in EtOH or aq. DMF for extraction-photometric detn. of Pd (λ_{max} 400 nm, ϵ 3000), Re (λ_{max} 410 nm, CHCl_3). Needles (H_2O). Mp 154°.

▷ Highly toxic. Emits toxic fumes in contact with acids or on heating to dec.. YU1400000.

1-N-Ac: [22713-55-9]. N-(Aminothioxomethyl)-N-phenylacetamide, 9CI. N-Acetyl-N-phenylthiourea

$\text{C}_9\text{H}_{10}\text{N}_2\text{OS}$ M 194.257

Prisms (EtOH aq.). Mp 140° (139° dec.).

3-N-Ac: [1132-44-1]. N-[(Phenylamino)thioxomethyl]acetamide, 9CI. N-Acetyl-N'-phenylthiourea

$\text{C}_9\text{H}_{10}\text{N}_2\text{OS}$ M 194.257

Cryst. (EtOH aq.). Mp 173°.

1-N-Benzoyl: [98095-85-3]. N-(Aminothioxomethyl)-N-phenylbenzamide, 9CI. N-Benzoyl-N-phenylthiourea

$\text{C}_{14}\text{H}_{12}\text{N}_2\text{OS}$ M 256.328

Mp 133-137°.

3-N-Benzoyl: [4921-82-8]. N-[(Phenylamino)thioxomethyl]benzamide, 9CI. N-Benzoyl-N'-phenylthiourea

$\text{C}_{14}\text{H}_{12}\text{N}_2\text{OS}$ M 256.328

Used as toluene soln. for extraction separation of Pd(II). Cryst. (EtOH). Mp 141-143°.

▷ YS1400000.

3-N-Me: [2724-69-8]. N-Methyl-N'-phenylthiourea, 9CI

$\text{C}_8\text{H}_{10}\text{N}_2\text{S}$ M 166.246

Needles. Mp 113°.

▷ YT8750000.

3-N-Di-Me: [705-62-4]. N,N-Dimethyl-N'-phenylthiourea, 9CI

$\text{C}_9\text{H}_{12}\text{N}_2\text{S}$ M 180.273

Prisms (EtOH). Mp 134-135°.

Schiff, H., *Justus Liebigs Ann. Chem.*, 1868, **148**, 338.

Pollock, E.N., *Anal. Chim. Acta*, 1969, **47**, 367 (*detn, Re, synth*)

Jackson, F.H. *et al*, *J. Chem. Soc. C*, 1969, 268 (*synth*)

Loev, B. *et al*, *J. Med. Chem.*, 1972, **15**, 1024 (*synth, use*)

Joshua, C.P. *et al*, *Chem. Ind. (London)*, 1974, 750 (*synth*)

Patil, S.P. *et al*, *Mikrochim. Acta*, 1974, 853 (*detn, Pd*)

Kaválek, J. *et al*, *Collect. Czech. Chem. Commun.*, 1985, **50**, 766 (*synth, pmr, cmr, derivs*)

Vest, P. *et al*, *Fresenius' Z. Anal. Chem.*, 1989, **335**, 759 (*detn, Pd*)

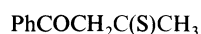
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MOA500, PGN250.

1-Phenyl-3-thioxo-1-butanone, 9CI

P-00202

Benzoylthioacetone

[15473-63-9]



$\text{C}_{10}\text{H}_{10}\text{OS}$ M 178.254

Used as a 1mM soln. in C_6H_6 for extraction-photometric detn. of Co (λ_{max} 460 nm, C_6H_6), Hg (λ_{max} 345 nm, ϵ 17000), Ni. Cryst. Sol. common org. solvs.

Leban, M. *et al*, *Aust. J. Chem.*, 1974, **27**, 2353.

Murti, M.V.R. *et al*, *Talanta*, 1976, **23**, 246 (*detn, Co, Ni*)

Murti, M.V.R. *et al*, *Bull. Chem. Soc. Jpn.*, 1977, **50**, 738 (*detn, Hg*)

4-Phenyl-4-thioxo-2-butanone, 9CI

P-00203

Monothioibenzoylacetone

[15473-64-0]



$\text{C}_{10}\text{H}_{10}\text{OS}$ M 178.254

Used a 1mM C_6H_6 soln. for extraction-photometric detn. of Cd (λ_{max} 390 nm, ϵ 21000, pH ~ 12). Cryst. Sol. C_6H_6 .

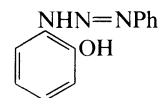
Murti, M.V. *et al*, *Indian J. Chem., Sect. A*, 1976, **14**, 455 (*synth*)

Murti, M.V. *et al*, *Chem. Anal. (Warsaw)*, 1978, **23**, 593 (*detn, Cd*)

2-(3-Phenyl-2-triazenyl)phenol

P-00204

3-(2-Hydroxyphenyl)-1-phenyl-1-triazene



$\text{C}_{12}\text{H}_{11}\text{N}_3\text{O}$ M 213.238

N^1 -Oxide: [92071-88-0].

$\text{C}_{12}\text{H}_{11}\text{N}_3\text{O}_2$ M 229.238

Used as 0.2mM EtOH soln. for fluorimetric detn. of Zr (λ_{max} 570 nm, pH 1.6-2), Nb (λ_{max} 540 nm, pH 3.2-5). Yellow cryst. (EtOH aq.). Sol. EtOH; sl. sol. H_2O .

Pal, B.K. *et al*, *Mikrochim. Acta*, 1984, **2**, 121; 1985, **1**, 437 (*synth, detn, Zr, Nb*)

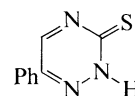
Samanta, C. *et al*, *Acta Crystallogr., Sect. C*, 1985, **41**, 142 (*cryst struct*)

6-Phenyl-1,2,4-triazine-3(2H)-thione, 9CI

P-00205

2,3-Dihydro-6-phenyl-1,2,4-triazine-3-thione

[27623-09-2]



$\text{C}_9\text{H}_7\text{N}_3\text{S}$ M 189.240

Used as 1mM soln. in CHCl_3 for gravimetric detn. of Pd, Tl(I), extraction-photometric detn. of Hg(II) (λ_{max} 430 nm, ϵ 6090, CHCl_3) and Cu (λ_{max} 500 nm, ϵ 5000). Yellow cryst. (DMSO). Sol. CHCl_3 . Mp 242-243°.

Lalezari, I. *et al*, *J. Heterocycl. Chem.*, 1970, **7**, 689 (*synth*)

Edrissi, M. *et al*, *Talanta*, 1972, **19**, 814 (*detn, Tl, Pd*)

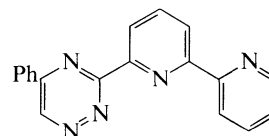
Maghssoudi, R.H. *et al*, *Anal. Chem.*, 1975, **47**, 550, 1694 (*detn, Hg, Cu*)

6-(5-Phenyl-1,2,4-triazin-3-yl)-2,2'-bipyridine, 9CI

P-00206

3-(2,2'-Bipyridin-6-yl)-5-phenyl-1,2,4-triazine

[42838-36-8]



C₁₉H₁₃N₅ M 311.345

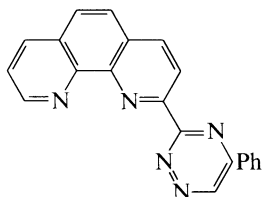
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 545 nm, ϵ 3350), Cu(I) (λ_{\max} 450 nm, ϵ 4600), Fe(II) (λ_{\max} 583 nm, ϵ 14500). Cryst. (2-methoxyethanol). Sol. common org. solvs. Mp 196°.

Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (*synth*)
Schilt, A.A. *et al. Talanta*, 1977, **24**, 685 (*use*)

2-(5-Phenyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, 9CI

P-00207

3-[2-(1,10-Phenanthrolyl)]-5-phenyl-1,2,4-triazine
[42838-35-7]

C₂₁H₁₃N₅ M 335.367

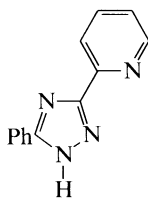
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 555 nm, ϵ 1850), Cu(I) (λ_{\max} 440 nm, ϵ 3600), Fe(II) (λ_{\max} 604 nm, ϵ 18000). Cryst. (EtOH). Sol. common org. solvs. Mp 254°.

Case, F.H., *J. Heterocycl. Chem.*, 1973, **10**, 353 (*synth*)
Schilt, A.A. *et al. Talanta*, 1977, **24**, 685 (*use*)

2-(5-Phenyl-1H-1,2,4-triazol-3-yl)pyridine, 9CI

P-00208

5-Phenyl-3-(2-pyridyl)-1H-1,2,4-triazole
[25433-29-8]

C₁₃H₁₀N₄ M 222.249

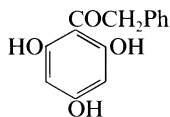
Used as 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 470 nm, ϵ 4000, EtOH aq.). Cryst. (C₆H₆). Sol. common org. solvs. Mp 212-213°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (*synth*)
Schilt, A.A. *et al. Talanta*, 1974, **21**, 831 (*detn. Fe*)

2-Phenyl-1-(2,4,6-trihydroxyphenyl)ethanone

P-00209

Benzyl 2,4,6-trihydroxyphenylketone. 2-(Phenylacetyl)-1,3,5-benzenetriol

C₁₄H₁₂O₄ M 244.246

Used as 0.1% soln. in EtOH for photometric detn. of Ti. Cryst.

Paul, S.D., *Anal. Chim. Acta*, 1963, **28**, 494 (*detn. Ti*)

N-Phenyl-N-(trimethylsilyl)acetamide, 9CI

P-00210

N-(Trimethylsilyl)acetanilide, 8CI

[10557-63-8]

AcNPhSiMe₃C₁₁H₁₇NOSi M 207.347

Silylation reagent for gc anal. of alcohols and phenols.

Liq. d₄²⁰ 0.9745. Bp 222°, Bp₁₃ 105°. n_D²⁰ 1.4986.Birkofer, L. *et al. Chem. Ber.*, 1969, **102**, 3094 (*synth*)Fukui, M. *et al. J. Chem. Soc., Perkin Trans. 2*, 1972, 1043 (*synth*)Piekos, R. *et al. J. Chromatogr.*, 1976, **117**, 431 (*synth, use*)

Phenylurea, 9CI

P-00211

[64-10-8]

PhNHCONH₂C₇H₈N₂O M 136.153Needles or plates (H₂O), tablets (EtOH). Sol. hot H₂O.

Mp 147°. Bp 238°.

▷ YU0650000.

B,HCl: Plates. Mp 114-116° dec. Dec. by H₂O.

1-N-Ac:

C₉H₁₀N₂O₂ M 178.190Needles (H₂O). Mp 167°.

3-N-Ac:

C₉H₁₀N₂O₂ M 178.190Needles (H₂O or EtOH). Mp 183°.

1-N-Nitroso:

C₇H₇N₃O₂ M 165.151Yellow needles (Et₂O/pet. ether). Mp 95° dec.

▷ Exp. carcinogen.

N-Hydroxy: [33108-63-3]. 1-Hydroxy-1-phenylurea, 9CI.

Anilinohydroxamic acid

C₇H₈N₂O₂ M 152.152

Gives colour reactions with Fe, Os, U. Cryst. Sol.

EtOH, Me₂CO.Org. Synth., *Coll. Vol.*, 1, 1932, 453 (*synth*)White, H.C. *et al. J. Org. Chem.*, 1942, **7**, 497 (*synth*)Binder, L.O. *et al. J. Chem. Educ.*, 1946, **23**, 285 (*synth*)Bass, V.C. *et al. Talanta*, 1966, **13**, 735 (*use, N-OH*)Daniher, F.A., *J. Org. Chem.*, 1969, **34**, 2908 (*synth*)Baumgarten, H.E. *et al. J. Org. Chem.*, 1976, **41**, 3805 (*synth*)Kashino, S. *et al. Acta Crystallogr., Sect. B*, 1977, **33**, 855 (*cryst struct*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PGP250.

Phloxin

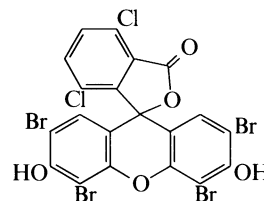
P-00212

2',4',5',7'-Tetrabromo-4,7-dichloro-3',6'-

dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one.

Dichloro(P)tetrabromo(R)fluorescein. C.I. Acid red 98. C.I. 45405

[6441-77-6]

C₂₀H₆Br₄Cl₂O₅ M 716.786

Strictly, the name Phloxin applies to the dipotassium salt.

Di-K salt: Used as a 2% soln. in EtOH as an adsorption indicator for titrimetric detn. of Br^\ominus , I^\ominus ; fluorimetric indicator; fluorimetric detn. of Ag, Pb. Orange red cryst. powder. Sol. H_2O . Aq. soln. cherry red with greenish-yellow fluoresc.

Gomes, D.J. *et al*, *Rev. Port. Farm.*, 1971, **21**, 363; *CA*, **77**, 69657b (use)

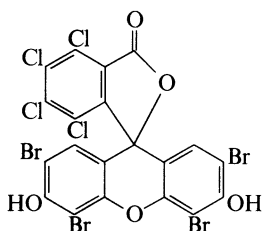
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)

Talipov, S.T. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1973, **16**, 299; *CA*, **78**, 168179z (detn. Ag, Pb)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CMM000.

Phloxine B**P-00213**

2',4',5',7'-Tetrabromo-4,5,6,7-tetrachloro-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9Cl. Phloxine BA. Tetrabromo(R)tetrachloro(P)fluorescein. C.I. Acid red 92. Cyanosine. C.I. 45410. Eosin 10B [13473-26-2]



$\text{C}_{20}\text{H}_4\text{Br}_4\text{Cl}_4\text{O}_5$ M 785.675

Strictly the trade names given apply to the disodium salt. Sol. alkalis.

Di-Na salt: [18472-87-2].

Printing ink and cosmetic dye. Used as a 0.2% aq. soln. as acid-base fluorescent indicator (pH range: 2.5 - 4.0). Biological stain. Orange-red cryst. powder. Sol. H_2O , EtOH. A soln. shows dark green (H_2O) or brick red (EtOH) fluorescence.

▷ LM5900000.

[20266-44-8, 75888-73-2]

Orndorff, W.R. *et al*, *J. Am. Chem. Soc.*, 1914, **36**, 701 (synth, w)

Wales, H., *J. Am. Chem. Soc.*, 1923, **45**, 2421 (Na salt, w)

Holmes, W.C., *J. Am. Chem. Soc.*, 1924, **46**, 2770 (K salt, w)

Adelman, A.H. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 3977 (fluor)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)

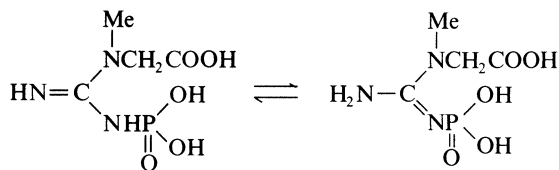
Gardin, E. *et al*, *J. Chromatogr.*, 1982, **249**, 393 (chromatog)

Van Liedekerke, B.M. *et al*, *J. Chromatogr.*, 1990, **528**, 155 (chromatog)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ADG250.

N-Phosphocreatine**P-00214**

N-[Imino(phosphonoamino)methyl]-N-methylglycine, 9Cl. Creatine phosphate. N^ω -Phosphonocreatine. N-(N-Phosphonoamidino)sarcosine. Phosphagen [67-07-2]



$\text{C}_4\text{H}_{10}\text{N}_3\text{O}_5\text{P}$ M 211.114

Energy source in vertebrate muscle and nerve tissue. $\text{pK}_{\text{a}2}$ 4.6. Isol. as Ca salt.

Di-Na salt: [922-32-7].

Used as a substrate for the detn. of creatine phosphokinase activity. Platelets (EtOH/aq.). V. sol. H_2O .

P,P-Di-Ph ester: N-[Imino(diphenoxyphosphinylamino)methyl]-N-methylglycine

$\text{C}_{16}\text{H}_{18}\text{N}_3\text{O}_5\text{P}$ M 363.309

Cryst. (MeOH aq.). Mp 141-142°.

P,P-Di-Ph ester, C-benzyl ester: Benzyl N-[Imino(diphenoxyphosphinylamino)methyl]-N-methylglycinate

$\text{C}_{23}\text{H}_{24}\text{N}_3\text{O}_5\text{P}$ M 453.433

Cryst. (MeOH aq.). Mp 103°.

Cramer, F. *et al*, *Chem. Ber.*, 1959, **92**, 392 (synth)

Ennor, A.H. *et al*, *Phys. Rev.*, 1959, **38**, 631 (rev)

Berlet, H.H., *Anal. Biochem.*, 1974, **60**, 347 (isol)

Richard, R.E. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1974, 368 (N mnr)

Maudsley, A.A. *et al*, *J. Magn. Reson.*, 1983, **51**, 147 (P nmr)

Phosphoramidothioic acid O,O-bis(1-methylethyl)ester, 9Cl**P-00215**

N-(O,O-Diisopropylthiophosphoryl)thiobenzamide [66078-55-5]

$\text{PhCSNHPS}[\text{OCH}(\text{CH}_3)_2]_2$

$\text{C}_{13}\text{H}_{20}\text{NO}_2\text{PS}_2$ M 317.412

Used as 3mM CCl_4 soln. for extraction separation of Cu(II) (from Fe(III) and other elements, pH ~ 2).

Cryst. pK_{a} 8.2 (40% propanol).

Pudovik, A.N. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1979, 861 (synth)

Toropova, V.F. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1739 (synth, detn. Cu)

Zimin, M.G. *et al*, *Zh. Obshch. Khim.*, 1982, **52**, 1776 (props)

Phosphorodithioic acid O,O-bis(2-methylallyl) ester**P-00216**

O,O-Bis(2-methylallyl)phosphorodithioate, 9Cl [26930-07-4]

$[\text{H}_2\text{C}=\text{C}(\text{CH}_3)\text{CH}_2\text{O}]_2\text{PSSH}$

$\text{C}_8\text{H}_{15}\text{O}_2\text{PS}_2$ M 238.311

Used for extraction of As, Bi, Cu, Fe(III), Mo, Os, Pb, Pd, Pt, Rh, Ru; flotation of In, Sn, Tl(I), Tl(III). Cryst. (MeOH/Me₂CO). $\text{Bp}_{0.001}$ 58°.

K salt: [26933-93-7].

Cryst. Sol. common org. solvs. Mp 115°.

Zemlyanskii, N.I. *et al*, *Zh. Obshch. Khim.*, 1969, **39**, 2461 (synth)

Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 1151.

Mel'nik, Y.I. *et al*, *Zh. Obshch. Khim.*, 1970, **40**, 791 (synth)

Phosphorotrithioic acid O-[2-(diethylamino)ethyl] ester**P-00217**

O-[2-(Diethylamino)ethyl]phosphorotrithioate, 9Cl

$\text{Et}_2\text{NCH}_2\text{CH}_2\text{OPS}(\text{SH})_2$

$\text{C}_6\text{H}_{16}\text{NOPS}_3$ M 245.370

Used for extraction of Cu, Mo, Pt; flotation of Co, In, Fe(III), Mo, Ni, Tl(I), Tl(III), Zr. Cryst. (MeOH/Me₂CO).

Di-K salt: [20583-15-7].

Sol. common org. solvs. Mp 195° dec.

Gupalo, A.P. *et al*, *CA*, 1968, **69**, 76552b (synth)

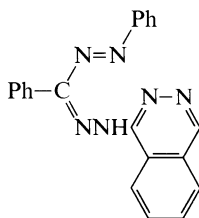
Pilipenko, A.T. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 1151.

Phosphorotrithioic acid *O*-[2-(dimethylamino)ethyl]ester P-00218*O*-[2-(Dimethylamino)ethyl]phosphorotrithioate, 9CI $\text{C}_4\text{H}_{12}\text{NOPS}_3$ M 217.317Used for extraction of Cu, Mo, Pt; flotation of In, Fe(III), Tl(I), Tl(III), Zr. Cryst. (MeOH/Me₂CO).*Di-K salt*: [20583-13-5].

Cryst. Sol. common org. solvs. Mp 180° dec.

Gupalo, A.P. *et al.*, *CA*, 1968, **69**, 76552b (*synth*)Pilipenko, A.T. *et al.*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 1151.**1-(1-Phthalazinyl)-3,5-diphenylformazan** P-00219*1*-(2H)-Phthalazinone [phenyl(phenylazo)methylene] hydrazone, 9CI

[67073-40-9]

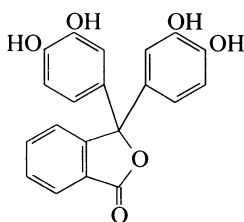
 $\text{C}_{21}\text{H}_{16}\text{N}_6$ M 352.398Used as 2mM soln. in EtOH for extraction-photometric detn. of Hg (λ_{max} 520 nm, ϵ 42000, CHCl₃). Orange-brown cryst. (cyclohexane). Sol. EtOH, cyclohexane, CHCl₃, DMF.Podchainova, V.N. *et al.*, *Zh. Anal. Khim.*, 1979, **34**, 688 (*synth, detn. Hg*)Barbina, T.M. *et al.*, *Zh. Anal. Khim.*, 1983, **38**, 1222 (*detn. Hg*)**Phthalein violet** P-00220

3,3-Bis(3,4-dihydroxyphenyl)-1(3H)-isobenzofuranone, 9CI.

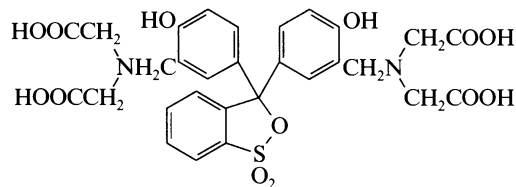
2,2-Bis(3,4-dihydroxyphenyl)phthalide.

Pyrocatecholphthalein

[596-28-1]

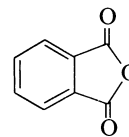
 $\text{C}_{20}\text{H}_{14}\text{O}_6$ M 350.327Used as a 0.25% soln. in EtOH for photometric detn. of B. Black cryst. powder. Sol. EtOH, Me₂CO.Patrovsky, V., *Talanta*, 1963, **10**, 175 (*synth, detn. B*)**Phthalexon S** P-00221*N,N'*-[3H-2,1-Benzoxathiol-3-ylidenebis(6-hydroxy-3,1-phenylene)methylene]]bis[N-(carboxymethyl)glycine] S,S-dioxide, 9CI

[32736-66-6]

 $\text{C}_{29}\text{H}_{28}\text{N}_2\text{O}_{13}\text{S}$ M 644.612Used as 1 mM aq. soln. for photometric detn. of Bi, Zr, Th, rare earth elements. Dark cryst. powder. Sol. H₂O, EtOH.Grunin, A.V. *et al.*, *Zh. Anal. Khim.*, 1973, **28**, 1346 (*detn. Bi*)Cherkesov, A.I. *et al.*, *Zh. Anal. Khim.*, 1973, **28**, 1513 (*detn. Zr*)Kirillov, A.I. *et al.*, *Zh. Anal. Khim.*, 1977, **32**, 2154; 1981, **36**, 1323 (*detn. rare earths*)**Phthalic anhydride, 8CI** P-00222

1,3-Isobenzofurandione, 9CI

[85-44-9]

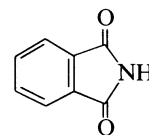
 $\text{C}_8\text{H}_4\text{O}_3$ M 148.118Obt. industrially by catalytic oxidn. of Naphthalene. Used in manuf. of phthalic esters and resins. Dehydrating agent for alcohols, protecting reagent for aminoacids. Derivatisation reagent in the anal. of alcohols. Needles (EtOH). Spar. sol. H₂O, Et₂O, sol. EtOH. Mp 131.8°. Bp 284° (295°). Sublimes. Hydrol. by hot H₂O.

► Irritant, TLV 6. TI3150000.

Registry of Mass Spectral Data, Wiley-Interscience, 377 (*ms*)Menczel, C., *Z. Phys. Chem.*, 1927, **125**, 161 (*w*)*Kirk-Othmer Encycl. Chem. Technol.*, 2nd Ed., Wiley, N.Y., 1963-1971, **15**, 444.*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 882.*Aldrich Library of NMR Spectra*, 1974, **7**, 50D (*pmr*)*Aldrich Library of IR Spectra*, 2nd Ed., 1975, 919c (*ir*)Cohen, L.J. *et al.*, *Anal. Chem.*, 1975, **47**, 313 (*use*)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 447.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PHW750.**Phthalimide, 8CI** P-00223

1H-Isoindole-1,3(2H)-dione, 9CI

[85-41-6]

 $\text{C}_8\text{H}_5\text{NO}_2$ M 147.133Source of "protected" ammonia in primary amine synth. (Gabriel). Needles (H₂O), prisms (AcOH); leaflets by subl. Insol. C₆H₆, pet. ether. Mp 238°. Forms salts with bases.

▷ TI3920000.

Monoxime: [29833-90-7]. $C_8H_6N_2O_2$ M 162.148Gives colour reactions with Ag, Au, Co, Cr, Cu, Fe, Mn, Ni, Pd, Rh. Cryst. Spar. sol. H_2O , Me_2CO , EtOH; insol. $CHCl_3$. Mp 264-266°.*N-Ac*: [1971-49-9]. $C_{10}H_7NO_3$ M 189.170

Mp 133-135°.

N-(4-Methylbenzenesulfonyl): [5460-83-3]. $C_{15}H_{11}NO_4S$ M 301.322Uv labelling reagent for hplc anal. of carboxylic acids. Cryst. (EtOH, C_6H_6 or EtOAc). Mp 144.5°.*N-Me*: [550-44-7]. $C_9H_7NO_2$ M 161.160

Needles (EtOH aq.). Mp 133-134°. Bp 285°. Sublimes.

N-Chloromethyl: $C_9H_6ClNO_2$ M 195.605

Reagent for formation of phthalimidomethyl esters. Uv-sensitive derivatisation reagent for hplc. Mp 132°.

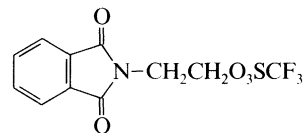
N-Hydroxymethyl: $C_9H_7NO_3$ M 177.159

Reagent for forming cryst. derivs. with amines. Mp 138-142°.

N-Chloro: [3481-09-2]. $C_8H_4ClNO_2$ M 181.578Used as a 0.05M soln. in glac. AcOH as an oxidant for direct titrations in aq. AcOH. Cryst. Sol. AcOH, EtOH, C_6H_6 ; insol. H_2O . Mp 183-185°.*N-Bromo*: [2439-85-2]. $C_8H_4BrNO_2$ M 226.029Brominating agent. Used as an oxidative titrant in anal. Yellow cryst. (C_6H_6). Mp 206-207°.*Dithiosemicarbazone*: [60435-22-5]. $C_{10}H_{11}N_7S_2$ M 293.376Used as 0.2% soln. in DMF for photometric detn. of IO_4^- (λ_{max} 410 nm, ϵ 28000) and catalytic-photometric detn. of Os. Cryst. Sol. DMF; insol. H_2O .*Org. Synth., Coll. Vol.*, 1, 1932, 457 (*synth*)Peacock, D.H. *et al*, *J. Chem. Soc.*, 1934, 1303 (*synth, tosylate*)Drew, H.D.K. *et al*, *J. Chem. Soc.*, 1937, 16 (*deriv*)Sakellarios, E.J., *Helv. Chim. Acta*, 1946, **29**, 1675 (*synth, tosylate*)Kauffman, H.F. *et al*, *J. Org. Chem.*, 1954, **19**, 1662 (*deriv*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 135, 484 (*derivs*)Gibson, M.S. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1968, **7**, 919 (*use*)Sheradsky, T., *Tetrahedron Lett.*, 1968, 1909 (*deriv*)Buscarons, F. *et al*, *Inf. Quim. Anal.*, 1972, **26**, 1 (*oxime, synth*)Krause, J.G. *et al*, *J. Org. Chem.*, 1972, **37**, 2040 (*synth, spectra*)*Aldrich Library of NMR Spectra*, 1974, **7**, 97D (*pmr*)Guzman, M. *et al*, *An. Quim.*, 1974, **70**, 828 (*dithiosemicarbazone, synth*)*Aldrich Library of IR Spectra*, 2nd Ed., 1975, 960C (*ir*)Guzman, M. *et al*, *Anal. Chim. Acta*, 1976, **83**, 259(*dithiosemicarbazone, detn, Os*)Lindner, W. *et al*, *J. Chromatog.*, 1979, **176**, 55 (*use, chloromethyl deriv*)Jayasree, N. *et al*, *Talanta*, 1985, **32**, 1067 (*N-Chloro, use*)Kaupp, G. *et al*, *Chem. Ber.*, 1986, **119**, 2387 (*N-Vinylphthalimide*)Callejon Mochon, M. *et al*, *Microchem. J.*, 1986, **34**, 83(*dithiosemicarbazone, detn, Os*)Das, C.M. *et al*, *J. Indian Chem. Soc.*, 1987, **64**, 382 (*use, bromo deriv*)Funazo, K. *et al*, *J. Chromatogr.*, 1989, **481**, 211 (*tosylate, synth, use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EOR500, PHX000.**2-Phthalimidoethyl****trifluoromethanesulfonate****P-00224**

2-(1,3-Dihydro-1,3-dioxo-2H-isoindol-2-yl)ethyltrifluoromethanesulfonate, 9CI

[127175-39-7]

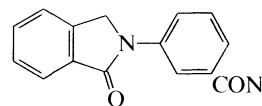
 $C_{11}H_8F_3NO_5S$ M 323.249

Uv labelling reagent for carboxylic acids in hplc. Fine needles (hexane). Mp 79°.

Yasaka, Y. *et al*, *Anal. Sci.*, 1990, **6**, 49 (*synth, use*)**3-(2-Phthalimidyl)benzoyl azide****P-00225**

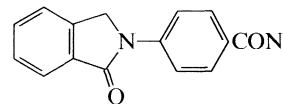
3-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)benzoyl azide, 9CI

[135590-68-0]

 $C_{15}H_{10}N_4O_2$ M 278.270Fluorescence labelling reagent for alcohols in hplc. Needles (Me_2CO aq.). Mp 123-126°.Tsuruta, Y. *et al*, *Anal. Sci.*, 1991, **7**, 411 (*synth, use*)**4-(2-Phthalimidyl)benzoyl azide****P-00226**

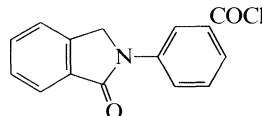
4-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)benzoyl azide, 9CI

[135590-69-1]

 $C_{15}H_{10}N_4O_2$ M 278.270Fluorescence labelling reagent for alcohols in hplc. Pale yellow grains (Me_2CO aq.). Mp 152-157°.Tsuruta, Y. *et al*, *Anal. Sci.*, 1991, **7**, 411 (*synth, use*)**3-(2-Phthalimidyl)benzoyl chloride****P-00227**

3-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)benzoyl chloride, 9CI

[114341-15-0]

 $C_{15}H_{10}ClNO_2$ M 271.702

Fluorescent derivatisation reagent for alcohols and amines. Needles. Mp 176-177.5°.

Tsuruta, Y. *et al*, *Anal. Chim. Acta*, 1987, **192**, 309 (*synth, use*)**4-(2-Phthalimidyl)benzoyl chloride****P-00228**

4-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)benzoyl chloride, 9CI

[114341-13-8]

 $C_{15}H_{10}ClNO_2$ M 271.702

Fluorescent derivatisation reagent for alcohols and amines. Fine needles. Mp >230°.

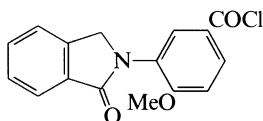
Tsuruta, Y. *et al*, *Anal. Chim. Acta*, 1987, **192**, 309 (*synth, use*)

3-(2-Phthalimidyl)-4-methoxybenzoyl chloride

P-00229

3-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)-4-methoxybenzoyl chloride, 9CI

[114341-16-1]

C₁₆H₁₂ClNO₃ M 301.728

Fluorescent derivatisation reagent for alcohols and amines.

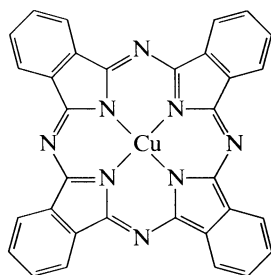
Fine needles. Mp 196.5-197.5° subl.

Tsuruta, Y. *et al.* *Anal. Chim. Acta*, 1987, **192**, 309 (*synth*, *use*)**[29H,31H]-[Phthalocyaninato(2-)]-N²⁹,N³⁰,N³¹,N³²copper(II), 11CI**

P-00230

Copper phthalocyanine. Pigment blue 15. Alcian blue. Ingrain blue 1. C.I. 74160

[147-14-8]

C₃₂H₁₆CuN₈ M 576.078Commercially available. Pigment in inks and paints. Used for photometric detn. of S₂O₈²⁻. Bright blue microcryst. with purple lustre. Stable towards heat, alkali, dil. acid. Dec. by hot HNO₃. Sol. 98% H₂SO₄; insol. H₂O, EtOH, hydrocarbons.**α-form**

Better pigment than β-form. Redder than β-form. Converts to β-form in presence of aromatic solvs., heat etc.

β-form

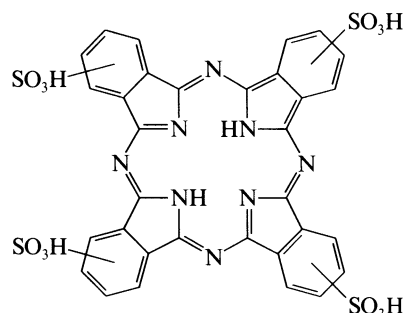
More thermodynamically stable form. Greener than α-form.

Dent, C.E. *et al.* *J. Chem. Soc.*, 1934, 1027 (*synth*)Baumann, F. *et al.* *Angew. Chem.*, 1956, **68**, 133 (*synth*)Villegas, E. *et al.* *Anal. Chim. Acta*, 1963, **29**, 145 (*use*)Brown, C.J., *J. Chem. Soc. A*, 1968, 2488 (*cryst struct*)Steinbach, F. *et al.* *J. Chem. Soc., Faraday Trans. 1*, 1979, **75**, 2594 (*ir*)Graczyk, A. *et al.* *J. Magn. Reson.*, 1979, **34**, 467 (*esr*)Moxon, N.T. *et al.* *Aust. J. Chem.*, 1981, **34**, 489 (*struct*, *magnetism*)Chen, S.X. *et al.* *Bull. Chem. Soc. Jpn.*, 1983, **56**, 2565 (*pe*)Jennings, C. *et al.* *J. Raman Spectrosc.*, 1984, **15**, 34 (*raman*)*Merck Index*, 11th Ed., 1989, 2515.**Phthalocyaninetetrasulfonic acid, 8CI**

P-00231

Tetrabenzotetraazoporphenetetrasulfonic acid

[33308-41-7]

C₃₂H₁₈N₈O₁₂S₄ M 834.805

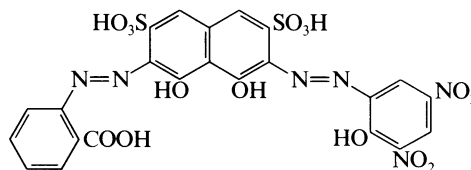
Tetra-Na salt: [29721-96-8].

Used as a 0.1% aq. soln. for photometric detn. of Ti(III) (λ_{max} 520 nm, ε 40000), V(III). Cryst.Tsekovnitskaya, I.A. *et al.* *Zh. Anal. Khim.*, 1971, **26**, 973, 1527 (*detn*, *Ti*, *V*)**Picramine K**

P-00232

3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(2-hydroxy-3,5-dinitrophenylazo)-2,7-naphthalenedisulfonic acid

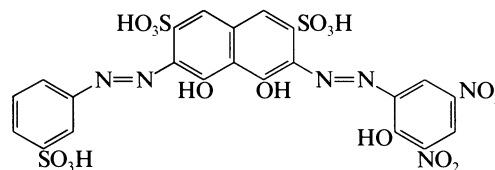
[14041-36-2]

C₂₃H₁₄N₆O₁₅S₂ M 678.527Used as a 0.1 or 0.5% aq. soln. for photometric detn. of Ba (λ_{max} 645 nm, ε 47000), Ca (λ_{max} 640 nm, ε 47000), Mg (λ_{max} 640 nm, ε 52000), Nb, Pu(IV), Zr. Dark red cryst. powder. Mod. sol. H₂O. pK_{a1} 2.79; pK_{a2} 8.8.Savvin, S.B., *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow (*detn*, *Nb*, *Zr*)Savvin, S.B. *et al.* *Zh. Anal. Khim.*, 1966, **21**, 1075; 1969, **24**, 177 (*use*, *detn*, *Ba*, *Ca*, *Mg*, *Pu*)Muk, A.A. *et al.* *Anal. Chim. Acta*, 1969, **44**, 59; **45**, 534 (*pKa*)Alimarin, I.P. *et al.* *CA*, 1970, **72**, 279979z (*detn*, *Nb*)**Picramine M**

P-00233

4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI

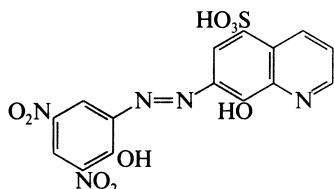
[14041-33-9]

C₂₂H₁₄N₆O₁₆S₃ M 714.581Used as a 0.1% aq. soln. for photometric detn. of Cu, Nb, V, Pd (λ_{max} 600 nm, ε 40000); extraction-photometric detn. of Cu. Dark red cryst. powder. Sol. H₂O, EtOH. pK_{a1} 2.19; pK_{a2} 8.9.Savvin, S.B. *et al.* *Zh. Anal. Khim.*, 1966, **21**, 1075 (*detn*, *V*)Okhanova, L.A. *et al.* *Zh. Anal. Khim.*, 1968, **23**, 1562 (*detn*, *Cu*)Muk, A.A. *et al.* *Anal. Chim. Acta*, 1969, **44**, 59; 1969, **45**, 534 (*pKa*)

Savvin, S.B. *et al*, *Talanta*, 1969, **16**, 423 (*detn*, Pd)
 Alimarin, I.P. *et al*, *CA*, 1970, **72**, 279979z (*detn*, Nb)
 Perisic-Janic, N.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 208 (*pKa*)

Picriminazosulfoxine**P-00234**

8-Hydroxy-7-[(2-hydroxy-3,5-dinitrophenyl)azo]-5-quinolinesulfonic acid, 9CI
 [13059-74-0]



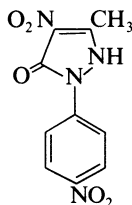
$C_{15}H_9N_5O_9S$ M 435.330

Used as a 0.5% aq. soln. for photometric detn. of Cu, Ni; metallochromic indicator in titrimetric detn. of Bi, Cu, Ni. Orange red cryst. powder. Sol. H_2O , EtOH, Me_2CO ; insol. $CHCl_3$, Et_2O , C_6H_6 . pK_{a1} 3.0; pK_{a2} 8.1; pK_{a3} 11.74.

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 568 (*synth*, *detn*, Bi)
 Gojjal, S.S. *et al*, *Mikrochim. Acta*, 1969, 237 (*detn*, Cu)
 Zhao, Z. *et al*, *CA*, 1982, **96**, 134891g (*detn*, Cu, Ni)

Picrolonic acid**P-00235**

2,4-Dihydro-5-methyl-4-nitro-2-(2-nitrophenyl)-3H-pyrazol-3-one, 9CI. 3-Methyl-4-nitro-1-(4-nitrophenyl)-5-pyrazolone [550-74-3]



$C_{10}H_8N_4O_5$ M 264.197

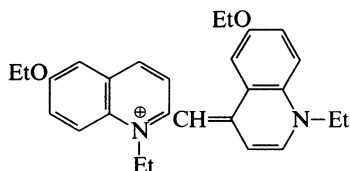
Forms crystalline addn. compds. with org. bases, used to characterise alkaloids etc. Used as aq. soln. of Li salt for indirect photometric detn. of Ca. Yellow leaflets. Mp 116-117°.

▷ UQ9510000.

Matthes, H., *Arch. Pharm. (Weinheim, Ger.)*, 1907, **245**, 112 (*use*)
 Kofler, L. *et al*, *Microchem. J.*, 1937, **22**, 43 (*use*)
 Nonova, D.C., *Mikrochim. Acta*, 1958, 111 (*detn*, Ca)
 Rivas, M.J.S., *CA*, 1959, **53**, 7187 (*synth*)
 Yavorskii, N.P., *Farm. Zh. (Kiev)*, 1964, **19**, 65; *CA*, **61**, 9361.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PIE000.

Pinachrome**P-00236**

6-Ethoxy-2-[(6-ethoxy-1-ethyl-4(1H)-quinolinylidene)methyl]-1-ethylquinolinium(1+), 9CI. p-Ethoxyquinaldine-p-ethoxyquinolineethylcyanine



$C_{27}H_{31}N_2O_2^{\oplus}$ M 415.554 (ion)

The name Pinachrome strictly applies to the iodide salt.

Iodide: [27593-93-7].

$C_{27}H_{31}IN_2O_2$ M 542.459

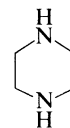
Used as a 0.1% soln. in 70% aq. EtOH as acid-base indicator (pH range: 5.6-8.0; colour change: colourless → violet). Dark green cryst. powder. Sol. dil. HCl; sl. sol. EtOH.

Kolthoff, I.M., *J. Am. Chem. Soc.*, 1928, **50**, 1604.

Piperazine, 9CI**P-00237**

Hexahydropyrazine. Numerous proprietary names

[110-85-0]



$C_4H_{10}N_2$ M 86.136

Anthelmintic, freq. administered as derivs. Used for detn. of Sb, Au, Sn, Mo, W, V. Hygroscopic plates (EtOH) with salty taste. V. sol. H_2O , EtOH, insol. Et_2O . Mp 106°. Bp 146°. pK_a 4.19.

▷ Irritant, causes burns. TK7800000.

[41372-10-5, 50322-15-1]

Kitchen, L.J. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 854 (*synth*)
 Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 146 (*synth*, *use*)

Martin, W.B. *et al*, *J. Am. Chem. Soc.*, 1948, **70**, 1817 (*synth*)

Lanum, W.J. *et al*, *J. Chem. Eng. Data*, 1969, **14**, 93 (*props*)

Yokozeki, A. *et al*, *Bull. Chem. Soc. Jpn.*, 1971, **44**, 2352 (*struct*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 392.

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **2**, 295 (*rev*)

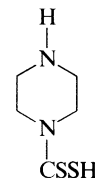
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 449.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DVF200, HEP000, MOD250, PIJ000, PIJ500, PIK500.

1-Piperazinecarbodithioic acid, 9CI**P-00238**

1-Piperazinedithiocarbamic acid

[99-00-3]



$C_5H_{10}N_2S_2$ M 162.279

Once widely used as an anthelmintic for treatment of roundworm infection in pigs and poultry. Yellow microcryst. powder. Spar. sol. H_2O . Mp 225-227° subl.

N-Me: [5712-49-2]. N-Methylpiperazinedithiocarbamic acid.

4-Methyl-1-piperazinecarbodithioic acid, 9CI

$C_6H_{12}N_2S_2$ M 176.306

Used as 0.1% aq. soln. of Na salt for photometric detn. of Bi, Cu, Te. Cryst. (as Na salt). Sol. H_2O (as Na salt).

[16909-14-1]

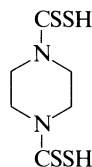
Dunderdale, J. *et al*, *Chem. Ind. (London)*, 1956, 174 (*synth*)

Macrotrigiano, G.M. *et al*, *J. Inorg. Nucl. Chem.*, 1974, **36**, 3709 (*synth*, *deriv*)

Jain, S.K. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 2164 (*use*)

1,4-Piperazinedicarbodithioic acid, 9CI**P-00239***Piperazinebis(dithiocarbamic acid)*

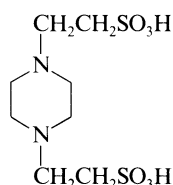
[7526-03-6]

 $C_6H_{10}N_2S_4$ M 238.422

Used as aq. soln. of Na salt for photometric detn. of Ni, Cu, Co, Hg(II). Cryst. Sol. alkalis.

Tsukada, M. *et al*, *CA*, 1986, **104**, 81097c.Skita, A. *et al*, *Ber.*, 1912, **45**, 3592; 1916, **49**, 1600 (*synth*)*Org. Synth., Coll. Vol.*, 1, 1932, 99 (*synth*)Wojcik, B. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 2419 (*synth*)Seikel, M.K., *J. Am. Chem. Soc.*, 1940, **62**, 750 (*use*)Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 149 (*synth, use*)Weitkamp, H. *et al*, *Chem. Ber.*, 1962, **95**, 2895 (*pmr*)Daasch, L.W., *J. Phys. Chem.*, 1965, **69**, 3196 (*ms*)Gupta, J.K.D. *et al*, *Indian J. Phys.*, 1970, **44**, 561 (*cryst struct*)Kausch, M. *et al*, *Org. Magn. Reson.*, 1977, **10**, 208 (*pmr, cmr*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1979, **7**, 293.*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 449.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ADA250, HET000, NLJ500, PIL500.**1,4-Piperazinediethanesulfonic acid, 9CI****P-00240***Piperazine-1,4-bis(2-ethanesulfonic acid)*. PIPES

[5625-37-6]

 $C_8H_{18}N_2O_6S_2$ M 302.372

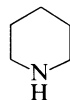
Good's buffer with pH range 6.1-7.5. Cryst. (EtOH aq.).

Mp > 300° dec. (as mono-Na salt). pK_a 6.80 (20°).

[10010-67-0, 76836-02-7]

Good, N.E. *et al*, *Biochemistry*, 1966, **5**, 467 (*synth*)Eagle, H., *Science (Washington, D.C.)*, 1971, **174**, 500 (*use*)McGlothlin, C.D. *et al*, *Anal. Lett.*, 1976, **9**, 245 (*props*)Pfeiffer, S.E. *et al*, *J. Biol. Chem.*, 1976, **251**, 5112.Roy, R.N. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1980, **26**, 1919; 1981, **27**, 1787 (*use*)**Piperidine, 9CI****P-00241***Hexahydropyridine*

[110-89-4]

 $C_6H_{11}N$ M 85.149Occurs in form of Piperine in black pepper (*Piper nigrum*, *P. longum*, *P. officinarum*). Also present in free state in plants, e.g. *Psilocaulon absimile*, *Petrosimonia monandra*, *Glycine max*. Useful base in org. synth. Used for detn. of Co, Ni, Pt, Pd, Rh, Ir. Liq. with characteristic odour. Misc. H_2O , sol. org. solvs. d_4^{20} 0.862. Mp -9°. Bp 106°, Bp₂₀ 17.7°. n_D^{20} 1.4534. Forms a hydrate, Mp -14°.

▷ Highly toxic by inhalation and skin absorption, causes burns. Highly flammable, fl. p. 16°. TM3500000.

B.HCl: [6091-44-7].

Prisms (EtOH). Mp 244-245°.

▷ TN0400000.

l-Ac: [618-42-8]. $C_7H_{13}NO$ M 127.186Mp 131-133°. Bp 226-227°, Bp₃₀ 125°.

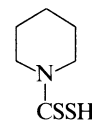
▷ TM3975000.

l-Benzoyl: [776-75-0]. $C_{12}H_{15}NO$ M 189.257Mp 48°. Bp 320-321°, Bp₂₀ 180-184°.

▷ TM4600000.

1-Piperidinecarbodithioic acid, 9CI**P-00242***Piperidine-N-dithiocarboxylic acid*. Piperidinedithiocarbamic acid

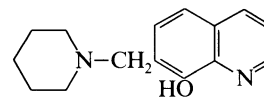
[98-99-7]

 $C_6H_{11}NS_2$ M 161.292Free acid not isol. Salts are powerful vulcanisation accelerators. Used as aq. soln. for extraction-separation of Rh from Ir; extraction of Pd, Pt (1,2-dichloroethane). Cryst. Sol. alkalis. pK_{a1} 5.64 (25°).*Piperidine salt*: Leaflets (EtOH). Mp 174°.*Phenylhydrazine salt*: Mp 218°.*Me ester*: [698-17-9]. $C_7H_{13}NS_2$ M 175.318

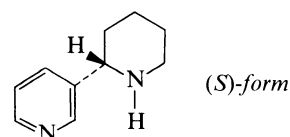
Plates. Mp 33-34°. Bp ca. 260°.

U.K. Pat., 358 230, (1931).Clifford, A.M. *et al*, *J. Am. Chem. Soc.*, 1932, **54**, 1166 (*synth*)Pyle, J.T. *et al*, *Anal. Chem.*, 1964, **36**, 1796 (*synth, detn, Pd, Pt*)Fedorenko, N.V. *et al*, *Zavod. Lab.*, 1964, **30**, 402 (*detn, Rh*)Kadyrov, A. *et al*, *CA*, 1975, **83**, 178742 (*synth*)**7-(1-Piperidinylmethyl)-8-quinolinol, 9CI****P-00243**

[6632-09-3]

 $C_{15}H_{18}N_2O$ M 242.320 pK_{a1} 1.7; pK_{a2} 6.6; pK_{a3} 10.9.*B.HCl*: Used for extraction-photometric detn. of In. Cryst. ($Me_2CO/EtOH$). Mp 198°.Phillips, J.P. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 3768 (*synth, detn, In*)**3-(2-Piperidinyl)pyridine, 9CI****P-00244**

[40774-73-0]

 $C_{10}H_{14}N_2$ M 162.234

▷ Highly toxic; exptl. tetratogen.

(S)-form [494-52-0] *Anabasine*. *Nicotimine*

Alkaloid from *Anabasis aphylla*, *Nicotiana tabacum*, many other *N. spp.* (Chenopodiaceae, Solanaceae) and many other spp. in several families. Mp 25-30°. Bp 276°, Bp₂ 104-105°.

▷ BV4375000.

Dipicrate: Mp 205°.

N-Ac: [3350-86-5].

C₁₂H₁₆N₂O M 204.271

Used as 0.5M aq. soln. for extraction-photometric detn. of Ti. Cryst. Sol. EtOH; sl. sol. H₂O.

p-Nitrobenzoyl: Mp 127-128° (122°). [α]_D²⁰ –130.0° (c, 3 in MeOH).

N-Me: **N-Methylanabasine**

Occurs in traces in crude nicotine. Oil. Bp₁₂ 127-128°.

[α]_D¹⁵ –85.1°.

Tetrahydro: **Tetrahydroanabasine**

C₁₀H₁₈N₂ M 166.266

Alkaloid from *Adenocarpus complicatus* subsp. *aureus* (Leguminosae). No details. Struct. not fully descr.

(±)-form [13078-04-1]

Neonicotine

Alkaloid from *Duboisia myoporoides*, *N. glauca* and other spp. (Solanaceae). Bp₇₇₅ 280-282°.

Dipicrate: Mp 213-214°.

Orechhoff, A. *et al*, *Ber.*, 1931, **64**, 266; 1932, **65**, 232 (*isol*)

Späth, E. *et al*, *Ber.*, 1937, **70**, 70 (*resoln*)

Linnell, R.H., *J. Am. Chem. Soc.*, 1954, 1391 (*uv*)

Otroshchenko, O.S., *Zh. Obshch. Khim.*, 1954, **24**, 1885 (*synth. N-Ac*)

Lukeš, R. *et al*, *Collect. Czech. Chem. Commun.*, 1962, **27**, 751 (*synth*)

Talipov, S.T., *Zh. Anal. Khim.*, 1963, **18**, 178 (*use, N-Ac*)

Duffield, A.M. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 2926 (*ms*)

Testa, B. *et al*, *Mol. Pharmacol.*, 1973, **9**, 10 (*cd*)

Leete, E., *J. Chem. Soc., Chem. Commun.*, 1975, 9 (*biosynth*)

Nehme, M. *et al*, *An. Quim.*, 1977, **73**, 307; *CA*, **87**, 114689h (*tetrahydroanabasine*)

Rakhmatullina, V.U. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1978, **48**, 629 (*synth*)

Pfrenge, W. *et al*, *J. Org. Chem.*, 1989, **54**, 4261 (*synth*)

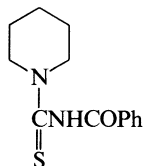
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AON875.

N-(1-Piperidinylthioxomethyl)benzamide, **P-00245**

9CI

1-Piperidino-3-benzoylthiourea. *N-Benzoyl-1-piperidinethioamide*

[58415-38-6]



C₁₃H₁₆N₂OS M 248.348

Used as 5mM soln. in 0.1M NaOH for extraction-separation of Ir(III,IV), Ru(III) (CHCl₃, sl. acidic media). Needles (EtOH). Sol. alkalis, EtOH. Mp 126-128°.

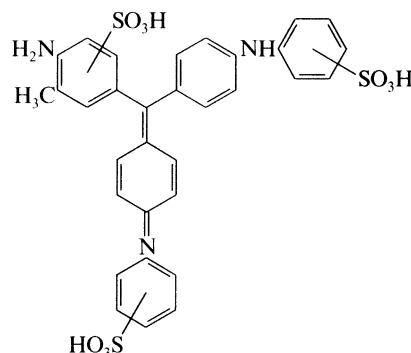
Beyer, L. *et al*, *J. Prakt. Chem.*, 1975, **317**, 829 (*synth*)

Röbisch, G. *et al*, *Anal. Chim. Acta*, 1983, **151**, 255 (*use*)

Poirrier blue C4B

P-00246

Aminomethyl[[4-[(sulfophenyl)amino]phenyl][4-[(sulfophenyl)imino]-2,5-cyclohexadien-1-ylidene]methyl]benzenesulfonic acid, **9CI**. *C.I. Acid blue 22*. *C.I. Water blue*. *Aniline blue water soluble*. *C.I.* 42755



C₃₂H₂₅N₃O₉S₃ M 691.762

Strictly, the name Poirrier blue C4B applies to the disodium salt.

Di-Na salt: [28631-66-5].

Used as acid-base indicator (pH range: 11.0-13.0; colour change: blue → reddish violet). Sol. H₂O; sl. sol. EtOH.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Polyethylene glycol

P-00247

α-Hydro-ω-hydroxypoly(oxy-1,2-ethanediyl), **8CI**. *PEG*

[25322-68-3]

H(OCH₂CH₂)_nOH where n > 4

Av. MW 200-6000. Used as 20% aq. soln. for extraction-photometric detn. of Au(III) (λ_{max} 394 nm). Used as a water-soluble lubricant in food and food packaging and as an ointment base. Viscous liq. or solid. Sol. H₂O, org. solv., aromatic hydrocarbons. d 1.127. Mp 4-10°.

▷ Eye irritant.

Fordyce, H., *J. Am. Chem. Soc.*, 1939, **61**, 1905 (*synth*)

Ziegler, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1961, **184**, 166 (*detn. Au*)

Chapman, A.H. *et al*, *Metallurgia*, 1968, **78**, 217 (*detn. Au*)

Davidson, R.L., *Handb. Water-Soluble Gums Resins*, McGraw

Hill, N.Y., 1980 (*rev*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, PJT000, PJT200, PJT225,

PJT230, PJT240, PJT250, PJT500, PJT750, PJU000, PJV000.

Polyoxyethylenedecylamine

P-00248

C₂₆H₅₅NO₇ M 493.723

Used as a 0.5% aq. soln. for photometric detn. of Be.

Cryst.

Nishida, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1976, **46**, 571 (*detn. Be*)

Nishida, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1978, **27**, 77 (*detn. Be*)

Poly(vinyl alcohol)

P-00249

Ethenol homopolymer, **9CI**. *PVA*

[9002-89-5]

[–CH₂CH(OH)–]_n

Used as 1-3% aq. solns. as a protective colloid (stabilisation of pseudo-solns., e.g. Se or Te sol.); indirect detn. of Cu(II) (oxidn. of I[⊖] to I₂ which forms coloured complex with the reagent). Used in textile and

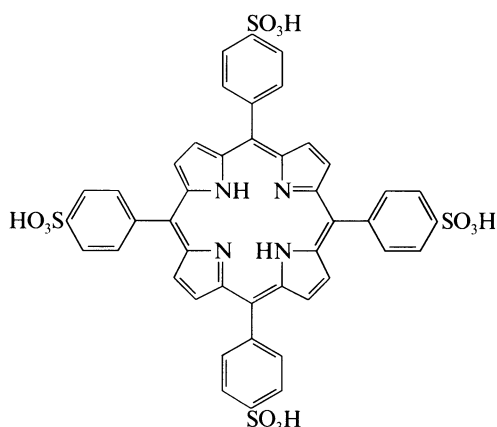
paper sizing, in adhesives, in the formulation of cement coatings and finishings, and as an emulsion-polymerization aid. White or cream granular powder. Sol. H₂O. Prep. by hydrolysis of poly(vinyl acetate).

▷ TR8100000.

- Calmé, P. *et al*, *Mikrochim. Acta*, 1972, 173 (*detn. Cu*)
Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **23**, 848 (*rev*)
 Dunn, A.S., *Chem. Ind. (London)*, 1980, 801 (*rev*)
 Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986 (*use*)
Merck Index, 11th Ed., 1989, 7562.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PKP750.

4,4',4'',4'''-(21H,23H-Porphine-5,10,15,20-tetrayl)tetrakisbenzenesulfonic acid, 9CI P-00250

$\alpha,\beta,\gamma,\delta$ -Tetrakis(p-sulfophenyl)porphine. 5,10,15,20-Tetrakis(4-sulfophenyl)porphine
 [35218-75-8]



$C_{44}H_{30}N_4O_{12}S_4$ M 935.005
 Used for photometric detn. of Pb (λ_{max} 464 nm, ϵ 275000), Co (λ_{max} 432 nm, ϵ 240000), Cd (λ_{max} 413 nm), Pd (λ_{max} 410 nm, ϵ 22000), Hg (λ_{max} 413 nm). Used in modification of anion-exchange resin for detn. of H₂O₂. Used as 0.004mM aq. soln. for kinetic-photometric detn. of Zn (λ_{max} 421 nm, in the presence of excess Cd). Cryst. Sol. alkalis. pK_{a1} 4.8 ($\mu = 0.1, 25^\circ$).

N-Me: [83177-98-4]. N-Methyl-5,10,15,20-tetrakis(4-sulfophenyl)porphine

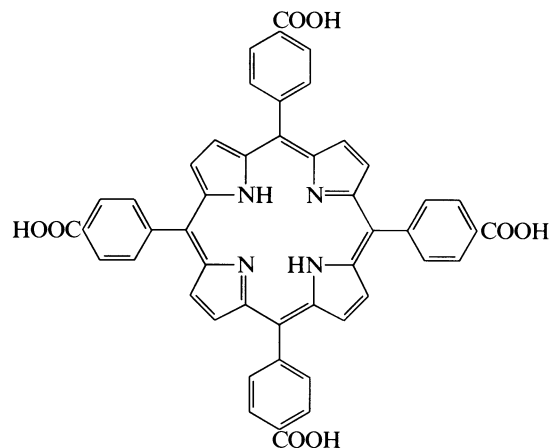
$C_{45}H_{32}N_4O_{12}S_4$ M 949.031
 Used as 0.005mM aq. soln. for kinetic-photometric detn. of Cu and Zn in serum. Cryst. Sol. H₂O.

[39050-26-5, 68438-24-4]

- Adler, A.D. *et al*, *J. Org. Chem.*, 1966, **32**, 476 (*synth*)
 Pasternack, R.F. *et al*, *J. Am. Chem. Soc.*, 1972, **84**, 4511 (*synth*)
 Ishii, H. *et al*, *Nippon Kagaku Zasshi*, 1978, 390 (*detn. Pb*)
 Wang, W.L. *et al*, *CA*, 1981, **94**, 202103n (*synth, detn. Pb*)
 Tabata, M. *et al*, *Mikrochim. Acta*, 1985, **1**, 397 (*detn. Cd, Zn*)
 Funahashi, S. *et al*, *Mikrochim. Acta*, 1986, **1**, 33 (*synth, use, deriv*)
 Ishii, H. *et al*, *Anal. Sci.*, 1987, **3**, 229 (*detn. Co*)
 Tabata, M., *Analyst (London)*, 1987, **112**, 141 (*detn. Hg*)
 Saito, Y. *et al*, *Talanta*, 1987, **34**, 667 (*detn. H₂O₂*)
 Tabata, M. *et al*, *TrAC, Trends Anal. Chem. (Pers. Ed.)*, 1991, **10**, 128.

4,4',4'',4'''-(21H,23H-Porphine-5,10,15,20-tetrayl)tetrakisbenzoic acid, 9CI P-00251

$\alpha,\beta,\gamma,\delta$ -Tetrakis(4-carboxyphenyl)porphine
 [14609-54-2]

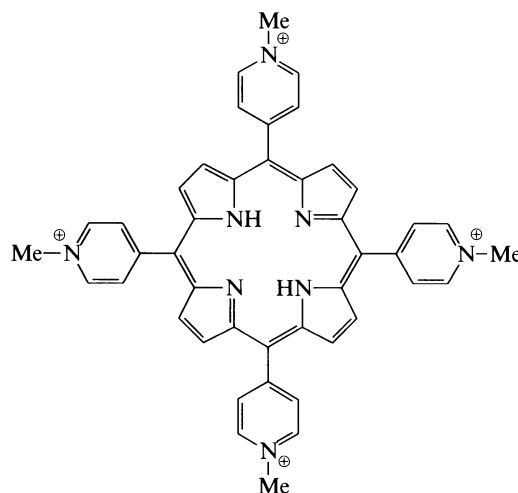


$C_{48}H_{30}N_4O_8$ M 790.787
 Used as a 0.2mM soln. in dil. NaOH for photometric detn. of Mn (λ_{max} 469 nm). Cryst. Sol. alkalis.

- Longo, R.F. *et al*, *J. Heterocycl. Chem.*, 1969, **6**, 927 (*synth*)
 Ishii, H. *et al*, *Anal. Chim. Acta*, 1982, **132**, 347 (*detn. Mn*)
 Tabata, M. *et al*, *TrAC, Trends Anal. Chem. (Pers. Ed.)*, 1991, **10**, 128 (*rev*)

4,4',4'',4'''-(21H,23H-Porphine-5,10,15,20-tetrayl)tetrakis[1-methylpyridinium], 9CI P-00252

$\alpha,\beta,\gamma,\delta$ -Tetrakis(4-N-methylpyridyl)porphine
 [38673-65-3]



$C_{44}H_{38}N_8^{4\oplus}$ M 678.838 (ion)
 Tetrakis(p-toluenesulfonate): Used as a 0.1mM aq. soln. for photometric detn. of Cd (λ_{max} 450 nm, ϵ 220000), Cu (λ_{max} 424 nm); indirect photometric detn. of CN[⊖]. Cryst.

- Tabata, M. *et al*, *Anal. Lett.*, 1980, **13**, 427 (*detn. Cu*)
 Makino, T. *et al*, *Clin. Chim. Acta*, 1981, **111**, 1 (*synth*)
 Watanabe, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1982, **31**, 471 (*detn. Cu*)
 Ishii, H. *et al*, *Talanta*, 1982, **29**, 545 (*detn. Cd*)
 Ishii, H. *et al*, *Analyst (London)*, 1987, **112**, 1121 (*detn. CN[⊖]*)
 Komata, M. *et al*, *Talanta*, 1988, **35**, 723 (*detn. Cd*)
 Tabata, M. *et al*, *TrAC, Trends Anal. Chem. (Pers. Ed.)*, 1991, **10**, 128 (*rev*)

Potassium *O*-ethyl dithiocarbonate **P-00253**

Carbonodithioic acid, *O*-ethyl ester, potassium salt, 9CI.
Dithiocarbonic acid, *O*-ethyl ester, potassium salt, 8CI.
Potassium ethylxanthogenate. Ethylxanthic acid, potassium salt
[140-89-6]



$\text{C}_3\text{H}_5\text{KOS}_2$ M 160.302

Obt. by adding CS_2 to a slurry of powdered KOH in EtOH, extracted in Me_2CO , pptd. with pet. ether. Commercially available. Used for chelation and extraction-separation of heavy metal ions (Sb, Bi, Cu, Hg, Zn, Cd) into org. solvs. Also used in flotation of ores and as a soil fumigant. Cyclocondensation reagent. Pale yellow monoclinic cryst. (Me_2CO /pet. ether). Sol. H_2O , EtOH; prac. insol. Et_2O . Dec. by boiling H_2O or heat.

▷ Toxic.

- Mazzi, F. *et al.*, *Z. Kristallogr.*, 1963, **118**, 378 (*cryst struct*)
Tyden, I., *Talanta*, 1966, **13**, 1353 (*thermal dec*)
Sadovskii, A.P. *et al.*, *Zh. Strukt. Khim.*, 1967, **8**, 1043 (*x-ray spectrum*)
Jowitt, R.N. *et al.*, *J. Chem. Soc. A*, 1970, 1702 (*ir, pmr*)
Rao, A.L.J. *et al.*, *Fresenius' Z. Anal. Chem.*, 1975, **227**, 126 (*flotation*)
Donaldson, E.M., *Talanta*, 1975, **23**, 417 (*uses*)
U.S. Pat., 3 864 374, (1975); *CA*, **82**, 170038 (*manuf*)
Gautam, M. *et al.*, *Mikrochim. Acta*, 1979, **1**, 515 (*uses*)
Tsarenko, S.V. *et al.*, *Izv. Vyssh. Uchebn. Zaved., Tsvetn. Metall.*, 1980, 3 (*flotation*)
Sasaki, Y., *Anal. Chim. Acta*, 1981, **127**, 209 (*uses*)
Millican, R.J. *et al.*, *J. Am. Chem. Soc.*, 1983, **105**, 3622 (*acid cat dec*)
Adrian, P. *et al.*, *Trans. Inst. Min. Metall., Sect. C*, 1985, **94**, 102 (*purifn*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PLF000.

Primaquine, BAN, INN **P-00254**

N^4 -(6-Methoxy-8-quinolinyl)-1,4-pentanediamine, 9CI. 8-(4-Amino-1-methylbutylamino)-6-methoxyquinoline, 8CI. Avlon. Neo-Quipenyl. *Primachim.* SN 13272
[90-34-6]



$\text{C}_{15}\text{H}_{21}\text{N}_3\text{O}$ M 259.350

▷ VA9650000.

(±)-form

Antimalarial drug. Used for detn. of Cr(VI) and V(III) (gives purple colour in conc. H_2SO_4). Viscous liq. $\text{Bp}_{0.5}$ 175-179°. $\text{p}K_{a1}$ 10.39 (NH_2); $\text{p}K_{a2}$ 3.20 (quinoline N); $\text{p}K_{a3}$ -1 to -2 (aniline N) (H_2O). Treatment with Primaquine is subject to high levels of parasite resistance.

$\text{B}_2\text{H}_3\text{PO}_4$: [63-45-6]. *Primaquine phosphate, USAN*
Yellow cryst. (EtOH aq.). Mod. sol. H_2O . Mp 197-198°. ▷ VA9660000.

Oxalate (1:1): Yellow cryst. (EtOH aq.). Mp 182.5-185°.

- Elderfield, R.C. *et al.*, *J. Am. Chem. Soc.*, 1955, **77**, 4816 (*synth*)
Olenick, J.G., *Antibiotics*, 1975, **3**, 516 (*rev*)
Baty, J.D. *et al.*, *Biomed. Mass Spectrom.*, 1978, **5**, 76 (*ms*)
Singh, S.P. *et al.*, *J. Heterocycl. Chem.*, 1978, **15**, 9 (*nmr*)

- Martindale, The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 1387.
Hufford, C.D. *et al.*, *J. Heterocycl. Chem.*, 1983, **20**, 273 (*cmr, props*)
Shen, N.-K. *et al.*, *Mikrochim. Acta*, 1984, **1**, 19 (*use*)
Price, A.H. *et al.*, *Prog. Clin. Biol. Res.*, 1986, **214**, 261 (*rev, metab, tox*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PMC300, PMC310.

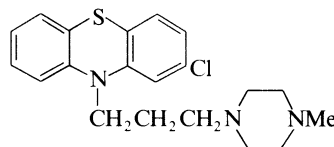
Primene JM T **P-00255**

A mixture of long chain alkylamines. Total carbon number is 1725. Used as a soln. in kerosene for extraction of Hf, U, Zr. Amber viscous oil. Sol. common org. solvs.; insol. H_2O ; spar. sol. NH_2SO_4 (5 mg per 100 cm^3). d^{25} 0.845.

- Schmid, E.R. *et al.*, *J. Radioanal. Chem.*, 1973, **13**, 349 (*detn, U*)
El-Yamani, I.S. *et al.*, *Talanta*, 1978, **25**, 523 (*detn, Hf, Zr*)

Prochlorperazine, BAN, INN **P-00256**

2-Chloro-10-[3-(4-methyl-1-piperazinyl)propyl]-10H-phenothiazine, 9CI. *Prochlorperazine. Chlormepazine.* Numerous proprietary names
[58-38-8]



$\text{C}_{20}\text{H}_{24}\text{ClN}_3\text{S}$ M 373.948

Tranquilliser, antiemetic. Used as a 0.1% aq. soln. for photometric detn. of V(V) (λ_{max} 529 nm, ϵ 12400). Viscous liq. Also used as ethanesulfonate (*Prochlorperazine edisylate, USAN*).

▷ SO2700000.

- Dimaleate*: [84-02-6]. *Campazine. Emetival*
Very small cryst. Sol. H_2O ; insol. org. solvs. Mp 228°. Component of Combid.
▷ SO3150000.
 $\text{B.EtSO}_3\text{H}$: [1257-78-9]. *Prochlorperazine edisylate, USAN*
▷ SO2975000.

[1257-78-9]

- U.K. Pat.*, 780 193, (1958); *CA*, **52**, 2093 (*synth, pharmacol*)
Hanlon, T.E. *et al.*, *Psychopharmacologia*, 1965, **7**, 89 (*pharmacol*)
Kracmar, J. *et al.*, *Pharmazie*, 1968, **23**, 651 (*uw*)
Gilbert, J.N. *et al.*, *Org. Mass Spectrom.*, 1969, **2**, 17 (*ms*)
McDowell, J.J.H., *Acta Crystallogr., Sect. B*, 1979, **35**, 2433 (*cryst struct*)
Patra, A. *et al.*, *J. Indian Chem. Soc.*, 1982, **59**, 660 (*cmr*)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 7096-7099.
Gowda, H.S. *et al.*, *Analyst (London)*, 1984, **109**, 381 (*detn, V*)
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 5729.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PME700, PMF250, PMF500.

Proline **P-00257**

2-Pyrrolidinecarboxylic acid
[28882-68-0]



$\text{C}_5\text{H}_9\text{NO}_2$ M 115.132

(R)-form [344-25-2]*D-form*

Used as a 0.1M aq. soln. for spectropolarimetric detn. of Cu. Cryst. (EtOH/Et₂O). Mp 206°, Mp 215-220° dec. $[\alpha]_D^{20} + 81.9^\circ$ (H₂O), $[\alpha]_D + 60.4^\circ$ (c, 1 in 5M HCl).

Me ester: $[\alpha]_D^{25} + 34^\circ$.

N-(4-Methylbenzenesulfonyl): Mp 130-133°.

N-3-Nitrobenzoyl: Mp 137-140°. $[\alpha]_D^{20} + 120^\circ$ (M NaOH).

(S)-form [147-85-3]*L-form*

Found in hydrolysates of many proteins/peptides, widely distributed in free state. Recoverable chiral reagent in asymmetric synth. of L-amino acids etc. Cryst. (EtOH/Et₂O). Mp 220-222° dec. $[\alpha]_D^{25} - 86.2^\circ$ (c, 1 in H₂O), $[\alpha]_D - 60.4^\circ$ (c, 1 in 5M HCl). *N*-Protected derivs. of interest in peptide synthesis are listed alphabetically elsewhere.

B,HCl: Mp 115°.

Me ester:

C₆H₁₁NO₂ M 129.158

Bp₁₀ 70°.

Me ester; B,HCl: $[\alpha]_D^{24} - 40.1^\circ$ (c, 0.5 in H₂O).

N-Ac:

C₇H₁₁NO₃ M 157.169

Mp 118°. $[\alpha]_D^{23} - 115^\circ$ (c, 2 in H₂O).

N-2,4-Dinitrophenyl: Mp 137°.

N-(4-Methylbenzenesulfonyl): Mp 130-133°.

Amide:

C₅H₁₀N₂O M 114.147

Mp 99°.

Amide, N-Ac:

C₇H₁₂N₂O₂ M 156.184

Mp 178-180°.

Anhydride:

C₁₀H₁₆N₂O₃ M 212.248

Mp 149°. $[\alpha]_D^{19} - 147.2^\circ$.

(±)-form [609-36-9]

Hygroscopic needles (EtOH/Et₂O). Mp 205° dec. (213°). pK_{a1} 1.80; pK_{a2} 10.63 (20°).

Monohydrate: Sol. H₂O, EtOH; insol. Me₂CO, CHCl₃, Et₂O. Mp 190-191°.

B,HCl: Cryst. (H₂O). Mp 158-159°.

Et ester:

C₇H₁₃NO₂ M 143.185

Oil. Bp₁₃ 80°.

Amide: Cryst. (C₆H₆). Mp 93°.

Anhydride: Mp 183-184°.

N-3-Nitrobenzoyl: Prisms (H₂O). Mp 90-92°.

N-Nitroso:

► Exp. carcinogen.

Greenstein, J.P. *et al*, *Chemistry of the Amino Acids*, Wiley, N.Y., 1961, 3, 2178 (rev)

Buyle, R., *Chem. Ind. (London)*, 1966, 380 (synth)

Buckingham, D.A. *et al*, *J. Chem. Soc., Chem. Commun.*, 1969, 581 (config)

Campi, E. *et al*, *Anal. Chim. Acta*, 1972, 58, 237 (detn, Cu)

Verbist, J.J. *et al*, *Nature (London)*, 1972, 235, 328 (cryst struct)

Monteiro, H.J., *Synthesis*, 1974, 137 (synth)

Pogliani, L. *et al*, *Org. Magn. Reson.*, 1975, 7, 61 (pmr)

Schmidt, U. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1977, 16, 777 (synth)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1980, 8, 421.

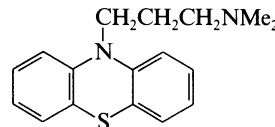
Drauz, K. *et al*, *J. Org. Chem.*, 1986, 51, 3494 (synth)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 868.

Promazine, BAN, INN

P-00258

N,N-Dimethyl-10H-phenothiazine-10-propanamine, 9CI. 10-(3-Dimethylaminopropyl)phenothiazine [58-40-2]



C₁₇H₂₀N₂S M 284.424

Tranquilliser. Used for photometric detn. of Ce(IV) and As(III) (indirectly), NO₂[⊖] [oxidation by Ce(IV)]. Oily liq. Bp_{0.3} 203-210°. Also marketed as embonate.

► SO7000000.

B,HCl: [53-60-1]. *Promazine hydrochloride, USAN.*

Propazium. Sparine. Numerous proprietary names

White/yellow hygroscopic cryst. Insol. Et₂O, C₆H₆. Mp 177-181° dec.

► SO8575000.

[4701-69-3, 15421-37-1]

Fr. Pat., 1 186 825, (1959).

Fink, G.B. *et al*, *J. Pharm. Sci.*, 1962, 51, 548 (pharmacol)

De Leenheer, A., *J. Chromatogr.*, 1972, 74, 35 (nmr)

Solomon, M.D. *et al*, *Aust. J. Chem.*, 1973, 26, 325.

Rodgers, J.R. *et al*, *J. Pharm. Pharmacol.*, 1976, 28, 246 (cryst struct)

Gowda, H.S. *et al*, *Microchem. J.*, 1978, 23, 291 (use)

Szabo, W.A. *et al*, *J. Org. Chem.*, 1980, 45, 744 (synth)

Dewey, E.A. *et al*, *Drug Metab. Dispos.*, 1981, 9, 130 (metab)

Staiger, D.B. *et al*, *J. Heterocycl. Chem.*, 1981, 18, 101 (cmr)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 7100, 7101.

Shibl, A.H. *et al*, *J. Pharm. Sci.*, 1984, 73, 841 (activity)

Schmolka, S.J. *et al*, *Synthesis*, 1984, 1, 29 (synth)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 4418.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DQA600, PMI500.

Propanal, 9CI

P-00259

Propionaldehyde

[123-38-6]



C₃H₆O M 58.080

Isol. from various plant sources, e.g. hops, brown algae (*Laminaria* sp.), and strawberry aroma. Liq. with suffocating odour. Mod. sol. H₂O. d_{25}^{25} 0.797. Fp -81°, Mp 131°. Bp 47.5-49°. n_D^{20} 1.3636. Hydrolyzable on heating.

► Mod. toxic, irritant. Highly flammable, flash p. -9°. May form explosive peroxides. UE0350000.

Polymer: Metapropanal

Cryst. Insol. H₂O. Mp 180°. Subl.

Di-Me acetal: [4744-10-9]. 1,1-Dimethoxypropane

C₅H₁₂O₂ M 104.149

Bp 89°.

2,4-Dinitrophenylhydrazone: Mp 142-148°.

Oxime: [627-39-4]. *Propanal oxime, 9CI*

C₃H₇NO M 73.094

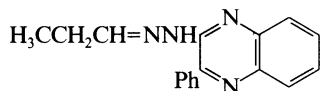
Colorimetric reagent for Pd(II). Cryst. (EtOH). Sol.

EtOH, H₂O. Mp 40°. Bp 130-132°, Bp₁₀₀ 77°.

Semicarbazone: Two forms: needles (C₆H₆/ligroin) or plates (H₂O). Sol. H₂O. Mp 88-90° (needles), Mp 154° (plates).

Org. Synth., 1932, **12**, 64 (*synth*)
Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **16**, 548 (*rev*)
 Stecenko, A.I. *et al*, *Zh. Neorg. Khim.*, 1972, **17**, 2724 (*oxime*)
 Miyajima, G. *et al*, *Org. Magn. Reson.*, 1974, **6**, 313 (*cmr*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 460.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DOM200, PMT750.

Propanal (3-phenyl-2-quinoxalinyl) hydrazone, 9CI **P-00260**
 [22583-30-8]



$C_{17}H_{16}N_4$ M 276.340
 Reagent for the detn. of aliphatic aldehydes. Pale yellow needles (pet. ether). Mp 124°.
 Tagami, S. *et al*, *Chem. Pharm. Bull.*, 1975, **23**, 891 (*synth, use*)

Propanedioic acid, 9CI **P-00261**
Malonic acid, 8CI
 [141-82-2]



$C_3H_4O_4$ M 104.062
 Widespread in plants in small amts. Used as aq. soln. for extraction-separation of U; as an eluant in ion-exchange sepn. of Sn(IV); alkalimetric standard; complexing agent. Cryst. Sol. H_2O , EtOH, Et₂O, mod. sol. Py. Mp 135.6°. pK_{a1} 2.77; pK_{a2} 5.70 (H_2O , 25°). Sublimes *in vacuo*.

▷ Strong irritant. LD₅₀ 300 mg/kg (mouse, i.p.). OO0175000.

Di-Me ester: [108-59-8]. *Dimethyl malonate*

$C_5H_8O_4$ M 132.116
 Bp 181°.

▷ Reacts violently with methyl azide in presence of base. OO0950000.

Di-tert-butyl ester: [541-16-2].

$C_{11}H_{20}O_4$ M 216.277
 Reagent for synth. of ketones from acid chlorides. Mp -6°. Bp₁ 65-67°.

Dihydrazide: [3815-86-9].

$C_3H_8N_4O_2$ M 132.122
 Used for photometric detn. of Pd (λ_{max} 285 nm). Plates (EtOH). V. sol. H_2O , AcOH, sol. EtOH. Mp 154°.

[36148-03-5]

Hauser, C.R. *et al*, *J. Am. Chem. Soc.*, 1942, **64**, 2714 (*synth*)

Org. Synth., Coll. Vol., 2, 1943, 376 (*synth*)

Gran, G. *et al*, *Anal. Chim. Acta*, 1956, **14**, 150.

Ratusky, J. *et al*, *CA*, 1957, **51**, 138 (*ester*)

Dawson, J. *et al*, *Mikrochim. Acta*, 1958, 325, 330 (*detn, Sn*)

Org. Synth., Coll. Vol., 4, 1963, 261, 263 (*derivus*)

Rodd's Chem. Carbon Compd. (2nd Ed.), 2nd Ed., Vol ID, 1965, 293.

Barnikow, G., *J. Prakt. Chem.*, 1966, **34**, 251 (*derivus*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 211; **8**, 193.

Wadier, C. *et al*, *Mikrochim. Acta*, 1971, 303 (*detn, Pd*)

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.

Dalvi, M.B. *et al*, *Talanta*, 1978, **25**, 599 (*detn, U*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **14**, 794 (*rev*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CCC750, DSM200, MAO000.

Propanedithioamide, 9CI **P-00262**
Dithiomalonamide
 [6944-34-9]



$C_3H_6N_2S_2$ M 134.226
 Needles. Mp 212° (dec.). pK_{a1} 3.28; pK_{a2} 8.94.

N,N'-Di-Ph: [4887-74-5]. *N,N'*-

Diphenylpropanedithioamide, 9CI. *N,N'*-

Diphenyldithiomalonamide

$C_{15}H_{14}N_2S_2$ M 286.421

Used as 1% EtOH soln. for gravimetric detn. of Ni(II) and Co(III). Lemon yellow cryst. Spar. sol. EtOH. Mp 152°.

Lehr, H. *et al*, *Helv. Chim. Acta*, 1944, **27**, 970 (*synth*)

Taylor, E.C. *et al*, *J. Am. Chem. Soc.*, 1960, **82**, 2656 (*synth*)

Barnikow, V.G. *et al*, *J. Prakt. Chem.*, 1965, **30**, 63 (*synth*)

Pal, T. *et al*, *Talanta*, 1986, **33**, 973 (*use*)

2,2'-(1,3-Propanedioldiimino)bis[2-(hydroxymethyl)-1,3-propanediol], 9CI **P-00263**
1,3-Bis[tris(hydroxymethyl)methylamino]propane. 2,2'-(Trimethylenediimino)bis[2-(hydroxymethyl)-1,3-propanediol]
 [64431-96-5]



$C_{11}H_{26}N_2O_6$ M 282.336

Biological buffer. Cryst. (EtOH). Mp 170-171° (as dihydrobromide). pK_{a1} 6.8; pK_{a2} 9.0.

Pierce, J.S. *et al*, *J. Am. Chem. Soc.*, 1944, **66**, 879 (*synth*)

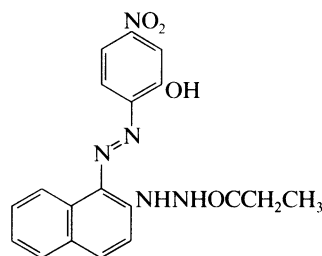
Kaniansky, D. *et al*, *J. Chromatogr.*, 1980, **194**, 11 (*use*)

Rinkus, S.J. *et al*, *Anal. Biochem.*, 1985, **150**, 379 (*use*)

Kitamura, Y. *et al*, *J. Solution Chem.*, 1987, **16**, 715.

Lambing, J.L. *et al*, *Biochem. Biophys. Res. Commun.*, 1988, **151**, 693 (*use*)

Propanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azol]-2-naphthalenyl]hydrazide, 9CI **P-00264**
 [39200-23-2]



$C_{19}H_{17}N_5O_4$ M 379.374

Used as 0.2mM soln. in Me₂CO for photometric detn. of Zn (Me₂CO aq.). Red cryst. (DMF aq.). Sol. H_2O , DMF, Me₂CO. Mp 209°.

Kamaeva, L.V. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1687 (*synth, detn, Zn*)

1-Propanol, 9CI **P-00265**
Propyl alcohol
 [71-23-8]



C_3H_8O M 60.096

Solv. for resins, cellulose esters etc. Used to esterify fatty acids and amino acids for gc anal. Misc. H_2O , EtOH, Et_2O . d_4^{25} 0.799. Mp -127° . Bp 97.4° . pK_a 16.1 (25°). n_D^{20} 1.3850.

▷ Mod. toxic, TLV 500. Highly flammable, flash p. 25° . UH8225000.

3,5-Dinitrobenzoyl: Mp 73° .

4-Nitrophenylurethane: Mp 115° .

Ac: Propyl acetate. 1-Acetoxypropane

$C_5H_{10}O_2$ M 102.133

Bp 101.67° .

O-Nitrite: [543-67-9]. Propyl nitrite

$C_3H_7NO_2$ M 89.094

Bp $48.9-49.4^\circ$.

▷ Mod. toxic. RA1180000.

O-Nitrate: Propyl nitrate

$C_3H_7NO_3$ M 105.093

d_4^{20} 1.055. Bp 110.5° . n_D^{20} 1.3979.

Shriner, R.L. *et al*, *J. Am. Chem. Soc.*, 1931, **53**, 1602 (*synth*, *derivs*)

Cowley, E.G. *et al*, *J. Chem. Soc.*, 1933, 1252 (*nitrate*, *nitrite*)

Mumford, S.A. *et al*, *J. Chem. Soc.*, 1950, 75 (*props*)

Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **16**, 559 (*rev*)

Appleby, A.J. *et al*, *J. Gas Chromatogr.*, 1967, **5**, 266 (*use*)

Adams, R.F., *J. Chromatogr.*, 1974, **95**, 189 (*use*)

Miyajima, G. *et al*, *Org. Magn. Reson.*, 1974, **6**, 313 (*cmr*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 458.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PND000, PNQ750.

2-Propanol, 9CI

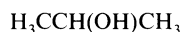
P-00266

Isopropanol. 2-Hydroxypropane. *Isopropyl alcohol*, USAN.

Alcojel. *Avantin*. *Bowsteral*. *Hartasol*. *Petrohol*. *Propol*.

Takineocol

[67-63-0]



C_3H_8O M 60.096

Present in fruit aromas, e.g. *Carica papaya*. Widely used solvent for creosote, resins, gums, inks, oil, lotions etc.

Used in antifreeze mixt. and as extraction solvent in food preparation. Topical antiinfective. Pharmaceutic aid (solvent). Used to prepare isopropyl esters of carboxylic acids for gc anal. Important industrial chemical, 48th in order of volume for USA in 1990 (production 0.69 million tons/year). Liq. Sol. H_2O . d_4^{20} 0.786. Fp -89.5° , Mp -88.5° . Bp 82.5° . pK_a 17.1. n_D^{20} 1.3776. Forms azeotropic mixt. with H_2O ctg. 12.1% H_2O . Can be salted out from aq. solns. Component of Hibistat.

▷ Eye irritant, TLV 980. Fl. p. 12° . Explosive reacn. with some materials. NT8050000.

Methanesulfonyl:

▷ Exp. teratogen.

Brooks, B.T., *Chem. Rev.*, 1926, **2**, 382 (*rev*)

Brooks, B.T., *J. Am. Chem. Soc.*, 1934, **56**, 1998 (*synth*)

Hatch, L.F., *Isopropyl Alcohol*, McGraw-Hill, N.Y., 1961 (*bibl*)

Kirk-Othmer Encycl. Chem. Technol., 2nd Ed., Wiley, N.Y., 1963-1971, **16**, 564 (*rev*)

Katague, D.B. *et al*, *J. Pharm. Sci.*, 1965, **54**, 891 (*isol*)

Biondi, P.A. *et al*, *J. Chromatogr.*, 1975, **109**, 389 (*use*)

Food Chemicals Codex, 3rd Ed., 1981, 155 (*anal*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 555.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 458.

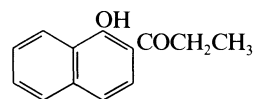
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, INJ000.

2-Propanoyl-1-naphthol

P-00267

1-Hydroxy-2-propionaphthone. Ethyl 1-hydroxy-2-naphthyl ketone

[24490-31-1]



$C_{13}H_{12}O_2$ M 200.237

Greenish-yellow plates (EtOH). Mp 85° . Triboluminescent.

Me ether:

$C_{14}H_{14}O_2$ M 214.263

Needles (pet. ether). Mp $42-43^\circ$.

Et ether:

$C_{15}H_{16}O_2$ M 228.290

Yellow oil. Bp₁₅ $175-180^\circ$.

Semicarbazone: Yellow cryst. Mp 304° .

Picrate: Red cryst. Mp 88° .

Phenylhydrazone: Cryst. Mp 78° .

Oxime: [21660-75-3].

$C_{13}H_{13}NO_2$ M 215.251

Used for gravimetric detn. of Cu, Pd; pptn. sepn. of Pd. Cryst. (C_6H_6). Mp 128° .

Hantzsch, A., *Ber.*, 1906, **39**, 3080 (*synth*)

Heilbron, I.M. *et al*, *J. Chem. Soc.*, 1934, 1311 (*synth*)

Desai, R.D. *et al*, *Proc. - Indian Acad. Sci., Sect. A*, 1941, **13**, 33 (*synth*)

Brewster, C.M. *et al*, *J. Am. Chem. Soc.*, 1942, **64**, 2578 (*synth*)

Merchant, R.N. *et al*, *Curr. Sci.*, 1956, **21**, 556 (*synth*)

Tambat, N.D. *et al*, *J. Indian Chem. Soc.*, 1968, **45**, 517 (*detn. Cu*)

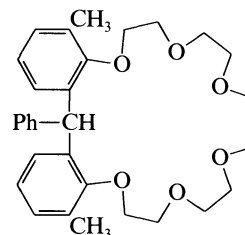
Patkar, D.N. *et al*, *Curr. Sci.*, 1973, **42**, 818 (*detn. Pd*)

Krespan, C.G., *J. Org. Chem.*, 1979, **44**, 4924 (*synth*)

Elkasaby, M.A. *et al*, *Indian J. Chem., Sect. B*, 1980, **19**, 571 (*synth, oxime*)

Propeller crown 7

P-00268



$C_{31}H_{38}O_6$ M 506.638

Used as soln. in THF in PVC membrane ion selective electrodes (selective for K^+ over Na^+). Fine powder. Mp $95-97^\circ$.

Covington, A.K. *et al*, *Analyst (London)*, 1988, **113**, 895 (*synth, use*)

2-Propenoic acid, 9CI

P-00269

Acrylic acid

[79-10-7]



$C_3H_4O_2$ M 72.063

Found in green algae. Used widely for polymerisations, incl. prodn. of polyacrylates. Misc. H_2O . d_4^{16} 1.062. Mp 13° . Bp 141° (polymerises). pK_a 4.25 (25°). n_D^{20} 1.4424.

- ▷ Toxic, irritant, causes burns, TLV 3.0. Exp. teratogen. AS4375000.
- Me ester*: [96-33-3]. *Methyl acrylate*
 $C_4H_6O_2$ M 86.090
 Dienophile. Bp 85°. Polymerises on long standing.
- ▷ Mod. toxic, irritant. Highly flammable. Forms peroxide, can polymerise violently. AT2800000.
- Et ester*: [140-88-5]. *Ethyl acrylate*
 Polymerisation feedstock, odorant for natural gas, synthetic reagent. Liq. with acid odour. d_4^{20} 0.923. Mp –71.2°. Bp 99.8°. n_D^{20} 1.4068.
- ▷ Skin and eye irritant, TLV 5ppm. LD₅₀ 420 mg/kg. Threshold carcinogen. Flammable, Fl.p.15°. AT0700000.
- Chloride*: [814-68-6].
 C_3H_3ClO M 90.509
 Bp 75°.
- ▷ AT7350000.
- Amide*: [79-06-1]. *Acrylamide*
 C_3H_5NO M 71.079
 Leaflets (C_6H_6). Sol. H₂O, EtOH, Et₂O, CHCl₃. Mp 85°. Polymerises on heating.
- ▷ Highly toxic, irritant. AS3325000.
- Nitrile*: [107-13-1]. *Vinyl cyanide. Cyanoethylene. Acrylonitrile*
 C_3H_3N M 53.063
 Monomer, cyanoethylating reagent. Used as an indicator in thermometric titrations. Sol. H₂O. Bp 78°.
- ▷ Highly toxic, TLV (skin) 4.5. Exp. carcinogen. Highly flammable, fl. p. 0°. AT5250000.
- Anhydride*:
 $C_6H_6O_3$ M 126.112
 Bp₃₅ 97°.
- Wohlk, A., *J. Prakt. Chem.*, 1900, **61**, 212.
 van der Burg, J.H.N., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1922, **41**, 21 (*synth*)
 Ratchford, W.P. *et al*, *J. Am. Chem. Soc.*, 1944, **66**, 1864 (*synth*)
 Sieburth, J.M., *Science (Washington, D.C.)*, 1960, **132**, 676 (*isol*)
 Katayama, T., *CA*, 1966, **65**, 5924 (*isol*)
 Bowles, A.J. *et al*, *Org. Mass Spectrom.*, 1969, **2**, 809 (*ms*)
 Sasaki, Y. *et al*, *Chem. Pharm. Bull.*, 1970, **18**, 1478 (*pmr. ester, nitrile*)
 Katritzky, A.R. *et al*, *J. Am. Chem. Soc.*, 1970, **92**, 6861 (*ir*)
 George, W.O. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1972, 400 (*ir, conformn, esters*)
 Greenhow, E.J. *et al*, *Analyst (London)*, 1974, **99**, 360; 1978, **103**, 411; 1979, **104**, 801 (*use, nitrile*)
 Austin, G.T., *Chem. Eng. (N.Y.)*, 1974, **81**, 86 (*rev, manu*)
 Miyajima, G. *et al*, *Org. Magn. Reson.*, 1974, **6**, 413 (*cmr*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 439.
 Villieras, J. *et al*, *Synthesis*, 1984, 406 (*synth, ester*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 165, 166, 478.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ADS250, ADS750, ADX500, ADZ000, EFT000, MGA500.

1-Propen-2-ol, 9CI

2-Hydroxypropylene. Isopropenyl alcohol
 [29456-04-0]



C_3H_6O M 58.080

Free compd. unknown.

Ac: [108-22-5]. *Isopropenyl acetate*

$C_5H_8O_2$ M 100.117

P-00270

- Reagent for enol acetylation and alkylations. Used in anal. of amino acids, alcohols and thiols. Liq. d_4^{20} 0.9226. Mp –92.9°. Bp 96°.
- ▷ Irritant, highly flammable. UD4200000.
- Me ether*: [116-11-0]. *2-Methoxypropene. Isopropenyl methyl ether*
 C_4H_8O M 72.107
 Reagent for synth. of unsatd. ketones, protecting group. Bp 38°, Bp 36°.
- ▷ UD0800000.
- Isocyanate*:
 $C_4H_5NO_2$ M 99.089
 Bp₃₉₀ 42°.
- Claisen, L., *Ber.*, 1898, **31**, 1021.
 Hennion, G.F. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 1802.
 Gwynn, B.H. *et al*, *J. Am. Chem. Soc.*, 1942, **64**, 2216.
 Foster, D.I. *et al*, *J. Am. Chem. Soc.*, 1961, **83**, 851.
 Saucy, G. *et al*, *Helv. Chim. Acta*, 1967, **50**, 1158, 2091.
 Volodina, M.A. *et al*, *CA*, 1968, **69**, 41024d; 1969, **70**, 9295c; 1970, **73**, 10500j; 1972, **76**, 30430b (*use, acetate*)
 Newman, M.S. *et al*, *J. Org. Chem.*, 1973, **38**, 2910.
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 360; **6**, 308.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MQK750.

2-Propen-1-ol, 9CI**P-00271**

Allyl alcohol

[107-18-6]



C_3H_6O M 58.080

Present in garlic *Allium sativum*. Used in manuf. of glycerol and unsatd. esters. Phytotoxic soil sterilant. Reducing agent; used for detn. of Hg(I). Liq. Misc. H₂O, alcohols. d^{15} 0.8573. Fp –50°. Bp 96-97°. pK_a 15.5 (25°). n_D^{20} 1.4135. Forms constant-boiling mixt. with H₂O contg. 27.7% H₂O.

- ▷ Highly toxic and irritant, TLV 5. Highly flammable, flash p. 21°. BA5075000.

Ac: [591-87-7].

$C_5H_8O_2$ M 100.117

Bp 103-104°. Readily polymerised in presence of alkaline earths.

- ▷ Highly toxic. AF1750000.

3,5-Dinitrobenzoyl: Mp 48°.

p-Toluenesulfonyl:

$C_{10}H_{12}O_3S$ M 212.269

Bp 135-140°.

Di-Li deriv.: Reacts with carbonyl compds. to give unsatd. diols.

Methanesulfonyl:

- ▷ Exp. neoplastic agent.

Benzenesulfonyl: *Allyl benzenesulfonate*

- ▷ Can explode on dist.

Deulafeu, V., *CA*, 1928, **22**, 4104 (*synth*)

Delaby, R. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1929, **18**, 710.

U.K. Pat., 577 992, (1947); *CA*, **41**, 2067 (*synth*)

Vogel, A.I., *Textbook of Practical Organic Chemistry*, Longmans, London, 1956 (*purif*)

Qureshi, M., *Anal. Chem.*, 1964, **36**, 2040 (*detn, Hg*)

Bernhard, R.A. *et al*, *Arch. Biochem. Biophys.*, 1964, **107**, 137 (*isol*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 11.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 165, 166, 168, 478.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AFU750, AFV500.

N-2-Propenyl-1,2-**hydrazinedicarbthioamide, 9CI**

[2113-72-6]

C₅H₁₀N₄S₂ M 190.293

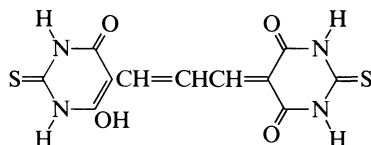
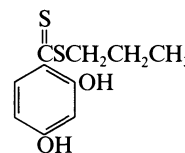
Used for separation of Ag, Bi, Cd, Co, Cu, Fe(II), Fe(III), Hg, Ni, Zn. Cryst. Sol. alkalis.

Popper, E. *et al*, *Bull. Soc. Chim. Fr.*, 1963, 99 (use)**P-00272****(±)-form**Bp 198-199°, Bp₁₃ 83-84°.**Oxime:**C₉H₁₇NO M 155.239

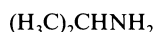
Cryst. (EtOH aq.). Mp 67-68°.

Semicarbazone: Cryst. (EtOH aq.). Mp 133.5-134° dec.Enders, D. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1976, **15**, 549 (synth)Meyers, A.I. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 3032 (synth, abs config)Bischoff, C. *et al*, *J. Prakt. Chem.*, 1976, **318**, 773 (synth)Mitra, A. *et al*, *Tetrahedron*, 1976, **32**, 2731 (synth)Hashimoto, S. *et al*, *Tetrahedron Lett.*, 1978, 573 (synth)Yamada, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1979, **52**, 275 (synth)Meyers, A.I. *et al*, *Tetrahedron Lett.*, 1983, **24**, 3551 (use)**5,5'-(1-Propen-1-yl-3-ylidene)bis[2-thiobarbituric acid], 8CI**

[1638-80-8]

C₁₁H₈N₄O₄S₂ M 324.341Used as 0.03% aq. soln. for photometric detn. of Mg (λ_{max} 620 nm). Violet cryst. (H₂O). Sol. H₂O.Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1969, **248**, 291 (synth, detn, Mg)**P-00273****S-Propyl 2,4-dihydroxydithiobenzoate****P-00276***2,4-Dihydroxydithiobenzoic acid S-propyl ether*C₁₀H₁₂O₂S₂ M 228.336Used as a 0.25-0.5% soln. in EtOH as turbidimetric acid-base indicator (pH range: 6.0-7.0). Cryst. Sol. Me₂CO, EtOH.Korenmann, I.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1305 (use, ind)**2-Propylamine****P-00274***2-Propanamine, 9CI. Isopropylamine. 2-Aminopropane*

[75-31-0]

C₃H₉N M 59.111Used for photometric detn. of Cu (λ_{max} 590 nm) (pH range 4-10). Liq. Mp -101°. Bp 33-34°. pK_a 5.27.

▷ Strong irritant, TLV 12. Extremely flammable, fl. p. -37°. NT8400000.

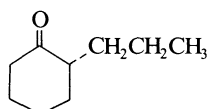
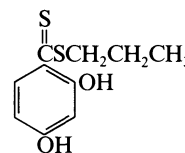
B, HCl: [15572-56-2].

Mp 153-155°.

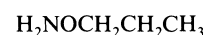
▷ NT9530000.

B, (COOH)₂: Mp 160-160.5°.Gabriel, S. *et al*, *Ber.*, 1917, **50**, 804 (synth)Skita, A. *et al*, *Ber.*, 1928, **61**, 1682 (synth)Winans, C.F. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 2056 (synth)Norton, D.G. *et al*, *J. Org. Chem.*, 1954, **19**, 1054 (synth)Staskun, B. *et al*, *J. Chem. Soc. C*, 1966, 531 (synth)Sarneskii, J.E. *et al*, *Anal. Chem.*, 1975, **47**, 2116 (cmr)Sharma, C.L. *et al*, *Fresenius' Z. Anal. Chem.*, 1976, **280**, 219 (use)*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 372.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, INK000, INL000.**2-Propylcyclohexanone, 9CI****P-00275**

[94-65-5]

C₉H₁₆O M 140.225**(R)-form** [36302-45-1][α]_D²⁵ -28.2° (c, 3.78 in MeOH).**(S)-form** [67113-13-7]Reagent used to detect enantiomeric purity of 1,2-glycols by cmr or hplc. [α]_D²⁵ +24.7° (MeOH).**(R)-form**
Absolute configuration**S-Propyl 2,4-dihydroxydithiobenzoate****P-00276***2,4-Dihydroxydithiobenzoic acid S-propyl ether*C₁₀H₁₂O₂S₂ M 228.336Used as a 0.25-0.5% soln. in EtOH as turbidimetric acid-base indicator (pH range: 6.0-7.0). Cryst. Sol. Me₂CO, EtOH.Korenmann, I.M. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 1305 (use, ind)**O-Propylhydroxylamine, 9CI****P-00277***Hydroxylamine propyl ether. Propoxylamine. Propoxyamine*

[5792-43-8]

C₃H₉NO M 75.110

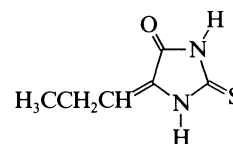
Derivatisation reagent for carbonyl compds. Oil. Bp 90-91°.

B, HCl: [6084-54-4].

Plates (EtOAc). Mp 150-151°.

Theilacker, W. *et al*, *Angew. Chem.*, 1956, **68**, 303 (synth)Mamalis, P. *et al*, *J. Chem. Soc.*, 1960, 229 (synth)Smith, A.G., *J. Chromatogr.*, 1977, **142**, 533 (use)**5-Propylidene-2-thioxo-4-imidazolidinone, 9CI****P-00278**

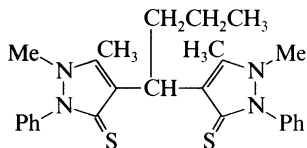
[84071-20-5]

C₆H₈N₂OS M 156.208Used as 0.5mM EtOH soln. to give colour reaction with Cu(I) (pH 4.5). Cryst. (EtOH). Sol. EtOH, DMF. Mp 197-200°. pK_{a1} 8.3; pK_{a2} 11.8.Montana Gonzalez, M.T. *et al*, *Mikrochim. Acta*, 1982, **2**, 363 (synth, use)

4,4'-(Propylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazole-3-thione], 9CI

P-00279

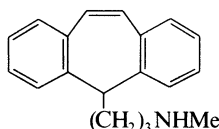
Propyldithioantipyrilmethane

 $C_{26}H_{30}N_4S_2$ M 462.682Used as 0.5% soln. in AcOH for photometric detn. of Os (λ_{max} 690 nm, ϵ 5000). Cryst. Mp 249-250°.Akimov, V.K. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 1004 (*synth, use*)**Protriptyline, BAN, INN**

P-00280

N-Methyl-5H-dibenzo[a,d]cycloheptene-5-propanamine, 9CI.
7-(3-Methylaminopropyl)-1,2:5,6-dibenzocycloheptatriene. 5-(3-Methylaminopropyl)-5H-dibenzo[a,d]cycloheptene.
Amimethyline

[438-60-8]

 $C_{19}H_{21}N$ M 263.382

Antidepressant.

▷ HP1050000.

B, HCl: [1225-55-4]. *Protriptyline hydrochloride, USAN.**Anelun. Concordin. Maximed. Triptil. Vivacitil*Used as 0.1M aq. soln. for fluorimetric and photometric detn. of Co (λ_{max} 342 nm, ϵ 5200). Cryst. (2-propanol/Et₂O). Sol. H₂O. Mp 169-171°.

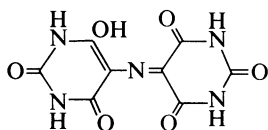
▷ HP1400000.

Engelhardt, E.L. *et al*, *J. Med. Chem.*, 1968, **11**, 325 (*synth, pharmacol*)Siek, T.J., *J. Forensic Sci.*, 1974, **19**, 193 (*w*)Wilson, J.M. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1977, **23**, 1012 (*ms*)Abraham, R.J. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1977, 1964 (*pmr*)Burns, D.T. *et al*, *Anal. Chim. Acta*, 1980, **115**, 389 (*detn, Co*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2534.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DDA600, POF250.**Purpuric acid**

P-00281

5-[(Hexahydro-2,4,6-trioxo-5-pyrimidyl)imino]-
2,4,6-(1H,3H,5H)-pyrimidinetrione, 9CI. 5,5'-
Nitrilodibarbaturic acid, 8CI

[121-08-4]

 $C_8H_5N_5O_6$ M 267.157Known only as salts. pK_{a2} 9.2; pK_{a3} 10.9 (25°). Salts dec. on acidification → Uramil and Alloxan. NH_4 salt: [3051-09-0]. *Murexide. C.I. 56085*Used as 0.1% aq. soln. as a metal indicator in EDTA titration of Ca (pH ~ 12). Co, Cu, Ni; photometric detn. of Ca, Sr. Purple-red cryst. with green lustre (H₂O saturated with NH₄Cl). Sol. H₂O. Mp > 300°. pK_{a2} 9.2; pK_{a3} 10.5. Deep-purple aq. soln.*Li salt*: Deep-red triclinic cryst. + 2H₂O.*K salt*: Black rectangular needles + 2H₂O.*N-Tetra-Me*: [18641-48-0]. 1,3-Dimethyl-5-[(tetrahydro-1,3-dimethyl-2,4,6-trioxo-5(2H)-pyrimidinylidene)amino]-2,4,6-(1H,3H, 5H)-pyrimidinetrione, 9CI.*Tetramethylmurexide. Murexoin* $C_{12}H_{13}N_5O_6$ M 323.265Red-coloured oxidn. prod. of Caffeine. Used as a 0.04% mM aq. soln. of NH₄⁺ salt for spectrophotometric detn. of Ca (in urine), Ba, Mg, Sr. Red needles (as NH₄ salt).

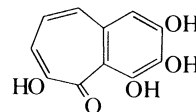
[32340-52-6]

Hantzsch, A. *et al*, *Ber.*, 1910, **43**, 92 (*synth*)Davidson, D. *et al*, *J. Am. Chem. Soc.*, 1936, **58**, 1821 (*synth*)Winslow, N.M., *J. Am. Chem. Soc.*, 1939, **61**, 2089 (*struct*)Gysling, H. *et al*, *Helv. Chim. Acta*, 1949, **32**, 1484 (*Murexoin*)Pollard, F.N. *et al*, *Analyst (London)*, 1956, **81**, 348 (*detn, Ca*)Russel, D.S. *et al*, *Anal. Chim. Acta*, 1961, **25**, 81 (*detn, Sr*)Blake, A.B., *Nature (London)*, 1966, **212**, 67 (*cryst struct*)Auterhoff, H. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1968, **30**, 73 (*Murexoin*)Kohn, R., *Chem. Zvesti*, 1969, **23**, 721 (*use*)Clark-Lewis, J.W. *et al*, *Aust. J. Chem.*, 1970, **23**, 323 (*synth*)Buerger, H.B. *et al*, *Helv. Chim. Acta*, 1972, **55**, 1771 (*cryst struct*)Ohnishi, S.T., *Anal. Biochem.*, 1978, **85**, 165 (*use*)Balaji, K.S. *et al*, *Anal. Chem.*, 1978, **50**, 1972 (*detn, Ca*)Kozuka, H. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 941 (*synth, struct, Murexoin*)Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 291 (*use*)Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 357.**Purpurogallin**

P-00282

2,3,4,6-Tetrahydroxy-5H-benzocyclohepten-5-one, 9CI

[569-77-7]

 $C_{11}H_8O_5$ M 220.181Occurs in gall of *Dryophanta divisa* as glycoside. Used as 5mM soln. in dioxan or 0.01M soln. in EtOH for photometric detn. of Zr and Ge (λ_{max} 340 nm, ϵ 34200). Used for gravimetric detn. of Ce, Mo, Th, Zr. Yellow or dark-red needles (AcOH). Mp 274° (rapid heating). Dec. without melting when slowly heated.

▷ DE8380000.

Tetra-Ac: Plates (EtOH or C₆H₆). Mp 184-186°.*Tetra-Me ether*: Prisms (EtOH). Mp 93-94°.Barltrop, J.H. *et al*, *J. Chem. Soc.*, 1948, 116 (*struct*)Haworth, R.D. *et al*, *J. Chem. Soc.*, 1948, 1045; 1949, 3271 (*struct*)Caunt, D. *et al*, *J. Chem. Soc.*, 1950, 1631 (*synth*)Critchlow, A. *et al*, *J. Chem. Soc.*, 1951, 1318 (*struct, synth*)Alimarin, I.P. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 700 (*detn, Zr*)Hui-Ming Shih, *et al*, *CA*, 1963, **59**, 12163 (*detn, Ge*)Dutt, Y. *et al*, *Indian J. Appl. Chem.*, 1963, **26**, 77 (*use*)Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 1459 (*detn, Ge*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TDD500.

Pyrazine, 9CI

Piazine (obsol.)

[290-37-9]



$C_4H_4N_2$ M 80.089

Prisms (H_2O). Sol. H_2O , EtOH, Et_2O . Mp 47°. Bp₇₆₈ 115.5-115.8°. pK_{a1} 0.57; pK_{a2} -5.51 (25°, H_2O). Steam-volatile.

▷ UQ2015000.

B, H_2SO_4 : Mp 136-137°.

B, Mel: [6277-35-6].

$C_5H_7IN_2$ M 222.028

Used for photometric detn. of CO (λ_{max} 658 nm, ϵ 12500), CN^\ominus , sulfoxides. Cryst. Sol. H_2O , EtOH, Et_2O .

Picrate: Yellow needles (EtOH). Mp 157°.

l-Oxide: [2423-65-6].

$C_4H_4N_2O$ M 96.088

Needles (C_6H_6). Mp 113-114°.

l,4-Dioxide: [2423-84-9].

$C_4H_4N_2O_2$ M 112.088

Needles (MeOH). Mp 285-295°.

Aston, J.G. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 153 (*synth*)

Koelsch, C.F. *et al*, *J. Org. Chem.*, 1958, **23**, 1603 (*oxides*)

Cheeseman, G.W.H. *et al*, *Adv. Heterocycl. Chem.*, 1972, **14**, 99 (*rev*)

Tóth, A. *et al*, *Acta Chim. Acad. Sci. Hung.*, 1973, **77**, 69 (*uv*)

Kobayashi, Y. *et al*, *Chem. Pharm. Bull.*, 1974, **22**, 2097 (*oxides*)

Rao, G.V. *et al*, *Indian J. Chem.*, 1975, **13**, 1090 (*pmr*)

Wadt, W.R. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 2034 (*struct*)

DeWith, G. *et al*, *Acta Crystallogr., Sect. B*, 1976, 3178 (*cryst struct*)

Toma, H.E. *et al*, *CA*, 1977, **87**, 77908f (*methiodide, detn. CO, CN[⊖], sulfoxides*)

Tsujimoto, T. *et al*, *Chem. Pharm. Bull.*, 1979, **27**, 1169 (*cmr*)

Gumbley, S.J. *et al*, *J. Heterocycl. Chem.*, 1985, **22**, 1143 (*props*)

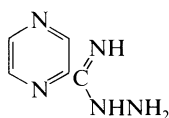
Cradock, S. *et al*, *J. Am. Chem. Soc.*, 1988, **110**, 2758 (*struct*)

Pyrazinecarboximidic acid hydrazide, 8CI

P-00284

Pyrazylhydrazidine

[18107-03-4]



$C_5H_7N_5$ M 137.144

Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{max} 535 nm, ϵ 7800). Cryst. (C_6H_6). Sol. common org. solvents, dil. HCl. Mp 123-124°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)

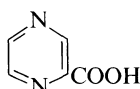
Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn. Fe*)

Pyrazinecarboxylic acid, 9CI

P-00285

Pyrazinoic acid

[98-97-5]



$C_5H_4N_2O_2$ M 124.099

Needles (H_2O). Mp 225-229° dec. Sublimes.

Me ester: [6164-79-0].

$C_6H_6N_2O_2$ M 138.126

P-00283

Cryst. (Et_2O), needles (pet. ether). Mp 59°, Mp 61-62°.

Amide: [98-96-4]. *Pyrazinecarboxamide, 9CI. Pyrazinamide, BAN, INN. Aldinamide. Eprazin. Tebrazid. Other proprietary names*

$C_5H_5N_3O$ M 123.114

Tuberculostatic. Used as a 0.01-0.001M aq. soln. for photometric detn. of Co (λ_{max} 380 nm). Cryst. (H_2O or EtOH). Mp 189-191° (subl. from 159°). pK_a -0.5.

▷ Exp. neoplastic agent. UQ2275000.

Nitrile: [19847-12-2]. *Pyrazinecarbonitrile, 9CI.*

Cyanopyrazine

$C_5H_3N_3$ M 105.099

Oil or cryst. Mp 20°. Bp₆ 87°.

l-Oxide: [32046-09-6].

$C_5H_4N_2O_3$ M 140.098

Prisms (H_2O). Mp 138-139°.

Me ester, l-oxide: [85661-24-1].

$C_6H_6N_2O_3$ M 154.125

Needles (MeOH). Mp 81-82°.

Me ester, 4-oxide: [770-00-3].

$C_6H_6N_2O_3$ M 154.125

Cryst. (MeOH). Mp 169-171°.

Nitrile, l-oxide: [32046-03-0].

$C_5H_3N_3O$ M 121.098

Prisms (MeOH). Mp 157-159°.

Kushner, S. *et al*, *J. Am. Chem. Soc.*, 1952, **74**, 3617 (*amide*)

Gainer, H., *J. Org. Chem.*, 1959, **24**, 691 (*synth*)

Robba, M., *Ann. Chim. (Paris)*, 1960, **5**, 351 (*nitrile*)

Marx, G.S. *et al*, *J. Org. Chem.*, 1972, **37**, 111 (*pmr*)

Weiner, I.M. *et al*, *J. Pharmacol. Exp. Ther.*, 1972, **180**, 411 (*pharmacol. amide*)

Bus, J. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1973, **92**, 123 (*ir*)

Takusagawa, F. *et al*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 1409 (*cryst struct*)

Sikorska, H., *Chem. Anal. (Warsaw)*, 1975, **20**, 1025 (*use, amide*)

Tsujimoto, T. *et al*, *Chem. Pharm. Bull.*, 1979, **27**, 1169 (*cmr*)

Tiwari, R.K. *et al*, *Indian J. Phys., A*, 1982, **56**, 413 (*cryst struct, amide*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7568.

Felder, E. *et al*, *Anal. Profiles Drug Subst.*, 1983, **12**, 433 (*rev, synth, pharmacol, anal*)

Sato, N., *J. Heterocycl. Chem.*, 1983, **20**, 169 (*synth, ir, pmr, oxides*)

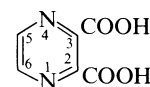
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademi-Verlag, Berlin, 1987, 272 (*Amide*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, POL500.

2,3-Pyrazinedicarboxylic acid

P-00286

[89-01-0]



$C_6H_4N_2O_4$ M 168.109

Used as 2% aq. soln. for photometric detn. of Mo (λ_{max} 550 nm, ϵ 9500); as 0.05M soln. in 2M aq. NH_4OAc for photometric detn. of Fe(II). Cryst. Mp 183-185° dec. pK_{a1} 0.9 (2.20); pK_{a2} 3.57.

Di-Me ester: [6164-77-8].

$C_8H_8N_2O_4$ M 196.162

Mp 50°.

Di-Et ester: [2427-90-9].

$C_{10}H_{12}N_2O_4$ M 224.216

Bp₈ 165°.

Diamide: [6164-78-9].

$C_6H_6N_4O_2$ M 166.139

Cryst. (H_2O). Mp 240° dec.

Dinitrile: [13481-25-9]. 2,3-Dicyanopyrazine

$C_6H_2N_4$ M 130.109

Mp 132.5-133°.

Anhydride:

$C_6H_2N_2O_3$ M 150.093

Mp 210° dec. (170°).

Gabriel, S. *et al*, *Ber.*, 1907, **40**, 4851.

Solomons, I.A. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 679.

Hemmerich, P. *et al*, *Helv. Chim. Acta*, 1958, **41**, 498 (*anhydride*)

Org. Synth., *Coll. Vol.*, 4, 1963, 824.

Oguchi, S., *Nippon Kagaku Zasshi*, 1965, **86**, 435.

Hartkamp, H., *Fresenius' Z. Anal. Chem.*, 1967, **231**, 161; 1968,

241, 66 (*detn. Mo*)

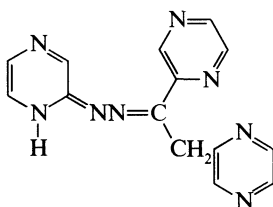
Takusagawa, F. *et al*, *Chem. Lett.*, 1973, 1121 (*cryst struct*)

Sanyal, G.S. *et al*, *Fresenius' Z. Anal. Chem.*, 1975, **276**, 71 (*detn. Fe*)

2(1H)-Pyrazinone (1,2-dipyrazinylethylidene)hydrazone, 9CI

P-00287

[71336-96-4]



$C_{14}H_{12}N_8$ M 292.302

Used as a 0.01M soln. in EtOH for photometric detn. of

Co (λ_{max} 538 nm, ϵ 24000), Cu(I) (λ_{max} 521 nm, ϵ

13000), Fe(II), Ni (λ_{max} 499 nm, ϵ 36600). Cryst.

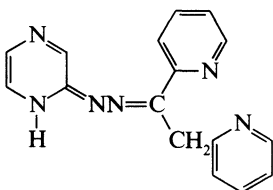
(EtOH). Sol. common org. solvs. Mp 216°.

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 85 (*synth, use*)

2(1H)-Pyrazinone (1,2-di-2-pyridinylethylidene)hydrazone, 9CI

P-00288

[71336-88-4]



$C_{16}H_{14}N_6$ M 290.327

Used as a 0.01M soln. in EtOH for photometric detn. of

Co (λ_{max} 499 nm, ϵ 26000), Cu(I) (λ_{max} 483 nm, ϵ

18900), Fe(II), Ni (λ_{max} 470, ϵ 39000). Cryst. (MeOH).

Sol. common org. solvs. Mp 164°.

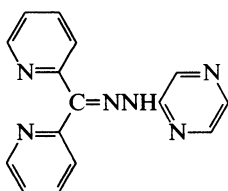
Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 85 (*synth, use*)

2(1H)-Pyrazinone (di-2-pyridinylmethylene)hydrazone, 9CI

P-00289

Di-2-pyridyl ketone pyrazinylhydrazone

[58495-43-5]



$C_{15}H_{12}N_6$ M 276.300

Used as a soln. in aq. EtOH for photometric detn. of

Cu(I) (λ_{max} 495 nm, ϵ 20700), Co (λ_{max} 505, ϵ 30700), Ni

(λ_{max} 481 nm, ϵ 45800), Fe(II). Cryst. Sol. common org. solvs.

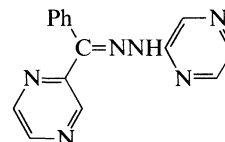
Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 373 (*use*)

2(1H)-Pyrazinone (phenylpyrazinylmethylene)hydrazone, 9CI

P-00290

[58495-45-7]



$C_{15}H_{12}N_6$ M 276.300

Used as a soln. in aq. EtOH to give colour reactions with

Cu(I), Fe(II). Cryst. Sol. common org. solvs.

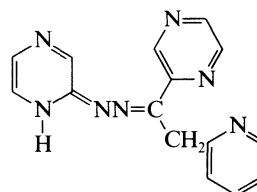
Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 373 (*use*)

2(1H)-Pyrazinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, 9CI

P-00291

[71336-90-8]



$C_{15}H_{13}N_7$ M 291.315

Used as a 0.01M soln. in EtOH for photometric detn. of

Co (λ_{max} 533 nm, ϵ 23300), Cu(I) (λ_{max} 514 nm, ϵ

17000), Fe(II), Ni (λ_{max} 501 nm, 30000). Cryst. (MeOH).

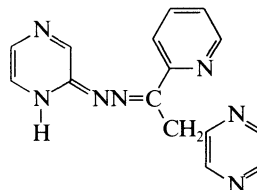
Sol. common org. solvs. Mp 179°.

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 85 (*synth, use*)

2(1H)-Pyrazinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, 9CI

P-00292

[71336-94-2]



$C_{15}H_{13}N_7$ M 291.315

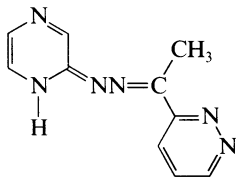
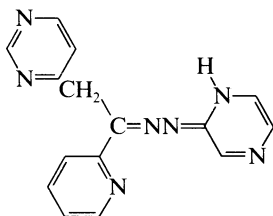
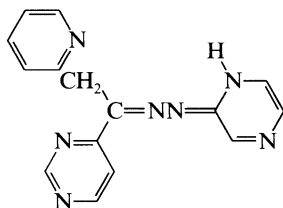
Used as a 0.01M soln. in EtOH for photometric detn. of

Co (λ_{max} 492 nm, ϵ 25100), Cu(I) (λ_{max} 478 nm, ϵ

19000), Fe(II), Ni (λ_{max} 466 nm, ϵ 46000). Cryst.

(EtOH). Sol. common org. solvs. Mp 195°.

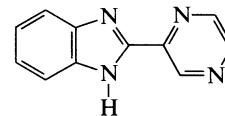
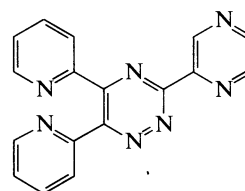
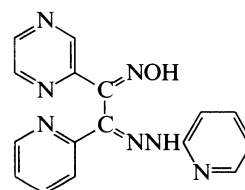
Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 85 (*synth, use*)

2(1H)-Pyrazinone [1-(3-pyridazinyl)ethylidene]hydrazone, 9CI3-Acetylpyridazine pyrazinylhydrazone
[58495-47-9] $C_{10}H_{10}N_6$ M 214.229Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 525 nm, ϵ 20800), Cu (λ_{\max} 500nm, ϵ 15000), Fe(II), Ni (λ_{\max} 480 nm, ϵ 30000). Cryst. Sol. common org. solvs.Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)
Schilt, A.A. *et al, Talanta*, 1979, **26**, 373 (*use*)**2(1H)-Pyrazinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, 9CI**
[71336-98-6] $C_{15}H_{13}N_7$ M 291.315Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{\max} 500 nm, ϵ 23800), Cu(I) (λ_{\max} 476 nm, ϵ 21000), Fe(II), Ni (λ_{\max} 469 nm, ϵ 44000). Cryst. (MeOH). Sol. common org. solvs. Mp 163°.Schilt, A.A. *et al, Talanta*, 1979, **26**, 85 (*synth, use*)**2(1H)-Pyrazinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, 9CI**
[71336-92-0] $C_{15}H_{13}N_7$ M 291.315Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{\max} 516 nm, ϵ 30100), Cu(I) (λ_{\max} 498 nm, ϵ 32000), Fe(II), Ni (λ_{\max} 492 nm, ϵ 55000). Cryst. (MeOH). Sol. common org. solvs. Mp 187°.Schilt, A.A. *et al, Talanta*, 1979, **26**, 85 (*synth, use*)

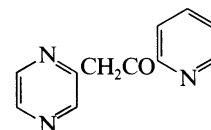
P-00293

2-(Pyrazinyl)benzimidazole, 8CI
(2-Benzimidazolyl)pyrazole

[2602-88-2]

 $C_{11}H_8N_4$ M 196.211Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{\max} 600 nm, ϵ 8800). Cryst. (C_6H_6). Sol. C_6H_6 , Me_2CO , EtOH, dil. HCl. Mp 235-236°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)
Schilt, A.A. *et al, Talanta*, 1969, **16**, 519 (*detn, Fe*)**3-Pyrazinyl-5,6-di-2-pyridyl-1,2,4-triazine**
[18091-50-4] $C_{17}H_{11}N_7$ M 313.321Used as a 5mM soln. in EtOH aq. for photometric detn. of Cd (λ_{\max} 455 nm), Cu(I) (λ_{\max} 507 nm), Fe(II) (λ_{\max} 580 nm, ϵ 6800). Cryst. (DMF). Sol. C_6H_6 , dil. HCl. Mp 191-192°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)
Schilt, A.A. *et al, Talanta*, 1969, **16**, 519 (*detn, Cd, Cu, Fe*)**Pyrazinyl-2-pyridinylethanedione 2-(2-pyridinyl)hydrazone) 1-oxime, 9CI**
[71337-01-4] $C_{16}H_{13}N_7O$ M 319.325Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{\max} 483 nm, ϵ 33700), Cu(I) (λ_{\max} 470 nm, ϵ 24000), Fe(II), Ni (λ_{\max} 445 nm, ϵ 24600). Cryst. (EtOH). Sol. common org. solvs. Mp 258°.Schilt, A.A. *et al, Talanta*, 1979, **26**, 85 (*synth, use*)**2-Pyrazinyl-1-(2-pyridinyl)ethanone**
2-(Pyrazinylacetyl)pyridine

[62846-81-5]

 $C_{11}H_9N_3O$ M 199.212

Cryst. (MeOH). Mp 122°.

2-Thiazolylhydrazone: [73568-95-3].

 $C_{14}H_{12}N_6S$ M 296.355

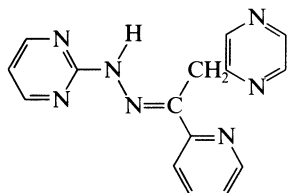
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 480 nm, ϵ 26100), Cu(I) (λ_{\max} 462 nm, ϵ 16500), Fe(II) (λ_{\max} 620 nm, ϵ 74000), Ni (λ_{\max} 549 nm, ϵ 39800). Cryst.(MeOH). Sol. common org. solvs. Mp 147°.

Oxime: [62846-71-3].

$C_{11}H_{10}N_4O$ M 214.226
Cryst. (C_6H_6). Mp 154°.

Case, F.H. *et al*, *J. Heterocycl. Chem.*, 1977, **14**, 1 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth, use, deriv*)

2-Pyrazinyl-1-(2-pyridinyl)ethanone 2-pyrimidinylhydrazone, 9CI **P-00300**
[73569-05-8]

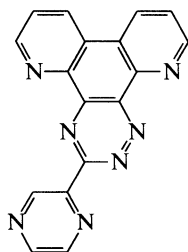


$C_{15}H_{13}N_7$ M 291.315

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 452 nm, ϵ 26000), Cu(I) (λ_{\max} 484 nm, ϵ 15200), Fe(II) (λ_{\max} 556 nm, ϵ 7600), Ni (λ_{\max} 429 nm, ϵ 39700). Cryst. (MeOH aq.). Sol. common org. solvs. Mp 151°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth, use*)

3-(Pyrazinyl)-1,2,4-triazino[5,6-f][4,7]phenanthroline **P-00301**
[18207-64-2]

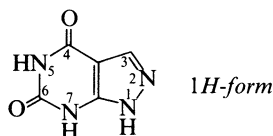


$C_{17}H_9N_7$ M 311.305

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co, Cu(I) (λ_{\max} 531 nm, ϵ 8300), Fe(II) (λ_{\max} 581 nm, ϵ 15800). Cryst. Sol. C_6H_6 .

Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn, Co, Cu, Fe*)

1H-Pyrazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 9CI **P-00302**
Oxypurinol, BAN, USAN. *Oxipurinol*, INN. *Alloxanthine*. *Oxoallopurinol*. BW 55-5. NSC 76239
[2465-59-0]



$C_5H_4N_4O_2$ M 152.112

Purine numbering may also be used. 1H-Form predominates. Metab. of allopurinol. Specific inhibitor of the reduced form of xanthine oxidase. Reagent for the spectrophotometric anal. of hexamethylenetetramine in pharmaceuticals. Cryst. (H_2O). Mp > 300°.

1H-form

1,5-Di-Me: [7254-33-3].

$C_7H_8N_4O_2$ M 180.166
Granules. Mp 297-298°.

5,7-Di-Me: [4680-51-7].

$C_7H_8N_4O_2$ M 180.166

Cryst. (EtOH). Mp 280-281°. pK_{a1} 9.26 (20°).

1,5,7-Tri-Me: [4318-52-9].

$C_8H_{10}N_4O_2$ M 194.193

Cryst. (EtOH). Mp 202-204°.

2H-form

2,5,7-Tri-Me: [10505-26-7].

$C_8H_{10}N_4O_2$ M 194.193

Cryst. Mp 267-269°.

Schmidt, P. *et al*, *Helv. Chim. Acta*, 1956, **39**, 986 (*synth*)

Robins, R.K., *J. Am. Chem. Soc.*, 1956, **78**, 784 (*synth*)

Falco, E.A. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 3143 (*synth*)

Rundles, R.W., *Ann. Rheum. Dis. Suppl.*, 1966, **6**, 615 (*rev, pharmacol*)

Simmonds, H.A., *Clin. Chim. Acta*, 1969, **23**, 353 (*metab*)

Massey, V. *et al*, *J. Biol. Chem.*, 1970, **245**, 2837 (*props*)

Delbarre, F. *et al*, *C. R. Hebd. Seances Acad. Sci. Ser. D*, 1971, **272**, 639 (*props*)

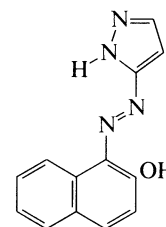
Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1007.

Seela, F. *et al*, *Justus Liebigs Ann. Chem.*, 1986, 1213 (*cmr, bibl, derivs*)

Yanchuk, V.D. *et al*, *CA*, 1988, **108**, 101419x, 137947g (*use*)

1-(1H-Pyrazol-3-ylazo)-2-naphthalenol, 9CI **P-00303**
3(5)-(2-Hydroxy-1-naphthylazo)pyrazole
[55435-18-2]

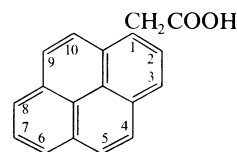


$C_{13}H_{10}N_4O$ M 238.248

Used as 1mM soln. in EtOH or dioxan for extraction-photometric detn. of Cu, Co, Ni. Orange cryst. (EtOH). Sol. EtOH, Me_2CO , $CHCl_3$, dioxan, EtOAc; spar. sol. H_2O . Mp 207-208°. pK_{a1} 3.27; pK_{a2} 10.68.

Gancarczyk, T. *et al*, *Chem. Anal. (Warsaw)*, 1974, **19**, 1215 (*synth, use*)

1-Pyreneacetic acid, 9CI **P-00304**
[64709-55-3]



$C_{18}H_{12}O_2$ M 260.292

Indicator for the titration of organolithium cpds. and Grignard reagents. Cryst. (toluene/MeOH). Mp 214-219°, Mp 221-222°.

Me ester: [73654-19-0].

$C_{19}H_{14}O_2$ M 274.318

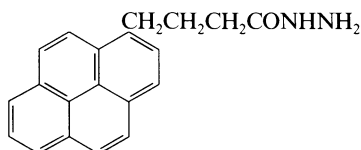
Plates (hexane). Mp 90-91.5°.

Shozda, R.J. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 1716 (*synth, deriv*)

Deck, L.M. *et al*, *J. Org. Chem.*, 1983, **48**, 3577 (*synth, deriv*)

Kijuren, H. *et al*, *J. Org. Chem.*, 1991, **56**, 6950 (*use*)

1-Pyrenebutanoic acid hydrazide, 9CI **P-00305**
[55486-13-0]



$C_{20}H_{18}N_2O$ M 302.375

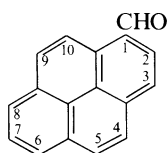
Fluorescent labelling reagent.

Reines, S.A. *et al*, *Nucleic Acids Res.*, 1974, **1**, 767 (*synth, use*)

Koenig, P. *et al*, *Biopolymers*, 1977, **16**, 2231.

Fujimori, E. *et al*, *Biochim. Biophys. Acta*, 1983, **742**, 155.

1-Pyrenecarboxaldehyde, 9CI **P-00306**
1-Formylpyrene
[3029-19-4]



$C_{17}H_{10}O$ M 230.265

Used as fluorogenic reagent for primary amines. Yellow leaflets (EtOH). Mp 125-126°.

Oxime: [3786-56-9].

$C_{17}H_{11}NO$ M 245.280

Cryst. (EtOH aq.). Mp 191-192°.

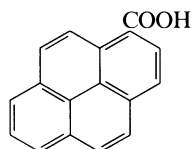
Martin, R.H. *et al*, *Bull. Soc. Chim. Belg.*, 1955, **64**, 367; 1965, **74**, 418 (*synth, pmr*)

Hwang, T.K. *et al*, *Anal. Chim. Acta*, 1978, **99**, 305 (*use*)

Secrist, J.A. *et al*, *J. Org. Chem.*, 1979, **44**, 2941 (*synth*)

Bair, K.W. *et al*, *J. Med. Chem.*, 1990, **33**, 2385 (*oxime*)

1-Pyrenecarboxylic acid, 9CI **P-00307**
3-Pyrenecarboxylic acid (obsol.)
[19694-02-1]



$C_{17}H_{10}O_2$ M 246.265

Fluorescent label for amines. Yellow needles (PhCl, EtOH). Mp 273°.

Me ester: [6145-35-3].

$C_{18}H_{12}O_2$ M 260.292

Cryst. (MeOH). Mp 83-84°.

Et ester:

$C_{19}H_{14}O_2$ M 274.318

Mp 63°.

Vollmann, H. *et al*, *Justus Liebigs Ann. Chem.*, 1937, **531**, 1 (*synth*)

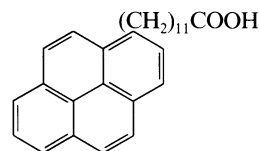
Berg, A., *Acta Chem. Scand.*, 1949, **3**, 655; 1956, **10**, 1362 (*synth*)

Hansen, P.E. *et al*, *Acta Chem. Scand., Ser. B*, 1981, **35**, 131 (*ir*)

Milosavljevic, B.H. *et al*, *J. Phys. Chem.*, 1988, **92**, 2997

(*photophys props*)

1-Pyrenedodecanoic acid, 9CI **P-00308**
3-Pyrenedodecanoic acid (obsol.)
[69168-45-2]



$C_{28}H_{32}O_2$ M 400.560

Fluorescent probe for lipids. Cryst. (Me₂CO). Mp 123-125°.

Me ester: [69168-44-1].

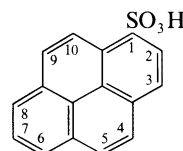
$C_{29}H_{34}O_2$ M 414.586

Cryst. (pet. ether). Mp 63-65°.

Katusin-Razem, B., *Croat. Chem. Acta*, 1978, **51**, 163 (*synth, ir, uv, pmr*)

Homan, R. *et al*, *Anal. Biochem.*, 1989, **178**, 166 (*use*)

1-Pyrenesulfonic acid **P-00309**
[26651-23-0]



$C_{16}H_{10}O_3S$ M 282.319

Cryst. + 2H₂O (H₂SO₄ aq.). Mp 182-184° (anhyd.).

Monohydrate: Mp 118-119°.

Dihydrate: Amorph. solid. Mp 128°.

Chloride: [61494-52-8].

$C_{16}H_9ClO_2S$ M 300.765

Fluorescent labelling reagent for amine groups. Mp 175-176°.

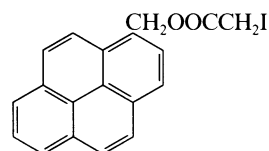
Colter, A.K. *et al*, *Can. J. Chem.*, 1978, **56**, 585 (*synth, deriv, ir, pmr*)

Nakabayashi, M. *et al*, *Photochem. Photobiol.*, 1981, **33**, 449 (*use, deriv*)

Cerfontain, H. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1983, **102**, 210 (*pmr*)

Menger, F.M. *et al*, *J. Org. Chem.*, 1987, **52**, 3793 (*synth*)

1-Pyrenylmethyl iodoacetate, 9CI **P-00310**
3-Pyrenylmethyl iodoacetate (obsol.). *1-(Iodoacetoxymethyl) pyrene*
[67013-49-4]



$C_{19}H_{13}IO_2$ M 400.215

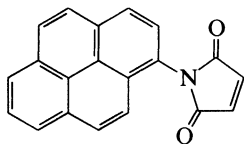
Fluorescent probe for proteins.

Chen, R.F. *et al*, *Anal. Lett.*, 1985, **18**, 393 (*use*)

1-(1-Pyrenyl)-1H-pyrrole-2,5-dione, 9CI

N-(1-Pyrenyl)maleimide

[42189-56-0]

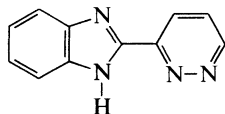
C₂₀H₁₁NO₂ M 297.312

Fluorescent reagent for thiol groups. Gold needles (EtOH aq.). Mp 223-225°.

Weltman, J.K. *et al*, *J. Biol. Chem.*, 1973, **248**, 3173 (*synth*, *ir*, *pmr*, *w*, *use*)Wu, C.-W. *et al*, *Biochemistry*, 1976, **15**, 2863 (*use*)Lux, B. *et al*, *J. Biol. Chem.*, 1981, **256**, 1767 (*use*)**2-(3-Pyridazinyl)benzimidazole, 8CI**

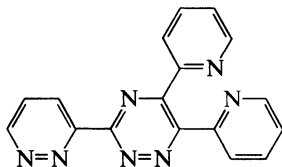
3-(2-Benzimidazolyl)pyridazine

[18107-01-2]

C₁₁H₈N₄ M 196.211Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 590 nm, ϵ 8100). Cryst. (C₆H₆/EtOH). Sol. C₆H₆, Me₂CO, EtOH, dil. HCl. Mp 270-271°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn*, *Fe*)**3-(3-Pyridazyl)-5,6-bis(2-pyridyl)-1,2,4-triazine**

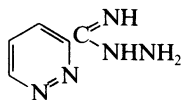
3-(3-Pyridazinyl)-5,6-di-2-pyridyl-as-triazine, 8CI

[18091-51-5]

C₁₇H₁₁N₇ M 313.321Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{\max} 450 nm, ϵ 6000), Cu(I) (λ_{\max} 507 nm, ϵ 4800), Fe(II) (λ_{\max} 584 nm, ϵ 12900). Cryst. (EtOH). Sol. C₆H₆, Me₂CO, dil. HCl; mod. sol. EtOH. Mp 206-207°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn*, *Co*, *Cu*, *Fe*)**3-Pyridazylhydrazidine**

3-Pyridazinecarboximidic acid hydrazide, 8CI

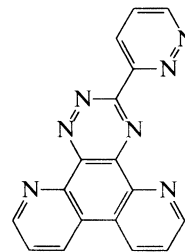
[18107-04-5]

C₅H₇N₅ M 137.144Used as a 5mM soln. in EtOH aq. for photometric detn. of Fe(II) (λ_{\max} 525 nm, ϵ 14800). Cryst. (EtOH). Sol. C₆H₆, Me₂CO, EtOH. Mp 164-165°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1989, **16**, 519 (*detn*, *Fe*)

P-00311

3-(3-Pyridazyl)-1,2,4-triazino[5,6-f][4,7]phenanthroline

[18091-53-7]

C₁₇H₉N₇ M 311.305Used as a 5mM soln. in EtOH for photometric detn. of Co, Cu(I) (λ_{\max} 525 nm, ϵ 7100), Fe(II) (λ_{\max} 583 nm, ϵ 15900). Cryst. Sol. C₆H₆.Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn*, *Co*, *Cu*, *Fe*)

P-00312

Pyridine

[110-86-1]

C₅H₅N M 79.101

Extracted in quantity from coal tar. Found in traces in some plants, e.g. *Nicotiana paniculata*, *Atropa belladonna* (Solanaceae). Powerful solvent; dissolves inorg. salts. Org. intermed. Solvent in Karl Fischer reagent for detn. of H₂O, denaturant for industrial ethanol. Important analytical solvent; often used in separation and detn. of elements. Liq. with characteristic unpleasant odour. Misc. H₂O, ligroin, Et₂O, etc. d_4^{25} 0.978. Fp -42°. Bp 115.5°. pK_a 5.58 (25°). n_D^{21} 1.5092. Forms azeotropic mixt. with 3 mols. H₂O, Bp 92-3°. Hygroscopic. Steam-volatile.

▷ Toxic by inhalation and skin contact, TLV 15. Flammable, flash p. 20°. UR8400000.

B,HCl: [628-13-7].

Hygroscopic cryst. (EtOH). Mp 82°. Bp 218-219°.

▷ UT4375000.

B,2HCl: [58888-58-7].

Mp 46°.

B,HBr: [18820-82-1].

Orange cryst. Mp 213°.

B,HI: [18820-83-2].

Cryst. + 1H₂O (H₂O). Mp 268° dec.B,(COOH)₂: [23758-50-1].

Mp 151-152°.

B,HClO₄: [15598-34-2].

Cryst. (EtOH). Mp 147° dec.

▷ Detonates on impact.

B,MeI: [930-73-4].

Cryst. (EtOH or Me₂CO). Mp 118°. V. hygroscopic.

▷ UU6300000.

B,EtBr: [1906-79-2].

Cryst. (EtOH). Mp 111-112°.

B,EtI: [872-90-2].

Cryst. (EtOH/Et₂O). Mp 90.5°.

Picrate: [1152-90-5].

Mp 165-166°.

Styphnate: Cryst. (EtOH). Mp 184.5-185.5°.

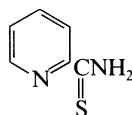
N-Oxide: see Pyridine N-oxide, P-00356

P-00316

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 1 (*use*)
 Barnes, R.A. *et al*, *Chem. Heterocycl. Compd.*, (Part 1), 1960, **14** (*rev, bibl*)
 Luckner, M., *Pharmazie*, 1964, **19**, 1 (*biosynth*)
 Boodman, N.S. *et al*, *Chem. Heterocycl. Compd.*, Suppl. 1, 1974, **14**, 183 (*synth*)
 Talukdar, A.N. *et al*, *Acta Crystallogr., Sect. B*, 1976, **32**, 803 (*cryst struct*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 497; **8**, 424.
Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **19**, 454 (*rev*)
 Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986 (*use*)
 Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (*cmr*)
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 525, 527.
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 465, 466.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MOZ000, POP250, POR750, PPC100.

2-Pyridinecarbothioamide**P-00317***2-Thiopicolinamide*

[5346-38-3]

 $C_6H_6N_2S$ M 138.193Used for extraction-photometric detn. of Fe (λ_{max} 615 nm, ϵ 13600). Needles (EtOH). Mp 137°.

N-Butyl: [52379-35-8]. N-Butyl-2-pyridinecarbothioamide, 9CI

 $C_{10}H_{14}N_2S$ M 194.300Used as 1mM soln. in $CHCl_3$ for extraction separation of microamounts of Au(III) (from 3.3M HCl), Pd (λ_{max} 361 nm, ϵ 62400), Ag. Yellow cryst. (pet. ether). Sol. $CHCl_3$, CCl_4 , 1,2-dichloroethane, EtOH, C_6H_6 , Me_2CO ; spar. sol. H_2O . Mp 44-45°.

N-Ph: [13225-84-8]. N-Phenyl-2-thiopicolinamide. N-Phenyl-2-pyridinecarbothioamide, 9CI

 $C_{12}H_{10}N_2S$ M 214.290Used as 1mM soln. in $CHCl_3$ for extraction separation of microamounts of Au(III) (from 4.2M HCl), Pd, Ag, Pt. Yellow cryst. Sol. $CHCl_3$, CCl_4 , 1,2-dichloroethane, EtOH. Mp 46-47°.

N-Benzyl: [52379-37-0]. N-(Phenylmethyl)-2-pyridinecarbothioamide. N-Benzyl-2-thiopicolinamide

 $C_{13}H_{12}N_2S$ M 228.317Used as 1mM soln. in $CHCl_3$ for extraction separation of Au(III) (from 4.5M HCl medium), Pd, Ag, Pt. Yellow cryst. Sol. $CHCl_3$, CCl_4 , 1,2-dichloroethane, EtOH.

N-(2-Methylphenyl): [21259-33-6]. N-o-Tolyl-2-thiopicolinamide. N-(2-Methylphenyl)-2-pyridinecarbothioamide, 9CI

 $C_{13}H_{12}N_2S$ M 228.317Used as 1mM soln. in $CHCl_3$ for extraction separation of microamounts of Au(III) (from 5.4M HCl), Pd, Ag, Pt; flotation separation of S^{2-} . Yellow cryst. (C_6H_6). Sol. $CHCl_3$, CCl_4 , 1,2-dichloroethane, EtOH. Mp 69-71°.

Karrer, P. *et al*, *Helv. Chim. Acta*, 1945, **28**, 820 (*synth*)
 Wawschinek, O. *et al*, *Mikrochim. Acta*, 1964, 694 (*detn, Fe*)
 Klüber, R.W., *Inorg. Chem.*, 1965, **4**, 829 (*synth, N-Butyl*)
 Tissier, C. *et al*, *Bull. Soc. Chim. Fr.*, 1970, 3752 (*props*)
 Fomin, B.N. *et al*, *CA*, 1972, **76**, 156873s (*detn, S²⁻*)

Solozhekin, P.M. *et al*, *Izv. Akad. Nauk Tadzh. SSR*, 1979, **2**, 48; *CA*, **92**, 121139k (*detn, Pd*)

Gibalo, I.M. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 92 (*detn, Au*)

Gibalo, I.M. *et al*, *Zh. Neorg. Khim.*, 1982, **27**, 1005 (*detn, Pd, Ag*)

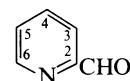
Aminabhavi, T.M. *et al*, *Inorg. Chim. Acta*, 1985, **108**, L31 (*synth, derivs*)

Shkil, A.N. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 1204 (*detn, Au, Pd, Pt*)

Rukhadze, E.G. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 1257 (*detn, Pt*)

2-Pyridinecarboxaldehyde, 9CI**P-00318***Picolinaldehyde, 8CI. 2-Formylpyridine*

[1121-60-4]

 C_6H_5NO M 107.112Oil. Sol. H_2O . $d_4^{18.5}$ 1.13. Bp₁₃₋₁₄ 62-63°. pK_{a1} 3.84; pK_{a2} 12.68. n_D^{19} 1.5389.

Oxime: [873-69-8].

 $C_6H_6N_2O$ M 122.126Used for titrimetric detn. of Fe. Needles (H_2O). Sol. H_2O , EtOH, Et₂O. Mp 113-115°. pK_{a1} 3.56; pK_{a2} 10.17 (25°).

▷ TJ5100000.

Semicarbazone: [13370-79-1].

Needles (EtOH). Mp 195-196°.

Selenosemicarbazone: [40324-80-9].

 $C_7H_8N_4Se$ M 227.127Used as a 2mM soln. in EtOH for photometric detn. of Co (λ_{max} 435 nm, ϵ 5500), Cu (λ_{max} 388 nm), Fe(II) (λ_{max} 615 nm, ϵ 6900), Fe(III) (λ_{max} 445 nm, ϵ 6800), Ni (λ_{max} 400 nm, ϵ 10700). Brown needles (EtOH). Mp 212-214°. pK_{a1} 9.60.

Phenylhydrazone:

 $C_{12}H_{11}N_3$ M 197.239Acid base indicator. Cryst. (MeOH aq.). Mp 181°. pK_a 5.03 (20% EtOH).

Phenylhydrazone; B,HCl: [7727-07-3].

Needles (EtOH). Mp 196°.

[30915-37-8, 30915-38-9]

Lénart, G.H., *Ber.*, 1914, **47**, 808.Niemann, C. *et al*, *J. Am. Chem. Soc.*, 1942, **64**, 1678.Hart, E.P., *J. Chem. Soc.*, 1952, 4540.Green, R.W. *et al*, *J. Phys. Chem.*, 1961, **65**, 2211 (*pKa*)Hanania, G.I. *et al*, *J. Chem. Soc.*, 1962, 2745 (*pKa*)Bolton, S., *J. Pharm. Sci.*, 1963, **52**, 858; *CA*, **59**, 14567 (*detn, Fe*)Conde, A. *et al*, *Cryst. Struct. Commun.*, 1972, **1**, 155 (*cryst struct, deriv*)Pavon, J.M. *et al*, *Talanta*, 1972, **19**, 1659 (*synth, pKa, use, selenosemicarbazone*)Vasilikotis, G.S. *et al*, *Anal. Chim. Acta*, 1975, **75**, 227(*phenylhydrazone, synth, use*)Kawashima, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 2009.Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (*cmr*)**3-Pyridinecarboxaldehyde, 9CI****P-00319***Nicotinaldehyde, 8CI. 3-Formylpyridine*

[500-22-1]

 C_6H_5NO M 107.112Sol. H_2O . Bp₂₆ 97-99°, Bp₁₁ 83-87°. pK_{a1} 3.70; pK_{a2} 13.0 (25°).

Oxime: [1193-92-6].

 $C_6H_6N_2O$ M 122.126Mp 150°. pK_{a1} 3.56; pK_{a2} 10.17 (25°).

▷ UT4060000.

Semicarbazone: [13370-80-4].

Mp 216° dec.

Thiosemicarbazone: [555-90-8]. 2-(3-Pyridinylmethylene)hydrazinecarbothioamide, 9CI. **Nicotiazone**, INN.
Nicotizonum. G 469. GT 1
 $C_7H_8N_4S$ M 180.233
 Has antitubercular props. Used as a 0.1% soln. in aq. MeOH for photometric detn. of Pd (λ_{max} 450 nm).
 Yellow cryst. Sol. MeOH. Mp 227-230°, Mp 222-223°.
 ▶ QS3325000.

Phenylhydrazine: [57023-37-7].

Cryst. (EtOH). Mp 158°.

N-Oxide:

$C_6H_5NO_2$ M 123.111

Needles (CHCl₃/Et₂O). Mp 139-141°.

Hydrazide:

$C_6H_7N_3$ M 121.141

Used as 0.01M aq. soln. for photometric detn. of V(IV) (λ_{max} 420 nm, ϵ 750). Sol. EtOH, C₆H₆; spar. sol. H₂O.

Harries, C.D. *et al*, *Justus Liebigs Ann. Chem.*, 1915, **410**, 115.

Panizzon, L., *Helv. Chim. Acta*, 1941, **24**, 24E.

Niemann, C. *et al*, *J. Am. Chem. Soc.*, 1942, **64**, 1680.

Gardner, T.S. *et al*, *J. Org. Chem.*, 1951, **16**, 1121 (*Nicotiazone*)

Krych, Z. *et al*, *Chem. Anal. (Warsaw)*, 1967, **12**, 535 (detn, V)

Greco, I. *et al*, *CA*, 1971, **76**, 11154q (detn, Pd, thiosemicarbazone)

Wilson, H.R. *et al*, *J. Med. Chem.*, 1974, **17**, 760 (*Nicotiazone*)

Mignot, A. *et al*, *Eur. J. Med. Chem.*, 1980, **15**, 33 (*Nicotiazone*)

Nagano, H. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 4068 (*oxide*)

4-Pyridinecarboxaldehyde, 9CI

P-00320

Isonicotinaldehyde, 8CI. 4-Formylpyridine

[872-85-5]

C_6H_5NO M 107.112

Sol. H₂O. Bp₁₆ 82-83°. pK_{a1} 4.52; pK_{a2} 12.05 (25°). n_D^{25} 1.5352.

Picrate: Cryst. + 1H₂O. Mp 168-169°.

Phenylhydrazine: [7757-39-3].

$C_{12}H_{11}N_3$ M 197.239

Used as a 0.1% soln. in EtOH as acid-base indicator.

Cryst. (MeOH aq.). Mp 178-179°, Mp 157°. pK_{a1} 5.89 (20% EtOH).

Phenylhydrazine: *B.HCl*: Mp 270°.

Oxime: [696-54-8].

$C_6H_6N_2O$ M 122.126

Cryst. (H₂O). Mp 131°. pK_{a1} 4.9 (NH); pK_{a2} 9.6 (NOH) (25°, 0.5M KNO₃).

Wibaut, J.P. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1945, **64**, 30.

Chilton, W.S. *et al*, *J. Org. Chem.*, 1967, **32**, 1270 (*oxime*)

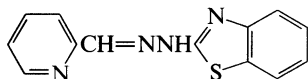
Vasilikotis, G.S. *et al*, *Anal. Chim. Acta*, 1975, **75**, 227 (*synth, use, phenylhydrazine*)

Martinez-Ripoll, M. *et al*, *Acta Crystallogr., Sect. B*, 1976, **32**, 2322, 2325.

2-Pyridinecarboxaldehyde

P-00321

2-benzothiazolylylhydrazone, 9CI



$C_{13}H_{10}N_4S$ M 254.315

(*Z*)-form [49582-16-3]

Used as a 1mM soln. in EtOH as metallochromic indicator for titrimetric detn. of Co, Cu, Fe, Ni, Pd. Pale green cryst. Spar. sol. EtOH. Mp 238°.

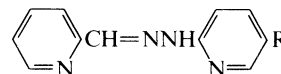
Heit, M.L. *et al*, *Anal. Chim. Acta*, 1965, **32**, 448 (*synth, detn, Co, Cu, Fe, Ni, Pd*)

Berger, S.A. *et al*, *Mikrochim. Acta*, 1974, 679 (*detn, Cu*)

2-Pyridinecarboxaldehyde (5-chloro-2-pyridinyl)hydrazone, 9CI

P-00322

[111283-09-1]



R = Cl

$C_{11}H_9ClN_4$ M 232.672

Used as 2.5mM EtOH soln. for photometric detn. of Ni (λ_{max} 500 nm, ϵ 64000, pH 7), Cu, Fe(II), Pd, Zn.

Yellow cryst. (EtOH). Sol. EtOH, dioxan, C₆H₆. Mp 150-151°.

Ishii, H. *et al*, *Anal. Sci.*, 1987, **3**, 347; 1988, **4**, 73 (*synth, use*)

2-Pyridinecarboxaldehyde

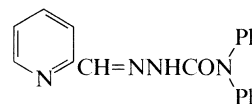
P-00323

diphenylsemicarbazone

N,N-Diphenyl-2-(2-pyridinylmethylene)

hydrazinecarboxamide, 9CI

[84353-93-5]



$C_{19}H_{16}N_4O$ M 316.362

Used for photometric detn. of Cu(II) (λ_{max} 380 nm, ϵ 18000, pH 4.0-6.5). Cryst. Sol. DMF, EtOH.

Isagai, K. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1982, **31**, 565; *CA*, **98**, 64766k (*synth, use*)

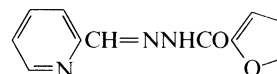
2-Pyridinecarboxaldehyde

P-00324

2-furoylhydrazone

2-Furancarboxylic acid (2-pyridinylmethylene)hydrazide, 9CI

[88053-38-7]



$C_{11}H_9N_3O_2$ M 215.211

Used as 2mM EtOH soln. for fluorimetric detn. of Ga (λ_{max} 445 nm). Brown cryst. (EtOH aq.). Sol. EtOH; sl. sol. H₂O. Mp 107-109°.

Requena, E. *et al*, *Analyst (London)*, 1983, **108**, 933 (*synth, detn, Ga*)

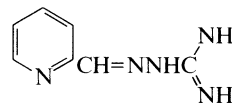
2-Pyridinecarboxaldehyde

P-00325

guanylhydrazone

2-(2-Pyridinylmethylene)hydrazinecarboximidamide, 9CI

[6928-09-2]

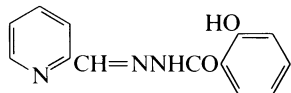


$C_7H_9N_5$ M 163.182

Used as EtOH soln. for photometric detn. of Ni (λ_{max} 375 nm, ϵ 4660), Co, Cu, Pd, Fe(II). Yellow cryst. (50% EtOH). Sol. DMF, MeOH, EtOH; spar. sol. CHCl₃, H₂O. Mp 182-183°.

Roman Ceiba, M. *et al*, *Talanta*, 1981, **28**, 134 (*synth, use*)

2-Pyridinecarboxaldehyde (2-hydroxybenzoyl)hydrazone **P-00326**
2-Hydroxybenzoic acid (2-pyridinylmethylene)hydrazide, 9CI
 [18176-38-0]

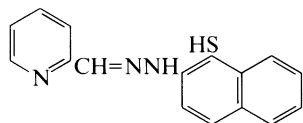


$C_{13}H_{11}N_3O_2$ M 241.249
 Used as 0.1% EtOH soln. for fluorimetric detn. of Al; as EtOH soln. for photometric detn. of Ni (λ_{max} 375 nm, ϵ 39000), Zn (λ_{max} 365 nm, ϵ 48000), V (λ_{max} 400 nm, ϵ 22000). Cryst. Sol. EtOH.

Gallego, M. *et al*, *Microchem. J.*, 1978, **23**, 353; 1979, **24**, 143 (*synth, detn, Ni, V, Zn*)

Gallego, M. *et al*, *Analyst (London)*, 1983, **108**, 92 (*detn, Al*)

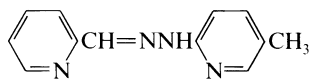
2-Pyridinecarboxaldehyde (1-mercapto-2-naphthalenyl)hydrazone **P-00327**



$C_{16}H_{13}N_3S$ M 279.365
 Used for photometric detn. of Cu (λ_{max} 480 nm). Cryst. Sol. EtOH.

Ryan, D.E. *et al*, *Anal. Lett.*, 1969, **2**, 515 (*synth, use*)

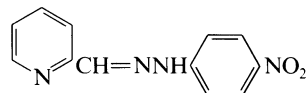
2-Pyridinecarboxaldehyde (5-methyl-2-pyridinyl)hydrazone, 9CI **P-00328**
 [58333-09-8]



$C_{12}H_{12}N_4$ M 212.254
 Used as 2.5mM EtOH soln. for photometric detn. of Ni (λ_{max} 584 nm, ϵ 18700, pH 7), Fe(II), Pd, Cu, Zn. Yellow cryst. (EtOH). Sol. EtOH, dioxan, C_6H_6 . Mp 155-157°.

Ishii, H. *et al*, *Anal. Sci.*, 1987, **3**, 347; 1988, **4**, 73 (*synth, use*)

2-Pyridinecarboxaldehyde 4-nitrophenylhydrazone **P-00329**



$C_{12}H_{10}N_4O_2$ M 242.237
(E)-form [55537-30-9]
 Used as a 0.04mM soln. in aq. EtOH as acid-base indicator (pH range: 10.2-13.5). Yellow cryst. (EtOH). Sol. EtOH. Mp 257-260°, Mp 240-241°. pK_{a1} 12.59 ($\mu = 0.1, 20^\circ$).

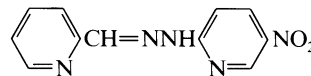
Carillo, J. *et al*, *Microchem. J.*, 1979, **24**, 234 (*synth*)

Guzmán, M. *et al*, *Microchem. J.*, 1982, **27**, 1 (*indicator*)

Ishii, H. *et al*, *Anal. Sci.*, 1987, **3**, 347 (*synth, detn, Ni, indicator*)

Camean Fernandez, A.M. *et al*, *Talanta*, 1987, **34**, 673 (*indicator*)

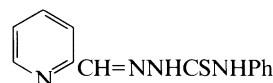
2-Pyridinecarboxaldehyde (5-nitro-2-pyridinyl)hydrazone, 9CI **P-00330**
 [16391-79-0]



$C_{11}H_9N_5O_2$ M 243.224
 Used as 2.5mM EtOH soln. for photometric detn. of Ni (λ_{max} 475 nm, ϵ 84000, pH 7), Cu, Fe(II), Hg(II), Pd, Zn. Yellow cryst. (EtOH). Sol. EtOH, dioxan, C_6H_6 . Mp 140-141°.

Ishii, H. *et al*, *Anal. Sci.*, 1987, **3**, 347; 1988, **4**, 73 (*synth, use*)

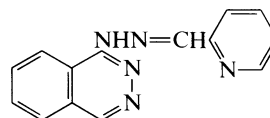
2-Pyridinecarboxaldehyde phenylthiosemicarbazone **P-00331**
N-Phenyl-2-(2-pyridinylmethylene)hydrazinecarbothioamide, 9CI. Picolinaldehyde phenylthiosemicarbazone
 [6839-89-0]



$C_{13}H_{12}N_4S$ M 256.331
 Used as 0.05% soln. in DMF or $CHCl_3$ for photometric detn. of Co (λ_{max} 390 nm, ϵ 30000). Yellow cryst. (EtOH). Sol. DMF; mod. sol. $CHCl_3$, EtOH, $PhNO_2$. Mp 204-205°. pK_{a1} 3.66; pK_{a2} 10.47.

Gomez Ariza, J.L. *et al*, *Talanta*, 1976, **23**, 460 (*synth, detn, Co*)

2-Pyridinecarboxaldehyde 1-phthalazinyhydrazone, 9CI **P-00332**
 [16085-60-2]

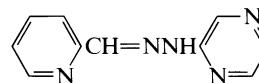


$C_{14}H_{11}N_5$ M 249.274
 Used as $CHCl_3$ soln. for extraction photometric detn. of Pd (λ_{max} 537 nm, ϵ 12400). Cryst. Sol. $CHCl_3$.

Otomo, M. *et al*, *Microchem. J.*, 1980, **25**, 75 (*synth, detn, Pd*)

Nakagawa, T. *et al*, *Analyst (London)*, 1985, **110**, 387 (*detn, Pd*)

2-Pyridinecarboxaldehyde 2-pyrazinylhydrazone, 9CI **P-00333**
 [58495-41-3]

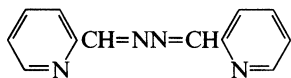


$C_{10}H_9N_5$ M 199.215
 Used as a soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{max} 475 nm, ϵ 16600), Co (λ_{max} 495 nm, ϵ 27000), Ni (λ_{max} 488 nm, ϵ 43000), Fe(II). Cryst. Sol. common org. solvs.

Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)

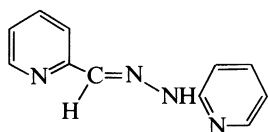
Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 373 (*use*)

2-Pyridinecarboxaldehyde
(2-pyridinylmethylene)hydrazone, 9CI
Picolinaldehyde azine. Pyridine-2-carboxaldehyde azine
[6957-24-0]



$C_{12}H_{10}N_4$ M 210.238
Used for photometric detn. of Pd. Orange cryst. Sol.
 Me_2CO , C_6H_6 , EtOH.
Garcia Vargas, M. *et al.*, *An. Quim., Ser. B*, 1980, **76**, 471 (use)

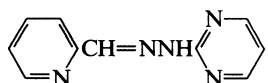
2-Pyridinecarboxaldehyde
2-pyridylhydrazone
1-(α -Pyridylmethylene)-2-(α -pyridyl)hydrazine. PapyH
[2215-33-0]



$C_{11}H_{10}N_4$ M 198.227
(*E*)-form [21945-37-9]
Used as 0.2% soln. in aq. EtOH for extraction-
photometric detn. of Pd (λ_{max} 562 nm, ϵ 16500, 1,2-
dichlorobenzene), Ni (λ_{max} 485 nm, ϵ 57000, C_6H_6), Co
(λ_{max} 496 nm, ϵ 32600), Cu, Fe, Zn, Cd, Mn. Pale-
yellow needles (EtOH). Sol. acids, EtOH, dioxan,
 $CHCl_3$, C_6H_6 . Mp 171-172°, Mp 179-180°.

[21945-38-0]
Lions, F. *et al.*, *J. Am. Chem. Soc.*, 1958, **80**, 3858 (synth, use)
Geldard, J.F. *et al.*, *J. Am. Chem. Soc.*, 1962, **84**, 2262 (detn, Fe)
Cameron, A.J. *et al.*, *Anal. Chim. Acta*, 1963, **29**, 73; 1968, **40**, 413
(detn, Pd)
Geldard, J.F. *et al.*, *Inorg. Chem.*, 1963, **2**, 270 (synth, use)
Bell, C.F. *et al.*, *Talanta*, 1965, **12**, 696 (detn, Pd)
Quddus, M.A. *et al.*, *Anal. Chim. Acta*, 1968, **42**, 503 (synth, use)
Haddad, P.R. *et al.*, *Talanta*, 1976, **23**, 275 (detn, Co)
Burns, D.T. *et al.*, *Anal. Chim. Acta*, 1983, **151**, 245 (detn, Co)
Casey, A.T. *et al.*, *Aust. J. Chem.*, 1984, **37**, 739 (cryst struct)
Nakagawa, T. *et al.*, *Analyst (London)*, 1985, **110**, 387 (detn, Pd)
Ishii, H. *et al.*, *Anal. Sci.*, 1987, **3**, 347; 1988, **4**, 73 (synth, use)

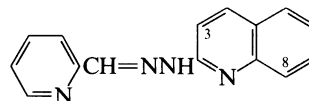
2-Pyridinecarboxaldehyde
2-pyrimidinylhydrazone, 9CI
[73568-97-5]



$C_{10}H_9N_5$ M 199.215
Used as 5mM soln. in aq. EtOH for photometric detn. of
Co (λ_{max} 452 nm, ϵ 25800), Cu(I) (λ_{max} 425 nm, ϵ
13600), Fe(II) (λ_{max} 550 nm, ϵ 6500), Ni (λ_{max} 424 nm, ϵ
38300). Cryst. (MeOH aq.). Sol. common org. solvs. Mp
221°.

Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (synth)
Schilt, A. *et al.*, *Talanta*, 1980, **27**, 55 (synth, use)

2-Pyridinecarboxaldehyde
2-quinolinylhydrazone, 9CI
[7385-99-1]



$C_{15}H_{12}N_4$ M 248.287
Used as metallochromic indicator for titrimetric detn. of
Cu; extraction-photometric detn. of Pd (λ_{max} 594 nm),
Ni (λ_{max} 515 nm, ϵ 67000, C_6H_6), Cu, Fe, Zn, Cd;
photometric detn. of Co (λ_{max} 510 nm, ϵ 30000), Ni
(λ_{max} 492 nm, ϵ 50500). Yellow cryst. (EtOH aq.). Spar.
sol. EtOH. Mp 197°.

Heit, M.L. *et al.*, *Anal. Chim. Acta*, 1965, **32**, 448; 1966, **34**, 407
(synth, use, detn, Pd)
Singhal, S.P. *et al.*, *Anal. Chim. Acta*, 1967, **37**, 91 (detn, Co, Ni)
Jensen, R.E. *et al.*, *Anal. Chim. Acta*, 1967, **37**, 397 (detn, Pd)
Afghan, B.K. *et al.*, *Anal. Chim. Acta*, 1968, **41**, 167 (detn, Ni)
Frei, R.W. *et al.*, *Anal. Chim. Acta*, 1971, **55**, 125 (synth, use)
Berger, S.A. *et al.*, *Mikrochim. Acta*, 1974, 679 (detn, Cu)

2-Pyridinecarboxaldehyde
3-quinolinylhydrazone, 9CI
[70845-30-6]

$C_{15}H_{12}N_4$ M 248.287
Used for photometric detn. of Cu(I) (λ_{max} 500 nm, ϵ 2200).
Cryst. (EtOH). Sol. common org. solvs. Mp 218°
(monohydrate).

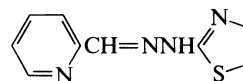
Schilt, A.A. *et al.*, *Talanta*, 1982, **29**, 338 (synth, detn, Cu)

2-Pyridinecarboxaldehyde
8-quinolinylhydrazone
(2-Pyridyl)-N-8-quinolylhydrazone
[82633-08-7]

$C_{15}H_{12}N_4$ M 248.287
Used as 0.01M EtOH soln. for photometric detn. of Cu(I)
(λ_{max} 476 nm, ϵ 21300, pH 7), Co, Ni, Fe(II). Cryst.
(MeOH aq.). Sol. MeOH, EtOH. Mp 118°.

Schilt, A.A. *et al.*, *Talanta*, 1982, **29**, 338 (synth, use)

2-Pyridinecarboxaldehyde
2-thiazolylhydrazone, 9CI
[3788-82-7]



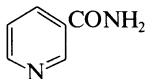
$C_9H_8N_4S$ M 204.255
Used as a 5mM soln. in aq. EtOH for photometric detn.
of Co (λ_{max} 479 nm, ϵ 25700), Cu(I) (λ_{max} 459 nm, ϵ
15500), Fe(II) (λ_{max} 580 nm, ϵ 64000), Ni (λ_{max} 446 nm,
 ϵ 40100). Cryst. (EtOH). Sol. common org. solvs. Mp
200°.

Schilt, A.A. *et al.*, *Talanta*, 1980, **27**, 55 (synth, use)

3-Pyridinecarboxamide, 9CI**P-00341**

Nicotinamide, INN. *Nicotinic acid amide*. Vitamin B₃.
Niacinamide. PP-Factor. Antipellagra factor. Numerous
proprietary names

[98-92-0]

C₆H₆N₂O M 122.126

Widespread in plants, e.g. rice, yeast and fungi. Enzyme
cofactor, used in treatment of pellagra. Needles (C₆H₆).
Mp 129-130°. Bp_{0.0005} 150-160°.

▷ QS3675000.

N-*Me*: see 3-(Aminocarbonyl)-1-methylpyridinium(1+), A-
00134

N'-*Benzyl*: [2503-55-1].C₁₃H₁₂N₂O M 212.251

Mp 72-73°.

N-*Oxide*: [1986-81-8].C₆H₆N₂O₂ M 138.126Cryst. (H₂O). Mp 291-293° (275-276°).

N'-*Hydroxy*: [5657-61-4]. N-*Hydroxy-3-*
pyridinecarboxamide, 9CI. *Nicotinohydroxamic acid*.

Nicoxamat, INN. *Heparit*C₆H₆N₂O₂ M 138.126

Antifungal agent, used in treatment of liver disorders.
Used as aq. soln. for extraction-photometric detn. of
Mn, V (λ_{max} 450 nm, ε 4000, *n*-hexanol); gives colour
reactions with Fe, V, Mo. Prisms (EtOH). Sol. H₂O. Mp
168°. pK_a 8.3.

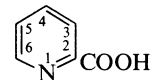
N'-*Hydroxy, oxime*: [1594-58-7]. *Nicotinamidoxime*. N-
Hydroxy-3-pyridinecarboximidamide, 9CI

C₆H₇N₃O₂ M 153.140

Used for photometric detn. of Co, Ni. Yellow cryst.
(EtOH). Mp 128°.

La Forge, F.B., *J. Am. Chem. Soc.*, 1928, **50**, 2480.*Org. Synth.*, *Coll. Vol.*, 1, 1932, 704 (*oxide*)Georg, A. *et al.*, *Helv. Chim. Acta*, 1943, **26**, 358 (*synth*)Rohrlich, M., *Arch. Pharm. (Weinheim, Ger.)*, 1950, **283**, 122
(*synth*)Yale, H.L. *et al.*, *J. Am. Chem. Soc.*, 1953, **75**, 1933 (*synth*,
Nicoxamat)Hackley, B.B. *et al.*, *J. Am. Chem. Soc.*, 1955, **77**, 3651 (*synth*,
deriv)Dutta, R.L., *J. Indian Chem. Soc.*, 1957, **34**, 311; 1958, **35**, 243
(*detn.*, Mn, Fe, V, Mo)Tripathi, K.K. *et al.*, *Fresenius' Z. Anal. Chem.*, 1959, **169**, 326,
407; 1960, **176**, 91 (*Nicotinamidoxime, synth, detn.*, Co)Minczewski, J. *et al.*, *Chem. Anal. (Warsaw)*, 1961, **6**, 377 (*detn.*, V)Helgeson, J.P. *et al.*, *Proc. Natl. Acad. Sci. U.S.A.*, 1966, **56**, 60
(*uv, ms*)Hase, J. *et al.*, *Chem. Pharm. Bull.*, 1971, **19**, 363 (*pharmacol, deriv*)Birdsall, B. *et al.*, *J. Chem. Soc., Perkin Trans. 2*, 1972, 1643 (*cmr*)Auerbach, J. *et al.*, *J. Org. Chem.*, 1976, **41**, 725 (*synth*)Busha, A. *et al.*, *Synth. Commun.*, 1977, **7**, 549 (*synth, deriv*)Oppenheimer, N.J. *et al.*, *Org. Magn. Reson.*, 1980, **13**, 14 (N-15
nmr)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,
Pharmaceutical Press, London, 1982/1989, 7865.Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,
Akademie-Verlag, Berlin, 1987, 410.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, NCR000.**2-Pyridinecarboxylic acid, 9CI****P-00342***Picolinic acid*

[98-98-6]

C₆H₅NO₂ M 123.111

Isol. from culture medium of *Piricularia oryzae*. Catalyst
for CrO₃ oxidns. Used as 8% aq. soln. for extraction
separation of V(III). Needles (H₂O, EtOH or C₆H₆). Sol.
H₂O. Subl. 136-137°. pK_{a1} 0.99; pK_{a2} 5.39 (25°).

▷ TJ7344000.

Me ester: [2459-07-6].C₇H₇NO₂ M 137.138

Hygroscopic cryst. Fp 14°. Bp 232°.

Et ester: [2524-52-9].C₈H₉NO₂ M 151.165Bp 243°, Bp₁₃ 122°.*Ph ester*: [26838-86-8].C₁₂H₉NO₂ M 199.209

Mp 82°.

Chloride: [29745-44-6].C₆H₄ClNO M 141.556Mp 46°. Bp₁₀ 160° sl. dec.*Nitrile*: [100-70-9]. 2-CyanopyridineC₆H₄N₂ M 104.111Needles (Et₂O). Sol. H₂O. Mp 27°. Bp 222-227°.*l-Oxide*: [824-40-8].C₆H₅NO₃ M 139.110

Mp 161°.

Hydrazide: [1452-63-7].C₆H₇N₃O M 137.141

Used as a 0.01M aq. soln. for photometric detn. of V(V)
(λ_{max} 420 nm). Cryst. Mp 161-162°.

Oliveto, E.P., *Chem. Heterocycl. Compd.*, (Part 3), 1962, **14**, 179
(*bibl*)Tamari, K. *et al.*, *CA*, 1965, **63**, 6049 (*isol*)Krych, Z. *et al.*, *Chem. Anal. (Warsaw)*, 1967, **12**, 535 (*hydrazide*,
detn., V)Takusagawa, F. *et al.*, *Chem. Lett.*, 1973, 1089 (*cryst struct*)Kon, J.I. *et al.*, *CA*, 1974, **81**, 120398 (*synth*)Pollak, P.I. *et al.*, *Chem. Heterocycl. Compd.*, Suppl. 3, 1974, **14**
(*bibl*)Paraskevas, S., *Synthesis*, 1974, 819 (*synth*)Ninomiyai, I., *CA*, 1976, **85**, 108547c.Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1979, **7**,
293.Yatirajam, V. *et al.*, *Talanta*, 1979, **26**, 60 (*detn.*, V)Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (*cmr*)Csanády, G. *et al.*, *Org. Prep. Proced. Int.*, 1990, **22**, 507 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, PIB930.**3-Pyridinecarboxylic acid****P-00343**

Nicotinic acid, INN. *Niacin*, USAN. *Nicamin*. *Nicobid*.
Wampocap. Numerous proprietary names

[59-67-6]

C₆H₅NO₂ M 123.111

Present in fruits and other plant materials. Vitamin,
enzyme cofactor, vasodilator. Used as 2.5% aq. soln.
for extraction-photometric detn. of U(VI) (λ_{max} 556 nm,
ε 120000). Needles (H₂O or EtOH). Sol. hot H₂O, spar.
sol. Et₂O. Mp 236°, Mp 225-227°. pK_{a1} 2.00; pK_{a2} 4.82
(25°). Sublimes.

▷ QT0525000.

B,HCl: [636-79-3].Prisms or plates (H₂O). Mp 274°.

Hydrazide: [553-53-7].

$C_6H_7N_3O$ M 137.141

Bactericide. Needles (EtOH or C_6H_6). Mp 161-162°.

▷ QT1750000.

Org. Synth., Coll. Vol., 1, 1932, 385 (*synth*)

Green, R.W. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 4896 (*deriv. uv. tautom*)

Oliveto, E.P., *Chem. Heterocycl. Compd.*, (Part 3), 1962, **14**, 179 (*bibl*)

Bild, N. *et al*, *Helv. Chim. Acta*, 1967, **50**, 1885 (*ms*)

Poluektov, N.S. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 541 (*detn. U*)

Pollak, P.I. *et al*, *Chem. Heterocycl. Compd.*, Suppl. 3, 1974, **14** (*bibl*)

Paraskewas, S., *Synthesis*, 1974, 819 (*synth*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **24**, 59 (*rev*)

Dommissie, R. *et al*, *Heterocycles*, 1981, **16**, 1893 (*cmr*)

Staedeli, W. *et al*, *Org. Magn. Reson.*, 1981, **15**, 106 (*N-15 nmr*)

Kutoglu, A. *et al*, *Acta Crystallogr., Sect. C*, 1983, **39**, 232 (*cryst struct*)

Hotz, W., *Adv. Lipid Res.*, 1983, **20**, 195 (*rev. pharmacol*)

Weiner, M. *et al*, *Clin. Pharmacol. Vol. 1: Nicotinic Acid Nutrient-Cofactor-Drug*, Dekker, N.Y., 1983 (*book*)

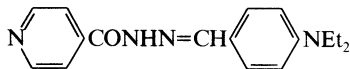
Sauberlich, H.E. *et al*, *Coenzymes Cofactors*, 1987, **2**, 599, 627 (*revs*)

Lewis, N.I., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NCQ900, NDU500, NDV000.

4-Pyridinecarboxylic acid [[4-(diethylamino)phenyl]methylene]hydrazide P-00344

p-Diethylaminobenzaldehyde isonicotinoylhydrazone.

Isonicotinic acid [*p*-(diethylamino)benzylidene]hydrazide



$C_{17}H_{20}N_4O$ M 296.371

Used as a 0.01M soln. in EtOH for detn. of Hg. Cryst. (MeOH). Mp 184-185°.

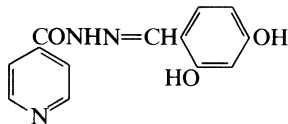
Katiyar, S., *Talanta*, 1964, **11**, 892 (*use*)

4-Pyridinecarboxylic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, 9CI P-00345

1-Isonicotinoyl-2-(2,4-dihydroxybenzylidene)hydrazine. 2,4-

Dihydroxybenzaldehyde 4-pyridinylcarbonylhydrazone

[3477-69-8]



$C_{13}H_{11}N_3O_3$ M 257.248

Used as 1mM EtOH soln. for fluorimetric detn. of Al (λ_{max} 478 nm, EtOH, pH ~ 5). Cryst. Sol. EtOH.

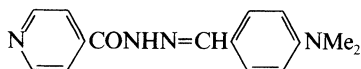
Vasilikiotis, G. *et al*, *Microchem. J.*, 1969, **14**, 380; 1986, **34**, 174 (*synth, detn, Al*)

4-Pyridinecarboxylic acid [[4-(dimethylamino)phenyl]methylene]hydrazide, 9CI P-00346

p-Dimethylaminobenzaldehyde isonicotinoylhydrazone.

Isonicotinic acid [*p*-(dimethylamino)benzylidene]hydrazide

[13059-77-3]



$C_{15}H_{16}N_4O$ M 268.318

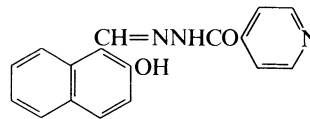
Used as a 0.01M soln. in EtOH for detn. of Hg. Cryst. (MeOH). Mp 202-203°.

Katiyar, S., *Talanta*, 1964, **11**, 892.

4-Pyridinecarboxylic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide P-00347

2-Hydroxy-1-naphthaldehyde 4-pyridinylhydrazone

[796-42-9]



$C_{17}H_{13}N_3O_2$ M 291.309

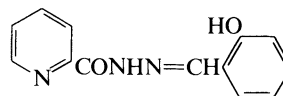
Used for photometric detn. of Fe(II), Fe(III), Mo(VI), Ti. Cryst.

Dzyubo, L.N. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 2386 (*detn, Ti*)

Taniguchi, H. *et al*, *CA*, 1974, **81**, 85489m (*use*)

Podchainova, V.N. *et al*, *Zavod. Lab.*, 1974, **40**, 243 (*use*)

2-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide P-00348



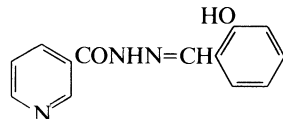
$C_{13}H_{11}N_3O_2$ M 241.249

Used for photometric detn. of Ti (λ_{max} 224 nm, ϵ 61100). Cryst. Mp 236°.

Dolgorev, A.V., *Zh. Anal. Khim.*, 1973, **28**, 1093 (*detn, Ti*)

3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, 9CI P-00349

[15017-28-4]



$C_{13}H_{11}N_3O_2$ M 241.249

Used as a 0.5% soln. in EtOH for photometric detn. of Ti; extraction -photometric detn. of Fe, Ti, V. Cryst. (EtOH aq.). Sol. EtOH. Mp 236°.

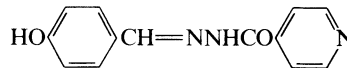
[71112-97-5]

Dolgorev, A.V. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1093 (*use*)

4-Pyridinecarboxylic acid [(4-hydroxyphenyl)methylene]hydrazide, 9CI P-00350

4-Hydroxybenzaldehyde isonicotinoylhydrazone

[840-81-3]



$C_{13}H_{11}N_3O_2$ M 241.249

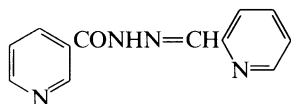
Used as a 4mM soln. in EtOH for photometric detn. of V. Cryst. Mp 286-287°.

Zommer, S. *et al*, *Chem. Anal. (Warsaw)*, 1973, **47**, 425 (*detn, V*)

3-Pyridinecarboxylic acid (2-pyridinylmethylene)hydrazide, 9CI

P-00351

2-Pyridinecarboxaldehyde 3-pyridinecarbonylhydrazone.
Picolinialdehyde nicotinoylhydrazone
[15017-27-3]

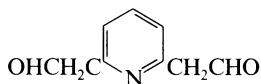
C₁₂H₁₀N₄O M 226.237

Used as EtOH soln. for fluorimetric detn. of Ti. Yellowish
cryst. (EtOH). Sol. EtOH. Mp 162°.

Luque de Castro, M.D. *et al*, *Talanta*, 1980, **27**, 645 (*synth, detn, Ti*)

2,6-Pyridinediacetaldehyde

P-00352

C₉H₉NO₂ M 163.176

Dioxime: 2,6-Pyridinediacetoxime

C₉H₁₁N₃O₂ M 193.205

Used as 1% soln. in MeOH or Me₂CO for photometric
detn. of Ni, Fe(III), Cu. Cryst. Sol. MeOH, Me₂CO.
Mp 147°.

Hartkamp, E., *Fresenius' Z. Anal. Chem.*, 1960, **178**, 19 (*synth, detn, Ni*)

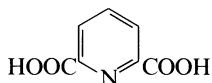
Gagliardi, E. *et al*, *Mikrochim. Acta*, 1965, 1047 (*detn, Fe, Cu*)

2,6-Pyridinedicarboxylic acid

P-00353

Dipicolinic acid

[499-83-2]

C₇H₅NO₄ M 167.121

Occurs in bacterial spores. Used as 0.1M aq. soln. for
photometric detn. of Ag, Cr, V and Mn; gravimetric
detn. of U. Cryst. + 1½ H₂O (H₂O). Mp 252° dec.
(anhyd.). pK_{a1} 2.24; pK_{a2} 4.67 (25°).

6-Me ester: [7170-36-7].

Cryst. (C₆H₆). Mp 149-150°. pK_a 2.65 (25°).

Di-Me ester: [5453-67-8].

C₉H₉NO₄ M 195.174Mp 121°. Bp_{0.5} 155-160°.

Mono-Et ester: [21855-16-3].

C₉H₉NO₄ M 195.174

Produced by spores of *Bacillus cecus* var. *mycoides*. Mp
121.5°.

Di-Et ester: [15658-60-3].

C₁₁H₁₃NO₄ M 223.228Mp 28°, Mp 41-42°. Bp₁ 158°.

Dinitrile: [2893-33-6]. 2,6-Dicyanopyridine

C₇H₃N₃ M 129.121

Mp 123°.

Diamide, dioxime: 2,6-Pyridinediamidoxime

C₇H₉N₅O₂ M 195.180

Used as 0.1% aq. soln. for photometric detn. of Fe(II)
(λ_{max} 523 nm, pH 13). Cryst. (H₂O). Sol. H₂O, EtOH.

Biemann, K. *et al*, *J. Am. Chem. Soc.*, 1957, **79**, 5558.Hartkamp, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1961, **184**, 98;1962, **187**, 16; 1964, **199**, 183 (*detn, Ag, Mn, Cr*)Pearse, G.A., *Anal. Chem.*, 1962, **34**, 536 (*detn, V*)

Oliveto, E.P., *Chem. Heterocycl. Compd.*, (Part 3), 1962, **14**, 179
(*bibl*)

Den Boef, G., *Fresenius' Z. Anal. Chem.*, 1964, **199**, 348 (*detn, Cr*)

Bodalski, R. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1964, **38**, 1337;
CA, **62**, 1627.

Weyking, M.W. *et al*, *Anal. Chem.*, 1966, **38**, 1950 (*synth, detn, Fe*)

Takusagawa, F. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 2020 (*cryst
struct*)

Marangoni, G. *et al*, *Talanta*, 1973, **20**, 1217 (*detn, U*)Pollak, P.I. *et al*, *Chem. Heterocycl. Compd.*, Suppl. 3, 1974, **14**

(bibl)

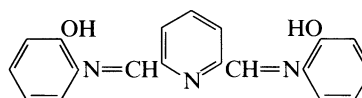
Mišič-Vuković, M. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1978, 34
(*synth, Me ester*)

2,2'-[2,6-

P-00354

Pyridinediylbis(methylidynenitrilo) bisphenol, 9CI

2,6-Pyridinedicarboxaldehyde bis 2-hydroxyanil
[1823-48-9]

C₁₉H₁₅N₃O₂ M 317.346

Used as a 0.4% soln. in CHCl₃ to give colour reactions
with Bi, Sb, U(VI). Yellow cryst. (MeOH).

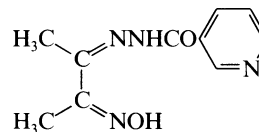
Thabet, S.K. *et al*, *Anal. Chem.*, 1975, **47**, 1870 (*use*)

3-Pyridine-[2-(hydroxyimino)-1-methylpropylidene]carboxylic acid

P-00355

Biacetyl nicotinoylhydrazone oxime

[91151-80-3]

C₁₀H₁₂N₄O₂ M 220.230

Used as a 0.5-2mM soln. in EtOH for fluorimetric detn. of
SO₄²⁻, Hf, Ti, Zr. Cryst. (EtOH aq.). Sol. EtOH,
Me₂CO; spar. sol. H₂O, C₆H₆. pK_a 9.5 (4% EtOH).

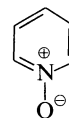
Cejas, M.A. *et al*, *Anal. Chim. Acta*, 1984, **158**, 287 (*detn, Hf, Ti,
Zr*)

Rubio, S., *Talanta*, 1985, **32**, 203 (*detn, SO₄²⁻*)

Pyridine N-oxide

P-00356

[694-59-7]

C₅H₅NO M 95.101

Reagent for oxidative decarboxylation of α-halo acids and
carboxylic acids to aldehydes. Used as 20% aq. soln.
(acidified with HCl) for extraction-photometric detn. of
Au. Solid. Mp 65-66°. Bp₁₅ 136-140°, Bp₁ 100-105°.

► Emits highly toxic fumes when heated to dec.. UT6410000.

B,HCl: Cryst. (2-propanol). Mp 179.5-181°.

Picrate: Yellow needles. Mp 180.5-182°.

B,MeClO₄: [4329-79-7].

Cryst. (EtOH). Mp 69-70°.

Org. Synth., 1953, **33**, 79 (*synth*)

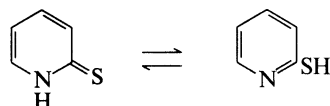
Eisenthal, R. *et al*, *Tetrahedron*, 1965, **21**, 2205.

Holt, P.F. *et al*, *J. Chem. Soc. B*, 1968, 233 (*uv*)

Ziegler, M. *et al*, *Mikrochim. Acta*, 1970, 628 (detn, Au)
 Ulku, D. *et al*, *Acta Crystallogr., Sect. B*, 1971, **27**, 432 (cryst struct)
 Tamura, Y. *et al*, *Chem. Pharm. Bull.*, 1971, **19**, 130 (synth)
 Tolstikov, G.A. *et al*, *Tetrahedron Lett.*, 1971, 2807 (synth)
 Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1975, 5, 567.
 Cowan, D.A. *et al*, *Biomed. Mass Spectrom.*, 1978, **5**, 551 (ms)
 Wamsler, T. *et al*, *J. Magn. Reson.*, 1978, **31**, 177 (pmr, cmr)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, POS000.

2(1H)-Pyridinethione, 9CI**P-00357**

2-Thiopyridone. 2-Pyridinethiol, 9CI. 2-Mercaptopyridine. 2-Pyridyl mercaptan
 [2637-34-5]

C₅H₅NS M 111.167

Thione tautomer predominates except in vapour phase.
 Used as 2% soln. in EtOH for photometric detn. of Bi, Pd; forms coloured ppts. with Hg, Cu, Cd. Yellowish prisms (C₆H₆). Mp 130-132°, Mp 128°.

▷ UT8575000.

Thione-form

N-Me: [2044-27-1].

C₆H₇NS M 125.194

Cryst. (MeOH aq.). Mp 85-87°.

▷ UT9830000.

N-Acetoxy: [15922-79-9]. 1-Acetoxy-2(1H)-pyridinethione, 9CI

C₇H₇NO₂S M 169.204

Used for photometric detn. of Cu. Cryst. Mp 173-175°.

1-Hydroxy: 1-Hydroxy-2(1H)-pyridinethione, 9CI.

Pyrithione

C₅H₅NOS M 127.167Many metal salts used in cosmetics and pharmaceuticals. Cryst. (C₆H₆/pet. ether). Mp 68°.**SH-form**

N-Oxide: [1121-31-9]. 2-Pyridinethiol N-oxide

C₅H₅NOS M 127.167

Used as a 0.02M CHCl₃ soln. for extraction-photometric detn. of Fe (λ_{max} 550 nm, ε 3400), V(V), Pd (λ_{max} 365 nm, ε 5240); gravimetric detn. of Ag, Fe(III); turbidimetric detn. of Ag. Cryst. Sol. CHCl₃, Mp 70-72°.

S-Me: [18438-38-5].

C₆H₇NS M 125.194Liq. Bp₂₃ 100-104°.S-Me; B,MeI: Pale yellow needles (Me₂CO). Mp 155-157°.

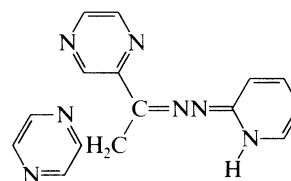
S-Me, N-Oxide:

C₆H₇NOS M 141.193

Needles (EtOAc/hexane). Mp 81°.

Jones, R.A. *et al*, *J. Chem. Soc.*, 1958, 3610; 1960, 2937 (synth, struct, deriv, tautom)Albert, A. *et al*, *J. Chem. Soc.*, 1959, 2384 (synth)Dalziel, J.A. *et al*, *Analyst (London)*, 1964, **89**, 707; 1966, **91**, 98 (N-Oxide, synth, gravimetric detn, Fe)Clayton, O. *et al*, *CA*, 1967, **67**, 82111g (synth, N-acetoxy)Abramovitch, R.A. *et al*, *J. Heterocycl. Chem.*, 1969, **6**, 989; 1975, **12**, 683 (1-Hydroxy, synth)Izquierdo, A. *et al*, *Inf. Quim. Anal.*, 1971, **25**, 203; 1972, **26**, 271 (pptn, photometric detn)Kwiatkowski, J.S., *J. Mol. Struct.*, 1971, **10**, 245 (struct)Edrissi, M. *et al*, *Microchem. J.*, 1971, **16**, 177, 526 (synth, N-acetoxy, detn, Cu, Pd)Cook, M.J. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1972, 1295 (struct)Edrissi, M. *et al*, *Anal. Chim. Acta*, 1974, **71**, 215 (detn, Ag)Pauls, H. *et al*, *Chem. Ber.*, 1976, **109**, 3653 (deriv)Beak, P. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 171; *J. Org. Chem.*, 1980, **45**, 1347, 1354 (struct)Friese, H.J. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **287**, 298 (N-Oxide, detn, V)Black, J.G. *et al*, *Clin. Toxicol.*, 1978, **13**, 1 (1-Hydroxy, rev, tox)Stefaniak, L., *Org. Magn. Reson.*, 1978, **11**, 385; 1979, **12**, 379 (nmr)Ohms, U. *et al*, *Acta Crystallogr., Sect. B*, 1982, **38**, 831 (cryst struct)Barton, D.H.R. *et al*, *Tetrahedron*, 1985, **41**, 3901; 1987, **43**, 2733 (1-Hydroxy, synth)Cook, I.B., *Aust. J. Chem.*, 1989, **42**, 1493 (cmr)**2(1H)-Pyridinone (1,2-dipyrazinylethylidene)hydrazone, 9CI****P-00358**

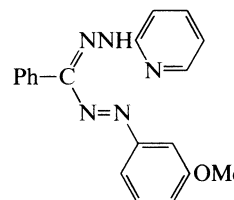
[71336-95-3]

C₁₅H₁₃N₇ M 291.315

Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 530 nm, ε 23400), Cu(I) (λ_{max} 516 nm, ε 15500), Fe(II), Ni (λ_{max} 500 nm, ε 33000). Cryst. (MeOH). Mp 139°.

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 85 (synth, use)**2(1H)-Pyridinone [(3-methoxyphenyl)azophenylmethylene]hydrazone, 9CI****P-00359**

5-(3-Methoxyphenyl)-3-phenyl-1-(2-pyridinyl)formazan
 [133393-33-6]

C₁₉H₁₇N₅O M 331.376

Used as 0.1mM dioxan soln. to give colour reactions with Cu, Zn. Brown-red cryst. (EtOH/dioxan). Sol. EtOH, dioxan. pK_{a1} 3.5; pK_{a2} 12.9.

Uchiumi, A. *et al*, *Anal. Sci.*, 1991, **7**, 119 (synth, reactions)**2(1H)-Pyridinone [(4-methoxyphenyl)azophenylmethylene]hydrazone, 9CI****P-00360**

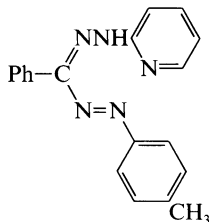
5-(4-Methoxyphenyl)-3-phenyl-1-(2-pyridinyl)formazan
 [39232-71-8]

C₁₉H₁₇N₅O M 331.376

Used as 0.1mM dioxan soln. to give colour reactions with Cu, Zn. Brown-red cryst. (EtOH/dioxan). Sol. EtOH, dioxan. pK_{a1} 3.9; pK_{a2} 13.3.

Uchiumi, A. *et al*, *Anal. Sci.*, 1991, **7**, 119 (synth, reactions)

2(1H)-Pyridinone [(4-methylphenyl)azo] phenylmethylene]hydrazone, 9CI **P-00361**
5-(4-Methylphenyl)-3-phenyl-1-(2-pyridinyl)formazan
[39232-69-4]

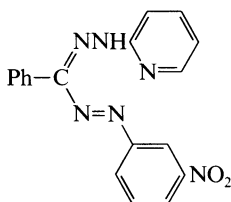


$C_{19}H_{17}N_5$ M 315.377

Used as 0.1mM dioxan soln. to give colour reactions with Cu, Zn, Ni. Brown-red cryst. (EtOH/dioxan). Sol. EtOH, dioxan. pK_{a1} 3.8; pK_{a2} 13.5.

Uchiumi, A. *et al*, *Anal. Sci.*, 1991, 7, 119 (*synth, reactions*)

2(1H)-Pyridinone [(3-nitrophenyl)azo] phenylmethylene]hydrazone, 9CI **P-00362**
5-(3-Nitrophenyl)-3-phenyl-1-(2-pyridinyl)formazan
[133832-09-4]



$C_{18}H_{14}N_6O_2$ M 346.348

Used as 0.1mM dioxan soln. to give colour reactions with Cu, Zn, Ni. Brown-red cryst. (EtOH/dioxan). Sol. EtOH, dioxan. pK_{a1} 3.0; pK_{a2} 12.0.

Uchiumi, A. *et al*, *Anal. Sci.*, 1991, 7, 119 (*synth, reactions*)

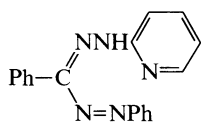
2(1H)-Pyridinone [(4-nitrophenyl)azo] phenylmethylene]hydrazone, 9CI **P-00363**
5-(4-Nitrophenyl)-3-phenyl-1-(2-pyridinyl)formazan
[39232-74-1]

$C_{18}H_{14}N_6O_2$ M 346.348

Used as 0.1mM dioxan soln. to give colour reactions with Cu, Zn, Ni. Brown-red cryst. (EtOH/dioxan). Sol. EtOH, dioxan. pK_{a1} 2.8; pK_{a2} 11.7.

Uchiumi, A. *et al*, *Anal. Sci.*, 1991, 7, 119 (*synth, reactions*)

2(1H)-Pyridinone [phenyl(phenylazo) methylene]hydrazone, 9CI **P-00364**
3,5-Diphenyl-1-(2-pyridinyl)formazan
[39232-68-3]

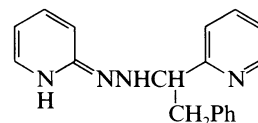


$C_{18}H_{15}N_5$ M 301.350

Used as 0.1mM dioxan soln. to give colour reactions with Cu, Zn, Ni. Brown-red cryst. (EtOH/dioxan). Sol. EtOH, dioxan. pK_{a1} 3.6; pK_{a2} 13.3.

Uchiumi, A. *et al*, *Anal. Sci.*, 1991, 7, 119 (*synth, reactions*)

2(1H)-Pyridinone [2-phenyl-1-(2-pyridinyl) ethylidene]hydrazone, 9CI **P-00365**
Benzyl(2-pyridyl)methanone 2-pyridylhydrazone
[76637-26-8]



$C_{18}H_{16}N_4$ M 288.351

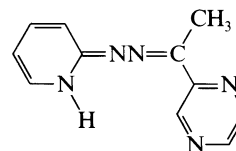
Used as a 1mM soln. in EtOH for photometric detn. of Co; fluorimetric detn. of Ga (λ_{max} 545 nm, pH 3.5), Zn (λ_{max} 550 nm, pH ~ 11). Brown cryst. (EtOH). Sol. EtOH, Me_2CO , C_6H_6 ; spar. sol. H_2O . Mp 114-115°.

Laserna, J.J. *et al*, *Anal. Chim. Acta*, 1980, 121, 295 (*synth, detn, Ga*)

García Sánchez, F. *et al*, *Analyst (London)*, 1982, 107, 35 (*detn, Co*)

García Sánchez, F. *et al*, *Talanta*, 1982, 29, 511 (*detn, Zn*)

2(1H)-Pyridinone (1-pyrazinylethylidene) hydrazone, 9CI **P-00366**
[58495-36-6]



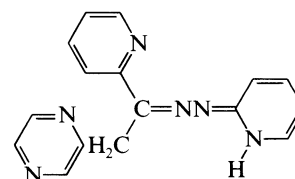
$C_{11}H_{11}N_5$ M 213.241

Used as a soln. in aq. EtOH for photometric detn. of Cu(I), Co (λ_{max} 525 nm, ϵ 21800), Ni (λ_{max} 497 nm, ϵ 22600), Fe(II). Cryst. Sol. common org. solvs.

Case, F.H., *J. Chem. Eng. Data*, 1976, 21, 124 (*synth*)

Schilt, A.A. *et al*, *Talanta*, 1979, 26, 373 (*use*)

2(1H)-Pyridinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, 9CI **P-00367**
[71336-89-5]

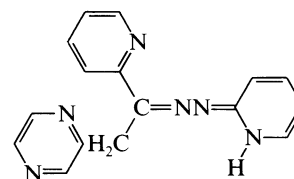


$C_{16}H_{14}N_6$ M 290.327

Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 533nm, ϵ 26000), Cu(I) (λ_{max} 517 nm, ϵ 15400), Fe(II), Ni (λ_{max} 501 nm, ϵ 3000). Cryst. (MeOH aq.). Mp 122°.

Schilt, A.A. *et al*, *Talanta*, 1979, 26, 85 (*synth, use*)

2(1H)-Pyridinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, 9CI **P-00368**
[71336-93-1]



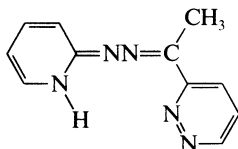
C₁₆H₁₄N₆ M 290.327

Used as a 0.01*M* soln. in EtOH for photometric detn. of Co (λ_{\max} 482 nm, ϵ 31000), Cu(I) (λ_{\max} 465 nm, ϵ 16500), Fe(II), Ni (λ_{\max} 454 nm, ϵ 30400). Cryst. (MeOH aq.). Sol. common org. solvs. Mp 154°.

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 85 (*synth, use*)**2(1*H*)-Pyridinone [1-(3-pyridazinyl)ethylidene]hydrazone, 9CI**

P-00369

[58495-38-8]

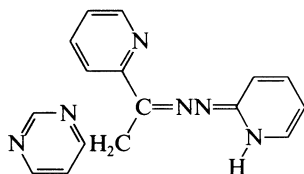
C₁₁H₁₁N₅ M 213.241

Used as a soln. in aq. EtOH for photometric detn. of Cu(I), Co (λ_{\max} 519 nm, ϵ 19000), Ni (λ_{\max} 475 nm, ϵ 11500), Fe(II). Cryst. Sol. common org. solvs.

Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 373 (*use*)**2(1*H*)-Pyridinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, 9CI**

P-00370

[71336-97-5]

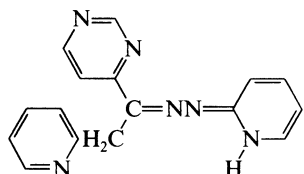
C₁₆H₁₄N₆ M 290.327

Used as a 0.01*M* soln. in EtOH for photometric detn. of Co (λ_{\max} 482 nm, ϵ 27900), Cu(I) (λ_{\max} 468 nm, ϵ 17600), Fe(II), Ni (λ_{\max} 456 nm, ϵ 18000). Cryst. (MeOH). Sol. common org. solvs. Mp 128°.

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 85 (*synth, use*)**2(1*H*)-Pyridinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, 9CI**

P-00371

[71336-91-9]

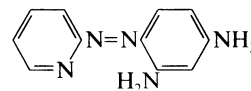
C₁₆H₁₄N₆ M 290.327

Used as a 0.01*M* soln. in EtOH for photometric detn. of Co (λ_{\max} 509 nm, ϵ 36000), Cu(I) (λ_{\max} 497 nm, ϵ 27000), Fe(II), Ni (λ_{\max} 480 nm, ϵ 52000). Cryst. (MeOH). Sol. common org. solvs. Mp 149°.

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 85 (*synth, use*)**4-(2-Pyridinylazo)-1,3-benzenediamine, 9CI** P-00372

4-(2-Pyridylazo)-1,3-diaminobenzene. 2-(2,4-Diaminophenylazo)pyridine. PADAB

[50768-76-8]

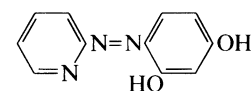
C₁₁H₁₁N₅ M 213.241

Used as 1*mM* EtOH soln. for photometric detn. of Co. Red-brown needles. Sol. common org. solvs.; sl. sol. H₂O. Mp 250°.

Shibata, S. *et al*, *Anal. Chim. Acta*, 1974, **71**, 85 (*synth, detn, Co*)**4-(2-Pyridinylazo)-1,3-benzenediol** P-00373

2-(2,4-Dihydroxyphenylazo)pyridine. 4-(2-Pyridylazo)resorcinol. PAR

[1141-59-9]

C₁₁H₉N₃O₂ M 215.211

Used as 0.1% aq. soln. for photometric detn. of many metals, e.g. Cd, Cr, Co, Cu, V, In (λ_{\max} 510 nm, ϵ 43000, pH ~ 6), Nb (λ_{\max} 550 nm, ϵ 36000, pH ~ 6), Pb (λ_{\max} 520 nm, ϵ 37000, pH ~ 10), Ga, Zr, U; metal indicator in chelatometry. Brown-red cryst. powder. pK_{a2} 5.5; pK_{a3} 12.3.

Na salt: Sol. H₂O, EtOH. Mp 187° dec.*1-Me ether*: [77349-98-5]. 5-Methoxy-2-(2-pyridinylazo)phenol, 9CIC₁₂H₁₁N₃O₂ M 229.238

Used as 0.2% MeOH soln. for extraction-photometric detn. of Ni (λ_{\max} 520 nm, ϵ 113000, CHCl₃), Cu, Co. Cryst. Sol. MeOH, EtOH, dioxan; sl. sol. H₂O. Mp 175°. pK_{a1} 3.15; pK_{a2} 7.80 (aq. dioxan, 25°, 0.1*M* KNO₃).

1-Et ether: [77349-99-6]. 5-Ethoxy-2-(2-pyridinylazo)phenol, 9CIC₁₃H₁₃N₃O₂ M 243.265

Used as 0.2% MeOH soln. for extraction-photometric detn. of Ni (λ_{\max} 522 nm, ϵ 108000, CHCl₃), Cu, Co. Cryst. Sol. MeOH, EtOH, dioxan; sl. sol. H₂O. Mp 150°. pK_{a1} 3.20; pK_{a2} 7.75 (aq. dioxan, 25°, 0.1*M* KNO₃).

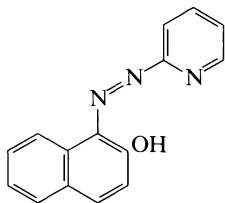
Chichibabin, A.E., *Zh. Russ. Fiz.-Khim. Ova.*, 1920, **50**, 512 (*synth*)Pollard, F.H. *et al*, *Anal. Chim. Acta*, 1959, **20**, 26 (*synth, use*)Geary, W.J. *et al*, *Anal. Chim. Acta*, 1962, **26**, 575; **27**, 71 (*use*)Betteridge, D. *et al*, *Anal. Chem.*, 1963, **35**, 729 (*use*)Hoshino, H. *et al*, *Anal. Chem.*, 1972, **44**, 1091; 1985, **57**, 625 (*use*)Snell, F.D., *Photometric and Fluorimetric Methods of Analysis*,

Metals, Part I, John Wiley, New York, 1978, 34, 480, 513, 736, 911, 969.

Ohshita, K. *et al*, *Anal. Chim. Acta*, 1981, **124**, 193 (*synth, use*)Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Ratan, 1982, 195 (*use*)Aznarez, J., *Analyst (London)*, 1985, **10**, 193 (*use*)Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 309, 347, 406, 628.West, T.S. *et al*, *The Determination of Trace Metals in Natural Waters*, Blackwell, Oxford, 1988, 17, 39, 44.

1-(2-Pyridinylazo)-2-naphthalenol, 9CI*1-(2-Pyridylazo)-2-naphthol. PAN*

[85-85-8]

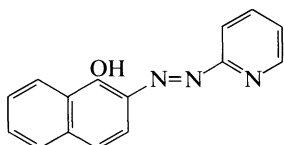
 $C_{15}H_{11}N_3O$ M 249.271

Used as 0.1% EtOH soln. for extraction-photometric detn. of many metals, e.g. Rh, Ni, In, Ga, Mn (λ_{max} 564 nm, ϵ 58000, $CHCl_3$), Zn (λ_{max} 560 nm, ϵ 52000), Cd, Co, V, Ti, Zr, U; metal indicator in chelatometry. Reddish brown cryst. powder. Sol. EtOH, Et_2O , $CHCl_3$; insol. H_2O . Mp 138-141°. pK_{a1} 2.9; pK_{a2} 11.6 (25°, $\mu = 0.1$).

Chichibabin, A.E., *Zh. Russ. Fiz.-Khim. Ova.*, 1920, **50**, 512 (*synth*)
 Cheng, K.L. *et al*, *Anal. Chem.*, 1955, **27**, 782; 1969, **41**, 510 (*use*)
 Shibata, S., *Anal. Chim. Acta*, 1960, **23**, 367; 1961, **25**, 348 (*use*)
 Püschel, S., *Fresenius' Z. Anal. Chem.*, 1966, **221**, 132 (*use*)
 Betteridge, D. *et al*, *Analyst (London)*, 1973, **98**, 377 (*synth. ir, pmr, use*)
 Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Metals, Part I*, John Wiley, New York, 1978, 480, 512, 910;
Metals, Part II, John Wiley, New York, 1978, 1056, 1387, 1553.
 Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 185 (*props*)
 Reeves, R.L. *et al*, *Inorg. Chem.*, 1986, **25**, 185, 1473 (*use*)
 Marzenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 639 (*use*)

2-(2-Pyridinylazo)-1-naphthalenol, 9CI*2-(1-Hydroxy-2-naphthylazo)pyridine. o- α -PAN*

[10335-31-6]

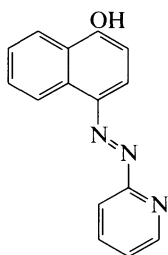
 $C_{15}H_{11}N_3O$ M 249.271

Used as 0.1mM EtOH soln. for extraction-photometric detn. of Cu (λ_{max} 590 nm, ϵ 20000, CCl_4), Ti (λ_{max} 590 nm, ϵ 17000). Orange cryst. Sol. EtOH, MeOH. Mp 122° (subl.).

Betteridge, D. *et al*, *Analyst (London)*, 1973, **98**, 377, 512, 520 (*synth, detn, Cu, Ti*)

4-(2-Pyridinylazo)-1-naphthalenol, 9CI*4-(2-Pyridylazo)-1-naphthol, 8CI. 2-(4-Hydroxy-1-naphthylazo)pyridine. p-PAN*

[7385-98-0]

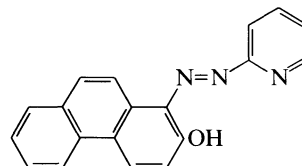
 $C_{15}H_{11}N_3O$ M 249.271**P-00374**

Used as 0.1% soln. in 50% EtOH for extraction-photometric detn. of In, Pd (λ_{max} 640 nm, ϵ 14200, $CHCl_3$). Brown cryst. powder. Sol. H_2O .

Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 166; 1967, **22**, 1039 (*detn, In, Pd*)

1-(2-Pyridinylazo)-2-phenanthrenol, 9CI*2-(2-Hydroxy-1-phenanthrylazo)pyridine*

[36190-42-8]

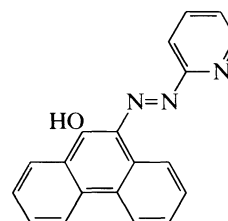
 $C_{19}H_{13}N_3O$ M 299.331

Used as MeOH soln. for photometric detn. of Cu (λ_{max} 560 nm, ϵ 30000, pH 2-8, MeOH/dioxan/ H_2O). Cryst.

Rishi, A.K. *et al*, *Curr. Sci.*, 1975, **44**, 122 (*use*)

P-00377**10-(2-Pyridinylazo)-9-phenanthrenol, 9CI***10-(2-Pyridylazo)-9-phenanthrol*

[50722-39-9]

 $C_{19}H_{13}N_3O$ M 299.331

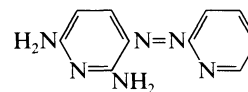
Used for extraction-photometric detn. of Cu, Ni, Zn; photometric detn. of Cd (λ_{max} 560 nm, ϵ 70000). Cryst. pK_{a1} 2.59; pK_{a2} 13.13 (20% dioxan).

Kiyokawa, M. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 860 (*detn, Cu, Ni, Zn*)

Kominami, B. *et al*, *CA*, 1975, **83**, 187956v (*detn, Cd*)

P-00378**3-(2-Pyridinylazo)-2,6-pyridinediamine, 9CI***2,6-Diamino-3,2'-azopyridine*

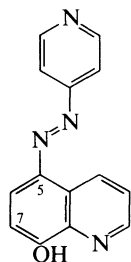
[37734-35-3]

 $C_{10}H_{10}N_6$ M 214.229

Used as EtOH soln. for photometric detn. of Pd (λ_{max} 620 nm, ϵ 14000). Orange cryst. (EtOH). Sol. acids, EtOH, Me_2CO ; spar. sol. H_2O .

Talipov, S.T., *Zh. Anal. Khim.*, 1969, **24**, 409 (*synth*)
 Kosolapova, S.N. *et al*, *Uzb. Khim. Zh.*, 1972, **16**, 19; *CA*, 77, 83220k.

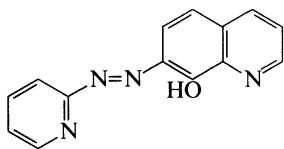
P-00379

5-(4-Pyridinylazo)-8-quinolinol, 9CI*8-Hydroxy-5-(4-pyridylazo)quinoline* $C_{14}H_{10}N_4O$ M 250.259 N^4 -Oxide: [65114-52-5]. $C_{14}H_{10}N_4O_2$ M 266.259

Used as 1mM DMF soln. as an acid-base indicator (pH range: 4.8-6.7; colour change: yellow → violet). Red cryst. powder. Sol. DMF, EtOH; sl. sol. H_2O . Mp 188-189°.

Pisichenko, G.M. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 639 (*synth, use*)**7-(2-Pyridinylazo)-8-quinolinol, 9CI***8-Hydroxy-7-(2-pyridylazo)quinoline. Pyridylazoxin*

[16566-55-5]

 $C_{14}H_{10}N_4O$ M 250.259

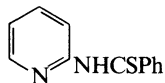
Used as a 0.1% soln. in EtOH for titrimetric detn. of Cu (λ_{max} 525 nm), Tl. Red cryst. (EtOH). Sol. dioxan; mod. sol. EtOH, Me_2CO , alkalis; sl. sol. H_2O ; insol. Et_2O , C_6H_6 , CCl_4 , toluene.

Busev, A.I. *et al*, *CA*, 1962, **56**, 5398 (*detn, Tl*)Busev, A.I. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 380; 1963, **18**, 33 (*synth, detn, Cu*)**7-(4-Pyridinylazo)-8-quinolinol, 9CI***8-Hydroxy-7-(4-pyridylazo)quinoline* $C_{14}H_{10}N_4O$ M 250.259 N^4 -Oxide: [103682-76-4]. $C_{14}H_{10}N_4O_2$ M 266.259

Used as 1mM DMF soln. as an acid-base indicator (pH range 5.2-6.7; colour change yellow → violet). Brown-red cryst. powder. Sol. DMF, EtOH; sl. sol. H_2O . Mp 201-202°.

Pisichenko, G.M. *et al*, *Zh. Anal. Khim.*, 1986, **41**, 639 (*synth, use*)**N-2-Pyridinylbenzenecarbothioamide, 9CI***N-2-Pyridylthiobenzamide*

[27060-34-0]

 $C_{12}H_{10}N_2S$ M 214.290

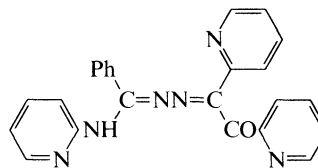
Used as 0.15M soln. in C_6H_6 for extraction-photometric detn. of Au(III) (λ_{max} 400 nm, ϵ 2200, $Br^{\ominus}/5M$ HCl).

Cryst. Sol. C_6H_6 .Shriner, R.L. *et al*, *Chem. Rev.*, 1944, **35**, 351 (*synth*)Patel, K.S. *et al*, *Anal. Chem.*, 1986, **58**, 1547 (*use*)

P-00380

N-2-Pyridinylbenzenecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, 9CI

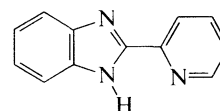
[59158-19-9]

 $C_{24}H_{18}N_6O$ M 406.446

Used as 0.01 M soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 668 nm, ϵ 14400), Co, Ni, Cu. Cryst. (2-methoxyethanol). Sol. EtOH, 2-methoxyethanol. Mp 208°.

Schilt, A.A. *et al*, *Talanta*, 1975, **22**, 915 (*synth, use*)**2-(2-Pyridinyl)-1H-benzimidazole, 9CI***2-(2-Benzimidazolyl)pyridine*

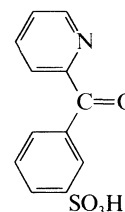
[1137-68-4]

 $C_{12}H_9N_3$ M 195.223

Used as 1mM EtOH soln. to give colour reaction with Fe(II); fluorimetric detn. of Ga (λ_{max} 413 nm), In, Zn (λ_{max} 398 nm, pH 4-6). Cryst. (EtOH). Sol. EtOH, Et_2O , $CHCl_3$, C_6H_6 ; sl. sol. H_2O . Mp 216-218°.

Walter, J.L. *et al*, *Anal. Chem.*, 1954, **26**, 217 (*synth, detn, Fe*)Bark, L.S. *et al*, *Anal. Chim. Acta*, 1969, **45**, 425 (*fluorim, detn*)**3-(2-Pyridinylcarbonyl)benzenesulfonic acid, 9CI**

[51964-33-1]

 $C_{12}H_9NO_4S$ M 263.273

Thiosemicarbazone: [76895-45-9]. 3-[[*Aminothioxomethyl*]hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, 9CI

 $C_{13}H_{12}N_4O_3S_2$ M 336.395

Used as a soln. in DMF for photometric detn. of Fe(II) (λ_{max} 520 nm, ϵ 9000). Yellow cryst. Sol. H_2O , Me_2CO , EtOH, 4-methyl-2-pentanone, DMF. Mp > 325°. pK_{a1} - 3.25; pK_{a2} 3.73; pK_{a3} 11.45 (0.1M KCl, 25°).

Phenylthiosemicarbazone: [76895-46-0]. $C_{19}H_{16}N_4O_3S_2$ M 412.492

Used for photometric detn. of Fe(II) (λ_{max} 630 nm, ϵ 9300). Yellow cryst. Sol. H_2O , Me_2CO , EtOH, DMF. Mp > 325°. pK_{a1} - 3.5; pK_{a2} 3.65; pK_{a3} 10.49 (0.1M KCl, 25°).

2-Pyridylhydrazone: [52018-85-6]. $C_{17}H_{14}N_4O_3S$ M 354.389

Used as 2mM soln. for preconcentration of Fe, Co, Ni, Cu, Zn, Cd, Hg, Pd (forms anionic complexes). Yellow cryst. (EtOH aq.). Sol. EtOH, H_2O .

Benzoylhydrazone: [110346-97-9].

$C_{19}H_{15}N_3O_4S$ M 381.411

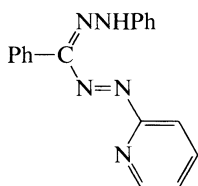
Used as 2mM aq. soln. for photometric detn. of Co (λ_{max} 400 nm, ϵ 21700), Fe(II). Cryst. (EtOH aq.). Sol. EtOH; mod. sol. H_2O . Mp 280° dec. pK_{a1} 3.66; pK_{a2} 10.6 (25°, $\mu = 0.2$).

Going, J.E. *et al.*, *Anal. Chim. Acta*, 1974, **70**, 127; 1976, **81**, 349 (synth, use)

Bautista Rodriguez, J.M. *et al.*, *Talanta*, 1980, **27**, 923 (synth, use, w)

Nakanishi, T. *et al.*, *Microchem. J.*, 1987, **35**, 328; **36**, 128 (synth, use)

1-(2-Pyridinyl)-3,5-diphenylformazan, 9CI P-00387
[21542-39-2]

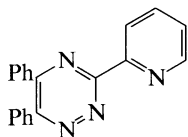


$C_{18}H_{15}N_5$ M 301.350

Used as metallochromic indicator for titrimetric detn. of Cu, Ni; acid-base indicator. Violet cryst. (MeOH). Sol. EtOH, dioxan. pK_{a1} 3.07 (50% dioxan); pK_{a2} 13.90 (40% dioxan).

Kiyokawa, M. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1972, **21**, 244 (use)

3-(2-Pyridinyl)-5,6-diphenyl-1,2,4-triazine, 9CI P-00388
[1046-56-6]

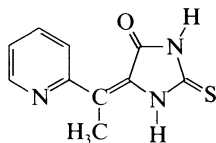


$C_{20}H_{14}N_4$ M 310.357

Used as a 0.1% soln. in EtOH for photometric detn. of Ru (λ_{max} 485 nm, ϵ 21000). Cryst. (EtOH). Mp 191-193°.

Kamra, L.C. *et al.*, *Anal. Chim. Acta*, 1975, **78**, 423.

5-[1-(2-Pyridinyl)ethylidene]-2-thioxo-4-imidazolidinone, 9CI P-00389
5-[1-(2-Pyridyl)ethylidene]-2-thiohydantoin



$C_{10}H_9N_3OS$ M 219.267

(*E*)-form [69580-24-1]

Used as 8mM DMF soln. for photometric detn. of Ag, Au(III), Cu, Pd (λ_{max} 415 nm, ϵ 15000). Yellow cryst. (EtOH). Sol. EtOH, DMF. Mp 285° dec.

Montana Gonzalez, M.T. *et al.*, *Talanta*, 1978, **25**, 331 (synth, use)

N-2-Pyridinyl-2-furancarboxamide, 9CI P-00390
2-Furylamidopyridine
[35218-40-7]



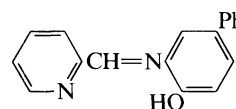
$C_{10}H_8N_2O_2$ M 188.185

Used as a 1% soln. in C_6H_6 for photometric detn. of Mo(V) (λ_{max} 470 nm, ϵ 14500). Cryst. Sol. EtOH, C_6H_6 , Me_2CO ; insol. H_2O .

Biniecki, S. *et al.*, *Acta Pol. Pharm.*, 1972, **29**, 1; *CA*, **77**, 75102h (synth)

Patel, K.S. *et al.*, *Talanta*, 1982, **29**, 791.

3-[(2-Pyridinylmethylene)amino]-[1,1'-biphenyl]-4-ol, 9CI P-00391
Picolinaldehyde 2-hydroxy-5-phenylanil
[60435-18-9]

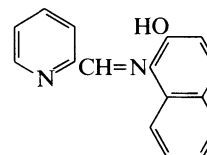


$C_{18}H_{14}N_2O$ M 274.321

Used as a 0.02% soln. in $CHCl_3$ for extraction-photometric detn. of Pd (λ_{max} 627 nm, ϵ 4900, $CHCl_3$). Yellow needles (pet. ether). Sol. C_6H_6 , $CHCl_3$, pet. ether; insol. H_2O . Mp 115-116°.

Ottomo, M. *et al.*, *Anal. Chim. Acta*, 1976, **83**, 275 (synth, detn. Pd)

1-[(2-Pyridinylmethylene)amino]-2-naphthalenol, 9CI P-00392
1-Picolylideneamino-2-naphthol
[52641-68-6]

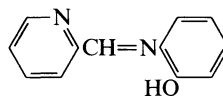


$C_{16}H_{12}N_2O$ M 248.284

Used as 0.1mM $CHCl_3$ soln. for extraction-photometric detn. of Zn (λ_{max} 520 nm, ϵ 45000). Yellow cryst. ($MeOH/C_6H_6$). Sol. $CHCl_3$, Mp 186-187° dec.

Otomo, M. *et al.*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 455 (synth, detn. Zn)

2-[(2-Pyridinylmethylene)amino]phenol, 9CI P-00393
2-Pyridylidene-2-aminophenol. 2-Pyridinecarboxaldehyde o-hydroxyanil
[3860-58-0]



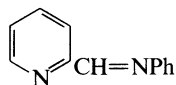
$C_{12}H_{10}N_2O$ M 198.224

Used as 1mM EtOH soln. for photometric detn. of Sc, Ni (λ_{max} 460nm), extraction-photometric detn. of Zn ($CHCl_3$); as a 0.02% soln. in $CHCl_3$ for photometric detn. of Pd (λ_{max} 594 nm, ϵ 4160). Yellow-orange needles (pet. ether). Sol. EtOH, dioxan, C_6H_6 ; insol. H_2O . Mp 106°. pK_{a1} 3.6; pK_{a2} 4.6; pK_{a3} 11.5.

Geary, W.J. *et al.*, *Anal. Chim. Acta*, 1962, **26**, 575 (*synth*)
 Otomo, M. *et al.*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 2421 (*synth*)
 Otomo, M. *et al.*, *Anal. Chim. Acta*, 1976, **83**, 275 (*detn.*, Pd)
 Holzbecher, Z. *et al.*, *Collect. Czech. Chem. Commun.*, 1976, **41**,
 1506 (*detn.*, Sc)
 Capitan, F. *et al.*, *Quim. Anal. (Barcelona)*, 1977, **31**, 269.
 Capitan, F. *et al.*, *Afinidad*, 1978, **35**, 553 (*detn.*, Zn)

N-(2-Pyridinylmethylene)benzenamine, 9CI P-00394

2-(Phenyliminomethyl)pyridine. 2-Pyridinecarboxaldehyde
 anil. α -Picolinaldehyde anil
 [7032-25-9]



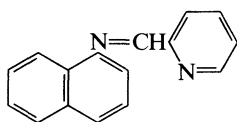
$C_{12}H_{10}N_2$ M 182.224
 Used as 0.01M EtOH soln. for extraction-photometric
 detn. of SCN^{\ominus} (λ_{max} 585 nm, as mixed complex with
 Fe(II), pH 6.5, $PhNO_2$). Cryst. Sol. EtOH.

Capitan-Vallvey, L.F. *et al.*, *An. Quim.*, 1977, **73**, 1308 (*synth*)
 Capitan-Vallvey, L.F. *et al.*, *Microchem. J.*, 1983, **28**, 118 (*detn.*,
 SCN^{\ominus})

N-(2-Pyridinylmethylene)-1-naphthalenamine, 9CI

P-00395

2-Pyridinecarboxaldehyde 1-naphthylanil
 [64921-11-5]

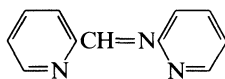


$C_{16}H_{12}N_2$ M 232.284
 Used for photometric detn. of Ni (λ_{max} 430-440 nm, ϵ
 1600). Cryst. Sol. common org. solvs.

Capitan, F. *et al.*, *Quim. Anal. (Madrid)*, 1977, **31**, 341 (*detn.*, Ni)

N-(2-Pyridinylmethylene)-2-pyridinamine P-00396

2-Pyridinecarboxaldehyde 2-pyridylanil. 2-Pyridilidene-2-
 aminopyridine
 [21756-23-0]

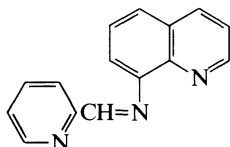


$C_{11}H_9N_3$ M 183.212
 Used for photometric detn. of Sc. Cryst. (EtOH). Mp
 119°. pK_{a1} 4.0; pK_{a2} 6.2; pK_{a3} 9.0 (10% EtOH, 25°),
 pK_{a1} 3.5; pK_{a2} 6.66; pK_{a3} 7.33 (10% EtOH, 25°).

Holzbecher, Z. *et al.*, *Collect. Czech. Chem. Commun.*, 1976, **41**,
 1506 (*synth*)

N-(2-Pyridinylmethylene)-8-quinolinamine, 9CI P-00397

8-(α -Pyridylmethyleneamino)quinoline. 8-
 Picolylideneaminoquinoline
 [56496-26-5]

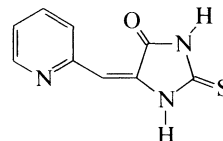


$C_{15}H_{11}N_3$ M 233.272
 Used as soln. in $PhNO_2$ for extraction-photometric detn.
 of Fe(II) (λ_{max} 663 nm, ϵ 7040). Yellow needles (EtOH).
 Sol. EtOH, $PhNO_2$. Mp 139-140°.

Lions, F. *et al.*, *J. Am. Chem. Soc.*, 1957, **79**, 2733 (*synth*)
 Otomo, M. *et al.*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 906 (*detn.*, Fe)

5-(2-Pyridinylmethylene)-2-thioxo-4-imidazolidinone, 9CI P-00398

5-(2-Pyridylmethylene)-2-thiohydantoin



$C_9H_7N_3OS$ M 205.240
 (E)-form [69580-21-8]

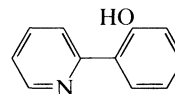
Used as 4mM DMF soln. for photometric detn. of
 Au(III), Cu(II), Ni, Zn (λ_{max} 419 nm, ϵ 22000). Yellow-
 orange cryst. (EtOH). Sol. EtOH, DMF. Mp 276°.

Montana Gonzalez, M.T. *et al.*, *Talanta*, 1978, **25**, 331 (*synth.*, use)

2-(2-Pyridinyl)phenol, 9CI

P-00399

2-(2-Hydroxyphenyl)pyridine
 [33421-36-2]

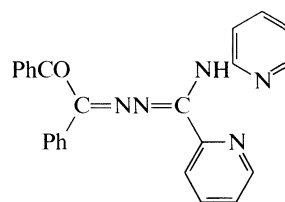


$C_{11}H_9NO$ M 171.198
 Used as soln. in aq. EtOH for fluorimetric detn. of Be.
 Cryst. Sol. common org. solvs.; spar. sol. H_2O . Mp 56°.

Kahrt, L. *et al.*, *Collect. Czech. Chem. Commun.*, 1976, **41**, 540
 (*detn.*, Be)

N-2-Pyridinyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, 9CI P-00400

[59158-20-2]

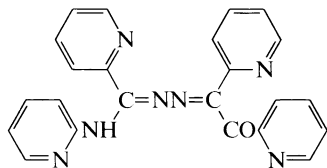


$C_{25}H_{19}N_5O$ M 405.458
 Used as 0.01 M soln. in EtOH for photometric detn. of
 Cu(I) (λ_{max} 475 nm, ϵ 1800). Cryst. (EtOH). Sol. EtOH.
 Mp 154°.

Schilt, A.A. *et al.*, *Talanta*, 1975, **22**, 915 (*synth.*, use)

N-2-Pyridinyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, 9CI

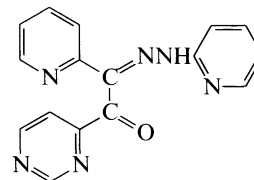
[59158-21-3]

 $C_{23}H_{17}N_7O$ M 407.434

Used as 0.01M soln. in EtOH for photometric detn. of Ni (λ_{max} 460 nm, ϵ 17000), Co (λ_{max} 490 nm, ϵ 8900), Fe(II), Zn (λ_{max} 475 nm, ϵ 1400). Cryst. (EtOH). Sol. EtOH, common org. solvs. Mp 173°.

Schilt, A.A. *et al*, *Talanta*, 1975, **22**, 915 (*synth*, *use*)

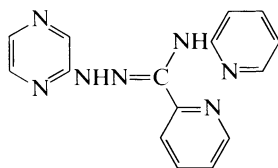
P-00401

2-Pyridinyl-4-pyrimidinylethanedione 1-(2-pyridinylhydrazone), 9CI $C_{16}H_{12}N_6O$ M 304.310

2-Oxime: [71337-02-5].

 $C_{16}H_{13}N_7O$ M 319.325

Used as a 0.01M soln. in EtOH for photometric detn. of Co (λ_{max} 481 nm, ϵ 35000), Cu(I) (λ_{max} 470 nm, ϵ 25500), Fe(II), Ni (λ_{max} 460 nm, ϵ 23000). Cryst. (EtOH). Sol. common org. solvs. Mp 237°.

Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 85 (*synth*, *use*)**N-2-Pyridinyl-2-pyridinecarboximidic acid 2-pyrazinylhydrazide, 9CI**N-2-Pyridylpicolinamide pyrazinylhydrazone
[58528-46-4] $C_{15}H_{13}N_7$ M 291.315

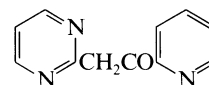
Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 514 nm, ϵ 7600). Cryst. Sol. common org. solvs.

Case, F.H., *J. Chem. Eng. Data*, 1976, **21**, 124 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1979, **26**, 373 (*use*)

P-00402

1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone 2-(2-Pyrimidinylacetyl)pyridine

[73569-08-1]

 $C_{11}H_9N_3O$ M 199.212

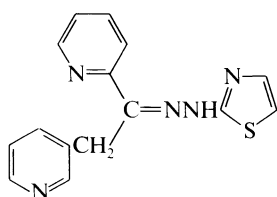
2-Thiazolylhydrazone: [73568-96-4].

 $C_{14}H_{12}N_6S$ M 296.355

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 479 nm, ϵ 26100), Cu(I) (λ_{max} 461 nm, ϵ 16400), Fe(II) (λ_{max} 595 nm, ϵ 8300), Ni (λ_{max} 447 nm, ϵ 39000). Cryst. (MeOH). Sol. common org. solvs. Mp 147°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth*, *use*)**1-(2-Pyridinyl)-2-(3-pyridinyl)ethanone 2-thiazolylhydrazone, 9CI**

[73568-87-3]

 $C_{15}H_{13}N_5S$ M 295.367

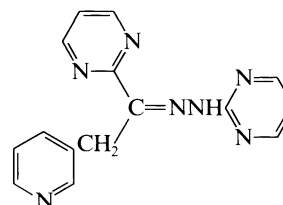
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 479 nm, ϵ 25300), Cu (λ_{max} 462 nm, ϵ 14100), Fe(II) (λ_{max} 594 nm, ϵ 7600), Ni (λ_{max} 451 nm, ϵ 39400). Cryst. (pet. ether). Sol. common org. solvs. Mp 108°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth*, *use*)

P-00403

1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone 2-pyrimidinylhydrazone, 9CI

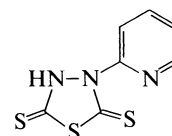
[73569-06-9]

 $C_{15}H_{13}N_7$ M 291.315

Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 453 nm, ϵ 26600), Cu(I) (λ_{max} 440 nm, ϵ 19500), Ni (λ_{max} 423 nm, ϵ 39400). Cryst. (MeOH). Sol. common org. solvs. Mp 159°.

Schilt, A. *et al*, *Talanta*, 1980, **27**, 55 (*synth*, *use*)**3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, 9CI**

[56468-60-1]

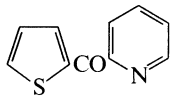


P-00407

C₇H₅N₃S₃ M 227.335Used for extraction-photometric detn. of Bi (λ_{\max} 340 nm, ϵ 29000, CHCl₃), Pd, Se, Te. Cryst. Sol. CHCl₃, C₆H₆.Busev, A.I. *et al*, *CA*, 1977, **87**, 77833c (*use*)**2-Pyridinyl-2-thienylmethanone, 9CI**

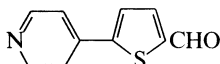
P-00408

2-Pyridyl-2-thienyl ketone

C₁₀H₇NOS M 189.237*Oxime*: [40758-37-0]. 2-Pyridyl-2-thienyl- β -ketoximeC₁₀H₈N₂O₂ M 204.252Used as 1% soln. in EtOH for photometric detn. of Co (λ_{\max} 412 nm, ϵ 20000). Cryst. (EtOH). Sol. EtOH, Et₂O. Mp 126-127°.Notenboom, H.R. *et al*, *Mikrochim. Acta*, 1973, 467 (*synth. detn. Co*)Beaupré, P. *et al*, *Mikrochim. Acta*, 1978, 95, 229 (*detn. Co*)**5-(4-Pyridinyl)-2-thiophenecarboxaldehyde, 9CI**

P-00409

[129770-69-0]

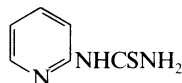
C₁₀H₇NOS M 189.237

Fluorescence derivatisation reagent for primary amines. Plates. Mp 135-136°.

Nakajima, R. *et al*, *Bull. Chem. Soc. Jpn.*, 1990, **63**, 1968 (*synth. pmr, cmr, use*)**2-Pyridinylthiourea, 9CI**

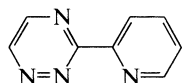
P-00410

[14294-11-2]

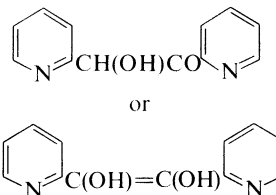
C₆H₇N₃S M 153.207Used as 0.03M soln. in EtOH for photometric detn. of Re(VII) (λ_{\max} 405 nm, ϵ 16000). Cryst. Sol. EtOH. Mp 135°.Pollock, E.N. *et al*, *Anal. Chim. Acta*, 1965, **32**, 418 (*synth*)Dutta, G. *et al*, *Mikrochim. Acta*, 1986, 1, 359 (*detn. Re*)**3-(2-Pyridinyl)-1,2,4-triazine, 9CI**

P-00411

[30091-53-3]

C₈H₆N₄ M 158.162Used as 5mM soln. in aq. EtOH for photometric detn. of Cu(I) (λ_{\max} 462 nm, ϵ 5100), Fe(II) (λ_{\max} 525 nm, ϵ 11300). Cryst. (C₆H₆/pet. ether). Sol. common org. solvs. Mp 86-87°.Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn. Cu, Fe*)**Pyridoin**

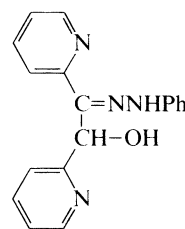
P-00412

2-Hydroxy-1,2-di-2-pyridinylethanone, 9CI. Hydroxy-2-pyridylmethyl 2-pyridyl ketone, 8CI. α -Hydroxy- β -oxodipyridylethane. Di-2-pyridyl-1,2-ethenediol [1141-06-6]C₁₂H₁₀N₂O₂ M 214.223Used as a 1-2% soln. in hot EtOH or glac. AcOH for gravimetric detn. of Mo, W. Yellow needles (EtOH). Spar. sol. cold EtOH; sol. CHCl₃, C₆H₆, Me₂CO; insol. H₂O. Mp 161°. Red col. in dil. AcOH. Reduces Fehling's soln.*Di-Ac*:C₁₆H₁₄N₂O₄ M 298.298Two forms known, doubtless (*E*) and (*Z*). Mp 186°. Mp 225.5°.*Phenylhydrazone*: Cryst. (2-methyl-2-propanol).Harries, C. *et al*, *Justus Liebigs Ann. Chem.*, 1915, **410**, 108.Cramer, F. *et al*, *Chem. Ber.*, 1953, **86**, 1586.Mathes, W. *et al*, *Chem. Ber.*, 1954, **87**, 1870.Eistert, B. *et al*, *Chem. Ber.*, 1958, **91**, 1404.Bhat, A.N. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **195**, 424 (*detn. Mo, W*)Buehler, C.A., *Chem. Rev.*, 1964, **64**, 7.Ashida, T. *et al*, *Acta Crystallogr.*, 1965, **18**, 122 (*cryst struct*)Brown, J.N. *et al*, *J. Org. Chem.*, 1972, **37**, 3712 (*pmr*)**Pyridoin phenylhydrazone**

P-00413

2-Hydroxy-1,2-(di-2-pyridinyl)ethanone phenylhydrazone, 9CI

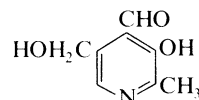
[65373-68-4]

C₁₈H₁₆N₄O M 304.351Used as 0.1% EtOH soln. for photometric detn. of Cu (λ_{\max} 440 nm, ϵ 21000). Light yellow cryst. (butanol). Mp 145°.Silva, M. *et al*, *Mikrochim. Acta*, 1977, **2**, 121 (*synth. detn. Cu*)**Pyridoxal**

P-00414

3-Hydroxy-5-hydroxymethyl-2-methyl-4-pyridinecarboxaldehyde, 9CI. 3-Hydroxy-5-hydroxymethyl-2-methylisonicotinic aldehyde

[66-72-8]

C₈H₉NO₃ M 167.164Exhibits vitamin B₆ activity. Used for fluorimetric detn. of amino acids.

B,HCl: Cryst. (Me₂CO aq.). Mp 170° dec.
5-*O*-Phosphate: see *Pyridoxal phosphate*, P-00416
Oxime: [708-08-7].

C₈H₁₀N₂O₃ M 182.179
Mp 225-226° dec.

Semicarbazone: Mp 235° dec.
Salicyloylhydrazone: [82970-90-9].

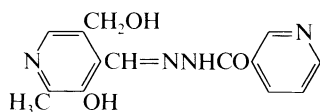
C₁₅H₁₅N₃O₄ M 301.301
Used as 0.1% soln. in EtOH/DMF for photometric detn. of Al, Ti, Zr (λ_{max} 395 nm, ε 24000). Yellow cryst. (EtOH). Mp 247°.

Harris, S.A. *et al*, *J. Am. Chem. Soc.*, 1944, **66**, 2088 (*synth*)
Ahrens, H. *et al*, *J. Heterocycl. Chem.*, 1967, **4**, 625 (*synth*)
de Jongh, D.C. *et al*, *Org. Mass Spectrom.*, 1968, **1**, 151 (*ms*)
Gansow, O.A. *et al*, *Tetrahedron*, 1968, **24**, 4477 (*nmr*)
Lustenberger, N. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1972, **11**, 227 (*use*)
Lange, H.W. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 337 (*use*)
Gallego, M. *et al*, *Anal. Chim. Acta*, 1982, **138**, 311 (*salicyloylhydrazone*, *synth*, *detn*, Zr)
Gallego, M. *et al*, *Analyst (London)*, 1983, **108**, 92 (*salicyloylhydrazone*, *detn*, Al)
Gallego, M. *et al*, *Mikrochim. Acta*, 1983, **1**, 289 (*salicyloylhydrazone*, *detn*, Ti)

Pyridoxal nicotinoylhydrazone

P-00415

[2681-77-8]



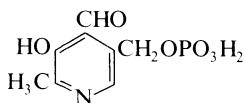
C₁₄H₁₄N₄O₃ M 286.290
Used as 0.05% aq. soln. for fluorimetric detn. of Mg (λ_{max} 480 nm, pH 10). Yellow cryst. (50% EtOH). Sol. EtOH, DMF, MeOH, Me₂CO; spar. sol. H₂O.

Cejas, M.A. *et al*, *Anal. Chim. Acta*, 1981, **130**, 73 (*synth*, *detn*, Mg)

Pyridoxal phosphate

P-00416

3-Hydroxy-2-methyl-5-[(phosphonooxy)methyl]-4-pyridinecarboxaldehyde, 9CI. *Pyridoxal 5-monophosphate*. *Codecarboxylase*. *Coenzyme B₆*
[54-47-7]



C₈H₁₀NO₆P M 247.144
Coenzyme in racemisation, decarboxylation and transamination reactions of α-amino-acids. Used as 0.01*M* soln. in 0.01*M* HCl for fluorimetric detn. of Be (λ_{max} 460 nm). Powder or cryst. Mp 140-143°. Bright yellow in alk. soln.

▷ UV1207000.

Ca salt: Bright yellow powder. λ_{max} 228, 307.5, 390 nm (H₂O at pH 11).

Oxime:

C₈H₁₁N₂O₆P M 262.158
Cryst. (H₂O contg. HCl). Mp 229-230° dec.

Acridine salt: Lemon-yellow cryst.

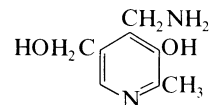
Gunsalus, I.C. *et al*, *J. Biol. Chem.*, 1945, **161**, 743.
Metzler, D.E. *et al*, *J. Am. Chem. Soc.*, 1954, **76**, 648.
Boyer, P.D. *et al*, *Enzymes*, Vol 2, Chap. 6, Academic Press, N.Y., 1960 (*rev*)
Korytynk, W. *et al*, *J. Am. Chem. Soc.*, 1963, **85**, 2813 (*pmr*)
Osbond, J.M., *Vitam. Horm. (N.Y.)*, 1964, **22**, 367 (*synth*, *rev*)

Petidier, A. *et al*, *Talanta*, 1985, **32**, 1041 (*detn*, Be)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, P11100.

Pyridoxamine

P-00417

4-(Aminomethyl)-5-hydroxy-6-methyl-3-pyridinemethanol, 9CI. 4-(Aminomethyl)-3-hydroxy-5-hydroxymethyl-2-methylpyridine. 3-Hydroxy-5-hydroxymethyl-2-methyl-4-pyridinemethylamine
[85-87-0]



C₈H₁₂N₂O₂ M 168.195
Exhibits vitamin B₆ activity. Used for fluorimetric detn. of α-oxo acids. Cryst. Sol. EtOH, acids. Mp 198-200°. Mp 193-193.5°.

B,2HCl: [524-36-7].

Cryst. (MeOH). Mp 226-227° dec.

▷ UV1230000.

Harris, S.A. *et al*, *J. Am. Chem. Soc.*, 1944, **66**, 2088 (*synth*)
Kamer, P. *et al*, *Helv. Chim. Acta*, 1948, **31**, 1004 (*synth*)
Balyakina, M.V. *et al*, *Zh. Obshch. Khim.*, 1961, **31**, 2983 (*synth*)
Lange, H.W. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **261**, 337 (*use*)

1-(2-Pyridyl)-1-hexanone

P-00418

2-Hexanoylpyridine. *Pentyl 2-pyridyl ketone*
[42203-03-2]



C₁₁H₁₅NO M 177.246
Liq. Bp₁₃ 132-133°. n_D²⁰ 1.5001.

Oxime: [34541-30-5].C₁₁H₁₆N₂O M 192.260

Used as 0.01*M* aq. soln. for extraction-photometric detn. of Cu(I) (λ_{max} 360 nm, ε 2700, isopentanol). Cryst. (Et₂O saturated with HCl). Sol. H₂O; sl. sol. Et₂O. Mp 149-151°.

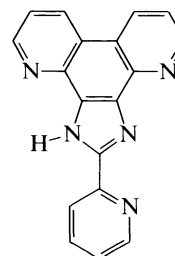
Trusell, F. *et al*, *Anal. Chim. Acta*, 1964, **30**, 269 (*synth*, *oxime*, *detn*, Cu)

Tomer, K.B. *et al*, *J. Org. Chem.*, 1973, **38**, 4152 (*ms*)Reimann, E. *et al*, *Justus Liebigs Ann. Chem.*, 1976, 1351 (*synth*)

2-(2-Pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, 8CI

P-00419

[14040-60-9]

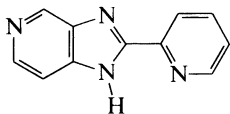


C₁₈H₁₁N₅ M 297.318
Used as a 5*mM* soln. in aq. EtOH for photometric detn. of Fe(II). Cryst. (C₆H₆). Sol. common org. solvents, dil. HCl. Mp 248-249°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)
Schild, A.A. *et al*, *Talanta*, 1968, **15**, 1055 (*use*)

2-(2-Pyridyl)-1H-imidazo[4,5-c]pyridine, 8CI

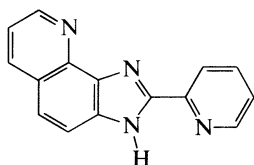
[14060-62-9]

 $C_{11}H_8N_4$ M 196.211Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 548 nm, ϵ 3200). Cryst. (C_6H_6). Sol. common org. solvents, dil. HCl. Mp 234-235°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, **15**, 1055 (use)

P-00420

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 488 nm, ϵ 6200), Cu(I) (λ_{\max} 437 nm, ϵ 5500). Cryst. (cyclohexanone). Sol. C_6H_6 , dil. HCl. Mp 82-83°.Lafferty, J.J. et al, *J. Org. Chem.*, 1967, **32**, 1591 (synth)
Schilt, A.A. et al, *Talanta*, 1969, **16**, 519 (use)**2-(2-Pyridyl)-3H-imidazo[4,5-h]quinoline, 8CI**

[14854-13-8]

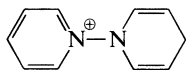
 $C_{15}H_{10}N_4$ M 246.271Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 460 nm, ϵ 1000). Cryst. (EtOH). Sol. common org. solvents. Mp 235°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (synth)
Schilt, A.A. et al, *Talanta*, 1968, **15**, 1055 (use)

P-00421

Pyridylpyridinium(1+)

1,4-Dihydro-4-(4(1H)-pyridinylidene)pyridine radical ion(1+), 9CI

[35862-62-5]

 $C_{10}H_{10}N_2^{\oplus}$ M 158.202 (ion)

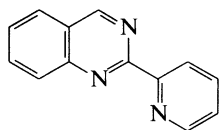
Chloride:

 $C_{10}H_{10}ClN_2$ M 193.655Used as a 2% aq. soln. for photometric detn. of N_2H_4 (λ_{\max} 500 nm). Cryst.Asmus, E. et al, *Fresenius' Z. Anal. Chem.*, 1971, **253**, 102 (use)

P-00422

2-(2-Pyridyl)quinazoline, 8CI

[10198-94-4]

 $C_{13}H_9N_3$ M 207.234Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{\max} 442 nm, ϵ 11500), Cu(I) (λ_{\max} 481 nm, ϵ 8900). Cryst. (hexane). Sol. C_6H_6 , dil. HCl. Mp 86-87°.

5,6,7,8-Tetrahydro deriv.: [10198-85-3]. 2-(2-Pyridyl)-5,6,7,8-tetrahydroquinazoline, 8CI

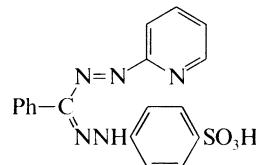
 $C_{13}H_{13}N_3$ M 211.266

P-00423

1-(2-Pyridyl)-5-(4-sulfophenyl)-3-phenylformazan

4-[3-Phenyl-1-(2-pyridyl)-5-formazano]benzenesulfonic acid, 9CI

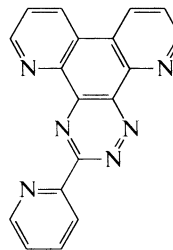
[32748-20-2]

 $C_{18}H_{15}N_5O_3S$ M 381.414Used as a 0.2mM aq. soln. as metallochromic indicator for titrimetric detn. of Cu. Red-violet cryst. (MeOH). Sol. H_2O , EtOH. pK_{a2} 4.48; pK_{a3} 11.83.Matsushima, T. et al, *Bunseki Kagaku (Jpn. Anal.)*, 1971, **20**, 156, 1310 (synth, detn, Cu)

P-00424

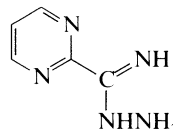
2-Pyridyl-1,2,4-triazino[5,6-f][4,7]phenanthroline

P-00425

 $C_{18}H_{10}N_6$ M 310.317Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 593 nm, ϵ 20200), Cu(I) (λ_{\max} 511 nm, ϵ 7500). Cryst. (DMF). Sol. EtOH, DMF. Mp 325°.Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (synth)
Schilt, A.A., *Talanta*, 1966, **13**, 895 (use)**2-Pyrimidinecarboximidic acid hydrazide**

2-Pyrimidylhydrazidine

P-00426

 $C_5H_7N_5$ M 137.144Used as 0.01 M soln. in EtOH for photometric detn. of Fe(II) (λ_{\max} 553 nm, ϵ 48000). Cryst. (C_6H_6). Sol. C_6H_6 , EtOH. Mp 109-110°.Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (synth)
Schilt, A.A., *Talanta*, 1966, **13**, 895 (use)**4-Pyrimidinecarboximidic acid hydrazide, 8CI**

4-Pyrimidylhydrazidine

[18091-46-8]

P-00427

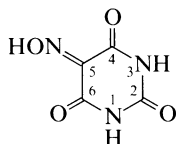
$C_5H_7N_5$ M 137.144

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 537 nm). Cryst. (C_6H_6). Sol. common org. solvs. Mp 146-147°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)
Schilt, A.A. *et al. Talanta*, 1969, **16**, 519 (*use*)

2,4,5,6(1H,3H)-Pyrimidinetetrone 5-oxime, 9CI P-00428

5-Isonitrosobarbituric acid. Alloxan-5-oxime, 8CI. Violuric acid, 8CI. 5-Hydroxyiminobarbituric acid [87-39-8]



$C_4H_3N_3O_4$ M 157.085

Exists in tautomeric forms. Used as an analytical reagent for separation of cations, and also as algicide, bactericide and fungicide. Used as 0.01M aq. soln. for photometric detn. of Co (λ_{max} 360 nm, ϵ 34000, pH 8.6). Rhombic or orthorhombic cryst. Mod. sol. $H_2O \rightarrow$ violet solns., sol. EtOH. Mp 240-241° dec. pK_a 4.57-4.7 (25°).

▷ BA4225000.

Me ether:

$C_5H_5N_3O_4$ M 171.112

Plates (pet. ether). Sol. H_2O , alkalis, org. solvs. \rightarrow yellow solns. Mp 268°. pK_a 6.74 (25°).

N^1, N^3 -Di-Ph: [41514-71-0]. 1,3-Diphenyl-5-nitrosobarbituric acid

$C_{16}H_{11}N_3O_4$ M 309.281

Used for photometric detn. of Co (λ_{max} 374 nm).

Hantzsch, A. *et al. Ber.*, 1909, **42**, 986 (*synth*)

Ershova, L.V. *et al. Zh. Anal. Khim.*, 1971, **26**, 2406; 1974, **29**, 1367 (*detn. Co*)

Raimova, N.V. *et al. CA*, 1973, **79**, 151 260 (*tautom*)

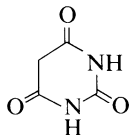
U.S. Pat., 3 928 017, (1975); *CA*, **85**, 155067 (*synth*)

Zvilichovsky, G., *Tetrahedron*, 1977, **33**, 2259 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, AFU000.

2,4,6(1H,3H,5H)-Pyrimidinetriene, 9CI P-00429

Barbituric acid. Malonylurea [67-52-7]



$C_4H_4N_2O_3$ M 128.087

Parent compd. of the barbiturate sedatives but is said to have no sedative props. Used in plastic manuf. and in photometric detn. of CN^\ominus and Cl^\ominus . Dihydrate, prisms (H_2O). Mp 248° dec.

▷ Mod. irritant, allergen.

N-Et: [50721-57-8].

$C_6H_8N_2O_3$ M 156.141

Rectangular leaflets (EtOH). Mp 119-120°.

1,3-Di-Me: [769-42-6]. 1,3-Dimethyl-2,4,6(1H,3H,5H)-pyrimidinetriene, 9CI. 1,3-Dimethylbarbituric acid. Malonyldimethylurea

$C_6H_8N_2O_3$ M 156.141

Used for photometric detn. of CN^\ominus (λ_{max} 588 nm).

Needles. Sol. H_2O . Mp 123°. Sublimes.

1,3-Di-Et: [32479-73-5]. 1,3-Diethylbarbituric acid

$C_8H_{12}N_2O_3$ M 184.194

Sol. hot H_2O . Mp 52-53°. Bp₁₉ 167°.

Wood, J.K. *et al. J. Chem. Soc.*, 1909, **95**, 979 (*synth*)

Biltz, H. *et al. Ber.*, 1916, **46**, 652 (*derivs*)

Org. Synth., Coll. Vol., 2, 1943, 60 (*synth*)

Carter, M.K., *J. Chem. Educ.*, 1951, **28**, 524 (*rev*)

Asmus, E. *et al. Fresenius' Z. Anal. Chem.*, 1953, **138**, 214, 404 (*use, detn, Cl[⊖], CN[⊖]*)

Webber, H.M., *Analyst (London)*, 1965, **90**, 372 (*detn, Cl[⊖]*)

Bideau, J.-P. *et al. Acta Crystallogr., Sect. B*, 1976, **32**, 481 (*cryst struct*)

Al-Karaghoul, A.L. *et al. Acta Crystallogr., Sect. B*, 1977, **33**, 1655 (*cryst struct*)

Fischer, W. *et al. CA*, 1977, **86**, 50288w (*detn, CN[⊖]*)

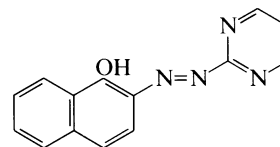
Broderius, S.J., *Anal. Chem.*, 1981, **53**, 1472 (*detn, CN[⊖]*)

Nieminen, A.O.K. *et al. Org. Magn. Reson.*, 1985, **23**, 419 (*N-15 nmr*)

Prajapati, D. *et al. J. Chem. Soc., Perkin Trans. 1*, 1988, 607 (*synth*)

2-(2-Pyrimidinylazo)-1-naphthalenol, 9CI P-00430

2-(1-Hydroxy-2-naphthylazo)pyrimidine [10335-38-3]



$C_{14}H_{10}N_4O$ M 250.259

Used as 1mM EtOH soln. for photometric detn. of Zn

(λ_{max} 543 nm, ϵ 25000), Cu(II), Ni. Red cryst. Sol.

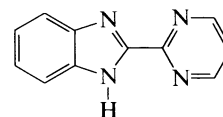
EtOH, MeOH. Mp 149-150°. pK_{a1} 0.92; pK_{a2} 9.66 (50% MeOH, $\mu = 0.1$).

Pollard, F.H. *et al. Talanta*, 1966, **13**, 725 (*synth*)

Anderson, R.G. *et al. Analyst (London)*, 1968, **93**, 20 (*use*)

2-(2-Pyrimidinyl)benzimidazole, 9CI P-00431

2-(2-Benzimidazolyl)pyrimidine [18107-02-3]



$C_{11}H_8N_4$ M 196.211

Used as a 5mM soln. in aq. EtOH for photometric detn.

of Fe(II) (λ_{max} 516 nm). Cryst. (EtOH). Sol. C_6H_6 ,

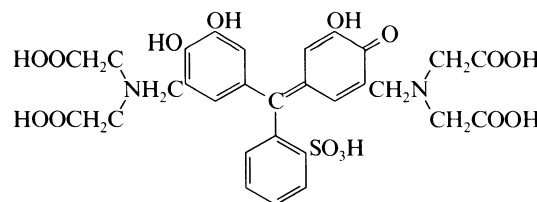
Me_2CO , EtOH, dil. HCl. Mp 299-300°.

Case, F.H., *J. Heterocycl. Chem.*, 1967, **5**, 223 (*synth*)

Schilt, A.A. *et al. Talanta*, 1969, **16**, 519 (*use*)

Pyrocatecholsulfonephthalein complexan P-00432

N, N' -[3H-2,1-Benzoxathiol-3-ylidenebis(5,6-dihydroxy-3,1-phenylene)methylene]]bis[N-(carboxymethyl)glycine], 9CI [92836-59-4]

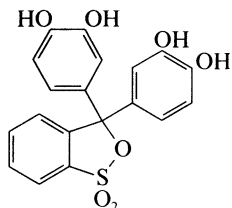


$C_{29}H_{28}N_2O_{15}S$ M 676.611
CA Name refers to ring-closed tautomer. Used as 0.01M aq. soln. for photometric detn. of Bi (λ_{max} 505 nm, ϵ 21500). Dark green cryst. Sol. H_2O .

Yu, R.Q. *et al*, *Talanta*, 1984, **31**, 1121 (*synth. use*)

Pyrocatechol violet**P-00433**

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis(1,2-benzenediol) S,S-dioxide, 9CI. Catechol sulfonephthalein. Catechol violet [115-41-3]



$C_{19}H_{14}O_7S$ M 386.381

Used as 0.1% aq. soln. for photometric detn. of Al, Bi, Sb, Cd, Cr, Cu, Ga, In (λ_{max} 630 nm, ϵ 35000), Sc, Sn, N, Ti, Th, V, Zr; indicator in complexometric detn. of Bi, Th, Cu. The boron complex, Boropyrocatechol, is used for photometric detn. of Lu. Reddish brown powder. Sol. H_2O , EtOH; insol. Et_2O . $pK_{a,3}$ 7.8; $pK_{a,4}$ 9.7; $pK_{a,5}$ 11.7.

Malat, M., *Fresenius' Z. Anal. Chem.*, 1962, **186**, 418 (*detn. Bi*)

Wilson, A.D. *et al*, *Analyst (London)*, 1963, **88**, 109 (*detn. Al*)

Malat, M., *Mikrochim. Acta*, 1966, 228 (*detn. In*)

Serdyuk, L.S. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1975, **41**, 366 (*B complex*)

Snell, F.D., *Photometric and Fluorimetric Methods of Analysis. Metals Part 1*, John Wiley, New York, 1978, 500; *Metals Part 2*, 1149, 1265.

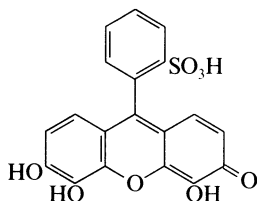
Shijo, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1981, **54**, 700 (*detn. V*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 35 (*use*)

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 100, 585 (*use*)

Pyrogallol red**P-00434**

Spiro[3H-2,1-benzoxathiole-3,9'-[9H]xanthen]-3',4',5',6'-tetrol S,S-dioxide, 9CI. Pyrogallolsulfonephthalein [32638-88-3]



$C_{19}H_{12}O_8S$ M 400.365

Used as 0.4mM aq. soln. for photometric detn. of Ga, In, Fe, rare earths, Tl, Ag, V, W, Mo (λ_{max} 600 nm, ϵ 42000). Reddish brown powder. Sol. EtOH; sl. sol. H_2O .

Dagnall, R.M. *et al*, *Talanta*, 1961, **8**, 711; 1964, **11**, 1533 (*detn. Ag*)

Morgen, E.A. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1384 (*detn. Mo*)

Korenaga, T. *et al*, *Anal. Chim. Acta*, 1979, **104**, 369 (*detn. Fe*)

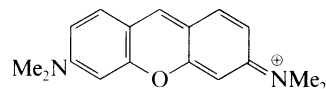
Krzyzanowska, M. *et al*, *Chem. Anal. (Warsaw)*, 1979, **24**, 19 (*detn. In*)

Wyganowski, C., *Microchem. J.*, 1981, **26**, 45; 1982, **27**, 13 (*detn. Ga*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 45 (*use*)

Pyronine G**P-00435**

N-[6-(Dimethylamino)-3H-xanthen-3-ylidene]-N-methylmethanaminium(1+), 9CI. Pyronine Y. C.I. 45005 Basic dye



$C_{17}H_{19}N_2O^{\oplus}$ M 267.350 (ion)

Strictly, the name Pyronine G applies to the chloride.

Chloride: [92-32-0].

$C_{17}H_{19}ClN_2O$ M 302.803

Used as 1mM aq. soln. for photometric detn. of Sb, Cd,

Au(III) ($CHCl_3$, C_6H_6 , PhCl). Violet cryst. powder. Sol.

H_2O , EtOH. Mp 250-260°.

▷ BQ1450000.

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 514 (*detn. Sb*)

Nabivanets, B.I. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1901 (*detn. Au*)

Rao, T.P. *et al*, *Analyst (London)*, 1982, **107**, 704 (*detn. Cd*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PPQ750.

Pyrrole, 8CI**P-00436**

Azole

[109-97-7]



C_4H_5N M 67.090

Occurs in coal tar. Isol. in traces from plants. Used as 1% soln. in EtOH for photometric detn. of Se(IV), Au(III), silicic acid. Liq. with characteristic odour. Sol. EtOH, Et_2O , C_6H_6 ; insol. H_2O . d_4^{20} 0.969. Bp_{761} 130-131°. n_D^{20} 1.5085. Turns brown in air. Forms metallic salts.

Trimerises with HCl. Nitroprussiates in alkali → red col. which turns blue on addn. of acids.

▷ Flammable. Emits highly toxic fumes on heating. UX9275000.

Picrate: Orange-red cryst. Mp 69° dec.

Phenylurethane: Mp 142-143°.

N-Formyl: [24771-28-6].

C_5H_5NO M 95.101

Bp_{22} 39°.

N-Ac: [609-41-6].

C_6H_7NO M 109.127

Liq. Bp 181-182°.

N-Benzoyl: [5145-65-3].

$C_{11}H_9NO$ M 171.198

Yellow oil. Bp_{715} 276°. Steam-volatile.

N-Propyl: [5145-64-2].

$C_7H_{11}N$ M 109.171

d_4^{20} 0.883. Bp 146.5-147.5°.

N-Isopropyl: [7057-97-8].

$C_7H_{11}N$ M 109.171

Bp_{21} 49-51°.

N-Butyl: [589-33-3].

$C_8H_{13}N$ M 123.197

Bp_{48} 105°.

N-tert-Butyl: [24764-40-7].

$C_8H_{13}N$ M 123.197

Bp_{24} 51-61°.

N-(2-Propenyl): [7435-07-6].

C_7H_9N M 107.155

Bp_{48} 105°. Unstable in air. Steam-volatile.

N-*Benzyl*: [2051-97-0].

C₁₁H₁₁N M 157.215

Sol. EtOH, Et₂O. Bp 245-246°, Bp₂₇ 138-139°. Turns yellow in light and air.

N-*Amino*: [765-39-9]. 1*H*-Pyrrol-1-amine, 9CI. 1-*Aminopyrrole*

C₄H₆N₂ M 82.105

Bp₁₂ 71-73°. n_D²⁵ 1.5311.

Pictet, A., *Ber.*, 1904, **37**, 2792.

Org. Synth., *Coll. Vol.*, 1, 1932, 461.

Fischer, H. *et al*, *Die Chemie des Pyrrols*, Vol. I, 1934; Vol. II, Part 1, 1937; Vol. II, Part 2, 1940.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 572 (*synth. use*)

Jennings, A.L. *et al*, *J. Org. Chem.*, 1964, **29**, 2065 (*ms*)

Schulte, K.E. *et al*, *Chem. Ber.*, 1965, **98**, 98.

Katekar, G.F. *et al*, *Aust. J. Chem.*, 1969, **22**, 1199 (*pmr, cmr, N-15 nmr*)

Flitsch, W. *et al*, *Chem. Ber.*, 1969, **102**, 3268 (*1-amino*)

Candy, C.F. *et al*, *J. Chem. Soc. C*, 1970, 2563 (*derivs*)

Catalotti, R. *et al*, *Can. J. Chem.*, 1976, **54**, 2451 (*ir*)

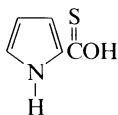
Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **19**, 499 (*rev*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PPS250.

1*H*-Pyrrole-2-carbothioic acid

P-00437

2-*Pyrrolothiocarboxylic acid*



C₅H₅NOS M 127.167

S-*Me ester*: [118792-46-4].

C₆H₇NOS M 141.193

Cryst. (pet. ether). Mp 79-80°.

S-*Et ester*: [23999-86-2].

C₇H₉NOS M 155.220

Needles (Et₂O/pet. ether). Mp 29-29.5°.

1-*Me*, S-*Me ester*: [118792-47-5].

C₇H₉NOS M 155.220

Liq. Bp₂₄ 131-132°.

Hydrazide: [68062-21-5]. 2-*Pyrrolothiocarboxhydrazide*

C₅H₇N₃S M 141.196

Used as 0.01*M* EtOH soln. for extraction-photometric detn. of Ru(III), Os(VI, VIII) (pH 9-10.5, 4-methyl-2-pentanone). Cryst. (hot H₂O). Sol. EtOH, 4-methyl-2-pentanone; mod. sol. H₂O. Mp 121-122°.

Loader, C.E. *et al*, *Tetrahedron*, 1969, **25**, 3879 (*synth, pmr, ester*)

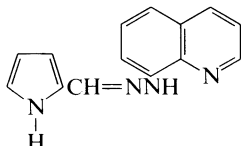
Shome, S.C. *et al*, *Mikrochim. Acta*, 1978, **2**, 343 (*synth, detn, Os, Ru, hydrazide*)

Barbero, M. *et al*, *Synthesis*, 1988, 300 (*synth, ester*)

1*H*-Pyrrole-2-carboxaldehyde 8-quinolinylhydrazone, 9CI

P-00438

[82633-12-3]



C₁₄H₁₂N₄ M 236.276

Used as 0.01*M* soln. in 0.05*M* HCl in EtOH for photometric detn. of Co, Cu(I) (λ_{max} 540 nm, ε 12800), Fe(II), Ni. Cryst. (MeOH). Sol. common org. solvs. Mp 150°.

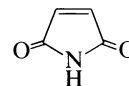
Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth, use*)

1*H*-Pyrrole-2,5-dione, 9CI

P-00439

Maleimide, 8CI

[541-59-3]



C₄H₃NO₂ M 97.073

Plates. Mp 93°. Subl. readily.

▷ ON4800000.

N-*Me*: [930-88-1].

C₅H₅NO₂ M 111.100

Prisms (Et₂O). Sol. EtOH, spar. sol. C₆H₆. Mp 90-92°. Volatile.

▷ ON5600000.

N-*Et*: [128-53-0]. N-*Ethylmaleimide*. 1-*Ethyl-1H-pyrrole-2,5-dione*

C₆H₇NO₂ M 125.127

Reagent for thiols and amino acids. Cryst. Mp 45.5-46.5°, Mp 44°. Bp 210°.

Dioxime: [14445-80-8].

C₄H₅N₃O₂ M 127.102

Mp 256°.

Semicarbazone: Mp 230°.

Rinkes, I.J., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1926, **45**, 819 (*synth*)

Marriau, D.H., *J. Am. Chem. Soc.*, 1949, 1515 (*synth, N-Ethyl*)

Broekhuysen, J., *Anal. Chim. Acta*, 1958, **19**, 542 (*use*)

Coleman, L.E. *et al*, *J. Org. Chem.*, 1959, **24**, 135 (*synth*)

Peikzer, Z., *Collect. Czech. Chem. Commun.*, 1960, **25**, 1514 (*use*)

Lukes, R. *et al*, *Collect. Czech. Chem. Commun.*, 1962, **27**, 1387 (*synth*)

Weizman, P.D.J. *et al*, *Anal. Biochem.*, 1971, **43**, 321 (*use*)

McPhalen, C.A. *et al*, *Acta Chem. Scand.*, 1983, **39**, 1439 (*cryst struct*)

Jemal, M. *et al*, *Anal. Chem.*, 1985, **57**, 2407 (*use, N-Ethyl*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MAL250, MAM750.

Pyrrolidine, 9CI

P-00440

Tetrahydropyrrole. Tetramethyleneimine

[123-75-1]



C₄H₉N M 71.122

Male sex pheromone of *Ceratitis capitata* (Mediterranean fruit fly). Present in tobacco and carrot leaves (*Daucus carota*) (Umbelliferae). Widely distributed in trace amts., presumably as bacterial decarboxylation prod. of proline. Primary odour constit. of sperm. Widely used org. base, used in the prep. of enamines. Reagent used in the ms determination of the position of double bonds and of methyl branching in fatty acids. Liq. with odour resembling Piperidine. Misc. H₂O. d₄²⁰ 0.8618. Fp -63°. Bp 88.5-89°. Fumes in air. Strongly alkaline.

▷ Irritant. Highly flammable, flash pt. 3°. UX9650000.

Hemicpicrate: Dark-red cryst. Mp 163-164°.

Monopicrate: Yellow needles (EtOH). Mp 112°.

N-Benzyl:

C₁₁H₁₅N M 161.246Sol. EtOH, Et₂O. Bp 237°. Absorbs CO₂ and H₂O from the air.

N-2,4-Dinitrophenyl: Cryst. (cyclohexane/EtOAc).

N-Nitroso:

▷ Exp. carcinogen.

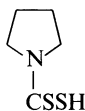
de Jong, M. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1930, **49**, 237.Ochiai, E. *et al*, *Ber.*, 1934, **67**, 1017 (*derivs*)Duffield, A.M. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 2920 (*ms*)Wilshire, J.F.K., *Aust. J. Chem.*, 1966, **19**, 1935 (*deriv*)Achenbach, H. *et al*, *Chem. Ber.*, 1970, **103**, 2535.Andersson, B.A. *et al*, *Lipids*, 1974, **9**, 185, 443; 1975, **10**, 215, 716 (*use*)Amoore, J.E. *et al*, *J. Chem. Ecol.*, 1975, **1**, 299.Hawthorne, D.G. *et al*, *Aust. J. Chem.*, 1976, **29**, 215 (*cmr*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1980, **8**, 428.Baker, R. *et al*, *J. Chem. Soc., Chem. Commun.*, 1985, 824.*Hazards in the Chemical Laboratory*, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 466.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PPS500.

1-Pyrrolidinecarbodithioic acid, 8CI

P-00441

Tetramethylenedithiocarbamic acid

[25769-03-3]

C₅H₉NS₂ M 147.265pK_{a1} 3.29 (25°).NH₄ salt: [5108-96-3]. Ammonium pyrrolidine dithiocarbamate. APDC

Used as 0.01M aq. soln. for photometric detn. of Bi,

Cu, Nb, Sb, Sn, Te, Zn; extraction-separation of As.

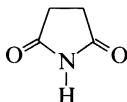
Cryst. (EtOH/Et₂O). Sol. H₂O, EtOH, CHCl₃, Mp 153-155°, Mp 142-144°.Halissa, H. *et al*, *Talanta*, 1961, **8**, 841 (*cryst struct*)Kovacs, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1962, **186**, 267; 1965, **208**, 255 (*use*)Likussar, W. *et al*, *Anal. Chem.*, 1971, **43**, 1273 (*detn. Cu, Co, Cd, Zn*)Dellien, I., *Talanta*, 1979, **26**, 1101 (*use*)Nichols, J.A. *et al*, *J. Assoc. Off. Anal. Chem.*, 1980, **63**, 500 (*use*)Puttemans, F. *et al*, *Anal. Chim. Acta*, 1983, **149**, 123 (*use*)

2,5-Pyrrolidinedione, 9CI

P-00442

Succinimide, 8CI

[123-56-8]

C₄H₅NO₂ M 99.089Used for photometric detn. of Cu (λ_{max} 590 nm, pH 4-10).Plates + 1H₂O (EtOH aq.). Mp 126-127°. Bp 287-288°dec. pK_a 3.48.

▷ WN2200000.

N-Ac: [3027-06-3].

C₆H₇NO₃ M 141.126Bp_{9,5} 167°.

N-Propanoyl: [30364-55-7]. 1-(1-Oxopropoxy)-2,5-pyrrolidinedione, 9CI. Succinimido propionate. N-(Propionyloxy)succinimide, 8CI

C₇H₉NO₄ M 171.152

Used for derivatization of biogenic amines for hplc anal. with electrochem. detn. Cryst. (EtOAc/hexane). Mp 32-34°.

N-Benzoyl: [6343-27-7].

C₁₁H₉NO₃ M 203.197

Mp 129-130°.

N-(2-Propenyl): [2555-14-8].

C₇H₉NO₂ M 139.154

Bp 249-250°.

N-Hydroxy: [6066-82-6].

C₄H₅NO₃ M 115.088

Reagent used in peptide synth.

N-Acetoxy: [14464-29-0]. 1-(Acetyloxy)-2,5-

pyrrolidinedione, 9CI. N-Acetoxy succinimide

Reagent for acetylating amines. Cryst. (hexane/C₆H₆).

Mp 131-132°.

Oxime:

C₄H₆N₂O₂ M 114.104

Mp 197° dec.

Dioxime:

C₄H₇N₃O₂ M 129.118

Mp 207°.

N-Bromo: see N-Bromosuccinimide, B-00576

Ma, T.-S. *et al*, *CA*, 1934, **28**, 6108 (*synth*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 487.Lapidot, Y. *et al*, *J. Lipid Res.*, 1967, **8**, 142 (*synth, deriv, use*)Paquet, A., *Can. J. Chem.*, 1976, **54**, 733 (*synth, deriv*)Sharma, C.L. *et al*, *Fresenius' Z. Anal. Chem.*, 1976, **280**, 219 (*detn, Cu*)Gramain, J.C. *et al*, *J. Chem. Soc., Chem. Commun.*, 1976, 194 (*synth*)Grochowski, E.G. *et al*, *Synthesis*, 1977, 277 (*synth, deriv*)Tang, Y.S. *et al*, *J. Labelled Compd. Radiopharm.*, 1983, **20**, 277 (*synth*)Jacobson, K.A. *et al*, *FEBS Lett.*, 1985, **188**, 307 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SND000.

2-Pyrrolidinone, 9CI

P-00443

2-Oxopyrrolidine. Butyrolactam. 2-Pyrrolidone. Piperidinic lactam. 4-Aminobutanoic acid lactam

[616-45-5]

C₄H₇NO M 85.105Reagent used in the ms detn. of the branching points in long-chain primary alcohols. Cryst. (pet. ether). V. sol. H₂O, most org. solvs., spar. sol. pet. ether. Mp 24.6°. Bp 245°, Bp₁₂ 133°. Spar. steam-volatile. Forms a monohydrate in moist air, Mp 35° (30°).

▷ UY5715000.

N-Ac: [932-17-2].

C₆H₉NO₂ M 127.143

Bp 231°.

▷ UY5717000.

enol-form

Me ether: [5264-35-7]. 3,4-Dihydro-5-methoxy-2H-pyrrole.

2-Methoxy-1-pyrroline

C₅H₉NO M 99.132

Liq. Bp 118-120°.

Et ether: [931-46-4]. 5-Ethoxy-3,4-dihydro-2H-pyrrole, 9CI.

2-Ethoxy-1-pyrroline

C₆H₁₁NO M 113.159

Liq. Bp 133-137°.

Gabriel, S., *Ber.*, 1889, **22**, 3338 (*synth*)

Metzger, H. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1963, **2**, 624 (*synth*)

Zeifman, V.I. *et al*, *CA*, 1963, **59**, 5110 (*synth*)

Etienne, A. *et al*, *Bull. Soc. Chim. Fr.*, 1969, 3704 (*derivs*)

Vetter, W. *et al*, *Helv. Chim. Acta*, 1977, **60**, 1203 (*use*)

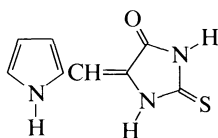
Fronza, G. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1977, 1746 (*nmr*)

Pellegata, R. *et al*, *Synthesis*, 1978, 614 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PPT500.

5-(1H-Pyrrol-2-ylmethylene)-2-thio-4-imidazolidinone, 9CI **P-00444**

[84071-22-7]



C₈H₇N₃OS M 193.229

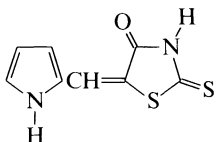
Used as 0.5mM EtOH soln. to give colour reactions with Pd, Cu, Ag, (pH 4.5). Yellow cryst. (EtOH). Sol. EtOH, DMF. Mp 260°. pK_{a1} 8.3; pK_{a2} 13.4.

Montana Gonzalez, M.T. *et al*, *Mikrochim. Acta*, 1982, **2**, 363 (*synth, reactions*)

5-(1H-Pyrrol-2-ylmethylene)-2-thio-4-thiazolidinone, 9CI **P-00445**

5-(Pyrrol-2-yl)methylenethiothiazolidine

[53428-07-2]



C₈H₆N₂OS₂ M 210.280

Used as a 0.2% soln. in EtOH for photometric detn. of Au, Ag, Cu, Hg, Pd, Pt. Orange-red cryst. Sol. Et₂O, Me₂CO, EtOH. Mp 228-230°.

Kulberg, L.M. *et al*, *Zh. Anal. Khim.*, 1954, **9**, 85 (*use*)

Pyruvaldehyde, 8CI **P-00446**

2-Oxopropanal, 9CI. Pyruvic aldehyde. 2-

Oxopropionaldehyde. Methylglyoxal. Pyroracemic aldehyde.

Propanalone

[78-98-8]



C₃H₄O₂ M 72.063

Physiological role unknown. Shows antitumour props.

Yellow liq. with pungent odour, giving yellowish-green vapour. Sol. EtOH, C₆H₆. d₂₀²⁰ 1.06. Bp ca. 72°. pK_{a1} 11.0 (30°) (hydrate). Liq. is bimolecular at r.t. rapidly polymerising to amorph. glassy mass.

► Shows mutagenic and tumour-promoting props.. UZ0700000.

1-Oxime: [306-44-5]. Isonitrosoacetone.

Monoisonitrosoacetone. MNA

C₃H₅NO₂ M 87.078

Cholinesterase and acetylcholinesterase reactivator used to treat poisoning by organophosphorus insecticides and nerve gases. Used in detn. of Cd, Co, Cu, Fe, Pb, Mn, Hg, Sn, Zn. Leaflets (Et₂O/pet. ether), needles (by subl.). Sol. H₂O, Et₂O, spar. sol. C₆H₆. Mp 69°. pK_a 8.39. Steam-volatile, readily subl.

► UZ0750000.

Dioxime: [1804-15-5]. Methylglyoxime

C₃H₆N₂O₂ M 102.093

Used as aq. soln. for photometric detn. of Ni, Co, Re, Cd, Cu, Fe, Pb, Mn, Hg, Sn, Zn. Prisms (EtOH) or needles by subl. Spar. sol. H₂O. Mp 157°, Mp 153°. pK_{a1} 10.5; pK_{a2} 12.0.

Disemicarbazone: Mp 254°.

1-Phenylhydrazone: Mp 148-150°.

Bis-2,4-dinitrophenylhydrazone: Reddish-orange cryst. (PhNO₂). Mp 308-309°.

Bis(phenylthiosemicarbazone): [64849-53-2]. 2,2'-(1-Methyl-1,2-ethanediyldene)bis[N-phenylhydrazinecarbothioamide], 9CI

C₁₇H₁₈N₆S₂ M 370.501

Used as 0.1% soln. in DMF for photometric detn. of Zn (λ_{max} 455 nm, ε 22000, pH 6.4). Pale yellow cryst. Sol. DMF. pK_{a1} 10.96 (0.1M KCl, 60% DMF, 20°).

Di-Ac:

C₇H₈O₄ M 156.138

Pale-yellow liq. Bp₁₃ 115-116°.

Tetra-Et acetal: [16330-14-6]. 1,1,2,2-Tetraethoxypropane

C₁₁H₂₄O₄ M 220.308

Bp 192°.

Fischer, O.L. *et al*, *Ber.*, 1924, **57**, 1506 (*synth*)

Taylor, T.W.J. *et al*, *J. Chem. Soc.*, 1926, 2818 (*oxime*)

Cox, E. *et al*, *J. Chem. Soc.*, 1936, 129 (*synth, dioxime*)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, N.Y., 1947, **3**, 278 (*synth, use, 1-oxime*)

Weygand, F. *et al*, *Chem. Ber.*, 1957, **90**, 1230 (*synth*)

Steinbauer, E. *et al*, *Monatsh. Chem.*, 1962, **93**, 303 (*synth*)

Org. Synth., Coll. Vol., **4**, 1963, 633 (*deriv*)

Tetsuzo, K. *et al*, *CA*, 1964, **61**, 638 (*synth*)

Bestman, H.-J. *et al*, *Chem. Ber.*, 1969, **102**, 2259 (*synth*)

Mosher, W.A. *et al*, *J. Org. Chem.*, 1970, **35**, 3689 (*oxime*)

Alderliesten, P. *et al*, *Acta Chem. Scand., Ser. B*, 1975, **29**, 811 (*oxime*)

Peshkova, V.M., *Oximes*, Nauka, Moscow, 1977.

Asuero, A.G. *et al*, *Microchem. J.*, 1980, **25**, 14 (*synth*)

Yamaguchi, T. *et al*, *Agric. Biol. Chem.*, 1982, **46**, 849 (*tox*)

Baltes, H. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1982, **21**, 540 (*synth*)

Matsuura, T. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 3567 (*anal*)

Asuero, A.G. *et al*, *Anal. Lett.*, 1986, **19**, 837 (*pKa*)

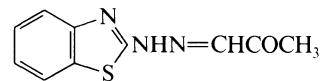
Herrador, M.A. *et al*, *Analyst (London)*, 1987, **112**, 1237 (*detn, Zn*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PQC000.

Pyruvaldehyde 1-(2-benzothiazolylhydrazone) **P-00447**

2-Oxopropanal 1-2-benzothiazolylhydrazone, 9CI

[68579-70-4]



C₁₀H₉N₃OS M 219.267

Used a 0.5% soln. in C₆H₆ for photometric detn. of Cd (λ_{max} 460 nm, ε4600, pH 11-12). Yellow cryst. Sol. C₆H₆.

Libergott, E. *et al*, *Anal. Chim. Acta*, 1978, **101**, 229 (*synth*)

Roquette-Pinto, C.L. *et al*, *Anal. Chim. Acta*, 1980, **117**, 349 (*detn, Cd*)

Pyruvic acid

P-00448

2-Oxopropanoic acid, 9CI. Pyrroacemic acid. Acetylformic acid

[127-17-3]



$\text{C}_3\text{H}_4\text{O}_3$ M 88.063

Intermed. in primary metab. incl. fermentation processes.

Present in muscle in redox equilib. with Lactic acid.

Reagent for regeneration of carbonyl compds. from semicarbazones, phenylhydrazones and oximes. Cryst. or liq. with odour resembling acetic acid. Misc. H_2O , EtOH, Et₂O. Mp ca. 13.6°. Bp 165° part. dec., Bp₁₀ 65°. pK_{a1} 2.39 (25°). Impure samples dec. on standing.

Me ester: [600-22-6].

$\text{C}_4\text{H}_6\text{O}_3$ M 102.090

Bp 134-137°.

Me ester, oxime:

$\text{C}_4\text{H}_7\text{NO}_3$ M 117.104

Needles (Et₂O). Mp 69°. Bp₁₄ 122-123°.

Me ester, 2,4-dinitrophenylhydrazone: Mp 186.5-187.5°.

Et ester: [617-35-6].

$\text{C}_5\text{H}_8\text{O}_3$ M 116.116

Bp 155°, Bp₁₇ 55°.

Et ester, oxime: [20591-87-1].

$\text{C}_5\text{H}_9\text{NO}_3$ M 131.131

Prisms or needles. Mp 97°. Bp 213° sl. dec.

Et ester, semicarbazone: Mp 206° dec.

Et ester, 2,4-dinitrophenylhydrazone: Yellow cryst. (dioxan/EtOH). Mp 154.5-155°.

Amide: [631-66-3].

$\text{C}_3\text{H}_5\text{NO}_2$ M 87.078

Prisms or plates (EtOH). Mp 124-125°.

Amide, oxime:

$\text{C}_3\text{H}_6\text{N}_2\text{O}_2$ M 102.093

Plates or prisms (H_2O). Mp 178.5° dec.

Amide, semicarbazone: Mp 230° dec.

Nitrile: [631-57-2]. Acetyl cyanide

$\text{C}_3\text{H}_3\text{NO}$ M 69.063

Liq. with characteristic odour. Bp 93°.

Nitrile, phenylhydrazone: Leaflets (C_6H_6). Mp 150-151°.

Nitrile, semicarbazone: Mp 215° dec.

2,4-Dinitrophenylhydrazone: Used as a 0.05% soln. in

EtOH as acid-base indicator (pH range; 11.9→12.9;

colour change: light yellow → pink red). Yellow cryst. (AcOH). Mp 218°.

Oxime: [2211-14-5]. 2-Isonitrosopropanoic acid

$\text{C}_3\text{H}_5\text{NO}_3$ M 103.077

Dec. at 180-1°.

Semicarbazone: Needles (H_2O). Mp ca. 200° dec.

Thiosemicarbazone: [10418-09-4]. Pyrroacemic acid

thiosemicarbazone. 2-[(Aminothioxomethyl)hydrazono]propanoic acid, 9CI

$\text{C}_4\text{H}_7\text{N}_3\text{O}_2\text{S}$ M 161.184

Used as 5mM aq. soln. for catalytic detn. of Rh(III) (10^{-6} - $10^{-5}M$, pH~4). Cryst. Sol. H_2O , EtOH.

Di-Et ketal: [25741-02-0]. 2,2-Diethoxypropanoic acid

$\text{C}_7\text{H}_{14}\text{O}_4$ M 162.185

Oil. Unstable to dist.

Di-Et ketal, amide: [92845-55-1]. 2,2-Diethoxypropanamide

$\text{C}_7\text{H}_{15}\text{NO}_3$ M 161.200

Cryst. solid (pet. ether). Mp 70-71° (65-66°).

Tschelinzeff, W. *et al.*, *Ber.*, 1929, **62**, 2211 (*synth*)

Org. Synth., *Coll. Vol.*, 1, 1932, 475 (*synth*)

Allen, E.H., *J. Am. Chem. Soc.*, 1950, **52**, 2955 (*synth*)

Chugreeva, N.V. *et al.*, *Zh. Anal. Khim.*, 1960, **15**, 391 (*use*)

Org. Synth., *Coll. Vol.*, 4, 1963, 467 (*synth*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 774; **7**, 310.

Harata, K. *et al.*, *Acta Crystallogr.*, *Sect. B*, 1977, **33**, 210 (*cryst struct*)

LaMattina, J.L. *et al.*, *J. Org. Chem.*, 1987, **52**, 3479 (*acetals*)

Ezerskaya, N.A. *et al.*, *Zh. Anal. Khim.*, 1988, **43**, 846 (*synth, detn.*, Rh, thiosemicarbazone)

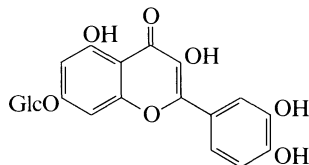
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PQC100.

Q

Quercimeritrin

Q-00001

7-O- β -D-Glucopyranosyloxy-3,3',4',5-tetrahydroxyflavone.
Quercetin 7-glucoside. Quercimeritroside
[491-50-9]



$C_{21}H_{20}O_{12}$ M 464.382

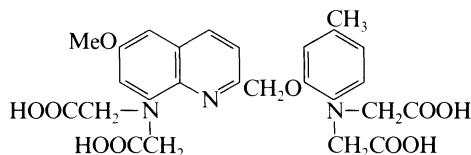
Occurs in numerous plant spp. Used for luminescence
detr. of Zr. Yellow needles + 3H₂O. Mp 249-250°.

Hoerhammer, L. *et al*, *Tetrahedron Lett.*, 1966, 567 (*synth*)
Markham, K.R. *et al*, *Tetrahedron*, 1978, **34**, 1389 (*cmr*)
Zel'tser, L.E. *et al*, *Talanta*, 1987, **34**, 873 (*use*)

Quin 2

Q-00002

N-[2-[[8-[Bis(carboxymethyl)amino]-6-methoxy-2-quinolinyl]
methoxy]-4-methylphenyl]-N-(carboxymethyl)glycine, 9CI
[83014-44-2]



$C_{26}H_{27}N_3O_{10}$ M 541.513

Fluorescent indicator for intracellular Ca.

Tetrakis(acetoxymethyl)ester: [83104-85-2]. Quin 2A

$C_{38}H_{43}N_3O_{18}$ M 829.767

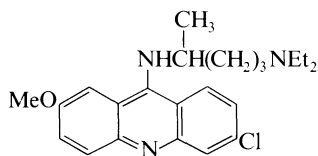
Fluorimetric reagent for Ca.

Tsien, R.Y., *Biochemistry*, 1980, **19**, 2396 (*synth*)
Tsien, R.Y. *et al*, *J. Cell Biol.*, 1982, **94**, 325 (*use*)

Quinacrine

Q-00003

N⁴-(6-Chloro-2-methoxy-9-acridinyl)-N',N'-diethyl-1,4-
pentanediamine, 9CI. 6-Chloro-N-(4-diethylamino-1-
methylbutyl)-2-methoxy-9-acridinamine. **Mepacrine**, INN.
Acrichine. Atabrine. Atebrin. Numerous proprietary
names
[83-89-6]



$C_{23}H_{30}ClN_3O$ M 399.962

Antimalarial and anthelmintic (administered as salts).

Used as 0.1% aq. soln. for extraction-fluorimetric detn.
of Hg(II) (λ_{max} 498 nm, pH 1.5, butyl acetate/Me₂CO,
4:1). Yellow oil.

▷ Toxic. AR7700000.

(+)-form

Yellow oil. $[\alpha]_D^{20} + 205^\circ$ (EtOH).

B,2HCl: Yellow cryst. (EtOH/Et₂O). Mp 244-245° dec.
 $[\alpha]_D^{20} + 388^\circ$ (H₂O).

(-)-form

$[\alpha]_D^{17} - 197^\circ$ (EtOH).

B,2HCl: Yellow cryst. (EtOH/Et₂O). Mp 244-245° dec.
 $[\alpha]_D^{14} - 379^\circ$ (H₂O).

(±)-form

Mp 86-88°.

B,2HCl: [69-05-6]. Quinacrine hydrochloride, USAN
Cryst. (H₂O). Mp 248-250°.

▷ AR7875000.

B,2MeSO₃H: [316-05-2]. Quinacrine soluble. Musonal
Mp 143-145°.

▷ AR7880000.

[6151-30-0]

Mietsch, F. *et al*, *Angew. Chem.*, 1934, **47**, 633.

Brown, B.R. *et al*, *J. Chem. Soc.*, 1948, 99 (*synth*)

Courseille, C. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 2349
(*cryst struct*)

Wolfe, A.D., *Antibiotics (N.Y.)*, 1975, **3**, 203 (*rev. pharmacol*)

Acheson, R.M. *et al*, *Org. Mass Spectrom.*, 1977, **12**, 518 (*ms*)

Griggs, B.G. *et al*, *Org. Magn. Reson.*, 1978, **11**, 81 (*cmr*)

Tanenbaum, L. *et al*, *Arch. Dermatol.*, 1980, **116**, 587 (*rev.*
pharmacol)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1382.

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,
Akademie-Verlag, Berlin, 1987, 6925.

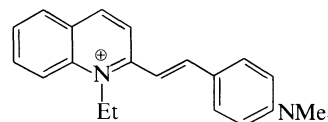
Grigoryan, L.A. *et al*, *Zh. Anal. Khim.*, 1990, **45**, 1763 (*detr. Hg*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, ARQ250, CFU750.

Quinaldine red

Q-00004

2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-
ethylquinolinium(1+)



$C_{21}H_{23}N_2^{\oplus}$ M 303.426 (ion)

Iodide: [117-92-0].

$C_{21}H_{23}IN_2$ M 430.331

Dye. Acid-base indicator used as 0.1% soln. in glac.
AcOH. Mp 241-243°. Phototropic.

[65201-92-5]

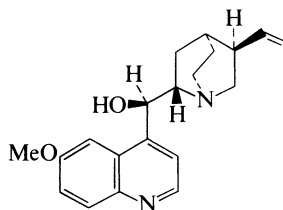
Higuchi, T. *et al*, *Anal. Chem.*, 1956, **28**, 1506 (*use, ind*)

Alicino, J.P., *Microchem. J.*, 1960, **4**, 551 (*use, ind*)

Güsten, H., *Justus Liebig's Ann. Chem.*, 1981, 1896 (*synth, isom*)

Quinine, BAN

(8 α ,9R)-6'-Methoxycinchonan-9-ol, 9CI
[130-95-0]



Absolute
configuration

$C_{20}H_{24}N_2O_2$ M 324.422

Alkaloid from *Cinchona officinalis* and most other *C. spp.*, also in *Remijia pedunculata*. Occurs mainly in the bark (cinchona bark) but has also been isol. from trunkwood (Rubiaceae). Traditional antimalarial drug, used in tonics and bitter drinks. Esp. important in treating *Plasmodium falciparum* which is resistant to other antimalarial drugs. Activity is stereochemistry-independent, i.e. racemates and stereoisomers show similar activity. Illicit abortifacient in large doses. Stimulant for horses, has been used in horse doping. Weak cardiac depressant and antifibrillatory agent. Resolving agent for organic acids, used in asymmetric syntheses. Used as 1% aq. soln. (as sulfate) for photometric detn. of Bi, W, As(V), P(V). Cryst. with v. bitter taste. Sol. H_2O , EtOH, C_6H_6 , $CHCl_3$. Mp 177° (anhyd.). $[\alpha]_D^{25}$ –158° (–145°) (EtOH). $[\alpha]_D^{15}$ –158.7° (Et₂O). pK_a 4.3. Forms a dihydrate and a trihydrate, Mp 57°(efflorescent). Triboluminescent. Blue fluor. in soln.

▶ LD₅₀ 115 mg/kg (mouse, i.p.). VA6020000.

B,HCl: [130-89-2].

Needles + 2H₂O, dehydrating at 100°. Mp 158-160° (anhyd.). $[\alpha]_D^{15}$ –145.5° (EtOH).

B,2HCl: [60-93-5].

Needles. Mp 180-185°. $[\alpha]_D^{18}$ –233° (H₂O).

[6119-70-6]

Food Chemicals Codex, 2nd Ed., II, 690, 692 (anal)

Woodward, R.B. *et al*, *J. Am. Chem. Soc.*, 1945, **67**, 860 (synth)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, NY, 1948, **4** (use)

Lyle, G.G. *et al*, *Tetrahedron*, 1967, **23**, 51, 3253 (config, uv, ord, pmr)

Fales, H.M. *et al*, *J. Am. Chem. Soc.*, 1970, **92**, 1590 (ms)

Battersby, A.R. *et al*, *J. Chem. Soc., Chem. Commun.*, 1971, 30, 31 (biosynth)

Chao, J.M. *et al*, *Anal. Chem.*, 1974, **46**, 296 (ms)

Moreland, C.G. *et al*, *J. Org. Chem.*, 1974, **39**, 2413 (cmr)

Haznagy, H. *et al*, *Pharmazie*, 1976, **31**, 713 (ir)

Grethe, G. *et al*, *J. Am. Chem. Soc.*, 1978, **100**, 589 (synth)

Hahn, F.E., *Antibiotics (N.Y.)*, 1979, **5**, 353 (rev, pharmacol, tox)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 430.

Muhtadi, F.J. *et al*, *Anal. Profiles Drug Subst.*, 1983, **12**, 547 (rev, uv, ir, pmr, cmr, ms, anal)

Imanishi, T. *et al*, *Chem. Pharm. Bull.*, 1983, **31**, 1551 (synth)

Hofheinz, W. *et al*, *Handb. Exp. Pharmacol.*, 1984, **68**, 61 (rev)

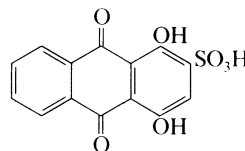
Smith, E., *J. Chromatogr.*, 1984, **299**, 233 (hplc)

Prakash, O. *et al*, *Indian J. Chem., Sect. B*, 1988, **27**, 950 (pmr)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, QHJ000, QIJ000, QJJ100, QJS000, QMA000.

Q-00005**Quinizarin S****Q-00006**

9,10-Dihydro-1,4-dihydroxy-9,10-dioxo-2-anthracenesulfonic acid, 9CI. Quinizarin-2-sulfonic acid. 1,4-Dihydroxy-2-anthraquinonesulfonic acid. C.I. Pigment violet 5. Helio fast rubine 4BLA. Monosol fuchsine R. C.I. 58055
[145-48-2]



$C_{14}H_8O_7S$ M 320.279

Na salt: [22297-70-7].

Used as a 0.1% soln. in MeOH or H₂O as metallochromic indicator in titrimetric detn. of Al, Be, Fe, Th. Orange-red cryst. Sol. H₂O.

[33796-05-3]

Cucci, M.W. *et al*, *Anal. Chem.*, 1949, **21**, 1358 (detn, Be)

Owens, E.G. *et al*, *Anal. Chem.*, 1959, **31**, 384 (detn, Al)

Owens, E.G. *et al*, *Anal. Chim. Acta*, 1960, **23**, 321 (detn, Th)

Sangal, S.P. *et al*, *Chim. Anal. (Paris)*, 1964, **46**, 138 (detn, Th)

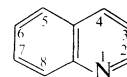
Joshi, D.P. *et al*, *J. Indian Chem. Soc.*, 1964, **41**, 33 (detn, Fe)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)

Quinoline**Q-00007**

1-Benzazine. 1-Azaphthalene

[91-22-5]



C_8H_7N M 129.161

Occurs in coal tar and in "stupp" fat. Solv. for decarboxylations. Dehydrohalogenation reagent. Used for photometric detn. of Mo (λ_{max} 470 nm, ϵ 18000), gravimetric detn. of P(V); as a synergistic agent in extraction of Co. Liq. Mod. sol. H₂O. d_4^{20} 1.093. Fp –15.6°. Bp 238.05°, Bp₁₇ 114°. n_D^{20} 1.6268. Hygroscopic, steam-volatile.

▶ Toxic. Emits toxic fumes on heating to dec.

Hepatocarcinogen, mutagen. VA9275000.

B,HCl: [530-64-3].

Deliquescent prisms + $\frac{1}{2}$ H₂O. Mp 94°, Mp 134.5° (anhyd.).

B,H₂SO₄: Cryst. (EtOH or AcOH). Mp 163.5-164.5°.

B,MeCl: Cryst. + 1H₂O (EtOH). Mp 126°.

B,MeBr: Needles. Mp 70°.

B,MeI: Orange-red cryst. (EtOH). Mp 133°.

B,EtBr: Plates + 1H₂O (H₂O or EtOH). Mp 80°.

B,EtI: Yellow prisms (EtOH). Mp 158°.

Picrate: Yellow needles (C₆H₆). Mp 207-208°.

N-CH₂Ph, nitrate salt: [19801-99-1].

Used as a 0.8% soln. in HNO₃ for gravimetric detn. of Ce, Th. Cryst. (HNO₃). Mp 73-74°.

N-Oxide: [1613-37-2].

C_8H_7NO M 145.160

Needles + 2H₂O. Mp 62°.

▶ VC2335000.

N-Oxide, picrate: Cryst. Mp 143°.

[5436-28-2, 26323-01-3, 27926-80-3]

Kalinin, A.I. *et al*, *CA*, **80**, 127816c (detn, P)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 356.

Markov, G.S. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 278; 1971, **26**, 1215 (*N-Benzyl, synth, detn, Th, Ce*)

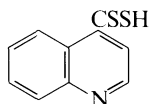
Hideo, A. *et al.*, *Nippon Kagaku Zasshi*, 1971, **92**, 1156; *CA*, **76**, 104508g (*detn.*, Co)
 Rao, V.P. *et al.*, *Mikrochim. Acta*, 1975, 265 (*detn.*, Mo)
 Johns, S.R. *et al.*, *Aust. J. Chem.*, 1976, **29**, 1617 (*cmr*)
 Jones, G., *Chem. Heterocycl. Compd.*, 1977, **32**, 1 (*rev*)
Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **19**, 532 (*rev*)
 Attimonelli, M. *et al.*, *Org. Magn. Reson.*, 1979, **12**, 17 (*pmr*)
 Horino, H. *et al.*, *Tetrahedron Lett.*, 1979, 2403 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, QMJ000.

4-Quinolinecarbodithioic acid, 9CI

Q-00008

4-Quinolinedithiocarboxylic acid

[36779-25-6]

C₁₀H₇NS₂ M 205.304Used for extraction-photometric detn. of Pt group metals.
Cryst. Sol. alkalis.

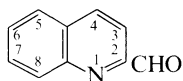
[76575-10-5]

Usklinge, Z. *et al.*, *Lav. PSR Zinat. Akad. Vestis, Khim. Ser.*, 1979, 435; *CA*, **91**, 185811k (*use*)**2-Quinolinecarboxaldehyde, 9CI**

Q-00009

2-Formylquinoline. Quinaldehyde

[5470-96-2]

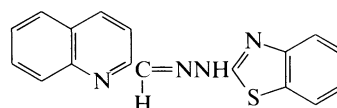
C₁₀H₇NO M 157.171Prisms or plates (pet. ether). Sol. EtOH, C₆H₆, spar. sol.
H₂O. Mp 71°. Reduces NH₃, AgNO₃.*B.MeCl*: Mp 148-149° dec.*B.MeI*: Mp 177-178°.*Oxime*: [1131-68-6].C₁₀H₈N₂O M 172.186Used as EtOH soln. for photometric detn. of Pd, Re
(λ_{max} 515 nm. in the presence of SnCl₂, 1M HCl).

Needles. Sol. EtOH. Mp 189°.

Oxime; *B.MeI*: [83484-86-0].Pale-yellow cryst. (H₂O). Mp 212-214°.*Semicarbazone*: Mp 232-234° dec.*Thiosemicarbazone*: [3608-81-9]. 2-Quinolinecarboxaldehyde
thiosemicarbazoneC₁₁H₁₀N₄S M 230.293Used as a 0.1% soln. in aq. DMF for extraction-
photometric detn. of Ni (λ_{max} 460 nm. ε 15800, CHCl₃),
Pd. Yellow cryst. Sol. DMF. Mp 234°.*Phenylhydrazone*: [7727-09-5].Yellow plates (EtOH). Prac. insol. H₂O, Et₂O. Mp 204°.*Dinitrophenylhydrazone*: Yellow cryst. Mp 251-253°.2-Pyridylhydrazone: see 2-Quinolinecarboxaldehyde 2-
pyridylhydrazone, Q-000122-Thiazolylhydrazone: see 2-Quinolinecarboxaldehyde 2-
thiazolylhydrazone, Q-000162-Benzothiazolylhydrazone: see 2-Quinolinecarboxaldehyde
2-benzothiazolylhydrazone, Q-000102-Quinolylhydrazone: see 2-Quinolinecarboxaldehyde 2-
quinolylhydrazone, Q-000148-Quinolylhydrazone: see 2-Quinolinecarboxaldehyde 8-
quinolylhydrazone, Q-000151-Phthalazinyldiazone: see 2-Quinolinecarboxaldehyde 1-
phthalazinyldiazone, Q-000112-Pyrimidinylhydrazone: see 2-Quinolinecarboxaldehyde 2-
pyrimidinylhydrazone, Q-00013Hammick, D.L., *J. Chem. Soc.*, 1926, 1303.Cooper, K.E. *et al.*, *J. Chem. Soc.*, 1932, 723.Kaplan, H., *J. Am. Chem. Soc.*, 1941, **63**, 2654.Oi, N., *Nippon Kagaku Kaishi*, 1959, **80**, 1151 (*oxime*, *detn.*, Pd)Dutt, N.K. *et al.*, *J. Inst. Chem. (India)*, 1974, **46**, 206; *CA*, **84**,
115450y (*oxime*, *detn.*, Re)Khasnis, D.V. *et al.*, *Talanta*, 1979, **26**, 593 (*thiosemicarbazone*,
synth., *use*)Witiak, D.T. *et al.*, *J. Org. Chem.*, 1986, **51**, 3237 (*deriv*)**2-Quinolinecarboxaldehyde
2-benzothiazolylhydrazone**

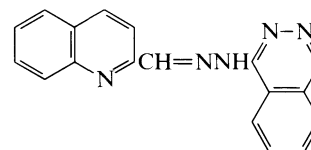
Q-00010

[3806-87-9]

C₁₇H₁₂N₄S M 304.375Used as a 1mM soln. in EtOH as a metallochromic
indicator for titrimetric detn. of Cu. Yellow cryst. Mp
278-280°.Berger, S.A. *et al.*, *Mikrochim. Acta*, 1974, 679 (*synth.*, *use*)**2-Quinolinecarboxaldehyde
1-phthalazinyldiazone, 9CI**

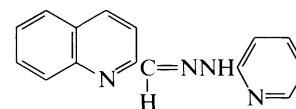
Q-00011

[16085-66-8]

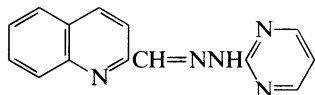
C₁₈H₁₃N₅ M 299.334Used as CHCl₃ soln. for extraction-photometric detn. of
Pd (λ_{max} 580 nm. ε 13700). Cryst. Sol. CHCl₃.Otomo, M. *et al.*, *Microchem. J.*, 1980, **25**, 75 (*synth.*, *detn.*, Pd)Nakagawa, T. *et al.*, *Analyst (London)*, 1985, **110**, 387 (*detn.*, Pd)**2-Quinolinecarboxaldehyde
2-pyridylhydrazone**

Q-00012

[16085-59-9]

C₁₅H₁₂N₄ M 248.287Used as a 1mM soln. in 0.01M HCl for extraction-
photometric detn. of Cd, Cu, Ni (λ_{max} 541 nm, ε 70000,
CHCl₃), Pd, Zn; fluorimetric detn. of Zn. Cryst. Mp
209°.Zatka, V. *et al.*, *Anal. Chim. Acta*, 1971, **54**, 65 (*detn.*, Cd, Cu, Ni,
Pd, Zn)Ryan, D.E. *et al.*, *Anal. Chim. Acta*, 1972, **58**, 101 (*synth.*, *detn.*, Zn)

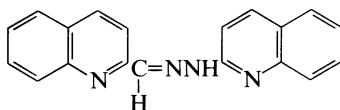
**2-Quinolinecarboxaldehyde
2-pyrimidinylhydrazone, 9CI**
[73568-98-6]



$C_{14}H_{11}N_5$ M 249.274
Used as a 5mM soln. in EtOH aq. for photometric detn. of Co (λ_{max} 453 nm, ϵ 29100), Cu(I) (λ_{max} 470 nm, ϵ 18100), Fe(II) (λ_{max} 488 nm, ϵ 6600), Ni (λ_{max} 467 nm, ϵ 49800). Cryst. (2-methoxyethanol). Sol. common org. solvents. Mp 247°.

Schilt, A. *et al*, *Talanta*, 1980, **27**, 55 (*synth, use*)

**2-Quinolinecarboxaldehyde
2-quinolinylhydrazone**
[23003-64-7]



$C_{19}H_{14}N_4$ M 298.346
Used as 0.5mM aq. soln. for photometric detn. of Cu (λ_{max} 536 nm, ϵ 47000); metallochromic indicator for titrimetric detn. of Cu. Yellow cryst. (Py). Sol. Py, EtOH, Me₂CO; insol. H₂O. Mp 268-270°.

[20267-58-7]

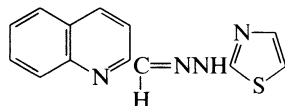
Jensen, R.E. *et al*, *Anal. Chem.*, 1968, **40**, 624 (*synth, detn, Cu*)
Sims, G.G. *et al*, *Anal. Chim. Acta*, 1969, **44**, 139 (*synth, detn, Cu*)

**2-Quinolinecarboxaldehyde
8-quinolinylhydrazone, 9CI**
[82633-15-6]

$C_{19}H_{14}N_4$ M 298.346
Used as a 0.01M soln. in acidified EtOH for photometric detn. of Cu(I) (λ_{max} 525 nm, ϵ 8200). Cryst. (EtOH). Sol. common org. solvents. Mp 125°.

Schilt, A.A. *et al*, *Talanta*, 1982, **29**, 338 (*synth, detn, Cu*)

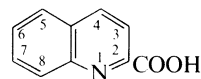
**2-Quinolinecarboxaldehyde
2-thiazolyhydrazone**
[3806-88-0]



$C_{13}H_{10}N_4S$ M 254.315
Used as a 5mM soln. in aq. EtOH for photometric detn. of Co (λ_{max} 500 nm, ϵ 27000), Cu(I) (λ_{max} 486 nm, ϵ 9600), Fe(II) (λ_{max} 512 nm, ϵ 16600), Ni (λ_{max} 498 nm, ϵ 44000). Cryst. (EtOH). Sol. common org. solvs. Mp 222°.

Schilt, A.A. *et al*, *Talanta*, 1980, **27**, 55 (*synth, use*)

Q-00013 2-Quinolinecarboxylic acid, 9CI
Quinaldinic acid. Quinaldic acid
[93-10-7]



$C_{10}H_7NO_2$ M 173.171
Used for gravimetric detn. of Cd, Cu, Zn, Te. Needles + 2H₂O (H₂O). Sol. hot H₂O, C₆H₆; mod. sol. cold H₂O. Mp 157° (anhyd.). pK_a 4.92. Heat → quinoline.

▷ UZ9100000.

B.HCl: Mp 175-176°.

Me ester: [19575-07-6].

$C_{11}H_9NO_2$ M 187.198
Mp 86°.

Et ester: [4491-33-2].

$C_{12}H_{11}NO_2$ M 201.224

Needles. Mp 43-45°. Bp_{0.03} 127-129°.

Chloride: [50342-01-3].

$C_{10}H_6ClNO$ M 191.616

Mp 175-176°, Mp 97° (dimorph.).

Amide: [5382-42-3]. *2-Quinolinecarboxamide.*

Quinaldinohydroxamic acid

$C_{10}H_8N_2O$ M 172.186

Used for extraction-photometric detn. of V(V) (pH 4, isobutanol). Cryst. Spar. sol. Et₂O; sol. hot H₂O. Mp 133°.

Nitrile: [1436-43-7]. *2-Cyanoquinoline*

$C_{10}H_6N_2$ M 154.171

Needles. Sol. EtOH, C₆H₆, Et₂O. Mp 94°.

N-Oxide: [3297-64-1].

$C_{10}H_7NO_3$ M 189.170

Used as 0.01M MeOH soln. for photometric detn. of Fe(III) (λ_{max} 380 nm, ϵ 10300, CHCl₃). Needles (H₂O) or yellow cryst. (EtOH aq.). Sol. MeOH; spar. sol. Et₂O. Mp 171°, Mp 161-163°.

Hammick, D.L. *et al*, *J. Chem. Soc.*, 1929, 214 (*chloride*)

Taylor, T.W.J., *J. Chem. Soc.*, 1929, 1110 (*synth*)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **2**, 210 (*synth, use*)

Ochiai, E., *J. Org. Chem.*, 1953, **18**, 534 (*synth*)

Dutta, R.L., *J. Indian Chem. Soc.*, 1959, **36**, 285, 339 (*amide, detn, V*)

Jones, G. *et al*, *Tetrahedron*, 1965, **21**, 2529 (*ester*)

Szafran, M. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1972, **46**, 1531 (*ir*)

Chaudhuri, A.H. *et al*, *Fresenius' Z. Anal. Chem.*, 1976, **281**, 361 (*oxide, synth, detn, Te*)

Gdaniec, M. *et al*, *Acta Crystallogr., Sect. B*, 1977, **33**, 3558 (*amide*)

Jones, R.C.F. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1990, 385 (*amide, synth, pmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, QEA000.

8-Quinolinecarboxylic acid, 9CI
[86-59-9]

$C_{10}H_7NO_2$ M 173.171

Used as 1% soln. in dil. NaOH for extraction-photometric detn. of Fe(II) (in the presence of Py, CHCl₃, pH 3-6).

Needles (H₂O). Mp 187°.

Me ester: [40245-26-9].

$C_{11}H_9NO_2$ M 187.198

Bp_{0.5} 129-131°.

Et ester: [25635-22-7].

$C_{12}H_{11}NO_2$ M 201.224

Mp 45°. Bp₁₃ 194-197°, Bp_{0.3} 145-155°.

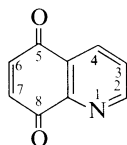
Nitrile: [35509-27-4]. *8-Quinolinecarbonitrile, 9CI. 8-Cyanoquinoline*

$C_{10}H_6N_2$ M 154.171
Mp 84°.

Elderfield, R.C. *et al.* *J. Am. Chem. Soc.*, 1951, **73**, 5626.
Zehner, J.M. *et al.* *Anal. Chim. Acta*, 1966, **35**, 135 (*detn.*, Fe)

5,8-Quinolinedione, 9CI**Q-00019**

5,8-Quinolonequinone
[10470-83-4]



$C_9H_5NO_2$ M 159.144

Bright-yellow cryst. or greenish needles (EtOH). Mp 121-122° dec. V. unstable to alkali.

5-Oxime: [3565-26-2]. 8-Hydroxy-5-nitrosoquinoline

$C_9H_6N_2O_2$ M 174.159

Used as EtOH soln. for photometric detn. of Zn (λ_{max} 620 nm). Needles (EtOH). Sol. EtOH. Mp 245° dec. (darkens at 220°).

▷ VC8237000.

Dioxime:

$C_9H_7N_3O_2$ M 189.173

Used for extraction-photometric detn. of Co (λ_{max} 416 nm, ϵ 14800, 3-methyl-1-butanol). Cryst. Sol. common org. solvs. Mp > 200° dec.

Long, R. *et al.* *J. Chem. Soc.*, 1953, 3919 (*synth*)

Pratt, Y.T. *et al.* *J. Am. Chem. Soc.*, 1960, **82**, 1155 (*synth*)

Munshi, J.F. *et al.* *J. Heterocycl. Chem.*, 1967, **4**, 133 (*props*)

Singh, R.B. *et al.* *Talanta*, 1979, **26**, 425 (*dioxiline*, *detn.*, Co)

Mori, I. *et al.* *Bunseki Kagaku (Jpn. Anal.)*, 1980, **29**, 723 (*detn.*, Zn)

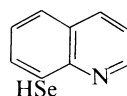
Cameron, D.W. *et al.* *Aust. J. Chem.*, 1982, **35**, 1439 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, NLR000.

8-Quinolineselenol, 9CI**Q-00020**

8-Selenoquinoline. Selenoxine

[16396-64-8]



C_9H_7NSe M 208.121

Analytical props. similar to those of oxine and thiooxine.

Used as $CHCl_3$ soln. for extraction-separation of metals.

Red-brown needles (EtOH). Sol. $CHCl_3$, C_6H_6 , EtOH.

Mp 73.5-74.5°. pK_{a1} 0.12; pK_{a2} 8.50 (dioxan aq.). Forms insol. chelates with many metals.

Sekido, E. *et al.* *Anal. Chem.*, 1963, **35**, 1550; 1964, **36**, 1768; 1965, **37**, 1556 (*synth.*, use)

Nakamura, N. *et al.* *Talanta*, 1970, **17**, 515 (*props*)

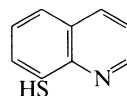
Sekido, E. *et al.* *Talanta*, 1972, **19**, 479, 647 (*synth*)

Mido, Y. *et al.* *J. Inorg. Nucl. Chem.*, 1974, **36**, 537 (*ir*)

8-Quinolinetriol, 9CI**Q-00021**

8-Mercaptoquinoline. Thiooxine

[491-33-8]



C_9H_7NS M 161.227

Used as $CHCl_3$ soln. for extraction sepn. of Au, Tl, Ir, Mn; extraction-photometric detn. of Cu, Mo, Sn, Bi, Sb (ϵ 5000-9000). Cryst. Sol. $CHCl_3$, CCl_4 , C_6H_6 , 1,2-dichloroethane, MeOH, DMF. Mp 58-59°.

S-Et:

$C_{11}H_{11}NS$ M 189.281

Needles. Mp 51°.

Corsini, A. *et al.* *Anal. Chem.*, 1963, **35**, 1424 (*props*)

Magee, R.J. *et al.* *Anal. Chim. Acta*, 1963, **29**, 27 (*detn.*, Mo)

Lee, H.S., *Can. J. Chem.*, 1963, **41**, 1646 (*synth*)

Bankovski, Yu.A. *et al.* *Zh. Anal. Khim.*, 1963, **18**, 668.

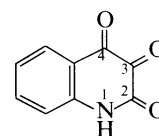
Demina, L.A. *et al.* *Zh. Anal. Khim.*, 1972, **27**, 593 (*detn.*, Au)

Cheng, K.L. *et al.* *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 377 (*use*)

2,3,4(1H)-Quinolinetriene, 9CI**Q-00022**

1,2,3,4-Tetrahydroquinoline-2,3,4-trione. 3,4-Dihydro-3,4-dioxocarbostyryl. Quinisinatin

[3565-42-2]



$C_9H_5NO_3$ M 175.143

Quinisinatin and its N-substituted derivs. readily form hydrates (3,3-dihydroxy-1H-quinolin-2,4-diones) with water. Prepared by heating hydrate *in vacuo*. Red solid. Mp 270-274° dec.

Hydrate: [3568-33-0]. 3,3-Dihydroxy-2,4(1H,3H)-quinolinedione, 9CI

$C_9H_7NO_4$ M 193.159

Yellow needles or prisms (H_2O). Dec. at 120-5°, losing H_2O .

1-Me: [2291-40-9].

$C_{10}H_7NO_3$ M 189.170

Red prisms (xylene). Mp 236°. Forms hydrate (pale-yellow cryst.).

1-Benzyl:

$C_{16}H_{11}NO_3$ M 265.268

Red cryst. (xylene). Mp 135°. Forms hydrate (yellow plates).

1-Ph: [2291-38-5].

$C_{15}H_9NO_3$ M 251.241

Red cryst. (xylene). Mp 215°. Forms hydrate (pale-yellow prisms).

3-Oxime: [36412-06-3].

$C_9H_6N_2O_3$ M 190.158

Used as 1.5M soln. in DMF/MeOH for photometric detn. of Os (λ_{max} 515 nm). Orange prisms (EtOH). Sol. MeOH, DMF. Mp 208° dec.

Baeyer, A. *et al.* *Ber.*, 1883, **16**, 2216 (*synth*)

Hardman, R. *et al.* *J. Chem. Soc.*, 1954, 3878 (*oxime*, *synth*)

Ayres, G.H. *et al.* *Anal. Chim. Acta*, 1962, **26**, 340 (*oxime*, *detn.*, Os)

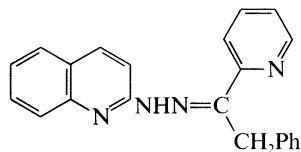
Wittmann, H., *Monatsh. Chem.*, 1965, **96**, 523 (*derivs*)

Kappe, T. *et al.* *Monatsh. Chem.*, 1968, **99**, 2157 (*synth*)

Regitz, M. *et al.* *Justus Liebigs Ann. Chem.*, 1969, **723**, 47 (*synth*)

Eistert, B. *et al.* *Chem. Ber.*, 1973, **106**, 1537 (*derivs*)

2(1H)-Quinolinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, 9CI
[86486-16-0]

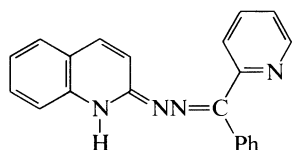


$C_{22}H_{18}N_4$ M 338.411

Used as 0.5mM EtOH soln. for fluorimetric detn. of Zn (λ_{max} 535 nm, 80% EtOH, pH 10.5-13). Brown cryst. (EtOH). Sol. EtOH. Mp 140°.

Santiago, M. *et al.* *Mikrochim. Acta*, 1983, 2, 197 (*synth, detn, Zn*)

2(1H)-Quinolinone (phenyl-2-pyridinylmethylene)hydrazone, 9CI
[35896-24-3]

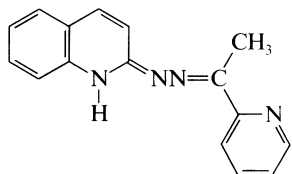


$C_{21}H_{16}N_4$ M 324.384

Used as a 0.01M soln. in acidified EtOH for photometric detn. of Co (λ_{max} 517 nm, ϵ 33900), Cu(I), Fe(II), Ni, Zn (λ_{max} 475 nm, ϵ 51700). Cryst. (C_6H_6). Sol. common org. solvs. Mp 193°.

Schilt, A.A. *et al.* *Talanta*, 1982, 29, 338 (*synth, use*)

2(1H)-Quinolinone [1-(2-pyridinyl)ethylidene]hydrazone, 9CI
[70845-34-0]

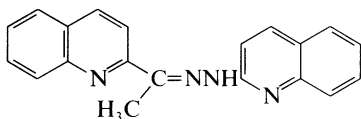


$C_{16}H_{14}N_4$ M 262.313

Used as a 0.01M soln. in acidified EtOH for photometric detn. of Co (λ_{max} 495 nm, ϵ 30700), Cu(I), Fe(II), Ni, Zn (λ_{max} 450 nm, ϵ 36400). Cryst. (EtOH). Sol. common org. solvs. Mp 148°.

Schilt, A.A. *et al.* *Talanta*, 1982, 29, 338 (*synth, use*)

2(1H)-Quinolinone [1-(2-quinolinyloxy)ethylidene]hydrazone, 9CI
(2-Quinolinyloxy)methyl-N-2-quinolylhydrazone
[82633-05-4]

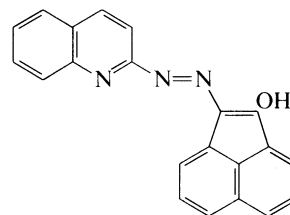


$C_{20}H_{16}N_4$ M 312.373

Used as a 0.01M EtOH soln. for photometric detn. of Ni (λ_{max} 512 nm, ϵ 20700, pH 7), Co (λ_{max} 506 nm, ϵ 8500), Zn, Cu(I). Cryst. (EtOH). Sol. EtOH. Mp 175°.

Schilt, A.A. *et al.* *Talanta*, 1982, 29, 338 (*synth, use*)

Q-00023 2-(2-Quinolinyloxy)-1-acenaphtholenol, 9CI
[51278-49-0] **Q-00027**

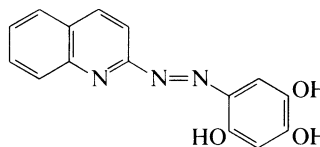


$C_{21}H_{13}N_3O$ M 323.353

Used as CCl_4 soln. or 1mM MeOH soln. for extraction-photometric detn. of Zn (λ_{max} 540 nm, ϵ 88000, pH 7-11), Cd, Hg(II). Brown cryst. Sol. CCl_4 , $CHCl_3$, MeOH. Mp 195°.

Mehta, Y.L. *et al.* *Curr. Sci.*, 1974, 43, 11 (*synth*)
Singh, I. *et al.* *Talanta*, 1976, 23, 617 (*use*)

5-(2-Quinolinyloxy)-1,2,4-benzenetriol, 9CI
1-(2-Quinolinyloxy)-2,4,5-trihydroxybenzene. 2-(2,4,5-Trihydroxyphenylazo)quinoline
[89631-83-4] **Q-00028**

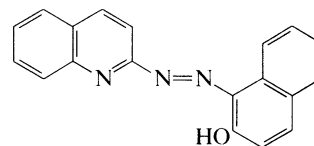


$C_{15}H_{11}N_3O_3$ M 281.270

Used as 2mM EtOH soln. for photometric detn. of Mn (λ_{max} 560 nm, ϵ 46000). Cryst. Sol. EtOH, MeOH.

Singh, I. *et al.* *Talanta*, 1984, 31, 109 (*synth, detn, Mn*)

1-(2-Quinolinyloxy)-2-naphthalenol, 9CI
1-(2-Quinolinyloxy)-2-naphthol. 2-(2-Hydroxy-1-naphthylazo)quinoline
[39101-26-3] **Q-00029**

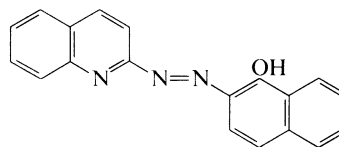


$C_{19}H_{13}N_3O$ M 299.331

Used as 0.035% $CHCl_3$ soln. for extraction-photometric detn. of Sb(III) (λ_{max} 625 nm, in the presence of iodide). Red cryst. powder (Me_2CO). Sol. Me_2CO , $CHCl_3$, EtOH, C_6H_6 . Mp 137-139° dec.

Rakhmatullaev, K. *et al.* *Zh. Anal. Khim.*, 1972, 27, 1793 (*synth, detn, Sb*)

2-(2-Quinolinyloxy)-1-naphthalenol, 9CI
2-(2-Quinolinyloxy)-1-naphthol. 2-(1-Hydroxy-2-naphthylazo)quinoline
[35841-55-5] **Q-00030**

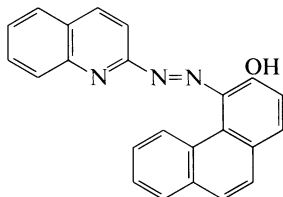


$C_{19}H_{13}N_3O$ M 299.331

Used as 0.1mM EtOH soln. for extraction-photometric detn. of Cu (λ_{\max} 610 nm, ϵ 47500), Zn (λ_{\max} 624 nm, ϵ 49300); gives colour reactions with Ni, Co, Fe(II), Cd, Hg, Pd, Pb, U(VI). Cryst. (dioxan). Sol. dioxan, EtOH. Mp 224-225°. pK_{a1} 2.65 (dioxan).

Kawase, A., *Anal. Chim. Acta*, 1972, **58**, 311 (*synth, use*)

1-(2-Quinolinyazo)-2-phenanthrenol, 9CI **Q-00031**
2-(2-Hydroxy-1-phenanthrylazo)quinoline
[36531-92-7]



$C_{23}H_{15}N_3O$ M 349.391

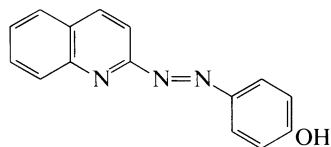
Used as a 0.01M soln. in dioxan for extraction-photometric detn. of Cu (λ_{\max} 590 nm, ϵ 38400, $CHCl_3$); metallochromic indicator for titrimetric detn. of Cu, Co, Hg; photometric detn. of Co (λ_{\max} 550 nm, ϵ 51200). Orange-red cryst.

Virmani, R.N. *et al*, *Fresenius' Z. Anal. Chem.*, 1972, **258**, 125; **260**, 289 (*titr detn, Cu, Hg*)

Virmani, R.N. *et al*, *Indian J. Chem.*, 1972, **10**, 225 (*phot detn, Cu*)

Virmani, R.N. *et al*, *J. Prakt. Chem.*, 1972, **314**, 965 (*detn, Co*)

4-(2-Quinolinyazo)phenol, 9CI **Q-00032**
4-(2-Quinolylazo)phenol. 2-(4-Hydroxyphenylazo)quinoline
[76019-74-4]



$C_{15}H_{11}N_3O$ M 249.271

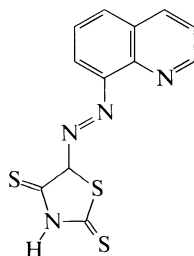
Used as 1mM EtOH soln. for photometric detn. of Cu (λ_{\max} 535 nm, ϵ 83000), Ag, Pd, Os, Au(III); indirect detn. of I^- . Dark red cryst. Sol. EtOH, MeOH.

Barua, S. *et al*, *Analyst (London)*, 1980, **105**, 996; 1981, **106**, 798 (*synth, detn, Ag, I⁻*)

Barua, S. *et al*, *J. Indian Chem. Soc.*, 1983, **60**, 64 (*detn, Cu*)

Singh, I. *et al*, *Bull. Chem. Soc. Jpn.*, 1989, **62**, 1316 (*detn, Pd, Os, Au*)

5-(8-Quinolinyazo)-2,4-thiazolidinedithione, 9CI **Q-00033**
Quinoline-8-azothiorhodanine
[36576-00-8]

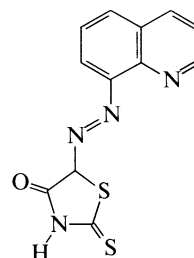


$C_{12}H_8N_4S_3$ M 304.420

Used as EtOH soln. for photometric detn. of Pt(II). Red cryst. powder. Sol. EtOH, DMF.

Basargin, N.N., *Zavod. Lab.*, 1972, **38**, 260 (*synth, detn, Pt*)

5-(8-Quinolinyazo)-2-thioxo-4-thiazolidinone, 9CI **Q-00034**
Quinoline-8-azorhodanine
[36575-99-2]

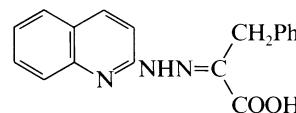


$C_{12}H_8N_4OS_2$ M 288.353

Used as EtOH soln. for photometric detn. of Pt(II) (λ_{\max} 500 nm, ϵ 12000). Brown cryst. powder. Sol. EtOH, DMF.

Basargin, N.N., *Zavod. Lab.*, 1972, **38**, 260 (*synth, detn, Pt*)

α -(2-Quinolinylhydrazone) benzenepropanoic acid, 9CI **Q-00035**
Phenylpyruvic acid 2-quinolylhydrazone
[53519-80-5]

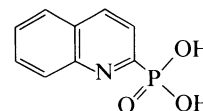


$C_{18}H_{15}N_3O_2$ M 305.335

Used as EtOH soln. for photometric detn. of Cu (λ_{\max} 450 nm, ϵ 31500). Cryst. Sol. EtOH. Mp 240°.

Katyal, M. *et al*, *J. Indian Chem. Soc.*, 1974, **51**, 576 (*synth, use*)

2-Quinolinylphosphonic acid, 9CI **Q-00036**
2-Quinolylphosphonic acid, 8CI. 2-Quinolinephosphonic acid
[14646-14-1]



$C_9H_8NO_3P$ M 209.141

Used as a 1% soln. in dil. NaOH for gravimetric detn. of Cd. Cryst. (hot H_2O). Mp 200°, Mp 348-350°. Forms a monohydrate.

Burger, A. *et al*, *J. Org. Chem.*, 1955, **20**, 1383 (*synth*)

Simpson, R.F. *et al*, *Anal. Chem.*, 1967, **39**, 262 (*detn, Cd*)

Sheinkman, A.K. *et al*, *Zh. Obshch. Khim.*, 1970, **40**, 700; *J. Gen. Chem. USSR (Engl. Transl.)*, 671 (*synth, ir*)

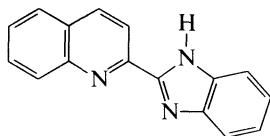
Sheinkman, A.K. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, (Engl. transl. p. 169), 1971, **196**, 1377 (*synth*)

U.S. Pat., 3 888 626, (1973); *CA*, **83**, 97569 (*synth, use*)

2-(2-Quinoly)benzimidazole, 8CI

2-(2-Benzimidazolyl)quinoline

[14044-48-5]

 $C_{16}H_{11}N_3$ M 245.283

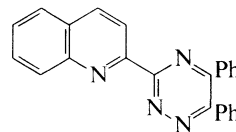
Used as 5mM soln. in EtOH aq. for photometric detn. of

Cu(I) (λ_{max} 483 nm, ϵ 3600), Fe(II). Cryst. (C_6H_6). Sol. common org. solvents. Mp 220-221°.Case, F.H., *J. Heterocycl. Chem.*, 1967, **4**, 157 (*synth*)Schilt, A.A. *et al. Talanta*, 1968, **15**, 1055 (*detn. Cu, Fe*)

Q-00037

3-(2-Quinoly)-5,6-diphenyl-1,2,4-triazine

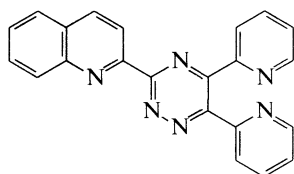
Q-00039

 $C_{24}H_{16}N_4$ M 360.417

Used as 0.01M soln. in EtOH for photometric detn. of

Cu(I) (λ_{max} 512 nm, ϵ 6400). Cryst. (Me_2CO). Sol. Me_2CO , EtOH. Mp 188-189°.Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (*synth*)Schilt, A.A., *Talanta*, 1966, **13**, 895 (*use*)**3-(2-Quinoly)-5,6-bis(2-pyridyl)-1,2,4-triazine**

Q-00038

 $C_{22}H_{14}N_6$ M 362.393

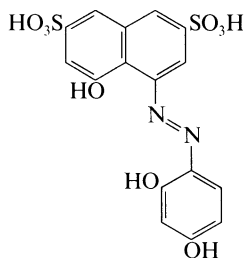
Used as 0.01M soln. in EtOH for photometric detn. of

Fe(II) (λ_{max} 589 nm, ϵ 9200), Cu(I) (λ_{max} 547 nm, ϵ 6200). Cryst. (DMF aq.). Sol. EtOH, DMF; sl. sol. H_2O . Mp 176-177°.Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (*synth*)Schilt, A.A., *Talanta*, 1966, **13**, 895 (*detn. Fe*)

R

H-Resorcine

4-[(2,4-Dihydroxyphenyl)azo]-5-hydroxy-2,7-naphthalenedisulfonic acid, 9CI
[3627-01-8]



$C_{16}H_{12}N_2O_9S_2$ M 440.411

Used as a 0.05-0.1% aq. soln. to give colour reactions with Be, Co, Ni, Zn; photometric detn. of B (ϵ 11000), Be. Cryst.

Kuznetsov, V.I., *Zh. Anal. Khim.*, 1955, **10**, 276 (detn. Be, Co, Ni, Zn)

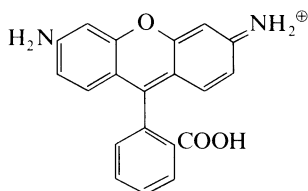
Nodirova, D.A. *et al*, *CA*, 1976, **85**, 153463h (detn. B)

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 2101; 1984, **39**, 35 (synth, detn. B)

Flyantikova, G.V. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1982 (detn. B)

Rhodamine 110

2-(6-Amino-3-imino-3H-xanthen-9-yl)benzoic acid, 9CI.
Rhodamine 560



$C_{20}H_{15}N_2O_3^{\oplus}$ M 331.350 (ion)

The dyestuff is usually the hydrochloride (i.e. chloride of the conjugate base illus.). Dye used in tunable lasers. λ_{max} (untuned emission) 570 nm.

N,N,N',N'-Tetra-Et, chloride: [81-88-9]. Rhodamine B. N-[[9-(2-Carboxyphenyl)-6-diethylamino]-3H-xanthen-3-ylidene]-N-ethylethanaminium(1+), 9CI. [9-(o-Carboxyphenyl)-6-(diethylamino)-3H-xanthen-3-ylidene] diethylammonium, 8CI. C.I. Basic violet 10. C.I. Food red 15. C.I. Solvent red 49. Pilot 578. Rhodamine 610. Tetraethylrhodamine. C.I. 45170

$C_{28}H_{31}ClN_2O_3$ M 479.017

Dye with numerous uses (cosmetics, drugs, fluorescent inks, lasers). Used for extraction-photometric detn. of Sb (λ_{max} 552 nm, ϵ 97000), Bi, Zn, Cd, Ga, Sn, In, Tl(III), Re, Au(III), Hg, Pd, Pt, U, Zr, $PO_4^{3\ominus}$; fluorescent redox indicator. Violet cryst. powder. Sol. H_2O , EtOH; sl. sol. Me_2CO . Forms red aq. soln. with strong orange-yellow fluorescence.

N,N,N',N'-Tetra-Et, Et ester, chloride: [2390-63-8].

Ethylrhodamine B. C.I. 45175

$C_{30}H_{35}ClN_2O_3$ M 507.071

Used for extraction-photometric detn. of Ta, Co, Zr. Red-violet cryst. (H_2O).

R-00001

N,N,N',N'-Tetra-Et, butyl ester, chloride: [3571-37-7]. Butylrhodamine B. N-[9-[2-(Butoxycarbonyl)phenyl]-6-(diethylamino)-3H-xanthen-3-ylidene]-N-ethylethanaminium chloride, 9CI

$C_{32}H_{39}ClN_2O_3$ M 535.124

Used for extraction-photometric detn. of Sb(V), As(V), Au (ϵ 130000), Ga, In, Pb, Re, Ta, Te, U, Hg, I^{\ominus} , $PO_4^{3\ominus}$. Dark red-brown cryst. Sol. H_2O ; insol. C_6H_6 .

[14899-08-2, 64381-98-2]

Kuznetsov, V.I., *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1946, **52**, 231 (synth, butylrhodamine B)

Onishi, H. *et al*, *Anal. Chim. Acta*, 1954, **11**, 44 (detn. Sb)

Ramette, R.W. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 4872.

Kuznetsov, V.I., *Zh. Anal. Khim.*, 1960, **15**, 523 (synth, butylrhodamine B)

Makarova, S.V. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 564, 847 (Ethylrhodamine B)

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 514; 1977, **32**, 1942 (butylrhodamine B, detn. Sb, Hg)

Mitsel, Y.A. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 596 (Ethylrhodamine B)

Lebedeva, S.P. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1403 (detn. Re)

Rochat, J. *et al*, *Analisis*, 1976, **4**, 267 (props)

Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976, 141, 284, 301, 566 (use)

Kauffman, J.M., *Appl. Opt.*, 1980, **19**, 3431 (bibl. use)

Alimarin, I.P. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 855 (butylrhodamine B, detn. U)

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1652 (butylrhodamine B, detn. As)

Skripchuk, V.G. *et al*, *Zavod. Lab.*, 1983, **49**, 1 (butylrhodamine B, detn. Te)

Sjoberg, A.M. *et al*, *J. Chromatogr.*, 1985, **318**, 149 (hplc, chromatog)

Takayanagi, M. *et al*, *Appl. Spectrosc.*, 1986, **40**, 1132 (raman)

Ballard, J.M. *et al*, *Org. Mass Spectrom.*, 1986, **21**, 575 (ms)

Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 93, 578, 637; *Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 4th Ed., 1989, 424.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 141, 284, 301, 566 (use)

Hinckley, D.A. *et al*, *Spectrochim. Acta, Part A*, 1986, **42**, 747 (uv)

Wegener, J.W. *et al*, *Chromatographia*, 1987, **24**, 865 (hplc, w)

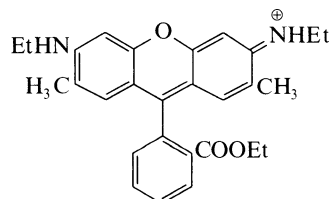
Chalmers, J.H. *et al*, *J. Chem. Educ.*, 1987, **64**, 969 (props)

Ernsting, N.P. *et al*, *Chem. Phys.*, 1988, **122**, 431 (spectra)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FAG070.

Rhodamine 590

Rhodamine 6G. C.I. Basic red 1. C.I. 45160. Several other synonyms



$C_{28}H_{31}N_2O_3^{\oplus}$ M 443.564 (ion)

Strictly, the name Rhodamine 590 applies to the chloride. Chloride: [989-38-8].

$C_{28}H_{31}ClN_2O_3$ M 479.017

Used as 0.05% aq. soln. for extraction-photometric detn. of As(V), Sb(V), Bi, Ge, Sn, P(V), Ga, In, Hg, Ta, Te, Ni, Co; flotation-photometric detn. of Pt (λ_{\max} 530 nm, ϵ 280000), Pd, Os, Ru, Ir. Dye used in tunable lasers. Biological stain. Bluish-pink cryst. powder. Sol. H₂O, EtOH. λ_{\max} (untuned emission) 590 nm.

► Experimental teratogen. DH0175000.

Perchlorate: [13161-28-9]. Pilot 559P

C₂₈H₃₁ClN₂O₇ M 543.015

Kauffman, J.M., *Appl. Opt.*, 1980, **19**, 3431 (*bibl. use*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982 (*props. use*)

Nazarenko, V.A. *et al*, 1983, **38**, 1251 (*detn. As*)

Marczenko, Z. *et al*, *Anal. Chim. Acta*, 1983, **153**, 219 (*detn. Pt*)

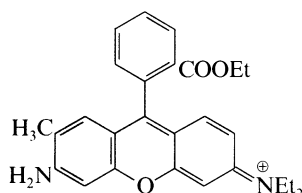
Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 323 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, RGW000.

Rhodamine 3G0

R-00004

N-[6-Amino-9-[2-(ethoxycarbonyl)phenyl]-7-methyl-3H-xanthen-3-ylidene]-N-ethylethanaminium(1+), 9CI. Basic red 4. C.I. 45215



C₂₇H₂₉N₂O₃⁺ M 429.538 (ion)

Chloride: [3068-40-4].

C₂₇H₂₉ClN₂O₃ M 464.990

Used as 1mM aq. soln. for extraction-fluorimetric detn. of Te, Ga, In (C₆H₆). Violet cryst. powder. Sol. H₂O, EtOH.

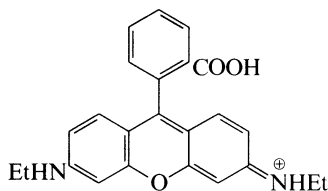
Zorov, N.B. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1466.

Khvatkova, A.P. *et al*, *Vestn. Mosk. Univ., Ser. 2: Khim.*, 1972, **13**, 355; *CA*, **77**, 134673v (*detn. Te*)

Rhodamine G

R-00005

9-(2-Carboxyphenyl)-3,6-bis(ethylamino)xanthylium(1+). C.I. Basic red 8. C.I. 45150



C₂₄H₂₃N₂O₃⁺ M 387.457 (ion)

Strictly the name Rhodamine G applies to the chloride.

Chloride: [2768-89-0].

C₂₄H₂₃ClN₂O₃ M 422.910

Used as 1mM aq. soln. for extraction-photometric detn. of Sb (λ_{\max} 530 nm, ϵ 100000, C₆H₆), Bi. Dark red cryst. (MeOH). Sol. H₂O; sl. sol. EtOH.

Et ester, chloride: [6359-21-3]. Rhodamine 4G

C₂₆H₂₇ClN₂O₃ M 450.964

Basic dye. Used as 1mM aq. soln. for extraction-photometric detn. of Ga (as GaCl₄⁺ C₆H₆); extraction-fluorimetric detn. of Te, Ga, In (C₆H₆). Violet cryst. powder. Sol. H₂O, EtOH.

Golovina, A.P. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 2242 (*detn. Ga*)

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 514 (*detn. Sb*)

Zorov, N.B. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 1466.

Khvatkova, Z.M. *et al*, *Vestn. Mosk. Univ., Ser. 2: Khim.*, 1972, **13**, 355; *CA*, **77**, 134673v (*detn. Te*)

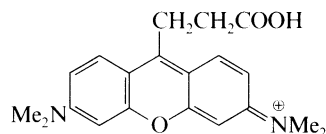
Shestidesatnaya, N.L., *Ukr. Khim. Zh. (Russ. Ed.)*, 1975, **41**, 84 (*detn. Bi*)

Rhodamine S

R-00006

N-[9-(2-Carboxyethyl)-6-(dimethylamino)-3H-xanthen-3-ylidene]-N-methylmethanaminium(1+). Succinylrhodamine. C.I. Basic red 11. C.I. 45050

[72968-14-0]



C₂₀H₂₃N₂O₃⁺ M 339.413 (ion)

Chloride:

C₂₀H₂₃ClN₂O₃ M 374.866

Used as 0.05% soln. in dil. HCl for photometric detn. of Sb(V). Red powder. Brown needles with golden iridescence. Sol. H₂O, acids; sl. sol. EtOH. Mp 225-230°.

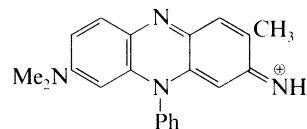
Dutt, S. *et al*, *J. Chem. Soc.*, 1924, **125**, 2524 (*synth*)

Jabalonski, W.E. *et al*, *Analyst (London)*, 1970, **95**, 131.

Rhoduline violet

R-00007

3-Amino-7-(dimethylamino)-2-methyl-5-phenylphenazinium(1+), 9CI



C₂₁H₂₁N₄⁺ M 329.424 (ion)

Basic phenazine dye. Strictly the name Rhoduline violet applies to the chloride salt.

Chloride: [16508-73-9].

C₂₁H₂₁ClN₄ M 364.876

Used as 0.4mM aq. soln. for extraction-photometric detn. of Sb(V) (λ_{\max} 552 nm, ϵ 55000, C₆H₆/2-butanone. 1M HCl). Brown-violet cryst. (EtOH aq.). Sol. H₂O, EtOH.

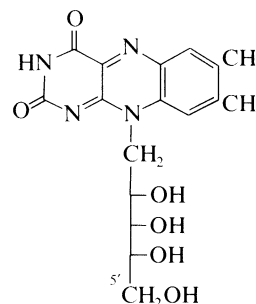
Tautkus, S.A. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1239 (*detn. Sb*)

Riboflavine, 9CI, INN

R-00008

1-Deoxy-1-(3,4-dihydro-7,8-dimethyl-2,4-dioxobenzo[g]pteridin-10(2H)-yl)-D-ribose, 9CI. Flavaxin. Lactoflavine. Ovocoflavine. Vitamin B₂. Vitamin G. Russuperidine yellow III. Other synonyms

[83-88-5]



C₁₇H₂₀N₄O₆ M 376.368

Widely distributed, but occurs in free form only in the

retina, in whey and in urine. Main forms occurring in tissues and cells are flavine mononucleotide and flavine-adenine dinucleotide. Vitamin cofactor. Used as adsorption indicator in titrimetric detn. of Ag. Orange needles. Sol. EtOH; spar. sol. H₂O. Mp 280° dec. $[\alpha]_D^{20}$ –9.8° (H₂O), $[\alpha]_D^{20}$ –125° (20N NaOH). λ_{\max} 220, 265, 365 and 455 nm (H₂O). Green fluor. in soln.

▷ VJ1400000.

5'-Phosphate: [146-17-8]. *Riboflavine 5'-(dihydrogen phosphate)*, 9CI. *Flavin mononucleotide*. *Lactoflavin phosphate*. *Monophosphoriboflavin*. *Riboflavin monophosphate*. *Vitamin B₂ phosphate*. *FMN*
The prosthetic group of various flavine enzymes.
Enzyme co-factor, vitamin. Yellow cryst. (2H₂O). λ_{\max} 530 nm. Tends to isomerise to isomeric phosphates.

▷ VJ1350000.

[130-40-5, 129569-92-2, 129569-93-3]

Viscontini, M. *et al*, *Helv. Chim. Acta*, 1952, **35**, 457 (*synth*, *phosphate*)

Kotaki, A. *et al*, *J. Vitaminol.*, 1968, **14**, 247 (*synth*, *tetrancotinate*)

Tanaka, N. *et al*, *Bull. Chem. Soc. Jpn.*, 1969, **42**, 1546 (*cryst struct*)

Paterson, T. *et al*, *J. Chem. Soc., Chem. Commun.*, 1969, 290 (*biosynth*)

Beach, R. *et al*, *Tetrahedron Lett.*, 1969, 3489 (*synth*)

Kainosho, M. *et al*, *Biochemistry*, 1972, **11**, 741 (*P-31 nmr*, *phosphate*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Karrer, W. *et al*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 2610 (*occur*)

McCormick, D.A., *J. Heterocycl. Chem.*, 1974, **11**, 969.

Yagi, K. *et al*, *Biochemistry*, 1976, **15**, 2877 (*N-15 nmr*)

Yoneda, F., *J. Am. Chem. Soc.*, 1976, **98**, 830 (*synth*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **24**, 108 (*rev*, *synth*)

Holmgren, A., *Experientia*, 1980, **36**, 149 (*rev*, *FAD*)

Walt, D.R. *et al*, *J. Am. Chem. Soc.*, 1980, **102**, 7805 (*synth*, *5'-phosphate*)

Merrill, A.H. *et al*, *Methods Enzymol.*, 1980, **66**, 287 (*phosphate*, *synth*)

Brown, G.M. *et al*, *Adv. Enzymol. Relat. Areas Mol. Biol.*, 1982, **53**, 345 (*rev*, *biosynth*)

Bacher, A. *et al*, *J. Am. Chem. Soc.*, 1982, **104**, 3754 (*biosynth*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7841-7844.

Keller, P.J. *et al*, *Tetrahedron*, 1983, **39**, 3471 (*biosynth*)

Ulrich, E.L. *et al*, *Tetrahedron Lett.*, 1983, **24**, 473 (*pmr*)

Moonen, C.T. *et al*, *Biochemistry*, 1984, **23**, 4859 (*pmr*, *cmr*,

conformn, *tetraacetate*, *5'-phosphate*)

Cooperman, J.M. *et al*, *Food Sci. Technol.*, 1984, **13**, 299 (*rev*, *metab*, *props*)

Nielsen, P. *et al*, *Methods Enzymol.*, 1986, **122**, 209 (*synth*, *phosphates*)

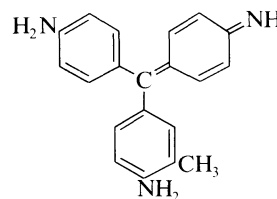
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 4425, 4473, 7551.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, RIF500, RIK000.

Rosaniline

R-00009

4-[(4-Aminophenyl)(4-imino-2,5-cyclohexadien-1-ylidene)methyl]-2-methylbenzenamine, 9CI. C.I. Basic Violet 14. Basic magenta. C.I. 42510
[3248-93-9]



C₂₀H₁₉N₃ M 301.390

Used as a dye or in the manuf. of dyestuffs. Possesses antifungal props. Brown-red cryst. Dec. at 186°.

▷ ZE9705000.

B.HCl: [632-99-5]. *Fuchsine*. *Magenta I*

Used as aq. soln. for extraction-photometric detn. of Br[⊖], Re(VII). Biological stain. Commercially available.

Used as a 1mM aq. soln. for extraction-photometric detn. of Au (λ_{\max} 555 nm, ϵ 88000,

C₆H₆/cyclohexanone). Metallic green cryst. Mp 250° dec. Dec. >200°.

▷ Toxic. CX9855000.

Fischer, E. *et al*, *Ber.*, 1880, **13**, 2204 (*synth*)

Scanlan, J.T., *J. Am. Chem. Soc.*, 1935, **57**, 887 (*synth*)

Michaelis, L. *et al*, *J. Am. Chem. Soc.*, 1943, **67**, 1212 (*struct*)

Hunter, G. *et al*, *Analyst (London)*, 1954, **79**, 467 (*detn*, Br)

Beyermann, K., *Fresenius' Z. Anal. Chem.*, 1961, **183**, 91 (*detn*, Re) *Colour Index*, 3rd Edn., 1971, **4**, 4389 (*synth*)

Joy, E.F. *et al*, *Anal. Chem.*, 1973, **45**, 856 (*detn*, Br)

Popa, G. *et al*, *Rev. Chim. (Bucharest)*, 1977, **28**, 64 (*detn*, Au)

Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 2012 (*detn*, Re)

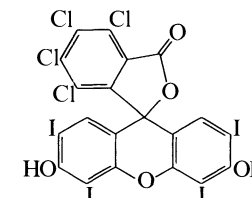
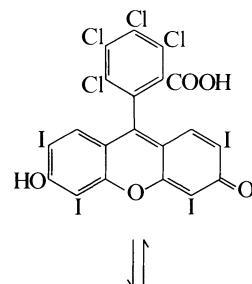
Sigma-Aldrich Library of Chemical Safety Data, 1988, **1**, 339A.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MAC250, MAC500.

Rose bengal, 8CI

R-00010

4,5,6,7-Tetrachloro-3',6'-dihydroxy-2',4',5',7'-tetraiodospiro[isobenzofuran-1(3H),9'(9H)xanthen]-3-one, 9CI. 3,4,5,6-Tetrachloro-2',4',5',7'-tetraiodofluorescein, 8CI. C.I. Solvent red 141. C.I. 45440
[4159-77-7]



C₂₀H₄Cl₄I₄O₅

M 973.677

Singlet-O₂ sensitiser for photooxidations. Dyestuff for cosmetics; food additive. Acid-base indicator. Insol. H₂O. Normally used as di-Na salt.

Di-K salt: [632-68-8]. *Rose Bengal B. C.I. Acid red 94*
Dyestuff for nylon, silk, cellulose materials, inks, cosmetics. Used for extraction-photometric detn. of Cu, Pb, Hg, Ni, Cd, Ag, Pd. Bright bluish pink solid. Sol. H₂O (blue-red soln., no fluor.).

▷ Possibly teratogenic in rats. Carcinogen. Toxic to freshwater organisms. Binds to and inhibits RNA polymerase.

Di-Na salt: [42352-53-4]. *Rose bengal sodium, INN. Food red colour 105*

Biological stain. Used for diagnosing corneal trauma. ¹²⁵I and ¹³¹I labelled versions are used as diagnostic aids in hepatic function detn. (Robengatrope). Red powder.

Bis Et₃NH salt: [91491-51-9].

Singlet oxygen sensitiser. Purple red powder.

Lactone-form

Colourless or v. pale pink solid.

[152-74-9, 632-69-9, 11121-48-5, 15251-14-6, 24916-55-0, 42352-89-6, 50291-21-9]

Sigma-Aldrich Library of Chemical Safety Data, 2, 3054D.

Sanders, H.J., *Chem. Eng. News*, 1966, **44**, (42)100, (43)108 (rev. use)

Bellin, J.S. *et al*, *J. Chromatogr.*, 1966, **24**, 131 (*chromatog*)

Bayley, B.W. *et al*, *Talanta*, 1966, **13**, 753 (*detn*, Cu)

Dagnall, R.M. *et al*, *Talanta*, 1968, **15**, 1353 (*detn*, Pd)

Peeples, W.A. *et al*, *J. Liq. Chromatogr.*, 1981, **4**, 51 (*hplc*, *purifn*)

Gandin, E. *et al*, *J. Chromatogr.*, 1982, **249**, 393 (*glc*, *purifn*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 945, 2146, 5864.

Lamberts, J.J.M. *et al*, *Z. Naturforsch., B*, 1984, **39**, 474 (*uv*, *use*, *deriv*)

Lamberts, J.J.M. *et al*, *Tetrahedron*, 1985, **41**, 2183 (*ir*, *pmr*, *uv*, *props*, *use*)

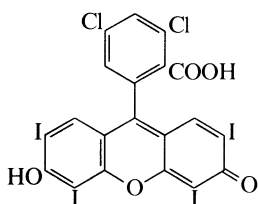
Ghiggino, K.P. *et al*, *Aust. J. Chem.*, 1988, **41**, 9 (*purifn*, *uv*, *props*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, RMP175.

Rose bengal A

R-00011

4,7-Dichloro-3',6'-dihydroxy-2',4',5',7'-tetraiodospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9CI. C.I. Solvent red. C.I. 45435



C₂₀H₆Cl₂I₄O₅ M 904.788

Strictly, the name Rose bengal A applies to the disodium salt.

Di-Na salt: [18265-55-9].

Used as 1mM aq. soln. for extraction-photometric detn. of Cu, Pb, Hg, Ni, Cd, Ag, Pd. Pink cryst. Sol. H₂O, EtOH.

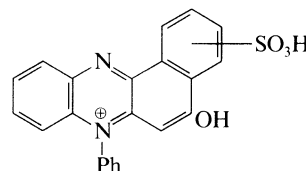
Dagnall, R.M. *et al*, *Talanta*, 1968, **15**, 1353 (*use*)

Matveets, M.A. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1049.

Rosinduline 2G

R-00012

5-Hydroxy-7-phenylsulfobenzo[a]phenazinium(1+), 9CI. C.I. Acid orange 15. C.I. 50120



C₂₂H₁₄N₂O₄S M 402.430

Strictly, the name Rosinduline 2G applies to the sodium salt.

Na salt: [1324-05-6].

Used as redox indicator. Cryst. Sol. H₂O, conc. H₂SO₄. pK_{a1} 9.5 (30°). E° +0.139 (30°).

Michaelis, L., *J. Biol. Chem.*, 1931, **91**, 369 (*use*)

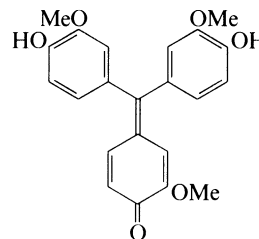
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 491 (*use*)

Rubrophen

R-00013

4-[Bis(4-hydroxy-3-methoxyphenyl)methylene]-2-methoxy-2,5-cyclohexadien-1-one, 9CI. Rubrocol

[5664-34-6]



C₂₂H₂₀O₆ M 380.396

Used as aq. soln. as acid-base indicator (pH range: 1-3; colour change: red → yellow; pH range: 6.5-7.2; colour change: yellow → violet). Cryst. Sl. sol. H₂O.

Szebellédy, L. *et al*, *Magy. Gyogyszeresztud. Tarsasag. Ert.*, 1937, **13**, 822; *CA*, **32**, 1608¹.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Rutin

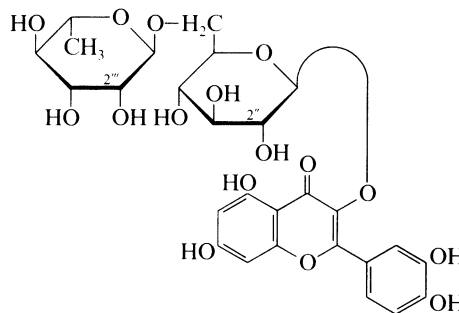
R-00014

Quercetin 3-β-D-rutinoside. Rutoside, INN. Rutinic acid.

Sophorin†. Melin. Osyritin. Violaquercitrin. Myrticolorin.

Globulariacitrin. Eldrin. Paliurosioide

[153-18-4]



C₂₇H₃₀O₁₆ M 610.524

Constit. of many plants. Presence in over 30 families, mostly dicotyledons, demonstrated by 1955. First isol. from *Ruta graveolens* (Weiss, 1842). Antihæmorrhagic.

Used as 1mM soln. in 50% MeOH for photometric detn. of Mo (λ_{\max} 400 nm, ϵ 22100), W (λ_{\max} 405 nm, ϵ 40300). Yellow cryst. + 3H₂O (H₂O). Mp 214-215° dec. (anhyd.). $[\alpha]_D^{23}$ +13.82° (EtOH).

▷ VM2975000.

7-O-(2-Hydroxyethyl): [23869-24-1]. **Monoxerutin INN.**

Mono-7-HR. Z 12007

C₂₉H₃₄O₁₇ M 654.577

Vasodilator; antihæmorrhagic.

4'-(2-Morpholinylethyl) ether: [30851-76-4].

Ethoxazorutoside, INN. Ethoxazorutin. Solarutine.

Solurutine

C₃₃H₄₁NO₁₇ M 723.683

Antihæmorrhagic agent. Mp 135°.

Griffith, J.Q., *Rutin and Related Flavonoids*, Mack, Easton, 1955.

Hörhammer, L. *et al. Tetrahedron Lett.*, 1966, 567 (*synth*)

Schmid, R.D., *Tetrahedron*, 1972, **28**, 3259 (*ms*)

Wenkert, E. *et al. Phytochemistry*, 1977, **16**, 1811 (*cmr*)

Pfendt, L.B. *et al. Mikrochim. Acta*, 1980, **1**, 385.

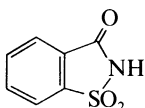
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, RSU000.

S

Saccharin, USAN

S-00001

1,2-Benzisothiazol-3(2H)-one 1,1-dioxide, 9CI. Benzoic sulfimide. o-Sulfobenzoic imide. Saxin. Sweeta. Garantose. Hermetetas. Other synonyms [81-07-2]



$C_7H_5NO_3S$ M 183.187

All salts intensely sweet. Widely-used sweetening agent. Used as 25% aq. soln. of Na salt for detn. of Tl; extraction-separation of Ag. Cryst. (H_2O). Spar. sol. H_2O , EtOH, Me_2CO ; sl. sol. Et_2O , $CHCl_3$. Mp 224°. pK_{a1} 1.31 (25°, 0.2M KCl/HCl).

▷ DE4200000.

Na salt (1:1): [128-44-9]. Saccharin sodium, USAN. Sucaryl
▷ DE4550000.

Ca salt (2:1): [6485-34-3]. Saccharin calcium, USAN
▷ DE4250000.

N-Me: [15448-99-4].

$C_8H_7NO_3S$ M 197.214
Mp 131-132°.

N-Et: [18712-20-4].

$C_9H_9NO_3S$ M 211.241
Mp 93-94°.

N-Br: [35812-01-2].

$C_7H_4BrNO_3S$ M 262.083
Oxidimetric titrant in potentiometric and visual titrations of reductants. Pale-yellow cryst. (CCl_4). Mp 170-172°.

N-(2-Nitrobenzenesulfonyl):

$C_{13}H_8N_2O_5S_2$ M 336.349
Reagent for peptide synth. Mp 185-186° dec.

Benzoyl: [37952-93-5].

$C_{14}H_9NO_4S$ M 287.295
Mp 250° dec.

Oxime:

$C_7H_6N_2O_3S$ M 198.202
Mp 208-210° dec.

[6155-57-3, 6381-91-5]

Remsen, I., *Ber.*, 1879, **12**, 469 (synth)

Ziegler, K. et al, *Justus Liebig's Ann. Chem.*, 1942, **551**, 80.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **3**, 1574 (detn, Tl)

Ziegler, M. et al, *Fresenius' Z. Anal. Chem.*, 1960, **173**, 411 (detn, Ag)

Hettler, H., *Adv. Heterocycl. Chem.*, 1973, **15**, 233 (rev)

Sánchez, E.I. et al, *Synthesis*, 1976, 736 (synth)

Ball, L.M. et al, *Xenobiotica*, 1977, **7**, 189 (metab, Na salt)

Sweatman, T.W. et al, *Xenobiotica*, 1981, **11**, 531 (pharmacol)

Sánchez, E.I. et al, *J. Org. Chem.*, 1982, **47**, 1588.

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2404, 2406.

Stassinopoulou, C.I. et al, *Org. Magn. Reson.*, 1983, **21**, 187 (pmr)

Byard, J.L., *Adv. Exp. Med. Biol.*, 1984, **177**, 147 (rev, metab, tox)

Zubair, M.U. et al, *Anal. Profiles Drug Subst.*, 1984, **13**, 487 (rev)

Nasser, F.A. et al, *J. Organomet. Chem.*, 1984, **266**, 225 (synth)

Romani, S. et al, *Synthesis*, 1985, **16**, 512 (metab)

Mohana Das, C. et al, *Indian J. Chem., Sect. A*, 1987, **26**, 55 (bromo deriv, use)

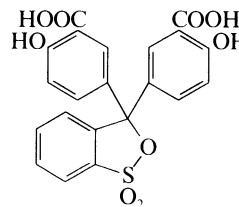
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 617.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BCE500, CAM750, SJN700.

Salicyl red

S-00002

5,5'-(3H-2,1-Benzoxathiol-3-ylidene)bis(2-hydroxybenzoic acid) S,S-dioxide. Salicylsulfonephthalein



$C_{21}H_{14}O_9S$ M 442.402

Used as a 0.1% soln. in 70% EtOH as acid-base indicator (pH range: 6.6-8.2; colour change: yellow → violet). Red amorph. powder. Sol. EtOH, Me_2CO , EtOAc, alkalis; spar. sol. H_2O .

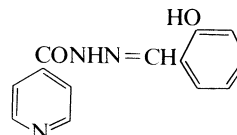
Harden, W.C. et al, *J. Am. Chem. Soc.*, 1927, **49**, 3139 (synth)
Bishop, E., *Indicators*, Oxford, Pergamon, 1972 (use)

Salinazid, BAN, INN

S-00003

4-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, 9CI. N-Isonicotinoyl-N'-salicylidenehydrazine. Salicylaldehyde isonicotinoylhydrazone. Acozid. Nicozid. Nilazid. Nupasal. o-Oxyberon. Phthiosan. Saliniazid. Salizid. HP 213. MG 1480

[495-84-1]



$C_{13}H_{11}N_3O_2$ M 241.249

Used in treatment of tuberculosis. Used as a 0.1% soln. in EtOH for photometric detn. of Ce(IV), Ni, Zn, Cd, Co, Ge (λ_{max} 390 nm, ϵ 34000), In (λ_{max} 380 nm, ϵ 32000), Mn, gravimetric detn. of Cu. Yellow cryst. (EtOH). Sol. Me_2CO , EtOH, C_6H_6 . Mp 232-233°, Mp 265°.

Yale, H. et al, *J. Am. Chem. Soc.*, 1953, **75**, 1933 (synth)

Hart, J.J.D. et al, *Antibiot. Chemother. (Washington, D.C.)*, 1954, **4**, 803 (synth, props)

Bavin, E.M. et al, *J. Pharm. Pharmacol.*, 1955, **7**, 1032 (pharmacol, tox)

Chakvaranty, D. et al, *J. Pharm. Sci.*, 1964, **53**, 1036 (synth, use)

Katiyar, S., *Talanta*, 1964, **11**, 892 (grav detn, Cu)

Gupta, H.S., *Indian J. Appl. Chem.*, 1971, **34**, 106 (detn, Ce, Ni, Zn)

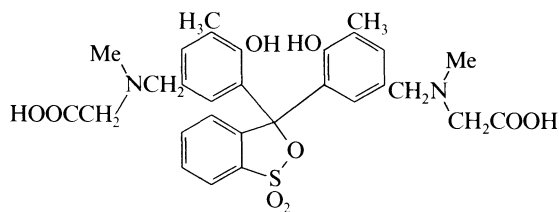
Vasilikiotis, G.S. et al, *Microchem. J.*, 1973, **18**, 85; 1975, **20**, 173 (synth, detn, Cd, Co, In, Mn, Ni, Zn, Ge)

Cowper, A.J. et al, *J. Inst. Chem. (India)*, 1981, **53**, 111, 195 (synth, pharmacol)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 7570.

Sarcosine cresol red**S-00004**

N,N'-[3*H*-2,1-Benzoxathiol-3-ylidenebis(6-hydroxy-5-methyl-3,1-phenylene)methylene]]bis[*N*-methylglycine] S,S-dioxide, 9CI
[65720-39-0]



$C_{29}H_{32}N_2O_9S$ M 584.646

Used as a 1mM aq. soln. for photometric detn. of Cu.

Korbl, J., *Chem. Ind. (London)*, 1957, 1624 (*synth*)

Matsuo, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1971, **20**, 693.

Selenazone**S-00005**

1,5-Diphenyl-3-formazan-selenol, 8CI. 3-Seleno-1,5-diphenylformazan
[22037-15-6]



$C_{13}H_{12}N_4Se$ M 303.225

Selenium analogue of dithizone. Used as 0.001% $CHCl_3$ soln. for extraction of Ag, Pb, Zn, Mn, Fe chelates.

Black powder. Sol. $CHCl_3$, CCl_4 , alkalis. Mp 116°.

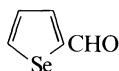
Ramakrishna, R.S. *et al*, *Anal. Chim. Acta*, 1969, **48**, 251.

Ramakrishna, R.S. *et al*, *Chem. Ind. (London)*, 1969, **11**, 325 (*synth, use*)

2-Selenophenecarboxaldehyde**S-00006**

2-Formylselenophene

[25109-26-6]



C_5H_4OSe M 159.046

Liq. d_{20} 1.6688. Bp_{14} 92°, Bp_7 86-87°. n_D^{20} 1.6292.

Oxime: [18278-71-2].

C_5H_5NOSe M 174.061

Used as a 0.5% soln. in EtOH for gravimetric, amperometric and polarographic detn. of Pd. Cryst.

Yur'ev, Yu.K. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1956, **27**, 201 (*synth*)

Chierici, L. *et al*, *Gazz. Chim. Ital.*, 1958, **88**, 453 (*synth*)

Bark, L.S. *et al*, *Analyst (London)*, 1967, **92**, 162 (*grav detn, Pd*)

Bark, L.S. *et al*, *Anal. Chim. Acta*, 1970, **49**, 349 (*amp, polarogr, detn, Pd*)

Gronowitz, S. *et al*, *Chem. Scr.*, 1975, **7**, 8, 111 (*pmr, cmr, Se-77 nmr*)

1-(2-Selenophenyl)-2-propanone, 9CI**S-00007**

2-Acetyl-selenophene

[32543-15-0]



C_7H_8OSe M 187.100

Used as a 0.04-0.4M soln. in $CHCl_3$ for extraction-separation of Th ($CHCl_3$). Sol. common org. solvs.

Peshkova, V.M. *et al*, *Zh. Anal. Khim.*, 1959, **14**, 411 (*use*)

1-(2-Selenophenyl)-3-(2-thienyl)-1,3-propanedione**S-00008**

Selenylthienylmethane



$C_{11}H_8O_2S_2Se$ M 283.209

Used as a satd. EtOH soln. for extraction-photometric detn. of Cu (λ_{max} 385 nm, ϵ 19000, $CHCl_3$). Yellow cryst. (MeOH). Sol. common org. solvs. Mp 91-92°.

Yurev, Y.K. *et al*, *Zh. Obshch. Khim.*, 1961, **31**, 1449 (*synth, use*)

Selenourea, 9CI**S-00009**

[630-10-4]

$(H_2N)_2C=Se$

CH_4N_2Se M 123.016

Synth. from H_2Se + cyanamide. Used for photometric detn. of Ru and Os. Prisms or needles (H_2O). Mp 200° dec. (slow heat), Mp 235° dec. Air and light sensitive.

▷ *Poison.* YU1820000.

B,MeI: Methyliselenourea iodide

Yellow cryst. Mp 187-188° dec.

B,MeHSO4: Methyliselenourea hydrogen sulfate

Yellow cryst. Mp 67-70° dec. Structure:

$[H_2N-C(SeMe)=NH_2]HSO_4$.

N-Me: [5533-49-3].

$C_2H_6N_2Se$ M 137.043

Mp 156-157°.

N,N-Di-Me:

$C_3H_8N_2Se$ M 151.070

Mp 98-100°.

N,N'-Di-Me: [5533-46-0].

Mp 110-111°.

N,N,N',N'-Tetra-Me: [5943-53-3].

$C_5H_{12}N_2Se$ M 179.123

Mp 79-81°.

N-Et: [33251-42-2].

Mp 125°.

N-Ph: [6124-02-3].

$C_7H_8N_2Se$ M 199.114

Mp 191-192°.

N,N-Di-Ph: [21347-28-4].

$C_{13}H_{12}N_2Se$ M 275.211

Mp 205-207° dec.

N,N'-Di-Ph: [16519-43-0].

Mp 178-182° dec., Mp 190-192°.

Backer, H.J. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1943, **62**, 580 (*synth*)

Dunbar, P.E. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 1833 (*synth*)

King, L.C. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 1864 (*synth*)

Pilipenko, A.T. *et al*, *Zh. Anal. Khim.*, 1961, **16**, 73 (*detn, Ru, Os*)

Pilipenko, A.T. *et al*, *Zh. Neorg. Khim.*, 1961, **6**, 413 (*detn, Ru, Os*)

Hope, H., *Acta Chem. Scand.*, 1964, **18**, 1800 (*synth*)

Jensen, K.A. *et al*, *Acta Chem. Scand.*, 1966, **20**, 597 (*derivs*)

Guedicelli, J.F. *et al*, *Bull. Soc. Chim. Fr.*, 1968, 1099 (*derivs*)

Klayman, D.L. *et al*, *J. Org. Chem.*, 1969, **34**, 3549 (*derivs*)

Rutherford, J.S. *et al*, *Z. Kristallogr., Kristallgeom., Kristallphys.,*

Kristallchem., 1969, **128**, 229 (*cryst struct*)

Duncan, J.L. *et al*, *J. Chem. Soc. A*, 1971, 2695 (*ir, raman*)

Walter, W. *et al*, *Tetrahedron*, 1972, **28**, 3233 (*pmr*)

Gmelin Handbook Inorg. Chem., Syst. No. 14, 1978, **D6**, 241 (*bibl*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SBV000.

Selenoylacetone*1-Selenophen-2-yl-1,3-butanedione, 9CI*

[1680-37-1]

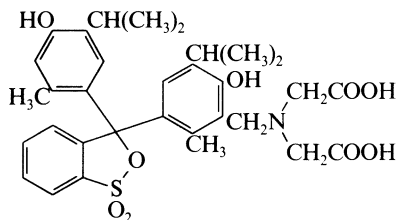
 $C_8H_8O_2Se$ M 215.110

Used as a satd. soln. in EtOH for extraction-photometric detn. of Cu (λ_{max} 345 nm, ϵ 36300, $CHCl_3$). Pale yellow cryst. (EtOH). Sol. common org. solvs. Mp 33-33.5°. Bp₆ 146-146.5°.

Yurev, Y.K. *et al*, *Zh. Obshch. Khim.*, 1961, **31**, 1449 (*synth, use*)**Semimethyl thymol blue****S-00011**

N-(Carboxymethyl)-N-[[2-hydroxy-5-[3-[4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-3H-2,1-benzoxathiol-3-yl]-6-methyl-3-(1-methylethyl)phenyl]methyl]glycine S,S-dioxide, 9CI. 3-[N,N-Bis(carboxymethyl)aminomethyl]thymolsulfonephthalein

[34400-83-4]

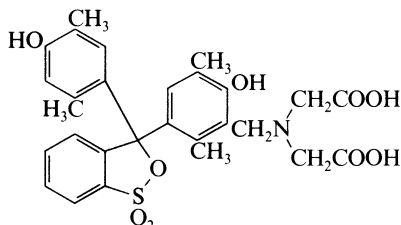
 $C_{32}H_{37}NO_9S$ M 611.712

Used as a 0.1 mM aq. soln. for photometric detn. of Co, Cu, Ni, Zn. Dark violet cryst. powder. Sol. H_2O , alkalis. Mp 198-199°. pK_{a3} 2.0; pK_{a5} 2.81; pK_{a7} 7.6; pK_{a8} 12.1 ($\mu = 0.1$, 25°).

Yoshino, T. *et al*, *Talanta*, 1969, **16**, 151; 1974, **21**, 199 (*synth, detn, Co, Cu, Ni, Zn*)Kosenko, N.F. *et al*, *J. Anal. Chem. USSR (Engl. Transl.)*, 1975, **30**, 1883.Kosenko, N.F. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2245.**Semimethylxylenol blue****S-00012**

N-(Carboxymethyl)-N-[[2-hydroxy-5-[3-[4-hydroxy-2,5-dimethylphenyl]-3H-2,1-benzoxathiol-3-yl]-3,6-dimethylphenyl]methyl]glycine S,S-dioxide, 9CI

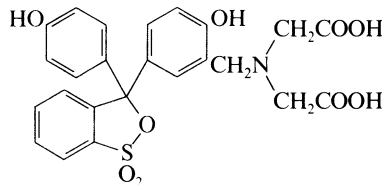
[35777-93-6]

 $C_{28}H_{29}NO_9S$ M 555.604

Used as 0.05% aq. soln. for photometric detn. of Bi (λ_{max} 570 nm, ϵ 34300), Pd, Fe(III), Al. Violet cryst. powder. Sol. H_2O ; sl. sol. EtOH.

Ueda, J. *et al*, *Bull. Chem. Soc. Jpn.*, 1978, **51**, 773; 1983, **56**, 1968 (*synth, detn, Al, Fe, Pd, Bi*)**Semiphthalexon S****S-00013**

N-(Carboxymethyl)-N-[[2-hydroxy-5-[3-(4-hydroxyphenyl)-3H-2,1-benzoxathiol-3-yl]phenyl]methyl]glycine S,S-dioxide, 9CI

 $C_{24}H_{21}NO_9S$ M 499.497

Strictly, the name Semiphthalexon S applies to the disodium salt.

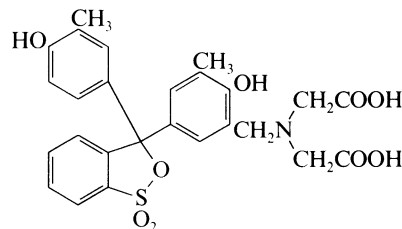
Di-Na salt: [34958-52-6].

Used as 1mM aq. soln. for photometric detn. of rare earth elements, Pr (ϵ 56000). Brown cryst. powder. Sol. H_2O , EtOH.

Koroleva, G.N. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 1133 (*detn, rare earths*)Kirillov, A.I. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1796 (*detn, rare earths*)**Semixylenol orange****S-00014**

N-(Carboxymethyl)-N-[[2-hydroxy-5-[3-(4-hydroxy-3-methylphenyl)-3H-2,1-benzoxathiol-3-yl]-3-methylphenyl]methyl]glycine S,S-dioxide, 9CI

[19329-67-0]

 $C_{26}H_{25}NO_9S$ M 527.551

Used as EtOH soln. for photometric detn. of Zr (λ_{max} 533nm, ϵ 59000). Red cryst. powder. Sol. H_2O , alkalis; sl. sol. EtOH. pK_{a5} 2.60; pK_{a7} 7.47; pK_{a8} 10.9 (25°, $\mu = 1$).

Olson, D.C. *et al*, *Anal. Chem.*, 1962, **34**, 1299 (*detn, Zr*)Murakami, M. *et al*, *Talanta*, 1967, **14**, 1293 (*synth*)**Sodium tetraphenylborate(III)****S-00015**

Tetraphenylboron sodium. Tetraphenylborate(I-), sodium salt, 8CI. Kalignost

[143-66-8]

 $C_{24}H_{20}BNa$ M 342.223

Synth. by reaction of BF_3 and $PhMgBr$ in THF, followed by addition of NaCl. Commercially available. Reagent for the detn. of univalent inorg. as well as org. cations. Used as 1% soln. in 0.01M NaOH for gravimetric detn. of K; indirect volumetric detn. of K. Derivatizing agent used in gc detn. of Hg^{2+} . Needles. Sol. H_2O , EtOH. Mp > 300°.

▷ Irritant.

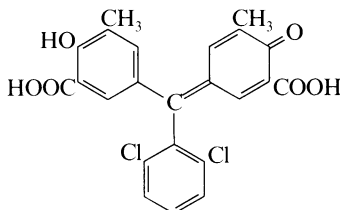
Flaschka, H., *Fresenius' Z. Anal. Chem.*, 1952, **136**, 99 (*detn, K*)Sporek, K. *et al*, *Analyst (London)*, 1955, **80**, 347 (*detn, K*)Cluley, H.J., *Analyst (London)*, 1955, **80**, 355 (*detn, K*)Holzapfel, H. *et al*, *J. Prakt. Chem.*, 1964, **26**, 15 (*synth*)Angelelli, J.M. *et al*, *J. Am. Chem. Soc.*, 1969, **91**, 4500 (*ir*)

Luckow, V. *et al.*, *J. Chromatogr.*, 1978, **150**, 187 (*detn.*, Hg²⁺)
 Popovych, O., *Solubility Data Ser.*, 1981, **18**, 3 (*soly*)
 Saski, Y. *et al.*, *Tokyo Kogei Daigaku Kogakubu Kiyō*, 1982, **5**, 39;
C.A., 1983, **99**, 22534 (*pmr.*, B-11 *nmr.*, *cmr*)
 Schaedler, H.D. *et al.*, *Z. Chem.*, 1984, **24**, 407 (*Na-23 nmr*)
 Tabeta, R. *et al.*, *Bull. Chem. Soc. Jpn.*, 1986, **59**, 1957 (*Na-23 nmr*)

Solochrome azurine BS**S-00016**

5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)
 (2,6-dichlorophenyl)methyl]-2-hydroxy-3-methylbenzoic acid,
 9CI. Pontachrome azure blue B. Chrome fast pure blue B.
 C.I. 43830. C.I. Mordant blue I. Eriochrome azurol B. Acid
 chrome pure blue

[15012-28-9]

C₂₃H₁₆Cl₂O₆ M 459.281

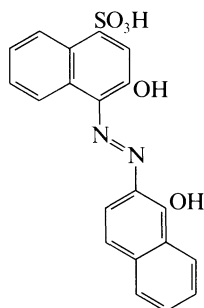
Used as 1mM aq. soln. for photometric detn. of Ga (λ_{\max}
 680nm, ϵ 140000), Al, Ce, Be, Th, U, Pd;
 complexometric indicator. Cryst. (MeOH). Sol. H₂O.

[1796-92-5]

Sharma, C.L. *et al.*, *Fresenius' Z. Anal. Chem.*, 1971, **255**, 368;
 1972, **260**, 30 (*detn.*, Fe)
 Uesugi, K. *et al.*, *Anal. Chim. Acta*, 1972, **60**, 79 (*detn.*, Pd)
 Sharma, C.L. *et al.*, *Indian J. Chem.*, 1972, **10**, 744 (*detn.*, Al, Ce,
 U)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 336.
 Feigl, F. *et al.*, *Spot Tests in Inorganic Analysis*, Elsevier,
 Amsterdam, 1972.
 Uesugi, K. *et al.*, *Talanta*, 1977, **24**, 391 (*detn.*, Pd)
 Martine, C. *et al.*, *Mikrochim. Acta*, 1985, **2**, 223 (*detn.*, Al)

Solochrome black 6BN**S-00017**

3-Hydroxy-4-[(1-hydroxy-2-naphthalenyl)azo]-1-
 naphthalenesulfonic acid, 9CI. 1',2'-Dihydroxy-1,2'-
 azonaphthalene-4-sulfonic acid. Eriochrome blue black B.
 C.I. Mordant black 3. C.I. 14640

C₂₀H₁₄N₂O₇S M 394.407

Strictly, the name Solochrome black 6BN applies to the
 sodium salt.

Na salt: [3564-14-5].

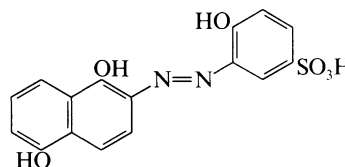
Used as 0.5% soln. in aq. EtOH for photometric detn.
 of U, Th; as 0.5% MeOH soln. for photometric detn. of
 Mg. Bluish black cryst. powder. Sol. H₂O, EtOH,
 Me₂CO. λ_{\max} 528 nm.

▷ QK2195000.

Korkisch, J. *et al.*, *Mikrochim. Acta*, 1961, 537 (*detn.*, Th)
 Janauer, G.E. *et al.*, *Talanta*, 1962, **9**, detn. 427 (*detn.*, U)
 Slegers, G. *et al.*, *Analyst (London)*, 1974, **99**, 471 (*detn.*, Mg)

Solochrome black PV**S-00018**

3-[(1,5-Dihydroxy-2-naphthalenyl)azo]-4-
 hydroxybenzenesulfonic acid, 9CI. Diamond black PV. C.I.
 Mordant black 9. C.I. 16500. Eriochrome black PV. Omega
 chrome black PV. Calcochrome black PV. Chrome black
 PV. Chrome fast black PV

C₁₆H₁₂N₂O₆S M 360.347

Strictly, the name Solochrome black PV applies to the
 sodium salt. pK_{a1} 4.1; pK_{a2} 7.0; pK_{a3} 11.0.

Na salt: [2052-25-7].

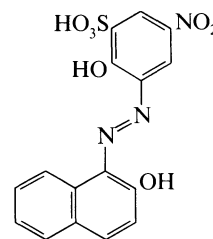
Used as 0.1% aq. soln. as a metal indicator in
 chelatometry and titrimetric detn. of Ca, Mg, Cd, Fe,
 Mn, Pb, Zn; photometric detn. of Mg. Black cryst.
 powder. Sol. H₂O; mod. sol. ethoxyethanol; sl. sol.
 EtOH.

Belcher, R., *Chemist-Analyst*, 1958, **437**, 2 (*use*)
 Budesinsky, B., *Collect. Czech. Chem. Commun.*, 1958, **23**, 895
 (*use*)
 Khalifa, H. *et al.*, *Fresenius' Z. Anal. Chem.*, 1961, **183**, 108, 241;
 1961, **184**, 11 (*detn.*, Mg, Cd, Mn, Zn, *pKa*)
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)
 Woodward, C. *et al.*, *Talanta*, 1973, **20**, 417 (*use*)

Solochrome fast grey RA**S-00019**

2-Hydroxy-3-[(2-hydroxy-1-naphthalenyl)azo]-5-
 nitrobenzenesulfonic acid, 9CI. Solochrome black RN.
 Nitromagneson. Galumofluorine

[25926-45-8]

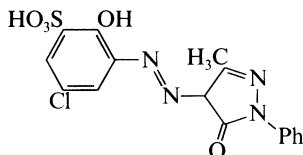
C₁₆H₁₁N₃O₇S M 389.345

Used as 0.1% aq. soln. for photometric detn. of U, Th, V,
 Cu (λ_{\max} 555 nm), Bi (λ_{\max} 570 nm); as 0.1% Me₂CO
 aq. soln. for extraction-fluorimetric detn. of Al. Bluish
 black cryst. powder. Sol. H₂O; mod. sol. EtOH.

Khalifa, H., *Anal. Chim. Acta*, 1957, **17**, 318 (*detn.*, Bi)
 Khalifa, H., *Fresenius' Z. Anal. Chem.*, 1957, **158**, 103 (*detn.*, Cu)
 Korkisch, J., *Fresenius' Z. Anal. Chem.*, 1961, **182**, 253 (*detn.*, U,
 Th)
 Janauer, G.E. *et al.*, *Mikrochim. Acta*, 1961, 599 (*detn.*, V)
 Khalifa, H. *et al.*, *Microchem. J.*, 1972, **17**, 266; 1973, **18**, 617
 (*detn.*, Cu)
 Savvin, S.B. *et al.*, *Zh. Anal. Khim.*, 1981, **36**, 1945 (*synth.*, *detn.*, Al)

Solochrome fast red**S-00020**

5-Chloro-3-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]-2-hydroxybenzenesulfonic acid. C.I. Mordant red 19. C.I. 18735



$C_{16}H_{13}ClN_4O_5S$ M 408.821

Strictly, the name Solochrome fast red applies to the sodium salt.

Na salt: [1934-24-3].

Used as 0.25% MeOH soln. for photometric detn. of Th, U(VI); as a 0.1% aq. soln. as metallochromic indicator for titrimetric detn. of Mg. Bright red cryst. powder. Sol. H₂O, MeOH, Me₂CO, EtOH; insol. C₆H₆, CHCl₃. λ_{max} 713 nm.

Belcher, R. *et al*, *Chemist-Analyst*, 1958, **47**, 2 (*detn. Mg*)

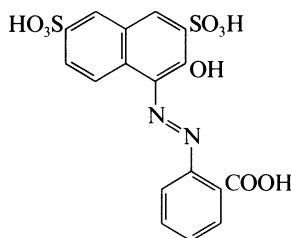
Korkisch, J. *et al*, *Anal. Chem.*, 1961, **33**, 1930 (*detn. Th*)

Janauer, G.E. *et al*, *Talanta*, 1962, **9**, 427 (*detn. Th, U*)

Solochrome red B**S-00021**

2-[(2-Hydroxy-3,6-disulfo-1-naphthalenyl)azo]benzoic acid, 9CI. 4-(2-Carboxyphenylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid. C.I. Mordant red 9. C.I. 16105. Alizarine red B. Eriochrome red P.E.. Resamine pink 5B. Siloton red 3B. Versal scarlet 3BBA. Numerous other proprietary names

[10261-17-3]



$C_{17}H_{12}N_2O_9S_2$ M 452.422

Strictly, the name Solochrome red B applies to the trisodium salt. Used as a 0.1% aq. soln. as metallochromic indicator for titrimetric detn. of Cu. Cryst. Sol. H₂O, EtOH, Me₂CO, acids; insol. C₆H₆, CHCl₃, toluene.

Tri-Na salt: [1836-22-2].

Used as 1mM aq. soln. for photometric detn. of Co (λ_{max} 495 nm); as 0.01% soln. in EtOH to give colour reaction with Pd. Bluish red cryst. powder. Sol. H₂O; sl. sol. EtOH, Me₂CO.

▷ QJ6402600.

Belcher, R. *et al*, *Chemist-Analyst*, 1957, **46**, 86 (*use*)

Popa, G. *et al*, *Zh. Anal. Khim.*, 1959, **14**, 322 (*use*)

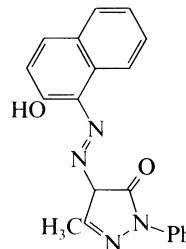
Colour Index, 3rd Edn., 1971, **4**, 4091 (*synth*)

Elsirafy, A.A., *Fresenius' Z. Anal. Chem.*, 1980, **301**, 26 (*detn. Co*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CMG750.

Solochrome red ERS**S-00022**

2,4-Dihydro-4-[(2-hydroxy-1-naphthalenyl)azo]-5-methyl-2-phenyl-3H-pyrazol-3-one, 9CI
[15073-39-9]



$C_{20}H_{16}N_4O_2$ M 344.372

Used as 0.1% EtOH soln. for fluorimetric detn. of Ga; photometric detn. of Ni, V. Dark red cryst. Sol. EtOH; sl. sol. H₂O.

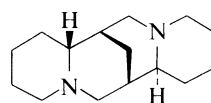
Ladenbauer, I.M. *et al*, *Mikrochim. Acta*, 1955, 1076 (*detn. Ga*)

Janauer, G.E., *Fresenius' Z. Anal. Chem.*, 1960, **177**, 407; 1961,

179, 241 (*detn. Ni, V*)

Sparteine, INN**S-00023**

Dodecahydro-7,14-methano-2H,6H-dipyrido[1,2-a:1',2'-e]diazocine, 9CI



(-)-form
Absolute
configuration

$C_{15}H_{26}N_2$ M 234.384

(+)-form [492-08-0]

Pachycarpine

Alkaloid from several genera of the family Leguminosae, subfamily Faboideae, notably *Lupinus pusillus*, *Cytisus caucasicus* and *Baptisia* spp., also from *Genista monosperma*, *Pelargonium (Horea) acutifolia*, *P. longifolia*, *Sophora pachycarpa* and *Ammodendron* spp. (Leguminosae). Used as 1% aq. soln. of iodide for extraction-photometric detn. of Ti (λ_{max} 390 nm, ϵ 10300, CHCl₃). Bp₈ 173-174°. [α]_D +17.1° (EtOH). n_D^{20} 1.5312.

▷ Highly toxic. RT0620000.

B.HClO₄: Plates (EtOH). Mp 171-172°.

Dipicrate: Cryst. (EtOH/Me₂CO). Mp 205-206°.

N¹⁶-Oxide: [30301-23-6]. *Pachycarpine N¹⁶-oxide*

$C_{15}H_{26}N_2O$ M 250.383

Alkaloid from *Ammodendron karelinii* (Leguminosae).

Cryst. (Me₂CO). Mp 153-154°.

(-)-form [90-39-1]

Lupinidine

Alkaloid from several genera of the family Leguminosae, subfamily Faboideae, notably many *Lupinus* and *Adenocarpus* spp., also *Piptanthus nanus*, *Sarothamnus* spp. *Chamaecytisus* spp. Oxytocic agent, has been used in treatment of cardiac insufficiency. Used mainly as sulfate used in chiral catalyst systems. Useful complexing agent for metals ions. Liq. Bp₁₈ 181°. [α]_D -17.0° (EtOH). pK_{a1} 11.96; pK_{a2} 4.80 (15°). n_D^{19} 1.5289. This is the commonest form, frequently referred to as just Sparteine.

▷ WG5950000.

B.2HBr: Mp 194-195°.

B.2HI: Mp 257-258°.

B.H₂SO₄: [299-39-8]. *Sparteine sulfate, USAN. Numerous proprietary names*

Oxytotic agent. Cryst. + 5H₂O. Dec. at 136°.
▷ WG6430000.

Dipicrate: Mp 208°, Mp 205-206°.

B,MeI: Mp 239-240°.

(±)-form [4985-24-4]

Alkaloid from *C. proliferus* and *A. hispanicus* (Leguminosae). Liq. Bp₁ 119-121°. n_D^{20} 1.5223.

B,HClO₄: Mp 131-133°.

Dipicrate: Mp 208°.

[6160-12-9]

Stenhouse, J., *Justus Liebigs Ann. Chem.*, 1858, **78**, 1 (*isol*)

Clemo, G.R. *et al*, *J. Chem. Soc.*, 1933, 644; 1949, 663 (*struct*)

Jaretsky, R. *et al*, *Arch. Pharm. (Weinheim, Ger.)*, 1934, **272**, 152 (*occur*)

Leonard, N.J. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 1316 (*ir, synth, rev, resoln*)

Anet, E. *et al*, *Nature (London)*, 1950, **165**, 35 (*synth*)

Okuda, S. *et al*, *Chem. Ind. (London)*, 1961, 1116 (*abs config*)

van Tamelen, E.E. *et al*, *J. Am. Chem. Soc.*, 1969, **91**, 7372 (*synth*)

Vard, A.G., *CA*, 1970, **76**, 121173m (*use*)

Cannon, J.R. *et al*, *Aust. J. Chem.*, 1971, **24**, 1537 (*isol*)

Binnig, F. *et al*, *Arzneim.-Forsch.*, 1974, **24**, 752, 753 (*pharmacol*)

Klyne, W. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1974, 2565 (*cd*)

Nakano, T. *et al*, *J. Org. Chem.*, 1974, **39**, 3584 (*ms*)

Bohlmann, F. *et al*, *Chem. Ber.*, 1975, **108**, 1043 (*cmr*)

Kushmuradov, Yu.K. *et al*, *Khim. Prir. Soedin.*, 1977, **13**, 717;

Chem. Nat. Compd. (Engl. Transl.), 604 (*oxide*)

Fanso-Free, S.N.Y. *et al*, *J. Am. Chem. Soc.*, 1979, **101**, 1549 (*N nmr, conformn*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 13264.

Golebiewski, W.M. *et al*, *J. Chem. Soc., Chem. Commun.*, 1983, 1509 (*biosynth*)

Eichelbaum, M. *et al*, *Xenobiotica*, 1986, **16**, 465 (*rev, metab*)

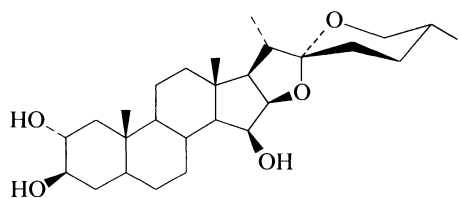
Takatsu, N. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 4990 (*synth*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 3779.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PAB250, SKX500, SKX750.

Spirostane-2,3,15-triol

S-00024



C₂₇H₄₄O₅ M 448.642

(2 α ,3 β ,5 α ,15 β ,25R)-form [511-34-2] **Digitogenin**

Aglycone from *Digitalis purpurea*, also occurring in free state. Also in *D. lanata*, *D. ciliata* and *Cestrum parqui*.

Needles (MeOH). Mp 296° (280-283°). $[\alpha]_D^{19}$ -81° (CHCl₃).

3-O-[β -D-Glucopyranosyl-(1 \rightarrow 3)- β -D-galactopyranosyl-(1 \rightarrow 2)-[β -D-xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)- β -D-galactopyranoside]: [11024-24-1]. **Digitonin**

C₅₆H₉₂O₂₉ M 1229.325

Constit. of *D. purpurea* and other *D. spp.* Used as an aq. soln. for detn. of cholesterol. Cryst. (EtOH). Mp 235-240°. $[\alpha]_D$ -54.3° (MeOH). Forms 1:1 insol. complex with cholesterol.

▷ IH2050050.

3-O-[β -D-Galactopyranosyl-(1 \rightarrow 2)-[β -D-xylopyranosyl-(1 \rightarrow 3)]-O- β -D-glucopyranosyl-(1 \rightarrow 4)- β -D-galactopyranoside]: **Desglucodigitonin**

C₅₀H₈₂O₂₄ M 1067.183

Isol. from seeds and leaves of *D. lanata*. Fine needles + 2H₂O (1-butanol aq.). Mp 243-245°. $[\alpha]_D^{20}$ -71.4° (c, 0.28 in Py).

(2 α ,3 β ,5 α ,15 β ,25S)-form

Neodigitogenin

From *D. purpurea*. Cryst. (MeOH). Mp 277-279°. $[\alpha]_D$ -82° (Py).

2,3-Di-Ac:

C₃₁H₄₈O₇ M 532.716

Mp 229-232°. $[\alpha]_D$ -114° (CHCl₃).

Klass, D.L. *et al*, *J. Am. Chem. Soc.*, 1955, **77**, 3829

(*Neodigitogenin*)

Sato, D. *et al*, *CA*, 1956, **50**, 17331 (*isol*)

Djerassi, C. *et al*, *J. Am. Chem. Soc.*, 1956, **78**, 3166 (*struct*)

Tschesche, R. *et al*, *Tetrahedron*, 1962, **18**, 959 (*isol*)

Tschesche, R. *et al*, *Tetrahedron*, 1963, **19**, 621 (*struct, Digitonin*)

Kawasaki, T. *et al*, *Chem. Pharm. Bull.*, 1964, **12**, 1250

(*Desglucodigitonin*)

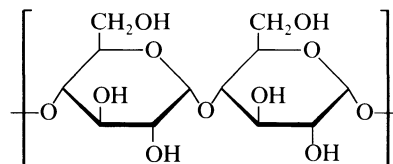
Ellnain-Wojtasze, K.M. *et al*, *Herba Pol.*, 1976, **22**, 28 (*isol*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DKL400.

Starch, 9CI, 8CI

S-00025

Amylum



C₆H₁₀O₅ M 162.142

Starch is composed of Amylose and Amylopectin.

Amylose is preponderantly a linear polymer of several thousand D-glucose units mainly α -(1 \rightarrow 4) linked.

Amylopectin is a branched polymer composed largely of α -D-(1 \rightarrow 4)-linked glucose units. The branch is α -(1 \rightarrow 6) and occurs at the 6 position every 20-25 glucose units. Pullulanase, R-enzyme and Isoamylase hydrol. the α -D-(1 \rightarrow 6) linkages. Polymeric. Minimum formula given.

Unbranched-form [9005-82-7]

Amylose

Stored in all parts of plants as insol. granules. Coml. starches come mainly from corn (maize), sorghum grains, tapioca root and potato tuber. Most starch samples contain 20 \pm 5% Amylose which can be pptd. from aq. starch soln. with, e.g., Thymol. Used in particulate form as a dusting powder, as a gelling agent in processed foods, as a flocculant and pigment retainer in paper manuf. and in dried film form for sizing paper and textiles. Pharmaceutical aid. Used in photometric detn. of I₂; as an indicator in iodometry. $[\alpha]_D$ +200° (H₂O), $[\alpha]_D$ +162° (1M NaOH), $[\alpha]_D$ +175° (DMSO). Hydrol. by acid, α -Amylase and β -Amylase. Forms inclusion complexes, gives a deep-blue colour with I₂.

Branched-form [9037-22-3]

Amylopectin

$[\alpha]_D$ +200° (H₂O), $[\alpha]_D$ +163° (1M NaOH).

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, NY, 1948, **4** (*use*)

Whistler, R.L. *et al*, *Methods Carbohydr. Chem.*, 1964, **4**, 3.

Greenwood, C.T., *The Carbohydrates*, Academic Press, 1970, **2B**, 471.

St. Jacques, M. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 4386 (*pmr*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 1641.

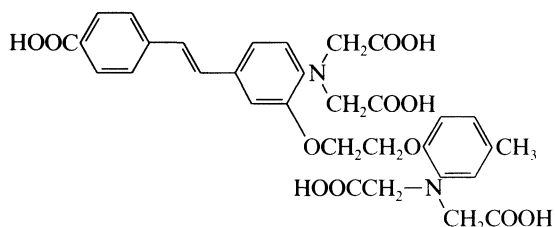
Whistler, R.L. *et al*, *Starch: Chem. Technol.*, 2nd Ed., Academic Press, 1984.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Ellis Horwood, Chichester, 1986, 316.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SLJ500.

Stil 1

S-00026

4-[2-[4-[Bis(carboxymethyl)amino]-3-[2-[2-[bis(carboxymethyl)amino]-5-methylphenoxy]ethoxy]phenyl]ethenyl]benzoic acid, 9CI
 [96314-94-2]

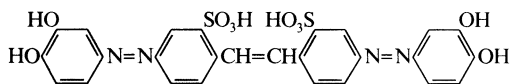


$C_{32}H_{32}N_2O_{12}$ M 636.611
 Fluorescent indicator for intracellular Ca.
 Grynkiewicz, G. *et al*, *J. Biol. Chem.*, 1985, **260**, 3440 (synth)

Stilbazo

S-00027

4,4'-Bis[(3,4-dihydroxyphenyl)azo]-2,2'-stilbenedisulfonic acid, 8CI. 2,2'-(Ethenediyl)bis[5-[(3,4-dihydroxyphenyl)azo]benzenesulfonic acid], 9CI

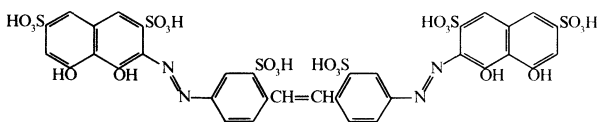


$C_{26}H_{20}N_4O_{10}S_2$ M 612.597
 Strictly, the name Stilbazo applies to the diammonium salt.
Di-NH₄ salt: [1571-36-4].
 Used as 0.012% aq. soln. for photometric detn. of Al (λ_{max} 500 nm, ϵ 19500). Dark brown cryst. Sol. H₂O.
 Kuznetsov, V.I. *et al*, *Zavod. Lab.*, 1950, **16**, 787 (synth, Al)
 Wetlesen, C.U. *et al*, *Anal. Chim. Acta*, 1961, **24**, 294 (Al)

Stilbazochrome

S-00028

3,3'-[1,2-Ethenediylbis[(3-sulfo-4,1-phenylene)azo]]bis[4,5-dihydroxy-2,7-naphthalenedisulfonic acid], 9CI
 [3691-70-1]

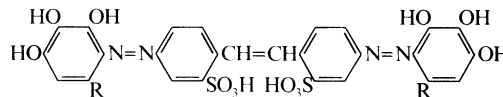


$C_{34}H_{24}N_4O_{22}S_6$ M 1032.973
 Used as 0.1M aq. soln. for photometric detn. of Sc (λ_{max} 660 nm, ϵ 23000), Al. Cryst. (EtOH). Sol. H₂O, EtOH.
 Cherkesov, A.I., *Zh. Anal. Khim.*, 1964, **19**, 943, 1067 (synth, use)
 Cherkesov, A.I., *Zavod. Lab.*, 1968, **34**, 786 (synth, use)

Stilbazogall I

S-00029

2,2'-(1,2-Ethenediyl)bis[5-[2,3,4-trihydroxyphenylazo]benzenesulfonic acid], 9CI
 [3937-33-5]



R = H

$C_{26}H_{20}N_4O_{12}S_2$ M 644.596
 Used as 0.1mM aq. soln. for photometric detn. of Al (λ_{max} 490 nm, ϵ 31000), Zr (λ_{max} 500 nm, ϵ 27000). W. Dark brown cryst. powder. Sol. H₂O, EtOH, MeOH.
 Cherkesov, A.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 665 (synth, detn, Zr)
 Ishii, H. *et al*, *Bull. Chem. Soc. Jpn.*, 1966, **39**, 193 (detn, W)
 Elinson, S.V. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 718 (detn, Al)

Stilbazogall II

S-00030

2,2'-[1,2-Ethenediylbis[(3-sulfo-4,1-phenylene)azo]]bis[3,4,5-trihydroxybenzoic acid], 9CI
 [1793-80-2]

As Stilbazogall I. S-00029 with

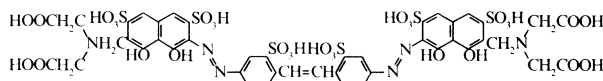
R = COOH

$C_{28}H_{20}N_4O_{16}S_2$ M 732.615
 Used as 0.1mM aq. soln. for photometric detn. of Zr (λ_{max} 510 nm, ϵ 13000). Dark brown cryst. powder. Sol. H₂O, EtOH, MeOH.
 Cherkesov, A.I. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 665 (synth, detn, Zr)

Stilbazokhimdu

S-00031

N,N'-[1,2-Ethenediylbis[(3-sulfo-4,1-phenylene)azo](1,8-dihydroxy-3,6-disulfo-7,2-naphthalenediyl)methylene]]bis[N-(carboxymethyl)glycine], 9CI. Stilazokhimdu
 [31950-08-0]

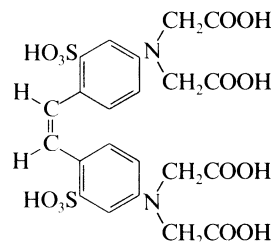


$C_{44}H_{38}N_6O_{30}S_6$ M 1323.202
 Used as 0.1mM aq. soln. for photometric detn. of Sc and Y-subgroup elements. Brown cryst. powder. Sol. H₂O, EtOH.
 Akhmedii, M.K. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 194 (synth, use)

Stilbexon

S-00032

[Vinylenebis[(3-sulfo-p-phenylene)nitri]]tetraacetic acid, 8CI. 4,4'-Bis[N,N-di(carboxymethyl)amino]stilbene-2,2'-disulfonic acid
 [3983-25-3]



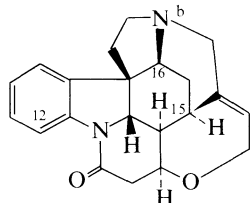
$C_{22}H_{22}N_2O_{14}S_2$ M 602.553

Used as aq. soln. as a fluorescence acid-base indicator (pH 13-14; colour change blue → yellow). Cryst. Sol. H₂O.

Temkina, V.Ya. *et al*, *CA*, 1967, **69**, 86967e (*use*)

Strychnine, 8CI**S-00033***Strychnidin-10-one, 9CI*

[57-24-9]



Absolute
configuration

C₂₁H₂₂N₂O₂ M 334.417

Alkaloid from the seeds of *Strychnos nux-vomica*, from *S. wallichiana* and from very many other *S. spp.* Bark of *S. icaja* is richest known source (6.6%) (Strychnaceae). Violent tetanic poison, employed comly. in vermin killers. Small doses used as tonics. Use as animal poison prohibited in UK, pharmaceutical use essentially obsolete. Important tool in neurophysiological research. CNS stimulant. Convulsant. Cholinesterase inhibitor. Tonic. Used as 2% aq. soln. for photometric detn. of PO₄³⁻, NO₂⁻, NO₃⁻. Mp 270-271° (slow heat), Mp 275-285°, Mp 286-288°. [α]_D¹⁸ –139° (CHCl₃), [α]_D –104° (EtOH). p*K*_{a1} 8.0; p*K*_{a2} 2.3 (20°). Readily forms crystalline chloromethochloride artifacts when CHCl₃ or CH₂Cl₂ is used in isoln.

▷ Poisonous. Antidote: barbiturates. LD₅₀ 2mg/kg (mouse, oral). WL2275000.

B₂, H₂SO₄: [60-41-3].Cryst. + 5H₂O. Mp 200° (anhyd.).

▷ WL2550000.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, NY, 1948, **4**, 259 (*use*)Robinson, R., *Prog. Org. Chem.*, 1952, **1**, 1 (*rev. struct*)Peerdeman, A.F., *Acta Crystallogr.*, 1956, **9**, 824 (*cryst struct*)Woodward, R.B. *et al*, *Tetrahedron*, 1963, **19**, 247 (*synth*)Hesse, M. *et al*, *Helv. Chim. Acta*, 1965, **48**, 674 (*ms*)Heimberger, S.I. *et al*, *J. Chem. Soc., Chem. Commun.*, 1973, 217 (*biosynth*)Snow, J.W. *et al*, *Can. J. Chem.*, 1978, **56**, 1222 (*uv, cd*)Wenkert, E. *et al*, *J. Org. Chem.*, 1978, **43**, 1099 (*pmr, cmr*)Chazin, W.J. *et al*, *Can. J. Chem.*, 1983, **61**, 1749 (*pmr*)Mostad, A. *et al*, *Acta Chem. Scand., Ser. B*, 1985, **39**, 705 (*cryst struct*)Glover, S.S.C. *et al*, *Acta Crystallogr., Sect. C*, 1985, **41**, 990 (*cryst struct*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SMN500, SMP000.**Succinic acid, 8CI****S-00034***Butanedioic acid, 9CI. Ethane-1,2-dicarboxylic acid.**Wormwood acid*

[110-15-6]

C₄H₆O₄ M 118.089

Widely distributed in higher plants and prod. by microorganisms. Used in the food industry and in lacquers and photography. Used as aq. soln. for gravimetric detn. of Fe(III), Al. Prisms (H₂O). Mp 184-185°. p*K*_{a1} 4.22; p*K*_{a2} 5.70 (25°, H₂O).

▷ WM4900000.

Di-Me ester: [3878-55-5]. *Dimethyl succinate. Methyl succinate*

C₆H₁₀O₄ M 146.143Liq. d₄¹⁸ 1.120. Mp 19°. Bp 200°, Bp₁₁ 80°.

Di-Et ester: [123-25-1]. *Diethyl succinate. Ethyl succinate*

C₈H₁₄O₄ M 174.196Flavour ingredient. Mp –21°. Bp 217.7°, Bp₁₅ 105°.

▷ WM7400000.

Di-tert-Butyl ester: [926-26-1].

C₁₂H₂₂O₄ M 230.303

Sterically-hindered reagent for use in Stobbe condensations.

Monoamide: [638-32-4]. *4-Amino-4-oxobutanoic acid, 9CI.*

*Succinamic acid, 8CI. Succinic acid monoamide*C₄H₇NO₃ M 117.104

Needles (Me₂CO). Mod. sol. H₂O; spar. sol. EtOH. Mp 157°. p*K*_{a1} 4.57 (19°).

Monoamide, N-hydroxy: [4743-99-1]. *N-Hydroxysuccinamic acid*

C₄H₇NO₄ M 133.104

Used as a 5% aq. soln. of di-K salt for photometric detn. of Fe, Mn, Ti, V. Cryst. (H₂O) (as di-K salt).

Diamide: [110-14-5]. *Succinamide, 8CI. Butanediamide, 9CI.*

*Succinic acid diamide*C₄H₈N₂O₂ M 116.119Needles (H₂O). Mp 242°.

Bis(dimethylamide): [7334-51-2]. *Tetramethylsuccinamide*

C₈H₁₆N₂O₂ M 172.227

Reacts with organolithium compds. to give 1,4-diketones. Mp 81-82°.

Imide: see 2,5-Pyrrolidinedione, P-00442

Anhydride: see Dihydro-2,5-furandione, D-00405

Monothioamide: see 4-[(Aminothioxomethyl)amino]-4-oxobutanoic acid, A-00362

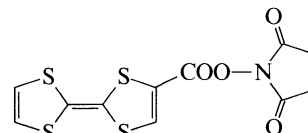
Morrell, G.F., *J. Chem. Soc.*, 1914, **105**, 2698 (*diamide*)Jeffery, G.H. *et al*, *J. Chem. Soc.*, 1934, 1101 (*monoamide*)Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **2**, 85 (*detn. Fe*)Hurd, C.D., *J. Org. Chem.*, 1953, **17**, 865 (*synth. amide, N-OH*)Weintraub, L. *et al*, *Chem. Ind. (London)*, 1965, 185 (*synth*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 212.Homes, J.L. *et al*, *Org. Mass Spectrom.*, 1970, **3**, 1505 (*ms*)Kantlehner, W. *et al*, *Chem. Ber.*, 1971, **104**, 3711.Bhargava, S.P. *et al*, *Fresenius' Z. Anal. Chem.*, 1971, **255**, 210 (*detn. Fe, Mn, Ti, V*)Machida, K. *et al*, *Spectrochim. Acta, Part A*, 1972, **28**, 235 (*ir, derivs*)McMurry, J.E. *et al*, *J. Org. Chem.*, 1975, **40**, 2556.Brockson, T.J. *et al*, *Synthesis*, 1975, 396.Cortese, N.A. *et al*, *J. Org. Chem.*, 1978, **43**, 3985.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SMY000, SNB000, SNE000, SNG000.

N*-Succinimidoyl tetrathiafulvalene-2-carboxylate*S-00035**

1-[[[2-(1,3-Dithiol-2-ylidene)-1,3-dithiol-4-yl]carbonyl]oxy]-2,5-pyrrolidinedione, 9CI

[137044-02-1]

C₁₁H₇NO₄S₄ M 345.445

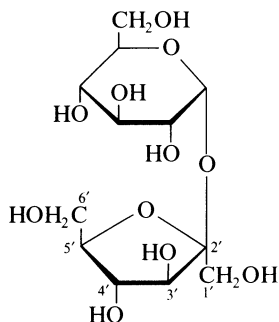
Derivatisation reagent for precolumn labelling of amines in hplc. Dark purple cryst. (C₆H₆).

Shimada, K. *et al*, *Chem. Pharm. Bull.*, 1991, **39**, 1897 (*synth. use*)

Sucrose, 9CI, 8CI

S-00036

β-D-Fructofuranosyl *α*-D-glucopyranoside, 9CI. Saccharose. Cane sugar. Beet sugar [57-50-1]



$C_{12}H_{22}O_{11}$ M 342.299

Widespread in seeds, leaves, fruits, flowers and roots of plants, where it functions as an energy store for metabolism and as a carbon source for biosynth. Annual world production is in excess of 90×10^6 tons mainly from the juice of sugar cane and sugar beet which contain respectively ~ 20% and ~ 17% of the sugar. Sweetening agent and food source assimilated by most organisms. Reference material used in elemental microanalysis. Cryst. (H₂O or EtOH). Mp 185-187°. $[\alpha]_D^{20} +66.5^\circ$ (H₂O). Does not reduce Fehling's soln., form an osazone or mutarotate. Hydrol. with invertase or acid gives D-glucose and D-fructose.

▷ WN6500000.

Octa-Ac:

$C_{28}H_{36}O_{19}$ M 678.597

Flavouring ingredient. Mp 69°. $[\alpha]_D^{20} +59.6^\circ$ (CHCl₃).

Octabenzoyl:

$C_{68}H_{54}O_{19}$ M 1175.163

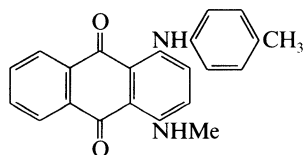
Mp 60-63°. $[\alpha]_D^{20} +32.6^\circ$ (CHCl₃).

Lemieux, R.U. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 4118 (*synth*)
 Van der Veen, J.M., *J. Org. Chem.*, 1963, **28**, 564 (*pmr*)
 Binkley, W.W. *et al*, *Carbohydr. Res.*, 1969, **10**, 245 (*pmr*)
 Kollonitsch, V., *Sucrose Chemicals*, Kline, The International Sugar Research Foundation, Washington, D.C., 1970 (*rev*)
 Allerhand, A. *et al*, *J. Am. Chem. Soc.*, 1971, **93**, 2777 (*cmr*)
Analyst (London), 1972, **97**, 740 (*microanal*)
 Hanson, J.C. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 797 (*cryst struct*)
 Khan, R., *Adv. Carbohydr. Chem. Biochem.*, 1976, **33**, 235 (*rev*)
 Pfeffer, P.E. *et al*, *J. Am. Chem. Soc.*, 1979, **107**, 1265 (*cmr*)
 Block, K. *et al*, *Carbohydr. Res.*, 1982, **100**, 63 (*conformn*)
 Hull, W.E., *Two-Dimensional NMR Brochure*, Bruker Analytische Messtechnik, Karlsruhe, 1982 (*pmr*)
 Card, P.J., *J. Am. Chem. Soc.*, 1984, **104**, 5348 (*1'-fluoro*)
 James, C.E. *et al*, *Fortschr. Chem. Org. Naturst.*, 1989, **55**, 117 (*rev*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SNH000.

Sudan blue GA

S-00037

1-(Methylamino)-4-[(4-methylphenyl)amino]-9,10-anthracenedione, 9CI. C.I. Solvent blue 11. 1-Methylamino-4-(p-toluidino)anthraquinone. Nitro fast blue 3GB. Oil blue GA. C.I. 61525 [128-85-8]



$C_{22}H_{18}N_2O_2$ M 342.396

Used as a 0.5% soln. in aq. EtOH as metallochromic indicator in titrimetric detn. of Ba, SO₄²⁻. Cryst. Sol. C₆H₆, toluene; sl. sol. Me₂CO, EtOH.

Mustafin, I.S. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1959, **2**, 493 (*detn. SO₄²⁻*)

Mustafin, I.S. *et al*, *CA*, 1960, **54**, 11856 (*detn. Ba*)

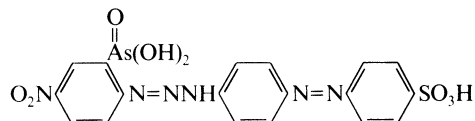
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Korolev, B.A. *et al*, *CA*, 1973, **79**, 6728w (*pKa, props*)

Sulfarsazen

S-00038

4-[[4-[3-(2-Arsono-4-nitrophenyl)-1-triazenyl]phenyl]azo] benzenesulfonic acid. Plumbon. Plumbon S. Plumbon IREA



$C_{18}H_{15}AsN_6O_8S$ M 550.339

Strictly, the name Sulfarsazen applies to the sodium salt.

Na salt: [1772-02-7].

Used as 1mM EtOH soln. for photometric detn. of Co, Zn, Pb, Ag, In; metallochromic indicator for titrimetric detn. of Cd, Ni, Pb, Zn. Brown-red cryst. Sol. EtOH, H₂O.

Tri-Na salt: Mp > 300°.

Lukin, A.M. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 295; 1962, **17**, 212 (*synth, detn, 212*)

Partashnikova, M.Z. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 313 (*titrim. Cd, Ni, Pb, Zn*)

Yamashige, T. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1979, **28**, 464 (*detn. Pb*)

Tananaiko, M.M. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1982, **48**, 505; 1983, **49**, 952 (*detn. Zn, Co*)

Pyatnitskii, I.V. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 815 (*detn. In*)

Sulfoacetic acid

S-00039

Sulfoethanoic acid

[123-43-3]

HOOCCH₂SO₃H

$C_2H_4O_5S$ M 140.117

Reagent for Liebermann-Burchard colorimetric test for steroids. Reaction catalyst. Hygroscopic cryst. + 1H₂O (H₂O). Mp 84-86°. Bp 245° dec. pK_{a2} 4.20 (25°).

▷ AJ4900000.

Py salt: [21372-73-6].

Mp 151-152°.

Carboxy-Et ester:

$C_4H_8O_5S$ M 168.170

Mp 175° (as K salt).

Di-Et ester:

$C_6H_{12}O_5S$ M 196.224

Bp_{0.5} 116°.

Dianilide:

$C_{14}H_{14}N_2O_3S$ M 290.342

Mp 150-151°.

[5462-60-2, 16697-66-8, 22128-42-3, 64707-21-7]

Folkers, K. *et al*, *J. Am. Chem. Soc.*, 1944, **66**, 1083 (*synth*)

Lehmann, J. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 4469.

Hoogenboom, B.E. *et al*, *J. Org. Chem.*, 1969, **34**, 3414 (*deriv*)

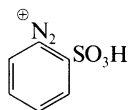
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 7.

Mao, J.C.H. *et al*, *Antimicrob. Agents Chemother.*, 1985, **27**, 197.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SNU000.

2-Sulfobenzediazonium(1+), 9CI

[32651-15-3]

C₆H₅N₂O₃S[⊕] M 185.183 (ion)

Hydroxide, inner salt: [612-31-7]. 2-

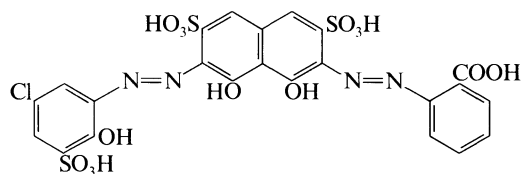
Diazoniumbenzenesulfonate. Diazotized orthanilic acid

C₆H₄N₂O₃S M 184.175

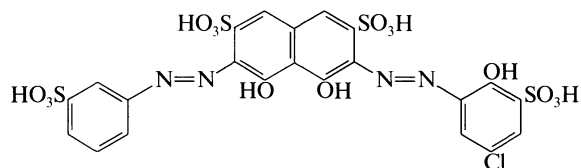
Used for spectrophotometric detn. of naphthols and oxines. Cryst. Mp 106° dec.

Sellers, C.F. *et al*, *J. Chem. Soc. C*, 1969, 2139 (*synth*)Amin, D. *et al*, *Microchem. J.*, 1986, **33**, 78 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BBO125.**S-00040**Used as 0.02% aq. soln. for photometric detn. of V(I) (λ_{\max} 627 nm, ϵ 31200). Brown-red cryst. powder. Sol. H₂O, EtOH.Zenki, M., *Analyst (London)*, 1979, **104**, 323 (*synth, detn, V*)**Sulfochlorophenol K****S-00041**

3-(2-Carboxyphenylazo)-6-(5-chloro-2-hydroxy-3-sulfophenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid. 2-[[7-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]]benzoic acid, 9CI [2103-67-5]

C₂₃H₁₅ClN₄O₁₄S₃ M 703.041Used as 0.05 or 0.1% aq. soln. for photometric detn. of Nb, Ba (λ_{\max} 650 nm, ϵ 32000), Ca (λ_{\max} 640 nm, ϵ 34000), Mg (λ_{\max} 640 nm, ϵ 33000). Dark red cryst. powder. Sol. H₂O; sl. sol. EtOH.Alimarin, I.P. *et al*, *Talanta*, 1968, **15**, 601 (*detn, Nb*)Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177 (*detn, Ba, Ca, Mg*)**Sulfochlorophenol M****S-00042**

3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI [14155-11-4]

C₂₂H₁₅ClN₄O₁₅S₄ M 739.095Used as 0.1% aq. soln. for photometric detn. of Nb (ϵ 43000). Dark red cryst. powder. Sol. H₂O; sl. sol. EtOH.Alimarin, I.P. *et al*, *Talanta*, 1966, **13**, 689; 1968, **15**, 601 (*detn, Nb*)**Sulfochlorophenol N****S-00043**

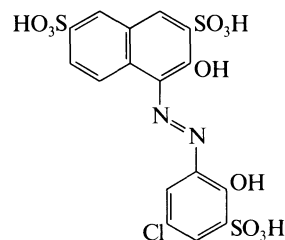
3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI [26069-57-8]

As Sulfochlorophenol K, S-00041 with

R¹ = R² = R⁴ = H, R³ = NO₂C₂₂H₁₄ClN₅O₁₄S₃ M 704.028**Sulfochlorophenol R****S-00044**

4-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, 9CI

[2103-74-4]

C₁₆H₁₁ClN₂O₁₁S₃ M 538.920Used as 0.05% aq. soln. for photometric detn. of Ga (λ_{\max} 570 nm, ϵ 12000), Sc; as 0.075mM aq. soln. as an indicator in complexometric titration of Ca (λ_{\max} 535 nm, pH 12). Red cryst. powder. Sol. H₂O, EtOH. pK_{a1} 5.96; pK_{a2} 12.5 (25°, μ = 1).Ryabchikov, D.I. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 1210 (*detn, Sc*)Ryabchikov, D.I. *et al*, *Zavod. Lab.*, 1965, **31**, 154 (*detn, Sc*)Salikhov, V.D. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 189 (*detn, Ga*)Nada, H., *Anal. Chim. Acta*, 1980, **121**, 265; 1983, **149**, 291 (*synth, detn, Ca*)**Sulfochlorophenol S****S-00045**

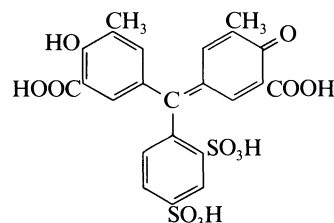
3,6-Bis[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, 9CI

[2103-73-3]

As Sulfochlorophenol K, S-00041 with

R¹ = OH, R² = SO₃H, R³ = H, R⁴ = ClC₂₂H₁₄Cl₂N₄O₁₆S₄ M 789.539Used as 0.1% aq. soln. for photometric detn. of Nb (ϵ 33000), Be, Sc, Mo, Zr. Dark red cryst. powder. Sol. H₂O.Dedkov, Yu.M. *et al*, *Zavod. Lab.*, 1964, **30**, 654 (*detn, Zr*)Ryabchikov, D.I. *et al*, *Zavod. Lab.*, 1965, **31**, 154 (*detn, Sc*)Alimarin, I.P. *et al*, *Talanta*, 1966, **13**, 689; 1968, **15**, 601 (*detn, Nb*)Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 2198 (*detn, Mo*)Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 90 (*detn, Be*)Onishi, H., *Photometric Determination of Traces of Metals, Part IIb: Individual Metals. Magnesium to Zinc*, John Wiley, New York, 1989, 161.**Sulfochrome****S-00046**

5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,4-disulfophenyl)methyl]-2-hydroxy-3-methylbenzoic acid

C₂₃H₁₈O₁₂S₂ M 550.520

Strictly, the name Sulfochrome applies to the diammonium salt.

Di-NH₄ salt: [25522-89-8].

$C_{23}H_{24}N_2O_{12}S_2$ M 584.581

Used as 0.5mM aq. soln. for photometric detn. of Al (ϵ 38000), Be, rare earth elements. Red cryst. powder (EtOH). Sol. EtOH, H₂O.

Petrova, G.S. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1332 (*detn.*, Al)

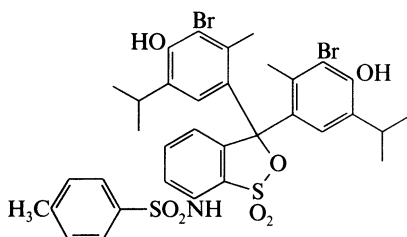
Bol'shakova, E.G. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 1956 (*detn.*, rare earth elements)

Arkhangel'skaya, *et al*, *Zavod. Lab.*, 1980, **46**, 883 (*detn.*, Be)

Sulfonamidebromothymol blue

S-00047

N-[3,3-Bis[3-bromo-4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-3H-2,1-benzoxathiole-7-yl]-4-methylbenzenesulfonamide S,S-dioxide
[134116-39-5]



$C_{34}H_{35}Br_2NO_7S_2$ M 793.593

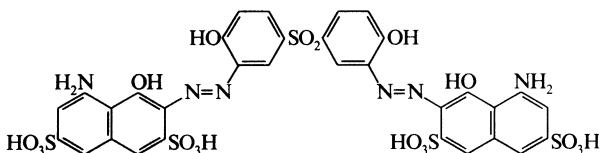
Used as EtOH soln. as an acid-base indicator (pH range 6.5-8.5; colour change yellow → blue). Cryst. Sol. EtOH. pK_{a1} 7.7.

Puschett, J.B. *et al*, *Talanta*, 1991, **38**, 335 (*synth.*, use)

Sulfonazo

S-00048

3,3'-[Sulfonylbis[(6-hydroxy-3,1-phenylene)azo]]bis[5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid], 9CI
[2103-68-6]



$C_{32}H_{24}N_6O_{18}S_5$ M 940.901

Used as 0.03% aq. soln. for photometric detn. of Sc (λ_{max} 575 nm, ϵ 11000). Brown cryst. powder. Sol. H₂O.

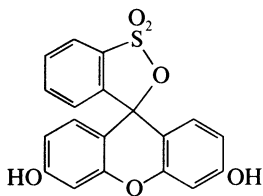
Brudz, V.G. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 568 (*detn.*, Sc)

Cherkesov, A.I. *et al*, *Zh. Anal. Khim.*, 1964, **19**, 1067 (*detn.*, Sc)

Sulfonefluorescein

S-00049

Spiro[3H-2,1-benzoxathiole-3,9'-[9H]xanthene]-3',6'-diol 1,1-dioxide, 9CI. Hydroquinolsulfonephthalein
[4424-03-7]



$C_{19}H_{12}O_6S$ M 368.366

Acid-base indicator (pH range: 4-6; colour change: brown → yellow). Used as a 0.01% aq. soln. Dark red plates. Sol. H₂O, EtOH. Mp > 300°. pK_{a1} 7.2.

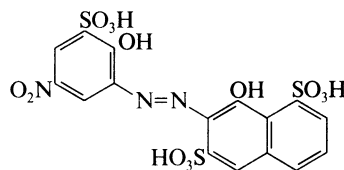
Orndorff, W.R. *et al*, *J. Am. Chem. Soc.*, 1928, **50**, 1730 (*synth.*, use)

Bishop, E., *Indicators*, Oxford, Pergamon, 1972 (*use*)

Sulfonitrazo

S-00050

8-Hydroxy-7-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1,6-naphthalenedisulfonic acid, 9CI. Sulfonitrazo E
[33683-76-0]



$C_{16}H_{11}N_3O_3S_3$ M 549.473

Used as 1mM (or 0.1%) aq. soln. for photometric detn. of Mo (λ_{max} 565 nm, ϵ 11900), V (λ_{max} 582 nm, ϵ 21100), Pd, Zr, Ti, Al (λ_{max} 560 nm, ϵ 26900), Ga (λ_{max} 560 nm, ϵ 32000), In (λ_{max} 560 nm, ϵ 27400). Red cryst. powder (conc. HCl). Sol. H₂O.

Barenbaum, M.E. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1967 (*synth.*, *detn.*, V)

Tiutiunnikova, P.D. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 508 (*detn.*, Al, Ga, In)

Polyak, L.Ya., *Zh. Anal. Khim.*, 1977, **32**, 278 (*detn.*, V)

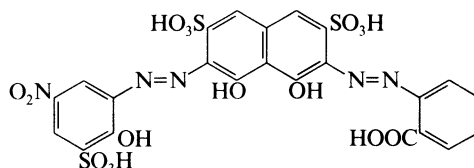
Orlova, E.S. *et al*, *Zh. Anal. Khim.*, 1983, **38**.

Ermolenko, L.V. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1030 (*synth.*, *detn.*, Al)

Sulfonitrophenol K

S-00051

2-[[1,8-Dihydroxy-7-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, 9CI. 3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(2-hydroxy-5-nitro-3-sulfophenylazo)-2,7-naphthalenedisulfonic acid
[20650-43-5]



$C_{23}H_{15}N_5O_{16}S_3$ M 713.593

Used as 0.05-0.1% aq. soln. for photometric detn. of Al (λ_{max} 640 nm, ϵ 47000), Ba (λ_{max} 640 nm, ϵ 31000), Ca (λ_{max} 640 nm, ϵ 37000), Ga (λ_{max} 650 nm, ϵ 36000), In (λ_{max} 650 nm, ϵ 37000), Mg (λ_{max} 645 nm, ϵ 44000), Pd (λ_{max} 620 nm, ϵ 70000), Mo (λ_{max} 535 nm, ϵ 50000), V (λ_{max} 645 nm, ϵ 55000). Dark red cryst. (EtOH aq.). Mod. sol. H₂O.

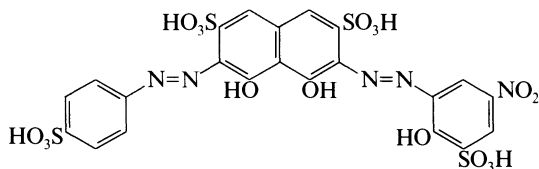
Savvin, S.B. *et al*, *Talanta*, 1969, **16**, 423 (*detn.*, Pd)

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 177; 1971, **26**, 532; 1972, **27**, 1972 (*detn.*, Ba, Ca, Mg, Mo, V)

Savvin, S.B. *et al*, *Organicheskiye Reagenty Gruppy Arsenazo III*, Atomizdat, Moscow, 1971 (*detn.*, Al, Ga, In)

Sulfonitrophenol M**S-00052**

4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 8CI
[26069-45-4]



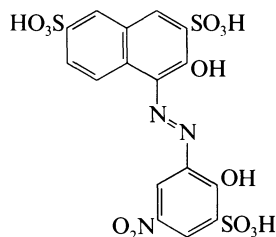
$C_{22}H_{15}N_5O_{17}S_4$ M 749.648

Used as 0.1% aq. soln. for photometric detn. of Nb (ϵ 53000), Pd (λ_{max} 625 nm, ϵ 80000), W, Pt, Cu, Pu(IV); extraction-photometric detn. of Cu. Red cryst. powder. Sol. H_2O .

Alimarin, I.P. *et al*, *Talanta*, 1968, **15**, 601 (detn, Nb)
Okhanova, L.A., *Zh. Anal. Khim.*, 1968, **23**, 1562 (detn, Cu)
Milyukova, M.S. *et al*, *CA*, 1971, **75**, 14615q (detn, Pu)
Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 1119 (detn, W)
Gur'eva, R.F. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 1009; 1982, **37**, 667 (detn, Pd, Pt)

Sulfonitrophenol R**S-00053**

3-Hydroxy-4-[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI
[20900-71-4]



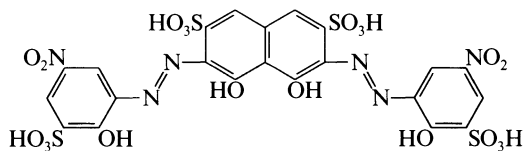
$C_{16}H_{11}N_3O_{13}S_3$ M 549.473

Used as 0.1% aq. soln. for photometric detn. of Ga (λ_{max} 570 nm, ϵ 18600); as 0.1% aq. soln. for fluorimetric detn. of Al (pH 2.5-3, 20% EtOH). Brown cryst. powder. Sol. H_2O , EtOH. pK_{a2} 4.3; pK_{a3} 11.9.

Salikhov, V.D. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 529 (detn, Ga)
Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1945 (synth, detn, Al)

Sulfonitrophenol S**S-00054**

4,5-Dihydroxy-3,6-bis[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI
[26196-08-7]



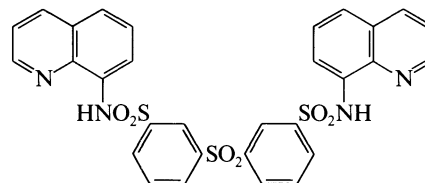
$C_{22}H_{14}N_6O_{20}S_4$ M 810.645

Used as 0.05% aq. soln. for photometric detn. of Al (λ_{max} 680 nm, ϵ 56000), Mo, Nb; amplification methods for As(V), P(V). Dark red cryst. powder. Sol. H_2O .

Alimarin, I.P. *et al*, *Talanta*, 1968, **15**, 601 (detn, Nb)
Malyutina, T.M. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 925 (detn, As, P)
Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1552; 1980, **35**, 54 (detn, Al)

3,3'-Sulfonylbis[N-8-**quinoly]benzenesulfonamide], 8CI****S-00055**

[10346-63-1]



$C_{30}H_{22}N_4O_6S_3$ M 630.725

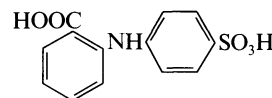
Used as a 0.1M soln. in EtOH or Me_2CO for pptn. of Ag, Co, Cu, Hg, Pb, Zn. Cryst. Mp 203-204°.

Billman, J.H. *et al*, *Anal. Chem.*, 1962, **34**, 408 (use)
Billman, J.H. *et al*, *CA*, 1968, **69**, 30767x (use)

N-(4-Sulfohenyl)-2-aminobenzoic acid, 9CI**S-00056**

2-Carboxydiphenylamine-4'-sulfonic acid. 2-Carboxy-4'-sulfodiphenylamine

[26119-52-8]



$C_{13}H_{11}NO_5S$ M 293.300

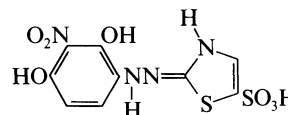
Used as a 0.1% aq. soln. for photometric detn. of V (λ_{max} 565 nm, ϵ 16000). Cryst. (H_2O). Sol. H_2O .

Frumina, N.S. *et al*, *Talanta*, 1969, **16**, 138 (detn, V)

4-(5-Sulfothiazolylazo)-2-nitroresorcinol S-00057

2-[(2,4-Dihydroxy-3-nitrophenyl)azo]-5-thiazolesulfonic acid, 9CI

[39070-33-2]



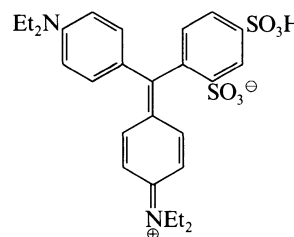
$C_9H_6N_4O_7S_2$ M 346.301

Various tautomers possible. Used as 0.01M aq. soln. for extraction-photometric detn. of Ni (λ_{max} 530 nm, ϵ 75500, $CHCl_3$, pH ~5). Cryst. powder. Sol. H_2O , EtOH.

Adamovich, L.P. *et al*, *Izv. Vyssh. Uchebn. Zaved., Khim. Khim. Tekhnol.*, 1977, **20**, 1328; *CA*, **88**, 202463f.

Sulphan blue, BAN**S-00058**

N-[4-[[4-(Diethylamino)phenyl](2,4-disulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium, 9CI. [4- α -[p-(Diethylamino)phenyl]-2,4-disulfobenzylidene]-2,5-cyclohexadien-1-ylidene]diethylammonium, 8CI. Blue VRS. Disulfine blue VNS. C.I. Acid blue 1. C.I. Food blue 3. Alphazurine 2G. Sulfan blue. Patent blue V. C.I. 42045
[116-95-0]



$C_{27}H_{32}N_2O_6S_2$ M 544.692

Strictly the name Sulphan blue applies to the sodium salt.

Cardiovascular investigative dye, freq. used as Na or Al salt. Acid base indicator used as 0.1% aq. soln. (pH range: 0.8-3.0; colour change: yellow → blue).

Na salt: [129-17-9].

Violet powder. V. sol. H_2O , sol. EtOH. λ_{max} 635 nm.

▷ BP6830000.

Holmes, W.C., *Ind. Eng. Chem.*, 1923, **15**, 833 (*w*)

Gangolli, S.D. *et al*, *Food Cosmet. Toxicol.*, 1972, **10**, 449

(*pharmacol*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 125 (*use*)

McEwen, C.N. *et al*, *Anal. Chem.*, 1977, **49**, 922 (*ms*)

Newton, D.W. *et al*, *J. Pharm. Sci.*, 1981, **70**, 122 (*props*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 2150.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ADE500.

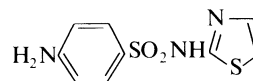
Sulphathiazole, BAN

S-00059

4-Amino-N-2-thiazolylbenzenesulfonamide, 9CI. N'-2-Thiazolylsulfanilamide, 8CI. 2-Sulfanilamidothiazole.

Sulfathiazole, INN. Cerazole. Sulfex. Numerous proprietary names

[72-14-0]



$C_9H_9N_3O_2S_2$ M 255.321

Used in treatment of severe staphylococcal infections.

Used as a 0.01M soln. in 0.01M NaOH for

potentiometric and conductometric detn. of Ag.

Yellowish-white prismatic rods and six-sided plates and prisms. Dimorphic. Mp 200-203° (rods), Mp ca. 175° (plates).

▷ Exp. carcinogen. LD₅₀ 400 mg/kg (mouse, i.p.). WP2360000.

Na salt: [144-74-1].

V. sol. H_2O . Absorbs CO_2 from humid air.

▷ WP2450000.

[144-74-1]

Fosbinder, R.J., *J. Am. Chem. Soc.*, 1939, **61**, 2032 (*synth*)

Capitan, F. *et al*, *Inf. Quim. Anal.*, 1970, **24**, 100 (*use*)

Bass, A.D. *et al*, *Drill's Pharmacol. Med.*, 4th Ed., 4th Ed.,

McGraw-Hill, N.Y., 1971, 1657 (*pharmacol*)

Kruger, G.J. *et al*, *Acta Crystallogr., Sect. A*, 1972, **28**, 272 (*cryst struct*)

Kracmar, J. *et al*, *Pharmazie*, 1975, **30**, 447 (*w*)

Forlani, L., *Gazz. Chim. Ital.*, 1981, **111**, 159 (*pmr, tautom*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 4953, 4954.

Haley, T.J., *Dangerous Prop. Ind. Mater. Rep.*, 6th Ed., Van Nostrand-Reinhold, 1983, **3**, 9 (*rev, pharmacol, tox*)

Bult, A., *Pharm. Weekbl., Sci. Ed.*, 1983, **5**, 77 (*cmr, tautom*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1148.

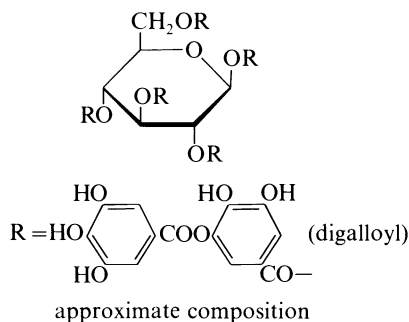
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TEX250, TEX500.

T

Tannin, 9CI, 8CI

T-00001

Tannic acid. Gallotannic acid. Gallotannin. Chinese tannin



Chinese gallotannin is a mixt. of isomers and closely related compounds whose average composition corresponds to that of Penta-*O*-(*m*-digalloyl)- β -D-glucose. There are also some trigalloyl units. A major constit. of galls of many spp. of oak (e.g. *Quercus lusitanica*), the leaves of Stagshorn (*Rhus typhina*) and pods of tara (*Caesalpinia spinosa*). Used as a mordant in dyeing, ink manuf., tanning, clarifying beer and wine and photography and as a coagulant in rubber manuf. Can be used as an astringent. Used as 3% aq. soln. for gravimetric detn. of Nb, Ta, Ti, U, W; separation of Ta and Nb. Yellowish powder. Sol. H₂O, EtOH, Me₂CO; sl. sol. Et₂O. Mp 210-215° dec. $[\alpha]_D^{20} + 12.0^\circ$ to $+18.4^\circ$ (c, 2 in Me₂CO)(from Chinese galls, Sicilian sumach or Stagshorn sumach), $[\alpha]_D^{20} + 21.7^\circ$ to $+23.2^\circ$ (c, 2 in Me₂CO)(from Turkish galls). Forms precipitates with metal salts, alkaloids, albumen and gelatin.

Schoeller, W.R. *et al*, *Analyst (London)*, 1931, **56**, 795; 1932, **57**, 284; 1935, **60**, 284 (*use*)

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **2** (*use*)

Schmidt, O.T., *Fortschr. Chem. Org. Naturst.*, 1956, **13**, 70.

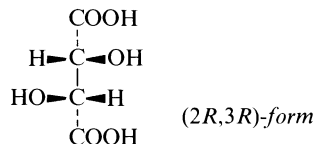
Armitage, R. *et al*, *J. Chem. Soc.*, 1961, 1842.

Britton, G. *et al*, *J. Chem. Soc. C*, 1966, 783.

Tartaric acid

T-00002

2,3-Dihydroxybutanedioic acid, 9CI



C₄H₆O₆ M 150.088

DL-Nomenclature, although frequently used, is ambiguous when applied to Tartaric acid. Used as a masking agent for metals; gravimetric detn. of K; KH-tartrate is used as primary alkalimetric standard.

(2R,3R)-form [87-69-4]

L-form. *L*-Threonic acid

Occurs in many plants and fruit. Comply. available from the K,H salt deposited in fermenting grape juice.

Acidulant for soft drinks and fruit jellies. Used to clean metals for plating, as a mordant for dyeing and in calico printing. Resolving agent for bases. Pharmaceutical aid (buffering agent). Mp 169-170°. $[\alpha]_D^{20} + 12.0^\circ$ (c, 20.0 in

H₂O). pK_{a1} 2.98; pK_{a2} 4.34 (25°). Cream of tartar (the K,H salt) is used in baking powder; Rochelle salt (the K,Na salt) is used in electroplating and medicinally as a mild saline cathartic preparation; tartar emetic (the K,Sb salt) is used in low dose as an expectorant in cough syrups and in large doses as an emetic.

▷ WW7875000.

Mono-Na salt: [526-94-3].

$[\alpha]_D^{19} + 21.8^\circ$ (H₂O).

Di-NH₄ salt: [3164-29-2].

$[\alpha]_D^{15} + 34.6^\circ$ (H₂O).

▷ WW8050000.

Di-Me ester: [608-68-4]. *Dimethyl tartrate*

C₆H₁₀O₆ M 178.141

Mp 48°, Mp 62° (dimorph.).

Bis-4-methylbenzoyl: Di-p-toluoyl tartrate

C₂₀H₁₈O₈ M 386.357

Resolving agent. Mp 169-171°. $[\alpha]_D - 141^\circ$ (EtOH).

(2S,3S)-form [147-71-7]

D-form. *D*-Threonic acid

Found only in fruits and leaves of the West African tree *Bankinia reticulata* and combined as Chicoric acid (see below). Mp 169-170°. $[\alpha]_D^{20} - 20.0^\circ$ (c, 20.0 in H₂O). Not used commercially.

(2RS,3RS)-form [133-37-9]

(±)-form

Formed by heating the (+)-acid. Mp 205-206°. The first racemate to be separated into its antipodes.

Di-Me ester: Mp 84°, Mp 90° (dimorph.). Bp₁₂ 158°.

(2RS,3SR)-form [147-73-9]

meso-form. *Racemic acid. Mesotartaric acid*

Mp 159-160°. pK_{a1} 3.17; pK_{a2} 4.91 (25°). Not found in nature.

[18261-99-9]

Pasteur, L., *Ann. Chim. Phys.*, 1850, **28**, 79.

Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1947, **2**, 176 (*use*)

Bijvoet, J.M. *et al*, *Nature (London)*, 1951, **171**, 168 (*cryst struct*)

Bijvoet, J.M. *et al*, *Acta Crystallogr.*, 1958, **11**, 61 (*cryst struct*)

Org. Synth., *Coll. Vol.*, 4, 1963, 242 (*anhydride*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 351 (*deriv*)

Handb. Biochem. Mol. Biol., 3rd Edn., 1975-1977, (Fasman, G.D., Ed.), 1975, 169.

Stothes, J.B. *et al*, *Can. J. Chem.*, 1977, **55**, 841 (*cmr*)

Kirk-Othmer Encycl. Chem. Technol., 3rd Ed., Wiley, N.Y., 1978-1984, **13**, 103.

Albertsson, J. *et al*, *J. Appl. Crystallogr.*, 1979, **12**, 537 (*cryst struct*)

Hawthorne, F.C. *et al*, *Acta Crystallogr., Sect. B*, 1982, **38**, 2461 (*cryst struct*)

Buding, H. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1985, **24**, 513 (*abs config, bibl*)

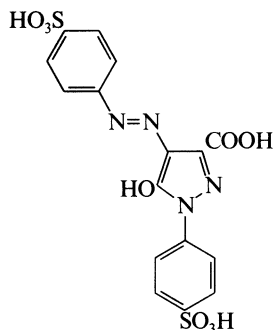
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 486.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DCH000, TAF750.

Tartrazine**T-00003**

4,5-Dihydro-5-oxo-1-(4-sulfophenyl)-4-[(4-sulfophenyl)azo]-1H-pyrazole-3-carboxylic acid, 9CI. 5-Hydroxy-1-(4-sulfophenyl)-4-[(4-sulfophenyl)azo]pyrazole-3-carboxylic acid. Hydrazine yellow. C.I. Food yellow 4. C.I. Acid yellow 23, 8CI

[34175-08-1]

 $C_{16}H_{12}N_4O_9S_2$ M 468.242

Strictly the name Tartrazine applies to the trisodium salt. Cryst.

Tri-Na salt: [1934-21-0].

Used as a 0.01% soln. in EtOH for photometric detn. of Pd. Dye for wool and silk. Colour additive in foods, drugs, and cosmetics. Orange-yellow powder.

▶ UQ6400000.

U.K. Pat., 585 781, (1947); CA, 41, 6727h (synth)

Freeman, K.A. et al, J. Assoc. Off. Agric. Chem., 1950, 33, 937 (synth, wv)

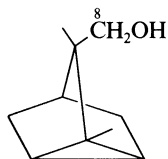
Popa, G. et al, Zh. Anal. Khim., 1959, 14, 322 (detn, Pd) Colour Index, 3rd Ed, 1971, 4, 4132.

Marmino, D.M. et al, J. Assoc. Off. Anal. Chem., 1974, 57, 495 (pmr)

Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, FAG140.

Teresantalol**T-00004**

2,3-Dimethyltricyclo[2.2.1.0^{2,6}]heptane-3-methanol, 9CI [29550-55-8]

 $C_{10}H_{16}O$ M 152.236

Constit. of Indian sandalwood oil (*Santalum album*). Cryst. (pet. ether/ C_6H_6). Mp 115°. Bp₉ 95-98°. $[\alpha]_D^{20}$ +12.1° (EtOH).

8-Aldehyde: [59300-39-9]. **Teresantalal**

 $C_{10}H_{14}O$ M 150.220

Constit. of the oil of *S. album*.

8-Carboxylic acid: [562-66-3]. **α -Teresantalic acid**

 $C_{10}H_{14}O_2$ M 166.219

Isol. from *S. album*. Cryst. (EtOH). Mp 158°. Bp₂₀ 157-158°. $[\alpha]_D^{20}$ -76.6° (C_6H_6).

8-Carboxylic acid, chloride: [54793-90-7].

 $C_{10}H_{13}ClO$ M 184.665

Reagent for gc resoln. of amino acid enantiomers.

Guha, P.C. et al, J. Indian Chem. Soc., 1944, 59, 271 (isol)

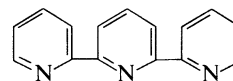
Nambara, T. et al, J. Chromatogr., 1974, 100, 180 (use)

Demole, E. et al, Helv. Chim. Acta, 1976, 59, 737 (isol)

Monti, S.A. et al, J. Org. Chem., 1978, 43, 2282 (synth)

2,2':6',2''-Terpyridine, 9CI**T-00005** α -Terpyridyl

[1148-79-4]

 $C_{15}H_{11}N_3$ M 233.272

Forms complexes with transition and heavy metals. Used as 0.5% soln. in EtOH for photometric detn. of Ag (λ_{max} 465 nm); Ru (λ_{max} 475 nm, ϵ 8300, pH 5.5). Cryst. Sol. EtOH. Mp 88°.

1-N-Oxide: [97721-16-9].

 $C_{15}H_{11}N_3O$ M 249.271

Mp 134-135°.

1,1'-Di-N-oxide: [97721-17-0].

 $C_{15}H_{11}N_3O_2$ M 265.271

Cryst. Mp 232-233°.

Tri-N-oxide: [78017-86-4].

 $C_{15}H_{11}N_3O_3$ M 281.270

Solid or cryst. Mp 320° dec.

Badger, G.M. et al, J. Chem. Soc., 1956, 616 (synth)

Hogg, R. et al, J. Chem. Soc., 1962, 341 (complexes)

Case, F.H., J. Org. Chem., 1962, 27, 640 (oxides, synth)

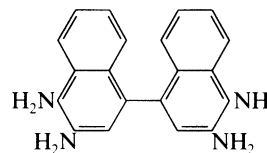
Gagliardi, E. et al, Mikrochim. Acta, 1964, 1175 (detn, Ag)

Kamra, L.C. et al, Anal. Chim. Acta, 1976, 81, 177 (detn, Ru)

Thummell, R.P. et al, J. Org. Chem., 1985, 50, 3635 (oxides, synth, ir, pmr, ms, uv)

3,3',4,4'-Tetraamino-1,1'-binaphthyl**T-00006**

[1,1'-Binaphthalene]-3,3',4,4'-tetramine, 9CI. 3,3'-Diaminonaphthidine

 $C_{20}H_{18}N_4$ M 314.389

Used as a 0.2% soln. in AcOH as a redox indicator.

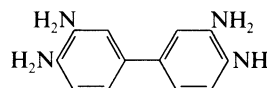
Yellow cryst. (EtOH). Sol. AcOH, C_6H_6 , dil. acids.

Belcher, R. et al, J. Chem. Soc., 1958, 4454 (synth, use)

3,3',4,4'-Tetraaminobiphenyl**T-00007**

3,3'-Diaminobenzidine. [1,1'-Biphenyl]-3,3',4,4'-tetramine, 9CI. DAB

[91-95-2]

 $C_{12}H_{14}N_4$ M 214.269

Used in photometric detn. of Se (λ_{max} 420 nm, ϵ 10200), Cr(VI), V; extraction-photometric detn. of NO_2^- (λ_{max} 350 nm, ϵ 3500, butanol); peroxidase substrate. Cryst. (MeOH). Mp 178-179°. pK_{a1} 6.20; pK_{a2} 5.16; pK_{a3} 3.0; pK_{a4} 2.4 (DMF, 20°). Darkens rapidly in air.

▶ DV8750000.

Tetra-B,HCl: [7411-49-6].

Cryst. Sol. acids.

▶ DV8753000.

[19010-26-5]

LeFèvre, R.J.W. et al, J. Chem. Soc., 1927, 2330 (synth)

Hoste, J. et al, Anal. Chim. Acta, 1955, 12, 158 (Se)

Cheng, K.L., Anal. Chem., 1956, 28, 1738 (detn, Se)

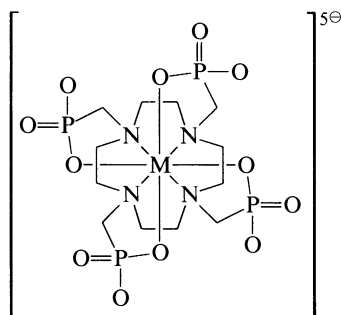
Danzuka, T. et al, Anal. Chem., 1958, 30, 1370 (use)

Cheng, K.L. *et al*, *Chemist-Analyst*, 1963, **52**, 73 (*detn*, Cr(VI))
 Vogel, H., *J. Polym. Sci., Polym. Chem. Ed.*, 1963, 1531 (*synth*)
 Riley, J.P. *et al*, *Anal. Chim. Acta*, 1968, **41**, 175 (*detn*, V)
 Lin, E. *et al*, *Mikrochim. Acta*, 1970, 652 (*detn*, NO₂[⊖])
 Balyatinskaya, L.N. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*,
 1978, **48**, 794.
 Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC
 Press, Boca Raton, 1982, 349 (*use*)
 Marczenko, Z., *Separation and Spectrophotometric Determination
 of Elements*, Ellis Horwood, Chichester, 1986, 508.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, BGK500, BGK750.

**(1,4,7,10-Tetraazacyclododecane-
 N,N',N'',N'''-** T-00008

**tetramethylenephosphonato)
 dysprosate(5-)**

[[[1,4,7,10-Tetraazacyclododecane-1,4,7,10-
 tetrayltetrakis(methylene)]tetrakis(phosphonato)](8-)]
 dysprosate(5-), 12CI
 [115701-67-2]



M = Dy

C₁₂H₂₄DyN₄O₁₂P₄^{5⊖} M 702.736 (ion)
²³Na nmr shift reagent. Colourless.
 Sherry, A.D. *et al*, *J. Magn. Reson.*, 1988, **76**, 528 (*synth*, *use*)

**[1,4,7,10-Tetraazacyclododecane-
 N,N',N'',N'''-** T-00009

**tetramethylenephosphonato]terbate(III)
 (5-)**

[[[1,4,7,10-Tetraazacyclododecane-1,4,7,10-
 tetrayltetrakis(methylene)]tetrakis(phosphonato)](8-)-
 N,N',N'',N''',O^p,O^p,O^p,O^p"]terbate(5-), 12CI
 [122762-22-5]

As (1,4,7,10-Tetraazacyclododecane-N,N',N'',N'''-
 tetramethylenephosphonato)dysprosate(5-), T-00008 with

M = Tb

C₁₂H₂₄N₄O₁₂P₄Tb^{5⊖} M 699.161 (ion)
 Used as nmr probe to study gene protein.
 Dick, L.R. *et al*, *Biochemistry*, 1989, **28**, 7896 (*use*)

**[1,4,7,10-Tetraazacyclododecane-
 N,N',N'',N'''-** T-00010

**tetramethylenephosphonato]thulate(III)
 (5-)**

[[[1,4,7,10-Tetraazacyclododecane-1,4,7,10-
 tetrayltetrakis(methylene)]tetrakis(phosphonato)](8-)]
 thulate(5-)

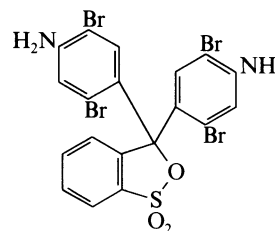
As (1,4,7,10-Tetraazacyclododecane-N,N',N'',N'''-
 tetramethylenephosphonato)dysprosate(5-), T-00008 with

M = Tm

C₁₂H₂₄N₄O₁₂P₄Tm^{5⊖} M 709.170 (ion)
²³Na nmr shift reagent: potentially useful for monitoring
 Na[⊕] levels in heart tissue.

Sherry, A.D. *et al*, *Lanthanide Probes in Life, Chemical and Earth
 Sciences*, (Bünzli, J.-C.G., Ed.), Elsevier, 1989, 122 (*use*)

Tetrabromoanilinesulfonephthalein T-00011

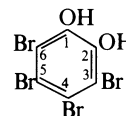


C₁₉H₁₂Br₄N₂O₃S M 667.997
 Used as a soln. in EtOH as acid-base indicator (pH range:
 8.12-8.92, colour change: yellow→blue). Leaflets or
 short columns or prisms with green or bronze lustre.
 Sol. EtOH; insol. H₂O. pK_{a1} 8.48.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*, *ind*)

Tetrabromo-1,2-benzenediol, 9CI T-00012

Tetrabromocatechol. Tetrabromopyrocatechol
 [488-47-1]



C₆H₂Br₄O₂ M 425.697
 Used for extraction-photometric detn. of Ti and Mo
 (anionic complexes of the reagent associated with basic
 dyes, CCl₄). Cryst. (EtOH). Mp 192-193°.

▷ UX2430000.

Di-Ac:

C₁₀H₆Br₄O₄ M 509.771
 Cryst. (C₆H₆). Mp 215-216°.

Mono-Me ether: [35488-17-6]. 2,3,4,5-Tetrabromo-6-
 methoxyphenol. Tetrabromoguaiacol

C₇H₄Br₄O₂ M 439.723
 Cryst. (EtOH or CHCl₃). Mp 162-163°.

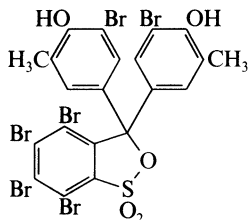
Di-Me ether: [83826-53-3]. 1,2,3,4-Tetrabromo-5,6-
 dimethoxybenzene. Tetrabromoveratrole

C₈H₆Br₄O₂ M 453.750
 Cryst. (CCl₄). Mp 151-152°.

Methylene ether: [15930-48-0]. 4,5,6,7-Tetrabromo-1,3-
 benzodioxole. Tetrabromomethylenedioxybenzene

C₇H₂Br₄O₂ M 437.708
 Cryst. (EtOH). Mp 208-209°.

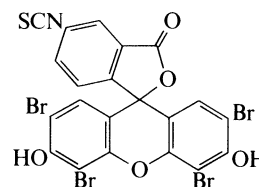
Zincke, T., *Ber.*, 1887, **20**, 1776 (*synth*)
 Jackson, C.L. *et al*, *Am. Chem. J.*, 1906, **35**, 169 (*deriv*)
 Zetzsche, F. *et al*, *Helv. Chim. Acta*, 1927, **10**, 91 (*deriv*)
 Frejha, J. *et al*, *Chem. Zentralbl.*, 1936, **1**, 2338 (*synth*, *deriv*)
 Wulf, O.R. *et al*, *J. Chem. Phys.*, 1938, **6**, 702 (*ir*)
 Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 252 (*detn*, Ti)
 Vinarova, L.I. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 2013 (*detn*, Mo)
 Kajigaeshi, S. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1990, 897 (*di-
 Me ether*)

4,4'-(4,5,6,7-Tetrabromo-3H-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] S,S-dioxide*Dibromo-o-cresoltetrabromosulfonephthalein* $C_{21}H_{12}Br_6O_5S$ M 855.813Acid-base indicator (pH range: 5.2-6.8; colour change red → violet). Pink cryst. (AcOH). Sol. H_2O , dil. HCl.Harden, W.C. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 562 (*synth*)

T-00013

2',3',4',7'-Tetrabromo-3',6'-dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3H),9'[9H]xanthen]-3-one, 9CI*Eosin-5-isothiocyanate*

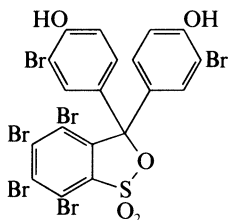
[60520-47-0]

 $C_{21}H_7Br_4NO_5S$ M 704.972

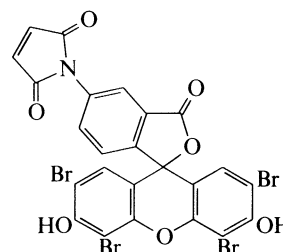
Fluorescent label for proteins.

Cherry, R.S. *et al*, *Biochemistry*, 1976, **15**, 3653.Chen, R.F. *et al*, *Analyst (London)*, 1985, **18**, 393 (*use*)

T-00016

4,4'-(4,5,6,7-Tetrabromo-3H-2,1-benzoxathiol-3-ylidene)bis[2-bromophenol] S,S-dioxide*3,3'-Dibromophenoltetrabromosulfonephthalein* $C_{19}H_8Br_6O_5S$ M 827.759Acid-base indicator (pH range: 5.6-7.2; colour change: yellow → purple). Pink cryst. (AcOH). Sol. H_2O , dil. HCl.Harden, W.C. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 562 (*synth*)

T-00014

1-[2',3',4',7'-Tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'[9H]xanthen]-5-yl]-1H-pyrrole-2,5-dione, 9CI*Eosin-5-maleimide* $C_{24}H_9Br_4NO_7$ M 742.954

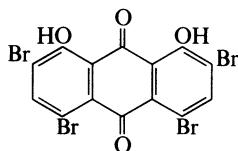
Fluorescent label for thiol groups.

Curtis, S.K. *et al*, *Histochemistry*, 1980, **68**, 23 (*use*)Mueller, M. *et al*, *FEBS Lett.*, 1985, **184**, 110 (*use*)Huustek, J. *et al*, *J. Biol. Chem.*, 1985, **260**, 6288 (*use*)Spring, O. *et al*, *Plant Sci. (Limerick, Irel.)*, 1987, **48**, 203 (*use*)

T-00017

2,4,5,7-Tetrabromo-1,8-dihydroxyanthraquinone*2,4,5,7-Tetrabromo-1,8-dihydroxy-9,10-anthracenedione, 9CI.**Tetrabromochryszazin*

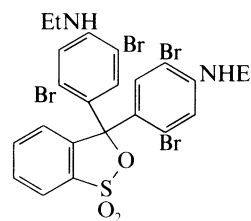
[17139-66-1]

 $C_{14}H_4Br_4O_4$ M 555.799Used as a 1mM soln. in conc. H_2SO_4 for photometric detn. of B (λ_{max} 540 nm).Karpen, W.L. *et al*, *Anal. Chem.*, 1961, **33**, 738 (*detn, B*)

T-00015

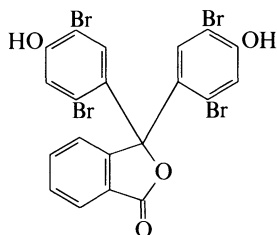
Tetrabromo-N-ethylanilinesulfonephthalein

T-00018

 $C_{23}H_{20}Br_4N_2O_3S$ M 724.105Used as a soln. in EtOH as acid-base indicator (pH range: 8.12 -9.33; colour change: blue → yellow). Leaflets, short columns, prisms with green or bronze lustre. Sol. EtOH; insol. H_2O . pK_{a2} 8.65.Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

Tetrabromophenolphthalein

3,3-Bis(3,5-dibromo-4-hydroxyphenyl)-1(3H)-isobenzofuranone, 9CI
[76-62-0]



$C_{20}H_{10}Br_4O_4$ M 633.913

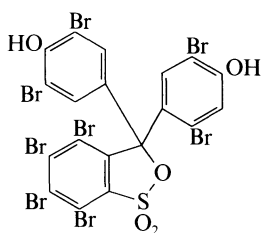
Used as acid-base indicator (pH range: 7.6 - 9.4, colour change: colourless → violet). Cryst. Sol. EtOH.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Tetrabromophenoltetrabromosulfonephthalein

T-00020

4,5,6,7-Tetrabromo-1,1-bis(3,5-dibromo-4-hydroxyphenyl)-1,1-dihydro-3H-2,1-benzoxathiol-3-one, 1-oxide, 9CI
[61053-98-3]



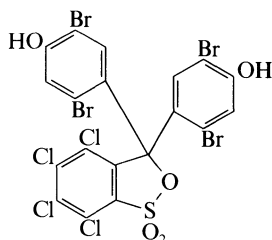
$C_{19}H_6Br_8O_5S$ M 985.551

Used as a soln. in 0.1M NaOH as acid-base indicator (pH range: 2.6-4.4; colour change: yellow → blue). Used for detn. of proteins in body fluids. pK_{a1} 3.56.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)
Ger. Pat., 2 510 633, (1976); *CA*, **85**, 188762g.

Tetrabromophenoltetrachlorosulfonephthalein

T-00021



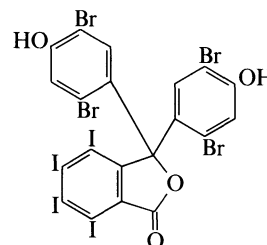
$C_{19}H_6Br_4Cl_4O_5S$ M 807.746

Used as a soln. in 0.1M NaOH as acid-base indicator (pH range: 2.6-4.4, colour change: yellow → blue). Pink cryst. Sol. EtOH. pK_{a1} 3.56.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Tetrabromophenoltetraiodophthalein

T-00022



$C_{20}H_6Br_4I_4O_4$ M 1137.499

Used as acid-base indicator (pH range: 7.2 - 9.0, colour change: colourless → blue). Yellowish cryst. Spar. sol. EtOH.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Tetrabutylammonium(1 +)

T-00023

N,N,N-Tributyl-1-butanaminium, 9CI
[10549-76-5]

$(H_3CCH_2CH_2CH_2)_4N^{\oplus}$

$C_{16}H_{36}N^{\oplus}$ M 242.467 (ion)

Fluoride: [429-41-4].

$C_{16}H_{36}FN$ M 261.465

Catalyst for aldol condensations, acetylations etc.
Fluoride ion source. Cryst. + 18H₂O. Mp 37°. Also forms a hydrate with 32.8H₂O, Mp 25°.

Azide: [993-22-6].

$C_{16}H_{36}N_4$ M 284.487

Relatively safe azide for synthetic use. Mp 80°.

Borohydride: [33725-74-5].

$C_{16}H_{40}BN$ M 257.310

Reagent for redn. of carboxylic acid to aldehydes. Sol. CH₂Cl₂, insol. Et₂O.

Formate: [35733-58-5].

$C_{17}H_{37}NO_2$ M 287.485

Reagent for OH-group epimerisations.

Iodotetrachloride:

$C_{16}H_{36}Cl_4IN$ M 511.182

Trans-chlorinating agent for alkenes. Mp 137-139° dec.

Chlorochromate: TBACC

$C_{16}H_{36}ClCrNO_3$ M 377.914

Mild, selective oxidising agent. Orange cryst. (EtOAc/hexane). Mp 184-185°.

Hydroxide: [2052-49-5].

$C_{16}H_{37}NO$ M 259.474

Strong base, suitable for use as nonaqueous titrant. Reagent for hydrol. of steroidal tosylates.

▷ BS5425000.

Bifluoride:

$C_{16}H_{37}F_2N$ M 281.472

Fluorinating agent. Mp 30-32°.

Perchlorate: [1923-70-2].

$C_{16}H_{36}ClNO_4$ M 341.917

Needles (EtOAc/pentane). Mp 212.5-213.5°.

Bromide: [1643-19-2].

$C_{16}H_{36}BrN$ M 322.371

Used for extraction-separation of Cd, Cr, Ir; extraction-photometric detn. of Au (λ_{max} 312 nm, CHCl₃). Prisms (CHCl₃/pet. ether). Mp 119-119.5°.

▷ BS5390000.

Tetrafluoroborate: [15553-52-3].

$C_{16}H_{36}BF_4N$ M 329.272

Needles (EtOAc/pentane). Mp 162-162.5°.

Acetate: [10534-59-5].

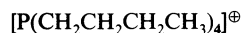
$C_{18}H_{39}NO_2$ M 301.512

Fine yellow cryst. (1,2-dimethoxyethane). Mp 75-83°. Further purification gave the AcOH solvate, Mp 112.5-114°.

- Inorg. Synth.*, 1957, **5**, 176 (iodotetrachloride)
 Cundiff, R.H. *et al*, *Anal. Chem.*, 1962, **34**, 584 (use, hydroxide)
 Maeck, W.J. *et al*, *Anal. Chem.*, 1962, **34**, 1602 (detn, Cr)
 Gutmann, V. *et al*, *Monatsh. Chem.*, 1964, **95**, 1034 (azide)
 Wen, W.-Y. *et al*, *J. Phys. Chem.*, 1966, **70**, 1244 (synth)
 Bravo, O. *et al*, *Anal. Chim. Acta*, 1969, **47**, 209 (detn, Au)
 Soriano, J. *et al*, *Inorg. Nucl. Chem. Lett.*, 1969, **5**, 209 (nmr)
 House, H.O. *et al*, *J. Org. Chem.*, 1971, **36**, 2371 (synth, ir, pmr, bibl)
 Corey, E.J. *et al*, *J. Am. Chem. Soc.*, 1972, **94**, 6190 (synth)
 Brandström, A. *et al*, *Tetrahedron Lett.*, 1972, 3173 (borohydride)
 Cowell, D.B. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1974, 1505 (use, hydroxide)
 Pless, J., *J. Org. Chem.*, 1974, **39**, 2644 (fluoride)
 Kuwajima, J. *et al*, *Synthesis*, 1976, 602 (fluoride)
 Boroch, E. *et al*, *Chem. Anal. (Warsaw)*, 1977, **22**, 295; 1980, **25**, 705 (detn, Rh, Ir)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 563, 564; 1979, **7**, 353, 354; 1980, **8**, 467; 1981, **9**, 443, 444, 447 (use)
 Ogilvie, K.K. *et al*, *Tetrahedron Lett.*, 1978, 1663 (fluoride)
 Sharma, R.K. *et al*, *J. Org. Chem.*, 1983, **48**, 2112 (props, bifuoride)
 Santaniello, E. *et al*, *Synthesis*, 1983, 749 (chlorochromate, synth, use)
 Clark, J.H. *et al*, *Tetrahedron Lett.*, 1985, **26**, 2233 (use, fluoride)
 Bosch, P. *et al*, *Tetrahedron Lett.*, 1987, **28**, 4733 (bifuoride, synth, use)
 Camps, F. *et al*, *J. Org. Chem.*, 1989, **54**, 4294 (bifuoride)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TBK500, TBK750.

Tetrabutylphosphonium(1+)**T-00024**

[15853-37-9]

C₁₆H₃₆P[⊕] M 259.434 (ion)

Chloride: [2304-30-5].

C₁₆H₃₆ClP M 294.887Used as a 0.3% aq. soln. for ClO₄[⊖] extraction.

Corrosion inhibitor. Protects bone marrow progenitor cells against mechlorethamine cytotoxicity. Cryst. Mp 67°, Mp 80-83°.

▷ TA2419000.

Bromide: [3115-68-2].

C₁₆H₃₆BrP M 339.338Polymerisation catalyst. Phase-transfer catalyst. Cryst. (Me₂CO/Et₂O). Mp 112°, Mp 100-103°.

▷ TA2417000.

Iodide: [3115-66-0].

C₁₆H₃₆IP M 386.339Phase-transfer catalyst. Cryst. (THF/Et₂O). Mp 98-99°.

▷ TA2420000.

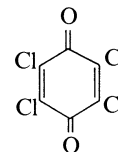
Acetate: [30345-49-4].

C₁₈H₃₉O₂P M 318.479

Bactericide.

Speziale, A.J. *et al*, *J. Am. Chem. Soc.*, 1962, **84**, 1868 (bromide)
 Kanai, K. *et al*, *Nippon Kagaku Zasshi*, 1965, **86**, 534; *CA*, **63**, 6586.*U.S. Pat.*, 3 341 580, (1967); *CA*, **68**, 13170 (acetate)Fogg, A.G. *et al*, *Mikrochim. Acta*, 1970, 974 (detn, ClO₄[⊖])Swartz, W.E. *et al*, *Anal. Chem.*, 1971, **43**, 1066 (nmr)Weigert, F.J. *et al*, *Inorg. Chem.*, 1973, **12**, 316 (cmr)Tundo, P. *et al*, *Synthesis*, 1979, 952 (iodide, use)Nanjokaitis, S.A. *et al*, *Chem. Biol. Interact.*, 1982, **40**, 133; *CA*, **97**, 86779 (chloride)Landini, D. *et al*, *J. Org. Chem.*, 1982, **47**, 2264 (bromide, use)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TBL750, TBM000.**Tetrachloro-1,4-benzoquinone****T-00025**2,3,5,6-Tetrachloro-2,5-cyclohexadiene-1,4-dione, 9Cl.
Chloranil. Tetrachloroquinone

[118-75-2]

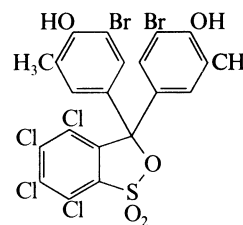
C₆Cl₄O₂ M 245.876

Dehydrogenation and allylic oxidn. reagent. Reagent for the spectrophotometric detn. of amines, amino acids and carboxylic acids. Golden-yellow leaflets (toluene). Mp 290° (sealed tube). Sublimes on careful heating.

▷ DK6825000.

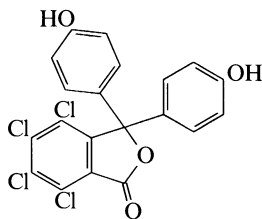
Bouveault, M.L., *Ann. Chim. (Paris)*, 1908, **13**, 142 (synth)Eller, W. *et al*, *Ber.*, 1922, **55**, 217 (synth)Aplin, R.T. *et al*, *Chem. Ind. (London)*, 1966, 2009 (ms)Stevenson, P.E., *J. Mol. Spectrosc.*, 1967, **23**, 191 (uv)Kikot, B.S. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1968, **38**, 883 (ir)v. Weperen, K.J. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 338 (cryst struct)Berger, S. *et al*, *Tetrahedron*, 1972, **28**, 3123 (cmr)Al-Sulimany, F. *et al*, *Anal. Chim. Acta*, 1973, **66**, 195 (use)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1974, **4**, 75; 7, 355.Obtemperanskaya, S.I. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 707; *CA*, **99**, 32568b (use)Smith, R.E. *et al*, *Anal. Chem.*, 1984, **56**, 2345 (use)Muralikrishna, U., *J. Indian Chem. Soc.*, 1985, **62**, 1052 (use, rev)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TBO500.**4,4'-(4,5,6,7-Tetrachloro-3H-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] S,S-dioxide****T-00026**

Dibromo-o-cresoltetrachlorosulfonephthalein

C₂₁H₁₂Br₂Cl₄O₅S M 678.008Acid-base indicator (pH range: 4.8-6.6; colour change: yellow → blue). Cryst. (AcOH). Sol. H₂O, dil. HCl. pK_a 5.64 (25°).Harden, W.C. *et al*, *J. Am. Chem. Soc.*, 1929, **51**, 562.Haring, M.M. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 1024 (pK_a)

4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone, 9CI

T-00027

4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)phthalide
[639-44-1] $C_{20}H_{10}Cl_4O_4$ M 456.107Used as a 0.2% soln. in EtOH as adsorption indicator for argentometric titrimetric detn. of Cl^{\ominus} , I^{\ominus} . Cryst.Singh, E., *J. Indian Chem. Soc.*, 1976, **53**, 948, 950 (detn, I^{\ominus} , Cl^{\ominus})Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Bi, Cd, Co, Cu, Hg, Ni, Pb, Tl, Zn ($CHCl_3$). Dark green cryst. powder. Sol. $CHCl_3$, CCl_4 , EtOH, alkalis; insol. H_2O . pK_{a1} 5.8.Mageed Kiwan, A. *et al*, *Anal. Chim. Acta*, 1982, **144**, 165; 1986, **182**, 245 (use)**2,2',5,5'-Tetrachlorodithizone**

T-00031

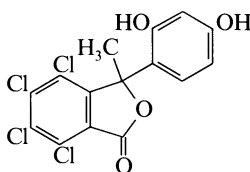
(2,5-Dichlorophenyl)diazene-carbothioic acid 2-(2,5-dichlorophenylhydrazide), 9CI

[84592-10-9]

 $C_{13}H_8Cl_4N_4S$ M 394.110Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Bi, Cd, Co, Cu, Hg, Ni, Pb, Tl, Zn ($CHCl_3$). Dark green cryst. powder. Sol. $CHCl_3$, CCl_4 , EtOH, alkalis; insol. H_2O . pK_{a1} 5.08.Mageed Kiwan, A. *et al*, *Anal. Chim. Acta*, 1982, **144**, 165; 1986, **182**, 245 (use)**4,5,6,7-Tetrachloro-3-(2,4-dihydroxyphenyl)-3-methyl-1(3H)-isobenzofuranone, 9CI**

T-00028

[10254-20-3]

 $C_{15}H_8Cl_4O_4$ M 394.037Used as a 0.1% soln. in EtOH as adsorption indicator in argentometric detn. of Cl^{\ominus} , I^{\ominus} , Br^{\ominus} , SCN^{\ominus} . Cryst. Mod. sol. EtOH.Singh, E. *et al*, *Ann. Chim. (Paris)*, 1972, 359 (synth)Singh, E. *et al*, *J. Indian Chem. Soc.*, 1974, **51**, 822 (use)**2,2',6,6'-Tetrachlorodithizone**

T-00032

(2,6-Dichlorophenyl)diazene-carbothioic acid 2-(2,6-dichlorophenylhydrazide), 9CI

[84592-09-6]

 $C_{13}H_8Cl_4N_4S$ M 394.110Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Bi, Cd, Co, Cu, Hg, Ni, Pb, Tl, Zn ($CHCl_3$). Dark green cryst. powder. Sol. $CHCl_3$, CCl_4 , EtOH, alkalis; insol. H_2O . pK_{a1} 3.67.Mageed Kiwan, A. *et al*, *Anal. Chim. Acta*, 1982, **144**, 165 (use)**3,3',4,4'-Tetrachlorodithizone**

T-00033

(3,4-Dichlorophenyl)diazene-carbothioic acid 2-(3,4-dichlorophenylhydrazide), 9CI

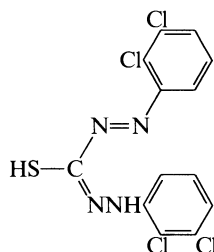
[84592-08-5]

 $C_{13}H_8Cl_4N_4S$ M 394.110Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Bi, Cd, Co, Cu, Hg, Ni, Pb, Tl, Zn ($CHCl_3$). Dark green cryst. powder. Sol. $CHCl_3$, CCl_4 , EtOH, alkalis; insol. H_2O . pK_{a1} 4.36.Mageed Kiwan, A. *et al*, *Anal. Chim. Acta*, 1982, **144**, 165 (use)**2,2',3,3'-Tetrachlorodithizone**

T-00029

(2,3-Dichlorophenyl)diazene-carbothioic acid 2-(2,3-dichlorophenylhydrazide), 9CI

[84592-11-0]

 $C_{13}H_8Cl_4N_4S$ M 394.110Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Bi, Cd, Co, Cu, Hg, Ni, Pb, Tl, Zn ($CHCl_3$). Dark green cryst. powder. Sol. $CHCl_3$, CCl_4 , EtOH, alkalis; insol. H_2O . pK_{a1} 4.87.Mageed Kiwan, A. *et al*, *Anal. Chim. Acta*, 1982, **144**, 165; 1986, **182**, 245 (use)**3,3',5,5'-Tetrachlorodithizone**

T-00034

(3,5-Dichlorophenyl)diazene-carbothioic acid 2-(3,5-dichlorophenylhydrazide), 9CI

[84592-07-4]

 $C_{13}H_8Cl_4N_4S$ M 394.110Used as a 0.01% soln. in $CHCl_3$ or CCl_4 for extraction-photometric detn. of Bi, Cd, Co, Cu, Hg, Ni, Pb, Tl, Zn ($CHCl_3$). Dark green cryst. powder. Sol. $CHCl_3$, CCl_4 , EtOH, alkalis; insol. H_2O . pK_{a1} 5.95.Mageed Kiwan, A. *et al*, *Anal. Chim. Acta*, 1982, **144**, 165 (use)**2,2',4,4'-Tetrachlorodithizone**

T-00030

(2,4-Dichlorophenyl)diazene-carbothioic acid 2-(2,4-dichlorophenylhydrazide), 9CI

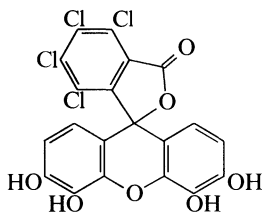
[29674-82-6]

 $C_{13}H_8Cl_4N_4S$ M 394.110

Tetrachlorogallein

T-00035

4,5,6,7-Tetrachloro-3',4',5',6'-tetrahydroxySpiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9CI
[29817-83-2]



$C_{20}H_8Cl_4O_7$ M 502.090

Used as a 1mM soln. in MeOH for photometric titrimetric detn. of In (λ_{max} 620 nm); as a 1mM aq. soln. for extraction-photometric detn. of Th (λ_{max} 660 nm, butanol). Sol. EtOH, Me₂CO, alkalis.

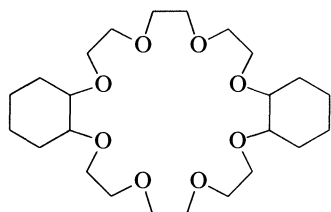
Mori, I. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1976, **25**, 239; 1982, **31**, 91 (detn. In, Th)

Tetracosahydrodibenz[b,n]

T-00036

[1,4,7,10,13,16,19,22]octaoxacyclotetracosin, 9CI

Dicyclohexyl-24-crown-8. 2,5,8,11,18,21,24,27-Octatricyclo[26.4.0.0^{12,17}]dotriacontane
[17455-23-1]



$C_{24}H_{44}O_8$ M 460.607

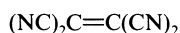
Used as a complexing agent for alkali metal ions. Pale yellow viscous liq. Sol. EtOH, CHCl₃; sl. sol. H₂O. d_{20}^{20} 1.105. Mp < 20°. n_{20} 1.49.

Pedersen, C.J., *J. Am. Chem. Soc.*, 1967, **89**, 7017 (use)
Cheng, R.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982 (rev)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DGT300.

Tetracyanoethylene

T-00037

Ethenetetracarbonitrile, 9CI. Tetracyanoethene
[670-54-2]



C_6N_4 M 128.093

Very reactive dienophile. Forms π -complexes with aromatic compds. Used for photometric detn. of tertiary amines, aromatic hydrocarbons and org. sulfur compds. Cryst. (chlorobenzene). Mp 198-200°. Bp 223°.

► Highly toxic. KM7300000.

Cairns, T.L. *et al*, *Angew. Chem.*, 1961, **73**, 520.
Org. Synth., Coll. Vol., 4, 1963, 877 (synth)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, 6, 567.
Obtemperanskaya, S. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 1618; 1982, **37**, 491 (use)
Tawa, R. *et al*, *Chem. Pharm. Bull.*, 1980, **28**, 541 (use)
Fatiadi, A.J., *Synthesis*, 1986, 249 (rev)

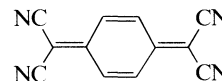
Petrowitz, H.J. *et al*, *Fresenius' Z. Anal. Chem.*, 1988, **330**, 126 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, EEE500.

Tetracyanoquinodimethane

T-00038

2,2'-(2,5-Cyclohexadiene-1,4-diylidene)bispropanedinitrile, 9CI. 2,5-Cyclohexadiene- $\Delta^{1,2:4,5}$ -dimalononitrile, 8CI. 3,6-Bis(dicyanomethylene)-1,4-cyclohexadiene. TCNQ
[1518-16-7]



$C_{12}H_4N_4$ M 204.190

π -Acid complexing agent. Reagent for spectrophotometric anal. of amines. Used as a 0.5% soln. of Li or NH₄ salt in aq. EtOH as colour reagent in TLC of cations. Rust cryst. (MeCN or THF). Subl. 293.5-296°.

► GU4850000.

Compd. with anthracene (1:1): [1704-37-6].

Black needles. Subl. 282-283°.

Tetrathiofulvalene complex: [40210-84-2].

Tetrathiofulvalene-tetracyanoquinodimethane. TTF-TCNQ

Charge-transfer complex. Shiny black needles.

Acker, D.S. *et al*, *J. Am. Chem. Soc.*, 1962, **84**, 3370 (synth)

Druding, L.F. *et al*, *Anal. Chem.*, 1963, **35**, 1582 (use)

Inorg. Synth., 1979, **19**, 32 (synth, complex)

Govers, H.A.J., *Acta Crystallogr., Sect. A*, 1982, **38**, 557 (cryst struct)

Obtemperanskaya, S.I. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 1894; *CA*, **98**, 118896y (use)

Crawford, R.J., *J. Org. Chem.*, 1983, **48**, 1366 (synth)

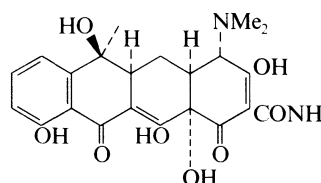
Yamaguchi, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1989, **62**, 3036 (synth)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TBW750.

Tetracycline, BAN, INN

T-00039

4-(Dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacene-carboxamide, 9CI. Achromycin†. Orlycycine. Quatrimycin. Resteclin
[60-54-8]



$C_{22}H_{24}N_2O_8$ M 444.440

Prod. by *Streptomyces* spp. Antiamoebic, antibacterial and antirickettsial antibiotic. Used as a 1mM aq. soln. for fluorimetric detn. of Al, Be; fluorescent indicator in titrimetric detn. of Ca, Sr. Cryst. (toluene). Mp 170-175° dec. $[\alpha]_D^{25}$ -239° (MeOH). pK_{a1} 3.30; pK_{a2} 7.68; pK_{a3} 9.69 (H₂O, 25°), pK_{a1} 2.07; pK_{a2} 6.84; pK_{a3} 8.75; pK_{a4} 10.27; pK_{a5} 14.45. Other salts used as antibiotics.

► QI8750000.

B.HCl: [64-75-5]. Tetracycline hydrochloride, USAN.

Economycin. Numerous other synonyms

Cryst. (butanol/HCl). Mp 214° dec. $[\alpha]_D^{25}$ -257.9° (c, 0.5 in 0.1N HCl). Component of Tetrastatin.

► QI9100000.

Phosphate complex: [1336-20-5]. Tetracycline phosphate complex, BAN, USAN. Numerous other synonyms

Antibiotic. Yellow powder. Compound of Azotrex and Comycin.

4-*Epimer*; *B,HCl*: *Epitetracycline hydrochloride*, *USAN*
Component of Topicycline.

[79-85-6, 6416-04-2]

Ashton, A.A., *Anal. Chim. Acta*, 1966, **35**, 543 (*detn*, *Ca*, *Sr*)
Gurevich, A.I. *et al*, *Tetrahedron Lett.*, 1967, 131 (*synth*)
Barton, D.H.R. *et al*, *J. Chem. Soc. C*, 1971, 2164, 2166, 2175, 2184 (*synth*)
Alykova, T.V. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1972, **15**, 1107 (*detn*, *Be*)
Tsherkesov, A.I. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 377 (*pKa*, *detn*, *Al*)
Asleson, G.L. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 4745 (*cmr*)
Stezowski, J.J., *J. Am. Chem. Soc.*, 1976, **98**, 6012 (*cryst struct*)
Caira, M.R. *et al*, *Acta Crystallogr., Sect. B*, 1977, **33**, 1171 (*cryst struct*)
Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,
Pharmaceutical Press, London, 1982/1989, 168, 169, 170.
Ali, S.L., *Anal. Profiles Drug Subst.*, 1983, **13**, 597 (*pharmacol*)
Mitscher, L.A. *et al*, *Spectroscopy (Ottawa)*, 1983, **2**, 296 (*ms*)
Podojil, M. *et al*, *Drugs Pharm. Sci.*, 1984, **22**, 259 (*rev*)
Casy, A.F. *et al*, *J. Pharm. Biomed. Anal.*, 1984, **2**, 19 (*cmr*)
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,
Akademie-Verlag, Berlin, 1987, 6510.
Curtis, R.D. *et al*, *Can. J. Chem.*, 1991, **69**, 834 (*N-15 nmr*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, TBX000, TBX250.

1,1,3,3-Tetraethoxypropane, 9CI T-00040

Malonaldehyde bis(diethylacetal)

[122-31-6]



$\text{C}_{11}\text{H}_{24}\text{O}_4$ M 220.308

Reagent used in the ms *detn*. of the amino acid sequence
of arginine-containing peptides. Liq. d_4^{25} 0.916. Bp_8
92.3°, Bp_3 77-78°. n_{D}^{25} 1.4101.

▷ ON8750000.

McElvain, S.M. *et al*, *J. Am. Chem. Soc.*, 1947, **69**, 2657 (*synth*)
Shenyakin, M.M. *et al*, *Experientia*, 1967, **23**, 428 (*use*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, MAN750.

Tetraethylammonium(1+) T-00041

Numerous proprietary names

[66-40-0]



$\text{C}_8\text{H}_{20}\text{N}^{\oplus}$ M 130.253 (ion)

Various derivs. used as synthetic reagents as ion sources
which are sol. in org. solvs. Ganglion blocking agent.

▷ BS5800000.

Bromide: [71-91-0]. *Tetrylammonium bromide*, *INN*

$\text{C}_8\text{H}_{20}\text{BrN}$ M 210.157

Cryst. (EtOH). V. sol. H_2O , EtOH, CHCl_3 .

▷ BS5950000.

Bromide; *Br₂ complex*: Orange-red needles (EtOH). Mp
78° → dark red liq.

Chloride: [56-34-8]. *Etamon chloride*

$\text{C}_8\text{H}_{20}\text{ClN}$ M 165.705

Used for dehydrohalogenations. Very hygroscopic. V.
sol. H_2O , EtOH, CHCl_3 , Me_2CO .

▷ BS6125000.

Chloride, tetrahydrate: Prisms. Mp 37.5°.

Hydroxide: [77-98-5].

$\text{C}_8\text{H}_{21}\text{NO}$ M 147.260

Strong base. Used, e.g., in acetylation of nucleosides.

Used to derivatise barbiturates for gc anal. Known only
in soln. and in form of hydrates.

▷ KH3150000.

Hydroxide, tetrahydrate: Needles. V. sol. H_2O . Mp 49-50°.

Hydroxide, hexahydrate: Mp 55°.

Fluoride: [665-46-3].

$\text{C}_8\text{H}_{20}\text{FN}$ M 149.251

Reagent for deprotecting amino groups. Fluoride ion
source. Cleaves Si-C bonds. Dihydrate.

Formate:

$\text{C}_9\text{H}_{21}\text{NO}_2$ M 175.270

Epimerising reagent for secondary alcohols. Hygroscopic
cryst.

Crichton, D.C. *et al*, *J. Chem. Soc.*, 1907, **91**, 1794 (*synth*,
hydroxide)

Wagner, L., *Z. Kristallogr.*, 1907, **43**, 190.

Walden, P., *Chem. Zentralbl.*, 1912, **1**, 1957.

Moe, G.K. *et al*, *Pharmacol. Rev.*, 1950, **2**, 61 (*rev*, *pharmacol*)

Kevill, D.N. *et al*, *J. Org. Chem.*, 1963, **28**, 567 (*use*)

Lohrman, R. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 4188 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**,
1137, 1138; **2**, 397; **6**, 568, 569; **7**, 356; **8**, 470.

MacGee, J., *Clin. Chem. (Winston-Salem, N.C.)*, 1971, **17**, 587
(*use*)

Carpino, L.A. *et al*, *J. Chem. Soc., Chem. Commun.*, 1978, 358
(*use*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed.,
Akademie-Verlag, Berlin, 1987, 1062.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, TCB725, TCC000,
TCC250, TCC500.

Tetraethylborate(1-), 10CI, 9CI, 8CI T-00042

[44772-63-6]



$\text{C}_8\text{H}_{20}\text{B}^{\ominus}$ M 127.057 (ion)

Li salt: [15003-13-1].

$\text{C}_8\text{H}_{20}\text{BLi}$ M 133.998

Battery electrolyte. Air- and moisture-sensitive.

Na salt: [15523-24-7]. *Sodium tetraethylborate*

$\text{C}_8\text{H}_{20}\text{BNa}$ M 150.047

Used for derivatisation of tri- and dimethyl lead, ionic
alkyltin compounds in gc analysis; used to volatilise
 $\text{Pb}^{2\oplus}$ in purge-acid-trap *detn*. of Pb by graphite furnace
AAS. White cryst. (toluene); sensitive to air, light, acid;
highly hygroscopic. Sol. H_2O , Et_2O , THF, diglyme;
insol. pentane; sl. sol. C_6H_6 . Aqueous solns. alkaline.

Honeycutt, J.B. *et al*, *J. Am. Chem. Soc.*, 1961, **83**, 369 (*synth*)

Thompson, R.J. *et al*, *Inorg. Chem.*, 1965, **4**, 1464 (*props*)

Nöth, H. *et al*, *J. Organomet. Chem.*, 1968, **12**, 23 (*nmr*)

Binger, P. *et al*, *Justus Liebigs Ann. Chem.*, 1968, **717**, 21 (*use*)

Inorg. Synth., 1974, **15**, 136 (*synth*, *use*)

Horowitz, H.H. *et al*, *Proc. Electrochem. Soc.*, 1981, **81**, 131 (*use*)

Rapsomanikis, S. *et al*, *Anal. Chem.*, 1986, **58**, 35 (*detn*, *organo-*
Pb)

Ashby, J.R. *et al*, *J. Anal. At. Spectrom.*, 1988, **3**, 735 (*detn*,
organometals)

Sturgeon, R.E. *et al*, *Anal. Chem.*, 1989, **61**, 1867 (*detn*, *Pb*)

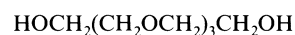
Ashby, J.R. *et al*, *Appl. Organomet. Chem.*, 1991, **5**, 173 (*detn*,
organo-Sn)

Michel, P. *et al*, *Appl. Organomet. Chem.*, 1991, **5**, 393 (*detn*,
organo-Sn)

Tetraethylene glycol T-00043

2,2'-[Oxybis(2,1-ethanediyloxy)]bisethanol, 9CI

[112-60-7]



$C_8H_{18}O_5$ M 194.227

Used in extraction of aromatics from petroleum and in resin manuf. Solv. for nitrocellulose. Bp 328°, Bp₂ 157°.

▷ XC2100000.

Di-Me ether: [143-24-8]. 2,5,8,11,14-Pentaoxapentadecane, 8CI

$C_{10}H_{22}O_5$ M 222.281

Used for extraction photometric detn. of Pd (λ_{max} 340 nm, 3-4M HCl, CH₂Cl₂). Liq. Sol. H₂O. d 1.009. Bp 275-276°.

Cyclic carbonate: Used in perfumery. Mp 42-44°. Bp 128-130°. Slight odour of musk.

Hill, J.W. *et al*, *J. Am. Chem. Soc.*, 1933, **55**, 5031 (*synth*)

Ziegler, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1963, **197**, 354 (*detn. Pd*)

Ribeito, A.A. *et al*, *J. Phys. Chem.*, 1977, **81**, 957 (*nmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PBO500, TCE250.

Tetraethylenepentamine

T-00044

N-(2-Aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine, 9CI. 1,4,7,10,13-Pentaazatridecane. Tetren [112-57-2]

$H_2NCH_2CH_2NHCH_2CH_2NHCH_2CH_2NHCH_2CH_2NH_2$

$C_8H_{23}N_5$ M 189.303

Organic base. Used in manuf. of lubricating oil additives.

Used in the colorimetric anal. of nitro compds. Used as a 0.01M soln. in NaOH aq. for potentiometric titrimetric detn. of Cd, Cu, Hg, Ni, Zn. Masking agent. Viscous, hygroscopic liq. d₂₀²⁰ 0.9980. Mp -40°. Bp 340°, Bp₁ 151-152°.

▷ Irritant. KH8585000.

B,5HCl: [4961-41-5].

Cryst. (EtOH aq.). Mp 266-268°.

U.K. Pat., 753 489, (1956); *CA*, **51**, 5821f (*synth*)

Reilley, C.N. *et al*, *Anal. Chem.*, 1959, **31**, 243, 887 (*detn. Zn*)

Scrier, M. *et al*, *Mikrochim. Ichnoanal. Acta*, 1965, 1091; *CA*, **64**, 16632e (*use*)

Keana, J.F.W. *et al*, *J. Org. Chem.*, 1987, **52**, 2571 (*synth*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 498.

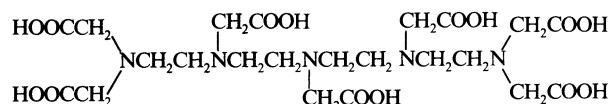
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TCE500.

Tetraethylenepentamineheptaacetic acid

T-00045

N,N-Bis[2-[[2-[bis(carboxymethyl)amino]ethyl]glycine, 9CI

[3234-59-1]



$C_{22}H_{37}N_5O_{14}$ M 595.559

Tetra-Na salt: Used as a 0.01M aq. soln. for photometric detn. of lanthanides. Cryst.

Zaki, M. *et al*, *Analyst (London)*, 1983, **108**, 531 (*use*)

Tetraethylphosphorodiamidic acid, 9CI, 8CI

T-00046

(Et₂N)₂P(O)OH

$C_8H_{21}N_2O_2P$ M 208.240

Me ester: Methyl tetraethylphosphorodiamidate

$C_9H_{23}N_2O_2P$ M 222.267

Liq. Sol. H₂O. Bp₁ 96°. n_D²⁵ 1.4410.

Et ester: [3644-89-1]. Ethyl tetraethylphosphorodiamidate

$C_{10}H_{25}N_2O_2P$ M 236.293

Liq. Sol. H₂O. d₂₀²⁰ 0.98. Bp₉ 119-120°. n_D²⁰ 1.4452.

Heptyl ester: [26084-39-9]. Heptyl

tetraethylphosphorodiamidate

$C_{15}H_{35}N_2O_2P$ M 306.427

Used as a 0.02M soln. in C₆H₆ for extraction separation of Zr. Oily liq. Sol. common org. solvs., insol. H₂O. Bp₂ 155°. n_D²⁰ 1.4489.

Fluoride: [562-17-4].

$C_8H_{20}FN_2OP$ M 210.231

Liq. Bp₂₂ 127-128°.

▷ TD3850000.

Isothiocyanate: Tetraethyl phosphor(isothiocyanatidic) diamide

$C_9H_{20}N_3OPS$ M 249.316

Liq. d₂₀²⁰ 1.07. Bp_{0.1} 82-84°. n_D²⁰ 1.5030.

Isocyanate: [18025-89-3]. Tetraethyl phosphor(isocyanatidic) diamide

$C_9H_{20}N_3O_2P$ M 233.250

Reactive liq. d₂₀²⁰ 1.08. Bp₁ 112-114°. n_D²⁰ 1.4629.

Azide: [59740-66-8].

$C_8H_{20}N_5OP$ M 233.253

Liq. Bp_{0.8} 104°. n_D²⁰ 1.4678.

Heap, R. *et al*, *J. Chem. Soc.*, 1948, 1313 (*fluoride*)

Loev, B. *et al*, *J. Org. Chem.*, 1957, **22**, 1186 (*esters, synth, props*)

Michalski, J. *et al*, *Pol. J. Chem. (Rocz. Chem.)*, 1957, **31**, 879;

CA, **52**, 8037 (*isothiocyanate*)

Cheyamol, J. *et al*, *C. R. Hebd. Seances Acad. Sci.*, 1959, **249**, 1240 (*methyl ester*)

Scott, F.L. *et al*, *J. Org. Chem.*, 1962, **27**, 4255 (*azide, synth, ir*)

Shtepanek, A.S. *et al*, *CA*, 1968, **68**, 114695 (*isocyanate*)

Alimarin, I.P. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 1386 (*heptyl ester, sepn, Zr*)

Abramov, V.S. *et al*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 974, 2180), 1969, **39**, 1003, 2234 (*ethyl ester*)

Litvincheva, A.S. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl.* p. 1823), 1970, 1935 (*heptyl ester, use*)

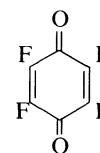
Landau, M.A. *et al*, *Zh. Strukt. Khim.*, (*Engl. transl.* p. 467), 1970, **11**, 513 (*fluoride, struct*)

Tetrafluoro-1,4-benzoquinone

T-00047

2,3,5,6-Tetrafluoro-2,5-cyclohexadiene-1,4-dione, 9CI

[527-21-9]



$C_6F_4O_2$ M 180.058

Spray reagent for thin-layer chromatog. detn. of alkaloids, penicillins, etc. Yellow cryst. Mp 182-185° (179°).

Wallenfels, K. *et al*, *Chem. Ber.*, 1957, **90**, 2819 (*synth*)

Nield, E. *et al*, *Tetrahedron*, 1960, **8**, 38 (*synth*)

Kikot, B.S. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1968, **38**, 883 (*ir*)

Meresse, A. *et al*, *Acta Crystallogr., Sect. B*, 1974, **30**, 524 (*cryst struct*)

Hudlicky, M. *et al*, *J. Fluorine Chem.*, 1975, **6**, 201 (*synth, nmr*)

Agarwal, S.P. *et al*, *J. Chromatogr.*, 1985, **323**, 424 (*use*)

Hagen, K. *et al*, *Acta Crystallogr., Sect. C*, 1987, **43**, 1959 (*cryst struct*)

Tetraheptylammonium(1+)

N,N,N-Triheptylheptanaminium(1+), 9CI
[35414-25-6]



$\text{C}_{28}\text{H}_{60}\text{N}^{\oplus}$ M 410.789 (ion)

Hydroxide:

$\text{C}_{28}\text{H}_{61}\text{NO}$ M 427.796

Reagent for on-column heptylation of barbiturates for gc sepn. Prepd. in MeOH soln. from the iodide.

Chloride: [10247-90-2].

$\text{C}_{28}\text{H}_{60}\text{ClN}$ M 446.241

Yellow liq. d_{35} 0.8817. Mp -9° .

Bromide: [4368-51-8].

$\text{C}_{28}\text{H}_{60}\text{BrN}$ M 490.693

Used for prep. of liq. membranes for anion selective electrodes; used in chromatographic sepn. of steroids. Commercially available. Ion-pair agent used in sepn. of org. acids by ion-pair reversed-phase tlc. Hygroscopic flaky powder. Mp 87-89 $^{\circ}$.

▷ Irritant.

Iodide:

$\text{C}_{28}\text{H}_{60}\text{IN}$ M 537.693

Mp 121-122 $^{\circ}$.

Carbonate (1:2): [42485-81-4].

Used to extract Br^{\ominus} , I^{\ominus} , Cl^{\ominus} from aq. soln. by gc.

Eriksen, S.P. *et al*, *J. Org. Chem.*, 1960, **25**, 849 (*synth*, *iodide*)

Reinsfelder, R.E. *et al*, *Anal. Chim. Acta*, 1973, **65**, 425 (*use*)

Matthews, D.R. *et al*, *Anal. Lett.*, 1973, **6**, 513 (*extn*, Br^{\ominus} , I^{\ominus} , Cl^{\ominus})

Galli, R. *et al*, *CA*, 1975, **83**, 90423f (*use*)

Mattox, V.R. *et al*, *J. Chromatogr.*, 1975, **108**, 23 (*use*)

Giovanelli, T.J. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1977,

23, 2154 (*use*, *hydroxide*)

Poole, C.F. *et al*, *J. Chromatogr.*, 1986, **352**, 407 (*synth*, *chloride*)

Wilson, I.D., *J. Chromatogr.*, 1986, **354**, 99 (*use*, *bromide*)

Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 3269D.

Tetrahexylammonium(1+)

N,N,N-Trihexylhexanaminium(1+), 9CI
[20256-54-6]



$\text{C}_{24}\text{H}_{52}\text{N}^{\oplus}$ M 354.681 (ion)

Hydroxide: [17756-56-8].

$\text{C}_{24}\text{H}_{53}\text{NO}$ M 371.689

Reagent for on-column hexylation of barbiturates for gc sepn. Prepd. in MeOH soln. from the iodide.

Chloride: [5922-92-9].

$\text{C}_{24}\text{H}_{52}\text{ClN}$ M 390.134

Used as a soln. in dichloroethane for extraction-separation of In. Cryst.

Iodide: [2138-24-1].

$\text{C}_{24}\text{H}_{52}\text{IN}$ M 481.586

Used as a soln. in dichloroethane for extraction-separation of metal complexes with azo dyes. Cryst. Mp 102-103 $^{\circ}$.

[4328-13-6]

Eriksen, S.P. *et al*, *J. Org. Chem.*, 1960, **25**, 849 (*synth*, *iodide*)

Irving, H.M.N. *et al*, *Anal. Chim. Acta*, 1970, **50**, 277 (*detn*, *Ir*)

Woodward, C. *et al*, *Talanta*, 1973, **20**, 417 (*use*)

Giovanelli, T.J. *et al*, *Clin. Chim. Acta*, 1976, **67**, 7 (*use*, *hydroxide*)

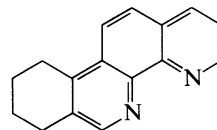
Giovanelli, T.J. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1977,

23, 2154 (*use*, *hydroxide*)

T-00048

7,8,9,10-Tetrahydrobenzo[c][1,10]phenanthroline

3,4-Cyclohexeno-1,10-phenanthroline



$\text{C}_{16}\text{H}_{14}\text{N}_2$ M 234.300

Used as a redox indicator. Cryst. (C_6H_6). Sol. EtOH, C_6H_6 ; spar. sol. H_2O . Mp 208-209 $^{\circ}$. pK_{a1} 5.66 (25 $^{\circ}$).

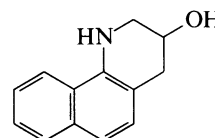
Case, F.A., *J. Org. Chem.*, 1956, **21**, 1069 (*synth*)

Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)

1,2,3,4-Tetrahydrobenzo[h]quinolin-3-ol, 9CI

1,2,3,4-Tetrahydro-3-hydroxybenzo[h]quinoline



$\text{C}_{13}\text{H}_{13}\text{NO}$ M 199.252

(±)-form [5423-67-6]

Reagent for the photometric detn. of amines. Cryst. (PhCl). Mp 151.9-152.2 $^{\circ}$.

B,HCl: [73579-26-7].

Cryst. (EtOH/Et₂O). Mp 245 $^{\circ}$ dec.

Benzoyl: [30727-62-9].

$\text{C}_{20}\text{H}_{17}\text{NO}_2$ M 303.360

Cryst. (MeOH). Mp 124.7-125 $^{\circ}$.

Benzoyl; *B,HCl*: Cryst. (EtOH). Mp 148.7-149.5 $^{\circ}$.

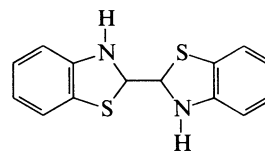
Vorozhtsov, N.N. *et al*, *Zh. Obshch. Khim.*, 1957, **27**, 2521; *CA*, **52**, 7317h (*synth*)

Kratochvil, V. *et al*, *CA*, 1986, **105**, 196392h; 1987, **107**, 190100f (*use*)

2,2',3,3'-Tetrahydro-2,2'-bibenzothiazole, 9CI

2,2'-Bisbenzothiazoline

[19258-20-9]



$\text{C}_{14}\text{H}_{12}\text{N}_2\text{S}_2$ M 272.394

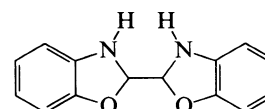
Used for photometric detn. of Cd. Cryst. (EtOH). Spar. sol. H_2O , EtOH, Me_2CO , C_6H_6 .

Degushi, M., *Bunseki Kagaku (Jpn. Anal.)*, 1969, **18**, 159.

2,2',3,3'-Tetrahydro-2,2'-bibenzoxazole, 9CI

2,2'-Bibenzoxazoline

[26903-08-2]



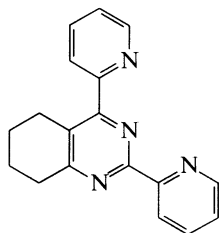
C₁₄H₁₂N₂O₂ M 240.261

Used for photometric detn. of Ca. Pale yellow cryst. (MeOH). Sol. C₆H₆, dioxan, MeOH; mod. sol. EtOH; insol. H₂O, CHCl₃. Mp 204°. Rearranges to glyoxal bis(2-hydroxyanil) in alkaline medium.

Murase, I., *Bull. Chem. Soc. Jpn.*, 1959, **32**, 827.Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals*, Wiley, New York, 1978.**5,6,7,8-Tetrahydro-2,4-bis(2-pyridyl)quinazoline**

T-00054

5,6,7,8-Tetrahydro-2,4-di-2-pyridylquinazoline, 8CI
[10198-86-4]

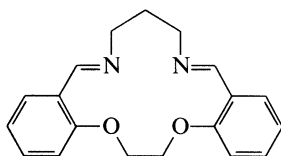
C₁₈H₁₆N₄ M 288.351

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 582 nm, ε 10500), Cu(I) (λ_{max} 438 nm, ε 2500). Cryst. (cyclohexanone). Sol. C₆H₆, dil. HCl. Mp 136-137°.

Lafferty, J.J. *et al*, *J. Org. Chem.*, 1967, **32**, 1591 (*synth*)Schilt, A.A. *et al*, *Talanta*, 1969, **16**, 519 (*detn. Cu, Fe*)**8,9,17,18-Tetrahydro-7H-dibenzo[e,n][1,4,8,12]-dioxadiazacyclopentadecine, 9CI**

T-00055

5,6:14,15-Dibenzo-1,4-dioxa-8,12-diazacyclopentadeca-7,12-diene
[52026-37-6]

C₁₉H₂₀N₂O₂ M 308.379

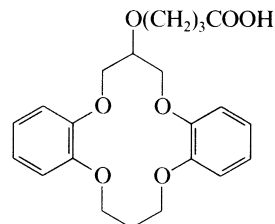
Used as 0.5mM CHCl₃ soln. for extraction separation of Ag; extraction-photometric detn. of Ag. Cryst. Sol.

CHCl₃, 1,2-dichloroethane, 1,2-dimethylbenzene, PhNO₂.

Armstrong, L.G. *et al*, *Inorg. Chem.*, 1975, **14**, 1322 (*synth*)Morosanova, E.I. *et al*, *Mikrochim. Acta*, 1984, **3**, 389 (*extrn. Ag*)Morosanova, E.I. *et al*, *Zh. Anal. Khim.*, 1988, **43**, 1614 (*detn. Ag*)**2-[(7,8,16,17-Tetrahydro-6H,15H-dibenzo[b,i][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]butanoic acid, 9CI**

T-00056

4-(sym-Dibenzo-14-crown-4-oxy)butanoic acid
[124617-95-4]

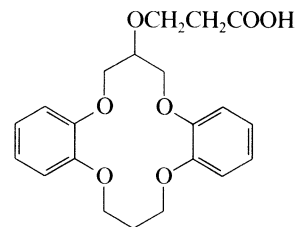
C₂₂H₂₆O₇ M 402.443

Used as 0.1mM CHCl₃ soln. for extraction separation of Ca, Sr, Ba. Cryst. (EtOH). Sol. CH₂Cl₂, CHCl₃, EtOH. Mp 115-118°.

Uhlemann, E. *et al*, *Anal. Chim. Acta*, 1989, **224**, 47 (*synth, use*)**3-[(7,8,16,17-Tetrahydro-6H,15H-dibenzo[b,i][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]propanoic acid, 9CI**

T-00057

3-(sym-Dibenzo-14-crown-4-oxy)propanoic acid
[124617-93-2]

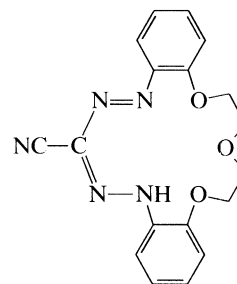
C₂₁H₂₄O₇ M 388.416

Used as 0.1mM CHCl₃ soln. for extraction separation of Ca, Sr, Ba. Cryst. (EtOH aq.). Sol. CH₂Cl₂, CHCl₃, EtOH. Mp 136-138°.

Uhlemann, E. *et al*, *Anal. Chim. Acta*, 1989, **224**, 47 (*synth, use*)**6,7,9,10-Tetrahydro-16H-dibenzo[b,i][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine-18-carbonitrile, 9CI**

T-00058

2,3,5,6-Tetrahydro-7-cyano-5H-dibenzo[h,o]-1,4,7,10,11,13,14-trioxatetraazacyclohexadecine
[80473-46-7]

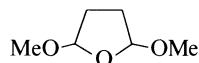
C₁₈H₁₇N₅O₃ M 351.364

Used as Me₂CO soln. as a selective chelating reagent for alkali metals. Dark red cryst. Sol. C₆H₆, CHCl₃, DMF, Py, EtOH; insol. H₂O. Mp 163-164°.

Dziomko, V.M. *et al*, *Zh. Obshch. Khim.*, 1981, **51**, 2324 (*synth, use*)

Tetrahydro-2,5-dimethoxyfuran **T-00059**

2,5-Dimethoxytetrahydrofuran, 9CI. 2,5-Dimethoxyoxolane [696-59-3]



C₆H₁₂O₃ M 132.159

Reagent for pyrrole synth. Used as a soln. in 1,2-dichloroethane for photometric detn. of NH₃ (λ_{max} 630 nm, ε 45200). Liq. Misc. EtOH, C₆H₆, Me₂CO, Et₂O. d₄²⁰ 1.023. Bp 145-147°, Bp₂₂ 52-54°.

Bazilevskaya, G.I. *et al*, *CA*, 1958, **52**, 18486g; 1959, **53**, 424a (*synth*)

East Ger. Pat., 25 656, (1963); *CA*, **60**, 10650e (*synth*)

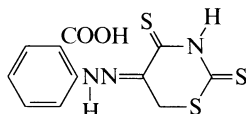
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 144.

Gross, R.L. *et al*, *CA*, 1978, **89**, 168791y (*detn. NH₃*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DON800.

2-[(Tetrahydro-2,4-dithioxo-2H-1,3-thiazin-5-yl)azo]benzoic acid, 9CI **T-00060**

Carboxybenzenediazothiothiazinodaniline [64780-76-3]



C₁₁H₉N₃O₂S₃ M 311.409

Several tautomers possible. Used as 0.1% aq. soln. for photometric detn. of Ag, gives colour reactions with Ag, Au, Pd, Pt. Orange cryst. Sol. H₂O, EtOH, Me₂CO.

Gur'eva, R.F. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 632 (*synth, detn. Ag*)

Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1987, **34**, 87 (*rev*)

Tetrahydrofuran, 9CI **T-00061**

Tetramethylene oxide. Oxolan. Furanidine. THF [109-99-9]



C₄H₈O M 72.107

A new process (1992) operated by Du Pont involves hardened-catalyst oxidn. of butane. Extensively-used solvent. Useful for reactions involving organo-Li compds. and Grignard reagents. Precursor for polyether glycols. Used as an extraction solvent e.g. for Fe(III)-SCN complex. Liq. with characteristic ethereal-type odour. Misc. most org. solvents; mod. sol. H₂O. d₄²¹ 0.888. Fp -65°. Bp 64-65°.

► Forms explosive peroxides. Irritant, TLV 590. Highly flammable. LU5950000.

Org. Synth., 1936, **16**, 77 (*synth*)

Specker, H. *et al*, *Fresenius' Z. Anal. Chem.*, 1953, **140**, 353; 1956, **149**, 97 (*use*)

U.S. Pat., 2 846 449, (1958) (*manuf*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 570.

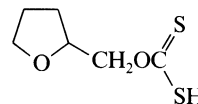
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 492.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 500.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TCR750.

O-[(Tetrahydro-2-furanyl)methyl] carbonodithioate **T-00062**

(2-Tetrahydrofurfuryl)xanthate



C₆H₁₀O₂S₂ M 178.276

K salt: [96941-70-7].

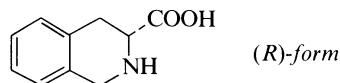
Used as a 0.2% aq. soln. for photometric detn. of Co (λ_{max} 350 nm, ε 16500), Ir (λ_{max} 380 nm, ε 5010), Ni (λ_{max} 420 nm, ε 3200). Cryst.

Hussain, M.F. *et al*, *Analyst (London)*, 1985, **110**, 1131.

1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid **T-00063**

Porretine

[35186-99-3]



C₁₀H₁₁NO₂ M 177.202

Useful intermed. for synth. of biologically active compds.

(*R*)-form

Mp >280°. [α]_D²¹ +176.8° (c, 1 in 1M NaOH). Opt. rotn. erroneously given as (-) in one paper.

(*S*)-form [74163-81-8]

Reagent for the resolu. of chiral amino acids. Scales.

Mp >280°. [α]_D¹⁹ -177.4° (c, 1 in 1M NaOH).

(±)-form [67123-97-1]

Picrate: Yellow cryst. (EtOH). Mp 204°.

Me ester:

C₁₁H₁₃NO₂ M 191.229

Liq. Bp_{0.1} 95-98° (bulb to bulb).

Me ester; *B,HCl*: Cryst. (MeOH/Et₂O). Mp 302-303°.

Et ester: [55857-63-1].

C₁₂H₁₅NO₂ M 205.256

Oil. Bp₁ 120°.

Amide:

C₁₀H₁₂N₂O M 176.218

Solid. Mp 162-163°.

Amide; *B,HCl*: Cryst. (MeOH/Et₂O). Mp 294-295°.

[15912-55-7, 57060-86-3, 57060-88-5, 112794-29-3, 112794-30-6]

Julian, P. *et al*, *J. Am. Chem. Soc.*, 1948, **70**, 182 (*synth*)

Hein, G. *et al*, *J. Am. Chem. Soc.*, 1962, **84**, 4487 (*synth*)

Saxena, A.K. *et al*, *Indian J. Chem.*, 1975, **13**, 230 (*Me ester*)

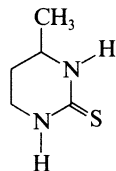
Hayashi, K. *et al*, *Chem. Pharm. Bull.*, 1983, **31**, 312 (*synth, bibl*)

Grunewald, G.L. *et al*, *J. Med. Chem.*, 1988, **31**, 824 (*ester, amide, synth, ir, pmr, cmr, ms*)

Shinkai, H. *et al*, *J. Med. Chem.*, 1988, **31**, 2092 (*synth*)

Jeanneret-Aris, A. *et al*, *Chromatographia*, 1990, **29**, 449 (*use*)

Tetrahydro-4-methyl-2(1H)-pyrimidinethione, 9CI
[45644-14-2]

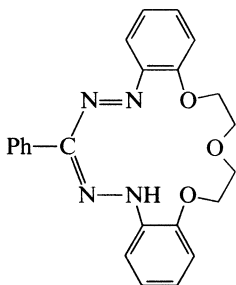


$C_5H_{10}N_2S$ M 130.213

Used as 1% aq. soln. for extraction-photometric detn. of Bi (λ_{max} 405 nm, ϵ 12000, $CHCl_3$), Sb, Sn. Cryst. (EtOH). Sol. $CHCl_3$; mod. sol. H_2O . Mp 183-184.5°.

McKay, A.F. *et al.*, *Can. J. Chem.*, 1954, **32**, 59 (*synth*)
Presnyak, I.S. *et al.*, *Zh. Anal. Khim.*, 1990, **45**, 1548 (*synth, use*)

6,7,9,10-Tetrahydro-18-phenyl-16H-dibenzo[b,i][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine, 9CI
Macrocyclic formazan III
[90906-68-6]

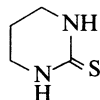


$C_{23}H_{22}N_4O_3$ M 402.452

Used as 1mM soln. in $CHCl_3$ or 4-methyl-2-pentanone as a selective extraction reagent for Cu and Hg (in the presence of picrate); extraction of Cu. Cryst. Sol. $CHCl_3$, 4-methyl-2-pentanone, EtOH.

Niz'eva, N.V. *et al.*, *Dokl. Akad. Nauk SSSR*, 1984, **274**, 611 (*synth, use*)
Isakova, N.V. *et al.*, *Zh. Anal. Khim.*, 1989, **44**, 1045 (*detn, Cu, Hg*)

Tetrahydro-2(1H)-pyrimidinethione T-00066
Hexahydropyrimidine-2-thione. Trimethylenethiourea
[2055-46-1]



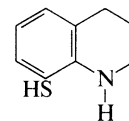
$C_4H_8N_2S$ M 116.187

Used as 0.1% aq. soln. for extraction-photometric detn. of Bi (λ_{max} 430 nm, ϵ 13000, $CHCl_3$), Sb. Cryst. (EtOH). Mp 211-211.5°.

▷ UW5782000.

McKay, A.F. *et al.*, *J. Am. Chem. Soc.*, 1956, **78**, 1618 (*synth*)
Behringer, H. *et al.*, *Justus Liebigs Ann. Chem.*, 1957, **607**, 67 (*synth, uv*)
Presnyak, I.S. *et al.*, *Zh. Anal. Khim.*, 1990, **45**, 1548 (*synth, use*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TLS000.

1,2,3,4-Tetrahydro-8-quinolinethiol, 8CI T-00067
1,2,3,4-Tetrahydro-8-mercaptoquinoline
[21570-31-0]

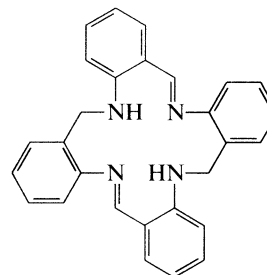


$C_9H_{11}NS$ M 165.259

Used as a soln. in $CHCl_3$ for extraction-photometric detn. of Bi (λ_{max} 470 nm, ϵ 4700, $CHCl_3$). Cryst. Sol. common org. solvs. pK_{a1} 3.61; pK_{a2} 3.76; pK_{a3} 6.25; pK_{a4} 6.40.

Sturis, A. *et al.*, *CA*, 1968, **69**, 90436y; **70**, 68091f, 77150b; **72**, 28061f (*pKa, props, ir, synth, use*)
Znika, I. *et al.*, *CA*, 1968, **70**, 72283n (*ir*)

5,6,17,18-Tetrahydrotetrabenzo[b,f,j,n]-1,5,9,13-tetraazacyclohexadecine, 9CI T-00068
Tetrabenzo[b,f,j,n]-1,5,9,13-tetraaza-8,16-cyclohexadecadiene
[62609-23-8]



$C_{28}H_{24}N_4$ M 416.524

Used as 5mM soln. in $CHCl_3$ for selective extraction of Cu(II) (in the presence of picrate; pH 4.5-6.5). Cryst. Sol. $CHCl_3$.

Zolotov, Yu.A. *et al.*, *Dokl. Akad. Nauk SSSR*, 1981, **258**, 889 (*synth*)
Zolotov, Yu.A. *et al.*, *Zh. Anal. Khim.*, 1982, **37**, 1543 (*detn, Cu*)

Tetrahydrothiophene-1,1-dioxide, 9CI T-00069
Sulfolane. Tetramethylene sulfone
[126-33-0]



$C_4H_8O_2S$ M 120.172

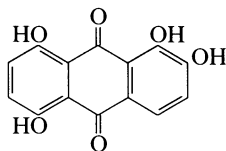
Constit. of the sponge/tunicate composite, *Batzella* sp./*Lissoclinum* sp. High-boiling polar aprotic solv. Used for extraction of aromatics from hydrocarbon mixts. Used as solvent for measuring polarographic half-wave potentials for alkali metals and Ba. Bitter tasting oil. d 1.261. Mp 27°. Bp 285°, Bp₁₈ 153-154°.

▷ Mod. toxic. XN0700000.

Arnett, E.M. *et al.*, *J. Am. Chem. Soc.*, 1964, **86**, 409 (*use*)
Morrow, G.S., *CA*, 1970, **72**, 43508a (*rev*)
Coetzee, J.F. *et al.*, *Anal. Chem.*, 1972, **44**, 1129 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 651.
Barrow, R.A. *et al.*, *J. Nat. Prod. (Lloydia)*, 1992, **55**, 1330 (*isol*)
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 495.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SNW500.

1,2,5,8-Tetrahydroxy-9,10-anthraquinone, 8CI T-00070

1,2,5,8-Tetrahydroxy-9,10-anthracenedione, 9CI.
Quinalizarin. C.I. Mordant violet 26
[81-61-8]



$C_{14}H_8O_6$ M 272.214

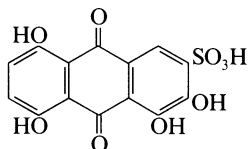
Used for photometric detn. of Be, B, Ge. Corrosion inhibitor. Red needles with green metallic lustre (AcOH). Mp $>275^\circ$.

▷ CB8069900.

Schmidt, R.E., *J. Prakt. Chem.*, 1891, **43**, 237 (*synth*)
Gattermann, L., *J. Prakt. Chem.*, 1891, **43**, 246 (*synth*)
Allen, C.F.H., *J. Org. Chem.*, 1941, **6**, 742 (*synth*)
Ger. Pat., 1 165 180, (1964); *CA*, **60**, 15803b (*synth*)
Langmyhr, F.J. *et al*, *Anal. Chim. Acta*, 1966, **35**, 220 (*detn*, B)
Colour Index, 3rd Ed., 1971, **4**, 4519 (*rev*)
Gupta, H.K. *et al*, *Mikrochim. Acta*, 1971, 577 (*detn*, B)
Poluektov, N.S. *et al*, *Zh. Anal. Khim.*, 1973, **28**, 285 (*detn*, Be)
Flyantikova, G.V. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 814 (*detn*, Ge)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TDD000.

3,4,5,8-Tetrahydroxyanthraquinone-2-sulfonic acid T-00071

9,10-Dihydro-1,2,5,8-tetrahydroxy-9,10-dioxo-3-anthracenesulfonic acid. Quinalizarin-3-sulfonic acid



$C_{14}H_8O_9S$ M 352.278

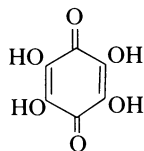
Used as 0.02% aq. soln. for photometric detn. of Zr (λ_{max} 565 nm, ϵ 10000). Cryst. Sol. H_2O .

Culkin, F. *et al*, *Anal. Chim. Acta*, 1965, **32**, 197 (*synth*, use)

Tetrahydroxy-1,4-benzoquinone T-00072

2,3,5,6-Tetrahydroxy-2,5-cyclohexadiene-1,4-dione, 9CI.
Tetroquinone, USAN, INN. Kelox. Terasin. HPEK 1.
NSC 112931. THQ

[319-89-1]



$C_6H_4O_6$ M 172.094

Systemic keratolytic and antimicrobial agent; also shows antitrypanosomal, antiviral and carcinostatic activity. Used as indicator for titrimetric detn. of Ba, $SO_4^{2\ominus}$. Black plates (2M HCl). Mp $>300^\circ$. pK_{a1} 4.55; pK_{a2} 6.65 (25°).

Tetra-Ac: [20129-61-7].

$C_{14}H_{12}O_{10}$ M 340.243

Pale-yellow needles (MeOH). Mp 172-173°.

2,5-Di-Me ether: [62267-71-4]. 2,5-Dihydroxy-3,6-dimethoxy-2,5-cyclohexadiene-1,4-dione. 2,5-Dihydroxy-3,6-dimethoxy-1,4-benzoquinone

$C_8H_8O_6$ M 200.148

Red-brown cryst. (MeOH). Mp 237-238°.

Tetra-Me ether: [3117-06-4]. Tetramethoxy-1,4-benzoquinone

$C_{10}H_{12}O_6$ M 228.201

Red needles (MeOH). Mp 135°.

Tetra-Et ether: [58535-78-7]. Tetraethoxy-1,4-benzoquinone

$C_{14}H_{20}O_6$ M 284.308

Cryst. (MeOH aq.). Mp 57°.

[1887-02-1, 5676-48-2]

Scroggins, L.H. *et al*, *J. Assoc. Off. Anal. Chem.*, 1957, **58**, 146 (*use*)

Eistert, B. *et al*, *Chem. Ber.*, 1959, **92**, 1239 (*synth*, *deriv*)

Skujins, S. *et al*, *Tetrahedron*, 1968, **24**, 4805 (*ms*)

Weuffen, W. *et al*, *Pharmazie*, 1970, **25**, 480 (*pharmacol*)

Org. Synth., *Coll. Vol.*, 5, 1973, 1011.

v. Phillipsborn, W., *Pure Appl. Chem.*, 1974, **40**, 159 (*cmr*)

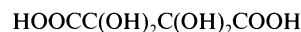
Junek, H. *et al*, *Z. Naturforsch.*, B, 1978, **33**, 1201 (*synth*, *deriv*)

Hoffmann, M.E. *et al*, *Experientia*, 1987, **43**, 217 (*biochem*)

Tetrahydroxybutanedioic acid, 9CI T-00073

Dihydroxytartaric acid. Tetrahydroxysuccinic acid

[76-30-2]



$C_4H_6O_8$ M 182.087

Reagent for the detn. of Na; used for gravimetric detn. of La. Cryst. Sol. H_2O . Mp 114-115° (98° dec.).

Di-Na salt: [51274-49-8].

Mp 285-288°.

Di-Me ester: [73499-66-8].

$C_6H_{10}O_8$ M 210.140

Cryst. or solid. V. sol. H_2O . Mp 144-145° (dehyd.).

[866-17-1]

Fenton, H.J.H. *et al*, *J. Chem. Soc.*, 1895, **67**, 48 (*synth*)

Ohatov, A.P. *et al*, *CA*, 1929, **23**, 2424 (*synth*)

Holker, J.R., *J. Chem. Soc.*, 1955, 579 (*synth*)

Beck, G., *Mikrochim. Acta*, 1956, 1495 (*detn*, La)

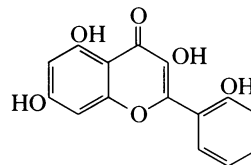
Nguyen, D.A. *et al*, *Bull. Soc. Chim. Fr.*, 1976, 589 (*synth*)

Morvan, J. *et al*, *Bull. Soc. Chim. Fr.*, Part II, 1979, 575 (*synth*)

2',3,5,7-Tetrahydroxyflavone T-00074

3,5,7-Trihydroxy-2-(2-hydroxyphenyl)-4H-1-benzopyran-4-one, 9CI. 2',5,7-Trihydroxyflavonol. **Datisctin**

[480-15-9]



$C_{15}H_{10}O_6$ M 286.240

Isol. from *Datisca cannabina*. Widespread in the Ranunculaceae (Egger, 1959). Used as a 0.03% soln. in EtOH for fluorimetric detn. of Zr, B, Al; photometric detn. of Th. Yellow needles (AcOH aq.). Sol. Et_2O , EtOH, Me_2CO . Mp 277-278°.

3-O- β -D-Glucopyranoside: [83008-42-8]. **Datiscanin**

$C_{21}H_{20}O_{11}$ M 448.382

Isol. from *D. cannabina*.

3-O-Rutinoside: [16310-92-2]. **Datiscin**

$C_{27}H_{30}O_{15}$ M 594.525

Isol. from *D. cannabina*. Almost colourless platelets (H₂O). Mp 190-193°. [α]_D²⁰ –48.6° (EtOH).

7-Me ether: [55051-98-4]. 2',3,5-Trihydroxy-7-methoxyflavone. **Datin**

C₁₆H₁₂O₆ M 300.267

Isol. from roots of *D. cannabina*. Prisms (EtOH). Mp 240°.

2'-Me ether: [520-13-8]. 3,5,7-Trihydroxy-2'-methoxyflavone. **Ptaeroxylol**. **Pteroxylol**

C₁₆H₁₂O₆ M 300.267

Yellow needles by subl. Mp 258-260°. Not fully characterised.

2'-Me ether, diglucoside: **Ptaeroxylosin**. **Pteroxylosin**

C₂₈H₃₂O₁₆ M 624.551

Isol. from *Ptaeroxylon obliquum*. Full struct. not known.

Tetra-Me ether: [14585-15-0]. 2',3,5,7-Tetramethoxyflavone

C₁₉H₁₈O₆ M 342.348

Needles (MeOH). Mp 137-139°.

[1399-00-4]

Prista, L.N., *CA*, 1954, **48**, 8489 (*Ptaeroxylosin*)

Simpson, T.H. *et al*, *Chem. Ind. (London)*, 1954, 1111 (*synth*)

Egger, K., *Z. Naturforsch.*, **B**, 1959, **14**, 401 (*occur*)

Golovina, A.P. *et al*, *Zh. Anal. Khim.*, 1962, **17**, 591; 1966, **21**, 163 (*detn*, *Zr*, *Al*)

Alimarin, I.P. *et al*, *CA*, 1963, **59**, 8117 (*detn*, *Th*)

Sim, K.Y., *J. Chem. Soc. C*, 1967, 976 (*Ptaeroxylol*)

Pangarova, T.T. *et al*, *Khim. Prir. Soedin.*, 1974, 788 (*isol*, *ir*)

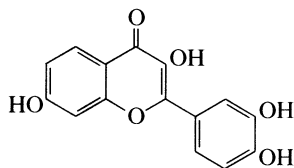
Zapesoch'naya, G.G. *et al*, *Khim. Prir. Soedin.*, 1982, **18**, 176, 180 (*Datiscanin*, *Datiscin*)

3,3',4',7-Tetrahydroxyflavone

T-00075

2-(3,4-Dihydroxyphenyl)-3,7-dihydroxy-4H-1-benzopyran-4-one, 9Cl. 3',4',7-Trihydroxyflavonol. **Fisetin**

[528-48-3]



C₁₅H₁₀O₆ M 286.240

Colouring matter obtained from *Rhus* spp., also in *Trachylobium verrucosum*, *Anthyllis vulneraria*, *Butea frondosa*, *Gleditsia* spp., *Acacia* spp. and others. Used as EtOH soln. for photometric detn. of Al, B, Be, Bi, Cd, Cu, Fe, Pb, Sb, U, Zr. Cr and rare earths (λ_{\max} 430 nm, ϵ 17000). Yellow cryst. Sol. EtOH, MeOH. Mp 330°. Shows brilliant yellow flouor.

▷ LK9250000.

Tetra-Ac: Mp 201.5° (196-198°).

v. Auwers, K., *Ber.*, 1915, **48**, 85 (*bibl*, *synth*)

Allan, J., *J. Chem. Soc.*, 1926, 2334 (*synth*)

Deulofeu, V. *et al*, *Gazz. Chim. Ital.*, 1953, **83**, 449 (*synth*)

Jankowska, T. *et al*, *Acta Chim. Hung.*, 1962, **33**, 135 (*use*, *detn*, *rare earths*)

Batterham, T.J. *et al*, *Aust. J. Chem.*, 1964, **17**, 428 (*pmr*)

Katyal, M. *et al*, *Curr. Sci.*, 1965, **34**, 456 (*detn*, *Zr*)

Nevskaya, E.M. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1699 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, FBW000.

3,4',5,7-Tetrahydroxyflavone

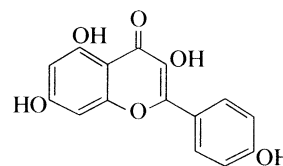
T-00076

3,5,7-Trihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one, 9Cl. 4',5,7-Trihydroxyflavonol. **Kaempferol**. **Campherol**.

Populnetin. **Robigenin**. **Rhamnolutin**. **Trifolitin**.

Nimbecetin. **Kampherol**. **Swartziol**

[520-18-3]



C₁₅H₁₀O₆ M 286.240

Very widespread in the plant world, e.g. in Brassicaceae, Apocynaceae, Dilleniaceae, Ranunculaceae, Leguminosae, etc. Used as 0.3% aq. EtOH soln. for photometric detn. of Ga, In, Sn(IV) (λ_{\max} 430 nm, ϵ 41000). Yellow needles (EtOH aq.). Sol. EtOH. Mp 276-278°.

▷ LK9275200.

Tetra-Ac: Mp 120°, Mp 178-180° dec. (double Mp).

[27638-32-0, 28384-70-5, 60302-63-8, 61117-16-6, 69501-06-0]

Kostanecki, S. *et al*, *Ber.*, (footnote), 1901, **34**, 3723 (*struct*)

Garg, B.S. *et al*, *Talanta*, 1971, **18**, 761 (*detn*, *Ga*, *In*)

Garg, B.S. *et al*, *Microchem. J.*, 1973, **18**, 509 (*detn*, *Sn*)

Kingston, D.G.I. *et al*, *Tetrahedron*, 1973, **29**, 4038 (*ms*)

Markham, K.R. *et al*, *Tetrahedron*, 1978, **34**, 1389 (*cmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ICE000.

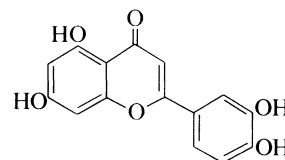
3',4',5,7-Tetrahydroxyflavone

T-00077

2-(3,4-Dihydroxyphenyl)-5,7-dihydroxy-4H-1-benzopyran-4-one, 9Cl. **Luteolin**. **Digitoflavone**. **Daphneflavonol**.

Flavopurpol

[491-70-3]



C₁₅H₁₀O₆ M 286.240

Numerous Me and methylene ethers have separate entries.

Occurs in many plants in Leguminosae, Resedaceae, Euphorbiaceae, Umbelliferae, Scrophulariaceae, Fabaceae, Asteraceae, Cistaceae, Passifloraceae, Yerbenaceae and Hepaticae. First isol. in 1832 from *Reseda luteola*. Shows virucidal activity. Used in EtOH soln. for colour reactions with Al, Be, Cd, Cu, Zr, B. Yellow needles. Mp 328-330° (325°).

▷ LK9275210.

[18695-03-9, 54985-16-9, 62804-16-4, 98716-92-8]

Inouye, H. *et al*, *Chem. Ber.*, 1969, **102**, 3009 (*synth*)

Kingston, D.G.I., *Tetrahedron*, 1971, **27**, 2691 (*ms*)

Nevskaya, E.M., *Zh. Anal. Khim.*, 1972, **27**, 1699 (*use*)

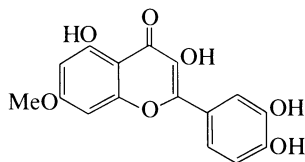
Wagner, H. *et al*, *Tetrahedron Lett.*, 1976, 1799 (*nmr*)

Voirin, B., *Phytochemistry*, 1983, **22**, 2107 (*uv*)

3,3',4',5-Tetrahydroxy-7-methoxyflavone T-00078

2-(3,4-Dihydroxyphenyl)-3,5-dihydroxy-7-methoxy-4H-1-benzopyran-4-one, 9CI. 3',4',5-Trihydroxy-7-methoxyflavonol. **Rhamnetin**. Quercetin 7-methyl ether. β -Rhamnocitrin

[90-19-7]

C₁₆H₁₂O₇ M 316.267

Found in the fruit of *Rhamnus cathartica*, other *R. spp.*, *Artemisia*, *Citrus* and many other plants. Used as a 0.4% aq. soln. for photometric detn. of U (λ_{\max} 505 nm), Th, Fe. Yellow cryst. (EtOH). Sol. EtOH, H₂O. Mp 294-296°.

▷ LK8748000.

[55196-43-5, 62858-07-5]

Kuhn, R. *et al. Ber.*, 1944, **77**, 211 (*synth*)Anand, N.K. *et al. J. Sci. Ind. Res.*, 1962, **21B**, 322 (*synth*)Samsoni, Z., *CA*, 1963, **59**, 9300 (*detn. Fe, U, Th*)Wagner, H. *et al. Tetrahedron Lett.*, 1976, 1799 (*cmr*)

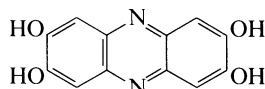
The Flavonoids: Advances in Research since 1980, (Eds. Harborne, J.B. *et al.*), Chapman and Hall, London, 1988.

2,3,7,8-Tetrahydroxyphenazine

T-00079

2,3,7,8-Phenazinetetrol, 9CI

[22106-80-5]

C₁₂H₈N₂O₄ M 244.206

Used for photometric detn. of Ga (λ_{\max} 548 nm, ϵ 120000), Sb (λ_{\max} 538 nm, ϵ 40000), Ti, Zr (λ_{\max} 585 nm, ϵ 36000). Dark green cryst. Sl. sol. conc. H₂SO₄; insol. H₂O, EtOH, Et₂O, C₆H₆, CHCl₃. Mp > 320°.

Peters, J., *Fresenius' Z. Anal. Chem.*, 1968, **241**, 167 (*detn. Ga, Sb, Zr*)Asmus, E. *et al. Fresenius' Z. Anal. Chem.*, 1970, **249**, 106 (*detn. Ti*)**Tetraiodobismuthate(III)(1 –)**

T-00080

[14636-74-9]

[BiI₄][⊖]BiI₄[⊖] M 716.598 (ion)

Tbp struct. with electron lone pair eq.

Tetrabutylammonium salt: [22364-17-6].

Suggested for gravimetric or spectrophotometric detn. of Bi. Red cryst. Insol. H₂O; sol. CHCl₃. Mp 161-163°.

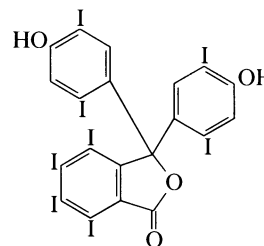
Ph₄As salt: [59890-68-5].

Suggested for spectrophotometric detn. of Bi. Orange-yellow solid. Insol. H₂O; sol. 1,2-dichloroethane.

Gmelin Handbook Inorg. Chem., Syst. No. 19, 1964, 718 (*rev. bibl*)Eve, A.J. *et al. Inorg. Chem.*, 1967, **6**, 331 (*w*)Spragg, R.A. *et al. J. Mol. Struct.*, 1969, **3**, 305 (*synth, struct*)Ahlijah, G.Y. *et al. J. Chem. Soc. A*, 1970, 326 (*synth, ir, raman*)Hasebe, K. *et al. Talanta*, 1982, **29**, 1135 (*w*)Burns, D.T. *et al. Anal. Chim. Acta*, 1987, **197**, 285; 1988, **211**, 305 (*anal*)**Tetraiodophenoltetraiodophthalein**

T-00081

3,3-Bis(2,5-diiodo-4-hydroxyphenyl)-4,5,6,7-tetraiodo-1(3H)isobenzofuranone. 2',2'',4,5,5'',5''',6,7-Octaiodophenolphthalein

C₂₀H₆I₈O₄ M 1325.501

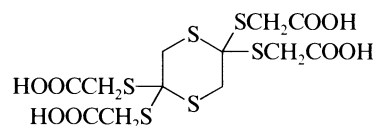
Used as acid-base indicator (pH range: 7.6-9.4, colour change: colourless → blue). Cryst. Spar. sol. EtOH.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 100 (*use, ind*)**2,2,5,5-Tetrakis(carboxymethylthio)-p-dithiane**

T-00082

2,2',2'',2'''-[1,4-Dithiane-2,5-diylidene]tetrakis(thio)tetraakis[acetic acid], 9CI

[52959-43-0]

C₁₂H₁₆O₈S₆ M 480.650

Reagent for the detn. of carbohydrates and aromatic aldehydes. Mp 202-204°.

Tetra-Me ester:C₁₆H₂₄O₈S₆ M 536.757

Cryst. (MeOH, EtOH). Mp 118-119°.

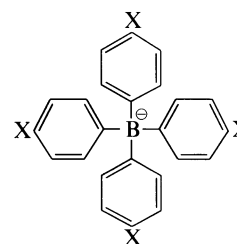
Tetra-Et ester:C₂₀H₃₂O₈S₆ M 592.864

Cryst. (EtOH). Mp 92.5-93.5°.

Tetrahydrazide:C₁₂H₂₄N₄O₄S₆ M 536.769Cryst. (H₂O). Mp 210-212° dec.Schoberl, A. *et al. Justus Liebigs Ann. Chem.*, 1955, **595**, 101 (*synth*)Kunovits, G., *Anal. Chim. Acta*, 1974, **70**, 213 (*use*)**Tetrakis(4-chlorophenyl)borate(1 –), 10CI,**

T-00083

9CI



X = Cl

C₂₄H₁₆BCl₄[⊖] M 457.012 (ion)*K salt*: [14680-77-4].C₂₄H₁₆BCl₄K M 496.110

Used in ion-selective liq. membrane electrodes.

Vandeberg, J.T. *et al. Spectrochim. Acta, Part A*, 1971, **27**, 501 (*ir*)Davies, J.E.W. *et al. Lab. Pract.*, 1973, **22**, 20; *CA*, **78**, 62262v (*use*)

Vandenberg, J.T. *et al*, *Org. Magn. Reson.*, 1973, 5, 57 (*nmr*)
 Ammann, D. *et al*, *CA*, 1980, 93, 21884b (*use*)
 Petranek, J. *et al*, *Anal. Chim. Acta*, 1981, 128, 129.

Tetrakis(4-fluorophenyl)borate(1 -), 10Cl T-00084

As Tetrakis(4-chlorophenyl)borate(1 -), T-00083 with



$C_{24}H_{16}BF_4^{\ominus}$ M 391.195 (ion)

Li salt: [68140-33-0].

$C_{24}H_{16}BF_4Li$ M 398.136

Used in battery electrolytes.

Na salt: [25776-12-9].

$C_{24}H_{16}BF_4Na$ M 414.185

Used as 1% aq. soln. for gravimetric detn. of Cs; pptn. of Ag, Cs, Rb, Tl(*I*). Cryst.

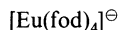
Moore, C.E. *et al*, *Anal. Chim. Acta*, 1966, 35, 1 (*synth, use*)

Ger. Pat., 2 901 367, (1979); *CA*, 92, 61799p (*use*)

U.S. Pat., 4 139 681, (1979); *CA*, 90, 207210x (*use*)

Horowitz, H.H. *et al*, *Proc. Electrochem. Soc.*, 1981, 81, 131.

Tetrakis(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato) europate(III)(1 -) T-00085



$C_{40}H_{40}EuF_{28}O_8^{\ominus}$ M 1332.671 (ion)

Ag salt: [79816-44-7].

Dark yellow solid. Sol. $CHCl_3$. Mp 85-90°.

Lanthanide(III)-silver(I) nmr shift reagent for olefins and aromatics.

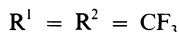
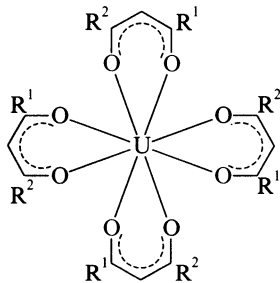
Wenzel, T.J. *et al*, *J. Am. Chem. Soc.*, 1982, 104, 382 (*synth, use*)

Tetrakis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-O,O')uranium(IV), 9Cl T-00086

Tetrakis(hexafluoroacetylacetonato)uranium(IV).

Uranium(IV) hexafluoroacetylacetonate

[35185-40-1]



$C_{20}H_4F_{24}O_8U$ M 1066.237

Obt. on uv photolysis of $UO_2(hfac)_2$. Nmr shift reagent. Sl. air-sensitive brown cryst. (EtOH/toluene). Sol. toluene,

C_6H_6 . Mp 60° (90°). Bp_{0.001} 45°, Bp_{0.001} 70°.

Haszeldine, R.N. *et al*, *J. Chem. Soc.*, 1951, 609 (*synth*)

Gilman, H. *et al*, *J. Am. Chem. Soc.*, 1956, 78, 2790 (*synth*)

Mitchell, J.W. *et al*, *Anal. Chim. Acta*, 1971, 57, 415 (*synth*)

Yoshimura, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, 46, 2096 (*synth, ir*)

Fr. Pat., 2 231 289, (1974); *CA*, 83, 18845 (*use*)

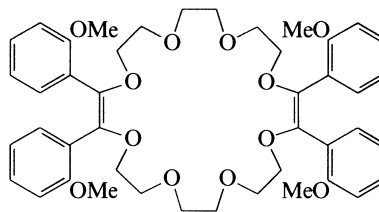
De Vito, V.L. *et al*, *J. Inorg. Nucl. Chem.*, 1980, 42, 1719 (*synth, ir, ms, uv*)

Kramer, G.M. *et al*, *Inorg. Chem.*, 1981, 20, 1421 (*synth*)

2,3,14,15-Tetrakis(2-methoxyphenyl)-1,4,7,10,13,16,19,22-octaoxacyclotetracos-2,14-diene, 9Cl T-00087

Di(o-methoxy)stilbenzo-24-crown-8

[118746-64-8]



$C_{44}H_{52}O_{12}$ M 772.888

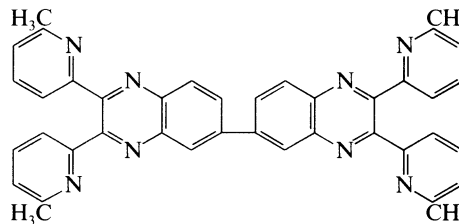
Used in Na ion-selective PVC membrane electrode. Cryst.

(EtOAc/ $CHCl_3$). Sol. EtOAc, $CHCl_3$. Mp 133°.

Zhou, X. *et al*, *Anal. Chim. Acta*, 1988, 212, 325 (*synth, use*)

2,2',3,3'-Tetrakis(6-methyl-2-pyridyl)-6,6'-biquinoxaline, 8Cl T-00088

[17401-79-5]



$C_{40}H_{30}N_8$ M 622.731

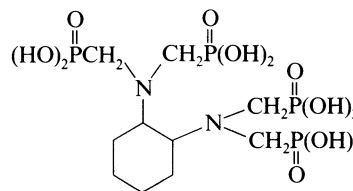
Used as 0.1% EtOH soln. for extraction-photometric detn.

of Cu(*I*) (λ_{max} 538 nm, ϵ 5150, pentanol). Cryst. (EtOH).

Sol. EtOH, pet. ether. Mp 271°.

Stephen, W.I. *et al*, *Anal. Chim. Acta*, 1967, 39, 357 (*synth, detn, Cu*)

***N,N,N',N'*-Tetrakis(phosphonomethyl)-1,2-cyclohexanediamine T-00089**



$C_{10}H_{26}N_2O_{12}P_4$ M 490.216

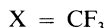
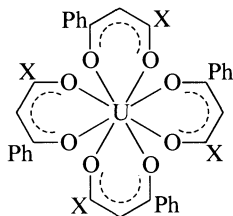
pK_{a1} 2.40; pK_{a2} 3.70; pK_{a3} 5.32; pK_{a4} 6.46; pK_{a5} 6.97; pK_{a6} 7.69; pK_{a7} 9.39; pK_{a8} 10.89 ($\mu = 0.1, 25^\circ$).

Octa-Na salt: Used for titrimetric detn. of Fe; complexing agent for many metals. Cryst.

Banks, C.V., *Anal. Chim. Acta*, 1959, 20, 304 (*synth, pKa, use*)

Tetrakis(4,4,4-trifluoro-1-phenyl-1,3-butanedionato-O,O')uranium

T-00090

Tetrakis(benzoyltrifluoroacetylacetonato)uranium(IV)
[42730-81-4]C₄₀H₂₄F₁₂O₈U M 1098.634Dodecahedral geometry. Can be used as nmr shift reagent. Somewhat air-sensitive reddish-brown solid. Sol. butanol, CCl₄, C₆H₆, toluene, MeCN.Yoshimura, J. *et al*, *Bull. Chem. Soc. Jpn.*, 1973, **46**, 2096 (*synth, ir*)*Fr. Pat.*, 2 231 289, (1973); *CA*, **83**, 18845.Folcher, G. *et al*, *J. Chem. Soc., Chem. Commun.*, 1974, 3 (*synth, use*)Myake, C. *et al*, *Chem. Phys. Lett.*, 1975, **36**, 158 (*pe*)Naraza, A. *et al*, *Acta Crystallogr., Sect. B*, 1980, **36**, 696 (*cryst struct*)De Vito, V.L. *et al*, *J. Inorg. Nucl. Chem.*, 1980, **42**, 1719 (*synth, ir, uv, ms*)Martin-Rovet, D. *et al*, *J. Inorg. Nucl. Chem.*, 1981, **43**, 1227 (*nmr*)Li, S.L. *et al*, *J. Chim. Phys. Phys.-Chim. Biol.*, 1984, **81**, 163 (*uv-vis*)Blaise, A. *et al*, *J. Less-Common Met.*, 1986, **121**, 209 (*magnetism*)**N,N,N',N'-Tetrakis(trimethylsilyl)-1,2-ethanediamine, 9CI**

T-00091

2,2,7,7-Tetramethyl-3,6-bis(trimethylsilyl)-3,6-diaza-2,7-disilaocane, 8CI
[5577-69-5]C₁₄H₄₀N₂Si₄ M 348.825Silylation reagent for gc. anal. of trace org. compds. Mp 51-52°. Bp₁ 106-108°.Kummer, D. *et al*, *J. Phys. Chem.*, 1963, **67**, 98 (*pmr*)Kummer, D. *et al*, *Z. Anorg. Allg. Chem.*, 1963, **321**, 21 (*synth*)Donike, M. *et al*, *J. Chromatogr.*, 1972, **74**, 121 (*use*)Smith, R.G. *et al*, *J. Org. Chem.*, 1978, **43**, 2178 (*ms*)Engelhardt, L.M. *et al*, *Aust. J. Chem.*, 1985, **38**, 1729 (*cryst struct*)**Tetramethylammonium(1+)**

T-00092

N,N,N-Trimethylmethanaminium, 9CI
[51-92-3]C₄H₁₂N[⊕] M 74.145 (ion)

Occurs naturally in plant and animal tissues.

Bromide: [64-20-0].C₄H₁₂BrN M 154.049

Used as a 5% aq. soln. for detn. of Bi. Volatile cryst.

Bp > 230° (subl., dec.).

▷ BS7600000.

Tribromide:C₄H₁₂Br₃N M 313.857

Mild brominating agent.

Iodide: [75-58-1]. Tetrammonium iodide. Artilacer. Banikol. TMAI. YodurtamC₄H₁₂IN M 201.050

Ganglion blocking agent. Pale yellow cryst. Mp 230° dec.

▷ PA1050000.

Formate: [59138-84-0]. Tetrammonium formate.*Fibrogenina. Forgenin. Tonoformina*

Ganglion blocking agent, neurocardiotonic.

▷ BS7960000.

Hydroxide: [10424-65-4].C₄H₁₃NO M 91.153

Used as a gc derivatisation reagent for acids.

Hygroscopic needles + 5H₂O. Mp 63°. Absorbs CO₂ readily. Powerful base, comparable to NaOH. Gentle warming produces lower hydrates. Dec. on boiling.

▷ Caustic, highly irritant.

Borohydride:C₄H₁₆BN M 88.988

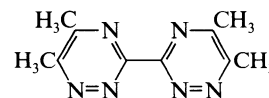
Reducing agent sol. in nonpolar solvs. and stable to alcohols. Microcryst. solid (MeCN or 2-propanol).

Triacetoxylborohydride: [109704-53-2].C₁₀H₂₂BNO₆ M 263.098

Mild reducing agent, reduces acyclic β-hydroxyketones to the corresp. diols with high diastereoselectivity.

Prismatic needles (CH₂Cl₂/EtOAc). Exceedingly hygroscopic.Schmidt, E., *Justus Liebigs Ann. Chem.*, 1892, **267**, 254 (*synth*)Walker, J. *et al*, *J. Chem. Soc.*, 1905, **87**, 955 (*synth*)Potratz, A.H. *et al*, *Anal. Chem.*, 1949, **21**, 1276 (*detn, Bi*)*Japan. Pat.*, 60 11 754, (1960); *CA*, **56**, 4617i (*synth*)Bailey, J.J., *Anal. Chem.*, 1967, **39**, 1485 (*use, hydroxide*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 1143, 1144.Dunsmon, H.S. *et al*, *Lab. Pract.*, 1972, **21**, 791 (*synth*)Kabisch, G., *J. Raman Spectrosc.*, 1980, **9**, 279 (*cryst struct*)Llinares, J. *et al*, *Org. Magn. Reson.*, 1980, **14**, 20 (*cmr*)Neef, C. *et al*, *Naunyn-Schmiedeberg's Arch. Pharmakol.*, 1984, **328**, 103, 111 (*pharmacol*)Tsubaki, H. *et al*, *J. Pharmacobio-Dyn.*, 1986, **9**, 737 (*pharmacol*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TDJ750, TDK750.**5,5',6,6'-Tetramethyl-3,3-bi(1,2,4-triazine) 3,3'-Bi(5,6-dimethyl-1,2,4-triazine)**

T-00093

C₁₀H₁₂N₆ M 216.245Used as a 6mM aq. soln. for photometric detn. of Fe(II) (λ_{max} 493 nm, ε 15000); redox indicator for titrimetric detn. of Cu(I), Fe(II). Cryst. (H₂O). Sol. EtOH, C₆H₆, Me₂CO, Et₂O, CHCl₃; mod. sol. H₂O. Mp 166°.Jensen, R.E. *et al*, *Anal. Chim. Acta*, 1965, **32**, 235.**5-(1,1,3,3-Tetramethylbutyl)-1,2,3-benzenetriol, 9CI**

T-00094

5-tert-Octylpyrogallol
[30536-73-3]C₁₄H₂₂O₃ M 238.326

Used as a 1% soln. in EtOH for extraction-photometric detn. of Mo. Cryst.

Caton, L. *et al*, *Rev. Chim. (Bucharest)*, 1970, **21**, 370.

2,2,6,6-Tetramethyl-3,5-heptanedione, 9CI, T-00095
8CI

Dipivaloylmethane

[1118-71-4]



$C_{11}H_{20}O_2$ M 184.278

Used for extraction-separation of lanthanides. Liq. Mp 22°. Bp₁₈ 88°.

Cu complex: Purple cryst. Mp 196-197°.

Kopecky, K.R. *et al*, *J. Org. Chem.*, 1962, **27**, 1036 (*synth, bibl*)

Sweet, T.R. *et al*, *Anal. Chem.*, 1968, **40**, 1885.

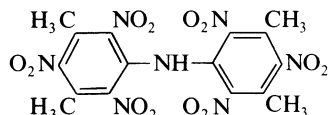
Cornforth, J. *et al*, *Aust. J. Chem.*, 1984, **37**, 1453 (*synth*)

3,3',5,5'-Tetramethyl-2,2',4,4',6,6'-hexanitrodiphenylamine, 9CI T-00096

2',2',4,4',6,6'-Hexanitrodi-3,5-xylylamine, 8CI.

Tetramethyldipicrylamine

[5369-24-4]



$C_{16}H_{13}N_7O_{12}$ M 495.318

Shows antibacterial activity. Yellow-orange cryst. (EtOH). Mp 231° dec.

Na salt: [27919-43-3].

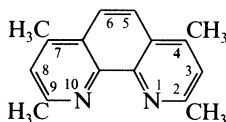
Used as a 1-2% aq. soln. for microscopic detn. of Cs, K, NH_4^+ , Rb; gravimetric detn. of K. Sol. alkalis; mod. sol. EtOH.

Moore, C.E. *et al*, *Talanta*, 1966, **13**, 171 (*use*)

Fritsch, A.J. *et al*, *Nature (London)*, 1968, **217**, 350.

2,4,7,9-Tetramethyl-1,10-phenanthroline, 9CI T-00097

[3309-33-9]



$C_{16}H_{16}N_2$ M 236.316

Used as redox indicator. Cryst. pK_{a1} 6.50 (25°).

Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

3,4,6,7-Tetramethyl-1,10-phenanthroline, 9CI T-00098

$C_{16}H_{16}N_2$ M 236.316

Used as a redox indicator. Cryst. pK_{a1} 6.45 (25°). $E^\circ + 0.840$ V (25°). λ_{max} 510 nm.

Brandt, W.W. *et al*, *Anal. Chem.*, 1949, **21**, 1313 (*use, ind*)

Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)

3,4,6,8-Tetramethyl-1,10-phenanthroline, 9CI T-00099

$C_{16}H_{16}N_2$ M 236.316

Used as redox indicator. Cryst. pK_{a1} 6.02 (25°). $E^\circ + 0.890$ V (25°). λ_{max} 504 nm.

Brandt, W.W. *et al*, *Anal. Chem.*, 1949, **21**, 1313 (*use, ind*)

Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)

3,4,7,8-Tetramethyl-1,10-phenanthroline, 9CI T-00100

[1660-93-1]

$C_{16}H_{16}N_2$ M 236.316

Used as redox indicator. Cryst. pK_{a1} 6.31 (25°). $E^\circ + 0.850$ V (25°). λ_{max} 500 nm.

Brandt, W.W. *et al*, *Anal. Chem.*, 1949, **21**, 1313 (*use, ind*)

Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)

3,5,6,8-Tetramethyl-1,10-phenanthroline, 9CI T-00101

[2747-15-1]

$C_{16}H_{16}N_2$ M 236.316

Used as redox indicator. Cryst. pK_{a1} 5.54 (25°).

Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Zak, B., *CA*, 1974, **80**, 95913p (*synth*)

Tetramethylphosphinous amide, 9CI T-00102

Dimethyl(dimethylamino)phosphine

[683-84-1]



$C_4H_{12}NP$ M 105.119

Reagent for derivatising hydroxy steroids for gc-ms anal.

Liq. Mp -97°. Bp 99.4°, Bp 98-99°.

B, MeI: Cryst. (EtOH/Et₂O). Mp 315-320° dec.

Burg, A.B. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 1107 (*synth*)

Issleib, K. *et al*, *Chem. Ber.*, 1959, **92**, 2681 (*synth*)

Maier, L., *Helv. Chim. Acta*, 1964, **47**, 2129 (*synth*)

Laurent, J.P. *et al*, *J. Inorg. Nucl. Chem.*, 1969, **31**, 1353 (*pmr, P nmr*)

Vogt, W. *et al*, *J. Chromatogr. Sci.*, 1974, **12**, 658 (*use*)

Jacob, K. *et al*, *Tetrahedron Lett.*, 1975, 1927 (*use*)

Jacob, K. *et al*, *Biomed. Mass Spectrom.*, 1976, **3**, 64 (*use*)

Barlos, K. *et al*, *Z. Naturforsch., B*, 1978, **33**, 515 (*N nmr*)

Gouesnard, J.-P. *et al*, *Can. J. Chem.*, 1980, **58**, 1295 (*N and P nmr*)

Tetramethylsilane T-00103

Silicon tetramethyl. TMS

[75-76-3]



$C_4H_{12}Si$ M 88.224

Used as standard for pmr. Volatile liq. freezing to dimorphous solid. Mp -102.2° and -99.1°. Bp 26.6°.

▷ Extremely flammable, flash pt. < 0°. VV5705400.

Aston, J.G. *et al*, *J. Am. Chem. Soc.*, 1941, **63**, 2343 (*synth*)

Ger. Pat., 1 239 687, (1967); *CA*, **68**, 2989 (*synth*)

Tikhomirova, E.N. *et al*, *Opt. Spektrosk.*, 1969, **27**, 615; *CA*, **72**, 37301 (*ir*)

Wurst, M. *et al*, *Collect. Czech. Chem. Commun.*, 1971, **36**, 3497 (*glc*)

Morrison, J.A. *et al*, *Inorg. Chem.*, 1977, **16**, 2972 (*synth*)

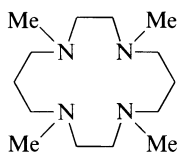
Schraml, J. *et al*, *Collect. Czech. Chem. Commun.*, 1979, **44**, 854 (*nmr*)

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 513.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TDV500.

1,4,8,11-Tetramethyl-1,4,8,11-tetrazacyclotetradecane, 9CI

T-00104

[41203-22-9]

C₁₄H₃₂N₄ M 256.434

Used as a 0.01M soln. in dil. NaOH for extraction-photometric detn. of Cd (λ_{\max} nm, ϵ 110000, CHCl₃). Cryst.

[53118-98-2]

Barefield, E.K. *et al*, *CA*, 1976, **85**, 71486d (detn, Cd)
Szczeniaki, W. *et al*, *Anal. Chim. Acta*, 1984, **156**, 235 (detn, Cd)

Tetramethylthiocarbonyl diamide, 9CI T-00105

Bis(dimethylthiocarbonyl) sulfide, 8CI. Tetramethylthiuram sulfide

[97-74-5]

C₆H₁₂N₂S₃ M 208.372

Vulcanizing agent. Used as 0.2% EtOH soln. for gravimetric detn. of Se; extraction-photometric detn. of Te, Cu. Yellow cryst. (EtOH). V. sol. EtOH, CHCl₃; spar. sol. cold Et₂O. Mp 104°.

▷ Highly toxic orally. Emits toxic fumes when heated to dec.. WQ1750000.

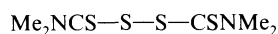
v. Braun, J. *et al*, *Ber.*, 1903, **36**, 2280 (synth)
Cummings, A.D. *et al*, *Ind. Eng. Chem.*, 1928, **20**, 1173; *CA*, **23**, 1307 (use)
Michal, J. *et al*, *Collect. Czech. Chem. Commun.*, 1955, **20**, 305 (detn, Cu, Se)
Tutkuvenc, V.E. *et al*, *Zh. Anal. Khim.*, 1966, **21**, 564 (detn, Te)
Japan. Pat., 19 575, (1967); *CA*, **69**, 2531 (manuf)
Colapietro, M. *et al*, *Acta Crystallogr., Sect. B*, 1976, **32**, 2581 (cryst struct)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, B JL600.

Tetramethylthiuram disulfide

T-00106

Tetramethylthioperoxydicarbonyl diamide, 9CI.
Bis(dimethylthiocarbonyl) disulfide, 8CI. **Thiram**, USAN, INN. Arasan. Fernasan. Fernide. Pomarsol. Rezifilm. Tersan. Tetrathion. NSC 1771. SQ 1489

[137-26-8]

C₆H₁₂N₂S₄ M 240.438

Fungicide, bacteriostat, rubber vulcanisation accelerator. Used as a soln. in CHCl₃ for extraction-photometric detn. of Cu. Cryst. (CHCl₃/EtOH). Insol. H₂O, sol. CHCl₃; mod. sol. EtOH, Me₂CO, C₆H₆. Mp 155-156°.

▷ Mod. toxic, mild allergen and irritant. JO1400000.

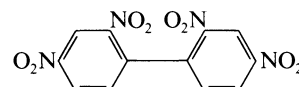
U.S. Pat., 3 147 308, (1964); *CA*, **61**, 14539e (synth)
Maroey, K., *Acta Chem. Scand.*, 1965, **19**, 1509 (cryst struct)

Mezaraups, G. *et al*, *CA*, 1967, **67**, 39816d.
Benson, W.R. *et al*, *J. Assoc. Off. Anal. Chem.*, 1968, **51**, 347 (ms)
Gore, R.C. *et al*, *J. Assoc. Off. Anal. Chem.*, 1971, **54**, 1040 (ir, ur)
Brinkhoff, H.C. *et al*, *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1971, **90**, 252 (pmr, ir)
Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 13330.
Keers Sypsteijn, A., *Symp. Br. Mycol. Soc.*, 1983, **9**, 135 (rev. props)
Wang, Y. *et al*, *Acta Crystallogr., Sect. C*, 1986, **42**, 1420 (cryst struct)
Jefferson, A. *et al*, *Chem. Ind. (London)*, 1986, 244 (ms)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TFS350.

2,2',4,4'-Tetranitrobiphenyl

T-00107

[1820-59-3]

C₁₂H₆N₄O₈ M 334.201

Colorimetric reagent for active methylene compds. and for cardenolides. Yellow prisms (AcOH). Mp 165-166°.

Ullmann, F. *et al*, *Ber.*, 1901, **34**, 2177 (synth)
Gull, H.C. *et al*, *J. Chem. Soc.*, 1929, 491 (synth)
Nakadate, M. *et al*, *Chem. Pharm. Bull.*, 1964, **12**, 1138, 1276 (use)
Hofsommer, J.C. *et al*, *J. Chromatogr.*, 1968, **38**, 508 (tlc)
Rabitzsch, G. *et al*, *Pharmazie*, 1969, **24**, 262 (use)
Thomas, C.B. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1972, 778 (ms)

Tetranitromethane, 9CI

T-00108

[509-14-8]

CN₄O₈ M 196.033

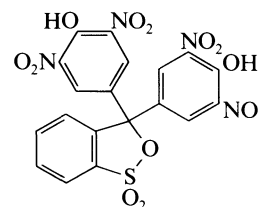
Used as an oxidiser in rocket propellants, as an explosive and for the detn. of double bonds in organic compds. and for detn. of sulfur compds. d₄²⁵ 1.623. Mp 13.8°. Bp 126°, Bp_{14.9} 30°. Steam-volatile.

▷ Highly toxic, TLV 8. LD₅₀ 53 mg/kg (mouse, i.p.). Explosive. PB4025000.

Org. Synth., Coll. Vol., 3, 1955, 803 (synth, use)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 404.
Kawanami, J., *Mikrochim. Acta*, 1969, 106 (use)
Altukhov, K. *et al*, *Usp. Khim.*, 1976, **45**, 2050 (rev)
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 324.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TDY250.

3,3',5,5'-Tetranitrophenolsulfonephthalein

T-00109

C₁₉H₁₀N₄O₁₃S M 534.373

Used as an acid-base indicator (pH range: 9.5-11.0, colour change: violet → red-yellow). Yellow cryst. Sol. EtOH. Mp 292-294°.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use, ind)

Tetraoctylammonium(1+)

N,N,N-Trioctyl-1-octanamium(1+), 9CI
[19524-73-3]



$\text{C}_{32}\text{H}_{68}\text{N}^{\oplus}$ M 466.896 (ion)

Bromide: [14866-33-2].

$\text{C}_{32}\text{H}_{66}\text{BrN}$ M 546.800

Used as an 8% soln. in CHCl_3 for extraction-separation of Nb, Ta, Ti. Cryst. Sol. common org. solvs. Mp 97-98°.

Chloride: [3125-07-3].

$\text{C}_{32}\text{H}_{66}\text{ClN}$ M 502.349

Used for extraction-separation of As(V), Cr(VI), Pb, V(V), Re. Cryst. Sol. common org. solvs.

Grimbat, N.I. *et al*, *CA*, 1976, **84**, 80411g (*detn*, Cr, V)

Tatarinov, V.A. *et al*, *CA*, 1976, **84**, 80459d (*detn*, Pd)

Pronin, V.A. *et al*, *CA*, 1976, **85**, 167328e (*detn*, Ta, Ti, Nb)

Ivanov, I.M. *et al*, *CA*, 1976, **85**, 37689u (*detn*, As)

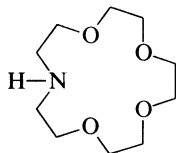
Budesinsky, B.W. *et al*, *Analyst (London)*, 1980, **105**, 278 (*detn*, Re)

1,4,7,10-Tetraoxa-13-azacyclopentadecane

T-00111

Aza-15-crown-5. Monoaza-15-crown-5

[66943-05-3]



$\text{C}_{10}\text{H}_{21}\text{NO}_4$ M 219.280

Soft, hygroscopic solid. Mp 30-32°.

B,HCl: [77102-02-4].

Brownish cryst. Mp 113-115°.

N-Me: [69978-46-7]. 13-Methyl-1,4,7,10-tetraoxa-13-

azacyclopentadecane, 9CI

$\text{C}_{11}\text{H}_{23}\text{NO}_4$ M 233.307

Used as 0.01M soln. in 95% MeOH for complexation of Li, Na, K, Ca, Sr (95% MeOH). Oil. Sol. MeOH.

$\text{Bp}_{0.005}$ 88-90°. pK_{a1} 9.58 (95% MeOH).

N-Ph: [66750-10-5].

$\text{C}_{16}\text{H}_{25}\text{NO}_4$ M 295.378

Cryst. Mp 44-45°.

N-(2-Methoxyethyl): [79402-94-1].

$\text{C}_{13}\text{H}_{27}\text{NO}_5$ M 277.360

Used as 0.01M soln. in 95% MeOH for complexation of Li, Na, K, Ca, Sr (in 95% MeOH). Oil. Sol. MeOH.

pK_a 8.82 (95% MeOH).

Dix, J.P. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1978, **17**, 857 (*synth*, *deriv*)

Johnson, M.R. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1979, 357 (*synth*)

Dix, J.P. *et al*, *Chem. Ber.*, 1981, **114**, 638 (*synth*)

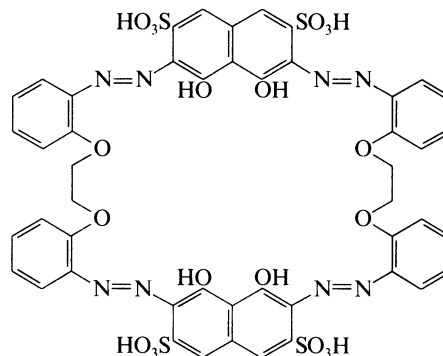
Maeda, H. *et al*, *Tetrahedron*, 1982, **38**, 3359 (*synth*)

Wickstroem, T. *et al*, *Anal. Chim. Acta*, 1988, **211**, 223 (*synth*, *use*)

Tetraoxacycloazochrome

T-00112

6,7,29,30-Tetrahydro-16,39,47,50-tetrahydroxy-15,18:38,41-dietheno-21,17:44,40-dimetheno-17H,40H-tetrabenzob[b,o,u,h][1,17,20,36,4,5,13,14,23,24,32,33]tetraoxaoctaazacyclooctatriacontine-20,43,49,52-tetrasulfonic acid, 9CI
[96927-42-3]



$\text{C}_{48}\text{H}_{36}\text{N}_8\text{O}_{20}\text{S}_4$ M 1173.118

Used as 0.05% aq. soln. for photometric detn. of Mo (λ_{max} 620 nm, ϵ 52000, 0.1M HCl/20% Me_2CO). Dark brown cryst. powder. Sol. mod. H_2O , DMF; sl. sol. EtOH.

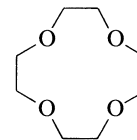
Petrova, T.V. *et al*, *Zh. Anal. Khim.*, 1989, **44**, 603 (*synth*, *detn*, Mo)

1,4,7,10-Tetraoxacyclododecane, 9CI

T-00113

12-Crown-4

[294-93-9]



$\text{C}_8\text{H}_{16}\text{O}_4$ M 176.212

Used for extraction separation of alkali metals (forms ion-pairs, CH_2Cl_2 , CHCl_3 , toluene). Complexing agent. Liq. Sol. CHCl_3 , toluene, dichloroethane. d 1.089. Mp 16°.

▷ XF0550000.

Dale, J. *et al*, *Acta Chem. Scand., Ser. B*, 1974, **28**, 378 (*synth*)

Groth, P., *Acta Chem. Scand., Ser. A*, 1978, **32**, 279 (*cryst struct*)

Kawakami, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1978, **51**, 3053 (*use*)

Pacey, G.E. *et al*, *Synth. Commun.*, 1981, **11**, 323 (*synth*)

Mason, E. *et al*, *Acta Crystallogr., Sect. B*, 1982, **38**, 1821 (*cryst struct*)

Pacey, G.E. *et al*, *Talanta*, 1984, **31**, 165 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, COD475.

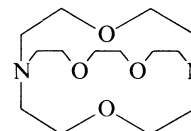
4,7,13,18-Tetraoxa-1,10-

T-00114

diazabicyclo[8.5.5]eicosane, 9CI

Cryptand 2.1.1. Kryptofix 211

[31250-06-3]

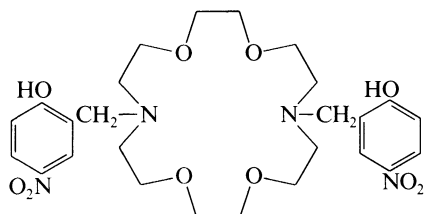


$\text{C}_{14}\text{H}_{28}\text{N}_2\text{O}_4$ M 288.386

Used as 2.5 mM aq. soln. as complexing agent for alkali metal ions; used for extraction-photometric detn. of Na. Liq. Misc. H_2O . pK_{a1} 7.85; pK_{a2} 10.64 (H_2O , 25°).

Dietrich, B. *et al.*, *Tetrahedron*, 1973, **29**, 1629, 1647.
 Lehn, J.M. *et al.*, *J. Am. Chem. Soc.*, 1975, **97**, 6700.
 Tagaki, M. *et al.*, *Anal. Chim. Acta*, 1981, **126**, 185 (*detn.*, *Na*)
 Yoshio, M. *et al.*, *Anal. Lett.*, 1982, **15**, 1197 (*rev*)

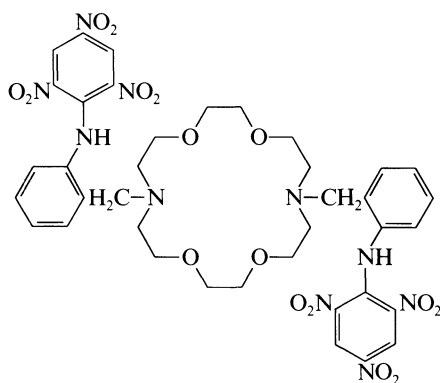
2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[4-nitrophenol], 9CI **T-00115**
N,N'-Bis(2-hydroxy-5-nitrobenzyl)cryptand-22. 22-Koshland [77857-33-1]



$C_{26}H_{36}N_4O_{10}$ M 564.591
 Used as 0.1mM soln. in 1,2-dichloroethane for extraction-photometric detn. of Pb (λ_{max} 406 nm, ϵ 45000), Ca (λ_{max} 406 nm, ϵ 55000); for detn. of Ca in blood serum. Pale yellow cryst. Sol. $CHCl_3$, 1,2-dichloroethane; insol. H_2O . Mp 164-165°.

Nishida, N. *et al.*, *Mikrochim. Acta*, 1981, **1**, 281 (*synth.*, *detn.*, *Ca*)
 Sakai, Y. *et al.*, *Talanta*, 1986, **33**, 407 (*synth.*, *detn.*, *Pb*)

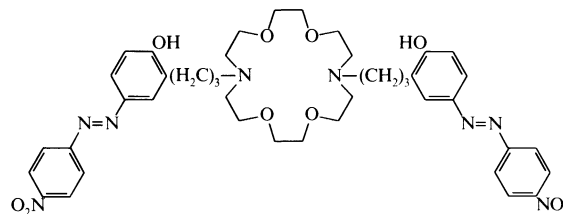
2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[*N*-(2,4,6-trinitrophenyl)]benzenamine, 9CI **T-00116**
N,N'-Bis(2-picrylamino)benzyl)diaza-18-crown-6 [105504-95-8]



$C_{38}H_{42}N_{10}O_{16}$ M 894.807
 Used as 1,2-dichloroethane soln. for extraction separation of alkali metal ions. Orange cryst. ($CHCl_3$). Sol. $CHCl_3$, 1,2-dichloroethane, dioxan. Mp 207.0-207.7°.

Katayama, Y. *et al.*, *Anal. Chim. Acta*, 1986, **185**, 295 (*synth.*, *use*)

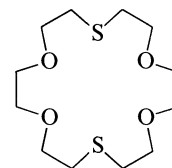
2,2'-[(1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyl)bis[4-[(4-nitrophenyl)azo]phenol], 9CI **T-00117**
N,N'-Bis[3-[5-(4-nitrophenylazo)-2-hydroxyphenyl]propyl]diaza-18-crown-6 [115654-94-9]



$C_{42}H_{52}N_8O_{10}$ M 828.920
 Used as 1,2-dichloroethane soln. for extraction of Ca, Sr, Ba; separation of Sr and Ba from Ca. Red cryst. Sol. $CHCl_3$, 1,2-dichloroethane. Mp 106.1-107.4°.

Katayama, Y. *et al.*, *Anal. Chim. Acta*, 1988, **204**, 113 (*synth.*, *use*)

1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane, 9CI **T-00118**
 1,10-Dithia-18-crown-6 [296-39-9]



$C_{12}H_{24}O_4S_2$ M 296.451
 Used as 1mM soln. in $CHCl_3$ in potentiometry as a carrier in Pb-selective electrode. Cryst. Sol. $CHCl_3$.

Shpigun, L.K. *et al.*, *Zh. Anal. Khim.*, 1986, **41**, 617 (*use*)

Tetraphenylarsonium(1+), 9CI **T-00119**
 [15912-80-8]



$C_{24}H_{20}As^{\oplus}$ M 383.344 (ion)

▷ Toxic.

Chloride: [507-28-8].

$C_{24}H_{20}AsCl$ M 418.796

Used for extraction-photometric detn. of W (λ_{max} 406 nm, $CHCl_3$); extraction separation of ReO_4^{\ominus} ($CHCl_3$), $GaCl_4^{\ominus}$, $IrCl_6^{2\ominus}$; gravimetric detn. of ReO_4^{\ominus} , ClO_4^{\ominus} , IO_4^{\ominus} , $Cr_2O_7^{2\ominus}$, $Hg(II)$, $Sn(IV)$, Cd, Zn, $Tl(III)$, Te, Ge; titrimetric detn. of Te. Cryst. + $2H_2O$ (EtOH/Et₂O). Mp 258-260°. Loses $2H_2O$ at 100°.

▷ CI0600000.

Chloride hydrochloride: [21006-73-5]. *Tetraphenylarsonium hydrogen dichloride, 9CI*

Needles + $2H_2O$ (dil. HCl). Mp 205-209° dec.

Iodide: [7422-32-4].

$C_{24}H_{20}AsI$ M 510.248

White needles. Mp 312-313°, Mp 314-319°.

Bromide: [507-27-7].

$C_{24}H_{20}AsBr$ M 463.248

Used for detn. of Bi, Co, extraction of Co. Needles. Mp 273-275°.

Tribromide:

$C_{24}H_{20}AsBr_3$ M 623.056

Yellow cryst. Mp 215-216°.

Triiodide:

$C_{24}H_{20}AsI_3$ M 764.057

Reddish brown cryst. Mp 228-230°.

Blicke, F.F. *et al*, *J. Am. Chem. Soc.*, 1935, **57**, 720; 1939, **61**, 88
(*synth*)

Willard, H.H. *et al*, *Ind. Eng. Chem., Anal. Ed.*, 1939, **11**, 186
(*synth*)

Chatt, J. *et al*, *J. Chem. Soc.*, 1940, 1192 (*synth*)

Potratz, A.H. *et al*, *Anal. Chem.*, 1949, **21**, 1276 (*detn*, Bi, Co)

Rahaman, M.S. *et al*, *Anal. Chem.*, 1949, **21**, 2023 (*extrn*, *detn*, Co)

Tribalat, S., *Anal. Chim. Acta*, 1949, **3**, 113 (*detn*, Re)

Slater, R.C.L.M. *et al*, *Acta Crystallogr.*, 1959, **12**, 187 (*struct*)

Beyermann, K., *Fresenius' Z. Anal. Chem.*, 1962, **190**, 4 (*detn*, Cr)
Org. Synth., Coll. Vol., 4, 1963, 910 (*synth*)

Afsprung, H.E. *et al*, *Anal. Chim. Acta*, 1964, **30**, 501 (*detn*, W)

Harman, K.M. *et al*, *Inorg. Chem.*, 1968, **7**, 1921 (*ir*)

Finston, H.L. *et al*, *Mikrochim. Acta*, 1969, 78 (*detn*, Ga)

Bowd, A.J. *et al*, *Talanta*, 1969, **16**, 719 (*use*, *rev*)

Long, T.V. *et al*, *Inorg. Chem.*, 1971, **10**, 933 (*raman*)

Ellestaad, O.H. *et al*, *Acta Chem. Scand.*, 1972, **26**, 1721 (*ir*,
raman)

Fogg, A.G. *et al*, *Analyst (London)*, 1975, **100**, 311 (*detn*, Mo)

Couldwell, M.C., *Cryst. Struct. Commun.*, 1979, **8**, 469 (*struct*)

Marczenko, Z. *et al*, *Anal. Chim. Acta*, 1982, **144**, 173 (*detn*, Ir)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC
Press, Boca Raton, 1982, 489 (*use*)

Ouishi, H., *Photometric Determination of Traces of Metals, Part
Ib, Individual Metals, Magnesium to Zinc*, John Wiley, New
York, 4th Ed., 1989, 596.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, TEA300.

Tetraphenylphosphonium(1+)

T-00120

[18198-39-5]

[PPh₄][⊕]

$C_{24}H_{20}P^{\oplus}$ M 339.396 (ion)

Chloride: [2001-45-8].

$C_{24}H_{20}ClP$ M 374.848

Used as 5mM CHCl₃ soln. for extraction of ReO₄[⊖],
Mo/SCN[⊖], Nb/C₂O₄^{2⊖}, Ti(SCN)₆^{2⊖}. Cryst.

(EtOH/Et₂O). Sol. H₂O, CHCl₃. Mp 265-267°, Mp 272°.

Bromide: [2751-90-8].

$C_{24}H_{20}BrP$ M 419.300

Used as 1% aq. soln. for colorimetric detn. of Bi, Co;
for extraction of heavy metals; photometric detn. of Ti.

Cryst. + 2H₂O (H₂O or MeOH/Et₂O). Sol. H₂O,
common org. solvs. Mp 287-289°, Mp 295-298°. Forms

CBr₄ adduct, also a tribromide.

Iodide: [2065-67-0].

$C_{24}H_{20}IP$ M 466.300

Cryst. (CHCl₃/C₆H₆ or MeOH/Et₂O). Mp 337° (330-
332°).

Tribromide: [3138-57-6].

$C_{24}H_{20}Br_3P$ M 579.108

Orange needles.

Methoxide:

$C_{25}H_{23}OP$ M 370.430

Cryst. (cyclohexane). Mp 162°. Stable in vacuo;
instantly hydrolysed in air. At 170-180° → MeOH,
C₆H₆, Ph₃P, and methoxybenzene.

Dodonow, J. *et al*, *Ber.*, 1928, **61**, 907 (*synth*)

Willard, H.H. *et al*, *J. Am. Chem. Soc.*, 1948, **70**, 737 (*chloride*)

Potratz, A.H. *et al*, *Anal. Chem.*, 1949, **21**, 1276 (*detn*, Bi, Co)

Tribalat, S., *Anal. Chim. Acta*, 1949, **3**, 113; 1950, **4**, 228 (*detn*, Re)

Wittig, G. *et al*, *Justus Liebigs Ann. Chem.*, 1970, **732**, 97 (*bromide*,
iodide)

Goetz, H. *et al*, *Phosphorus Relat. Group V Elem.*, 1972, **1**, 217
(*iodide*, *nmr*)

Ohkuho, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 557 (*uv*, *struct*)

Fluck, E. *et al*, *Z. Naturforsch., B*, 1974, **29**, 603 (*pe*)

Albright, T.A. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 2946 (*cmr*, *nmr*)

Razavaev, G.A. *et al*, *J. Organomet. Chem.*, 1975, **99**, 93
(*methoxide*)

Siroki, M. *et al*, *Anal. Chem.*, 1976, **48**, 55 (*detn*, Nb)

Effenberger, F. *et al*, *Chem. Ber.*, 1976, **109**, 306 (*props*)

Lindner, H.J. *et al*, *Chem. Ber.*, 1976, **109**, 314 (*cryst struct*)

Tamhina, B. *et al*, *Mikrochim. Acta*, 1976, **1**, 553 (*detn*, Mo)

Tamhina, B. *et al*, *Microchem. J.*, 1977, **22**, 275 (*detn*, Ti)

Bogaard, M.P. *et al*, *Cryst. Struct. Commun.*, 1982, **11**, 175

(*perbromide*, *cryst struct*)

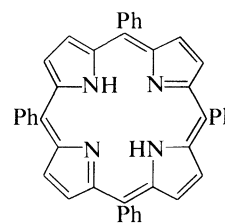
Cristau, H.J. *et al*, *J. Organomet. Chem.*, 1983, **241**, C1 (*props*)

meso-Tetraphenylporphyrin

T-00121

$\alpha,\beta,\gamma,\delta$ -Tetraphenylporphine. 5,10,15,20-Tetraphenyl-
21H,23H-porphine

[917-23-7]



$C_{44}H_{30}N_4$ M 614.748

Prepd. by the condensation of Pyrrole with Benzaldehyde.

Used as 0.05mM soln. in glac. AcOH for photometric
detn. of Cu(II) (λ_{max} 414nm, ϵ 470000), Zn. Deep-purple
prisms (CH₂Cl₂/MeOH). Sol. CHCl₃, C₆H₆, DMF; sl.
sol. AcOH; insol. EtOH. Mp >240°, Mp 300°.

Subl._{0.0000001} 250°. Normally obt. contaminated with 8-
10% of Chlorin which can be removed by oxidn. with
DDQ.

Ball, R.H. *et al*, *J. Am. Chem. Soc.*, 1946, **68**, 2278 (*synth*)

Banks, C.V. *et al*, *Anal. Chem.*, 1957, **29**, 522 (*detn*, Zn)

Adler, A.D. *et al*, *J. Org. Chem.*, 1967, **32**, 476 (*synth*)

Barnett, G.H. *et al*, *Tetrahedron Lett.*, 1973, 2887 (*purifn*)

Smith, K.M., *Porphyrins and Metalloporphyrins*, Elsevier,
Amsterdam, 1975, 769.

Ishii, H. *et al*, *Anal. Chim. Acta*, 1978, **101**, 423 (*detn*, Cu)

Lindsey, J.S. *et al*, *J. Org. Chem.*, 1987, **52**, 827 (*synth*)

Tetraphenylstibonium(1+)

T-00122

[15912-81-9]

[Ph₄Sb][⊕]

$C_{24}H_{20}Sb^{\oplus}$ M 430.172 (ion)

Used for extraction separation of F[⊖].

Bromide: see *Bromotetraphenylantimony*, B-00577

Iodide: [16894-70-5].

$C_{24}H_{20}ISb$ M 557.076

Catalyst for synth of 1,3-oxazolidin-2-ones from
oxiranes and isocyanates, and of the -2-thiones using
azimidines and CO₂. Cryst. (H₂O). Mp 203-205°.

Azide: [36573-10-1].

$C_{24}H_{20}N_3Sb$ M 472.192

Synth. from Ph₃Sb + HN₃. Solid. Sol. C₆H₆, Et₂O. Mp
186-187° dec.

Tetrafluoroborate: [426-80-2].

Solid or cryst. (Me₂CO/Et₂O). Mp 300-301°, Mp 286°
(275-276°).

Perchlorate: Solid. Ion pair struct.

▷ Potentially explosive.

Sulfate: Suggested as reagent for qual. analysis of org.
acids. Sol. H₂O (>60 g per 100 ml).

Thiocyanate: [17701-02-9].

Solid. Sol. C_6H_6 . Mp 236-238° dec.

Trifluoromethanesulfonate: [104316-49-6].

Catalyst for reactions between epoxides and amines to give α , β -aminoalcohols. Solid. Mp 255°.

Methanesulfonate: [104316-48-5].

Cryst. Mp 258°.

Benzenesulfonate: [104316-51-0].

$C_{30}H_{25}O_3SSb$ M 587.342

Cryst. + $1H_2O$ (MeOH/ $CHCl_3$). Mp 98-101°. Distorted tpb struct. with largely ionic Sb—O bond.

4-Methylbenzenesulfonate: [104316-53-2].

$C_{31}H_{27}O_3SSb$ M 601.368

Solid. Mp 162-165°.

2,4-Dinitrobenzenesulfonate: [104316-54-3].

$C_{30}H_{23}N_2O_7SSb$ M 677.337

Solid. Mp 141-143°.

Trinitromethide: Synth. from Ph_4SbBr and $AgC(NO_2)_3$.

Yellow cryst. Insol. H_2O .

Dimesylaminide: Solid.

[104316-52-1]

Affsprung, H.E. *et al*, *Anal. Chem.*, 1960, **32**, 1164 (*sulfate, synth, use*)

McEwen, W.E. *et al*, *J. Am. Chem. Soc.*, 1969, **91**, 7079 (*tetrafluoroborate*)

Schmidbaur, H. *et al*, *Z. Anorg. Allg. Chem.*, 1971, **386**, 139 (*thiocyanate, azide*)

Chermette, H. *et al*, *Anal. Chem.*, 1972, **44**, 857 (*sepn, Fe[⊕]*)

Tsentovskii, V.M. *et al*, *Zh. Obshch. Khim.*, 1972, **42**, 2145; *J. Gen. Chem. USSR (Engl. Transl.)*, 1972, **42**, 2141 (*iodide*)

Gukasyan, S.E. *et al*, *Zh. Strukt. Khim.*, 1973, **14**, 650; *J. Struct. Chem. (Engl. Transl.)*, 1973, **14**, 603 (*mössbauer*)

Nesmeyanov, N.A. *et al*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, (Engl. transl. p. 724), 1977, **237**, 1111 (*tetrafluoroborate*)

Lorenz, I.P. *et al*, *Z. Naturforsch., B*, 1978, **33**, 47 (*sulfonates, ir, ms, pmr*)

Heste, S. *et al*, *J. Electron Spectrosc. Relat. Phenom.*, 1979, **17**, 191 (*iodide, pe*)

Erashko, V.I. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1985, 439; *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Engl. Transl.)*, 1985, 401 (*trinitromethide, ir, w*)

Rüther, R. *et al*, *J. Organomet. Chem.*, 1985, **295**, 21 (*sulfonates, cryst struct, synth, pmr, ir*)

Ferguson, G. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1988, 731 (*perchlorate, cryst struct*)

Preut, H., *Acta Crystallogr., Sect. C*, 1989, **45**, 1006 (*dimesylaminide, cryst struct*)

Tetraphenyl- μ -sulfatodithallium, 8CI T-00123

Diphenylthallium sulfate. Bis(diphenylthallium)sulfate

[3003-07-4]

$(Ph_2TlO)_2SO_2$

$C_{24}H_{20}O_4STl_2$ M 813.252

Used as a 0.1M soln. in 0.1M H_2SO_4 as titrant in potentiometric detn. of NO_3^{\ominus} . Cryst. Sol. dil. H_2SO_4 .

▷ Toxic.

DiGregorio, J.S. *et al*, *Anal. Lett.*, 1968, **1**, 811 (*synth, use*)

DiGregorio, J.S., *C.A.* 1968, **70**, 16835g.

DiGregorio, J.S. *et al*, *Anal. Chem.*, 1970, **42**, 94 (*use*)

Tetrapropylammonium(1+) T-00124

N,N,N-Tripropyl-1-propanaminium(1+), 9CI

[13010-31-6]

$(H_3CCH_2CH_2)_4N^{\oplus}$

$C_{12}H_{28}N^{\oplus}$ M 186.360 (ion)

Hydroxide:

$C_{12}H_{29}NO$ M 203.367

Used for extraction-photometric detn. of U (λ_{max} 452 nm, 4-methyl-2-pentanone), extraction of Tc. Cryst.

Bromide: [1941-30-6].

$C_{12}H_{28}BrN$ M 266.264

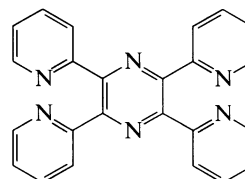
Mp 270° (dec.).

[5810-42-4]

Holzbecher, Z., *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TEC750.

2,3,5,6-Tetra(2-pyridyl)pyrazine T-00125



$C_{24}H_{16}N_6$ M 388.431

Used as a 1mM soln. in dil. HCl for photometric detn. of Fe(II) (λ_{max} 75 nm, ϵ 19800); extraction-photometric detn. of Fe(II) (λ_{max} 570 nm, ϵ 19200, $CHCl_3$; λ_{max} 573 nm, ϵ 17400, $PhNO_2$). Cryst. (Py). Sol. $CHCl_3$, $PhNO_2$, dil. HCl; insol. H_2O , 2-methoxyethanol. Mp 282-284°.

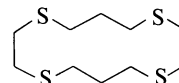
Goodwin, H. *et al*, *J. Am. Chem. Soc.*, 1959, **81**, 6415 (*synth*)

Pflaum, R.T. *et al*, *Anal. Chim. Acta*, 1964, **31**, 341 (*use*)

1,4,8,11-Tetrathiacyclotetradecane, 9CI T-00126

1,4-Thiacrown-4

[24194-61-4]



$C_{10}H_{20}S_4$ M 268.532

Used as 0.5mM 1,2-dichloroethane soln. for extraction-photometric detn. of Ag, Cu(II) (with use of ethyleosine as counter anion); as $CHCl_3$ soln. for extraction separation of Ag and Hg(II). Cryst. (Me_2CO), needles (EtOH). Sol. EtOH, 1,2-dichloroethane, $CHCl_3$. Mp 110-111°, Mp 119-120°.

Rosen, W. *et al*, *J. Am. Chem. Soc.*, 1969, **91**, 4694 (*synth*)

Ochrymowycz, L.A. *et al*, *J. Org. Chem.*, 1974, **39**, 2079 (*synth*)

de Simone, R.E. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 762 (*cryst struct*)

Sevdic, D. *et al*, *J. Inorg. Nucl. Chem.*, 1980, **42**, 885 (*sepn, Ag, Hg*)

Buter, J. *et al*, *J. Org. Chem.*, 1981, **46**, 4481 (*synth*)

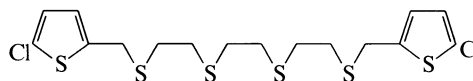
Saito, K. *et al*, *Bull. Chem. Soc. Jpn.*, 1984, **57**, 189 (*detn, Ag, Cu*)

Seikido, E. *et al*, *Anal. Sci.*, 1988, **4**, 511 (*detn, Cu*)

2,2'-(2,5,8,11-Tetrathiadodecane-1,12-diyl) bis[5-chlorothiophene], 9CI T-00127

1,2-Di(5-chloro-2-thienyl)-2,5,8,11-tetrathiadodecane

[133883-67-7]



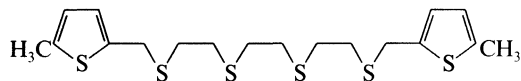
$C_{16}H_{20}Cl_2S_6$ M 475.635

Used as 2mM soln. in 1,2-dichloroethane for extraction separation of Cu(II). Cryst. (hexane or EtOAc). Sol. toluene, 1,2-dichloroethane, hexane. Mp 57-58°.

Abe, S. *et al*, *Mikrochim. Acta*, 1990, **3**, 171 (*synth, detn, Cu*)

2,2'-(2,5,8,11-Tetrathiadodecane-1,2-diyl) bis[5-methylthiophene], 9CI T-00128

1,12-Bis(5-methyl-2-thienyl)-2,5,8,11-tetrathiadodecane
[133883-66-6]



$C_{18}H_{26}S_6$ M 434.799

Used as 2mM soln. in 1,2-dichloroethane for extraction separation of Cu(I,II). Cryst. (hexane/EtOAc). Sol. toluene, 1,2-dichloroethane, hexane. Mp 67-68°.

Abe, S. *et al*, *Mikrochim. Acta*, 1990, 3, 171 (*synth, sepn, Cu*)

3,6,10,13-Tetrathiapentadecane, 9CI T-00129

[57704-77-5]



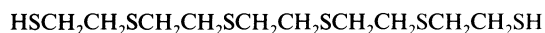
$C_{11}H_{24}S_4$ M 284.575

Used as a 5mM soln. in 1,2-dichloroethane for extraction separation of Cu(I), Ag (in the presence of picrate). Oil. Sol. CHCl₃, EtOAc, 1,2-dichloroethane.

Chayama, K. *et al*, *Anal. Sci.*, 1987, 3, 535 (*synth, sepn, Ag, Cu*)

3,6,9,12-Tetrathia-1,14-tetradecanedithiol, 9CI T-00130

[124491-07-2]



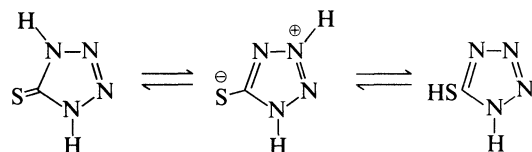
$C_{10}H_{22}S_6$ M 334.680

Used as a 5mM soln. in 1,2-dichloroethane for extraction separation of Cu(I, II), Pd(II), Hg(II), (pH 4-7). Cryst. (CHCl₃/EtOH). Sol. CHCl₃, 1,2-dichloroethane, EtOH. Mp 94.1-95.3°.

Sekido, E. *et al*, *Anal. Chim. Acta*, 1989, 221, 99 (*synth, use*)

Tetrazole-5-thione T-00131

1,4-Dihydro-5H-tetrazole-5-thione, 9CI



1,4-Dihydro-form 1,3-Dihydro-form SH-form

CH_2N_4S M 102.120

1,4-Dihydro-form

Needles. Mp 205° dec. Major tautomer.

1-Me:

$C_2H_4N_4S$ M 116.146

Cryst. (Me₂CO). Mp 125-126°.

1-Et:

$C_3H_6N_4S$ M 130.173

Cryst. (Me₂CO). Mp 50°.

1-Ph: [86-93-1].

$C_7H_6N_4S$ M 178.217

Used as 0.05% CHCl₃ soln. for extraction-photometric detn. of Pd (λ_{max} 400 nm, ϵ 2600), Pt. Used as a 2% soln. in EtOH or Me₂CO for detn. of Bi. Faint-yellow cryst. (EtOH). Sol. CHCl₃, AcOH, EtOH. Mp 151-153°, Mp 150°. pK_{a1} 2.8 (25°).

▷ XF7700000.

1,4-Di-Me: [54986-14-0].

$C_3H_6N_4S$ M 130.173

Cryst. (pet. ether). Mp 99-100°, Mp 107°.

1-Me, 4-Ph: [1455-91-0].

$C_8H_8N_4S$ M 192.244

Cryst. Mp 47-49°.

N-(4-Propenyl): [7624-33-1]. 1-Allyl-2-tetrazoline-5-thione.

1,2-Dihydro-1-(2-propenyl)-5H-tetrazole-5-thione

Used as 0.5% aq. soln. for detn. of I[⊖], IO₃[⊖], Bi(III).

Cryst. Sol. EtOH, CHCl₃; sl. sol. H₂O. Mp 67-69°.

1,3-Dihydro-form

Minor tautomer.

3-Et, 1-Ph: [62681-14-5].

$C_9H_{10}N_4S$ M 206.271

Yellowish-white prisms (EtOAc/hexane). Mp 114.5-115°.

SH-form [18686-81-2]

1H-Tetrazole-5-thiol. 5-Mercapto-1H-tetrazole

S-Me: [29914-17-8].

$C_2H_4N_4S$ M 116.146

Prisms (dioxan). Mp 144-146°, Mp 151° dec.

S-Et:

$C_3H_6N_4S$ M 130.173

Plates (toluene). Mp 86-88°.

S-Ph: [28986-48-3].

$C_7H_6N_4S$ M 178.217

Prisms (toluene). Mp 92-93°.

1-N-Ph, S-Me: [1455-92-1].

$C_8H_8N_4S$ M 192.244

Plates (EtOH). Mp 78.5-80°, Mp 84°.

[1437-66-7]

Freund, M. *et al*, *Ber.*, 1901, 34, 3110 (*synth*)

Kendall, J., *CA*, 1946, 40, 611, 5350 (*synth*)

Lieber, E. *et al*, *Can. J. Chem.*, 1958, 36, 801; 1959, 37, 101 (*ir, struct, synth*)

Lieber, E. *et al*, *J. Org. Chem.*, 1961, 26, 4472 (*deriv*)

Postovoskii, I.Ya. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1964, 34, 254 (*struct, deriv*)

Chechneva, A.N., *Zh. Anal. Khim.*, 1968, 23, 1059 (*detn, Pd*)

Johar, G.S. *et al*, *Curr. Sci.*, 1969, 38, 492 (*detn, Bi*)

Johar, G.S. *et al*, *Mikrochim. Acta*, 1974, 633 (*use*)

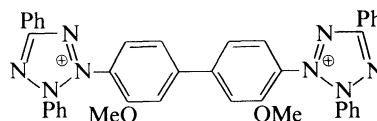
Bartels-Keith, J.R. *et al*, *J. Org. Chem.*, 1977, 42, 3725 (*deriv, cmr, struct*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PGJ750.

Tetrazolium blue T-00132

3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2,5-diphenyl-2H-tetrazolium](2+), 9CI

[7703-11-9]



$C_{40}H_{32}N_8O_2^{2\oplus}$ M 656.745 (ion)

Strictly, the name Tetrazolium blue applies to the dichloride.

Dichloride: [1871-22-3].

$C_{40}H_{32}Cl_2N_8O_2$ M 727.651

Bacterial stain. Anal. reagent for corticosteroids. Used in the assay of reducing sugars. Used as 2mM aq. soln. for photometric detn. of As (λ_{max} 620 nm, red of As(V) to arsine with KBH₄) and various dehydrogenases. Pale-yellow solid (MeOH). Sol. H₂O, EtOH. Mp 244° dec.

▷ XF8050000.

Rutenburg, A.M. *et al*, *Cancer Res.*, 1950, 10, 113 (*synth*)

Ried, W. *et al*, *Justus Liebigs Ann. Chem.*, 1953, 581, 16 (*purifn*)

Cheronis, N.D. *et al*, *J. Chem. Educ.*, 1956, 33, 120.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, 1, 61.

Landis, J.B., *Anal. Chim. Acta*, 1980, **114**, 155 (use)

Robin, J.P. *et al*, *Sci. Aliments*, 1981, **1**, 233 (detn, sugars)

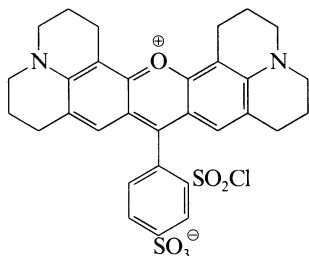
Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton., 1983.

Kolesnikova, A.M. *et al*, *Zh. Anal. Khim.*, 1987, **42**, 1270 (detn, As)

Texas red

Sulforhodamine 101 sulfonyl chloride

[82354-19-6]



$C_{31}H_{29}ClN_2O_6S_2$ M 625.165

Fluorescent label for amino groups in proteins. Used in DNA sequence anal. Prob. a mixt. with 2- SO_3^- , 4- SO_2Cl isomer.

Titus, J.A. *et al*, *J. Immunol. Methods*, 1982, **50**, 193 (synth, use)

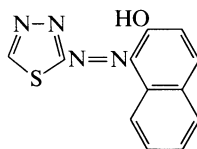
Smith, L.M. *et al*, *Nature (London)*, 1986, **321**, 674 (use)

Morrison, L.E. *et al*, *Anal. Biochem.*, 1989, **183**, 231 (use)

1-(1,3,4-Thiadiazol-2-ylazo)-2-naphthalenol, 9CI

1,3,4-Thiadiazolylazo- β -naphthol

[14151-97-4]



$C_{12}H_8N_4OS$ M 256.287

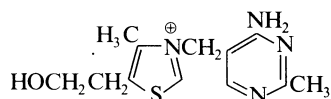
Used as a 0.1-0.3mM soln. in MeOH or acetate or borate buffer to give colour reactions with Fe, Ru, Ni, Co, Cu, Cd. Orange cryst. (MeOH). Sol. EtOH. Mp 193-194°. pK_{a1} 8.26.

Pollard, F.H. *et al*, *Talanta*, 1967, **14**, 123 (detn, Fe, Ru)

Domagalina, E., *Chem. Anal. (Warsaw)*, 1976, **21**, 105, 411 (synth, pK_a , detn, Co, Cu, Cd, Ni)

Thiamine, INN

3-[(4-Amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium(1+), 9CI, 8CI. Vitamin B₁. Torulin. Oryzanin. Aneurine. Numerous proprietary names



$C_{12}H_{17}N_4OS^+$ M 265.358 (ion)

Ubiquitous constit. of biol. materials. Produced by numerous bacterial spp. Essential vitamin. Used as aq. soln. for fluorimetric detn. of PO_4^{2-} (λ_{max} 440 nm, 5-100 ppb, via molybdatophosphate). Sol. H_2O ; sl. sol. EtOH. pK_a 5.17. Thermolabile, readily dec. by alkalis.

Chloride: [59-43-8]. Thiamine monochloride

T-00133

$C_{12}H_{17}ClN_4OS$ M 300.811

Cryst. + $1H_2O$ (H_2O). Mp 120-122° dec., 163-165° dec. (anhyd.). Infrequently encountered, hydrochloride more stable.

► XI6550000.

Chloride; B,HCl: [67-03-8]. Thiamine hydrochloride, USAN.

Bewon. Betaxin. Betalin S. Vinothiam

$C_{12}H_{18}Cl_2N_4OS$ M 337.272

Clinically used vitamin source. Plates or cryst. (EtOH).

V. sol. H_2O ; spar. sol. EtOH; insol. Et_2O , C_6H_6 . Mp is not a good criterion of purity.

► XI7350000.

Nitrate: [532-43-4]. Thiamine mononitrate, USAN

$C_{12}H_{17}N_5O_4S$ M 327.363

Clinically used vitamin source. Mp 164-165°, Mp 196-200°.

O-Phosphate, chloride: [532-90-1]. Monophosphothiamine chloride

$C_{12}H_{18}ClN_4O_4PS$ M 380.791

Vitamin B₁ deriv. used clinically. Mp ca. 200°.

O-Triphosphate: Thiamine triphosphate. Thiamine triphosphoric acid. TTP

Isol. from animal tissues. Cryst. (EtOH aq.).

Todd, A.R. *et al*, *J. Chem. Soc.*, 1937, 364; 1938, 26 (synth)

Karrer, P. *et al*, *Helv. Chim. Acta*, 1946, **29**, 711 (phosphate)

Lenormant, H. *et al*, *Bull. Soc. Chim. Fr.*, 1954, 375 (ir, w)

Greiling, H. *et al*, *Nature (London)*, 1958, **13**, 251 (isol, triphosphate)

Kotera, K., *Chem. Pharm. Bull.*, 1965, **13**, 440 (pmr)

Hesse, M. *et al*, *Helv. Chim. Acta*, 1967, **50**, 808 (ms)

Linnett, P.E. *et al*, *J. Chem. Soc. C*, 1967, 796 (biosynth)

Pletcher, J. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 2928 (cryst struct)

Karrer, W. *et al*, *Konstitution und Vorkommen der Organischen Pflanzenstoffe*, 2nd Ed., Birkhäuser Verlag, Basel, 1972-1985, no. 2609.

Holzbecher, J. *et al*, *Anal. Chim. Acta*, 1973, **64**, 147 (detn, P)

Gallo, A.A., *J. Biol. Chem.*, 1974, **249**, 1382 (cmr)

Thiamine, [Proc. Pap. Discuss. U.S.-Jpn. Semin.], 2nd, Wiley, N.Y., 1976 (book)

Oka, Y., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Edn., Wiley, N.Y., 1978-1984, **24**, 124 (synth)

Penttinen, H.K., *Methods Enzymol.*, 1979, **62**, 112 (triphosphate)

Brown, G.M. *et al*, *Adv. Enzymol. Relat. Areas Mol. Biol.*, 1982, **53**, 345 (biosynth)

Sable, H.Z. *et al*, *Ann. N.Y. Acad. Sci.*, 1982, **378**, 78, 378, 454 (book, nmr, cryst struct, conformn)

Uray, G., *Monatsh. Chem.*, 1982, **113**, 1475 (synth)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 7829, 7830.

Davis, R.E. *et al*, *Adv. Clin. Chem.*, 1983, **23**, 93 (chemistry)

Ishida, T. *et al*, *Acta Crystallogr., Sect. C*, 1984, **40**, 437 (cryst struct)

Gubler, C.J., *Food Sci. Technol.*, 1984, **13**, 245 (rev)

Karlson, P., *Trends Biochem. Sci.*, 1984, **9**, 536 (struct)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 2515, 2540, 4574.

Contant, P. *et al*, *Helv. Chim. Acta*, 1990, **73**, 1300 (synth)

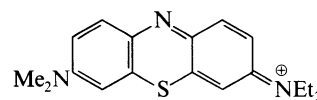
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TES750, TET300, TET500.

T-00135

Thiazine blue

T-00136

3-(Diethylamino)-7-(dimethylamino)phenothiazin-5-ium(1+), 9CI. C.I. Basic blue 25. C.I. 52025



$C_{18}H_{22}N_3S^+$ M 312.458 (ion)

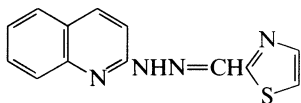
Strictly, the name Thiazine blue refers to the chloride.

Chloride: [2391-29-9].

C₁₈H₂₂ClN₃S M 347.911Used as redox indicator. Cryst. Sol. H₂O; spar. sol. EtOH. E° +0.537 V (25°).Meyer, H.W. *et al.* *Helv. Chim. Acta*, 1952, **35**, 1444 (*pKa*, use)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use*)**2-Thiazolecarboxaldehyde 2-quinolinylhydrazone, 9CI**

T-00137

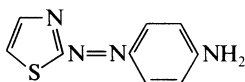
[97516-27-3]

C₁₃H₁₀N₄S M 254.315Used as a 1mM soln. in C₆H₆ for extraction-photometric detn. of Pd (λ_{\max} 625 nm, ϵ 19300, C₆H₆), Ni (λ_{\max} 522 nm, ϵ 72000). Yellow needles (EtOH). Mp 215°.Nakagawa, T. *et al.* *Analyst (London)*, 1985, **110**, 387 (*synth*, *detn.*, Pd)Otomo, M. *et al.* *Anal. Sci.*, 1986, **2**, 549 (*detn.*, Ni)**4-(2-Thiazolylazo)aniline**

T-00138

4-(2-Thiazolylazo)benzenamine, 9CI. 2-(4-Aminophenylazo)thiazole

[82855-20-7]

C₉H₈N₄S M 204.255

Dark red cryst. (toluene). Mp 188-189°.

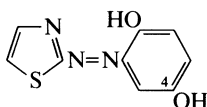
N,N-Di-Et: [52048-31-4]. N,N-Diethyl-4-(2-thiazolylazo)benzenamine, 9CI. 1-(2-Thiazolylazo)-4-diethylaminobenzene. TAEA

C₁₃H₁₆N₄S M 260.362Used as EtOH soln. for photometric detn. of Ag (λ_{\max} 528 nm, pH 4-6). Cryst. (EtOH). Sol. EtOH.Libman, D.D. *et al.* *J. Chem. Soc.*, 1954, 1565 (*synth*)Ohshita, K. *et al.* *Anal. Chim. Acta*, 1985, **176**, 41 (*synth*, *detn.*, Ag)**2-(2-Thiazolylazo)-1,4-benzenediol**

T-00139

2-(2,5-Dihydroxyphenylazo)thiazole

[37422-44-9]

C₉H₇N₃O₂S M 221.239

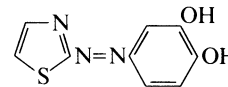
4-Me ether: [3012-52-0]. 4-Methoxy-2-(2-thiazolylazo)phenol, 9CI

C₁₀H₉N₃O₂S M 235.266Used as a 0.01M soln. in EtOH or a 0.1mM soln. in CHCl₃ for extraction-photometric detn. of Hg (CHCl₃, λ_{\max} 638 nm), Fe(II), U (4-methyl-2-butanone, λ_{\max} 610 nm, ϵ 20900); metallochromic indicator for titrimetric detn. of Bi, Cd, Cu, Ga, In, Ni, Pd, Tl, lanthanides. Dark green cryst. (hot EtOH). Sol. DMF, EtOH, Me₂CO, CHCl₃; spar. sol. H₂O, Et₂O, dioxan. *pK*_{a1} < 0.3; *pK*_{a2} 8.12 (7.90) (μ = 0.1, 30% EtOH).Chromy, V. *et al.* *Talanta*, 1967, **14**, 393 (*detn.*, Bi, Cd, Cu, Ga, In, Tl, lanthanides, Pd)Sommer, L. *et al.* *Talanta*, 1968, **15**, 949 (*detn.*, U)Kai, F., *Anal. Chim. Acta*, 1969, **44**, 242 (*detn.*, Hg, *pKa*)Veda, K. *et al.* *Mikrochim. Acta*, 1984, **3**, 103 (*synth*, *detn.*, Fe)**4-(2-Thiazolylazo)-1,2-benzenediol, 9CI**

T-00140

2-(3,4-Dihydroxyphenyl)thiazole. 4-(2-Thiazolylazo)pyrocatechol

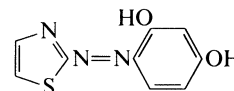
[22525-25-3]

C₉H₇N₃O₂S M 221.239Used for photometric detn. of Al (λ_{\max} 520 nm, ϵ 49500), Ti, W (λ_{\max} 470 nm, ϵ 51000); indirect photometric detn. of P; as 1mM Me₂CO soln. for photometric detn. of Zr (λ_{\max} 420 nm, ϵ 21000, pH 2-3); as 0.05% soln. in 0.5M NaOH in 50% EtOH for photometric detn. of Fe(II) (λ_{\max} 590 nm, ϵ 34300). Orange-red cryst. Sol. EtOH, Me₂CO, alkalis, dioxan, DMF. *pK*_{a1} 6.96; *pK*_{a2} 11.15.Purmale, V. *et al.* *Latv. PSR Zinat. Akad. Vestis, Khim. Ser.*, 1975, 373 (*pKa*)Myasoedova, A.S. *et al.* *Zh. Anal. Khim.*, 1975, **30**, 2398; 1977, **32**, 490; 1978, **33**, 326 (*detn.*, W)Putuina, I. *et al.* *Latv. PSR Zinat. Akad. Vestis, Khim. Ser.*, 1976, 346 (*props*)Vilkova, O.M. *et al.* *Zh. Anal. Khim.*, 1978, **33**, 716 (*synth*, *detn.*, Zr)Chkanikova, O.K. *et al.* *Zh. Anal. Khim.*, 1980, **35**, 521 (*detn.*, P)Ivanov, V.M. *et al.* *Zh. Anal. Khim.*, 1980, **35**, 2124 (*detn.*, Ti)Ueda, K. *et al.* *Mikrochim. Acta*, 1984, **3**, 103 (*synth*, *detn.*, Fe)**4-(2-Thiazolylazo)-1,3-benzenediol, 9CI**

T-00141

4-(2-Thiazolylazo)resorcinol. 2-(2,4-Dihydroxyphenylazo)thiazole. TAR

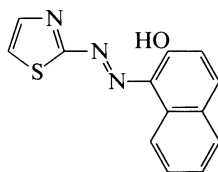
[2246-46-0]

C₉H₇N₃O₂S M 221.239Metallochromic indicator for titrimetric detn. of Ca, Cd, Cu, Mg, Mn, Ni, Bi, Co (λ_{\max} 570 nm, ϵ 25000), Mo, Nb, Sc, U(VI), Zr. Used as 1mM aq. soln. or 0.1% soln. in MeOH for photometric detn. of trace metals. Red needles. Sol. EtOH, Me₂CO, dioxan, CHCl₃; sl. sol. H₂O. Mp 218-219° (235° dec.), Mp 200-202° dec. *pK*_{a1} 6.23; *pK*_{a2} 9.44 (0.1M NaClO₄).

1-Me ether: [15574-54-6]. 5-Methoxy-2-(2-thiazolylazo)phenol, 9CI. 2-(2-Hydroxy-4-methoxyphenylazo)thiazole

C₁₀H₉N₃O₂S M 235.266Used as 0.05% soln. in 0.5M NaOH in EtOH for photometric detn. of U(VI) (λ_{\max} 530 nm, ϵ 20000, pH 4.5-5), Fe(II) (λ_{\max} 720 nm, ϵ 15900, pH 8-9). Red cryst. Sol. EtOH, DMF, alkalis.Jensen, B.S., *Acta Chem. Scand.*, 1960, **14**, 927 (*synth*, *use*)Skytte Jensen, B., *Acta Chem. Scand.*, 1960, **14**, 927 (*use*)Hnilickova, M. *et al.* *Talanta*, 1966, **13**, 667 (*use*)Sommer, L. *et al.* *Talanta*, 1968, **15**, 949 (*detn.*, U)Sakai, T. *et al.* *Bull. Chem. Soc. Jpn.*, 1969, **42**, 2718; 1979, **52**, 3559 (*use*)Mushran, S.P. *et al.* *Collect. Czech. Chem. Commun.*, 1969, **34**, 3693; 1980, **45**, 1502 (*use*)Kojima, I. *et al.* *Anal. Chim. Acta*, 1970, **52**, 35, 146; 1971, **57**, 460 (*use*)Bergmann, S.R. *et al.* *Clin. Chim. Acta*, 1980, **104**, 53 (*use*)Ueda, K., *Mikrochim. Acta*, 1984, **3**, 103 (*synth*, *detn.*, Fe)

1-(2-Thiazolylazo)-2-naphthalenol, 9CI
2-(2-Hydroxy-1-naphthylazo)thiazole. TAN
[1147-56-4]



$C_{13}H_9N_3OS$ M 255.300

Used as 0.1% soln. in EtOH for extraction-photometric detn. of Cd, Co, Cu, Mn, Ni, Tl(III) (λ_{max} 580 nm, ϵ 35000), U(VI), Zn; indicator in EDTA titrations. Orange needles. Sol. EtOH, Me₂CO, CHCl₃; sl. sol. H₂O. Mp 139-141°. pK_a 8.71.

Jensen, B.S., *Acta Chem. Scand.*, 1960, **14**, 927 (*synth, use*)
Navratil, O., *Collect. Czech. Chem. Commun.*, 1964, **29**, 2490 (*use*)
Kawase, K., *Talanta*, 1965, **12**, 195 (*detn, Zn*)
Navratil, O. *et al*, *Anal. Chim. Acta*, 1970, **52**, 221 (*detn, Co*)
Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1535 (*detn, Tl*)

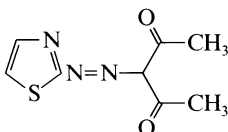
4-(2-Thiazolylazo)-1-naphthalenol, 9CI T-00143
2-(4-Hydroxy-1-naphthylazo)thiazole
[31042-79-2]

$C_{13}H_9N_3OS$ M 255.300

Used for extraction-photometric detn. of Pd (λ_{max} 635 nm, ϵ 16100), U(VI). Cryst.

Kawase, A. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1963, **12**, 714 (*detn, Pd*)
Anderson, R.G. *et al*, *Analyst (London)*, 1967, **92**, 207 (*rev*)
Gusev, S.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 540 (*detn, U*)

3-(2-Thiazolylazo)-2,4-pentanedione, 9CI T-00144
2,3,4-Pentane-1,2,4-trione-2-(2-thiazolylhydrazone)
[118747-05-0]

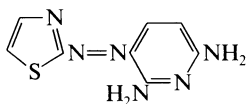


$C_8H_9N_3O_2S$ M 211.244

Several tautomers possible. Used as a 1mM soln. in 25% EtOH to give colour reactions with Cu, Ni, Co, Zn (suitable for photometric detns.). Yellow cryst. (30% EtOH). Sol. EtOH; spar. sol. H₂O. Mp 122°. pK_{a1} 3.56; pK_{a2} 7.82 (1% EtOH).

Ishizuki, T. *et al*, *Anal. Chim. Acta*, 1988, **212**, 253 (*synth, use*)

3-(2-Thiazolylazo)-2,6-pyridinediamine, 9CI T-00145
2-(2,6-Diamino-3-pyridylazo)thiazole
[22409-45-6]

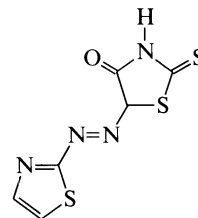


$C_8H_8N_6S$ M 220.257

Used as 1mM soln. in 1M HClO₄ for photometric detn. of Pd (λ_{max} 665 nm, ϵ 13700). Cryst. (EtOH aq.). Sol. acids, EtOH, MeOH; spar. sol. H₂O. Mp 206-209°.

Garcia Montelongo, F. *et al*, *Microchem. J.*, 1982, **27**, 194 (*synth, detn, Pd*)

5-(2-Thiazolylazo)-2-thioxo-4-thiazolidinone, 9CI T-00146
[36576-01-9]

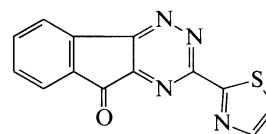


$C_6H_4N_4OS_3$ M 244.322

Various tautomers possible. Used as EtOH soln. for photometric detn. of Pt(II) (λ_{max} 500 nm, ϵ 17500). Red cryst. powder. Sol. DMF, EtOH.

Basurgin, N.N. *et al*, *Zavod. Lab.*, 1972, **38**, 260 (*synth, detn, Pt*)

3-(2-Thiazolyl)-9H-indeno[1,2-e]-1,2,4-triazin-9-one, 9CI T-00147
[37004-83-4]

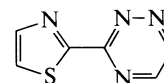


$C_{13}H_6N_4OS$ M 266.283

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 563 nm, ϵ 6000). Cryst. (2-methoxyethanol). Sol. common org. solvs. Mp 256-257°.

Case, F.H., *J. Heterocycl. Chem.*, 1972, **9**, 457 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1977, **24**, 685 (*detn, Fe*)

3-(2-Thiazolyl)-1,2,4-triazine, 9CI T-00148
2-(1,2,4-Triazin-3-yl)thiazole
[30091-58-8]

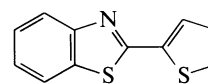


$C_6H_4N_4S$ M 164.190

Used as a 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 522, ϵ 13400, EtOH aq.). Cryst. (EtOH). Sol. common org. solvs. Mp 170-171°.

Case, F.H., *J. Heterocycl. Chem.*, 1970, **7**, 1001 (*synth*)
Schilt, A.A. *et al*, *Talanta*, 1974, **21**, 831 (*detn, Fe*)

2-(2-Thienyl)benzothiazole, 9CI T-00149
[34243-38-4]



$C_{11}H_7NS_2$ M 217.315

Used as 2.4mM CHCl₃ soln. for extraction-photometric detn. of Hg(II) (λ_{max} 375 nm, ϵ 170000, CHCl₃). Cryst. Sol. CHCl₃.

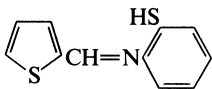
Capitan, F. *et al*, *Ann. Chim. (Rome)*, 1987, **77**, 945 (*detn, Hg*)

1-(2-Thienyl)-1,3-butanedione, 9CI **T-00150**
 2-(Acetoacetyl)thiazole
 [3051-27-2]



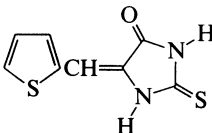
$C_8H_8O_2S$ M 168.216
 Used for photometric detn. of Fe(III). Cryst. Sol. common org. solvs.
 Romero, J.M. *et al*, *An. Quim., Ser. B*, 1981, **77**, 182 (*detn*, Fe)

2-[(2-Thienylmethylene)amino]benzenethiol, 9CI **T-00151**
 2-Thiophenecarboxaldehyde 2-mercaptoanil. 2-Mercapto-N-(2-thienylmethylene)aniline
 [7525-70-4]



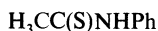
$C_{11}H_9NS_2$ M 219.331
 Used as satd. soln. in $CHCl_3$ for detn. of Zn. Yellow cryst. (pet. ether). Mp 96-97°.
 Thabet, S., *Anal. Chim. Acta*, 1966, **34**, 228 (*synth*, *detn*, Zn)

5-(2-Thienylmethylene)-2-thioxo-4-imidazolidinone, 9CI **T-00152**
 [84071-21-6]



$C_8H_6N_2OS_2$ M 210.280
 Used as 0.5mM EtOH soln. to give colour reactions with Pd, Cu, Ag, Hg(II) (pH 4.5). Orange cryst. (EtOH). Sol. EtOH, DMF. Mp 240°. pK_{a1} 7.4; pK_{a2} 13.1.
 Montana Gonzalez, M.T. *et al*, *Mikrochim. Acta*, 1982, **2**, 363 (*synth*, *reactions*)

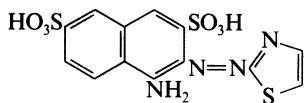
Thioacetanilide **T-00153**
 N-Phenylethanethioamide, 9CI
 [637-53-6]



C_8H_9NS M 151.232
 Used as a 2% soln. in AcOH for pptn. sepn. of Ir, Rh.
 Cryst. Mp 76-79°.

Jackson, E., *Analyst (London)*, 1959, **84**, 106 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TFA250.

Thioaminazo F **T-00154**
 4-Amino-3-(2-thiazolylazo)-2,7-naphthalenedisulfonic acid, 9CI
 [56624-78-3]



$C_{13}H_{10}N_4O_6S_3$ M 414.443

Used as aq. soln. for photometric detn. of Pd and Co (λ_{max} 490 nm). Dark red cryst. Sol. H_2O , EtOH.

Dedkov, Y.M. *et al*, *Zh. Anal. Khim.*, 1971, **26**, 558 (*detn*, Pd)
 Kalenchenko, T.Y. *et al*, *CA*, 1974, **83**, 71008h (*detn*, Co)

Thiobenzoic acid, 8CI **T-00155**
 Benzenecarbothioic acid, 9CI
 [98-91-9]

PhCOSH

C_7H_6OS M 138.190
 Used for extraction-separation of Co, Cu, Fe, Ni, Pd.
 Yellow oil cryst. on chilling in ice. Mp 15-18°, Mp 24°.
 pK_a 2.66 (H_2O).

▷ DH6839000.

O-Me ester: [5873-86-9].
 C_8H_8OS M 152.217
 Yellow liq. Bp₁₀ 110-112°. pK_a 12.8.

S-Me ester: [5925-68-8].
 C_8H_8OS M 152.217
 Yellow liq. Bp 210-212°.

O-Et ester: [936-61-8].
 $C_9H_{10}OS$ M 166.243
 Yellow liq. Bp 240°, Bp₁₁ 112-120°.

S-Et ester: [1484-17-9].
 $C_9H_{10}OS$ M 166.243
 Yellow oil. Bp 252.3°, Bp₃₁ 146°.

O-Ph ester: [16911-57-2].
 $C_{13}H_{10}OS$ M 214.287
 Yellow prisms. Mp 32°.

S-Ph ester: [884-09-3].
 $C_{13}H_{10}OS$ M 214.287
 Cryst. (2-propanol). Mp 56-57°.

S-Octyl ester: [10489-23-3]. **Tioctilate**, INN. S-Octylthiobenzoate. **Scabexol**

$C_{15}H_{22}OS$ M 250.404
 Acaricide. Bp_{0.1} 125-130°. n_D^{20} 1.529.
 S-Benzyl ester: [13402-51-2]. **Tibenzate**, INN. **Scabexan**
 $C_{14}H_{12}OS$ M 228.314
 Nematocide. Cryst. (EtOH). Mp 39.5°.

▷ DH6850000.

Chloride: Thiobenzoyl chloride

Reagent for dehydration of alcohols. Violet-red liq. Bp 88°. Unstable > 78°.

▷ Lachrymator.

Hydrazide: [20605-40-7].

$C_7H_8N_2S$ M 152.220
 Used as 0.01-0.02M soln. in EtOH for extraction-photometric detn. of Os (λ_{max} 385 nm, ϵ 13700), Re (λ_{max} 520 nm, ϵ 12400), Ru (λ_{max} 520 nm, ϵ 12000).
 Cryst. (Et_2O /pet. ether). Sol. H_2O , common org. solvs.
 Mp 68-70°.

Org. Synth., Coll. Vol., 4, 1963, 924 (*synth*)

Chablay, A., *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1966, **263**, 157 (*synth*, **Tioctilate**)

Holmes, J.L. *et al*, *Org. Mass Spectrom.*, (Suppl), 1970, **4**, 97 (*ms*)

Mori, M. *et al*, *Int. J. Sulfur Chem., Part A*, 1972, **2**, 79 (*esters*)
 Alekperov, R.A. *et al*, *CA*, 1973, **79**, 73283k, 152554c; 1974, **80**, 127833f; **81**, 145333t (*detn*, Co, Cu, Fe, Ni, Pd)

Ganghopadhyay, S. *et al*, *Anal. Chim. Acta*, 1976, **83**, 409 (*detn*, Re)

Shome, S.C. *et al*, *Talanta*, 1976, **23**, 603 (*hydrazide*, *synth*, *detn*, Os, Ru)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1977, **6**, 582.

Pipyn, P. *et al*, *Experientia*, 1979, **35**, 480 (*metab*, **Tioctilate**)

Talley, J.J., *Synthesis*, 1981, 549 (*synth*, **Tioctilate**)

Evans, D.M. *et al*, *J. Chem. Soc., Perkin Trans. 1*, 1986, 1499 (hydrazide)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, BFK750.

2,2'-Thiobisethanamine, 9CI **T-00156**

Di(2-aminoethyl) sulfide. Thioethylamine. Thiodiethylamine. 2,2'-Diaminodiethyl sulfide
 [871-76-1]



$\text{C}_4\text{H}_{12}\text{N}_2\text{S}$ M 120.218
 Misc. H_2O . Bp 231-233°, Bp₁₂ 112-116°. Strong base.
B,2HCl: [16822-45-0].
 Masking agent for Co, Cu, Hg, Ni, Zn. Cryst. Sol.
 EtOH, Me_2CO , C_6H_6 . Mp 131°.
Picrate: Mp 212°.

Gabriel, S., *Ber.*, 1891, **24**, 1110 (*synth*)
 Marxer, A. *et al*, *Helv. Chim. Acta*, 1951, **34**, 924 (*synth*)
 Yamaguti, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1967, **16**, 703 (*use*)

2,2'-Thiobisethanethiol, 9CI **T-00157**

2-Mercaptoethyl sulfide. 2,2-Dimercaptodiethylsulfide
 [3570-55-6]

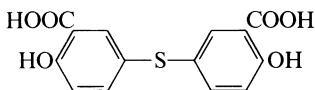


$\text{C}_4\text{H}_{10}\text{S}_3$ M 154.321
 Used as 0.2M soln. in CHCl_3 or in aq. dioxan for extraction-photometric detn. of Ni (λ_{max} 520 nm), gives colour reactions with metals. Liq. Sol. dioxan, CHCl_3 , CCl_4 , d_4^{20} 1.12. Bp₁₈ 135-137°.

Harley-Mason, J., *J. Chem. Soc.*, 1952, 146 (*synth*)
 Segall, J. *et al*, *Analyst (London)*, 1963, **88**, 314 (*detn. Ni*)
 Corsini, A. *et al*, *Talanta*, 1973, **20**, 291 (*detn. Ni*)

3,3'-Thiobis[6-hydroxybenzoic acid], 9CI **T-00158**

5,5'-Thiodisalicyclic acid. 4,4'-Dihydroxydiphenyldisulfide-3,3'-dicarboxylic acid
 [1820-99-1]

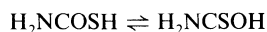


$\text{C}_{14}\text{H}_{10}\text{O}_6\text{S}$ M 306.295
 Used as 0.01M soln. in 0.02M NaOH for pptn. and colour reactions with metals; photometric detn. of Ti (λ_{max} 385 nm, ϵ 16000, pH 4.9); Pd (λ_{max} 452 nm, ϵ 11200) Rh, U(VI). Cryst. Sol. alkalis, EtOH.

Good, M.L. *et al*, *Talanta*, 1965, **12**, 181 (*detn. Pd, Rh, Cl*)
 Capitan, F. *et al*, *Microchem. J.*, 1985, **32**, 313 (*detn. Ti*)

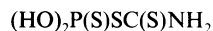
Thiocarbamic acid **T-00159**

Aminothioformic acid. Carbamothioic acid
 [19045-66-0]



CH_3NOS M 77.107
 Free acid unknown. Forms two series of esters.
NH₄ salt: [16687-42-6].
 Cryst. V. sol. H_2O ; spar. sol. EtOH; insol. Et₂O.
S-Me ester: [21325-07-5].
 $\text{C}_2\text{H}_5\text{NOS}$ M 91.134
 Prisms (Et₂O). Mp 107-108°.
S-Me ester, N-Ac: [34277-65-1].
 $\text{C}_4\text{H}_7\text{NO}_2\text{S}$ M 133.171

Needles (C_6H_6). Mp 145.5-146°.
S-Et ester: [637-98-9]. *S-Ethyl carbamothioate, 9CI. S-Ethyl thiocarbamate, 8CI. S-Ethyl aminothioformate. Thiourethane*
 $\text{C}_3\text{H}_7\text{NOS}$ M 105.160
 Has contraceptive props. Plates (C_6H_6). Sol. hot H_2O . Mp 108-109°. The name Thiourethane is applied to both the *S-Et* and *O-Et* (see below) esters.
S-Et ester, N-Ac: [57964-27-9]. *S-Ethyl acetylcarbamothioate, 9CI*
 $\text{C}_5\text{H}_9\text{NO}_2\text{S}$ M 147.198
 Prisms (C_6H_6). Mp 98°.
S-Ph ester: [61642-86-2].
 $\text{C}_7\text{H}_7\text{NOS}$ M 153.204
 Plates (C_6H_6 or H_2O). Mp 96-98°.
S-Benzyl ester: [42049-35-4].
 $\text{C}_8\text{H}_9\text{NOS}$ M 167.231
 Plates (C_6H_6). Mp 125°.
O-Me ester: [683-63-6].
 $\text{C}_2\text{H}_5\text{NOS}$ M 91.134
 Mp 43°.
O-Me ester, N-Ac:
 $\text{C}_4\text{H}_7\text{NO}_2\text{S}$ M 133.171
 Cryst. (pet. ether). Mp 79-80°.
O-Et ester: [625-57-0]. *O-Ethyl carbamothioate, 9CI. O-Ethyl thiocarbamate, 8CI. O-Ethyl aminothioformate. Xanthogenamide. Thiourethane*
 $\text{C}_3\text{H}_7\text{NOS}$ M 105.160
 Fungicide. Volatile monoclinic cryst. Spar. sol. H_2O . Mp 40-41° (16°). Dec. on dist.
O-Et ester, N-Ac: [21406-25-7]. *O-Ethyl acetylcarbamothioate, 9CI. O-Ethyl acetylthiocarbamate, 8CI*
 $\text{C}_6\text{H}_9\text{NO}_2\text{S}$ M 147.198
 Prisms (H_2O). Mp 99.5-101°.
O-Et ester, N,N-Di-Me: [17996-38-2]. *O-Ethyl dimethylcarbamothioate, 9CI*
 $\text{C}_5\text{H}_{11}\text{NOS}$ M 133.214
 Liq. with peculiar odour. d_4^{20} 1.028. Fp 15°. Bp 206°, Bp₁₃ 88-89°.
O-Ph ester: [824-88-4].
 $\text{C}_7\text{H}_7\text{NOS}$ M 153.204
 Needles (EtOH). Mp 132-132.5°.
O-Isopropyl ester, N-Et: [141-98-0]. *O-Isopropyl-N-ethylthiocarbamate*
 $\text{C}_6\text{H}_{13}\text{NOS}$ M 147.241
 Used as 2M soln. in CHCl_3 for extraction separation of Ag (in macro amounts from NO_3^- medium). Liq. Sol. CHCl_3 and other organic solvs. d 1.02.
N-Ph, S-Ph ester: [4910-32-1].
 $\text{C}_{13}\text{H}_{11}\text{NOS}$ M 229.302
 Mp 125.5-126°.
 Weijland, J. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 1497.
 Reimschneider, R. *et al*, *J. Am. Chem. Soc.*, 1951, **73**, 5905.
 Reimschneider, R. *et al*, *Monatsh. Chem.*, 1953, **84**, 1238.
U.S. Pat., 2 602 813, (1953); *CA*, **47**, 7536.
 Szekeres, L., *CA*, 1954, **48**, 11347.
U.K. Pat., 688 726, (1954); *CA*, **48**, 2091.
U.K. Pat., 811 861, (1959); *CA*, **53**, 20678e (*synth, props*)
 Zil'berman, E.N. *et al*, *Zh. Obshch. Khim.*, 1963, **33**, 1023.
 Walter, W. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1967, **6**, 281 (*rev. deriv*)
U.S. Pat., 4 066 681, (1975); *CA*, **88**, 136154.
 Zolotov, Yu.A. *et al*, *Zh. Anal. Khim.*, 1977, **32**, 317; 1979, **34**, 1720 (*sepn, Ag*)
 Goerdeler, J. *et al*, *Chem. Ber.*, 1982, **115**, 1252 (*synth, ester*)
 Jorgensen, K.A. *et al*, *Tetrahedron*, 1982, **38**, 1163 (*synth, ester*)

1-Thiocarbamido-3-methyl-5-pyrazolone T-00160C₅H₈N₄OS M 172.210Used for photometric detn. of OsO₄^{2⊖}, Fe(III), UO₂^{2⊕}; gravimetric detn. of Pd. Cryst. Sol. EtOH, Me₂CO; sl. sol. cold H₂O.Poddar, S.N., *Fresenius' Z. Anal. Chem.*, 1964, **203**, 333 (use)**S-(Thiocarbamoyl)dithiophosphoric acid** T-00161CH₄NO₂PS₃ M 189.220

O,O'-Di-Me: [69003-12-9].

C₃H₈NO₂PS₃ M 217.273Used as 0.02M aq. soln. for extraction-polarographic detn. of Cu(II) and Pb (CHCl₃/Me₂CO). Cryst. Sol. H₂O.

O,O'-Di-Et: [69003-13-0].

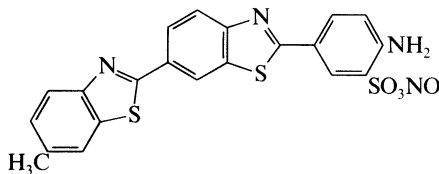
C₅H₁₂NO₂PS₃ M 245.327Used as 0.02M aq. soln. for extraction-polarographic detn. of Cu(II) and Pb(II) (CHCl₃/Me₂CO). Cryst. Sol. H₂O.

O,O'-Dipropyl: [86414-85-9].

C₇H₁₆NO₂PS₃ M 273.381Used as 0.02M aq. soln. for extraction-polarographic detn. of Cu(II) and Pb (CHCl₃/Me₂CO). Cryst. Sol. H₂O.Kutyrev, G.A. et al, *Zh. Obshch. Khim.*, 1979, **49**, 724 (synth)Bubnikov, G.K. et al, *Zavod. Lab.*, 1980, **46**, 588 (detn. Cu)Ulakhovich, N.A. et al, *Zh. Anal. Khim.*, 1983, **38**, 671 (detn. Cu, Pb)**Thioflavine S**

C.I. Direct yellow 7. C.I. 49010

[1326-12-1]

C₂₁H₁₄N₄O₄S₃ M 482.564Used as adsorption indicator for detn. of Br[⊖], Cl[⊖], I[⊖]. Cryst. Sol. H₂O, EtOH, acids. λ_{max} 374 nm.Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

T-00162

Thioimidodicarbonic diamide, 9CI T-00163

2,4-Dithiobiuret. 2-Thio-1-(thiocarbamoyl)urea. DTB

[541-53-7]

C₂H₅N₃S₂ M 135.214Insecticide, plasticiser; intermediate in production of thermoplastic resins. Needles (H₂O). Sol. H₂O (0.27 g per 100 cm³ at 27°), EtOH (2.2 g per 100 cm³), Me₂CO (34 g per 100 cm³). Dec. 181°.▶ Toxic by ingestion. LD₅₀ 5 mg/kg (rat, oral).

N-Me: [6939-45-3]. 1-Methyl-2,4-dithiobiuret, 9CI

C₃H₇N₃S₂ M 149.240

Used as a 1mM soln. in EtOH for titrimetric amperometric detn. of Bi, Cd, Co, Cu, Ni, Pb, Se, Te, Tl. Cryst.

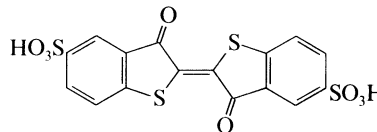
N-Ph: [6635-73-0]. 1-Phenyl-2,4-dithiobiuret. N-Phenylthioimidodicarbonic diamide, 9CI

C₈H₉N₃S₂ M 211.311Used as 0.1% DMF soln. for photometric detn. of Re (λ_{max} 390 nm, ε 9300, SnCl₂, DMF). Cryst. Sol. DMF, EtOH.N¹,N³-Ph: [33951-45-0]. N,N'-Diphenylthioimidodicarbonic diamide, 9CI. 1,5-DiphenyldithiobiuretC₁₄H₁₃N₃S₂ M 287.409Used as 0.2% AcOH soln. for extraction-photometric detn. of Pt (λ_{max} 360 nm, ε 13000, pH 4-5, CHCl₃).

Cryst. Sol. AcOH, hot EtOH, alkalis. Mp 149°.

Hecht, O., *Ber.*, 1892, **25**, 749 (synth. deriv)U.S. Pat., 2 371 112, (1945); *CA*, **39**, 3556 (synth)Kurzer, F. et al, *Org. Synth.*, 1955, **35**, 69 (synth)Kurzer, F., *Chem. Rev.*, 1956, **56**, 138, 179 (rev)Deshmukh, G.S. et al, *Chem. Ind. (London)*, 1969, **20**, 655 (N-Me, detn. Cu, Pb)Deshmukh, G.S. et al, *Curr. Sci.*, 1969, **38**, 190, 512 (N-Me, use, Bi, Co, Se, Te, Tl)Deshmukh, G.S. et al, *Fresenius' Z. Anal. Chem.*, 1969, **248**, 170 (N-Me, detn. Cd, Cu, Ni)Spofford, W.A. et al, *J. Cryst. Mol. Struct.*, 1972, **2**, 151 (cryst. struct)Ray, A. et al, *Spectrochim. Acta, Part A*, 1975, **31**, 899 (ir, raman)Bag, S.P. et al, *J. Indian Chem. Soc.*, 1977, **54**, 607 (deriv. detn. Re)Radushev, A.V. et al, *Zh. Anal. Khim.*, 1979, **34**, 742 (synth. deriv. detn. Pt)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXL800.**Thioindigo 5,5'-disulfonic acid**

T-00164

C₁₆H₈O₈S₄ M 456.498Used as redox indicator. Cryst. pK_{a1} 4.27. E° +0.347 V (30°).Meyer, H.W. et al, *Helv. Chim. Acta*, 1952, **35**, 1444.**2-Thio-2,4-pentanedione, 8CI**

T-00165

4-Thioxo-2-pentanone, 9CI. Thioacetylacetone

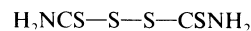
[14660-20-9]

C₅H₈OS M 116.184Used as a derivatisation agent in gc detn. of Ni. Yellow oil. Bp₁₃ 59-60°. Thermally unstable.Yokoyama, A. et al, *Chem. Pharm. Bull.*, 1967, **15**, 540 (synth)Duus, F. et al, *Acta Chem. Scand., Ser. B*, 1977, **31**, 40 (synth)Uden, P.C. et al, *Inorg. Nucl. Chem. Lett.*, 1978, **14**, 161.**Thioperoxydicarbonic diamide, 9CI**

T-00166

Thiuram disulfide. Bis(thiocarbamoyl) disulfide

[504-90-5]

C₂H₄N₂S₄ M 184.331Derivs. are used as vulcanisation accelerators. Plates (Me₂CO/CHCl₃). Sol. Me₂CO, hot EtOH, insol. H₂O, Et₂O, CHCl₃.

▷ JO1600000.

N-Tetra-Me: see *Tetramethylthiuram disulfide*, T-00106

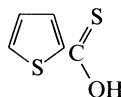
N,N,N',N'-Tetraisopropyl: [4136-91-8].

Bis(diisopropylthiocarbamoyl) disulfide, 8CIC₁₄H₂₈N₂S₄ M 352.653Used as a soln. in Me₂CO for gravimetric detn. of Co. Cryst. (CS₂).

N,N,N',N'-Tetraisobutyl: [3064-73-1].

Bis(diisobutylthiocarbamoyl) disulfide, 9CIC₁₈H₃₆N₂S₄ M 408.760Used as a soln. in Me₂CO for gravimetric detn. of Co. Cryst. (CS₂). Mod. sol. EtOH, Me₂CO, C₆H₆; insol. H₂O.Freund, M., *Justus Liebigs Ann. Chem.*, 1895, **285**, 184 (*synth*)Contreras, G. *et al*, *Inorg. Nucl. Chem. Lett.*, 1970, **6**, 639 (*derivs, detn, Co*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TFS500.**2-Thiophenecarbothioic acid, 9CI****T-00167***Thiophene-2-monothiocarboxylic acid*

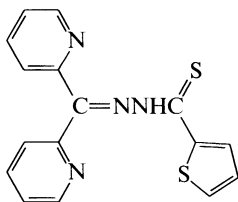
[49628-34-4]

C₅H₄OS₂ M 144.218

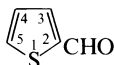
Yellow oil.

Hydrazide: [63528-68-7].C₅H₆N₂S₂ M 158.248Used as 0.01M EtOH soln. for extraction-photometric detn. of Re(VI) (λ_{max} 600 nm, 0.5-0.8M HCl, CHCl₃), Ru(III), Os(VI, VIII), Pt(IV). Cryst. (hot H₂O or C₆H₆). Sol. EtOH, C₆H₆; mod. sol. H₂O. Mp 155-156°.Shome, S.C. *et al*, *Mikrochim. Acta*, 1978, **2**, 343 (*synth, use*)Hübner, J. *et al*, *Phosphorus, Sulfur, Silicon Relat. Elem.*, 1990, **47**, 367.**2-Thiophenecarbothioic acid (di-2-pyridinylmethylene)hydrazide, 9CI****T-00168***Di*-(2-pyridinyl)methanone 2-thiophenecarbothiohydrazide

[73697-17-3]

C₁₆H₁₂N₄S₂ M 324.430Used as 0.01M soln. in EtOH or Me₂CO for extraction-photometric detn. of Re (in the presence of SnCl₂, 4-methyl-2-pentanone). Orange red cryst. (EtOH). Sol. EtOH, Me₂CO, CHCl₃, Mp 113°.Kettrup, A. *et al*, *Anal. Chim. Acta*, 1980, **115**, 383 (*synth, detn, Re*)**2-Thiophenecarboxaldehyde, 9CI****T-00169***Thiophene-2-aldehyde. 2-Formylthiophene. 2-Thienal. α-Thenaldehyde. 2-Thienylaldehyde*

[98-03-3]

C₅H₄OS M 112.152Flavour ingredient. Derivatisation reagent for gc of amines. Liq. Bp₂₀ 93-94°, Bp₁ 44-45°. n_D²⁰ 1.5917. Rapidly oxid. in air.

▷ XM8225000.

Oxime: [29683-84-9].C₅H₅NOS M 127.167Used as a 2% soln. in EtOH for gravimetric detn. of Pd. Sol. common org. solvs. Mp 111°. pK_a 10.76 (25°).*Semicarbazone*: Mp 224° dec.*Phenylhydrazone*: [39677-96-8].

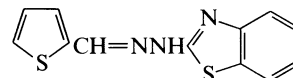
Cryst. (EtOH). Mp 137-139°.

2,4-Dinitrophenylhydrazone: [24383-66-2].

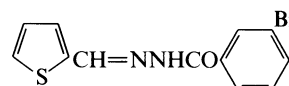
Red cryst. (Py). Mp 242°.

Thiosemicarbazone: [5351-91-7].C₆H₇N₃S₂ M 185.273Used. as a 0.5% EtOH soln. for gravimetric detn. of Ni, Pd and photometric detn. of Cu (λ_{max} 372 nm, ε 39000).Campaigne, E. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 989 (*synth*)Tandon, S.G. *et al*, *Anal. Chem.*, 1960, **32**, 194 (*oxime, detn, Pd*)*Org. Synth., Coll. Vol.*, 4, 1963, 915 (*synth, bibl*)Munoz Leyva, J.A. *et al*, *An. Quim.*, 1973, **69**, 251(*thiosemicarbazone, detn, Cu*)Bag, S.P. *et al*, *J. Indian Chem. Soc.*, 1975, **52**, 30 (*pKa*)Hoshika, Y., *J. Chromatogr.*, 1977, **136**, 253 (*use*)Cano Pavon, J.H. *et al*, *An. Quim.*, 1978, **74**, 915(*thiosemicarbazone, detn, Pd*)Rosales, D. *et al*, *Analyst (London)*, 1982, **107**, 385(*thiosemicarbazone, detn, Ni*)Satonaka, H., *Bull. Chem. Soc. Jpn.*, 1983, **56**, 2463 (*pmr*)Archer, W.J. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1983, 813(*synth*)Casarini, D. *et al*, *J. Chem. Soc., Perkin Trans. 2*, 1985, 1839 (*cmr*)Koziol, A.E. *et al*, *J. Chem. Soc., Chem. Commun.*, 1988, 226(*semicarbazone, cryst struct*)Tenhosaari, A., *Org. Mass Spectrom.*, 1988, **23**, 236 (*ms*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TFM500.**2-Thiophenecarboxaldehyde 2-benzothiazolylhydrazone****T-00170**

[53846-93-8]

C₁₂H₉N₃S₂ M 259.355Used as a 0.24mM soln. in C₆H₆ for extraction-photometric detn. of Cu (λ_{max} 422 nm, ε 44000, C₆H₆). Cryst. (EtOH). Mp 215-217°.Odashima, T. *et al*, *Anal. Chim. Acta*, 1975, **74**, 61 (*synth, detn, Cu*)**2-Thiophenecarboxaldehyde 3-bromobenzoylhydrazone****T-00171**

[93418-14-5]

C₁₂H₉BrN₂OS M 309.186

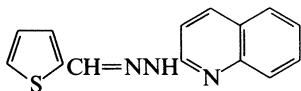
Used as a 0.01M soln. in 4-methyl-2-pentanone for extraction-separation of Cd, Co, Cu, Ni, Zn (pH 5-9). Cryst. Sol. 4-methyl-2-pentanone, xylene.

Tossidis, I.A. *et al*, *Chem. Chron.*, 1983, **12**, 181 (*synth*)Arpadjan, S. *et al*, *Analyst (London)*, 1988, **113**, 1699 (*use*)

2-Thiophenecarboxaldehyde 2-quinolinylhydrazone

T-00172

[85754-45-6]

C₁₄H₁₁N₃S M 253.327

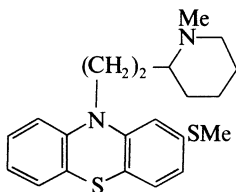
Used as a 1mM EtOH soln. for fluorimetric detn. of Zn (λ_{\max} 552 nm, pH ~ 11). Brown cryst. Sol. EtOH. Mp 138.5°.

Geldard, J.F. *et al*, *Inorg. Chem.*, 1963, **2**, 270 (*synth*)Martinez de la Barrera, M.R. *et al*, *Anal. Chim. Acta*, 1983, **147**, 303 (*detn*, Zn)**Thioridazine, BAN, USAN, INN, JAN**

T-00173

10-[2-(1-Methyl-2-piperidiny)ethyl]-2-(methylthio)-10H-phenothiazine, 9CI. Mellaril. Other synonyms

[50-52-2]

C₂₁H₂₆N₂S₂ M 370.582

▷ SP2100000.

(±)-*form* [57129-06-3]

Tranquilliser, neuroleptic agent. Cryst. (Me₂CO). Mp 72-74°. Bp_{0.02} 230°.

B,HCl: [130-61-0]. *Mellaril hydrochloride*

Used as a 0.2% aq. soln. for photometric detn. of Pd (λ_{\max} 490 nm, ϵ 3680). Cryst. (Me₂CO). Sol. H₂O. Mp 158-160°.

▷ SP2275000.

Fumarate: Cryst. (EtOH). Mp 158-160°.*Tartrate*: [1257-76-7].

Mp 130° dec.

[52496-67-0]

Bourquin, J.-P. *et al*, *Helv. Chim. Acta*, 1958, **41**, 1072.Haley, T.J. *et al*, *Toxicol. Appl. Pharmacol.*, 1959, **1**, 377

(pharmacol)

McDowell, J.J.H., *Acta Crystallogr., Sect. B*, 1975, **31**, 2256 (*cryst struct*)Gowda, H.S. *et al*, *Fresenius' Z. Anal. Chem.*, 1975, **275**, 127 (*detn*, Pd)Muusze, R.G. *et al*, *Eur. J. Clin. Pharmacol.*, 1977, **11**, 141 (*metab*)Ryhage, R. *et al*, *Biomed. Mass Spectrom.*, 1978, **5**, 615 (*ms*)Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

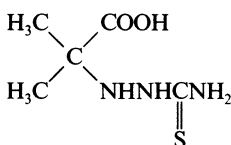
Pharmaceutical Press, London, 1982/1989, 7115.

Reboul, J.P., *Eur. J. Med. Chem.*, 1984, **19**, 277 (*conformn*)Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 6205.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MOO250, MOO500.**α-Thiosemicarbazidoisobutyric acid**

T-00174

2-Methyl-2-(thiosemicarbazido)propionic acid, 8CI

[29039-64-3]

C₅H₁₁N₃O₂S M 177.227*Amide*:C₅H₁₂N₄OS M 176.242

Used as a 0.1% soln. in 1% NaOH for photometric detn. of Os. Cryst.

Nitrile:C₅H₁₀N₄S M 158.227

Used as a 0.1% soln. in 1% NaOH for photometric detn. of Os. Cryst.

Bailescu, G. *et al*, *Anal. Chim. Acta*, 1961, **24**, 463 (*detn*, Os)**Thiourea, 9CI**

T-00175

Thiocarbamide. Thiocarbonic diamide

[62-56-6]

H₂NCSNH₂CH₄N₂S M 76.122

Metab. of *Verticillium albo-atrum* and *Botrytis cinera*. Also from seeds of *Laburnum anagyroides* and from *Citrus* spp. Photographic fixer. Forms separable inclusion complexes. Used in heterocyclic synth. Used as 10% aq. soln. for photometric detn. of Bi (λ_{\max} 470 nm, ϵ 9000), Os, Ru, Re, Se, Te; reducing agent. Rhombohedra or needles (EtOH). Sol. H₂O, EtOH; spar. sol. Et₂O. Mp 175-177°, Mp 180°.

▷ An exp. carcinogen. YU2800000.

B,HCl: Mp 136-137°.*N-Ac*: [591-08-2]. *N-(Aminothioxomethyl)acetamide*, 9CI. *1-Acetyl-2-thiourea*, 8CI

Reagent for synth. of thiols. Needles. Mp 165°.

▷ Severe poison. YR7700000.

N,S-Di-Ac:C₅H₈N₂O₂S M 160.196

Yellow prisms (AcOH aq.). Mp 153°.

S-Me:*N-Tri-Me*: [2489-77-2].C₄H₁₀N₂S M 118.202Prisms (C₆H₆/ligroin). Mp 87-88°.

▷ YU4900000.

N-Tetra-Et: [4274-15-1].C₉H₂₀N₂S M 188.336Bp 264-266°, Bp₁₂ 130°.*N,N'-Di(tert-butyl)*: [4041-95-6]. *N,N'-Bis(1,1-dimethylethyl)thiourea*, 9CIC₉H₂₀N₂S M 188.336

Used as 0.05M CHCl₃ soln. for extraction-sepn. of noble metals (after treatment with SnCl₂). Cryst. (EtOH). Sol. EtOH, CHCl₃, C₆H₆.

N-Hydroxy, N-Ph, N'-Me: [26118-56-9]. *N-Hydroxy-N'-methyl-N-phenylthiourea*, 9CI. *N-Methylaminothioformyl-N'-phenylhydroxylamine*C₈H₁₀N₂OS M 182.246

Used for photometric and gravimetric detn. of Cu (λ_{\max} 430 nm, ϵ 24600); extraction-photometric detn. of Ni (λ_{\max} 440 nm, ϵ 27200). pK_{a1} 11.53.

N,N-Di-Me, N'-benzoyl: *N,N-Dimethyl-N'-benzoylthiourea*C₁₀H₁₂N₂OS M 208.284

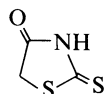
Used as a 0.1M soln. in toluene for extraction-separation of platinum group metals. Cryst. (EtOH). Sol. toluene, CHCl₃, Mp 128°.

Ger. Pat., 1 957 202; *CA*, **75**, 35188t (*manuf*)*U.S. Pat.*, 2 006 762, (1935); *CA*, 1935, **29**, 5463 (*synth*)Moore, M.L. *et al*, *J. Am. Chem. Soc.*, 1940, **62**, 3273 (*deriv, synth, tox*)*U.S. Pat.*, 2 337 882, (1944); *CA*, 1944, **38**, 3296 (*synth*)Allan, W.J. *et al*, *Anal. Chem.*, 1952, **24**, 1608 (*detn*, Os)Nielsch, W. *et al*, *Fresenius' Z. Anal. Chem.*, 1954, **142**, 321; **143**, 13, 168 (*detn*, Bi)

- Lisicki, N.M. *et al*, *Anal. Chem.*, 1955, **27**, 1722 (*detn*, Bi)
 Ryabchikov, D.I. *et al*, *Talanta*, 1963, **10**, 13 (*detn*, Re)
 Sharma, C. *et al*, *Fresenius' Z. Anal. Chem.*, 1969, **248**, 34 (*deriv*,
detn, Cu)
 Kiba, T. *et al*, *Talanta*, 1972, **19**, 451 (*detn*, Ru)
 Mathur, S.P. *et al*, *CA*, 1973, **78**, 48739k; 1975, **83**, 141428w,
 172199b; 1976, **85**, 48739k (*deriv*, *pKa*, *detn*, Cu, Ni)
 Mathur, S.P. *et al*, *CA*, 1973, **78**, 48739k; 1975, **83**, 141428w,
 172199b; 1976, **85**, 48739k (*deriv*, *pKa*, *detn*, Cu, Ni)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**,
 7; **6**, 586.
 Witanowski, M. *et al*, *Tetrahedron*, 1976, **32**, 2127 (*nmr*)
 Zolotov, Yu.A. *et al*, *Anal. Chim. Acta*, 1978, **100**, 613 (*synth*,
sepn, noble metals)
 Koenig, K.H. *et al*, *Fresenius' Z. Anal. Chem.*, 1985, **321**, 457
 (*N,N'*-di-Me-N'-benzoyl, use)
 Onishi, H., *Photometric Determination of Traces of Metals, Part*
Ia: Individual Metals. Aluminium to Lithium, John Wiley, New
 York, 4th Ed., 1986, 329; *Part Ib: Individual Metals.*
Magnesium to Zinc, 260.
 Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,
 Butterworths, London and Boston, 1979, 313.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, ADD250, ISR000,
 TMH750.

2-Thioxo-4-thiazolidinone, 9CI**T-00176***Rhodanine. Rhodanic acid*

[141-84-4]

 $C_3H_3NOS_2$ M 133.195

Intermed. in Phenylalanine synth. Reagent for the
 photometric detn. of gallic acid. Pale-yellow prisms
 (EtOH). Mp 170°. pK_{a1} 5.18 (20°, 0.1M NaClO₄).

▷ Highly toxic. Emits toxic fumes when heated to dec..
 VI7700000.

N-Et: [7648-01-3]. 3-Ethyl-2-thioxo-4-thiazolidinone, 9CI. 3-
Ethylrhodanine

 $C_5H_7NOS_2$ M 161.248

Reagent for the spectrophotometric anal. of *p*-quinones.
 Mp 36-36.5°.

Julian, P. *et al*, *J. Am. Chem. Soc.*, 1935, **57**, 1126* (*synth*)
Org. Synth., Coll. Vol., 3, 1955, 763 (*synth*)
 van der Helm, D. *et al*, *Acta Crystallogr.*, 1962, **15**, 1227 (*cryst*
struct)

Thies, M. *et al*, *Mikrochim. Acta*, 1973, 809 (*use*)

Condon, F.E. *et al*, *Org. Prep. Proced. Int.*, 1974, **6**, 37 (*N-Et*,
synth)

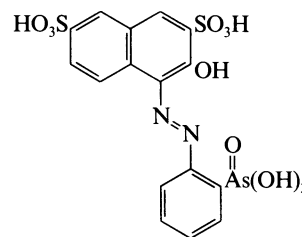
Gattow, G. *et al*, *Z. Anorg. Allg. Chem.*, 1983, **506**, 140 (*synth*, *ir*,
pmr, *ms*)

Asabe, Y. *et al*, *CA*, 1989, **110**, 127812m (*N-Et*, *use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, EPF500, RGZ550.

Thorin**T-00177**

4-[(2-Arsonophenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic
 acid, 9CI. 2-(2-Hydroxy-3,6-disulfo-1-naphthylazo)
 benzenearsonic acid. Naphtharson. Thoron
 [132-33-2]

 $C_{16}H_{13}AsN_2O_{10}S_2$ M 532.340

Used for photometric detn. of Th, Zr, Li. Red solid. pK_{a3}
 3.7; pK_{a4} 8.3; pK_{a5} 11.8.

[3688-92-4]

Margerum, D.W. *et al*, *Anal. Chem.*, 1953, **25**, 1219 (*synth*)

Horton, A.D. *et al*, *Anal. Chem.*, 1953, **25**, 1331 (*use*)

Trautman, J.K. *et al*, *Talanta*, 1983, **30**, 587 (*detn*, Li)

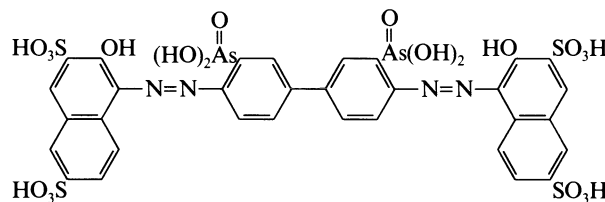
Onishi, H., *Photometric Determination of Traces of Metals, Part*
Ia: Individual Metals. Aluminium to Lithium, John Wiley, New
 York, 4th Ed., 1986, 863.

Marczenko, Z., *Separation and Spectrophotometric Determination*
of Elements, Ellis Horwood, Chichester, 1986, 574.

Thoron II**T-00178**

4,4'-[(4,4'-Diarsono[1,1'-biphenyl]-3,3'-diyl)bis(azo)]bis[3-
 hydroxy-2,7-naphthalenedisulfonic acid], 9CI

[3626-49-1]

 $C_{32}H_{24}As_2N_4O_{20}S_4$ M 1062.664

Used as 0.05% aq. soln. to give colour reactions with
 U(VI), Ti, Zr, Sn, Sb, Nb, Fe; photometric detn. of Th,
 Y, La, Sc. Cryst. Sol. H₂O, EtOH.

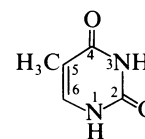
Kuznetsov, V.I., *Radiokhimiya*, 1959, **1**, 583 (*synth*, *reactions*, *detn*,
 Th)

Kuznetsov, V.I., *Zh. Anal. Khim.*, 1959, **14**, 7 (*use*)

Sentyurina, N.N., *Zh. Anal. Khim.*, 1962, **17**, 442 (*detn*, Y, La, Sc)

Thymine**T-00179**

5-Methyl-2,4(1H,3H)-pyrimidinedione, 9CI. 5-Methyluracil
 [65-71-4]

 $C_5H_6N_2O_2$ M 126.115

Component of nucleic acids. Used as a 0.25% aq. soln for
 pptn. sepn. of Hg. Plates (H₂O). Cryst. Spar. sol. H₂O
 (0.6-0.8 g per 100 cm³). Mp 326°, Mp 340°. pK_{a1} 9.90
 (25°).

▷ XP2100000.

l-N-Benzoyl: [90330-19-1].

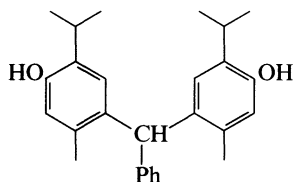
 $C_{12}H_{10}N_2O_3$ M 230.223

Cryst. Mp 212-213°.
 3-N-Benzoyl: [4330-20-5].
 $C_{12}H_{10}N_2O_3$ M 230.223
 Cryst. Mp 150-152°.
 1N,3N-Dibenzoyl:
 $C_{16}H_{14}N_2O_4$ M 334.331
 Cryst.
 1,3-Di-Me: [4401-71-2].
 $C_7H_{10}N_2O_2$ M 154.168
 Needles (EtOH). Mp 153°.
 1- α -D-Xylofuranosyl: [89618-08-6].
 $C_{10}H_{14}N_2O_6$ M 258.230
 Cryst. (EtOH). Mp 196-197°. $[\alpha]_D^{20}$ -56.7° (c, 0.97 in DMSO).
 1- β -D-Xylofuranosyl: [52486-19-8].
 $C_{10}H_{14}N_2O_6$ M 258.230
 Cryst. (MeOH). Mp 160° (softens at 98°). $[\alpha]_D^{20}$ + 0° (c, 0.83 in H₂O).
 Scherp, H.W., *J. Am. Chem. Soc.*, 1946, **68**, 912 (synth)
 Rice, J.M. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 4569 (ms)
 Ozeki, K. *et al*, *Acta Crystallogr., Sect. B*, 1969, **25**, 1038 (cryst struct)
 Veydeman, E.V. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1969, **12**, 718 (sepn, Hg)
 Wong, J.L. *et al*, *J. Org. Chem.*, 1970, **35**, 3786 (synth, pmr, uv)
 Tarpley, A.R. *et al*, *J. Am. Chem. Soc.*, 1971, **93**, 3573 (nmr)
 Ellis, P.D. *et al*, *J. Am. Chem. Soc.*, 1973, **95**, 4398 (cmr)
 Cruickshank, K.A. *et al*, *Tetrahedron Lett.*, 1984, **25**, 681 (deriv., pmr, cmr, ir)
 Gosselin, G. *et al*, *J. Med. Chem.*, 1986, **29**, 203 (deriv, synth, uv, pmr, ms, bibl)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TFX800.

Thymolbenzein

T-00180

4-[[4-Hydroxy-2-methyl-5-(1-methylethyl)phenyl]phenylmethylene]-5-methyl-2-(1-methylethyl)-2,5-cyclohexadiene-1-one, 9CI. 6-[α -(5-Hydroxycarvacryl)benzylidene]-p-mentha-1,4-dien-3-one, 8CI
 [5811-49-4]



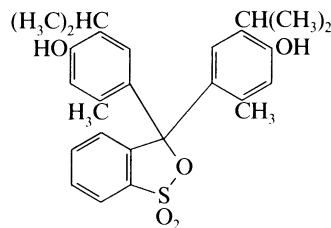
$C_{27}H_{32}O_2$ M 388.549
 Used as a 0.1% soln. in MeOH as acid-base indicator (pH range: 1.5-2.5; colour change: red → yellow; pH range: 7.6-9.0; colour change: yellow → blue). Red cryst. (EtOH). Sol. Me₂CO, AcOH, MeOH, formic acid; insol. H₂O, C₆H₆, Et₂O, pet. ether. Mp 184°.

Orndorff, W.R. *et al*, *J. Am. Chem. Soc.*, 1927, **49**, 818.
 Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Thymol blue

T-00181

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[5-methyl-2-(1-methylethyl)phenol], S,S-dioxide, 9CI.
 Thymolsulfonephthalein
 [76-61-9]



$C_{27}H_{30}O_5S$ M 466.597
 Used as 0.1% EtOH soln. as an acid-base indicator (pH 1.2-2.8 and 8.0-9.6); kinetic detn. of Cu. Green cryst. powder. Sol. EtOH. Mp 221-224° dec.

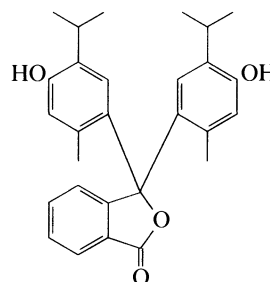
[81012-93-3]

Zikolov, P. *et al*, *Talanta*, 1973, **20**, 487 (use)
 Harper, G.B., *Anal. Chem.*, 1975, **47**, 348 (use)

Thymolphthalein

T-00182

3,3-Bis[4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-1(3H)-isobenzofuranone, 9CI. 5'-5''-Diisopropyl-2',2''-dimethylphenolphthalein
 [125-20-2]



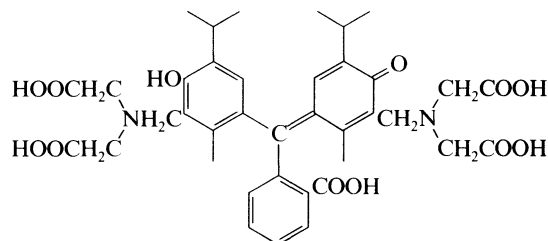
$C_{28}H_{30}O_4$ M 430.543
 Indicator, laxative. Used as 0.1% soln. in 50% EtOH as an acid base indicator (pH range: 9.4-10.6; colour change: colourless → blue). Cryst. (EtOH). Sol. EtOH, Me₂CO, alkalis; insol. H₂O. Mp 246-247°.

Willstätter, R. *et al*, *Ber.*, 1923, **56**, 488.
 Hubacher, H.H. *et al*, *J. Am. Pharm. Assoc.*, 1953, **42**, 23.
 U.S.S.R. Pat., 159 539, (1962); CA, **60**, 14441.
 Holzbecher, Z. *et al*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976, 331 (use)

Thymolphthalexon

T-00183

Thymolphthalein complexon. 3,3'-Bis[N,N-di(carboxymethyl)aminomethyl]thymolphthalein. N,N'-[(3-Oxo-1(3H)-isobenzofuranylidene)bis[[6-hydroxy-2-methyl-5-(1-methylethyl)-3,1-phenylene]methylene]]bis[N-(carboxymethyl)]glycine
 [1913-93-5]



$C_{38}H_{44}N_2O_{12}$ M 720.772

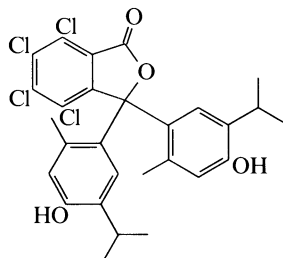
Used as 0.1% aq. soln. for photometric detn. of V(V) (λ_{\max} 610 nm, ϵ 5700); indicator in EDTA titrations of Ca, Mg (pH 10.2-10.5). Cryst. powder. Sol. H_2O (as sodium salt); insol. EtOH.

Budesinsky, B.W., *Microchem. J.*, 1975, **20**, 17 (use, indicator)
Cherkesov, A.I. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 517 (detn, V)
Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 221 (use)

Thymoltetrachlorophthalein

T-00184

4,5,6,7-Tetrachloro-3,3-bis[4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-1(3H)-isobenzofuranone



$C_{28}H_{26}Cl_4O_4$ M 568.322

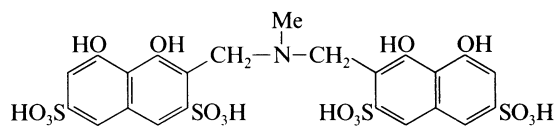
Used as acid-base indicator (pH range: 9.2-10.0; colour change : colourless \rightarrow blue). Needles. Sol. EtOH, Me_2CO ; insol. H_2O . Mp 266°.

Cornwall, R.T. *et al*, *J. Am. Chem. Soc.*, 1927, **49**, 826 (synth)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972.

Tichromin

T-00185

3,3'-[(Methylimino)bis(methylene)]bis[4,5-dihydroxy-2,7-naphthalenedisulfonic acid], 9CI. N-Methyl-N,N-bis(methylenechromotropic acid)amine



$C_{23}H_{21}NO_{16}S_4$ M 695.680

Strictly the name Tichromin applies to the tetrasodium salt.

Tetra-Na salt; *B,HCl*: [24437-20-5].

Used as a 1mM aq. soln. for extraction-photometric detn. of Nb, Ti (λ_{\max} 470 nm, ϵ 10200). Grey cryst. Sol. H_2O .

Basargin, N.N. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 384; 1975, **30**, 177 (synth, detn, Ti)

Nikitina, L.P. *et al*, *Zh. Anal. Khim.*, 1970, **25**, 1521 (detn, Ti)

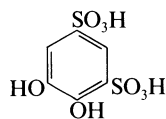
Basargin, N.N. *et al*, *Zavod. Lab.*, 1971, **37**, 142 (detn, Nb)

Tiron

T-00186

4,5-Dihydroxy-1,3-benzenedisulfonic acid, 9CI. Pyrocatechol-3,5-disulfonic acid

[149-45-1]



$C_6H_6O_8S_2$ M 270.241

Used as 0.2M aq. soln. for photometric detn. of Fe, V(IV), Nb, Ti (λ_{\max} 390 nm, ϵ 15000); metal indicator for Fe. Needles. Sol. H_2O ; sl. sol. EtOH. Mp $> 300^\circ$. pK_{a1} 7.66; pK_{a2} 12.6 (20°, 0.1M KCl).

Schwarzenbach, G. *et al*, *Helv. Chim. Acta*, 1951, **34**, 528 (use, indicator)

Korkisch, J., *Mikrochim. Acta*, 1961, 262 (detn, Ti)

Clark, L.J., *Anal. Chem.*, 1970, **42**, 694 (detn, Ti)

Wakamatsu, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 761 (detn, V)

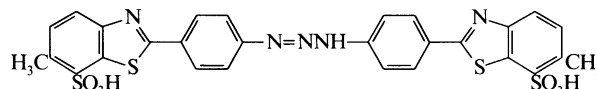
Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 63 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXH300.

Titan yellow

T-00187

2,2'-(1-Triazene-1,3-diyl-di-4,1-phenylene)bis[6-methyl-7-benzothiazolesulfonic acid], 9CI. Thiazol yellow. Clayton yellow. C.I. Direct yellow 9. C.I. 19540



$C_{28}H_{21}N_5O_6S_4$ M 651.768

The name Titan yellow strictly refers to the disodium salt.

Di-Na salt: [1829-00-1].

Used as 0.01% aq. soln. for photometric detn. of Mg (λ_{\max} 545 nm, ϵ 36000). Yellow brown powder. Sol. H_2O , EtOH.

Van Wesemael, J.C., *Anal. Chim. Acta*, 1961, **25**, 238.

Bradfield, E.G., *Anal. Chim. Acta*, 1962, **27**, 262.

Hall, R.J. *et al*, *Analyst (London)*, 1966, **91**, 102.

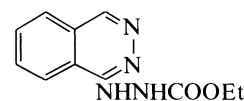
King, H.G. *et al*, *Analyst (London)*, 1967, **92**, 83, 695.

Todralazine, BAN, INN

T-00188

Ethyl 2-(1-phthalazinyl)hydrazine carboxylate, 9CI. Ethyl 3-phthalazin-1-yl carbazate, 8CI. Ecarazine. Numerous proprietary names

[14679-73-3]



$C_{11}H_{12}N_4O_2$ M 232.241

Antihypertensive agent. Used mainly as hydrochloride.

▷ FE2778000.

B,HCl: [3778-76-5]. *Ecarazine hydrochloride*, *JAN*. *Binazine*

Used as a 1% aq. soln. for photometric detn. of Cu, Fe, Mn (λ_{\max} 420 nm, ϵ 11000). Cryst. + $1H_2O$. Mp 212° dec.

Biniecki, S. *et al*, *Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1958, **6**, 227; *CA*, **52**, 18424 (synth)

East Ger. Pat., 31 884, (1965); *CA*, **64**, 2102 (synth)

Ishii, A. *et al*, *Yakugaku Zasshi*, 1973, **93**, 1383 (synth, metab)

Chojnacki, J. *et al*, *Pol. J. Chem. (Roc. Chem.)*, 1975, **49**, 1163 (cryst struct)

Playle, A.C., *Med. Actual.*, 1976, **12**, 468 (rev, pharmacol)

Reiterer, W. *et al*, *Arzneim.-Forsch.*, 1977, **27**, 2163 (use)

Sikorska-Tomiccka, H., *Chem. Anal. (Warsaw)*, 1977, **22**, 761; *CA*, **88**, 176880t (use)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 13358.

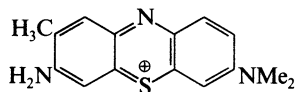
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 1926.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CBS000, TGJ150.

Toluidine blue

T-00189

3-Amino-7-(dimethylamino)-2-methylphenothiazin-5-ium(1+), 9CI. C.I. Basic blue 17, 8CI. Tolonium(1+). Toluidine blue O. C.I. 52040



$C_{15}H_{16}N_3S^{\oplus}$ M 270.377 (ion)

The name Toluidine blue strictly applies to the chloride salt.

Chloride: [92-31-9]. Tolonium chloride, INN. Blutene chloride. Gabilin. Klot. Menodin. Tolazul

$C_{15}H_{16}ClN_3S$ M 305.830

Used as a redox indicator. Antihyperin agent.

Diagnostic agent, dyestuff. Dark green powder with bronze lustre. Sol. H_2O giving a blue to violet soln. pK_{a1} 4.81; pK_{a2} 5.41. E° +0.534V (20°).

▷ SG1225000.

U.S. Pat., 2 809 913, (1957); CA, 52, 3275c (synth, pharmacol)

Bishop, E., Indicators, Pergamon, Oxford, 1972 (use)

Burke, D.H. et al, J. Pharm. Sci., 1974, 63, 451 (pharmacol)

Dean, W.W. et al, J. Chromatogr., 1976, 124, 387 (hplc)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed.,

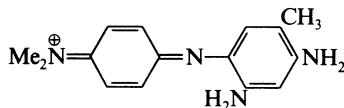
Pharmaceutical Press, London, 1982/1989, 2152.

Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th Ed., Van Nostrand-Reinhold, 1992, AJP250.

Toluylene blue

T-00190

N-[4-[(2,4-Diamino-5-methylphenyl)imino]2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+). C.I. 49410 Basic dye



$C_{15}H_{19}N_4^{\oplus}$ M 255.342 (ion)

Chloride: [97-26-7].

$C_{15}H_{19}ClN_4$ M 290.795

Used as redox indicator. Biological stain. Cryst. Sol.

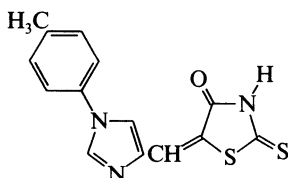
H_2O , EtOH. pK_{a1} 3.80; pK_{a2} 10.48. E° +0.601 (30°).

Bishop, E., Indicators, Pergamon, Oxford, 1972 (use)

5-[(1-p-Tolylimidazol-4-yl)methylene] rhodanine, 8CI

T-00191

[34321-57-8]



$C_{14}H_{11}N_3OS_2$ M 301.392

Used as a 0.002% soln. in EtOH for photometric detn. of

Pd (λ_{max} 440 nm, ϵ 23400). Dark orange cryst. Sl. sol.

dioxan, EtOH, Me_2CO ; insol. H_2O . Mp 300° (dec.).

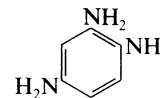
Garrido Fernandez, A. et al, Inf. Quim. Anal., 1971, 25, 99; CA, 75, 115513k (detn, Pd)

1,2,4-Triaminobenzene

T-00192

1,2,4-Benzenetriamine

[615-71-4]



$C_6H_6N_3$ M 123.157

Used as a cross-linking agent in epoxy resins. Plates ($CHCl_3$). Mp 95-98°. Bp ca. 340°.

▷ DC1951540.

1-N-Ac: 2,4-Diaminoacetanilide

$C_8H_{11}N_3O$ M 165.194

Prisms. Mp 158-159°.

1,4-N-Di-Ac:

$C_{10}H_{13}N_3O_2$ M 207.232

Cryst. Mp 231-232°.

1,2,4-N-Tribenzoyl:

$C_{27}H_{21}N_3O_3$ M 435.481

Needles (AcOH). Mp 260°.

1-N-Di-Me: 2,4-Diamino-N-dimethylaniline

$C_8H_{13}N_3$ M 151.211

Needles (ligroin). Mp 44°. Bp₉₀ 218-219°, Bp₂₂ 178°.

1-N-Di-Me; B,2HCl: Cryst. Mp 225°.

1-N-Di-Me, 2,4-di-N-Ac:

$C_{12}H_{17}N_3O_2$ M 235.285

Cryst. + $1\frac{1}{2} H_2O$ (H_2O), cryst. (C_6H_6 or EtOAc). Mp 82° (hydrate), Mp 153° (anhyd.).

4-N-Di-Me: 4-Dimethylamino-1,2-phenylenediamine

$C_8H_{13}N_3$ M 151.211

Used as a 0.3% soln. in 4N HCl for photometric detn. of Se(IV) (λ_{max} 500 nm).

4-N-Di-Me; B,HCl: [16058-93-8].

Cryst. (dil. aq. HCl). Sol. aq. HCl. Mp 70° dec.

2,2,4,4-N-Tetra-Me:

$C_{10}H_{17}N_3$ M 179.264

Bp₁₁₂ 209.4°, Bp₄₅ 180.5°.

2,2,4,4-N-Tetra-Me; B,2HCl: Cryst. powder. Mp 164°.

N-Hexa-Me:

$C_{12}H_{21}N_3$ M 207.318

Liq. Bp₁₃₆ 210°, Bp₄₀ 184°.

4-N-Ph: see 2,4-Diaminodiphenylamine, D-00085

[615-47-4, 66248-00-8]

Wurster, C. et al, Ber., 1879, 12, 1803 (synth)

Hinsberg, O., Ber., 1886, 19, 1253 (synth)

Demeyere, D. et al, Anal. Chim. Acta, 1962, 27, 288 (synth, detn. Se)

Neilson, T. et al, J. Chem. Soc., 1962, 371 (synth)

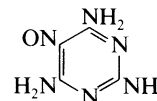
Gemzova, I. et al, Collect. Czech. Chem. Commun., 1967, 32, 2740 (chromatog)

2,4,6-Triamino-5-nitrosopyrimidine

T-00193

5-Nitroso-2,4,6-pyrimidinetriamine

[1006-23-1]



$C_4H_6N_6O$ M 154.131

Used for photometric detn. of Co (λ_{max} 380 nm, ϵ 14000),

Fe(III) (λ_{max} 640 nm, ϵ 20000), Ir (λ_{max} 375 nm, ϵ 4000),

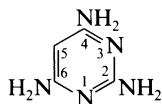
Ru (λ_{max} 510 nm, ϵ 19000). Cryst.

Singh, A.K. et al, J. Indian Chem. Soc., 1976, 53, 691 (use)

2,4,6-Triaminopyrimidine, 8CI

2,4,6-Pyrimidinetriamine, 9CI

[1004-38-2]

C₄H₇N₅ M 125.133

Reagent for detn. of primary aromatic amines. Prisms (EtOH). Sol. H₂O; spar. sol. EtOH, Et₂O. Mp 249-251°. pK_{a1} 6.72; pK_{a2} 1.31 (20°), pK_{a3} 1.72 (H₂SO₄, 20°).

B,2HCl: Prisms.*Picrate*: Needles. Mp 290°.*N⁴-Me*: [24867-24-1].C₅H₉N₅ M 139.160Yellow cryst. (EtOH). Mp 192-194°. pK_{a1} 7.21; pK_{a2} 1.05 (20°).*N⁴-Me, N¹-oxide*: [55973-02-9].C₅H₉N₅O M 155.159

Cryst. (MeOH/MeCN). Mp 188° dec.

N⁴-Et: [91502-44-2].C₆H₁₁N₅ M 153.186Cryst. (CH₂Cl₂/Me₂CO). Mp 155-156°. pK_{a1} 7.20.*N²,N²-Di-Me*: [49810-25-5].C₆H₁₁N₅ M 153.186Cryst. (C₆H₆). Mp 153-155°.*N⁴,N⁴-Di-Me*: [24867-25-2].C₆H₁₁N₅ M 153.186Cryst. (EtOH). Mp 193-194.5°. pK_{a1} 7.21; pK_{a2} 0.68 (20°).*N⁴,N⁶-Di-Me*:C₆H₁₁N₅ M 153.186

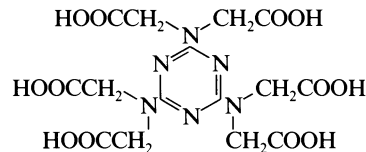
Cryst. (as hydrochloride). Mp 326° (hydrochloride).

N⁴,N⁶-Di-Et:C₈H₁₅N₅ M 181.240Needles (C₆H₆). Mp 135.5-136°.*N²,N²,N⁴,N⁴-Tetra-Me*: [3549-10-8].C₈H₁₅N₅ M 181.240Cryst. (C₆H₆). Mp 116-117°. pK_{a1} 7.18; pK_{a2} 0.80 (20°).*N⁴,N⁴,N⁶,N⁶-Tetra-Me*: [24867-28-5].C₈H₁₅N₅ M 181.240Descr. by Roth *et al* but synth. apparently not publ.*Sadtler Standard Infrared Spectra*, 22088 (*ir*)*Sadtler Standard NMR Spectra*, 29686 (*pmr*)Traube, W., *Chem. Ber.*, 1901, **34**, 3363; 1904, **37**, 4544 (*synth*)Roth, B. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 1914 (*N⁴-Me, N⁴,N⁴-di-Me*)Forrest, H.S. *et al*, *J. Chem. Soc.*, 1951, **3** (*N⁴,N⁶-di-Et*)Elion, G.B. *et al*, *J. Am. Chem. Soc.*, 1953, **75**, 4311 (*N⁴,N⁶-di-Me*)Thompson, W.K., *J. Chem. Soc.*, 1962, 617 (*N²,N²-di-Me, ir*)Roth, B. *et al*, *J. Org. Chem.*, 1970, **35**, 2696 (*derivs, props, uv*)McCall, J.M. *et al*, *J. Org. Chem.*, 1975, **40**, 3304 (*oxides*)Riand, J. *et al*, *Org. Magn. Reson.*, 1977, **9**, 572 (*cmr, pmr*)Staedeli, W. *et al*, *Helv. Chim. Acta*, 1980, **63**, 504 (*N-15 nmr*)Schwalbe, C.H. *et al*, *Acta Crystallogr., Sect. B*, 1982, **38**, 1840 (*cryst struct*)Wells, C.H.J., *Org. Magn. Reson.*, 1982, **20**, 274 (*pmr, derivs*)Riand, J. *et al*, *J. Heterocycl. Chem.*, 1983, **20**, 1187 (*ms*)Cowden, W.B., *Aust. J. Chem.*, 1984, **37**, 1195 (*N⁴-Et*)Narita, J. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 4928 (*use*)

T-00194

2,4,6-Triamino-1,3,5-triazine-*N,N,N',N',N'',N''-hexaacetic acid**(1,3,5-Triazine-2,4,6-triyltrinitrilo)hexaacetic acid, 9CI*

[1258-71-5]

C₁₅H₁₈N₆O₁₂ M 474.340

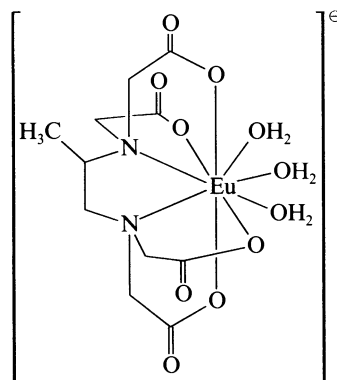
Used as complexing agent for many transition metals.

Cryst. (hot H₂O). Sol. hot H₂O, alkalis; spar. sol. cold H₂O; insol. Me₂CO, C₆H₆, CHCl₃, Et₂O.Lastovskij, R.P. *et al*, *Zh. Anal. Khim.*, 1960, **15**, 419 (*synth, use*)Cordes, H., *CA*, 1971, **74**, 76455a (*synth*)

T-00195

Triaqua[[N,N'-(1-methyl-1,2-ethanediy)]**bis[*N*-(carboxymethyl)glycinato]](4-)-*****N,N'-O,O',O'',O'''*europate(1-)**

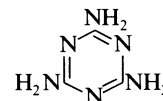
T-00196

C₁₁H₂₀EuN₂O₁₁[⊖] M 508.251 (ion)*Na salt*: [90540-78-6].C₁₁H₂₀EuN₂NaO₁₁ M 531.240

Chiral shift reagent in aq. soln.: permits assignment of abs. config. of hydroxy-, amino- and carboxylic acids.

Kabuto, K. *et al*, *J. Chem. Soc., Chem. Commun.*, 1984, 316; 1987, 670 (*use*)**1,3,5-Triazine-2,4,6-triamine, 9CI***Melamine, 8CI. 2,4,6-Triamino-s-triazine. Cyanuramide.**Cynuric triamide*

[108-78-1]

C₃H₆N₆ M 126.121

Used in synthesis of melamine resins. Used as a 0.2% aq. soln. for photometric detn. of Pd. Reference material used in elemental microanalysis. Cryst. Sol. H₂O, hot EtOH. Mp 347° dec. Subl. when gently heated.

▷ Irritant, causes dermatitis. Emits highly toxic fumes when heated to decomposition. OS0700000.

B,HCl: [16274-76-3].

Needles. Insol. EtOH.

N,N',N''-Tri-Ac:C₉H₁₂N₆O₃ M 252.232

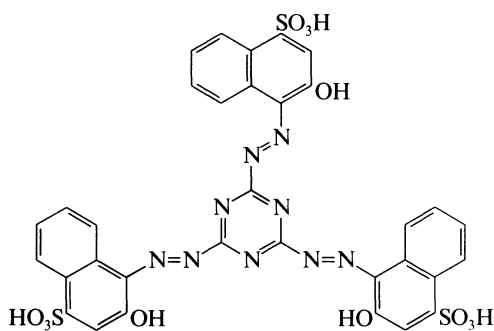
Mp 289-291°.

Tribenzoyl:

$C_{24}H_{18}N_6O_3$ M 438.445
Rhombic prisms or needles (Me₂CO or EtOAc). Mp 142-143°.

Morimoto, G., *Nippon Kagaku Zasshi*, 1966, **87**, 785, 797 (*uv, ir*)
Analyst (London), 1972, **97**, 740 (*microanal*)
Hashmi, M.N. *et al*, *Microchem. J.*, 1972, **17**, 18 (*detn, Pd*)
Green, R.V., *Handb. Ind. Chem.*, 7th Ed., Van Nostrand-Reinhold, N.Y., 1974, 75 (*rev. synth, use*)
Larson, A.C. *et al*, *J. Chem. Phys.*, 1974, **60**, 185 (*cryst struct*)
Kim, Y.H. *et al*, *Chem. Ind. (London)*, 1990, 622 (*synth*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MCB000.

4,4',4''-[1,3,5-Triazine-2,4,6-triyltris(azo)] tris[3-hydroxy-1-naphthalenesulfonic acid], 9CI T-00198
2,4,6-Tris(2-hydroxy-4-sulfo-1-naphthylazo)-1,3,5-triazine [109672-90-4]



$C_{33}H_{21}N_9O_{12}S_3$ M 831.780
Used as 1mM aq. soln. for photometric detn. of Bi (λ_{max} 530 nm, ϵ 55000, pH 4-6.5); In (λ_{max} 530 nm, ϵ 84000, pH 3.5-4.5). Dark red cryst. Sol. H₂O.

Singh, I. *et al*, *Analyst (London)*, 1985, **110**, 309 (*synth*)
Singh, I. *et al*, *Bull. Chem. Soc. Jpn.*, 1988, **61**, 3689 (*detn, Bi, In*)

1,2,4-Triazole T-00199
s-Triazole
[288-88-0]



$C_2H_3N_3$ M 69.066
Catalyses peptide bond formations. Used for photometric detn. of sulbactam (λ_{max} 326 nm).

1H-form

Needles (Et₂O or C₆H₆). Mp 120-121°. Major tautomer.

1-Ac:

$C_4H_5N_3O$ M 111.103
Cryst. Mp 40-42°. Bp₁₆ 78-79°.

1-Benzoyl: [60718-51-6].

$C_9H_7N_3O$ M 173.174
Cryst. Mp 76-76.5° (58°).

1-Benzyl:

$C_9H_9N_3$ M 159.190
Cryst. Mp 54-55°.

4H-form [63598-71-0]
Minor tautomer.

4-Benzyl:

$C_9H_9N_3$ M 159.190
Cryst. (C₆H₆). Mp 108-109°, Mp 114-115°.

Org. Synth., 1960, **40**, 99 (*synth*)

Wilshire, J.F.K., *Aust. J. Chem.*, 1966, **19**, 1935 (*deriv, pmr*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1969, **2**, 423.

Saito, H. *et al*, *J. Am. Chem. Soc.*, 1973, **95**, 324 (*nmr*)

Blackman, A.J. *et al*, *Org. Mass Spectrom.*, 1973, **7**, 57 (*ms*)

Gais, H. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1977, **16**, 244 (*1-benzoyl*)

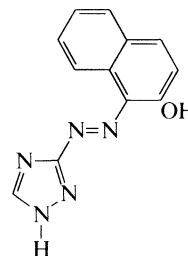
Haginaka, J. *et al*, *Analyst (London)*, 1984, **109**, 1057 (*use*)

Haginaka, J. *et al*, *J. Chromatogr.*, 1985, **341**, 115 (*use*)

1-(1H-1,2,4-Triazol-3-ylazo)-2-naphthalenol, 9CI T-00200

3-(2-Hydroxy-1-naphthylazo)-1,2,4-triazole

[53003-96-6]



$C_{12}H_9N_5O$ M 239.236

Used as a 0.03% soln. in EtOH for photometric detn. of Cd (λ_{max} 515 nm, ϵ 28000), Hg (λ_{max} 530 nm, ϵ 27000); gives colour reactions with transition metals. Orange cryst. (DMF). Sol. dil. alkalis, conc. acids; spar. sol. common org. solvs. Mp 270°. pK_a 0.95; pK_{a2} 8.35; pK_{a3} 10.05 (40% aq. EtOH, μ = 0.1).

Shegal, I.L., *CA*, 1974, **81**, 25609r (*synth*)

Cacho, J. *et al*, *Anal. Chim. Acta*, 1981, **131**, 271 (*synth, pKa, detn, Cd, Hg*)

Tribenzylamine T-00201
N,N-Bis(phenylmethyl)benzenemethanamine, 9CI. TBA
[620-40-6]

(PhCH₂)₃N

$C_{21}H_{21}N$ M 287.404

Used as 3% soln. in CHCl₃ for extraction separation of ion-associates with anionic complexes (e.g. SbCl₆[⊖], Cr₂O₇^{2⊖}); extraction-sepn. of V(III), Cd; extraction-photometric detn. of Mo (λ_{max} 465 nm, CHCl₃). Plates or prisms (Et₂O). Sol. Et₂O, CHCl₃. Mp 92°. Bp₁₃ 230°.

B,HCl: Prisms (EtOH). Mp 227-228°.

B,MeI: Mp 184°.

Picrate: Mp 191°.

Sekiya, M., *Chem. Pharm. Bull.*, 1967, **15**, 802 (*synth*)

Suga, K. *et al*, *Chem. Ind. (London)*, 1969, 78 (*synth*)

Iwasaki, F. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 3370 (*cryst struct*)

Yatirajam, V. *et al*, *Mikrochim. Acta*, 1974, 671 (*detn, Mo*)

Singh, O.V. *et al*, *J. Inorg. Nucl. Chem.*, 1975, **37**, 609 (*detn, Cd*)

Yatirajam, V. *et al*, *Anal. Chim. Acta*, 1976, **86**, 209 (*detn, V*)

Sandell, E.B. *et al*, *Photometric Determination of Traces of Metals*,

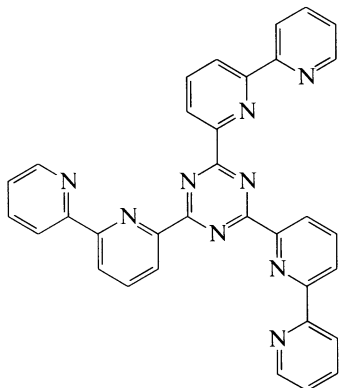
General Aspects: Analytical Separations, Wiley, New York, 1978 (*use*)

Donaldson, E.M., *Talanta*, 1980, **27**, 779 (*detn, Cr*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press Inc., Boca Raton, Florida, 1983 (*use*)
 Vorbrüggen, H. *et al*, *Chem. Ber.*, 1984, **117**, 1523 (*synth*)

Moore, P.A. *et al*, *J. Am. Chem. Soc.*, 1917, **39**, 987 (*synth*)
 Friedman, D. *et al*, *J. Org. Chem.*, 1958, **23**, 16 (*synth*)
 Ackermann, G. *et al*, *Talanta*, 1962, **9**, 1015 (*synth, detn, Nb*)

2,4,6-Tri(2,2'-bipyridin-6-yl)-1,3,5-triazine T-00202
 2,4,6-Tris[6-(2-pyridyl)-2-pyridyl]-s-triazine, 8CI
 [10495-76-8]



$C_{33}H_{21}N_9$ M 543.589

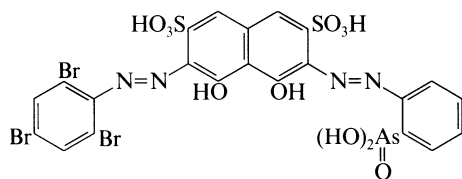
Used as 5mM soln. in aq. EtOH for photometric detn. of Fe(II) (λ_{max} 556 nm, ϵ 6400). Cryst. (DMF). Sol. common org. solvs. Mp 312-313°.

Case, F.H., *J. Org. Chem.*, 1966, **31**, 2398 (*synth*)
 Schilt, A.A. *et al*, *Talanta*, 1968, **15**, 475 (*detn, Fe*)

Tribromoarsenazo

T-00203

3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(2,4,6-tribromophenyl)azo]-2,7-naphthalenedisulfonic acid, 9CI
 [94075-19-1]

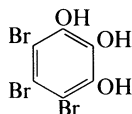


$C_{22}H_{14}AsBr_3N_4O_{11}S_2$ M 889.138

Used as a 0.02% aq. soln. for photometric detn. of rare earth elements. Dark red cryst. powder. Mod. sol. H_2O .

Li, W. *et al*, *CA*, 1985, **102**, 20594z (*use*)

4,5,6-Tribromo-1,2,3-benzenetriol, 9CI, 8CI T-00204
 1,2,3-Tribromo-4,5,6-trihydroxybenzene. Tribromopyrogallol
 [17345-74-3]



$C_6H_3Br_3O_3$ M 362.800

Used as 10% EtOH soln. for photometric detn. of Nb (λ_{max} 410 nm, ϵ 6200). Red-brown cryst. + $1H_2O$ (EtOH aq.). Mp 168-170°.

1,3-Di-Me ether: 3,4,5-Tribromo-2,6-dimethoxyphenol

$C_8H_7Br_3O_3$ M 390.853

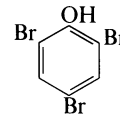
Cryst. Mp 168-170°.

Tri-Me ether: 1,2,3-Tribromo-4,5,6-trimethoxybenzene

$C_9H_9Br_3O_3$ M 404.880

Cryst. Mp 81-85°.

2,4,6-Tribromophenol, 9CI T-00205
 Bromol
 [118-79-6]



$C_6H_3Br_3O$ M 330.801

Stronger antiseptic than phenol or thymol. Used as 5-7% soln. in KOH for gravimetric detn. of Pd(II) or Pt(II) (in NH_3 soln., as $[M(NH_3)_4][OC_6H_2Br_3]_2$). Needles (EtOH), prisms (C_6H_6). Sol. alkalis, EtOH, ligroin. Mp 87-89°. Subl. 95-96°.

▷ Highly irritant. SN1225000.

Ac: [607-95-4].

$C_8H_5Br_3O_2$ M 372.838

Plates or needles (EtOH). Mp 87°.

Benzoyl: [24003-13-2].

$C_{13}H_7Br_3O_2$ M 434.909

Mp 81°.

4-Methylbenzenesulfonyl: Cryst. (EtOH). Mp 113°.

Me ether: [607-99-8]. 1,3,5-Tribromo-2-methoxybenzene.

2,4,6-Tribromoanisole

$C_7H_5Br_3O$ M 344.828

Needles (EtOH). Mp 88°.

Et ether: 1,3,5-Tribromo-2-ethoxybenzene. 2,4,6-

Tribromophenetole

$C_8H_7Br_3O$ M 358.855

Prisms (EtOH). Mp 72-73°.

[2666-53-7, 3784-04-1, 78697-30-0]

Buraway, A. *et al*, *J. Chem. Soc.*, 1952, 2310 (*uv*)

Dyall, L.K., *Aust. J. Chem.*, 1961, **14**, 493 (*ir*)

Hutton, H.M. *et al*, *Can. J. Chem.*, 1962, **40**, 1758 (*nmr*)

Kaemmerer, H., *Spectrochim. Acta, Part A*, 1968, **44**, 2059 (*uv*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1969, **2**, 424.

Reio, L., *J. Chromatogr.*, 1970, **47**, 60.

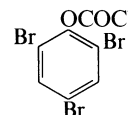
Volkov, V.E. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 1853 (*detn, Pd, Pt*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, THV750.

2,4,6-Tribromophenyl chloroformate T-00206

2,4,6-Tribromophenyl carbonochloridate, 9CI

[54060-68-3]



$C_7H_2Br_3ClO_2$ M 393.256

Derivatisation reagent for gc anal. of amines. Mp 47-50°.

Bp₃₄ 193-197°.

Raiford, I.C. *et al*, *J. Am. Chem. Soc.*, 1934, **56**, 1586 (*synth*)

Ahnfelt, A.O. *et al*, *Chromatographia*, 1982, **16**, 60 (*use*)

Tributylacetohydroxamic acid T-00207

2,2-Dibutyl-N-hydroxyhexanamide, 9CI

[52061-82-2]

($H_3CCH_2CH_2CH_2$)₃CCONHOH

$C_{14}H_{29}NO_2$ M 243.389

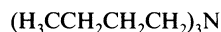
Used as 0.05M soln. in C_6H_6 for extraction separation of Zr (from 4M HCl). Cryst. Sol. C_6H_6 .

Desideri, D. *et al*, *Anal. Chim. Acta*, 1985, **176**, 269 (*detn.* Zr)

Tributylamine, 8CI**T-00208**

N,N-Dibutyl-1-butanamine, 9CI

[102-82-9]



$C_{12}H_{27}N$ M 185.352

Used as 25% soln. in HCl for extraction separation as ion-associates with anionic complexes, e.g. $FeCl_4^-$, PbI_4^- , (CH_2Cl_2) . Hygroscopic liq. with characteristic odour. Spar. sol. H_2O , v. sol. Et_2O , EtOH. d 0.778. Bp 216-217°, Bp₉ 91-92°.

▷ Toxic, irritant. YA0350000.

Picrate: Mp 105°.

B, PhCH₂Cl: [23616-79-7]. *Benzyltributylammonium chloride* Reagent for ion-pair extraction of inorganic anions. Mp 185°.

Borrows, E.T. *et al*, *J. Chem. Soc.*, 1947, 197 (*synth*)

Ziegler, M. *et al*, *Fresenius' Z. Anal. Chem.*, 1960, **172**, 105; **175**, 321; 1961, **180**, 351 (*detn.* Pb, Nb, Ag)

U.S. Pat., 3 022 349, (1962); *CA*, **56**, 15364h (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 41, 601.

Barber, W.E. *et al*, *J. Chromatogr.*, 1984, **301**, 25 (*use, deriv*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 218.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, THX250.

Tributylchlorosilane, 9CI**T-00209**

[995-45-9]



$C_{12}H_{27}ClSi$ M 234.883

Silylation reagent for preparing derivs. for gc and ms. Liq. Bp₁₆ 134-139°, Bp₁ 80-84°.

Gilman, H. *et al*, *J. Org. Chem.*, 1959, **24**, 219.

Pike, R.M., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1962, **81**, 28.

Semlyen, J.A. *et al*, *J. Chem. Soc.*, 1964, 4948.

Dao-Huy-Giao, *C. R. Hebd. Seances Acad. Sci.*, 1965, **260**, 6937.

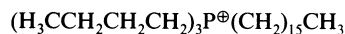
Khudobin, Y.I. *et al*, *CA*, 1974, **81**, 49728.

Harvey, D.J. *et al*, *J. Chromatogr.*, 1975, **109**, 73 (*use*)

Harvey, D.J., *Org. Mass Spectrom.*, 1977, **12**, 473 (*use*)

Tributyl(hexadecyl)phosphonium(1+), 9CI**T-00210**

[66997-36-2]



$C_{28}H_{60}P^+$ M 427.756 (ion)

Used as 1% soln. in aq. MeOH for extraction-photometric detn. of Bi (forms ion-associate with BiI_4^- , 20% benzophenone in Me_2CO). Salts can behave as phase transfer agents.

Chloride: [41272-12-2].

$C_{28}H_{60}ClP$ M 463.208

No phys. props. reported.

Bromide: [14937-45-2].

$C_{28}H_{60}BrP$ M 507.660

Cryst. (hexane). Mp 54°.

Iodide: [56772-64-6].

$C_{28}H_{60}IP$ M 554.660

Cryst. (hexane). Mp 57-58°.

[112011-36-6]

Starks, C.M., *J. Am. Chem. Soc.*, 1971, **93**, 195 (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 322; **6**, 271; **7**, 166 (*use*)

Landini, D. *et al*, *Synthesis*, 1975, 430 (*use*)

Landini, D. *et al*, *J. Am. Chem. Soc.*, 1978, **100**, 2796 (*use*)

Burns, D.T. *et al*, *Anal. Chim. Acta*, 1987, **197**, 285 (*detn.* Bi)

Tributyl phosphate, 9CI, 8CI**T-00211**

TBT

[126-73-8]



$C_{12}H_{27}O_4P$ M 266.317

Used in extraction of lanthanide and actinide elements and in nuclear fuel reprocessing. Plasticiser for cellulose esters, lacquers, plastics and vinyl resins. Used neat or as a soln. in $CHCl_3$, hexane or CCl_4 as an extraction solvent for the coordinatively solvated salts (NO_3^- , Cl^-) e.g. $UO_2(NO_3)_2$ (TBP)₂. Odourless liq. Mod. sol. H_2O , misc. org. solvs. d_4^{20} 0.98. Mp < -80°. Bp 289° dec., Bp₅₀ 196°, Bp₉ 148-150°. n_D^{20} 1.4246.

▷ Mod. toxic. TC7700000.

Gerrard, W., *J. Chem. Soc.*, 1940, 1464 (*synth*)

Cox, J.R. *et al*, *J. Am. Chem. Soc.*, 1958, **80**, 5441 (*synth*)

Coleman, C.F. *et al*, *Talanta*, 1962, **9**, 297 (*use*)

Michell, J.W. *et al*, *Talanta*, 1972, **19**, 1157, 1972 (*use*)

Brown, C. *et al*, *Phosphorus Sulfur Relat. Elem.*, 1979, **6**, 481 (*synth*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, Boca Raton, CRC Press, 1982 (*use*)

Cload, P.A. *et al*, *Org. Mass Spectrom.*, 1983, **18**, 57 (*ms*)

Suzuki, T. *et al*, *J. Agric. Food Chem.*, 1984, **32**, 603, 1278 (*metab*)

Sci. Technol. Tributyl Phosphate, (Ed. W.W. Schulz and J.D.

Narratil), CRC Press, Florida, 1986 (*rev, bibl*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th

Ed., Van Nostrand-Reinhold, 1992, TIA250.

Tributylphosphine, 9CI, 8CI**T-00212**

[998-40-3]



$C_{12}H_{27}P$ M 202.319

Reagent for deoxygenation of epoxides and peroxides, and desulfurizations of thiiranes, and polysulfides. Ligand for metals of Groups IB, IIB, IVB, VB, VIB, VIII. Used as C_6H_6 soln. for extraction-separation of In (as ion-associate with $InBr_4^-$, diisopropyl ether). Liq. with garlic-like odour. Misc. org. solvs. Fp 40°. Bp 240°, Bp₂₀ 130°. n_D^{20} 1.4635.

▷ Pyrophoric.

B, MeI: *Tributylmethylphosphonium iodide*

$C_{13}H_{30}IP$ M 344.258

Solid. Mp 130-133°.

Oxide: see *Tributylphosphine oxide*, T-00213

Sulfide: see *Tributylphosphine sulfide*, T-00214

Telluride: [2935-46-8].

$C_{12}H_{27}PTe$ M 329.919

Yellow cryst. (pet. ether). Mp 35-35.5°. Rather unstable to light and glass with liberation of Te.

Inorg. Synth., 1960, **6**, 87 (*synth*)

Fritzsche, H. *et al*, *Chem. Ber.*, 1964, **97**, 1988; 1965, **98**, 171 (*synth*)

Cumper, C.W.R. *et al*, *J. Chem. Soc.*, 1964, 430 (*synth*)

Zingaro, R.A., *J. Organomet. Chem.*, 1965, **4**, 320 (*telluride*)

Maier, L., *Helv. Chim. Acta*, 1966, **49**, 2458 (*synth*)

Fluck, E. *et al*, *Z. Naturforsch., B*, 1967, **22**, 1095 (*nmr, deriv*)

Mironova, Z.N. *et al*, *Zh. Obshch. Khim.* (Engl. transl. p. 2614), 1967, **37**, 2747 (*synth*)

Mieczkowska, E., *Chem. Anal. (Warsaw)*, 1969, **14**, 683; 1970, **15**, 509 (*detn, In*)
 Chremos, G.N. *et al, J. Organomet. Chem.*, 1970, **22**, 637 (*telluride, ir*)
 Kostyanovskii, R.G. *et al, Org. Mass Spectrom.*, 1972, **6**, 1183 (*ms*)
 Quin, L.D. *et al, Org. Magn. Reson.*, 1974, **6**, 503 (*cmr*)
 Fluck, E. *et al, Z. Naturforsch., B*, 1974, **29**, 603 (*pe*)
 Goetz, H. *et al, Phosphorus Relat. Group V Elem.*, 1978, **4**, 309 (*struct*)
 Butler, I.S. *et al, Spectrochim. Acta, Part A*, 1979, **35**, 425 (*ir, raman*)

Tributylphosphine oxide, 9CI, 8CI **T-00213**
 [814-29-9]



$C_{12}H_{27}OP$ M 218.318
 Ligand for metals of Groups IIIA, IVA, IIIB, VB, VIB, and VIII, as well as rare earth metals. Used as soln. in 1,2-dichloroethane for extraction separation of Ti.
 Hygroscopic needles. Sol. 1,2-dichloroethane. Mp 68-69°. Bp 300°, Bp₂ 134-135°. pK_a 8.75 (MeNO₂).

▷ SZ1575000.

Cumper, C.W.N. *et al, J. Chem. Soc.*, 1964, 430 (*synth, props*)
 Cuddy, B.D. *et al, Tetrahedron Lett.*, 1971, 4433 (*pmr*)
 Quin, L.D. *et al, Org. Magn. Reson.*, 1974, **6**, 503 (*cmr*)
 Albright, T.A. *et al, J. Org. Chem.*, 1975, **40**, 3437 (*cmr, nmr*)
 Fluck, E. *et al, Z. Anorg. Allg. Chem.*, 1975, **412**, 47 (*pe*)
 Roland, G. *et al, Chim. Acta*, 1976, **85**, 331 (*detn, Ti*)
 Pudovik, A.N. *et al, Izv. Akad. Nauk SSSR, Ser. Khim., (Engl. transl. p. 2461)*, 1979, 2644 (*synth, ir, nmr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TNE750.

Tributylphosphine sulfide, 9CI, 8CI **T-00214**
 [3084-50-2]



$C_{12}H_{27}PS$ M 234.385
 Converts oxiranes to thiiranes. Used as a 5% soln. in CCl₄ for extraction of metal ions. Pale-yellow oil. Sol. common org. solvs. d₄²⁴ 1.03. Bp_{0,1} 111°. n_D²⁰ 1.5045.

▷ SZ2800000.

Kosolapoff, G.M., *Organophosphorus Compds.*, Wiley, N.Y., 1950 (*synth*)
 Christen, P.J. *et al, Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1959, **78**, 161 (*synth, ir*)
 Zingaro, R.A. *et al, J. Org. Chem.*, 1961, **26**, 5205 (*synth, ir*)
 Hitchcock, R.B. *et al, Anal. Chem.*, 1963, **35**, 254 (*use*)
 Handley, T.H., *Talanta*, 1965, **12**, 893 (*use*)
Inorg. Synth., 1967, **9**, 71 (*synth*)
 Chan, T.H. *et al, J. Am. Chem. Soc.*, 1972, **94**, 2880 (*use*)
 Quin, L.D. *et al, Org. Magn. Reson.*, 1974, **6**, 503 (*cmr*)
 Albright, T.A. *et al, J. Org. Chem.*, 1975, **40**, 3437 (*cmr, nmr*)
 Cattrall, R.W., *J. Inorg. Nucl. Chem.*, 1978, **40**, 687 (*complexes*)
 Timokhin, B.V. *et al, Zh. Obshch. Khim., (Engl. transl. p. 1083)*, 1979, **49**, 1235 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TIA450.

O,O,O-Tributyl phosphorothioate, 9CI, 8CI **T-00215**
 O,O,O-Tributyl thiophosphate
 [78-47-7]



$C_{12}H_{27}O_3PS$ M 282.383

Used as 15% soln. in CCl₄ for extraction-separation of Ag and Hg(II) (from HNO₃ or HClO₄ medium). Liq. Sol. CCl₄. Bp₁₁ 156-157°. n_D²⁰ 1.4497.

Michalski, J. *et al, Bull. Acad. Pol. Sci., Ser. Sci. Chim.*, 1957, **5**, 917 (*synth*)
 Handley, T.H. *et al, Anal. Chem.*, 1960, **32**, 1878 (*sepn, Ag, Hg*)
 Fluck, E. *et al, Z. Anorg. Allg. Chem.*, 1967, **354**, 139 (*P nmr*)
 Engel, R.R. *et al, J. Chem. Soc. C*, 1970, 523 (*props*)

N,N',N''-Tributylphosphorous triamide, 9CI **T-00216**

Tris(butylamino)phosphine. Tri(butylamino)phosphine
 $(H_3CCH_2CH_2CH_2NH)_3P$

$C_{12}H_{30}N_3P$ M 247.363

Oxide: [23344-69-6]. N,N',N''-Tributylphosphoric triamide
 $C_{12}H_{30}N_3OP$ M 263.362
 Has been used in extraction of uranium. pK_{a1} 12.16; pK_{a2} 7.00 (MeNO₂).

Sulfide: [53364-04-8]. N,N',N''-Tributylphosphorothioic triamide

$C_{12}H_{30}N_3PS$ M 279.429

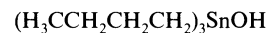
Cryst. (pet. ether). Mp 54°.

Wise, G. *et al, J. Am. Chem. Soc.*, 1952, **74**, 529 (*sulfide*)
 Healy, J.D. *et al, Phosphorus Sulfur Relat. Elem.*, 1978, **5**, 239 (*sulfide*)

Tributyltin hydroxide **T-00217**

Tributylhydroxystannane, 9CI

[1067-97-6]



$C_{12}H_{28}OSn$ M 307.063

Used as a 0.25M soln. in trichloroethylene for extraction of CN[⊖]. Waxy solid or oil. Mp 15-16°.

Wroński, M., *Talanta*, 1981, **28**, 255 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TID500.

Trichloroacetic acid, 9CI, 8CI **T-00218**

[76-03-9]



$C_2HCl_3O_2$ M 163.387

Strong acid. Used as 25% aq. soln. for extraction of the Zr-alizarin S compound into butanol; indirect detn. of F[⊖]. Deliquescent cryst. Sol. H₂O, EtOH. Mp 57-58°. Bp 196-197°, Bp₂₅ 141-142°.

▷ Highly irritant, causes severe burns. TLV 1. NH₄ salt is highly toxic and carcinogenic. AJ7875000.

Me ester: [598-99-2].

$C_3H_3Cl_3O_2$ M 177.414

Bp 153.8°, Bp₁₂ 52-54°.

▷ AJ8380000.

Et ester: [515-84-4]. Ethyl trichloroacetate

$C_4H_5Cl_3O_2$ M 191.440

Dichlorocarbene source. Bp₁₂ 55-58°.

Allyl ester: [6304-34-3].

$C_6H_5Cl_3O_2$ M 203.451

Bp₇₆₆ 183-184°.

Vinyl ester: [7062-87-5].

$C_4H_3Cl_3O_2$ M 189.425

Bp 149°.

Phenyl ester: [10112-13-7].

$C_8H_5Cl_3O_2$ M 239.484

Bp 254-255° dec.

Benzyl ester: [26827-38-3].

$C_9H_7Cl_3O_2$ M 253.511

Viscous oil. Bp₅₀ 178.5°.

Chloride: [76-02-8].

C_2Cl_4O M 181.832

Used as derivatisation reagent in gc of sympathomimetic amines. Bp 118°.

▷ Irritant, causes severe burns. AO7140000.

Bromide: [34069-94-8].

C_2BrCl_3O M 226.284

Bp 143°.

Iodide:

C_2Cl_3IO M 273.284

Bp ca. 180°, Bp₃₀ 74°.

Anhydride: [4124-31-6].

$C_4Cl_6O_3$ M 308.758

Bp 222-224° dec., Bp₁₁₀ 140°.

Amide: [594-65-0]. 2,2,2-Trichloroacetamide, 9CI, 8CI

$C_2H_2Cl_3NO$ M 162.402

Cryst. (H₂O). Sol. EtOH, Et₂O; spar. sol. H₂O. Mp 141°. Subl.₇₄₆ 238-239°.

▷ AC9275000.

Methylamide: [23170-77-6].

$C_3H_4Cl_3NO$ M 176.429

Cryst. (Et₂O). Mp 105-106°.

Dimethylamide: [7291-33-0].

$C_4H_6Cl_3NO$ M 190.456

Bp 230-233° slight dec.

Anilide: [2563-97-5]. 2,2,2-Trichloro-N-phenylacetamide, 9CI

$C_8H_6Cl_3NO$ M 238.500

Cryst. (EtOH aq.). Mp 95-97°.

▷ AE7875000.

Nitrile: [545-06-2]. Trichloroacetonitrile.

Trichlorocyanomethane

C_2Cl_3N M 144.387

Has insecticidal props. Liq. d₄²⁵ 1.44. Mp 44°. Bp 85.7°.

▷ Strong irritant to eyes and skin. AM2450000.

Amidine:

Kolbe, H., *Justus Liebigs Ann. Chem.*, 1845, **54**, 183 (*synth*)

Rowley, R.J. *et al*, *Ind. Eng. Chem., Anal. Ed.*, 1937, **9**, 551 (*detn*, F^o)

Parkes, G.D. *et al*, *Chem. Ind. (London)*, 1954, 222 (*synth*)

U.S. Pat., 2 832 803, (1958); *CA*, **52**, 18217 (*synth*)

Carpenter, W.R., *J. Org. Chem.*, 1962, **27**, 2085 (*nitrile*)

Dragulescu, C. *et al*, *Talanta*, 1964, **11**, 747 (*detn*, Zr)

Anggard, E. *et al*, *Acta Chem. Scand.*, 1969, **23**, 3110 (*chloride*, *use*)

Noonan, J.S. *et al*, *J. Pharmacol. Exp. Ther.*, 1969, **168**, 205 (*chloride*, *use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 233, 520; **7**, 380.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 512.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, MQC150, TII000, TII250, TII750, TIJ150.

2,2,2-Trichloroacetohydroxamic acid, 8CI T-00219

[29289-98-3]

$Cl_3CCONHOH$

$C_2H_2Cl_3NO_2$ M 178.401

Used for extraction-photometric detn. of Mo (λ_{max} 270 nm, ϵ 1600). pK_{a1} 8.0.

Molot, L.A. *et al*, *Khim. Khim. Tekhnol. (Minsk)*, 1970, **13**, 628 (*detn*, Mo)

Trichloroacetyl isocyanate, 9CI T-00220

Trichloroacetic acid anhydride with isocyanic acid, 8CI

[3019-71-4]

$Cl_3CCONCO$

$C_3Cl_3NO_2$ M 188.397

Used for classification of alcohols and derivatisation of thiols for nmr anal. Liq. Bp₂₀ 80-85°.

▷ Lachrymator.

Speziale, A.J. *et al*, *J. Org. Chem.*, 1962, **27**, 3742; 1963, **28**, 1805 (*synth*)

Goodlett, V.W., *Anal. Chem.*, 1965, **37**, 431 (*use*)

Trehan, I.R. *et al*, *Tetrahedron Lett.*, 1968, 67 (*use*)

Ramirez, F. *et al*, *J. Org. Chem.*, 1969, **34**, 376 (*synth*)

Bose, A.K. *et al*, *Tetrahedron*, 1975, **31**, 3025 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 382.

Akteries, B. *et al*, *Chem. Ber.*, 1986, **119**, 83 (*synth*, *cmr*)

2,2,2-Trichloro-tert-butylloxycarbonyl chloride T-00221

Carbonochloridic acid 2,2,2-trichloro-1,1-dimethylethyl ester, 9CI. TBCOC

[66270-36-8]

$Cl_3CC(CH_3)_2OCOCI$

$C_5H_6Cl_4O_2$ M 239.912

Reagent for protecting amino acids. Derivatisation reagent for gas chromatog. anal. of amines. Liq. Bp₁₂ 77-81°.

Eckert, H. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1978, **17**, 361.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 499.

Ahnfelt, N.O. *et al*, *Chromatographia*, 1982, **16**, 60 (*use*)

2,2,2-Trichloroethanol, 9CI, 8CI T-00222

[115-20-8]

Cl_3CCH_2OH

$C_2H_3Cl_3O$ M 149.403

Hypnotic. Used as protecting group for carboxylic acid and to esterify acids for chromatog. Rhombic plates or hygroscopic liq. with ethereal odour. Sol. H₂O, EtOH, Et₂O. d₂₀²⁰ 1.55. Mp 19°. Bp 151-153°, Bp₁₂₅ 94-97°. pK_a 12.24 (25°).

▷ KM3850000.

4-Nitrobenzoyl: Prisms (EtOH). Mp 71°.

1-Naphthylurethane:

$C_{13}H_{10}Cl_3NO_2$ M 318.586

Cryst. (ligroin). Mp 120°.

Urethane: [107-69-7]. Trichloroethanol carbamate, 9CI.

Carbamina. Trichloroethylurethan. Trichlorourethan.

Voluntal

$C_3H_4Cl_3NO_2$ M 192.428

In former use as soporific. Needles (ligroin). Mp 64-65°.

▷ FD1750000.

Dean, P.M. *et al*, *J. Am. Chem. Soc.*, 1936, **58**, 332 (*synth*)

Org. Synth., Coll. Vol., 2, 1943, 598 (*synth*)

Sroog, C.E. *et al*, *J. Am. Chem. Soc.*, 1949, **71**, 1710 (*synth*)

Smith, R.V. *et al*, *J. Chromatogr.*, 1971, **61**, 29 (*use*)

Alley, C.C. *et al*, *Anal. Chem.*, 1976, **48**, 387 (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1977, **6**, 605.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TIN500, TIO500.

2,2,2-Trichloroethyl chloroformate

T-00223

Carbonochloridic acid 2,2,2-trichloroethyl ester, 9CI.
Chloroformic acid 2,2,2-trichloroethyl ester, 8CI. β,β,β -
Trichloroethoxycarbonyl chloride
[17341-93-4]



$\text{C}_3\text{H}_2\text{Cl}_4\text{O}_2$ M 211.858

Acylating agent, reagent for protection of aminoacids with the trichloroethoxycarbonylurethane (troc-urethane) group. Reagent for gc anal. of tertiary amines. Liq. d_4^{25} 1.54. Bp 171-172°, Bp₆₀ 75-76°.

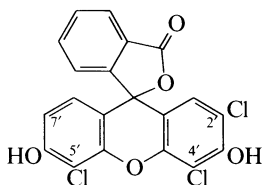
▷ Lachrymator.

Windholz, T.B. *et al*, *Tetrahedron Lett.*, 1967, 2555 (*synth*, *bibl*)
Hartvig, P. *et al*, *Acta Pharm. Suec.*, 1976, **13**, 181 (*use*)
Hartvig, P. *et al*, *J. Chromatogr.*, 1976, **121**, 235; 1977, **133**, 367 (*use*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, 7, 383.
Carson, J.F., *Synthesis*, 1981, 268 (*use*)

2',4',5'-Trichlorofluorescein

T-00224

2',4',5'-Trichloro-3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 9CI
[2861-41-8]



$\text{C}_{20}\text{H}_9\text{Cl}_3\text{O}_5$ M 435.646

Used as a 1mM soln. in MeOH for photometric and fluorimetric detn. of Ag (λ_{max} 545 nm). Orange-red cryst. (EtOH). Sol. EtOH, Me₂CO, alkalis.

Mori, I. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1202 (*detn*, Ag)

2',4',7'-Trichlorofluorescein

T-00225

2',4',7'-Trichloro-3',6'-dihydroxyspiro[isobenzofuran-1-(3H),9'-[9H]xanthen]-3-one, 9CI
[2455-80-3]

$\text{C}_{20}\text{H}_9\text{Cl}_3\text{O}_5$ M 435.646

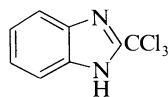
Used as a 1mM soln. in MeOH for photometric and fluorimetric detn. of Ag (λ_{max} 545 nm). Orange-red cryst. (EtOH). Sol. EtOH, Me₂CO, alkalis.

Mori, I. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1973, **22**, 1202 (*detn*, Ag)

2-(Trichloromethyl)-1H-benzimidazole, 9CI

T-00226

[3584-65-4]



$\text{C}_8\text{H}_5\text{Cl}_3\text{N}_2$ M 235.499

Chromogenic reagent for the detn. of azines. Cryst. (AcOH). Mp 360°.

▷ DE1125000.

Cramer, F. *et al*, *Chem. Ber.*, 1958, **91**, 1049 (*synth*)
Crank, G. *et al*, *Aust. J. Chem.*, 1982, **35**, 775 (*synth*)
Konopski, L. *et al*, *J. Chromatogr.*, 1986, **363**, 394 (*use*)

1,1,1-Trichloro-3,3,3-trifluoro-2-propanone, 9CI

T-00227

1,1,1-Trichloro-3,3,3-trifluoroacetone
[758-42-9]



$\text{C}_3\text{Cl}_3\text{F}_3\text{O}$ M 215.386

Trifluoroacetylating agent. Liq. Bp 83.5-84.5°.

Panetta, C.A. *et al*, *J. Org. Chem.*, 1970, **35**, 4275 (*synth*, *use*)
Murto, J. *et al*, *Finn. Chem. Lett.*, 1976, 50 (*raman*, *ir*)
Org. Synth., 1977, **56**, 122 (*synth*)
Abdel-Baky, S. *et al*, *J. Org. Chem.*, 1986, **51**, 3390 (*use*)

6,8-Tridecanedione, 9CI

T-00228

Dicaproylmethane

[32743-88-7]



$\text{C}_{13}\text{H}_{24}\text{O}_2$ M 212.331

Used as soln. in C_6H_6 for extraction separation of Cu(II), Fe(III). Liq. Bp 162-164°.

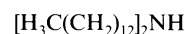
Hausser, C.R. *et al*, *J. Am. Chem. Soc.*, 1944, **66**, 1220 (*synth*)
Koshimura, H. *et al*, *Anal. Chim. Acta*, 1971, **55**, 163 (*sepn*, Cu, Fe)

N-Tridecyl-1-tridecanamine, 9CI

T-00229

Di(tridecyl)amine

[5910-75-8]



$\text{C}_{26}\text{H}_{55}\text{N}$ M 381.727

Used for extraction-separation of Pa(V). Cryst. powder. Sol. EtOH, Et₂O.

▷ JP6650000.

Awwal, M.A., *Nucl. Sci. Appl., Ser. B*, 1973, **6**, 23; *CA*, **81**, 69086x.

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXQ000.

Tridodecylamine

T-00230

N,N-Didodecyl-1-dodecanamine, 9CI. Trilaurylamine

[102-87-4]



$\text{C}_{36}\text{H}_{75}\text{N}$ M 521.995

Used for extraction-separation of Hg, Mo, W. d 0.823. Mp 15.7°. Bp_{0.03} 220-228°. n_D^{25} 1.4567.

N-Oxide: [20587-64-8].

$\text{C}_{36}\text{H}_{75}\text{NO}$ M 537.995

Used as 0.01M soln. in C_6H_6 for extraction separation of Hg(II) (from 0.5M HCl). Cryst. (Me₂CO). Sol. C_6H_6 . Mp 50-53°.

B,HCl: [2486-89-7]. Trilaurylammonium chloride.

Tridodecylammonium chloride, 9CI

Used as soln. in toluene for extraction separation of Zn (from NaCl/HCl). Cryst. (Me₂CO). Sol. toluene. Mp 84-85°.

B,HBr: [5810-40-2]. Trilaurylammonium bromide.

Tridodecylammonium bromide, 9CI

$\text{C}_{36}\text{H}_{76}\text{BrN}$ M 602.907

Used as a 2mM soln. in CCl₄ or xylene for extraction-photometric detn. of Bi (λ_{\max} 564 nm, ϵ 33100, xylene), Ga (λ_{\max} 595 nm, ϵ 80000, xylene), In (λ_{\max} 600 nm, ϵ 82000, xylene), Sb (λ_{\max} 530 nm, ϵ 33200, CCl₄), V, W. Cryst. (Me₂CO). Sol. common org. solvs. Mp 86-87°.

- Ralston, A. *et al*, *J. Org. Chem.*, 1944, **9**, 259 (synth)
 Mayer, I. *et al*, *J. Inorg. Nucl. Chem.*, 1967, **29**, 1377 (synth, cryst struct, salts)
 Alian, A. *et al*, *Talanta*, 1967, **14**, 659 (use)
 Tseriyuta, Y.S. *et al*, *CA*, 1973, **79**, 108619d; 1974, **80**, 87883p (detn, Mo, W)
 Kliger, G.A. *et al*, *CA*, 1973, **79**, 41815u (synth)
 Muhammed, M. *et al*, *Chem. Scr.*, 1974, **6**, 61 (synth)
 Chimbolev, M. *et al*, *J. Radioanal. Chem.*, 1976, **30**, 397 (sepn, Hg)
 Shijo, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1981, **54**, 143, 700; 1983, **56**, 105 (detn, V, Bi, Ga, In, Sb, W)
 Bui-The-Khai, *et al*, *J. Org. Chem.*, 1981, **46**, 1759 (synth)
 Rashid, M. *et al*, *Mikrochim. Acta*, 1986, **1**, 191 (detn, Hg)
 Masana, A. *et al*, *Anal. Sci.*, 1988, **4**, 63 (sepn, Zn)

Triethylamine**T-00231**

N,N-Diethylethanamine, 9CI
 [121-44-8]



C₆H₁₅N M 101.191

Useful org. base. Used as 1,2-dichloroethane soln. for extraction-photometric detn. of Ti (ϵ 80000, thiocyanate complex). Liq. d_4^{20} 0.7275. Mp -114.75°. Bp 89.4°. pK_a 11.01 (18°, H₂O).

▷ Irritant, TLV 100. Highly flammable, flash p. - 7°. YE0175000.

B,HCl: [554-68-7].

Cryst. (EtOH). Mp 253-254°.

B,HBr: [636-70-4].

Cryst. (CHCl₃ or EtOH). Mp 248°.

B,HI: [4636-73-1].

Cryst. Mp 181°.

Hofmann, A.W., *Justus Liebigs Ann. Chem.*, 1850, **73**, 91.

Rakshit, J.N., *J. Am. Chem. Soc.*, 1913, **35**, 1782 (synth)

Vogel, A.I., *J. Chem. Soc.*, 1948, 1825.

Tananaiko, M.M. *et al*, *Zh. Anal. Khim.*, 1969, **24**, 844 (detn, Ti)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1979, **7**, 385 (use)

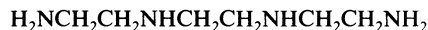
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 608.

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 517.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TJO000.

Triethylenetetramine, 8CI**T-00232**

N,N'-Bis(2-aminoethyl)-1,2-ethanediamine, 9CI. *Trientine*, **BAN**. *Trien*
 [112-24-3]



C₆H₁₈N₄ M 146.235

Org. base with widespread uses, esp. manuf. of wet-strength resins and epoxy-resin curing agents.

Complexing agent for metals. Used to treat Wilson's disease. Used as 0.5M aq. soln. of disulfate salt for photometric detn. of Cu(II) (λ_{\max} 580 nm, pH 9-11). Oil. Sol. H₂O, acids. d_{20} 0.975. Mp 12°. Bp 272°, Bp₂₀ 157°. n_D^{20} 1.4961. Forms monohydrate, Fp 47°.

▷ Irritant, causes burns. YE6650000.

B,2HCl: [38260-01-4]. *Trientine hydrochloride*, *USAN*. *Cuprid*. *MK 681*

Mp 115-118°.

B,4HCl: [4961-40-4].

Needles (EtOH/HCl). Mp 266-270°.

Peacock, D.H., *J. Chem. Soc.*, 1936, 1518 (synth)
 v. Alphen, J., *Recl. Trav. Chim. Pays-Bas (J. R. Neth. Chem. Soc.)*, 1936, **55**, 412 (synth)

Ger. Pat., 1 075 118, (1960); *CA*, **55**, 12302b (purifn, props)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 1204.

Goydish, B.L., *Mikrochim. Acta*, 1971, 675 (detn, Cu)

Smith, G., *Experientia*, 1975, **31**, 84 (pharmacol)

Spitz, R.D., *Kirk-Othmer Encycl. Chem. Technol.*, 3rd Ed., Wiley, N.Y., 1978-1984, **7**, 580 (rev)

Haslam, R.H. *et al*, *Dev. Pharmacol. Ther.*, 1980, **1**, 318 (pharmacol)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 13377.

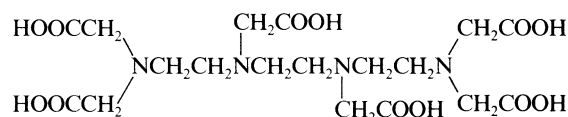
Med. Lett., 1986, **28**, 67 (rev, pharmacol)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 518.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TJR000.

Triethylenetetramine-N,N,N',N'',N''',N''''-hexaacetic acid**T-00233**

[Nitrilotris(ethylenenitrilo)]hexaacetic acid, 8CI
 [2783-89-3]



C₁₈H₃₀N₄O₁₂ M 494.455

Used as a 0.05M soln. of di-Na salt in dil. NaOH as complexing agent for many metals. Cryst. Mp 226° (dec.). pK_{a1} 2.42; pK_{a2} 2.95; pK_{a3} 4.16; pK_{a4} 6.16; pK_{a5} 9.40; pK_{a6} 10.19.

Pribil, R. *et al*, *Talanta*, 1962, **9**, 939 (use)

Hoyer, E. *et al*, *CA*, 1969, **70**, 91298n (use)

Cheng, K.L., *Handbook of Organic Analytical Reagents*, CRC Press Inc. Boca Raton, Florida, 1983 (use)

Triethylphenylammonium(1+)**T-00234**

N,N,N-Triethylbenzenaminium(1+), 9CI
 [310-24-7]



C₁₂H₂₀N[⊕] M 178.297 (ion)

Hydroxide: [7620-71-5].

C₁₂H₂₁NO M 195.304

Reagent for flash-heater ethylation of drugs for anal.

Iodide: [1010-19-1].

C₁₂H₂₀IN M 305.201

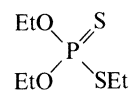
Cryst. Mp 125-127°.

Pressman, D. *et al*, *J. Am. Chem. Soc.*, 1946, **68**, 250 (synth, iodide)

Friel, P. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1975, **21**, 751 (use)

O,O,S-Triethyl phosphorodithioate, 9CI, 8CI**T-00235**

O,O,S-Triethyl dithiophosphate
 [2524-09-6]



C₆H₁₅O₂PS₂ M 214.289

Used as mixt. with EtOH for photometric detn. of Mo (in the presence of thiocyanate). Sol. EtOH. Bp₁₆ 121-123°, Bp₂ 74-77°. n_D^{20} 1.5010.

McIvor, R.A. *et al.*, *Can. J. Chem.*, 1958, **36**, 820 (*ir*)
Lippman, A.E., *J. Org. Chem.*, 1966, **31**, 471 (*synth*, *P nmr*)
Busev, A.I. *et al.*, *Anal. Lett.*, 1970, **3**, 235 (*detn*, *Mo*)
Ishmaeva, E.A. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 2582), 1974, **44**, 2625 (*synth*, *conformn*)
Meyer, H.J. *et al.*, *Bull. Soc. Chim. Belg.*, 1978, **87**, 517 (*ms*)
Zimin, M.G. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 930), 1978, **48**, 1020 (*synth*, *P nmr*)

Triethylsulfonium(1+), 9CI**T-00236**

[29245-61-2]

C₆H₁₅S[⊕] M 119.250 (ion)

Iodide: [1829-92-1].

C₆H₁₅IS M 246.155

Used as 5% aq. soln. for detn. of Bi (gravimetric indicator).

[36552-72-4]

Masson, O. *et al.*, *J. Chem. Soc.*, 1889, **55**, 135 (*synth*)
Potratz, A.H. *et al.*, *Anal. Chem.*, 1949, **21**, 1276 (*use*)

Triethyltelluronium, 9CI**T-00237**C₆H₁₅Te[⊕] M 214.784 (ion)

Bromide:

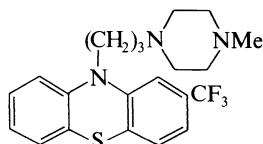
C₆H₁₅BrTe M 294.688Used for extraction separation of anions; pptn. separation of anions. Cryst. Sol. H₂O.

[51169-69-8]

Shinagawa, M. *et al.*, *Bunseki Kagaku (Jpn. Anal.)*, 1954, **3**, 204.
Cheng, K.L. *et al.*, *Handbook of Organic Analytical Reagents*, CRC Press, Inc., Boca Raton, Florida, 1982.

Trifluoperazine, BAN, INN**T-00238**

10-[3-(4-Methyl-1-piperazinyl)propyl]-2-(trifluoromethyl)-10H-phenothiazine, 9CI. Trifluoperazine. Triptthazinum. Numerous other synonyms
[117-89-5]

C₂₁H₂₄F₃N₃S M 407.502Tranquilliser, antiemetic, neuroleptic agent. Bp_{0.7} 202-210°.

▷ SP1500000.

B,2HCl: [440-17-5]. Trifluoperazine hydrochloride, USAN. Stelazine

Used as a 0.25% aq. soln. for photometric detn. of Os (λ_{\max} 502 nm, ϵ 16700). Cryst. (EtOH). Sol. H₂O. Mp 242-243°.

▷ SP1750000.

Maleate: [605-75-4]. Asterfenazine

▷ SP1752000.

[605-75-4]

Craig, P.N. *et al.*, *J. Org. Chem.*, 1957, **22**, 709 (*synth*)
Yale, H.L. *et al.*, *J. Am. Chem. Soc.*, 1960, **82**, 2039.
Feil, D. *et al.*, *Nature (London)*, 1965, **207**, 285 (*cryst struct*)
Huang, H.L. *et al.*, *J. Pharm. Sci.*, 1968, **57**, 1511 (*metab*)

West, N.R., *Arch. Int. Pharmacodyn. Ther.*, 1975, **215**, 318 (*pharmacol*)

Gowda, H.S. *et al.*, *Fresenius' Z. Anal. Chem.*, 1976, **282**, 141 (*detn*, *Os*)

Breyer, U. *et al.*, *Drug Metab. Dispos.*, 1977, **5**, 97 (*metab*)

McDowell, J.J.H., *Acta Chem. Scand., Ser. B*, 1980, **36**, 2178 (*cryst struct*)

Post, A. *et al.*, *Anal. Profiles Drug Subst.*, 1980, **9**, 543 (*rev. props*, *synth*, *pharmacol*, *metab*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 7120.

Shetty, H. *et al.*, *Biomed. Mass Spectrom.*, 1983, **10**, 601 (*ms*)

Aravagiri, M. *et al.*, *J. Pharm. Sci.*, 1985, **74**, 1196 (*metab*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 6126.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TJW600, TKE500, TKK250.

Trifluoroacetic acid, 9CI, 8CI**T-00239**

Trifluoroethanoic acid

[76-05-1]

C₂HF₃O₂ M 114.024

Strong acid used in synthesis. Derivatisation reagent used for gc. anal. of amino acids and for nmr anal. of amines. Colourless liq. Misc. H₂O. Fp -15.3°. Bp 70.5-72°, Bp₇₃₄ 71.1°. pK_a 0.23 (25°, H₂O).

▷ Mod. toxic, causes severe burns. AJ9625000.

Me ester: [431-47-0].

C₃H₃F₃O₂ M 128.051

Trifluoroacetylating agent for NH₂ groups. Used in ms sequence analysis of peptides. Liq. Bp 43-44°.

Et ester: [383-63-1].

C₄H₅F₃O₂ M 142.077

Liq. Bp 60-62°.

tert-Butyl ester: [400-52-2].

C₆H₉F₃O₂ M 170.131

Bp 83°.

Ph ester: [500-73-2]. Phenyl trifluoroacetate

C₈H₅F₃O₂ M 190.121

Reagent used to prepare N-trifluoroacetyl derivs. of amino acids etc. Bp 148-149°.

Amide: [354-38-1]. Trifluoroacetamide

C₂H₂F₃NO M 113.039Cryst. (CHCl₃). Mp 73.5-74.5°.

Anhydride: [407-25-0].

C₄F₆O₃ M 210.033

Trifluoroacetylating agent with several other synthetic uses. Used to derivatise amines etc. for gc. Bp 39.5°.

▷ Mod. toxic, causes severe burns. Reacts explosively with DMSO. AJ9800000.

Gilman, H. *et al.*, *J. Am. Chem. Soc.*, 1943, **65**, 1458 (*amide*, *Et ester*)

Allen, D.R., *J. Org. Chem.*, 1961, **26**, 923 (*synth*, *props*)

U.S. Pat., 3 162 633, (1965); CA, **62**, 7780 (*synth*)

Weygand, F. *et al.*, *Z. Naturforsch., B*, 1965, **20**, 1169 (*ester*, *use*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 850; 1975, **5**, 57; 1979, **7**, 246, 389; 1980, **8**, 503.

Darbre, A. *et al.*, *Biochem. J.*, 1968, **106**, 923 (*anhydride*, *use*)

Bayer, E. *et al.*, *J. Chromatogr.*, 1969, **7**, 95 (*ester*, *use*)

Irvine, W.J. *et al.*, *J. Chromatogr.*, 1969, **43**, 129 (*anhydride*, *use*)

Berney, C.V., *J. Am. Chem. Soc.*, 1973, **95**, 708 (*spectra*)

Mozayenii, F., *Appl. Spectrosc.*, 1979, **33**, 520 (*use*)

Effenberger, F. *et al.*, *Chem. Ber.*, 1980, **113**, 2100 (*tert-Butyl ester*)

Michael, G., *J. Chromatogr.*, 1980, **196**, 160 (*use*)

Gamerith, G., *J. Chromatogr.*, 1985, **318**, 65 (*anhydride*, *use*)

Roberts, D.D. *et al.*, *J. Org. Chem.*, 1988, **53**, 2573 (*amide*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 520.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TJK000, TKA250.

N-(Trifluoroacetyl)glycine, 9CI **T-00240**
[383-70-0]



$\text{C}_4\text{H}_4\text{F}_3\text{NO}_3$ M 171.076

Used in peptide synthesis. Cryst. (CHCl_3 /pet. ether). Mp 118-119°.

Chloride: [383-69-7]. [(Trifluoroacetyl)amino]acetyl chloride, 9CI

$\text{C}_4\text{H}_3\text{ClF}_3\text{NO}_2$ M 189.521

Derivatisation reagent for the gc resoln. of diols.

Et ester: [367-62-4].

$\text{C}_6\text{H}_8\text{F}_3\text{NO}_3$ M 199.129

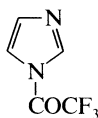
Cryst. (pet. ether). Mp 51.5°.

Weygand, F. *et al*, *Chem. Ber.*, 1954, **87**, 248 (*synth*)

Steglich, W. *et al*, *Synthesis*, 1976, 399 (*synth*)

Koppenhoefer, B. *et al*, *J. Chromatogr.*, 1986, **358**, 159 (*use, chloride*)

1-(Trifluoroacetyl)-1H-imidazole, 9CI **T-00241**
[1546-79-8]



$\text{C}_5\text{H}_3\text{F}_3\text{N}_2\text{O}$ M 164.087

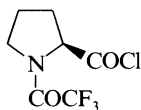
Trifluoroacetylating derivatisation reagent used for gc. Liq. Bp₁₄ 45-46°.

Staab, H.A. *et al*, *Ber.*, 1962, **95**, 2070 (*synth*)

Knights, B.A., *Anal. Lett.*, 1973, **6**, 495 (*use*)

Brugaard, G. *et al*, *J. Chromatogr.*, 1978, **147**, 476 (*use*)

1-(Trifluoroacetyl)-2-pyrrolidinecarbonyl chloride, 9CI **T-00242**



(S)-form

$\text{C}_7\text{H}_7\text{ClF}_3\text{NO}_2$ M 229.586

(S)-form [36724-68-2]

N-(Trifluoroacetyl)-L-prolyl chloride

Difficult to prepare in an optically pure form. Reagent for sepn. and anal. of amino acids. Thin, yellow liq. Bp₂ 82-83°.

[71890-93-2, 92076-92-1]

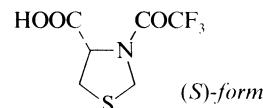
Dabrowiak, J.C. *et al*, *Anal. Chem.*, 1971, **43**, 791 (*synth, use*)

Iwase, H. *et al*, *Chem. Pharm. Bull.*, 1974, **22**, 8, 2075; 1978, **25**, 285, 1215 (*use*)

Tomida, I. *et al*, *Agric. Biol. Chem.*, 1975, **39**, 469; 1979, **43**, 925 (*synth, use*)

Payan, I.L. *et al*, *Anal. Biochem.*, 1985, **149**, 484 (*use*)

3-(Trifluoroacetyl)-4-thiazolidinecarboxylic acid, 9CI **T-00243**



(S)-form

$\text{C}_6\text{H}_6\text{F}_3\text{NO}_3\text{S}$ M 229.179

(R)-form [59668-82-5]

Cryst. (pet. ether/ Et_2O). Mp 60-61°.

(S)-form

Chloride: [61578-72-1].

$\text{C}_6\text{H}_5\text{ClF}_3\text{NO}_2\text{S}$ M 247.625

Reagent used for resoln. of amino acids and other amines.

Halpern, B. *et al*, *Biochem. Biophys. Res. Commun.*, 1965, **20**, 710 (*use, chloride*)

Iwase, H., *Chem. Pharm. Bull.*, 1974, **22**, 1663 (*use, chloride*)

Souter, R.W., *J. Chromatogr.*, 1975, **114**, 307 (*use, chloride*)

Paul, B. *et al*, *J. Med. Chem.*, 1976, **19**, 1002 (*synth*)

1,1,1-Trifluoro-5,5-dimethyl-2,4-hexanedione, 9CI **T-00244**

Pivaroyltrifluoroacetone

[22767-90-4]



$\text{C}_8\text{H}_{11}\text{F}_3\text{O}_2$ M 196.169

Used for extraction of Li; gc separation of V, Zn. Oily liq. Sol. Me_2CO , EtOH , CHCl_3 , C_6H_6 . Bp₆ 68-71°. pK_{a1} 8.98.

Shigematsu, T. *et al*, *CA*, 1974, **81**, 85500h (*detn, Zn*)

Sokolov, D.N. *et al*, *Zh. Anal. Khim.*, 1975, **30**, 2377 (*detn, V*)

Komarov, V.A., *J. Anal. Chem. USSR (Engl. Transl.)*, 1976, **31**, 309 (*detn, Zn*)

Seeley, F.G. *et al*, *J. Inorg. Nucl. Chem.*, 1976, **38**, 1049 (*detn, Li*)

2,2,2-Trifluoroethanol, 9CI, 8CI **T-00245**
[75-89-8]



$\text{C}_2\text{H}_3\text{F}_3\text{O}$ M 100.040

Used as a non-nucleophilic ionising solvent, and as protecting group for carboxylic acids. Used as a derivatisation reagent for gc of carboxylic acids. Liq. d²⁰ 1.468. Bp₇₄₂ 103-105°. pK_a 12.37 (25°).

▷ KM5250000.

3,5-Dinitrobenzoate: Mp 62°.

Woodward, R.B. *et al*, *J. Am. Chem. Soc.*, 1966, **88**, 852 (*use*)

Fr. Pat., 1 573 705, (1970); *CA*, **72**, 100009 (*synth*)

Hagen, D.F. *et al*, *Spectrochim. Acta, Part B*, 1985, **40**, 335 (*use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TKA350.

O-(2,2,2-Trifluoroethyl)carbonodithioate, 9CI **T-00246**

Trifluoromethyl xanthate

[24658-33-1]



$\text{C}_3\text{H}_3\text{F}_3\text{OS}_2$ M 176.183

Used as 0.2% soln. in aq. DMF for photometric detn. of Au (λ_{max} 452 nm, ϵ 1090), Te (λ_{max} 410 nm, ϵ 6700); pptn. sepn. of Te. Cryst. Mp 200° dec.

[60564-16-1]

Hussain, M.F. *et al*, *Analyst (London)*, 1984, **109**, 1151, 1291 (*detn. Au, Te*)**Trifluoroethylxanthic acid****T-00247**

Carbonodithioic acid O-(2,2,2-trifluoroethyl)ester, 9CI

C₃H₃F₃OS₂ M 176.183

K salt: [60564-16-1].

Used as 0.2% soln. in 2% aq. DMF for photometric detn. of Au (λ_{max} 452 nm), Co (λ_{max} 352 nm, ϵ 29000), Cu (λ_{max} 430 nm, ϵ 15000). Yellow cryst. Sol. H₂O, DMF.

Hussain, M.F. *et al*, *Analyst (London)*, 1984, **109**, 1151 (*detn. Au*)Hussain, M.F. *et al*, *Mikrochim. Acta*, 1985, **1**, 227 (*detn. Co, Cu*)**4,4,4-Trifluoro-1,2-furanyl-1,3-butanedione, 9CI****T-00248**

2-Furoyltrifluoroacetone

[326-90-9]

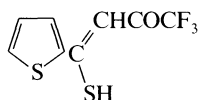
C₈H₅F₃O₃ M 206.121

Used as 5% soln. in EtOH for extraction-photometric detn. of Cu. Cryst. Sol. alcohols.

Berg, E.W. *et al*, *Anal. Chim. Acta*, 1958, **18**, 578 (*detn. Cu*)**1,1,1-Trifluoro-4-mercapto-4-(2-thienyl)-3-buten-2-one, 9CI****T-00249**

Monothio-TTA

[4552-64-1]

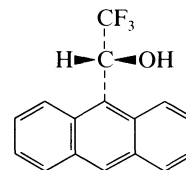
C₈H₅F₃OS₂ M 238.254

Used as 0.2M soln. in EtOH or 1mM soln. in CHCl₃ for extraction-photometric detn. of Cd, Co, Cu, Hg, Pb, Pd, Zn; tlc sepn. of Co, Cu, Ni, Pb, Rh; extraction sepn. of Cu, Fe; gravimetric detn. of Co. Red needles (C₆H₆). Sol. C₆H₆, CCl₄; sl. sol. EtOH, DMF, dioxan. Mp 72-74° (62-64°). pK_{a1} 3.96. λ_{max} 370 nm (xylene).

Berg, E.W., *Anal. Chim. Acta*, 1966, **36**, 372 (*synth. use*)Shinde, V.M. *et al*, *Anal. Chem.*, 1969, **41**, 342 (*detn. Cu*)Uhleman, E. *et al*, *Anal. Chim. Acta*, 1969, **48**, 117; 1971, **56**, 185 (*detn. Co, Cu*)Hashitani, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1970, **19**, 355 (*use. Hg*)Akki, S.B. *et al*, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 167 (*detn. Pb*)Honjo, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 185 (*detn. Co*)Müller, H. *et al*, *Anal. Chim. Acta*, 1973, **49**, 2246 (*chromatog*)Honjo, Y. *et al*, *Anal. Chem.*, 1977, **49**, 2241, 2246 (*sepn. Cu, Fe*) **α -(Trifluoromethyl)-9-anthracenemethanol, 9CI****T-00250**

1-(9-Anthryl)-2,2,2-trifluoroethanol

[65487-67-4]

*(R)*-formC₁₆H₁₁F₃O M 276.257

▷ Irritant.

(R)-form [58531-34-3]

Shift reagent used in the detn. of optical purity of lactones by pmr. Cryst. Mp 130.5-133°.

(S)-form [60646-30-2]

Cryst. (pet. ether). Mp 142-145° (135-136°). $[\alpha]_D^{26} + 27.2^\circ$ (c, 6.25 in CHCl₃).

 (\pm) -form [60686-64-8]

Mp 140-142°.

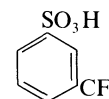
Ac:

C₁₈H₁₃F₃O₂ M 318.295

Mp 97-98°.

Pirkle, W.H. *et al*, *J. Org. Chem.*, 1977, **42**, 384 (*synth. use*)Lebourgne, A. *et al*, *Tetrahedron Lett.*, 1983, **24**, 1027 (*use*)Ben Hassine, B. *et al*, *Bull. Soc. Chim. Belg.*, 1985, **94**, 425 (*synth. pmr, cmr*)Chong, J.M. *et al*, *J. Org. Chem.*, 1991, **56**, 893 (*synth*)**3-(Trifluoromethyl)benzenesulfonic acid****T-00251** α, α, α -Trifluoro-m-toluenesulfonic acid

[1643-69-2]

C₇H₅F₃O₃S M 226.176Cryst. (H₂O). Mp 42-44°.*S*-Benzylthiuronium salt: [2342-60-1].

Mp 138-139°.

Et ester: [55400-68-5].C₉H₉F₃O₃S M 254.229Bp_{0.08} 66°. n_D^{25} 1.4576.*Ph ester*: [55400-60-7].C₁₃H₉F₃O₃S M 302.273Bp_{0.2} 103-104°.*Chloride*: [777-44-6].C₇H₄ClF₃O₂S M 244.621Reagent used in glc anal. of nitrosamines. Bp₆ 88-90°.

▷ Lachrymator.

Amide:C₇H₆F₃NO₂S M 225.191

Mp 121-122°, Mp 111-112°.

Anhydride:C₁₄H₈F₆O₅S₂ M 434.337Bp₃ 65-66°.Yagupol'skii, L.M. *et al*, *J. Gen. Chem. USSR (Engl. Transl.)*, 1959, **29**, 549 (*synth*)Yale, H.L. *et al*, *J. Org. Chem.*, 1960, **25**, 1824 (*deriv*)Dannley, R.L. *et al*, *J. Org. Chem.*, 1975, **40**, 2278 (*deriv, synth*)*Org. Synth.*, 1981, **60**, 121 (*deriv*)

Crumrine, D.S. *et al*, *J. Org. Chem.*, 1986, **51**, 5013 (*synth, nmr*)
Hamada, T. *et al*, *Synthesis*, 1986, 852 (*deriv, synth, pmr, ms*)
Idowu, O.R. *et al*, *Talanta*, 1987, **34**, 441 (*chloride, use*)

3-(Trifluoromethyl)benzoic acid, 9CI**T-00252** α,α,α -Trifluoro-m-toluic acid, 8CI

[454-92-2]

 $C_8H_5F_3O_2$ M 190.121

Reference material used in elemental microanalysis. Mp 103°.

Chloride: $C_8H_4ClF_3O$ M 208.567Oil. Bp₁₆ 79-80°.*Nitrile*: 1-Cyano-3-(trifluoromethyl)benzene $C_8H_4F_3N$ M 171.121Bp₄₀ 94-95°.Burger, A. *et al*, *J. Org. Chem.*, 1953, **18**, 192 (*synth*)Inukai, K. *et al*, *CA*, 1964, **61**, 807 (*synth, deriv*)*Analyst (London)*, 1972, **97**, 740 (*microanal*)**4-(Trifluoromethyl)benzoic acid, 9CI****T-00253** α,α,α -Trifluoro-p-toluic acid, 8CI

[455-24-3]

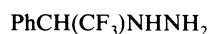
 $C_8H_5F_3O_2$ M 190.121

Mp 220-221°.

Chloride: [329-15-7]. $C_8H_4ClF_3O$ M 208.567Used to derivatise amines for gc analysis. Liq. d₄²⁰ 1.4035. Bp₁₆ 78-79°, Bp₁₂ 74-75°. n_D²⁰ 1.4755.*Nitrile*: 1-Cyano-4-(trifluoromethyl)benzene $C_8H_4F_3N$ M 171.121Oil. Bp₂₀ 80-81°.Burger, A. *et al*, *J. Org. Chem.*, 1953, **18**, 192 (*synth, deriv*)Yagupol'skii, L.M. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1957, **23**, 634; *CA*, **52**, 9980a (*synth*)Inukai, K. *et al*, *CA*, 1964, **61**, 807, 9418g (*synth, deriv*)Anggard, E. *et al*, *Acta Chem. Scand.*, 1969, **23**, 3110 (*use*)**[α -(Trifluoromethyl)benzyl]hydrazine, 8CI****T-00254**

[2,2,2-Trifluoro-1-phenylethyl]hydrazine, 9CI

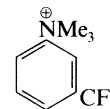
[5042-24-0]

 $C_8H_9F_3N_2$ M 190.168**(+)-form**Reagent for the separation of diastereoisomeric hydrazones by gc. Yellow oil. Bp₉ 105-107°, Bp_{0.03} 50°. [α]_D²⁷ +36.2° (c, 0.915 in EtOH). pK_a 4.88.Pereira, W.E. *et al*, *Aust. J. Chem.*, 1971, **24**, 1103 (*synth, use*)**1,1,1-Trifluoro-7-methyl-2,4-octanedione, 9CI****T-00255**

[14189-31-2]

 $C_9H_{13}F_3O_2$ M 210.196Used for solv. extraction of Th, In, Co, Zn, Sc, Ag, Hg. Liq. Sol. nonpolar org. solvs. d₂₂ 1.30. Bp₃ 50.53°. n_D²¹ 1.4153.*Cu salt*: Cryst. Mp 87-88°.Schweitzer, G.K. *et al*, *Anal. Chim. Acta*, 1966, **36**, 77 (*use*)**(3-Trifluoromethylphenyl)trimethylammonium(1+)****T-00256**

N,N,N-Trimethyl-3-(trifluoromethyl)benzeneaminium(1+), 9CI

 $C_{10}H_{13}F_3N^{\oplus}$ M 204.215 (ion)*Hydroxide*: [68254-41-1]. $C_{10}H_{14}F_3NO$ M 221.222

Reagent for methylation of fatty acids for glc anal.

Iodide: [27389-57-7]. $C_{10}H_{13}F_3IN$ M 331.119

Mp 242-243°.

Sommer, H.Z. *et al*, *J. Org. Chem.*, 1971, **36**, 824 (*synth, iodide*)MacGee, J. *et al*, *J. Chromatogr.*, 1974, **100**, 35 (*synth, use,**hydroxide*)McCreary, D.K. *et al*, *J. Chromatogr.*, 1978, **16**, 329 (*use,**hydroxide*)**1,1,1-Trifluoro-2,4-pentanedione, 9CI****T-00257***Trifluoroacetylacetone*

[367-57-7]

 $C_5H_5F_3O_2$ M 154.088Used as a 0.1M soln. in CHCl₃ for extraction-separation of Al, Be, Cu, Fe(III). Liq. Sol. common org. solvs.Bp₇₄₀ 105-106°. n_D²⁵ 1.3864.Scribner, W.G. *et al*, *Anal. Chem.*, 1965, **37**, 1136; 1966, **38**, 1779 (*detn, Al, Cu, Fe, Be*)**Trifluorooperacetic acid****T-00258***Trifluoroethaneperoxoic acid, 9CI*

[359-48-8]

 $C_2HF_3O_3$ M 130.023

Chromatographic derivatisation reagent for nitrosamines.

Powerful oxidant. Prep. *in situ*.Emmons, W.B., *J. Am. Chem. Soc.*, 1953, **76**, 3468 (*synth*)Althorpe, J. *et al*, *J. Chromatogr.*, 1970, **53**, 371 (*use*)Telling, G.M., *J. Chromatogr.*, 1972, **73**, 79 (*use*)Holbert, G.W. *et al*, *J. Chem. Soc., Chem. Commun.*, 1978, 248*(use)*Takamoto, T. *et al*, *J. Chem. Soc., Chem. Commun.*, 1978, 350*(use)**Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1980, **8**, 505 (*use*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PCO250.**2,2,2-Trifluoro-N-phenylacetamide, 9CI****T-00259** α,α,α -Trifluoroacetanilide

[404-24-0]

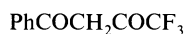
 $C_8H_6F_3NO$ M 189.137

Reference material used in elemental microanalysis. Cryst. (EtOH aq.). Mp 88.5-90°.

Bourne, E.J. *et al*, *J. Chem. Soc.*, 1952, 4014 (*synth*)
Ungnade, H.E., *J. Am. Chem. Soc.*, 1954, **76**, 5133 (*synth*)
Analyst (London), 1972, **97**, 740 (*microanal*)

4,4,4-Trifluoro-1-phenyl-1,3-butanedione, 9CI **T-00260**

Benzoyltrifluoroacetone
[326-06-7]



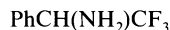
$\text{C}_{10}\text{H}_7\text{F}_3\text{O}_2$ M 216.159

Used as a 0.03% soln. in butyl propionate for extraction-photometric detn. of U. Cryst. Sol. EtOH, Me_2CO ; insol. H_2O .

Shigematsu, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1964, **37**, 1333.
Marsh, S.F. *et al*, *Anal. Chim. Acta*, 1979, **105**, 439.

2,2,2-Trifluoro-1-phenylethylamine **T-00261**

α -(Trifluoromethyl)benzenemethanamine, 9CI
[51586-24-4]



$\text{C}_8\text{H}_8\text{F}_3\text{N}$ M 175.153

(*S*)-form [62197-94-8]

Resolving agent for alcohols. Liq. Bp₂₀ 88°.

[13652-09-0, 22038-85-3, 65732-17-4]

Shepard, R.A. *et al*, *J. Org. Chem.*, 1967, **32**, 3197 (*synth*)

Pirkle, H.W. *et al*, *J. Org. Chem.*, 1977, **42**, 2436 (*synth, use*)

1,1,1-Trifluoro-4-phenyl-4-thioxo-2-butanone, 9CI **T-00262**

Monothiobenzoyltrifluoroacetone
[53657-07-1]



$\text{C}_{10}\text{H}_7\text{F}_3\text{OS}$ M 232.226

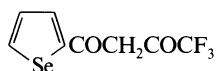
Used as a 1mM soln. in CHCl_3 for extraction-photometric detn. of U(VI) (λ_{max} 375 nm, ϵ 9900, CHCl_3). Pale yellow cryst. Sol. CHCl_3 .

Rao, G.N. *et al*, *Food Farming Agric.*, 1977, **9**, 19; *CA*, **89**, 122418a.

Rao, G.N. *et al*, *Indian J. Chem., Sect. A*, 1978, **16**, 177 (*detn, U*)

4,4,4-Trifluoro-1-selenophen-2-yl-1,3-butanedione, 9CI **T-00263**

2-(4,4,4-Trifluoro-1,3-dioxobutyl)selenophene.
Selenoyltrifluoroacetone
[713-15-5]



$\text{C}_8\text{H}_5\text{F}_3\text{O}_2\text{Se}$ M 269.081

Used as a satd. soln. in EtOH or a 5mM soln. in C_6H_6 for extraction-photometric detn. of Cu (λ_{max} 350 nm, ϵ 15800); extraction-separation of Hf, Zr. Sol. common org. solvs. Mp 32-33°. Bp₁₁ 118-119°.

Yurev, Y.K. *et al*, *Zh. Obshch. Khim.*, 1961, **31**, 1449 (*synth, detn, Cu*)

Mel'chakova, N.V. *et al*, *CA*, 1967, **66**, 14495q (*sepn. Hf, Zr*)

4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione

T-00264

Thenoyltrifluoroacetone. HTTA
[326-91-0]



$\text{C}_8\text{H}_5\text{F}_3\text{O}_2\text{S}$ M 222.187

Forms chelate complexes with lanthanide and actinide elements, which are useful in their isolation, separation and estimation. Used as 0.15M C_6H_6 soln. or 0.5M soln. in xylene for extraction separation of Cr(III), Fe(III), Mn, Sc, Zn, Ca, Pu(VI), Tl(III), Ti, V, Zr; photometric detn. of Ce(IV) (λ_{max} 450 nm, ϵ 2500), Co, Ga, In, Pd; extraction-photometric detn. of Fe(II), Ir, Pu(VI). Cryst. Mp 42.5-43.2°. Bp₈ 96-98°. pK_{a1} 6.53 (25°, μ = 1.0).

Oxime:

$\text{C}_8\text{H}_6\text{F}_3\text{NO}_2\text{S}$ M 237.202

Cryst. (EtOH aq.). Mp 134°. Not known whether 1 or 3 oxime.

Cu complex: Cryst. (EtOH aq.). Mp 242-243°.

Reid, J.C. *et al*, *J. Am. Chem. Soc.*, 1950, **72**, 2948 (*synth*)

Khopkar, S.M., *Anal. Chem.*, 1960, **32**, 478 (*detn, Ce*)

Marsh, S.F. *et al*, *Anal. Chem.*, 1961, **33**, 870 (*detn, Zr*)

Onishi, H. *et al*, *Anal. Chem.*, 1963, **35**, 1887 (*detn, Ce*)

Sekine, T. *et al*, *Anal. Chim. Acta*, 1967, **37**, 217 (*detn, Sc*)

Lobanov, F.I. *et al*, *CA*, 1973, **78**, 20770g (*detn, Ti*)

Kawamoto, H. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1974, **23**, 495 (*detn, Fe*)

Shakhova, N.V. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 682 (*detn, Ca*)

Roland, G. *et al*, *Anal. Chim. Acta*, 1976, **85**, 331 (*detn, Ti*)

Nash, K.L. *et al*, *CA*, 1976, **85**, 52441u (*detn, Zn*)

Joshi, K.C. *et al*, *Indian J. Chem., Sect. B*, 1976, **14**, 1004 (*synth*)

Shukla, J.P. *et al*, *J. Radioanal. Chem.*, 1976, **29**, 61 (*detn, Pu*)

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 419 (*use*)

1,1,1-Trifluoro-4-thioxo-2-pentanone, 9CI **T-00265**

Monothiotrifluoroacetylacetone. 1,1,1-Trifluoro-4-mercapto-3-penten-2-one
[35431-81-3]



$\text{C}_5\text{H}_5\text{F}_3\text{OS}$ M 170.155

Used for extraction-photometric detn. of Ni. Dark red liq. Sol. EtOH, CHCl_3 , hexane. Bp₂₀ 50°.

Ho, R.K.Y. *et al*, *Aust. J. Chem.*, 1966, **19**, 1179 (*synth*)

Barratt, R.S. *et al*, *Anal. Chim. Acta*, 1972, **58**, 107 (*detn, Ni*)

2,2,2-Trifluoro-N-(trimethylsilyl)ethanimidic acid trimethylsilyl ester **T-00266**

2,2,2-Trifluoro-N-(trimethylsilyl)acetamidic acid trimethylsilyl ester, 8CI
[25561-30-2]



$\text{C}_8\text{H}_{18}\text{F}_3\text{NOSi}_2$ M 257.402

Silylating agent, esp. for preparing derivs. of amino acids for glc. Liq. d_4^{20} 0.97. Mp -41°. Bp₁₄ 47-50°, Bp 142°.

Stalling, D.L. *et al*, *Biochem. Biophys. Res. Commun.*, 1968, **31**, 616 (*synth*)

Von Halasz, S.P. *et al*, *Chem. Ber.*, 1970, **103**, 553 (*synth*)

Yoder, C.H. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 4283 (*struct*)

Lidy, W. *et al*, *Chem. Ber.*, 1976, **109**, 2542 (*synth*)

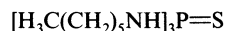
Schraml, J. *et al*, *Collect. Czech. Chem. Commun.*, 1977, **42**, 1165 (*nmr*)

Bassindale, A.R. *et al*, *J. Organomet. Chem.*, 1979, **175**, 273 (*nmr*)

N,N',N''-Trihexylphosphorothioic triamide, 9CI

T-00267

[1186-15-8]

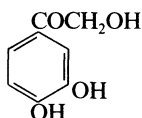
C₁₈H₄₂N₃PS M 363.590

Used as 25mM soln. in CHCl₃ for extraction separation of Cu(I), Hg(II), Ag, Pd (from 0.1-6M aq. mineral acids).
Needles. Sol. CHCl₃; insol. H₂O, acids. Mp 50-51°.

Handley, T.H., *Anal. Chem.*, 1964, **36**, 2467 (use)Hornbeck, R.F., *J. Chromatogr.*, 1967, **30**, 438 (use)**2,3',4'-Trihydroxyacetophenone, 8CI**

T-00268

1-(3,4-Dihydroxyphenyl)-2-hydroxyethanone, 9CI. α,3,4-Trihydroxyacetophenone. 3,4-Dihydroxyphenacyl alcohol
[29477-54-1]

C₉H₈O₄ M 168.149

Found in insect cuticle. Used as 1mM aq. soln. for photometric detn. of Ca (λ_{max} 540 nm, pH ~11.5), Ba (λ_{max} 560 nm, pH 11.8-12.4). Cryst. (H₂O). Mp 195°.

3',4'-Di-Ac:

C₁₂H₁₂O₆ M 252.223

Plates (EtOH). Mp 86-87°.

2,3',4'-Tri-Ac:

C₁₄H₁₄O₇ M 294.260

Plates (MeOH). Mp 95°.

3'-Me ether: 2,4'-Dihydroxy-3'-methoxyacetophenone. α-Hydroxypropiovanillone

C₉H₁₀O₄ M 182.176

Component of lignins of conifers and from *Lycopodium* spp. Cryst. (C₆H₆). Mp 109-110°.

3',4'-Di-Me ether: [37803-48-8]. 2-Hydroxy-3',4'-dimethoxyacetophenone. Veratroylcarbinol

C₁₀H₁₂O₄ M 196.202

Cryst. Mp 86-87°.

3',4'-Di-Me ether, 2-Ac: [39561-76-7].

C₁₂H₁₄O₅ M 238.240Plates (Et₂O). Mp 91-92°.

2,3',4'-Tri-Me ether: [22341-22-6]. 2,3',4'-Trimethoxyacetophenone

C₁₁H₁₄O₄ M 210.229Prisms (C₆H₆/pet. ether). Mp 62°. Bp₁₅ 190°.

2,3',4'-Tri-Me ether, semicarbazone: Cryst. (MeOH). Mp 178°.

Voswinkel, H., *Ber.*, 1909, **42**, 4651.Robinson, R. et al, *J. Chem. Soc.*, 1925, **127**, 170.Cramer, A.B. et al, *J. Am. Chem. Soc.*, 1939, **61**, 509, 516, 2204 (isol, synth, deriv)Towers, G.H.N. et al, *Phytochemistry*, 1965, **4**, 57 (isol, deriv)Deshpande, N.V. et al, *Microchem. J.*, 1975, **20**, 165 (detn, Ca)Deshpande, N.V. et al, *J. Indian Chem. Soc.*, 1977, **54**, 410 (detn, Ba)**2',3',4'-Trihydroxyacetophenone, 8CI**

T-00269

1-(2,3,4-Trihydroxyphenyl)ethanone, 9CI. Gallacetophenone. 4-Acetylpyrogallol. Alizarine yellow C
[528-21-2]

C₈H₈O₄ M 168.149

Used as 0.2% EtOH soln. for photometric detn. of U. Needles or leaflets (H₂O). Mp 173°.

▷ AN0527000.

Oxime: [5349-83-7].

C₈H₉NO₄ M 183.163

Mp 162-163°.

Semicarbazone: [22107-33-1].

Mp 225° (rapid heat).

Tri-Ac: [72712-20-0].

C₁₄H₁₄O₇ M 294.260

Mp 85°.

Tri-Me ether: [13909-73-4]. 2',3',4'-Trimethoxyacetophenone

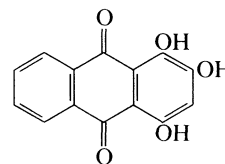
C₁₁H₁₄O₄ M 210.229Mp 15-17°. Bp 295-297°. Bp₁₂ 165°.Perkin, W.H., *J. Chem. Soc.*, 1895, **67**, 997.Perkin, W.H. et al, *J. Chem. Soc.*, 1928, 232.Badhwar, I.C. et al, *Org. Synth.*, 1934, **14**, 40 (synth)Hart, M.C. et al, *J. Am. Chem. Soc.*, 1936, **58**, 1957.*Org. Synth.*, Coll. Vol., 2, 1943, 304.Price, P. et al, *J. Org. Chem.*, 1964, **29**, 2800.Popa, G. et al, *Mikrochim. Acta*, 1972, 883 (detn, U)Parmar, S.S. et al, *J. Pharm. Sci.*, 1974, **63**, 1152.Schlemper, E.O. et al, *Acta Crystallogr., Sect. C*, 1986, **42**, 755 (cryst struct)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TKN250.**1,2,4-Trihydroxyanthraquinone**

T-00270

1,2,4-Trihydroxy-9,10-anthracenedione, 9CI. **Purpurin**†.

Madder purple. Verantin. Oxylizarinic acid

[81-54-9]

C₁₄H₈O₅ M 256.214

A flavanone has also been named Purpurin. Found in madder root as glucoside, common plant pigment. Isolated from tissue cultures of *Galium mollugo* and *Cinchona ledgeriana*. Used as textile dye. Used as 0.4mM soln. in 4-methyl-2-pentanone for extraction-photometric detn. of Ge and Fe (III) (λ_{max} 595 nm). Long orange-red or orange-yellow needles + 1H₂O (EtOH aq.), dark-red needles (EtOH). Spar. sol. hot H₂O. Mp 259°. Sol. H₂SO₄, alkalis → red solns. Forms cryst. Na, K, Pb salts.

▷ CB8200000.

2,4-Di-Ac:

C₁₈H₁₂O₇ M 340.289

Mp 175-178°.

Tri-Ac: [10228-14-5].

C₂₀H₁₄O₈ M 382.326

Pale-yellow needles. Mp 198-200°. Sinters at 193°.

1-Me ether: [94099-66-8]. 2,4-Dihydroxy-1-methoxyanthraquinone. **Purpurin 1-methyl ether**C₁₅H₁₀O₅ M 270.241

Isol. from *C. ledgeriana* and *C. pubescens*. Cryst. (EtOH aq.). Mp 230°.

1,4-Di-Me ether: 2-Hydroxy-1,4-dimethoxyanthraquinone

C₁₆H₁₂O₅ M 284.268

Cryst. (EtOH aq.). Mp 229.5°.

2,4-Di-Me ether: 1-Hydroxy-2,4-dimethoxyanthraquinone

C₁₆H₁₂O₅ M 284.268

Orange needles. Mp 186-189°.

Dimroth, O. et al, *Ber.*, 1920, **53**, 481.Perkin, A.G. et al, *J. Chem. Soc.*, 1928, 229; 1929, 1399.Marshall, P.G., *J. Chem. Soc.*, 1931, 3206.Tanuka, O., *Chem. Pharm. Bull.*, 1958, **6**, 18 (ir)Nazarenko, V.A. et al, *Zh. Anal. Khim.*, 1974, **29**, 284 (detn, Ge)

Roman Ceba, M. *et al*, *Talanta*, 1982, **29**, 142 (*detn*, Fe)
 Wijnsma, R. *et al*, *Phytochemistry*, 1984, **23**, 2307; 1986, **25**, 1123
 (*isol*, Purpurin 1-methyl ether)
 Simoneau, B. *et al*, *Tetrahedron*, 1986, **42**, 3767 (*deriv*, *synth*, *ir*, *uv*,
pmr, *ms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, TKN750.

1,2,7-Trihydroxyanthraquinone T-00271

1,2,7-Trihydroxy-9,10-anthracenedione, 9CI. Anthrapurpurin.
Isopurpurin
 [602-65-3]

C₁₄H₈O₅ M 256.214

Used for photometric *detn*. of Ca, Mg. Orange needles
 (EtOH). Sol. alkalis; spar. sol. Et₂O, H₂O; insol. C₆H₆.
 Mp 369°. Bp 462° part. dec., Subl. 170°. Violet soln. in
 alkali, reddish-brown in H₂SO₄.

Tri-Ac:

C₂₀H₁₄O₈ M 382.326
 Pale yellow. Mod. sol. AcOH, spar. sol. EtOH. Mp
 223°.

Tri-Me ether: 1,2,7-Trimethoxyanthraquinone

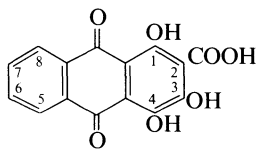
C₁₇H₁₄O₅ M 298.295
 Yellow needles (EtOH). Spar. sol. EtOH, sol. CHCl₃,
 C₆H₆. Mp 201°.

Perkin, A.G., *J. Chem. Soc.*, 1880, **37**, 554; 1928, 229.
 Offerman, H., *Justus Liebigs Ann. Chem.*, 1894, **280**, 1.
 Nolting, E. *et al*, *Ber.*, 1906, **39**, 642.
 Grandmougin, E., *C. R. Hebd. Seances Acad. Sci.*, 1921, **173**,
 1176.
 Bloom, H. *et al*, *J. Chem. Soc.*, 1959, 178 (*ir*)
 Capitan, F. *et al*, *Inf. Quim. Anal.*, 1968, **22**, 65 (*use*, *detn*, Ca)
 Roman Ceba, M. *et al*, *Anal. Lett.*, 1977, **120**, 907 (*detn*, Mg)

1,3,4-Trihydroxyanthraquinone-2-carboxylic acid T-00272

9,10-Dihydro-1,3,4-trihydroxy-9,10-dioxo-2-
 anthracenecarboxylic acid, 9CI. 9,10-Dihydro-1,3,4-
 trihydroxy-9,10-dioxo-2-anthraic acid, 8CI. *Pseudopurpurin*.
Purpurin-3-carboxylic acid. 1,2,4-Trihydroxy-3-
 anthraquinonecarboxylic acid

[476-41-5]



C₁₅H₈O₇ M 300.224

Present in *Rubia tinctorum* (madder root) and tissue
 cultures of *Galium mollugo*. Also in *R. cordifolia*,
Relbunium antherodes and *Galium* spp. Used in manuf.
 of acid and chrome dyes. Used as 0.25mM soln. in 9M
 H₂SO₄ for fluorimetric *detn*. of BrO₃[⊖] (λ_{max} 585 nm); as
 0.25M soln. in EtOH for photometric *detn*. of BrO₃[⊖]
 (λ_{max} 520 nm), IO₃[⊖] (λ_{max} 520 nm), Pd (λ_{max} 670 nm, ε
 77000). Red leaflets (EtOH). Cryst. Sol. alkalis; sl. sol.
 H₂O. Mp 222-224° dec.

O⁴-Primeveroside: [517-75-9]. *Galiosin*. *Galicide*

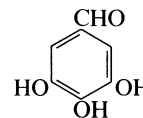
C₂₆H₂₆O₁₆ M 594.482
 Constit. of *Rubia tinctorum*, *R. peregrina* (*Galium*
verum), *Crucianella maritima* and *Relbunium* spp. Bright-
 yellow needles + 6H₂O (H₂O). Mp > 100° dec.

Hill, R. *et al*, *J. Chem. Soc.*, 1936, 1714 (*Galiosin*, *struct*, *synth*)
 Hirose, Y. *et al*, *Chem. Pharm. Bull.*, 1968, **16**, 1377 (*synth*)
 Burnett, A.R. *et al*, *J. Chem. Soc. C*, 1968, **19**, 2437 (*biosynth*)
 Berg, W. *et al*, *Pharmazie*, 1975, **30**, 330 (*isol*, *synth*, *ir*, *ms*, *pmr*)
 Bauch, H.J. *et al*, *Planta Med.*, 1978, **33**, 105 (*isol*, *biosynth*)

Roman Ceba, M. *et al*, *An. Quim., Ser. B*, 1984, **80**, 332 (*detn*,
 IO₃[⊖])
 Roman Ceba, M. *et al*, *Microchem. J.*, 1984, **29**, 19, 275 (*detn*,
 BrO₃[⊖], Pd)
 Salinas, F. *et al*, *Mikrochim. Acta*, 1984, **2**, 75 (*detn*, BrO₃[⊖])

3,4,5-Trihydroxybenzaldehyde, 9CI T-00273

Gallaldehyde. Gallic aldehyde
 [13677-79-7]



C₇H₆O₄ M 154.122

Constit. of the fungus *Boletus scaber*. Cryst. + 1H₂O
 (H₂O). Mp 212° dec. (rapid heat).

Tri-Ac:

C₁₃H₁₂O₇ M 280.234
 Mp 107-108°.

Oxime: [53148-14-4].

C₇H₇NO₄ M 169.137
 Mp 195-200°.

2,4-Dinitrophenylhydrazone: [13677-81-1].

Red needles (EtOH). Mp 315°.

3-Me ether: [3934-87-0]. 3,4-Dihydroxy-5-
 methoxybenzaldehyde

C₈H₈O₄ M 168.149
 Needles (C₆H₆). Mp 130-131°.

▷ CU5620000.

4-Me ether: [29865-85-8]. 3,5-Dihydroxy-4-
 methoxybenzaldehyde

C₈H₈O₄ M 168.149
 Mp 139-140°.

3,4-Di-Me ether: [29865-90-5]. 3-Hydroxy-4,5-
 dimethoxybenzaldehyde

C₉H₁₀O₄ M 182.176
 Mp 70-72°. Bp_{0.5} 140°.

3,5-Di-Me ether: [134-96-3]. 4-Hydroxy-3,5-
 dimethoxybenzaldehyde. *Syringic aldehyde*.
Syringaldehyde. *Cedar aldehyde*

C₉H₁₀O₄ M 182.176

Widespread in woods and wood products, eg. sulfite
 liquor, maple syrup. A degradn. prod. of lignin. Reagent
 for the spectrophotometric anal. of aromatic amines.
 Mp 113-114°. Bp₁₄ 192-193°.

▷ CU5760000.

3,5-Di-Me ether, *oxime*: [5032-13-3].

Mp 91°.

▷ CU5770000.

Tri-Me ether: [86-81-7]. 3,4,5-Trimethoxybenzaldehyde

C₁₀H₁₂O₄ M 196.202

Isol. from oil of *Cymbopogon* spp. and *Libanotis*
transcaucasica. Needles (H₂O). Mp 78°. Bp₁₀ 163-165°.

Tri-Me ether, oxime: [39201-89-3].

C₁₀H₁₃NO₄ M 211.217
 Mp 83-84°. Bp₁₀ 198-200°.

Tri-Me ether, 2,4-dinitrophenylhydrazone: Cryst. (AcOH).
 Mp 246°.

4-O-β-D-Glucopyranoside: [67783-19-1]. *Neocrenatin*. MP-10

C₁₃H₁₆O₉ M 316.264

Prod. of enzymic hydrol. of Neocretanin. Hygroscopic
 powder.

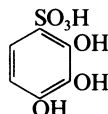
3-O-[6-O-(3,4,5-Trihydroxybenzoyl)-β-D-glucopyranoside]:
 [115355-99-2]. *Castamollissin*

C₂₀H₂₀O₁₃ M 468.370

Isol. from the leaves of *Castanea mollissima*. Needles + 2H₂O (H₂O). Mp 209-211°. [α]_D²⁰ –58.8° (c. 1.06 in Me₂CO aq.).

- Rosenmund, K.W. *et al.*, *Ber.*, 1918, **51**, 594; 1922, **55**, 2357.
 Nierenstein, M., *J. Prakt. Chem.*, 1932, **132**, 200 (*bibl*)
 Buchanan, G.L. *et al.*, *J. Chem. Soc.*, 1944, 322.
 Pearl, I.A., *J. Org. Chem.*, 1957, **22**, 1229.
 Edwards, R.L. *et al.*, *J. Chem. Soc. C*, 1967, 410 (*isol*)
Org. Synth., 1971, **51**, 8 (*deriv*)
 Battersby, A.R. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1972, 1730.
 Hansson, C. *et al.*, *Synthesis*, 1976, **3**, 191.
 Ozawa, T. *et al.*, *Agric. Biol. Chem.*, 1977, **41**, 1257; 1978, **42**, 1213 (*Neocrenatin*)
 Schwartz, A. *et al.*, *J. Org. Chem.*, 1982, **47**, 2213 (*synth*)
 Rao, D.V. *et al.*, *Synthesis*, 1983, 308 (*synth*)
 Sastry, C.S.P. *et al.*, *J. Indian Chem. Soc.*, 1986, **63**, 1009 (*use, syringaldehyde*)
 Feng, H. *et al.*, *Phytochemistry*, 1988, **27**, 1185 (*Castamollissin*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DOF600.

2,3,4-Trihydroxybenzenesulfonic acid, 9CI T-00274
Pyrogallol-4-sulfonic acid



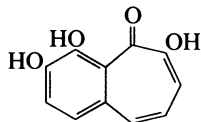
C₆H₆O₆S M 206.176

Na salt: [49792-10-1].

Used as 2% aq. soln. for photometric detn. of Nb, Ta, Ti (λ_{\max} 360 nm, ϵ 12200). Cryst. Sol. H₂O.

- Horak, J. *et al.*, *Collect. Czech. Chem. Commun.*, 1963, **28**, 2563 (*synth, detn, Nb, Ta*)
 Busev, A.I. *et al.*, *Zh. Anal. Khim.*, 1972, **27**, 1283 (*detn, Ti*)

3,4,6-Trihydroxy-5H-benzocyclohepten-5-one, 8CI T-00275
3',4'-Dihydroxybenzotropolone
 [947-60-4]

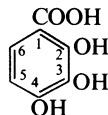


C₁₁H₈O₄ M 204.182

Gives colour reaction with Mo, Th, U(VI), Zr. Dark red needles. Mp 189-190°.

- Dutt, Y. *et al.*, *Indian J. Chem.*, 1963, **1**, 471 (*detn, Zr*)
 Dutt, Y. *et al.*, *Talanta*, 1969, **16**, 1369 (*synth, detn, Mo, Th, Zr*)

2,3,4-Trihydroxybenzoic acid, 9CI T-00276
Pyrogallol-4-carboxylic acid
 [610-02-6]



C₇H₆O₅ M 170.121

Used as 0.5 - 1% aq. soln. for extraction-photometric detn. of Ti (in the presence of antipyrine), Ge; gravimetric detn. of Ge. Needles + H₂O (H₂O). Mp 207-208° dec.

- Me ester*: [56128-66-6].
 C₈H₈O₅ M 184.148

Needles + 2½ H₂O (H₂O). Mp 151-152°.

Et ester:

C₉H₁₀O₅ M 198.175

Cryst. + 1H₂O (H₂O). Mp 102° (anhyd.).

Tri-Ac:

C₁₃H₁₂O₈ M 296.233

Prisms (xylene). Mp 164°.

- Bane, O. *et al.*, *J. Org. Chem.*, 1954, **19**, 510 (*synth*)
 Weygand, F. *et al.*, *Chem. Ber.*, 1957, **90**, 1879 (*synth*)
 Cooke, R.G. *et al.*, *Aust. J. Chem.*, 1969, **22**, 2395 (*deriv*)
 Busev, A.I. *et al.*, *Zh. Anal. Khim.*, 1972, **27**, 1781 (*detn, Ti*)
 Sagaradze, G.P. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 1009 (*detn, Ge*)

3,4,5-Trihydroxybenzoic acid T-00277

Gallic acid

[149-91-7]

C₇H₆O₅ M 170.121

Isol. by Scheele in 1786 from fermented galls. Occurs in many tannins. Specific flowering inhibitor in leaves of *Kalenchoe bloesfeldiana*. Used in tanning, as anal. reagent and photographic developer. Astringent. Used as 2% soln. in Me₂CO for photometric detn. of Nb (in the presence of aniline), Th, Ti, Ce, Cu. Needles (MeOH or CHCl₃), cryst. + 1H₂O (H₂O). Sol. Me₂CO, EtOH; spar. sol. H₂O; insol. C₆H₆, CHCl₃. Mp 253° dec., Mp 235-240°, 225°. pK_{a1} 3.13; pK_{a2} 8.84; pK_{a3} 12.4 (20°, 0.1M KNO₃).

▷ LW7525000.

Me ester: [99-24-1]. *Methyl gallate. Gallicin*

C₈H₈O₅ M 184.148

Found in *Koelerenteria paniculata*. Mp 157°. pK_{a1} 7.88 (25°, 0.1M KNO₃).

▷ LW8000000.

Propyl ester: [121-79-9]. *Propyl gallate*

C₁₀H₁₂O₅ M 212.202

Antioxidant used in food flavouring. Used as a 0.1M soln. in aq. Me₂CO for photometric detn. of Nb. Cryst. Sol. Me₂CO, 2-butanol. Mp 150°.

▷ LW8400000.

Dodecyl ester: [1166-52-5]. *Dodecyl gallate*

C₁₉H₃₀O₅ M 338.443

Used for gravimetric detn. of U. Sol. EtOH, Me₂CO.

Welcher, J.F., *Organic Analytical Reagents*, van Nostrand, N.Y., 1947, **1**, 200 (*use*)

Takahashi, T. *et al.*, *Agric. Biol. Chem.*, 1966, **30**, 617 (*isol, deriv*)
 Mishra, R.K. *et al.*, *Indian J. Appl. Chem.*, 1968, **31**, 233; *CA*, **71**, 77046t (*dodecyl ester, detn, U*)

Jasim, F., *Talanta*, 1970, **17**, 103 (*propyl ester, detn, Nb*)

Ali-Zade, T.D. *et al.*, *Zh. Anal. Khim.*, 1974, **29**, 739 (*detn, Nb*)

Shipchandler, M.T. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1975, 1400 (*synth*)

Rodd's Chem. Carbon Compd. (2nd Ed.), IHD, 1976, 193 (*bibl*)

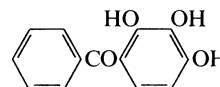
Reddy, K.A., *Indian J. Chem.*, 1978, **12**, 35 (*synth, use*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DXX200, GBE000, MK1100, PNM750.

2,3,4-Trihydroxybenzophenone, 8CI T-00278

(2,3,4-Trihydroxyphenyl)phenylmethanone, 9CI.

Gallobenzophenone. 4-Benzoylpyrogallol. Alizaric yellow A
 [1143-72-2]



C₁₃H₁₀O₄ M 230.220

Used as 0.2% EtOH soln. for photometric detn. of Mo. Yellow needles (EtOH aq.). Sol. EtOH. Mp 140-141°.

Tri-Ac:

$C_{19}H_{16}O_7$ M 356.331
Mp 117-118°.

Tri-Ac, oxime:

$C_{19}H_{17}NO_7$ M 371.346
Mp 130°.

4-Me ether: [35836-41-0]. 2,3-Dihydroxy-4-methoxybenzophenone

$C_{14}H_{12}O_4$ M 244.246
Cryst. (MeOH). Mp 167.5-168.5°.

Phadke, R. *et al*, *J. Indian Chem. Soc.*, 1950, **27**, 349 (*synth*)
Klemm, L.H. *et al*, *J. Org. Chem.*, 1959, **24**, 952 (*deriv*)
Price, P. *et al*, *J. Org. Chem.*, 1964, **29**, 2800 (*synth*)
Popa, G. *et al*, *Chim. Anal. (Bucharest)*, 1971, **1**, 215 (*detn, Mo*)
Popa, G. *et al*, *Mikrochim. Acta*, 1972, 883 (*detn, Mo*)

2,4,4'-Trihydroxybenzophenone, 8CI T-00279

(2,4-Dihydroxyphenyl)(4-hydroxyphenyl)methanone, 9CI
[1470-79-7]

$C_{13}H_{10}O_4$ M 230.220

Used as EtOH soln. for fluorimetric detn. of B (λ_{max} 426 nm) and Te(IV). Yellow needles (H₂O). Sol. EtOH; sl. sol. H₂O. Mp 200°.

Tri-Ac:

$C_{19}H_{16}O_7$ M 356.331
Needles (H₂O). Mp 96-98°.

4-Me ether: [33257-86-2]. 2,4'-Dihydroxy-4-methoxybenzophenone

$C_{14}H_{12}O_4$ M 244.246
Yellow cryst. (EtOH). Mp 200°.

4'-Me ether: [5298-27-1]. 2,4-Dihydroxy-4'-methoxybenzophenone

$C_{14}H_{12}O_4$ M 244.246
Cryst. (EtOH). Mp 158-159°.

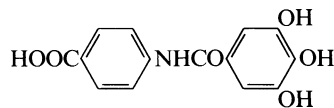
Tri-Me ether: [4038-15-7]. 2,4,4'-Trimethoxybenzophenone

$C_{16}H_{16}O_4$ M 272.300
Needles (EtOH). Mp 73-74°.

Komarowski, A. *et al*, *Ber.*, 1894, **27**, 1997.
Usgaonkar, U.R., *J. Indian Chem. Soc.*, 1963, **40**, 27.
Ray, S. *et al*, *Indian J. Chem.*, 1971, **9**, 619.
Bovay, M. *et al*, *Anal. Chim. Acta*, 1975, **80**, 180 (*detn, B*)
Prashad, M. *et al*, *Indian J. Chem., Sect. B*, 1978, **16**, 142.

4-[(3,4,5-Trihydroxybenzoyl)amino]benzoic acid, 9CI T-00280

p-Carboxygallanilide
[35388-09-1]



$C_{14}H_{11}NO_6$ M 289.244

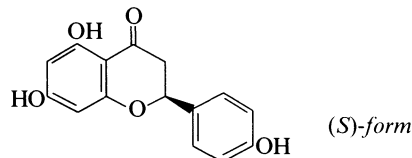
Used as a 1.5% soln. in EtOH for photometric detn. of Ti(IV), Mo. Cryst. powder. Sol. EtOH, Me₂CO, dioxan; spar. sol. H₂O. Mp 287-289°.

Slusarev, A.G. *et al*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1960, **26**, 364 (*synth*)
Pashchenko, E.N. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 400 (*detn, Mo, Ti*)

4',5,7-Trihydroxyflavanone T-00281

Naringenin. *Floribundigenin*. *Naringetol*. *Salipurpol*. *BE 14348A*. *Antibiotic BE 14348A*

[67604-48-2]



$C_{15}H_{12}O_5$ M 272.257

(S)-form [480-41-1]

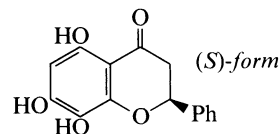
Most widely distributed flavanone, found in the Compositae, Labiatae, Theaceae, Chrysobalanaceae, Leguminosae, Solanaceae, Cactaceae, Coniferae, Salicaceae, Acanthaceae, Verbenaceae, Anacardiaceae, Athyriaceae, Capparaceae, Dilleniaceae, Dryopteridaceae, Equisetaceae, Lauraceae, Meliaceae, Pinaceae, Myrtaceae, Cruciferae, Balanophoraceae, and Fagaceae. Also prod. by *Streptomyces graminofaciens*. Antagonist to gibberellins in dormant peach buds. Used as 0.5% soln. in EtOH for photometric detn. of Al, Be, Cu, F, Sb, Sn, Fe, Zr, Th, Bi, Pb. Yellowish cryst. Sol. EtOH, alkalis; sl. sol. H₂O. Mp 250-251° (227-228°). $[\alpha]_D^{27} - 22.5^\circ$ (MeOH). Originally isol. in 1907 but incorr. descr. as a chalcone.

[13238-06-7, 17257-04-4, 18196-14-0, 23711-00-4, 26207-67-0, 58001-41-5, 61823-56-1, 66074-95-1, 102101-05-3]

Phillips, D.J., *J. Exp. Bot.*, 1962, **13**, 213 (*use*)
Korkuć, A., *Wiad. Chem.*, 1969, **23**, 345; *CA*, **71**, 56224j (*rev*)
Gaffield, W., *Tetrahedron*, 1970, **26**, 4093 (*ord, abs config*)
Nevskaya, A.N. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1699 (*use*)
Markham, K.R. *et al*, *Tetrahedron*, 1976, **32**, 2607 (*cmr*)
Wenkert, E. *et al*, *Phytochemistry*, 1977, **16**, 1811 (*nmr*)
Shin, W. *et al*, *Acta Crystallogr., Sect. C*, 1986, **42**, 626 (*cryst struct*)

5,7,8-Trihydroxyflavanone T-00282

2,3-Dihydro-5,7,8-trihydroxy-2-phenyl-4H-1-benzopyran-4-one. *Dihydronorwogonin*



$C_{15}H_{12}O_5$ M 272.257

(S)-form*7-O-Glucuronopyranoside:*

$C_{21}H_{20}O_{11}$ M 448.382

Isol. from *Scutellaria galericulata*. Used as EtOH soln. for photometric detn. of U; analytical reactions with some metals. Sol. EtOH.

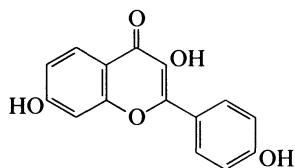
[64551-85-5, 75041-39-3]

Chopin, J. *et al*, *Bull. Soc. Chim. Fr.*, 1957, 192 (*isol*)
Massicot, J. *et al*, *Bull. Soc. Chim. Fr.*, 1962, 1962 (*pmr*)
Katyal, M., *Talanta*, 1968, **15**, 95 (*detn, U*)
Korkuć, A., *Wiad. Chem.*, 1969, **23**, 345; *CA*, **71**, R56224j (*reactions*)
Popova, T.P. *et al*, *Rastit. Resur.*, 1976, **12**, 232.
Vieira, P.C. *et al*, *Planta Med.*, 1980, **39**, 153 (*derivs*)
Rani, I., *Indian J. Chem., Sect. B*, 1987, **26**, 1080 (*synth*)

3,4',7-Trihydroxyflavone

T-00283

3,7-Dihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one.
4',7-Dihydroxyflavonol. **Resokaempferol**. 5-
Deoxykaempferol
[2034-65-3]

C₁₅H₁₀O₅ M 270.241

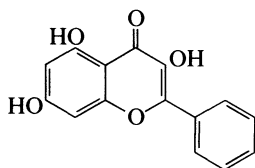
Isol. from *Schinopsis lorentzii*, *Cicer arietinum*, *Rhus succedanea* and others. Used for fluorimetric detn. of Th. Light-yellow needles (EtOH or AcOH aq.). Mp 310° (304-306°).

Kirby, K.S. *et al*, *Biochem. J.*, 1955, **60**, 582 (*isol, struct, synth*)
Feik, F. *et al*, *Mikrochim. Acta*, 1967, 900 (*detn, Th*)
Holzbecher, Z., *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976.

3,5,7-Trihydroxyflavone, 8CI

T-00284

3,5,7-Trihydroxy-2-phenyl-4H-1-benzopyran-4-one, 9CI. 5,7-Dihydroxyflavonol. **Galangin**. Norizalpinin
[548-83-4]

C₁₅H₁₀O₅ M 270.241

Constit. of Galanga root (*Alpinia officinarum*) and many other plants. Used as 0.1mM EtOH soln. for photometric detn. of U (λ_{max} 450 nm), Zr (λ_{max} 410 nm, pH 4.5), Th (λ_{max} 410 nm). Yellow needles (EtOH). Sol. EtOH, MeOH. Mp 214-215°, Mp 217-218°.

▷ LK9275500.

Tri-Ac: Mp 142°.

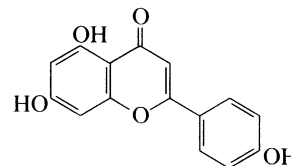
[19184-08-8]

Chavan, J.J. *et al*, *J. Chem. Soc.*, 1933, 368 (*synth*)
Khimura, *et al*, *Yakugaku Zasshi*, 1935, **55**, 229 (*isol*)
Katyal, M. *et al*, *J. Indian Chem. Soc.*, 1962, **39**, 585; 1963, **40**, 121 (*detn, U, Th*)
Katyal, M. *et al*, *Proc. - Indian Acad. Sci., Sect. A*, 1963, **57**, 259 (*detn, Zr*)
Batterham, T.J. *et al*, *Aust. J. Chem.*, 1964, **17**, 428 (*pmr*)
Nevskaya, E.M. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1899 (*detn, Al, Be, Ti, U, Zr*)
Chawla, H.M. *et al*, *Tetrahedron Lett.*, 1976, 2171 (*synth, uv*)
Gaydou, E.M. *et al*, *Ann. Chim. (Paris)*, 1977, **2**, 303 (*synth, uv, cmr*)
Wenkert, E. *et al*, *Phytochemistry*, 1977, **16**, 1811 (*cmr*)
Looker, J.H. *et al*, *J. Org. Chem.*, 1978, **43**, 2344 (*synth*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, GAZ000.

4',5,7-Trihydroxyflavone

T-00285

5,7-Dihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one, 9CI. **Apigenin**
[520-36-5]

C₁₅H₁₀O₅ M 270.241

Found free or as glycosides in the stems, roots, leaves, seeds or fruit of a very wide range of plant spp. Found also in some fossil leaf tissues. Used as EtOH soln. for photometric detn. of Al (λ_{max} 380 nm, ε 23000) rare earth elements, Be, Zr, Cd. Yellow needles (Py aq.). Sol. EtOH, MeOH. Mp 352°.

▷ LK9276000.

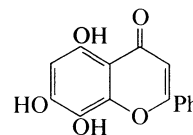
[14134-41-9, 41375-89-7, 88083-10-7]

Batterham, T.J. *et al*, *Aust. J. Chem.*, 1964, **17**, 428 (*pmr*)
Nowicka-Jankowska, T. *et al*, *Chem. Anal. (Warsaw)*, 1965, **10**, 129 (*detn, Al, rare earths*)
Nevskaya, E.M. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 1699 (*detn, Al, Be, Zr, Cd*)
Wagner, H. *et al*, *Tetrahedron Lett.*, 1976, 1799 (*cmr*)
Srivastava, S. *et al*, *Indian J. Chem., Sect. B*, 1987, **26**, 57 (*synth*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CDH250.

5,7,8-Trihydroxyflavone

T-00286

5,7,8-Trihydroxy-2-phenyl-4H-1-benzopyran-4-one, 9CI. **Norwogonin**
[4443-09-8]

C₁₅H₁₀O₅ M 270.241

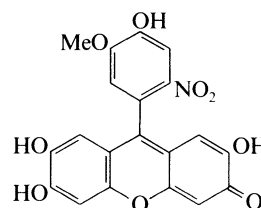
Isol. from the roots of *Scutellaria* spp. Used as soln. in EtOH aq. for photometric detn. of U and Th (at pH 2.7-3.9 and 2.7-5.0). Yellow prisms (EtOH). Sol. EtOH, MeOH. Mp 258-260°.

Shah, R.C. *et al*, *J. Chem. Soc.*, 1938, 1555 (*synth, derivs*)
Rao, K.V. *et al*, *Proc. Indian Acad. Sci., Sect. A*, 1947, **25A**, 427; 1949, **30A**, 340 (*synth*)
Pillon, D., *Bull. Soc. Chim. Fr.*, 1954, 9 (*synth*)
Katyal, M. *et al*, *J. Indian Chem. Soc.*, 1963, **40**, 191 (*detn, U, Th*)
Goudard, M. *et al*, *Phytochemistry*, 1979, **18**, 186 (*ms*)
Iinuma, M. *et al*, *Chem. Pharm. Bull.*, 1980, **28**, 708 (*cmr*)

2,6,7-Trihydroxy-9-(4-hydroxy-5-methoxy-2-nitrophenyl)-3H-xanthen-3-one, 9CI

T-00287

9-(4-Hydroxy-3-methoxy-6-nitrophenyl)fluorone. **Nitrovanillylfluorone**
[37569-52-1]



$C_{20}H_{13}NO_9$ M 411.324

Used as 0.05% EtOH soln. for photometric detn. of Al (λ_{max} 535 nm, ϵ 29000), Ga, In, Sn, Sb, Nb. Cryst. Sol. EtOH.

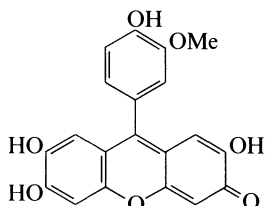
Biryuk, E.E. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 459 (*detn. Al*)
Nazarenko, V.A., *Trihydroxyfluorones*, Nauka, Moscow, 1973 (*use*)

2,6,7-Trihydroxy-9-(4-hydroxy-3-methoxyphenyl)-3H-xanthen-3-one, 9CI

T-00288

Vanillylfluorone

[6098-77-7]



$C_{20}H_{14}O_7$ M 366.326

Used as 1mM EtOH soln. for photometric detn. of Ge (ϵ 24000), Al, Ga, Sn, Sb, Mo. Cryst. Sol. EtOH.

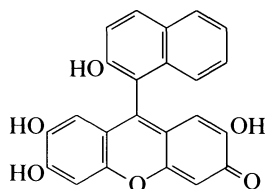
Nazarenko, V.A. *et al*, *Zavod. Lab.*, 1959, **25**, 899 (*detn. Ge*)
Shustova, M.B. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 964 (*detn. Mo*)
Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Izd. Nauka, Moscow, 1973 (*synth, use*)

2,6,7-Trihydroxy-9-(2-hydroxy-1-naphthalenyl)-3H-xanthen-3-one, 9CI

T-00289

2-Hydroxy-1-naphthylfluorone

[6098-78-8]



$C_{23}H_{14}O_6$ M 386.360

Used as 1mM EtOH soln. for photometric detn. of Al, Ga, Ge, Sn, Zr, Mo. Red cryst. Sol. EtOH, Me_2CO .

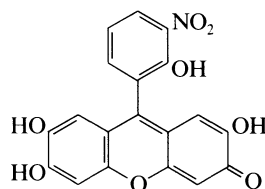
Shustova, M.B. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 964 (*detn. Mo*)
Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1968, **23**, 1332 (*detn. Zr*)
Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Izd. Nauka, Moscow, 1973 (*synth, use*)

2,6,7-Trihydroxy-9-(2-hydroxy-3-nitrophenyl)-3H-xanthen-3-one, 9CI

T-00290

3-Nitrosalicylfluorone

[6098-84-6]



$C_{19}H_{11}NO_8$ M 381.298

Used as 0.05% EtOH soln. for photometric detn. of Al, In, Ge, Sn, Sb, Nb, W; as 1mM EtOH soln. for photometric detn. of V(IV) (λ_{max} 556 nm, ϵ 33000). Cryst. (EtOH). Sol. EtOH.

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1955, **10**, 289.

Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Nauka, Moscow, 1973.

Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 289 (*detn. V*)

2,6,7-Trihydroxy-9-(2-hydroxy-5-nitrophenyl)-3H-xanthen-3-one, 9CI

T-00291

2-Hydroxy-5-nitrophenylfluorone

[6098-85-7]

$C_{19}H_{11}NO_8$ M 381.298

Used as 1mM EtOH soln. for photometric detn. of V(IV) (λ_{max} 560 nm, ϵ 33000, 30% EtOH, pH 4-6). Cryst. (EtOH). Sol. EtOH.

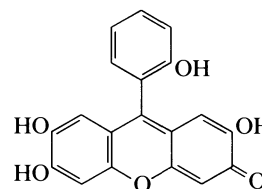
Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 289 (*detn. V*)

2,6,7-Trihydroxy-9-(2-hydroxyphenyl)-3H-xanthen-3-one, 9CI

T-00292

Salicylfluorone

[3569-82-2]



$C_{19}H_{12}O_6$ M 336.300

Used as 2mM EtOH soln. acidified with HCl for extraction-photometric detn. of Ge (λ_{max} 530 nm, ϵ 120000), V (λ_{max} 528 nm, ϵ 42000, pentanol/ $CHCl_3$), Sb, Mo, Sn, Ti, Ta, W, Te. Orange cryst. Sol. alkalis; sl. sol. EtOH.

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1979, **34**, 2359; 1981, **36**, 1351 (*detn. Te, V*)

Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 2197 (*detn. W*)

Amelin, V.G. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1446; 1984, **39**, 1436 (*detn. Ta, Ge*)

2,6,7-Trihydroxy-9-(3-hydroxyphenyl)-3H-xanthen-3-one, 9CI

T-00293

3-Hydroxyphenylfluorone

[40636-55-3]

$C_{19}H_{12}O_6$ M 336.300

Used as 1mM EtOH soln. to give colour reactions with Sb and other metals. Red cryst. Sol. EtOH, MeOH, Me_2CO .

Gillis, J., *Anal. Chim. Acta*, 1953, **8**, 97 (*use*)

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **208**, 189 (*detn. Sb*)

Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Izd. Nauka, Moscow, 1973 (*synth, use*)

2,6,7-Trihydroxy-9-(4-hydroxyphenyl)-3H-xanthen-3-one, 9CI

T-00294

4-Hydroxyphenylfluorone

[6098-76-6]

$C_{19}H_{12}O_6$ M 336.300

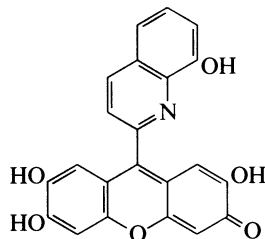
Used as 1mM EtOH soln. to give colour reactions with Sb and other metals. Red cryst. Sol. EtOH, MeOH, Me_2CO .

Gillis, J., *Anal. Chim. Acta*, 1953, **8**, 97 (*use*)

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1965, **208**, 189 (*detn. Sb*)

Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Izd. Nauka, Moscow, 1973 (*synth, use*)

2,6,7-Trihydroxy-9-(8-hydroxy-2-quinolinyl)-3H-xanthen-3-one, 9CI
8-Hydroxyquinolylfurone
[54267-83-3]



$C_{22}H_{13}NO_6$ M 387.348
Used as 1mM EtOH soln. for photometric detn. of V(IV) (λ_{max} 565 nm, ϵ 19000, 30% EtOH, pH 4.5-6.0). Cryst. (EtOH). Sol. EtOH.

Antonovich, V.P. et al, *Zh. Anal. Khim.*, 1980, **35**, 289 (detn. V)

T-00295

Isol. from aerial parts of *Valeriana* spp., leaves of *Digitalis* spp., peel of *Citrus limon* and others. Used as 0.01M soln. in MeOH for photometric detn. of Fe(III) (λ_{max} 480 nm, ϵ 14000, pH 6.5). Pale-yellow cryst. (EtOH). Sol. MeOH, EtOH. Mp 258-259° (250-253°), Mp 228-230°.

7-O-Rutinoside: [520-27-4]. **Diosmin**, INN. Barosmin.

Dafton. Ven-Detrex. Salinigriflavonoside

$C_{28}H_{32}O_{15}$ M 608.552

Isol. from *Zanthoxylum avicennae*, *Diosma crenulata* and others, first isol. from parsley. Bioflavonoid used medicinally. Antihæmorrhagic, venotonic. Fine needles + 1H₂O (Py aq.). Mp 280° dec. (in vacuo).

Narasimhachari, N. et al, *Proc. - Indian Acad. Sci., Sect. A*, 1950, **32**, 17 (synth)

Pankajamani, K.S. et al, *J. Indian Chem. Soc.*, 1954, **31**, 565 (synth)

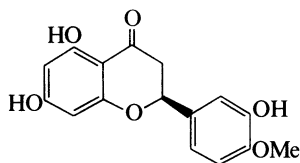
Rösler, H. et al, *J. Org. Chem.*, 1965, **30**, 4346 (pmr)

Korkuć, A., *Pol. J. Chem. (Rocz. Chem.)*, 1969, **43**, 9 (detn, Fe)

Korkuć, A., *Chem. Anal. (Warsaw)*, 1970, **15**, 44 (detn, Fe)

Wagner, H. et al, *Tetrahedron Lett.*, 1976, 1799 (cmr)

3',5,7-Trihydroxy-4'-methoxyflavanone T-00296
2,3-Dihydro-5,7-dihydroxy-2-(3-hydroxy-4-methoxyphenyl)-4H-1-benzopyran-4-one, 9CI. 5,7,3'-Trihydroxy-4'-methoxyflavanone. **Hesperitin**. Hesperitin



$C_{16}H_{14}O_6$ M 302.283

(S)-form [520-33-2]

Isol. from *Brickellia vernicosa*, *Persica vulgaris*, *Citrus* and *Mentha* spp. Used as 0.01M MeOH soln. for fluorimetric detn. of Al; photometric detn. of U(VI), Fe(III), Be, Cd, Sb, Th, Zr. Plates (EtOH). Sol. EtOH, alkalis. Mp 228-230°. $[\alpha]_D^{27}$ -37.6° (c, 1.8 in EtOH).

Tri-Ac: Mp 130-132°. $[\alpha]_D^{26}$ +21.1° (c, 1.28 in CHCl₃).

(±)-form [41001-90-5]

Prisms (EtOH). Mp 226-228°.

Bognar, R. et al, *Ber.*, 1942, **75**, 1043; 1943, **76**, 773 (synth)

Arakawa, H. et al, *Justus Liebigs Ann. Chem.*, 1961, **636**, 111 (struct, abs config)

Batterham, T.J. et al, *Aust. J. Chem.*, 1964, **17**, 428 (pmr)

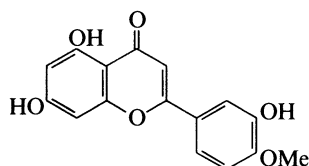
Golovina, P.A. et al, *Zh. Anal. Khim.*, 1966, **21**, 163 (detn, Al)

Korkuć, A., *Chem. Anal. (Warsaw)*, 1970, **15**, 441 (detn, Fe)

Nevskaya, E.M. et al, *Zh. Anal. Khim.*, 1972, **27**, 1699 (use)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, HBU000.

3',5,7-Trihydroxy-4'-methoxyflavone T-00297
Diosmetin. Salinigriflavonol. Vitamin P
[520-34-3]

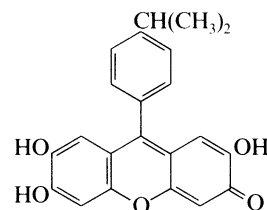


$C_{16}H_{12}O_6$ M 300.267

T-00297

2,6,7-Trihydroxy-9-[4-(1-methylethyl)phenyl]-3H-xanthen-3-one, 9CI T-00298
4-Isopropylphenylflurone

[72007-64-8]



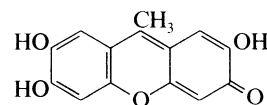
$C_{22}H_{18}O_5$ M 362.381

Used as 0.02mM MeOH soln. for photometric detn. of Ge, Sn(IV), Ti, Pb, Cu and U(VI). Cryst. Sol. MeOH, EtOH; sl. sol. H₂O.

Asmus, E. et al, *Fresenius' Z. Anal. Chem.*, 1979, **298**, 150 (synth, use)

2,6,7-Trihydroxy-9-methyl-3H-xanthen-3-one, 9CI T-00299
Methylflurone

[5407-46-5]



$C_{14}H_{10}O_5$ M 258.230

Used as soln. in EtOH/dil. H₂SO₄ mixture for photometric detn. of Sb (λ_{max} 350 nm, ϵ 40000), Mo, Ti, Zr. Cryst. (EtOH). Sol. EtOH, MeOH.

Majumdar, A.K. et al, *Anal. Chim. Acta*, 1960, **22**, 158 (detn, Mo)

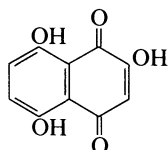
Majumdar, A.K. et al, *Fresenius' Z. Anal. Chem.*, 1961, **178**, 352 (detn, Zr)

Meyer, S. et al, *Fresenius' Z. Anal. Chem.*, 1961, **179**, 175 (detn, Sb)

Asmus, E. et al, *Fresenius' Z. Anal. Chem.*, 1963, **197**, 413 (detn, Ti)

2,5,8-Trihydroxy-1,4-naphthoquinone*Naphthopurpurin*

[13379-22-1]

 $C_{10}H_6O_5$ M 206.154

Isol. from *Pseudomonas putida*. Used as a 0.2% aq. soln. as a metallochromic indicator for titrimetric detn. of Th. Red needles (C_6H_6), brown leaflets. Sol. hot H_2O . Mp 205-210° dec. Potentially tautomeric but the 2,5,8-tri-OH-form greatly predominates.

Tri-Ac: [78226-66-1]. $C_{16}H_{12}O_8$ M 332.266

Cryst. (MeOH). Mp 164°.

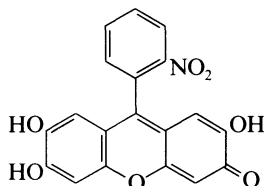
2-Me ether: [14918-66-2]. *2-Methoxy-5,8-dihydroxy-1,4-naphthoquinone* $C_{11}H_8O_5$ M 220.181

Mp 179°.

Ger. Pat., 167 641, (1906); *Chem. Zentralbl.*, 1906, 1, 1126.
Dimroth, O. *et al*, *Justus Liebigs Ann. Chem.*, 1927, **456**, 177.
Fieser, L.F., *J. Am. Chem. Soc.*, 1928, **50**, 439; 1937, **59**, 1076
(*synth*)

Lugg, J.W.H. *et al*, *J. Chem. Soc.*, 1937, 1597.Kato, T. *et al*, *CA*, 1960, **54**, 11849 (*use*)Lewis, J.R. *et al*, *Z. Naturforsch., B*, 1977, **32**, 1473 (*synth, pmr, tautom*)Bekaert, A. *et al*, *Bull. Soc. Chim. Fr.*, 1986, 314 (*synth, ir, pmr*)Mueller, U. *et al*, *Hoppe Seyler's Z. Physiol. Chem.*, 1988, **369**, 1031 (*isol*)**2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, 9CI***2-Nitrophenylfluorone*

[6098-81-3]

 $C_{19}H_{11}NO_7$ M 365.298

Used as 3mM soln. in EtOH for extraction-photometric detn. of Mo (λ_{max} 584 nm, ϵ 56000), W, Nb (λ_{max} 530 nm, ϵ 150000). Cryst. Sol. EtOH.

Shustova, M.B. *et al*, *Zh. Anal. Khim.*, 1963, **18**, 964 (*detn, Mo*)Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1977 (*detn, Nb*)Ganago, L.I. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 1138 (*detn, Mo*)Ivanova, T.F. *et al*, *Zh. Anal. Khim.*, 1984, **39**, 1259 (*detn, W*)**2,6,7-Trihydroxy-9-(3-nitrophenyl)-3*H*-xanthen-3-one, 9CI***3-Nitrophenylfluorone*

[6217-25-0]

 $C_{19}H_{11}NO_7$ M 365.298

Used as 0.06% soln. in acidified EtOH for photometric detn. of Zr (λ_{max} 550 nm), Sn, Sb. Cryst. Sol. EtOH, cyclohexanol.

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1955, **10**, 289 (*detn, Sn, Sb*)

T-00300

Sano, H., *Bull. Chem. Soc. Jpn.*, 1958, **31**, 974; 1959, **32**, 299(*synth, detn, Zr*)Sano, H., *Talanta*, 1959, **2**, 187 (*synth*)**2,6,7-Trihydroxy-9-(4-nitrophenyl)-3*H*-xanthen-3-one, 9CI***4-Nitrophenylfluorone*

[981-81-7]

 $C_{19}H_{11}NO_7$ M 365.298

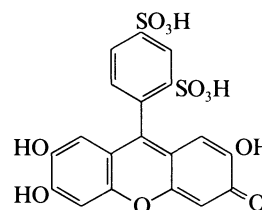
Used as 0.05% soln. in EtOH for photometric detn. of Sn, Sb. Cryst. Sol. EtOH.

Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1955, **10**, 289 (*detn, Sn, Sb*)Sano, H., *Bull. Chem. Soc. Jpn.*, 1958, **31**, 974 (*use*)Nazarenko, V.A. *et al*, *Zavod. Lab.*, 1962, **28**, 268 (*detn, Sn*)

T-00303

4-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)-1,3-benzenedisulfonic acid, 9CI

[73008-86-3]

 $C_{19}H_{12}O_{11}S_2$ M 480.429Used in photometric detn. of Ge and Ti. Cryst. Sol. H_2O .Nazarenko, V.A. *et al*, *Zavod. Lab.*, 1959, **25**, 898 (*detn, Ge*)Savvin, S.B. *et al*, *Zh. Anal. Khim.*, 1981, **36**, 9 (*detn, Ti*)

T-00304

2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, 9CI*2-Nitrophenylfluorone*

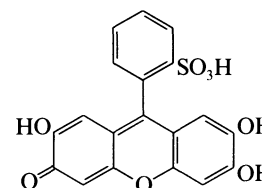
[6098-81-3]

T-00301

2-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzenesulfonic acid, 9CI*Hydroxyhydroquinonesulfonephthalein*

[36480-50-9]

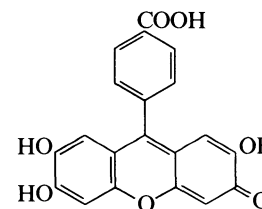
T-00305

 $C_{19}H_{12}O_8S$ M 400.365

Used as metallochromic indicator for titrimetric detn. of Bi, Th; for photometric detn. of Ti. Dark red cryst. powder. Sol. EtOH, alkalis.

Zaibovskii, F.V. *et al*, *CA*, 1961, **55**, 11178 (*detn, Bi, Th*)Abromaityte, D. *et al*, *CA*, 1972, **76**, 121140y (*detn, Ti*)***p*-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid**

T-00306

 $C_{20}H_{12}O_7$ M 364.311*Me ester*: *p*-Methoxycarbonylphenylfluorone

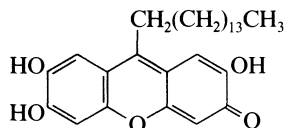
C₂₁H₁₄O₇ M 378.337

Used as 1mM MeOH soln. to give colour reactions with Cu(II), Sb(III), W, Mo (pH 2). Red cryst. Sol. MeOH.

Vrbsky, J. *et al*, *Collect. Czech. Chem. Commun.*, 1970, **35**, 2497 (synth, use)**2,6,7-Trihydroxy-9-pentadecyl-3H-xanthen-3-one, 9CI** T-00307

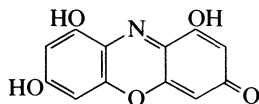
Pentadecylfluorone. Palmitylfluorone

[52000-06-3]

C₂₈H₃₈O₅ M 454.605Used as a 1mM soln. in EtOH for photometric detn. of Ga, Te, Zn (λ_{\max} 560 nm, ϵ 27200, pH 8-9, 30% EtOH), V(IV) (λ_{\max} 520 nm, ϵ 37000, pH 4-5, 30% EtOH). Red cryst. Spar. sol. EtOH; sol. Me₂CO. pK_{a1} 2.9; pK_{a2} 6.3 (25°).Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Izd. Nauka, Moscow, 1973 (synth, detn, Ga, Te)Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1850; 1978, **33**, 903 (detn, Te, Zn)Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 289 (detn, V)**1,9-Trihydroxy-3H-phenoxazin-3-one, 8CI** T-00308

1,9-Dihydroxyresorufin. Phlorein. Florin

[22914-89-2]

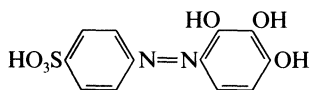
C₁₂H₇NO₅ M 245.191

Used as a 0.5mM soln. in EtOH for detn. of Hg, lanthanides, Pb, In, Bi. Orange cryst. (EtOH). Sol. EtOH.

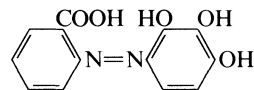
Benedikt, R., *Justus Liebigs Ann. Chem.*, 1875, **178**, 92 (synth)Ruzička, E. *et al*, *Mikrochim. Acta*, 1969, 290; 1971, 57; 1972, 467 (detn, Hg, Pb, Bi)Lasovsky, J. *et al*, *Collect. Czech. Chem. Commun.*, 1973, **38**, 2238 (lanthanides)Ruzička, E. *et al*, *Chem. Zvesti*, 1974, **28**, 621 (detn, In)**4-[(2,3,4-Trihydroxyphenyl)azo] benzenesulfonic acid, 9CI** T-00309

2',3',4'-Trihydroxyazobenzene-4-sulfonic acid

[64789-21-5]

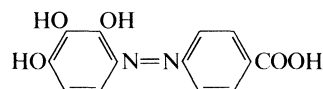
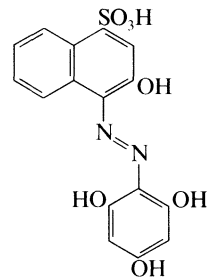
C₁₂H₁₀N₂O₆S M 310.287Used as a 1mM aq. soln. for photometric detn. of Bi (λ_{\max} 460 nm, ϵ 50000), Mo (λ_{\max} 460 nm, ϵ 25000), Th (λ_{\max} 440 nm), W (λ_{\max} 460 nm, ϵ 43000). Brown cryst. Sol. H₂O; spar. sol. Me₂CO; insol. EtOH, CHCl₃, CCl₄, C₆H₆. Mp 294° (dec.). pK_{a1} 5.44; pK_{a2} 7.04; pK_{a3} 9.08.Gambarov, D.G. *et al*, *Zh. Anal. Khim.*, 1978, **33**, 1343; 1984, **39**, 837, 1440 (detn, Mo, Bi, Th)Gambarov, D.G. *et al*, *Zavod. Lab.*, 1979, **45**, 794; 1980, **46**, 297 (detn, Bi, W)**2-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid** T-00310

2',3',4'-Trihydroxyazobenzene-2-carboxylic acid. 2-Carboxyphenylazopyrogallol

C₁₃H₁₀N₂O₅ M 274.232Used as a 1mM aq. soln. for photometric detn. of Ti (λ_{\max} 490 nm). Red cryst. (H₂O). Sol. EtOH, Me₂CO; sl. sol. H₂O.Gambarov, D.G. *et al*, *Azerb. Khim. Zh.*, 1975, 122; *CA*, **83**, 157382n (detn, Ti)**4-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, 9CI** T-00311

2',3',4'-Trihydroxyazobenzene-4-carboxylic acid

[80527-64-6]

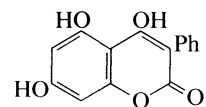
C₁₃H₁₀N₂O₅ M 274.232Used as 1mM Me₂CO soln. for photometric detn. of Mo(VI) (λ_{\max} 460 nm, ϵ 41200, 0.01-0.05M HCl). Dark brown powder. Sol. Me₂CO, EtOH.Gambarov, D.G. *et al*, *Zh. Anal. Khim.*, 1982, **37**, 2190 (synth, detn, Mo)**4-[(2,4,6-Trihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid** T-00312C₁₆H₁₂N₂O₇S M 376.346

Used as a 0.1% soln. in EtOH to give colour reactions with Al, Ga, Zn. Cryst.

Poluektov, N.S. *et al*, *Zh. Anal. Khim.*, 1958, **13**, 555 (use)**4,5,7-Trihydroxy-3-phenyl-2H-1-benzopyran-2-one, 9CI** T-00313

4,5,7-Trihydroxy-3-phenylcoumarin

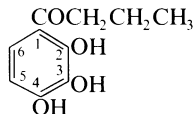
[4222-02-0]

C₁₅H₁₀O₅ M 270.241

Used as a 0.5-1% soln. in EtOH as chromatographic spray reagent in cation analysis. Cryst.

Dhar, M.L. *et al*, *Curr. Sci.*, 1972, **41**, 177 (use)

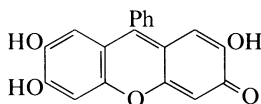
1-(2,3,4-Trihydroxyphenyl)-1-butanone, 9CI **T-00314**
 2',3',4'-Trihydroxybutyrophenone, 8CI. 4-Butyrylpyrogallol
 [2437-61-8]



$C_{10}H_{12}O_4$ M 196.202
 Used as 0.2% soln. in EtOH for photometric detn. of Mo(V) (λ_{max} 360 nm, ϵ 3650). Yellow needles (EtOH). Sol. EtOH, Me_2CO . Mp 100°.

Price, P. *et al.*, *J. Org. Chem.*, 1964, **29**, 2800 (*synth*)
 Mezheritskii, V.V. *et al.*, *Zh. Org. Khim.*, 1969, **5**, 515; *CA*, **71**, 12750 (*synth*)
 Dumitrescu, V. *et al.*, *Rev. Chim. (Bucharest)*, 1977, **28**, 268; *CA*, **88**, 57899w (*detn.*, *Mo*)

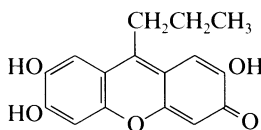
2,6,7-Trihydroxy-9-phenyl-3H-xanthen-3-one, 8CI **T-00315**
 2,3,7-Trihydroxy-9-phenyl-6-fluorone. Phenylfluorone
 [975-17-7]



$C_{19}H_{12}O_5$ M 320.301
 Used as 0.01% soln. in MeOH for photometric detn. of Mo, Ta, Ge (λ_{max} 510 nm, ϵ 53000), Sn (λ_{max} 510 nm, ϵ 77000), Sb, Zr, Fe, In, Ti, V, W. Orange powder. Sol. alkalis; sl. sol. EtOH, MeOH. Mp > 300°.

Gillis, J. *et al.*, *Anal. Chim. Acta*, 1947, **1**, 302 (*synth.*, *detn.*, *Ge*)
 Cluley, H.J. *et al.*, *Analyst (London)*, 1951, **76**, 523, 530 (*detn.*, *Ge*)
 Luke, C.L. *et al.*, *Anal. Chem.*, 1956, **28**, 1273; 1976 (*detn.*, *Ga*, *Sn*)
 Luke, C.L. *et al.*, *Anal. Chim. Acta*, 1967, **37**, 97 (*detn.*, *Sn*)
 Kulkarni, V.H. *et al.*, *Anal. Chem.*, 1978, **50**, 973 (*detn.*, *Sn*)
 Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Metals, Part II*, John Wiley, New York, 1978, 1311, 1486.
 Cheng, K.L. *et al.*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982, 29 (*use*)
 Donaldson, E.M., *Talanta*, 1984, **31**, 997 (*detn.*, *Ge*)
 Onishi, H., *Photometric Determination of Traces of Metals, Part III: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 607.
 Marzenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 292, 582 (*use*)

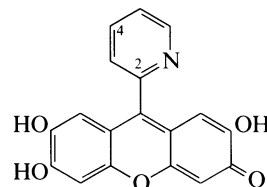
2,6,7-Trihydroxy-9-propyl-3H-xanthen-3-one, 9CI **T-00316**
 Propylfluorone
 [966-64-3]



$C_{16}H_{14}O_5$ M 286.284
 Used as 1mM acidified EtOH soln. for photometric detn. of Ti (λ_{max} 520 nm, ϵ 128000) Sn, Mo, Sc. Brown cryst. Sol. EtOH.

Nazarenko, V.A. *et al.*, *Zavod. Lab.*, 1962, **28**, 401 (*detn.*, *Sc*)
 Antonovich, V.P. *et al.*, *Zh. Anal. Khim.*, 1972, **27**, 100, 307 (*detn.*, *Mo*)
 Ganago, L.I. *et al.*, *Zh. Anal. Khim.*, 1976, **31**, 1470 (*detn.*, *Ti*)

2,6,7-Trihydroxy-9-(2-pyridinyl)-3H-xanthen-3-one, 9CI **T-00317**
 2'-Pyridylfluorone
 [7638-43-9]



$C_{18}H_{11}NO_5$ M 321.289
 Used as 1mM EtOH soln. for photometric detn. of Sb and Ti. Red cryst. Sol. Me_2CO , EtOH, MeOH. Mp > 350° dec.

Asmus, E. *et al.*, *Fresenius' Z. Anal. Chem.*, 1966, **216**, 391 (*synth.*, *use*)

2,6,7-Trihydroxy-9-(3-pyridinyl)-3H-xanthen-3-one, 8CI **T-00318**
 2,6,7-Trihydroxy-9-(3-pyridyl)fluorone. 3'-Pyridylfluorone
 [7638-44-0]

$C_{18}H_{11}NO_5$ M 321.289
 Used as 0.05mM MeOH soln. for photometric detn. of Sn(II) (λ_{max} 540 nm, ϵ 110000), V, Sb, Ti. Orange cryst. Sol. alkalis; mod. sol. MeOH, EtOH. pK_{a1} 1.4; pK_{a2} 3.2; pK_{a3} 6.0.

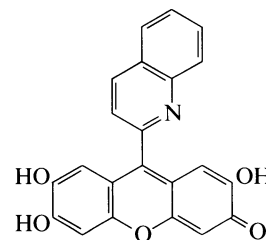
Asmus, E. *et al.*, *Fresenius' Z. Anal. Chem.*, 1966, **216**, 391; **223**, 401; 1971, **255**, 186; **256**, 276; 1972, **259**, 269 (*synth.*, *detn.*, *Sb*, *Ti*, *Sn*, *V*)

2,6,7-Trihydroxy-9-(4-pyridinyl)-3H-xanthen-3-one, 9CI **T-00319**
 4-Pyridylfluorone
 [7638-45-1]

$C_{18}H_{11}NO_5$ M 321.289
 Used as 1mM EtOH soln. for photometric detn. of Sb (λ_{max} 578 nm, ϵ 45000), Ti. Red cryst. Sol. Me_2CO , EtOH, MeOH. Mp > 350° dec.

Asmus, E. *et al.*, *Fresenius' Z. Anal. Chem.*, 1966, **216**, 391 (*synth.*, *use*)
 Savranskii, L.I. *et al.*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1971, **37**, 345 (*props*)

2,6,7-Trihydroxy-9-(2-quinoliny)-3H-xanthen-3-one, 9CI **T-00320**
 2'-Quinolylfluorone
 [43192-61-6]

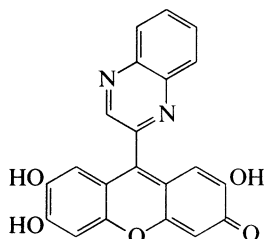


$C_{22}H_{13}NO_5$ M 371.348
 Used as 1mM soln. in EtOH for photometric detn. of Te, Zr (λ_{max} 569 nm, ϵ 165000). Dark red cryst. Spar. sol. EtOH. pK_{a1} 0.64 (1M KCl); pK_{a2} 2.65; pK_{a3} 6.15; pK_{a4} 10.05 (0.1M KNO_3); pK_{a5} 11.72.

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1973, **265**, 260, 267
(*detn*, Zr)
Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1974, **29**, 1478, 1850
(*synth*, *pKa*, *detn*, *Te*)

2,6,7-Trihydroxy-9-(2-quinoxaliny)-3H-xanthen-3-one, 9CI **T-00321**

Quinoxalylfluorone
[54267-84-4]

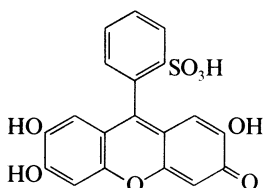


$C_{21}H_{12}N_2O_5$ M 372.336
Used as 1mM EtOH soln. for photometric *detn.* of V(IV)
(λ_{max} 555 nm, ϵ 28500, 30% EtOH, pH 4.5-5.2). Cryst.
(EtOH). Sol. EtOH.

Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1980, **35**, 289 (*detn*, V)

2,6,7-Trihydroxy-9-(2-sulfofenyl)-3H-xanthen-3-one **T-00322**

2-Sulfofenylfluorone

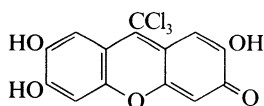


$C_{19}H_{12}O_8S$ M 400.365
Used as 1mM EtOH soln. for photometric *detn.* of Ge, Ti,
Zr. Sol. EtOH, Me₂CO.

Sano, H., *Bull. Chem. Soc. Jpn.*, 1958, **31**, 974 (*synth*, *use*)
Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Izd. Nauka, Moscow,
1973 (*use*)

2,6,7-Trihydroxy-9-(trichloromethyl)-3H-xanthen-3-one, 9CI **T-00323**

Trichloromethylfluorone
[6098-74-4]



$C_{14}H_7Cl_3O_5$ M 361.564
Used as 1mM EtOH soln. for photometric *detn.* of Al,
Ga, In, Ge, Sn(IV), Ti, Nb, Mo. Cryst. Sol. EtOH.

Antonovich, V.P. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 100 (*detn*, Mo)
Nazarenko, V.A. *et al*, *Zh. Anal. Khim.*, 1972, **27**, 307 (*detn*, Mo)
Nazarenko, V.A. *et al*, *Trihydroxyfluorones*, Izd. Nauka, Moscow,
1973 (*synth*, *use*)

Trimethylacetohydroxamic acid **T-00324**

N-Hydroxy-2,2-dimethylpropanamide, 9CI
Pivalohydroxamic acid
[29740-67-8]



$C_5H_{11}NO_2$ M 117.147
Used as EtOH soln. for colour reactions with Cu, Fe(III),
U(VI), V(V), Ti. Cryst. by subl. Sol. EtOH, Me₂CO.
Mp 160-161° (154-156°).

Me ester: [64214-63-7].
 $C_6H_{13}NO_2$ M 131.174
Viscous oil. Bp_{0.8} 72-74°.

Bass, V.C. *et al*, *Talanta*, 1966, **13**, 735 (*use*)
Johnson, J.E. *et al*, *J. Org. Chem.*, 1985, **50**, 993 (*synth*, *ir*, *pmr*)

1,2,2-Trimethyl-1,3-cyclopentenedicarboxylic acid **T-00325**



$C_{10}H_{16}O_4$ M 200.234
▷ Irritant, orally toxic.

(1R,3R)-form [595-32-4]
(-)-*Isocamphoric acid*
Cryst. (EtOH aq.). Mp 173°. [α]_D -48° (EtOH).

(1R,3S)-form [124-83-4]
(+)-*Camphoric acid*
Cryst. (EtOH aq.). Mp 187°. [α]_D +47.7° (EtOH). *pK*_{a1}
4.65; *pK*_{a2} 5.83 (25°).

Anhydride:
 $C_{10}H_{14}O_3$ M 182.219
Bp >270°. [α]_D -7.7° (C₆H₆).
Imide: 1,8,8-Trimethyl-3-azabicyclo[3.2.1]octane-2,4-dione.
Camphorimide

$C_{10}H_{15}NO_2$ M 181.234
Needles (AcOH aq.). Sol. hot H₂O. Mp 248°. Bp 300°.
[α]_D²³ +1.6° (CHCl₃). Subl. above 120°.

1-[1-(4-Methylphenyl)ethyl] ester: [115-66-2]. **Tocamphyl**,
INN. *Bilagen*. *Biliphorin*. *Gallogen*. *Hepasyntyl*.
Hepatoxane. *Licarbin*. *Lymethol*. *Syncuma*. *Syntabil*.
Synthobilin

$C_{19}H_{26}O_4$ M 318.412
Choleretic drug. Administered as diethanolamine salt.

(1S,3R)-form
(-)-*Camphoric acid*
Cryst. (EtOH aq.). Mp 187°. [α]_D²⁵ -48° (EtOH).

Anhydride: Cryst. (EtOH). Mp 223.5°.

(1S,3S)-form
(+)-*Isocamphoric acid*
Cryst. (EtOH aq.). Mp 171-172°. [α]_D -47.6° (EtOH
aq.).

(1R,3SR)-form [5394-83-2]
(±)-*Camphoric acid*
Used for gravimetric *detn.* of Ga. Prisms (EtOH aq.).
Sol. cold H₂O (1%), hot H₂O (10%), EtOH, Et₂O; spar.
sol. CHCl₃. Mp 202-203°. *pK*_{a1} 4.64 (25°); *pK*_{a2} 6.14
(100°).

▷ EX1319000.

Anhydride: [7216-27-5].
Cryst. (EtOH), rhombohedra. Mp 226°.
Imide: Needles (H₂O). Mp 249° (245°).

Perkin, W.H. *et al*, *J. Chem. Soc.*, 1906, **89**, 795 (*anhydrides*)
Evans, W.C. *et al*, *J. Chem. Soc.*, 1910, **97**, 2237 (*imide*)
Toivonen, N.J. *et al*, *Acta Chem. Scand.*, 1948, **2**, 597 (*anhydrides*)
Gunter, M.J. *et al*, *J. Pharmacol. Exp. Ther.*, 1950, **99**, 465

(*Tocamphyl*)
Takahashi, T. *et al*, *Yakugaku Zasshi*, 1964, **84**, 911; *CA*, **62**, 4055
(*imide*)

Baker, K.M. *et al*, *Tetrahedron*, 1968, **24**, 1663 (*pmr*)
Brienne, M.-J. *et al*, *Tetrahedron*, 1970, **26**, 5087 (*abs config*)
Filippo, J.S. *et al*, *J. Org. Chem.*, 1976, **41**, 1077 (*synth*)

Holzbecher, J. *et al*, *Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use*)
 Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 3750 (*Tocamphyl*)
 Sax, N.L., *Dangerous Properties of Industrial Materials*, 5th Ed., Van Nostrand-Reinhold, 1979, 466.

Trimethyl(dimethylamino)silane T-00326

Pentamethylsilanamine, 9CI. N-Trimethylsilyldimethylamine [2083-91-2]

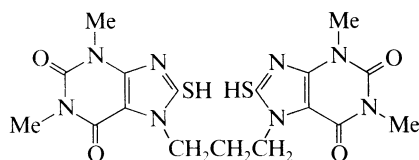


$\text{C}_5\text{H}_{15}\text{NSi}$ M 117.266
 Silylation reagent for amino acids for gc anal. Liq. d_4^{20} 0.74. Bp 85° . n_D^{20} 1.3958.

Ebsworth, E.A.V. *et al*, *J. Chromatogr. Sci.*, 1958, 2150 (*synth*)
 Jarvie, A.W. *et al*, *J. Chem. Soc.*, 1963, 1073 (*synth*)
 Mack, J. *et al*, *Inorg. Chem.*, 1969, 8, 278 (*ir, nmr*)
 Smith, E.D. *et al*, *J. Chromatogr. Sci.*, 1969, 7, 704 (*use*)
 Noeth, H. *et al*, *Chem. Ber.*, 1974, 107, 518 (*nmr*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DQE900.

7,7'-Trimethylenebis[1,3-dimethyl-8-thiouric acid], 8CI T-00327

1,3-Bis(8-mercaptotheophyllinyl)propane

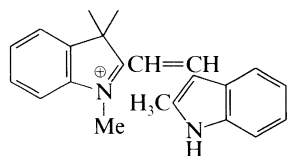


$\text{C}_{17}\text{H}_{20}\text{N}_8\text{O}_4\text{S}_2$ M 464.528
 Na salt: [16492-25-4].
 Used as 0.5% aq. soln. for extraction-photometric detn. of Bi. Cryst. (H_2O). Sol. H_2O .

Asmus, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1967, 225, 252.

1,3,3-Trimethyl-2-[2-(2-methyl-1H-indol-3-yl)ethylene]-3H-indolium(1+), 9CI T-00328

Astrazon orange G. C.I. Basic orange 21. C.I 48035



$\text{C}_{22}\text{H}_{23}\text{N}_2^{\oplus}$ M 315.437 (ion)
 Strictly the name Astrazon orange G refers to the chloride.
 Chloride: [3056-93-7].

$\text{C}_{22}\text{H}_{23}\text{ClN}_2$ M 350.890
 Used as a 8.5mM aq. soln. for extraction-photometric detn. of Sn(IV) (λ_{max} 505 nm, $\text{C}_6\text{H}_6/\text{Me}_2\text{CO}$); photometric detn. of Pb; acid-base indicator. Orange cryst. (HCl aq.). Sol. H_2O , EtOH; insol. C_6H_6 , CCl_4 . $\text{p}K_a$ 9.71.

Colour Index, 3rd Ed., 1971, 4, 4438 (*synth*)
 Abbadi, M.A. *et al*, *Zh. Org. Khim.*, 1972, 18, 2409 (*use*)
 Popa, G. *et al*, *Rev. Chim. (Bucharest)*, 1979, 30, 686 (*detn, Sn*)
 Kish, P.P. *et al*, *Zh. Anal. Khim.*, 1989, 44, 313 (*detn, Pb*)

Trimethyloxonium, 9CI, 8CI

T-00329



$\text{C}_3\text{H}_9\text{O}^{\oplus}$ M 61.103 (ion)
 Powerful alkylating agent.

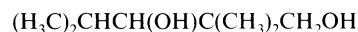
Tetrafluoroborate: [420-37-1]. Trimethyloxonium tetrafluoroborate, 9CI, 8CI

Methylating agent. Used as a derivatisation reagent in anal. of haemins. Commercially available. Colourless cryst. (CH_2Cl_2). Sol. CH_2Cl_2 . Mp $141-143^\circ$ dec.
 2,4,6-Trinitrobenzenesulfonate: Powerful alkylating agent. Cryst. ($\text{EtOAc}/\text{Me}_2\text{CO}$). Mp $115-120^\circ$ dec. (remelts at $181-183^\circ$).

Pettit, D.J. *et al*, *J. Org. Chem.*, 1963, 28, 2932.
 Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1969, 2, 435; 6, 630.
 Org. Synth., Coll. Vol., 5, 1973, 1099.
 Dean, R.T. *et al*, *Anal. Biochem.*, 1976, 76, 1 (*use*)

2,2,4-Trimethyl-1,3-pentanediol, 9CI T-00330

[144-19-4]

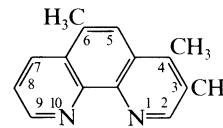


$\text{C}_8\text{H}_{18}\text{O}_2$ M 146.229

(±)-form

Used as a 1% soln. in CHCl_3 for extraction of B. Cryst. Mp $52-56^\circ$. Bp 232° .

Aznarez, J. *et al*, *Talanta*, 1985, 32, 1156 (*detn, B*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TLY750.

3,4,6-Trimethyl-1,10-phenanthroline, 9CI T-00331

$\text{C}_{15}\text{H}_{14}\text{N}_2$ M 222.289
 Used as redox indicator. Cryst. (C_6H_6). Mp $217-218^\circ$. $\text{p}K_a$ 5.93 (25°). $E^\circ + 0.920$ V (25°). λ_{max} 510 nm.

Brandt, W.W. *et al*, *Anal. Chem.*, 1949, 21, 1313 (*use*)
 Case, F.H., *J. Am. Chem. Soc.*, 1949, 71, 1828 (*synth*)
 Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, 60, 1546 (*pKa*)

3,4,7-Trimethyl-1,10-phenanthroline, 9CI T-00332

$\text{C}_{15}\text{H}_{14}\text{N}_2$ M 222.289
 Used as a redox indicator. Cryst. (MeOH aq.). Mp $222-223^\circ$. $\text{p}K_a$ 5.99 (25°). $E^\circ + 0.880$ V (25°). λ_{max} 504 nm.

Brandt, W.W. *et al*, *Anal. Chem.*, 1949, 21, 1313 (*use*)
 Case, F.H., *J. Am. Chem. Soc.*, 1949, 71, 1828 (*synth*)
 Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, 60, 1546 (*pKa*)
 Badger, G.M. *et al*, *Aust. J. Chem.*, 1963, 16, 840 (*synth*)

3,5,6-Trimethyl-1,10-phenanthroline T-00333

$\text{C}_{15}\text{H}_{14}\text{N}_2$ M 222.289
 Used as a redox indicator. Cryst. (C_6H_6). Mp $196-197^\circ$. $\text{p}K_a$ 5.34 (25°). $E^\circ + 0.950$ V (1M H_2SO_4 , 25°).

Case, F.H., *J. Am. Chem. Soc.*, 1948, 70, 3994 (*synth*)
 Brandt, W.W. *et al*, *Anal. Chem.*, 1949, 21, 1313 (*use*)
 Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, 60, 1546 (*pKa*)

3,5,7-Trimethyl-1,10-phenanthroline, 9CI T-00334

$\text{C}_{15}\text{H}_{14}\text{N}_2$ M 222.289
 Used as a redox indicator. Cryst. (C_6H_6). Mp $201-202^\circ$. $\text{p}K_{a1}$ 5.90 (25°). $E^\circ + 0.930$ V (25°). λ_{max} 507 nm.

Brandt, W.W. *et al*, *Anal. Chem.*, 1949, **21**, 1313 (*use*)
Case, F.H., *J. Am. Chem. Soc.*, 1949, **71**, 821 (*synth*)
Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)

3,5,8-Trimethyl-1,10-phenanthroline, 9CI T-00335

$C_{15}H_{14}N_2$ M 222.289

Used as a redox indicator. Cryst. (C_6H_6). Mp 185-186°.
 pK_{a1} 5.27 (25°). $E^\circ +0.990$ V (25°). λ_{max} 500 nm.

Brandt, W.W. *et al*, *Anal. Chem.*, 1949, **21**, 1313 (*use*)
Case, F.H., *J. Am. Chem. Soc.*, 1949, **71**, 821 (*synth*)
Schilt, A.A. *et al*, *J. Phys. Chem.*, 1956, **60**, 1546 (*pKa*)

Trimethylphenylammonium(1+), 8CI T-00336

N,N,N-Trimethylbenzenaminium(1+), 9CI.

Phenyltrimethylammonium(1+)
[3426-74-2]

[PhNMe₃][⊕]

$C_9H_{14}N^{\oplus}$ M 136.216 (ion)

Iodide: [98-04-4].

$C_9H_{14}IN$ M 263.121
Mp 230-231°.

▷ BT2450000.

Ethoxide:

$C_{11}H_{19}NO$ M 181.277

Selective O-methylating agent.

Perchlorate: [2525-18-0].

$C_9H_{14}ClNO_4$ M 235.667
Mp 178-179°.

Tribromide: [4207-56-1]. PTAB

$C_9H_{14}Br_3N$ M 375.928

Stable brominating agent. Bright-orange. Mp 115.5-116.5°.

Hydroxide: [1899-02-1]. Trimethylanilinium hydroxide

Reagent for flash methylation of carboxylic acids for gc anal.

▷ BT2275000.

Johnson, W.S. *et al*, *Tetrahedron*, 1963, **19**, 861 (*synth*, *perbromide*)
Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 854; **4**, 386.

Sommer, H.Z. *et al*, *J. Org. Chem.*, 1971, **36**, 824 (*synth*)

Fodor, G. *et al*, *Tetrahedron*, 1973, **29**, 3309 (*synth*)

Kralovsky, J. *et al*, *J. Chromatogr.*, 1978, **147**, 404 (*use*, *hydroxide*)

Kevill, D.N. *et al*, *J. Am. Chem. Soc.*, 1981, **103**, 4515 (*synth*)

Steinborn, D. *et al*, *Z. Anorg. Allg. Chem.*, 1982, **492**, 103 (*synth*)

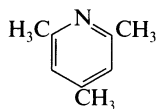
Holzer, G. *et al*, *J. Chromatogr.*, 1988, **468**, 181 (*use*, *hydroxide*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMB500, TMB750.

2,4,6-Trimethylpyridine T-00337

s-Collidine

[108-75-8]



$C_8H_{11}N$ M 121.182

Found in low-temp. coal tar and coal soot. Catalyst.

Forms complexes. Base for dehydrohalogenations. Used in extraction, separation of Zr and Sc as ternary complexes with salicylic acid and collidine ($CHCl_3$). Liq. Sol. acids, $CHCl_3$, d 0.917. Mp 42°. Bp 175-178°. pK_a 6.69 (25°).

B,HI: Prisms. Mp 250° dec.

B_2, H_2SO_4 : Needles or prisms. Mp 205°.

Picrate: [6148-01-2].

Yellow needles (H_2O). Mp 155-156°.

l-Oxide: [3376-50-9].

Oil or cryst. Mp 31°. Bp_{0.5} 72-73°. Hygroscopic. Forms hydrate, Mp 42°.

l-Oxide, picrate: Yellow cryst. (EtOH). Mp 170-172°.

U.S. Pat., 2 426 442, (1947); CA, **42**, 226i (*isol*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 155.

McDonald, F.R. *et al*, *Appl. Spectrosc.*, 1968, **22**, 325, 329 (*pmr*, *struct*)

Pedersen, C.L. *et al*, *Acta Chem. Scand.*, 1970, **24**, 3435 (*oxide*)

Buschmann, E. *et al*, *Angew. Chem.*, 1974, **86**, 414 (*synth*)

Kochetkova, S.K. *et al*, *Zh. Anal. Khim.*, 1976, **31**, 44 (*use*)

N-(Trimethylsilyl)acetamide, 9CI T-00338

[13435-12-6]

Me₃SiNHAc

$C_5H_{13}NOSi$ M 131.249

Derivatisation reagent for ascorbic acid for gc anal. Mp 52-54°. Bp₁₈ 84°.

▷ AD0250000.

Birkhofer, L. *et al*, *Chem. Ber.*, 1963, **96**, 1473; 1964, **97**, 2196 (*synth*, *use*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 1235.

Vecchi, M. *et al*, *J. Chromatogr.*, 1967, **26**, 22 (*use*)

Kormoriya, A. *et al*, *J. Am. Chem. Soc.*, 1972, **94**, 5285 (*pmr*)

Pudovik, M.A. *et al*, *Zh. Obshch. Khim.*, 1978, **48**, 2648; CA, **90**, 152297 (*synth*)

Bassindale, A.R. *et al*, *J. Organomet. Chem.*, 1979, **175**, 273 (*nmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TME750.

Trimethylsilylacetic acid, 9CI, 8CI T-00339

[2345-38-2]

Me₃SiCH₂COOH

$C_5H_{12}O_2Si$ M 132.234

Versatile synthon. Cryst. Mp 40-42°. pK_{a1} 10.00 (MeOH), pK_{a1} 5.22 (H_2O).

Et ester: [4071-88-9]. Ethyl trimethylsilylacetate. E.T.S.A

$C_7H_{16}O_2Si$ M 160.288

Silylating agent, also undergoes Reformatsky-type reactions. Bp₄₀ 76-77°.

tert-Butyl ester: [41108-81-0]. tert-Butyl

trimethylsilylacetate

$C_9H_{20}O_2Si$ M 188.341

Bp₁₃ 67°.

Chloride: [63877-23-6]. (Trimethylsilyl)acetyl chloride, 10CI

$C_5H_{11}ClOSi$ M 150.680

Fessenden, R.J. *et al*, *J. Org. Chem.*, 1967, **32**, 3535.

Rathke, M.W. *et al*, *Synth. Commun.*, 1973, **3**, 67 (*synth*, *deriv*)

Kozlova, N.V. *et al*, *Izv. Sib. Otd. Akad. Nauk SSSR, Ser. Khim. Nauk*, 1974, 102; CA, **82**, 42491 (*ir*, *raman*, *uv*)

Ruden, R.A. *et al*, *J. Org. Chem.*, 1974, **39**, 3607 (*deriv*, *synth*, *nmr*, *uv*)

Grieco, P. *et al*, *J. Chem. Soc., Chem. Commun.*, 1975, 537.

Nakamura, E. *et al*, *Tetrahedron Lett.*, 1976, 1699; 1978, 2079 (*use*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1977, **6**, 631; **5**, 371; **8**, 509 (*synth*, *use*)

Lucast, D.H. *et al*, *Tetrahedron Lett.*, 1977, 1103 (*deriv*, *use*)

Kostyuk, A.S. *et al*, *Zh. Obshch. Khim.*, 1979, **49**, 1543 (*deriv*)

Greene, A.G. *et al*, *J. Org. Chem.*, 1980, **45**, 2713 (*use*)

(Trimethylsilyl)ethenone, 9CI*Trimethylsilylketene*

[4071-85-6]

 $\text{C}_5\text{H}_{10}\text{OSi}$ M 114.219

Acylates hindered amines to produce amides in almost quantitative yields. Tertiary alcohols are converted into esters. Derivatives with amines and alcohols are used in chromatog. Bp 81-82°. Stable under N_2 for many weeks at 25°. n_D^{20} 1.4120 (1.4440).

Ruden, R.A., *J. Org. Chem.*, 1974, **39**, 3607 (*synth, use, uv, pmr*)Knaus, E.E. *et al*, *J. Chromatogr. Sci.*, 1976, **14**, 525 (*use*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1977, **6**, 635 (*use*)Brady, W.T. *et al*, *J. Organomet. Chem.*, 1977, **137**, 287.Brady, W.T. *et al*, *J. Org. Chem.*, 1979, **44**, 733; 1980, **45**, 727 (*synth, use*)**T-00340** $\text{C}_8\text{H}_{19}\text{NSi}$ M 157.330

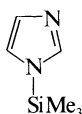
Silylating agent for gc anal. Used as silylating reagent for glc detn. of organic compds. with hydroxy, carboxy, amino, imino and mercapto groups. Liq. Bp 158-160°. pK_a 11.1-11.2 (25°). n_D^{25} 1.4403.

Fessenden, R. *et al*, *J. Org. Chem.*, 1961, **26**, 4638 (*synth*)Nogaideli, A.I. *et al*, *Soobshch. Akad. Nauk Gruz. SSR*, 1972, **68**, 605; *CA*, **78**, 84205 (*ir*)Orlov, V.Y. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1976, 2251; *CA*, **86**, 71160 (*ms*)Piekos, R. *et al*, *J. Chromatogr.*, 1976, **116**, 315 (*use*)Heinz, B. *et al*, *Z. Naturforsch., B*, 1977, **32**, 163 (*nmr*)**3-(Trimethylsilyl)-1-propanesulfonic acid, 9CI****T-00344***2,2-Dimethyl-2-silapentane-5-sulfonic acid* $\text{C}_6\text{H}_{16}\text{O}_3\text{SSi}$ M 196.342*Na salt*: [2039-96-5]. *DSS*

Pmr standard, reagent for detn. of Hg. Hydrated cryst.

Sol. H_2O . Mp 125° dec.Donaldson, B.R. *et al*, *J. Chem. Soc. B*, 1968, 395 (*pmr*)Live, D.H. *et al*, *Org. Magn. Reson.*, 1973, **5**, 275 (*pmr*)Pachler, K.G.R. *et al*, *Carbohydr. Res.*, 1976, **47**, 155 (*nmr*)Lam, Y.F. *et al*, *FEBS Lett.*, 1977, **78**, 181 (*nmr*)De Marco, A., *J. Magn. Reson.*, 1977, **26**, 527 (*nmr*)Cross, B.P. *et al*, *Org. Magn. Reson.*, 1977, **10**, 82 (*nmr*)Huckerby, T.N., *Org. Magn. Reson.*, 1983, **21**, 67 (*nmr*)**1-(Trimethylsilyl)-1H-imidazole, 9CI****T-00341***TMSI*

[18156-74-6]

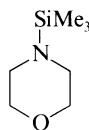
 $\text{C}_6\text{H}_{12}\text{N}_2\text{Si}$ M 140.260

Used for trimethylsilylation of biological materials for glc analysis. Synthetic reagent. d 0.956. Bp₁₄ 93-94°.

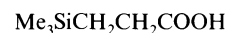
▷ Suspected carcinogen. NI8700000.

Birkhofer, L. *et al*, *Angew. Chem., Int. Ed. Engl.*, 1965, **4**, 417 (*synth*)*Inorg. Synth.*, 1974, **15**, 207 (*synth*)Gleispach, H., *J. Chromatogr.*, 1974, **91**, 407 (*use*)Torocheshnikov, V.N. *et al*, *J. Organomet. Chem.*, 1974, **70**, 347 (*cmr, pmr*)Birkhofer, L. *et al*, *Org. Mass Spectrom.*, 1974, **8**, 347 (*ms*)Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1979, **7**, 399.Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMF250.**4-(Trimethylsilyl)morpholine, 9CI****T-00342***1-Morpholinyltrimethylsilane*

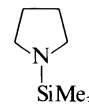
[13368-42-8]

 $\text{C}_7\text{H}_{17}\text{NOSi}$ M 159.303

Silylation reagent used in gc analysis. Liq. d²⁰ 0.9014. Bp 160°, Bp₁₈ 61-62°. n_D^{20} 1.4385.

Pike, R.A. *et al*, *J. Org. Chem.*, 1962, **27**, 2190 (*synth*)Lukevics, E. *et al*, *Zh. Obshch. Khim.*, 1970, **40**, 620 (*synth*)Piekos, R. *et al*, *J. Chromatogr.*, 1976, **116**, 315 (*use*)**3-(Trimethylsilyl)propanoic acid, 9CI****T-00345** $\text{C}_6\text{H}_{14}\text{O}_2\text{Si}$ M 146.261*Na salt*: [37013-20-0]. *TSP*Pmr standard for use with D_2O solns. or at high temps.Sol. H_2O . Mp >300°.Live, D.H. *et al*, *Org. Magn. Reson.*, 1973, **5**, 275 (*pmr*)*Aldrich Library of NMR Spectra, 2nd Ed.*, 1974, **2**, 1001D.*Aldrich Library of FT-IR Spectra, 1st Ed.*, 1975, **2**, 1114B.**1-(Trimethylsilyl)pyrrolidine, 9CI****T-00346***Trimethyl(1-pyrrolidinyl)silane*

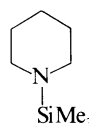
[15097-49-1]

 $\text{C}_7\text{H}_{17}\text{NSi}$ M 143.303

Used as silylating reagent for glc detn. of organic compds. with hydroxy, carboxy, amino, imino and mercapto groups. Liq. Bp 141-142°.

Itoh, K. *et al*, *J. Org. Chem.*, 1966, **31**, 3948 (*ir, synth*)Noeth, H. *et al*, *Chem. Ber.*, 1974, **107**, 518 (*nmr*)Orlov, V.Y. *et al*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1976, 2251; *CA*, **86**, 71160 (*ms*)Piekos, R. *et al*, *J. Chromatogr.*, 1976, **116**, 315 (*use*)**1-(Trimethylsilyl)piperidine, 9CI****T-00343***Trimethyl(piperidino)silane*

[3768-56-7]

**Trimethylsulfonium(1+), 9CI, 8CI****T-00347**

[676-84-6]

 $\text{C}_3\text{H}_9\text{S}^{\oplus}$ M 77.170 (ion)*Chloride*: [3086-29-1]. $\text{C}_3\text{H}_9\text{ClS}$ M 112.623

Cryst. V. sol. EtOH. Mp 100° dec. V. hygroscopic.

Bromide: [3084-53-5].

C_3H_5BrS M 157.074

Cryst. (H_2O or EtOH). Mp 201-202° dec. (sealed tube),
Mp 172° dec.

Iodide: [2181-42-2].

C_3H_5IS M 204.075

Used as a 5% aq. soln. for detn. of Bi; extraction
separation of ClO_4^- , MnO_4^{2-} , ReO_4^- , $Cr_2O_7^{2-}$, I^- ;
amperometric titrimetric detn. of Bi, Hg. Cryst. (EtOH).
Mp 211-212.5° dec.

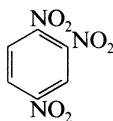
▷ WR8750000.

Steinkopf, W. *et al.*, *Ber.*, 1923, **56**, 1926 (*synth, bromide*)
Emeleus, H.J. *et al.*, *J. Chem. Soc.*, 1946, 1126 (*iodide*)
Potratz, A.H. *et al.*, *Anal. Chem.*, 1949, **21**, 1276 (*detn, Bi*)
Swain, C.G. *et al.*, *J. Am. Chem. Soc.*, 1958, **80**, 4089 (*iodide*)
Hatch, M.J., *J. Org. Chem.*, 1969, **34**, 2133 (*chloride*)
Bowd, A.J. *et al.*, *Talanta*, 1969, **16**, 719 (*use, rev*)
Martin, D. *et al.*, *J. Prakt. Chem.*, 1970, **312**, 683 (*bromide, pmr*)
Byrne, B. *et al.*, *Tetrahedron Lett.*, 1986, **27**, 1233 (*synth*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
Ed., Van Nostrand-Reinhold, 1992, TMG500.

1,2,4-Trinitrobenzene, 9CI, 8CI

T-00348

[610-31-1]



$C_6H_3N_3O_6$ M 213.106

Used as spectrophotometric reagent for thiols. Pale-yellow
prisms (MeOH aq. or mod. conc. HNO_3). Mp 61-62°.

Borsche, W., *Ber.*, 1923, **56**, 1498 (*synth*)
Parker, R.E. *et al.*, *J. Chem. Soc.*, 1962, 9.
Takahashi, S. *et al.*, *Chem. Lett.*, 1983, 1445 (*use*)
Dale, J. *et al.*, *Acta Chem. Scand., Ser. B*, 1988, **42**, 354 (*synth, pmr*)

1,3,5-Trinitrobenzene, 9CI, 8CI

T-00349

[99-35-4]

$C_6H_3N_3O_6$ M 213.106

Forms π -complexes with reactive hydrocarbons useful for
characterisation and isolation. Used as 0.1% EtOH
soln. as an acid-base indicator (pH range: 12-14; colour
change: colourless → orange). Dimorphic cryst. (EtOH
or HNO_3). Mp 61°, Mp 122.5°.

▷ Explosive. DC3850000.

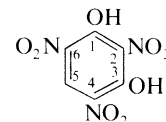
Org. Synth., Coll. Vol., 1, 1932, 541 (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**,
1237.
Choi, S.C. *et al.*, *Acta Crystallogr., Sect. B*, 1972, **28**, 193 (*cryst struct*)
Olah, G.A. *et al.*, *Synthesis*, 1974, 444 (*synth*)
Holzbecher, Z. *et al.*, *Handbook of Organic Reagents in Inorganic Analysis*, Horwood, Chichester, 1976 (*use, ind*)
Lyčka, A. *et al.*, *Collect. Czech. Chem. Commun.*, 1987, **52**, 2946 (*pmr, cmr, N mnr*)
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 555.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMK500.

2,4,6-Trinitro-1,3-benzenediol

T-00350

Styphnic acid. 2,4,6-Trinitroresorcinol. 1,3-Dihydroxy-2,4,6-trinitrobenzene

[82-71-3]



$C_6H_3N_3O_8$ M 245.105

Forms addn. complexes (stypnates) with aromatic hydrocarbons and related substances. Reagent for detn. of K. Yellow cryst. (EtOAc). Sol. EtOH, Et₂O. Mp 179-180°. pK_{a1} 0.06 (25°, 0.1M NH_4ClO_4). pK_{a1} 1.74; pK_{a2} 4.86 (0.5M $NaClO_4$).

▷ Explodes on rapid heating. VH3540000.

Di-Me ether:

$C_8H_7N_3O_8$ M 273.159

Needles (EtOH). Mp 124-125°.

Me-Et ether:

$C_9H_9N_3O_8$ M 287.185

Mp 92°.

Di-Et ether:

$C_{10}H_{11}N_3O_8$ M 301.212

Leaflets (EtOH). Mp 121°.

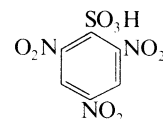
Kametani, T. *et al.*, *Chem. Pharm. Bull.*, 1967, **15**, 893 (*synth*)
Bydal, B.A., *Org. Prep. Proced. Int.*, 1973, **5**, 271 (*synth*)
Burns, D.T. *et al.*, *Reactions of the Elements and their Compounds*, Ellis Horwood, 1981.
Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed., Butterworths, London and Boston, 1979, 556.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, SMP500.

2,4,6-Trinitrobenzenesulfonic acid, 9CI, 8CI

T-00351

Picrylsulfonic acid

[2508-19-2]



$C_6H_3N_3O_9S$ M 293.170

Reagent for characterisation of amino acids and amines.

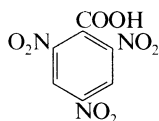
Used as a 0.2% aq. soln. for detn. of N_2H_4 and its derivs. Cryst. (1M HCl). Mp 180°. n_D^{20} 1.3400.

▷ DB8400000.

Golumbic, C. *et al.*, *J. Org. Chem.*, 1946, **11**, 518 (*synth*)
Okuyama, T. *et al.*, *J. Biochem. (Tokyo)*, 1960, **47**, 454 (*use*)
Satake, K. *et al.*, *J. Biochem. (Tokyo)*, 1960, **47**, 654 (*use*)
La Rue, T.A., *Talanta*, 1967, **14**, 1344 (*detn, N_2H_4*)
Snyder, S.L. *et al.*, *Anal. Biochem.*, 1975, **64**, 284 (*use*)
Caudill, W.L. *et al.*, *Anal. Chim. Acta*, 1982, **141**, 269 (*use*)
Al-Hajjaji, M.A., *Anal. Chim. Acta*, 1986, **181**, 227 (*use*)
Lyčka, A. *et al.*, *Collect. Czech. Chem. Commun.*, 1987, **52**, 2946 (*pmr, cmr, N mnr*)

2,4,6-Trinitrobenzoic acid, 9CI, 8CI

[129-66-8]

 $C_7H_3N_3O_8$ M 257.116

Used as 1% aq. soln. for photometric detn. of SO_3^{2-} (λ_{max} 450 nm, pH 6.5). Rhombohedra (H_2O). Sol. H_2O , EtOH. Mp 228°. Decarboxylates at Mp.

▷ DI0920000.

Me ester: [15012-38-1]. $C_8H_5N_3O_8$ M 271.143

Orange-yellow plates (EtOH aq.). Mp 160-161°.

Chloride: [7500-86-9]. $C_7H_2ClN_3O_7$ M 275.561Plates (C_6H_6). Mp 163°.

▷ DM6825000.

Amide: [51226-42-7]. $C_7H_4N_4O_7$ M 256.131Cryst. (Me_2CO /pet. ether). Mp 264°.*Anhydride*: $C_{14}H_4N_6O_{15}$ M 496.217

Needles. Mp 270°.

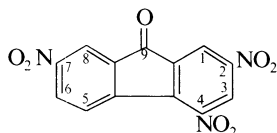
[53145-53-2, 63467-66-3, 72061-97-3]

Org. Synth., Coll. Vol. 1, 1932, 528 (*synth, bibl*)Blasius, E. *et al*, *Fresenius' Z. Anal. Chem.*, 1974, **269**, 15 (*detn, SO_3^{2-}*)Lyčka, A. *et al*, *Collect. Czech. Chem. Commun.*, 1987, **52**, 2946 (*pmr, cmr, N nmr, bibl*)Bretherick, L., *Handbook of Reactive Chemical Hazards*, 2nd Ed.,

Butterworths, London and Boston, 1979, 616.

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TML000, TML250.**2,4,7-Trinitro-9H-fluoren-9-one, 9CI**

[129-79-3]

 $C_{13}H_5N_3O_7$ M 315.198

Forms π -complexes with reactive aromatic hydrocarbons which are used for characterisation. Pale-yellow needles (AcOH or C_6H_6). Mp 176°.

▷ Causes exp. neoplasms. LL9100000.

Oxime: $C_{13}H_6N_4O_7$ M 330.213

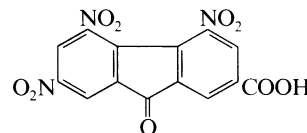
Needles (EtOH). Mp 260° dec.

Semicarbazone: Pale-yellow cryst. Mp 299° dec.*Phenylhydrazone*: Violet leaflets. Mp 276° dec.Schmidt, J. *et al*, *Ber.*, 1905, **38**, 3758.Bell, F., *J. Chem. Soc.*, 1928, 1990.Orchin, M., *J. Am. Chem. Soc.*, 1947, **69**, 1225.*Org. Synth., Coll. Vol.* 3, 1955, 837.*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1967, **1**, 1237.Dorset, D.L. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 3122 (*cryst struct*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMM250.

T-00352

4,5,7-Trinitro-9-oxo-9H-fluorene-2-carboxylic acid, 9CI

[24929-25-7]

 $C_{14}H_5N_3O_9$ M 359.208

Mp 267-275°.

Me ester: [24867-49-0]. $C_{15}H_7N_3O_9$ M 373.235

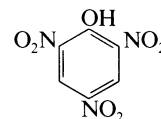
Yellow cryst. Mp 175-178°.

Chloride: [53410-48-3]. $C_{14}H_4ClN_3O_8$ M 377.654

Derivatisation reagent for hplc separation of amine and amino acid enantiomers on chiral stationary phases.

Sulzberg, T. *et al*, *J. Org. Chem.*, 1970, **35**, 2762 (*synth*)Yamashita, J. *et al*, *Tokyo Ika Daigaku Kiyo*, 1990, **16**, 1; *CA*, **115**, 21270w (*use, deriv*)**2,4,6-Trinitrophenol, 9CI***Picric acid, 8CI*

[88-89-1]

 $C_6H_3N_3O_7$ M 229.106

Used as aq. alkaline soln. for detn. of HCN, Bi, Fe, Ti, Zr. Used in explosives, textile and leather industries.

Ion-pairing agent in extraction-photometric detn. of Cu, Ag, Li, K, Na using crown ethers. Yellow leaflets (H_2O),colourless cryst. (ligroin or conc. HCl). Mod. sol. H_2O .Mp 122.5°. pK_a 0.33 (25°). Metastable forms, Mp 101°

and 75°, exist. Forms cryst. addn. compds. (picrates)

with many hydrocarbons and other org. compds.

▷ Toxic by inhalation and skin absorption TLV(skin) 0.1. Explosive, forms very sensitive explosive salts with many metals. T17875000.

Ac: [7614-96-2]. $C_8H_5N_3O_8$ M 271.143Cryst. (Et₂O). Mp 75-76°, Mp 96.5-97.5°.*Benzoyl*: [58156-44-8]. $C_{13}H_7N_3O_8$ M 333.214

Golden-yellow leaflets. Mp 163-164°.

O-Me: [606-35-9]. *2-Methoxy-1,3,5-trinitrobenzene, 2,4,6-Trinitroanisole* $C_7H_5N_3O_7$ M 243.132

Leaflets (EtOH). Mp 69°.

▷ BZ9656000.

O-Et: [4732-14-3]. $C_8H_7N_3O_7$ M 257.159

Needles (EtOH). Mp 80°.

Sadtler Standard C-13 NMR Spectra, 7852 (*cmr*)*Sadtler Standard Infrared Spectra*, 397 (*ir*)*Sadtler Standard NMR Spectra*, 1753 (*pmr*)*Sadtler Standard Ultraviolet Spectra*, 1181 (*uv*)Bachmann, W.E. *et al*, *J. Org. Chem.*, 1948, **13**, 390 (*synth*)Welcher, F.J., *Organic Analytical Reagents*, Van Nostrand, New York, 1948, **4**, 27 (*synth, use*)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1974, **4**, 391.Reilly, D.A., *Anal. Chem.*, 1977, **49**, 322 (*detn, HCN*)*EPA/NIH Mass Spectral Data Base*, (NBS), 1978, 1538 (*ms*)

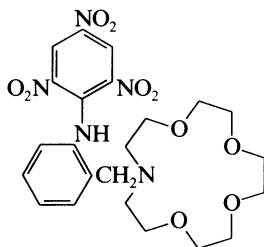
T-00353

T-00355

Takagi, M. *et al.*, *Anal. Chim. Acta*, 1981, **126**, 185 (*detn.*, Na)
 Wu, Y.P. *et al.*, *Anal. Chim. Acta*, 1984, **162**, 285 (*detn.*, Li)
 Saito, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1984, **54**, 189 (*detn.*, Cu, Ag)
 Shabanov, A.L. *et al.*, *Zh. Anal. Khim.*, 1984, **39**, 1621 (*detn.*, K)
 Lyčka, A. *et al.*, *Collect. Czech. Chem. Commun.*, 1987, **52**, 2946
 (*pmr.*, *cmr.*, N-15 *nmr*)
Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed.,
 Royal Society of Chemistry, London, 1981, 448.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, PID000, PID250, PID750.

2,4,6-Trinitro-N-[2-(1,4,7,10-tetraoxa-13-azacyclododec-13-ylmethyl)phenyl]benzenamine, 9CI **T-00356**

N-(2-Picrylamino-benzyl)monoaza-15-crown-5
 [105488-58-2]



$C_{23}H_{29}N_5O_{10}$ M 535.510

Used as 1,2-dichloroethane soln. for extraction of Li, Na, K; sepn. of Na from K and I. Orange cryst. (cyclohexane). Sol. $CHCl_3$, cyclohexane, 1,2-dichloroethane, dioxan. pK_{a1} 5.55; pK_{a2} 10.2.

Katayama, Y. *et al.*, *Anal. Chim. Acta*, 1986, **185**, 295 (*synth.*, *use*)

Trioctylamine, 8CI **T-00357**
 N,N-Dioctyl-1-octanamine, 9CI. *Tricaprylamine*
 [1116-76-3]



$C_{24}H_{51}N$ M 353.674

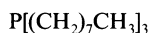
Used as 10% soln. in CCl_4 for extraction separation of Ce, Cr, Co, Ge, (as ion-associates with the reagent). Viscous oily liq. Sol. common org. solvs.; insol. H_2O . d 0.809. Bp 365-367°, Bp_{0.7} 164-168°. n_D^{20} 1.4485.

▷ RG8225000.

B, HBr: [14846-47-0].
 Mp 252-253°.

Borrows, E.T. *et al.*, *J. Chem. Soc.*, 1947, 197 (*synth*)
 Goszczyński, S. *et al.*, *CA*, 1964, **61**, 2956 (*synth*)
 Green, H., *Talanta*, 1964, **11**, 1561; 1973, **20**, 139 (*use*)
 Ioffe, E.S. *et al.*, *Zavod. Lab.*, 1967, **33**, 1502 (*detn.*, Co)
 Andrianov, A.M. *et al.*, *Zh. Anal. Khim.*, 1969, **24**, 117 (*detn.*, Ge)
 Adam, J. *et al.*, *Talanta*, 1971, **18**, 91 (*detn.*, Cr)
 Eggert, H. *et al.*, *J. Am. Chem. Soc.*, 1973, **95**, 3710 (*cmr*)
 Klinger, G.A. *et al.*, *Neftekhimiya*, 1973, **13**, 265 (*synth*)
 Bui, T.K. *et al.*, *J. Org. Chem.*, 1981, **46**, 1759 (*synth*)
 Mu, G. *et al.*, *CA*, 1984, **101**, 26612 (*synth*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, DVL000.

Trioctylphosphine, 9CI **T-00358**
 [4731-53-7]



$C_{24}H_{51}P$ M 370.641

Metal extractant. Exhibits synergistic activity with other extractants. Extracts mineral acids (HCl , HBr , HNO_3 , H_2SO_4 , $HClO_4$) from aq. soln. Used in catalysts for prep. of polymers, and for the dimerization of alkenes. Mp 30°, Mp 48°. Bp₁ 194-195°, 234°. n_D^{25} 1.4666.

B, MeI: Methyltrioctylphosphonium iodide

$C_{25}H_{54}IP$ M 512.580

Liq.

Oxide: [78-50-2]. *Trioctylphosphine oxide*, 9CI. *TOPO*

$C_{24}H_{51}OP$ M 386.640

Extracts carboxylic acids from aq. solns. Widely used as a metal extractant, particularly for rare earth metals, and in the chromatography of these. Employed in catalysts for the cyclotrimerization of butadiene and for the cross-linking of epoxy resins. Cryst. (cyclohexane). Sol. cyclohexanone (35.6g per 100 cm^3 , 25°), common org. solvs. Mp 49-50°, Mp 59.5-60.0°. Bp₃ 225-228°. pK_{a1} 8.80 ($MeNO_2$).

Sulfide: [2551-53-3].

$C_{24}H_{51}PS$ M 402.707

Selective metal extractant. Possesses bactericidal and fungicidal activity. Liq. Bp₁ 226-228°.

Horner, L. *et al.*, *Chem. Ber.*, 1959, **92**, 2088 (*synth*)

Pass, F. *et al.*, *Monatsh. Chem.*, 1959, **90**, 792 (*synth*)

Rauhut, M.M. *et al.*, *J. Org. Chem.*, 1961, **26**, 5138 (*synth*)

Zakharkin, L.I. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, (*Engl. transl.* p. 1913), 1962, 2002 (*oxide. synth*)

Elliott, D.E. *et al.*, *Anal. Chim. Acta*, 1965, **33**, 237 (*sulfide. use*)

Burdett, J.L. *et al.*, *Can. J. Chem.*, 1966, **44**, 111 (*oxide. ir. nmr. use*)

Kirsanov, A.V. *et al.*, *CA*, 1969, **70**, 58003q (*synth. sulfide*)

Blednov, B.P. *et al.*, *CA*, 1970, **73**, 49070u (*detn. Pd*)

Borbat, V.F. *et al.*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1970, **36**, 1068 (*detn. noble metals*)

Mazepa, I.K. *et al.*, *CA*, 1971, **74**, 64305p (*synth*)

Venkateswarlu, K.S. *et al.*, *Indian J. Chem.*, 1972, **10**, 748 (*use*)

Saraiya, V.N., *Indian J. Chem.*, 1973, **11**, 490 (*use*)

Wang, S.-M., *CA*, 1974, **80**, 148891 (*use*)

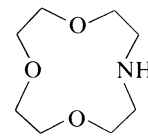
Cheng, K.L. *et al.*, *Handbook of Organic Analytical Reagents*, CRC Press Inc., Boca Raton, Florida, 1982, 439 (*use. oxide*)

Bodner, G.M. *et al.*, *J. Organomet. Chem.*, 1982, **226**, 85 (*cmr*)

1,4,7-Trioxa-10-azacyclododecane **T-00359**

Aza-12-crown-4

[41775-76-2]



$C_8H_{17}NO_3$ M 175.227

Needles by subl. Mp 59-60°. Bp_{0.01} 72-74°.

N-Me: [69978-45-6]. *10-Methyl-1,4,7-trioxa-10-azacyclododecane*, 9CI

$C_9H_{19}NO_3$ M 189.254

Used as 0.01M soln. in MeOH for complexation of Li, Na, K, Ca, Sr. Oil. Sol. MeOH. Bp_{0.1} 65-67°. pK_a 9.92 (MeOH).

N-Benzyl:

$C_{15}H_{23}NO_3$ M 265.352

Oil. Bp_{0.05} 140-143°.

N-(2-Methoxyethyl): [80649-19-0]. *10-(2-Methoxyethyl)-1,4,7-trioxa-10-azacyclododecane*, 9CI

$C_{11}H_{23}NO_4$ M 233.307

Used as 0.01M soln. in MeOH for complexation of Li, Na, K, Ca, Sr. Oil. Sol. MeOH. Bp_{0.005} 100-102°. pK_a 8.96 (MeOH).

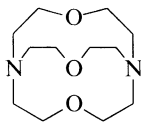
Calverley, M.J. *et al.*, *Acta Chem. Scand., Ser. B*, 1982, **36**, 241 (*synth. derivs*)

Wickstroem, T. *et al.* *Anal. Chim. Acta*, 1988, **211**, 223 (*use*)
 Arnold, K.A. *et al.* *J. Org. Chem.*, 1988, **53**, 5652 (*synth, use*)
 Nakatsuji, Y. *et al.* *J. Org. Chem.*, 1989, **54**, 2988 (*deriv, synth, ir, pmr, ms, use*)

4,10,15-Trioxa-1,7-diazabicyclo[5.5.5]heptadecane, 9Cl

T-00360

Cryptand 1.1.1. Kryptofix 111
 [37095-49-1]



$C_{12}H_{24}N_2O_3$ M 244.333

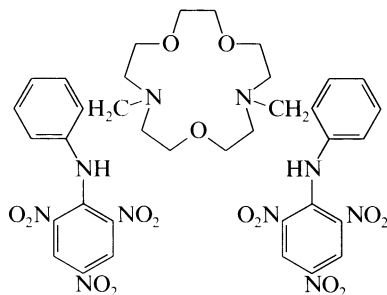
Used as complexing agent and for extraction-sepn. of alkali metal ions. Hygroscopic cryst. (H_2O). Misc. H_2O . Mp 79-82°.

Yoshio, M. *et al.* *Anal. Lett.*, 1982, **15**, 1197.

N,N'-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diylbis(methylene-2,1-phenylene)]bis[2,4,6-trinitrobenzenamine], 9Cl

T-00361

N,N-Bis(2-picrylaminoethyl)diaza-15-crown-5
 [105488-60-6]



$C_{36}H_{38}N_{10}O_{15}$ M 850.754

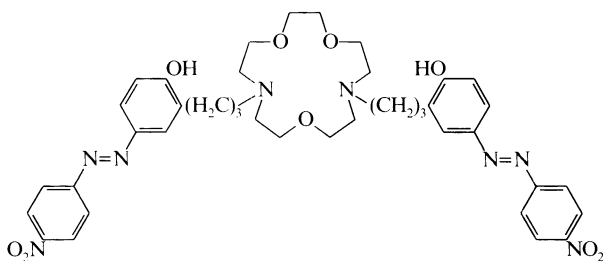
Used for extraction sepn. of Ba, Ca, Sr (1,2-dichloroethane). Orange cryst. ($CHCl_3$). Sol. $CHCl_3$, 1,2-dichloroethane, dioxan.

Katayama, Y. *et al.* *Anal. Chim. Acta*, 1986, **185**, 295 (*synth, use, sepn, Ba, Ca, Sr*)

2,2'-(1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyl-di-3,1-propanediyl)bis[4-[(4-nitrophenyl)azo]phenol], 9Cl

T-00362

N,N-Bis[3-[5-(4-nitrophenylazo)-2-hydroxyphenyl]propyl]diaza-15-crown-5
 [115654-93-8]



$C_{40}H_{48}N_8O_9$ M 784.867

Used as 1,2-dichloroethane soln. for extraction of Ca, Sr, Ba; separation of Ba from Ca. Red cryst. ($CHCl_3$ /EtOH). Sol. $CHCl_3$, 1,2-dichloroethane. Mp 87.0-88.1°.

Katayama, Y. *et al.* *Anal. Chim. Acta*, 1988, **204**, 113 (*synth, use*)

Triphenylarsine, 9Cl

T-00363

Arsenic triphenyl
 [603-32-7]

$AsPh_3$

$C_{18}H_{15}As$ M 306.238

Used as 1% soln. in cyclohexane for extraction-photometric detn. of Pd. Plates (EtOH). Sol. cyclohexane. Mp 60.5°. Bp 360°, Bp₁₄ 232-234°.

► Highly toxic.

B,MeI: see *Methyltriphenylarsonium(I+)*, M-00334
Oxide: see *Triphenylarsine oxide*, T-00364

Trotter, J. *et al.* *Can. J. Chem.*, 1962, **46**, 1878 (*cryst struct*)
Org. Synth., Coll. Vol., 4, 1963, 910 (*synth*)

Senise, P. *et al.* *Anal. Chim. Acta*, 1964, **30**, 509 (*detn, Pd*)

Armstrong, R. *et al.* *Aust. J. Chem.*, 1967, **20**, 2771 (*oxide*)

Milicev, S., *Spectrochim. Acta, Part A*, 1974, **30**, 255 (*ir, raman*)

Jones, A.G. *et al.* *Spectrochim. Acta, Part A*, 1974, **30**, 563 (*ir, raman*)

Bodner, G.M. *et al.* *J. Organomet. Chem.*, 1975, **101**, 63 (*cmr*)

Bahl, M.K. *et al.* *J. Chem. Phys.*, 1976, **64**, 1210.

Mills, J.L. *et al.* *J. Organomet. Chem.*, 1976, **116**, 128 (*pmr, cmr*)

Glidewell, C., *J. Organomet. Chem.*, 1976, **116**, 199 (*synth, ms*)

Bahl, M.K. *et al.* *Surf. Sci.*, 1976, **54**, 540 (*esca*)

Hoste, S. *et al.* *J. Electron Spectrosc. Relat. Phenom.*, 1979, **17**, 191 (*xps*)

Bornancini, E.R. *et al.* *J. Organomet. Chem.*, 1984, **270**, 177 (*synth*)

Hazards in the Chemical Laboratory, (Bretherick, L., Ed.), 3rd Ed., Royal Society of Chemistry, London, 1981, 185.

Triphenylarsine oxide

T-00364

[1153-05-5]

$Ph_3As=O$

$C_{18}H_{15}AsO$ M 322.237

Ligand for transition metals and lanthanides. Used as 1% soln. in $CHCl_3$ for extraction-separation of Th, U. Mp 198-200°. Forms 1:1 and 2:1 adducts with HX (X = Cl, Br, I). Complexes with I_2 and IX (X = Cl, Br, CN). Forms a monohydrate, formerly described as Dihydroxytriphenylarsenic.

2*B, HBr*: [33756-32-0].

$C_{36}H_{31}As_2BrO_2$ M 725.387

Solid. Sol. CH_2Cl_2 , Me_2CO . Mp 170-172°.

Loach, L.W., *Anal. Chim. Acta*, 1969, **45**, 93 (*w*)

Keil, R., *Fresenius' Z. Anal. Chem.*, 1969, **244**, 165; 1979, **297**, 384; 1981, **305**, 374 (*detn, U, Th*)

Ferguson, G. *et al.* *J. Chem. Soc. A*, 1969, 1 (*deriv, cryst struct*)

Deacon, G.B. *et al.* *Spectrochim. Acta, Part A*, 1969, **25**, 355 (*ir, complexes*)

Stec, W.J. *et al.* *Inorg. Chem.*, 1972, **11**, 219 (*pe*)

Brandes, D. *et al.* *J. Organomet. Chem.*, 1974, **73**, 217 (*synth*)

Milicev, S., *Spectrochim. Acta, Part A*, 1974, **30**, 255 (*ir, raman*)

Glidewell, C., *J. Organomet. Chem.*, 1976, **116**, 199 (*synth, ms*)

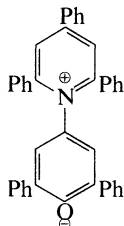
Belsky, V.K., *J. Organomet. Chem.*, 1981, **213**, 435 (*cryst struct*)

Olah, G.A. *et al.* *J. Org. Chem.*, 1983, **48**, 1760 (*synth*)

2,4,6-Triphenyl-N-(3,5-diphenyl-4-oxidophenyl)pyridinium betaine T-00365

1-(2'-Hydroxy[1,1':3',1''-terphenyl]-5'-yl)-2,4,6-triphenylpyridinium hydroxide inner salt, 9Cl. 2,4,6-Triphenylpyridinium 4-oxo-3,5-diphenyl-2,5-cyclohexadien-1-ylide. Reichardt's dye

[10081-39-7]



$C_{41}H_{29}NO$ M 551.686

Used in detn. of solvent polarity (Kosower Z values).

Used as 1mM soln. for photometric detn. of H_2O in org. solvs. (EtOH, 2-propanol, Me_2CO , MeCN, dioxan). Violet-black cryst. + $2H_2O$ (MeOH aq.). Mp 205-276° dec. Highly solvatochromic.

$B, HClO_4$: Yellow plates (AcOH or MeOH). Mp 273-274°. [43085-74-1]

Dimroth, K. *et al.* *Justus Liebigs Ann. Chem.*, 1963, **661**, 1 (synth. *ir*, *uv*, *derivs*)

Kumoi, S. *et al.* *Talanta*, 1970, **17**, 319 (*use*)

Reichardt, C. *et al.* *Justus Liebigs Ann. Chem.*, 1983, 721 (*props. use*, *bibl*)

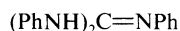
Johnson, B.P. *et al.* *Anal. Lett.*, 1986, **19**, 939 (*synth. props. use*)

Kessler, M.A. *et al.* *Synthesis*, 1988, 635 (*synth*)

N,N',N''-Triphenylguanidine, 9Cl T-00366

1,2,3-Triphenylguanidine, 8Cl

[101-01-9]



$C_{19}H_{17}N_3$ M 287.363

Used as 0.025M soln. in $CHCl_3$ for extraction-photometric detn. of Nb (λ_{max} 390 nm, ϵ 41000), Ta (ϵ 26000). Cryst. (EtOH). Sol. $CHCl_3$, Mp 143°.

▷ MF6825000.

B, HCl : [59283-92-0].

Prisms + $1H_2O$. Mp 241-242°.

▷ MF7175000.

Picrate: Yellow cryst. (EtOH). Mp 180°.

Connolly, J.M. *et al.* *J. Chem. Soc.*, 1935, 680 (*synth*)

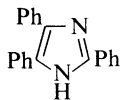
Verdizade, N.A. *et al.* *Zh. Anal. Khim.*, 1989, **44**, 671 (*detn. Nb, Ta*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMS500.

2,4,5-Triphenylimidazole T-00367

Lophine

[484-47-9]



$C_{21}H_{16}N_2$ M 296.371

Used as 0.4% soln. in EtOH as an acid-base chemiluminescent indicator (pH 8.9-9.4). Sol. EtOH. Mp 275-276.5°.

▷ NI8710000.

B, HCl : Cryst. + $\frac{1}{2}H_2O$. Mp 155° (anhyd.).

N-Et:

$C_{23}H_{20}N_2$ M 324.424

Cryst. (EtOH). Mp 234°.

Erdey, L. *et al.* *Anal. Chim. Acta*, 1956, **15**, 322 (*use, ind*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)

Bader, H. *et al.* *Chimia*, 1975, **29**, 264 (*synth*)

Giordao, C. *et al.* *Synthesis*, 1975, 167 (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMS750.

Triphenylmethanol, 8Cl T-00368

α,α -Diphenylbenzenemethanol, 9Cl. Triphenylcarbinol. α -Hydroxytriphenylmethane. Tritanol. Trityl alcohol

[76-84-6]



$C_{19}H_{16}O$ M 260.335

Used as 0.1% soln. in $MeNO_2$ as an acid-base indicator in Ac_2O medium. Cryst. (EtOH or C_6H_6). Sol. EtOH, C_6H_6 , Mp 164-165°. Bp 360-380°.

Orndorff, W.R. *et al.* *J. Am. Chem. Soc.*, 1927, **49**, 1543 (*uv*)

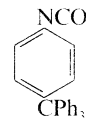
Fritz, J.S. *et al.* *Anal. Chem.*, 1953, **25**, 1837 (*use, ind*)

Org. Synth., Coll. Vol., 3, 1955, 839 (*synth*)

Dubsky, G.J. *et al.* *Helv. Chim. Acta*, 1970, **53**, 1965 (*synth*)

4-(Triphenylmethyl)phenyl isocyanate T-00369

4-Isocyanatotetraphenylmethane



$C_{26}H_{19}NO$ M 361.442

Reagent for characterisation of alcohols. Cryst. (pet. ether). Mp 168-169°.

Witten, B. *et al.* *J. Am. Chem. Soc.*, 1947, **69**, 2470 (*use*)

Triphenylphosphine T-00370

[603-35-0]



$C_{18}H_{15}P$ M 262.290

Nucleophile with many synthetic uses; deoxygenating and desulfurising reagent, reagent for alkene synth. by double extrusion. Converted by alkyl halides into quaternary triphenylphosphonium salts used to prepare ylides for Wittig reactions. Reagent for the deoxygenation of nitroso and nitro compds. (often with the formn. of N-containing heterocyclic compds.), oxiranes and peroxides, and for the desulfurization of thiiranes and di- and polysulfides. Reagent for the dehalogenation of 1,2-dihalogenoalkanes. Used in conjunction with CCl_4 or CBr_4 to convert alcohols into alkyl chlorides or bromides, and carboxamides into nitriles. Used in conjunction with diethyl azodicarboxylate in phosphorylations. Used for extraction separation of Ag; photometric detn. of NH_3 ; extraction-photometric detn. of Pd ($PdCl_4^{2-}$ associated with the reagent). Reference material used in elemental microanalysis. Plates or prisms (Et_2O). Mp 80°. Bp > 360° (under N_2). Triboluminescent.

▷ Mod. toxic. SZ3500000.

B, HF : Liq.

$B, 2HCl$: Solid. Mp 60.5-61°.

B, HBr : [6399-81-1].

Mp 191-196°.

B.HI.: [6396-08-3].

Solid. Mp 226-228°.

Telluride:

$C_{18}H_{15}P_{2}Te$ M 389.890

Rather unstable solid. Mp 83-85° dec.

- Williams, D.H. *et al.*, *J. Am. Chem. Soc.*, 1968, **90**, 966 (*ms*)
 Hashmi, M.H. *et al.*, *Mikrochim. Acta*, 1968, 860 (*detn.*, NH_3)
Analyst (London), 1972, **97**, 740 (*microanal*)
 Austad, T. *et al.*, *Acta Chem. Scand.*, 1973, **27**, 1939 (*telluride*)
 Spalding, T.R., *Org. Mass Spectrom.*, 1976, **11**, 1019 (*ms*)
 Starzewskii, K.A.O. *et al.*, *Phosphorus Relat. Group V Elem.*, 1976, **6**, 177; *J. Am. Chem. Soc.*, 1976, **98**, 8486 (*cmr*, *pe*)
 Masaki, M. *et al.*, *Chem. Lett.*, 1977, 151 (*synth*)
 Grim, S.O. *et al.*, *J. Org. Chem.*, 1977, **42**, 1236 (*nmr*)
 Olah, G.A. *et al.*, *J. Org. Chem.*, 1977, **42**, 2190 (*synth*)
 Clark, D.A. *et al.*, *Synthesis*, 1977, 628 (*deriv.*, *synth.*, *use*)
 Krasiejko, M. *et al.*, *Chem. Anal. (Warsaw)*, 1979, **24**, 1037 (*detn.*, *Ag*)
 Hoste, S. *et al.*, *J. Electron Spectrosc. Relat. Phenom.*, 1979, **17**, 191 (*pe*)
 Jakobsen, H.J. *et al.*, *J. Magn. Reson.*, 1979, **33**, 477 (*cmr*)
 Mojski, M. *et al.*, *Microchem. J.*, 1979, **24**, 117 (*detn.*, *Pd*)
 Rátovskii, G.V. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 479), 1979, **49**, 548 (*uv*, *raman*)
 Marshall, G. *et al.*, *Org. Mass Spectrom.*, 1981, **16**, 272 (*ms*)
 Mitsunoba, O., *Synthesis*, 1981, 1 (*rev.*, *use*)
 Allman, T. *et al.*, *Can. J. Chem.*, 1982, **60**, 716 (*pmr*, *cmr*, *props*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1982, **10**, 447 (*use*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMU000.

Triphenyl phosphite, 9CI, 8CI

T-00371

[101-02-0]

$(PhO)_3P$

$C_{18}H_{15}O_3P$ M 310.288

Reagent for peptide synth., particularly in combination with imidazole. Used in conjunction with other reagents e.g. halogens, MeI, for synth. of alkyl and aryl halides. Used as soln. in CCl_4 for extraction separation of Cu. Solid or liq. d_{25}^{25} 1.18. Mp 21-23°. Bp₁ 183-184°. n_D^{25} 1.5890. Easily hydrolysed. Forms stable quaternary salts.

▷ Skin sensitizer. TH1575000.

- Walsh, E.N., *J. Am. Chem. Soc.*, 1959, **81**, 3023 (*synth*)
 Handley, T.H. *et al.*, *Anal. Chem.*, 1961, **33**, 1087 (*detn.*, *Cu*)
 Bochkarev, V.N. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 2345), 1972, **42**, 2348 (*ms*)
 Mitin, Yu.V. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 199), 1973, **43**, 203 (*use*)
 Hudson, H.R. *et al.*, *J. Chem. Soc., Perkin Trans. 1*, 1974, 982 (*props.*, *adducts*)
 Yamazaki, N. *et al.*, *Tetrahedron*, 1974, **30**, 1326 (*use*)
 Bodner, G.M. *et al.*, *J. Organomet. Chem.*, 1975, **101**, 63 (*cmr*, *complexes*)
 Cadogan, J.I.G. *et al.*, *Organophosphorus Reagents in Org. Synth.*, Academic Press, 1979 (*rev.*, *use*)
 Barlett, P.D. *et al.*, *J. Am. Chem. Soc.*, 1983, **105**, 1984 (*derivs*)
 Cload, P.A. *et al.*, *Org. Mass Spectrom.*, 1983, **18**, 57 (*ms*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMU250.

Triphenylpropylphosphonium(1+), 9CI

T-00372

Propyltriphenylphosphonium(1+)

[15912-75-1]

$Ph_3P^{\oplus}CH_2CH_2CH_3$

$C_{21}H_{22}P^{\oplus}$ M 305.378 (ion)

Treatment with $NaNH_2$ or butyllithium gives the ylide.

Used as aq. soln. for extraction-separation of $[Fe(CN)_6]^{3\ominus}$.

Chloride: [16721-43-0].

$C_{21}H_{22}ClP$ M 340.831

Solid. Mp 221-223° dec.

Bromide: [6228-47-3].

$C_{21}H_{22}BrP$ M 385.282

Cryst. ($CH_2Cl_2/AcOH$ or $CH_2Cl_2/EtOAc$). Mp 238-240°.

Iodide: [14350-50-6].

$C_{21}H_{22}IP$ M 432.283

Solid. Mp 203-204° dec.

Ylide: [16666-78-7].

$C_{21}H_{21}P$ M 304.371

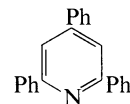
Wittig reagent.

- Grim, S.O. *et al.*, *J. Chem. Soc., Chem. Commun.*, 1967, 1191 (*nmr*)
 Schlosser, M. *et al.*, *Justus Liebigs Ann. Chem.*, 1967, **708**, 1 (*synth*)
 Bergelson, L.D. *et al.*, *Tetrahedron*, 1967, **23**, 2709 (*ylide*, *props*)
 Senyavina, L.B. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 469), 1967, **37**, 499 (*synth.*, *ir*, *pmr*)
 Grim, S.O. *et al.*, *J. Org. Chem.*, 1968, **33**, 2993 (*ylide*, *uv*)
 Wood, W.G. *et al.*, *J. Org. Chem.*, 1975, **40**, 636 (*ms*)
 Senise, P. *et al.*, *Anal. Chim. Acta*, 1976, **81**, 419 (*use*)
 Doleschall, G., *Synthesis*, 1981, 478 (*iodide*)
 Schlosser, M. *et al.*, *Chimia*, 1982, **36**, 396 (*ylide*)
 Le Bigot, Y. *et al.*, *Synth. Commun.*, 1982, **12**, 107 (*ylide*, *use*)

2,4,6-Triphenylpyridine

T-00373

[580-35-8]



$C_{23}H_{17}N$ M 307.394

Prisms (EtOH). V. spar. sol. EtOH. Mp 137.5°.

Picrate: Yellow needles (EtOH). Mp 192.5°.

l-Oxide: [23022-74-4].

$C_{23}H_{17}NO$ M 323.393

Cryst. (cyclohexane). Mp 186-189°.

N-Ph: 1,2,4,6-Tetraphenylpyridinium, 9CI

$C_{29}H_{22}N^{\oplus}$ M 384.499 (ion)

N-Ph, acetate (salt): [59836-77-0].

$C_{31}H_{25}NO_2$ M 443.544

Used as a 1mM soln. in EtOH for gravimetric detn. of ClO_4^{\ominus} , ReO_4^{\ominus} , MnO_4^{\ominus} , $WO_4^{2\ominus}$; extraction-photometric detn. of Tl (λ_{max} 310 nm, ϵ 31400). Cryst. Sol. H_2O .

N-Ph, perchlorate (salt): [25506-69-8].

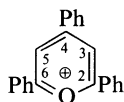
$C_{29}H_{22}ClNO_4$ M 483.950

Mp 275-276°.

- Dimroth, K. *et al.*, *Newer Methods of Preparative Organic Chemistry*, Academic Press, 1964, **3**, 413 (*synth*)
 Pedersen, C. *et al.*, *Acta Chem. Scand.*, 1970, **24**, 3435 (*oxide*)
 Bowie, J.H., *Aust. J. Chem.*, 1973, **26**, 1043 (*ms*)
 Chalk, A.J., *Tetrahedron*, 1974, **30**, 1387 (*cmr*)
 Chadwick, T.C. *et al.*, *Anal. Chem.*, 1976, **48**, 1201 (*use*)
 Tewari, R.S. *et al.*, *Synthesis*, 1981, 314 (*synth*)
 Pérez-Ruiz, T. *et al.*, *Analyst (London)*, 1982, **107**, 185 (*synth.*, *detn.*, *Tl*)

2,4,6-Triphenylpyrylium(1+)

[15959-35-0]

 $C_{23}H_{17}O^{\oplus}$ M 309.387 (ion)

Chloride: [40836-01-9].

 $C_{23}H_{17}ClO$ M 344.839Used for gravimetric detn. of Au, Pt, ClO_4^{\ominus} , BF_4^{\ominus} ; extraction-photometric detn. of I^{\ominus} (λ_{max} 545 nm, $CHCl_3$). Cryst. Mp 217-219°.

Bromide: [13179-84-5].

 $C_{23}H_{17}BrO$ M 389.291

Cryst. Mp 229-230°.

Iodide: [3495-60-1].

 $C_{23}H_{17}IO$ M 436.291

Converts amines to iodides. Cryst. Mp 221-222°.

Perchlorate: [1484-88-4].

 $C_{23}H_{17}ClO_5$ M 408.837

Deaminates benzylic and allylic amines, converts acid hydrazides to isocyanates. Cryst. Mp 270-272°.

Tetrafluoroborate:

 $C_{23}H_{17}BF_4O$ M 396.191

Converts primary amines to acetates or benzoates and hydrazides to isocyanates. Yellow needles (1,2-dichloroethane). Mp 251-257°.

Lombard, R. *et al.*, *Bull. Soc. Chim. Fr.*, 1958, 1458 (*synth*)Kanai, K. *et al.*, *CA*, 1963, **59**, 13934g (*synth*)Balaban, A.T. *et al.*, *Tetrahedron*, 1966, **7**, 1 (*synth*)Maroni-Bernard, Y. *et al.*, *Bull. Soc. Chim. Fr.*, 1971, 546 (*nmr, ir*)Duffield, A.M. *et al.*, *Org. Mass Spectrom.*, 1971, **5**, 87 (*ms*)Chadwick, T.C., *Anal. Chem.*, 1973, **45**, 985; 1974, **46**, 1326; 1975, **47**, 933 (*detn, ClO₄[⊖], BF₄[⊖], Au, Pt, I[⊖])**Org. Synth.*, *Coll. Vol.*, **5**, 1973, 1135.Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1979, **7**, 408; **8**, 519, 520.**Triphenylselenonium(1+), 9CI**

[25929-33-3]

 $C_{18}H_{15}Se^{\oplus}$ M 310.276 (ion)

Chloride: [6158-73-2].

 $C_{18}H_{15}ClSe$ M 345.729Used as a 5% aq. soln. for detn. of Bi, Co, ClO_4^{\ominus} ; extraction-photometric detn. of Hg; amperometric titrimetric detn. of Bi. Cryst. + $1H_2O$ (2-butanone). Sol. H_2O . Mp 230° dec. Also forms a dimeric dihydrate.

Bromide: [18987-44-5].

 $C_{18}H_{15}BrSe$ M 390.180Cryst. ($CHCl_3/MeOH$). Mp 236° dec.

Iodide: [18987-45-6].

 $C_{18}H_{15}ISe$ M 437.181Cryst. (H_2O). Mp 237.5° dec.Leicester, H.M. *et al.*, *J. Am. Chem. Soc.*, 1929, **51**, 3587 (*synth*)Portratz, A.H. *et al.*, *Anal. Chem.*, 1949, **21**, 1276 (*detn, Bi, Co*)Bowd, A.J. *et al.*, *Talanta*, 1969, **16**, 719 (*rev*)Lee, J.S. *et al.*, *J. Cryst. Mol. Struct.*, 1976, **6**, 279 (*cryst struct, Cl dihydrate*)Mitcham, R.V. *et al.*, *Inorg. Chem.*, 1979, **18**, 3498 (*cryst struct, Cl monohydrate*)Iwama, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1981, **54**, 2065 (*synth*)**T-00374****Triphenylsulfonium(1+)****T-00376** $C_{18}H_{15}S^{\oplus}$ M 263.382 (ion)

Chloride: [4270-70-6].

 $C_{18}H_{15}ClS$ M 298.835

Cryst. Mp 297-298°. Hygroscopic.

Bromide: [3353-89-7].

 $C_{18}H_{15}BrS$ M 343.286Used as a 5% aq. soln. for detn. of Bi, Co. Cryst. ($Me_2CO/CHCl_3$). Sol. H_2O . Mp 292.5° (285-287°).

Iodide: [3744-08-9].

 $C_{18}H_{15}IS$ M 390.287

Solid. Mp 248-250°.

Hexafluoroantimonate: [57840-38-7].

 $C_{18}H_{15}F_6SSb$ M 499.123Cryst. ($EtOH/2$ -propanol). Mp 177-178°.

Trifluoromethanesulfonate: [13891-29-7].

 $C_{19}H_{15}F_3O_3S_2$ M 412.453

Cryst. Mp 135-137°.

Nitrate: [19600-48-7].

 $C_{18}H_{15}NO_3S$ M 325.387Prisms ($Me_2CO/CHCl_3$). Mp 227-227.5°.Courtot, C. *et al.*, *C. R. Hebd. Seances Acad. Sci.*, 1933, **197**, 1227 (*synth*)Potratz, A.H. *et al.*, *Anal. Chem.*, 1949, **21**, 1276 (*detn, Bi, Co*)Wildi, B.S. *et al.*, *J. Am. Chem. Soc.*, 1951, **73**, 1965 (*synth*)Bonner, W.A. *et al.*, *J. Am. Chem. Soc.*, 1952, **74**, 5078 (*synth*)Okamoto, T. *et al.*, *Chem. Pharm. Bull.*, 1981, **29**, 3753 (*synth*)Miller, R.D. *et al.*, *J. Org. Chem.*, 1988, **53**, 5571 (*synth, bibl*)Dektar, J.L. *et al.*, *J. Am. Chem. Soc.*, 1990, **112**, 6004 (*synth, pmr, ir, uv*)**Triphenyltelluronium(1+), 9CI****T-00377** $C_{18}H_{15}Te^{\oplus}$ M 358.916 (ion)

Iodide:

 $C_{18}H_{15}ITe$ M 485.821

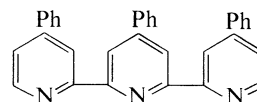
Used as satd. aq. soln. for detn. of Bi, Co (gravimetric indicator).

[31426-14-9, 49690-36-0]

Lederer, C., *Ber.*, 1911, **44**, 2289 (*synth*)Portratz, A.H. *et al.*, *Anal. Chem.*, 1949, **21**, 1276 (*detn, Bi, Co*)Bowd, A. *et al.*, *Talanta*, 1969, **16**, 719 (*use*)**4,4',4''-Triphenyl-2,2:6',2''-terpyridine, 9CI****T-00378**

2,6-Bis(4-phenyl-2-pyridyl)-4-phenylpyridine. Terosite

[24368-63-6]

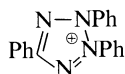
 $C_{33}H_{23}N_3$ M 461.565

Photometric reagent for detn. of Fe and other metal ions.

Cryst. ($EtNO_2$). Mp 257-258°. Related reagents Terosine (4'-phenylterphenyl) and Terosole (4,4''-dimethyl-4'-phenylterphenyl) appear to be out of use.Wilkins, D.H. *et al.*, *Anal. Chim. Acta*, 1953, **9**, 338.Schilt, A.A. *et al.*, *Anal. Chim. Acta*, 1956, **15**, 567 (*synth, use*)Case, F.H. *et al.*, *J. Am. Chem. Soc.*, 1956, **78**, 5842 (*synth*)

2,3,5-Triphenyl-2H-tetrazolinium(1+)
Tetrazolium

T-00379

C₁₉H₁₅N₄[⊕] M 299.354 (ion)

Chloride: [298-96-4]. TTC. Red tetrazolium. TPTZ. RT. Vitastain. Uvoscreen

C₁₉H₁₅ClN₄ M 334.807Used in testing viability of seeds and in detection of urinary infection. Distinguishes α-ketols and aldehydes. Used as alkaline soln. for photometric detn. of As, Co, IO₃[⊖]. Used in detn. of reducing sugars and corticosteroids. Long needles (CHCl₃). Insol. Et₂O; sol. alkalis. Mp 243° dec. Darkens on exp. to light.

▷ XF8100000.

Pechmann, H. *et al.*, *Ber.*, 1894, **27**, 2920 (*synth*)Kuhn, R. *et al.*, *Ber.*, 1941, **74**, 941 (*synth*)Atkinson, E.H. *et al.*, *Science (Washington, D.C.)*, 1950, **111**, 385 (*synth*)Hashmi, M.H. *et al.*, *Anal. Chem.*, 1964, **36**, 2471 (*detn.*, IO₃[⊖])Alexandrov, A., *Mikrochim. Acta*, 1967, 579; 1972, 664 (*detn.*, Co)Mehra, M.C. *et al.*, *Microchem. J.*, 1979, **24**, 435.Lazarev, A.I. *et al.*, *Zavod. Lab.*, 1980, **46**, 291 (*detn.*, As)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMV500.**Tripopylamine, 8Cl**

T-00380

N,N-Dipropylpropanamine, 9Cl

[102-69-2]

C₉H₂₁N M 143.272

Used as a titrant for the detn. of weak acids in the presence of their anhydrides. Liq. Mp –94°. Bp 156.5°.

▷ Highly toxic, flammable. TX1575000.

B.HCl: [14488-44-9].

Hygroscopic needles. Mp 90°.

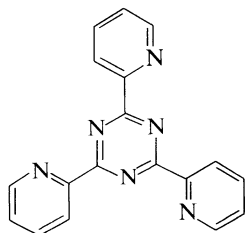
B.HBr: [7359-95-7].

Needles. Mp 180°.

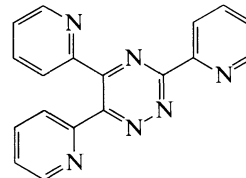
Picrate: Mp 116°.*B.MeI*: Methyltripropylammonium iodideLeaflets (EtOH/Et₂O). Mp 207-208°.Skita, A. *et al.*, *Monatsh. Chem.*, 1929, **53-4**, 753 (*synth*)Siggia, S. *et al.*, *Anal. Chem.*, 1953, **25**, 797 (*use*)Striegler, A. *et al.*, *J. Prakt. Chem.*, 1965, **29**, 281 (*synth*)Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TMY250.**2,4,6-Tri-2-pyridinyl-1,3,5-triazine**

T-00381

[3682-35-7]

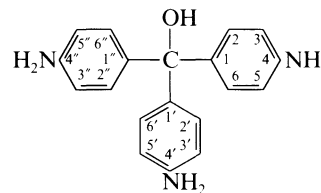
C₁₈H₁₂N₆ M 312.333Used as 1mM soln. in dil. HCl for photometric detn. of Fe(II) (λ_{max} 595 nm, ε 25000), Ru, Co, SO₃^{2⊖} (indirectly). Cryst. + 3 or 4H₂O. Sol. acids. Mp 243-245°.Collins, P. *et al.*, *Anal. Chem.*, 1959, **31**, 1862 (*detn.*, Fe)Case, F.H. *et al.*, *J. Am. Chem. Soc.*, 1959, **81**, 905 (*synth*)Buchanan, E.B. *et al.*, *Talanta*, 1966, **13**, 903 (*detn.*, Fe)Vagg, R.S. *et al.*, *Aust. J. Chem.*, 1967, **20**, 1841 (*synth.*, use)Embry, W.A. *et al.*, *Anal. Chem.*, 1968, **40**, 1499 (*detn.*, Ru)Stephens, B.G. *et al.*, *Analyst (London)*, 1970, **95**, 70 (*detn.*, SO₃[⊖])Barclay, G.A. *et al.*, *Acta Crystallogr., Sect. B*, 1977, **33**, 3487(*cryst struct.*, *bibl*)Sasaki, Y., *Anal. Chim. Acta*, 1978, **98**, 335 (*detn.*, Ru)Llobera, A. *et al.*, *Synthesis*, 1985, 95 (*synth*)Forsberg, J.H. *et al.*, *J. Heterocycl. Chem.*, 1988, **25**, 767 (*synth*)**3,5,6-Tri-2-pyridinyl-1,2,4-triazine**

T-00382

C₁₈H₁₂N₆ M 312.333Used as 0.01M soln. in EtOH for photometric detn. of Fe(II) (λ_{max} 562 nm, ε 21800), Cu(I) (λ_{max} 500 nm, ε 4700). Cryst. (2-methoxyethanol). Sol. 2-methoxyethanol, EtOH. Mp 186-187°.Case, F.H., *J. Org. Chem.*, 1965, **30**, 931 (*synth*)Schilt, A.A., *Talanta*, 1966, **13**, 895 (*use*)**Tris(4-aminophenyl)methanol**

T-00383

4,4',4''-Triaminotriphenylcarbinol. Tris(p-aminophenyl)methanol. Pararosanine base. C.I. 42500. C.I. Basic red 9. Magenta 0. Basic parafuchsin [25620-78-4]

C₁₉H₁₉N₃O M 305.379Used as 0.16% soln. in dil. HCl for photometric detn. of SO₃^{2⊖} (λ_{max} 560 nm, ε 30000), O₃, SCN[⊖] (dec. to S(IV)). Purple cryst. Mp ca. 205°.*Me ether*:C₂₀H₂₁N₃O M 319.405Cryst. + 1Et₂O (Et₂O), cryst. + 1C₆H₆ (C₆H₆). Mp 105° (Et₂O), Mp 135° (C₆H₆).

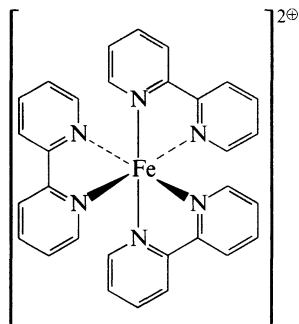
4,4',4''-Tri-N-Ac:

C₂₅H₂₅N₃O₄ M 431.490Cryst. (Me₂CO/Et₂O). Mp 192°.*Compd. with 4,4'-methylenebis(3-hydroxy-2-naphthoate)*(2:1): [7232-51-1]. **Pararosanine pamoate, USAN.***Pararosanine embonate, INN. C.I. 403A. CN 15575-**23A. NSC 107529. PS 1286*Antischistosomal. Solid + 3H₂O.Wieland, H. *et al.*, *Ber.*, 1921, **54**, 2527.Stora, C. *et al.*, *C. R. Hebd. Seances Acad. Sci.*, 1949, **229**, 766 (*cryst struct*)West, P.W. *et al.*, *Anal. Chem.*, 1956, **28**, 1816 (*detn.*, S)Nauman, R.V. *et al.*, *Anal. Chem.*, 1960, **32**, 1307 (*detn.*, S)U.K. Pat., 908 634, (1962); *CA*, **58**, 3278 (*pharmacol*)Sachdev, S.L. *et al.*, *Anal. Chim. Acta*, 1972, **58**, 141 (*detn.*, O₃)Majewski, T. *et al.*, *Anal. Chim. Acta*, 1982, **141**, 329 (*detn.*, SCN[⊖])*Martindale, The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 13079.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 540.

Tris(2,2'-bipyridine-*N,N'*)iron(II)(2+), 9Cl T-00384
Tris(α,α'-bipyridyl)iron(II)
 [15025-74-8]

**Δ-form**

$C_{30}H_{24}FeN_6^{2\oplus}$ M 524.407 (ion)

Low spin octahedral ion. May be resolved. Synth. from $Fe^{2\oplus} + bipy$ in H_2O or other solvs. Electrocatalyst; redox catalyst; used for precipitation of large anions. Redox indicator. Used as a 3mM aq. soln. for extraction-photometric detn. of Tl(III) (λ_{max} 524 nm, dichloroethane), ClO_4^\ominus ($PhNO_2$), Fe. Salts are red.

A-form [55122-50-4]

Abs. config. assigned by cd methods and by analogy with Tris(1,10-phenanthroline-*N',N''*)iron(II)(2+), T-00412. Racemises rapidly in aq. soln., $t_{1/2} \sim 30$ mins.

(±)-form

Dichloride: [14751-83-8].

Synth. from $FeCl_2 + bipy$ in H_2O or aq. EtOH. Red cryst.

Diiodide: [15388-60-0].

Catalyst. Red cryst.

Bis-tetrafluoroborate: [28966-86-1].

Red cryst.

Bis-hexafluorophosphate: [70811-29-9].

Red cryst.

Diperchlorate: [15388-48-4].

Oxidation catalyst. Red cryst.

Bis-tetraphenylborate: [54111-78-3].

Red powder.

Dithiocyanate: [36319-81-0].

Catalyst for esterification of alcohols.

[24162-11-6]

Blau, F., *Monatsh. Chem.*, 1898, **19**, 647 (*synth*)

Werner, A., *Ber.*, 1912, **45**, 433 (*synth, resol*)

Yamamoto, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1964, **37**, 785 (*detn.*, ClO_4^\ominus)

Kotsuji, K. *et al.*, *Anal. Chim. Acta*, 1968, **42**, 225 (*detn.*, Tl)

Koenig, E., *Coord. Chem. Rev.*, 1968, **3**, 471 (*rev.*, *bibl*)

McWhinnie, W.R. *et al.*, *Adv. Inorg. Chem. Radiochem.*, 1969, **12**, 135 (*rev.*, *bibl*)

Dollberg, D.D. *et al.*, *Inorg. Chem.*, 1975, **14**, 1888 (*abs config.*, *kinetics*)

Healy, P.C. *et al.*, *Aust. J. Chem.*, 1983, **36**, 2057 (*synth. struct*)

Griffiths, L. *et al.*, *J. Chem. Soc., Dalton Trans.*, 1983, 305 (*raman*)

Satake, M. *et al.*, *Analyst (London)*, 1984, **109**, 31 (*use. detn.*, Fe)

Weiss, H. *et al.*, *Z. Naturforsch., B*, 1984, **39**, 1453 (*synth. struct*)

Ferguson, J. *et al.*, *Coord. Chem. Rev.*, 1985, **64**, 21 (*uv-vis*)

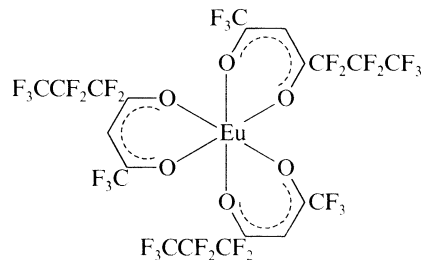
Thomson, A.J. *et al.*, *J. Chem. Soc., Dalton Trans.*, 1985, 1781 (*mcd*)

Compr. Coord. Chem., Pergamon, Oxford, 1987, **4**, 1217 (*rev.*, *bibl*)

Garcia, E. *et al.*, *Inorg. Chem.*, 1988, **27**, 4377 (*electrochem*)

Constable, E.C., *Adv. Inorg. Chem.*, 1989, **34**, 1 (*rev.*, *bibl*)

Tris(1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato-*O,O'*)europium(III), 9Cl T-00385
Eu(dfhd)₃
 [60149-84-0]



$C_{21}H_3EuF_{30}O_6$ M 1073.168

Nmr chemical shift reagent. Dihydrate which loses H_2O on heating. More sol. in polar solvs. than (fod) complexes.

Richardson, M.F. *et al.*, *Inorg. Chem.*, 1971, **10**, 498 (*synth*)

Sievers, R.E. *et al.*, *Adv. Chem. Ser.*, No. 150, 1976, 222 (*use*)

Gmelin Handbook Inorg. Chem., Syst. No. 39, 1981, **D3**, 122 (*rev*)

Tris(decyl)ethylammonium(1+) T-00386

$[H_3C(CH_2)_9]_3N^\oplus Et$

$C_{32}H_{68}N^\oplus$ M 466.896 (ion)

Bromide:

$C_{32}H_{68}BrN$ M 546.800

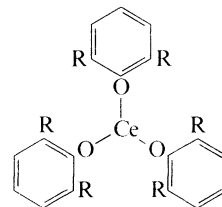
Used as a 0.8mM soln. in xylene for extraction-photometric detn. of Fe(III) (λ_{max} 613 nm, ϵ 173000, xylene). Cryst.

Shijo, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1975, **48**, 2793 (*detn.*, Fe)

Tris(2,6-di-*tert*-butylphenoxy)cerium(III) T-00387

Tris[2,6-bis(1,1-dimethylethyl)phenolato]cerium(III)

[113034-77-8]



$R = C(CH_3)_3$

$C_{42}H_{63}CeO_3$ M 756.073

Forms adduct with Lewis bases, eg. THF, R_2CO , R_3PO .

RNH_2 , R_2NH , RCN , RNC ; acts as an nmr shift

reagent. Yellow-green cryst. Sol. C_6H_6 , THF. Subl._{0.00001} 180-190°.

Bis(tert-butyl isocyanide) complex: [113034-80-3].

$C_{52}H_{81}CeN_2O_3$ M 922.338

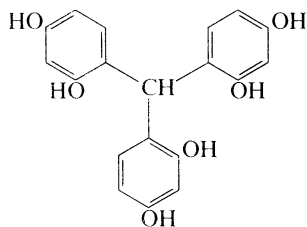
Yellow cryst.

Stecher, H.A. *et al.*, *Inorg. Chem.*, 1988, **27**, 1130 (*synth. cryst. struct*)

Tris(2,4-dihydroxyphenyl)methane

T-00388

4,4',4''-Methyldynitris-1,3-benzenediol. 2,2',2'',4,4',4''-Hexahydroxytriphenylmethane

C₁₉H₁₆O₆ M 340.332

2,2',2''-Tri-Me ether: [4503-82-6]. 4,4',4''-Methyldynitris[2-methoxyphenol], 9CI. Triguaiaicymethane

C₂₂H₂₂O₆ M 382.412

Used as an acid-base indicator (colour change: red → violet). Cryst.

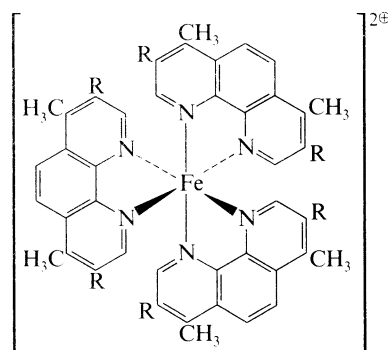
Amal. H. *et al.* *Istanbul Univ. Fen Fak. Mecm.*, 1950, **15A**, 119.Bishop. E. *Indicators*, Pergamon, Oxford, 1972, 125 (use)**Tris(4,7-dimethyl-1,10-phenanthroline-**

T-00389

*N*¹,*N*¹⁰)iron(II)(2+), 11CI

4,7-Dimethylferroin

[15226-33-2]



R = H

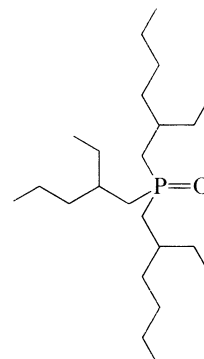
C₄₂H₃₆FeN₆²⁺ M 680.634 (ion)

Octahedral low spin cation. Synth. from aq. Fe(II) salt + ligand.

Diperchlorate: [15712-32-0].Red cryst. Spar. sol. H₂O.*Sulfate*: [21263-92-3].Fungicide. Used as 0.6mM aq. soln. for photometric detn. of O₂. Red solid. Sol. H₂O.Epstein. L.M., *J. Chem. Phys.*, 1964, **40**, 435 (mössbauer)McWhinnie. W.R. *et al.* *Adv. Inorg. Chem. Radiochem.*, 1969, **12**, 135 (rev. bibl)Poe. D.P. *et al.* *Talanta*, 1974, **21**, 1065 (detn. O₂)Koenig. E. *et al.* *Inorg. Chim. Acta*, 1982, **59**, 285 (magnetism, mössbauer)**Tris(2-ethylhexyl)phosphine oxide, 9CI**

T-00390

[2785-32-2]

C₂₄H₅₁OP M 386.640

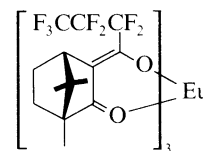
Used as a 0.01M soln. in cyclohexane for extraction separation of Sn(IV).

Ross. W.J. *et al.* *Anal. Chem.*, 1961, **33**, 424 (detn. Sn)**Tris(3-heptafluorobutyryl-*d*-camphorato) europium(III)**

T-00391

Tris[3-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-onato-O,O']europium, 9CI. Tris[3-(heptafluoropropylhydroxymethylene)-*d*-camphorato]europium(III). *Eu(hfc)*₃. *Eu(hfbc)*₃

[34788-82-4]

C₄₂H₄₂EuF₂₁O₆ M 1193.722

Commercially available nmr chiral shift reagent. Gives enantiomeric excess in some Diels-Alder synths. and cyclocondensation of aldehydes with siloxydienes.

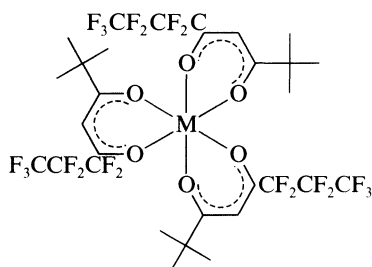
Hygroscopic volatile yellow-orange solid. Insol. H₂O. Mp 158-165°. Presumed to be 6-coord.Fraser. R.R. *et al.* *J. Chem. Soc., Chem. Commun.*, 1971, 1450 (use)Goering. H.L. *et al.* *J. Am. Chem. Soc.*, 1974, **96**, 1493 (synth. use)Bednarski. M. *et al.* *Tetrahedron Lett.*, 1983, **24**, 3451 (use)*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1986, **12**, 561; **14**, 341 (use)Quimpère. M. *et al.* *J. Chem. Soc., Chem. Commun.*, 1987, 676 (use)

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), 11Cl

T-00392

Tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyl-4,6-octanedionato)chromium(III). *Cr(fod)*₃

[17966-86-8]



M = Cr

 $C_{30}H_{30}CrF_{21}O_6$ M 937.526Useful in chromatog. sepn. of metals. Sol. C_6H_6 , $CHCl_3$, hexane. Mp 101-106°. Subl._{0.5} 95-105°.

[101469-88-9, 101470-48-8]

Eisentraut, K.J. *et al*, *J. Inorg. Nucl. Chem.*, 1967, **29**, 1931.*Inorg. Synth.*, 1970, **12**, 73 (*synth*)Belcher, R. *et al*, *Talanta*, 1970, **17**, 455 (*use*)Fontaine, R. *et al*, *Bull. Soc. Chim. Fr.*, 1972, 3011 (*vp*)Mikhailenko, V.P. *et al*, *J. Chromatogr.*, 1980, **191**, 231

(chromatog)

Wenclawiak, B. *et al*, *J. Chromatogr.*, 1985, **349**, 469 (*chromatog*)**Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)dysprosium(III), 9Cl**

T-00393

*Dy(fod)*₃. *Resolve-Al DyFOD*

[18323-98-3]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392 with

M = Dy

 $C_{30}H_{30}DyF_{21}O_6$ M 1048.030Commercially available. Forms binuclear nmr shift reagents with Ag(I) compds. Hygroscopic white cryst. (CH_2Cl_2). Sol. $CHCl_3$, CH_2Cl_2 . Mp 180-188°. Forms adducts with Lewis bases. Volatile *in vacuo*.*Monohydrate*: [18284-87-2].White solid. Sol. CH_2Cl_2 , MeOH. Mp 103-107°. Loses H_2O *in vacuo* over P_2O_5 .*Dihydrate*: [35887-41-3].

White solid.

Springer, C.S. *et al*, *Inorg. Chem.*, 1967, **6**, 1105 (*synth*)Karraker, D.G., *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713 (*synth*)Risby, T.H. *et al*, *Anal. Chem.*, 1974, **46**, 726 (*ms*)*Gmelin Handbook Inorg. Chem.*, Syst. No. 39, 1981, **D3**, 155 (*rev*)Wenzel, T.J., *J. Org. Chem.*, 1984, **49**, 1834 (*use*)**Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)europium(III), 9Cl**

T-00394

Sievers' reagent. Resolve-Al EuFOD. *Eu(fod)*₃

[17631-68-4]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392 with

M = Eu

 $C_{30}H_{30}EuF_{21}O_6$ M 1037.495Nmr chiral downfield shift reagent. Resolves diastereotopic protons, e.g. in β -lactams. Distinguishes between thiocyanates + isothiocyanates. Applicable to carboxylic acids and phenols. Catalyses epoxide ring opening with thiois, also aldol addn., cyanohydrin formation and oxirane ring opening reactions.

Commercially available. Catalyses [4 + 2] cycloaddition of methoxybutadiene to carbonyl compds., and hetero-Diels-Alder reactions. Does not catalyse diene polym.

Hygroscopic, volatile bright-yellow cryst. Insol. H_2O . Mp 205-212° dec., Mp 203-207°. Intense red fluor. in uv light.*Hemihydrate*: [35887-40-2].White cryst. (CH_2Cl_2). Mp 59-67°.*Monohydrate*: [49792-35-0].Colourless solid. Sol. CH_2Cl_2 , MeOH. Loses H_2O *in vacuo* over P_2O_5 .

[18284-89-4, 49792-35-0]

Springer, C.S. *et al*, *Inorg. Chem.*, 1967, **6**, 1522 (*synth, ir, nmr*)Rondeau, R. *et al*, *J. Am. Chem. Soc.*, 1971, **93**, 1522 (*use*)Karraker, D.G., *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713.Bose, A.K. *et al*, *Tetrahedron Lett.*, 1972, 3599 (*use*)Marians, P.S. *et al*, *Tetrahedron Lett.*, 1972, 5305 (*use*)Cockerill, A.F. *et al*, *Chem. Rev.*, 1973, **73**, 553 (*rev*)Mayo, B.C., *Chem. Soc. Rev.*, 1973, **2**, 49 (*rev*)Risby, T.H. *et al*, *Anal. Chem.*, 1974, **46**, 726 (*ms*)Werstler, D.D. *et al*, *Anal. Chem.*, 1975, **47**, 144 (*use*)Schoffner, J.P., *Anal. Chem.*, 1975, **47**, 341 (*use*)De Puy, C.H. *et al*, *J. Am. Chem. Soc.*, 1976, **98**, 276 (*use*)*Gmelin Handbook Inorg. Chem.*, Syst. No. 39, 1981, **D3**, 155 (*rev, bibl*)Bednarski, M. *et al*, *J. Am. Chem. Soc.*, 1983, **105**, 3716 (*use*)Jurezak, J. *et al*, *Synthesis*, 1985, 928 (*use*)*Fieser and Fieser's Reagents for Organic Synthesis*. Wiley, 1986, **12**, 559 (*use*)Vougioukas, A.E. *et al*, *Tetrahedron Lett.*, 1987, **28**, 5513, 6065 (*uses*)**Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)gadolinium(III)**

T-00395

*Gd(fod)*₃. *Resolve-Al GdFOD*

[17631-67-3]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392 with

M = Gd

 $C_{30}H_{30}F_{21}GdO_6$ M 1042.780Can be used as shift reagent in ^{13}C nmr. Commercially available. Hygroscopic white solid. Sol. $CHCl_3$, CH_2Cl_2 . Mp 203-213° dec., Mp 138° dec. Forms adducts with Lewis bases. Volatile *in vacuo*.*Monohydrate*: [18284-88-3].White solid (CH_2Cl_2). Sol. CH_2Cl_2 , MeOH. Mp 60-65°.Loses H_2O *in vacuo* over P_2O_5 .Springer, C.S. *et al*, *Inorg. Chem.*, 1967, **6**, 1105 (*synth*)Karraker, D.G., *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713 (*synth*)Risby, T.H. *et al*, *Anal. Chem.*, 1974, **46**, 726 (*ms*)Ajisaka, K. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 330 (*use*)*Gmelin Handbook Inorg. Chem.*, Syst. No. 39, 1981, **D3**, 155 (*rev*)**Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)holmium(III), 9Cl**

T-00396

*Hol(fod)*₃. *Resolve-Al HoFOD*

[18323-97-2]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392 with

M = Ho

$C_{30}H_{30}F_{21}HoO_6$ M 1050.460

Commercially available. Pmr shift reagent. Hygroscopic beige solid (white). Sol. $CHCl_3$, CH_2Cl_2 . Mp 172-178°. Forms adducts with Lewis bases. Volatile *in vacuo*.

Monohydrate: White solid. Sol. CH_2Cl_2 , MeOH. Mp 103-111°. Loses H_2O *in vacuo* over P_2O_5 .

Springer, C.S. *et al.* *Inorg. Chem.*, 1967, **6**, 1105 (*synth*)
Karraker, D.G. *et al.* *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713 (*synth*)
Rondeau, R.E. *et al.* *Anal. Chem.*, 1973, **45**, 2145 (*use*)
Risby, T.H. *et al.* *Anal. Chem.*, 1974, **46**, 726 (*ms*)
Gmelin Handbook Inorg. Chem., Syst. No. 39, 1981, **D3**, 155 (*rev*)
Dambaska, A. *et al.* *J. Magn. Reson.*, 1984, **59**, 13 (*use*)

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)iron(III), 10CI T-00397

Tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyl-4,6-octanedionato)iron(III). *Fe(fod)*₃
[30304-08-6]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392 with

M = Fe

$C_{30}H_{30}F_{21}FeO_6$ M 941.377

Synth. from elemental Fe + HL. Trace amounts of H_2O act as catalyst. Also synth. from $FeCl_3$ + HL in EtOH. Prepn. of compd. from elemental Fe is basis for simple method of Fe microanalysis. Red cryst. Thermally stable. Insol. H_2O ; sol. alcohols, $CHCl_3$, CH_2Cl_2 , CCl_4 , Et_2O , Me_2CO . Mp 73-75°. Subl._{0.5} 95-110°.

Hazeldine, R.N. *et al.* *J. Chem. Soc.*, 1951, 609 (*synth*)
Inorg. Synth., 1970, **12**, 70 (*synth*)
Wolf, W.R. *et al.* *J. Chromatogr.*, 1977, **134**, 159 (*anal, use*)
Dilli, S. *et al.* *J. Chromatogr.*, 1979, **176**, 305 (*use*)

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)lanthanum(III) T-00398

*La(fod)*₃
[19106-89-9]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392 with

M = La

$C_{30}H_{30}F_{21}LaO_6$ M 1024.435

Nmr shift reagent. Hygroscopic white solid. Sol. $CHCl_3$, C_6H_6 , EtOH. Mp 118-125° dec.

Monohydrate: [18284-86-1].

$C_{30}H_{32}F_{21}LaO_7$ M 1042.450
White solid. Sol. CH_2Cl_2 , MeOH. Mp 215-230° dec. Loses H_2O on storage over P_2O_5 *in vacuo*.

Sievers, R.E. *et al.* *Adv. Chem. Ser.*, 1967, **71**, 141 (*synth*)
Springer, C.S. *et al.* *Inorg. Chem.*, 1967, **6**, 1105 (*synth*)
Karraker, D.G., *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713 (*synth*)
Eisenhart, J.M. *et al.* *J. Org. Chem.*, 1985, **50**, 4108 (*use*)

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)neodymium(III), 9CI T-00399

*Nd(fod)*₃
[17978-76-6]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392 with

M = Nd

$C_{30}H_{30}F_{21}NdO_6$ M 1029.770

Nmr shift reagent. Hygroscopic blue solid. Sol. $CHCl_3$, C_6H_6 , EtOH, DMSO, toluene. Mp 210-215° dec. Solvation changes can be detected by monitoring hypersensitive transitions. Forms adducts with range of Lewis bases.

Monohydrate: [18284-90-7].

$C_{30}H_{32}F_{21}NdO_7$ M 1047.785
Blue solid. Sol. CH_2Cl_2 , MeOH. Mp 210-215° dec. Loses H_2O *in vacuo* over P_2O_5 .

Pyrazole complex: [82915-58-0].

$C_{33}H_{34}F_{21}N_2NdO_6$ M 1097.848
Violet cryst. Sol. EtOH, hexane. Mp 118°.

Paramagnetic; $\mu_{\text{eff}} = 3.81\mu_B$.

Imidazole complex: [96511-68-1].

$C_{33}H_{34}F_{21}N_2NdO_6$ M 1097.848
Violet cryst. Sol. EtOH. Mp 187-188°. $\mu_{\text{eff}} = 3.82\mu_B$.

Bipy complex: [79466-61-8].

$C_{40}H_{38}F_{21}N_2NdO_6$ M 1185.956
Violet cryst. + $2H_2O$. Sol. EtOH; sl. sol. hexane. Mp 80°.

Phen complex:

$C_{42}H_{38}F_{21}N_2NdO_6$ M 1209.978
Violet cryst. Mp 106°. $\mu_{\text{eff}} = 3.40\mu_B$.

Springer, C.S. *et al.* *Inorg. Chem.*, 1967, **6**, 1105 (*synth*)
Swain, H.A. *et al.* *J. Inorg. Nucl. Chem.*, 1971, **33**, 2851 (*rvp*)
Karraker, D.G., *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713 (*uv-vis*)
Rondeau, R.E. *et al.* *Anal. Chem.*, 1973, **45**, 2145 (*use*)
Risby, T.H. *et al.* *Anal. Chem.*, 1974, **46**, 726 (*ms*)
Evans, D.F. *et al.* *J. Chem. Soc., Dalton Trans.*, 1974, 765 (*use*)
Ajsisaka, K. *et al.* *J. Am. Chem. Soc.*, 1975, **97**, 330 (*nmr*)
Sayeed, M. *et al.* *J. Inorg. Nucl. Chem.*, 1981, **43**, 3197 (*adducts*)
Iftikher, K. *et al.* *Bull. Chem. Soc. Jpn.*, 1982, **55**, 2258 (*adducts*)
Iftikher, K. *et al.* *Inorg. Chem.*, 1982, **21**, 80 (*adducts synth, ir, uv-vis*)
Iftikher, K. *et al.* *Polyhedron*, 1985, **4**, 333 (*adducts synth, ir, uv-vis*)

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)praseodymium(III), 9CI T-00400

*Pr(fod)*₃. Rondeau's reagent. *Resolve-Al PrFOD*
[17978-77-7]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392 with

M = Pr

$C_{30}H_{30}F_{21}O_6Pr$ M 1026.437

Nmr upfield chiral shift reagent; resolves diastereotopic protons in β -lactams. Induces shift difference in triglycerides, fatty acid residues. Commercially available. Hygroscopic, volatile green cryst. + $\frac{1}{2} H_2O$ (CH_2Cl_2). Insol. H_2O ; sol. $CHCl_3$, C_6H_6 , EtOH. Mp 218-225° dec. Forms 2:1 adducts in soln. with various donor ligands.

Monohydrate: [49792-34-9].

Green solid. Sol. CH_2Cl_2 , MeOH. Mp 218-225° dec. Loses H_2O *in vacuo* over P_2O_5 . Dimeric $Pr_2(fod)_6 \cdot 2H_2O$ struct.

Springer, C.S. *et al.* *Inorg. Chem.*, 1967, **6**, 105, 1522 (*synth, ir, nmr*)
de Villiers, J.P.R. *et al.* *Acta Crystallogr., Sect. B*, 1971, **27**, 692 (*cryst struct*)
Rondeau, R. *et al.* *J. Am. Chem. Soc.*, 1971, **93**, 1522 (*use*)
Karraker, D.G., *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713.
Bose, A.K. *et al.* *Tetrahedron Lett.*, 1972, 3599 (*use*)

Cockerill, A.F. *et al*, *Chem. Rev.*, 1973, **73**, 553 (*rev*)
 Mayo, B.C., *Chem. Soc. Rev.*, 1973, **2**, 49 (*rev*)
 Bruder, A.A. *et al*, *Inorg. Chem.*, 1974, **13**, 880.
 Evans, D.F. *et al*, *J. Chem. Soc., Dalton Trans.*, 1974, 765 (*pmr*)
 Frost, D.J. *et al*, *Chem. Phys. Lipids*, 1975, **14**, 189 (*use*)
 Wenjel, T.J. *et al*, *J. Am. Chem. Soc.*, 1980, **102**, 5903 (*use*)
Gmelin Handbook Inorg. Chem., Syst. No. 39, 1981, **D3**, 155 (*rev*)

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-O,O')terbium(III), 9CI **T-00401**

*Tb(fod)*₃
 [17631-66-2]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-O,O')chromium(III), T-00392 with

M = Tb

$C_{30}H_{30}F_{21}O_6Tb$ M 1044.455
 Nmr shift reagent. Hygroscopic white solid with green fluorescence. Sol. $CHCl_3$, CH_2Cl_2 . Mp 190-196°. Forms adducts with Lewis bases. Volatile *in vacuo*.

Monohydrate: [18716-25-1].
 Cryst. Sol. CH_2Cl_2 , MeOH. Mp 92-97°. Fluorescent. Loses H_2O *in vacuo* over P_2O_5 .

Springer, C.S. *et al*, *Inorg. Chem.*, 1967, **6**, 1105 (*synth*)
 Karraker, D.G., *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713 (*synth*)
 Risby, T.H. *et al*, *Anal. Chem.*, 1974, **46**, 726 (*ms*)
Gmelin Handbook Inorg. Chem., Syst. No. 39, 1981, **D3**, 155 (*rev*)

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-O,O')ytterbium(III), 9CI **T-00402**

*Resolve-Al YbFOD. Yb(fod)*₃
 [18323-96-1]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-O,O')chromium(III), T-00392 with

M = Yb

$C_{30}H_{30}F_{21}O_6Yb$ M 1058.570
 Used in conjunction with $Ag(fod)_3$ as nmr downfield shift reagent for aromatic protons. Commercially available. Hygroscopic white cryst. Insol. H_2O ; sol. $CHCl_3$. Mp 125-132°. Volatile *in vacuo*. Forms adducts with Lewis bases.

Monohydrate: [17633-07-7].
 White cryst. (CH_2Cl_2). Sol. CH_2Cl_2 , MeOH. Mp 112-115°.

▷ Deflagrates >100° or *in vacuo*.

Springer, C.S. *et al*, *Inorg. Chem.*, 1967, **6**, 1105, 1522 (*synth*)
 Karraker, D.G., *J. Inorg. Nucl. Chem.*, 1971, **33**, 3713 (*spectra*)
 Cockerill, A.F., *Chem. Rev.*, 1973, **73**, 533 (*rev*)
 Mayo, B.C., *Chem. Soc. Rev.*, 1973, **2**, 49 (*rev*)
 Risby, T.H. *et al*, *Anal. Chem.*, 1974, **46**, 726 (*ms*)
 Evans, D.F. *et al*, *J. Chem. Soc., Dalton Trans.*, 1974, 765 (*adducts*)
 Lenkinski, R.E. *et al*, *J. Magn. Reson.*, 1976, **21**, 47 (*use*)
 Wenzel, T.J. *et al*, *J. Am. Chem. Soc.*, 1980, **102**, 5903 (*use*)
Gmelin Handbook Inorg. Chem., Syst. No. 39, Suppl. vol., 1981, **D3**, 155 (*rev*)

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-O,O')yttrium(III) **T-00403**

*Y(fod)*₃
 [63835-31-4]

As Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-O,O')chromium(III), T-00392 with

M = Y

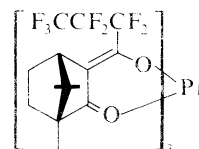
$C_{30}H_{30}F_{21}O_6Y$ M 974.436
 Nmr shift reagent. Hygroscopic white solid. Sol. $CHCl_3$. Mp 162-167°.

Monohydrate: [17633-09-9].
 $C_{30}H_{32}F_{21}O_7Y$ M 992.451
 White solid. Sol. CH_2Cl_2 , MeOH. Mp 108-112°. Loses H_2O on storage *in vacuo* over P_2O_5 .

Springer, C.S. *et al*, *Inorg. Chem.*, 1967, **6**, 1105 (*synth, ir, pmr*)

Tris[3-(heptafluoropropylhydroxymethylene)-d-camphorato]praseodymium(III) **T-00404**

*Tris[3-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-onato-O,O']praseodymium, 9CI. Tris(3-heptafluorobutyl-d-camphorato)praseodymium(III). Pr(hfc)*₃. *Pr(hfbc)*₃
 [38832-94-9]

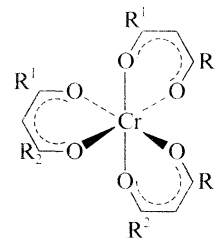


$C_{42}H_{42}F_{21}O_6Pr$ M 1182.664
 Nmr chiral shift reagent. Light-tan powder. Indefinite Mp >100°.

Goering, H.L. *et al*, *J. Am. Chem. Soc.*, 1971, **93**, 5913 (*use*)
 Fraser, R.R. *et al*, *J. Am. Chem. Soc.*, 1972, **94**, 3253 (*use*)
 Goering, H.L. *et al*, *J. Am. Chem. Soc.*, 1974, **96**, 1493 (*synth, use*)

Tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-O,O')chromium(III) **T-00405**

Chromium(III) hexafluoroacetylacetonate
 [14592-80-4]



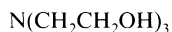
$R^1 = R^2 = CF_3$

$C_{15}H_3CrF_{18}O_6$ M 673.152
 Octahedral coordination with Cr—O 195.7 pm. Nmr shift reagent. Analytical applns. Dark violet cryst. Sol. CCl_4 , C_6H_6 . Mp 84-85°.

Jarrett, H.S., *J. Chem. Phys.*, 1957, **27**, 1298 (*esr*)
 Morris, M.L. *et al*, *Inorg. Chem.*, 1963, **2**, 411; 1981, **20**, 2737 (*synth, ms, ir*)
 De Armond, K. *et al*, *Spectrochim. Acta*, 1963, **19**, 1393.
 Fatta, A.M. *et al*, *Inorg. Chem.*, 1971, **10**, 478 (*synth, uv-vis*)
 Fontaine, R. *et al*, *Bull. Soc. Chim. Fr.*, 1972, 3011 (*rp*)
 Allen, G.C. *et al*, *Inorg. Chim. Acta*, 1976, **16**, 41 (*pe*)
 Thomas, B.G. *et al*, *Inorg. Chem.*, 1978, **17**, 2901 (*ed*)
 Veillon, C. *et al*, *Anal. Chem.*, 1979, **51**, 1022 (*use*)

Tris(2-hydroxyethyl)amine**T-00406**

2,2',2''-Nitritotriethanol, 9CI. 2,2',2''-Nitritotriethanol, 8CI.
2,2',2''-Trihydroxytriethylamine. Triethanolamine.
Tricolamine. **Trolamine**, USAN. Sting-Kill
[102-71-6]



$\text{C}_6\text{H}_{15}\text{NO}_3$ M 149.189

Catalyst for condensation reacns. Pharmaceutic aid, analgesic. Used as 10% aq. soln. of chloride salt for photometric detn. of CS_2 ; as a masking agent for Fe(III), Al. Hygroscopic, viscous liq. Misc. H_2O , MeOH, Me_2CO . Mp 21.6°. Bp 335.4°. $\text{p}K_a$ 9.50. Not volatile in steam. Darkens in air.

▷ KL9275000.

B.HCl: [637-39-8].

Cryst. (EtOH). Spar. sol. H_2O , EtOH. Mp 177°.

Tri-Ac: [3002-18-4].

$\text{C}_{12}\text{H}_{21}\text{NO}_6$ M 275.301

Mobile oil. V. sol. EtOH, Et_2O , insol. H_2O . Bp_{2,0} 206-207°.

N-Oxide: [7529-23-9].

$\text{C}_6\text{H}_{15}\text{NO}_4$ M 165.189

Large cryst. V. sol. H_2O , EtOH, insol. EtOAc, ligroin. Mp 104-105.5°.

Wurtz, *Justus Liebigs Ann. Chem.*, 1862, **121**, 227 (*synth*)

Jones, L.W. *et al*, *J. Am. Chem. Soc.*, 1925, **47**, 2966 (*synth. props*)

Fieser and Fieser's *Reagents for Organic Synthesis*, Wiley, 1967, **1**, 1196.

U.K. Pat., 1 092 499, (1967); *CA*, **68**, 49030 (*synth. props*)

Hunt, E.C. *et al*, *Analyst (London)*, 1973, **98**, 585 (*detn. CS₂*)

Martindale, *The Extra Pharmacopoeia*, 28th/29th Ed.,

Pharmaceutical Press, London, 1982/1989, 218, 9593.

Reiter, L.G. *et al*, *Zh. Anal. Khim.*, 1983, **38**, 1270 (*use*)

Mootz, D. *et al*, *Acta Crystallogr., Sect. C*, 1989, **45**, 754 (*cryst struct*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TKP500.

[Tris(hydroxymethyl)methyl]amino]acetic acid**T-00407**

N-Tris(hydroxymethyl)methylglycine. *N-[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]glycine*, 9CI
[5704-04-1]



$\text{C}_6\text{H}_{13}\text{NO}_5$ M 179.172

Good's buffer with pH range 7.8-8.8. Hygroscopic cryst. (EtOH aq.). Sol. H_2O . Mp 182-184° dec. $\text{p}K_a$ 8.15 (20°).

[43058-97-5]

Good, N.E. *et al*, *Biochemistry*, 1966, **5**, 467 (*use*)

Stinson, R.A. *et al*, *Can. J. Biochem.*, 1968, **46**, 43 (*use*)

Good, N.E. *et al*, *Methods Enzymol.*, 1968, **24B**, 53 (*synth*)

Bates, R.G. *et al*, *Anal. Chem.*, 1973, **45**, 1663 (*use*)

McGlothlin, C.D. *et al*, *Anal. Lett.*, 1976, **9**, 245 (*props*)

Monthony, J.F. *et al*, *Clin. Chem. (Winston-Salem, N.C.)*, 1978, **24**, 1825 (*use*)

Tris(6-methylheptyl)amine**T-00408**

N,N-Diisooctylisooctanamine, 8CI. *Triisooctylamine*
[25549-16-0]



$\text{C}_{24}\text{H}_{51}\text{N}$ M 353.674

B.HCl: [25429-07-6].

Used for extraction separation of Co, Mo, U(VI). d 0.816. Fp > 110°. n_D^{20} 1.4501.

Vieux, A.S. *et al*, *J. Inorg. Nucl. Chem.*, 1975, **37**, 2313 (*detn. U*)

Krishnan, G.U. *et al*, *Indian J. Chem., Sect. A*, 1976, **14**, 139 (*detn. Co*)

Vieux, A.S. *et al*, *Inorg. Chem.*, 1976, **15**, 722 (*detn. Mo*)

Tris(2-methylpropyl)amine**T-00409**

2-Methyl-N,N-bis(2-methylpropyl)-1-propanamine, 9CI.
Triisobutylamine, 8CI

[1116-40-1]



$\text{C}_{12}\text{H}_{27}\text{N}$ M 185.352

Used as 1mM soln. in dil. HCl for extraction separation of Pt, Pd and Ir from Rh (HCl medium). Liq. Immisc.

H_2O . $d_4^{17.3}$ 0.771. Fp -24°. Bp 191.5°. $n_D^{17.3}$ 1.4252.

Methochloroplatinate: Mp 174°.

Ladenburg, A., *Ber.*, 1879, **12**, 949.

Timmermans, J., *Bull. Soc. Chim. Belg.*, 1921, **30**, 69.

Rao, M.R.A. *et al*, *J. Indian Inst. Sci.*, 1957, **39**, 138.

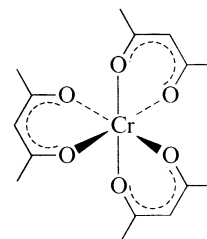
Borbat, V.F. *et al*, *Zh. Anal. Khim.*, 1965, **20**, 192 (*use*)

Pollak, I.E. *et al*, *J. Org. Chem.*, 1967, **32**, 2892.

Tris(2,4-pentanedionato-*O,O'*)chromium(III)**T-00410**

Tris(acetylacetonato)chromium(III). *Chromium(III) acetylacetonate*

[13681-82-8]

 Δ -form

$\text{C}_{15}\text{H}_{21}\text{CrO}_6$ M 349.323

Spin relaxant. Many catalytic applns. Used to detect Cr by isotope dilution technique. Red-violet (deep maroon) cryst. Forms various solvates. Insol. H_2O ; sol. C_6H_6 , CHCl_3 , esters. Mp 216°. Subl. ca. 340°. Readily undergoes electrophilic substitution. with e.g. Br, NO_2 , Cl, I.

A-form [31378-25-3]

(-)-form

Red-purple cryst.

[21679-31-2, 55820-17-2, 56551-89-4, 56551-90-7, 56551-91-8]

Reihlen, H. *et al*, *Chem. Ber.*, 1925, **58B**, 12 (*reactions*)

Inorg. Synth., 1957, **5**, 130 (*synth*)

Sievers, R.T. *et al*, *Inorg. Chem.*, 1963, **2**, 693 (*resolm*)

Morosin, B.R., *Acta Crystallogr.*, 1965, **19**, 131 (*cryst struct*)

Collman, J.P., *Angew. Chem., Int. Ed. Engl.*, 1965, **4**, 132 (*rev*)

Lintvedt, R.L. *et al*, *Inorg. Chem.*, 1970, **9**, 491; 1971, **10**, 478 (*uv-vis*)

Yoshida, I. *et al*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 2203 (*dta, dec*)

Cotton, F.A. *et al*, *Inorg. Chem.*, 1975, **14**, 703 (*use*)

Klotz, W.L. *et al*, *Inorg. Chem.*, 1975, **14**, 3125 (*esr*)

Levy, G.C. *et al*, *J. Am. Chem. Soc.*, 1975, **97**, 4482 (*use*)

Brauer, G., *Handbuch Präp. Anorg. Chem.*, 3rd Ed., Ferdinand Enke Verlag, 1975-1981, **3**, 1520 (*synth*)

Mehrotra, R.C. *et al*, *Metal β -Diketonates and Allied Derivatives*, London, 1978 (*rev*)

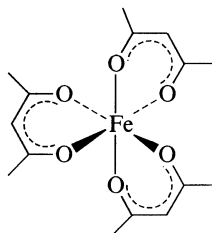
Kuroda, R. *et al*, *J. Chem. Soc., Dalton Trans.*, 1979, 273 (*cryst struct, abs config*)

Van Dam, H. *et al*, *J. Electron Spectrosc. Relat. Phenom.*, 1979, **13**, 353 (*pe*)

Pierce, J.L. *et al*, *Inorg. Chem.*, 1982, **21**, 2597 (*ms*)
 Chaudhuri, M.K. *et al*, *Synth. React. Inorg. Met.-Org. Chem.*,
 1982, **12**, 879 (*synth*)
 Shafer, W. *et al*, *Fresenius' Z. Anal. Chem.*, 1983, **315**, 475 (*use*)
 Peacock, R.D., *J. Chem. Soc., Dalton Trans.*, 1983, 291 (*cd*)
 Drake, A.F. *et al*, *Polyhedron*, 1983, **2**, 537 (*resoln*)
 Kolesov, B.A. *et al*, *Koord. Khim.*, 1985, **11**, 485 (*raman*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, TNN250.

Tris(2,4-pentanedionato-*O,O'*)iron(III), T-00411**11CI**

Tris(acetylacetonato)iron(III). *Ferric acetylacetonate*
 [14024-18-1]

C₁₅H₂₁FeO₆ M 353.174

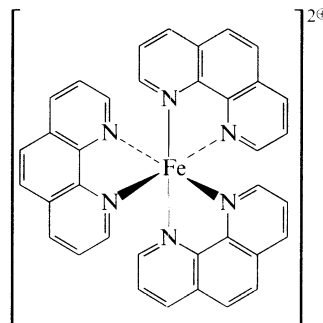
Octahedral. Synth. by various methods from Fe(0) or
 Fe(III). Combustion, oxidation, polym. coupling
 catalyst; bonding agent; curing accelerator; synthetic
 intermed. NMR relaxation reagent. Red cryst. (EtOH).
 Sl. sol. H₂O; sol. EtOH, Me₂CO, CHCl₃, CH₂Cl₂. Mp
 175°.

▷ Irritant. NO8960000.

Charles, R.G. *et al*, *J. Phys. Chem.*, 1958, **62**, 315 (*synth*)
 Nakamoto, K. *et al*, *J. Am. Chem. Soc.*, 1961, **83**, 1066 (*ir*)
 Dunne, T.G. *et al*, *Inorg. Chem.*, 1963, **2**, 263 (*synth, magnetism*)
 Iball, J. *et al*, *Acta Crystallogr.*, 1967, **23**, 239 (*struct*)
 Bancroft, G.M. *et al*, *Inorg. Chem.*, 1968, **7**, 870 (*ms*)
 Larsson, R. *et al*, *Acta Chem. Scand.*, 1969, **23**, 1765 (*ir*)
 Lintvedt, R.L. *et al*, *Inorg. Chem.*, 1970, **9**, 491 (*w, electronic*
struct)
 Hancock, R.D. *et al*, *Theor. Chim. Acta*, 1970, **18**, 67 (*w, nmr, ir,*
bonding)
 Levy, G.C. *et al*, *J. Magn. Reson.*, 1973, **10**, 231 (*use*)
 Chaudhuri, M.K. *et al*, *J. Chem. Soc., Dalton Trans.*, 1983, 839
 (*synth*)
 Nekhoroshkov, V.P. *et al*, *Koord. Khim.*, 1984, **10**, 459 (*ir*)
 Yamauchi, S. *et al*, *Bull. Chem. Soc. Jpn.*, 1985, **58**, 442
 (*mössbauer*)
 Kolesov, B.A. *et al*, *Koord. Khim.*, 1985, **11**, 485 (*raman*)
 Srivastava, S. *et al*, *Polyhedron*, 1985, **4**, 409 (*pe*)
 Hedewy, S. *et al*, *Phys. Status Solidi A*, 1986, **97**, 129 (*esr*)
 Collison, D. *et al*, *Inorg. Chem.*, 1990, **29**, 4735 (*esr*)
 Ustinov, A.Y. *et al*, *Zh. Fiz. Khim.*, 1991, **65**, 1811; *CA*, **115**,
 265866m (*pe*)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th
 Ed., Van Nostrand-Reinhold, 1992, IGL000.

Tris(1,10-phenanthroline-*N¹,N¹⁰*)iron(II) T-00412**(2+), 11CI***Ferroin*

[14708-99-7]

Absolute
configuration*Δ-form*C₃₆H₂₄FeN₆²⁺ M 596.473 (ion)

Stable low spin complex. May be resolved. Synth. from aq.
 Fe(II) salts + phen. Catalyst; redox agent;
 electrocatalyst; extractant; reagent for
 spectrophotometric detn. of Fe, Sb, As, Pd, Ir, B,
 SCN[⊖], ClO₄[⊖]; redox indicator. lg K₁ 5.8; lg K₂ 5.2; lg
 K₃ 10.0. E° –1.10v. Reacts with strong nucleophiles,
 X[⊖], to form Fe(phen)₂X₂. E° +1.11 V (pH ~ 0).

Δ-form [24324-38-7]*(+)-form, d-form*

Optical forms stable in solid state for months, but
 racemise rapidly in aq. soln., t_{1/2} ~ 60 min.

Diperchlorate: [40424-84-8].

Red cryst. + 2H₂O or + 3H₂O. [α]_D²⁰ +1432° (approx.
 60% e.e.).

Λ-form [47836-89-5]*(-)-form, l-form**Diperchlorate*: Red microprismatic needles + 3H₂O. Sol.

H₂O, v. sol. Me₂CO, spar. sol. EtOH. [α]_D²⁰ –1416°
 (approx. 60% e.e.).

(2*R*,3*R*)-*Antimonytartrate salt*: [40354-54-9]. *Bis*[μ-[2,3-
dihydroxybutanedioato(4–)-O¹,O², O³,O⁴]]

diantimonate(2–) salt, 9*CI*

Used to resolve cation enantiomers; and in detn. of abs.
 config. Dark red cryst. + 8H₂O. V. insol. H₂O. [α]_D²⁰
 –950°.

(±)-form

Many salts known.

Dichloride: [14978-15-5].

Oxidation catalyst. Red.

Dibromide: [15406-79-8].

Red.

Diiodide: [15553-89-6].Red cryst. + 2H₂O (H₂O).*Diperchlorate*: [14586-54-0].

Red cryst. Forms various hydrates.

Sulfate: [14634-91-4].

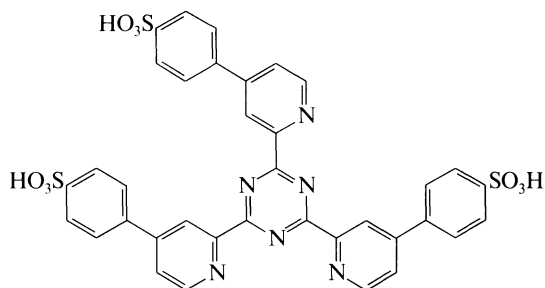
[13408-69-0, 24324-38-7, 24717-44-0, 36608-42-1, 38703-10-5,
 39561-36-9, 40424-82-6, 41062-51-5, 41494-23-9, 42992-96-1, 47836-
 89-5, 51174-98-2]

Blau, F., *Monatsh. Chem.*, 1898, **19**, 647 (*synth*)Dwyer, F.P. *et al*, *J. Proc. R. Soc. N.S.W.*, 1950, **83**, 263 (*synth,*
resol)Koenig, L., *Coord. Chem. Rev.*, 1968, **3**, 471 (*rev, bibl*)McWhinnie, W.R. *et al*, *Adv. Inorg. Chem. Radiochem.*, 1969, **12**,
135 (*rev, bibl*)Kolthoff, I.M. *et al*, *Quant. Chem. Anal.*, MacMillan, London,
1969 (*indic*)

Zalkin, A. *et al*, *Inorg. Chem.*, 1973, **12**, 1641 (*cryst struct, abs config*)
 Johansson, L., *Chem. Scr.*, 1976, **9**, 30 (*synth*)
 Johansson, L. *et al*, *Inorg. Chim. Acta*, 1978, **31**, 117 (*cryst struct*)
 O'Brien, P., *Polyhedron*, 1983, **2**, 233 (*kinetics, racemism, rev*)
 Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986 (*use*)
Compr. Coord. Chem., Pergamon, Oxford, 1987, **4**, 1214, 1216 (*rev, bibl*)

2,4,6-Tris[4-(4-sulphophenyl)-2-pyridyl]-s-triazine **T-00413**

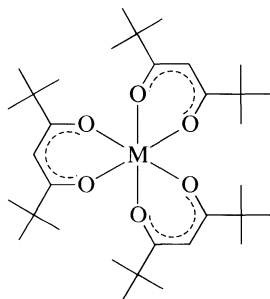
4,4',4''-(1,3,5-Triazine-2,4,6-triyltri-2,4-pyridinediyl)trisbenzenesulfonic acid, 9CI
 [76948-54-4]



$C_{36}H_{24}N_6O_9S_3$ M 780.818
 Used as a 1mM aq. soln. for photometric detn. of Fe(II)
 (λ_{max} 607 nm, ϵ 29800). Cryst. (H₂O). Mp > 300° dec.
 Hoyle, W.C. *et al*, *Talanta*, 1980, **27**, 963 (*detn, Fe*)

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')chromium(III) **T-00414**

11CI
 Chromium(III) dipivaloylmethanide
 [14434-47-0]



M = Cr

$C_{33}H_{57}CrO_6$ M 601.806
 Relaxation reagent. Dark purple cryst. or ruby red needles
 (EtOH). Sol. C₆H₆, EtOH, Me₂CO. Mp 230° (229°).
 Subl._{0.0001} 180°.

Hammond, G.S. *et al*, *Inorg. Chem.*, 1963, **2**, 73 (*synth*)
 Hancock, R.D. *et al*, *J. Mol. Struct.*, 1969, **4**, 361 (*ir*)
 Fatta, A.M. *et al*, *Inorg. Chem.*, 1971, **10**, 478 (*synth, uv-vis*)
 Berg, E.W. *et al*, *Anal. Chim. Acta*, 1972, **60**, 117 (*synth, ir*)
 Yoshida, I. *et al*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 2203 (*synth, dta*)
 Levy, G.C. *et al*, *J. Magn. Reson.*, 1975, **19**, 259 (*use*)
 Schildcrout, S.M., *Inorg. Chem.*, 1980, **19**, 224 (*ms*)
Inorg. Synth., 1986, **24**, 183 (*synth*)

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')dysprosium(III) **T-00415**

Tris(dipivaloylmethanido)dysprosium(III). Dysprosium tris(dipivaloylmethane). Resolve-AIDy. Dy(thd)₃
 [15522-69-7]

As Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')chromium(III), T-00414 with

M = Dy

$C_{33}H_{57}DyO_6$ M 712.310
 Can be either monomeric or dimeric in solid state.
 Commercially available. Nmr upfield shift reagent.
 Hygroscopic white cryst. (hexane). Sol. C₆H₆, CCl₄, CHCl₃, MeOH, EtOH, EtOAc, hexane. Mp 180-183.5° (182-183°). Subl. 180° *in vacuo*. Paramagnetic, μ_{eff} = 10.3 μ_B .

Monohydrate:

$C_{33}H_{59}DyO_7$ M 730.325
 White cryst.

Py complex: [33135-12-5].

$C_{38}H_{62}DyNO_6$ M 791.411
 White cryst. Sol. Py, C₆H₆. Mp 135-137°. μ_{eff} = 10.7 μ_B .

Bipy complex: [33135-13-6].

$C_{43}H_{65}DyN_2O_6$ M 868.496
 White cryst. Sol. CCl₄, hexane. Mp 193°. μ_{eff} = 10.2 μ_B .

Phen complex: [33135-14-7].

$C_{45}H_{65}DyN_2O_6$ M 892.518
 White cryst. Sol. CCl₄, hexane. Mp 250°. μ_{eff} = 10.0 μ_B .

y.

Eisentraut, K.J. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 5254 (*synth, glc*)

Inorg. Synth., 1968, **11**, 94 (*synth, ir*)

Mode, V.A. *et al*, *J. Inorg. Nucl. Chem.*, 1969, **31**, 1857 (*cryst struct*)

Crump, D.R. *et al*, *Tetrahedron Lett.*, 1970, 4419 (*use*)

Selbin, J. *et al*, *Inorg. Chem.*, 1971, **10**, 1383 (*synth, deriv, magnetism, uv, vis*)

Erasmus, C.S. *et al*, *J. Cryst. Mol. Struct.*, 1971, **1**, 83, 297.

Cockerill, A.F. *et al*, *Chem. Rev.*, 1973, **73**, 553 (*rev*)

Orchard, A.F. *et al*, *J. Electron Spectrosc. Relat. Phenom.*, 1977, **10**, 1 (*pe*)

Kluzinger, J.P. *et al*, *Org. Magn. Reson.*, 1980, **13**, 464 (*use*)

Gmelin Handbook Inorg. Chem., Syst. No. 39, 1981, **D3**, 125 (*rev*)

Gavrishchuk, E.M. *et al*, *Zh. Neorg. Khim.*, 1983, **28**, 871; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1983, **28**, 493 (*ms*)

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')europium(III) **T-00416**

Europium(III) dipivaloylmethanide. Resolve-Al. Eu(thd)₃
 [15522-71-1]

As Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')chromium(III), T-00414 with

M = Eu

$C_{33}H_{57}EuO_6$ M 701.775
 Commercially available. Nmr shift reagent. Resolves mixts. of steroidal diastereoisomers. Generally forms 1:1 adducts with Lewis bases. Dimeric in solid state.

Dimer: [35185-03-6].

$C_{66}H_{114}Eu_2O_{12}$ M 1403.549
 Yellow cryst. Sol. C₆H₆, CHCl₃, CCl₄, MeOH, EtOAc, hexane. Mp 187-189° (190-191°). Subl. 180° *in vacuo*.
 Paramagnetic, μ_{eff} = 3.4 μ_B .

Eisentraut, K.J. *et al*, *J. Am. Chem. Soc.*, 1965, **87**, 5254 (*synth, glc*)

Inorg. Synth., 1968, **11**, 94 (*synth, ir*)

Sanders, J.K.M. *et al*, *J. Chem. Soc., Chem. Commun.*, 1970, 422 (*use*)

Crump, D.R. *et al*, *Tetrahedron Lett.*, 1970, 4419 (*use*)

Joseph-Nathan, P. *et al.*, *Can. J. Chem.*, 1973, **50**, 2788.
 Cockerill, A.F. *et al.*, *Chem. Rev.*, 1973, **73**, 553 (rev)
 Mayo, B.C., *Chem. Soc. Rev.*, 1973, **2**, 49 (rev)
 Dyer, D.S. *et al.*, *NMR Shift Reagents*, (Ed. Sievers, R.E.),
 Academic Press, N.Y., 1973, 21 (complex)
 Cramer, R.E. *et al.*, *J. Am. Chem. Soc.*, 1974, **96**, 4125 (use)
Gmelin Handbook Inorg. Chem., Syst. No. 39, 1981, **D3**, 125 (rev)
 Gavriushchuk, E.M. *et al.*, *Zh. Neorg. Khim.*, 1983, **28**, 871; *Russ. J.*
Inorg. Chem. (Engl. Transl.), **28**, 493 (ms)

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')gadolinium(III) **T-00417**

Tris(dipivaloylmethanido)gadolinium. Resolve-Al Gd.
Gd(thd)₃

[14768-15-1]

As Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')
 chromium(III), T-00414 with

M = Gd

$C_{33}H_{57}GdO_6$ M 707.060

Dimeric in solid state. Commercially available. Nmr shift
 reagent. Used as a spin label in ^{15}N nmr.

Dimer:

$C_{66}H_{114}Gd_2O_{12}$ M 1414.119

Hygroscopic white solid. Sol. C_6H_6 , $CHCl_3$, MeOH,
 EtOH, CCl_4 , EtOAc, hexane. Mp 182-184°.

Paramagnetic, $\mu_{eff} = 7.6, 7.8\mu_B$.

Py complex: [33134-16-6]. (*Pyridine*)tris(2,2,6,6-tetramethyl-
 3,5-heptanedionato-O,O')gadolinium(III)

$C_{38}H_{62}GdNO_6$ M 786.161

White cryst. Sol. Py, C_6H_6 . Mp 134-135°. Paramagnetic,
 $\mu_{eff} = 7.8\mu_B$.

Bipy complex: [33134-17-7]. (*2,2'-Bipyridine-N,N'*)
 tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')
 gadolinium(III)

$C_{43}H_{65}GdN_2O_6$ M 863.246

White cryst. Sol. Py, hexane. Mp 192-193°.

Paramagnetic, $\mu_{eff} = 7.9\mu_B$.

Phen complex: [33134-18-8]. (*1,10-Phenanthroline-N,N'*)
 tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')
 gadolinium(III)

$C_{45}H_{65}GdN_2O_6$ M 887.268

White cryst. Sol. CCl_4 , hexane. Mp 225-228°.

Paramagnetic, $\mu_{eff} = 8.0\mu_B$.

Eisenraut, K.J. *et al.*, *J. Am. Chem. Soc.*, 1965, **87**, 5254 (*synth, ir*)
Inorg. Synth., 1968, **11**, 94 (*synth, ir*)

Mode, V.A. *et al.*, *J. Inorg. Nucl. Chem.*, 1969, **31**, 1857 (*cryst*
struct)

Selbin, J. *et al.*, *Inorg. Chem.*, 1971, **10**, 1383 (*synth, derivs,*
magnetism, uv-vis)

Levy, G.C. *et al.*, *J. Am. Chem. Soc.*, 1978, **100**, 2308 (use)

Gmelin Handbook Inorg. Chem., Syst. No. 39, Suppl. Vol., 1981,
D3, 125 (rev)

Hirayama, C. *et al.*, *Thermochim. Acta*, 1985, **88**, 407 (ms)

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')holmium(III) **T-00418**

Tris(dipivaloylmethanido)holmium(III). Resolve-Al Ho.
Ho(thd)₃

[15522-73-3]

As Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')
 chromium(III), T-00414 with

M = Ho

$C_{33}H_{57}HoO_6$ M 714.740

Commercially available nmr shift reagent. Hygroscopic
 yellow-white cryst. Sol. C_6H_6 , CCl_4 , $CHCl_3$, MeOH,
 EtOH, EtOAc, hexane. Mp 180-182.5° (178-180°).

Py complex: [33088-21-0]. (*Pyridine*)tris(2,2,6,6-tetramethyl-
 3,5-heptanedionato-O,O')holmium(III)

$C_{38}H_{62}HoNO_6$ M 793.841

White cryst. Sol. Py, C_6H_6 . Mp 134-135°. Paramagnetic,
 $\mu_{eff} = 10.3\mu_B$.

Bipy complex: [33135-15-8]. (*2,2'-Bipyridine-N,N'*)
 tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')
 holmium(III)

$C_{43}H_{65}HoN_2O_6$ M 870.927

Light yellow cryst. Sol. CCl_4 , hexane. Mp 188-190°.

Paramagnetic, $\mu_{eff} = 10.5\mu_B$.

Phen complex: [33293-87-7]. (*1,10-Phenanthroline-N,N'*)
 tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')
 holmium(III)

$C_{45}H_{65}HoN_2O_6$ M 894.949

Light yellow cryst. Sol. CCl_4 , hexane. Mp 246-248°.

Paramagnetic, $\mu_{eff} = 10.3\mu_B$.

Bis(4-picoline) complex: [34430-71-2].

$C_{45}H_{71}HoN_2O_6$ M 900.996

Cryst. Sol. 4-picoline. Square antiprismatic struct.

Eisenraut, K.J. *et al.*, *J. Am. Chem. Soc.*, 1965, **87**, 5254 (*synth*)
Inorg. Synth., 1968, **11**, 94 (*synth, ir*)

Belcher, R. *et al.*, *J. Inorg. Nucl. Chem.*, 1969, **31**, 471 (ms)

Crump, D.R. *et al.*, *Tetrahedron Lett.*, 1970, 4419 (use)

Tomic, L. *et al.*, *Croat. Chem. Acta*, 1971, **43**, 267 (use)

Selbin, J. *et al.*, *Inorg. Chem.*, 1971, **10**, 1383 (*synth, derivs,*
magnetism, uv-vis)

Horrocks, W. de W. *et al.*, *J. Am. Chem. Soc.*, 1971, **93**, 5258
(picoline complex, cryst struct)

Gmelin Handbook Inorg. Chem., Syst. No 39, Suppl. Vol., 1981, **D3**,
 125 (rev)

Gavriushchuk, E.M. *et al.*, *Zh. Neorg. Khim.*, 1983, **28**, 871; *Russ. J.*
Inorg. Chem. (Engl. Transl.), 1983, **28**, 493 (ms)

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')lanthanum(III) **T-00419**

Tris(dipivaloylmethanido)lanthanum(III). Resolve-Al La.
La(thd)₃

[14319-13-2]

As Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')
 chromium(III), T-00414 with

M = La

$C_{33}H_{57}LaO_6$ M 688.715

Dimeric in solid state. Commercially available. Nmr shift
 reagent.

Dimer:

$C_{66}H_{114}La_2O_{12}$ M 1377.430

Hygroscopic colourless cryst. (DMF). Sol. $CHCl_3$, C_6H_6 ,
 EtOAc, EtOH, CCl_4 , hexane. Mp 238-248° (sealed tube)
 (148-149°).

DMF complex (1:1): [17979-38-3]. (*Dimethylformamide*)
 tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')
 lanthanum(III)

$C_{36}H_{64}LaNO_7$ M 761.810

Colourless cryst. Sol. DMF. Mp 118-235°. Dec. > 115°
 with loss of DMF.

Hammond, G.S. *et al.*, *Inorg. Chem.*, 1963, **2**, 73 (*synth*)

Eisenraut, K.J. *et al.*, *J. Am. Chem. Soc.*, 1965, **87**, 5254 (*synth, ir,*
pmr)

Inorg. Synth., 1968, **11**, 94 (*synth*)

Mode, V.A. *et al.*, *Inorg. Nucl. Chem. Lett.*, 1972, **8**, 357 (ir)

Veblen, J.J. *et al.*, *Tetrahedron Lett.*, 1973, 4383 (use)

Gmelin Handbook Inorg. Chem., Syst. No. 39 Suppl. Vol., 1981,
D3, 125 (rev)

Korsun, V.R. *et al.*, *Ukr. Khim. Zh. (Russ. Ed.)*, 1983, **49**, 577 (ir)

Gavriushchuk, E.M. *et al.*, *Zh. Neorg. Khim.*, 1983, **28**, 871; *Russ. J.*
Inorg. Chem. (Engl. Transl.), 1983, **28**, 493 (ms)

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)praseodymium(III) **T-00420**Praseodymium(III) dipivaloylmethanide. *Pr(thd)*₃. *Resolve-Al Pr*

[15492-48-5]

As Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)chromium(III), T-00414 with

M = Pr

C₃₃H₅₇O₆Pr M 690.717Possesses dimeric struct. in solid state. Commercially available. Nmr upfield shift reagent. Hygroscopic cryst. (hexane). Mp 219-221°, Mp 222-224° (sealed capillary). Subl. 180° *in vacuo*.*Dimer*: [32573-81-2].C₆₆H₁₁₄O₁₂Pr₂ M 1381.435Pale green cryst. (hexane). Sol. C₆H₆, CHCl₃, MeOH, EtOH, EtOAc, CCl₄, hexane. Mp 222-224°. 7-Coord.; paramagnetic, $\mu_{\text{eff}} = 3.6\mu_{\text{B}}$.*Ph₃PO complex (1:1)*: [68199-99-5]. *Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')(triphenylphosphine oxide)praseodymium(III)*C₅₁H₇₂O₇PPr M 969.007

Green monoclinic cryst.

Bipy complex (1:1): [33378-63-1]. *Pyridinetris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')praseodymium(III)*C₃₈H₆₂NO₆Pr M 769.819Green cryst. Sol. Py, C₆H₆.*Bipy complex*: [33134-02-0]. *(2,2'-Bipyridine-N,N')tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')praseodymium(III)*C₄₃H₆₅N₂O₆Pr M 846.904Green cryst. Sol. CCl₄, hexane. Mp 191-193°. $\mu_{\text{eff}} = 3.6\mu_{\text{B}}$.*Phen complex*: [33134-06-4]. *(1,10-Phenanthroline)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')praseodymium(III)*C₄₅H₆₅N₂O₆Pr M 870.926Green. solid. Sol. CCl₄, hexane. Mp 221-222°. $\mu_{\text{eff}} = 3.6\mu_{\text{B}}$.

[65366-39-4]

Eisentraut, K.J. *et al.* *J. Am. Chem. Soc.*, 1965, **87**, 5254 (*synth, glc*)*Inorg. Synth.*, 1968, **11**, 94 (*synth, ir*)Erasmus, C.S. *et al.* *Acta Crystallogr., Sect. B*, 1970, **26**, 1843 (*cryst struct*)Crump, D.R. *et al.* *Tetrahedron Lett.*, 1970, 4419 (*use*)Selbin, J. *et al.* *Inorg. Chem.*, 1971, **10**, 1383 (*derivs, synth, uv-vis, magnetism*)Cockerill, A.F. *et al.* *Chem. Rev.*, 1973, **73**, 553 (*rev*)Mayo, B.C. *Chem. Soc. Rev.*, 1973, **2**, 49 (*rev*)Aslanov, L.A. *et al.* *Koord. Khim.*, 1978, **4**, 1427; *Sov. J. Coord. Chem. (Engl. Transl.)*, 1978, **4**, 1089; *CA*, **89**, 207560 (*Ph₃PO complex, cryst struct*)*Gmelin Handbook Inorg. Chem., Syst. No. 39*, 1981, **D3**, 125 (*rev*)Gavrishchuk, E.M. *et al.* *Zh. Neorg. Khim.*, 1983, **28**, 871; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1983, **28**, 493 (*ms*)**Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)ytterbium(III)** **T-00421***Tris(dipivaloylmethanido)ytterbium(III)*. *Resolve-Al Yb*. *Yb(thd)*₃

[15492-52-1]

As Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)chromium(III), T-00414 with

M = Yb

C₃₃H₅₇O₆Yb M 722.850

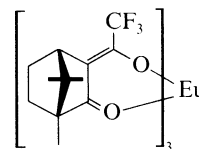
Commercially available nmr downfield shift reagent.

Hygroscopic white cryst. (hexane). Sol. C₆H₆, CCl₄, CHCl₃, MeOH, EtOH, EtOAc, hexane. Mp 166-169° (165-167°). Subl. 180° *in vacuo*. Paramagnetic, $\mu_{\text{eff}} = 4.3\mu_{\text{B}}$.*Py complex*: [33135-19-2].C₃₈H₆₂NO₆Yb M 801.951White cryst. Sol. CCl₄, C₆H₆. Mp 130-132°. $\mu_{\text{eff}} = 4.3, 4.5\mu_{\text{B}}$.*Bipy complex*: [33293-88-8].C₄₃H₆₅N₂O₆Yb M 879.036White cryst. Sol. CCl₄, hexane. Mp 167-168°. $\mu_{\text{eff}} = 4.3\mu_{\text{B}}$.*Phen complex*: [33293-89-9].C₄₅H₆₅N₂O₆Yb M 903.058White cryst. Sol. CCl₄, hexane. $\mu_{\text{eff}} = 4.3\mu_{\text{B}}$.Eisentraut, K.J. *et al.* *J. Am. Chem. Soc.*, 1965, **87**, 5254 (*synth, glc*)*Inorg. Synth.*, 1968, **11**, 94 (*synth ir*)Crump, D.R. *et al.* *Tetrahedron Lett.*, 1970, 4419 (*use*)Selbin, J. *et al.* *Inorg. Chem.*, 1971, **10**, 1383 (*synth, derivs, magnetism*)Holik, M., *Chem. Listy*, 1972, **66**, 449 (*rev*)Buse, A.K. *et al.* *Tetrahedron Lett.*, 1972, 3599 (*use*)Cockerill, A.F. *et al.* *Chem. Rev.*, 1973, **73**, 553 (*rev*)Mayo, B.C. *Chem. Soc. Rev.*, 1973, **2**, 49 (*rev*)Servis, R.L. *et al.* *J. Am. Chem. Soc.*, 1975, **97**, 73 (*use*)*Gmelin Handbook Inorg. Chem., Syst. No. 39*, 1981, **D3**, 125 (*rev*)Gavrishchuk, E.M. *et al.* *Zh. Neorg. Khim.*, 1983, **28**, 871; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1983, **28**, 493 (*ms*)**Tris(tetraphenylimidodiphosphinato)praseodymium** **T-00422***Tris[N-(diphenylphosphinyl)-P,P-diphenylphosphinicamidato-O,O']praseodymium, 9Cl*

[106150-44-1]

[[Ph₂P(O)]₂N]₃PrC₇₂H₆₀N₃O₆P₆Pr M 1390.032Pmr shift reagent useful for the anal. of fatty acids. V. sol. CHCl₃, Me₂CO.Rodriguez, I. *et al.* *J. Chem. Soc., Chem. Commun.*, 1987, 1502 (*synth*)Alvarez, C. *et al.* *J. Chem. Soc., Chem. Commun.*, 1988, 1002 (*use*)**Tris(3-trifluoroacetyl-*d*-camphorato)europium(III)** **T-00423***Tris[1,7,7-trimethyl-3-(trifluoroacetyl)bicyclo[2.2.1]heptan-2-onato-O,O']europium, 9Cl. Tris[3-(trifluoromethylhydroxymethylene)-*d*-camphorato]europium(III). *Eu(facam)*₃. *Eu(tfc)*₃*

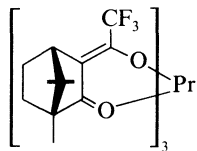
[34830-11-0]

C₃₆H₄₂EuF₉O₆ M 893.675Nmr chiral shift reagent. Yellow-orange powder (pentane). Insol. H₂O. Subl._{0.1} 250°. Hygroscopic. Indefinite Mp.Goering, H.L. *et al.* *J. Am. Chem. Soc.*, 1971, **93**, 5913 (*use, synth*)Feibush, B. *et al.* *J. Am. Chem. Soc.*, 1972, **94**, 6717 (*glc*)McCreary, M.D. *et al.* *J. Am. Chem. Soc.*, 1974, **96**, 1038 (*use*)Goering, H.L. *et al.* *J. Am. Chem. Soc.*, 1974, **96**, 493 (*synth, use*)

Tris(3-trifluoroacetyl-*d*-camphorato)praseodymium(III)

T-00424

Tris[1,7,7-trimethyl-3-(trifluoroacetyl)bicyclo[2.2.1]heptan-2-onato-*O,O'*]praseodymium, 9CI. *Tris*[3-(trifluoromethylhydroxymethylene)-*d*-camphorato]praseodymium(III). *Pr*(*facam*)₃. *Pr*(*tfc*)₃ [38053-99-5]

C₃₆H₄₂F₉O₆Pr M 882.617

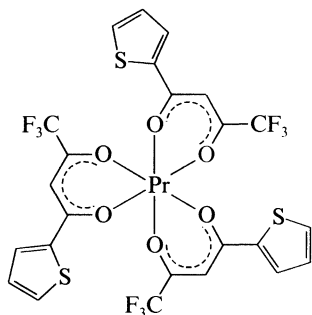
Nmr chiral shift reagent. Light-tan powder (hexane). Mp 211.5-213.5°. [α]_D²⁰ +222° (c, 1.3 in CCl₄). A solvated form of indefinite Mp slowly dehydrates at 105° *in vacuo*. Hygroscopic, volatile.

Feibush, B. *et al.*, *J. Am. Chem. Soc.*, 1972, **94**, 6717 (*synth, glc*)
McCreary, M.D. *et al.*, *J. Am. Chem. Soc.*, 1974, **96**, 1038 (*use*)
Goering, H.L. *et al.*, *J. Am. Chem. Soc.*, 1974, **96**, 1493 (*synth, use*)

Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-*O,O'*]praseodymium(III), 10CI

T-00425

Praseodymium(III) *thenoyltrifluoroacetate* [14644-86-1]

C₂₄H₁₂F₉O₆Pr₃ M 804.446

Used with corresp. Ag complex as nmr shift reagent for alkenes and aromatics. Brown cryst. Sol. C₆H₆. Mp 164°.

Dihydrate: [32269-66-2].

Light green cryst. Sol. MeOH, EtOH. $\mu_{\text{eff}} = 3.35 \mu_B$ (298K).

Purushottam, D. *et al.*, *Anal. Chim. Acta*, 1965, **33**, 182 (*synth, ir, uv-vis*)

Gmelin Handbook Inorg. Chem., Syst. No. 39, Suppl. Vol., 1981, **D3**, 217 (*rev, bibl*)

Sayeed, M. *et al.*, *J. Inorg. Nucl. Chem.*, 1981, **43**, 3197 (*complex*)

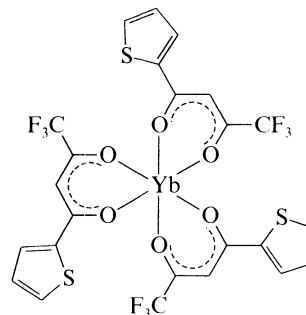
Wenzel, T.J. *et al.*, *J. Org. Chem.*, 1983, **48**, 1951 (*use*)

Hamer, A.M. *et al.*, *Transition Met. Chem. (London)*, 1983, **8**, 298; 1984, **9**, 433 (*synth, ms, magnetism, uv-vis*)

Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-*O,O'*]ytterbium(III), 9CI

T-00426

Ytterbium(III) *thenoyltrifluoroacetate* [14644-89-4]

C₂₄H₁₂F₉O₆S₃Yb M 836.579

Used with corresp. Ag complex as nmr shift reagent for alkenes and aromatics. Yellow cryst. Sol. C₆H₆, MeOH. Mp 145°.

Dihydrate: Colourless cryst. Sol. MeOH, EtOH. On heating does not lose H₂O, but dec. Paramagnetic $\mu_{\text{eff}} = 4.30 \mu_B$ (298K).

Phen complex: Cryst. Sol. C₆H₆. Mp 199-200°. $\mu_{\text{eff}} = 4.47 \mu_B$.

[32269-75-3, 41942-11-4]

Purushottam, D. *et al.*, *Anal. Chim. Acta*, 1965, **33**, 182 (*synth*)
Gmelin Handbook Inorg. Chem., Syst. No. 39, Suppl. Vol., 1981, **D3**, 217 (*rev*)

Sayeed, M. *et al.*, *J. Inorg. Nucl. Chem.*, 1981, **43**, 3197 (*complex*)

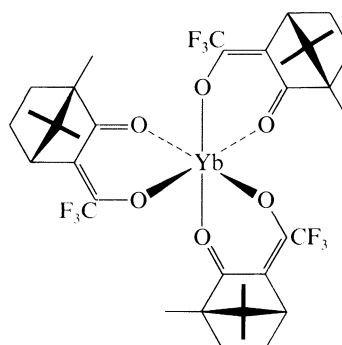
Wenzel, T.J. *et al.*, *J. Org. Chem.*, 1983, **48**, 1951 (*use*)

Hamer, A.M. *et al.*, *Transition Met. Chem. (London)*, 1983, **8**, 298; 1984, **9**, 433 (*synth, ms, magnetism*)

Tris[1,7,7-trimethyl-3-(trifluoroacetyl)bicyclo[2.2.1]heptan-2-onato-*O,O'*]ytterbium, 9CI

T-00427

Yb(*tfc*)₃. *Tris*[3-(trifluoromethylhydroxymethylene)camphorato]ytterbium [38054-03-4]

C₃₆H₄₂F₉O₆Yb M 914.750

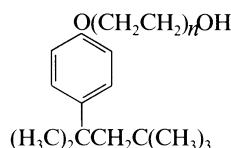
Chiral nmr shift reagent. Yellow solid.

Schurig, V., *Tetrahedron Lett.*, 1972, 3297 (*synth, use*)

Liu, J.H. *et al.*, *Analyst (London)*, 1982, **107**, 544 (*use*)

Triton X 100

Polyethylene glycol tert-octylphenyl ether
[9002-93-1]



$$n \sim 10$$

Non-ionic detergent. CAS number also refers to Triton X 305 below. Used for photometric detn. of Co. d 1.082. n_D^{20} 1.4900.

Hexahydro: [101013-07-4].

Non-ionic detergent. Used for extraction of proteins from human erythrocyte membranes. d 1.029. n_D^{20} 1.4720.

Okawa, S. *et al*, *Bunseki Kagaku (Jpn. Anal.)*, 1982, **31**, 373 (*detn. Co*)

Tiller, G.E. *et al*, *Anal. Biochem.*, 1984, **141**, 262 (*sepn, proteins*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, PKF500.

Triton X 305

T-00429

α -[4-(1,1,3,3-Tetramethylbutyl)phenyl]- ω -hydroxypoly(oxy-1,2-ethanediyl), 9CI

Non-ionic surfactant. Used as a 1% aq. soln. for photometric detn. of As. Sol. H₂O.

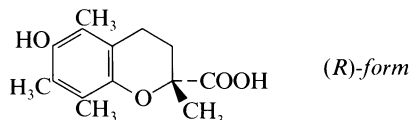
[9002-93-1]

Wu, Q. *et al*, *Talanta*, 1983, **30**, 275.

Trolox C

T-00430

3,4-Dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-carboxylic acid, 9CI
[56305-04-5]



C₁₄H₁₈O₄ M 250.294

Antioxidant used in food industry.

(R)-form [53101-49-8]

Cryst. (Et₂O/pet. ether). Mp 159-161° dec. $[\alpha]_D^{25} + 66.1^\circ$ (c, 1 in EtOH).

Me ester: [70897-16-4].

Cryst. (MeOH aq.). Mp 132-134.5°. $[\alpha]_D^{25} + 61.4^\circ$ (c, 4.91 in MeOH).

(S)-form [53174-06-4]

Cryst. (Et₂O/pentane). Mp 161°. $[\alpha]_D^{20} - 64.8^\circ$ (c, 1.01 in EtOH).

Me ester: [70897-17-5].

$[\alpha]_D^{24} - 60.5^\circ$ (c, 1.02 in MeOH).

Me ether: [135806-59-6].

Derivatisation reagent for gc anal. of enantiomers of aliphatic alcohols. Cryst. (Et₂O/hexane). Mp 144-145°.

$[\alpha]_D^{20} - 69.2^\circ$.

(±)-form [53188-07-1]

Cryst. (H₂O). Mp 190-192°.

Me ester: [53101-52-3].

Cryst. (Me₂CO/Et₂O). Mp 158.5-161.5°.

Et ester: [53174-07-5].

Cryst. (Et₂O). Mp 124-126°.

Scott, J.W. *et al*, *J. Am. Oil Chem. Soc.*, 1974, **51**, 200; 1975, **52**, 174 (*synth, antioxidant*)

Yoda, H. *et al*, *Chem. Lett.*, 1989, 465 (*synth*)

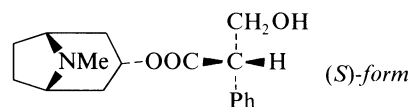
Walther, W. *et al*, *Chimia*, 1991, **45**, 121 (*synth, use, Me ether*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TNR625.

Tropine tropate

T-00431

α -(Hydroxymethyl)benzeneacetic acid 8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester, 9CI



C₁₇H₂₃NO₃ M 289.374

(S)-form [101-31-5] **Hyoscyamine**, **USAN**, **BAN**. **Daturine**.

Duboisine

Alkaloid from *Atropa*, *Datura*, *Duboisia*, *Hyoscyamus* and *Scopolia* spp. and several other genera in the Solanaceae, esp. some strains of *Duboisia myoporoides*. Used in medicine as a mydriatic. Mp 108-111°. $[\alpha]_D^{15} - 22^\circ$ (50% EtOH aq.). Racemises slowly in EtOH to Atropine, more rapidly in alkali or on melting; sometimes occurs naturally as partial racemate.

► Highly toxic. NH0875000.

B,HBr: [306-03-6]. *Hyoscyamine hydrobromide*, **USAN**
Mp 151°. Deliquescent. Component of Dolonil and Pyridium Plus.

(±)-form [51-55-8] **Atropine**, **USAN**, **INN**

Alkaloid from *A. belladonna*, *Datura stramonium* and other Solanaceae. Mydriatic, antispasmodic and cycloplegic agent. Used in preanaesthetic medication to prevent reflex bradycardia and bronchospasm and to decrease gland secretions. Reduces rigidity in parkinsonism. Antidote to poisoning with parasympathomimetic agents, e.g. nerve gases, organophosphorus insecticides. Cause of deliberate and accidental poisoning of humans and livestock. Nontoxic to some spp., e.g. rabbits. Reference material used in elemental microanalysis. Mp 116-117°. In many cases, Atropine may be an artifact of the extraction procedure.

► Highly toxic. Human lethal dose ~ 100 mg. Occasional hypersensitivity occurs. CK0700000.

B,HBr: [6415-90-3].

Mp 163-164°.

Picrate: Mp 175-176°.

N-Oxide: [4438-22-6]. *Aminoxytropine tropate*. **Atropine oxide**, **INN**. *Genatropine*

C₁₇H₂₃NO₄ M 305.373

Mp 127-128°. Dec. at 135°.

N-Oxide; *B,HCl*: [4574-60-1]. *Atropine oxide hydrochloride*, **USAN**. *Atropigen*. *Tropinox*. *Tro*

Prisms (EtOH). Mp 192-193°.

[620-61-1, 31610-87-4, 56362-77-7, 56362-78-8]

Leete, E. *et al*, *Can. J. Chem.*, 1954, **32**, 1116; 1955, **33**, 1853 (*isol, biosynth*)

Cannon, J.R. *et al*, *Aust. J. Chem.*, 1969, **22**, 221 (*pmr*)

Fales, H.M. *et al*, *J. Am. Chem. Soc.*, 1970, **92**, 1590 (*ms*)

Takeuchi, Y. *et al*, *Chem. Pharm. Bull.*, 1971, **19**, 2603 (*synth*)

Kussäther, E. *et al*, *Acta Crystallogr., Sect. B*, 1972, **28**, 2896 (*cryst struct*)

Analyst (London), 1972, **97**, 740 (*microanal*)

Phillipson, J.D. *et al*, *Phytochemistry*, 1975, **14**, 999 (*oxides*)

Sternberg, V.I. *et al*, *J. Heterocycl. Chem.*, 1977, **14**, 225 (*emr*)

Pfister, J.R., *J. Org. Chem.*, 1978, **43**, 4373 (*synth*)

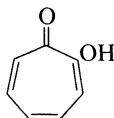
Shutt, L.E. *et al*, *Anaesthesia*, 1979, **34**, 476 (*rev, pharmacol*)

Kanto, J., *Int. J. Clin. Pharmacol., Ther. Toxicol.*, 1983, **21**, 92 (*rev*)

Al-Badr, A.A. *et al*, *Anal. Profiles Drug Subst.*, 1985, **14**, 325 (*rev. uw, ir, pmr, cmr, ms, anal*)
 Seeger, R. *et al*, *Dtsch. Apoth. -Ztg.*, 1986, **126**, 1930 (*rev. pharmacol*)
 Sax, N.I., *Dangerous Properties of Industrial Materials*, 6th Ed., Van Nostrand-Reinhold, 1984, 328, 1602, 1804.
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, ARR000, ARR500, HOU000, MGR500.

Tropolone, 8CI

2-Hydroxy-2,4,6-cycloheptatrien-1-one, 9CI
 [533-75-5]



$C_7H_6O_2$ M 122.123

Isol. from *Pseudomonas plantari*. Used as 0.01M aq. soln. for photometric detn. of Ru(III) (λ_{max} 415 nm, ϵ 18700), Rh(III), Cr(III). Needles (hexane or pet. ether). Mp 49-50°. pK_{a1} -0.53; pK_{a2} 6.67 (25°).

▷ GU4075000.

Picrate: Mp 119-120°.

Ac: [33739-54-7].

$C_9H_8O_3$ M 164.160

Mp 67°.

▷ YN2346000.

Me ether: [2161-40-2].

$C_8H_8O_2$ M 136.150

Cryst. (Et₂O or CCl₄) + 0.5H₂O. Mp 41°. Anhyd. form is an oil which rapidly hydrates in air.

Dewar, J., *Nature (London)*, 1945, **155**, 50 (*synth*)

Cook, J.W. *et al*, *J. Chem. Soc.*, 1951, **73**, 4136 (*synth*)

Hosoya, H. *et al*, *Tetrahedron*, 1962, **18**, 859 (*uv*)

Ikegami, Y., *Bull. Chem. Soc. Jpn.*, 1963, **36**, 1118 (*ir, raman*)

Sugiyama, H., *CA*, 1969, **70**, 15855 (*nmr*)

Shimanouchi, H. *et al*, *Tetrahedron Lett.*, 1970, 2421 (*cryst struct*)

Rizvi, G.H. *et al*, *Anal. Chim. Acta*, 1971, **54**, 295.

Rizvi, G.H. *et al*, *Mikrochim. Acta*, 1972, 459; 1983, **3**, 21 (*detn. Ru, Rh, Cr*)

Ozawa, H. *et al*, *Yakugaku Zasshi*, 1972, **92**, 19; *CA*, **76**, 149003 (*pharmacol*)

Shimanouchi, H. *et al*, *Acta Crystallogr., Sect. B*, 1973, **29**, 81 (*cryst struct*)

Org. Synth., 1977, **57**, 117 (*synth*)

Brown, R.S. *et al*, *J. Am. Chem. Soc.*, 1979, **101**, 3157 (*struct*)

Singh, P.H. *et al*, *Spectrosc. Lett.*, 1979, **10**, 1001 (*cmr*)

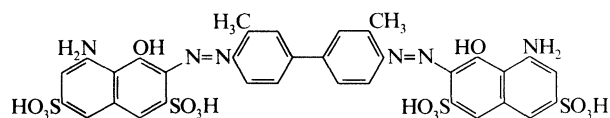
Bass, R.J. *et al*, *Synth. Commun.*, 1985, **15**, 225 (*synth, ethers*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TNV550.

Trypan blue

T-00433

3,3'-[(3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid], 9CI. C.I. Direct blue 14. Niagara blue 3B. C.I. 23850



$C_{34}H_{28}N_6O_{14}S_4$ M 872.891

Strictly, the name Trypan blue applies to the tetrasodium salt.

▷ QJ6475000.

Tetra Na salt: [72-57-1].

Used as 0.05M soln. in 1M HCl for photometric detn. of F⁻ (using insol. Zr-trypan blue complex, AcOH aq.). Dark blue cryst. powder. Sol. H₂O, acids. Mp >300°.

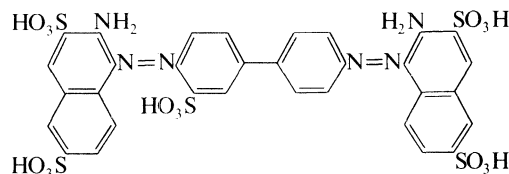
Bhatt, A. *et al*, *Microchem. J.*, 1985, **31**, 325 (*detn, F⁻*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, CMO250.

Trypan red

T-00434

4,4'-[(3-Sulfo[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[3-amino-2,7-naphthalenedisulfonic acid], 9CI. C.I. 22850



$C_{32}H_{24}N_6O_{15}S_5$ M 892.903

Usually obt. as penta-Na salt. Biological stain, veterinary trypanocide. Sol. H₂O.

Penta-Na salt: [574-64-1].

Used as adsorption fluorescent indicator for detn. of Br⁻, Cl⁻, I⁻, SCN⁻. Reddish-brown powder. Sol. H₂O; prac. insol. EtOH.

Krauss, R.B. *et al*, *J. Am. Chem. Soc.*, 1914, **36**, 961 (*synth*)

Colour Index, 3rd Edn., 1971, **4**, 4181 (*synth*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 444 (*use*)

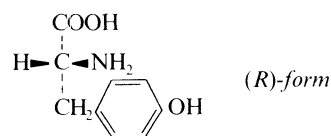
Thoma, K. *et al*, *Pharm. Ind.*, 1975, **37**, 455 (*anal*)

Tyrosine

T-00435

2-Amino-3-(4-hydroxyphenyl)propanoic acid. 4-Hydroxy- α -aminohydrocinnamic acid. 3-p-Hydroxyphenyl- α -alanine. p-Tyrosine

[556-03-6]



$C_9H_{11}NO_3$ M 181.191

(*R*)-form [556-02-5]

D-form

Cryst. $[\alpha]_D^{20} + 8.64^\circ$ (21% HCl). *N*-Protected derivs. useful in peptide synth. are listed alphabetically elsewhere.

(*S*)-form [60-18-4]

L-form

Widely distributed in plant and animal proteins. Needles (H₂O). Mp 290-295° dec. (slow heat), Mp 314-318° dec. (rapid heat). $[\alpha]_D^{20} - 8.07^\circ$ (21% HCl); -9.01° (11.6% KOH).

▷ YP2275600.

Me ester:

$C_{10}H_{13}NO_3$ M 195.218

Prisms (EtOAc). Mp 135-136°. $[\alpha]_D^{20} + 25.75^\circ$ (MeOH).

Me ester; B,HCl: Mp 190°. $[\alpha]_D^{22.5} - 4.3^\circ$ (Py).

Hydrazide:

$C_9H_{13}N_3O_2$ M 195.221

Resolving agent for DL-aminoacids. Mp 195.5°.

(±)-form

Used as 1% soln. in 0.1M NaOH for selective photometric detn. of ClO₂ (λ_{\max} 485 nm, pH ~ 4.8). Plates or needles (H₂O). Sol. alkalis; insol. cold EtOH, Et₂O. Mp 290-295° dec. (slow heat), Mp 340° dec. (rapid heat).

Et ester; B,HCl: Mp 166° (105-106°).

Fischer, E., *Ber.*, 1899, **32**, 3644; 1901, **34**, 451.

Curtius, T. *et al*, *J. Prakt. Chem.*, 1917, **95**, 349.

Hodgden, H.W. *et al*, *Anal. Chem.*, 1954, **26**, 1224 (*detn. ClO₂*)

Greenstein, J.P. *et al*, *Chemistry of the Amino Acids*, Wiley, N.Y., 1961, **3** (*rev*)

Parasarathy, R., *Acta Crystallogr.*, 1962, **15**, 41 (*cryst struct*)

Hooker, T.M. *et al*, *J. Am. Chem. Soc.*, 1964, **86**, 4989 (*ord*)

Voellmin, J. *et al*, *Microchem. J.*, 1966, **11**, 73 (*ms*)

Tumanova, T.A. *et al*, *Zavod. Lab.*, 1970, **36**, 1036 (*detn. ClO₂*)

Mostad, A. *et al*, *Acta Chem. Scand.*, 1971, **25**, 1145; 1972, **26**, 3819; 1973, **27**, 401.

Mostad, A. *et al*, *Tetrahedron Lett.*, 1971, 2131.

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1972, **3**, 330 (*hydrazide*)

Shiraiwa, T. *et al*, *Bull. Chem. Soc. Jpn.*, 1987, **60**, 1465 (*resoln*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, TOG300.

U

5,7-Undecanedione, 9CI

U-00001

[1942-48-9]



$\text{C}_{11}\text{H}_{20}\text{O}_2$ M 184.278

Used as soln. in C_6H_6 for extraction separation of Cu(II) ,
 Fe(III) . Sol. common org. solvs.

Koshimura, H. *et al.* *Anal. Chim. Acta*, 1971, **55**, 163 (*sepn. Cu, Fe*)

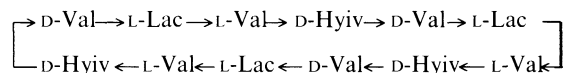
V

Valinomycin

V-00001

Cyclic(*D*- α -hydroxyisovaleryl-*D*-valyl-*L*-lactoyl-*L*-valyl-*D*- α -hydroxyisovaleryl-*D*-valyl-*L*-lactoyl-*L*-valyl-*D*- α -hydroxyisovaleryl-*D*-valyl-*L*-lactoyl-*L*-valyl)

[2001-95-8]



$C_{54}H_{90}N_6O_{18}$ M 1111.334

Cyclodepsipeptide antibiotic. Isol. from *Streptomyces* sp. Used in complexation of K and its transport through a mitochondrial membrane. Cryst. (diisobutyl ether). Mp 187°. $[\alpha]_D +32.8^\circ$ (c, 1.25 in C_6H_6).

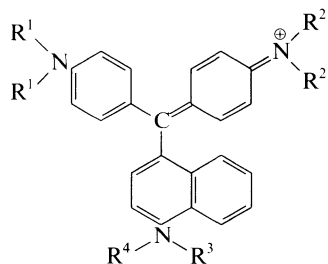
▷ YV9468000.

- Brockmann, H. *et al.* *Chem. Ber.*, 1955, **88**, 57 (isol)
 Moore, C. *et al.* *Biochem. Biophys. Res. Commun.*, 1964, **15**, 1964 (use)
 Rothe, M. *et al.* *Angew. Chem., Int. Ed. Engl.*, 1973, **12**, 1012 (synth)
 Ovchinnikov, A. *et al.* *Membrane-Active Complexones*. Elsevier, Amsterdam, 1974 (rev)
 Karle, I.L., *J. Am. Chem. Soc.*, 1975, **97**, 4379 (cryst struct)
 Smith, G.D. *et al.* *J. Am. Chem. Soc.*, 1975, **97**, 7242 (cryst struct)
 Servis, K.L. *et al.* *Tetrahedron*, 1975, **31**, 1359 (conformn)
 Asher, I.M. *et al.* *J. Am. Chem. Soc.*, 1977, **99**, 2032.
 Zeggaf, C. *et al.* *Tetrahedron*, 1989, **45**, 5039 (synth)
 Dory, Y.L. *et al.* *Tetrahedron Lett.*, 1989, **30**, 1695 (synth)
 Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, VBZ000.

Victoria blue B

V-00002

N-[4-[[4-(Dimethylamino)phenyl][4-(phenylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+), 9CI. C.I. Basic blue 26. C.I. 44045



$R^1 = R^2 = \text{Me}$
 $R^3 = \text{Ph}$, $R^4 = \text{H}$

$C_{33}H_{32}N_3^{\oplus}$ M 470.636 (ion)

Strictly the name Victoria blue B applies to the chloride salt.

Chloride: [2580-56-5].

$C_{33}H_{32}ClN_3$ M 506.089

Used as 1mM aq. soln. for extraction-photometric detn. of Cd (λ_{max} 331 nm, ϵ 89600, C_6H_6 /TBP), Ta (λ_{max} 635 nm, ϵ 93000), Zn, Tl(III), Hg, Pt. Cryst. (MeOH). Sol. EtOH, H_2O .

Kirkbright, G.F. *et al.* *Anal. Chem.*, 1968, **40**, 2210 (detn, Ta)

Pilipenko, A.T. *et al.* *Ukr. Khim. Zh. (Russ. Ed.)*, 1971, **37**, 186 (detn, Zn)

Kish, P.P. *et al.* *Zh. Anal. Khim.*, 1977, **32**, 482 (detn, Cd)

Marczenko, Z. *et al.* *Anal. Chim. Acta*, 1983, **153**, 219 (detn, Pt)

Victoria blue 4R

V-00003

N-[4-[[4-(Dimethylamino)phenyl][4-(methylphenylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium(1+), 9CI. C.I. Basic blue 8. C.I. 42563

As Victoria blue B, V-00002 with

$R^1 = R^2 = R^4 = \text{Me}$, $R^3 = \text{Ph}$

$C_{34}H_{34}N_3^{\oplus}$ M 484.663 (ion)

Strictly the name Victoria blue 4R applies to the chloride salt.

Chloride: [2185-87-7].

$C_{34}H_{34}ClN_3$ M 520.115

Used as 1mM aq. soln. for extraction-photometric detn. of Te (λ_{max} 602 nm, ϵ 80000, $CHCl_3$), Zn, Cd, Ga, Au(III), Tl(III), Pb, Pt, Re. Blue cryst. powder. Sol. EtOH, H_2O .

Dragulescu, C. *et al.* *Rev. Roum. Chim.*, 1965, **10**, 67, 1267 (detn, Ga)

Kish, P.P. *et al.* *Zh. Anal. Khim.*, 1970, **25**, 2260; 1984, **39**, 1226 (detn, Te, Pb)

Pilipenko, A.T. *et al.* *Ukr. Khim. Zh. (Russ. Ed.)*, 1971, **37**, 477 (detn, Re)

Victoria pure blue BO

V-00004

N-[4-[[4-(Diethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium(1+), 9CI. C.I. Basic blue 7. C.I. 42595

As Victoria blue B, V-00002 with

$R^1 = R^2 = R^3 = \text{Et}$, $R^4 = \text{H}$

$C_{33}H_{40}N_3^{\oplus}$ M 478.699 (ion)

Strictly the name Victoria pure blue BO applies to the chloride salt.

Chloride: [2390-60-5].

$C_{33}H_{40}ClN_3$ M 514.152

Used as EtOH soln. for extraction-photometric detn. of Tl(III) (λ_{max} 625 nm, ϵ 110000, C_6H_6), Ga. Dark blue cryst. Sol. EtOH; sl. sol. H_2O .

Constantinescu, C., *Rev. Chim. (Bucharest)*, 1973, **24**, 565, 740 (detn, Tl, Ga)

Constantinescu, C. *et al.* *Rev. Roum. Chim.*, 1980, **25**, 1411 (use)

Vinyl chloroformate

V-00005

Ethenyl carbonochloridate, 9CI

$H_2C=CHOCCI$

$C_3H_3ClO_2$ M 106.508

Reagent for protecting $-NH_2$ and $-OH$ groups. Reagent for dealkylation of tertiary amines. Used in hplc anal. of tertiary amines. Liq. d^{25} 1.160. Bp 67-69°.

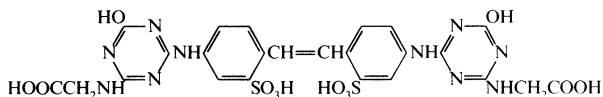
Lee, L.-H., *J. Org. Chem.*, 1965, **30**, 3943 (synth, ir)

Olafson, R.A. *et al.* *Tetrahedron Lett.*, 1977, 1567, 1571 (use)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 530 (use)

Maibaum, J., *J. Chromatogr.*, 1988, **436**, 269 (use)

***N,N'*-[Vinylenebis[(3-sulfo-*p*-phenylene)imino(6-hydroxy-*s*-triazine-4,2-diy)] diglycine, 8CI** V-00006



$C_{24}H_{22}N_{10}O_{12}S_2$ M 706.630

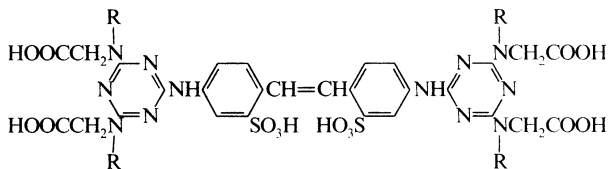
Tetra-Na salt: [19393-55-6].

Used as a 0.08mM aq. soln. for luminescent detn. of Cr. Cryst.

Tiemkina, V.Y. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 632, 1830 (*use*)

[Vinylenebis[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triy]]dinitril]octaacetic acid, 8CI V-00007

4,4'-Bis-(3,5-diamino-1,3,5-triazinylamino)-2,2'-styrenedisulfonic acid-N-octaacetic acid [18299-07-5]



R = CH₂COOH

$C_{36}H_{36}N_{12}O_{22}S_2$ M 1052.880

Hexa-Na salt: [6806-03-7].

Used as a 0.1% aq. soln. for luminescence detn. of Cr; fluorescent acid-base indicator.

Tiemkina, V.Y. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 632, 1830 (*use*)

Tiemkina, V.Y. *et al*, *CA*, 1968, **69**, 27392r (*use*)

***N,N',N'',N'''*-[Vinylenebis[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triy]] tetrasarcosine, 8CI** V-00008

4,4'-Bis[3,5-[3,5-bis(methylamino)-1,3,5-triazinylamino]-2,2'-styrenedisulfonic acid-N-tetraacetic acid

[18969-97-6]

As [Vinylenebis[[[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triy]]dinitril]octaacetic acid, V-00007 with

R = Me

$C_{32}H_{36}N_{12}O_{14}S_2$ M 876.840

Di-Na salt: [21482-14-4].

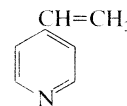
Used as a 0.1% aq. soln. for luminescence detn. of Cr; fluorescent acid-base indicator.

Tiemkina, V.Y. *et al*, *Zh. Anal. Khim.*, 1967, **22**, 632, 1830 (*use*)

4-Vinylpyridine V-00009

4-Ethenylpyridine, 9CI, 4-Pyridylethylene

[100-43-6]



C_7H_7N M 105.139

Used in polymer manuf. Reagent for anal. of cysteinyl-containing peptides. Liq. Bp₇ 54°.

Picrate: Yellow leaflets (C₆H₆). Mp 197-198°.

[3283-40-7]

Meisenheimer, J., *Justus Liebigs Ann. Chem.*, 1920, **420**, 208 (*synth*)

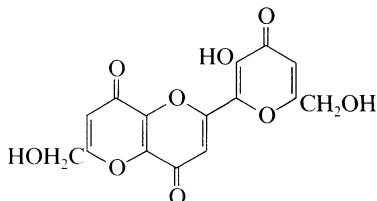
Saunders, K.J., *Org. Polym. Chem.*, Chapman and Hall, London, 1973, 440 (*use*)

Moroney, J.V. *et al*, *J. Biol. Chem.*, 1984, **259**, 7281 (*use*)

W

Wood's reagent

2-[3-Hydroxy-6-(hydroxymethyl)-4-oxo-4H-pyran-2-yl]-6-(hydroxymethyl)pyrano[3,2-b]pyran-4,8-dione, 9CI
[1047-14-9]



$C_{15}H_{10}O_9$ M 334.239

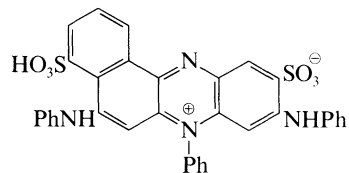
Used as a 0.015M aq. soln. for photometric detn. of Fe (λ_{max} 408 nm). Cryst. (EtOH). Mp 157°.

Wilson, R.F., *Fresenius' Z. Anal. Chem.*, 1962, **187**, 100 (*synth. detn. Fe*)

W-00001

Wool fast blue BL

7-Phenyl-5,9-bis(phenylamino)-4,10-disulfobenzo[a]phenazinium hydroxide inner salt. C.I. 50320. Acid blue 102
[6378-88-7]



$C_{34}H_{25}N_4O_6S_2$ M 649.727

Strictly, the name Wool fast blue BL applies to the sodium salt.

Na salt: Used as a 0.1% aq. soln. as an indicator in bromatometric detn. of As(III); ceriometric, dichrometric titrimetric detn. of Fe(II), As(III), V(IV). Dark reddish blue cryst. powder. Sol. H₂O, EtOH.

Rao, N.V. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **285**, 125 (*bromatometry*)

Rao, N.V. *et al*, *Curr. Sci.*, 1978, **47**, 50 (*ceriometry*)

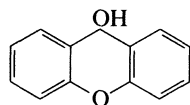
Rao, N.V. *et al*, *J. Indian Chem. Soc.*, 1979, **56**, 430 (*dichrometry*)

Ramana, P.V. *et al*, *J. Indian Chem. Soc.*, 1980, **57**, 235 (*bromatometry*)

X

9H-Xanthen-9-ol, 10CI

9-Hydroxyxanthen. Xanthydro. Xanthenol
[90-46-0]



$C_{13}H_{10}O_2$ M 198.221

Used for characterization of urea and other primary amides. Needles (EtOH aq.). Mp 123°. Conc. H_2SO_4 → yellow soln. with green fluor.

▷ ZD5710000.

4-Methylbenzenesulfonyl: Cryst. (AcOH). Mp 206-208°.

Org. Synth., Coll. Vol., 1, 1932, 539 (synth)

Phillips, R.F. et al. *J. Am. Chem. Soc.*, 1943, **65**, 1355 (use)

Goldberg, A.A. et al. *J. Chem. Soc.*, 1957, 4823 (synth)

Capuano, L. et al. *Chem. Ber.*, 1970, **103**, 3459 (derivs)

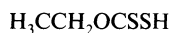
Reverdy, G., *Bull. Soc. Chim. Fr.*, 1976, 1136 (derivs)

Pindur, U., *Dtsch. Apoth. -Ztg.*, 1983, **123**, 1035 (use, rev)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, XBJ000.

Xanthic acid

Xanthogenic acid. O-Ethyl carbonodithioate, 9CI
[151-01-9]



$C_3H_6OS_2$ M 122.212

Used in ore flotation. Unstable, oily liq. Fp ca. -53°. pK_a 2.56. Dec. at 25° to CS_2 and EtOH.

▷ FG1370000.

NH_4 salt: [19779-49-8].

Unstable powder.

K salt: Used as a soil fumigant and for extraction-separation of heavy metals (Sb, Bi, Cu, Hg, Zn, Cd); photometric detn. of Mo. Cryst. Sol. H_2O , EtOH, prac. insol. Et_2O . Dec. by boiling H_2O or heat.

▷ FG1575000.

S-Me ester: [623-54-1]. S-Methyl O-ethyl xanthate

$C_4H_8OS_2$ M 136.239

Pale-yellow oil. Sol. EtOH, Et_2O , insol. H_2O . Bp 182-183°, Bp₂₀ 70°.

Anhydride: [2905-52-4].

$C_6H_{10}O_2S_3$ M 210.342

Golden-yellow needles (EtOH). V. sol. EtOH, sol. Et_2O , insol. H_2O . Mp 55°.

Willcox, O.W., *J. Am. Chem. Soc.*, 1906, **28**, 1031 (anhydride)

Ragg, M., *Chem.-Ztg.*, 1910, **34**, 82 (derivs)

Welcher, F.J., *Organic Analytical Reagents*, Vol. 4, Van Nostrand, New York, 1948.

Tomita, K. et al. *Chem. Pharm. Bull.*, 1969, **17**, 2442.

Ryaboi, V.I. et al. *CA*, 1974, **80**, 111071 (synth)

Arunachalam, M.K., *Talanta*, 1974, **21**, 355 (detn, Mo)

Katritzky, A.R. et al. *J. Chem. Soc., Chem. Commun.*, 1978, 133 (ester)

Sasaki, Y. et al. *Anal. Chim. Acta*, 1981, **127**, 209; 1982, **138**, 419 (detn, Cd)

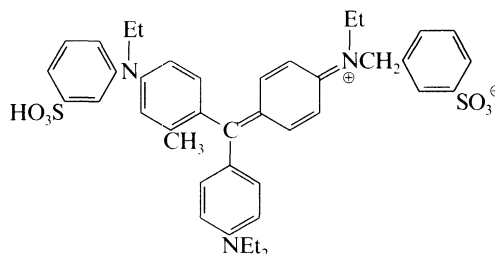
Chakravarti, A.K. et al. *Talanta*, 1984, **31**, 215 (detn, Zn)

X-00001

Xylene brilliant blue FBR

X-00003

N-[4-[[4-(Diethylamino)phenyl][4-[ethyl[(3-sulfo)phenyl]methyl]amino]-2-methylphenyl]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-N-ethyl-3-sulfobenzenemethanaminium hydroxide inner salt, 9CI. C.I. Acid blue 104. C.I. 42735



$C_{41}H_{44}N_3O_6S_2$ M 738.947

Strictly, the name Xylene brilliant blue FBR applies to the sodium salt.

Na salt: [6505-30-2].

Used as a 0.1% aq. soln. as redox indicator. Cryst. Sol. H_2O , EtOH, alkalis, acids.

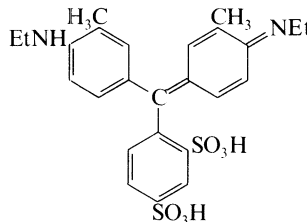
Brazier, J.N. et al. *Anal. Chim. Acta*, 1965, **33**, 625 (use)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)

Xylene cyanole FF

X-00004

4-[[4-(Ethylamino)-3-methylphenyl][4-(ethylimino)-3-methyl-2,5-cyclohexadien-1-ylidene]methyl]-1,3-benzenedisulfonic acid, 9CI. C.I. Acid blue 147. C.I. 42135. Acidine pure blue C extra. Cyanol extra. Disulfone blue FFN 200. Erioglaucine FFX. Kition pure blue FF. Mercantine blue FF



$C_{25}H_{28}N_2O_6S_2$ M 516.638

Strictly, the name Xylene cyanole FF applies to the sodium salt.

Na salt: [2650-17-1].

Used as a 0.1% aq. soln. as redox indicator. Cryst. Sol. H_2O .

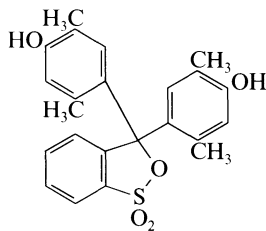
Brazier, J.N. et al. *Anal. Chim. Acta*, 1965, **33**, 635 (use)

Colour Index, 3rd Edn., 1971, **4**, 4386.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (use)

Xylenol blue

4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2,5-dimethylphenol]
S,S-dioxide, 9CI. p-Xylenolsulfonephthalein
[125-31-5]



$C_{23}H_{22}O_5S$ M 410.490

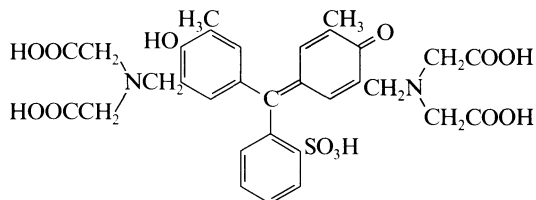
Used as a soln. in 0.1M NaOH as acid-base indicator (pH range: 1.1-2.8, colour change: red → yellow; pH range 8.0-9.6, colour change: yellow → blue); titrimetric detn. of As, Sb. Dark red or brownish black cryst. Sol. H_2O , EtOH. Mp 212°.

Bishop, E., *Indicators*, Pergamon, Oxford, 1972 (*use, ind*)
Vytras, K., *Chem. Zvesti*, 1974, **28**, 252 (*props*)
Dragulescu, C. *et al*, *CA*, 1975, **93**, 201439n (*detn, As, Sb*)

Xylenol orange**X-00006**

N,N'-[3H-2,1-Benzoxathiol-3-ylidenebis[(6-hydroxy-5-methyl-3,1-phenylene)methylene]]bis[N-(carboxymethyl)glycine] S,S-dioxide, 9CI. 3,3'-Bis[N,N-di(carboxymethyl)aminomethyl]-o-cresolsulfonephthalein. o-Cresolphthalexone S

[1611-35-4]



$C_{31}H_{32}N_2O_{13}S$ M 672.665

Used as 0.05% aq. soln. for spectrophotometric detn. of Bi (λ_{max} 545 nm, ϵ 24000), Zr (λ_{max} 535 nm, ϵ 35000), Hg, Nb, Sc, Y, Zn, Al, Th, Ga, U, V; as an indicator in EDTA titrations. Mono- and tetrasodium salts are also used. Dark red cryst. powder. Sol. H_2O . Mp 286° dec. pK_{a5} 2.58; pK_{a7} 6.40; pK_{a8} 10.5 (25°).

Mono-Na salt: [63721-83-5].

Dark red cryst. powder. Mp 210° dec. λ_{max} 580 nm.

[3618-43-7]

Körbl, J. *et al*, *Chem. Anal. (Warsaw)*, 1956, **45**, 102 (*indicator*)

Cheng, K.L., *Talanta*, 1959, **2**, 61, 266; **3**, 81 (*detn, Zr, Hf*)

Budesinsky, B., *Collect. Czech. Chem. Commun.*, 1962, **27**, 226 (*detn, Th*)

Cabrera-Martin, A. *et al*, *Talanta*, 1969, **16**, 1023 (*detn, Hg*)

Leong, C.L., *Anal. Chem.*, 1973, **45**, 21 (*detn, U*)

Snell, F.D., *Photometric and Fluorimetric Methods of Analysis, Metals, Part I*, John Wiley, New York, 1978, 523; *Metals, Part II*, 1062, 1167, 1923.

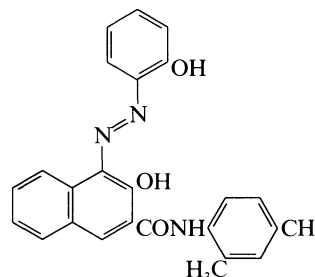
Onishi, H., *Photometric Determination of Traces of Metals, Part IIa, Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 787; *Part IIb, Individual Metals.*

Magnesium to Zinc, John Wiley, New York, 4th Ed., 1989, 164, 357, 767.

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 172, 501, 648 (*use*)

Xylidine blue II**X-00007**

N-(2,4-Dimethylphenyl)-3-hydroxy-4-[(2-hydroxyphenyl)azo]-2-naphthalenecarboxamide, 9CI
[523-67-1]



$C_{25}H_{21}N_3O_3$ M 411.459

Used as 0.01% soln. in EtOH for photometric detn. of Mg (λ_{max} 505 nm). Red cryst. (EtOH). Sol. common org. solvs.; insol. H_2O . Mp 246-247°.

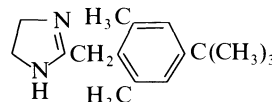
Mann, C.K. *et al*, *Anal. Chim. Acta*, 1957, **16**, 155 (*synth, detn, Mg*)

Maurice, M.J., *Anal. Chim. Acta*, 1959, **20**, 181 (*detn, Mg*)

Bialek, E., *Diagn. Lab.*, 1975, **11**, 393 (*detn, Mg*)

Xylometazoline, BAN, INN**X-00008**

2-[[4-(1,1-Dimethylethyl)-2,6-dimethylphenyl]methyl]-4,5-dihydro-1H-imidazole, 9CI. 2-(4-tert-Butyl-2,6-dimethylbenzyl)-2-imidazoline
[526-36-3]



$C_{16}H_{24}N_2$ M 244.379

Vasoconstrictor, nasal decongestant, adrenergic agent.

Cryst. (C_6H_6 /pet. ether). Mod. sol. H_2O . Mp 131-133°.

▷ NJ2380000.

B, HCl: [1218-35-5]. *Xylometazoline hydrochloride, USAN. Novorin. Olynth. Otrivine. Otrix. Other proprietary names*

Used as 0.01M aq. soln. for extraction-photometric detn. of V(V) (λ_{max} 540 nm, ϵ 45600), Cr(III) (λ_{max} 530 nm, ϵ 48000, $CHCl_3$). Cryst. Sol. H_2O . Mp 327-329° dec.

▷ LD₅₀ 75 mg/kg (mouse, oral).

Anjaneyulu, Y. *et al*, *Analyst (London)*, 1955, **111**, 1167 (*detn, Cr*)
U.S. Pat., 2 868 802, (1959); *CA*, **53**, 10253.

Boon, P.F.G. *et al*, *J. Pharm. Pharmacol., Suppl.*, 1967, **19**, 88 (*glc*)

Mollica, J.A. *et al*, *Anal. Chem.*, 1973, **45**, 1859 (*hplc*)

Martindale, The Extra Pharmacopoeia, 28th/29th Ed., Pharmaceutical Press, London, 1982/1989, 2114.

Golander, Y. *et al*, *Anal. Profiles Drug Subst.*, 1985, **14**, 135 (*rev, synth, pharmacol, anal*)

Ghose, S. *et al*, *Acta Crystallogr., Sect. C*, 1986, **42**, 1524 (*cryst struct*)

Yerramilli, A. *et al*, *Anal. Chem.*, 1986, **58**, 1451 (*detn, V*)

Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 4150.

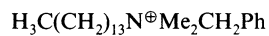
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, OKO500.

Z

Zephiramine

Z-00001

*Benzyl*dimethyltetradecylammonium(1+). N,N-Dimethyl-N-tetradecylbenzenemethanaminium(1+), 9CI



$\text{C}_{23}\text{H}_{42}\text{N}^{\oplus}$ M 332.591 (ion)

Chloride: [16287-71-1].

$\text{C}_{23}\text{H}_{42}\text{ClN}$ M 368.044

Used as 0.2% aq. soln. to increase sensitivity in photometric detn. of metals (e.g. Al, Be, Ga, Th, Zr) with some chelating reagents (e.g. chromazurol S, phenylfluorone) (forms ternary complexes).

Commercially available as dihydrate. Colourless or pale yellow powder. Sol. H_2O , EtOH, Me_2CO . Mp 63-65° (dihydrate).

[139-08-2]

Cheng, K.L. *et al*, *Handbook of Organic Analytical Reagents*, CRC Press, Boca Raton, 1982 (*use*)

Sigma-Aldrich Library of Chemical Safety Data, 1988, 1, 387.

Name Index

The Name Index lists in alphabetical order all names and synonyms contained in the Dictionary.

Each index term refers the user to a Dictionary Number consisting of a single letter of the alphabet followed by five digits. The letter is the first letter of the relevant Dictionary Name.

A Dictionary Number which follows immediately upon an index term means that the term is itself used as the Entry Name.

A Dictionary Number which is preceded by the word '*see*' means that the term is a synonym to an Entry Name.

A Dictionary Number which is preceded by the word '*in*' means that the term is embedded within an Entry, usually as a synonym to a particular stereoisomeric form or to a derivative.

The symbol \triangleright preceding an index term indicates that the Dictionary Entry contains information on toxic or hazardous properties of the compound.

Name Index

- A17624, *in* M-00130
ABEI, *see* A-00130
ABMI, *see* A-00131
▷ Acacetin, *see* D-00641
▷ Accel 22, *see* I-00003
▷ Accelerator D, *see* D-01018
▷ Accelerene, *see* D-00876
▷ Accel 22S, *see* I-00003
▷ Accinox ZA, *in* D-00048
▷ Acedapson, *in* D-00090
Acenaphthenequinone, A-00001
1,2-Acenaphthylene-dione, *see* A-00001
Acepox, *in* A-00039
ACES, *see* A-00293
▷ Acetacrin, *see* E-00022
▷ Acetaldehyde, A-00002
▷ Acetaldoxime, *in* A-00002
▷ Acetamide, A-00003
▷ 2-Acetamidobiphenyl, *in* A-00116
▷ 4-Acetamido-2-chlorotoluene, *in* C-00171
2-Acetamidoethylamine, *in* E-00024
8-Acetamido-1-[3-(2-hydroxy-5-methylphenylazoxy)phenylazo]-2-naphthol, *see* A-00464
8-Acetamido-2-(2-hydroxy-3,5,6-trichlorophenylazo)-1-naphthol-5-sulfonic acid, *in* A-00225
N-Acetamidoiminodiacetic acid, *in* N-00074
4-Acetamido-4'-isothiocyanatostilbene-2,2'-disulfonic acid, *in* A-00230
▷ 2-Acetamidophenol, *in* A-00300
▷ 4-Acetamidophenol, *in* A-00302
2-Acetamido-3*H*-phenoxazin-3-one, *in* A-00303
4-Acetamidophenylfluorone, *in* A-00328
▷ Acetamidoxime, A-00004
▷ Acetaminophen, *in* A-00302
▷ Acetanilide, *in* A-00368
Acetanilidoxime, *in* A-00004
▷ *o*-Acetanilidide, *in* M-00072
▷ *p*-Acetanilidide, *in* M-00073
▷ Acetanisole, *in* H-00090
Acetasol, *in* D-00392
▷ (Acetato-*O*)phenylmercury, A-00005
Acetylbutylamide, *in* B-00616
▷ Aceteugenol, *in* M-00120
▷ Acetylhydrazide, *in* A-00006
▷ Acetic acid, A-00006
Acetic acid anhydride with methanesulfonic acid, *see* A-00020
Acetic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, *see* N-00111
▷ Acetic acid 2-phenylhydrazide, *in* P-00134
▷ Acetic ester, *see* E-00062
Acetoacetic ester, *see* E-00063
2-Acetoacetyl-1,3-indanedione, *see* D-00987
2-(Acetoacetyl)thiazole, *see* T-00150
▷ Acetone, A-00007
▷ Acetonylacetone, *see* H-00063
2-Acetonyselenophene, *see* S-00007
▷ *p*-Acetophenetidine, *in* E-00051
▷ Acetophenone, A-00008
3-(2-Acetylphenyl)methyltriazene *N*-oxide, A-00009
2-Acetylpyridine, *see* A-00039
Acetopyrine, *in* D-00392
o-Acetoresorufin, *in* H-00443
▷ Acetoxime, *in* A-00007
▷ 2-Acetoxybenzoic acid, A-00010
9-Acetoxybenzo[*z*]phenoxazin-5-one, *in* H-00123
7-Acetoxy-4-(bromomethyl)coumarin, *in* B-00524
▷ Acetoxymmercuribenzene, *see* A-00005
1-Acetoxy-4-methyl-2(1*H*)-pyridinethione, *in* M-00274
▷ 3-Acetoxyphenol, *in* B-00021
▷ Acetoxyphenylmercury, *see* A-00005
3β-Acetoxypropylglycol, *in* D-01160
1-Acetoxypropane, *in* P-00265
1-Acetoxy-2(1*H*)-pyridinethione, *in* P-00357
8-Acetoxyquinoline, *in* H-00326
N-Acetoxysuccinimide, *in* P-00442
2-Acetoxytricarballic acid, *in* C-00299
▷ Acet-*o*-toluidide, *in* M-00123
▷ Acetylacetone, *see* P-00030
N-Acetylacetoneanthranilic acid, *see* M-00214
Acetylacetone bis(2-mercaptophenyl)anil, *see* D-00898
o-Acetylacetophenone, *see* D-00032
α-Acetylacetophenone, *see* P-00107
N-Acetylalanine 1-naphthyl ester, A-00011
5-(Acetylamino)-3-[(5-chloro-2-hydroxyphenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, *in* A-00139
4-(Acetylaminodiphenylamine, *in* A-00166
3-[[8-(Acetylamino)-2-hydroxy-1-naphthalenyl]azo]-5-chloro-2-hydroxybenzenesulfonic acid, *in* A-00205
▷ 5-(Acetylamino)-4-hydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid, *see* A-00476
3-[[4-(Acetylamino)phenyl]azo]-5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid, *in* A-00092
p-Acetylarsenazo, A-00012
3-[[4-Acetyl-2-arsonophenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* A-00012
▷ Acetylbenzene, *see* A-00008
3-Acetyl-1,5-bis(bis(3,5,6-trichloro-2-hydroxyphenyl))formazan, A-00013
3-Acetyl-1,5-bis(1,2-dihydro-1,5-dimethyl-3-oxo-2-phenyl-4-pyrazolyl)formazan, A-00014
Acetylbutylamine, *in* B-00616
▷ Acetyl chloride, *in* A-00006
2-Acetyl-*p*-cresol, *see* H-00275
Acetyl cyanide, *in* P-00448
4-Acetyl-2,4-dihydro-2,5-dimethyl-3*H*-pyrazol-3-one, A-00015
4-Acetyl-1,3-dimethyl-2-pyrazolin-5-one, *see* A-00015
▷ Acetyldiphenasone, *in* D-00090
1-Acetyl-2,2-diphenylhydrazine, *in* D-01020
S-Acetyl diphenylphosphinodithioate, *in* D-01039
Acetyl dithiol, *in* M-00129
▷ *N*-Acetylethanolamine, *in* A-00171
2-Acetyl-4-ethylpyridine, A-00016
4,4'-(3-Acetyl-1,5-formazandiyl)bis(1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one), *see* A-00014
Acetylformic acid, *see* P-00448
Acetylglyoxylic acid, *see* D-00986
▷ Acetylhydrazide, *in* A-00006
▷ Acetylhydrazine, *in* A-00006
▷ Acetylhydroquinone, *see* D-00508
▷ *N*'-[5-[[4-[[5-(Acetylhydroxyamino)pentyl]amino]-1,4-dioxobutyl]hydroxyamino]pentyl]-*N*-(5-aminopentyl)-*N*-hydroxybutanediamide, *see* D-00029
3-Acetyl-4-hydroxycoumarin, *see* A-00017
3-Acetyl-4-hydroxy-2*H*-1-benzopyran-2-one, A-00017
3-Acetyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00644
6-Acetyl-7-hydroxy-4-methyl-2*H*-1-benzopyran-2-one, A-00018
6-Acetyl-7-hydroxy-4-methylcoumarin, *see* A-00018
▷ 3-Acetyl-4-hydroxy-6-methyl-2*H*-pyran-2-one, A-00019
1-Acetyl-2-hydroxynaphthalene, *see* A-00025
2-Acetyl-1-hydroxynaphthalene, *see* A-00026
▷ *N*-Acetylimidazole, *in* I-00001
S-Acetylmercaptosuccinic anhydride, *in* M-00026
Acetyl methanesulfonate, A-00020
2-Acetyl-4-methoxypyridine, A-00021
3-Acetyl-2-methylindole *p*-tolylthiosemicarbazone, A-00022
2-Acetyl-4-methylpyridine, A-00023
2-Acetyl-6-methylpyridine, A-00024
1-Acetyl-2-naphthol, A-00025
2-Acetyl-1-naphthol, A-00026
Acetyloxoacetic acid, *see* D-00986
5-[(1-Acetyl-2-oxopropyl)azo]-2,3-dihydro-1,4-phthalazinedione, A-00027
▷ 2-Acetyloxybenzoic acid, *see* A-00010
2-(Acetyloxy)-*N*-hydroxy-*N*-phenylbenzamide, A-00028
8-(Acetyloxy)-1,3,6-pyrenetrilsulfonyl trichloride, *in* H-00517
1-(Acetyloxy)-2,5-pyrrolidinedione, *in* P-00442
▷ *o*-Acetylphenol, *see* H-00089
▷ *p*-Acetylphenol, *see* H-00090
N-Acetyl-*N*-phenylacetamide, *in* A-00368
6-(4-Acetylphenylazo)-2-aminoperimidine, A-00029
3-[(3-Acetylphenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00030
3-[(2-Acetylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* M-00144
3-[(3-Acetylphenyl)azo]-4,5-dihydroxy-6-[(4-nitro-2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, *see* N-00147
2-Acetyl-4-phenylpyridine, A-00031
2-Acetyl-6-phenylpyridine, A-00032
N-Acetyl-*N*-phenylthiourea, *in* P-00201
N-Acetyl-*N*'-phenylthiourea, *in* P-00201
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 ▶ 1,2,4,5-Benzenetetracarboxylic acid, B-00029
 ▶ Benzenethiol, B-00030
 ▶ 1,2,4-Benzenetriamine, *see* T-00192
 1,2,3-Benzenetricarboxitrile, *in* B-00031
 1,2,3-Benzenetricarboxylic acid, B-00031
 ▶ 1,2,4-Benzenetricarboxylic acid, B-00032
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 ▶ 1,2,3-Benzenetriol, B-00034
 ▶ 1,2,4-Benzenetriol, B-00035
 ▶ 1,3,5-Benzenetriol, B-00036
 2,2',2''-[1,2,3-Benzenetriyltris(oxy)]tris(*N,N*-diethylethanamine), *see* G-00002
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 ▶ Benzenethonium chloride, *in* B-00037
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 3-[1*H*-Benzimidazol-2-yl]([5-nitro-2-pyridinyl)hydrazono]methyl]benzenesulfonic acid, B-00047
 2-(2-Benzimidazolyl)-4,7-phenanthroline, B-00048
 2-(1*H*-Benzimidazol-2-yl)phenol, *see* H-00465
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- 3-(2-Benzimidazolyl)pyridazine, *see* P-00312
 2-(2-Benzimidazolyl)pyridine, *see* P-00385
 2-(2-Benzimidazolyl)pyrimidine, *see* P-00431
 2-(2-Benzimidazolyl)quinoline, *see* Q-00037
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 ▶ 1,2-Benzisothiazol-3(2*H*)-one 1,1-dioxide, *see* S-00001
 Benzo blue FBL, *see* B-00476
 ▶ Benzocaine, *in* A-00105
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 5,6-Benzocoumarin-3-carboxylic acid, *see* O-00064
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 ▶ 1*H*,3*H*-Benzo[1,2-*c*:4,5-*c'*]difuran-1,3,5,7-tetrone, *in* B-00029
 1-(1,4-Benzodioxan-6-yl)-3-phenyl-1,3-propanedione, *see* B-00119
 1,3-Benzodioxole-5,6-diamine, *see* D-00103
 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(3-methylphenyl)-2-propenamide, *in* B-00056
 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(4-methylphenyl)-2-propenamide, *in* B-00056
 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* B-00056
 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-2-propenamide, B-00056
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 Benzododecinium chloride, *in* B-00179
 ▶ Benzodol, *in* H-00447
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 Benzof[*h*]flavone, *see* P-00150
 2,2'-[2,3-Benzofurandiylbis(nitriromethylidene)]diphenol, *see* B-00361
N-(1,4,7,10,13,16,19-Benzoheptaoxacycloheptacosin-21-yl)-2-propenamide, B-00058
 5,6-Benzo-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, *see* C-00317
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 ▶ Benzoic acid, B-00059
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 Benzoic acid 1,2-cyclohexanediylidenedihydrazide, *see* C-00340
 Benzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, B-00061
 Benzoic acid [1-[2-(2,4-dinitrophenyl)hydrazino]ethylidene]hydrazide, B-00062
 Benzoic acid (di-2-pyridinylmethylene)hydrazide, *see* D-01073
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 Benzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00064
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 Benzoic acid (2,6-pyridinediyl)diethylidene dihydrazide, *see* D-00036
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 ▶ Benzophenone, B-00069
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 ▶ 1,4-Benzoquinone, B-00076
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 1,4-Benzoquinone *O*-(4-chlorobenzyl)oxime, B-00078
 ▶ 1,4-Benzoquinone chloroimine, *see* C-00164
 1,4-Benzoquinone 4-(dimethylaminophenyl)anil, *see* P-00062
 1,4-Benzoquinoneimine oxime, *see* N-00154
 1,4-Benzoquinone mono[*O*-(*p*-methylphenyl)sulfonyl]oxime, B-00079
 1,4-Benzoquinone mono[*O*-(*p*-nitrophenyl)sulfonyl]oxime], B-00080
 1,4-Benzoquinone mono[*O*-phenylsulfonyl]oxime, B-00081
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 2,1,3-Benzoselenadiazole-*Se*^{IV}, B-00084
 3,4-Benzo-1,2,5-selenodiazole, *see* B-00084
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 2(3*H*)-Benzothiazolone (di-2-pyridinylmethylene)hydrazone, *see* D-01072
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 2(3*H*)-Benzothiazolone [1-(2-pyridinyl)ethylidene]hydrazone, *see* A-00040
 4-(2-Benzothiazolylazo)-1,2-benzenediol, B-00091
 4-(2-Benzothiazolylazo)-1,3-benzenediol, B-00092
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 2-(2-Benzothiazolylazo)-5-methoxyphenol, *in* B-00092
 5-(2-Benzothiazolylazo)-4-methyl-2-(methylamino)phenol, *in* A-00115
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 5-(2-Benzothiazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00100
 1-(2-Benzothiazolyl)-3,5-diphenylformazan, *see* B-00101
 5-(2-Benzothiazolyl)-1,3-diphenylformazan, B-00101
 3-[(2-Benzothiazolyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, B-00102
 5-(2-Benzothiazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00103
 2-[(4-Benzothiazolylimino)methyl]phenol, B-00104
 5-Benzothiazolyl-3-(2-methoxyphenyl)-1-phenylformazan, *in* B-00103
 5-(2-Benzothiazolyl)-3-methyl-1-phenylformazan, B-00105
 5-(2-Benzothiazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00106
 3-[2-Benzothiazolyl][(5-nitro-2-pyridinyl)hydrazono]methyl]benzenesulfonic acid, B-00107
 α-(2-Benzothiazolyl)-α-(5-nitro-2-pyridyl)hydrazono-3-toluenesulfonic acid, *see* B-00107
 4-[1-(2-Benzothiazolyl)-3-phenyl-5-formazano]benzenesulfonic acid, *see* B-00108
 2-[5-(2-Benzothiazolyl)-1-phenylformazanyl]phenol, *see* B-00103
 1-(2-Benzothiazolyl)-3-phenyl-5-(4-sulfophenyl)formazan, B-00108
 1-Benzof[*b*]thien-2-yl-4,4,4-trifluoro-1,3-butanedione, B-00109
 ▶ 1*H*-Benzotriazole, B-00110
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis(1,2-benzenediol) *S,S*-dioxide, *see* P-00433
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2-bromo-6-chlorophenol] *S,S*-dioxide, *see* B-00497
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[3-bromo-2,5-dimethylphenol], *see* B-00583
N,N'-[3*H*-2,1-Benzoxathiol-3-ylidene]bis[5-bromo-6-hydroxy-3,1-phenylene]methylene]bis[*N*-(carboxymethyl)glycine] *S,S*-dioxide, *see* B-00559
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2-bromo-3-methyl-6-(1-methylethyl)phenol] *S,S*-dioxide, *see* B-00581
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] *S,S*-dioxide, *see* B-00499
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2-bromophenol] *S,S*-dioxide, *see* B-00543
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2-chlorophenol], *see* C-00197
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2,6-dibromo-3-methylphenol] *S,S*-dioxide, *see* B-00498
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[3,5-dibromo-2-methylphenol] *S,S*-dioxide, *see* C-00311
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[3,5-dichloro-2-methylphenol] *S,S*-dioxide, *see* C-00312
N,N'-[3*H*-2,1-Benzoxathiol-3-ylidene]bis[(5,6-dihydroxy-3,1-phenylene)methylene]bis[*N*-(carboxymethyl)glycine], *see* P-00432
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[3,5-diiodo-2-methylphenol] *S,S*-dioxide, *see* C-00313
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2,5-dimethylphenol] *S,S*-dioxide, *see* X-00005
 5,5'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis(2-hydroxybenzoic acid) *S,S*-dioxide, *see* S-00002
N,N'-[3*H*-2,1-Benzoxathiol-3-ylidene]bis[(6-hydroxy-2,5-dimethyl-3,1-phenylene)methylene]bis[*N*-(carboxymethyl)glycine] *S,S*-dioxide, *see* M-00337
N,N'-[3*H*-2,1-Benzoxathiol-3-ylidene]bis[[6-hydroxy-2-methyl-5-(1-methylethyl)-3,1-phenylene]methylene]bis[*N*-(carboxymethyl)glycine], *see* M-00327

- N,N'*-[3H-2,1-Benzoxathiol-3-ylidenebis[6-hydroxy-2-methyl-5-(1-methylethyl)-3,1-phenylene]methylene]bisglycine *S,S*-dioxide, *see* G-00019
- N,N'*-[3H-2,1-Benzoxathiol-3-ylidenebis(6-hydroxy-5-methyl-3,1-phenylene)methylene]bis[*N*-(carboxymethyl)glycine] *S,S*-dioxide, *see* X-00006
- N,N'*-[3H-2,1-Benzoxathiol-3-ylidenebis(6-hydroxy-5-methyl-3,1-phenylene)methylene]bisglycine *S,S*-dioxide, *see* G-00017
- N,N'*-[3H-2,1-Benzoxathiol-3-ylidenebis(6-hydroxy-5-methyl-3,1-phenylene)methylene]bis[*N*-methylglycine] *S,S*-dioxide, *see* S-00004
- N,N'*-[3H-2,1-Benzoxathiol-3-ylidenebis(6-hydroxy-3,1-phenylene)methylene]bis[*N*-(carboxymethyl)glycine] *S,S*-dioxide, *see* P-00221
- 4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2-iodophenol] *S,S*-dioxide, B-00111
- 4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis(5-methyl-1,3-benzenediol) *S,S*-dioxide, *see* O-00044
- 4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[5-methyl-2-(1-methylethyl)phenol], *S,S*-dioxide, *see* T-00181
- 4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2-methylphenol] *S,S*-dioxide, *see* C-00310
- 4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[3-methylphenol] *S,S*-dioxide, *see* C-00309
- 4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[3-nitrophenol] *S,S*-dioxide, B-00112
- ▷ 4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bisphenol *S,S*-dioxide, *see* P-00064
- 4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis(1-naphthol) *S,S*-dioxide, *see* N-00029
- 4,4'-(3H-2,1-Benzoxathiol-3-ylidene)bis[2,6-dibromophenol] *S,S*-dioxide, *see* B-00542
- ▷ 2(3H)-Benzoxazolethione, B-00113
- 2,2'-Benzoxazoline, *see* G-00027
- ▷ 2-Benzoxazolinethione, *see* B-00113
- 5-(2-Benzoxazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00114
- 5-(2-Benzoxazolyl)-1,3-diphenylformazan, B-00115
- 2-(2-Benzoxazolyl)malonaldehyde, *see* H-00286
- 5-(2-Benzoxazolyl)-3-methyl-1-phenylformazan, B-00116
- 5-(2-Benzoxazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00117
- ▷ 2-(2-Benzoxazolyl)phenol, *see* H-00467
- N*-[4-(2-Benzoxazolyl)phenyl]maleimide, *see* B-00118
- 1-[4-(2-Benzoxazolyl)phenyl]-1H-pyrrole-2,5-dione, B-00118
- ▷ Benzoxiquine, *in* H-00525
- ▷ Benzoxylene, *in* H-00525
- 2-Benzoylacetyl, *in* O-00069
- 2'-Benzoylacetyl, *in* A-00111
- Benzoylactic acid, *see* O-00069
- Benzoylacetone, *see* P-00107
- ω*-Benzoylacetophenone, *see* D-01041
- 6-(Benzoylacetyl)-1,4-benzodioxan, B-00119
- N*-(Benzoylacetyl)-*m*-nitroaniline, *see* N-00140
- 2-(Benzoylacetyl)selenophene, *see* P-00190
- 2-(Benzoylamino)-3-[4-(dimethylamino)phenyl]-2-propenoic acid, B-00120
- ▷ Benzoylaminoethanoic acid, *see* H-00078
- 2-[[Benzoylamino)thioxomethyl]amino]benzoic acid, B-00121
- 2-Benzoylaniline, *see* A-00111
- Benzoylauramine G, B-00122
- 6-Benzoyl-3-(2,2'-bipyridin-6-yl)-5-phenyl-1,2,4-triazine, B-00123
- N'*-Benzoyl-*N,N'*-[bis(2-hydroxyethyl)]thiourea, B-00124
- N*-Benzoyl-*N'*-(5-bromo-2-pyridyl)thiourea, B-00125
- ▷ Benzoyl chloride, *in* B-00059
- ▷ Benzoylchloromethane, *see* C-00055
- 4-Benzoyl-2-(2-chlorophenyl)-2,4-dihydro-5-methyl-3H-pyrazol-3-one, B-00126
- 4-Benzoyl-2-(4-chlorophenyl)-2,4-dihydro-5-methyl-3H-pyrazol-3-one, B-00127
- Benzoyl cyanide, *in* O-00055
- ▷ Benzoyldiethoxymethane, *in* P-00132
- 4-Benzoyl-2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one, B-00128
- Benzoyldimethoxymethane, *in* P-00132
- 2-Benzoyl-4-(2,4-dinitrophenyl)acetohydrazidine, *see* B-00062
- S*-Benzoyl diphenylphosphinodithioate, *in* D-01039
- Benzoyl dithiol, *in* M-00129
- β*-Benzoyl-*α*-(ethanol)thiourea, B-00129
- N*-Benzoyl-*N'*-(ethoxycarbonylmethyl)selenourea, B-00130
- Benzylethylauramine, B-00131
- 2-Benzoyl-4-ethylpyridine, B-00132
- Benzoyl-1-fluorenylhydroxylamine, *see* F-00016
- Benzoylformaldehyde, *see* P-00132
- ▷ Benzoylformic acid, *see* O-00055
- ▷ Benzoylformoxime, *in* P-00132
- ▷ *N*-Benzoyllycine, *see* H-00078
- Benzoylhydrazine, *in* B-00059
- ▷ Benzoylhydroxamic acid, *see* H-00109
- 4-(Benzoylhydroxyamino)benzenesulfonic acid, *in* H-00109
- 4-(Benzoylhydroxyamino)benzoic acid, B-00133
- N*-Benzoyl-*N'*-(2-hydroxyethyl)thiourea, *see* B-00129
- Benzoylmethylglyoxime, *in* P-00109
- 4-Benzoyl-3-methyl-1-phenyl-5-pyrazolone, *see* B-00128
- 2-Benzoyl-4-methylpyridine, B-00134
- 2-Benzoyl-6-methylpyridine, B-00135
- 6-Benzoyl-3-(4-methyl-2-pyridyl)-5-methyl-1,2,4-triazine, B-00136
- 3-Benzoyl-2-naphthalenecarboxaldehyde, B-00137
- N*-Benzoyl-*N*-(1-naphthyl)hydroxylamine, B-00138
- 2-Benzoyl-4-(2-nitro-4-bromophenyl)acetohydrazidine, *see* B-00060
- 2-Benzoyl-4-nitro-1H-indene-1,3(2H)-dione, B-00139
- 2-Benzoyl-5-nitro-1H-indene-1,3(2H)-dione, B-00140
- 2-Benzoyl-4-(2-nitrophenyl)acetohydrazidine, *see* B-00065
- 2-Benzoyl-4-(4-nitrophenyl)acetohydrazidine, *see* B-00066
- 2-Benzoyl-4-(2-nitrophenyl)acetohydrazine, B-00141
- Benzoylpass calcium, *in* A-00184
- ▷ Benzoyl peroxide, *see* D-00165
- 6-Benzoyl-3-(1,10-phenanthroline-2-yl)-5-phenyl-1,2,4-triazine, B-00142
- ▷ Benzoylphenylcarbinol, *see* B-00068
- N*-Benzoyl-*N*-phenylhydroxylamine, *in* P-00135
- 4-Benzoyl-3-phenyl-5(4H)-isoxazolone, B-00143
- N*-(4-Benzoylphenyl)maleimide, *see* B-00146
- 6-Benzoyl-5-phenyl-3-(4-phenyl-2-pyridyl)-1,2,4-triazine, *see* P-00157
- 2-Benzoyl-4-phenylpyridine, B-00144
- 2-Benzoyl-6-phenylpyridine, B-00145
- 1-(4-Benzoylphenyl)-1H-pyrrole-2,5-dione, B-00146
- Benzoylphenyl-*N*-8-quinolyldiazone, *see* D-01015
- 6-Benzoyl-5-phenyl-3-(2-thiazolyl)-1,2,4-triazine, B-00147
- N*-Benzoyl-*N*-phenylthiourea, *in* P-00201
- ▷ *N*-Benzoyl-*N'*-phenylthiourea, *in* P-00201
- N*-Benzoyl-1-piperidinedithioamide, *see* P-00245
- Benzoylpropanone, *see* P-00107
- Benzoylpyrazine, B-00148
- 2-Benzoylpyrazine 2-quinolyldiazone, B-00149
- 2-Benzoylpyrazine 2-thiazolylhydrazone, B-00150
- ▷ 2-Benzoylpyridine, B-00151
- 2-Benzoylpyridine azine, B-00152
- 2-Benzoylpyridine phenylthiosemicarbazone, B-00153
- 2-Benzoylpyridine 2-pyridylhydrazone, B-00154
- 2-Benzoylpyridine 2-pyrimidinylhydrazone, B-00155
- 2-Benzoylpyridine 3-quinolyldiazone, B-00156
- 2-Benzoylpyridine 8-quinolyldiazone, B-00157
- 2-Benzoylpyridine 2-thiazolylhydrazone, B-00158
- N*-Benzoyl-*N'*-(2-pyridyl)thiourea, B-00159
- 4-Benzoylpyrogallol, *see* T-00278
- 3-Benzoyl-2-quinolinecarboxaldehyde, B-00160
- ▷ 4-Benzoylresorcinol, *see* D-00536
- N*-(Benzoylselenocarbonyl)glycine ethyl ester, *see* B-00130
- Benzoylselenoylethane, *see* P-00190
- ▷ Benzoyl superoxide, *see* D-00165
- 2-Benzoylthioacetanilide, *in* O-00056
- Benzoylthioacetone, *see* P-00202
- ▷ Benzoylthiocarbamide, *see* B-00161
- ▷ Benzoylthiourea, B-00161
- o*-(2-Benzoylthioureido)benzoic acid, *see* B-00121
- ▷ *β*-Benzoyl-*α*-(*o*-tolyl)thiourea, *see* M-00223
- Benzoyltrifluoroacetone, *see* T-00260
- N*-Benzoyltyrosine 4-nitroanilide, B-00162
- ▷ Benz-*γ*-pyrone, *see* B-00072
- ▷ Benzylamine, B-00163
- 4'-Benzylaminoazobenzene-4-sulfonic acid, *see* B-00190
- 2-Benzylaminoethanol, *see* P-00144
- 7-Benzylamino-4-nitrobenzofuroxan, *in* A-00282
- 4-Benzylamino-7-nitrobenzoxadiazole, *in* A-00282
- 2-Benzylaminopyridine, B-00164
- N*-Benzylaniline, B-00165
- N*-Benzylanilinesulfonephthalein, *in* A-00369
- N*-Benzylbenzamide, *in* B-00163
- 5-(1-Benzyl-1H-benzimidazol-2-yl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00166
- 5-(1-Benzyl-1H-benzimidazol-2-yl)-1,3-diphenylformazan, B-00167
- 5-(1-Benzyl-2-benzimidazolyl)-1-(2-hydroxyphenyl)-3-phenylformazan, B-00168
- 5-(1-Benzyl-2-benzimidazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00169
- 5-(1-Benzyl-2-benzimidazolyl)-3-(2-methoxyphenyl)-1-phenylformazan, *in* B-00169
- p*-[1-(1-Benzyl-2-benzimidazolyl)-3-methyl-5-formazano]benzenesulfonic acid, B-00170
- 1-(1-Benzyl-1H-benzimidazol-2-yl)-3-methyl-5-(4-nitrophenyl)formazan, B-00171
- 5-(1-Benzyl-1H-benzimidazol-2-yl)-3-methyl-1-(4-nitrophenyl)formazan, B-00172
- 1-(1-Benzyl-2-benzimidazolyl)-3-methyl-5-*p*-sulfophenylformazan, *see* B-00170
- 5-(1-Benzyl-1H-benzimidazol-2-yl)-1-(4-nitrophenyl)-3-phenylformazan, B-00173
- ▷ Benzyl benzoate, *in* B-00059
- N*-Benzylbenzohydroxamic acid, *in* H-00109
- ▷ Benzyl bromide, B-00174
- 1-Benzyl-5-bromo-1,3-dihydro-2H-benzimidazole-2-thione, B-00175
- 1-Benzyl-5-bromo-2-mercaptobenzimidazole, *see* B-00175
- ▷ Benzyl chloride, *see* C-00173
- Benzyl chloromethyl ether, *see* C-00167
- 4-Benzyl-1-(4-chlorophenyl)-5-phenyl-2,4-isodithiobiuret, *see* P-00145
- ▷ Benzyl cyanide, *in* P-00076

- N*-Benzyl-4-(4-diethylaminophenylazo)pyridinium(1+), B-00176
- 3-Benzyl-4,5-dihydroxycoumarin, B-00177
- 3-Benzyl-2,6-dimercapto-4*H*-thiopyran-4-one, B-00178
- Benzyl dimethyl dodecyl ammonium(1+), B-00179
- Benzyl dimethyl octadecyl ammonium(1+), B-00180
- Benzyl dimethyl tetradecyl ammonium(1+), *see* Z-00001
- Benzyl dimethyl [2-[2-(*p*-1,1,3,3-tetramethylbutylphenoxy)ethoxy]ethyl] ammonium, *see* B-00037
- Benzyl diphenyl phosphinodithioate, *in* D-01039
- ▷ Benzyl disulfide, *see* D-00168
- O*-Benzyl dithiocarbonate, *see* C-00024
- Benzyl dodecyl methyl octyl ammonium(1+), B-00181
- N*-Benzylethanolamine, *see* P-00144
- ▷ 1-Benzylethylamine, *see* P-00172
- N*-Benzylethylenediaminetriacetic acid, *in* E-00079
- 6-Benzyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00182
- 1-Benzyl-2-(α -hydroxyimino-4-nitrobenzyl)-1*H*-imidazole, B-00183
- O*-Benzylhydroxylamine, B-00184
- α -Benzylhydroxylamine, *see* B-00184
- 1-Benzyl-5-hydroxy-3-methyl-4-(4-nitro-2-sulfophenylazo)pyrazole, *see* H-00312
- 6-Benzyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00185
- Benzyl acid *N'*-(4-tolylsulfonyl)hydrazide, *see* H-00464
- N*-Benzylidene-3-aminorhodanine, *see* P-00146
- 4,4'-Benzylidenebis[*N,N*-dimethylaniline], *see* B-00327
- Benzylidenehydrazine, *in* B-00004
- 5-Benzylidenerhodanine, *see* P-00148
- Benzyl *N*-[lmino(diphenoxyposphinylamino)methyl]-*N*-methylglycinate, *in* P-00214
- ▷ Benzyl iodide, B-00186
- 6-[(Benzylmercapto)methyl]-5-hydroxy-3-mercapto-1,2,4-triazine, B-00187
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- 1-Benzyl-5-methoxy-2-mercaptobenzimidazole, *see* B-00188
- 1-Benzyl-5-methyl-2,3-dihydro-2*H*-benzimidazole-2-thione, B-00189
- Benzylmethylglyoxime, *in* P-00107
- 1-Benzyl-5-methyl-2-mercaptobenzimidazole, *see* B-00189
- N*-Benzyl-1-naphthalenemethylamine, *in* N-00051
- N*-Benzyl-2-naphthohydroxamic acid, *in* N-00024
- Benzyl orange, B-00190
- Benzyl oxyamine, *see* B-00184
- 2-[(Benzyl oxy)methyl]-12-crown-4, *see* P-00141
- 2-[(Benzyl oxy)methyl]-13-crown-4, *see* P-00143
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- 1-Benzyl oxy-2-phenyldiazene 2-oxide, *in* H-00471
- 1-Benzyl oxy-2-phenyldiimide 2-oxide, *in* H-00471
- 5-(3-Benzyl oxy-2-pyridylazo)-2,4-diaminotoluene, *see* M-00232
- ▷ Benzylpenicillin, B-00191
- 2-Benzylpyridine, B-00192
- Benzylpyridine, *in* B-00192
- Benzyl(2-pyridyl)methanone 2-pyridylhydrazone, *see* P-00365
- Benzyl selenide, *see* D-00170
- Benzyl styrylphosphonate, *in* P-00129
- Benzyl sulfide, *see* D-00171
- ▷ Benzyl sulfoxide, *see* D-00172
- 2-(Benzylthio)-6-hydroxy-4-pyridimidinecarboxylic acid, *in* H-00261
- 6-[(Benzylthio)methyl]-3-mercapto-*as*-triazin-5-ol, *see* B-00187
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- ▷ 2-Benzyl-2-thiopsedourea, B-00193
- 5-Benzyl-2-thioxo-4-imidazolidinone, B-00194
- 5-Benzylthiuronium chloride, *in* B-00193
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- 9-Benzyl-*s*-triazolo-[4,3-*a*]-benzimidazole-3-thione, B-00195
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- ▷ Bicyclo[5.3.0]deca-1,3,5,7,9-pentaene, *see* A-00481
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- 4,4'-[[1,1'-Biphenyl]-4,4'-diylbis(azo)]bis-1,2-benzenediol, *see* B-00302
- 3,3'-[[1,1'-Biphenyl]-4,4'-diylbis(azo)]bis[6-hydroxybenzoic acid], *see* C-00285
- 3,3'-[1,1'-Biphenyl]-4,4'-diylbis[2,5-diphenyl-2*H*-tetrazolium](2+), *see* N-00063
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- ▷ [1,1'-Biphenyl]-4-methanol, *see* H-00284
- ▷ 2-Biphenylol, B-00210
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- 1-[(1,1'-Biphenyl)-4-yl]-2-bromoethanone, *see* B-00544
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- 2,2'-Bipiperidyl, *see* B-00217
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- [3,3'-Bipyridazine]-6,6'-diamine, *see* D-00060
- ▷ 2,2'-Bipyridine, B-00220
- ▷ 2,3'-Bipyridine, B-00221
- ▷ 4,4'-Bipyridine, B-00222
- [2,2'-Bipyridine]-6-carboximidic acid hydrazide, B-00223
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- [2,2'-Bipyridine]-4,4'-dicarboxylic acid, B-00224
- (2,2'-Bipyridine-*N,N'*)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)gadolinium(III), *in* T-00417
- (2,2'-Bipyridine-*N,N'*)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)holmium(III), *in* T-00418
- (2,2'-Bipyridine-*N,N'*)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)praseodymium(III), *in* T-00420
- 2-(2,2'-Bipyridin-6-yl)benzimidazole, B-00225
- 3-[2,2'-Bipyridin-6-yl]-5,6-dimethyl-1,2,4-triazine, B-00226
- 3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine, B-00227
- 3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine, B-00228
- 2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, B-00229
- 2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*c*]pyridine, B-00230
- 2-(2,2'-Bipyridin-6-yl)-3*H*-imidazo[4,5-*h*]quinoline, B-00231
- 3-[2,2'-Bipyridin-6-yl]-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, B-00232
- 2-(2,2'-Bipyridin-6-yl)-5-phenylbenzimidazole, B-00233
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- (3-[2,2'-Bipyridin-6-yl]-5-phenyl-1,2,4-triazin-6-yl)phenylmethanone, *see* B-00123
- 3-(2,2'-Bipyridin-6-yl)-5-phenyl- Δ^2 -1,2,4-triazoline, *see* D-00473
- 3-(2,2'-Bipyridin-6-yl)-5-(2-pyridyl)- Δ^2 -1,2,4-triazoline, *see* D-00483
- 3-(2,2'-Bipyridin-6-yl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, B-00234
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- ▷ 4,4'-Bipyridyl, *see* B-00222
 ▷ α,α' -Bipyridyl, *see* B-00220
 2,2'-Bipyridyl-4,4'-dicarboxylic acid, *see* B-00224
 Bipyridylglyoxal, *see* D-01063
 2,2'-Bipyridyl ketone 2-pyridylhydrazone, *see* D-01080
 2,2'-Bipyrimidine, B-00235
 2,2'-Biquinoline, B-00236
 [2,2'-Biquinoline]-4,4'-dicarboxylic acid, B-00237
 [2,2'-Biquinoline]-4,4'-diol, *see* D-00545
 [5,5'-Biquinoline]-8,8'-diol, *see* D-00546
 4,4'-([2,2'-Biquinoline]-4,4'-diylimino) bisbenzoic acid, B-00238
 2,2'-Biquinolyl, *see* B-00236
 2,2'-Biquinoxaline, B-00239
 ▷ Bis(4-acetamidophenyl)sulfone, *in* D-00090
 Bis(acetylacetone)ethylenediimine, *see* E-00037
 3',6'-Bis(acetyloxy)-5-azidospiro[isobenzofuran-1(3*H*), 9'-9*H*] xanthen]-3-one, *in* A-00460
 Bis(acetylpyvalylmethane)ethylenediimine, *see* E-00036
N,N'-Bis(9-acridinyl)hydrazine, B-00240
N,O-Bis(allyldimethylsilyl)trifluoroacetamide, B-00241
N,N'-Bis(*o*-aminobenzophenone) ethylenediimine, *see* B-00250
N,N'-Bis(*o*-aminobenzylidene)ethylenediamine, B-00242
 1,2-Bis(2-amino-5-bromophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00243
 ▷ Bis(2-aminoethyl)amine, *see* D-00345
 Bis(2-aminoethyl)carbamodithioic acid, *see* B-00245
 ▷ Bis(2-aminoethyl) disulfide, B-00244
 Bis(2-aminoethyl)dithiocarbamic acid, B-00245
 ▷ *N,N'*-Bis(2-aminoethyl)-1,2-ethanediamine, *see* T-00232
N,N'-Bis(*o*-amino- α -methylbenzylidene) ethylenediamine, *see* B-00252
 3,3-Bis[3-(aminomethyl)-5-bromo-4-hydroxyphenyl]-3*H*-2,1-benzoxathiazole-1,1-dioxide *N,N,N',N'*-tetraacetic acid, *see* B-00559
 3,3'-Bis(aminomethyl)-4,4'-dihydroxystilbene-*N,N,N',N'*-tetraacetic acid, B-00246
 3,3-Bis(3-aminomethyl-4-hydroxy-5-methylphenyl)-3*H*-2,1-benzoxathiole-*N,N'*-diacetic acid *S,S*-dioxide, *see* G-00017
 1,5-Bis(aminomethyl)-2,6-naphthalenediol-*N,N,N',N'*-tetraacetic acid, B-00247
 Bis(1-amino-2-naphthyl)disulfide, *see* D-01118
 1,2-Bis(2-aminophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00248
 Bis(4-aminophenyl)acetylene, B-00249
 3,3-Bis(4-aminophenyl)-3*H*-2,1-benzoxathiole *S,S*-dioxide, *see* A-00369
N,N'-Bis(*o*-amino- α -phenylbenzylidene) ethylenediamine, B-00250
 ▷ Bis(2-aminophenyl) disulfide, B-00251
N,N'-Bis[1-(2-aminophenyl)ethylidene]-1,2-ethanediamine, B-00252
 4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one, B-00253
 Bis(4-aminophenyl)methanethione, B-00254
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 ▷ Bis(4-aminophenyl) sulfone, *see* D-00090
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 ▷ *N,N*-Bis(3-aminopropyl)methylamine, *in* D-00092
 3,4-Bis(aminothioxomethyl)hydrazono] hexanedioic acid, *see* D-00990
 Bis-AMP, *see* B-00372
 3,6-Bis(2-arseno-5-carboxyphenylazo)-4,5-dihydroxy-2,7-benzenedisulfonic acid, *see* D-00591
 3,6-Bis[(2-arseno-4,6-dibromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00255
 3,6-Bis[(2-arseno-4-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00256
 ▷ 3,6-Bis[(2-arsenophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* A-00412
 3,6-Bis[(4-arsenophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* P-00002
 ▷ Bisbarbiturypentamethylenecyanine, *see* P-00009
 Bis(benzo-15-crown-5-ylmethyl)fumarate, *in* B-00611
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 Bis(benzo-15-crown-5-ylmethyl)maleate, *in* B-00611
 Bis(benzo-18-crown-6-ylmethyl)maleate, *in* B-00610
 Bis[(benzo-15-crown-5)-15-ylmethyl]pimelate, *see* B-00434
 Bis(benzo-15-crown-5-ylmethyl)succinate, *in* B-00611
 Bis(benzo-18-crown-6-ylmethyl)succinate, *in* B-00610
 1,3-Bis[(2,3-benzo-1,4-dioxo-7,10,14,17-tetrathiacyclonadecenyl)aminocarbonyl] propane, *see* B-00291
 1,3-Bis[(2,3-benzo-1,4-dioxo-7,10,13-trithiacyclopentadecenyl)aminocarbonyl] propane, *see* B-00433
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N,N'-Bis(4-benzoylthio)-1,2-benzenediamine, B-00257
N,N'-Bis(2-benzoylthio)-*o*-phenylenediamine, *see* B-00257
 Bis(2-benzoylviny)amine, *see* I-00009
 4,4'-Bis(benzylamino)-2,2'-biquinoline, *in* D-00063
 1,5-Bis(7-benzyl-2-benzimidazolyl)-3-methylformazan, B-00258
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 4,4'-Bis(4-biphenylamino)-2,2'-biquinoline, B-00259
 2,5-Bis[1,1'-biphenyl]-4-yl)oxazole, B-00260
 2,6-Bis[3-(2,2'-bipyridin-6-yl)-1,2,4-triazolin-5-yl]pyridine, B-00261
N,N-Bis[2-[[2-(bis(carboxymethyl)amino)ethyl] (carboxymethyl)amino]ethyl]glycine, *see* T-00045
 ▷ *N,N*-Bis[2-[[bis(carboxymethyl)amino]ethyl] glycine, *see* P-00039
 2',7'-Bis[[bis(carboxymethyl)amino]methyl] fluorescein, *see* C-00010
 4,4'-Bis[3,5-[3,5-bis(methylamino)-1,3,5-triazinylamino]-2,2'-styrenedisulfonic acid-*N*-tetraacetic acid, *see* V-00008
 Bis[bis(4-methylphenyl)phosphinyl]ethylene, *see* E-00043
 Bis[bis(3-methyl-2-pyridylimino)isoindolinato-*N,N',N''*]manganese(*II*), B-00262
 2,4-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl] pyridine, B-00263
 2,6-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl] pyridine, B-00264
 3,3-Bis(3-bromo-5-chloro-4-hydroxyphenyl)-3*H*-2,1-benzoxathiole *S,S*-dioxide, *see* B-00497
 3,3-Bis(3-bromo-4-hydroxy-5-isopropyl-2-methylphenyl)-3*H*-2,1-benzoxathiazole *S,S*-dioxide, *see* B-00581
 2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)cyclohexanone, B-00265
 2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)-3-methyl-1-cyclohexanone, B-00266
 2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)-4-methyl-1-cyclohexanone, B-00267
N-[3,3-Bis[3-bromo-4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-3*H*-2,1-benzoxathiol-7-yl]-4-methylbenzenesulfonamide *S,S*-dioxide, *see* S-00047
 3,3-Bis[3-bromo-4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-4,5,6,7-tetrachloro-1(3*H*)-isobenzofuranone, *see* D-00218
 3,3-Bis(3-bromo-4-hydroxy-5-methylphenyl)-3*H*-2,1-benzoxathiole *S,S*-dioxide, *see* B-00499
 Bis[4-bromo-2-[[2-(2-methoxyethoxy)ethoxy] carbonyl]phenyl] ethanedioate, B-00268
 3,5-Bis(bromomethyl)-2,6-dimethyl-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-1,7-dione, B-00269
 Bis(4-bromo-2-methylphenyl)thiocarbazono, *see* B-00534
 1,5-Bis(2-bromophenyl)-*N*-phenyl-3-formazancarboxamide, B-00270
 1,2-Bis(butanesulfonamido)benzene, *see* B-00271
N,N'-Bis(butanesulfonyl)-1,2-benzenediamine, B-00271
N,N'-Bis(butanesulfonyl)-*O*-phenylenediamine, *see* B-00271
 2,5-Bis[5-*tert*-butyl-2-benzoxazolyl]thiophene, B-00272
 Bis(4-butylphenyl)thiocarbazono, *see* D-00233
 2,7-Bis(4-carboxybenzenazo)chromotropic acid, *see* C-00028
 3,6-Bis(3-carboxy-5-chloro-2-hydroxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00588
 2',7'-Bis(carboxyethyl)carboxyfluorescein, B-00273
 2,7-Bis(3-carboxy-4-hydroxyphenylazo) carbazole, *see* C-00021
 3,6-Bis(3-carboxy-2-hydroxy-5-sulfofenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00589
 1,5-Bis[2-(carboxymethoxy)-3,5-dimethylphenyl]-3-phenylformazan, B-00274
 1,5-Bis[2-(carboxymethoxy)phenyl]-3-phenylformazan, B-00275
 2-[Bis(carboxymethyl)amino]benzoic acid, B-00276
 4-[2-[4-[Bis(carboxymethyl)amino]-3-[2-[2-[bis(carboxymethyl)amino]-5-methylphenoxy]ethoxy]phenyl]ethenyl] benzoic acid, *see* S-00026
 2-[4-[Bis(carboxymethyl)amino]-3-[2-[2-[bis(carboxymethyl)amino]-5-methylphenoxy]ethoxy]phenyl]-1*H*-indole-6-carboxylic acid, *see* I-00031
N-[2-[2-[2-[Bis(carboxymethyl)amino]-5-(2,7-dichloro-6-hydroxy-3-oxo-3*H*-xanthen-9-yl)phenoxy]ethoxy]-4-methylphenyl]-*N*-(carboxymethyl)glycine, *see* F-00009
 ▷ *N*-[2-[Bis(carboxymethyl)amino]ethyl]-*N*-(2-hydroxyethyl)glycine, *see* H-00177
N-[2-[2-[8-[Bis(carboxymethyl)amino]-6-methoxy-2-quinolinyl]ethenyl]phenyl]-*N*-(carboxymethyl)glycine, *see* A-00347
N-[2-[8-[Bis(carboxymethyl)amino]-6-methoxy-2-quinolinyl]methoxy]-4-methylphenyl]-*N*-(carboxymethyl)glycine, *see* Q-00002
 3,3'-Bis(*N*-carboxymethylaminomethyl)-*o*-cresolsulfonephthalein, *see* G-00017
 4-[[Bis(carboxymethyl)amino]methyl]-3-hydroxy-2-naphthoic acid, B-00277
 3-[*N,N*-Bis(carboxymethyl)aminomethyl] thymolsulfonephthalein, *see* S-00011
N,N-Bis(carboxymethyl)anthranilic acid, *see* B-00276
 ▷ 3,1,2-Bis(carboxymethyl)-6,9-dioxo-3,1,2-diazatetradecanedioic acid, B-00278
 Bis(carboxymethyl)dithiocarbamic acid, B-00279
 ▷ *N,N*-Bis(carboxymethyl)glycine, *see* N-00074
 Bis[*N*-carboxymethyl-*N*-(2-hydroxyphenyl) glycine], *see* D-00528
 1,2-Bis(carboxymethylthio)ethane, *see* E-00080

- 3,6-Bis(3-carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00593
- 3,6-Bis(4-carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00028
- N,N'*-Bis(2-carboxyphenyl)benzidine, *see* B-00209
- N,N'*-Bis(2-carboxyphenyl)-3,3'-dimethoxybenzidine, *see* D-00772
- N,N'*-Bis(2-carboxyphenyl)-3,3'-dimethylbenzidine, *see* D-00837
- N,N'*-Bis[3-carboxysalicylidene]ethylenediamine, B-00280
- 3,6-Bis(2-carboxy-5-sulfonylphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00590
- 4,4'-Bis(catecholyazo)-3,3'-dimethoxybiphenyl, *see* B-00303
- 1,1'-Bis(6-chloroanthraquinolyl)amine, *see* I-00007
- ▷ Bis(2-chloroethyl) ether, *see* O-00077
- Bis(2-chloroethyl) hydrogen phosphate, *see* B-00281
- Bis(2-chloroethyl) phosphate, B-00281
- Bis(2-chloroethyl) phosphoramidate, *in* B-00281
- Bis(2-chloroethyl) phosphoric acid, *see* B-00281
- ▷ Bis(2-chloroethyl) phosphorochloridate, *in* B-00281
- Bis(2-chloroethyl) phosphorofluoridate, *in* B-00281
- ▷ Bis(2-chloroethyl) phosphoryl chloride, *in* B-00281
- Bis(2-chloroethyl) phosphoryl fluoride, *in* B-00281
- 3,6-[Bis(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00282
- 3,3-Bis(3-chloro-4-hydroxyphenyl)3*H*-2,1-benzoxathiole *S,S*-dioxide, *see* C-00197
- 1,5-Bis(5-chloro-2-hydroxyphenyl)-3-cyanoformazan, B-00283
- 1,5-Bis(5-chloro-2-hydroxyphenyl)-3-formazancarboxamide, *see* B-00283
- 3,6-Bis(5-chloro-2-hydroxy-3-sulfonylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* S-00045
- 4,4'-Bis(4-chloro-6-hydroxy-*s*-triazin-2-yl)amino]-2,2'-stilbenedisulfonic acid, *see* E-00045
- ▷ Bis(chloromethyl)dimethylsilyl]amine, B-00284
- ▷ 1,3-Bis(chloromethyl)-1,1,3,3-tetramethyldisilazane, *see* B-00284
- Bis(4-chlorophenyl) chlorophosphate, *in* B-00289
- Bis(4-chlorophenyl)ethanedione, B-00285
- 1,5-Bis(2-chlorophenyl)-3-formazancarboxamide, B-00286
- Bis(4-chlorophenyl) hydrogen phosphate, *see* B-00289
- Bis(4-chlorophenyl)iodonium(1+), B-00287
- 1,5-Bis(2-chlorophenyl)-3-nitroformazan, B-00288
- 1,5-Bis(2-chlorophenyl)-*N*-phenyl-3-formazancarboxamide, *in* B-00286
- Bis(4-chlorophenyl) phosphate, B-00289
- Bis(4-chlorophenyl) phosphoric acid, *see* B-00289
- Bis(4-chlorophenyl) phosphorochloridate, *in* B-00289
- Bis(4-chlorophenyl) phosphoryl chloride, *in* B-00289
- 3,6-Bis(*p*-chloro-*o*-phosphonophenylazo)chromotropic acid dianilide, *in* C-00242
- 3,6-Bis(4-chloro-2-phosphonophenyl)azo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00242
- 2,2'-Bis[3,4-(15-crown-5)-2-nitrophenylcarbamoxymethyl]tetradecane, B-00290
- Bis[(12-crown-4)-2-ylmethyl] 2-dodecyl-2-methylmalonate, *see* D-01152
- ▷ Bis(cyclohexanone)oxalylhydrazone, *see* C-00321
- ▷ Bis(cyclopentadienyl)iron, *see* F-00004
- N,N'*-Bis(2,3,5,6,9,10,12,13,15,16-decahydro-8*H*-1,7,4,7,11,14-benzodioxatetrahiacyclononadecin-19-yl)pentanediamide, B-00291
- N,N'*-Bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)pentanediamide, B-00292
- Bisdemethoxycurcumin, *in* C-00323
- 1,3-Bis(2,4-diaminophenylazo)benzene, *see* P-00117
- 4,4'-Bis-(3,5-diamino-1,3,5-triazinylamino)-2,2'-styrenedisulfonic acid-*N*-octaacetic acid, *see* V-00007
- 3,3'-Bis[(4,4'-diarsono[1,1'-biphenyl]-3,3'-diyl)bis(azo)]-bis[4,5-dihydroxy-2,7-naphthalenedisulfonic acid], *see* A-00411
- 3,3-Bis(3,5-dibromo-4-hydroxy-2-methylphenyl)-3*H*-2,1,1-benzoxathiole *S,S*-dioxide, *see* B-00498
- α,α -Bis(3,5-dibromo-4-hydroxyphenyl)- α -hydroxy-*o*-toluenesulfonic acid γ -sultone, *see* B-00542
- 3,3-Bis(3,5-dibromo-4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, *see* T-00019
- 1,2-Bis(dibutoxyphosphinyl)ethane, *in* E-00026
- 3,3'-Bis[*N,N'*-di(carboxymethyl)aminomethyl]-*o*-cresolphthalein, *see* C-00308
- 3,3'-Bis[*N,N'*-di(carboxymethyl)aminomethyl]-*o*-cresolsulfonephthalein, *see* X-00006
- 3,5'-Bis(dicarboxymethylaminomethyl)-4,4'-dihydroxystilbene, *see* E-00042
- 2,7-Bis[*o*-di(carboxymethyl)aminomethylphenylazo]chromotropic acid, *see* A-00235
- 3,3'-Bis[*N,N'*-di(carboxymethyl)aminomethyl]thymolphthalein, *see* T-00183
- 3,3'-Bis[*N,N'*-di(carboxymethyl)aminomethyl]thymolsulfonephthalein, *see* M-00327
- 3,3'-Bis[*N,N'*-di(carboxymethyl)aminomethyl]-*p*-xylenolsulfonephthalein, *see* M-00337
- 4,4'-Bis[*N,N'*-di(carboxymethyl)amino]stilbene-2,2'-disulfonic acid, *see* S-00032
- ▷ Bis(2,4-dichloro-6-hydroxyphenyl)disulfide, B-00293
- 1,2-Bis(dichlorophosphinyl)ethane, *in* E-00026
- ▷ 3,6-Bis(dicyanomethylene)-1,4-cyclohexadiene, *see* T-00038
- Bis(dicyclohexyloxyphosphinothioyl) disulfide, B-00294
- 1,2-Bis(diethoxyphosphinyl)ethane, *in* E-00026
- 4,4'-Bis(diethylamino)-2,2'-biquinoline, *in* D-00063
- 3,7-Bis(diethylamino)phenoxazin-5-ium(1+), *see* E-00067
- 4-[Bis(4-(diethylamino)phenyl)hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, B-00295
- Bis[4-(diethylamino)phenyl]methanethione, *in* B-00254
- N*-[Bis(4-(diethylamino)phenyl)methylene]benzamide, *see* B-00131
- N*-[4-[Bis(4-(diethylamino)phenyl)methylene]-2,5-cyclohexadien-1-ylidene]-*N*-ethylthaniminium(1+), *see* E-00122
- 3,7-Bis(diethylamino)-5-phenylphenazinium(1+), *in* P-00070
- 4,4'-Bis(diethylamino)thiobenzophenone, *in* B-00254
- ▷ Bis(diethylthiocarbonyl) sulfide, *see* M-00341
- ▷ Bis(diethylthiocarbonyl) disulfide, *see* D-01107
- 3,6-Bis[(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* A-00394
- 1,7-Bis(1,2-dihydro-2,3-dimethyl-4-oxo-5-phenyl-3-pyrazolyl)heptane, *see* D-00137
- N,N'*-Bis(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)thiourea, *see* D-00141
- 2,6-Bis[4,5-dihydro-5-(4-methyl-2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyridine, *see* B-00424
- 2,4-Bis(4,5-dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, B-00296
- 2,6-Bis(4,5-dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, B-00297
- 2,4-Bis[4,5-dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyridine, *see* B-00445
- 2,6-Bis[2,3-dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyridine, *see* B-00446
- 2,6-Bis[4,5-dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyridine, *see* B-00447
- 1,4-Bis(2,4-dihydroxybenzoyl)butane, *see* B-00307
- 1,7-Bis(2,4-dihydroxybenzoyl)heptane, *see* B-00309
- 1,8-Bis(2,4-dihydroxybenzoyl)octane, *see* B-00304
- 1,5-Bis(2,4-dihydroxybenzoyl)pentane, *see* B-00306
- 2,6-Bis(3,4-dihydroxybenzylidene)cyclohexanone, B-00298
- 2,6-Bis(3,4-dihydroxybenzylidene)-3-methyl-1-cyclohexanone, B-00299
- 2,6-Bis(3,4-dihydroxybenzylidene)-4-methyl-1-cyclohexanone, B-00300
- 4,4'-Bis[(1,8-dihydroxy-3,6-disulfo-2-naphthyl)azo]-3,3'-biphenyldicarboxylic acid, B-00301
- 4,4'-Bis(3,4-dihydroxyphenylazo)biphenyl, B-00302
- 4,4'-Bis(3',4'-dihydroxyphenylazo)-3,3'-dimethoxybiphenyl, B-00303
- 4,4'-Bis[(3,4-dihydroxyphenyl)azo]-2,2'-stilbenedisulfonic acid, *see* S-00027
- 1,10-Bis(2,4-dihydroxyphenyl)-1,10-decanedione, B-00304
- 5,5-[Bis(2,4-dihydroxyphenyl)]-2(5*H*)-furanone, B-00305
- 1,7-Bis(2,4-dihydroxyphenyl)-1,7-heptanedione, B-00306
- 1,6-Bis(2,4-dihydroxyphenyl)-1,6-hexanedione, B-00307
- 3,3-Bis(3,4-dihydroxyphenyl)-1(3*H*)-isobenzofuranone, *see* P-00220
- Bis[(2,3-dihydroxyphenyl)methylene]carbonothioic dihydrazide, B-00308
- 1,5-Bis(2,3-dihydroxyphenylmethylene)thiocarboxyhydrazone, *see* B-00308
- 1,9-Bis(2,4-dihydroxyphenyl)-1,9-nonanedione, B-00309
- 2,2-Bis(3,4-dihydroxyphenyl)phthalide, *see* P-00220
- 3,3-Bis(2,5-diiodo-4-hydroxyphenyl)-4,5,6,7-tetraiodo-1(3*H*)-isobenzofuranone, *see* T-00081
- Bis(diisobutylthiocarbonyl) disulfide, *in* T-00166
- Bis(diisopropoxyphosphinothioyl) disulfide, B-00310
- Bis(diisopropylthiocarbonyl) disulfide, *in* T-00166
- 5,5'-Bis(3,3'-dimethoxy-4,4'-diphenylenediazo)disalicylic acid, *see* D-00769
- α,α -Bis(2,4-dimethoxyphenyl)-2,4-dimethoxybenzenemethanol, *see* H-00056
- 1,2-Bis(3,4-dimethoxyphenyl)-1,2-ethanediamine, B-00311
- Bis(2,4-dimethoxyphenyl)(*o*-methoxyphenyl)methanol, *see* P-00028
- α,α -Bis(2,4-dimethoxyphenyl)-2,4,6-trimethoxybenzenemethanol, *see* H-00010
- ▷ Bis(dimethoxyphosphinothioyl) disulfide, B-00312
- 1,2-Bis(dimethoxyphosphinyl)ethane, *in* E-00026
- ▷ 3,6-Bis(dimethylamino)acridine, B-00313
- ▷ 4,4'-Bis(dimethylamino)benzhydrol, *see* B-00321

- ▷ 4,4'-Bisdimethylaminobenzophenone imide, *see* A-00456
- 5,9-Bis(dimethylamino)benzo[*a*]phenoxazin-7-ium(1+), *see* N-00068
- Bis(4-dimethylaminobenzylidene)-4,4'-methylenedianiline, B-00314
- 4,4'-Bis(dimethylamino)-3,3'-dimethylbiphenyl, *in* D-00083
- 3,6-Bis(dimethylamino)-10-dodecylacridinium(1+), B-00315
- N*-[Bis[4-(dimethylamino)-3-methylphenyl]methylene]benzamide, *see* B-00122
- 3,7-Bis(dimethylamino)-4-nitrophenothiazin-5-ium(1+), *see* M-00177
- 3,7-Bis(dimethylamino)phenothiazine, B-00316
- 3,7-Bis(dimethylamino)phenothiazin-5-ium(1+), *see* M-00175
- 3,7-Bis(dimethylamino)phenoxazin-5-ium(1+), *see* C-00018
- 4,4'-Bis(*p*-dimethylaminophenylazo)stilbene-2,2'-disulfonic acid, B-00317
- 5-[2,2-Bis(4-dimethylaminophenyl)ethylene]rhodanine, B-00318
- 5-[2,2-Bis(4-dimethylaminophenyl)ethylene]-2-thioxo-4-thiazolidinone, *see* B-00318
- 4-[Bis[*p*-(dimethylamino)phenyl]hydroxymethyl]-4-chloro-3-methyl-1-phenyl-2-pyrazolin-5-one, B-00319
- 4-[Bis[4-(dimethylamino)phenyl]hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, *see* C-00286
- ▷ Bis(4-dimethylaminophenyl)methane, B-00320
- Bis[4-(dimethylamino)phenylmethanethione], *see* B-00326
- ▷ Bis(4-dimethylaminophenyl)methanol, B-00321
- 2-[Bis[4-(dimethylamino)phenyl]methyl]benzenesulfonic acid, B-00322
- ▷ *N*-[4-[Bis[4-(dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* C-00320
- ▷ Bis(4-dimethylaminophenyl)methylenimine, *see* A-00456
- Bis[4-(dimethylamino)phenyl](2-nitrophenyl)methylum(1+), *see* N-00072
- Bis[4-(dimethylamino)phenyl](4-nitrophenyl)methylum(1+), *see* N-00073
- 3,7-Bis(dimethylamino)-5-phenylphenazinium(1+), B-00323
- 1,1-Bis[4-(dimethylamino)phenyl-3-phenyl-2-propynylum](1+), B-00324
- N,N'*-Bis(3-dimethylaminopropyl)dithiooxamide, B-00325
- 4,4'-Bis(dimethylamino)thiobenzophenone, B-00326
- 4,4'-Bis(dimethylamino)triphenylmethane, B-00327
- 4',4''-Bis(dimethylamino)triphenylmethane-2-sulfonic acid, *see* B-00322
- 3,6-Bis(dimethylamino)-9*H*-xanthen-9-one, *in* D-00132
- 5,5'-Bis(3,3'-dimethyl-4,4'-diphenylenediazo)disalicylic acid, *see* D-00836
- 3,5-Bis(1,1-dimethylethyl)-1,2-benzenediol, *see* D-00227
- 3,26-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29-(3,4,5-trimethoxyphenyl)-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaoxacycloheptacosin, B-00328
- 3,26-Bis(1,1-dimethylethyl)-29-(2,5-dimethylphenyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaoxacycloheptacosin, B-00329
- 3,29-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,21,23,24-dodecahydro-32-(3,4,5-trimethoxyphenyl)-32*H*-dinaphtho[2,1-*r*:1',2'-*v*][1,4,7,10,13,16,19]heptaoxacyclotetracosin, B-00330
- 2,19-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontine, B-00331
- 4,6-Bis(1,1-dimethylethyl)-3-methoxy-1,2-benzenediol, *in* D-00228
- ar,ar'*-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,18,19,26,27,29,30,32,33,35,36-octadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28,31]undecaoxacyclotriacontin, B-00332
- N,N'*-Bis(1,1-dimethylethyl)thiourea, *in* T-00175
- Bis(dimethylsilyl)amine, *see* D-00915
- ▷ Bis(dimethylthiocarbamoyl) sulfide, *see* T-00105
- ▷ Bis(dimethylthiocarbamyl) disulfide, *see* T-00106
- 2,4-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00333
- 2,6-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00334
- Bis(2,4-dinitrophenyl)acetic acid, *see* D-00971
- 3,6-Bis-[(3,3'-Dinitrophenyl)azo]chromotropic acid, *see* D-00556
- Bis(2,4-dinitrophenyl) ethanedioate, *see* B-00335
- Bis(2,4-dinitrophenyl) oxalate, B-00335
- 1,4-Bis[[diocetylphosphinyl)methyl]benzene, *see* P-00120
- Bis[2-(3,6-dioxahexyloxy carbonyl)-4-bromophenyl]oxalate, *see* B-00268
- Bis[[diphenoxyphosphino]thioyl] disulfide, B-00336
- 1,2-Bis(diphenoxyphosphinyl)ethane, *in* E-00026
- 2,3-Bis(diphenylphosphino)bicyclo[2.2.1]heptane, *in* B-00337
- 5,6-Bis(diphenylphosphino)bicyclo[2.2.1]hept-2-ene, B-00337
- ▷ 1,2-Bis(diphenylphosphino)ethane, B-00338
- 1,2-Bis(diphenylphosphino)ethylene, B-00339
- Bis(diphenylphosphino)methane, B-00340
- 5,6-Bis(diphenylphosphino)norbornene, *see* B-00337
- 1,2-Bis(diphenylphosphinoselenoyl)ethane, *in* B-00338
- Bis(diphenylphosphinoselenoyl)methane, *in* B-00340
- 1,2-Bis(diphenylphosphinothioyl)ethane, *in* B-00338
- Bis(diphenylphosphinothioyl)methane, *in* B-00340
- 5,6-Bis(diphenylphosphinyl)bicyclo[2.2.1]hept-2-ene, *in* B-00337
- 1,2-Bis(diphenylphosphinyl)ethane, *in* B-00338
- Bis(diphenylphosphinyl)methane, *in* B-00340
- ▷ Bis(diphenylthallium)sulfate, *see* T-00123
- 2,4-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00341
- 2,6-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00342
- Bis(di-2-pyridinylmethylene)carbonic dihydrazide, *see* B-00345
- Bis(di-2-pyridinylmethylene)carbonimidic dihydrazide, B-00343
- Bis(di-2-pyridinylmethylene)carbonothioic dihydrazide, B-00344
- 1,3-Bis(di(2-pyridyl)methyleneamino)urea, B-00345
- 1,5-Bis(di-2-pyridylmethylene)thiocarbonyldihydrazide, *see* B-00344
- 1,2-Bis(2,5-dithiaheptyl)benzene, *see* B-00355
- 1,3-Bis(2,5-dithiaheptyl)benzene, *see* B-00356
- 1,4-Bis(2,5-dithiaheptyl)benzene, *see* B-00357
- N,N'*-Bis(2,3,5,6,8,9,11,12,14,15,17,18-dodecahydro-1,4,7,10,13,16,19-benzoheptaaxacycloheptacosin-21-yl)pentanediamide, B-00346
- 2,13-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecane, B-00347
- 2,14-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecane, B-00348
- 2,14-Bis(2-ethoxyethoxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecane, B-00349
- 2,6-Bis(3-ethoxy-4-hydroxybenzylidene)cyclohexanone, *in* B-00298
- 2,6-Bis(3-ethoxy-4-hydroxybenzylidene)-3-methyl-1-cyclohexanone, *in* B-00299
- 2,6-Bis(3-ethoxy-4-hydroxybenzylidene)-4-methyl-1-cyclohexanone, *in* B-00300
- 4',4''-Bis(4-ethoxyphenylazo)stilbene-2,2'-disulfonic acid, *see* C-00297
- 1,2-Bis(4-ethoxyphenyl)-1,2-ethanediamine, B-00350
- Bis(4-ethyl-3,5-dipropyl-1-pyrazolyl)methane, *see* M-00171
- ▷ Bis(2-ethylhexyl)amine, B-00351
- ▷ *O,O*-Bis(2-ethylhexyl) dithiophosphate, *see* B-00353
- ▷ *O,O*-Bis(2-ethylhexyl) hydrogen phosphorodithioate, *see* B-00353
- ▷ Bis(2-ethylhexyl) phosphate, B-00352
- ▷ *O,O*-Bis(2-ethylhexyl) phosphorodithioate, B-00353
- ▷ *O,O*-Bis(2-ethylhexyl) phosphorodithioic acid, *see* B-00353
- 3,6-Bis(4-ethyl-2-pyridyl)-1,2-dihydro-1,2,4,5-tetrazine, B-00354
- 1,2-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00355
- 1,3-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00356
- 1,4-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00357
- Bis[4-fluoro-2-[[2-(2-methoxyethoxy)ethoxy]carbonyl]phenyl]ethanedioate, *in* B-00268
- 1,5-Bis(2-fluorophenyl)-3-mercaptopformazan, *see* D-00360
- 1,5-Bis(2-fluorophenyl)-*N*-phenyl-3-formazan-carboxamide, B-00358
- Bis(heptamethylene)thiocarbonyl disulfide, *see* D-01129
- Bis[hexahydro-1*H*-azepin-1-yl]thiocarbonyl disulfide, *see* D-01127
- Bis(hexamethylene)thiocarbonyl disulfide, *see* D-01127
- 1,2-Bis(hexylthio)ethane, B-00359
- N,N'*-Bis(2-hydroxybenzyl)ethylenediamine-*N,N'*-diacetic acid, B-00360
- 2,3-Bis(2-hydroxybenzylideneamino)benzofuran, B-00361
- N,N'*-Bis(2-hydroxybenzylidene)-1,2-benzenediamine, B-00362
- ▷ *N,N'*-Bis(2-hydroxybenzylidene)-1,2-ethanediamine, B-00363
- 7,16-Bis[3-[2-hydroxy-3,5-bis(4-nitrophenyl)azo]phenyl]-1-oxopropyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane, B-00364
- 3,3-Bis(4-hydroxy-2,5-dimethylphenyl)-1(3*H*)-isobenzofuranone, B-00365
- 3,3-Bis(4-hydroxy-3,5-dimethylphenyl)-1(3*H*)-isobenzofuranone, B-00366
- ▷ [Bis(2-hydroxyethyl)amino]acetic acid, B-00367
- 2,5-Bis(2-hydroxyethylamino)-1,4-benzenedicarboxylic acid, B-00368
- 2-[Bis(2-hydroxyethyl)amino]ethanesulfonic acid, B-00369
- 2-[Bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)-1,3-propanediol, B-00370
- 3-[Bis(2-hydroxyethyl)amino]-2-hydroxy-1-propanesulfonic acid, B-00371
- 2-[Bis(2-hydroxyethyl)amino]-2-methyl-1-propanol, B-00372
- 2,5-Bis(2-hydroxyethylamino)terephthalic acid, *see* B-00368
- N*-[[Bis(2-hydroxyethyl)amino]thioxomethyl]benzamide, *see* B-00124
- Bis(2-hydroxyethylamino)tris(hydroxymethyl)methane, *see* B-00370

- ▷ Bis(2-hydroxyethyl)carbamdithioic acid, B-00373
- ▷ *N,N'*-Bis(2-hydroxyethyl)dithiooxamide, *see* B-00374
- ▷ *N,N'*-Bis(2-hydroxyethyl)ethanedithioamide, B-00374
- ▷ *N,N'*-Bis(2-hydroxyethyl)glycine, *see* B-00367
- Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbonic dihydrazide, B-00375
- Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbothioic dihydrazide, B-00376
- 1,3-Bis[[3-hydroxy-5-hydroxymethyl-2-methyl-4-pyridinyl]methylene]amino]thiourea, *see* B-00376
- 1,3-Bis[[3-hydroxy-5-hydroxymethyl-2-methyl-4-pyridinyl]methylene]amino]urea, *see* B-00375
- Bis(3-hydroxy-6-hydroxymethyl-4-oxo-4H-pyran-2-yl)methanone, B-00377
- Bis(2-hydroxyimino-3-butylidene)-*o*-phenylenediimine, *in* P-00127
- 2-[2,3-Bis(hydroxyimino)-5,5-dimethylcyclohexylidene]hydrazinecarbothioamide, *in* D-00848
- 3,3-Bis(4-hydroxy-2-isopropyl-5-methylphenyl)-(1*3H*)-isobenzofuranone, B-00378
- 1,7-Bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione, *see* C-00323
- 3,3-Bis(4-hydroxy-3-methoxyphenyl)-1(3*H*)-isobenzofuranone, B-00379
- 4-[Bis(4-hydroxy-3-methoxyphenyl)methylene]-2-methoxy-2,5-cyclohexadien-1-one, *see* R-00013
- 3,3-Bis[4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-1(3*H*)-isobenzofuranone, *see* T-00182
- 3,3-Bis[4-hydroxy-5-methyl-2-(1-methylethyl)phenyl]-1(3*H*)-isobenzofuranone, *see* B-00378
- 2,2-Bis(hydroxymethyl)-2,2',2''-nitrilotriethanol, *see* B-00370
- 3,3-Bis(4-hydroxy-2-methylphenyl)-1(3*H*)-isobenzofuranone, *see* C-00306
- ▷ 3,3'-Bis(4-hydroxy-3-methylphenyl)-1(3*H*)-isobenzofuranone, *see* C-00307
- 3,3-Bis(4-hydroxy-2-methylphenyl)-4,5,6,7-tetrao-1(3*H*)-isobenzofuranone, *see* P-00067
- 3,3-Bis(4-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, B-00380
- 3,3-Bis(5-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, B-00381
- 3,3-Bis(4-hydroxy-1-naphthyl)phthalide, *see* B-00380
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)cryptand-22, *see* T-00115
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,10-diaza-4,7,13-trioxacyclopentadecane, B-00382
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)10,13-diaza-1,4,7-trioxacyclopentadecane, B-00383
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,13,16,19-hexaoxa-10,22-diazacyclotetrasane, B-00384
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-15,18-diazacycloheicosane, B-00385
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13,16-diazacyclooctadecane, B-00386
- 1,5-Bis(2-hydroxy-4-nitrophenyl)-3-acetylformazan, B-00387
- [1,5-Bis(2-hydroxy-4-nitrophenyl)formazanyl]ethanone, *see* B-00387
- 4,4'-Bis(4-hydroxyphenylazo)-3,3'-dinitrophenyl, *see* P-00059
- ▷ 3,3'-Bis(4-hydroxyphenyl)-3*H*-2,1-benzoxathiole 1,1-dioxide, *see* P-00064
- 1,5-Bis(2-hydroxyphenyl)-3-cyanoformazan, B-00388
- 1,2-Bis(4-hydroxyphenyl)ethylene, *see* D-00730
- 1,5-Bis(*o*-hydroxyphenyl)-3-formazancarbonitrile, *see* B-00388
- 5,5-Bis(4-hydroxyphenyl)-2(5*H*)-furanone, B-00389
- 1,7-Bis(4-hydroxyphenyl)-1,6-heptadiene-3,5-dione, *in* C-00323
- 8,8'-Bis[[hydroxyphenyl]imino]methyl]-3,3'-dimethyl-5,5'-bis(1-methylethyl)[2,2'-binaphthalene]-1,1',6,6',7,7'-hexol, *see* G-00043
- ▷ 3,3-Bis(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, *see* P-00063
- Bis(2-hydroxyphenyl)methanone, *see* D-00535
- Bis(2-hydroxyphenyl)methylene]carbonic dihydrazide, B-00390
- Bis[[2-hydroxyphenyl)methylene]carbonimidic dihydrazide, B-00391
- 4-[Bis(4-hydroxyphenyl)methylene]-2,5-cyclohexadien-1-one, *see* A-00457
- ▷ 3,3-Bis(4-hydroxyphenyl)phthalide, *see* P-00063
- 4,4'-Bis(3-hydroxy-3-phenyl-1-triazeno)-2,2'-biphenyldisulfonic acid, *see* D-01108
- N,N'*-Bis(2-hydroxypropyl)aniline, *see* P-00136
- N,N'*-Bis(2-hydroxypropyl)-1,2-benzenediamine, B-00392
- N,N'*-Bis(2-hydroxypropyl)ethanolamine, B-00393
- N,N'*-Bis(β -hydroxypropyl)-*o*-phenylenediamine, *see* B-00392
- 1,5-Bis(2-hydroxy-3-sulfo-5-chlorophenyl)-3-cyanoformazan, B-00394
- 5-[Bis(2-hydroxy-3-sulfo-5-chlorophenyl)amino]-2-[(3,5-dibromo-2-pyridinyl)azo]-4-methylbenzoic acid, B-00395
- 1,5-Bis(2-iodophenyl)-*N*-phenyl-3-formazancarboxamide, B-00396
- Bismarck brown, *see* P-00117
- 1,2-Bis(2-mercaptobenzamido)ethane, *see* B-00397
- N,N'*-Bis(2-mercaptobenzoyl)-1,2-ethanediamine, B-00397
- 1,2-Bis(2-mercaptobenzylidencamino)ethane, B-00398
- 1,3-Bis(8-mercaptotheophyllinyl)propane, *see* T-00327
- 1,2-Bis(methanesulfonamido)benzene, *see* P-00118
- N,N'*-Bis(methanesulfonyl)phenylenediamine, *see* P-00118
- Bis[2-[[2-[2-(2-methoxyethoxy)ethoxy]ethoxy]carbonyl]-4-nitrophenyl]ethanedioate, B-00399
- 3,3-Bis[(2-methoxyphenoxy)methyl]oxetane, B-00400
- 1,2-Bis(4-methoxyphenyl)-1,2-ethanediamine, B-00401
- N*-[Bis(4-methoxyphenyl)methylene]benzenemethanamine, B-00402
- Bis-*p*-methoxyphenylthiocarbazone, *see* D-00775
- O,O*-Bis(2-methylallyl)phosphorodithioate, *see* P-00216
- 1,2-Bis(methylamino)-1,2-diphenylethane, *in* D-01010
- 1,6-Bis(methylamino)hexane, *in* H-00061
- 2,6-Bis(methylamino)pyridine, *in* D-00119
- ▷ 1,4-Bis(4-methylamino)anthraquinone, *see* B-00406
- Bis[2-(4-methylbenzoyl)vinyl]amine, *see* I-00008
- Bis(4-methylbenzylaminophenyl)antipyrinylcarbinol, *see* C-00288
- N,N'*-Bis(3-methylbutyl)-1-octanamine, B-00403
- [Bis(1-methylethoxy)phosphinothioyl]carbamdithioic acid, B-00404
- 2-[Bis(1-methylethyl)amino]benzoic acid hydrazide, *see* D-00747
- 3,3'-Bis(1-methylethyl)-[1,1'-binaphthalene]-4,4'-diamine, *see* D-00076
- Bis(1-methylethyl) butylboronate, *see* B-00627
- Bis(1-methylethyl) diethylphosphoramidate, *in* D-00353
- O,O*-Bis(1-methylethyl) phosphorodithioate, *see* D-00750
- O,O*-Bis[(3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4(5*H*)-ylidene)phenylmethyl] phosphorodithioate, B-00405
- ▷ 1,4-Bis[(4-methylphenylamino)]-9,10-anthracenedione, B-00406
- 1,4-Bis[2-(2-methylphenyl)ethenyl]benzene, B-00407
- 1,4-Bis(4-methyl-5-phenyl-2-oxazolyl)benzene, B-00408
- 1,5-Bis(2-methylphenyl)-*N*-phenyl-3-formazancarboxamide, B-00409
- 2,6-Bis(4-methylphenyl)-4-phenylpyrylium(1+), B-00410
- Bis(4-methylphenyl)sulfur diimide, B-00411
- ▷ *N,N'*-Bis(2-methylphenyl)thiourea, B-00412
- Bis(2-methylpropyl) (2-methylpropyl) phosphonate, *in* M-00262
- Bis(2-methylpropyl) phenylphosphonate, *in* P-00164
- O,O*-Bis(2-methylpropyl) phosphorodithioate, B-00413
- Bis[*N*-(3-methyl-2-pyridinyl)-1-[(3-methyl-2-pyridinyl)imino]-1*H*-isoindol-3-aminato]manganesec, *see* B-00262
- 2,3-Bis(6-methyl-2-pyridyl)-8-azaquinoxaline, *see* B-00421
- 2,3-Bis(6-methyl-2-pyridyl)benzo[g]quinoxaline, B-00414
- 3,6-Bis(4-methyl-2-pyridyl)-1,2-dihydro-1,2,4,5-tetrazine, *see* D-00373
- Bis(6-methyl-2-pyridyl)ethanedione, B-00415
- Bis(6-methyl-2-pyridyl)glyoxal, *see* B-00415
- 2,3-Bis(6-methyl-2-pyridyl)-10*H*-indeno[1,2-*g*]quinoxaline, B-00416
- 2,3-Bis(6-methyl-2-pyridyl)-5-nitroquinoxaline, B-00417
- 2,3-Bis(6-methyl-2-pyridyl)-6-nitroquinoxaline, B-00418
- 3,6-Bis(4-methyl-2-pyridyl)-4-phenylpyridazine, B-00419
- 2,3-Bis(6-methyl-2-pyridyl)pyrazine, B-00420
- 2,3-Bis(6-methyl-2-pyridyl)pyrido[2,3-*b*]pyrazine, B-00421
- 2,3-Bis(6-methyl-2-pyridyl)quinoxaline, B-00422
- 2,3-Bis(6-methyl-2-pyridyl)-6-quinoxalinecarboxylic acid, B-00423
- 2,6-Bis[3-(4-methyl-2-pyridyl)-1,2,4-triazolin-5-yl]pyridine, B-00424
- 1,5-Bis(6-methyl-4-pyrimidyl)carbazone, B-00425
- p*-Bis(*o*-methylstyryl)benzene, *see* B-00407
- 3,6-Bis[(5-methyl-2-sulfo)phenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00426
- 1,12-Bis(5-methyl-2-thienyl)-2,5,8,11-tetrathiadodecane, *see* T-00128
- 1,2-Bis(methylthio)ethane, *in* E-00028
- 1,8-Bis(methylthio)naphthalene, *in* N-00012
- 2,5-Bis(methylthio)-1,3,4-thiadiazole, *in* M-00060
- 4,5-Bis(methylthio)-*o*-xylene, *in* D-00832
- ▷ Bis(morpholino)thiocarbonyl disulfide, *see* D-01128
- Bis-MSB, *see* B-00407
- ▷ Bismuthiol I, *see* M-00060
- Bismuthiol II, *in* M-00060
- Bismuthiol III, *see* M-00039
- Bismuthiol II sulfonic acid, *in* M-00060
- ▷ Bismuthone I, *see* M-00060
- Bismuthone II, *in* M-00060
- Bismutural, *in* G-00015
- 3,3-Bis[(1-naphthalenyloxy)methyl]oxetane, *see* B-00428
- Bis(1-naphthylmethyl)amine, B-00427
- 3,3-Bis(1-naphthylloxymethyl)oxetane, B-00428
- Bis(nitrooxy)diocetylstannane, B-00429
- Bis(nitrooxyl)dinonylstannane, *see* D-00980

- [[Bis(4-nitrophenyl)amino]methylene] propanedinitrile, B-00430
- N,N*-Bis[3-[5-(4-nitrophenylazo)-2-hydroxyphenyl]propyl]diaz-15-crown-5, see T-00362
- N,N*-Bis[3-[5-(4-nitrophenylazo)-2-hydroxyphenyl]propyl]diaz-18-crown-6, see T-00117
- 2,4-Bis[[4-nitrophenyl]azo]-6-(1,4,7,10,13-pentaoxacyclopentadec-2-ylmethyl)phenol, see H-00141
- 2,4-Bis(4-nitrophenylazo)resorcinol-6-sulfonic acid, see D-00555
- ▷ Bis(4-nitrophenyl) disulfide, B-00431
- Bis(3-nitrophenyl)disulfide, see N-00115
- Bis(4-nitrophenyl)ethanedione, B-00432
- Bis(3-nitropyridyl) disulfide, see D-01121
- Bis[4-nitro-2-(3,6,9-trioxadecylcarbonyl)phenyl] oxalate, see B-00399
- N,N*-Bis(2,3,5,6,8,9,11,12-octahydro-1,13,4,7,10-benzodioxatrichiacyclopentadecin-15-yl) pentanediamide, B-00433
- Bis[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl) methyl]heptanedioate, B-00434
- N,N'*-Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)pentanediamide, B-00435
- 1,2-Bis(octanesulfonamido)benzene, B-00436
- 1,8-Bis(octanesulfonamido)naphthalene, B-00437
- ▷ Bisoxypfen, see B-00293
- ▷ Bis(pentamethylene)thiocarbamoyl disulfide, see D-01130
- Bis(*p*-phenylazoanilino)-1,10-phenanthroline, see B-00438
- 3,6-Bisphenylazochromotropic acid, see D-00559
- N,N'*-Bis[4-(phenylazo)phenyl]-1,10-phenanthroline-4,7-diamine, B-00438
- N,N'*-Bis(1-phenylethyl)carbodiimide, B-00439
- Bis(phenylhydrazono)oxamide, see O-00050
- N,N*-Bis(phenylmethyl)benzenemethanamine, see T-00201
- 1,1'-Bis(phenylmethyl)-4,4'-bipyridinium(2+), see D-00167
- Bis(phenylmethyl)carbomodithioic acid, in D-01124
- Bis(phenylmethyl) diethylphosphoramidate, in D-00353
- ▷ Bis(phenylmethyl) disulfide, see D-00168
- ▷ *N,N'*-Bis(phenylmethyl)ethanedithioamide, see D-00169
- 4,4'-Bis(1-phenyl-3-methyl-5-pyrazolone), B-00440
- 1,4-Bis(5-phenyl-2-oxazolyl)benzene, see P-00121
- 2,6-Bis(4-phenyl-2-pyridyl)-4-phenylpyridine, see T-00378
- 2,4-Bis(5-phenyl-1,2,4-triazolin-3-yl)pyridine, see B-00296
- 2,6-Bis(5-phenyl-1,2,4-triazolin-3-yl)pyridine, see B-00297
- ▷ *N,N*-Bis(phosphonomethyl)glycine, see G-00040
- N,N*-Bis(2-picrylamino)benzyl]diaz-15-crown-5, see T-00361
- N,N'*-Bis(2-picrylamino)benzyl]diaz-18-crown-6, see T-00116
- ▷ Bis(piperidinothiocarbonyl) disulfide, see D-01130
- Bispyrazolone, see D-00851
- Bis(pyridine)ethylenediimine, see B-00441
- N,N'*-Bis(pyridylmethylene)-1,2-ethanediamine, B-00441
- 2,3-Bis(2-pyridyl)-6,7-benzquinioxaline, see D-01088
- 2,3-Bis(2-pyridyl)-6-carboxyquinioxaline, see D-01095
- 2,3-Bis(2-pyridyl)-6-chloroquinioxaline, see C-00111
- 2,3-Bis(2-pyridyl)-6,7-dichloroquinioxaline, see D-00269
- 1,2-Bis(2-pyridyl)ethylene, see D-01090
- 1,2-Bis(2-pyridyl)ethyleneglycol, see D-01089
- 2,3-Bis(2-pyridyl)-6-hydroxyquinioxaline, see H-00172
- 1,3-Bis(2-pyridylmethyleneamino)guanidine, see B-00443
- 1,3-Bis(2-pyridylmethyleneamino)thiourea, see B-00444
- 1,3-Bis(2-pyridylmethyleneamino)urea, see B-00442
- Bis(2-pyridylmethylene)carbonic acid dihydrazide, B-00442
- Bis(2-pyridylmethylene)carbonimidic acid dihydrazide, B-00443
- Bis(2-pyridylmethylene)carbonothioic acid dihydrazide, B-00444
- Bis(pyridyl-2-methylidene)ethylenediamine, see B-00441
- Bis[1-(2-pyridyl)-3-methyl-5-pyrazolon-4-yl] methane, see M-00173
- 2,3-Bis(2-pyridyl)-6-methylquinioxaline, see M-00168
- 2,3-Bis(2-pyridyl)-6-nitroquinioxaline, see N-00107
- 2,3-Bis(2-pyridyl)pyrazine, see D-01091
- 2,3-Bis(2-pyridyl)quinoxaline, see D-01087
- 2,4-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl] pyridine, B-00445
- 2,6-Bis[3-(2-pyridyl)-1,2,4-triazolin-5-yl] pyridine, B-00446
- 2,6-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl] pyridine, B-00447
- Bispyrithione magsulfex, in D-01122
- N,N'*-Bis(1-*H*-pyrrol-2-ylmethylene)-1,2-ethanediamine, B-00448
- 1,1,3-Bis(8-quinolyl)-1,4,7,10,13-pentaaxatridecane, see C-00316
- 2,6-Bis[*N*-(8-quinolyl)carbomoyl]pyridine, see D-01104
- 1,4-Bis(8-quinolyloxy)butane, B-00449
- 1,3-Bis(8-quinolyloxy)-2,2-diethylpropane, B-00450
- 1,1-Bis(8-quinolyloxymethyl)cyclobutane, B-00451
- 3,3-Bis(8-quinolyloxymethyl)oxetane, B-00452
- 3,3-Bis(8-quinolyloxymethyl)pentane, see B-00450
- 1,3-Bis(8-quinolyloxy)propane, B-00453
- 2,3-Bis(salicylideneamino)benzofuran, see B-00361
- N,N'*-Bis(salicylidene)-2,3-benzofurandiamine, see B-00361
- Bis(salicylidene)ethylenediamine, see B-00363
- 1,5-Bis(salicylmethyleneamino)carbohydrazide, see B-00390
- 1,5-Bis(salicylmethyleneamino) diaminoguanidine, see B-00391
- Bis(4-sulfobenzyl)dithiocarbamic acid, B-00454
- N,N'*-Bis(*m*-sulfobenzyl)dithiooxamide, see D-01134
- N,N'*-Bis(2-sulfoethyl)dithiooxamide, B-00455
- 3,6-Bis(*m*-sulfophenylazo)chromotropic acid, see D-00564
- 3,6-Bis(*p*-sulfophenylazo)chromotropic acid, see D-00565
- 2,6-Bis[4-(4-sulfophenyl)azo]-4-methylphenol, see H-00327
- Bis(1-*p*-sulfophenyl)-2,3-dimethylpyrazol-5-on-4-yl)methane, B-00456
- Bis(4-sulfophenylmethyl)carbomodithioic acid, see B-00454
- Bis(2,2':6',2''-terpyridine-*N,N',N''*)iron(II)(2+), B-00457
- Bis(2,2':2''-terpyridyl)iron(II)(2+), see B-00457
- Bis[2-[(tetrahydro-2*H*-pyran-2-yl)thio]phenyl] diazene, B-00458
- Bis(1-*H*-tetrazol-5-ylazo)acetic acid, B-00459
- 4,4'-Bisthiazol-2,2'-diacetyldithiosemicarbazone, see D-00033
- Bis(thioantipryl)methane, see M-00169
- ▷ Bis(thiocarbamoyl) disulfide, see T-00166
- N,N'*-Bis(thiosalicylidene)ethylenediamine, see B-00398
- 1,5-Bis(2,3,5-trichloro-6-hydroxyphenyl) formazanyl methyl ketone, see A-00013
- Bis(2,4,6-trichlorophenyl) ethanedioate, see B-00460
- Bis(2,4,6-trichlorophenyl) oxalate, B-00460
- Bis(triethylsilyl) (hydroxymethyl)phosphonate, in H-00318
- Bis(trifluoroacetamide), B-00461
- [Bis(trifluoroacetoxy)iodo]benzene, B-00462
- 3,3'-Bis(trifluoromethyl)dithizone, B-00463
- N*-(3,5-Bis(trifluoromethyl)phenyl)-3,5-bis(trifluoromethyl)benzohydroxamic acid, see B-00465
- [3,5-Bis(trifluoromethyl)phenyl]boronic acid, B-00464
- N*-[3,5-Bis(trifluoromethyl)phenyl]-*N*-hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465
- Bis(2,3,4-trihydroxybenzyl)methylamine, B-00466
- 1,6-Bis(2,4,6-trihydroxyphenyl)-1,6-hexanedione, B-00467
- Bis(2,4,4-trimethylpentyl)phosphinic acid, B-00468
- Bis(2,4,4-trimethylpentyl)phosphinodithioic acid, B-00469
- ▷ *N,O*-Bis(trimethylsilyl)acetamide, B-00470
- ▷ Bis(trimethylsilyl)amine, B-00471
- N,N'*-Bis(trimethylsilyl)urea, B-00472
- ▷ Bis(2,4,6-trinitrophenyl)amine, see H-00065
- 1,4-Bis(triphenylphosphonio)butane(2+), see B-00602
- 1,2-Bis(triphenylphosphonio)ethane, see E-00034
- Bis-Tris, see B-00370
- 1,3-Bis[tris(hydroxymethyl)methylamino] propane, see P-00263
- ▷ Bithionol, see B-00293
- ▷ Bithionolate sodium, in B-00293
- ▷ Bithionoloxide, in B-00293
- ▷ Bitin, see B-00293
- ▷ Bitin *S*, in B-00293
- 4,4',4'',4'''-[3,3'-Bi-1,2,4-triazine]-5,5',6,6'-tetrayltetrakisbenzenesulfonic acid, B-00473
- Biuret, B-00474
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- ▷ BMU, see H-00283
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- ▷ Boronione, see M-00010
- Boronoferrrocene, see F-00005
- Boropyrocatechol, in P-00433
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- ▷ Bosmin, see A-00066
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- ▷ Brady's reagent, see D-00972
- Brasilian fast fuchsine G, see C-00293
- Brasilin, see B-00475
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- Brazilin, B-00475
- Br-DMEQ, see B-00520
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- ▷ Brilliant acid red G, see A-00476
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- Brilliant monochrome violet, *see* E-00012
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 ▶ 4-Bromobenzeneboronic acid, *see* B-00549
 4-Bromo-1,3-benzenediol, B-00486
 4-Bromobenzesulfonic acid, B-00487
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 ▶ 4-Bromobenzoic acid, B-00488
 3-Bromobenzoic acid (2-furanylmethylene)hydrazide, *see* F-00045
 4-Bromobenzoic acid (2-furanylmethylene)hydrazide, *see* F-00046
 4-Bromobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00489
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 2-[(6-Bromo-2-benzothiazolyl)azo]-4-methylphenol, B-00491
 1-[(6-Bromo-2-benzothiazolyl)azo]-2-naphthalenol, B-00492
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 4-(2-Bromobenzoyl)-1,2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00493
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 3-Bromo-4,4'-bis(dimethylaminophenyl)antipyrilcarbinol, *see* B-00505
 4-Bromo-*N,N'*-bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494
 6-Bromo-2-(6-Bromo-1,3-dihydro-3-oxo-2*H*-indol-2-ylidene)-1,2,4-dihydro-3*H*-indol-3-one, *see* D-00195
 2-Bromo-4-[[3-bromo-4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]phenylmethylene]-3-methyl-6-(1-methylethyl)-2,5-cyclohexadien-1-one, *see* D-00217
 2-Bromo-4-[(3-bromo-4-hydroxy-5-methylphenyl)phenylmethylene]-6-methyl-2,5-cyclohexadien-1-one, B-00495
 ▶ 2-Bromo-1-(4-bromophenyl)ethanone, *see* D-00176
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 ▶ 1-Bromo-4-cyanobenzene, *in* B-00488
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 4-[(2-Bromo-4,5-dihydroxyphenyl)azo]benzenesulfonic acid, B-00504
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 2-(5-Bromo-2,4-dihydroxyphenylazo)thiazole, *see* B-00578
 2-Bromo-1-(2,5-dihydroxyphenyl)ethanone, *see* B-00502
 2-Bromo-2',5'-dimethoxyacetophenone, *in* B-00502
 1-Bromo-2,4-dimethoxybenzene, *in* B-00486
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 4-[3-Bromo-4-(dimethylamino)- α -[*p*-(dimethylamino)phenyl]- α -hydroxybenzyl]antipyrine, B-00505
 3-Bromo-4-[(4-dimethylaminophenyl)azo]benzenesulfonic acid, *in* A-00308
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 ▶ 2-Bromo-4'-hydroxyacetophenone, B-00508
 ▶ α -Bromo-4-hydroxyacetophenone, *see* B-00508
 5-Bromo-2-hydroxybenzaldehyde, B-00509
 2-Bromo-6-hydroxybenzaldehyde *p*-chlorobenzoylhydrazone, *see* C-00068
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 5-Bromo-2-hydroxybenzaldehyde 2-hydroxyanil, *see* H-00193
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 5-Bromo-2-(2-hydroxy-4,5-dimethylphenylazo)pyridine, *see* B-00564
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 6-Bromo-2-(2-hydroxy-1-naphthylazo)benzothiazole, *see* B-00492
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 5-Bromo-2-methoxybenzaldehyde, *in* B-00509
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 8-(Bromomethyl)-6*H*-1,3-dioxolo[4,5-*g*]1-benzopyran-6-one, B-00523
 4-(Bromomethyl)-7-hydroxy-2*H*-1-benzopyran-2-one, B-00524
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 ▶ (Bromomethyl)pentafluorobenzene, B-00532
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 2-Bromo-4-methylphenyldiazene-carbothioic acid 2-(2-bromo-4-methylphenyl)hydrazide, *see* D-00184
 4-Bromo-2-methylphenyldiazene-carbothioic acid 2-(4-bromo-2-methylphenyl)hydrazide, B-00534
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 2-Bromo-1-(2-naphthalenyl)-1-ethanone, *see* B-00484
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 α -Bromo-4-nitro-*o*-cresol, *see* B-00531
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 α -Bromo-4-nitrotoluene, *see* B-00530

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- 3-[(4-Bromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00546
- 5-[(4-Bromophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, B-00547
- [(*p*-Bromophenyl)azo]thiosulfonic acid 2-(*p*-bromophenyl)hydrazide, *see* D-00187
- ▷ *p*-Bromophenylboric acid, *see* B-00549
- ▷ 4-Bromophenylboronic acid, *see* B-00549
- 1-(4-Bromophenyl)-1,3-butanedione, B-00548
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- p*-Bromophenylhydroxamic acid, *see* B-00510
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- 4-(*p*-Bromophenyl)-2-mercapto- Δ^2 -1,3,4-thiadiazole-5-thione, *see* B-00553
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- 6-(4-Bromophenyl)-5*H*-2-pyridine-5,7(6*H*)-dione, B-00556
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- N*-*p*-Bromophenyl-2-thenylacrylohydroxamic acid, *see* B-00552
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- Bromophthaloxon S, B-00559
- 3'-Bromo-4'-(picrylamino)benzo-15-crown-5, *see* B-00540
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- 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00126
- 2-[(5-Bromo-2-pyridinyl)azo]-5-(dimethylamino)phenol, *in* A-00126
- 2-[(5-Bromo-2-pyridinyl)azo]-4,5-dimethylphenol, B-00564
- 2-[(5-Bromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00125
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid, B-00565
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, B-00566
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, B-00567
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-2-hydroxy-1-propanesulfonic acid, B-00568
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00569
- 3-[[4-[(6-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, B-00570
- 5-(5-Bromo-2-pyridinylazo)-6-hydroxy-2(1*H*)-pyridinone, B-00571
- 2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, *in* B-00563
- 4-[(5-Bromo-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, B-00572
- 1-[(5-Bromo-2-pyridinyl)azo]-2-naphthalenol, B-00573
- 5-(5-Bromo-2-pyridylazo)-2,6-dihydroxypyridine, *see* B-00571
- 2-(5-Bromo-2-pyridylazo)-5-[*N*-ethyl-*N*-(3-sulfopropyl)amino]-4-methylphenol, *see* B-00565
- 2-(5-Bromo-2-pyridylazo)-5-[*N*-ethyl-*N*-(3-sulfopropyl)amino]phenol, *see* B-00567
- 2-(5-Bromo-2-pyridylazo)-5-(*N*-propyl-*N*-sulfopropylamino)aniline, *see* A-00127
- 2-(5-Bromo-2-pyridylazo)-5-(*N*-propyl-*N*-sulfopropylamino)phenol, *see* B-00569
- 2-(6-Bromo-2-pyridylazo)-5-(*N*-propyl-*N*-sulfopropylamino)phenol, *see* B-00570
- 2-(5-Bromo-2-pyridylazo)-5-[*N*-(3-sulfopropyl)amino]phenol, *see* B-00566
- Bromopyrogallol red, B-00574
- ▷ 1-Bromo-2,5-pyrrolidinedione, *see* B-00576
- 4-Bromo-2-[(8-quinolinylimino)methyl]phenol, *see* B-00575
- 4-Bromoresorcinol, *see* B-00486
- 4'-Bromo- γ -resorcyamide, *in* D-00533
- 5-Bromosalicylaldehyde, *see* B-00509
- 5-Bromosalicylfluorone, *see* B-00513
- 5-Bromosalicylhydroxamic acid, *see* B-00503
- 8-*V*-(5-Bromosalicylidene)aminoquinoline, B-00575
- ▷ *N*-Bromosuccinimide, B-00576
- ▷ Bromotetraphenylantimony, B-00577
- 4-Bromo-6-(2-thiazolylazo)-1,3-benzenediol, B-00578
- 2-(5-Bromo-2-thiazolylazo)-5-(diethylamino)benzoic acid, *in* A-00128
- 1-[(5-Bromo-2-thiazolyl)azo]-2-naphthalenol, B-00579
- 5-Bromo-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, B-00580
- Bromothymol blue, B-00581
- ▷ α -Bromotoluene, *see* B-00174
- Bromotrimethylsilane, B-00582
- ▷ α -Bromo-*p*-xylene, *see* B-00527
- Bromoxylene blue, B-00583
- ▷ Bronkaid, *see* A-00066
- ▷ Bronkotabs, *in* M-00122
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- Broquinaldol, *see* D-00190
- Broxaldine, *in* D-00190
- ▷ Broxykinolin, *see* D-00193
- ▷ Broxyquinoline, *see* D-00193
- 5-Br-PADAB, *see* B-00562
- 5-Br-PADAP, *in* A-00126
- 5-Br-PADAT, *see* B-00572
- 5-Br- β -PAN, *see* B-00573
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- Butanediamide, *in* S-00034
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- ▷ Butanedioic acid, *see* S-00034
- ▷ 2,3-Butanediol, B-00586
- ▷ 2,3-Butanedione, B-00587
- 2,3-Butanedione (2-benzothiazolyl)hydrazone, B-00588
- 2,3-Butanedione bis(4-biphenyl)thiosemicarbazone, B-00589
- 2,3-Butanedione bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone], B-00590
- 2,3-Butanedione bis[4-(4-chloro-3-(trifluoromethyl)phenyl)thiosemicarbazone], B-00591
- 2,3-Butanedione bis[4-(3,4-dichlorophenyl)thiosemicarbazone], B-00592
- 2,3-Butanedione bis[(2-fluorophenyl)thiosemicarbazone], B-00593
- 2,3-Butanedione bis[(4-fluorophenyl)thiosemicarbazone], B-00594
- 2,3-Butanedione bis(4-hydroxybenzoylhydrazone), *see* H-00117
- 2,3-Butanedione bis[[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone], B-00595
- 2,3-Butanedione bis[(4-nitrophenyl)thiosemicarbazone], B-00596
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- ▷ 2,3-Butanedione dioxime, *see* D-00862
- 2,3-Butanedione mono(2-pyridinylhydrazone), B-00600
- 2,3-Butanedione oxime 4-nitrophenylhydrazone, B-00601
- [1,4-Butanediy]bis[nitriolobis(methylene)] tetrakisphosphonic acid, *see* B-00585
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- 1,4-Butanediy]lidenebis(triphenylphosphorane), *in* B-00602
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- ▷ Butaperazine maleate, *in* B-00609
- ▷ (*E*)-2-Butenedioic acid, *see* F-00038
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 C.I. Basic black 6, *see* M-00011
 C.I. Basic blue 5, *see* A-00452
 C.I. Basic blue 7, *see* V-00004
 C.I. Basic blue 8, *see* V-00003
 C.I. Basic blue 9, *see* M-00175
 C.I. Basic blue 10, *see* D-00784
 C.I. Basic blue 12, *see* N-00069
 C.I. Basic blue 16, *see* J-00002
 C.I. Basic blue 17, *see* T-00189
 C.I. Basic blue 20, C-00002
 C.I. Basic blue 25, *see* T-00136
 C.I. Basic blue 26, *see* V-00002
 C.I. Basic blue 41, *see* M-00009
 C.I. Basic brown 1, *see* P-00117
 ▷ C.I. 11050 Basic dye, *in* J-00004
 C.I. 45005 Basic dye, *see* P-00435
 C.I. 49410 Basic dye, *see* T-00190
 C.I. 50080 Basic dye, *see* I-00035
 C.I. 50150 basic dye, *see* N-00064
 C.I. 51000 Basic dye, *see* C-00018
 C.I. 51205 Basic dye, *see* M-00350
 ▷ C.I. 52000 Basic dye, *in* L-00003
 C.I. Basic green 1, *see* B-00479
 C.I. Basic green 4, *see* M-00006
 C.I. Basic green 5, *see* M-00177
 C.I. Basic green 4 leuco base, *see* B-00327
 ▷ C.I. Basic orange 14, *in* B-00313
 C.I. Basic orange 21, *see* T-00328
 C.I. Basic orange 22, *see* A-00453
 C.I. Basic red 1, *see* R-00003
 C.I. Basic red 2, *see* D-00084
 C.I. Basic red 5, *see* N-00065
 C.I. Basic red 8, *see* R-00005
 C.I. Basic red 9, *see* T-00383
 C.I. Basic red 11, *see* R-00006
 C.I. Basic red 12, *see* A-00450
 C.I. Basic red 13, *see* A-00454
 C.I. Basic violet 2, C-00003
 ▷ C.I. Basic violet 3, *see* C-00320
 C.I. Basic violet 5, *see* A-00162
 C.I. Basic violet 7, *see* A-00455
 C.I. Basic violet 10, *in* R-00002
 ▷ C.I. Basic Violet 14, *see* R-00009
 C.I. Basic violet 16, *see* A-00451
 C.I. Basic violet, *see* E-00122
 ▷ C.I. Basic yellow 2, *in* A-00456
 C.I. Chromotrope FB, *see* A-00477
 ▷ C.I. Direct blue 14, *see* T-00433
 ▷ C.I. Direct blue 53, *see* A-00479
 C.I. Direct blue 55, *see* B-00476
 C.I. Direct blue 72, C-00004
 C.I. Direct blue, *see* E-00006
 C.I. Direct red 2, *see* B-00071
 C.I. Direct red 28, *see* C-00301
 C.I. Direct yellow 1, *see* C-00285
 C.I. Direct yellow 4, *see* B-00480
 C.I. Direct yellow 7, *see* T-00162
 C.I. Direct yellow 9, *see* T-00187
 C.I. Disperse blue 22, *in* A-00182
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 ▷ C.I. Disperse red 15, *see* A-00182
 ▷ C.I. Food blue 1, *in* I-00029
 C.I. Food blue 2, *see* E-00018
 C.I. Food blue 3, *see* S-00058
 C.I. Food green 3, *see* F-00001
 C.I. Food red 3, *see* A-00477
 ▷ C.I. Food red 10, *see* A-00476
 ▷ C.I. Food red 14, *see* E-00020
 C.I. Food red 15, *in* R-00002
 C.I. Food yellow 4, *see* T-00003
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 C.I. Mordant black 1, *see* H-00224
 C.I. Mordant black 3, *see* S-00017
 C.I. Mordant black 9, *see* S-00018
 C.I. Mordant black 10, *see* A-00050
 C.I. Mordant black 11, *see* C-00278
 C.I. Mordant black 15, *see* E-00014
 C.I. Mordant black 25, *see* A-00051
 C.I. Mordant black 38, *in* A-00205
 C.I. Mordant black 59, *see* G-00007
 C.I. Mordant blue 7, *in* A-00225
 C.I. Mordant blue 9, *see* C-00161
 C.I. Mordant blue 10, *see* G-00005
 C.I. Mordant blue 13, *see* E-00011
 C.I. Mordant blue 17, *see* E-00010
 C.I. Mordant blue 18, *in* A-00139
 C.I. Mordant blue 29, *see* C-00277
 C.I. Mordant blue 31, *see* A-00053
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 C.I. Mordant blue 79, *see* A-00477
 C.I. Mordant blue 12 (discontinued), *see* M-00004
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 C.I. Mordant brown 41, *see* C-00284
 C.I. Mordant green 6, *see* A-00187
 C.I. Mordant green 12, *see* D-00133
 C.I. Mordant green 14, *see* A-00057
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 C.I. Mordant red 3, *see* A-00081
 C.I. Mordant red 7, *see* E-00017
 C.I. Mordant red 9, *see* S-00021
 ▷ C.I. Mordant red 11, *see* D-00510
 C.I. Mordant red 17, *see* D-00437
 C.I. Mordant red 19, *see* S-00020
 C.I. Mordant red 32, *see* C-00279
 ▷ C.I. Mordant red 72, *see* L-00015
 C.I. Mordant violet 4, *see* H-00556
 C.I. Mordant violet 5, *see* A-00055
 C.I. Mordant violet 16, *see* E-00015
 C.I. Mordant violet 25, *see* G-00004
 ▷ C.I. Mordant violet 26, *see* T-00070
 C.I. Mordant violet 28, *see* E-00012
 C.I. Mordant violet 31, *see* M-00004
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 C.I. Natural black 1, *see* H-00002
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 ▷ C.I. Natural yellow 11, *see* P-00024
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 C.I. Pigment violet 20, *see* D-00377
 ▷ C.I. Solvent black 3, *see* D-00390
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- ▶ C.I. Solvent green 3, *see* B-00406
 ▶ C.I. Solvent green 7, *in* H-00517
 ▶ C.I. Solvent orange 15, *see* B-00313
 C.I. Solvent orange 32, *see* D-00276
 C.I. Solvent red 141, *see* R-00010
 ▶ C.I. Solvent red 23, *see* P-00095
 ▶ C.I. Solvent red 43, *see* E-00007
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 ▶ C.I. Solvent red 53, *see* A-00182
 ▶ C.I. Solvent red 72, *see* D-00188
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 ▶ C.I. Solvent violet 13, *see* H-00300
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 ▶ C.I. Solvent yellow 4, *see* P-00093
 ▶ C.I. Solvent yellow 34, *see* A-00456
 ▶ C.I. Solvent yellow 94, *see* F-00020
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 ▶ Campazine, *in* P-00256
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 ▶ Carbamidine, *see* G-00044
 1-Carbamidino-3-methyl-5-pyrazolone, *see* G-00045
 1-Carbamido-3-methyl-5-pyrazolone, *see* D-00460
 5-Carbamidothioglycollic acid *N*-methylanilide, *in* C-00019
 ▶ 5-Carbamidothioglycollic anilide, C-00019
 ▶ Carbamina, *in* T-00222
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 3-Carbamoyl-1,4-dimethylpyridinium, *see* A-00133
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 ▶ 3-Carbamoyl-1-methylpyridinium, *see* A-00134
N-(Carbamoylmethyl)taurine, *see* A-00293
 ▶ Carbanil, *see* P-00138
 ▶ Carbaspirin calcium, *in* A-00010
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 9*H*-Carbazole-9-carboxylic acid, C-00020
 5,5'-[2,7-Carbazole-2,7-diylbis(azo)]bis[2-hydroxybenzoic acid], *see* C-00021
 5,5'-[2,7-Carbazolediylbis(azo)]disalicyclic acid, *see* C-00021
 9*H*-Carbazol-2-ol, *see* H-00144
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 ▶ Carbolic acid, *see* P-00060
 7-[α-(Carbomethoxyanilino)benzyl]-8-hydroxyquinoline, C-00022
 (4-Carbomethoxyphenyl)chloromercury, *in* C-00039
 ▶ Carbon bisulfide, *see* C-00023
 ▶ Carbon disulfide, C-00023
 ▶ Carbonic acid cyclic propylene ester, *see* M-00160
 ▶ 4,4'-Carbonimidoylbis[*N,N*-dimethylbenzenamine], *see* A-00456
 Carbonochloridic acid 2,2,2-trichloro-1,1-dimethylethyl ester, *see* T-00221
 ▶ Carbonochloridic acid 2,2,2-trichloroethyl ester, *see* T-00223
 ▶ Carbonochloridic acid methyl ester, *see* M-00155
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 ▶ Carbonodithioic acid, *O*-ethyl ester, potassium salt, *see* P-00253
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 Carboxybenzenazothioipropiorhodanine, *see* T-00060
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m-Carboxychlorophosphonazo, *see* C-00247
ar-Carboxy-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3*H*)-9'-[9*H*]xanthen]-2:7'-dipropanoic acid, *see* B-00273
 4-Carboxy-6,7-dihydroxy-2-phenyl-1-benzopyrylium(1+), C-00029
 1-Carboxy-7-(dimethylamino)-3,4-dihydroxyphenoxazin-5-ium(1+), *see* G-00005
 2-Carboxydiphenylamine-4'-sulfonic acid, *see* S-00056
 1-(2-Carboxyethyl)-4,5-dichloro-6-pyridazone, *see* D-00287
N-[9-(2-Carboxyethyl)-6-(dimethylamino)-3*H*-xanthen-3-ylidene]-*N*-methylmethanaminium(1+), *see* R-00006
p-Carboxygallaniide, *see* T-00280
 3-[(3-Carboxy-4-hydroxy-5-methyl phenyl)(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)methyl]-6-hydroxy-2,4-dimethylbenzoic acid, *see* C-00295
 5-[(3-Carboxy-4-hydroxy-5-methylphenyl)(3-carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)methyl]-2-hydroxy-3-methylbenzoic acid, *see* E-00015
 4-[(3-Carboxy-4-hydroxy-1-naphthalenyl)phenylmethylene]-1,4-dihydro-1-oxo-2-naphthalenecarboxylic acid, *see* N-00023
 6'-[(3-Carboxy-2-hydroxy-1-naphthyl)azo]-1-methylanabasine, *see* H-00325
 1-(3-Carboxy-2-hydroxy-1-naphthylazo)-2-naphthol-3,6-disulfonic acid, C-00030
 2-Carboxy-5-hydroxy-4-oxo-1(4*H*)-pyridineacetic acid, C-00031
 2-(4-Carboxy-3-hydroxyphenylazo)chromotropic acid, *see* D-00598
 3-(4-Carboxy-3-hydroxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00598
 5-[(3-Carboxy-4-hydroxyphenyl)(3-carboxy-4-oxo-2,5-cyclohexadien-1-ylidene)methyl]-2-hydroxybenzoic acid, *see* A-00458
 9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxyfluorone, *see* C-00032
 9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00032
 4-Carboxy-2-hydroxy-*N*-salicylideneaniline, *see* H-00239
 5-Carboxy-2-hydroxy-*N*-salicylideneaniline, *see* H-00240
 1-(2-Carboxymethoxy-4-nitrophenyl)-3-phenyl-5-(carboxymethoxyphenyl)formazan, C-00033
 2-[1-[2-(Carboxymethoxy)-4-nitrophenyl]-3-phenyl-5-formazano]phenoxyacetic acid, *see* C-00033
 3-[2-(Carboxymethyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00602
 Carboxymethyl cellulose, *in* C-00049
 ▶ *N*-(Carboxymethyl)-*N*-[[5-[(3,5-dibromo-4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-hydroxy-3-methylphenyl]methyl]glycine, *see* I-00032
 ▶ *N*-(Carboxymethyl)-*N*-[[9,10-dihydro-3,4-dihydroxy-9,10-dioxo-2-anthracenyl]methyl]glycine, *see* A-00076
N-(Carboxymethyl)-*N*-[[9,10-dihydro-3,4-dihydroxy-9,10-dioxo-8-sulfo-2-anthracenyl]methyl]glycine, *see* A-00077
N-(Carboxymethyl)-*N*-[[9,10-dihydro-3,4,5,8-tetrahydroxy-9,10-dioxo-2-anthracenyl]methyl]glycine, *see* A-00256
N-(Carboxymethyl)-*N*-[[9,10-dihydro-3,4,6-trihydroxy-9,10-dioxo-2-anthracenyl]methyl]glycine, *see* A-00260
N-(Carboxymethyl)-*N*-[[9,10-dihydro-3,4,8-trihydroxy-9,10-dioxo-2-anthracenyl]methyl]glycine, *see* A-00259
N-(Carboxymethyl)-*N*-[[4-[(1,8-dihydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]methyl]glycine, *see* D-00509
N-(Carboxymethyl)-*N*-[[1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]methyl]glycine, *see* D-00547
N-(Carboxymethyl)-*N*-[[6,7-dihydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-8-yl]methyl]glycine, *see* A-00241
 Carboxymethylthiocarbamic acid, *see* G-00018
N-(Carboxymethyl)-*N*-(dithiocarbonyl)glycine, *see* B-00279
N-(Carboxymethyl)-*N*-(2-furanylmethyl)glycine, *see* A-00242
N-(Carboxymethyl)-*N*-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)glycine, *see* A-00338
 ▶ *N*-(Carboxymethyl)-*N'*-(2-hydroxyethyl)-*N,N'*-ethylenediglycine, *see* H-00177

- N*-(Carboxymethyl)-*N*-[[2-hydroxy-5-[3-[4-hydroxy-2,5-dimethylphenyl]-3*H*-2,1-benzoxathiol-3-yl]-3,6-dimethylphenyl]methyl]glycine *S,S*-dioxide, *see* S-00012
- N*-(Carboxymethyl)-*N*-[[2-hydroxy-5-[3-[4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-3*H*-2,1-benzoxathiol-3-yl]-6-methyl-3-(1-methylethyl)phenyl]methyl]glycine *S,S*-dioxide, *see* S-00011
- N*-(Carboxymethyl)-*N*-[[2-hydroxy-5-[3-(4-hydroxy-3-methylphenyl)-3*H*-2,1-benzoxathiol-3-yl]-3-methylphenyl]methyl]glycine *S,S*-dioxide, *see* S-00014
- N*-(Carboxymethyl)-*N*-[[2-hydroxy-5-[3-(4-hydroxyphenyl)-3*H*-2,1-benzoxathiol-3-yl]phenyl]methyl]glycine *S,S*-dioxide, *see* S-00013
- N*-(Carboxymethyl)-*N*-[(7-hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-8-yl)methyl]glycine, *see* C-00011
- N*-(Carboxymethyl)-*N*-[(7-hydroxy-2-methyl-4-oxo-3-phenyl-4*H*-1-benzopyran-8-yl)methyl]glycine, *see* I-00058
- N*-(Carboxymethyl)-[(7-hydroxy-2-oxo-(2*H*)-1-benzopyran-8-yl)methyl]glycine, *see* H-00097
- ▶ [[(Carboxymethyl)imino]bis(ethylenenitrilo)] tetraacetic acid, *see* P-00039
- 5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2-chloro-4-(diethylamino)phenyl)methyl]-2-hydroxymethylbenzoic acid, *see* E-00012
- 5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2-chloro-4-nitrophenyl)methyl]-2-hydroxy-3-methylbenzoic acid, *see* C-00275
- 5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichlorophenyl)methyl]-2-hydroxy-3-methylbenzoic acid, *see* S-00016
- 5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,6-dichloro-3-sulfofenyl)methyl]-2-hydroxy-3-methylbenzoic acid, *see* C-00277
- 5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,4-disulfofenyl)methyl]-2-hydroxy-3-methylbenzoic acid, *see* S-00046
- 5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2-sulfofenyl)methyl]-2-hydroxy-3-methylbenzoic acid, *see* E-00013
- 5-[(3-Carboxy-5-methyl-4-oxo-2,5-cyclohexadien-1-ylidene)(2,3,6-trichlorophenyl)methyl]-2-hydroxy-3-methylbenzoic acid, *see* E-00009
- 3-(Carboxymethylthio)-1,5-diphenylformazan, C-00034
- (Carboxymethyl)trimethylammonium hydrazide, *see* G-00009
- α -Carboxy- β -methyltropolone, *see* H-00298
- 4-Carboxynioxime, *in* D-00989
- Carboxynitrazo, C-00035
- N*-(Carboxyoxy)succinimide ethyl ester, *see* E-00054
- (1-Carboxypentadecyl)trimethyl ammonium(1+) ethyl ester, *see* E-00061
- 3-(2-Carboxyphenylazo)-6-(3-carboxy-2-hydroxy-5-sulfofenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00038
- 3-(2-Carboxyphenylazo)-6-(3-carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00036
- 3-(2-Carboxyphenylazo)-6-(4-carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00037
- 3-(2-Carboxyphenylazo)-6-(5-chloro-2-hydroxy-3-sulfofenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* S-00041
- 2-(*o*-Carboxyphenylazo)-7-(*p*-chlorophenylazo) chromotropic acid, *see* C-00201
- 3-(2-Carboxyphenylazo)-6-(4-chlorophenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00201
- 3-(2-Carboxyphenylazo)-6-(3-chloro-5-sulfofenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00568
- 2-(2-Carboxyphenylazo)chromotropic acid, *see* C-00291
- m*-Carboxyphenylazochromotropic acid, *see* D-00594
- p*-Carboxyphenylazochromotropic acid, *see* D-00595
- 2-[[7-[(3-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00036
- 2-[[7-[(4-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00037
- 3-[[7-[(2-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfofenylazo, C-00038
- 3-[[7-[(*o*-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-5-sulfosalicylic acid, *see* C-00038
- 3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(2-hydroxy-3,5-dinitrophenylazo)-2,7-naphthalenedisulfonic acid, *see* P-00232
- 3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(2-hydroxy-5-nitro-3-sulfofenylazo)-2,7-naphthalenedisulfonic acid, *see* S-00051
- 3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-[(2-hydroxy-5-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, *see* D-00630
- 3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(4-methoxyphenylazo)-2,7-naphthalenedicarboxylic acid, *see* D-00642
- 3-(2-Carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00291
- 3-(3-Carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00594
- 3-(4-Carboxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00595
- 3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(4-nitrophenylazo)-2,7-naphthalenedisulfonic acid, *see* C-00035
- 3-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(3-nitro-5-sulfofenylazo)-2,7-naphthalenedisulfonic acid, *see* D-00604
- 3-(2-Carboxyphenylazo)-4,5-dihydroxy-7-(8-quinolyazo)-2,7-naphthalenedisulfonic acid, *see* D-00726
- 2-(2-Carboxyphenylazo)-4,5-dihydroxy-6-(2-sulfofenylazo)-2,7-naphthalenedisulfonic acid, *see* D-00608
- 3-(3-Carboxyphenylazo)-4,5-dihydroxy-6-(4-sulfofenylazo)-2,7-naphthalenedisulfonic acid, *see* D-00611
- 2-[(2-Carboxyphenyl)azo]-4,5-diphenylimidazole, *see* D-01022
- 4-(2-Carboxyphenylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid, *see* S-00021
- 3-(2-Carboxyphenylazo)-4-hydroxy-6-phenylazo-2-naphthalenesulfonic acid, *see* H-00459
- 1-(2-Carboxyphenylazo)-2-naphthol, *see* H-00349
- 2-(2-Carboxyphenylazo)-7-[(3-nitro-5-sulfofenyl)azo]chromotropic acid, *see* D-00604
- 2-Carboxyphenylazopyrogallol, *see* T-00310
- 2-(*m*-Carboxyphenylazo)-7-(*p*-sulfofenylazo) chromotropic acid, *see* D-00611
- 9-(2-Carboxyphenyl)-3,6-bis(ethylamino)xanthylum(1+), *see* R-00005
- 3-(2-Carboxyphenyl)-6-(5-chloro-2-hydroxyphenylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00143
- ▶ (4-Carboxyphenyl)chloromercury, C-00039
- [9-(*o*-Carboxyphenyl)-6-(diethylamino)-3*H*-xanthen-3-ylidene]diethylammonium, *in* R-00002
- N*-[[9-(2-Carboxyphenyl)-6-diethylamino]-3*H*-xanthen-3-ylidene]-*N*-ethylethanaminium(1+), *in* R-00002
- 4-(4-Carboxyphenyl)-2-(3,4-dihydroxyphenylazo)-5-phenylthiazole, *see* D-00700
- 2-(4-Carboxyphenyl)-5,6-dimethylbenzimidazole, C-00040
- ▶ (2-Carboxyphenyl)hydroxymercury, C-00041
- 1-(*o*-Carboxyphenyl)-3-hydroxy-3-methyltriazene, *see* H-00332
- 1-(*o*-Carboxyphenyl)-3-hydroxy-3-phenyltriazene, *see* H-00507
- ▶ 9-(*o*-Carboxyphenyl)-6-hydroxy-3*H*-xanthen-3-one, *see* F-00020
- N*-(2-Carboxyphenyl)iminodiacetic acid, *see* B-00276
- ▶ 4-Carboxyphenylmercury chloride, *see* C-00039
- 1-(2-Carboxyphenyl)-5-[1-(2-methoxy-5-sulfofenyl)-3-phenylformazan], C-00042
- 2-(2-Carboxy-3-pyridylazo)chromotropic acid, *see* D-00600
- 3-(2-Carboxy-3-pyridylazo)-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* D-00600
- 9-(2-Carboxy-4-pyridyl)fluorone, C-00043
- 2-Carboxy-1-pyrrolidincarbodithioic acid, C-00044
- 2-Carboxy-4'-sulfodiphenylamine, *see* S-00056
- Carboxysulfofenolazothiopropiorhodanine, *see* H-00545
- 3-(2-Carboxy-4-sulfofenylazo)-4,5-dihydroxy-6-[4-(phenylazo)phenylazo]-2,7-naphthalenedisulfonic acid, *see* D-00606
- 1-(2-Carboxy-4-sulfofenyl)-3-hydroxy-3-phenyltriazene, *see* H-00510
- 4-Carboxy-TAN, *see* H-00358
- 1-(4-Carboxy-2-thiazolylazo)-2-naphthol, *see* H-00358
- ▶ Carmine blue, *in* I-00029
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- Castamollissin, *in* T-00273
- Catacryn orange R, *see* A-00453
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- ▶ Catechol, *see* B-00020
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- Catechol sulfonephthalein, *see* P-00433
- Catechol violet, *see* P-00433
- 4-Catecholylazo-4'-acetylaminobiphenyl, *in* A-00118
- 4-Catecholylazo-4'-aminobiphenyl, *see* A-00118
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 1-Chloro-1-*tert*-butylsilacyclopentane, C-00076
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 ▶ 1-Chloro-2-(chloromethyl)benzene, C-00079
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 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2,3-dimethylphenyl)benzenecarboximidamide, C-00085
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 2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, C-00087
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 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(3-methylphenyl)benzenecarboximidamide, in C-00082
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 5-Chloro-2-[7-(diethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]-6-benzoxazolesulfonic acid, C-00091
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 4'-Chloro-2,4-dihydroxybenzophenone, C-00095
 4-Chloro-2,5-dihydroxy-3,6-dioxocyclo-1,4-hexadiene-1-carbonitrile, see C-00090
 ▶ 5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxybenzenesulfonic acid, see L-00015
 [5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxyphenyl]arsonic acid, C-00096
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 4'-Chloro-3',6'-dihydroxyspiro[isobenzofuran-1(3*H*),9'[9*H*]xanthen]-3-one, see C-00117
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 2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine, C-00101
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 4-Chloro-*N*-(2,3-dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, C-00102
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 ▶ 2-Chloro-1,3,2-dioxaphosphorinane, C-00110
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 5-Chloro-3-[(5-dodecyl-2,4-dihydroxyphenyl)azo]-2-hydroxybenzenesulfonic acid, C-00113

- 5-Chloro-5'-dodecyl-2,2',4'-trihydroxyazobenzene-3-sulfonic acid, *see* C-00113
- ▶ Chloroethanal, *see* C-00053
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- 2-[2-[4-[(2-Chloroethyl)methylamino]phenyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium, *see* A-00454
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- N*-Chloroformylcarbazole, *in* C-00020
- 5-Chloro-2-furanacrolein, *see* C-00120
- 5-Chloro-2-furancarboxaldehyde thiosemicarbazone, C-00119
- 3-(5-Chloro-2-furanyl)-2-propenal, C-00120
- 2-[(5-Chloro-2-furanyl)methylene]hydrazinecarbothioamide, *see* C-00119
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- 5-Chloro-3-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-2-hydroxybenzenesulfonic acid, *see* L-00016
- 6-Chloro-3-hydrazinopyridazine, *in* C-00251
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- ▶ 5-Chloro-2-hydroxybenzaldehyde, C-00122
- 5-Chloro-2-hydroxybenzaldehyde 5-chloro-2-hydroxyanil, *see* C-00130
- 3-Chloro-2-hydroxybenzaldehyde 2-hydroxyanil, *see* H-00195
- 5-Chloro-2-hydroxybenzaldehyde 2-hydroxyanil, *see* H-00196
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- 2-Chloro-*N*-hydroxybenzamide, *see* C-00064
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- 3-Chloro- α -hydroxybenzeneacetic acid, *see* C-00221
- 4-Chloro- α -hydroxybenzeneacetic acid, *see* C-00222
- 5-Chloro-2-hydroxy-3-[(3-benzylideneamino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00124
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- ▶ 2-Chloro-10-[3-[1-(2-hydroxyethyl)-4-piperazinyl]propyl]phenothiazine, *see* P-00046
- 5-Chloro-2-hydroxy-3-[(3-(2-hydroxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00128
- 4-Chloro-2-hydroxy-*N*-(2-hydroxybenzylidene)aniline, C-00129
- 5-Chloro-2-hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, C-00130
- 5-Chloro-2-hydroxy-3-[(3-(2-hydroxy-3-methoxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00131
- 5-Chloro-2-hydroxy-3-[(2-hydroxy-1-naphthalenyl)azo]benzenesulfonic acid, *see* M-00004
- 2-Chloro-5-[[5-hydroxy-4-(2-hydroxy-1-naphthalenyl)azo]-2-methylphenyl]azo]benzenesulfonic acid, C-00132
- 5-Chloro-2-hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00133
- ▶ 5-Chloro-8-hydroxy-7-iodoquinoline, C-00134
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- 2-Chloro-*N*-hydroxy-*N*-(3-methylphenyl)benzamide, *in* C-00064
- 4-Chloro-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-(3-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, *in* C-00065
- 1-(5-Chloro-2-hydroxy-4-methylphenyl)ethanone, *see* C-00135
- 4-Chloro-*N*-hydroxy-*N*-1-naphthalenylbenzamide, C-00136
- 5-Chloro-2-(2-hydroxy-1-naphthylazo)pyridine, *see* C-00259
- 6-Chloro-1-hydroxy-4-nitro-1*H*-benzotriazole, C-00137
- 3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[[5-chloro-2-hydroxy-3-sulfo]phenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00138
- 3-[(5-Chloro-2-hydroxy-3-nitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid, *see* O-00040
- 3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[[3-sulfo]phenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00139
- 5-Chloro-2-hydroxy-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, C-00140
- 5-Chloro-2-hydroxy-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00141
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-6-[[5-chloro-2-hydroxy-3-sulfo]phenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00142
- 2-(5-Chloro-2-hydroxyphenylazo)chromotropic acid, *see* E-00011
- 2-[[7-[(5-Chloro-2-hydroxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00143
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00144
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* E-00011
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00145
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(3-sulfo]phenyl)azo]-2,7-naphthalenedisulfonic acid, C-00146
- 7-[(5-Chloro-2-hydroxyphenyl)azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, C-00147
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid, *see* A-00054
- 3-[[4-[(5-Chloro-2-hydroxyphenyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, C-00148
- (4-Chloro-2-hydroxyphenyl)(4-hydroxyphenyl)methanone, *see* C-00095
- 4-[(3-Chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, C-00149
- 4-Chloro-2-[(2-hydroxyphenyl)imino]methyl]phenol, *see* H-00196
- 6-Chloro-2-[(2-hydroxyphenyl)imino]methyl]phenol, *see* H-00195
- 4-Chloro-2-[[2-hydroxyphenyl)methylene]amino]phenol, C-00150
- 5-Chloro-2-[[2-hydroxyphenyl)methylene]amino]phenol, *see* C-00129
- 3-Chloro-6-hydroxypyridazine, *see* C-00251
- 5-Chloro-3-hydroxy-2(1*H*)-pyridinone, C-00151
- 7-Chloro-8-hydroxy-5-quinolinesulfonic acid, C-00152
- 4-Chloro-2-hydroxy-*N*-salicylideneaniline, *see* C-00129
- 5-Chloro-2-hydroxy-*N*-salicylideneaniline, *see* C-00125
- 3-(5-Chloro-2-hydroxy-3-sulfo]benzeneazo)chromotropic acid, *see* C-00158
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-6-[(3-chloro-5-sulfo]phenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00153
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-6-[(2,4-dimethylphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00154
- 2-[[7-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]benzoic acid, *see* S-00041
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00155
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00156
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfo]phenyl)azo]-2,7-naphthalenedisulfonic acid, C-00157
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00158
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-6-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, *see* S-00043
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00159
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-6-[(3-sulfo]phenyl)azo]-2,7-naphthalenedisulfonic acid, *see* S-00042
- 4-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, C-00160
- 4-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, *see* S-00044
- 6-(5-Chloro-2-hydroxy-4-sulfo]phenylazo)-5-hydroxy-1-naphthalenesulfonic acid, C-00161
- 3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-6-phenylazo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00162
- 5-Chloro-2-hydroxy-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzenesulfonic acid, C-00163
- ▶ 4-(Chloroimino)-2,5-cyclohexadien-1-one, C-00164
- 4-[(6-Chloro-1*H*-indazol-3-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, *see* C-00051
- 4-[(6-Chloro-1*H*-indazol-3-yl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, *see* C-00052
- 3'-Chloroindophenol, *see* C-00149
- Chloro(iodo)dimethylsilane, C-00165
- ▶ 5-Chloro-7-iodo-8-quinolinol, *see* C-00134
- 2-(2-Chloro-3-isopropyl-4-hydroxy-6-methylphenylazo)pyridine, *see* C-00255
- 2-Chloroisovaleric acid, *see* C-00174
- m*-Chloromandelic acid, *see* C-00221
- p*-Chloromandelic acid, *see* C-00222
- p*-Chloromandelonitrile, *in* C-00222
- ▶ *p*-Chloromercuribenzoic acid, *see* C-00039
- ▶ *N*²-(6-Chloro-2-methoxy-9-acridinyl)-*N*',*N*'-diethyl-1,4-pentanediamine, *see* Q-00003
- 4-Chloro-2-methoxybenzaldehyde, *in* C-00121
- 1-Chloro-4-methoxybenzene, *in* C-00196
- Chloro[(4-methoxycarbonyl)phenyl]mercury, *in* C-00039
- Chloromethoxydimethylsilane, C-00166

- [(Chloromethoxy)methyl]benzene, C-00167
 4-Chloro-3-methoxyphenol, *in* C-00061
N-(5-Chloro-2-methoxyphenyl)-4-[(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxamide, C-00168
N-(4-Chloro-2-methoxyphenyl)-2-(hydroxyimino)acetamide, C-00169
 ▶ 3-Chloro-4-methylacetanilide, *in* C-00171
 9-Chloro-10-methylacridinium(1+), C-00170
 ▶ 3-Chloro-4-methylaniline, C-00171
 ▶ 9-(Chloromethyl)anthracene, C-00172
 ▶ 3-Chloro-4-methylbenzenamine, *see* C-00171
 ▶ Chloromethylbenzene, C-00173
 ▶ *N*-(4-Chloro-4-methylbenzenesulfonamide, *in* M-00130
 1-Chloromethylbenz[*cd*]indol-2(1*H*)-one, *in* B-00050
 2-Chloro-3-methylbutanoic acid, C-00174
 ▶ 1-(Chloromethyl)-*N*-[(chloromethyl)dimethylsilyl]-1,1-dimethylsilanamine, *see* B-00284
 6-(Chloromethyl)dihydro-2*H*-1,2,4-selenodiazine-3(4*H*)-thione, C-00175
 4-(Chloromethyl)-2-[(3,4-dihydroxyphenyl)azo]-5-thiazolecarboxylic acid, C-00176
 1-Chloromethyl-3,5-dimethylpyrazole, *in* D-00904
 ▶ 1,1',1''-(Chloromethylidene)trisbenzene, *see* C-00269
 1-(Chloromethyl)-1*H*-indole-2,3-dione, C-00177
N-Chloromethylisatin, *see* C-00177
 ▶ 1-Chloromethyl-4-nitrobenzene, C-00178
 4-Chloro-3-methyl-5-nitrobenzenesulfonic acid, C-00179
 2-(Chloromethyl)-5-nitro-1*H*-isoindole-1,3(2*H*)-dione, C-00180
N-Chloromethyl-4-nitrophthalimide, *see* C-00180
 ▶ *N*-(3-Chloro-4-methylphenyl)acetamide, *in* C-00171
N'-(4-Chloro-2-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzencarboximidamide, C-00181
N'-(3-Chloro-4-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxy-4-toluamide, *see* N-00170
 (3-Chloro-2-methylphenyl)diazencarbothioic acid 2-(3-chloro-2-methylphenyl)hydrazide, *see* D-00264
 (4-Chloro-2-methylphenyl)diazencarbothioic acid 2-(4-chloro-2-methylphenyl)hydrazide, *see* D-00265
 (5-Chloro-2-methylphenyl)diazencarbothioic acid 2-(5-chloro-2-methylphenyl)hydrazide, *see* D-00266
N'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamidinamide, C-00182
N'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-4-methyl-*N*-phenylbenzencarboximidamide, *see* C-00182
N'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-phenylbenzamidinamide, C-00183
N'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-phenylbenzencarboximidamide, *see* C-00183
N'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-phenyl-4-toluamide, *see* C-00183
 ▶ Chloromethyl phenyl ketone, *see* C-00055
 2-Chloro-*N*-(2-methylphenyl)-*N'*-phenylbenzencarboximidamide, C-00184
 ▶ 2-Chloro-10-[3-(4-methyl-1-piperazinyl)propyl]-10*H*-phenothiazine, *see* P-00256
 2-Chloro-1-methylpyridinium(1+), C-00185
 5-(Chloromethyl)-4-selenohexahydropyrimidine-2-thione, *see* C-00175
 1-(Chloromethyl)-3-(trifluoromethyl)benzene, C-00186
 4-Chloro-1,2-naphthalenedione, *see* C-00187
 6-Chloro-1,2-naphthalenedione, *see* C-00188
 4-Chloro-1,2-naphthoquinone, C-00187
 4-Chloro-*β*-naphthoquinone, *see* C-00187
 ▶ 4-Chloro-7-nitrobenzofurazan, C-00189
 4-Chloro-2-nitroso-1-naphthol, *in* C-00187
 4-Chloro-2-nitrosophenol, C-00190
 ▶ α -Chloro-4-nitrotoluene, *see* C-00178
 4-Chloro-2-[(1,3,4,7,8,10,11,13-octahydro-6*H*-2,5,9,12-benzotetrahiacyclopentadecin-15-yl)azo]phenol, C-00191
 1-Chloro-1,1,3,3,3-pentafluoro-2-propanol, C-00192
 ▶ 3-Chloroperbenzoic acid, C-00193
 ▶ *m*-Chloroperoxybenzoic acid, *see* C-00193
N-Chloro-2*H*-phenanthro[9,10-*d*]imidazol-2-imine, C-00194
 5-Chloro-1,10-phenanthroline, C-00195
 4-Chlorophenetole, *in* C-00196
 ▶ 4-Chlorophenol, C-00196
 Chlorophenol red, C-00197
 2-Chloro-10*H*-phenothiazine, C-00198
 ▶ 4-[3-(2-Chlorophenothiazin-10-yl)propyl]-1-piperazineethanol, *see* P-00046
N-(2-Chlorophenyl)acetamide, *in* C-00058
 ▶ *N*-(4-Chlorophenyl)acetamide, *in* C-00060
 3-Chloro-4-[(4-phenylamino)phenylazo]benzenesulfonic acid, *in* A-00309
 2-(4-Chlorophenyl)-5-azaindandione, *see* C-00239
 4-[(4-Chlorophenyl)azo]-1,3-benzenediamine, C-00199
 4-[(4-Chlorophenyl)azo]-1,2,3-benzenetriol, C-00200
 3-[(3-Chlorophenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00246
 2-(3-Chlorophenylazo)chromotropic acid, *see* C-00202
 2-(4-Chlorophenylazo)chromotropic acid, *see* C-00203
 3-[[7-[4-Chlorophenylazo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]benzoic acid, C-00201
 3-[(3-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00202
 3-[(4-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00203
 5-[(4-Chlorophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, C-00204
 5-(*p*-Chlorophenylazo)-8-hydroxyquinoline, *see* C-00206
 1-[(3-Chlorophenyl)azo]-2-naphthalenol, C-00205
 5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206
 [(*p*-Chlorophenyl)azo]thiosulfonic acid 2-(*p*-chlorophenyl)hydrazide, *see* D-00271
N-*m*-Chlorophenylbenzohydroxamic acid, *in* H-00109
o-Chloro-*N*-phenylbenzohydroxamic acid, *see* H-00470
 1-(4-Chlorophenyl)-1,3-butanedione, C-00207
N-*p*-Chlorophenyl-*o*-chlorobenzamidinamide, *see* C-00082
N-(4-Chlorophenyl)-4-chlorophenoxyisobutyrohydroxamic acid, C-00208
N-(2-Chlorophenyl)-*N'*-(4-chlorophenyl)benzencarboximidamide, C-00209
N-(*p*-Chlorophenyl)cinnamohydroxamic acid, *see* C-00232
N-(*p*-Chlorophenyl)crotonohydroxamic acid, *see* C-00223
 2-Chlorophenyldiazencarbothioic acid 2-(2-chlorophenyl)hydrazide, *see* D-00270
 4-Chlorophenyldiazencarbothioic acid 2-(4-chlorophenyl)hydrazide, *see* D-00271
 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-methylbenzoyl)-3*H*-pyrazol-3-one, C-00210
 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(3-methylbenzoyl)-3*H*-pyrazol-3-one, C-00211
 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(4-methylbenzoyl)-3*H*-pyrazol-3-one, C-00212
 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-naphthalenylcarbonyl)-3*H*-pyrazol-3-one, C-00213
N-(4-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)benzamidinamide, *see* C-00214
N-(4-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)benzencarboximidamide, C-00214
N-(3-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzamidinamide, *see* C-00215
N-(3-Chlorophenyl)-*N'*-(2,5-dimethylphenyl)-*N*-hydroxybenzamidinamide, *see* C-00216
N-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzamidinamide, *see* C-00218
N-(3-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzencarboximidamide, C-00215
N-(3-Chlorophenyl)-*N'*-(2,5-dimethylphenyl)-*N*-hydroxybenzencarboximidamide, C-00216
N-(3-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)-*N*-hydroxybenzencarboximidamide, C-00217
N-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzencarboximidamide, C-00218
N-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxy-4-methylbenzencarboximidamide, C-00219
N-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxy-4-toluamidinamide, *see* C-00219
 ▶ 4-Chloro-*o*-phenylenediamine, *see* D-00064
 ▶ 2-Chloro-1-phenylethanone, *see* C-00055
 4-[(2-Chlorophenyl)[4-(ethylimino)-3-methyl-2,5-cyclohexadien-1-ylidene]methyl]-*N*-ethyl-2-methylbenzenamine, *see* A-00452
 2-Chlorophenylfluorone, *see* C-00240
N-(*p*-Chlorophenyl)-2-furanacryloylhydroxamic acid, *see* C-00220
N-(4-Chlorophenyl)-3-(2-furanyl)-*N*-hydroxy-2-propenamide, *in* F-00053
N-(4-Chlorophenyl)-3-(2-furanyl)-*N*-hydroxy-2-propenamide, C-00220
p-Chlorophenylylglycolic acid, *see* C-00222
 2-(3-Chlorophenyl)-2-hydroxyacetic acid, C-00221
 2-(4-Chlorophenyl)-2-hydroxyacetic acid, C-00222
N-(2-Chlorophenyl)-*N*-hydroxybenzamidinamide, *in* H-00109
N-(3-Chlorophenyl)-*N*-hydroxybenzamidinamide, *in* H-00109
N-(4-Chlorophenyl)-*N*-hydroxybenzamidinamide, *in* H-00109
N-(4-Chlorophenyl)-*N*-hydroxy-2-butenamide, C-00223
N-(4-Chlorophenyl)-*N*-hydroxy-3,5-dinitrobenzamidinamide, *in* D-00946
N-(3-Chlorophenyl)-*N*-hydroxy-2-furanocarboxamide, *in* F-00064
N-(4-Chlorophenyl)-*N*-hydroxy-2-furanocarboxamide, *in* F-00064
N-(4-Chlorophenyl)-*N*-hydroxy-2,4-hexadienamide, *in* H-00185
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methoxyphenyl)benzamidinamide, *see* C-00224
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methoxyphenyl)benzencarboximidamide, C-00224
N-(4-Chlorophenyl)-*N*-hydroxy-3-(4-methoxyphenyl)-2-propenamide, C-00225
N-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4-methylenedioxyphenyl)-2-propenamide, C-00226
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(2-methylphenyl)benzamidinamide, *see* C-00227
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(3-methylphenyl)benzamidinamide, *see* C-00228
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methylphenyl)benzamidinamide, *see* C-00229
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(2-methylphenyl)benzencarboximidamide, C-00227

- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(3-methylphenyl)benzenecarboximidamide, C-00228
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methylphenyl)benzenecarboximidamide, C-00229
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-phenylbenzamidine, *see* C-00230
- N'*-(4-Chlorophenyl)-*N*-hydroxy-*N*-phenylbenzamidine, *see* C-00231
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-phenylbenzenecarboximidamide, C-00230
- N'*-(4-Chlorophenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, C-00231
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-phenyl-2-propenamide, C-00232
- 3-(4-Chlorophenyl)-3-hydroxy-1-phenyltriazene, C-00233
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, C-00234
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamide, C-00235
- (3-Chlorophenyl)methoxyacetic acid, *in* C-00221
- N*-(*p*-Chlorophenyl)-*p*-methoxycinnamohydroxamic acid, *see* C-00225
- 2-(4-Chlorophenyl)-4-methyl-1*H*-1,5-benzodiazepine, C-00236
- 1-[(4-Chlorophenyl)methyl]-4,6-diphenyl-2(1*H*)-pyridinethione, *see* C-00071
- N*-(*p*-Chlorophenyl)-3,4-(methylenedioxy)cinnamohydroxamic acid, *see* C-00226
- N*-[(4-Chlorophenyl)methyl]-1-naphthalenemethanamine, *see* C-00072
- 1-(2-Chlorophenyl)-3-methyl-4-(2-naphthoyl)-5-pyrazolone, *see* C-00213
- N*-(4-Chlorophenyl)-*N'*-(2-methylphenyl)benzenecarboximidamide, *see* M-00226
- 1-(2-Chlorophenyl)-3-methyl-4-(*m*-toluoyl)-5-pyrazolone, *see* C-00211
- 1-(2-Chlorophenyl)-3-methyl-4-(*o*-toluoyl)-5-pyrazolone, *see* C-00210
- 1-(2-Chlorophenyl)-3-methyl-4-(*p*-toluoyl)-5-pyrazolone, *see* C-00212
- ▷ 3-[1-(4-Chlorophenyl)-3-oxobutyl]-4-hydroxy-2*H*-1-benzopyran-2-one, *see* C-00303
- ▷ 3-[1-(4-Chlorophenyl)-3-oxobutyl]-4-hydroxycoumarin, *see* C-00303
- N*-*p*-Chlorophenyl-*N'*-phenylbenzamidine, *see* C-00237
- N*-(4-Chlorophenyl)-*N'*-phenylbenzenecarboximidamide, C-00237
- (4-Chlorophenyl)phenylethanedione, C-00238
- ▷ 2-[2-[(4-Chlorophenyl)phenylmethyl]-1-piperazinyl]ethoxyethanol, *see* H-00563
- 6-(4-Chlorophenyl)-5*H*-2-pyridine-5,7(6*H*)-dione, C-00239
- N*-*p*-Chlorophenyl-2-thenylacrylohydroxamic acid, *see* C-00234
- 2-Chloro-*N*-phenyl-*N'*-*o*-tolylbenzamidine, *see* C-00184
- 9-(2-Chlorophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00240
- N*-(4-Chlorophenyl)-3,4,5-trimethoxycinnamohydroxamic acid, *see* C-00235
- m*-Chlorophenylurethane, *in* C-00059
- o*-Chlorophenylurethane, *in* C-00058
- p*-Chlorophenylurethane, *in* C-00060
- Chlorophosphonazo DAL, *in* C-00242
- Chlorophosphonazo I, C-00241
- Chlorophosphonazo III, C-00242
- Chlorophosphonazo mA, *see* A-00030
- Chlorophosphonazo mN, C-00243
- Chlorophosphonazo pN, C-00244
- Chlorophosphonazo R, C-00245
- Chlorophosphonazo-*m*-sulfonic acid, C-00246
- 3-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00247
- N*-[4-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoyl]glycine, C-00248
- 3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00249
- 3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00241
- 3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, *see* C-00243
- 3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, *see* C-00244
- 4-[(4-Chloro-2-phosphonophenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, *see* C-00245
- Chloropropylmagnesium, C-00250
- 6-Chloro-3-pyridazinol, *see* C-00251
- 6-Chloro-3(2*H*)-pyridazinone, C-00251
- ▷ 2-Chloropyridine, C-00252
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- 2-[(5-Chloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, *in* A-00145
- 4-[(5-Chloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, C-00253
- 2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, C-00254
- 4-[3-Chloro-4-(pyridinylazo)-5-methyl-2-(1-methylethyl)]phenol, C-00255
- 1-[(5-Chloro-2-pyridinyl)azo]-2-naphthalenol, *see* C-00259
- 4-Chloro-*N*-(2-pyridinyl)benzamide, C-00256
- 3-[[5-Chloro-2-pyridinyl]hydrazono]-2-pyridinylmethylbenzenesulfonic acid, C-00257
- 4-Chloro-2-[(2-pyridinylmethylene)amino]phenol, C-00258
- 1-(5-Chloro-2-pyridylazo)-2-naphthol, C-00259
- 3-Chloro-2-quinoxalinecarboxylic acid, C-00260
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- ▷ 4-Chlororesorcinol, *see* C-00061
- 4-Chlorosalicylaldehyde, *see* C-00121
- ▷ 5-Chlorosalicylaldehyde, *see* C-00122
- 5-Chlorosalicylaldehyde phenylthiosemicarbazone, *see* C-00123
- 6-(Chlorosulfonyl)coumarin, *in* O-00057
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- 3-[(5-Chloro-3-sulfofenyl)azo]-4,5-dihydroxy-6-[(3-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, C-00262
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- 5-Chloro-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, C-00264
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- ▷ *N*-Chloro-*p*-toluenesulfonamide, *in* M-00130
- ▷ 3-Chloro-*p*-toluidine, *see* C-00171
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- ▷ 4-Chloro- α,α,α -trifluoro-3,5-dinitrotoluene, *see* C-00108
- α' -Chloro- α,α,α -trifluoro-*m*-xylene, *see* C-00186
- Chlorotrihexylsilane, C-00266
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- ▷ 1-Chloro-2,4,6-trinitrobenzene, *see* C-00268
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 DACM, *see* D-00791
 ▷ Dactin, *in* D-00866
 Daflon, *in* T-00297
 ▷ Dagraxal, *see* G-00015
 Dalzin, *see* D-00040
 DAM, *see* D-00139
 DAMM, *see* D-00136
 ▷ Danivac, *see* D-00512
 [3-(Dansylamino)phenyl]boronic acid, *see* D-00798
 Dansyl azide, *see* D-00795
N-Dansylaziridine, *see* D-00799
 ▷ Dansyl chloride, *see* D-00796
 2-Dansylethyl chloroformate, *see* D-00800
 Dansyl fluoride, *see* D-00797
 Dansylhydrazine, *in* A-00265
 Dansylproline, D-00001
 Dansyl semipiperazide, *see* D-00801
 ▷ Danthron, *see* D-00512
 ▷ Dantron, *see* D-00512
 DAPDA, *see* D-00821
 ▷ Daphneflavonol, *see* T-00077
 Daphnetin, *see* D-00539
 Daphnetol, *see* D-00539
 ▷ DAPI, *see* A-00227
 DAPM, *see* D-00135
 ▷ Dapotom D, *in* F-00034
 ▷ Dapsone, *see* D-00090
 Dark green S, *see* A-00187
 Darpsyl hydrazide, *see* D-00469
 ▷ Dartal, *in* P-00046
 ▷ Dartalan, *in* P-00046
 ▷ Dartan, *in* P-00046
 Datin, *in* T-00074
 Daticanin, *in* T-00074
 Daticetin, *see* T-00074
 Daticin, *in* T-00074
 ▷ Daturine, *in* T-00431
 ▷ Daturinic acid, *see* H-00003
 ▷ Daxime, D-00002
 ▷ DCC, *see* D-00309
 DCCCH, *see* D-00326
 ▷ DCHA, *see* D-00307
 ▷ D & C Orange No. 6, *see* D-00188
 DCP-Cl, *see* A-00133
 ▷ DCTA, *see* D-00065
 DDD, *see* D-01119
 ▷ DDH, *see* D-00185
 ▷ DDQ, *see* D-00260
 Dealyl hydrazide, *see* D-00315
 1,1,1,2,2,6,6,7,7,7-Decafluoro-3,5-heptanedione, D-00003
 1,1,1,5,5,6,6,7,7,7-Decafluoro-2,4-heptanedione, D-00004
 Decahydro-2,5,5,8a-tetrahydro-1-naphthalenecarboxylic acid, *see* D-01159
N-(2,3,5,6,9,10,12,13,15,16-Decahydro-8*H*-1,17,4,7,11,14-benzodioxatetrahacyclononadecin-19-yl)-2-propenamide, D-00005
 2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecine, *see* B-00055
 8-[[4-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecine-18-yl)azo]phenyl]amino-1-naphthalenesulfonic acid, D-00006
N-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecine-18-yl)-2-propenamide, D-00007
 7,8,9,10,17,18,19,20,21,22-Decahydro-8,19-bis[(4-methylphenyl)sulfonyl]-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,13,16]dioxatetraazacyclooctadecine, D-00008
 7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*b,k*][1,13,4,10]dioxadiazacyclooctadecine, D-00009
 7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,13,16]dioxatetraazacyclooctadecine, D-00010
 6,7,8,9,10,11,18,19,20,21-Decahydro-5*H*,17*H*-dibenzo[*b,k*][1,13,4,7,10]dioxatriazacyclooctadecine, D-00011
 7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,16]dioxatriazacyclooctadecine, D-00012
 6,7,9,10,12,13,15,16,24,25-Decahydro-23*H*-dibenzo[*b,q*][1,4,7,10,13,16,19]heptaaxacyclodocosin, *see* D-00158
 7,8,9,10,11,12,19,20,21,22-Decahydrodibenzo[*e,q*][1,4,8,15]tetraazacyclooctadecine, D-00013
 6,7,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,4,7,10,16]trioxadiazacyclooctadecine, D-00014
 6,7,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,4,7,10,13,16]trioxatriazacyclooctadecine, D-00015
 8,9,11,12,14,15,17,18,20,21-Decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*q'*][1,4,7,10,13,16]hexaaxacycloheneicosin, D-00016
 6,7,8,9,10,11,18,19,20,21-Decahydro-8-[(4-methylphenyl)sulfonyl]-5*H*,17*H*-dibenzo[*b,k*][1,13,4,7,10]dioxatriazacyclooctadecine, *in* D-00011
 7,8,9,10,17,18,19,20,21,22-Decahydro-8-[(4-methylphenyl)sulfonyl]-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,16]dioxatriazacyclooctadecine, *in* D-00012
 6,7,9,10,17,18,19,20,21,22-Decahydro-19-[(4-methylphenyl)sulfonyl]-16*H*-dibenzo[*h,q*][1,4,7,10,13,16]trioxatriazacyclooctadecine, *in* D-00015
 2,3,5,6,8,9,11,12,14,15-Decahydronaphtho[2,3-*b*]-1,4,7,10,13,16-hexaaxacyclooctadecine, D-00017
 2,3,5,6,8,9,11,12,14,15-Decahydro-18-nitro-1,4,7,10,13,16-benzohexaaxacyclooctadecine, D-00018
 2,3,5,6,8,9,11,12,14,15-Decahydro-19-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaaxacyclooctadecine-18-amine, D-00019

- 6,7,9,10,12,13,15,16,18,19-Decahydro-2,4,21,23-tetramethyl-25-(1-naphthalenyl)-25*H*-dibenzo[*g*,*r*][1,4,7,10,13,16]hexaoxacycloheneicosin, D-00020
- 2,3,5,6,8,9,11,12,14,15-Decahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaoxacyclooctadecan-18-amine, D-00021
- ▷ Decanedioic acid, D-00022
- Decanediperoxoic acid, D-00023
- 1-Decanesulfonic acid, D-00024
- Decanohydroxamic acid, *see* H-00147
- ▷ Decanoic acid, D-00025
- ▷ 1-Decanol, D-00026
- N*-(Decanoyloxy)succinimide, *see* O-00061
- Decyl hydrazide, *see* D-00326
- ▷ Decyl alcohol, *see* D-00026
- 5-(1-Decyl)-*N,N'*-diphenylisothiuronium, *in* D-01055
- 5-Decyl-4,7,13,16,21,24-hexaoxa-1,10-diaxabicyclo[8.8.8]hexacosane, *see* C-00319
- 1-Decylsulfonic acid, *see* D-00024
- 5-Decyl-2-(1,4,8,11-tetraoxacyclotetradec-6-ylmethoxy)benzoic acid, D-00027
- 5-Decyl-2-(1,4,7,10-tetraoxacyclotridec-5-ylmethoxy)benzoic acid, D-00028
- ▷ Deferoxamine, *see* D-00029
- Deferoxamine hydrochloride, *in* D-00029
- ▷ Dehydracetic acid, *see* A-00019
- ▷ Dehydroacetic acid, *see* A-00019
- Delta paper, *in* D-00965
- Demethoxycurcumin, *in* C-00323
- 2-Demethylcolchicine, *in* C-00300
- 3-Demethylcolchicine, *in* C-00300
- 10-Demethylcolchicine, *see* C-00300
- ▷ 1-Deoxy-1-(3,4-dihydro-7,8-dimethyl-2,4-dioxobenz[*g*]pteridin-10(2*H*)-yl)-*D*-ribitol, *see* R-00008
- 5-Deoxykaempferol, *see* T-00283
- Deoxypseudosantonin, *in* O-00063
- Deoxy- ψ -santonin, *in* O-00063
- Dequest 2010, *see* H-00178
- Dequest 2015, *see* H-00178
- Dequest 2016, *in* H-00178
- Dequest 2040, *see* E-00032
- Dequest 2041, *see* E-00032
- Dequest 2047, *in* E-00032
- Dequest 2015 DN, *in* H-00178
- Derma green P, *see* E-00019
- Dermina violet 10B, *see* L-00008
- ▷ Dermobion, *in* N-00109
- ▷ Desferal, *in* D-00029
- ▷ Desferrin, *see* D-00029
- ▷ Desferrioxamine, D-00029
- ▷ Desferrioxamine mesilate, *in* D-00029
- Desglucodigitonin, *in* S-00024
- Desident, *in* E-00061
- ▷ Detamide, *in* M-00137
- ▷ Detarol, *see* H-00177
- Deuteroporphyrin IX, D-00030
- ▷ Dexamed, *in* P-00172
- ▷ Dexamphetamine, *in* P-00172
- ▷ Dexedrine, *in* P-00172
- ▷ Dextroamphetamine, *in* P-00172
- ▷ Dextroamphetamine sulfate, *in* P-00172
- Diacetanilide, *in* A-00368
- Diacetoxymethylsilane, D-00031
- α,α -Diacetoxy-2-nitrotoluene, *in* N-00081
- ▷ Diacetyl, *see* B-00587
- 1,2-Diacetylbenzene, D-00032
- Diacetyl bis-4-biphenylthiosemicarbazone, *see* B-00589
- Diacetyl bis[4-(3,5-bis(trifluoromethyl))phenyl]thiosemicarbazone, *see* B-00590
- Diacetyl bis[4-(3,4-dichlorophenyl)]thiosemicarbazone, *see* B-00592
- Diacetyl bis[4-(2-fluorophenyl)]thiosemicarbazone, *see* B-00593
- Diacetyl bis[4-(4-fluorophenyl)]thiosemicarbazone, *see* B-00594
- Diacetyl bis[4-(4-nitrophenyl)]thiosemicarbazone, *see* B-00596
- Diacetyl bis[(thiobenzoyl)hydrazone], *see* B-00598
- Diacetyl bis[4-(2-trifluoromethyl)phenyl]thiosemicarbazone, *see* B-00599
- 2,2'-Diacetyl-4,4'-bithiazolebis(thiosemicarbazone), D-00033
- 3,5-Diacetyl-4-(2-chlorophenyl)-2,6-heptanedione, D-00034
- ▷ 1,2-Diacetyethane, *see* H-00063
- ▷ Diacetylmethane, *see* P-00030
- 2,6-Diacetylpyridine, D-00035
- 2,6-Diacetylpyridine bis(benzoylhydrazone), D-00036
- 2,6-Diacetylpyridine bis(2-furoylhydrazone), D-00037
- 2,6-Diacetylpyridine bis(2-hydroxybenzoylhydrazone), D-00038
- 2,6-Diacetylpyridine bis(2-pyridylhydrazone), D-00039
- Diallyl dicarbonate, *in* D-00243
- 1,6-Diallyl-2,5-dithiobiurea, D-00040
- Diallyldithiocarbamidohydrazone, *see* D-00040
- O,O*-Diallyl dithiophosphoric acid, *see* D-01058
- O,O*-Diallyl hydrogen dithiophosphate, *see* D-01058
- Diallyl methylphosphonate, *in* M-00244
- O,O*-Diallyl phosphorodithioate, *see* D-01058
- Diallyl pyrocarbonate, *in* D-00243
- Diaminazo, D-00041
- ▷ Diamine sky blue FF, *see* A-00479
- 2,4-Diaminoacetanilide, *in* T-00192
- ▷ 3,6-Diaminoacridine, D-00042
- ▷ 2,8-Diaminoacridine (obsol.), *see* D-00042
- 3,5-Diamino-*N*-(aminoiminomethyl)-6-chloropyrazinocarboxamide, *see* A-00090
- ▷ 1,2-Diamino-9,10-anthracenedione, *see* D-00043
- ▷ 1,2-Diaminoanthraquinone, D-00043
- 1,4-Diaminoanthraquinone-2,3-disulfonic acid, D-00044
- 3,4-Diaminoanthraquinone-1-sulfonic acid, D-00045
- 4,8-Diaminoanthrarufin, *see* D-00074
- 2,6-Diamino-3,2'-azopyridine, *see* P-00379
- ▷ 1,2-Diaminobenzene, D-00046
- ▷ 1,3-Diaminobenzene, D-00047
- ▷ 1,4-Diaminobenzene, D-00048
- 4,5-Diamino-1,2-benzenediol, D-00049
- ▷ 3,3'-Diaminobenzidine, *see* T-00007
- 3,4-Diaminobenzoic acid, D-00050
- ▷ 3,5-Diaminobenzoic acid, D-00051
- 4,4'-Diamino-1,1'-binaphthalene-3,3'-disulfonic acid, D-00052
- ▷ 4,4'-Diaminobiphenyl, D-00053
- 4,4'-Diamino-3,3'-biphenyldicarboxylic acid, *N,N,N',N'*-tetraacetic acid, D-00054
- 2,2'-Diaminobiphenyl-4,4'-dicarboxylic acid, *N,N,N',N'*-tetraacetic acid, D-00055
- ▷ 4,4'-Diamino-3,3'-biphenyldiol, D-00056
- 4,4'-[(4,4'-Diamino[1,1'-biphenyl]-3,3'-diyl)bis(oxy)]bisbutanoic acid, *see* D-00244
- γ,γ' -(4,4'-Diamino-3,3'-biphenylenedioxy)dibutyric acid, *see* D-00244
- 4,4'-Diamino-3-biphenylol, D-00057
- ▷ 4,4'-Diaminobiphenyl-3-sulfonic acid, D-00058
- 2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00059
- 6,6'-Diamino-3,3'-bipyridazine, D-00060
- 4,4'-Diamino-2,2'-bipyridine, D-00061
- 2,4-Diamino-6-(2,2'-bipyridyl)-1,3,5-triazine, D-00062
- 4,4'-Diamino-2,2'-biquinoline, D-00063
- ▷ *p,p'*-Diamino-*m,m'*-bitolyl, *see* D-00083
- 4,5-Diaminocatechol, *see* D-00049
- 2,4-Diamino-4'-chloroazobenzene, *see* C-00199
- ▷ 1,2-Diamino-4-chlorobenzene, D-00064
- ▷ 4,5-Diaminochrysazin, *see* D-00075
- ▷ 1,2-Diaminocyclohexane-*N,N,N',N'*-tetraacetic acid, D-00065
- 2,7-Diaminodibenzofuran, D-00066
- 1,2-Diamino-3,5-dibromobenzene, D-00067
- 4,4'-Diamino-3,3'-dibromobiphenyl, D-00068
- 1,2-Diamino-4,5-dichlorobenzene, D-00069
- 4,4'-Diamino-3,3'-diethoxybiphenyl, *in* D-00056
- 4,4'-Diamino-3,3'-diethoxybiphenyl-*N,N,N',N'*-tetraacetic acid, D-00070
- ▷ 2,2'-Diaminodiethylamine, *see* D-00345
- 4,4'-Diamino-3,3'-diethyl-1,1'-binaphthyl, D-00071
- 4,4'-Diamino-2,2'-diethylbiphenyl, D-00072
- 2,2'-Diaminodiethyl sulfide, *see* T-00156
- 4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, D-00073
- 1,4-Diamino-9,10-dihydro-9,10-dioxo-2,3-anthracenedisulfonic acid, *see* D-00044
- 3,4-Diamino-9,10-dihydro-9,10-dioxo-1-anthracenesulfonic acid, *see* D-00045
- 1,5-Diamino-4,8-dihydroxy-9,10-anthracenedione, *see* D-00074
- ▷ 1,8-Diamino-4,5-dihydroxy-9,10-anthracenedione, *see* D-00075
- ▷ 1,5-Diamino-4,8-dihydroxyanthraquinone, D-00074
- ▷ 1,8-Diamino-4,5-dihydroxyanthraquinone, D-00075
- 4,8-Diamino-1,5-dihydroxyanthraquinone-2,6-disulfonic acid, *see* D-00073
- ▷ 4,4'-Diamino-3,3'-dihydroxybiphenyl, *see* D-00056
- 4,4'-Diamino-3,3'-diisopropyl-1,1'-binaphthyl, D-00076
- 4,5-Diamino-2,6-dimercaptopyrimidine, *see* D-00121
- 1,2-Diamino-4,5-dimethoxybenzene, *in* D-00049
- 4,4'-Diamino-3,3'-dimethoxy-1,1'-binaphthyl, D-00077
- ▷ 4,4'-Diamino-3,3'-dimethoxybiphenyl, *in* D-00056
- 4,4'-Diamino-3,3'-dimethoxybiphenyl-*N,N,N',N'*-tetraacetic acid, D-00078
- ▷ 3,6-Diamino-2,7-dimethylacridine, D-00079
- 2,4-Diamino-*N*-dimethylaniline, *in* T-00192
- ▷ 1,2-Diamino-4,5-dimethylbenzene, D-00080
- 4,4'-Diamino-3,3'-dimethyl-1,1'-binaphthalene]-6,6'-disulfonic acid, D-00081
- 4,4'-Diamino-3,3'-dimethyl-1,1'-binaphthyl, D-00082
- ▷ 4,4'-Diamino-3,3'-dimethylbiphenyl, D-00083
- 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+), D-00084
- ▷ 2,4-Diaminodiphenylamine, D-00085
- 4,4'-Diaminodiphenylamine, D-00086
- 4,4'-Diamino-3,3'-diphenyl-1,1'-binaphthyl, D-00087
- ▷ 2,2'-Diaminodiphenyl disulfide, *see* B-00251
- 4,4'-Diaminodiphenyldisulfide, D-00088
- 1,2-Diamino-1,2-diphenylethane, *see* D-01010
- ▷ 4,4'-Diaminodiphenyl sulfide, D-00089
- ▷ 4,4'-Diaminodiphenyl sulfone, D-00090
- ▷ 4,4'-Diaminodiphenyl sulfoxide, D-00091
- ▷ 3,3'-Diaminodipropylamine, D-00092
- 4,4'-Diamino-3,3'-dipropyl-1,1'-binaphthyl, D-00093
- ▷ 1,2-Diaminoethane, *see* E-00024
- 3,9-Diamino-7-ethoxyacridine, D-00094
- ▷ 2,4-Diamino-4'-ethoxyazobenzene, D-00095
- 4,4'-Diamino-3-ethoxybiphenyl, *in* D-00057
- ▷ Di(2-aminoethyl)amine, *see* D-00345
- 1,2-Diamino-4,5-ethylenedioxybenzene, *see* D-00371
- ▷ 3,8-Diamino-5-ethyl-6-phenylphenanthridinium(1+), D-00096
- Di(2-aminoethyl) sulfide, *see* T-00156
- ▷ 2,7-Diaminothiourene, D-00097
- ▷ 1,6-Diaminothioxane, *see* H-00061
- 2,4-Diamino-4'-hydroxyazobenzene, *see* D-00114
- 4,4'-Diamino-3-hydroxybiphenyl, *see* D-00057
- 2',4'-Diamino-2-hydroxy-3,5-dinitroazobenzene, *see* D-00112

- 2,4-Diamino-4'-hydroxy-3'-methylazobenzene, *see* D-00113
- 2,6-Diamino-4-hydroxy-5-nitrosopyrimidine, *see* D-00109
- 4,5-Diamino-6-hydroxypyrimidine, D-00098
- 2,4-Diamino-6-hydroxy-*s*-triazine-*N*-tetraacetic acid, *see* H-00555
- 2,4-Diamino-6-(1-isoquinolyl)-1,3,5-triazine, *see* D-00130
- 2,4-Diamino-6-(3-isoquinolyl)-1,3,5-triazine, *see* D-00131
- 2,4-Diamino-4'-methoxy-5-methylazobenzene, D-00099
- 1,3-Diamino-8-methoxyphenothiazine, D-00100
- 3,6-Diamino-10-methylacridinium chloride, *in* D-00042
- ▶ 1,2-Diamino-4-methylbenzene, D-00101
- 4,4'-Diamino-3-methylbiphenyl, D-00102
- 1,2-Diamino-4,5-methylenedioxybenzene, D-00103
- 2-(2,4-Diamino-5-methylphenylazo)-5-methylpyridine, *see* M-00201
- 2-(4,6-Diamino-3-methylphenylazo)pyridine, *see* M-00277
- 2-(2,4-Diamino-3-methylphenylazo)thiazole, *see* M-00317
- N*-[4-[(2,4-Diamino-5-methylphenyl)imino]2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* T-00190
- 4,5-Diamino-2-methylpyrimidinol, *see* D-00104
- 5,6-Diamino-2-methyl-4(1*H*)-pyrimidinone, D-00104
- ▶ 1,2-Diaminonaphthalene, D-00105
- 2,3-Diaminonaphthalene, D-00106
- 3,3'-Diaminonaphthalene, *see* T-00006
- 1,4-Diamino-5-nitro-9,10-anthracenedione, *see* D-00107
- ▶ 1,4-Diamino-5-nitroanthraquinone, D-00107
- ▶ 1,2-Diamino-4-nitrobenzene, D-00108
- 2,6-Diamino-5-nitroso-4(1*H*)-pyrimidinone, D-00109
- 9,10-Diaminophenanthrene, D-00110
- 2,5-Diaminophenol, D-00111
- 3,7-Diaminophenothiazin-5-ium(1+), *see* L-00003
- 2-[(2,4-Diaminophenyl)azo]-4,6-dinitrophenol, D-00112
- 2-(2,4-Diaminophenylazo)-5-iodopyridine, *see* I-00052
- 4-[(2,4-Diaminophenyl)azo]-2-methylphenol, D-00113
- 4-[(2,4-Diaminophenyl)azo]phenol, D-00114
- 2-(2,4-Diaminophenylazo)pyridine, *see* P-00372
- 3,7-Diamino-5-phenylphenazinium(1+), *see* P-00070
- ▶ 1,2-Diaminopropane-*N,N,N',N'*-tetraacetic acid, D-00115
- ▶ 1,3-Diamino-2-propanol-*N,N,N',N'*-tetraacetic acid, D-00116
- 2,4-Diamino-6-(3-pyridazinyl)-1,3,5-triazine, D-00117
- ▶ 2,3-Diaminopyridine, D-00118
- ▶ 2,6-Diaminopyridine, D-00119
- 2-[(2,6-Diamino-3-pyridinyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, *see* M-00252
- 6'-[(2,6-Diamino-3-pyridyl)azo]-1-methylanabesine, *see* M-00252
- 2-(2,6-Diamino-3-pyridylazo)thiazole, *see* T-00145
- 5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedione, D-00120
- 5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedithione, D-00121
- 5,6-Diamino-4-pyrimidinethiol, *see* D-00122
- 5,6-Diamino-4(1*H*)-pyrimidinethione, D-00122
- 2,4-Diamino-6-(2-pyrimidinyl)-1,3,5-triazine, D-00123
- 2,4-Diamino-6-(4-pyrimidinyl)-1,3,5-triazine, D-00124
- 4,5-Diaminopyrocatechol, *see* D-00049
- α,β -Diaminostilbene, *see* D-01010
- ▶ 4,4'-Diaminostilbene-2,2'-disulfonic acid, D-00125
- 4,4'-Diamino-2,2'-stilbenedisulfonic acid-*N,N,N',N'*-tetraacetic acid, D-00126
- 4,4'-Diaminostilbene-*N,N,N',N'*-tetraacetic acid, D-00127
- ▶ 4,4'-Diamino-3,3',5,5'-tetramethylbiphenyl, D-00128
- 4,4'-Diaminothiobenzophenone, *see* B-00254
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- 3-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, D-00131
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- 4,5-Diaminoveratrole, *in* D-00049
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- 3,6-Diaminoxanthone, D-00132
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- 3,5-Dibutyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00230
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- N*-Dibutylidithiocarbamic acid, D-00232
- O,S*-Dibutylidithiocarbonate, *in* D-01125
- O,O*-Dibutyl dithiophosphoric acid, *see* D-00241
- 4,4'-Dibutylidithizone, D-00233
- Dibutylethoxyarsine oxide, *in* D-00226
- O,O*-Dibutyl hydrogen dithiophosphate, *see* D-00241
- ▷ Dibutyl hydrogen phosphate, *see* D-00237
- O,O*-Dibutyl hydrogen phosphorothioate, *see* D-00242
- O,O*-Dibutyl hydrogen thiophosphate, *see* D-00242
- ▷ Dibutylhydroxyarsine oxide, *see* D-00226
- 2,2-Dibutyl-*N*-hydroxyhexanamide, *see* T-00207
- Dibutyl-(2-hydroxypropyl)thiophosphonic acid, D-00234
- 4,6-Di-*tert*-butyl-3-methoxy-1,2-benzenediol, *in* D-00228
- 4,6-Di-*tert*-butyl-3-methoxycatechol, *in* D-00228
- ▷ Dibutylmethylamine, *in* D-00223
- Dibutyl methylphosphonate, *in* M-00244
- Di-*tert*-butyl methylphosphonate, *in* M-00244
- 2,13-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, D-00235
- 7,18-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, D-00236
- N,N*-Dibutyl- β -oxobenzenepropanethioamide, *in* O-00056
- Di(*p*-butylphenyl)thiocarbazono, *see* D-00233
- ▷ Dibutyl phosphate, D-00237
- α -(Dibutylphosphinyl)- α -hydroxybenzeneacetic acid, D-00238
- 2-(Dibutylphosphinyl)-2-hydroxypropanoic acid, D-00239
- O,O*-Dibutyl phosphonothioate, D-00240
- ▷ Dibutyl phosphoric acid, *see* D-00237
- O,O*-Dibutyl phosphorodithioate, D-00241
- O,O*-Dibutyl phosphorothioate, D-00242
- O,O*-Dibutylphosphorothioic acid, *see* D-00242
- Dibutylpropoxyarsine oxide, *in* D-00226
- Di-*tert*-butyl pyrocarbonate, *in* D-00243
- O,O*-Dibutyl thiophosphite, *see* D-00240
- O,O*-Dibutyl thiophosphoric acid, *see* D-00242
- Dicaprolymethane, *see* T-00228
- 2,2'-Dicarbamoyldiphenylamine, *in* I-00013
- Dicarbamic acid, D-00243
- ▷ Dicarboxidine, D-00244
- Dicarboxyarsenazo III, *see* D-00591
- 3,3'-Dicarboxybenzidine-*N,N,N',N'*-tetraacetic acid, *see* D-00054
- N,N,N'*-(3,3'-Dicarboxy[1,1'-biphenyl]-4,4'-diyl)bis[*N*-(carboxymethyl)glycine], *see* D-00054
- 2,2'-Dicarboxybiphenylazochromotropic acid, *see* D-00592
- 4,4'-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00245
- ▷ 3-[Di(carboxymethyl)aminomethyl]-1,2-dihydroxyanthraquinone, *see* A-00076
- ▷ Dichlone, *see* D-00286
- Dichloramine B, *in* B-00026
- Dichloramine T, *see* D-00285
- ▷ Dichloroacetamide, *in* D-00246
- ▷ Dichloroacetic acid, D-00246
- 4,4'-Di(*p*-chloroanilino)-2,2'-biquinoline, *in* D-00063
- 2,4-Dichlorobenzaldehyde, D-00247
- 2,4-Dichlorobenzeneboronic acid, *see* D-00293
- 2,6-Dichlorobenzeneboronic acid, *see* D-00294
- 3,5-Dichlorobenzeneboronic acid, *see* D-00295
- 4,5-Dichloro-1,2-benzenediamine, *see* D-00069
- N,N*-Dichlorobenzenesulfonamide, *in* B-00026
- 2,5-Dichlorobenzenesulfonic acid, D-00248
- 4,4'-Dichlorobenzil, *see* B-00285
- ▷ 2,4-Dichlorobenzoic acid, D-00249
- 2,5-Dichloro-1,4-benzoquinone, D-00250
- ▷ 2,6-Dichloro-1,4-benzoquinone, D-00251
- ▷ 2,6-Dichloro-*p*-benzoquinone-4-chloroimine, *see* D-00257
- N*-(2,4-Dichlorobenzoyl)phenylhydroxylamine, *see* D-00281
- N*-(2,4-Dichlorobenzylidene)aniline, *in* D-00247
- (3,4-Dichlorobenzyl)triphenylphosphonium(1+), D-00252
- 4,4'-Dichloro-2,2'-bipyridine, D-00253
- 4,4'-Dichloro-2,2'-biquinoline, D-00254
- 6,7-Dichloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, D-00255
- 2,6-Dichloro-4-[(3-chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00256
- ▷ 2,6-Dichloro-4-(chloroimino)-2,5-cyclohexadien-1-one, D-00257
- 2,6-Dichloro-4-[(2-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00258
- 2,6-Dichloro-4-[(3-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00259
- 2,7-Dichlorochromotropic acid, *see* D-00263
- 2,4-Dichloro-1-cyanobenzene, *in* D-00249
- ▷ Dichlorocyanomethane, *in* D-00246
- 2,5-Dichloro-2,5-cyclohexadiene-1,4-dione, *see* D-00250
- ▷ 2,6-Dichloro-2,5-cyclohexadiene-1,4-dione, *see* D-00251
- sym*-Dichlorodiacetamide, *in* C-00054
- 3,5-Dichloro-2-(2,4-diamino-5-methylphenylazo)pyridine, *see* D-00301
- 3,5-Dichloro-2-(2,4-diaminophenylazo)pyridine, *see* D-00299
- 6,6'-Dichloro-1,1'-dianthrimide, *see* I-00007
- 2,5-Dichloro-4-[[4-(4-dibutylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
- ▷ 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone, D-00260
- 2,5-Dichloro-3,6-diethoxy-1,4-benzoquinone, *in* D-00262
- 2,5-Dichloro-4-[[4-(4-diethylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
- ▷ 2,2'-Dichlorodiethyl ether, *see* O-00077
- 1,4-Dichloro-5,8-dihydroxy-9,10-anthracenedione, *see* D-00261
- 1,4-Dichloro-5,8-dihydroxyanthraquinone, D-00261
- ▷ 2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone, D-00262
- 2,5-Dichloro-3,6-dihydroxy-2,5-cyclohexadiene-1,4-dione, *see* D-00262
- 3,6-Dichloro-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00263
- 2',4'-Dichloro-3',6'-dihydroxyisopropylisobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* D-00273
- 2',5'-Dichloro-3',6'-dihydroxyisopropylisobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* D-00274
- 2',7'-Dichloro-3',6'-dihydroxyisopropylisobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* D-00275
- 4',5'-Dichloro-3',6'-dihydroxyisopropylisobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* D-00276
- 4,7-Dichloro-3',6'-dihydroxy-2',4',5',7'-tetraiodospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* R-00011
- 2,5-Dichloro-3,6-dimethoxy-1,4-benzoquinone, *in* D-00262
- 3,5-Dichloro-2-(4-dimethylamino-2-hydroxyphenylazo)pyridine, *see* D-00300
- 2,5-Dichloro-4-[[4-(4-dimethylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
- 3,3'-Dichloro-2,2'-dimethyldithizone, D-00264
- 4,4'-Dichloro-2,2'-dimethyldithizone, D-00265
- 5,5'-Dichloro-2,2'-dimethyldithizone, D-00266
- ▷ 1,3-Dichloro-5,5-dimethyl-2,4-imidazolidinedione, *in* D-00866
- ▷ Dichlorodimethylsilane, D-00267
- ▷ 4,5-Dichloro-3,6-dioxo-1,4-cyclohexadiene-1,2-dicarbonitrile, *see* D-00260
- 4,4'-Dichlorodiphenylsulfimide, D-00268
- 6,7-Dichloro-2,3-di-2-pyridylquinoxaline, D-00269
- 2,2'-Dichlorodithizone, D-00270
- 4,4'-Dichlorodithizone, D-00271
- ▷ Dichloroethanoic acid, *see* D-00246
- 2,4-Dichloro-6-(4-ethoxy-1-naphthalenyl)-1,3,5-triazine, D-00272
- 2,4-Dichloro-6-(4-ethoxy-1-naphthyl)-s-triazine, *see* D-00272
- ▷ Di-2-chloroethyl ether, *see* O-00077
- 2',4'-Dichlorofluorescein, D-00273
- 2',5'-Dichlorofluorescein, D-00274
- 2',7'-Dichlorofluorescein, D-00275
- 4',5'-Dichlorofluorescein, D-00276
- Dichloro(*R*)fluorescein, *see* D-00275
- ▷ Dichlorohydantoin, *in* D-00866
- ▷ α -Dichlorohydrin, *see* D-00298
- 3',5'-Dichloro-2'-hydroxyacetophenone, D-00277
- 3,5-Dichloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, D-00278
- 2,6-Dichloro-4-[(4-hydroxy-3-methylphenyl)imino]-2,5-cyclohexadien-1-one, D-00279
- ▷ 5,7-Dichloro-8-hydroxy-2-methylquinoline, D-00280
- 2-(3,5-Dichloro-2-hydroxyphenylazo)thiazole, *see* B-00093
- 2,4-Dichloro-*N*-hydroxy-*N*-phenylbenzamide, D-00281
- 1-(3,5-Dichloro-2-hydroxyphenyl)ethanone, *see* D-00277

- 2,6-Dichloro-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00282
- 2-[(3,5-Dichloro-2-hydroxyphenyl)methylene]-*N*-phenylhydrazinecarbothioamide, *see* D-00278
- 5,7-Dichloro-8-hydroxyquinoline, D-00283
- Dichloroindo-*o*-cresol complexan, *see* A-00239
- 2,6-Dichloroindophenol, *see* D-00282
- Dichloroindophenol complexan, *see* A-00240
- 6,9-Dichloro-2-methoxy-10-methylacridinium(1+), D-00284
- N,N*-Dichloro-4-methylbenzenesulfonamide, D-00285
- ▷ [2,3-Dichloro-4-(2-methylenebutyl)phenoxy]acetic acid, *see* E-00022
- ▷ [2,3-Dichloro-4-(2-methylene-1-oxobutyl)phenoxy]acetic acid, *see* E-00022
- 2,6-Dichloro-3'-methylindophenol, *see* D-00279
- ▷ 5,7-Dichloro-2-methyl-8-quinolinol, *see* D-00280
- ▷ 2,3-Dichloro-1,4-naphthalenedione, *see* D-00286
- ▷ 2,3-Dichloro-1,4-naphthoquinone, D-00286
- Dichloro-1-naphthylphosphine, *in* N-00055
- 2,5-Dichloro-4-nitrosophenol, *in* D-00250
- 2,6-Dichloro-4-nitrosophenol, *in* D-00251
- 4,5-Dichloro-6-oxo-1(6*H*)-pyridazinepropanoic acid, D-00287
- 3,5-Dichloro-PADAB, *see* D-00299
- 3,5-Dichloro-PADAT, *see* D-00301
- 3,3'-Dichlorophenolsulfonephthalein, *see* C-00197
- 2,4-Dichlorophenoxyacetohydroxamic acid, D-00288
- 2-(2,4-Dichlorophenoxy)-*N*-(4-methylphenyl)acetohydroxamic acid, *in* D-00288
- 2-(2,4-Dichlorophenoxy)-*N*-phenylacetohydroxamic acid, *in* D-00288
- 2,5-Dichloro-4-[[4-(phenylamino)phenyl]azo]benzenesulfonic acid, *see* A-00370
- 2,4-Dichlorophenylazochromotropic acid, *see* D-00289
- 3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00289
- 29-(2,6-Dichlorophenyl)-3,26-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*q*][1,4,7,10,13,16]hexaoxacycloheneicosin, D-00290
- 32-(2,6-Dichlorophenyl)-3,29-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,23,24-dodecahydro-32*H*-dinaphtho[2,1-*t*:1',2'-*w*][1,4,7,10,13,16,19]-heptaoxacyclopentacosin, D-00291
- Dichlorophenylbismuthine, D-00292
- (2,4-Dichlorophenyl)boronic acid, *see* D-00293
- (2,6-Dichlorophenyl)boronic acid, *see* D-00294
- (3,5-Dichlorophenyl)boronic acid, *see* D-00295
- (2,3-Dichlorophenyl)diazene-carbothioic acid 2-(2,3-dichlorophenylhydrazide), *see* T-00029
- (2,4-Dichlorophenyl)diazene-carbothioic acid 2-(2,4-dichlorophenylhydrazide), *see* T-00030
- (2,5-Dichlorophenyl)diazene-carbothioic acid 2-(2,5-dichlorophenylhydrazide), *see* T-00031
- (2,6-Dichlorophenyl)diazene-carbothioic acid 2-(2,6-dichlorophenylhydrazide), *see* T-00032
- (3,4-Dichlorophenyl)diazene-carbothioic acid 2-(3,4-dichlorophenylhydrazide), *see* T-00033
- (3,5-Dichlorophenyl)diazene-carbothioic acid 2-(3,5-dichlorophenylhydrazide), *see* T-00034
- (2,4-Dichlorophenyl)dihydroxyborane, D-00293
- (2,6-Dichlorophenyl)dihydroxyborane, D-00294
- (3,5-Dichlorophenyl)dihydroxyborane, D-00295
- Di-*p*-chlorophenyl diketone, *see* B-00285
- 4,5-Dichloro-*o*-phenylenediamine, *see* D-00069
- [(2,4-Dichlorophenyl)methyl]triphenylphosphonium(1+), *see* D-00252
- N*,2,5-Dichlorophenyl-*N'*-phenylbenzamidine, D-00296
- N*-(2,5-Dichlorophenyl)-*N'*-phenylbenzenecarboximidamide, *see* D-00296
- Dichloro[29*H*,31*H*-phthalocyaninato(2-)]silicon, D-00297
- ▷ 1,3-Dichloro-2-propanol, D-00298
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-1,3-benzenediamine, D-00299
- 2-[(3,5-Dichloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, D-00300
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, D-00301
- 4-[(3,5-Dichloro-2-pyridyl)azo]-1,3-diaminobenzene, *see* D-00299
- 5-(3,5-Dichloro-2-pyridylazo)-2,4-diaminotoluene, *see* D-00301
- 5,8-Dichloroquinisarine, *see* D-00261
- 6,7-Dichloro-5,8-quinolinedione, D-00302
- 5,7-Dichloro-8-quinolinol, *see* D-00283
- 3,5-Dichlorosalicylaldehyde phenylthiosemicarbazone, *see* D-00278
- Dichloro(*P*)tetrabromo(*R*)fluorescein, *see* P-00212
- ▷ 1,3-Dichloro-1,1,3,3-tetrafluoro-2-propanone, D-00303
- 1,2-Di(5-chloro-2-thienyl)-2,5,8,11-tetrathiadodecane, *see* T-00127
- α,2-Dichlorotoluene, *see* C-00079
- ▷ α,4-Dichlorotoluene, *see* C-00080
- N,N*-Dichloro-*p*-toluenesulphonamide, *see* D-00285
- 5-[(4,6-Dichloro-1,3,5-triazin-2-yl)amino]-3',6'-dihydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, D-00304
- 5-[(4,6-Dichloro-1,3,5-triazin-2-yl)amino]fluorescein, *see* D-00304
- 1-(2,4-Dichloro-1,3,5-triazinyl)-4-ethoxynaphthalene, *see* D-00272
- ▷ Dicoumarin, *see* D-00305
- ▷ Dicoumarol, D-00305
- ▷ Dicumarol, *see* D-00305
- ▷ Dicuapral, *see* D-01107
- ▷ 1,3-Dicyanobenzene, *in* B-00019
- 2,3-Dicyano-1,4-benzenediol, *in* D-00525
- 2,2'-Dicyanobiphenyl, *in* B-00207
- ▷ 1,4-Dicyanobutane, *in* H-00062
- ▷ (*E*)-1,2-Dicyanoethylene, *in* F-00038
- 1,2-Dicyanoethylene dithiolate, *in* D-00753
- 2,3-Dicyanohydroquinone, *in* D-00525
- 9-Dicyanomethylene-2,4,7-trinitrofluorene, D-00306
- 2,3-Dicyanopyrazine, *in* P-00286
- 2,6-Dicyanopyridine, *in* P-00353
- ▷ Dicyclohexano-18-crown-6, *see* E-00004
- ▷ 2,3,11,12-Dicyclohexano-1,4,7,10,13,16-hexaoxacyclooctadecane, *see* E-00004
- (3,4),(7,8)-Dicyclohexeno-1,10-phenanthroline, *see* O-00016
- ▷ Dicyclohexylamine, D-00307
- N,N'*-Dicyclohexyl-*O*-benzylisourea, D-00308
- ▷ Dicyclohexylcarbodiimide, D-00309
- ▷ Dicyclohexyl-18-crown-6, *see* E-00004
- Dicyclohexyl-19-crown-6, *see* E-00003
- Dicyclohexyl-24-crown-8, *see* T-00036
- Dicyclohexyl cyclohexylboronate, *in* C-00352
- N,N'*-Dicyclohexyl-*O*-(7-methoxycoumarin-4-yl)methylisourea, *see* M-00100
- ▷ Di-π-cyclopentadienyliron(II), *see* F-00004
- ▷ Dicyclopentamethylenethiuram disulfide, *see* D-01130
- ▷ Didandin, *see* D-00997
- Di-(*o*-dibromo-*p*-tolyl)thiocarbazone, *see* D-00184
- 4,4'-Di[(*p*-diethylamino)anilino]-2,2'-biquinoline, *in* D-00063
- 4,4'-Di(dimethylamino)tritanol, *see* B-00327
- ▷ Didion, *see* D-00997
- Di-(*o*-diphenyl)thiocarbazone, *see* D-01009
- ▷ Didodecylidithiooxamide, *see* D-00310
- N,N*-Didodecyl-1-dodecanamine, *see* T-00230
- ▷ *N,N'*-Didodecylethanedithioamide, D-00310
- N,N*-Didodecyl-*N*-ethyl-1-dodecanaminium(1+), *see* E-00120
- 4,5-Didodecyl-1-naphthalenesulfonic acid, D-00311
- 2,13-Didodecylxyloxydibenzo-18-crown-6, *see* B-00347
- 2,14-Didodecylxyloxydibenzo-18-crown-6, *see* B-00348
- ▷ Didronel, *in* H-00178
- DIDS, *see* E-00046
- Dieckmann ester, *in* O-00060
- ▷ Diethazine, D-00312
- ▷ Diethoxo(hydrogensulfido)thiophosphorus(IV), *see* D-00356
- Diethoxyacetic acid, *in* G-00038
- ▷ 1,2-Diethoxybenzene, *in* B-00020
- 1,3-Diethoxybenzene, *in* B-00021
- 1,4-Diethoxybenzene, *in* B-00022
- 3,3'-Diethoxybenzidine, *in* D-00056
- 2,5-Diethoxy-1,4-benzoquinone, *in* D-00540
- N,N'*-(3,3'-Diethoxy[1,1'-biphenyl]-4,4'-diyl)bis[*N*-(carboxymethyl)glycine], *see* D-00070
- 1,2-Diethoxycyclobutenedione, *in* D-00569
- 1,1-Diethoxy-*N,N*-dimethylmethanamine, *see* D-00313
- Diethoxydiphenylmethane, *in* B-00069
- 2,14-Di(β-thioxyethoxy)dibenzo-18-crown-6, *see* B-00349
- ▷ Diethoxymethane, *in* F-00035
- (Diethoxymethyl)benzene, *in* B-00004
- (Diethoxymethyl)dimethylamine, D-00313
- 1,1'-(Diethoxymethylene)bisbenzene, *in* B-00069
- 2-(Diethoxymethyl)-3-methoxypyridine, *in* H-00518
- 2,7-Diethoxynaphthalene, *in* N-00011
- 2,4-Diethoxy-1-nitrosobenzene, *in* N-00156
- ▷ 2,2-Diethoxy-1-phenylethanone, *in* P-00132
- Diethoxyphenylmethane, *in* B-00004
- 3,3-Diethoxy-3-phenylpropanoic acid, *in* O-00069
- 2,2-Diethoxypropanamide, *in* P-00448
- 2,2-Diethoxypropanoic acid, *in* P-00448
- (3,3-Diethoxy-1-propenyl)benzene, *in* P-00168
- 1,1-Diethoxytrimethylamine, *see* D-00313
- ▷ Diethylamine, D-00314
- ▷ 4-(Diethylamino)aniline, *in* D-00048
- p*-Diethylaminobenzaldehyde isonicotinoylhydrazone, *see* P-00344
- 9-(Diethylamino)-5*H*-benzo[*a*]phenoxazin-5-one, *see* N-00070
- 2-(Diethylamino)benzoic acid hydrazide, D-00315
- p*-Diethylaminobenzylidenerhodanine, *see* D-00334
- 7-(Diethylamino)coumarin-3-carbohydrazide, *see* D-00326
- 6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, *in* A-00156
- 4'-Diethylamino-2',6'-dihydroxyazobenzene-3-sulfonic acid, *see* D-00319
- 4'-(Diethylamino)-2,2'-dihydroxy-3,5-dinitroazobenzene, *see* D-00318
- 4'-Diethylamino-2,2'-dihydroxy-5-nitroazobenzene-3-sulfonic acid, *see* D-00330
- 3-(Diethylamino)-7-(dimethylamino)-2-methylphenoxazin-5-ium(1+), *see* C-00017
- 3-(Diethylamino)-7-(dimethylamino)phenothiazin-5-ium(1+), *see* T-00136
- 3-Diethylamino-7-[[4-(dimethylamino)phenyl]azo]-5-phenylphenazinium(1+), *see* J-00004
- (Diethylamino)dimethyl(pentafluorophenyl)silane, D-00316
- 5-(Diethylamino)-2-[(4,5-dimethyl-2-thiazolyl)azo]phenol, *in* A-00163
- N*-[2-(Diethylamino)ethyl]-4-[(8-hydroxy-5-quinolinyl)azo]benzamide, D-00317
- ▷ 10-(2-Diethylaminoethyl)phenothiazine, *see* D-00312
- O*-[2-(Diethylamino)ethyl]phosphorotriothioate, *see* P-00217

- 2-Diethylamino-4-hydroxy-5-nitroso-6-aminopyrimidine, *in* D-00109
- 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]antipyrine, *see* A-00392
- 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, *see* A-00392
- 2-[4-(Diethylamino)-2-hydroxyphenylazo]-4,6-dinitrophenol, D-00318
- 3-[4-(Diethylamino)-2-hydroxyphenyl]azo]-4-hydroxybenzenesulfonic acid, D-00319
- 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, *see* H-00173
- 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-5-hydroxy-2,7-naphthalenedisulfonic acid, *in* A-00211
- 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00320
- 6'-[[2-(Diethylamino)-4-hydroxyphenyl]azo]-1-methylanabasine, *see* D-00323
- 2-(4-Diethylamino-2-hydroxyphenylazo)-5-methylpyridine, *see* D-00324
- 3-(Diethylamino)-7-[(4-hydroxyphenyl)azo]-5-phenylphenazinium(1+), *see* J-00001
- 2-(4-Diethylamino-2-hydroxyphenylazo)pyridine, *see* D-00335
- 2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, *in* A-00214
- 5-[[4-Diethylamino-2-hydroxyphenyl]azo]-1*H*-1,2,4-triazole-3-carboxylic acid, *in* A-00215
- 7-(Diethylamino)-3-[4-[(iodoacetyl)amino]phenyl]-4-methylcoumarin, *see* D-00321
- 7-(Diethylamino)-3-(4-maleimidylphenyl)-4-methylcoumarin, *see* D-00322
- N*-[4-(7-Diethylamino-4-methylcoumarin-3-yl)phenyl]maleimide, *see* D-00322
- N*-[4-[7-(Diethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]phenyl]-2-iodoacetamide, D-00321
- 1-[4-[7-(Diethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]phenyl]-1*H*-pyrrole-2,5-dione, D-00322
- 3-Diethylamino-4-[5-(1-methyl-2-piperidinyl)-2-pyridyl]phenol, D-00323
- 5-(Diethylamino)-2-[(5-methyl-2-pyridinyl)azo]phenol, D-00324
- 6-(Diethylamino)-2-naphthalenesulfonic acid hydrazide, D-00325
- 5-(Diethylamino)-2-nitrosophenol, *in* A-00285
- 7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-carboxylic acid hydrazide, D-00326
- 2-[7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]-5-methyl-6-benzoxazolesulfonic acid, D-00327
- 4-[[4-(Diethylamino)phenyl]azo]-*N,N*-bis[4-[(diethylamino)phenyl]azo]phenyl]benzenamine, *see* P-00003
- 4-[[4-(Diethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, *in* A-00313
- 3-[[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1*H*-1,2,4-triazolium(1+), D-00328
- 4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+), D-00329
- 3-[2-(5-Diethylaminophenyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00330
- 2-[[4-(Diethylamino)phenyl]azo]-1,3-indanedione, D-00331
- 4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+), D-00332
- 4-[[4-(Diethylamino)phenyl]azo]-1-(phenylmethyl)pyridinium(1+), *see* B-00176
- 4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+), D-00333
- N*-[4-[[4-(Diethylamino)phenyl]5-[(2,4-dinitrophenyl)amino]-2,4-disulfophenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-ethylethanaminium hydroxide inner salt, *see* A-00060
- 4-[α -[*p*-(Diethylamino)phenyl]-2,4-disulfobenzylidene]-2,5-cyclohexadien-1-ylidene]diethylammonium, *see* S-00058
- N*-[4-[[4-(Diethylamino)phenyl](2,4-disulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-*N*-ethylethanaminium, *see* S-00058
- 2-[2-[4-(Diethylamino)phenyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+), *see* A-00451
- N*-[4-[[4-(Diethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-ethylethanaminium(1+), *see* V-00004
- N*-[4-[[4-(Diethylamino)phenyl][4-[ethyl[(3-sulfophenyl)methyl]amino]-2-methylphenyl]methylene]-3-methyl-2,5-cyclohexadien-1-ylidene]-*N*-ethyl-3-sulfobenzenemethanaminium hydroxide inner salt, *see* X-00003
- 4-Diethylaminophenylfluorone, *in* A-00328
- 9-(Diethylamino)-5-[(phenylmethyl)amino]benzo[*a*]phenoxazin-7-ium(1+), *in* N-00069
- 5-[[4-(Diethylamino)phenyl]methylene]-2-thioxo-4-thiazolidinone, D-00334
- N*-[4-[[4-(Diethylamino)phenyl][2-methyl-5-nitrophenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-ethylethanaminium(1+), *see* B-00001
- N*-[4-[[4-(Diethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-*N*-ethylethanaminium(1+), *see* B-00479
- 9-(4-Diethylaminophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, *in* A-00328
- 10-(2-Diethylaminopropyl)phenothiazine, *see* E-00050
- 2-(Diethylamino)-6-(2-pyridinylazo)phenol, D-00335
- 5-(Diethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
- 5-Diethylamino-2-(2-thiazolylazo)benzoic acid, *in* A-00359
- 2-(Diethylamino)-6-(2-thiazolylazo)phenol, *in* A-00360
- 5-(Diethylamino)-2-(2-thiazolylazo)phenol, *in* A-00214
- N*-[(Diethylamino)thioxomethyl]benzamide, *see* D-00338
- (Diethylamino)trimethylsilane, D-00336
- Diethylammonium chloride, *in* D-00314
- Diethylammonium diethylthiocarbamate, *in* D-00344
- *N,N*-Diethylaniline, D-00337
- 1,3-Diethylbarbituric acid, *in* P-00429
- *N,N*-Diethylbenzenamine, *see* D-00337
- 3,3'-Diethylbenzidine, *see* D-00072
- N,N'*-Diethylbenzidine, *in* D-00053
- N,N*-Diethyl-*N'*-benzoylthiourea, D-00338
- 3,3'-Diethyl[1,1'-binaphthyl]-4,4'-diamine, *see* D-00071
- 1,1'-Diethyl-4,4'-bipyridinium(2+), D-00339
- Diethylcarbamidiselenonic acid, *see* D-00343
- Diethylcarbomodithioic acid, *see* D-00344
- (Diethylcarbomoylmethyl)dodecyl-14-crown-4, *see* D-01143
- Diethyl chlorophosphate, *see* D-00355
- Diethyl chlorophosphonate, *see* D-00355
- Diethyl cyclohexylboronate, *in* C-00352
- 2,13-Diethylidibenzo-18-crown-6, *see* D-00351
- 2,19-Diethylidibenzo-30-crown-10, *see* D-00348
- 7,18-Diethylidibenzo-18-crown-6, *see* D-00352
- Diethyl dicarbonate, *in* D-00243
- Diethyl diethylamidophosphate, *see* D-00340
- Diethyl diethylphosphoramidate, D-00340
- 1,3-Diethylidihydro-5-nitroso-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, *in* D-00462
- 5,5-Diethylidihydro-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00341
- 3,5-Diethyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00342
- N,N*-Diethyl-1,1-dimethyl-1-(pentafluorophenyl)silanamine, *see* D-00316
- Diethyl dioxime, *see* D-00862
- Diethyldiselenocarbamic acid, D-00343
- Diethylthiocarbamic acid, D-00344
- *O,O*-Diethyl dithiophosphate, *see* D-00356
- *O,O*-Diethyl dithiophosphoric acid, *see* D-00356
- Diethylene dioxide, *see* D-00985
- Diethylene oxide, *see* D-00985
- Diethylenetriamine, D-00345
- Diethylenetriaminepentaacetic acid, *see* P-00039
- *N,N*-Diethylethanamine, *see* T-00231
- Diethyl ether, D-00346
- 3,3-Diethyl-1-(9*H*-fluoren-2-yl)-1-triazene, D-00347
- Diethyl formal, *in* F-00035
- 2,19-Diethyl-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzob[*g,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, D-00348
- Di(2-ethylhexyl)phosphoric acid, *see* B-00352
- O,O*-Diethyl hydrogen phosphoroselenoate, *see* D-00357
- Diethyl (hydroxymethyl)phosphonate, *in* H-00318
- N,N*-Diethyl-3-imino-8-methyl-3*H*-phenoxazin-7-amine, *see* B-00477
- Diethyl 1*H*-inden-2-ylphosphonate, *in* I-00026
- Diethyl isobutylphosphonate, *in* M-00262
- Diethyl isopropylphosphonate, *in* I-00077
- N,N*-Diethyl-4-methyl-1,3,2-dioxaphosphorinan-2-amine 2-oxide, *see* D-00354
- N,N*-Diethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00349
- *N,N*-Diethyl- α -methyl-10*H*-phenothiazine-10-ethanamine, *see* E-00050
- Diethyl (2-methylpropyl)phosphonate, *in* M-00262
- 3,3'-Diethylnaphthidine, *see* D-00071
- Diethyl 1-naphthylphosphonite, *in* N-00055
- N,N*-Diethyl-4-nitrosobenzidine, D-00350
- N,N*-Diethyl-4-nitrosobenzenamine, *see* D-00350
- 2,13-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, D-00351
- 7,18-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, D-00352
- Diethyl oxide, *see* D-00346
- *N,N*-Diethyl-10*H*-phenothiazine-10-ethanamine, *see* D-00312
- Diethyl phenylarsonate, *in* P-00090
- *N,N*-Diethyl-1,4-phenylenediamine, *in* D-00048
- Diethyl (2-phenylethenyl)phosphonate, *in* P-00129
- N,N*-Diethyl-*P*-phenylphosphinic amide, *in* P-00163
- Diethylphosphoramidic acid, D-00353
- Diethylphosphoramidic acid cyclic 1-methyltrimethylene ester, D-00354
- Diethyl phosphorochloridate, D-00355
- *O,O*-Diethyl phosphorodithioate, D-00356
- O,O*-Diethylphosphoroselenonic acid, D-00357
- Diethyl phosphoryl chloride, *see* D-00355
- 8,8'-[(2,2-Diethyl-1,3-propanediyl)bis(oxy)]bisquinoline, *see* B-00450
- Diethyl pyrocarbonate, *in* D-00243
- Diethyl styrylphosphonate, *in* P-00129
- Diethyl succinate, *in* S-00034
- Diethyl sulfate, D-00358
- 7,12-Diethyl-3,8,13,17-tetramethyl-21*H*,23*H*-porphine-2,18-dipropanoic acid, *see* M-00061
- N,N*-Diethyl-4-(2-thiazolylazo)benzenamine, *in* T-00138
- 5,5-Diethylthiobarbituric acid, *see* D-00341
- Diethyltoluamide, *in* M-00137
- *N,N*-Diethyl-1,1,1-trimethylsilanamine, *see* D-00336

- N,N'*-Diethylviologen, *see* D-00339
 Dietilan, *in* D-00526
 Diferuloylmethane, *see* C-00323
 ▶ Difexan, *see* D-00997
 4-(2,6-Difluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00359
 2,2'-Difluorodithizone, D-00360
 4,4'-Difluorodithizone, D-00361
 Di-*p*-fluorophenylthiocarbazon, *see* D-00361
 1-(4,6-Difluoro-1,3,5-triazin-2-yl)-2-methyl-2*H*-isoindole, D-00362
 2,3-Diformylanthracene, *see* A-00379
 ▶ 1,2-Diformylbenzene, *see* B-00016
 2,3-Diformylnaphthalene, *see* N-00006
 ▶ Difosfen, *in* H-00178
 ▶ 1,2-Di(2-furanyl)-2-hydroxyethanone, *see* F-00065
 1,5-Di-2-furanyl-1,4-pentadien-3-one, D-00363
 Difurfurylideneacetone, *see* D-00363
 ▶ Di- α -furoyl, *see* D-00364
 ▶ Di- α -furyl diketone, *see* D-00364
 ▶ Di(2-furyl)ethanedione, D-00364
 ▶ Di-2-furyl glyoxal, *see* D-00364
 1,5-Difuryl-1,4-pentadien-3-one, *see* D-00363
 Digallic acid, D-00365
 ▶ Digitoflavone, *see* T-00077
 Digitogenin, *in* S-00024
 ▶ Digitonin, *in* S-00024
 2,13-Diheptyldibenzo-18-crown-6, *see* D-00366
 2,13-Diheptyl-6,7,9,10,11,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, D-00366
 ▶ Dihexylamine, D-00367
N,N'-Dihexyl-*N'*-benzylthiourea, *in* B-00161
 2,13-Dihexyldibenzo-18-crown-6, *see* D-00368
O,O'-Dihexyl dithiophosphoric acid, *see* D-00369
O,O'-Dihexyl hydrogen dithiophosphate, *see* D-00369
 2,13-Dihexyl-6,7,9,10,11,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, D-00368
O,O'-Dihexyl phosphorodithioate, D-00369
 ▶ Dihydrallazine, D-00370
 ▶ Dihydrallazine, *see* D-00370
 ▶ 1,4-Dihydrazinophthalazine, *see* D-00370
 7,11*b*-Dihydrobenz[*b*]indeno[1,2-*d*]pyran-3,4,6*a*,9,10(6*H*)-pentol, *see* H-00002
 7,11*b*-Dihydrobenz[*b*]indeno[1,2-*d*]pyran-3,6*a*,9,10(6*H*)-tetrol, *see* B-00475
 2,3-Dihydro-1,4-benzodioxin-6,7-diamine, D-00371
 2-(2,3-Dihydro-2-benzothiazolyl)phenol, D-00372
 5,6-Dihydro-5,6-bis(hydroxyimino)-1-naphthalenesulfonic acid, *in* N-00034
 5,6-Dihydro-5,6-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00035
 7,8-Dihydro-7,8-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00036
 1,2-Dihydro-3,6-bis(4-methyl-2-pyridinyl)-1,2,4,5-tetrazine, D-00373
 2,3-Dihydro-5,6-bis(6-methyl-2-pyridyl)pyrazine, D-00374
 (9*S*)-10,11-Dihydrocinchonan-9-ol, *in* C-00298
 10,11-Dihydrocinchonine, *in* C-00298
 Dihydro-*p*-coumaric acid, *see* H-00497
 16,17-Dihydro-7-cyano-5*H*,15*H*-dibenzo[*b,f*]-1,11,4,5,7,8-dioxatetraazacyclotetradecine, *see* D-00375
 15,16-Dihydro-7-cyano-5*H*-dibenzo[*e,f*]-1,4,7,8,10,11-dioxatetraazacyclotridecine, *see* D-00376
 16,17-Dihydro-5*H*,15*H*-dibenzo[*b,f*][1,11,4,5,7,8]dioxatetraazacyclotetradecine-7-carbonitrile, D-00375
 15,16-Dihydro-5*H*-dibenzo[*b,f*][1,11,4,5,7,8]dioxatetraazacyclotridecine-7-carbonitrile, D-00376
 9,10-Dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, *see* D-00513
 9,10-Dihydro-1,4-dihydroxy-9,10-dioxo-2-anthracenesulfonic acid, *see* Q-00006
 9,10-Dihydro-3,4-dihydroxy-9,10-dioxo-2-anthracenesulfonic acid, *see* A-00081
 9,10-Dihydro-1,4-dihydroxy-9,10-dioxo-3-(4-sulfophenoxy)-2-anthracenesulfonic acid, D-00377
 2,3-Dihydro-5,7-dihydroxy-2-(3-hydroxy-4-methoxyphenyl)-4*H*-1-benzopyran-4-one, *see* T-00296
 9,10-Dihydro-3,4-dihydroxy-10-imino-9-oxo-2-anthracenesulfonic acid, D-00378
 6,13-Dihydro-6,13-dihydroxy-1,4:8,11-pentacenequinone-2,9-disulfonic acid, *see* L-00004
 ▶ 5,6-Dihydro-9,10-dimethoxybenzo[*g*]-1,3-benzodioxolo[5,6-*a*]quinolinizinium(1+), *see* B-00197
 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl azide, *in* D-00379
 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl chloride, *in* D-00379
 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarboxylic acid, D-00379
 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinepropanoic acid, D-00380
 ▶ 6,7-Dihydro-5,8-dimethyldibenzo[*b,f*][1,10]phenanthroline, *see* C-00322
 5-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-2,4-dihydroxybenzoic acid, D-00381
 3-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00382
 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-(2-methoxyphenyl)-2-naphthalenecarboxamide, D-00383
 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-2-(methylphenyl)-2-naphthalenecarboxamide, D-00384
 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, D-00385
 8-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-7-hydroxy-2-naphthalenesulfonic acid, D-00386
 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-1-naphthalenyl-2-naphthalenecarboxamide, D-00387
 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-phenyl-2-naphthalenecarboxamide, D-00388
 3-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-2,4-pentanedione, *see* A-00474
 [(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)methylamino]methanesulfonic acid, *see* D-01100
 1,2-Dihydro-1,5-dimethyl-4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-phenyl-3*H*-pyrazol-3-one, D-00389
 ▶ 2,3-Dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]-1*H*-perimidine, D-00390
 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione, D-00391
 ▶ 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00392
 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(2,4,6-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00393
 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(5-(1,2,3-trihydroxyphenyl)azo)-3*H*-pyrazol-3-one, D-00394
 Dihydro-6,6-dimethyl-3-thio-1,2,4-triazine-3,5(2*H*,4*H*)-dione, *see* D-00409
 2-(2,3-Dihydro-2,2-dinitro-3-oxo-1*H*-inden-1-ylidene)-1*H*-indene-1,3(2*H*)-dione, D-00395
 9,10-Dihydro-9,10-dioxo-2-anthracenesulfonic acid, *see* A-00388
 4-[(9,10-Dihydro-9,10-dioxo-1-anthracenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00396
 2-(1,3-Dihydro-1,3-dioxo-2*H*-benz[*f*]isoindol-2-yl)ethyltrifluoromethanesulfonate, D-00397
 3,4-Dihydro-3,4-dioxocarbostyryl, *see* Q-00022
 2,3-Dihydro-1,3-dioxo-(1*H*)-indene-2-carboxylic acid, *see* D-00991
 ▶ 1,3-Dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, *in* B-00032
 2-(1,3-Dihydro-1,3-dioxo-2*H*-isoindol-2-yl)ethyltrifluoromethanesulfonate, *see* P-00224
 ▶ 3,4-Dihydro-3,4-dioxo-1-naphthalenesulfonic acid, *see* N-00033
 5,6-Dihydro-5,6-dioxo-1-naphthalenesulfonic acid, *see* N-00034
 5,6-Dihydro-5,6-dioxo-2-naphthalenesulfonic acid, *see* N-00035
 7,8-Dihydro-7,8-dioxo-2-naphthalenesulfonic acid, *see* N-00036
N-(9,10-Dihydro-9,10-dioxo-2-sulfoanthracenyl)benzenecarboxamide, *in* A-00093
 6,7-Dihydro-5,8-diphenyldibenzo[*b,f*][1,10]phenanthroline, D-00398
 1,3-Dihydro-4,5-diphenyl-2*H*-imidazole-2-thione, D-00399
 4,5-Dihydro-3,5-diphenylisoxazole, D-00400
 4,5-Dihydro-1,5-diphenyl-3-(2-phenylethenyl)-1*H*-pyrazole, D-00401
 Dihydro-1,3-diphenyl-2-thioxo-4,6-(1*H*,5*H*)-pyrimidinedione, *in* D-00492
 2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione, D-00402
 2,3-Dihydro-2,2-di-(2-pyridinyl)benzothiazole, D-00403
 2,3-Dihydro-5,6-di-(2-pyridyl)pyrazine, D-00404
 ▶ Dihydro-2,5-furandione, D-00405
 2,3-Dihydro-2-hydroxy-4*H*-1-benzopyran-4-one, D-00406
 2,3-Dihydro-3-hydroxy-4*H*-1-benzopyran-4-one, D-00407
 2,3-Dihydro-5-hydroxy-4*H*-1-benzopyran-4-one, D-00408
 1,2-Dihydro-4-[hydroxybis[4-(methyl(phenylmethyl)amino)phenyl]methyl]-5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, *see* C-00288
 9,10-Dihydro-1-hydroxy-9,10-dioxo-2-anthracenecarboxylic acid, *see* H-00099
 1,6-Dihydro-5-hydroxy-3-mercapto-6,6-dimethyl-1,2,4-triazine, D-00409
 2,3-Dihydro-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, *in* H-00281
 1,2-Dihydro-4-[(2-hydroxy-5-methylphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00410
 1,4-Dihydro-5-hydroxy-1-(4-methylphenyl)-4-oxo-2-pyridinecarboxylic acid, D-00411
 Dihydro-4-hydroxy-2-(1-methyl-1-piperidinoethyl)-3(2*H*)-furanone, D-00412
 3,4-Dihydro-5-hydroxy-1(2*H*)-naphthalenone, D-00413
 1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00414
 1,2-Dihydro-4-[(2-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00415
 1,2-Dihydro-4-[(4-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00416
 2,4-Dihydro-4-[(2-hydroxy-1-naphthalenyl)azo]-5-methyl-2-phenyl-3*H*-pyrazol-3-one, *see* S-00022
 1,2-Dihydro-4-[(2-hydroxy-1-naphthalenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00417
 ▶ 1,2-Dihydro-6-hydroxy-2-oxo-4-pyridinecarboxylic acid, *see* D-00721

- 3,7-Dihydro-8-[[4-(4-hydroxyphenyl)amino]methyl]-1,3,7-trimethyl-1H-purine-2,6-dione, D-00418
- 1,2-Dihydro-4-[[4-(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, D-00419
- 1,2-Dihydro-4-[[2-(hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, D-00420
- 1,2-Dihydro-4-[[4-(4-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, D-00421
- 1,2-Dihydro-4,4'-[[2-(hydroxyphenyl)methylene]bis[1,5-dimethyl-2-phenyl-3H-pyrazol-3-one], *see* D-00138
- 2,3-Dihydro-8-hydroxy-9-phenyl-7H-pyrano[2,3-*f*]-1,4-benzodioxin-7-one, D-00422
- 4,5-Dihydro-5-(2-hydroxyphenyl)-3-(2-pyridyl)-1,2,4-triazole, *see* D-00488
- 1,2-Dihydro-4-[[4-(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, D-00423
- 1,2-Dihydro-4-[[8-hydroxy-7-quinolyl]azo]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, *see* A-00393
- 3,4-Dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-carboxylic acid, *see* T-00430
- ▶ 1,3-Dihydro-2H-imidazole-2-thione, D-00424
- 2-[3-(1,3-Dihydro-2H-indol-2-ylidene)-1-propenyl]-1,3,3-trimethyl-3H-indolium(1+), *see* A-00449
- 2,3-Dihydro-2-(2-mercaptophenyl)-1,2,3-benzothiadiazole, D-00425
- ▶ 1,4-Dihydro-2-mercapto-4,4,6-trimethyl-1-phenylpyrimidine, *see* D-00501
- 1,4-Dihydro-2-mercapto-4,4,6-trimethyl-1-(2-pyridyl)pyrimidine, *see* D-00503
- 2,4-Dihydro-4-(2-methoxybenzoyl)-5-methyl-2-phenyl-3H-pyrazol-3-one, D-00426
- 2-[4,5-Dihydro-5-(4-methoxyphenyl)-3-isoxazolyl]-4-methylphenol, D-00427
- 1,3-Dihydro-5-methoxy-1-(phenylmethyl)-2H-benzimidazole-2-thione, *see* B-00188
- 1,2-Dihydro-4-[[4-(4-methoxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, D-00428
- 3,4-Dihydro-1-(4-methoxyphenyl)-4,4,6-trimethyl-2(1H)-pyrimidinethione, D-00429
- 3,4-Dihydro-5-methoxy-2H-pyrrole, *in* P-00443
- 4,5-Dihydro-5-methyl-3,5-di-2-pyridyl-1H-1,2,4-triazole, D-00430
- 2,4-Dihydro-5-methyl-4-(2-methylbenzoyl)-2-phenyl-3H-pyrazol-3-one, D-00431
- 2,4-Dihydro-5-methyl-2-(2-methylphenyl)-4-(2-naphthalenylcarbonyl)-3H-pyrazol-3-one, D-00432
- 2,4-Dihydro-5-methyl-2-(4-methylphenyl)-4-(2,2,3,3,3-pentafluoro-1-oxopropyl)-3H-pyrazol-3-one, D-00433
- 2,4-Dihydro-5-methyl-2-(methylphenyl)-4-(3,5,5-trimethyl-1-oxohexyl)-3H-pyrazol-3-one, D-00434
- 4,5-Dihydro-5-methyl-3-(4-methyl-2-pyridyl)-5-(2-pyridyl)-1H-1,2,4-triazole, *see* D-00455
- ▶ 2,4-Dihydro-5-methyl-4-nitro-2-(2-nitrophenyl)-3H-pyrazol-3-one, *see* P-00235
- 2,4-Dihydro-5-methyl-4-(1-oxodecyl)-2-phenyl-3H-pyrazol-3-one, D-00435
- 2,4-Dihydro-5-methyl-4-(1-oxooctyl)-2-phenyl-3H-pyrazol-3-one, D-00436
- 4-[4,5-Dihydro-3-methyl-5-oxo-4-(phenylazo)-1H-pyrazol-1-yl]benzenesulfonic acid, *see* F-00007
- 3-[4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl]azo]-2-hydroxy-5-methylbenzenesulfonic acid, D-00437
- 4-[4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl]azo]-3-hydroxy-1-naphthalenesulfonic acid, *see* E-00017
- 2-[4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl]azo]-5-nitrobenzenesulfonic acid, D-00438
- 4-[4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl]azo]phenyl]arsonic acid, D-00439
- 4,5-Dihydro-3-methyl-5-oxo-1H-pyrazole-4-carbodithioic acid, D-00440
- 1,2-Dihydro-6-methyl-2-oxo-3-pyridinecarboxylic acid, D-00441
- 4,5-Dihydro-5-methyl-3-(1,10-phenanthrolin-2-yl)-5-(2-pyridyl)-1H-1,2,4-triazole, *see* D-00456
- 1,3-Dihydro-5-methyl-1-(phenylmethyl)-2H-benzimidazole-2-thione, *see* B-00189
- 2,4-Dihydro-5-methyl-2-phenyl-4-(phenylthiomethyl)-3H-pyrazol-3-one, D-00442
- ▶ 2,4-Dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one, D-00443
- 4,5-Dihydro-5-methyl-3-(4-phenyl-2-pyridyl)-5-(2-pyridyl)-1H-1,2,4-triazole, *see* D-00457
- 3,4-Dihydro-3-methyl-1-phenyl-4-stearoyl-5-pyrazolone, D-00444
- 4-[4,5-Dihydro-3-methyl-1-phenyl-5-thioxo-1H-pyrazol-4-yl]azo]benzenesulfonic acid, D-00445
- 2-(4,5-Dihydro-5-methyl-5-phenyl-1H-1,2,4-triazol-3-yl)-4-methylpyridine, D-00446
- 2-(4,5-Dihydro-5-methyl-5-phenyl-1H-1,2,4-triazol-3-yl)-1,10-phenanthroline, D-00447
- 2-(4,5-Dihydro-5-methyl-5-phenyl-1H-1,2,4-triazol-3-yl)-4-phenylpyridine, D-00448
- 2,4-Dihydro-5-methyl-2-phenyl-4-(trifluoroacetyl)-3H-pyrazol-3-one, D-00449
- 2,4-Dihydro-5-methyl-2-phenyl-4-[2-(trifluoromethyl)benzoyl]-3H-pyrazol-3-one, D-00450
- 1,2-Dihydro-5-methyl-3H-pyrazole-3-thione, D-00451
- 4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-phenyl-1H-1,2,4-triazole, D-00452
- 4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-(2-pyridinyl)-1,2,4-triazole, D-00453
- 6-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00454
- 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-4-methylpyridine, D-00455
- 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00456
- 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-4-phenylpyridine, D-00457
- 2-[2-(1,2-Dihydro-1-methyl-6-quinolinyl)ethenyl]-1,3,3-trimethyl-3H-indolinium(1+), D-00458
- 4-[4,5-Dihydro-3-methyl-4-[(4-sulfophenyl)azo]-5-thioxo-1H-pyrazol-1-yl]benzenesulfonic acid, D-00459
- 1,7-Dihydro-8-methylthio-6H-purin-6-one, *in* H-00260
- 2,2'-(4,5-Dihydro-5-methyl-1H-1,2,4-triazole-3,5-diyl)bispiperidine, *see* D-00430
- 2-(4,5-Dihydro-5-methyl-1H-1,2,4-triazol-3-yl)pyridine, *in* M-00329
- 2,3-Dihydro-5-methyl-2-ureido-3H-pyrazol-3-one, D-00460
- 2,3-Dihydro-4-nitro-2,3-dioxo-9,10-secostrychnidin-10-oic acid, *see* C-00005
- 2-[[1,8-Dihydro-7-[[2-(nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, *see* C-00035
- 1,4-Dihydro-6-nitro-2,3-quinoxalinedithione, D-00461
- Dihydro-5-nitroso-2-thioxo-4,6(1H,5H)-pyrimidinedione, D-00462
- Dihydroonwogonin, *see* T-00282
- 9,10-Dihydro-9-oxoanthracene, *see* A-00390
- 2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid, D-00463
- 2-(1,3-Dihydro-3-oxo-5,7-disulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5,7-disulfonic acid, *see* I-00028
- ▶ 2-(2,3-Dihydro-3-oxo-1H-inden-1-ylidene)-1H-indene-1,3(2H)-dione, *see* B-00205
- 2-(1,3-Dihydro-3-oxo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid, *see* I-00027
- 3-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)benzoyl azide, *see* P-00225
- 4-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)benzoyl azide, *see* P-00226
- 3-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)benzoyl chloride, *see* P-00227
- 4-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)benzoyl chloride, *see* P-00228
- 3-(1,3-Dihydro-1-oxo-2H-isoindol-2-yl)-4-methoxybenzoyl chloride, *see* P-00229
- 3-[(4,5-Dihydro-5-oxo-1H-pyrazol-4-yl)azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00464
- 2-(1,3-Dihydro-3-oxo-5-sulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5,7-disulfonic acid, *see* I-00030
- 2-(1,3-Dihydro-3-oxo-5-sulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid, *see* I-00029
- 4,5-Dihydro-5-oxo-1-(4-sulfophenyl)-4-[(4-sulfophenyl)azo]-1H-pyrazole-3-carboxylic acid, *see* T-00003
- 4,5-Dihydro-3-(1,10-phenanthrolin-2-yl)-5-(2-pyridinyl)-1,2,4-triazole, D-00465
- 3,4-Dihydro-1(2H)-phenazinone, D-00466
- 1,3-Dihydro-4-phenyl-2H-imidazole-2-thione, *see* P-00140
- 2,9-Dihydro-9-(phenylmethyl)-3H-1,2,4-triazolo[4,3-*a*]benzimidazole-3-thione, *see* B-00195
- 4,5-Dihydro-5-phenyl-3-(2-phenylethenyl)isoxazole, D-00467
- 4,5-Dihydro-3-phenyl-1H-pyrazole-1-carbodithioic acid, D-00468
- 4-(4,5-Dihydro-3-phenyl-1H-pyrazol-1-yl)benzenesulfonic acid hydrazide, D-00469
- 2-[4,5-Dihydro-5-phenyl-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00470
- 2,3-Dihydro-6-phenyl-1,2,4-triazine-3-thione, *see* P-00205
- 2,4-Dihydro-4-phenyl-3H-1,2,4-triazole-3-thione, D-00471
- 2,9-Dihydro-9-phenyl-3H-1,2,4-triazolo[4,3-*a*]benzimidazole-3-thione, D-00472
- 6-(2,5-Dihydro-5-phenyl-1H-1,2,4-triazol-3-yl)-2,2'-bipyridine, D-00473
- 2-(4,5-Dihydro-5-phenyl-1H-1,2,4-triazol-3-yl)pyrazine, D-00474
- 3-(4,5-Dihydro-5-phenyl-1H-1,2,4-triazol-3-yl)pyridazine, D-00475
- 2-(4,5-Dihydro-4-phenyl-1H-1,2,4-triazol-3-yl)pyridine, D-00476
- 4-(2,5-Dihydro-5-phenyl-1H-1,2,4-triazol-3-yl)pyrimidine, D-00477
- ▶ 2,3-Dihydro-1,4-phthalazinedione dihydrazone, *see* D-00370
- 1,2-Dihydro-1-(2-propenyl)-5H-tetrazole-5-thione, *in* T-00131
- 1,3-Dihydro-2H-purine-2-thione, D-00478
- ▶ 1,7-Dihydro-6H-purin-6-one, *see* H-00564
- 4,5-Dihydro-1H-pyrazole-1-carbodithioic acid, D-00479
- 4,5-Dihydro-1H-pyrazole-3,4-dicarboxylic acid, D-00480
- ▶ 1,2-Dihydro-3,6-pyridazinedione, D-00481
- 1,4-Dihydro-4-(4(1H)-pyridinylidene)pyridine radical ion(1+), *see* P-00422
- 2,3-Dihydro-5-(2-pyridinyl)-1H-imidazole, D-00482
- 6-[4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00483
- 2-[4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]-4-methylpyridine, *see* D-00453

- [4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]pyrazine, D-00484
- 3-[4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]pyridazine, D-00485
- 4-[4,5-Dihydro-5-(2-pyridinyl)-1H-1,2,4-triazol-3-yl]pyrimidine, D-00486
- 4,5-Dihydro-3-(2-pyridyl)-5-methyl-1,2,4-triazole, *in* M-00329
- 4,5-Dihydro-5-(2-pyridyl)-3-(2-thiazolyl)-1H-1,2,4-triazole, D-00487
- 2-[4,5-Dihydro-3-(2-pyridyl)-1H-1,2,4-triazolyl]phenol, D-00488
- ▷ Dihydroquercetin, *see* P-00023
- ▷ 1,4-Dihydro-2,3-quinoxalinedithione, D-00489
- ▷ Dihydroresorcinol, *see* C-00338
- Dihydro-5-[3-(1,2,3,4-tetrahydro-6-hydroxy-4-oxo-5-pyrimidinyl)-2-propenylidene]-4,6(1H,5H)-pyrimidinedione, D-00490
- ▷ 6a,7-Dihydro-3,4,6a,10-tetrahydroxybenz[*b*]indeno[1,2-*d*]pyran, *see* H-00001
- 9,10-Dihydro-1,2,5,8-tetrahydroxy-9,10-dioxo-3-anthracenesulfonic acid, *see* T-00071
- 5,14-Dihydro-6,8,15,17-tetramethylbenzo[*b,f*][1,4,8,11]tetraazacyclotetradecine, D-00491
- 1,4-Dihydro-5H-tetrazole-5-thione, *see* T-00131
- 2-[4,5-Dihydro-3-(2-thiazolyl)-1H-1,2,4-triazol-5-yl]pyridine, *see* D-00487
- ▷ Dihydro-2-thioxo-4,6(1H,5H)-pyrimidinedione, D-00492
- Dihydro-2-thioxo-4,5,6(1H)-pyrimidinetrione 5-oxime, D-00493
- ▷ 2,3-Dihydro-2-thioxo-4(1H)-pyrimidinone, D-00494
- 5-[(4,5-Dihydro-5-thioxo-1,3,4-thiadiazol-2-yl)azo]-6-hydroxy-2-naphthalenesulfonic acid, D-00495
- ▷ 1,2-Dihydro-3H-1,2,4-triazole-3-thione, D-00496
- 6,7-Dihydrotribenzo[*e,i,m*][1,4,8,11]dioxadiazacyclotetradecine, D-00497
- 9,10-Dihydro-1,3,4-trihydroxy-9,10-dioxo-2-anthracenecarboxylic acid, *see* T-00272
- 9,10-Dihydro-1,3,4-trihydroxy-9,10-dioxo-2-anthraic acid, *see* T-00272
- 2,3-Dihydro-5,7,8-trihydroxy-2-phenyl-4H-1-benzopyran-4-one, *see* T-00282
- 2-[3-(1,3-Dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propenyl]-1,3,3-trimethyl-3H-indolium(1+), *see* A-00450
- 3,4-Dihydro-4,4,6-trimethyl-1-(4-methyl-2-nitrophenyl)-2(1H)-pyrimidinethione, D-00498
- 3,4-Dihydro-4,4,6-trimethyl-1-(4-nitrophenyl)-2(1H)-pyrimidinethione, D-00499
- 3,4-Dihydro-4,4,6-trimethyl-1-(phenylamino)-2(1H)-pyrimidinethione, D-00500
- ▷ 3,4-Dihydro-4,4,6-trimethyl-1-phenyl-2(1H)-pyrimidinethione, D-00501
- 3,4-Dihydro-4,4,6-trimethyl-1-(4-phenyl-2-thiazolyl)-2(1H)-pyrimidinethione, D-00502
- 3,4-Dihydro-4,4,6-trimethyl-1-propyl-2(1H)-pyrimidinethione, *in* D-00504
- 3,4-Dihydro-4,4,6-trimethyl-1-(2-pyridinyl)-2(1H)-pyrimidinethione, D-00503
- 3,4-Dihydro-4,4,6-trimethyl-2(1H)-pyrimidinethione, D-00504
- 3,4-Dihydro-4,4,6-trimethyl-1-(2,4,6-trichlorophenyl)-2(1H)-pyrimidinethione, D-00505
- 4,5-Dihydro-1,3,5-triphenyl-1H-pyrazole, D-00506
- ▷ 2',4'-Dihydroxyacetophenone, D-00507
- ▷ 2',5'-Dihydroxyacetophenone, D-00508
- 4,5-Dihydroxy-3-[4-(aminomethyl)phenylazo]-2,7-naphthalenedisulfonic acid *N,N*-diacetic acid, D-00509
- ▷ 1,2-Dihydroxy-9,10-anthracenedione, *see* D-00510
- ▷ 1,4-Dihydroxy-9,10-anthracenedione, *see* D-00511
- ▷ 1,8-Dihydroxy-9,10-anthracenedione, *see* D-00512
- ▷ 1,2-Dihydroxyanthraquinone, D-00510
- ▷ 1,4-Dihydroxyanthraquinone, D-00511
- ▷ 1,8-Dihydroxyanthraquinone, D-00512
- 1,5-Dihydroxyanthraquinone-2,6-disulfonic acid, D-00513
- 1,2-Dihydroxyanthraquinone-3-sulfonic acid, *see* A-00081
- 1,4-Dihydroxy-2-anthraquinonesulfonic acid, *see* Q-00006
- N*-(1,2-Dihydroxyanthraquinone-3-ylmethyl)monoaza-18-crown-6, *see* D-00682
- ▷ 3,4-Dihydroxyanthraquinone-2-ylmethylimino-*N,N*-diacetic acid, *see* A-00076
- N*-(1,2-Dihydroxyanthraquinone-3-ylmethyl)monoaza-15-crown-5, *see* D-00737
- 2,2'-Dihydroxyazobenzene, D-00514
- 3,4-Dihydroxyazobenzene, D-00515
- 4,4'-Dihydroxyazobenzene, D-00516
- 2',4'-Dihydroxyazobenzene-4-sulfonic acid, *see* D-00688
- 1',2-Dihydroxy-1,2'-azonaphthalene-4-sulfonic acid, *see* S-00017
- 2,2'-Dihydroxy-1,1'-azonaphthalene-4-sulfonic acid, *see* E-00010
- 2,2'-Dihydroxy-1,1'-azonaphthalene-3,3',6,6'-tetrasulfonic acid, *see* A-00469
- 1',8'-Dihydroxy-1,2'-azonaphthalene-3',4,6'-trisulfonic acid, *see* D-00733
- 1',8'-Dihydroxy-1,2'-azonaphthalene-3',5,6'-trisulfonic acid, *see* D-00734
- 1,8-Dihydroxy-2,2'-azonaphthalene-3,6,6'-trisulfonic acid, *see* D-00735
- 2,2'-Dihydroxy-1,1'-azonaphthalene-3,4',6-trisulfonic acid, *see* H-00371
- 2,2'-Dihydroxy-1,1'-azonaphthalene-3,6,6'-trisulfonic acid, *see* H-00243
- 2,4-Dihydroxybenzaldehyde, D-00517
- 2,5-Dihydroxybenzaldehyde, D-00518
- ▷ 3,4-Dihydroxybenzaldehyde, D-00519
- 2,4-Dihydroxybenzaldehyde 2-aminobenzoylhydrazone, *see* A-00107
- 2,4-Dihydroxybenzaldehyde benzoylhydrazone, *see* B-00061
- 2,4-Dihydroxybenzaldehyde guanlylhydrazone, D-00520
- 3,4-Dihydroxybenzaldehyde guanlylhydrazone, *see* D-00712
- 2,3-Dihydroxybenzaldehyde 2-hydroxyanil, *see* D-00541
- 2,4-Dihydroxybenzaldehyde 2-hydroxyanil, *see* D-00542
- 2,5-Dihydroxybenzaldehyde 2-hydroxyanil, *see* D-00543
- 2,4-Dihydroxybenzaldehyde 2-hydroxybenzoylhydrazone, *see* H-00116
- 2,4-Dihydroxybenzaldehyde 4-methoxybenzoylhydrazone, *see* M-00080
- 2,4-Dihydroxybenzaldehyde oxaloylhydrazone, *see* E-00025
- 2,3-Dihydroxybenzaldehyde 2-pyridinecarbonylhydrazone, *see* H-00087
- 2,4-Dihydroxybenzaldehyde 4-pyridinylcarbonylhydrazone, *see* P-00345
- 2,3-Dihydroxybenzaldehyde salicyloylhydrazone, *see* H-00115
- N*,2-Dihydroxybenzamide, *in* H-00112
- ▷ 1,2-Dihydroxybenzene, *see* B-00020
- ▷ 1,3-Dihydroxybenzene, *see* B-00021
- ▷ 1,4-Dihydroxybenzene, *see* B-00022
- α ,*N*-Dihydroxybenzeneacetamide, D-00521
- ▷ 3,4-Dihydroxybenzeneacetic acid, *see* D-00687
- 2,4-Dihydroxybenzenecarbothioic acid, D-00522
- 2,4-Dihydroxybenzenecarbothioic acid, D-00523
- N*,2-Dihydroxybenzenecarboximidamide, *in* H-00112
- 3,6-Dihydroxy-1,2-benzenedicarbonitrile, *in* D-00525
- 4,5-Dihydroxy-1,3-benzenedicarboxaldehyde, D-00524
- N,N'*-Dihydroxybenzenedicarboxamide, *in* B-00019
- 3,6-Dihydroxy-1,2-benzenedicarboxylic acid, D-00525
- 2,5-Dihydroxy-1,4-benzenedisulfonic acid, D-00526
- 4,5-Dihydroxy-1,3-benzenedisulfonic acid, *see* T-00186
- 3,4-Dihydroxybenzenesulfonic acid, D-00527
- ▷ 3,3'-Dihydroxybenzidine, *see* D-00056
- 3,3'-Dihydroxybenzidine-*N,N,N',N'*-tetraacetic acid, D-00528
- 2,2-Dihydroxy-1H-benz[*f*]indene-1,3(2H)dione, D-00529
- 6,7-Dihydroxy-3(2H)-benzofuranone, D-00530
- ▷ 2,4-Dihydroxybenzoic acid, D-00531
- ▷ 2,5-Dihydroxybenzoic acid, D-00532
- 2,6-Dihydroxybenzoic acid, D-00533
- ▷ 3,5-Dihydroxybenzoic acid, D-00534
- 2,2'-Dihydroxybenzophenone, D-00535
- ▷ 2,4-Dihydroxybenzophenone, D-00536
- 4,5-Dihydroxy-2H-1-benzopyran-2-one, D-00537
- ▷ 6,7-Dihydroxy-2H-1-benzopyran-2-one, D-00538
- 7,8-Dihydroxy-2H-1-benzopyran-2-one, D-00539
- 2,5-Dihydroxy-1,4-benzoquinone, D-00540
- 3',4'-Dihydroxybenzotropolone, *see* T-00275
- N*-(2,3-Dihydroxybenzylidene)-2-hydroxyaniline, D-00541
- N*-(2,4-Dihydroxybenzylidene)-2-hydroxyaniline, D-00542
- N*-(2,5-Dihydroxybenzylidene)-2-hydroxyaniline, D-00543
- 2,2'-Dihydroxy[2,2'-biindan]-1,1',3,3'-tetrone, *see* H-00088
- 2,2'-Dihydroxy[2,2'-bi-1H-indene]-1,1',3,3'(2H,2'H)-tetrone, *see* H-00088
- 2,2'-Dihydroxy-1,1'-binaphthyl, D-00544
- ▷ 4,4'-Dihydroxybiphenyl, *see* B-00208
- 4,4'-Dihydroxy-2,2'-biquinoline, D-00545
- 8,8'-Dihydroxy-5,5'-biquinoline, D-00546
- 8,8'-Dihydroxy-2,5'-biquinolylethene, *see* H-00534
- 8,8'-Dihydroxy-5,5'-biquinolylmethane, *see* M-00174
- 4,5-Dihydroxy-3-[*N,N*-bis(carboxymethyl)aminomethyl]-2,7-naphthalenedisulfonic acid, D-00547
- 4,5-Dihydroxy-3,6-bis(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00548
- 4,5-Dihydroxy-3,6-bis(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00549
- 4,5-Dihydroxy-3,6-bis(2-hydroxy-3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00550
- 4,5-Dihydroxy-3,6-bis(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, *see* S-00054
- 4,5-Dihydroxy-3,6-bis(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00551
- 4,5-Dihydroxy-3,6-bis[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00552
- 4,5-Dihydroxy-3,6-bis(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00553
- 4,5-Dihydroxy-3,6-bis[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* D-00552
- 4,5-Dihydroxy-3,6-bis[(*o*-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* D-00551
- 4,5-Dihydroxy-3,6-bis[(4-methyl-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00554
- 2,4-Dihydroxy-3,5-bis[(4-nitrophenyl)azo]benzenesulfonic acid, D-00555
- 4,5-Dihydroxy-3,6-bis[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00556
- 4,5-Dihydroxy-3,6-bis[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00557

- 4,5-Dihydroxy-3,6-bis[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00558
- [[1,8-Dihydroxy-3,6-bis[(phenylamino)sulfonyl]-2,7-naphthalenediyl]bis[azo(5-chloro-2,1-phenylene)]]diphosphonic acid, *in* C-00242
- [[1,8-Dihydroxy-3,6-bis[(phenylamino)sulfonyl]-2,7-naphthalenediyl]bis(azo-2,1-phenylene)]bisarsonic acid, *see* A-00407
- 4,5-Dihydroxy-3,6-bis(phenylazo)-2,7-naphthalenedisulfonic acid, D-00559
- 6,6'-[[1,8-Dihydroxy-3,6-bis(phenylsulfamoyl)-2,7-naphthylene]bis(azo)]di-*m*-toluenesulfonic acid, *see* D-00918
- 4,5-Dihydroxy-3,6-bis[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00560
- 4,5-Dihydroxy-3,6-bis(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00561
- 4,5-Dihydroxy-3,6-bis[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00562
- 4,5-Dihydroxy-3,6-bis[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00563
- 4,5-Dihydroxy-3,6-bis[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00564
- 4,5-Dihydroxy-3,6-bis[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00565
- 4,5-Dihydroxy-3,6-bis(*p*-tolylazo)-2,7-naphthalenedisulfonic acid, D-00566
- 2,3-Dihydroxybutanedioic acid, *see* T-00002
- 2,3-Dihydroxy-1,4-butanedithiol, *see* D-00752
- Dihydroxybutenedioic acid, D-00567
- 2,4-Dihydroxybutyropenone, *see* D-00707
- 2-[[1,8-Dihydroxy-7-[(5-chloro-3-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00568
- ▷ 3,4-Dihydroxycinnamic acid, *see* D-00716
- 6,7-Dihydroxy-3-coumaranone, *see* D-00530
- 4,5-Dihydroxycoumarin, *see* D-00537
- 6,7-Dihydroxycoumarin, *see* D-00538
- 7,8-Dihydroxycoumarin, *see* D-00539
- ▷ 1,2-Dihydroxycyclobutenedione, *see* D-00569
- ▷ 3,4-Dihydroxy-3-cyclobutene-1,2-dione, D-00569
- 2,5-Dihydroxy-2,5-cyclohexadiene-1,4-dione, *see* D-00540
- 5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone, D-00570
- 2-(2,4-Dihydroxy-5-cyclohexylphenylazo)pyridine, *see* C-00358
- 4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571
- 4,4'-Dihydroxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00572
- 4,4'-Dihydroxydibenzensulfonamide, *see* D-00586
- p,p'*-Dihydroxydicinammoylmethane, *in* C-00323
- 4,5-Dihydroxy-3,6-diimino-1,2-benzoquinone, D-00573
- 3',6'-Dihydroxy-4',5'-diiodospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* E-00021
- 2,5-Dihydroxy-3,6-dimethoxy-1,4-benzoquinone, *in* T-00072
- 2,5-Dihydroxy-3,6-dimethoxy-2,5-cyclohexadiene-1,4-dione, *in* T-00072
- 2,2'-Dihydroxy-4,4'-dimethylazobenzene, D-00574
- 5,7-Dihydroxy-2,6-dimethyl-4*H*-1-benzopyran-4-one, D-00575
- 6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+), D-00576
- 7,8-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+), D-00577
- N,N'*-Dihydroxy-2,3-dimethyl-2,3-butanediamine, D-00578
- 5,7-Dihydroxy-2,6-dimethylchromone, *see* D-00575
- 4,5-Dihydroxy-3-[4,5-(dimethyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00579
- 2,2'-Dihydroxy-6,6'-dinaphthyl disulfide, *see* D-01119
- 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00580
- 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00581
- ▷ 1,8-Dihydroxy-2,4-dinitronaphthalene, D-00582
- 4,5-Dihydroxy-3,6-dinitroso-2,7-naphthalenedisulfonic acid, D-00583
- 6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+), D-00584
- 7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+), D-00585
- 4,4'-Dihydroxydiphenyl disulfide-3,3'-dicarboxylic acid, *see* T-00158
- 4,4'-Dihydroxydiphenyl disulfimide, D-00586
- N,N'*-Dihydroxy-*N,N'*-diphenylheptanamide, D-00587
- 3,3'-Dihydroxydipropyl sulfide, *in* M-00053
- Dihydroxydiquinone, *see* D-00570
- ▷ *o*-(1,8-Dihydroxy-3,6-disulfonaphthalene-2,7-bisazo)bisbenzenearsonic acid, *see* A-00412
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-chlorosalicylic acid], D-00588
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[2-hydroxy-5-sulfobenzoic acid], D-00589
- 2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfobenzoic acid], D-00590
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfosalicylic acid], *see* D-00589
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bis[4-arsonobenzoic acid], D-00591
- 2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, D-00592
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, D-00593
- 4,4'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, *see* C-00028
- 2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, *see* C-00291
- 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00594
- 4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00595
- 5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]]1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid, D-00596
- 5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid, D-00597
- 4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-hydroxybenzoic acid, D-00598
- 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-hydroxy-5-sulfobenzoic acid, *see* C-00276
- [2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]-2-hydroxyacetic acid, D-00599
- 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-pyridinecarboxylic acid, D-00600
- ▷ *O*-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)benzenearsonic acid, *see* A-00410
- 6'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]-1-methylanabasine, *see* D-00655
- 2-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenoxyacetic acid, D-00601
- [*o*-(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]acetic acid, D-00602
- [*o*-(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]glyoxylic acid, *see* D-00603
- [2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]mandelic acid, *see* D-00599
- 2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenyl]-2-oxoacetic acid, D-00603
- 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]picolinic acid, *see* D-00600
- [(1,8-Dihydroxy-3,6-disulfo-2,7-naphthylene)bis(azo-*o*-phenylenemethylenenitrilo)]tetraacetic acid, *see* A-00235
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-nitro-5-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00604
- 4,5-Dihydroxy-3-[(2,4-disulfofenyl)azo]-6-[(4-nitro-2-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, D-00605
- 2-[[[1,8-Dihydroxy-3,6-disulfo-7-[(4-phenylazo)phenyl]azo]-2-naphthyl]azo]-5-sulfobenzoic acid, D-00606
- 4,5-Dihydroxy-3-[(2,4-disulfofenyl)azo]-6-[(2-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, D-00607
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(2-sulfofenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00608
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-sulfofenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00609
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfofenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00610
- 3-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfofenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00611
- 2,4-Dihydroxydithiobenzoic acid, *see* D-00522
- 2,4-Dihydroxydithiobenzoic acid *S*-propyl ether, *see* P-00276
- ▷ *N,N'*-Dihydroxyethanediamide, *see* O-00049
- N,N'*-Dihydroxyethanediimidamide, *in* O-00048
- 5,7-Dihydroxyflavone, D-00612
- 4',7-Dihydroxyflavonol, *see* T-00283
- ▷ 5,7-Dihydroxyflavonol, *in* D-00284
- 2',7-Dihydroxyfluorescein, D-00613
- 4,5-Dihydroxyfluorescein, *see* G-00004
- ▷ Dihydroxyfumaric acid, *in* D-00567
- ▷ Dihydroxyglyoxime, *see* O-00049
- 2,4-Dihydroxy-*N*-(2-hydroxybenzylidene)aniline, D-00614
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00615
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitro-3-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, D-00616
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, D-00617
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00618
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(3-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, *see* P-00233
- 4,5-Dihydroxy-3-[(8-hydroxy-3,6-disulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, *see* B-00199
- 3,5-Dihydroxy-4-[(8-hydroxy-3,6-disulfo-1-naphthalenyl)-2,7-naphthalenedisulfonic acid], *see* C-00012
- 4,5-Dihydroxy-3-[[2-hydroxy(2-methylphenyl)phosphinyl]phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00619
- 4,5-Dihydroxy-3-[(2-hydroxy-4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, *see* E-00016
- 4,5-Dihydroxy-3-[(2-hydroxy-4-nitrophenyl)azo]-6-[(3-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, D-00620

- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00621
- 2-[[1,8-Dihydroxy-7-(2-hydroxy-5-nitro-3-sulfophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, *see* S-00051
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-[(3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00622
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00623
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, *see* S-00052
- 4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00624
- 4,5-Dihydroxy-3-[[4-(hydroxyphenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00625
- 4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00626
- 3,7-Dihydroxy-2-(4-hydroxyphenyl)-4*H*-1-benzopyran-4-one, *see* T-00283
- ▷ 5,7-Dihydroxy-2-(4-hydroxyphenyl)-4*H*-1-benzopyran-4-one, *see* T-00285
- 6,7-Dihydroxy-2-(3-hydroxyphenyl)-4-methyl-1-benzopyrylium (1+), D-00627
- 6,7-Dihydroxy-9-(2-hydroxyphenyl)-3*H*-xanthen-3-one, D-00628
- 1,2-Dihydroxy-3-[5-(8-hydroxyquinolinyl)azo]anthraquinone, D-00629
- o*-[[1,8-Dihydroxy-7-(2-hydroxy-5-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00630
- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00631
- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, *see* A-00053
- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00632
- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00633
- 2,6-Dihydroxyimino-3-methylenepiperidine, *in* M-00178
- 3,4-Dihydroxy-10-imino-9(10*H*)-anthracenone, D-00634
- ▷ 2,2-Dihydroxy-1,3-indanedione, *see* N-00071
- ▷ 2,2-Dihydroxy-1*H*-indene-1,3(2*H*)-dione, *see* N-00071
- 4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00635
- 4,7-Dihydroxy-1*H*-isoindole-1,3 (2*H*)-dione, D-00636
- ▷ 2,6-Dihydroxyisonicotinic acid, *see* D-00721
- 4,5-Dihydroxyisophthalaldehyde, *see* D-00524
- N,N'*-Dihydroxyisophthalamide, *in* B-00019
- 6,7-Dihydroxy-1-isoquinolinecarboxylic acid, D-00637
- 3',6'-Dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, D-00638
- Dihydroxymaleic acid, *in* D-00567
- Dihydroxymalonaldehyde, *in* O-00070
- 3,5-Dihydroxy-6-mercapto-1,2,4-triazine, D-00639
- 2,4'-Dihydroxy-3'-methoxyacetophenone, *in* T-00268
- 2,4-Dihydroxy-1-methoxyanthraquinone, *in* T-00270
- ▷ 3,4-Dihydroxy-5-methoxybenzaldehyde, *in* T-00273
- 3,5-Dihydroxy-4-methoxybenzaldehyde, *in* T-00273
- 2,3-Dihydroxy-4-methoxybenzophenone, *in* T-00278
- 2,4-Dihydroxy-4'-methoxybenzophenone, *in* T-00279
- 2,4'-Dihydroxy-4-methoxybenzophenone, *in* T-00279
- 4',5-Dihydroxy-7-methoxyflavone, D-00640
- ▷ 5,7-Dihydroxy-4'-methoxyflavone, D-00641
- ▷ 3,4-Dihydroxy-5-methoxy-1(2*H*)-naphthalenone, *in* D-00413
- 2-[[1,8-Dihydroxy-7-[(4-methoxyphenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00642
- 4,5-Dihydroxy-3-[(2-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00643
- ▷ 5,7-Dihydroxy-2-(4-methoxyphenyl)-4*H*-1-benzopyran-4-one, *see* D-00641
- ▷ 3,4-Dihydroxy- α -[(methylamino)methyl]benzyl alcohol, *see* A-00066
- 3,5-Dihydroxy-2-methyl-4*H*-1-benzopyran-4-one, D-00644
- 5,7-Dihydroxy-2-methyl-4*H*-1-benzopyran-4-one, D-00645
- 5,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00646
- 6,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00647
- ▷ 7,8-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00648
- Dihydroxy(methyl)borane, D-00649
- 2',4'-Dihydroxy-5'-methylchalcone, *see* H-00311
- 5,7-Dihydroxy-2-methylchromone, *see* D-00645
- 5,7-Dihydroxy-4-methylcoumarin, *see* D-00646
- 6,7-Dihydroxy-4-methylcoumarin, *see* D-00647
- ▷ 7,8-Dihydroxy-4-methylcoumarin, *see* D-00648
- 2,4-Dihydroxy-6-methyl-4'-nitroazobenzene, D-00650
- 2-[[1,8-Dihydroxy-7-[(3-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00651
- 2-[[1,8-Dihydroxy-7-[(4-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00652
- 2-[(3,5-Dihydroxy-2-methylphenyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00653
- 2-(2,4-Dihydroxy-3-methylphenylazo)-4-methylthiazole, *see* M-00202
- 4,5-Dihydroxy-3-(3-methylphenylazo)-6-phenylazo-2,7-naphthalenedisulfonic acid, D-00654
- 2-(2,4-Dihydroxy-3-methylphenylazo)pyridine, *see* M-00278
- 2-(2,4-Dihydroxy-6-methylphenylazo)pyridine, *see* M-00280
- 2-(2,4-Dihydroxy-6-methylphenylazo)thiazole, *see* M-00321
- 3-(2,4-Dihydroxy-3-methylphenylazo)-1,2,4-triazole, *see* M-00328
- 4,5-Dihydroxy-3-[(5-(1-methyl-2-piperidinyl)-2-pyridyl)azo]-2,7-naphthalenedisulfonic acid, D-00655
- 6,7-Dihydroxy-4-methyl-2-(3-sulfophenyl)-1-benzopyrylium (1+), D-00656
- 2,2'-Dihydroxy-5-methyl-3,3',5'-trinitroazobenzene, *see* H-00293
- ▷ 1,2-Dihydroxynaphthalene, *see* N-00007
- ▷ 1,3-Dihydroxynaphthalene, *see* N-00008
- 1,8-Dihydroxynaphthalene, *see* N-00009
- ▷ 2,3-Dihydroxynaphthalene, *see* N-00010
- ▷ 2,7-Dihydroxynaphthalene, *see* N-00011
- 4,5-Dihydroxy-2,7-naphthalenedisulfonic acid, *see* C-00294
- 4,5-Dihydroxy-1-naphthalenesulfonic acid, D-00657
- 6,7-Dihydroxy-2-naphthalenesulfonic acid, D-00658
- 4-[(1,7-Dihydroxy-2-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00659
- 3-[(1,5-Dihydroxy-2-naphthalenyl)azo]-4-hydroxybenzenesulfonic acid, *see* S-00018
- 4-[(2,3-Dihydroxy-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00660
- peri*-Dihydroxynaphthindenone, *see* D-00684
- 5,6-Dihydroxynaphtho[2,3-*f*]quinoline-7,12-dione, D-00661
- 6'-[[2,7-Dihydroxy-1-naphthyl]azo]-1-methylanabasine, *see* D-00662
- 2-[(2,7-Dihydroxy-1-naphthyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00662
- [(2,6-Dihydroxy-1,5-naphthylene)bis(methylenenitrilo)]tetraacetic acid, *see* B-00247
- 1,2-Dihydroxy-3-nitro-9,10-anthracenedione, *see* A-00080
- 1,2-Dihydroxy-3-nitroanthraquinone, *see* A-00080
- 2,4-Dihydroxy-4'-nitroazobenzene, *see* N-00123
- 3,4-Dihydroxy-4'-nitroazobenzene, *see* N-00122
- 2,2'-Dihydroxy-6-nitro-1,1'-azonaphthalene-4-sulfonic acid, *see* H-00224
- 1,2-Dihydroxy-4-nitrobenzene, *see* N-00087
- 2-[[1,8-Dihydroxy-7-[(2-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00663
- 2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00664
- 4,5-Dihydroxy-3-[(2-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00665
- 4,5-Dihydroxy-3-[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00666
- 4,5-Dihydroxy-3-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, *see* C-00290
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00667
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00668
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-[(*p*-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00669
- 2-[(2,4-Dihydroxy-3-nitrophenyl)azo]-5-thiazolesulfonic acid, *see* S-00057
- ▷ Dihydroxy(3-nitrophenyl)borane, D-00670
- 4,5-Dihydroxy-3-[(4-nitro-2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00671
- ▷ 1,3-Dihydroxy-4-nitrosobenzene, *see* N-00156
- 4,5-Dihydroxy-3-nitroso-2,7-naphthalenedisulfonic acid, D-00672
- 4,6-Dihydroxy-5-nitrosocotinic acid, *see* D-00674
- 2,4-Dihydroxy-3-nitrosopyridine, *see* H-00419
- 2,6-Dihydroxy-3-nitrosopyridine, D-00673
- 4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid, D-00674
- 2,4-Dihydroxy-3-nitrosoquinoline, D-00675
- 4,5-Dihydroxy-3-nitroso-6-[[4-sulfo-1-naphthalenyl]azo]-2,7-naphthalenedisulfonic acid, D-00676
- 4,5-Dihydroxy-3-[(5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00677
- 4,5-Dihydroxy-3-[(4-nitro-2-sulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00678
- 4,5-Dihydroxy-3-[(5-nitro-3-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00679
- 2,4-Dihydroxy-5-[[5-nitro-2-thiazolyl]azo]benzoic acid, D-00680
- ▷ *N,N'*-Dihydroxoxamide, *see* O-00049
- N,N'*-[(3',6'-Dihydroxy-3-oxospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-2',7'-diyl)bis(methylene)]bis[*N*-(carboxymethyl)glycine], *see* C-00010

- N,N*-[(3',6'-Dihydroxy-3-oxospiro[isobenzofuran-1-(3*H*),9'-[9*H*]xanthen]-2',7'-diyl)bis(methylene)]bis(*N*-methylglycine), see M-00152
- N*-(3',6'-Dihydroxy-3-oxospiro[isobenzofuran-1(3*H*),9'[9*H*]xanthen]-5-yl)-2-iodoacetamide, D-00681
- 1,2-Dihydroxy-3-(1,4,7,10,13-pentaoxa-16-azacyclooctadecylmethyl)-9,10-anthracenedione, D-00682
- 3,4-Dihydroxyphenacyl alcohol, see T-00268
- 2,4-Dihydroxyphenacyl bromide, see B-00501
- 2,5-Dihydroxyphenacyl bromide, see B-00502
- 2,2-Dihydroxy-1*H*-phenalene-1,3(2*H*)-dione, D-00683
- 2,3-Dihydroxy-1*H*-phenalene-1-one, D-00684
- 4,7-Dihydroxy-1,10-phenanthroline, D-00685
- 5,6-Dihydroxy-1,10-phenanthroline, D-00686
- ▶ (3,4-Dihydroxyphenyl)acetic acid, D-00687
- 1,8-Dihydroxy-2-(1-phenyl-4-antipyrilazo)-3,6-naphthalenedisulfonic acid, see D-00382
- 4-[(2,4-Dihydroxyphenyl)azo]benzenesulfonic acid, D-00688
- 2-[(3,4-Dihydroxyphenyl)azo]benzoic acid, D-00689
- 2-(3,4-Dihydroxyphenylazo)benzothiazole, see B-00091
- 2-[(3,4-Dihydroxyphenyl)azo]-4-(4-carboxyphenyl)-5-thiazolecarboxylic acid, D-00690
- 2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxycarbonylthiophene, in C-00326
- 4-[(2,4-Dihydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00691
- 1-(3',4'-Dihydroxyphenyl)azo-2,4-dinitrobenzene, see D-00963
- 2-[[1,8-Dihydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00692
- 3-[(2,4-Dihydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00693
- 3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl, see H-00133
- 3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl, D-00694
- 4-(3,4-Dihydroxyphenylazo)-4'-hydroxybiphenyl, D-00695
- 2-(3,4-Dihydroxyphenylazo)-4-hydroxymethylthiazole, see H-00328
- 2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid, D-00696
- 4-[(2,4-Dihydroxyphenyl)azo]-5-hydroxy-2,7-naphthalenedisulfonic acid, see R-00001
- 4-[(2,4-Dihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00697
- 3-[2,4-Dihydroxyphenylazo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00698
- 2-[(2,4-Dihydroxyphenyl)azo]-1-methylanabasine, see M-00249
- 6'-[(2,5-Dihydroxyphenyl)azo]-1-methylanabasine, see M-00247
- 4-(2,5-Dihydroxyphenylazo)-5-methylimidazole, see M-00191
- 2-(2,4-Dihydroxyphenylazo)-5-(1-methyl-2-piperidinyl)pyridine, see M-00249
- 2-[(2,5-Dihydroxyphenyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, see M-00247
- 4-(2,4-Dihydroxyphenylazo)-3-(1-methyl-2-piperidinyl)pyridine, see M-00248
- 2-(2,4-Dihydroxyphenylazo)-4-methylthiazole, see M-00319
- 2-(2,4-Dihydroxyphenylazo)-5-methylthiazole, see M-00320
- 2-(2,5-Dihydroxyphenylazo)-4-methylthiazole, see M-00318
- N*,3-Dihydroxy-4-(phenylazo)-2-naphthalenecarboxamide, in H-00452
- 4,5-Dihydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid, see C-00293
- 1-(2,4-Dihydroxyphenylazo)-2-naphthol-4-sulfonic acid, see D-00697
- 2-(2,4-Dihydroxyphenylazo)-5-nitrothiazole, see N-00165
- 2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole, D-00699
- [2-[(Dihydroxyphenyl)azo]phenyl]phosphonic acid, see A-00475
- 4-[2-[(3,4-Dihydroxyphenyl)azo]-5-phenyl-4-thiazolyl]benzoic acid, D-00700
- 2-[(3,4-Dihydroxyphenyl)azo]-4-phenyl-5-thiazolylphenyl ketone, see D-00699
- 2-(2,4-Dihydroxyphenylazo)pyridine, see P-00373
- 4,5-Dihydroxy-3-(phenylazo)-6-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, D-00701
- 4,5-Dihydroxy-3-(phenylazo)-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, see O-00047
- 4,5-Dihydroxy-3-(phenylazo)-6-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00702
- 2-(2,4-Dihydroxyphenylazo)-1,3,4-thiadiazole, D-00703
- 5-[(2,4-Dihydroxyphenyl)azo]-1,3,4-thiadiazole-2(3*H*)-thione, see M-00028
- 2-(2,4-Dihydroxyphenylazo)thiazole, see T-00141
- 2-(2,5-Dihydroxyphenylazo)thiazole, see T-00139
- 4,5-Dihydroxy-3-(phenylazo)-6-(*p*-tolylazo)-2,7-naphthalenedisulfonic acid, see D-00654
- N*,4-Dihydroxy-*N*-phenylbenzamide, D-00704
- 5,7-Dihydroxy-2-phenyl-4*H*-1-benzopyran-4-one, see D-00612
- 6,7-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, see D-00708
- 7,8-Dihydroxy-3-phenyl-2*H*-1-benzopyran-2-one, D-00705
- 7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
- ▶ Dihydroxy(phenyl)borane, see P-00112
- 1-(2,4-Dihydroxyphenyl)-1-butanone, D-00707
- 6,7-Dihydroxyphenylchromenol, see D-00584
- 6,7-Dihydroxy-4-phenylcoumarin, D-00708
- 7,8-Dihydroxy-3-phenylcoumarin, see D-00705
- 7,8-Dihydroxy-4-phenylcoumarin, see D-00706
- 15,16-Dihydroxy-7-phenyl-5*H*-dibenzo[*b,f*]1,11,4,5,7,8]dioxatetraazacyclotridecine, D-00709
- ▶ 2-(3,4-Dihydroxyphenyl)-3,7-dihydroxy-4*H*-1-benzopyran-4-one, see T-00075
- ▶ 2-(3,4-Dihydroxyphenyl)-5,7-dihydroxy-4*H*-1-benzopyran-4-one, see T-00077
- ▶ 2-(3,4-Dihydroxyphenyl)-3,5-dihydroxy-7-methoxy-4*H*-1-benzopyran-4-one, see T-00078
- 3-(2,4-Dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00710
- 3-(2',4'-Dihydroxyphenyl)-4,5-dimethoxyphthalide, see D-00710
- 4,5-Dihydroxy- α -phenylenediamine, see D-00049
- ▶ 1-(2,4-Dihydroxyphenyl)ethanone, see D-00507
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- ▶ 1-(2,4-Dihydroxyphenyl)hexane, see H-00071
- 1-(3,4-Dihydroxyphenyl)-2-hydroxyethanone, see T-00268
- (2,4-Dihydroxyphenyl)(4-hydroxyphenyl)methanone, see T-00279
- Di(*o*-hydroxyphenylimino)ethane, see G-00027
- 2-[[[(2,4-Dihydroxyphenyl)imino]methyl]phenol, see D-00614
- ▶ 1-(3,4-Dihydroxyphenyl)-2-methylaminoethanol, see A-00066
- 4,5-Dihydroxy-3-phenylmethyl-2*H*-1-benzopyran-2-one, see B-00177
- 4-[[[(2,4-Dihydroxyphenyl)methylene]amino]-5-hydroxy-2,7-naphthalenedisulfonic acid, see A-00473
- [2-[(2,4-Dihydroxyphenyl)methylene]amino]phenyl]arsonic acid, D-00711
- 2-[(2,4-Dihydroxyphenyl)methylene]hydrazinecarboximidamide, see D-00520
- 2-[(3,4-Dihydroxyphenyl)methylene]hydrazinecarboximidamide, D-00712
- [(2,4-Dihydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, D-00713
- 1-(2,4-Dihydroxyphenyl)-1-pentanone, D-00714
- ▶ (2,4-Dihydroxyphenyl)phenylmethanone, see D-00536
- 1-(2,4-Dihydroxyphenyl)-1-propanone, D-00715
- ▶ 3-(3,4-Dihydroxyphenyl)-2-propenoic acid, D-00716
- 2-(3,4-Dihydroxyphenyl)-3,5,6,7-tetrahydroxy-4*H*-1-benzopyran-4-one, D-00717
- 2-(3,4-Dihydroxyphenyl)thiazole, see T-00140
- 4,5-Dihydroxy-3-[(4-phenyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00718
- ▶ 2-(2,4-Dihydroxyphenyl)-3,5,7-trihydroxy-4*H*-1-benzopyran-4-one, see P-00024
- ▶ 2-(3,4-Dihydroxyphenyl)-3,5,7-trihydroxy-4*H*-1-benzopyran-4-one, see P-00025
- 9-(3,4-Dihydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00719
- 3,6-Dihydroxyphthalic acid, see D-00525
- 4,7-Dihydroxyphthalimide, see D-00636
- ▶ Dihydroxyphthalophenone, see P-00063
- β,β' -Dihydroxy-1,4-piperazinedipropanesulfonic acid, D-00720
- Dihydroxypropanedial, in O-00070
- 2',4'-Dihydroxypropiofenone, see D-00715
- 2,3-Dihydroxypyridine, in H-00521
- ▶ 2,6-Dihydroxy-4-pyridinecarboxylic acid, D-00721
- 1,3-Dihydroxy-2(1*H*)-pyridinone, in H-00521
- 4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722
- 4,5-Dihydroxy-3-[(3-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00723
- 6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid, D-00724
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- 1-(2,4-Dihydroxy-5-pyrimidylazo)-2-naphthol, see H-00354
- 3,3-Dihydroxy-2,4(1*H*,3*H*)-quinolinedione, in Q-00022
- o*-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00726
- 8-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]-1,6-naphthalenedisulfonic acid, D-00727
- 4,5-Dihydroxy-3-(8-quinolylazo)-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00728
- 4,5-Dihydroxy-3-(8-quinolylazo)-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00729
- 1,9-Dihydroxyresorufin, see T-00308
- 2,4-Dihydroxy-*N*-sallyclideneaniline, see D-00614
- ▶ 3',6'-Dihydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]-xanthen]-3-one, see F-00020
- 4,4'-Dihydroxystilbene, D-00730
- 2,2'-Dihydroxy-4'-sulfo-1,1'-azonaphthalene-3-carboxylic acid, see H-00242
- 2,4-Dihydroxy-5-sulfobenzoic acid, D-00731
- 4-[(2,3-Dihydroxy-6-sulfo-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00732
- 4,5-Dihydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00733
- 4,5-Dihydroxy-3-[(5-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00734
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- 1-(2,3-Dihydroxy-6-sulfo-1-naphthylazo)-2-naphthol-3,6-disulfonic acid, see D-00732

- 4,5-Dihydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00736
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 ▶ 3',6'-Dihydroxy-2',4',5',7'-tetraiodospiro[isobenzofuran-1(3H),9'(9H)xanthen]-3-one, *see* E-00020
 1,2-Dihydroxy-3-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)-9,10-anthracenedione, D-00737
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 ▶ 3,5-Dihydroxytoluene, *see* M-00128
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 3,4-Dihydroxy-5-[(3,4,5-trihydroxybenzoyl)oxyl]benzoic acid, *see* D-00365
 4,5-Dihydroxy-2-(3,5,7-trihydroxy-4-oxo-4H-1-benzopyran-2-yl)benzenesulfonic acid, *see* P-00027
 ▶ 3,7-Dihydroxy-2-(3,4,5-trihydroxyphenyl)-4H-1-benzopyran-4-one, *see* P-00026
 ▶ 1,3-Dihydroxy-2,4,6-trinitrobenzene, *see* T-00350
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 3,6-Dimethoxy-1,2-benzenedicarboxylic acid, *in* D-00525
 2,5-Dimethoxybenzenemethanol, *see* D-00768
 ▶ 3,3'-Dimethoxybenzidine, *in* D-00056
 2,2'-Dimethoxybenzophenone, *in* D-00535
 2,4-Dimethoxybenzophenone, *in* D-00536
 2,5-Dimethoxy-1,4-benzoquinone, *in* D-00540
N-(3,5-Dimethoxybenzoyl)isoleucine, D-00767
 2,5-Dimethoxybenzyl alcohol, D-00768
 3,3'-Dimethoxy-[1,1'-binaphthalene]-4,4'-diamine, *see* D-00077
 2,2'-Dimethoxy-1,1'-binaphthyl, *in* D-00544
 4,4'-Dimethoxybiphenyl, *in* B-00208
 4,4'-[(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis-1,2-benzenediol, *see* B-00303
 3,3'-[(3,3'-Dimethoxy-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00769
 3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2,5-bis(4-nitrophenyl)-2H-tetrazolium](2+) 9Cl, D-00770
N,N'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[*N*-(carboxymethyl)glycine], *see* D-00078
 3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2,5-diphenyl-2H-tetrazolium](2+), *see* T-00132
 3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2-(3-nitrophenyl)-5-phenyl-2H-tetrazolium](2+), D-00771
 3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2-(4-nitrophenyl)-5-phenyl-2H-tetrazolium](2+), *see* N-00164
 2,2'-[(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, D-00772
 6,6'-Dimethoxy-3,3'-bipyridazine, D-00773
 3,4-Dimethoxycinnamic acid, *in* D-00716
 1,2-Dimethoxycyclobutenedione, *in* D-00569
 4,5-Dimethoxy-4-cyclopentene-1,2,3-trione, *in* D-00571
 4,4'-Dimethoxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, *in* D-00572
 ▶ 6,7-Dimethoxy-1-(3,4-dimethoxybenzyl)isoquinoline, *see* P-00005
 1,1-Dimethoxy-*N,N*-dimethylmethanamine, *see* D-00774
 1,1-Dimethoxy-*N,N*-dimethylmethanamine, D-00774
 1,2-Dimethoxy-3,4-dinitrobenzene, *in* D-00941
 1,2-Dimethoxy-3,5-dinitrobenzene, *in* D-00942
 1,3-Dimethoxy-2,4-dinitrobenzene, *in* D-00940
 1,8-Dimethoxy-2,4-dinitronaphthalene, *in* D-00582
 Dimethoxydiphenylmethane, *in* B-00069
 4,4'-Dimethoxydithione, D-00775
 ▶ 1,1-Dimethoxyethane, *in* A-00002
 2,2-Dimethoxy-1,3-indanedione, *in* N-00071
 6,7-Dimethoxy-1-isoquinolinecarboxylic acid, *in* D-00637
 Dimethoxy(4-methoxyphenyl)methane, *in* M-00075
 1,2-Dimethoxy-3-methylbenzene, *in* M-00127
 1,3-Dimethoxy-5-methylbenzene, *in* M-00128
 1,1'-(Dimethoxymethylene)bisbenzene, *in* B-00069
 1-(Dimethoxymethyl)-2-nitrobenzene, *in* N-00081
 1-(Dimethoxymethyl)-4-nitrobenzene, *in* N-00082
 1,2-Dimethoxynaphthalene, *in* N-00007
 1,8-Dimethoxynaphthalene, *in* N-00009
 2,3-Dimethoxynaphthalene, *in* N-00010
 2,7-Dimethoxynaphthalene, *in* N-00011
 3,3'-Dimethoxynaphthidine, *see* D-00077
 1,2-Dimethoxy-4-nitrobenzene, *in* N-00087
 2,4-Dimethoxy-1-nitrosobenzene, *in* N-00156
 2,5-Dimethoxyoxolane, *see* T-00059
 2,2-Dimethoxyoxepane, *in* P-00036
 2,5-Dimethoxyphenacyl bromide, *in* B-00502
 4,7-Dimethoxy-1,10-phenanthroline, *in* D-00685
 5,6-Dimethoxy-1,10-phenanthroline, *in* D-00686
 2,3-Dimethoxyphenol, *in* B-00034
 ▶ 2,6-Dimethoxyphenol, *in* B-00034
 ▶ (3,4-Dimethoxyphenyl)acetic acid, *in* D-00687
 ▶ 3,4-Dimethoxyphenylacetonitrile, *in* D-00687

- α -(2,4-Dimethoxyphenyl)-2,4-dimethoxy- α -(2-methoxyphenyl)benzenemethanol, *see* P-00028
- 2,2-Dimethoxy-1-phenylethanone, *in* P-00132
- 3-(3,4-Dimethoxyphenyl)-2-propenoic acid, *in* D-00716
- 3,6-Dimethoxyphthalic acid, *in* D-00525
- 1,1-Dimethoxypropane, *in* P-00259
- 2,2-Dimethoxypropane, *in* A-00007
- 1,3-Dimethoxy-2-propanol, *in* G-00015
- 2,3-Dimethoxy-1-propanol, *in* G-00015
- 2-[[4-(2,3-Dimethoxypropyl)methylamino]phenyl]azo]-6-methoxy-3-methylbenzothiazolium(1+), *see* M-00009
- 2,3-Dimethoxy-pyridine, *in* H-00521
- N*-(2,6-Dimethoxy-4-pyrimidinyl)-4-[[2-(hydroxyphenyl)methylene]amino]benzenesulfonamide, D-00776
- 4,4'-Dimethoxystilbene, *in* D-00730
- Di(*o*-methoxy)stilbenzo-24-crown-8, *see* T-00087
- ▷ 2,3-Dimethoxystrychnidin-10-one, *see* B-00584
- ▷ 10,11-Dimethoxystrychnine, *see* B-00584
- 2,5-Dimethoxytetrahydrofuran, *see* T-00059
- 6,7-Dimethoxy-3-(5,6,7,8-tetrahydro-4-methoxy-6-methyl-1,3-dioxolo[4,5-*g*]isoquinolin-5-yl)-1(3*H*)-isobenzofuranone, *see* N-00060
- 2,3-Dimethoxytoluene, *in* M-00127
- 3,5-Dimethoxytoluene, *in* M-00128
- 1,1-Dimethoxytrimethylamine, *see* D-00774
- 1,3-Dimethoxyxanthone, *in* D-00741
- 3,6-Dimethoxyxanthone, *in* D-00742
- ▷ 2,7-Dimethyl-3,6-acridinediamine, *see* D-00079
- ▷ Dimethylamine, D-00777
- ▷ 4-(Dimethylamino)aniline, *in* D-00048
- 2-Dimethylaminoanisole, *in* A-00300
- ▷ 4-(Dimethylamino)antipyrine, *see* A-00339
- ▷ 4-Dimethylaminoazobenzene, D-00778
- ▷ 4'-Dimethylamino-2-azobenzenecarboxylic acid, *see* M-00309
- 4-(Dimethylamino)azobenzene-4-isothiocyanate, *see* I-00098
- 4'-Dimethylaminoazobenzene-4-sulfonyl chloride, *in* M-00210
- ▷ 4-(Dimethylamino)benzaldehyde, D-00779
- p*-Dimethylaminobenzaldehyde isonicotinoylhydrazone, *see* P-00346
- 2-(Dimethylamino)benzenesulfonic acid, *in* A-00099
- 2-(Dimethylamino)benzoic acid hydrazide, D-00780
- 9-(Dimethylamino)benzo[*a*]phenoxazin-7-ium(1+), *see* M-00011
- 9-(Dimethylamino)benzo[*a*]phenoxazin-7-ium-2,5-disulfonic acid(1+), D-00781
- 9-(Dimethylamino)benzo[*a*]phenoxazin-7-ium-1,3-disulfonic acid(1+), *see* P-00069
- 9-(Dimethylamino)-5*H*-benzo[*a*]phenoxazin-5-one, D-00782
- N*-[9-(Dimethylamino)-5*H*-benzo[*a*]phenoxazin-5-ylidene]-*N*-methylmethanaminium(1+), *see* N-00068
- 4-(4-Dimethylaminobenzylideneamino)antipyrine, *see* D-00818
- p*-Dimethylaminobenzylidene-*N*-benzoylaminoacetic acid, *see* B-00120
- ▷ *p*-Dimethylaminobenzylidenerhodanine, *see* D-00813
- p*-Dimethylaminobenzylidene-2-thiohydantoin, *see* D-00819
- 2-(Dimethylamino)biphenyl, *in* A-00116
- ▷ 4-(Dimethylamino)biphenyl, *in* A-00117
- 4-(Dimethylamino)cinnamaldehyde, *see* D-00823
- 7-Dimethylaminocoumarin-3-carbonyl fluoride, *see* D-00805
- 3-(7-Dimethylaminocoumarin-3-carbonyl)-2-oxazolone, *see* D-00806
- ▷ 4-(Dimethylamino)-1,2-dihydro-1,5-dimethyl-3*H*-pyrazol-3-one, *see* A-00339
- 6-(Dimethylamino)-2,3-dihydro-1,4-phthalazinedione, *in* A-00156
- 4-Dimethylamino-2,2'-dihydroxyazobenzene, D-00783
- 4'-Dimethylamino-2,2'-dihydroxyazobenzene-3-sulfonic acid, *see* D-00787
- 7-Dimethylamino-3,4-dihydroxy-1-phenoxazinecarboxamide, *see* G-00003
- 7-(Dimethylamino)-3,4-dihydroxy-3-sulfo-3*H*-phenoxazine-1-carboxylic acid, *see* G-00006
- 9-(Dimethylamino)-5-[[4-(dimethylamino)phenyl]amino]benzo[*a*]phenoxazin-7-ium(1+), D-00784
- ▷ 4-(Dimethylamino)- α -[4-(dimethylamino)phenyl]benzenemethanol, *see* B-00321
- ▷ 4-Dimethylamino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one, *see* A-00339
- ▷ 2-(Dimethylamino)ethanethiol, *in* A-00170
- 2-[[1,1-Dimethylamino]ethanol, *in* A-00171
- 6-[[6-[2-(Dimethylamino)ethyl]-4-methoxy-1,3-benzodioxol-5-yl]acetyl]-2,3-dimethoxybenzoic acid, *see* N-00059
- ▷ 2-Dimethylaminoethyl α -phenylbenzyl ether, *see* D-00998
- O*-[2-(Dimethylamino)ethyl]phosphorothioate, *see* P-00218
- 9-(Dimethylamino)-2-hydroxybenzo[*a*]phenoxazin-7-ium(1+), *see* M-00350
- 4,4'-[*p*-(Dimethylamino)- α -hydroxybenzylidene]diantipyrine, D-00785
- ▷ 4-[2-(Dimethylamino)-1-hydroxyethyl]-1,2-benzenediol, *in* A-00066
- 7-Dimethylamino-3*H*-4-hydroxy-3-oxophenoxazine-1-carboxylic acid, *see* G-00005
- 4-[[7-(Dimethylamino)-4-hydroxy-3-oxo-3*H*-phenoxazin-2-yl]amino]benzenesulfonic acid, *see* G-00007
- 7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, D-00786
- 2-(4-Dimethylamino-2-hydroxyphenylazo)benzothiazole, *see* B-00094
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4,6-dinitrophenol, *in* A-00210
- 3-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-hydroxybenzenesulfonic acid, D-00787
- 4-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00788
- 4-(4-Dimethylamino-2-hydroxyphenylazo)-5-methylimidazole, *see* D-00789
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-methylphenol, *in* A-00197
- 2-(4-Dimethylamino-2-hydroxyphenylazo)-4-methylthiazole, *see* D-00793
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-nitrophenol, *in* A-00213
- 5-(Dimethylamino)-2-[(2-hydroxyphenyl)azo]phenol, *see* D-00783
- 8-(4-Dimethylamino-2-hydroxyphenylazo)quinoline, *see* D-00825
- 4-Dimethylamino-4-isothiocyanatoazobenzene, *see* I-00098
- 1-(Dimethylamino)-2-methoxybenzene, *in* A-00300
- (7-Dimethylamino-4-methyl-3-coumarinyl)maleimide, *see* D-00791
- 5-(Dimethylamino)-2-[(5-methylimidazol-4-yl)azo]phenol, D-00789
- 4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine, D-00790
- 1-[7-(Dimethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]-1*H*-pyrrole-2,5-dione, D-00791
- 7-(Dimethylamino)-1-methyl-3*H*-phenoxazin-3-one, D-00792
- 10-[3-(Dimethylamino)-2-methylpropyl]-2-ethylphenothiazine, *see* E-00123
- 10-[3-(Dimethylamino)-2-methylpropyl]-2-(methylthio)phenothiazine, *see* M-00069
- 5-Dimethylamino-2-[[4-methyl-2-thiazolyl]azo]phenol, D-00793
- 4-(Dimethylamino)-1-naphthalenecarboxaldehyde, *in* A-00262
- 5-(Dimethylamino)-1-naphthalenesulfonic acid, D-00794
- 5-Dimethylamino-1-naphthalenesulfonic acid, *in* A-00265
- 5-(Dimethylamino)-1-naphthalenesulfonyl azide, D-00795
- ▷ 5-(Dimethylamino)-1-naphthalenesulfonyl chloride, D-00796
- 5-(Dimethylamino)-1-naphthalenesulfonyl fluoride, D-00797
- [3-[[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]amino]phenyl]boronic acid, D-00798
- 1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]aziridine, D-00799
- 2-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]ethyl carbonochloridate, D-00800
- 1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]piperazine, D-00801
- 1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]proline, *see* D-00001
- 4-Dimethylamino-1-naphthoyl nitrite, *see* D-00807
- 1-[4-(Dimethylamino)-1-naphthyl]ethylamine, *see* D-00790
- 4-(Dimethylamino)-1-naphthyl isothiocyanate, *see* I-00094
- (5-Dimethylamino-1-naphthyl) vinyl sulfone, D-00802
- ▷ 4-(Dimethylamino)nitrosobenzene, *see* D-00876
- 3-Dimethylamino-6-nitroso-1-naphthol, D-00803
- 5-(Dimethylamino)-2-nitrosophenol, D-00804
- 5-(Dimethylamino)-2-[(5-nitro-2-thiazolyl)azo]phenol, *in* A-00289
- ▷ 4-(Dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacene-carboxamide, *see* T-00039
- 7-(Dimethylamino)-2-oxo-2*H*-1-benzopyran-3-carbonyl fluoride, D-00805
- 3-[[7-(Dimethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]carbonyl]-2(3*H*)-oxazolone, D-00806
- 4-(Dimethylamino)- α -oxo-1-naphthaleneacetone nitrile, D-00807
- 2-(Dimethylamino)phenol, *in* A-00300
- ▷ 4-(Dimethylamino)phenol, *in* A-00302
- 1-[[4-(Dimethylamino)phenyl]azo]-9,10-anthracenedione, *see* A-00389
- 4-[[4-(Dimethylamino)phenyl]azo]benzenesulfonic acid, *see* M-00210
- ▷ 2-[[4-(Dimethylamino)phenyl]azo]benzoic acid, *see* M-00309
- 4-[[4-(Dimethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, D-00808
- 4-[[5-(*p*-Dimethylamino)phenyl]azo]-5-methylimidazole, D-00809
- 5-[[4-(Dimethylamino)phenyl]azo]-1-naphthalenesulfonyl chloride, *in* A-00314
- 2-[*p*-(Dimethylamino)phenylazo]pyridine, *see* D-00909
- 9-(Dimethylamino)-7-phenylbenzo[*a*]phenazinium(1+), *see* N-00064
- 4-[[4-(Dimethylamino)phenyl]4-(dimethylimino)-2,5-cyclohexadien-1-ylidene]methyl]-*N*-ethyl-*N,N*-dimethylbenzenaminium(2+), *see* M-00185
- 4-[[4-(Dimethylamino)phenyl]4-(dimethylimino)-2,5-cyclohexadien-1-ylidene]methyl]-*N,N,N*-trimethylbenzenaminium(2+), *see* C-00002
- N*²-[4-(Dimethylamino)phenyl]-*N*¹,*N*²-dimethyl-2,3,7-phenazinetriamine, *see* N-00066
- 4-Dimethylamino-1,2-phenylenediamine, *in* T-000192
- 2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-ethylquinolinium(1+), *see* Q-00004
- 4-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-phenylquinolinium(1+), D-00810
- 2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+), D-00811

- [[4-(Dimethylamino)phenyl](ethylamino)methyl]phosphonic acid, *see* E-00064
- N*-[4-[[4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), D-00812
- ▷ 5-[[4-(Dimethylamino)phenyl]ethylene]-2-thio-4-thiazolidinone, D-00813
- N*-[4-[[4-(Dimethylamino)phenyl][4-ethyl[(3-sulfophenyl)methyl]amino]-2-sulfophenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium hydroxide inner salt, *see* L-00008
- p*-Dimethylaminophenylfluorone, *see* D-00824
- [*p*-(Dimethylaminophenyl)]formimidoylacetaldhyde, *see* M-00184
- N*-[4-[[-(Dimethylamino)phenyl]-2-furanylmethylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* F-00063
- N*-[4-(Dimethylamino)phenyl]-*N*-hydroxy-3-methoxy-2-naphthalenecarboxamide, D-00814
- 4-[[4-(Dimethylamino)phenyl]hydroxy[4-methyl(phenylmethyl)amino]phenyl]methyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, *see* C-00287
- 2-[[*p*-(Dimethylamino)phenyl]imino]-2'-acetonephthone, D-00815
- 4-[[4-(Dimethylamino)phenyl]imino]-2,5-cyclohexadien-1-one, *see* P-00062
- N*-[4-[[4-(Dimethylamino)phenyl]imino]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* B-00206
- 2-[[[4-(Dimethylamino)phenyl]imino]methyl]phenol, D-00816
- 4-[[4-(Dimethylamino)phenyl]imino]-1(4*H*)-naphthalene, *see* D-00820
- ▷ 4-(Dimethylamino)phenyl isothiocyanate, D-00817
- N*-[4-[[4-(Dimethylamino)phenyl](2-methoxyphenyl)methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* A-00373
- N*-[4-[[4-(Dimethylamino)phenyl](4-methoxyphenyl)methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* A-00374
- 4-[[[4-(Dimethylamino)phenyl]methylene]amino]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00818
- 5-[[4-(Dimethylamino)phenyl]methylene]-2-thio-4-imidazolidinone, D-00819
- N*-[4-[[4-(Dimethylamino)phenyl][4-(methylphenylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* V-00003
- N*-[4-[[4-(Dimethylamino)phenyl]-1-naphthalenylmethylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* N-00013
- N*-(4'-Dimethylaminophenyl)-1,4-naphthoquinone imine, D-00820
- 5-[[4-(Dimethylamino)phenyl]-2,4-pentadienal, D-00821
- N*-[4-[[4-(Dimethylamino)phenyl][4-(phenylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* V-00002
- N*-[4-(Dimethylamino)phenyl]-2-phenylhydrazinecarbothioamide, *see* D-00822
- N*-[4-[[4-(Dimethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), *see* M-00006
- 4-(4'-Dimethylaminophenyl)-1-phenylthiosemicarbazide, D-00822
- 3-[4-(Dimethylamino)phenyl]-2-propenal, D-00823
- 9-[4-(Dimethylamino)phenyl]-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00824
- ▷ 10-(3-Dimethylaminopropyl)phenothiazine, *see* P-00258
- ▷ 10-[3-(Dimethylamino)propyl]-2-(trifluoromethyl)phenothiazine, *see* F-00010
- 2-(Dimethylamino)pyridine, *in* A-00333
- 5-(Dimethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
- 5-(Dimethylamino)-2-(8-quinolinylazo)phenol, D-00825
- 4-(Dimethylamino)-*N*-salicylideneaniline, *see* D-00816
- 5-(Dimethylamino)-2-(2-thiazolylazo)phenol, *in* A-00214
- 2-[2-[(5-Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+), D-00826
- N*-[6-(Dimethylamino)-3*H*-xanthen-3-ylidene]-*N*-methylmethanaminium(1+), *see* P-00435
- Dimethylammonium chloride, *in* D-00777
- ▷ 2,3-Dimethylaniline, D-00827
- ▷ 2,5-Dimethylaniline, D-00828
- ▷ 2,6-Dimethylaniline, D-00829
- ▷ 3,4-Dimethylaniline, D-00830
- ▷ *N,N*-Dimethylaniline, D-00831
- N*-(*p*-*N,N*-Dimethylanilino)-3-methoxy-2-naphthohydroxamic acid, *see* D-00814
- N*-Dimethyl-*o*-anisidine, *in* A-00300
- 2,4-Dimethylanisole, *in* D-00884
- 2,6-Dimethylanisole, *in* D-00885
- 3,4-Dimethylanisole, *in* D-00886
- p*-Dimethylarsenazo III, *see* B-00256
- 1,3-Dimethylbarbituric acid, *in* P-00429
- 2,4-Dimethylbenzamidoxime, *in* D-00835
- ▷ 2,3-Dimethylbenzenamine, *see* D-00827
- ▷ 2,5-Dimethylbenzenamine, *see* D-00828
- ▷ 2,6-Dimethylbenzenamine, *see* D-00829
- ▷ 3,4-Dimethylbenzenamine, *see* D-00830
- ▷ *N,N*-Dimethylbenzenamine, *see* D-00831
- ▷ 4,5-Dimethyl-1,2-benzenediamine, *see* D-00080
- ▷ 4,5-Dimethyl-1,2-benzenedithiol, D-00832
- (2,5-Dimethylbenzenesulfonylamino)quinoline, D-00833
- ▷ 3,3'-Dimethylbenzidine, *see* D-00083
- N,N'*-Dimethylbenzidine, *in* D-00053
- 4-(5,6-Dimethyl-1*H*-benzimidazol-2-yl)benzoic acid, *see* C-00040
- 2,4-Dimethyl-1*H*-1,5-benzodiazepine, D-00834
- 2,4-Dimethylbenzoic acid, D-00835
- N,N*-Dimethyl-*N'*-benzoylthiourea, *in* T-00175
- ▷ α,α -Dimethylbenzyl hydroperoxide, *see* M-00228
- 10,10'-Dimethyl-9,9'-biacridinium, *see* L-00012
- 2,2'-Dimethyl-[1,1'-biphenyl]-4,4'-diamine, *see* D-00082
- ▷ 3,3'-Dimethyl-[1,1'-biphenyl]-4,4'-diamine, *see* D-00083
- ▷ 3,3'-[(3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid], *see* T-00433
- ▷ 6,6'-[3,3'-Dimethyl(1,1'-biphenyl)-4,4'-diyl]bis(azo)bis[4-amino-5-hydroxy-1,3-naphthalenedisulfonic acid], *see* A-00479
- 3,3'-[(3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[4-amino-1-naphthalenesulfonic acid], *see* B-00071
- 3,3'-[(3,3'-Dimethyl-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00836
- 2,2'-[(3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, D-00837
- 5,5'-Dimethyl-3,3'-bipyridazine, D-00838
- 6,6'-Dimethyl-3,3'-bipyridazine, D-00839
- 4,4'-Dimethyl-2,2'-bipyridine, D-00840
- ▷ 1,1'-Dimethyl-4,4'-bipyridinium(2+), D-00841
- ▷ *N,N'*-Dimethyl-4,4'-bipyridyl(2+), *see* D-00841
- N,N*-Dimethyl-1,1-bis(1,1-dimethylethoxy)methanamine, *see* D-00222
- 2,3-Dimethyl-2,3-bis(hydroxylamino)butane, *see* D-00578
- 6,7-Dimethyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, D-00842
- 1,2-Dimethyl-4,5-bis(methylthio)benzene, *in* D-00832
- N,N'*-Dimethyl-1,2-bis[3-(trifluoromethyl)phenyl]-1,2-ethanediamine, D-00843
- 3,3-Dimethyl-2-butanol, D-00844
- ▷ 3,3-Dimethyl-2-butanone, D-00845
- Dimethylcaffeic acid, *in* D-00716
- Dimethylcarbamodiselenoic acid, D-00846
- ▷ Dimethylchloroacetal, *in* C-00053
- 5,5-Dimethyl-1,2,3-cyclohexanedione, D-00847
- 5,5-Dimethyl-1,2,3-cyclohexanetrione, D-00848
- Dimethyl cyclohexylboronate, *in* C-00352
- Dimethyldiacetoxyisilane, *see* D-00031
- 4,4'-Dimethyl-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00849
- 7,18-Dimethyldibenzo-18-crown-6, *see* O-00024
- Dimethyldibenzo-18-crown-6, *see* O-00023
- Dimethyldibenzo-24-crown-8, *see* D-01138
- Dimethyldibenzo-30-crown-10, *see* H-00023
- Dimethyl dicarbonate, *in* D-00243
- Dimethyldicyclohexyl-18-crown-6, *see* E-00005
- Dimethyl diethylphosphoramidate, *in* D-00353
- 5,5-Dimethyldihydroresorcinol, *see* D-00847
- 2,9-Dimethyl-4,7-dihydroxy-1,10-phenanthroline, D-00850
- ▷ Dimethyl diketone, *see* B-00587
- Dimethyl(dimethylamino)phosphine, *see* T-00102
- 4,4-Dimethyl-2,6-dioxaspiro[6.6]undecan-9-one, *in* C-00339
- N,N'*-Dimethyldiphenylbenzidine, *in* D-00053
- N,N'*-Dimethyl-*N,N'*-diphenyl-1,1'-biphenyl-4,4'-diamine, *in* D-00053
- 3,3'-Dimethyl-1,1'-diphenyl[4,4'-bi-2-pyrazoline]-5,5'-dione, D-00851
- 2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline, D-00852
- 2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline-5,6-disulfonic acid, *see* B-00002
- 1,1-Dimethyl-*N,N*-diphenyl-1-(2-propenyl)silanamine, D-00853
- N,N*-Dimethyl-1,1-dipropoxymethanamine, *see* D-00854
- Dimethyl(dipropoxymethyl)amine, D-00854
- 6,7-Dimethyl-2,3-di(2-pyridyl)quinoxaline, D-00855
- Dimethyldiselenocarbamic acid, *see* D-00846
- ▷ *O,O*-Dimethyl dithiophosphate, *see* D-00896
- ▷ *O,O*-Dimethyl dithiophosphoric acid, *see* D-00896
- 2,2'-Dimethyldithizone, D-00856
- 3,3'-Dimethyldithizone, D-00857
- 4,4'-Dimethyldithizone, D-00858
- 3,3'-Dimethylene-4,4'-diphenyl-2,2'-bisquinoline, *see* D-00398
- 2,2'-(1,2-Dimethyl-1,2-ethanedilydene)bis[4-(4-chloro)-3-(trifluoromethyl)phenyl]hydrazinecarbothioamide, *see* B-00591
- 2,2'-(1,2-Dimethyl-1,2-ethanedilydene)bis[*N*-[4-(6-methyl-2-benzothiazolyl)phenyl]hydrazinecarbothioamide], *see* B-00595
- 2,2'-(1,2-Dimethyl-1,2-ethanedilydene)bis[*N*-phenylhydrazinecarbothioamide], *see* B-00597
- 2,2'-(1,2-Dimethyl-1,2-ethanedilydene)bis[*N*-[2-(trifluoromethyl)phenyl]hydrazinecarbothioamide], *see* B-00599
- 4-[4-(1,1-Dimethylethyl)benzoyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3*H*-pyrazol-3-one, D-00859
- (1,1-Dimethylethyl)boronic acid, *see* B-00620
- 4-(1,1-Dimethylethyl)-1,2-cyclohexanedione, *see* B-00623
- ▷ 2-[[4-(1,1-Dimethylethyl)-2,6-dimethylphenyl]methyl]-4,5-dihydro-1*H*-imidazole, *see* X-00008
- 1-[(1,1-Dimethylethyl)dimethylsilyl]-1*H*-imidazole, *see* B-00628
- N*-[(1,1-Dimethylethyl)dimethylsilyl]-*N*-methylacetamide, *see* B-00629

- N*-[(1,1-Dimethylethyl)dimethylsilyl]-2,2,2-trifluoro-*N*-methylacetamide, *see* B-00630
- ▶ Dimethylethylene glycol, *see* B-00586
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* B-00619
- 4-(1,1-Dimethylethyl)-2-[[2-(hydroxy-5-methylphenyl)imino]methyl]phenol, *see* B-00632
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, *in* B-00619
- 4-(1,1-Dimethylethyl)-2-[[2-(hydroxyphenyl)imino]methyl]phenol, *see* H-00194
- 15-(1,1-Dimethylethyl)tetradecahydro-1,4,7,10,13-benzopentaoxacyclopentadecin, D-00860
- 4,7-Dimethylferroin, *see* T-00389
- ▶ Dimethylformamide, D-00861
- Dimethylformamide dibutyl acetal, *see* D-00221
- Dimethylformamide di-*tert*-butyl acetal, *see* D-00222
- Dimethylformamide diethyl acetal, *see* D-00313
- N,N*-Dimethylformamide dimethyl acetal, *see* D-00774
- Dimethylformamide dipropyl acetal, *see* D-00854
- (Dimethylformamide)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)lanthanum(III), *in* T-00419
- Dimethylglyoxal bis(4-hydroxybenzoylhydrazone), *see* H-00117
- ▶ Dimethylglyoxime, D-00862
- N,N'*-Dimethyl-1,6-hexanediamine, *in* H-00061
- 5,5-Dimethyl-2,4-hexanedione, D-00863
- ▶ 5,5-Dimethylhydantoin, *see* D-00866
- ▶ 1,1-Dimethylhydrazine, D-00864
- Dimethyl (hydroxymethyl)phosphonate, *in* H-00318
- 4,8-Dimethyl-7-hydroxy-6-nitro-2*H*-1-benzopyran-2-one, D-00865
- N,N*-Dimethyl-4-hydroxy-7-nitroso-2-naphthalenamine, *see* D-00803
- ▶ 5,5-Dimethyl-2,4-imidazolidinedione, D-00866
- 2-[*o*-[(4,5-Dimethylimidazol-2-yl)azo]phenyl]-4,5,7-trimethyl-8-quinazolinol, D-00867
- 3,3-Dimethyl-1,2-indanedione, D-00868
- N,N*-Dimethylindoline, *see* P-00062
- 3-[3-(3,3-Dimethyl-1(3*H*)-isobenzofuranylidene)-1-propenyl]-1,1-dimethyl-1*H*-isobenzofurylium(1+), D-00869
- Dimethyl isopropylphosphonate, *in* I-00077
- ▶ Dimethyl ketone, *see* A-00007
- ▶ Dimethyl malonate, *in* P-00261
- 1,3-Dimethyl-5-mercapto-4-phenylazopyrazole, *see* D-00887
- Dimethyl(2-methoxy-5-nitrobenzyl)sulfonium(1+), *in* H-00384
- N,N,N*-Dimethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00870
- ▶ 2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylic acid, *see* C-00296
- 5,6-Dimethyl-3-(4-methyl-2-pyridinyl)-1,2,4-triazine, D-00871
- 4,5-Dimethyl-2-[(5-methyl-1,3,4-thiadiazol-2-yl)azo]phenol, D-00872
- 3,3'-Dimethylnaphthidine, *see* D-00082
- 3,3'-Dimethylnaphthidinedisulfonic acid, *see* D-00081
- Dimethyl 1-naphthylphosphonite, *in* N-00055
- 5,6-Dimethyl-2-nitro-1,3-indanedione, D-00873
- 5,6-Dimethyl-2-nitro-1*H*-indene-1,3(2*H*)-dione, *see* D-00873
- N,N,N*-Dimethyl-*N'*-[5-nitro-4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00874
- N,N,N*-Dimethyl-*N'*-[4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00875
- ▶ *N,N,N*-Dimethyl-4-nitrosoaniline, D-00876
- ▶ *N,N,N*-Dimethyl-4-nitrosobenzeneamine, *see* D-00876
- 2,8-Dimethyl-4,6-nonanedione, D-00877
- 1,7-Dimethyl-7-norbornyl isothiocyanate, *see* I-00093
- N,N*-Dimethyl-*N*-octadecylbenzenemethanaminium(1+), *see* B-00180
- Dimethyl oxalate, *in* O-00048
- ▶ Dimethylxyquinazine, *see* D-00392
- 1,1-Dimethyl-1-(pentafluorophenyl)silanamine, D-00878
- ▶ 2,4-Dimethyl-3-pentanone, D-00879
- 2,9-Dimethyl-1,10-phenanthroline, D-00880
- 3,8-Dimethyl-1,10-phenanthroline, D-00881
- 4,7-Dimethyl-1,10-phenanthroline, D-00882
- 5,6-Dimethyl-1,10-phenanthroline, D-00883
- 2,9-Dimethyl-1,10-phenanthroline-4,7-diol, *see* D-00850
- 2,4-Dimethylphenetole, *in* D-00884
- 2,6-Dimethylphenetole, *in* D-00885
- 3,4-Dimethylphenetole, *in* D-00886
- ▶ 2,4-Dimethylphenol, D-00884
- ▶ 2,6-Dimethylphenol, D-00885
- ▶ 3,4-Dimethylphenol, D-00886
- Dimethylphenosafranin, *see* A-00162
- ▶ *N,N*-Dimethyl-10*H*-phenothiazine-10-propanamine, *see* P-00258
- 2,7-Dimethyl-9-phenyl-3,6-acridinediamine, *see* B-00057
- 3-[[4-[[2-(2,4-Dimethylphenyl)amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-4-hydroxybenzenesulfonic acid, *see* M-00005
- 2-[5,5-Dimethyl-3-[2-(phenylamino)thioxomethylhydrazino]-2-cyclohexen-1-ylidene]-*N*-phenylhydrazinecarbothioamide, *in* D-00847
- N*-(*o,p*-Dimethylphenyl)anilinesulfonephthalein, *in* A-00369
- Dimethyl phenylarsenate, *in* P-00090
- ▶ *N,N*-Dimethyl-*p*-(phenylazo)aniline, *see* D-00778
- ▶ *N,N*-Dimethyl-4-(phenylazo)benzenamine, *see* D-00778
- 4-[(2,4-Dimethylphenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, *see* A-00058
- 1,3-Dimethyl-4-(phenylazo)-1*H*-pyrazole-5-thiol, D-00887
- (3,5-Dimethylphenyl)diphenylsulfonium(1+), D-00888
- ▶ *N,N*-Dimethyl-1,4-phenylenediamine, *in* D-00048
- ▶ 4,5-Dimethyl-*o*-phenylenediamine, *see* D-00080
- N*-(2,4-Dimethylphenyl)-3-hydroxy-4-[(2-hydroxyphenyl)azo]-2-naphthalenecarboxamide, *see* X-00007
- N'*-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamidin, D-00889
- N'*-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzenecarboximidamide, *see* D-00889
- N'*-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-phenylbenzamidin, D-00890
- N'*-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, *see* D-00890
- N*-(2,3-Dimethylphenyl)-*N*-hydroxy-3-phenylpropanamide, D-00891
- N'*-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-*p*-tolylbenzamidin, *see* D-00889
- N*-(2,3-Dimethylphenyl)-*N'*-phenylbenzamidin, *see* D-00892
- N*-(2,6-Dimethylphenyl)-*N'*-phenylbenzamidin, *see* D-00893
- N*-(2,3-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00892
- N*-(2,6-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00893
- N*-(2,4-Dimethylphenyl)-3-(phosphonoxy)-2-naphthalenecarboxamide, D-00894
- ▶ 1,5-Dimethyl-2-phenyl-3-pyrazolone, *see* D-00392
- ▶ 2,3-Dimethyl-1-phenyl-5-pyrazolone, *see* D-00392
- 5,6-Dimethyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-00895
- Dimethylphenylsilyl chloride, *see* C-00103
- N,N*-Dimethyl-*N'*-phenylthiourea, *in* P-00201
- ▶ *O,O*-Dimethyl phosphorodithioate, D-00896
- ▶ Dimethyl phthalate, *in* B-00018
- Dimethyl-POPOP, *see* B-00408
- 2,2-Dimethylpropanal, D-00897
- 2,2'-[(1,3-Dimethyl-1,3-propanediylidene)dinitrilo]bisbenzenethiol, D-00898
- ▶ 2,2-Dimethylpropanoic acid, D-00899
- (3,3-Dimethyl-1-propenyl)benzene, *in* P-00168
- Dimethyl-2-propenylsilyl *N*-(dimethyl-2-propenylsilyl)-2,2,2-trifluoroethanimidate, *see* B-00241
- 1-(Dimethyl-2-propenylsilyl)-1*H*-imidazole, D-00900
- N*-(Dimethyl-2-propenylsilyl)-2,2,2-trifluoro-*N*-methylacetamide, D-00901
- 5-(1,1-Dimethylpropyl)-2-hydroxybenzaldehyde 2-hydroxyanil, *see* D-00902
- N*-[5-(1,1-Dimethylpropyl)-2-hydroxyphenyl]-2-hydroxyaniline, D-00902
- 5,6-Dimethyl-3-pyrazinyl-1,2,4-triazine, D-00903
- 3,5-Dimethyl-1*H*-pyrazole, D-00904
- 2-(3,5-Dimethyl-1*H*-pyrazol-1-yl)pyridine, D-00905
- 2-(3,5-Dimethyl-1-pyrazolyl)-8-quinolinol, D-00906
- 5,6-Dimethyl-3-(3-pyridazinyl)-1,2,4-triazine, D-00907
- 6,6'-Dimethyl- α -pyridil, *see* B-00415
- N,N'*-Dimethyl-2,6-pyridinedicarbothioamide, D-00908
- N,N,N*-Dimethyl-4-(2-pyridinylazo)benzenamine, D-00909
- 4,5-Dimethyl-2-(2-pyridinylazo)phenol, D-00910
- 5,6-Dimethyl-3-(2-pyridinyl)-1,2,4-triazine, D-00911
- 1,3-Dimethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetriene, *in* P-00429
- 5,6-Dimethyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-00912
- Dimethyl pyrocarbonate, *in* D-00243
- 1,2-Dimethylquinolinium(1+), D-00913
- 4,5-Dimethyl-2-(2-quinolinylazo)phenol, D-00914
- 2,5-Dimethyl-*N*-(8-quinolyl)benzenesulfonamide, *see* D-00833
- Dimethylsilanediol diacetate, *see* D-00031
- 2,2-Dimethyl-2-silapentane-5-sulfonic acid, *see* T-00344
- Dimethylsilyl chloride, *see* C-00105
- N*-(Dimethylsilyl)-1,1-dimethylsilanamine, D-00915
- Dimethyl succinate, *in* S-00034
- ▶ Dimethyl sulfate, D-00916
- Dimethyl sulfide carboxylic acid, *in* M-00016
- ▶ Dimethyl sulfite, D-00917
- Dimethylsulfonazo DAL, D-00918
- Dimethylsulfonazo III, *see* D-00554
- ▶ *N,N*-Dimethyl-*N*-(3-sulfopropyl)-3-[[3,7,12-trihydroxy-24-oxo-5 β -cholan-24-yl]amino]-1-propanaminium, *see* C-00274
- Dimethyl tartrate, *in* T-00002
- N,N*-Dimethyl-*N*-tetradecylbenzenemethanaminium(1+), *see* Z-00001
- 7,14-Dimethyl-5,7,12,14-tetraethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, D-00919
- 1,3-Dimethyl-5-[(tetrahydro-1,3-dimethyl-2,4,6-trioxo-5(2*H*)-pyrimidinylidene)amino]-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetriene, *in* P-00281
- N,N*-Dimethyl-*N*-[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]benzenemethanaminium(1+), *see* B-00037
- 2,4-Dimethyl-6-(1*H*-tetrazol-5-ylazo)phenol, D-00920

- 4,5-Dimethyl-2(3*H*)-thiazolethione, *see* M-00029
- 2-[(4,5-Dimethyl-2-thiazolyl)azo]-4,6-dimethylphenol, D-00921
- 7-(4,5-Dimethyl-2-thiazolyl)azo-8-hydroxy-5-quinolinesulfonic acid, D-00922
- 2,4-Dimethyl-6-(2-thiazolylazo)phenol, D-00923
- ▷ 2-(4,5-Dimethyl-2-thiazolyl)-3,5-diphenyl-2*H*-tetrazolium(1+), D-00924
- 3-(4,5-Dimethyl-2-thiazolyl)-2,5-diphenyl-2*H*-tetrazolium(1+), D-00925
- 5,6-Dimethyl-3-(2-thiazolyl)-1,2,4-triazine, D-00926
- N,N*-Dimethylthioacetamide, *in* E-00038
- ▷ 2,2'-Dimethylthiocarbaniide, *see* B-00412
- N,N'*-Dimethylthiolutidinamide, *see* D-00908
- 2-(5,6-Dimethyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, D-00927
- 4-[3-(1,4-Dimethyl-1,2,4-triazolyl)azo]-*N,N*-diethylaniline, *see* D-00328
- 2,3-Dimethyltricyclo[2.2.1.0^{2,6}]heptane-3-methanol, *see* T-00004
- ▷ *N,N*-Dimethyl-2-(trifluoromethyl)-10*H*-phenothiazine-10-propanamine, *see* F-00010
- Dimethyl triketone, *see* P-00033
- 4,8-Dimethylumbelliferone, *see* H-00151
- ▷ *N,N'*-Dimethylviologen, *see* D-00841
- ▷ Dimethyl yellow, *see* D-00778
- 1,2-Di-4-morpholinylethane, D-00928
- ▷ DIM-SA, *in* D-00751
- N,N'*-Di-2-naphthalenyl-1,4-benzenediamine, D-00929
- 1,2-Di(1-naphthalenyl)-1,2-ethanedione, D-00930
- Dinaphthzone, D-00931
- Dinaphtho-30-crown-10, D-00932
- β-Dinaphthol, *see* D-00544
- Di-α-naphthyl diketone, *see* D-00930
- Di(1-naphthylmethyl)amine, *see* B-00427
- N,N'*-Di-(2-naphthyl)-*p*-phenylenediamine, *see* D-00929
- Di-(2-naphthyl)thiocarbazono, *see* D-00931
- 1,5-Di-(β-naphthyl)thiocarbazono, D-00933
- 1,5-Di-2-naphthyl-3-thiocarbohydrazide, *see* D-00933
- ▷ 1,3-Di-1-naphthyl-2-thiourea, D-00934
- 3,5-Dinitro-*o*-anisidine, *in* A-00164
- 2,3-Dinitroanisole, *in* D-00957
- ▷ 2,4-Dinitroanisole, *in* D-00958
- ▷ 2,5-Dinitroanisole, *in* D-00959
- 2,6-Dinitroanisole, *in* D-00960
- 3,4-Dinitroanisole, *in* D-00961
- 3,5-Dinitrobenzamide, *in* D-00948
- ▷ 1,2-Dinitrobenzene, D-00935
- ▷ 1,3-Dinitrobenzene, D-00936
- ▷ 1,4-Dinitrobenzene, D-00937
- ▷ *m*-Dinitrobenzene, *see* D-00936
- ▷ *o*-Dinitrobenzene, *see* D-00935
- ▷ *p*-Dinitrobenzene, *see* D-00937
- 2,4-Dinitrobenzenediazonium(1+), D-00938
- 3,6-Dinitro-1,2-benzenedicarboxylic acid, D-00939
- ▷ 2,4-Dinitro-1,3-benzenediol, D-00940
- 3,4-Dinitro-1,2-benzenediol, D-00941
- 3,5-Dinitro-1,2-benzenediol, D-00942
- 3,5-Dinitrobenzenemethanol, *see* D-00950
- ▷ 2,4-Dinitrobenzenesulfonyl chloride, D-00943
- ▷ 2,4-Dinitrobenzenesulfonic acid, D-00944
- ▷ 2,4-Dinitrobenzenethiol, D-00945
- 4,4'-Dinitrobenzil, *see* B-00432
- 3,5-Dinitrobenzohydroxamic acid, D-00946
- 3,4-Dinitrobenzoic acid, D-00947
- 3,5-Dinitrobenzoic acid, D-00948
- 4-[(3,5-Dinitrobenzoyl)hydroxyamino]benzoic acid methyl ester, *in* D-00946
- N*-(3,5-Dinitrobenzoyl)-1-naphthylglycine, *in* A-00261
- N*-(3,5-Dinitrobenzoyl)-α-phenylethylamine, D-00949
- 3,5-Dinitrobenzyl alcohol, D-00950
- 2,4-Dinitrobenzyl bromide, *see* B-00522
- Dinitrobindone, *see* D-00395
- 4,4'-Dinitrobisphenylazo-chromotropic acid, *see* D-00557
- 3,4-Dinitrocatechol, *see* D-00941
- 3,5-Dinitrocatechol, *see* D-00942
- ▷ 2,4-Dinitrochlorobenzene, *see* C-00106
- 2,4-Dinitro-6-chlorophenylazoethanol, D-00951
- Dinitro-dibenzo-30-crown-10, *see* H-00024
- ▷ 4,4'-Dinitrodiphenyl disulfide, *see* B-00431
- 4,4'-Dinitrodiphenyl disulfide 3,3'-dicarboxylic acid, *see* D-01120
- 1,2-Dinitro-1,2-diphenylethylene, D-00952
- 1,1'-(1,2-Dinitro-1,2-ethenediyl)bisbenzene, *see* D-00952
- 3,4-Dinitroguaiacol, *in* D-00941
- 3,5-Dinitroguaiacol, *in* D-00942
- 4,6-Dinitroguaiacol, *in* D-00942
- 5,6-Dinitroguaiacol, *in* D-00941
- 4-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00953
- 1-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2-naphthol, D-00954
- 4-(3,5-Dinitro-2-hydroxyphenylazo)-1-naphthol, D-00955
- ▷ 2,4-Dinitro-1,8-naphthalenediol, *see* D-00582
- 3,5-Dinitro-4(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentanedecin-15-yl)aminobenzonitrile, D-00956
- 5,7-Dinitrooxine, *see* H-00165
- 2,4-Dinitro-6-(1,4,7,10,13-pentaoxacyclopentadec-2-ylmethoxy)phenol, *see* H-00159
- 2,4-Dinitro-6-(1,4,7,10,13-pentaoxacyclopentadec-2-ylmethyl)phenol, *see* H-00155
- ▷ 2,3-Dinitrophenetole, *in* D-00957
- ▷ 2,4-Dinitrophenetole, *in* D-00958
- 2,5-Dinitrophenetole, *in* D-00959
- 2,6-Dinitrophenetole, *in* D-00960
- 3,4-Dinitrophenetole, *in* D-00961
- ▷ 2,3-Dinitrophenol, D-00957
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- ▷ 2,6-Dinitrophenol, D-00960
- ▷ 3,4-Dinitrophenol, D-00961
- ▷ β-Dinitrophenol, *see* D-00960
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- 3,3'-Dinitrophenolsulfonephthalein, *see* B-00112
- (2,4-Dinitrophenylamino)benzo-15-crown-5, *see* D-00973
- 1-[(2,4-Dinitrophenyl)amino]-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00962
- 4-[(2,4-Dinitrophenyl)azo]-1,2-benzenediol, D-00963
- 3-[(2,4-Dinitrophenyl)azo]-4,5-dihydroxy-6-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, D-00964
- m*-Dinitrophenylazohydroxybenzene-7-crown-4, *see* D-00970
- 3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, D-00965
- 3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00966
- 3-[(3,5-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00967
- 5-(2,4-Dinitrophenylazo)-8-hydroxyquinoline, D-00968
- 19-[(2,4-Dinitrophenyl)azo]-3,6,9,12,15-pentaaxabicyclo[15.3.1]heneicosan-1(21),17,19-trien-21-ol, D-00969
- 5-(2,4-Dinitrophenylazo)-8-quinolinol, *see* D-00968
- 16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-trien-18-ol, D-00970
- α-(2,4-Dinitrophenyl)-2,4-dinitrobenzenoacetic acid, D-00971
- 3,5-Dinitro-*N*-(1-phenylethyl)benzamide, *see* D-00949
- Dinitrophenylfluorone, *see* D-00975
- ▷ (2,4-Dinitrophenyl)hydrazine, D-00972
- 2,4-Dinitro-6-[[6-(phenylmethyl)-1,4,8,11-tetraoxacyclotetradec-6-yl]methyl]phenol, *see* B-00182
- N*-(2,4-Dinitrophenyl)-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00973
- 2-(2,4-Dinitrophenyl)pyridinium(1+), D-00974
- 9-(2,4-Dinitrophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00975
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- 5,5'-Dinitro-2,2'-pyridinedisulfide, *see* D-01121
- 3,4-Dinitropyrocatechol, *see* D-00941
- 3,5-Dinitropyrocatechol, *see* D-00942
- 5,7-Dinitro-8-quinolinol, *in* H-00165
- ▷ 2,4-Dinitroresorcinol, *see* D-00940
- 3,5-Dinitrosalicylic acid, *see* H-00154
- Dinitroschromotropic acid, *see* D-00583
- α,β-Dinitrostilbene, *see* D-00952
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- 2,4-Dinitro-6-(1,4,8,11-tetraoxacyclotetradec-6-ylmethyl)phenol, *see* H-00157
- 2,4-Dinitrothioanisole, *in* D-00945
- 2,4-Dinitrothiophenetole, *in* D-00945
- ▷ 2,4-Dinitrothiophenol, *see* D-00945
- 2,4-Dinitrothymol, *see* I-00073
- 2',4'-Dinitro-6'-trifluoromethylphenyl-4'-amino-14-benzene-4-crown, *see* D-00976
- N*-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-3,4,6,7,10,11-hexahydro-2*H*,9*H*-1,5,8,12-benzotetraoxacyclotetradecin-14-amine, D-00976
- N*-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00977
- N*-[2,6-Dinitro-4-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00978
- 2',4'-Dinitro-2,3,7-trihydroxy-9-phenylfluorone, *see* D-00975
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- ▷ Dioctylamine, D-00981
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- 2,13-Dioctyldibenzo-18-crown-6, *see* O-00025
- ▷ *N,N*-Dioctyl-1-octanamine, *see* T-00357
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- 1,4-Dioxaspiro[4.4]nonane, *in* C-00364
- 1,2-Dioxoaceneaphthene, *see* A-00001
- 3,3'-Dioxo[Δ^{2,2}-biindoline]-5,5'-disulfonate, *see* I-00029
- 3,3'-Dioxo-[Δ^{2,2}-biindoline]-5-sulfonic acid, *see* I-00027
- 3,3'-Dioxo-[Δ^{2,2}-biindoline]-5,5',7,7'-tetrasulfonic acid, *see* I-00028
- 3,3'-Dioxo-[Δ^{2,2}-biindoline]trisulfonic acid, *see* I-00030
- ▷ 2,3-Dioxobutane, *see* B-00587
- 2,3-Dioxobutane-1,4-dicarboxylic acid dithiosemicarbazone, *see* D-00990

- 2,3-Dioxobutanoic acid, D-00986
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 ▶ 2,6-Dioxo-4-hydroxy-5-nitrotetrahydropyrimidine, *see* N-00153
 1,3-Dioxo-2-indanecarboxylic acid, D-00991
 4-[2*H*-[1,3]Dioxolo[4,5-*f*]benzotriazol-2-yl] benzenethanamine, D-00992
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 2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo] pyridine, D-01024
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 ▶ Diphenylmethane- α -carboxylic acid, *see* D-00999
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 5,6-Diphenyl-3-(pyrazinyl)-1,2,4-triazine, D-01044
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 Di-2-pyridinylmethanone 2-
 chlorobenzoylhydrazone, D-01074
 Di-2-pyridinylmethanone 3-
 chlorobenzoylhydrazone, D-01075
 Di-2-pyridinylmethanone di-2-
 pyridinylmethylethylenhydrazone, D-01076
 Di-2-pyridinylmethanone 2-furoylhydrazone,
 D-01077
 Di-2-pyridinylmethanone guanylhydrazone,
 D-01078
 Di-2-pyridinylmethanone 2-
 hydroxybenzoylhydrazone, *see* B-00063
 Di-2-pyridinylmethanone 2-
 hydroxythiobenzoylhydrazone, *see* B-00014
 Di-2-pyridinylmethanone 5-nitro-2-
 pyridylhydrazone, D-01079
 Di-2-pyridinylmethanone 2-
 pyridinylhydrazone, D-01080
 Di-2-pyridinylmethanone 2-
 pyrimidinylhydrazone, D-01081
 Di-2-pyridinylmethanone 2-
 quinolinylhydrazone, D-01082
 Di-2-pyridinylmethanone 2-
 thiazolylhydrazone, D-01083
 Di-(2-pyridinyl)methanone 2-
 thiophenecarbothiohydrazone, *see* T-00168
 Di-2-pyridinylmethanone thiosemicarbazone,
 D-01084
 5-(Di-2-pyridinylmethylene)-2-thioxo-4-
 imidazolidinone, D-01085
 5,6-Di-2-pyridinyl-4-(4-pyrimidinyl)-1,2,4-
 triazine, D-01086
 2,3-Di-2-pyridinylquinoxaline, D-01087
 ▷ 2,3'-Dipyridyl, *see* B-00221
 2,3-Di-2-pyridylbenzo[*g*]quinoxaline, D-01088
 2,2'-Di-2-pyridylbenzothiazoline, *see* D-00403
 Di-2-pyridyl-*N,N'*-bis[8-quinolyl]amino]
 methane, *see* D-01062
 Di-2-pyridyl diketone, *see* D-01063
 2,2'-Dipyridyl disulfide, *see* D-01122
 4,4'-Dipyridyl disulfide, *see* D-01123
 1,2-Di-2-pyridyl-1,2-ethanediol, D-01089
 Di-2-pyridyl-1,2-ethenediol, *see* P-00412
 1,2-Di(2-pyridyl)ethylene, D-01090
 1,2-Di-2-pyridylglycol, *see* D-01089
 Di-2-pyridylglyoxal, *see* D-01063
 Di-2-pyridylglyoxal dithiosemicarbazone, *in*
 D-01063
 Di-2-pyridylglyoxal mono-2-pyridylhydrazone,
see D-01068
 2,2'-Dipyridyl- α -glyoxime, *in* D-01063
 Di-2-pyridyl ketone, *see* D-01071
 Di-2-pyridylketone azine, *see* D-01076
 Di-2-pyridyl ketone benzoylhydrazone, *see*
 D-01073
 Di-2-pyridyl ketone 2-
 chlorobenzoylhydrazone, *see* D-01074
- Di-2-pyridyl ketone 3-
 chlorobenzoylhydrazone, *see* D-01075
 Di-2-pyridylketone guanylhydrazone, *see*
 D-01078
 Di-2-pyridyl ketone pyrazinylhydrazone, *see*
 P-00289
 Di-2-pyridyl ketone 2-thiazolylhydrazone, *see*
 D-01083
 Di-2-pyridyl ketone thiosemicarbazone, *see*
 D-01084
 2,6-Di-(2-pyridyl)-4-(4-methoxyphenyl)
 pyridine, *see* M-00119
 1-[Di(2-pyridyl)methylene]-5-
 salicylidene-thiocarbonohydrazide, *see*
 H-00481
 Di-2-pyridylmonoxime, *in* D-01063
 2,3-Di-2-pyridylpyrazine, D-01091
 5,6-Di-2-pyridyl-3-[6-(2-pyridyl)-2-pyridyl]-*as*-
 triazine, *see* B-00228
 2,4-Di-2-pyridylpyrimidine, D-01092
 4,6-Di-2-pyridylpyrimidine, D-01093
 2,6-Di-2-pyridyl-4-pyrimidinol, *see* H-00171
 Di-2-pyridylquinazoline, D-01094
 2,3-Di-2-pyridyl-6-quinoxalinesulfonyl acid,
 D-01095
 5,6-Di-2-pyridyl-3-(2-thiazolyl)-1,2,4-triazine,
 D-01096
 3-(5,6-Di-2-pyridyl-1,2,4-triazin-3-yl)
 isoquinoline, D-01097
 2-[5,6-Di-(2-pyridyl)-1,2,4-triazin-3-yl]-1,10-
 phenanthroline, D-01098
 3,5-Di-2-pyridyl-1,2,4-triazole, D-01099
 3,5-Di-2-pyridyl-1,2,4-triazoline, *in* D-01099
 Dipyrithione, *in* D-01122
 Dipyrone, D-01100
N,N'-Di(2-pyrrolylmethylidene)-1,2-
 ethylenediamine, *see* B-00448
 Diquel, *see* E-00123
 Di-2-quinolinylmethanone, D-01101
 Di-2-quinolinylmethanone 2-
 pyridinylhydrazone, D-01102
 Di-2-quinolinylmethanone 2-
 quinolinylhydrazone, D-01103
N,N'-Di-(8-quinolyl)-2,6-
 pyridinedicarboxamide, D-01104
 Di-8-quinolyl disulfide, D-01105
 Di-2-quinolyl ketone, *see* D-01101
 2,2'-Diquinolylketoxime, *in* D-01101
 Direct light blue MFL, *see* E-00006
 Direct red, *see* C-00301
N,N'-Disalicylidene-*o*-phenylenediamine, *see*
 B-00362
 1,3-Di-2-selenophenyl-1,3-propanedione,
 D-01106
 Diselenoylmethane, *see* D-01106
 Disophrol, *in* M-00122
N,N'-Distearoyl ethylenediamine, *in* E-00024
- ▷ Disto 5, *in* B-00293
 ▷ Distobitin, *in* B-00293
 ▷ Distylin, *see* P-00023
 Disulfine blue VNS, *see* S-00058
 ▷ Disulfiram, D-01107
 1,1'-(2,2'-Disulfo-4,4'-biphenylene)bis(3-
 hydroxy-3-phenyltriazene), D-01108
 2,2'-Disulfo-4,4'-diaminostilbene-*N,N,N',N'*-
 tetraacetic acid, *see* D-00126
 Disulfodiantiprylmethane, *see* B-00456
 4,4'-Disulfodithizone, D-01109
 4-[(3,5-Disulfo-4-hydroxyphenyl)azo]
 pyrogallol, *see* C-00284
 1-[4-(6,8-Disulfo-2-naphthalenylazo)-1-
 naphthalenylazo]-2-hydroxy-3,6-
 naphthalenedisulfonic acid, *see* N-00028
 7-(4,8-Disulfo-2-naphthylazo)-8-hydroxy-5-
 quinolinesulfonic acid, *see* N-00044
 7-(5,7-Disulfo-2-naphthylazo)-8-hydroxy-5-
 quinolinesulfonic acid, *see* N-00046
 7-(5,8-Disulfo-2-naphthylazo)-8-hydroxy-5-
 quinolinesulfonic acid, D-01110
 Disulfone blue FFN 200, *see* X-00004
 5-[(2,4-Disulfophenyl)amino]-7-
 phenylsulfobenzo[*a*]phenazinium hydroxide
 inner salt, *see* A-00470

- Di-(*p*-sulfophenyl)thiocarbazono, *see* D-01109
 Disulphine lake blue EG, *see* E-00018
 Di(2-thenoyl)ketoxime, *in* D-01113
 1,10-Dithia-18-crown-6, *see* T-00118
 1,2-Dithia-4-cyclopentene-3-thione, *see* D-01133
 1,4-Dithiane, D-01111
p-Dithiane, *see* D-01111
 2,2',2'',2'''-[1,4-Dithiane-2,5-diylidene]tetrakis(thio)tetrakis[acetic acid], *see* T-00082
 1-(1,5-Di-2-thiazolylformazanyl)ethanone, D-01112
 ▶ 2,2'-Dithienone, *see* D-01113
 ▶ Di-2-thienyl ketone, D-01113
 ▶ Di-2-thienylmethanone, *see* D-01113
 1,5-Di-2-thienyl-1,4-pentadien-3-one, D-01114
 1,12-Di-2-thienyl-2,5,8,11-tetrathiadodecane, D-01115
 Dithioantipyrinic acid, D-01116
 Dithiobenzoic acid, D-01117
 2,2'-Dithiobis(1-aminonaphthalene), *see* D-01118
 ▶ 2,2'-Dithiobisbenzenamine, *see* B-00251
 2,2'-Dithiobisbenzothiazole, *in* B-00089
 3,3'-Dithiobis[*N*,6-dihydroxybenzamide], *see* D-01131
 2,2'-Dithiobis(4,5-diphenyl-1*H*-imidazole), *in* D-00399
 ▶ 2,2'-Dithiobisethanamine, *see* B-00244
 ▶ 2,2'-Dithiobisethylamine, *see* B-00244
 2,2'-Dithiobis-1*H*-imidazole, *in* D-00424
 2,2'-Dithiobis[1-naphthaleneamine], D-01118
 6,6'-Dithiobis[2-naphthalenol], D-01119
 3,3'-Dithiobis[6-nitrobenzoic acid], D-01120
 5,5'-Dithiobis[2-nitrobenzoic acid], *see* D-01120
 ▶ 2,2'-Dithiobis[5-nitropyridine], D-01121
 3,3'-Dithiobis-1-propanol, *in* M-00053
 ▶ 2,2'-Dithiobispyridine, D-01122
 4,4'-Dithiobispyridine, D-01123
 [2,2'-Dithiobis[pyridine] 1,1'-dioxide-*O*,*O'*,*S*][sulfato(2-)-*O*]magnesium, *in* D-01122
 8,8'-Dithiobisquinoline, *see* D-01105
 ▶ 2,4-Dithiobiuret, *see* T-00163
 Dithiocarb, *in* D-00344
 ▶ Dithiocarbamic acid, D-01124
 ▶ Dithiocarbonic acid, D-01125
 ▶ Dithiocarbonic acid, *O*-ethyl ester, potassium salt, *see* P-00253
 Dithiocarbonic amide, *see* D-01124
 ▶ Dithiocarbonic anhydride, *see* C-00023
 4,4'-[[[(Dithiocarboxy)imino]bis(methylene)]bisbenzenesulfonic acid], *see* B-00454
N-(Dithiocarboxy)-*N*-methylglycine, *see* D-01126
 1-(Dithiocarboxy)proline, *see* C-00044
N-(Dithiocarboxy)sarcosine, D-01126
 ▶ 2,2'-Dithiodianiline, *see* B-00251
 1,1'-(Dithiodicarbonothioyl)bis[hexahydro-1*H*-azepine], D-01127
 ▶ 4,4'-(Dithiodicarbonothioyl)bismorpholine, D-01128
 1,1'-(Dithiodicarbonothioyl)bis[octahydroazocine], D-01129
 ▶ 1,1'-(Dithiodicarbonothioyl)bis-piperidine, D-01130
N,N'-(Dithiodi-2,1-ethanediy)bis-2-propenamide, *in* B-00244
 3,3'-Dithiodipropanol, *in* M-00053
 5,5'-Dithiodisallylhydroxamic acid, D-01131
 ▶ Dithioerythritol, *in* D-00752
 ▶ Dithioethylene glycol, *see* E-00028
 Dithiofluorescein, D-01132
 ▶ 1,2-Dithioglycerol, *see* D-00763
 ▶ Dithiol, *see* M-00129
 3*H*-1,2-Dithiole-3-thione, D-01133
 1-[[[2-(1,3-Dithiol-2-ylidene)-1,3-dithiol-4-yl]carbonyl]oxy]-2,5-pyrrolidinedione, *see* S-00035
 Dithiomalonamide, *see* P-00262
 β-Dithionaphtholic acid, *see* H-00339
 1,2-Dithiooxalic acid, *see* E-00023
 α,α-[(Dithiooxalyl)diimino]di-*m*-toluenesulfonic acid, D-01134
 ▶ Dithiooxamide, *see* E-00027
 Dithiophthalimide, *see* I-00068
 1,1-Dithio-1,2-pyrrolidinedicarboxylic acid, *see* C-00044
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 Dithiosalicylic acid, *see* H-00175
 ▶ Dithiotartaric acid, *see* D-00751
 ▶ DL-Dithiothreitol, *in* D-00752
 ▶ L-Dithiothreitol, *in* D-00752
 4-(2,5-Dithiooxo-1,3,4-thiadiazolidin-3-yl)benzenesulfonic acid, *in* M-00060
 ▶ Dithizone, D-01135
 Ditiocarb sodium, *in* D-00344
 Ditolamide, *in* M-00130
 Di-*p*-toluoyl tartrate, *in* T-00002
 Di-*p*-tolyl-diimidodisulfur, *see* B-00411
 2,6-Di-*p*-tolyl-4-phenylpyrylium(1+), *see* B-00410
 Di-*p*-tolylsulfur diimide, *see* B-00411
 Di-2-tolylthiocarbazono, *see* D-00856
 Di-*m*-tolylthiocarbazono, *see* D-00857
 Di-*p*-tolylthiocarbazono, *see* D-00858
 ▶ 1,3-Di-*o*-tolylthiourea, *see* B-00412
 ▶ Di(tridecyl)amine, *see* T-00229
 Di-*m*-trifluoromethylphenylcarbazone, *see* B-00463
 ▶ DMAP, *in* A-00302
 Dmaly hydrazide, *see* D-00780
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 ▶ DMG, *see* D-00862
 ▶ DMS, *in* D-00751
 ▶ DMSA, *in* D-00751
 ▶ Dnp-F, *see* F-00027
 ▶ DNPH, *see* D-00972
 DNTC, *see* I-00094
 ▶ DNT-Cl, *see* C-00108
 1,1,1,2,2,6,6,7,7,8,8,8-Dodecafluoro-3,5-octanedione, D-01136
 6,7,9,10,12,13,20,21,23,24,26,27-Dodecahydro-di-benz[*b,n*][1,4,7,10,13,16,19,22]octaoxacyclotetracosin, *see* D-00159
 Dodecahydro-7,8-dicarbaundecaborate(1-), D-01137
 6,7,9,10,12,13,20,21,23,24,26,27-Dodecahydro-2,16-dimethylbenzo[*b,n*][1,4,7,10,13,16,19,22]octaoxacyclotetracosin, D-01138
 ▶ Dodecahydrodiphenylamine, *see* D-00307
 Dodecahydro-7,14-methano-2*H*,6*H*-dipyrido[1,2-*a*:1',2'-*e*]diazocine, *see* S-00023
 ▶ 1-Dodecanamine, *see* D-01142
 1,12-Dodecanediylbis[octylarsinic acid], D-01139
 ▶ 1-Dodecanethiol, D-01140
 3-(2-Dodecanediyl)dihydro-2,5-furandione, D-01141
 2-Dodecenylsuccinic anhydride, *see* D-01141
 10-Dodecylacridine orange, *in* B-00315
 ▶ Dodecylamine, D-01142
 Dodecyl-14-crown-4-dinitrophenol, *see* D-01146
 6-Dodecyl-*N,N*-diethyl-1,4,8,11-tetraoxacyclotetradecane-6-acetamide, D-01143
N-Dodecyl-*N,N*-dimethylbenzenemethanaminium, *see* B-00179
 Dodecyl gallate, *in* T-00277
 6-Dodecyl-6-[2-hydroxy-3,5-bis(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01144
 6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01145
 6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01146
 6-Dodecyl-6-[2-hydroxy-5-(1,8-naphthalenedicarboximido)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01147
 6-Dodecyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01148
 6-Dodecyl-6-[2-hydroxy-3-nitro-5-(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01149
 2-[(5-Dodecyl-2-hydroxyphenyl)azo]benzoic acid, D-01150
 [2-[(5-Dodecyl-2-hydroxyphenyl)azo]phenyl]arsonic acid, D-01151
 Dodecylumogallion, *see* C-00113
 ▶ Dodecyl mercaptan, *see* D-01140
 Dodecylmethyl-14-crown-4, *see* D-01153
N-Dodecyl-*N*-methyl-*N*-octylbenzenemethanaminium(1+), *see* B-00181
 Dodecylmethylpropanedioate bis(1,4,7,10-tetraoxacyclododec-2-ylmethyl)ester, D-01152
 6-Dodecyl-6-methyl-1,4,8,11-tetraoxacyclotetradecane, D-01153
 2-[(Dodecyl)oxy]methyl-1,4,7,10-tetraoxacyclododecane, D-01154
 ▶ 1-Dodecyl sulfate, D-01155
 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
 3-Dodecyl-1,5,10,14-tetraazacyclooctadecane, D-01157
 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
 2-[(Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-4,6-bis[(4-nitrophenyl)azo]phenol, *see* D-01144
 2-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-4,6-dinitrophenol, *see* D-01146
 4-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-2,6-dinitrophenol, *see* D-01145
 2-[4-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-3-hydroxyphenyl]-1*H*-benz[*de*]-isoquinoline-1,3(2*H*)-dione, *see* D-01147
 2-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-6-nitro-4-[(4-nitrophenyl)azo]phenol, 9Cl, *see* D-01149
 2-[(6-Dodecyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-4-nitrophenol, *see* D-01148
 Dodecyltrimethylammonium(1+), *see* L-00002
 Dolonil, *in* T-00431
 ▶ Dorbane, *see* D-00512
 ▶ Dorrol, *in* M-00122
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 7-Drimene-11,12-dial, D-01160
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 ▶ Ehrlich's reagent, *see* D-00779
 ▶ 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-Eicosaf luoroundecanoic acid, E-00002
 6,7,9,10,12,13,15,16,18,19,26,27,29,30,32,33,35,36,38,39-Eicosahydrodibenzo[*b,t*][1,4,7,10,13,16,19,22,25,28,31,34]dodecaoxacyclohexatriacontin, *see* D-00161
 Eicosahydro-20*H*-dibenzo[*b,n*][1,4,7,10,13,16]hexaoxacyclononadecin, E-00003
 ▶ Eicosahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, E-00004
 Eicosahydro-2,13-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, E-00005
 Eicosahydro-2,13(or 2,14)-dipropyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, *in* O-00027
 Elcozine basic blue 5R, *see* A-00452
 ▶ Eldadryl, *in* D-00998
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 ▶ Eosine, E-00007
 Eosin-5-iodoacetamide, *see* I-00054
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 Epinephryl borate, *in* A-00066
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 Eriochrome green B, E-00016
 Eriochrome green H, *see* A-00190
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 ▶ Etacrylic acid, *see* E-00022
 ▶ Etamfetamine, *in* P-00172
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 ▶ Etamon chloride, *in* T-00041
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 ▶ Ethanediamide, *in* O-00048
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 ▶ Ethane-1,2-dicarboxylic acid, *see* S-00034
 ▶ Ethanedihydroxamic acid, *see* O-00049
 ▶ Ethanedioic acid, *see* O-00048
 ▶ Ethanedioic acid
 bis(cyclohexyldenedehydrazide), *see* C-00321
 Ethanedioic acid bis[(2,4-dihydroxyphenyl)methylene]hydrazide], E-00025
 Ethanedione bis[(3-ethoxy-1-methyl-3-oxopropylidene)hydrazide], *see* N-00062
 1,2-Ethanediphosphonic acid, E-00026
 ▶ Ethanedithioamide, E-00027
 ▶ 1,2-Ethanedithiol, E-00028
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N,N'-1,2-Ethanedylbisalanine, E-00029
 ▶ 1,2-Ethanedylbis carbamodithioic acid, *see* E-00072
 ▶ *N,N'*-1,2-Ethanedylbis[*N*-(carboxymethyl)glycine], *see* E-00078
 1,2-Ethanedylbis[diphenylphosphine oxide], *in* B-00338
 ▶ 1,2-Ethanedylbis[diphenylphosphine], *see* B-00338
 [1,2-Ethanedylbis[jimino(2-hydroxyphenyl)methylene]]bisphosphonic acid, E-00030
 [1,2-Ethanedylbis[jimino(phenylmethylene)]]bisphosphonic acid, E-00031
 1,2-Ethanedylbis
 [methylidiphenylphosphonium] diiodide, *in* B-00338
 4,4'-(1,2-Ethanedyl)bismorpholine, *see* D-00928
 [1,2-Ethanedylbis[nitriolobis(methylene)]]tetrakisphosphonic acid, E-00032
 2,2'-[1,2-Ethanedylbis(nitriolomethylidene)]bisbenzenethiol, *see* B-00398
 2,2'-[1,2-Ethanedylbis(nitriolomethylidene)]bisphenol, *see* B-00363
 ▶ [[2,2'-[1,2-Ethanedylbis[nitriolomethylidene]]bis[phenolato]](2-)-*N,N',O,O'*]cobalt, *see* E-00077
N,N'-1,2-Ethanedylbis(octadecanamide), *in* E-00024
N,N'-[1,2-Ethanedylbis[oxy(4-bromo-2,1-phenylene)]]bis[*N*-(carboxymethyl)glycine], *see* B-00243
N,N'-[1,2-Ethanedylbis(oxy-2,1-phenylene)]bis[*N*-(carboxymethyl)glycine], *see* B-00248
 1,2-Ethanedylbis[phenylcarbamodithioic acid], E-00033
 1,2-Ethanedylbisphosphonic acid, *see* E-00026
 1,2-Ethanedylbis[phosphonic dichloride], *in* E-00026
 2,2'-[1,2-Ethanedylbis(thio)]bisacetic acid, *see* E-00080
 1,1'-[1,2-Ethanedylbis(thio)]bis hexane, *see* B-00359
 1,2-Ethanedylbis[triphenylphosphonium](2+), E-00034
 α,α' -(1,2-Ethanedylidimino)bis[2-hydroxybenzeneacetic acid], *see* E-00073
 3,3'-(1,2-Ethanedylidinitrilo)bis-2-butanone, E-00035
 5,5'-(1,2-Ethanedylidinitrilo)bis[2,2-dimethylhexanone], E-00036
 4,4'-(1,2-Ethanedylidinitrilo)bis(2-pentanone), E-00037
 ▶ 1,1',1'',1'''-(1,2-Ethanedylidinitrilo)tetrakis-2-propanol, *see* E-00001
 2,2'-(1,2-Ethanedylidene)bis[*N*-[1,1'-biphenyl]hydrazinecarbothioamide], *see* G-00021
 2,2'-(1,2-Ethanedylidene)bis[*N*-[3,5-bis(trifluoromethyl)phenyl]hydrazinecarbothioamide], *see* G-00022
 2,2'-(1,2-Ethanedylidene)bis[*N*-[4-chloro-3-(trifluoromethyl)phenyl]hydrazinecarbothioamide], *see* G-00035
 2,2'-(1,2-Ethanedylidene)bis[*N*-(3,4-dichlorophenyl)hydrazinecarbothioamide], *see* G-00024
 2,2'-(1,2-Ethanedylidene)bis[*N*-(2-fluorophenyl)hydrazinecarbothioamide], *see* G-00025
 2,2'-(1,2-Ethanedylidene)bis[*N*-(4-fluorophenyl)hydrazinecarbothioamide], *see* G-00026
 2,2'-(1,2-Ethanedylidene)bishydrazinecarbothioamide, *see* G-00034
 2,2'-(1,2-Ethanedylidene)bis[*N*-[4-(6-methyl-2-benzothiazolyl)phenyl]hydrazinecarbothioamide], *see* G-00030
 2,2'-(1,2-Ethanedylidene)bis[*N*-(4-nitrophenyl)hydrazinecarbothioamide], *see* G-00032
 2,2'-(1,2-Ethanedylidene)bis[*N*-phenylhydrazinecarbothioamide], *see* G-00033
 2,2'-(1,2-Ethanedylidene)bis[*N*-[2-(trifluoromethyl)phenyl]hydrazinecarbothioamide], *see* G-00036
 2,2'-(1,2-Ethanedylidenedinitrilo)bisbenzenethiol, *see* G-00029
 2,2'-(Ethanedylidenedinitrilo)diphenol, *see* G-00027
S,S'-1,2-Ethanedyl-4-methylbenzenesulfonothioate, *in* E-00028
 ▶ Ethaneperoxoic acid, *see* P-00042
 ▶ Ethanethioic acid, E-00038
 ▶ Ethanethiol, E-00039
*S*₈-Ethano-18, *see* H-00070
 ▶ Ethanoic acid, *see* A-00006
 ▶ Ethanol, E-00040
 ▶ Ethanolamine, *see* A-00171
 ▶ 2,2'-(1,2-Ethenedyl)bis[5-aminobenzenesulfonic acid], *see* D-00125
 2,2'-(1,2-Ethenedyl)bis[4-[4-amino-6-bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]benzenesulfonic acid], *see* E-00041
 4,4'-[1,2-Ethenedylbis[2-(aminomethyl)phenol]]-*N,N,N',N'*-tetraacetic acid, E-00042
 4,4'-(1,2-Ethenedyl)bis-1,1'-biphenyl, *see* D-00174
 1,2-Ethenedylbis[bis(4-methylphenyl)phosphineoxide], E-00043

- 2,2'-(1,2-Ethenediyl)bis[5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], E-00044
- 2,2'-(Ethenediyl)bis[5-[(3,4-dihydroxyphenyl)azo]benzenesulfonic acid], *see* S-00027
- 1,2-Ethenediylbis[diphenylphosphine], *see* B-00339
- 2,2'-(1,2-Ethenediyl)bis[5-[(4-ethoxyphenyl)azo]benzenesulfonic acid], *see* C-00297
- 2,2'-(1,2-Ethenediyl)bis[5-[(4-hydroxy-6-chloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], E-00045
- 2,2'-(1,2-Ethenediyl)bis[5-[(4-hydroxyphenyl)azo]benzenesulfonic acid], *see* B-00480
- 2,2'-(1,2-Ethenediyl)bis[5-isothiocyantobenzenesulfonic acid], E-00046
- 4,4'-(1,2-Ethenediyl)bisphenol, *see* D-00730
- 2,2'-(1,2-Ethenediyl)bispyridine, *see* D-01090
- 3,3'-[1,2-Ethenediylbis(3-sulfo-4,1-phenylene)azo]bis[4,5-dihydroxy-2,7-naphthalenedisulfonic acid], *see* S-00028
- 2,2'-(1,2-Ethenediyl)bis(3-sulfo-4,1-phenylene)azo]bis[3,4,5-trihydroxybenzoic acid], *see* S-00030
- N,N'*-[1,2-Ethenediylbis(3-sulfo-4,1-phenylene)azo(1,8-dihydroxy-3,6-disulfo-7,2-naphthalenediyl)methylene]bis[*N*-(carboxymethyl)glycine], *see* S-00031
- 2,2'-(1,2-Ethenediyl)bis[5-[2,3,4-trihydroxyphenylazo]benzenesulfonic acid], *see* S-00029
- ▷ Ethenetetracarbonitrile, *see* T-00037
- ▷ Ethenol homopolymer, *see* P-00249
- Ethenyl carbonochloride, *see* V-00005
- ▷ 1,1'-Ethenyldienebisbenzene, *see* D-01016
- 2,5'-Ethenyldienebis-8-quinolinol, *see* H-00534
- (Ethenyloxy)cyclohexane, E-00047
- 4-Ethenylpyridine, *see* V-00009
- 5-(Ethenylsulfonyl)-*N,N*-dimethyl-1-naphthalenamine, *see* D-00802
- 2-(Ethenylsulfonyl)ethanol, E-00048
- 7-(1-Ethenyl-3,3,5,5-tetramethylhexyl)-8-quinolinol, E-00049
- ▷ Ether, *see* D-00346
- ▷ Ethidium, *see* D-00096
- ▷ Ethidium bromide, *in* D-00096
- ▷ Ethionamide, *see* E-00107
- Ethopabate, *in* A-00184
- ▷ Ethopropazine, E-00050
- Ethopropazine hydrochloride, *in* E-00050
- Ethotrimeprazine, *see* E-00123
- ▷ Ethoxazene, *see* D-00095
- Ethoxazene hydrochloride, *in* D-00095
- Ethoxazorutin, *in* R-00014
- Ethoxazorotidine, *in* R-00014
- 4-Ethoxyacridine, *in* H-00092
- 9-Ethoxyacridine, *in* H-00093
- 4-Ethoxy-3,6-acridinediamine, *in* H-00094
- 7-Ethoxy-3,9-acridinediamine, *see* D-00094
- 4-Ethoxyacridone, *in* H-00095
- Ethoxyamine, *see* E-00089
- ▷ 4-Ethoxyaniline, E-00051
- 5-(*p*-Ethoxyanilino)-5,6-dihydrouracil, E-00052
- ▷ 4-Ethoxybenzaldehyde, *in* H-00102
- ▷ 4-Ethoxybenzenamine, *see* E-00051
- 3-Ethoxybenzidine, *in* D-00057
- 1-Ethoxybenzothiazole, *in* H-00125
- 3-[(6-Ethoxy-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, E-00053
- N*-(*o*-Ethoxybenzoyl)phenylhydroxylamine, *in* H-00112
- 2-Ethoxybiphenyl, *in* B-00210
- 2-Ethoxycarbazole, *in* H-00144
- 2-Ethoxycarbonylcyclopentanone, *in* O-00060
- 1-[(Ethoxycarbonyl)oxy]-2,5-pyrrolidinedione, E-00054
- N*-(Ethoxycarbonyloxy)succinimide, *see* E-00054
- ▷ *p*-Ethoxychrysoidine, *see* D-00095
- 5-Ethoxy-3,4-dihydro-2*H*-pyrrole, *in* P-00443
- 1-Ethoxy-2,4-dimethylbenzene, *in* D-00884
- 2-Ethoxy-1,3-dimethylbenzene, *in* D-00885
- 4-Ethoxy-1,2-dimethylbenzene, *in* D-00886
- ▷ 1-Ethoxy-2,3-dinitrobenzene, *in* D-00957
- ▷ 1-Ethoxy-2,4-dinitrobenzene, *in* D-00958
- 2-Ethoxy-1,3-dinitrobenzene, *in* D-00960
- 2-Ethoxy-1,4-dinitrobenzene, *in* D-00959
- 4-Ethoxy-1,2-dinitrobenzene, *in* D-00961
- 2-Ethoxy-2,2-diphenylacetic acid, *in* H-00166
- 2-[[2-(2-Ethoxyethoxy)ethyl](2-ethoxyethyl)aminomethyl]-4-nitrophenol, E-00055
- 6-Ethoxy-2-[(6-ethoxy-1-ethyl-4(1*H*)-quinolinylidene)methyl]-1-ethylquinolinium(1+), *see* P-00236
- 2-[(2-Ethoxy-4-ethylamino-5-methylphenyl)azopyridine], *in* A-00253
- 4'-Ethoxy-4-hydroxyazobenzene, *in* D-00516
- ▷ 3-Ethoxy-4-hydroxybenzaldehyde, *in* D-00519
- 2-Ethoxy-*N*-hydroxy-*N*-phenylbenzamide, *in* H-00112
- 4-Ethoxy-2-hydroxy-*N*-salicylideneaniline, *in* D-00614
- 2-Ethoxy-1-isopropyl-4-methylbenzene, *in* I-00075
- 1-Ethoxy-2-methoxybenzene, *in* B-00020
- 1-Ethoxy-3-methoxybenzene, *in* B-00021
- 1-Ethoxy-4-methoxybenzene, *in* B-00022
- 9-Ethoxy-10-methylacridinium(1+), E-00056
- 5-Ethoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, E-00057
- 1-Ethoxy-3-methylbutane, *in* M-00147
- ▷ 1-Ethoxy-2-nitrobenzene, *in* N-00117
- 1-Ethoxy-3-nitrobenzene, *in* N-00118
- ▷ 1-Ethoxy-4-nitrobenzene, *in* N-00119
- 1-Ethoxy-2-nitrosophthalene, *in* N-00161
- 2-Ethoxy-1-nitrosophthalene, *in* N-00160
- 5-Ethoxy-4-oxo-4*H*-pyran-2-carboxylic acid, *in* H-00434
- 2-Ethoxyptane, *in* P-00035
- 2-Ethoxyphenol, *in* B-00020
- 4-Ethoxyphenol, *in* B-00022
- m*-Ethoxyphenol, *in* B-00021
- 8-Ethoxy-10*H*-phenothiazin-1-amine, *in* H-00440
- ▷ *N*-(4-Ethoxyphenyl)acetamide, *in* E-00051
- 1-[(4-Ethoxyphenyl)amino]-2-mercapto-1-propanone, E-00058
- 2-[2-[4-[(4-Ethoxyphenyl)amino]phenyl]ethenyl]-5-(methoxycarbonyl)-1,3,3-trimethyl-3*H*-indolium(1+), *see* C-00047
- N*-(*p*-Ethoxyphenyl)anilinesulfonephthalein, *in* A-00369
- ▷ 4-[(4-Ethoxyphenyl)azo]-1,3-benzenediamine, *see* D-00095
- 4-[(4-Ethoxyphenyl)azo]-6-methyl-1,3-benzenediamine, *in* H-00451
- 4-[(4-Ethoxyphenyl)azo]-1-naphthalenamine, *in* A-00277
- 4-[(4-Ethoxyphenyl)azo]phenol, *in* D-00516
- ▷ 4-[(*p*-Ethoxyphenyl)azo]-*m*-phenylenediamine, *see* D-00095
- N*-(4-Ethoxyphenyl)-1,4-benzenediamine, *in* A-00185
- N*-(4-Ethoxyphenyl)-2-hydroxyacetamide, *in* E-00051
- 1-(4-Ethoxyphenyl)-4-(4-hydroxybenzylidene)-2,3-pyrrolidinedione, E-00059
- N*-(4-Ethoxyphenyl)-*N*-(trimethylsilyl)acetamide, E-00060
- 3-Ethoxypropanethiol, *in* M-00053
- 5-Ethoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- 2-Ethoxy-1-pyrrole, *in* P-00443
- p*-Ethoxyquinaldine-*p*-ethoxyquinolineethylecyanine, *see* P-00236
- 8-Ethoxyquinoline, *in* H-00525
- 6-Ethoxy-4-quinolinecarboxylic acid, *in* H-00527
- 1-Ethoxy-*N,N,N*-trimethyl-1-oxo-2-hexadecanaminium(1+), E-00061
- ▷ Ethyl acetate, E-00062
- Ethyl acetoacetate, E-00063
- 3-[α -(1-Ethylacetyl)benzyl]-4-hydroxycoumarin, *see* E-00101
- O*-Ethyl acetylcarbamothioate, *in* T-00159
- 5-Ethyl acetylcarbamothioate, *in* T-00159
- O*-Ethyl acetylthiocarbamate, *in* T-00159
- ▷ Ethyl acrylate, *in* P-00269
- ▷ Ethylal, *in* F-00035
- ▷ Ethyl alcohol, *see* E-00040
- ▷ Ethyl 4-aminobenzoate, *in* A-00105
- 4-(Ethylamino)biphenyl, *in* A-00117
- Ethyl 3-[(aminocarbonyl)hydrazono]butanoate, *in* E-00063
- α -(Ethylamino)-*p*-(dimethylamino)benzylphosphonic acid, E-00064
- ▷ 2-Ethylaminoethanol, *in* A-00171
- 2-Ethylaminoethylamine, *in* E-00024
- 4-[[4-(Ethylamino)-2-hydroxy-5-methylphenyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, *see* A-00395
- 2-(4-Ethylamino-3-hydroxy-6-methylphenylazo)thiazole, *see* E-00066
- [(Ethylamino)(2-hydroxyphenyl)methyl]phosphonic acid, E-00065
- 4-[[4-(Ethylamino)-6-hydroxy-*m*-tolyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, *in* A-00196
- 4-[[4-(Ethylamino)-3-methylphenyl][4-(ethylimino)-3-methyl-2,5-cyclohexadienylidene]methyl]-1,3-benzenedisulfonic acid, *see* X-00004
- 5-(Ethylamino)-4-methyl-2-[(4-phenyl-2-thiazolyl)azo]phenol, *in* A-00250
- 5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, *in* A-00253
- 2-(Ethylamino)-4-methyl-5-(8-quinolinylazo)phenol, *in* A-00255
- 2-(Ethylamino)-4-methyl-2-(2-thiazolylazo)phenol, E-00066
- 2-(Ethylamino)pyridine, *in* A-00333
- O*-Ethyl aminothioformate, *in* T-00159
- S*-Ethyl aminothioformate, *in* T-00159
- N*-Ethylanilinesulfonephthalein, *in* A-00369
- ▷ α -Ethylbenzeneacetic acid, *see* P-00110
- 8-(*p*-Ethylbenzenesulfonamido)quinoline, *see* E-00112
- N*-Ethylbenzidine, *in* D-00053
- N,p*-Ethylbenzoyl-*N*-phenylhydroxylamine, *see* E-00093
- N*-Ethyl-[1,1'-biphenyl]-4,4'-diamine, *in* D-00053
- Ethylbis(2,4-dinitrophenyl)acetate, *in* D-00971
- ▷ Ethyl butex, *in* H-00113
- O*-Ethyl butylphosphonodithioate, *in* B-00638
- ▷ Ethyl butyrate, *in* B-00604
- Ethyl capri blue, E-00067
- O*-Ethyl carbamothioate, *in* T-00159
- S*-Ethyl carbamothioate, *in* T-00159
- 9-Ethyl-9*H*-carbazol-3-amine, *in* A-00132
- ▷ Ethyl carbonochloride, *see* E-00068
- ▷ *O*-Ethyl carbonodithioate, *see* X-00002
- ▷ Ethyl chemosept, *in* H-00113
- Ethyl 2-chlorocarbamilate, *in* C-00058
- Ethyl 3-chlorocarbamilate, *in* C-00059
- Ethyl 4-chlorocarbamilate, *in* C-00060
- ▷ Ethyl chlorocarbonate, *see* E-00068
- ▷ Ethyl chloroformate, E-00068
- ▷ Ethyl cyanoacetate, *in* C-00324
- Ethyl dibutylarsinate, *in* D-00226
- 1-Ethyl-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, E-00069
- 2-Ethyl-5,7-dihydroxyisoflavone, *see* E-00070
- 2-Ethyl-5,7-dihydroxy-3-phenyl-4*H*-1-benzopyran-4-one, E-00070
- S*-Ethyl-*N*-(diisopropylthiophosphoryl)dithiocarbamate, *in* B-00404
- O*-Ethyl dimethylcarbamothioate, *in* T-00159
- N*-Ethyl-*N,N*-dimethyl-1-hexadecanaminium(1+), E-00071
- Ethyl diphenylphosphinodithioate, *in* D-01039
- Ethylidipicyrlamine, *in* H-00065
- ▷ Ethylidithiourame, *see* D-01107
- ▷ Ethylenebisdithiocarbamic acid, E-00072
- N,N'*-Ethylenebis[2-(*o*-hydroxyphenyl)glycine], E-00073
- [Ethylenebis(iminobenzylidene)]diphosphinic acid, E-00074

- [Ethylenebis(iminobenzylidene)]diphosphonic acid, *see* E-00031
- [Ethylenebis(iminosalicylidene)]diphosphonic acid, E-00075
- N,N'*-Ethylenebis[2-mercaptobenzamide], *see* B-00397
- N,N'*-Ethylenebis(4-methoxy-1,2-benzoquinone 2-imine), E-00076
- N,N'*-Ethylenebis(octadecanamide), *in* E-00024
- ▷ Ethylenebis(oxyethylenenitrilo)tetraacetic acid, *see* B-00278
- 1,2-Ethylenebis[phenyldithiocarbamic acid], *see* E-00033
- ▷ [N,N'-Ethylenebis(salicylideneiminato)]cobalt, E-00077
- N,N'*-Ethylenebis(salicylimine), *see* B-00363
- Ethylenebisthioglycolic acid, *see* E-00080
- 1,2-Ethylenebis[triphenylphosphonium](2+), *see* E-00034
- ▷ Ethylene chlorohydrin, *see* C-00114
- Ethylene chlorophosphite, *see* C-00109
- ▷ Ethylenediamine, *see* E-00024
- Ethylenediamine-3-aldehydosalicylic acid, *see* A-00175
- Ethylenediamine-*N,N'*-bis[α -(2-hydroxyphenyl)acetic acid], *see* E-00073
- ▷ Ethylenediaminetetraacetic acid, E-00078
- ▷ Ethylenediamine tetraacetoneitrile, *in* E-00078
- Ethylenediaminetriacetic acid, E-00079
- ▷ *trans*-Ethylene-1,2-dicarboxylic acid, *see* F-00038
- α,α' -(Ethylenedinitrilo)di-*o*-cresol, *see* B-00363
- ▷ [[α,α' -(Ethylenedinitrilo)di-*o*-cresolato](2-)]cobalt, *see* E-00077
- ▷ Ethylenedinitrotetraacetic acid, *see* E-00078
- 7,8-Ethylenedioxyflavonol, *see* D-00422
- 1,2-Ethylenediphosphonic acid, *see* E-00026
- Ethylenedithiodiacetic acid, E-00080
- Ethylene dithiostyrate, *in* E-00028
- ▷ Ethylene glycol bis(2-aminoethyl ether)-*N,N,N',N'*-tetraacetic acid, *see* B-00278
- ▷ Ethylene glycol bis[2-bis(carboxymethyl)amino]ethyl ether, *see* B-00278
- ▷ Ethylene glycol butyl ether, *see* B-00613
- ▷ Ethylene glycol ethylene ether, *see* D-00985
- ▷ Ethylene glycol monomethyl ether, *see* M-00087
- Ethylene phosphorochloridite, *see* C-00109
- ▷ Ethylene thioglycol, *see* M-00031
- ▷ Ethylene thiourea, *see* I-00003
- ▷ *N*-Ethylethanamine, *see* D-00314
- N*-Ethyl-1,2-ethanediamine, *in* E-00024
- ▷ Ethyl ethanoate, *see* E-00062
- ▷ Ethyl ether, *see* D-00346
- 1-Ethyl-2-(1-ethyl-1,4-dihydro-4-pyridinyl)-6-methylquinolinium(1+), E-00081
- ▷ 2-Ethyl-*N*-(2-ethylhexyl)-1-hexanamine, *see* B-00351
- N*-Ethyl-*N*-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl](4-hydroxy-2-sulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfobenzenethanaminium hydroxide inner salt, *see* F-00001
- N*-Ethyl-*N*-[4-[[4-[ethyl[(3-sulfophenyl)methyl]amino]phenyl](2-sulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-3-sulfobenzenemethanaminium(1+) hydroxide inner salt, *see* E-00018
- Ethylfluorone, *see* E-00121
- 2-Ethyl-4-(2-furanyl)propenal, E-00082
- α -Ethyl- β -2-furylacrolein, *see* E-00082
- Ethyl green, *see* B-00479
- Ethylhexadecyldimethylammonium, *see* E-00071
- 2-Ethyl-1-hexanol, E-00083
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- 5-Ethyl-2-hydroxybenzaldehyde 2-hydroxy-5-methylanil, *see* H-00202
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- 3-Ethyl-5-hydroxy-2,7-dimethylchromone, *see* E-00086
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 2-(2-Furanylmethylene)-N-phenylhydrazinecarbothioamide, *see* F-00047
 5-Furanylmethylenerrhodanine, *see* F-00056
 5-(2-Furanylmethylene)-2-thioxo-4-thiazolidinone, F-00056
 N-(2-Furanylmethyl)hydrazinecarbothioamide, F-00057
 5-(2-Furanyl)-2,4-pentadienal, F-00058
 2-[5-(2-Furanyl)-2,4-pentadienylidene]hydrazinecarbothioamide, *in* F-00058
 5-[5-(2-Furanyl)-2,4-pentadienylidene]rhodanine, *see* F-00059
 5-[5-(2-Furanyl)-2,4-pentadienylidene]-2-thioxo-4-thiazolidinone, F-00059
 3-(2-Furanyl)-2-propenal, F-00060
 5-(3-Furanyl)-2-propenylidene)rhodanine, *see* F-00061
 5-[3-(2-Furanyl)-2-propenylidene]-2-thioxo-4-thiazolidinone, F-00061
 1-(2-Furanyl)-3-(2-selenophenyl)-1,3-propanedione, F-00062
 Furaptra, *see* M-00003
 ▶ Furea, *in* N-00109
 ▶ Furfural, *see* F-00042
 Furfural 2-benzothiazolylhydrazone, *see* F-00044
 ▶ α -Furfuraldehyde, *see* F-00042
 β -Furfuraldehyde, *see* F-00043
 Furfural phenylthiosemicarbazone, *see* F-00047
 Furfural 1-phthalazinylhydrazone, *see* F-00048
 ▶ Furfurole, *see* F-00042
 Furfurool green, F-00063
 Furfurylideneacetaldehyde, *see* F-00060
 Furfurylideneaniline, *in* F-00042
 Furfuryliminodiacetic acid, *see* A-00242
 ▶ Furul, *see* D-00364
 ▶ α,α -Furul, *see* D-00364
 ▶ α -Furidioxime, *in* D-00364
 Furul-2-pentadienal, *see* F-00058
 2-Furohydroxamic acid, F-00064
 ▶ α -Furoic acid, *see* F-00050
 ▶ Furoin, F-00065
 ▶ α,α -Furoin, *see* F-00065
 α -Furoinoxime, *in* F-00065
 ▶ Furoylfurylcarbinol, *see* F-00065
 ▶ 2-Furoylhydrazine, *in* F-00050
 N-Furoylphenylhydroxylamine, *see* H-00472
 Furoylselenoymethane, *see* F-00062
 2-Furoyltrifluoroacetone, *see* T-00248
 2-Furylamidopyridine, *see* P-00390
 2-Furyl α -hydroxybenzyl ketone, *see* F-00052
 5-(2-Furyl)-3-phenylpyrazoline-1-dithiocarbamic acid, *see* F-00051
 ▶ G 469, *in* P-00319
 ▶ Gabilin, *in* T-00189
 G Acid, *see* H-00343
 ▶ Galactaric acid, G-00001
 ▶ Galactosaccharic acid, *see* G-00001
 ▶ Galangin, *see* T-00284
 Galicide, *in* T-00272
 Galiosin, *in* T-00272
 ▶ Gallacetophenone, *see* T-00269
 Gallaldehyde, *see* T-00273
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 Gallamine blue, G-00003
 ▶ Gallamine triethiodide, *in* G-00002
 Gallein, G-00004
 ▶ Gallic acid, *see* T-00277
 Gallic aldehyde, *see* T-00273
 ▶ Gallicin, *in* T-00277
 Gallion, *see* A-00137
 Gallobenzophenone, *see* T-00278
 Gallochrome brown 5RD, *see* C-00284
 Gallocyanine, G-00005
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 Gallomide blue, *see* D-00661
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 Gallotannic acid, *see* T-00001
 Gallotannin, *see* T-00001
 4-Galloylpyrogallol, *see* H-00054
 Galumofluorine, *see* S-00019
 Gammaazonitrophenol, *see* A-00191
 ▶ Garantose, *see* S-00001
 GBHA, *see* G-00027
 Gd(fod)₃, *see* T-00395
 Gd(thd)₃, *see* T-00417
 Geigy red dye, *see* D-00437
 Gelafusal, *see* G-00008
 ▶ Gelatin, G-00008
 Gelatine bloom 250, *see* G-00008
 Gelfoam, *see* G-00008
 Gelrite, *see* G-00008
 Genatropine, *in* T-00431
 Genkwanin, *see* D-00640
 ▶ Gentian violet, *see* C-00320
 ▶ Gentinatrate, *in* D-00532
 Gentisaldehyde, *see* D-00518
 ▶ Gentisic acid, *see* D-00532
 Gentisic aldehyde, *see* D-00518
 ▶ Gentisic acid, *see* D-00532
 ▶ Gentisod, *in* D-00532
 ▶ Gibbs reagent, *see* D-00257
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 ▶ Glaucic acid, *see* F-00038
 ▶ Glaucon, *see* A-00066
 ▶ Globulariacitrin, *see* R-00014
 Glucalox, *in* G-00015
 Glucitol, G-00010
 Glucoabrietin, *in* H-00128
 Glucocaffaic acid, *in* D-00716
 ▶ Gluconic acid, G-00011
 Glucopaconol, *in* D-00507
 Glucopyranosyl isothiocyanate, G-00012
 7-O- β -D-Glucopyranosyloxy-3,3',4',5'-tetrahydroxyflavone, *see* Q-00001
 7-Glucopyranosyl-3,4,5,8-tetrahydroxy-1-methylanthraquinone-2-carboxylic acid, *see* C-00045
 Glucosinolate, *see* H-00128
 Glucosinalbin, *see* H-00128
 4-Glucosyloxybenzaldehyde, *in* H-00102
 Glucuronic acid, G-00013
 ▶ Glue sugar, *see* G-00016
 Glutacondialdehyde, *see* P-00038
 Glutamic acid N-carboxyanhydride, *see* D-00993
 γ -Glutamyl-p-nitroanilide, *see* N-00136
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 Glutarimide dioxide, *in* G-00014
 Glycalox, *in* G-00015
 ▶ Glycerin, *see* G-00015
 ▶ Glyceritol, *see* G-00015
 ▶ Glycerol, G-00015
 ▶ Glycerol 1,3-dichlorohydrin, *see* D-00298
 ▶ Glycine, G-00016
 Glycinescresol red, G-00017
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 Glyoxal bis-O-acetylloxime, *in* G-00037
 Glyoxal bis(4-biphenylthiosemicarbazone), G-00021
 Glyoxal bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone], G-00022
 Glyoxal bis(4-cyclohexylthiosemicarbazone), G-00023
 Glyoxal bis(3,4-dichlorophenylthiosemicarbazone), G-00024
 Glyoxal bis(2-fluorophenylthiosemicarbazone), G-00025
 Glyoxal bis(4-fluorophenylthiosemicarbazone), G-00026
 Glyoxal bis(2-hydroxyanil), G-00027
 Glyoxal bis(4-hydroxybenzoylhydrazone), G-00028
 Glyoxal bis(2-mercaptoanil), G-00029
 Glyoxal bis[4-(6-methyl-2-benzothiazolyl)phenylthiosemicarbazone], G-00030
 Glyoxal bis(1-naphthylthiosemicarbazone), G-00031
 Glyoxal bis(4-nitrophenylthiosemicarbazone), G-00032
 Glyoxal bis(phenylthiosemicarbazone), G-00033
 Glyoxal bis(thiosemicarbazone), G-00034
 Glyoxal bis[4-(3-trifluoromethyl)-4-chlorophenyl]thiosemicarbazone, G-00035

- Glyoxal bis[4-(2-trifluoromethyl)phenyl]thiosemicarbazone, G-00036
- ▷ Glyoxal dioxime, *see* G-00037
- ▷ Glyoxalic acid, *see* G-00038
- ▷ Glyoxaline, *see* I-00001
- ▷ Glyoxime, G-00037
- ▷ Glyoxylic acid, G-00038
- N*-Glyoxyloylanthranilic acid, G-00039
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- ▷ Glyrol, *see* G-00015
- Gnoscopine, *see* N-00060
- Gold sodium thiomalate, *in* M-00026
- Gossypimine, *see* D-00084
- ▷ Gossypol, G-00041
- Gossypol bis[*N*-(2-hydroxy)ethyleneimine], G-00042
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- ▷ Gravol, *in* D-00998
- ▷ Greenhartin, *see* H-00515
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- GSN (as disodium salt), *in* G-00041
- ▷ GT 1, *in* P-00319
- ▷ Guaiacol, *see* M-00102
- Guaiacolphtalein, *see* B-00379
- Guanamprazine, *see* A-00090
- ▷ Guanidine, G-00044
- 2-Guanidino-1,2-dihydro-5-methyl-3*H*-pyrazol-3-one, G-00045
- ▷ Guanyldiazine, *see* A-00179
- ▷ L-Gulitol, *in* G-00010
- Gum arabic, *in* A-00398
- H 33258, *see* H-00488
- ▷ H₂Dm, *see* D-00862
- ▷ H acid, *see* A-00200
- ▷ Haematein, H-00001
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- Haemonorm, *see* C-00301
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- ▷ Hartasol, *see* P-00266
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- Hemorrhagyl, *see* C-00301
- Heparit, *in* P-00341
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- ▷ Heptadecanoic acid, H-00003
- ▷ Heptafluorobutanoic acid, H-00004
- 1-(Heptafluorobutyl)imidazole, *see* H-00009
- (6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedionato-*O*,*O'*)silver, H-00005
- (1,1,1,2,2,3,3-Heptafluoro-7,7-dimethyl-4,6-octanedionato)silver(*I*), *see* H-00005
- 6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedione, H-00006
- 2,2,3,3,4,4,4-Heptafluoro-*N*-methyl-*N*-(trimethylsilyl)butanamide, H-00007
- 4-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-2,4-dihydro-5-methyl-2-(4-methylphenyl)-3*H*-pyrazol-3-one, H-00008
- 1-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-1*H*-imidazole, H-00009
- Heptamethoxy red, H-00010
- 2,2',2'',4,4',4'',6-Heptamethoxytriphenylcarbinol, *see* H-00010
- Heptamethylsilazane, *in* B-00471
- 4,4'-(1,7-Heptanediy)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one], *see* D-00137
- 1-Heptanesulfonic acid, H-00011
- ▷ 4-Heptanone, H-00012
- 1,4,10,13,16,19-Heptaoxacycloheptacosane, H-00013
- 4,7,10,16,19,24,27-Heptaoxa-1,13-diazabicyclo[11.8.8]nonacosane, H-00014
- Heptoxime, *in* C-00333
- Heptyl 4-aminobenzoate, *in* A-00105
- Heptylarsonic acid, H-00015
- ▷ Heptyl cyanide, *in* O-00036
- 1-Heptyl-4-hydroxyproline, *see* H-00016
- N*-Heptylhydroxyproline, H-00016
- 4,4'-Heptylidenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], H-00017
- 4,4'-Heptylidenebis[1,2-dihydro-3*H*-pyrazol-3-one], H-00018
- n*-Heptyl iodide, *see* I-00044
- 1-Heptylsulfonic acid, *see* H-00011
- Heptyl tetraethylphosphorodiamidate, *in* T-00046
- ▷ Hermetas, *see* S-00001
- Hesperetic acid, *in* D-00716
- Hesperetin, *see* T-00296
- Hesperetic acid, *in* D-00716
- Hesperitin, *see* T-00296
- ▷ Hetamine, *in* P-00172
- ▷ 1,4,7,10,13,16-Hexaazacyclooctadecane, H-00019
- Hexabutylphosphoric triamide, *in* H-00020
- Hexabutylphosphorothioic triamide, *in* H-00020
- Hexabutylphosphorous triamide, H-00020
- Hexacamphamine, *in* H-00057
- ▷ Hexachlorobenzene, H-00021
- Hexacitramine, *in* H-00057
- 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid, H-00022
- 9*H*-Hexadecafluorononanoic acid, *see* H-00022
- 6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-Hexadecahydrodibenzo[*b,g*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacotin, *see* D-00160
- 6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-Hexadecahydro-2,20-dimethyldibenzo[*b,g*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacotin, H-00023
- 7,8,10,11,13,14,16,17,26,27,29,30,32,33,35,36-Hexadecahydrodinaphtho[2,3-*b*:2',3'-*q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacotin, *see* D-00932
- 6,7,9,10,12,13,15,23,24,26,27,29,30,32,33-Hexadecahydro-2,19-dinitrodibenzo[*b,g*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacotin, H-00024
- 6,7,13,14,15,16,17,18,24,25,31,32,33,34,35,36-Hexadecahydrotrabenzof[*e,m,s,a*][1,4,15,18,8,11,22,25]tetraoxatetraazacyclooctacosine, H-00025
- Hexadecanamide, *in* H-00026
- ▷ Hexadecanoic acid, H-00026
- 1-Hexadecyl-4-hydroxyproline, *see* H-00027
- N*-Hexadecylhydroxyproline, H-00027
- 1-Hexadecylpyridinium(1+), H-00028
- Hexadecyltrimethylammonium(1+), H-00029
- ▷ Hexafluoroacetone, *see* H-00033
- Hexafluoroacetylacetone, H-00030
- ▷ Hexafluorobenzene, H-00031
- Hexafluorobutanoylpivaloylimethane, *see* H-00006
- 2,2,2,2',2'',2''-Hexafluorodiacetamide, *see* B-00461
- 2,2,2,2',2'',2''-Hexafluoro-*N*-methylacetamide, *in* B-00461
- 1,1,1,5,5,5-Hexafluoro-2,4-pentanedione, *see* H-00030
- 1,1,1,3,3,3-Hexafluoro-2,2-propanediol, *in* H-00033
- ▷ 1,1,1,3,3,3-Hexafluoro-2-propanol, H-00032
- ▷ 1,1,1,3,3,3-Hexafluoro-2-propanone, H-00033
- ▷ Hexahydro-1*H*-azepine-1-amine, H-00034
- Hexahydro-1*H*-azepine-1-carbodithioic acid, H-00035
- Hexahydro-2*H*-azepine-2-thione, H-00036
- ▷ Hexahydrobenzoic acid, *see* C-00336
- 2,3,5,6,8,9-Hexahydro-1,4,7,10-benzotetraoxacyclododecine, *see* B-00052
- 3,4,6,7,10,11-Hexahydro-2*H,9H*-1,5,8,12-benzotetraoxacyclotetradecine, *see* B-00053
- Hexahydrocupferron, *see* H-00411
- 2,3,5,6,8,9-Hexahydro-7-cyano-5*H*-dibenzo[*k,r*]-[1,4,7,10,13,14,16,17-tetraoxatetraazacyclononadecine, *see* M-00001
- Hexahydro-2*H*-1,3-diazepine-2-thione, H-00037
- 6,7,10,11,17,18-Hexahydro-5*H,9H*-dibenzo[*e,m*][1,4,7,10,13]dioxathiadiazacyclopentadecine, H-00038
- 6,7,10,11,17,18-Hexahydro-5*H,9H*-dibenzo[*k,l*][1,7,10,14,13]oxadithiadiazacyclopentadecine, H-00039
- 6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecine, *see* D-00155
- [(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecine-18-yl)oxy]acetic acid, H-00040
- 4-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecine-18-yl)oxy]butanoic acid, H-00041
- 2-[6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*]-[1,4,7,10,13-pentaoxacyclohexadecine-18-yl]oxy]hexanoic acid, H-00042
- 17-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecine-18-yl)oxy]octadecanoic acid, H-00043
- 7,8,15,16,17,18-Hexahydrodibenzo[*e,m*][1,4,8,11]tetraazacyclotetradecine, H-00044
- 6,7,9,10,12,13-Hexahydro-19*H*-dibenzo[*b,l*][1,11,14,17,4,5,7,8]tetraoxatetraazacyclononadecine-21-carbonitrile, *see* M-00001
- 6,7,10,11,17,18-Hexahydro-5*H,9H*-dibenzo[*e,m*][1,4,10,7,13]trioxadiazacyclopentadecine, H-00045
- 6,7,10,11,17,18-Hexahydro-5*H,9H*-dibenzo[*e,m*][1,4,10,7,13]trithiadiazacyclopentadecine, H-00046
- 1,4,6,8,11,13-Hexahydro-6,13-dihydroxy-1,4,8,11-tetraoxo-2,9-pentacenedisulfonic acid, *see* L-00004
- 3,3a,4,5,6,7-Hexahydro-2,3-diphenyl-2*H*-indazole, H-00047
- Hexahydro-*N*-(4-methylpentyl)-1*H*-azepine-1-carbothioamide, H-00048
- Hexahydro-*N*-phenyl-1*H*-azepine-1-carbothioamide, H-00049
- 3,3a,4,5,6,7-Hexahydro-3-phenyl-2,1-benzisoxazole, H-00050
- 6,7,9,10,12,13-Hexahydro-21-phenyl-19*H*-dibenzo[*b,l*][1,11,14,17,4,5,7,8]tetraoxatetraazacyclononadecine, *see* M-00002
- ▷ Hexahydropyrazine, *see* P-00237
- ▷ Hexahydropyridine, *see* P-00241
- 1',2',3',4',5',6'-Hexahydro-5-(2-pyridylphenylazo)-2,4-biphenyldiol, *see* C-00358
- ▷ Hexahydropyrimidine-2-thione, *see* T-00066
- Hexahydro-1,3,5-trihydroxy-1,3,5-triazine, H-00051
- 5-[(Hexahydro-2,4,6-trioxo-5-pyrimidyl)imino]-2,4,6-(1*H,3H,5H*)-pyrimidinetrione, *see* P-00281

- 1,2,3,5,6,7-Hexahydroxy-9,10-anthracenedione, *see* H-00052
- 1,2,4,5,6,8-Hexahydroxy-9,10-anthracenedione, *see* H-00053
- 1,2,3,5,6,7-Hexahydroxyanthraquinone, H-00052
- 1,2,4,5,6,8-Hexahydroxyanthraquinone, H-00053
- 2,3,3',4,4',5'-Hexahydroxybenzophenone, H-00054
- ▷ 1,1',6,6',7,7'-Hexahydroxy-3,3'-dimethyl-5,5'-bis(1-methylethyl)-[2,2'-binaphthalene]-8,8'-dicarboxaldehyde, *see* G-00041
- ▷ 3,3',4',5,5',7-Hexahydroxyflavone, H-00055
- 3,3',4',5,6,7-Hexahydroxyflavone, *see* D-00717
- 2,2',2'',4,4',4''-Hexahydroxytriphenylmethane, *see* T-00388
- Hexal, *in* H-00057
- Hexalet, *in* H-00057
- 1,2,3,5,6,7-Hexamethoxyanthraquinone, *in* H-00052
- Hexamethoxy red, H-00056
- 2,2',2'',4,4',4''-Hexamethoxytriphenylcarbinol, *see* H-00056
- 1,1,1,3,3,3-Hexamethylsilazane, *see* B-00471
- Hexamethylenamine mandelate, *in* H-00057
- ▷ Hexamethylenediamine, *see* H-00061
- Hexamethylenedithiocarbamic acid, *see* H-00035
- N*-Hexamethylene-*N'*-isohexylthiourea, *see* H-00048
- N*-Hexamethylene-*N'*-phenylthiourea, *see* H-00049
- ▷ Hexamethylenetetramine, H-00057
- ▷ Hexamethylphosphoramidate, *see* H-00058
- ▷ Hexamethylphosphoric triamide, H-00058
- 5,7,7',12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, H-00059
- 5,5',7,12,12',14-Hexamethyl-1,4,8,11-tetraazacyclotetradecane, H-00060
- ▷ Hexamine, *see* H-00057
- Hexamine hippurate, *in* H-00057
- ▷ Hexanamide, *in* H-00066
- ▷ Hexanediamide, *in* H-00062
- ▷ 1,6-Hexanediamine, H-00061
- ▷ Hexanedioic acid, H-00062
- ▷ 2,5-Hexanedione, H-00063
- ▷ Hexanenitrile, *in* H-00066
- 1-Hexanesulfonic acid, H-00064
- ▷ 2,2',4,4',6,6'-Hexanitrodiphenylamine, H-00065
- ▷ 2,4,6,2',4',6'-Hexanitrodiphenylamine, *see* H-00065
- 2',2'',4,4',6,6''-Hexanitrodi-3,5-xylylamine, *see* T-00096
- Hexanohydroxamic acid, *see* H-00186
- ▷ Hexanoic acid, H-00066
- 2-Hexanoylpyridine, *see* P-00418
- Hexaoxacyclozochrome, H-00067
- ▷ 1,4,7,10,13,16-Hexaoxacyclooctadecane, *see* C-00315
- 2-(1,4,7,10,13,16-Hexaoxacyclooctadec-2-ylmethoxy)-4,6-dinitrophenol, *see* H-00164
- 2-(1,4,7,10,13,16-Hexaoxacyclooctadec-2-ylmethoxy)-4-[(4-nitrophenyl)azo]phenol, *see* H-00401
- 2-(1,4,7,10,13,16-Hexaoxacyclooctadec-2-ylmethyl)-4-[(4-nitrophenyl)azo]phenol, *see* H-00399
- ▷ 4,7,13,16,21,24-Hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, H-00068
- 2,2'-[1,4,7,13,16,19-Hexaoxa-10,22-diazacyclotetacosane-10,22-diy]bis(methylene)]bis[4-nitrophenol], *see* B-00384
- Hexathia-18-crown-6, *see* H-00069
- Hexathia-18-crown-6, *see* H-00070
- 1,2,5,8,11,14-Hexathiacyclohexadecane, H-00069
- 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
- 1,1'-(1,3,5-Hexatriene-1,6-diy]bisbenzene, *see* D-01019
- threo*-Hex-2-enonic acid γ -lactone, *see* A-00446
- (*E*)-2-Hexenyl hexanoate, *in* H-00066
- ▷ Hexone, *see* M-00218
- threo*-Hexulosono-1,4-lactone-2,3-enediol, *see* A-00446
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- N*-[(Hexylamino)thioxomethyl]benzamide, *see* H-00072
- ▷ 4-Hexyl-1,3-benzenediol, H-00071
- N*-Hexyl-*N'*-benzoylthiourea, H-00072
- 2-Hexylbutanedioic acid, H-00073
- O*-Hexylbutylphosphonodithioate, *in* B-00638
- N*-(2-Hexyldecanoyl)-*N*-phenylhydroxylamine, *see* H-00076
- 6-Hexyl-4,5-dihydro-5-thioxo-1,2,4-triazin-3(*H*)-one, H-00074
- ▷ Hexyl-2,4-dihydroxybenzene, *see* H-00071
- 3-Hexyl-2,6-dimercapto-4*H*-thiopyran-4-one, H-00075
- Hexyldithiopyryl methane, *see* H-00017
- ▷ Hexylene glycol, *see* M-00217
- ▷ *N*-Hexyl-1-hexanamine, *see* D-00367
- 2-Hexyl-*N*-hydroxy-*N*-phenyldecanamide, H-00076
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- ▷ Hexylresorcinol, *see* H-00071
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- ▷ Hexylresorcinol, *see* H-00071
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- 1-Hexylsulfonic acid, *see* H-00064
- ▷ Hibistat, *in* P-00266
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- ▷ Hippuric acid, H-00078
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- ▷ Homovanillin, *in* D-00519
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- o*-Homoveratrole, *in* M-00127
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- ▷ Hydroquinonecarboxylic acid, *see* D-00532
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- ▷ 2-Hydroxyacetanilide, *in* A-00300
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- 4-Hydroxyacridone, H-00095
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- ▷ *o*-Hydroxyanisole, *see* M-00102
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- ▷ 2-Hydroxybenzaldehyde, H-00101
- ▷ 4-Hydroxybenzaldehyde, H-00102
- 2-Hydroxybenzaldehyde *N*-(4-aminobenzoyl)hydrazone, H-00103
- 2-Hydroxybenzaldehyde 2-arsonoanil, *see* H-00479
- 2-Hydroxybenzaldehyde *N*-benzoylhydrazone, H-00104
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- ▷ *N*-Hydroxybenzamide, H-00109
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- ▷ *N*-Hydroxybenzenamine, *see* P-00135
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- 2-Hydroxy-1*H*-benz[de]isoquinoline-1,3(2*H*)-dione, *in* B-00051
- ▷ 2-Hydroxybenzoic acid, H-00112
- ▷ 4-Hydroxybenzoic acid, H-00113
- 2-Hydroxybenzoic acid 2-acetylhydrazone, H-00114
- 2-Hydroxybenzoic acid 1,2-cyclohexanediylienedihydrazone, *see* C-00341
- 2-Hydroxybenzoic acid 1,3-cyclohexanediylienedihydrazone, *see* C-00342
- 2-Hydroxybenzoic acid [(2,3-dihydroxyphenyl)methylene]hydrazone, H-00115
- 2-Hydroxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazone, H-00116
- 4-Hydroxybenzoic acid (1,2-dimethyl-1,2-ethanediyliene)dihydrazone, H-00117
- 2-Hydroxybenzoic acid 2,2'-(1,2-diphenyl-1,2-ethanediyliene)dihydrazone, *see* D-01017
- 2-Hydroxybenzoic acid (1,2-di-2-pyridinyl-1,2-ethanediyliene)dihydrazone, *see* D-01065
- 4-Hydroxybenzoic acid 1,2-ethanediylienedihydrazone, *see* G-00028
- 3-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazone, H-00118
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- 4-Hydroxybenzoic acid (1-methyl-1,2-ethanediyliene)dihydrazone, *see* M-00183
- 2-Hydroxybenzoic acid (2,6-pyridinediyldiethylidene)dihydrazone, *see* D-00038
- 2-Hydroxybenzoic acid [2-(2-pyridinyl)ethylidene]hydrazone, H-00121
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- 2-Hydroxybenzoic acid [2-(pyridinyl(3-sulfophenyl)methylene)hydrazone, H-00122
- ▷ *o*-Hydroxybenzoic acid 5-sulfonic acid, *see* H-00538
- 9-Hydroxy-5*H*-benzo[*a*]phenoxazin-5-one, H-00123
- ▷ 7-Hydroxy-2*H*-1-benzopyran-2-one, H-00124
- ▷ 2-Hydroxy-1,4-benzoquinone 1-oxime, *see* N-00156
- 2-Hydroxybenzothiazole, H-00125
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- 1-Hydroxybenzothiazole (obsolet.), *see* H-00125
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- ω -*o*-Hydroxybenzylideneacetophenone, *see* H-00496
- 4-(4-Hydroxybenzylideneamino)antipyrine, *see* D-00421
- 2-(2-Hydroxybenzylideneamino)phenol, H-00129
- 3-(2-Hydroxybenzylideneamino)propanoic acid, H-00130
- 1-(4-Hydroxybenzylideneamino)-3-(2-pyridylmethylideneamino)thiourea, *see* H-00484
- N*-(2-Hydroxybenzylidene)-2-mercaptoaniline, *see* M-00045
- 5-(*m*-Hydroxybenzylidene)rhodanine, *see* H-00487
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- 5-(2-Hydroxybenzylidene)-2-thioxo-5-imidazolidinone, *see* H-00485
- ▷ α -Hydroxybenzyl phenyl ketone, *see* B-00068
- 2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid, H-00131
- 1'-Hydroxy-1,2'-binaphthyl-4,5'-disulfonic acid, *see* C-00292
- ▷ 2-Hydroxybiphenyl, *see* B-00210
- ▷ 4-Hydroxybiphenyl, *see* B-00211
- 2-Hydroxy-3-biphenylcarboxaldehyde 2-hydroxyanil, *see* H-00135
- 4-Hydroxy-3-biphenylcarboxaldehyde 2-hydroxyanil, *see* H-00234
- 4-Hydroxy-3-biphenylcarboxaldehyde 2-hydroxy-5-methylanil, *see* H-00235
- 4-Hydroxy-3-biphenylcarboxylic acid, H-00132
- 1-[*N*-(4-Hydroxy-3-biphenyl)formimidoyl]-2-naphthol, *see* H-00378
- 4-[(4'-Hydroxy-(1,1'-biphenyl)-4-yl)azo]-1,2-benzenediol, *see* D-00695
- 4-[4-Hydroxy-3-biphenylazo]-1,3-benzenediol, H-00133
- 1-(4-Hydroxy-3-biphenylazo)-2-naphthol, H-00134
- N*-(2-Hydroxy-3-biphenyl)methylene-2-hydroxyaniline, H-00135
- 2-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]ethanesulfonic acid, H-00136
- 3-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, H-00137
- [2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]carbomodithioic acid, H-00138
- N*-[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]glycine, *see* T-00407
- N*-[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]taurine, *see* H-00136
- 4-Hydroxy-3,5-bis(2-hydroxynaphthylazo)benzenesulfonic acid, *see* A-00050
- N*-Hydroxy-*N,N'*-bis(4-methylphenyl)benzenecarboximidamide, *in* H-00308
- 3-Hydroxy-1,3-bis(4-methylphenyl)triazene, H-00139
- 6-Hydroxy-2,3-bis(6-methyl-2-pyridyl)quinoxaline, H-00140
- 2-Hydroxy-3,5-bis[(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00141
- ▷ Hydroxybrazilein, *see* H-00001
- N*-Hydroxybutanamide, H-00142
- ▷ 2-Hydroxybutane, *see* B-00607
- N*-Hydroxy-2-butenamide, H-00143
- 2-Hydroxycarbazole, H-00144
- 1-Hydroxy-2-carboxyanthraquinone, *see* H-00099
- 2-Hydroxy-3-carboxyphenylfluorone, *see* H-00557
- (2-Hydroxy-6-carboxyphenyl)fluorone, *see* H-00559
- (3-Hydroxy-4-carboxyphenyl)fluorone, *see* H-00558
- 6- α -(5-Hydroxycarvacryl)benzylidene]-*p*-mentha-1,4-dien-3-one, *see* T-00180
- 2'-Hydroxychalcone, *see* H-00496
- γ -Hydroxychalcone, *see* D-01041
- 4'-(2-Hydroxy-5-chlorophenylazo)benzo-1,4,8,11-tetrathiacyclopentadec-13-ene, *see* C-00191
- 2-(2-Hydroxy-5-chlorophenylazo)-5-[*N*-ethyl-*N*-(3-sulfopropyl)amino]phenol, *see* C-00148
- N*-Hydroxy-*N*-3-chlorophenyl-*N'*-(2,6-dimethyl)phenylbenzamidine, *see* C-00217
- 2-[[[2-Hydroxy-5-chlorophenyl]imino]methyl]phenol, *see* C-00150
- N*-Hydroxy-*N*-4-chlorophenyl-*N'*-(2-methyl-4-chlorophenyl)benzamidine, *see* C-00181
- 2-Hydroxy-4-chromanone, *see* D-00406
- 3-Hydroxychromanone, *see* D-00407
- 5-Hydroxychromanone, *see* D-00408
- 6-Hydroxycinchoninic acid, *see* H-00527
- o*-Hydroxycinnamic acid, *see* H-00500
- p*-Hydroxycinnamoylferuloylmethane, *in* C-00323
- ▷ 7-Hydroxycoumarin, *see* H-00124
- 7-Hydroxy-3-coumarincarboxylic acid, *see* H-00426
- 2-Hydroxy-2,4,6-cycloheptatriene-1-thione, *see* M-00027
- ▷ 2-Hydroxy-2,4,6-cycloheptatrien-1-one, *see* T-00432
- N*-Hydroxycyclohexanecarboxamide, H-00145
- 1-Hydroxycyclohexanecarboxylic acid, H-00146
- ▷ 3-Hydroxy-*p*-cymene, *see* I-00075
- N*-Hydroxydecanamide, H-00147
- N*-[(3-Hydroxydecanoyl)oxy]succinimide, *see* H-00431
- N*-[2-Hydroxy-5-[(3,5-dibromo-4-oxo-2,5-cyclohexadien-1-ylidene)iminophenyl]methyl]-*N*-(carboxymethyl)glycine, *see* A-00243
- 1-Hydroxy-4-[(3,5-dichloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid, H-00148
- N*-[2-Hydroxy-5-[(3,5-dichloro-4-oxo-2,5-cyclohexadien-1-ylidene)iminophenyl]methyl]-*N*-(carboxymethyl)glycine, *see* A-00240
- ▷ 2-Hydroxydiethylamine, *in* A-00171
- ▷ 2-Hydroxy-3,5-diiodobenzoic acid, *see* D-00745
- ▷ 8-Hydroxy-5,7-diidoquinoline, *see* D-00744
- 2-Hydroxy-3',4'-dimethoxyacetophenone, *in* T-00268
- 1-Hydroxy-2,4-dimethoxyanthraquinone, *in* T-00270
- 2-Hydroxy-1,4-dimethoxyanthraquinone, *in* T-00270
- 3-Hydroxy-4,5-dimethoxybenzaldehyde, *in* T-00273
- ▷ 4-Hydroxy-3,5-dimethoxybenzaldehyde, *in* T-00273
- α -Hydroxy-2,5-dimethoxytoluene, *see* D-00768
- 4-Hydroxy-2-(dimethylamino)-5-nitroso-6-aminopyrimidine, *see* A-00161
- 3-Hydroxy-3-(*p*-dimethylaminophenyl)-1-phenyltriazene, H-00149
- 2-Hydroxydimethylalanine, *in* A-00300
- ▷ 4-Hydroxydimethylaniline, *in* A-00302
- N*-Hydroxy-2,4-dimethylbenzenecarboximidamide, *in* D-00835
- 5-Hydroxy-2,3-dimethyl-4*H*-1-benzopyran-4-one, H-00150

- 7-Hydroxy-4,8-dimethyl-2H-1-benzopyran-2-one, H-00151
 5-Hydroxy-2,3-dimethylchromone, *see* H-00150
 7-Hydroxy-4,8-dimethylcoumarin, *see* H-00151
 7-Hydroxy-4,8-dimethyl-6-nitrocoumarin, *see* D-00865
 2-(2-Hydroxy-3,5-dimethylphenylazo) benzothiazole, *see* B-00096
 2-[(2-Hydroxy-4,5-dimethylphenyl)azo] benzothiazole, *see* B-00095
 2-(2-Hydroxy-3,5-dimethylphenylazo)-4,5-dimethylthiazole, *see* D-00921
 2-(2-Hydroxy-4,5-dimethylphenylazo)-5-methyl-1,3,4-thiadiazole, *see* D-00872
 2-(2-Hydroxy-4,5-dimethylphenylazo)pyridine, *see* D-00910
 2-(2-Hydroxy-4,5-dimethylphenylazo) quinoline, *see* D-00914
 2-[(2-Hydroxy-3,5-dimethylphenyl)azo]-5-sulfobenzoic acid, H-00152
 5-(2-Hydroxy-3,5-dimethylphenylazo)-1H-tetrazole, *see* D-00920
 2-(2-Hydroxy-3,5-dimethylphenylazo)thiazole, *see* D-00923
 N-Hydroxy-2,2-dimethylpropanamide, *see* T-00324
 6-Hydroxy-7,9-dimethyl-7H-purinium hydroxide inner salt, *in* H-00564
 2'-Hydroxy-3',5'-dimethyl-4'-sulfoazobenzene-2-carboxylic acid, *see* H-00152
 4-Hydroxydinaphtho[2,1-d:1',2'-]/[1,3,2] dioxaphoshepin 4-oxide, H-00153
 ▶ 2-Hydroxy-3,5-dinitroaniline, *see* A-00164
 N-Hydroxy-3,5-dinitrobenzamide, *see* D-00946
 2-Hydroxy-3,5-dinitrobenzoic acid, H-00154
 2-Hydroxy-3,5-dinitrobenzyl-15-crown-5, H-00155
 6-(2-Hydroxy-3,5-dinitrobenzyl)-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00156
 6-(2-Hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, H-00157
 8-Hydroxy-5,7-dinitro-2-naphthalenesulfonic acid, H-00158
 (2-Hydroxy-3,5-dinitrophenoxymethyl)-15-crown-5, H-00159
 4-[(2-Hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, H-00160
 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-8-quinolinol 1-oxide, H-00161
 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2,4-thiazolidinedithione, H-00162
 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2-thioxo-4-thiazolidinone, H-00163
 N-Hydroxy-3,5-dinitro-N-phenylbenzamide, *in* D-00946
 (2-Hydroxy-3,5-dinitrophenyl)oxymethyl-18-crown-6, H-00164
 8-Hydroxy-5,7-dinitroquinoline, H-00165
 α-Hydroxy-3,5-dinitrotoluene, *see* D-00950
 ▶ 2-Hydroxy-2,2-diphenylacetic acid, H-00166
 2'-Hydroxydiphenylamine-2-carboxylic acid, H-00167
 N-Hydroxy-N,N'-diphenylbenzencarboximidamide, *in* D-01001
 Hydroxydiphenylborane ethanolamine, *see* A-00173
 N-Hydroxy-4-(diphenylmethyl)benzamide, H-00168
 N-Hydroxy-N,5-diphenyl-2,4-pentadienamide, H-00169
 N-Hydroxy-N,3-diphenyl-2-propenamide, *in* H-00499
 3-Hydroxy-1,3-diphenyl-2-propene-1-thione, *see* M-00030
 1-Hydroxy-1,3-diphenyl-2-thiourea, *in* D-01055
 N-Hydroxy-N,N'-diphenylthiourea, *in* D-01055
 3-Hydroxy-1,3-diphenyl-1-triazene, H-00170
 2-Hydroxy-1,2-di-2-pyridinylethanone, *see* P-00412
 2-Hydroxy-1,2-(di-2-pyridinyl)ethanone phenylhydrazone, *see* P-00413
 4-Hydroxy-2,6-di-2-pyridinylpyrimidine, H-00171
 6-Hydroxy-2,3-di-2-pyridinylquinoxaline, H-00172
 2-[(2-Hydroxy-3,6-disulfo-1-naphthalenyl)azo] benzoic acid, *see* S-00021
 2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-(N,N-diethylamino)phenol, H-00173
 2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-[N-ethyl-N-(sulfopropyl)amino]phenol, H-00174
 2-(2-Hydroxy-3,6-disulfo-1-naphthylazo) benzeneearsonic acid, *see* T-00177
 2-(8-Hydroxy-3,6-disulfo-1-naphthylazo) chromotropic acid, *see* B-00199
 2-Hydroxydithiobenzoic acid, H-00175
 4-Hydroxydithiobenzoic acid, H-00176
 3-Hydroxy-1,3-di-p-tolyltriazene, *see* H-00139
 N-Hydroxydodecanamide, *see* L-00001
 ▶ Hydroxyethane, *see* E-00040
 Hydroxyethane-1,1-diphosphonic acid, *see* H-00178
 ▶ 2-Hydroxy-1-ethanethiol, *see* M-00031
 ▶ N-Hydroxyethanimidamide, *see* A-00004
 ▶ N-(2-Hydroxyethyl)acetamide, *in* A-00171
 ▶ 2-Hydroxyethylamine, *see* A-00171
 N-[(2-Hydroxyethyl)amino]thioxomethyl benzamide, *see* B-00129
 N-(Hydroxyethyl)anilinesulfonephthalein, *in* A-00369
 ▶ N-(2-Hydroxyethyl)ethylenediametriacetic acid, H-00177
 (1-Hydroxyethylidene)bisphosphonic acid, H-00178
 1,1'-[(2-Hydroxyethyl)imino]bis[2-propanol], *see* B-00393
 2-[(2-Hydroxyethyl)imino]methylphenol, H-00179
 ▶ N-(2-Hydroxyethyl)isopropylamine, *in* A-00171
 ▶ 2-Hydroxyethyl methyl ether, *see* M-00087
 4-(2-Hydroxyethyl)-1-piperazineethanesulfonic acid, H-00180
 N-2-Hydroxyethylpiperazine-N'-2-hydroxypropanesulfonic acid, *see* H-00203
 4-(2-Hydroxyethyl)-1-piperazinepropanesulfonic acid, H-00181
 N-(2-Hydroxyethyl)piperazine-N'-3-propanesulfonic acid, *see* H-00181
 ▶ 10-[3-[4-(2-Hydroxyethyl)-1-piperazinyl]propyl]-2-trifluoromethylphenothiazine, *see* F-00034
 13-Hydroxyethyl-1,4,7,10-tetraoxa-13-azacyclotetradecane, H-00182
 2-Hydroxyethyl vinyl sulfone, *see* E-00048
 ▶ 3-Hydroxyflavone, *see* H-00466
 3'-Hydroxyflavone, H-00183
 5-Hydroxyflavone, H-00184
 3-Hydroxyflavone-2'-sulfonic acid, *see* H-00427
 2-Hydroxyformanilide, *in* A-00300
 N-Hydroxy-2-furancarboxamide, *see* F-00064
 N-Hydroxy-2,4-hexadienamide, H-00185
 N-Hydroxyhexanamide, H-00186
 4-Hydroxyhydrocinnamic acid, *see* H-00497
 N-[(p-Hydroxyhydrocinnamoyl)oxy] succinimide, *see* H-00491
 5-Hydroxyhydrocoumarin, *see* D-00408
 ▶ Hydroxyhydroquinone, *see* B-00035
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 Hydroxyhydroquinonesulfonephthalein, *see* T-00305
 4-Hydroxy-3-[(5-hydroxybenzo[a]phenazin-6-yl)azo]benzenesulfonic acid, H-00187
 4-Hydroxy-3-[(2-hydroxybenzoyl)azo]-1-naphthalenesulfonic acid, H-00188
 4-Hydroxy-3-(2-hydroxybenzylideneamino) biphenyl, *see* H-00189
 4-Hydroxy-N-(2-hydroxybenzylidene)-3-biphenylamine, H-00189
 2-Hydroxy-N-(2-hydroxybenzylidene)-4-methylaniline, H-00190
 2-Hydroxy-N-(2-hydroxybenzylidene)-5-methylaniline, H-00191
 2-Hydroxy-3-[[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, H-00192
 2-Hydroxy-N-(2-hydroxy-5-bromobenzylidene) aniline, H-00193
 2-Hydroxy-N-[(2-hydroxy-5-tert-butylbenzylidene)amino]aniline, H-00194
 2-Hydroxy-N-(2-hydroxy-5-carbomethoxybenzylidene)aniline, *in* H-00237
 2-Hydroxy-N-(2-hydroxy-3-chlorobenzylidene) aniline, H-00195
 2-Hydroxy-N-(2-hydroxy-5-chlorobenzylidene) aniline, H-00196
 2-Hydroxy-3-[(2-hydroxy-1,1-dimethylethyl)amino]-1-propanesulfonic acid, H-00197
 3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00198
 4-Hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-1-naphthalenesulfonic acid, H-00199
 6-Hydroxy-5-[(2-hydroxy-3,5-dinitrophenyl)azo]-2-naphthalenesulfonic acid, H-00200
 8-Hydroxy-7-[(2-hydroxy-3,5-dinitrophenyl)azo]-5-quinolinesulfonic acid, *see* P-00234
 3-Hydroxy-4-[(2-hydroxy-3,6-disulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid, *see* C-00030
 2-Hydroxy-N-(2-hydroxy-5-ethylbenzylidene) aniline, H-00201
 2-Hydroxy-N-(2-Hydroxy-5-ethylbenzylidene)-5-methylaniline, H-00202
 β-Hydroxy-4-(2-hydroxyethyl)-1-piperazinepropanesulfonic acid, H-00203
 6-Hydroxy-5-[[2-hydroxy-3-[(2-hydroxy-1-naphthalenyl)azo]-5-sulfohenyl]azo]-2-naphthalenesulfonic acid, *see* A-00051
 2-Hydroxy-N-(2-hydroxy-5-iodobenzylidene) aniline, H-00204
 2-Hydroxy-N-(2-hydroxy-3-isopropyl-6-methylbenzylidene)aniline, H-00205
 2-Hydroxy-N-(2-hydroxy-6-isopropyl-3-methylbenzylidene)aniline, H-00206
 3-Hydroxy-4-[[2-hydroxy-3-[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00207
 3-Hydroxy-4-[[2-hydroxy-3-[[[4-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00208
 3-Hydroxy-4-[[2-hydroxy-3-[(p-methoxyphenyl) carbamoyl]-1-naphthyl]azo]-1-naphthalenesulfonic acid, *see* H-00208
 7-Hydroxy-4-(hydroxymethyl)-2H-1-benzopyran-2-one, H-00209
 2-Hydroxy-N-(2-hydroxy-3-methylbenzylidene) aniline, H-00210
 2-Hydroxy-N-(2-hydroxy-4-methylbenzylidene) aniline, H-00211
 2-Hydroxy-N-(2-hydroxy-5-methylbenzylidene) aniline, H-00212
 2-Hydroxy-N-(2-hydroxy-3-methylbenzylidene)-5-methylaniline, H-00213
 2-Hydroxy-N-(2-hydroxy-4-methylbenzylidene)-4-methylaniline, H-00214
 2-Hydroxy-N-(2-hydroxy-4-methylbenzylidene)-5-methylaniline, H-00215
 2-Hydroxy-N-(2-hydroxy-5-methylbenzylidene)-4-methylaniline, H-00216
 2-Hydroxy-N-(2-hydroxy-5-methylbenzylidene)-5-methylaniline, H-00217
 7-Hydroxy-4-hydroxymethylcoumarin, *see* H-00209

- 3-Hydroxy-5-hydroxymethyl-2-methylisonicotinic aldehyde, *see* P-00414
- 3-Hydroxy-5-hydroxymethyl-2-methyl-4-pyridinecarboxaldehyde, *see* P-00414
- 3-Hydroxy-5-hydroxymethyl-2-methyl-4-pyridinemethylamine, *see* P-00417
- 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-[(2-hydroxyphenyl)methylene]carbonic acid dihydrazide, H-00218
- 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-[(2-hydroxyphenyl)methylene]carbothioic acid dihydrazide, H-00219
- 5-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2-thioxo-4-thiazolidinone, H-00220
- 2-[3-Hydroxy-6-(hydroxymethyl)-4-oxo-4H-pyran-2-yl]-6-(hydroxymethyl)pyrano[3,2-b]pyran-4,8-dione, *see* W-00001
- 2-Hydroxy-4-(4-hydroxy-6-methyl-2-oxo-2H-pyran-3-yl)-4-oxo-2-butenic acid, H-00221
- 3-Hydroxy-4-[(2-hydroxy-5-methylphenyl)azo]-1-naphthalenesulfonic acid, *see* C-00015
- ▶ 5-Hydroxy-2-(hydroxymethyl)-4H-pyran-4-one, H-00222
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- 3-Hydroxy-4-[(1-hydroxy-2-naphthalenyl)azo]-1-naphthalenesulfonic acid, *see* S-00017
- 3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-1-naphthalenesulfonic acid, *see* E-00010
- 2-Hydroxy-3-[(2-hydroxy-1-naphthalenyl)azo]-5-nitrobenzenesulfonic acid, *see* S-00019
- 2-Hydroxy-3-[4-hydroxynaphthalenylazo]-5-nitrobenzenesulfonic acid, H-00223
- 4-Hydroxy-3-[(2-hydroxy-1-naphthalenyl)azo]-5-nitrobenzenesulfonic acid, *see* E-00014
- 3-Hydroxy-4-[(1-hydroxy-2-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, *see* C-00278
- 3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, H-00224
- 4-Hydroxy-5-[(2-hydroxy-1-naphthalenyl)azo]-3-[(4-sulfo-1-naphthalenyl)azo]-1,7-naphthalenedisulfonic acid, *see* F-00002
- 4-Hydroxy-3-[[3-hydroxy-2-naphthalenyl)carbonyl]azo]-1-naphthalenesulfonic acid, *see* H-00374
- 4-Hydroxy-5-[[2-hydroxy-1-naphthalenyl)methylene]amino]-2,7-naphthalenedisulfonic acid, H-00225
- 2-Hydroxy-*N*-(2-hydroxynaphthylidene)aniline, H-00226
- 3-Hydroxy-4-[[2-hydroxy-3-[(3-nitrophenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, *see* C-00013
- 8-Hydroxy-7-[(2-hydroxy-4-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00227
- 8-Hydroxy-7-[(2-hydroxy-5-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00228
- 3-Hydroxy-4-[(2-hydroxy-3-nitro-5-sulfo-phenyl)azo]-2,7-naphthalenedisulfonic acid, *see* S-00053
- 4-Hydroxy-3-[(2-hydroxy-5-nitro-3-sulfo-phenyl)azo]-2,7-naphthalenedisulfonic acid, H-00229
- 8-Hydroxy-7-[(2-hydroxy-5-nitro-3-sulfo-phenyl)azo]-1,6-naphthalenedisulfonic acid, *see* S-00050
- 4-Hydroxy-3-[(2-hydroxy-5-nitro-3-sulfo-phenyl)azo]-1-naphthalenesulfonic acid, *see* N-00067
- 5-Hydroxy-6-[(2-hydroxy-5-nitro-3-sulfo-phenyl)azo]-1-naphthalenesulfonic acid, H-00230
- 5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfo-phenyl)azo]-1-naphthalenesulfonic acid, H-00231
- 5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfo-phenyl)azo]-2-naphthalenesulfonic acid, H-00232
- 8-Hydroxy-7-[(2-hydroxyphenyl)azo]-1,6-naphthalenedisulfonic acid, H-00233
- 8-Hydroxy-5-(2-hydroxyphenylazo)quinoline, *see* H-00456
- 8-Hydroxy-5-(4-hydroxyphenylazo)quinoline, *see* H-00458
- 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)aniline, H-00234
- 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)-5-methylaniline, H-00235
- 4-Hydroxy-3-[[2-hydroxy-3-(phenylcarbamoyl)-1-naphthyl]azo]benzenesulfonic acid, H-00236
- 4-Hydroxy-3-[[2-hydroxyphenyl]imino]methyl]benzoic acid, H-00237
- 5-Hydroxy-2-(4-hydroxyphenyl)-7-methoxy-4H-1-benzopyran-4-one, *see* D-00640
- 4-Hydroxy-3-[[2-hydroxyphenyl)methylene]amino]benzenesulfonic acid, H-00238
- 3-Hydroxy-4-[[2-hydroxyphenyl)methylene]amino]benzoic acid, H-00239
- 4-Hydroxy-3-[[2-hydroxyphenyl)methylene]amino]benzoic acid, H-00240
- 4-Hydroxy-5-[[2-hydroxyphenyl)methylene]amino]-2,7-naphthalenedisulfonic acid, *see* A-00472
- N*-Hydroxy-3-(4-hydroxyphenyl)-*N*-phenyl-2-propenamide, H-00241
- 4-Hydroxy-5-[(8-hydroxy-7-quinolyl)azo]-2,7-naphthalenedisulfonic acid, *see* A-00480
- 3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid, H-00242
- 3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, *see* H-00371
- 3-Hydroxy-4-[(2-hydroxy-6-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, H-00243
- 3-Hydroxy-4-[(1-hydroxy-8-sulfo-2-naphthalenyl)azo]-1-naphthalenesulfonic acid, *see* P-00001
- 3-Hydroxy-4-(6-hydroxy-*m*-tolylazo)-1-naphthalenesulfonic acid, *see* C-00015
- N*-[7-Hydroxy-8-[[*m*-(6-hydroxy-*m*-tolyl)-*N*O-azoxy]phenyl]azo]-1-naphthyl]acetamide, *see* A-00464
- ▶ Hydroxyiminoacetophenone, *in* P-00132
- ▶ 5-Hydroxyiminobarbituric acid, *see* P-00428
- α-(Hydroxyimino)benzeneacetaldehyde oxime, *see* P-00133
- α-(Hydroxyimino)benzenepropanoic acid, *in* O-00068
- α-(Hydroxyimino)-1,5-dimethyl-1H-benzimidazole-2-acetonitrile, H-00244
- 2-[[1-(Hydroxyimino)ethyl]azo]-1H-benzimidazole, H-00245
- 2-[[1-(Hydroxyimino)ethyl]azo]-1-(phenylmethyl)-1H-benzimidazole, *in* H-00245
- 2-[[1-(Hydroxyimino)-2-methylpropyl]azo]-1-(phenylmethyl)-1H-benzimidazole, H-00246
- N*-[2-(Hydroxyimino)-1-methylpropylidene]glycine, H-00247
- 2-[2-(Hydroxyimino)-1-methylpropylidene]-*N*-phenylhydrazinecarbothioamide, H-00248
- 2-[[Hydroxyimino](4-nitrophenyl)methyl]azo]-1-(phenylmethyl)-1H-benzimidazole, *see* B-00183
- 2-Hydroxyimino-6-oxopiperidine, *in* G-00014
- 2-Hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]-5-nitrobenzenesulfonic acid, H-00249
- 2-[[Hydroxyimino]phenylmethyl]azo]-1H-benzimidazole, H-00250
- 2-[[Hydroxyimino]phenylmethyl]azo]-1-(phenylmethyl)-1H-benzimidazole, *in* H-00250
- α-(Hydroxyimino)-2-pyridineacetonitrile, H-00251
- α-(Hydroxyimino)-2-quinolineacetonitrile, H-00252
- 5-Hydroxy-1H-indole-2-carboxylic acid, H-00253
- 2-Hydroxy-5-iodobenzaldehyde 2-hydroxyanil, *see* H-00204
- N*-Hydroxy-2-iodobenzamide, *see* I-00040
- N*-Hydroxy-2-iodo-*N*-(2-methylphenyl)benzamide, *in* I-00040
- N*-Hydroxy-2-iodo-*N*-(3-methylphenyl)benzamide, *in* I-00040
- 6-Hydroxy-5-[(4-iodophenyl)azo]-2-naphthalenesulfonic acid, H-00254
- N*-Hydroxy-2-iodo-*N*-phenylbenzamide, *in* I-00040
- ▶ 8-Hydroxy-7-iodo-5-quinolinesulfonic acid, H-00255
- 9-Hydroxy-3-isophenoxazone, *see* H-00443
- 2-Hydroxy-3-isopropyl-2,4,6-cycloheptatrien-1-one, H-00256
- 2-Hydroxy-3-isopropyl-6-methylbenzaldehyde 2-hydroxyanil, *see* H-00205
- 2-Hydroxy-6-isopropyl-3-methylbenzaldehyde 2-hydroxyanil, *see* H-00206
- 2'-Hydroxy-5'-isopropyl-4'-methyl-4-nitroazobenzene-2-sulfonic acid, *see* H-00288
- 2-(2-Hydroxy-3-isopropyl-6-methylphenylazo)pyridine, *see* M-00197
- 2-(4-Hydroxy-5-isopropyl-2-methylphenylazo)quinoline, *see* I-00076
- 8-Hydroxy-2-isopropylquinoline, *see* I-00078
- ▶ 3-Hydroxy-4-isopropyltoluene, *see* I-00075
- ▶ Hydroxylamine, H-00257
- Hydroxylamine *sec*-butyl ether, *see* M-00259
- ▶ Hydroxylamine hydrochloride, *in* H-00257
- Hydroxylamine isobutyl ether, *see* M-00260
- ▶ Hydroxylamine methyl ether, *see* M-00187
- Hydroxylamine pentyl ether, *see* P-00040
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- ▶ Hydroxylamine sulfate, *in* H-00257
- ▶ Hydroxylammonium chloride, *in* H-00257
- ▶ Hydroxylammonium sulfate, *in* H-00257
- 3-Hydroxy-5-mercapto-6-hexyl-1,2,4-triazine, *see* H-00074
- 2-Hydroxy-2'-mercapto-5-methylazobenzene, *see* M-00041
- 5-Hydroxy-3-mercapto-6-methyl-1,2,4-triazine, H-00258
- 3-Hydroxy-4-(2-mercaptophenylazo)-2,7-naphthalenedisulfonic acid, H-00259
- 6-Hydroxy-8-mercaptapurine, H-00260
- 3-Hydroxy-2-mercaptopyridine, *see* H-00520
- 6-Hydroxy-2-mercapto-4-pyrimidinecarboxylic acid, H-00261
- 4-Hydroxy-3-mercaptotoluene, *see* M-00035
- ▶ *o*-(Hydroxymercuri)benzoic acid, *see* C-00041
- ▶ Hydroxymethane, *see* M-00068
- ▶ Hydroxymethanesulfonic acid, H-00262
- ▶ 2'-Hydroxy-4'-methoxyacetophenone, *in* D-00507
- 2'-Hydroxy-5'-methoxyacetophenone, *in* D-00508
- 4'-Hydroxy-2'-methoxyacetophenone, *in* D-00507
- 1-Hydroxy-2-methoxyanthraquinone, *in* D-00510
- 1-Hydroxy-4-methoxyanthraquinone, *in* D-00511
- 1-Hydroxy-8-methoxyanthraquinone, *in* D-00512
- 2-Hydroxy-1-methoxyanthraquinone, *in* D-00510
- 4-Hydroxy-3-methoxyazobenzene, *in*
- 2-Hydroxy-4-methoxybenzaldehyde, *in* D-00517
- ▶ 2-Hydroxy-5-methoxybenzaldehyde, *in* D-00518
- 4-Hydroxy-2-methoxybenzaldehyde, *in* D-00517
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- 2-Hydroxy-3-methoxybenzaldehyde 2-hydroxyanil, *in* D-00541
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- N*-Hydroxy-2-methoxybenzamide, H-00263
- N*-Hydroxy-4-methoxybenzamide, H-00264
- N*-Hydroxy-4-methoxybenzenecarboximidamide, H-00265
- 4-Hydroxy-5-methoxy-1,3-benzenedicarboxaldehyde, *in* D-00524
- 2-Hydroxy-6-methoxybenzoic acid, *in* D-00533
- 3-Hydroxy-5-methoxybenzoic acid, *in* D-00534
- ▶ 2-Hydroxy-4-methoxybenzophenone, *in* D-00536
- N*-(2-Hydroxy-3-methoxybenzylidene)-2-hydroxyaniline, *in* D-00541
- N*-2-Hydroxy-5-methoxybenzylidene-2-hydroxyaniline, *in* D-00543
- 4-(4-Hydroxy-3-methoxybenzylidene)-3-methyl-5(4*H*)-isoxazolone, H-00266
- N*-(4-Hydroxy-3-methoxybenzylidene)-4-morpholinylaniline, *see* M-00093
- 3-Hydroxy-4-methoxycinnamic acid, *in* D-00716
- 1-Hydroxy-2-methoxycyclobutenedione, *in* D-00569
- 5-Hydroxy-7-methoxy-2,6-dimethyl-4*H*-1-benzopyran-4-one, *in* D-00575
- 5-Hydroxy-7-methoxyflavone, *in* D-00612
- 4-Hydroxy-5-methoxyisophthalaldehyde, *in* D-00524
- 5-Hydroxy-7-methoxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00645
- 5-Hydroxy-7-methoxy-2-methylchromone, *in* D-00645
- N*-Hydroxy-2-methoxy-*N*-(2-methylphenyl)benzamide, *in* H-00263
- N*-Hydroxy-2-methoxy-*N*-(3-methylphenyl)benzamide, *in* H-00263
- N*-Hydroxy-2-methoxy-*N*-(4-methylphenyl)benzamide, *in* H-00263
- N*-Hydroxy-2-methoxy-*N*-1-naphthalenylbenzamide, H-00267
- N*-Hydroxy-4-methoxy-*N*-1-naphthalenylbenzamide, H-00268
- 4-Hydroxy-3-[[2-methoxy-4-nitrophenyl]azo]-1,5-naphthalenedisulfonic acid, *see* N-00078
- 9-(4-Hydroxy-3-methoxy-6-nitrophenyl)fluorone, *see* T-00287
- 4-Hydroxy-3-methoxyphenylacetic acid, *in* D-00687
- 1-[[[(4-Hydroxy-3-methoxyphenyl)acetyl]oxy]-2,5-pyrrolidinedione, H-00269
- 4-(2-Hydroxy-5-methoxyphenylazo)-5-methylimidazole, *in* M-00191
- 2-(2-Hydroxy-4-methoxyphenylazo)-5-methylpyridine, *in* M-00279
- 2-(2-Hydroxy-5-methoxyphenylazo)-4-methylthiazole, *in* M-00318
- 2-(2-Hydroxy-4-methoxyphenylazo)thiazole, *in* T-00141
- N*-Hydroxy-2-methoxy-*N*-phenylbenzamide, *in* H-00263
- N*-Hydroxy-4-methoxy-*N*-phenylbenzamide, *in* D-00704
- N*-Hydroxy-*N'*-(4-methoxyphenyl)benzenecarboximidamide, H-00270
- 1-(4-Hydroxy-3-methoxyphenyl)-7-(4-hydroxyphenyl)-1,6-heptadiene-3,5-dione, *in* C-00323
- ▶ (2-Hydroxy-4-methoxyphenyl)methanone, *in* D-00536
- ▶ 2-[[4-(4-Hydroxy-3-methoxyphenyl)methylene]hydrazinocarboximidamide, H-00271
- ▶ 2-(4-Hydroxy-3-methoxyphenyl)methylenethiosemicarbazone, *see* H-00271
- N*-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-(4-methylphenyl)benzenecarboximidamide, *in* H-00270
- N*-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-phenylbenzenecarboximidamide, *in* H-00270
- N*-Hydroxy-3-(4-methoxyphenyl)-*N*-phenyl-2-propenamide, *in* H-00241
- N*-Hydroxy-3-(4-methoxyphenyl)-2-propenamide, H-00272
- 3-(3-Hydroxy-4-methoxyphenyl)-2-propenoic acid, *in* D-00716
- N*-Hydroxy-*N'*-(3-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00273
- N*-Hydroxy-*N'*-(4-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00274
- N*-Hydroxy-*N'*-(2-methoxyphenyl)-2-thiophenecarboxamide, *in* H-00554
- 2-Hydroxy-4-methoxy-*N*-salicylideneaniline, *in* D-00614
- 1-Hydroxy-3-methoxyxanthone, *in* D-00741
- 2'-Hydroxy-5'-methylacetophenone, H-00275
- 1-Hydroxy-4-(methylamino)anthraquinone, *in* A-00182
- ▶ 4-[1-Hydroxy-2-(methylamino)ethyl]-1,2-benzenediol, *see* A-00066
- 9-(Hydroxymethyl)anthracene, *see* A-00380
- 2'-Hydroxy-5'-methylazobenzene-2-carboxylic acid, *see* C-00279
- 2-Hydroxy-4-methylbenzaldehyde, H-00276
- 2-Hydroxy-5-methylbenzaldehyde, H-00277
- 2-Hydroxy-3-methylbenzaldehyde 2-hydroxyanil, *see* H-00210
- 2-Hydroxy-4-methylbenzaldehyde 2-hydroxyanil, *see* H-00211
- 2-Hydroxy-5-methylbenzaldehyde 2-hydroxyanil, *see* H-00212
- 2-Hydroxy-3-methylbenzaldehyde 2-hydroxy-5-methylanil, *see* H-00213
- 2-Hydroxy-4-methylbenzaldehyde 2-hydroxy-4-methylanil, *see* H-00214
- 2-Hydroxy-4-methylbenzaldehyde 2-hydroxy-5-methylanil, *see* H-00215
- 2-Hydroxy-5-methylbenzaldehyde 2-hydroxy-4-methylanil, *see* H-00216
- 2-Hydroxy-5-methylbenzaldehyde 2-hydroxy-5-methylanil, *see* H-00217
- 2-Hydroxy-3-methylbenzamide, *in* H-00278
- N*-Hydroxy-2-methylbenzamide, *see* M-00135
- N*-Hydroxy-4-methylbenzamide, *see* M-00136
- α -(Hydroxymethyl)benzeneacetic acid 8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester, *see* T-00431
- N*-Hydroxy-4-methylbenzenecarboximidamide, *in* M-00138
- ▶ 2-Hydroxy-3-methylbenzoic acid, H-00278
- 2-Hydroxy-5-methylbenzoic acid, H-00279
- 5-Hydroxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, H-00280
- 5-Hydroxy-2-methyl-4*H*-1-benzopyran-4-one, H-00281
- 5-Hydroxy-3-methyl-4*H*-1-benzopyran-4-one, H-00282
- ▶ 7-Hydroxy-4-methyl-2*H*-1-benzopyran-2-one, H-00283
- 4-(2-Hydroxy-5-methylbenzylideneamino)antipyrine, *see* D-00410
- ▶ 4-(Hydroxymethyl)biphenyl, H-00284
- ▶ 2-Hydroxy-3-(3-methyl-2-butenyl)-1,4-naphthalenedione, *see* H-00515
- 2-Hydroxy-9-methylcarbazole, *in* H-00144
- 5-Hydroxy-2-methylchromanone, *in* H-00281
- 5-Hydroxy-2-methylchromone, *see* H-00281
- ▶ 7-Hydroxy-4-methylcoumarin, *see* H-00283
- 7-Hydroxy-4-methylcoumarin-3-acetic acid, *see* H-00295
- 2-Hydroxy-3-methyl-2,4,6-cycloheptatrien-1-one, H-00285
- 2-Hydroxy-3-methyl-2-cyclohexen-1-one, *see* M-00156
- 2-Hydroxy-3-methyl-2-cyclopenten-1-one, *see* M-00159
- N*-[2-Hydroxy-3-methyl-5-[(3,5-dichloro-4-oxo-2,5-cyclohexadien-1-ylidene)iminophenyl]methyl]-*N*-(carboxymethyl)glycine, *see* A-00239
- α -(Hydroxymethylene)-2-benzoxazoleacetaldehyde, H-00286
- α -(Hydroxymethylene)-2-benzoxazoleacetoneitrile, H-00287
- 2-Hydroxy-3-(1-methylethyl)-2,4,6-cycloheptatrien-1-one, *see* H-00256
- 5-Hydroxy-2-methylisoquinolinium hydroxide inner salt, *see* M-00186
- 2-Hydroxy-5-methyl-2'-mercaptoazobenzene-5-acetic acid, *see* H-00303
- 4-(Hydroxymethyl)-7-methoxy-2*H*-1-benzopyran-2-one, *in* H-00209
- 2-[[2-Hydroxy-4-methyl-5-(1-methylethyl)phenyl]azo]-5-nitrobenzenesulfonic acid, H-00288
- 4-[[4-Hydroxy-2-methyl-5-(1-methylethyl)phenyl]phenylmethylene]-5-methyl-2-(1-methylethyl)-2,5-cyclohexadiene-1-one, *see* T-00180
- N*-Hydroxy-2-methyl-*N*-(2-methylphenyl)benzamide, *in* M-00135
- N*-Hydroxy-2-methyl-*N*-(3-methylphenyl)benzamide, *in* M-00135
- N*-Hydroxy-4-methyl-*N*-(3-methylphenyl)benzamide, *in* M-00136
- N*-Hydroxy-4-methyl-*N*-(4-methylphenyl)benzamide, *in* M-00136
- 3-Hydroxy-2-methyl-1-(4-methylphenyl)-4(1*H*)-pyridinone, H-00289
- ▶ 2-Hydroxy-3-methyl-1,4-naphthalenedione, *see* H-00292
- N*-Hydroxy-2-methyl-*N*-1-naphthalenylbenzamide, H-00290
- N*-Hydroxy-4-methyl-*N*-1-naphthalenylbenzamide, H-00291
- ▶ 2-Hydroxy-3-methyl-1,4-naphthoquinone, H-00292
- 2'-Hydroxy-5'-methyl-4-nitroazobenzene-2-sulfonic acid, *see* H-00302
- 1-Hydroxymethyl-4-nitrobenzene, *see* N-00097
- 2-[(2-Hydroxy-5-methyl-3-nitrophenyl)azo]-4,6-dinitrophenol, H-00293
- 5-Hydroxy-6-methyl-2-[(4-nitrophenyl)azo]-3,4-pyridinedimethanol, H-00294
- 7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid, H-00295
- 1-[[[(7-Hydroxy-4-methyl-2-oxo-2*H*-benzopyran-3-yl)acetyl]oxy]-2,5-pyrrolidinedione, H-00296
- N*-[7-Hydroxy-4-methyl-2-oxo-(2*H*)-1-(benzopyran-8-yl)methyl]glycine, H-00297
- N*-(7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-8-yl)-*N*-methylglycine, *see* M-00153
- [(7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-6-yl)oxy]acetic acid, *in* D-00647
- 6-Hydroxy-2-methyl-7-oxo-1,3,5-cycloheptatriene-1-carboxylic acid, H-00298
- 7-Hydroxy-4-methyl-8-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2*H*-1-benzopyran-2-one, H-00299
- ▶ 1-Hydroxy-4-[[4-(4-methylphenyl)amino]-9,10-anthracenedione, H-00300
- 4-Hydroxy-5-[[4-[(4-methylphenyl)amino]-5-sulfo-1-naphthalenyl]azo]-2,7-naphthalene]disulfonic acid, *see* A-00052
- 5-Hydroxy-4-[[4-(4-methylphenyl)amino]-6-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid, *see* M-00343
- 2-[(2-Hydroxy-5-methylphenyl)azo]benzoic acid, *see* C-00279
- 2-(2-Hydroxy-5-methylphenylazo)benzothiazole, *see* B-00097
- 2-(2-Hydroxy-5-methyl-1-phenylazo)-5-[*N*-ethyl-*N*-(3-sulfopropyl)amino]phenol, *see* E-00087
- 2-(2-Hydroxy-5-methylphenylazo)-4-methylthiazole, H-00301
- 1-(1-Hydroxy-4-methyl-2-phenylazo)-2-naphthol-4-sulfonic acid, *see* C-00015
- 2-[(2-Hydroxy-5-methylphenyl)azo]-5-nitrobenzenesulfonic acid, H-00302
- [[2-[(2-Hydroxy-5-methylphenyl)azo]phenyl]thio]acetic acid, H-00303

- 2-(2-Hydroxy-5-methylphenylazo)pyridine, *see* M-00283
- 8-Hydroxy-7-[(4-methylphenyl)azo]-5-quinolinesulfonic acid, H-00304
- 2-(2-Hydroxy-5-methylphenylazo)-1,3,4-thiadiazole, *see* M-00314
- 5-[(2-Hydroxy-5-methylphenyl)azo]-1,3,4-thiadiazole-2(3*H*)-thione, *see* M-00032
- 2-(2-Hydroxy-4-methylphenylazo)thiazole, *see* M-00324
- 2-(2-Hydroxy-5-methylphenylazo)thiazole, *see* M-00323
- 4-[2-(2-Hydroxy-5-methylphenylazoxy)phenylazo]-3-methyl-1-phenyl-2-pyrazolin-5-one, *see* A-00466
- 4-[[2-(2-Hydroxy-5-methylphenyl)-*O,N,N*-azoxy]phenyl]azo]-3-methyl-1-phenyl-1*H*-pyrazol-5-ol, *see* A-00466
- 1-[[2-(2-Hydroxy-5-methylphenyl)azoxy]phenyl]azo]-2-naphthalenol, *see* A-00465
- 1-[[2-(2-Hydroxy-5-methylphenyl)-*O,N,N*-azoxy]phenyl]azo]-2-naphthalenol, H-00305
- N*-Hydroxy-*N*-(2-methylphenyl)benzamide, *in* H-00109
- N*-Hydroxy-2-methyl-*N*-phenylbenzamide, H-00306
- N*-Hydroxy-*N*-(3-methylphenyl)benzamide, *in* H-00109
- N*-Hydroxy-*N*-(4-methylphenyl)benzamide, *in* H-00109
- N*-Hydroxy-4-methyl-*N*-phenylbenzamide, H-00307
- N*-Hydroxy-*N*-(4-methylphenyl)benzenecarboximidamide, H-00308
- 1-(2-Hydroxy-5-methylphenyl)-1-butanone, H-00309
- N*-Hydroxy-*N*-(4-methylphenyl)-2-butenamide, *in* H-00143
- N*-Hydroxy-*N*-(3-methylphenyl)decanamide, *in* H-00147
- N*-Hydroxy-*N*-(4-methylphenyl)decanamide, *in* H-00147
- N*-Hydroxy-*N*-(4-methylphenyl)-3,5-dinitrobenzamide, *in* D-00946
- 1-(2-Hydroxy-5-methylphenyl)ethanone, *see* H-00275
- N*-Hydroxy-*N*-(4-methylphenyl)-2-furancarboxamide, *in* F-00064
- N*-Hydroxy-*N*-(3-methylphenyl)-2,4-hexadienamide, *in* H-00185
- N*-Hydroxy-*N*-(4-methylphenyl)hexanamide, *in* H-00186
- 3-(4-Hydroxy-2-methylphenyl)-3-(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, H-00310
- 1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one, H-00311
- 3-[[[(2-Hydroxy-5-methylphenyl)imino]methyl]1,1'-biphenyl]-4-ol, *see* H-00235
- 2-[[[(2-Hydroxy-4-methylphenyl)imino]methyl]-5-methylphenol], *see* H-00215
- 2-[[[(2-Hydroxy-5-methylphenyl)imino]methyl]-4-methylphenol], *see* H-00216
- 2-[[[(2-Hydroxy-5-methylphenyl)imino]methyl]-4-methylphenol], *see* H-00217
- 3-(2-Hydroxy-5-methylphenyl)-5-(*p*-methoxyphenyl)isoxazoline, *see* D-00427
- 1-(2-Hydroxy-5-methylphenyl)-3-(4-methoxyphenyl)-2-propen-1-one, *in* H-00311
- 2-[[[(2-Hydroxy-3-methylphenyl)methylene]amino]-6-methylphenol], *see* H-00213
- 2-[[[(2-Hydroxy-4-methylphenyl)methylene]amino]-6-methylphenol], *see* H-00214
- 2-[(2-Hydroxy-4-methylphenyl)methylene]hydrazinecarboxamide, *in* H-00276
- 2-[[5-Hydroxy-3-methyl-1-(phenylmethyl)-1*H*-pyrazol-4-yl]azo]-5-nitrobenzenesulfonic acid, H-00312
- N*-Hydroxy-*N*-(3-methylphenyl)-2-nitrobenzamide, *in* N-00089
- N*-Hydroxy-*N*-(3-methylphenyl)-3-nitrobenzamide, *in* N-00090
- N*-Hydroxy-*N*-(4-methylphenyl)-3-nitrobenzamide, *in* N-00090
- N*-Hydroxy-*N*-(4-methylphenyl)octanamide, *in* H-00424
- N*-Hydroxy-*N'*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, *in* H-00308
- N*-Hydroxy-*N*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, H-00313
- 4-[(4-Hydroxy-3-methylphenyl)phenylmethylene]-2-methyl-2,5-cyclohexadien-1-one, *see* C-00305
- ▷ 5-Hydroxy-3-methyl-1-phenylpyrazole, *see* D-00443
- [4-[[[(5-Hydroxy-3-methyl-1-phenyl)-1*H*-pyrazol-4-yl]azo]phenyl]arsonic acid, H-00314
- 3-Hydroxy-2-methyl-1-phenyl-4(1*H*)-pyridinone, H-00315
- N*-Hydroxy-*N*-(4-methylphenyl)tetradecanamide, H-00316
- N*-Hydroxy-*N*-(3-methylphenyl)-3-(2-thienyl)-2-propenamide, *in* H-00553
- N*-Hydroxy-*N*-(4-methylphenyl)-3-(2-thienyl)-2-propenamide, *in* H-00553
- N*-Hydroxy-*N'*-methyl-*N*-phenylthiourea, *in* T-00175
- ▷ 3-Hydroxy-3-methyl-1-phenyltriazene, H-00317
- (Hydroxymethyl)phosphonic acid, H-00318
- ▷ 3-Hydroxy-2-methyl-5-[(phosphonoxy)methyl]-4-pyridinecarboxaldehyde, *see* P-00416
- 4-Hydroxy-3-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, H-00319
- 5-Hydroxy-[6-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, H-00320
- 6-Hydroxy-5-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenesulfonic acid, H-00321
- 8-Hydroxy-7-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-5-quinolinesulfonic acid, H-00322
- 2-Hydroxy-5-methylpropiophenone, *see* H-00309
- ▷ 3-Hydroxy-2-methyl-4*H*-pyran-4-one, H-00323
- 2-Hydroxy-6-methyl-3-pyridinecarboxylic acid, *see* D-00441
- 1-Hydroxy-4-methyl-2(1*H*)-pyridinethione, *in* M-00274
- 3-Hydroxy-4-[(6-methyl-2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid *N*-oxide, H-00324
- ▷ 3-Hydroxy-2-methyl-γ-pyrone, *see* H-00323
- 3-Hydroxy-4-[[5-(1-methyl-2-pyrrolidinyl)-2-pyridinyl]azo]-2-naphthalenecarboxylic acid, H-00325
- 8-Hydroxy-2-methylquinoline, H-00326
- 8-Hydroxy-1-methylquinolinium betaine, *in* H-00525
- 6-Hydroxy-1-methylquinolinium hydroxide inner salt, *see* M-00188
- 8-Hydroxy-1-methylquinolinium hydroxide inner salt, *see* M-00189
- 8-Hydroxy-1-methyl-2(1*H*)-quinolinone azine, *see* A-00463
- N*-Hydroxy-*N'*-(methylsulfonyl)benzenecarboximidamide, *see* M-00067
- 4-[3-Hydroxy-6-methyl-4-(4-sulfophenylazo)phenylazo]benzenesulfonic acid, H-00327
- 2-Hydroxy-4-methylthiazole, *see* M-00315
- 4-[[4-(Hydroxymethyl)-2-thiazolyl]azo]-1,2-benzenediol, H-00328
- 2-[[3-Hydroxy-4-[methyl-2-thiazolylazo]phenyl]amino]ethanesulfonic acid, H-00329
- 3-[[3-Hydroxy-4-(4-methyl-2-thiazolyl)azo]phenyl]amino]-1-propanesulfonic acid, H-00330
- 6-Hydroxy-3-[(4-methyl-2-thiazolyl)azo]-2(1*H*)-pyridinone, H-00331
- 2-Hydroxy-5-methylthiophenol, *see* M-00035
- 3-Hydroxy-4-[[2-(methylthio)phenyl]azo]-2,7-naphthalenedisulfonic acid, *in* H-00259
- 6-Hydroxy-8-methylthio-7*H*-purine, *in* H-00260
- 3-Hydroxy-2-methyl-1-(4-tolyl)-4-pyridone, *see* H-00289
- 2-(3-Hydroxy-3-methyl-1-triazenyl)benzoic acid, H-00332
- N*-Hydroxy-2-methyl-*N*-[3-(trifluoromethyl)phenyl]benzamide, H-00333
- 7-Hydroxy-4-methyl-8-(1,4,7-trioxia-10-azacyclododec-10-ylmethyl)-2*H*-1-benzopyran-2-one, H-00334
- 3-Hydroxy-α-methyltyrosine, *see* A-00158
- β-Hydroxy-4-morpholinepropanesulfonic acid, H-00335
- 2-Hydroxy-1-naphthaldehyde, H-00336
- 2-Hydroxy-1-naphthaldehyde 4-methoxybenzoylhydrazone, *see* M-00082
- 2-Hydroxy-1-naphthaldehyde 4-pyridinylhydrazone, *see* P-00347
- ▷ 1-Hydroxynaphthalene, *see* N-00025
- ▷ 2-Hydroxynaphthalene, *see* N-00026
- N*-Hydroxy-1-naphthaleneacetamide, H-00337
- α-Hydroxy-2-naphthaleneacetic acid, H-00338
- 1-Hydroxy-2-naphthalenecarboxidithioic acid, H-00339
- 2-Hydroxy-1-naphthalenecarboxaldehyde, *see* H-00336
- 2-Hydroxy-1-naphthalenecarboxaldehyde 2-aminobenzoylhydrazone, *see* A-00108
- 2-Hydroxy-1-naphthalenecarboxaldehyde benzoylhydrazone, *see* B-00064
- 2-Hydroxy-1-naphthalenecarboxaldehyde *p*-bromobenzoylhydrazone, *see* B-00489
- 2-Hydroxy-1-naphthalenecarboxaldehyde 2-hydroxyanil, *see* H-00226
- 2-Hydroxy-1-naphthalenecarboxaldehyde 3-hydroxybenzoylhydrazone, *see* H-00118
- 2-Hydroxy-1-naphthalenecarboxaldehyde 4-hydroxybenzoylhydrazone, *see* H-00119
- 2-Hydroxy-1-naphthalenecarboxaldehyde 3-methoxybenzoylhydrazone, *see* M-00081
- ▷ *N*-Hydroxy-2-naphthalenecarboxamide, H-00340
- N*-Hydroxy-1-naphthalenecarboximidamide, *in* N-00005
- 1-Hydroxy-2-naphthalenecarboxylic acid, *see* H-00369
- ▷ 3-Hydroxy-2-naphthalenecarboxylic acid, *see* H-00370
- 3-Hydroxy-2-naphthalenecarboxylic acid [[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazide, H-00341
- 5-Hydroxy-1,2-naphthalenedione, *see* H-00372
- 7-Hydroxy-1,2-naphthalenedione, *see* H-00373
- ▷ 3-Hydroxy-2,7-naphthalenedisulfonic acid, H-00342
- 7-Hydroxy-1,3-naphthalenedisulfonic acid, H-00343
- 1-Hydroxy-2-naphthalenesulfonic acid, H-00344
- 4-Hydroxy-1-naphthalenesulfonic acid, H-00345
- 5-Hydroxy-1-naphthalenesulfonic acid, H-00346
- ▷ 6-Hydroxy-2-naphthalenesulfonic acid, H-00347
- 4-[(2-Hydroxy-1-naphthalenyl)azo]benzenesulfonic acid, H-00348
- 4-[(4-Hydroxy-1-naphthalenyl)azo]benzenesulfonic acid, *see* O-00043
- 2-[(2-Hydroxy-1-naphthalenyl)azo]benzoic acid, H-00349
- 4-[(2-Hydroxy-1-naphthalenyl)azo]-1-naphthalenesulfonic acid, H-00350
- 2-[(2-Hydroxy-1-naphthalenyl)azo]-5-nitrobenzenesulfonic acid, H-00351
- [[2-[(2-Hydroxy-1-naphthalenyl)azo]phenyl]thio]acetic acid, H-00352
- 3-[(2-Hydroxy-1-naphthalenyl)azo]-1*H*-pyrazole-4-carboxylic acid, H-00353

- 5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1*H*,3*H*)-pyrimidinedione, H-00354
- 8-Hydroxy-7-(1-naphthylazo)-5-quinolinesulfonic acid, H-00355
- 2-[(1-Hydroxy-2-naphthalenyl)azo]-8-quinolinol, H-00356
- 5-[(2-Hydroxy-1-naphthalenyl)azo]-1,3,4-thiadiazole-2(3*H*)-thione, H-00357
- 2-[(2-Hydroxy-1-naphthalenyl)azo]-4-thiazolecarboxylic acid, H-00358
- N*-Hydroxy-*N*-1-naphthalenylbenzamide, *see* B-00138
- N*-Hydroxy-*N*-1-naphthalenyldecanamide, H-00359
- N*-Hydroxy-*N*-1-naphthalenyldecylamide, H-00360
- 1-(1-Hydroxy-2-naphthalenyl)ethanone, *see* A-00026
- 1-(2-Hydroxy-1-naphthalenyl)ethanone, *see* A-00025
- N*-Hydroxy-*N*-1-naphthalenylhexanamide, H-00361
- 2-[[2-(2-Hydroxy-1-naphthalenyl)methylene]amino]benzoic acid, H-00362
- 2-[(2-Hydroxy-1-naphthalenyl)methylene]-*N*-phenylhydrazinecarbothioamide, H-00363
- 5-[(2-Hydroxy-1-naphthalenyl)methylene]-2-thioxo-4-thiazolidinone, H-00364
- N*-Hydroxy-*N*-1-naphthalenyl-4-nitrobenzamide, H-00365
- N*-(2-Hydroxy-1-naphthalenyl)-1-octanesulfonamide, *in* A-00273
- N*-Hydroxy-*N*-1-naphthalenylpentanamide, H-00366
- 4-[(4-Hydroxy-1-naphthalenyl)phenylmethylene]-1-(4*H*)-naphthalenone, *see* N-00027
- N*-Hydroxy-*N*'-2-naphthalenyl-*N*-phenylthiourea, H-00367
- N*-Hydroxy-*N*-1-naphthalenyltetradecanamide, H-00368
- 3-Hydroxy-2-naphthohydroxamic acid, *in* H-00370
- 1-Hydroxy-2-naphthoic acid, H-00369
- ▶ 3-Hydroxy-2-naphthoic acid, H-00370
- ▶ β-Hydroxynaphthoic acid, *see* H-00370
- Hydroxynaphthol blue, H-00371
- 5-Hydroxy-1,2-naphthoquinone, H-00372
- 7-Hydroxy-1,2-naphthoquinone, H-00373
- 3-Hydroxy-2-naphtho-2',4'-xylylide dihydrogen phosphate, *see* D-00894
- 2-(2-Hydroxy-3-naphthoylazo)-1-hydroxy-4-naphthalenesulfonic acid, H-00374
- 2-Hydroxy-α-naphthylamine, *see* A-00273
- ▶ 7-Hydroxy-α-naphthylamine, *see* A-00274
- p*-[(2-Hydroxy-1-naphthyl)azo]benzoic acid, H-00375
- 2-(2-Hydroxy-1-naphthylazo)benzothiazole, *see* B-00098
- 6'-[(2-Hydroxy-1-naphthyl)azo]-1-methylanabasine, *see* M-00250
- 3(5)-(2-Hydroxy-1-naphthylazo)pyrazole, *see* P-00303
- 3-[(2-Hydroxy-1-naphthyl)azo]-4-pyrazolecarboxylic acid, H-00376
- 2-(1-Hydroxy-2-naphthylazo)pyridine, *see* P-00375
- 2-(4-Hydroxy-1-naphthylazo)pyridine, *see* P-00376
- 2-(1-Hydroxy-2-naphthylazo)pyrimidine, *see* P-00430
- 2-(1-Hydroxy-2-naphthylazo)quinoline, *see* Q-00030
- 2-(2-Hydroxy-1-naphthylazo)quinoline, *see* Q-00029
- 8-Hydroxy-7-(2-naphthylazo)quinoline, H-00377
- 2-(2-Hydroxy-1-naphthylazo)thiazole, *see* T-00142
- 2-(4-Hydroxy-1-naphthylazo)thiazole, *see* T-00143
- 3-(2-Hydroxy-1-naphthylazo)-1,2,4-triazole, *see* T-00200
- 2-Hydroxy-1-naphthylfluorone, *see* T-00289
- 4-(2-Hydroxy-1-naphthylideneamino)antipyrene, *see* D-00417
- 2-(2-Hydroxy-1-naphthylideneamino)-4-biphenylol, H-00378
- N*-(2-Hydroxy-1-naphthylidene)anthranilic acid, *see* H-00362
- β-Hydroxynaphthylideneethylamine, *see* E-00096
- 5-(2-Hydroxy-1-naphthylidene)rhodanine, *see* H-00364
- 2-Hydroxy-4'-nitro-4-azobenzene-carboxylic acid, *see* H-00393
- 2-Hydroxy-4-nitrobenzaldehyde, H-00379
- 2-Hydroxy-5-nitrobenzaldehyde, H-00380
- 4-Hydroxy-2-nitrobenzaldehyde, H-00381
- N*-Hydroxy-2-nitrobenzamide, *see* N-00089
- N*-Hydroxy-3-nitrobenzamide, *see* N-00090
- N*-Hydroxy-4-nitrobenzamide, *in* N-00093
- ▶ 4-Hydroxy-3-nitrobenzenearsonic acid, *see* H-00392
- N*-Hydroxy-3-nitrobenzenecarboximidamide, H-00382
- 2-Hydroxy-5-nitrobenzoic acid, H-00383
- 2-Hydroxy-5-nitrobenzyl bromide, *see* B-00531
- (2-Hydroxy-5-nitrobenzyl)dimethylsulfonium(1+), H-00384
- N*-(2-Hydroxy-5-nitrobenzyl)monoaza-12-crown-4, *see* H-00387
- N*-(2-Hydroxy-5-nitrobenzyl)monoaza-15-crown-5, *see* H-00386
- N*-(2-Hydroxy-5-nitrobenzyl)monoaza-18-crown-6, *see* H-00385
- 16-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-16-azacyclooctadecane, H-00385
- 13-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13-azacyclopentadecane, H-00386
- 10-(2-Hydroxy-5-nitrobenzyl)-1,4,7-trioxa-10-azacyclododecane, H-00387
- N*-(2-Hydroxy-5-nitrobenzyl)-3,6,12-trioxa-9-azatetradecane, *see* E-00055
- 2-Hydroxy-5-nitro-2,4,6-cycloheptatrien-1-one, H-00388
- 6-[2-(2-Hydroxy-3-nitro-5-[(4-nitrophenyl)azo]benzyl)-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00389
- 2-Hydroxy-5-nitro-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, H-00390
- 2-Hydroxy-5-nitro-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, H-00391
- ▶ 4-Hydroxy-3-nitrophenylarsonic acid, H-00392
- 2-Hydroxy-4-(4-nitrophenylazo)benzoic acid, H-00393
- 2-Hydroxy-5-[(3-nitrophenyl)azo]benzoic acid, *see* A-00082
- ▶ 2-Hydroxy-5-[(4-nitrophenyl)azo]benzoic acid, *see* A-00075
- 2-[1-(2-Hydroxy-5-nitrophenyl)azo]-5-dimethylaminophenol, *in* A-00213
- 2-[(2-Hydroxy-5-nitrophenyl)azo]-4,5-diphenylimidazole, H-00394
- 4-Hydroxy-3-[(4-nitrophenyl)azo]-1,8-naphthalenedisulfonic acid, *see* A-00084
- 1-[(2-Hydroxy-4-nitrophenyl)azo]-2-naphthalenol, H-00395
- 1-[(2-Hydroxy-5-nitrophenyl)azo]-2-naphthalenol, H-00396
- N*-[[1-(2-Hydroxy-4-(4-nitrophenylazo)-2-naphthyl)methyl]glycine, H-00397
- N*-[2-Hydroxy-5-(3-nitrophenylazo)phenyl]iminodiacetic acid, *see* A-00206
- 2-Hydroxy-[5-(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00398
- 2-Hydroxy-5-(4-nitrophenylazo)phenylmethyl-18-crown-6, H-00399
- [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-15-crown-5, H-00400
- [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-18-crown-6, H-00401
- 2-Hydroxy-4-nitrophenylazo-1,3-xylyl-18-crown-5, *see* N-00127
- N*-Hydroxy-3-nitro-*N*-phenylbenzamide, *in* N-00090
- 2-Hydroxy-5-nitrophenylfluorone, *see* T-00291
- [(2-Hydroxy-5-nitrophenyl)methyl]dimethylsulfonium(1+), *see* H-00384
- 2-[(2-Hydroxy-5-nitrophenyl)methylene]-*N*-phenylhydrazinecarbothioamide, *in* H-00380
- N*-Hydroxy-3-(3-nitrophenyl)-*N*-phenyl-2-propenamide, H-00402
- 3-Hydroxy-1-(2-nitrophenyl)-3-phenyl-1-triazene, H-00403
- 3-Hydroxy-1-(4-nitrophenyl)-3-phenyl-1-triazene, H-00404
- N*-Hydroxy-*N*-(4-nitrophenyl)-3-(2-thienyl)-2-propenamide, H-00405
- ▶ *N*-Hydroxy-*N*-nitrosoaniline, *see* H-00471
- ▶ *N*-Hydroxy-*N*-nitrosobenzenamine, *see* H-00471
- 4-Hydroxy-3-nitroso-5,6-benzocoumarin, *see* H-00416
- 2-Hydroxy-3-nitrosobenzoic acid, H-00406
- 4-Hydroxy-3-nitroso-2*H*-1-benzopyran-2-one, H-00407
- 4-Hydroxy-5-nitroso-2,1,3-benzothiadiazole, H-00408
- 5-Hydroxy-4-nitroso-2,1,3-benzothiadiazole, H-00409
- N*-Hydroxy-*N*-nitrosocyclododecanamine, H-00410
- N*-Hydroxy-*N*-nitrosocyclohexanamine, H-00411
- N*-Hydroxy-*N*-nitrosocyclooctylamine, H-00412
- N*-Hydroxy-*N*-nitroso-2-fluorenamine, *in* A-00178
- 3-Hydroxy-4-nitroso-2-naphthalenecarboxylic acid, H-00413
- 3-Hydroxy-4-nitroso-2,7-naphthalenedisulfonic acid, H-00414
- 4-Hydroxy-3-nitroso-1-naphthalenesulfonic acid, H-00415
- 1-Hydroxy-2-nitroso-3*H*-naphtho[2,1-*b*]pyran-3-one, H-00416
- N*-Hydroxy-*N*-nitroso-1-naphthylamine, *see* N-00061
- 3-[(3-Hydroxy-4-nitrosophenyl)propylamino]-1-propanesulfonic acid, H-00417
- N*-Hydroxy-*N*-nitroso-2-propanamine, H-00418
- 4-Hydroxy-3-nitroso-2(1*H*)-pyridinone, H-00419
- 6-Hydroxy-5-nitroso-2,4(1*H*,3*H*)-pyrimidinedione, H-00420
- 6-Hydroxy-5-nitrosoquinoline, *see* N-00162
- ▶ 8-Hydroxy-5-nitrosoquinoline, *in* Q-00019
- 8-Hydroxy-7-nitroso-5-quinolinesulfonic acid, H-00421
- 4-Hydroxy-3-nitroso-2(1*H*)-quinolinone, *see* D-00675
- 1-(2-Hydroxy-3-nitro-5-sulfofenylazo)-2-naphthol, *see* E-00014
- 4-(2-Hydroxy-5-nitro-3-sulfofenylazo)-1-naphthol, *see* H-00223
- 2-Hydroxy-5-nitro-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzenesulfonic acid, H-00422
- 2-Hydroxy-5-nitro-3-[(2-thioxo-4-oxopyrrolidinyl)azo]benzenesulfonic acid, H-00423
- α-Hydroxy-4-nitrotoluene, *see* N-00097
- N*-Hydroxyoctanamide, H-00424
- N*-Hydroxy-4-(octyloxy)-*N*-phenylbenzamide, H-00425
- 2-Hydroxy-β-oxobenzene-propanal, *see* D-00406
- 7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, H-00426
- 2-(3-Hydroxy-4-oxo-4*H*-1-benzopyran-2-yl)benzenesulfonic acid, H-00427
- N*-[(7-Hydroxy-2-oxo-(2*H*)-1-benzopyran-8-yl)methyl]glycine, 9Cl, *see* H-00096

- 4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carbonitrile, *in* H-00428
- 4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carboxylic acid, H-00428
- 4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-sulfonic acid, H-00429
- 1-Hydroxy-4-[(4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid, H-00430
- 1-[(3-Hydroxy-1-oxodecyl)oxy]-2,5-pyrrolidinedione, H-00431
- 6-Hydroxy-5-oxo-5*H*-dibenzo[*a*,*j*]phenoxazine-8,11-disulfonic acid, H-00432
- 6-Hydroxy-5-oxo-5*H*-dibenzo[*a*,*j*]phenoxazine-9-sulfonic acid, *see* A-00078
- α -Hydroxy- β -oxodipyrithylthane, *see* P-00412
- 2-[(3-Hydroxy-1-oxo-1*H*-inden-2-yl)imino]-1*H*-indene-1,3(2*H*)-dione, H-00433
- 5-Hydroxy-4-oxo-4*H*-pyran-2-carboxylic acid, H-00434
- 3-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic acid, H-00435
- 2-Hydroxy-5-[[4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]phenyl]azo]benzenesulfonic acid, H-00436
- ▷ 2'-Hydroxypelargidenol 1522, *see* P-00024
- 4-Hydroxy-3-penten-2-one, *in* P-00030
- ▷ *p*-Hydroxyphenacyl bromide, *see* B-00508
- 4-Hydroxy-1,10-phenanthroline, H-00437
- 6-Hydroxy-1,7-phenanthroline, H-00438
- 2-(2-Hydroxy-1-phenanthrylazo)pyridine, *see* P-00377
- 2-(2-Hydroxy-1-phenanthrylazo)quinoline, *see* Q-00031
- 2-Hydroxyphenazine, H-00439
- 8-Hydroxy-10*H*-phenothiazin-1-amine, H-00440
- 7-Hydroxy-3*H*-phenothiazin-3-one, H-00441
- 2-Hydroxy-3*H*-phenoxazin-3-one, H-00442
- 7-Hydroxy-3*H*-phenoxazin-3-one, H-00443
- (2-Hydroxyphenoxy)methyl-12-crown-4, H-00444
- ▷ *N*-(4-Hydroxyphenyl)acetamide, *in* A-00302
- N*-Hydroxy-*N*-phenylacetamide, *in* P-00135
- ▷ 2-Hydroxy-2-phenylacetic acid, *see* M-00007
- ▷ α -Hydroxyphenylacetic acid, *see* M-00007
- 3-*p*-Hydroxyphenyl- α -alanine, *see* T-00435
- 2-[(2-Hydroxyphenyl)amino]benzoic acid, *see* H-00167
- 4-(*N*-Hydroxy-*N*-phenylaminocarbonyl)azobenzene, *see* P-00156
- 2-[(Hydroxyphenylamino)carbonyl]benzenesulfonic acid, H-00445
- 1-(Hydroxyphenylamino)-5-phenyl-1,4-pentadien-3-one, H-00446
- 2-[[1-Hydroxy-7-(phenylamino)-3-sulfo-2-naphthalenyl]azo]benzoic acid, *in* A-00222
- 4-Hydroxy-5-[[4-(phenylamino)-5-sulfo-1-naphthalenyl]azo]-2,7-naphthalenedisulfonic acid, *see* A-00366
- N*-(3-Hydroxyphenyl)anilinesulfonephthalein, *in* A-00369
- N*-(*o*-Hydroxyphenyl)anthranilic acid, *see* H-00167
- ▷ (4-Hydroxyphenyl)arsonic acid, H-00447
- 2-(4-Hydroxyphenylazo)benzaldehyde, H-00448
- 4-[(2-Hydroxyphenyl)azo]-1,3-benzenediol, H-00449
- 2-(*p*-Hydroxyphenylazo)benzo-15-crown-5, *see* O-00006
- 4'-(*p*-Hydroxyphenylazo)benzo-1,4,8,11-tetrathiacyclopentadec-13-ene, *see* O-00010
- 2-(2-Hydroxyphenylazo)chromotropic acid, *see* D-00624
- 2-[(2-Hydroxyphenyl)azo]-4,5-diphenylimidazole, H-00450
- 2-(2-Hydroxyphenylazo)-5-[*N*-ethyl-*N*-(3-sulfo)propyl]amino]phenol, *see* E-00088
- 4-[(4-Hydroxyphenyl)azo]-6-methyl-1,3-benzenediamine, H-00451
- 2-(2-Hydroxyphenylazo)-3-methyl-5-propylpyrrolidine, *see* M-00263
- 3-Hydroxy-4-(phenylazo)-2-naphthalenecarboxamide, H-00452
- 2-[(2-Hydroxyphenyl)azo]-1,5-naphthalenediol, H-00453
- 3-Hydroxy-4-(phenylazo)-2,7-naphthalenedisulfonic acid, H-00454
- 7-Hydroxy-8-phenylazo-1,3-naphthalenedisulfonic acid, *see* O-00042
- 1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, H-00455
- 4-(4-Hydroxyphenylazo)-1-naphthylamine, *see* A-00277
- 4-(3-Hydroxyphenylazo)nitrobenzene, *see* N-00128
- 2-(2-Hydroxyphenylazo)-5-nitrothiazole, *see* N-00166
- 4-[(4-Hydroxyphenyl)azo]phenol, *see* D-00516
- 7-Hydroxy-8-[[4-(phenylazo)phenyl]azo]-1,3-naphthalenedisulfonic acid, *see* B-00478
- 2-(4-Hydroxyphenylazo)quinoline, *see* Q-00032
- 8-Hydroxy-5-phenylazoquinoline, *see* P-00100
- 8-Hydroxy-7-(phenylazo)-5-quinolinesulfonic acid, *see* P-00101
- 5-(2-Hydroxyphenylazo)-8-quinolinol, H-00456
- 5-(3-Hydroxyphenylazo)-8-quinolinol, H-00457
- 5-(4-Hydroxyphenylazo)-8-quinolinol, H-00458
- 4-(2-Hydroxyphenylazo)resorcinol, *see* H-00449
- 2-[[1-Hydroxy-7-(phenylazo)-3-sulfo-2-naphthalenyl]azo]benzoic acid, H-00459
- 5-(2-Hydroxyphenylazo)-2-thioxo-4-imidazolidinone, *see* P-00061
- 5-[(2-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00460
- 5-[(3-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00461
- 5-[(4-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00462
- 2-Hydroxy-*N*-phenylbenzamide, *in* H-00112
- N*-Hydroxy-*N*-phenylbenzamide, *in* P-00135
- N*-Hydroxy-*N*-phenylbenzeneacetamide, H-00463
- α -Hydroxy- α -phenylbenzeneacetic acid, *see* H-00166
- α -Hydroxy- α -phenylbenzeneacetic acid 2-[(4-methylphenyl)sulfonyl]hydrazide, H-00464
- 2-(2-Hydroxyphenyl)benzimidazole, H-00465
- N*-Hydroxy-*N'*-phenyl-1*H*-benzimidazole-2-carboximidamide, *in* P-00102
- 2-Hydroxy-5-phenylbenzoic acid, *see* H-00132
- 2-(3-Hydroxyphenyl)-4*H*-1-benzopyran-4-one, *see* H-00183
- ▷ 3-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one, H-00466
- 5-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one, *see* H-00184
- 2-(*o*-Hydroxyphenyl)benzothiazoline, *see* D-00372
- ▷ 2-(2-Hydroxyphenyl)benzoxazole, H-00467
- N*-2-Hydroxy-5-phenylbenzylidene-2-hydroxy-5-phenylaniline, H-00468
- 1-(2-Hydroxyphenyl)-1-butanone, H-00469
- N*-Hydroxy-*N*-phenyl-2-butenamide, *in* H-00143
- N*-Hydroxy-*N*-phenyl-2-chlorobenzamide, H-00470
- 2-(3-Hydroxyphenyl)chromone, *see* H-00183
- ▷ 3-Hydroxy-2-phenylchromone, *see* H-00466
- 5-Hydroxy-2-phenylchromone, *see* H-00184
- p*-Hydroxy-*N*-phenylcinnamohydroxamic acid, *see* H-00241
- N*-Hydroxy-*N*-phenyldecanamide, *in* H-00147
- ▷ 1-Hydroxy-2-phenyldiazene 2-oxide, H-00471
- N*-Hydroxy-*N*-phenyldodecanamide, *in* L-00001
- 2-Hydroxy-*p*-phenylenediamine, *see* D-00111
- N*-Hydroxy-*N'*-phenylethanimidamide, *in* A-00004
- ▷ 1-(2-Hydroxyphenyl)ethanone, *see* H-00089
- ▷ 1-(4-Hydroxyphenyl)ethanone, *see* H-00090
- 2-[6-(2-Hydroxy-2-phenylethyl)-1-methyl-2-piperidinyl]-1-phenylethanone, *see* L-00010
- 3-Hydroxyphenylfluorone, *see* T-00293
- 4-Hydroxyphenylfluorone, *see* T-00294
- 2-[*N*-(2-Hydroxyphenyl)formimidoyl]-4-*tert*-pentylphenol, *see* D-00902
- 4-[*N*-(*o*-Hydroxyphenyl)formimidoyl]resorcinol, *see* D-00542
- N*-Hydroxy-*N*-phenyl-2-furancarboxamide, H-00472
- N*-Hydroxy-*N*-phenyl-2,4-hexadienamide, *in* H-00185
- N*-Hydroxy-*N*-phenylhexanamide, *in* H-00186
- 3-(4-Hydroxyphenyl)-3-(8-hydroxy-5-quinolinyl)-1(3*H*)-isobenzofuranone, *see* O-00052
- 3-(*p*-Hydroxyphenyl)-3-(8-hydroxy-5-quinolinyl)phthalide, *see* O-00052
- 2-[(2-Hydroxyphenyl)imino]-1-acenaphthenone, H-00473
- 4-(4-Hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, *see* I-00034
- 3-[[[(2-Hydroxyphenyl)imino]methyl][1,1'-biphenyl]-4-ol], *see* H-00234
- 2-[[[(2-Hydroxyphenyl)imino]methyl]-4-iodophenol], *see* H-00204
- 2-[[[(2-Hydroxyphenyl)imino]methyl]-4-methoxyphenol], *in* D-00543
- 2-[[[(2-Hydroxyphenyl)imino]methyl]-6-methoxyphenol], *in* D-00541
- 2-[[[(2-Hydroxyphenyl)imino]methyl]-3-methyl-6-(1-methylethyl)phenol], *see* H-00205
- 2-[[[(2-Hydroxyphenyl)imino]methyl]-5-methylphenol], *see* H-00211
- 2-[[[(2-Hydroxyphenyl)imino]methyl]-6-methylphenol], *see* H-00210
- 1-[[[(2-Hydroxyphenyl)imino]methyl]-2-naphthalenol], *see* H-00226
- 2-[[[(2-Hydroxyphenyl)imino]methyl]phenol], *see* H-00129
- 2-[[[(2-Hydroxyphenyl)imino]phenyl]-4-methylphenol], *see* H-00212
- 3-(4-Hydroxyphenyl)-1-(3*H*)-isobenzofuranone, H-00474
- 5-Hydroxy-3-phenyl-4-isoxazolecarboxylic acid, H-00475
- N*-(3-Hydroxyphenyl)-2-mercaptoacetamide, H-00476
- N*-(2-Hydroxyphenyl)methanesulfonamide, *in* A-00300
- N*-Hydroxy-*N*-phenylmethylbenzamide, *in* H-00109
- N*-[[2-(2-Hydroxyphenyl)methylene]- β -alanine], *see* H-00130
- 2-[[[(2-Hydroxyphenyl)methylene]amino]-9*H*-fluoren-3-ol], H-00477
- 2-[[[(2-Hydroxyphenyl)methylene]amino]-4-methylphenol], *see* H-00191
- 2-[[[(2-Hydroxyphenyl)methylene]amino]-5-methylphenol], *see* H-00190
- 2-[[[(2-Hydroxyphenyl)methylene]amino]methyl]phenol, H-00478
- [2-[[[(2-Hydroxyphenyl)methylene]amino]phenyl]arsonic acid, H-00479
- 2-[[[(2-Hydroxyphenyl)methylene]amino]-3-pyridinol], H-00480
- [(2-Hydroxyphenyl)methylene]carbonothioic acid (di-2-pyridinylmethylene) dihydrazide, H-00481
- 2-[(2-Hydroxyphenyl)methylene]hydrazinecarboximidamide, *see* H-00105
- 2-[(2-Hydroxyphenyl)methylene]-*N*-phenylhydrazinecarbothioamide, *see* H-00107
- [(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonic dihydrazide, H-00482
- [(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00483
- [(4-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00484

- 5-[(2-Hydroxyphenyl)methylene]-2-thioxo-4-imidazolidinone, H-00485
- 5-[(2-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00486
- 5-[(3-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00487
- ▷ 2-Hydroxyphenyl methyl ketone, *see* H-00089
- ▷ 4-Hydroxyphenyl methyl ketone, *see* H-00090
- N*-Hydroxy-*N*-phenylmethyl-2-naphthalenecarboxamide, *in* N-00024
- ▷ 2'-(4-Hydroxyphenyl)-5-(4-methyl-1-piperazinyl)-2,5'-bi-1*H*-benzimidazole, H-00488
- 3-Hydroxy-*N*-phenyl-2-naphthalenecarboxamide, *in* H-00370
- N*-Hydroxy-*N*-phenyl-1-naphthalenecarboxamide, H-00489
- N*-Hydroxy-*N*-phenyl-2-naphthalenecarboxamide, *in* N-00024
- 1-Hydroxy-3-phenyl-2,7-naphthyridine, *see* P-00152
- N*-Hydroxy-*N*-phenyloctanamide, *in* H-00424
- N*-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
- 1-[3-(4-Hydroxyphenyl)-1-oxopropoxy]-2,5-pyrrolidinedione, H-00491
- N*-Hydroxy-*N*-phenylpentanamide, H-00492
- 1-(2-Hydroxyphenyl)-3-(4-phenylazophenyl) triazene, *see* P-00098
- 4-[(4-Hydroxyphenyl)phenylmethylene]-2,5-cyclohexadien-1-one, *see* B-00012
- 3-[2-Hydroxyphenyl]-3-phenylnaphtho[2,1-*b*]furan-1(3*H*)-one, H-00493
- 3-[4-Hydroxyphenyl]-3-phenylnaphtho[2,1-*b*]furan-1(3*H*)-one, H-00494
- 3-(2-Hydroxyphenyl)-1-phenyl-5-(1-phenyl-2-benzimidazolyl)formazan, H-00495
- 3-(2-Hydroxyphenyl)-1-phenyl-2-propen-1-one, H-00496
- 3-(2-Hydroxyphenyl)-1-phenyl-1-triazene, *see* P-00204
- 3-(4-Hydroxyphenyl)phthalide, *see* H-00474
- 3-(4-Hydroxyphenyl)propanoic acid, H-00497
- 1-(2-Hydroxyphenyl)-1-propanone, H-00498
- N*-Hydroxy-3-phenyl-2-propenamide, *in* H-00499
- ▷ *N*-Hydroxy-3-phenylpropenamide, H-00499
- 3-(2-Hydroxyphenyl)-2-propenoic acid, H-00500
- 3-(*p*-Hydroxyphenyl)propionic acid, *see* H-00497
- N*-Hydroxy-*N*-phenyl-2-propylpentanamide, H-00501
- 2-(2-Hydroxyphenyl)pyridine, *see* P-00399
- N*-(2-Hydroxyphenyl)-2-pyridinecarbothioamide, H-00502
- 8-Hydroxy-2-phenylquinoline, H-00503
- 5-Hydroxy-7-phenylsulfobenzo[*a*]phenazinium(1+), *see* R-00012
- N*-Hydroxy-*N*-phenyltetradecanamide, H-00504
- N*-Hydroxy-*N*-phenyl-3-(2-thienyl)-2-propenamide, H-00505
- 4-(3-Hydroxy-3-phenyl-1-triazenyl)benzenesulfonic acid, H-00506
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzoic acid, H-00507
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzothiazole, H-00508
- 4-(1-Hydroxy-3-phenyl-2-triazenyl)-*N,N*-dimethylbenzenamine, *see* H-00149
- 3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)-5-sulfobenzoic acid, H-00510
- N*-Hydroxy-*N*-phenyl-3-(trifluoromethyl)benzamide, H-00511
- 2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid, H-00512
- 1-(4-Hydroxyphenyl)-2,4,6-triphenylpyridinium hydroxide inner salt, H-00513
- 1-Hydroxy-1-phenylurea, *in* P-00211
- 3-Hydroxy-4-[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00514
- 3-Hydroxycyclohexaldehyde, *see* H-00518
- 3-Hydroxycyclohexaldehyde azine, *see* H-00519
- ▷ 10-[3-(4-Hydroxy-1-piperidinyl)propyl]-10*H*-phenothiazine-2-carbonitrile, *see* P-00044
- ▷ 2-Hydroxy-3-prenylnaphthoquinone, H-00515
- ▷ 2-Hydroxypropane, *see* P-00266
- ▷ 3-Hydroxy-1,2-propanedithiol, *see* D-00763
- ▷ *N,N'*-(2-Hydroxy-1,3-propanediyl)bis[*N*-(carboxymethyl)glycine], *see* D-00116
- ▷ 2-Hydroxy-1,2,3-propanetricarboxylic acid, *see* C-00299
- ▷ 2-Hydroxypropanoic acid, H-00516
- 1-Hydroxy-2-propionaphthone, *see* P-00267
- 2'-Hydroxypropiofenone, *see* H-00498
- α -Hydroxypropiovanillone, *in* T-00268
- 2-Hydroxypropylene, *see* P-00270
- 3-Hydroxypropyl methyl sulfide, *in* M-00053
- N*-(β -Hydroxypropyl)-*o*-phenylenediamine, *see* A-00305
- (2-Hydroxypropyl)phosphonothioic acid *O,O*-dibutyl ester, *see* D-00234
- 8-Hydroxy-1,3,6-pyrenetrisulfonic acid, H-00517
- 3-Hydroxy-2-pyridinamine, *see* A-00216
- 3-Hydroxy-2-pyridinecarboxaldehyde, H-00518
- 3-Hydroxy-2-pyridinecarboxaldehyde [(3-hydroxy-2-pyridinyl)methylene]hydrazone, H-00519
- N*-Hydroxy-3-pyridinecarboxamide, *in* P-00341
- N*-Hydroxy-3-pyridinecarboximidamide, *in* P-00341
- ▷ α -Hydroxy 2-pyridinemethanesulfonic acid, *see* H-00524
- 1-Hydroxy-2(1*H*)-pyridinethione, *in* P-00357
- 3-Hydroxy-2(1*H*)-pyridinethione, H-00520
- 3-Hydroxy-2(1*H*)-pyridinone, H-00521
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- (Hydroxy-3-pyridinylmethyl)phosphoric acid, H-00523
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- 8-Hydroxy-7-(2-pyridylazo)quinoline, *see* P-00381
- 8-Hydroxy-7-(4-pyridylazo)quinoline, *see* P-00382
- ▷ 2-Hydroxy-2-(2-pyridyl)methanesulfonic acid, H-00524
- Hydroxy-2-pyridylmethyl 2-pyridyl ketone, *see* P-00412
- N*-(3-Hydroxy-2-pyridyl)salicylaldimine, *see* H-00480
- 5-Hydroxy-4-pyrone-2-carboxylic acid, *see* H-00434
- 3-Hydroxy-4-pyrone-2,6-dicarboxylic acid, *see* H-00435
- 6-Hydroxyquercetin, *see* D-00717
- 8-Hydroxyquinaldine, *see* H-00326
- ▷ Hydroxyquinol, *see* B-00035
- ▷ 8-Hydroxyquinoline, H-00525
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- 6-Hydroxy-4-quinolinecarboxylic acid, H-00527
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- 4-[(8-Hydroxy-7-quinolinyl)azo]benzenesulfonic acid, H-00529
- 6'-(8-Hydroxy-7-quinolinyl)azo-1-methylanabasine, *see* M-00253
- 2-[(8-Hydroxy-7-quinolinyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, *see* M-00253
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- 8-Hydroxyquinolylfluorone, *see* T-00295
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- 5-[(8-Hydroxy-5-quinolyl)imino-8(5*H*)-quinolone], H-00535
- ▷ Hydroxyquinonocarboxylic acid, *see* D-00532
- 5-Hydroxyquinoxaline, H-00536
- 3-Hydroxy-2-quinoxalinecarboxylic acid, H-00537
- 5-Hydroxysalicylaldehyde, *see* D-00518
- ▷ 5-Hydroxysalicylic acid, *see* D-00532
- 3-Hydroxy-2-(salicylideneamine)fluorene, *see* H-00477
- 4-Hydroxy-5-(salicylideneamino)-2,7-naphthalenedisulfonic acid, *see* A-00472
- 2-Hydroxy-*N*-salicylidene-5-sulfoaniline, *see* H-00238
- (2-Hydroxystyryl)phenyl ketone, *see* H-00496
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- 8-Hydroxy-7-[(5-sulfo-2-naphthalenyl)azo]-5-quinolinesulfonic acid, *see* N-00045
- 8-Hydroxy-7-[(6-sulfo-2-naphthalenyl)azo]-5-quinolinesulfonic acid, *see* N-00047
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- 2-(2-Hydroxy-4-sulfo-1-naphthylazo)-5-[*N*-ethyl-*N*-(3-sulfopropyl)amino]phenol, *see* E-00115
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- α -Hydroxy α -trifluoromethylphenylacetic acid, *see* H-00512
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- 6-Methoxy- α -methyl-2-naphthaleneacetic acid, *see* N-00057
- α -Methoxy- α -methyl-1-naphthaleneacetic acid, *see* M-00095
- 2-Methoxy-3-methylphenol, *in* M-00127
- 3-Methoxy-5-methylphenol, *in* M-00128
- 2-(2-Methoxy-4-methylphenylazo)thiazole, *in* M-00324
- 2-Methoxy-6-[[5-(1-methyl-2-piperidinyl-2-pyridyl]azo]phenol, M-00092
- 6-Methoxy-2-methyl-3(2*H*)-pyridazinone, *in* D-00481
- 3-Methoxy-2-methyl-6-(2-pyridinylazo)phenol, *in* M-00278
- 5-Methoxy-2-[(5-methyl-2-pyridinyl)azo]phenol, *in* M-00279
- ▷ 7-Methoxy-1-methyl-9*H*-pyrido[3,4-*b*]indole, *see* M-00090
- 8-Methoxy-2-methylquinoline, *in* H-00326
- 4-Methoxy-2-(4-methyl-2-thiazolyl)azo]phenol, *in* M-00318
- 3-Methoxy-2-(methylthio)pyridine, *in* H-00520
- 6-Methoxy-2-methylthio-4-pyrimidinecarboxylic acid, *in* H-00261
- 2-Methoxy-4-[*N*-(*p*-morpholinophenyl)formimidoyl]phenol, M-00093
- 2-Methoxy-1-naphthaldehyde, *in* H-00336
- α -Methoxy-2-naphthaleneacetic acid, *in* H-00338
- 1-[2-Methoxy-2-(1-naphthalenyl)-1-oxopropoxy]-2,5-pyrrolidinedione, M-00094
- 1-Methoxy-2-naphthol, *in* N-00007
- 3-Methoxy-2-naphthol, *in* N-00010
- 4-Methoxy-2-naphthol, *in* N-00008
- 7-Methoxy-2-naphthol, *in* N-00011
- 8-Methoxy-1-naphthol, *in* N-00009
- 5-Methoxy-1,2-naphthoquinone, *in* H-00372
- 7-Methoxy-1,2-naphthoquinone, *in* H-00373
- 2-Methoxy-2-(1-naphthyl)propanoic acid, M-00095
- 2-(6-Methoxy-2-naphthyl)propanoic acid, *see* N-00057
- 2-Methoxy-5-nitrobenzaldehyde, *in* H-00380
- 4-Methoxy-2-nitrobenzaldehyde, *in* H-00381
- ▷ 1-Methoxy-2-nitrobenzene, *in* N-00117
- ▷ 1-Methoxy-3-nitrobenzene, *in* N-00118
- ▷ 1-Methoxy-4-nitrobenzene, *in* N-00119
- 2-Methoxy-5-nitrobenzoic acid, *in* H-00383
- ▷ 2-Methoxy-5-nitrobenzyl bromide, *in* B-00531
- ▷ 2-Methoxy-4-nitrophenol, *in* N-00087
- 2-Methoxy-5-nitrophenol, *in* N-00087
- 2-(2-Methoxy-4-nitrophenylazo)-1-naphthol-4,8-disulfonic acid, *see* N-00078
- 2-[[[4-Methoxy-2-nitrophenyl]hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolium(1+), M-00096
- [(2-Methoxy-5-nitrophenyl)methyl]dimethylsulfonium(1+), *in* H-00384
- 1-Methoxy-2-nitrosophthalene, *in* N-00161
- 2-Methoxy-1-nitrosophthalene, *in* N-00160
- ▷ 3-Methoxy-4-nitrosophenol, *in* N-00156
- 5-Methoxy-2-nitrosophenol, *in* N-00156
- 7-Methoxy-2-oxo-2*H*-1-benzopyran-3-carbonyl azide, *in* H-00426
- 7-Methoxy-2-oxo-2*H*-1-benzopyran-4-carbonyl azide, M-00097
- 7-Methoxy-2-oxo-2*H*-1-benzopyran-3-carbonyl fluoride, *in* H-00426
- 3-[(7-Methoxy-2-oxo-2*H*-1-benzopyran-3-yl)carbonyl]-2(3*H*)-oxazolone, M-00098
- (7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)methyl-*N,N'*-bis(1-methylethyl) carbamimidate, M-00099
- (7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)methyl-*N,N'*-dicyclohexylcarbamimidate, M-00100
- 5-Methoxy-4-oxo-4*H*-pyran-2-carboxylic acid, *in* H-00434
- 1-Methoxypentane, *in* P-00034
- 19-Methoxy-3,6,9,12,15-pentaoxa-21-azabicyclo[15.3.1]heneicosa-1(21),17,19-triene-2,16-dione, M-00101
- 4-Methoxy-3-penten-2-one, *in* P-00030
- p*-Methoxyphenacyl bromide, *in* B-00508
- 6-Methoxy-1,7-phenanthroline, *in* H-00438
- 2-Methoxyphenazine, *in* H-00439
- ▷ 2-Methoxyphenol, M-00102
- ▷ 4-Methoxyphenol, *in* B-00022
- ▷ *m*-Methoxyphenol, *in* B-00021
- 8-Methoxy-10*H*-phenothiazine-1,3-diamine, *see* D-00100
- 2-Methoxy-3*H*-phenoxazin-3-one, *in* H-00442
- 2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13,16-hexaoxacyclooctadecane, M-00103
- 2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13-pentaoxacyclopentadecane, M-00104
- ▷ *N*-(4-Methoxyphenyl)acetamide, *in* M-00073
- 1-[(Methoxyphenylacetyl)oxy]-2,5-pyrrolidinedione, M-00105
- ▷ 2-[(2-Methoxyphenyl)amino]benzoic acid, *in* H-00167
- 4-[(4-Methoxyphenyl)azo]-1,3-benzenediamine, M-00106
- 4-[(4-Methoxyphenyl)azo]-6-methyl-1,3-benzenediamine, *see* D-00099
- 2-Methoxy-*N'*-phenyl-1,4-benzenediamine, *see* M-00071
- N*-(4-Methoxyphenyl)-1,4-benzenediamine, *in* A-00185
- 3-Methoxy-2-phenyl-4*H*-1-benzopyran-4-one, *in* H-00466
- 3-Methoxy-2-phenylchromone, *in* H-00466
- p*-Methoxy-*N*-phenylcinnamohydroxamic acid, *in* H-00241
- 2-(2-Methoxyphenyl)-15-crown-5, *see* M-00115
- o*-Methoxyphenyl-18-crown-6, *see* M-00109
- 4-Methoxyphenyldiazene-carbothioic acid 2-(4-methoxyphenyl)hydrazide, *see* D-00775
- 1-Methoxy-2-phenyldiazene 2-oxide, *in* H-00471
- 1-Methoxy-2-phenyldiimine 2-oxide, *in* H-00471
- 3-(2-Methoxyphenyl)-1,5-diphenylformazan, M-00107
- 2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazolo[3,2-*a*]pyridin-4-ium(1+), M-00108
- 2-(2-Methoxyphenyl)-1,4,7,10,13,16-hexaoxacyclooctadecane, M-00109
- 2-[[[2-Methoxyphenyl]hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolinium(1+), M-00110
- 3-(*p*-Methoxyphenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, M-00111
- 2-[2-[4-[(4-Methoxyphenyl)methylamino]phenyl]ethenyl]-1,3,3-trimethyl-3*H*-indolinium(1+), *see* C-00046
- N*¹-(4-Methoxyphenyl)-2-methyl-1,4-benzenediamine, *see* A-00246
- 2-(4-Methoxyphenyl)-4-methyl-1*H*-1,5-benzodiazepine, M-00112
- 1-[(4-Methoxyphenyl)methyl]-4,6-diphenyl-2(1*H*)-pyridinethione, *see* M-00084
- 4-(4-Methoxyphenyl)methyleneamino)antipyrine, *see* D-00428
- 2-[(4-Methoxyphenyl)methylene]-*N*-phenylhydrazinecarbothioamide, *see* M-00076
- ▷ 5-[(4-Methoxyphenyl)methylene]-2-thioxo-4-thiazolidinone, M-00113
- N*-[(4-Methoxyphenyl)methyl]-7-nitro-4-benzofurazanamine, M-00114

- (2-Methoxyphenyl)oxymethyl-15-crown-5, *see* M-00104
- (2-Methoxyphenyl)oxymethyl-18-crown-6, *see* M-00103
- 2-(2-Methoxyphenyl)-1,4,7,10,13-pentaoxacyclopentadecane, M-00115
- 1-(4-Methoxyphenyl)-3-phenyl-5-(1-phthalazinyl)formazan, M-00116
- 5-(3-Methoxyphenyl)-3-phenyl-1-(2-pyridinyl)formazan, *see* P-00359
- 5-(4-Methoxyphenyl)-3-phenyl-1-(2-pyridinyl)formazan, *see* P-00360
- 3-(4-Methoxyphenyl)propanoic acid, *in* H-00497
- 1-(2-Methoxyphenyl)-1-propanone, *in* H-00498
- 3-(2-Methoxyphenyl)-2-propenoic acid, *in* H-00500
- 6-Methoxy-2-phenyl-1(2*H*)-pyridazinone, *in* D-00481
- N*-(2-Methoxyphenyl)-2-pyridinecarbothioamide, *in* H-00502
- O*-(*p*-Methoxyphenylsulfonyl)-*o*-methylquinone monoxime, M-00117
- O*-(*p*-Methoxyphenylsulfonyl)quinone monoxime, M-00118
- 4'-(4-Methoxyphenyl)-2,2':6',2"-terpyridine, M-00119
- N-m*-Methoxyphenyl-2-thenylacrylohydroxamic acid, *see* H-00273
- N-p*-Methoxyphenyl-2-thenylacrylohydroxamic acid, *see* H-00274
- N-o*-Methoxyphenyl-2-thiopicolinamide, *in* H-00502
- 2-Methoxy-2-phenyl-3,3,3-trifluoropropanoic acid, *in* H-00512
- 9-(4-Methoxyphenyl)-2,6,7-trihydroxy-3*H*-xanthene-3-one, *see* A-00372
- 2-Methoxy-3-prenylanthoquinone, *in* H-00515
- ▷ Methoxypromazine, *see* M-00070
- 2-Methoxy-1,3-propanediol, *in* G-00015
- 3-Methoxy-1,2-propanediol, *in* G-00015
- 3-Methoxy-1,2-propanedithiol, *in* D-00763
- ▷ 2-Methoxypropene, *in* P-00270
- ▷ 2-Methoxy-4-(2-propenyl)phenol, M-00120
- Methoxypropicoin, *see* N-00057
- 3-Methoxy-2-pyridinecarboxaldehyde, *in* H-00518
- 5-Methoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- 1-[2-(4-Methoxy-2-pyridinyl)ethanone], *see* A-00021
- 7-Methoxy-9*H*-pyrido[3,4-*b*]indole, *in* M-00090
- 4-Methoxy-2-pyridyl methyl ketone, *see* A-00021
- 2-Methoxy-1-pyrrolone, *in* P-00443
- Methoxyquinol, *in* B-00035
- 8-Methoxyquinoline, *in* H-00525
- 6-Methoxy-4-quinolinecarboxylic acid, *in* H-00527
- 8-Methoxy-5-quinolinesulfonyl chloride, M-00121
- ▷ *N*⁴-(6-Methoxy-8-quinolinyl)-1,4-pentanediamine, *see* P-00254
- 2-Methoxyresorcinol, *in* B-00034
- 4-Methoxyresorcinol, *in* B-00035
- 4-Methoxysalicylaldehyde, *in* D-00517
- ▷ 5-Methoxysalicylaldehyde, *in* D-00518
- o*-[1-(2-Methoxy-5-sulfophenyl)-3-phenyl-5-formazano]benzoic acid, *see* C-00042
- ▷ 5-Methoxy-1-tetralone, *in* D-00413
- 4-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00139
- 5-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00141
- α -Methoxy- α -(trifluoromethyl)benzeneacetic acid, *in* H-00512
- ▷ 2-Methoxy-1,3,5-trinitrobenzene, *in* T-00355
- 2-Methoxyvarianamine blue, *see* A-00160
- 2-Methoxyxanthone, *in* H-00562
- Methyl 4-(acetylamino)-2-ethoxybenzoate, *in* A-00184
- 2-Methyl-3-acetyl-5-hydroxychromone, *in* D-00644
- ▷ Methyl acrylate, *in* P-00269
- ▷ 2-Methylacrylic acid, *see* M-00256
- ▷ *N*-Methyladrenaline, *in* A-00066
- 4-Methylaesculetin, *see* D-00647
- ▷ Methyl alcohol, *see* M-00068
- N*-Methylallyldimethylsilyltrifluoroacetamide, *see* D-00901
- 2-(Methylamino)benzenesulfonic acid, *in* A-00099
- 4-(Methylamino)benzenesulfonic acid, *in* A-00100
- Methyl 4-aminobenzoate, *in* A-00105
- 4-(Methylamino)benzoic acid, *in* A-00105
- 2-(Methylamino)biphenyl, *in* A-00116
- ▷ 2-(Methylamino)ethanol, *in* A-00171
- ▷ 2-Methylaminoethylamine, *in* E-00024
- ▷ α -[1-(Methylamino)ethyl]benzenemethanol, *see* M-00122
- 1-(Methylamino)-4-[(4-methylphenyl)amino]-9,10-anthracenedione, *see* S-00037
- 1-[4-(Methylamino)phenyl]ethanone, *in* A-00091
- 2-Methylamino-1-phenylpropane, *in* P-00172
- ▷ 2-Methylamino-1-phenyl-1-propanol, M-00122
- ▷ 7-(3-Methylaminopropyl)-1,2,5,6-dibenzocycloheptatriene, *see* P-00280
- ▷ 5-(3-Methylaminopropyl)-5*H*-dibenz[*a,d*]cycloheptene, *see* P-00280
- 2-Methylaminopyridine, *in* A-00333
- N*-Methylaminothioformyl-*N'*-phenylhydroxylamine, *in* T-00175
- 1-Methylamino-4-(*p*-toluidino)anthraquinone, *see* S-00037
- α' -(*N*-Methylanabasinazo)-1-naphthalene-5-sulfonic acid, *see* M-00254
- 4-(2-*N*-Methylanabasinazo)resorcinol, *see* M-00249
- 4-(*N*-Methyl-2-anabasinazo)resorcinol, *see* M-00248
- N*-Methylanabasine, *in* P-00244
- N*-Methylanabasine- α -azo-*p*-cresol, *see* M-00200
- N*-Methylanabasine- α -azoguaiacol, *see* M-00092
- N*-Methylanabasine- α -azo-2-methoxyphenol, *see* M-00092
- N*-Methylanabasine- α -azo- β -naphthol, *see* M-00250
- 6-[(1-Methyl-2'-anabasinyl)azo]thymol, *see* I-00074
- ▷ 2-Methylaniline, M-00123
- ▷ 4-Methylaniline, M-00124
- N*-Methylanilinesulfonephthalein, *in* A-00369
- 6-(Methylanilino)-2-naphthalenesulfonic acid, *see* M-00222
- 4-Methyl-*m*-anisaldehyde, *in* H-00277
- α -Methyl-1-anthracenemethanamine, M-00125
- α -Methyl-2-anthracenemethanamine, M-00126
- Methylaposafranone, *in* H-00439
- Methylazothiopyrine, *see* D-00887
- ▷ 2-Methylbenzenamine, *see* M-00123
- ▷ 4-Methylbenzenamine, *see* M-00124
- α -Methylbenzeneacetic acid, *see* P-00167
- α -Methylbenzeneacetonitrile, *in* P-00167
- ▷ 4-Methyl-1,2-benzenediamine, *see* D-00101
- 3-Methyl-1,2-benzenediol, M-00127
- ▷ 5-Methyl-1,3-benzenediol, M-00128
- ▷ 4-Methyl-1,2-benzenedithiol, M-00129
- ▷ α -Methylbenzenethanamine, *see* P-00172
- ▷ α -Methylbenzenemethanamine, *see* P-00130
- ▷ 4-Methylbenzenesulfonic acid, M-00130
- ▷ 2-Methylbenzenethiol, M-00131
- 3-Methylbenzenethiol, M-00132
- ▷ 4-Methylbenzenethiol, M-00133
- 3-Methylbenzidine, *see* D-00102
- ▷ 2-Methylbenzimidazole, M-00134
- ▷ Methyl benzoate, *in* B-00059
- ▷ 4-Methylbenzo-15-crown-5, *see* M-00139
- 2-Methylbenzohydroxamic acid, M-00135
- 4-Methylbenzohydroxamic acid, M-00136
- ▷ 3-Methylbenzoic acid, M-00137
- ▷ 4-Methylbenzoic acid, M-00138
- 15-Methyl-1,4,7,10,13-benzopentaoxacyclopentadecin, M-00139
- 11-Methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00140
- ▷ 4-Methyl-2*H*-1-benzopyran-2-one, M-00141
- 3-Methyl-2-benzothiazolone, *in* B-00090
- [[4-(5-Methyl-2-benzothiazolyl)phenyl]amino]acetohydrazide, M-00142
- N*-[4-(5-Methyl-2-benzothiazolyl)phenyl]glycine hydrazide, *see* M-00142
- (6-Methylbenzothiazol-2-yl)phenyl isocyanate, *see* I-00065
- 1-[4-(6-Methyl-2-benzothiazolyl)phenyl]-1*H*-pyrrole-2,5-dione, M-00143
- [2-(*o*-Methylbenzoyl)azo]-1,8-dihydroxynaphthalene-3,6-disulfonic acid, M-00144
- N-o*-Methylbenzoyl-*N*-phenylhydroxylamine, *see* H-00306
- N-p*-Methylbenzoyl-*N*-phenylhydroxylamine, *see* H-00307
- N-p*-Methylbenzoyl-*N-m*-trifluoromethylphenylhydroxylamine, *see* H-00333
- ▷ α -Methylbenzylamine, *see* P-00130
- ▷ *p*-Methylbenzyl bromide, *see* B-00527
- N*-(α -Methylbenzyl)-3,5-dinitrobenzamide, *see* D-00949
- p*-Methylbenzyl iodide, *see* I-00046
- N*-(4-Methylbenzyl)-1-naphthylmethylamine, M-00145
- 2-Methyl-1,1'-binaphthalene-2'-carbonyl nitride, *see* M-00212
- 3-Methyl[1,1'-biphenyl]-4,4'-diamine, *see* D-00102
- N*-Methyl-*N,N*-bis(methylenchromotropic acid)amine, *see* T-00185
- N*-Methyl-*N,N*-bis(methylenepyrrogallol)amine, *see* B-00466
- 2-Methyl-*N,N*-bis(2-methylpropyl)-1-propanamine, *see* T-00409
- 6-Methyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, M-00146
- 4-Methyl-6,7-bis(sulfoxy)-2*H*-1-benzopyran-2-one, *in* D-00647
- N*-Methylbis(trifluoroacetamide), *in* B-00461
- Methylboric acid, *see* D-00649
- Methylboronic acid, *see* D-00649
- ▷ 3-Methyl-1-butanol, M-00147
- 3-Methyl-2-butanol, M-00148
- ▷ 2-Methyl-1-buten-3-yne, M-00149
- Methyl-*tert*-butylcarbinol, *see* D-00844
- 4,4'-(3-Methylbutylidene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], M-00150
- ▷ 3-Methyl-1-butyl nitrite, M-00151
- O*-Methyl butylphosphonodithioate, *in* B-00638
- ▷ Methyl butyrate, *in* B-00604
- Methylcalcein, M-00152
- Methylcalcein blue, M-00153
- Methyl capri blue, *see* C-00018
- Methylcarbamothioic acid, M-00154
- 9-Methyl-9*H*-carbazol-2-ol, *in* H-00144
- 3-Methylcatechol, *see* M-00127
- ▷ Methylcellulose, *see* M-00087
- Methyl cellulose, *in* C-00049
- ▷ Methyl chloroacetate, *in* C-00054
- ▷ Methyl chloroformate, M-00155
- ▷ Methyl cinnamate, *in* P-00169
- Methyl citrate, *in* C-00299
- O*-Methyl-*o*-coumaric acid, *in* H-00500
- ▷ 4-Methylcoumarin, *see* M-00141
- ▷ β -Methylcoumarin, *see* M-00141
- N*-(4-Methyl-7-coumarin-8-ylmethyl)monoaza-18-crown-6, *see* H-00299
- ▷ Methyl cyanoacetate, *in* C-00324
- Methyl β -cyanoacrylate, *in* F-00038
- Methyl 2-cyano-3-nitrobenzoate, *in* N-00085
- 3-Methyl-1,2-cyclohexanedione, M-00156
- 4-Methyl-1,2-cyclohexanedione, M-00157

- 2-Methyl-1,3-cyclohexanedione bis(phenylthiosemicarbazone), M-00158
 3-Methyl-1,2-cyclopentanedione, M-00159
 2,2'-(3-Methyl-1,2-cyclopentanediyldiene) bishydrazinecarbothioamide, *in* M-00159
 Methyl cysteine, *in* C-00370
 ▶ 4-Methylaphnetin, *see* D-00648
 ▶ *N*-Methyl-5*H*-dibenzo[*a,d*]cycloheptene-5-propanamine, *see* P-00280
 Methyl dihydroxyborane, *see* D-00649
 α -Methyl- β -(3,4-dihydroxyphenyl)alanine, *see* A-00158
N-Methyl-*N,N*-dioctyl-1-octanaminium(1+), *see* M-00333
 ▶ 4-Methyl-1,3-dioxolan-2-one, M-00160
 3-Methyldiphenylamine, M-00161
 4-Methyldiphenylamine, M-00162
 ▶ 2'-Methyldiphenylamine-2-carboxylic acid, M-00163
 ▶ 3'-Methyldiphenylamine-2-carboxylic acid, M-00164
 2-Methyldiphenylamine-4-sulfonic acid, M-00165
N-Methyldiphenylamine-4-sulfonic acid, M-00166
 ▶ Methyl diphenyl ether, *in* B-00210
 Methyl diphenylphosphinodithioate, *in* D-01039
 Methylpicrylamine, *in* H-00065
 4-Methyl-*N,N*-dipropylbenzenesulfonamide, *in* M-00130
 2-Methyl-4,6-di-2-pyridinylpyrimidine, M-00167
 6-Methyl-2,3-di-2-pyridylquinoxaline, M-00168
 1-Methyl-2,4-dithiobiuret, *in* T-00163
 2,2'-Methylenebisbenzothiazole, *see* D-00163
 4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one], *see* D-00139
 4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-thione], M-00169
 3,3'-Methylenebis[*N*,6-dihydroxybenzamide], M-00170
 4,4'-Methylenebis[*N*-[[4-(dimethylamino)phenyl]methylene]benzenamine], *see* B-00314
 ▶ 4,4'-Methylenebis[*N,N*-dimethylaniline], *see* B-00320
 ▶ 4,4'-Methylenebis[*N,N*-dimethylbenzenamine], *see* B-00320
 Methylenebis(diphenylphosphine), *see* B-00340
 1,1'-Methylenebis[4-ethyl-3,5-dipropyl-1*H*-pyrazole], M-00171
 ▶ 3,3'-Methylenebis[4-hydroxy-2*H*-1-benzopyran-2-one], *see* D-00305
 ▶ 3,3'-Methylenebis-4-hydroxycoumarin, *see* D-00305
 9,9'-[Methylenebis(6-hydroxy-3,1-phenylene)] bis-[2,6,7-trihydroxy-3*H*-xanthen-3-one], M-00172
 4,4'-Methylenebis[3-methyl-1-(2-pyridyl)-5-pyrazol-ol], M-00173
N-Methylene-*N,N*-bisonobromochromotropic acid, *see* D-00219
 5,5'-Methylenebis[8-quinolinol], M-00174
 5,5'-Methylenebisallylfluorone, *see* M-00172
 5,5'-Methylenebis(salicylohydroxamic acid), *see* M-00170
 Methylene blue, M-00175
 2-Methylenebutanedioic acid, M-00176
 ▶ Methylene diethyl ether, *in* F-00035
 2-[4-(5,6-Methylenedioxy)-2*H*-benzotriazol-2-yl]phenethylamine, *see* D-00992
 3,4-(Methylenedioxy)cinnamohydroxamic acid, *see* B-00056
 ▶ α -Methylenediphenylmethane, *see* D-01016
 α -Methyleneglutarimide, *see* M-00178
 Methylene green, M-00177
 3-Methylene-2,6-piperidinedione, M-00178
 Methylene succinic acid, *see* M-00176
 4-Methylesculetin-8-methyleneiminodiacetic acid, *see* A-00241
 Methylesculetylethanoic acid, *in* D-00647
 ▶ *N*-Methyl-1,2-ethanediamine, *in* E-00024
 ▶ *N,N'*-(1-Methyl-1,2-ethanedyl)bis[*N*-(carboxymethyl)glycine], *see* D-00115
 2,2'-(1-Methyl-1,2-ethanediyldiene)bis[*N*-phenylhydrazinecarbothioamide], *in* P-00446
 ▶ 2-[(1-Methylethyl)amino]ethanol, *in* A-00171
 ▶ Methylene carbonate, *see* M-00160
 ▶ 2-(1-Methylethylidene)hydrazinecarbothioamide, *in* A-00007
 ▶ Methyl ethyl ketone, *see* B-00608
 ▶ *N*-(1-Methylethyl)-*N'*-phenyl-1,4-benzenediamine, *in* D-00048
 1-Methylethyl phenylphosphinate, *in* P-00163
 (1-Methylethyl)phosphonic acid, *see* I-00077
N-(1-Methylethyl)-2-pyridinamine, *in* A-00333
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 1-Methyl-4-(ethylthio)benzene, *in* M-00133
 (1-Methylethyl)triphenylphosphonium(1+), *see* I-00079
 5-Methyl *O*-ethyl xanthate, *in* X-00002
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 5-Methyl-2-furancarboxaldehyde 1-phthalazinyldrazone, M-00180
 5-Methyl-2-furancarboxaldehyde thiosemicarbazone, *in* M-00179
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 2-[5-(5-Methyl-2-furanyl)-2,4-pentadienyldiene]hydrazinecarbothioamide, *see* M-00181
 3-(5-Methyl-2-furanyl)-2-propenal, M-00182
 ▶ 5-Methylfurfural, *see* M-00179
 5-Methylfurfural 1-phthalazinehydrazone, *see* M-00180
 3-(5-Methyl-2-furyl)acrolein, *see* M-00182
 ▶ Methyl gallate, *in* T-00277
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 6-Methylguaiaicol, *in* M-00127
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 ▶ Methyl 4-hydroxybenzoate, *in* H-00113
 3-Methyl-5-hydroxychromone, *see* H-00282
N-(4-Methyl-7-hydroxycoumarin-8-ylmethyl) monoaza-12-crown-4, *see* H-00334
 5-[4-(2-Methyl-3-hydroxy-5-hydroxymethyl)pyridyl]rhodanine, *see* H-00220
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 4-(4-Methyl-5-imidazolylazo)-1-dimethylaminobenzene, *see* D-00809
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 4,4'-[(Methylimino)bis(methylene)]bis[1,2,3-benzenetriol], *see* B-00466
 3,3'-[(Methylimino)bis(methylene)]bis[6-bromo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid], *see* D-00219
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 3-Methyl-1*H*-indene-1,2(3*H*)-dione, *see* M-00194
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 2-Methyl-1*H*-indole-3-acetic acid 2-[[[4-methylphenyl)amino]thioxomethyl]hydrazide, *see* A-00022
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 3-Methylmercaptoacetic acid, *in* M-00052
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 α -Methyl- α -methoxy-pentafluorophenylacetic acid, *see* P-00019
 4-Methyl-5-(methylamino)-2-(2-pyridinylazo)phenol, *in* A-00253
 ▶ 5-Methyl-2-(1-methylethyl)cyclohexanol, *see* M-00012
 5-Methyl-2-(1-methylethyl)cyclohexyl carbonochloridate, *see* M-00014
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 ▶ Methyl mustard oil, *see* M-00196
 α -Methyl-1-naphthalenemethanamine, *see* N-00049
 4-(6-Methyl-2-naphthalenyl)-4-oxo-2-butenic acid, M-00204
 3-Methyl-4-(2-naphthoyl)-1-*o*-tolyl-5-pyrazolone, *see* D-00432
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- 3-Methylinoxime, *in* M-00156
- ▷ 4-Methylinoxime, *in* M-00157
- α-Methyl-4-nitrobenzenemethanamine, *see* N-00135
- ▷ 3-Methyl-4-nitro-1-(4-nitrophenyl)-5-pyrazolone, *see* P-00235
- 5-Methyl-4-(4-nitrophenylazo)-1,3-benzenediol, *see* D-00650
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- 3-Methyl-1-(4-nitrophenyl)-5-[1-(phenylmethyl)-1*H*-benzimidazol-2-yl]formazan, *see* M-00240
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- (4-Methyl-5-nitro-2-thiazolyl)thiourea, M-00208
- 7-Methyl-2,4-octanedione, M-00209
- 3-Methyl-4-octanoyl-1-phenyl-5-pyrazolone, *see* D-00436
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- 4-Methyl-2-oxo-2*H*-1-benzopyran-7-yl 4-[(aminoiminomethyl)amino]benzoate, M-00211
- [(4-Methyl-2-oxo-2*H*-1-benzopyran-7-yl)oxy]acetyl chloride, *see* C-00077
- 2'-Methyl-α-oxo-[1,1'-binaphthalene]-2-acetonitrile, M-00212
- 2-[(1-Methyl-3-oxobutylidene)amino]benzenesulfonic acid, M-00213
- 2-[(1-Methyl-3-oxobutylidene)amino]benzoic acid, M-00214
- 1-[(3-Methyl-5-oxo-1-phenyl-3-pyrazolin-4-yl)azo]anthraquinone, M-00215
- 2-[(3-Methyl-5-oxo-1-phenyl-2-pyrazolin-4-yl)azo]-5-nitrobenzoic acid, *see* N-00079
- 5-Methyl-β-PAN, *see* M-00281
- ▷ Methylparaben, *in* H-00113
- ▷ Methyl paraset, *in* H-00113
- Methyl 2,3,4,5,6-pentafluoro-α-methoxy-α-methylbenzeneacetate, *in* P-00019
- ▷ 2-Methyl-2,4-pentanediol, M-00217
- ▷ 4-Methyl-2-pentanone, M-00218
- ▷ 4-Methyl-3-penten-2-one, M-00219
- Methyl pentyl ether, *in* P-00034
- 3-Methyl-4-(perfluorobutyl)-1-*p*-tolyl-5-pyrazolone, *see* H-00008
- 3-Methyl-4-(perfluoropropyl)-1-*p*-tolyl-5-pyrazolone, *see* D-00433
- ▷ *N*-Methylphenacetin, *in* E-00051
- 2-Methyl-1,10-phenanthroline, M-00220
- 5-Methyl-1,10-phenanthroline, M-00221
- 10-Methyl-2(10*H*)-phenazone, *in* H-00439
- N*-(α-Methylphenethyl)formamide, *in* P-00172
- 2'-Methylphenolphthalein, *see* H-00310
- ▷ *N*-(2-Methylphenyl)acetamide, *in* M-00123
- 4-(2-Methylphenylamino)benzenesulfonic acid, *see* M-00165
- 4-(*N*-Methyl-*N*-phenylamino)benzenesulfonic acid, *see* M-00166
- ▷ 2-[(2-Methylphenyl)amino]benzoic acid, *see* M-00163
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- 6-(Methylphenylamino)-2-naphthalenesulfonic acid, M-00222
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- ▷ *N*-[[2-(Methylphenyl)amino]thioxomethyl]benzamide, M-00223
- 2-[2-Methyl-3-[2-[(phenylamino)thioxomethyl]hydrazino]-2-cyclohexen-1-ylidene]-*N*-phenylhydrazinocarbothioamide, *see* M-00158
- N*-(*o*-Methylphenyl)anilinesulfonephthalein, *in* A-00369
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- 3-Methyl-4-(*p*-phenylbenzoyl)-1-*o*-tolyl-5-pyrazolone, *see* B-00213
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- N*-(2-Methylphenyl)-*N'*-(4-chlorophenyl)benzamidine, M-00226
- 2-Methylphenyldiazinocarbothioic acid 2-(2-methylphenyl)hydrazide, *see* D-00856
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- 1-Methyl-1-phenylhydrazine, M-00229
- 3-Methyl-3-phenyl-1,2-indanedione, M-00230
- ▷ Methyl phenyl ketone, *see* A-00008
- 1-[[*N*-[2-Methyl-*N*-[*N*-(phenylmethoxy)carbonyl]-*i*-valyl]alanyl]glycyl]oxy]-2,5-pyrrolidinedione, M-00231
- 4-Methyl-6-[[2-(phenylmethoxy)-2-pyridinyl]azo]-1,3-benzenediamine, M-00232
- 1-[(4-Methylphenyl)methyl]-4,6-diphenyl-2(1*H*)-pyridinethione, M-00233
- 4-Methyl-2-[[2-[(phenylmethyl)thio]phenyl]azo]phenol, *in* M-00041
- 1-(4-Methylphenyl)-3-[(4-nitrophenyl)methyl]-1-triazene, M-00234
- N*-(4-Methylphenyl)-2-phenoxyacetohydroxamic acid, M-00235
- 3-Methyl-1-phenyl-4-(phenylazo)-1*H*-pyrazole-5-thiol, *see* A-00478
- N*-(4-Methylphenyl)-*N'*-phenylbenzenecarboximidamide, M-00236
- 1-(4-Methylphenyl)-3-(phenylmethyl)-1-triazene, M-00237
- 1-(4-Methylphenyl)-3-phenyl-5-(1-*p*hthalaziny)formazan, M-00238
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- Methyl phenylphosphinate, *in* P-00163
- 3-Methyl-1-phenyl-1*H*-pyrazole-4,5-dione, M-00239
- ▷ 3-Methyl-1-phenyl-2-pyrazolin-5-one, *see* D-00443
- Methylphenylpyrazolone oxime, *in* M-00239
- 2-[(3-Methyl-1-phenyl-4-pyrazolyl)azo]-4-nitrobenzenesulfonic acid, M-00240
- N*-(2-Methylphenyl)-2-pyridinocarbothioamide, *in* P-00317
- 2-Methyl-4-phenyl-6-(2-pyridinyl)pyrimidine, M-00241
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- Methyl 6-phenyl-2-pyridyl ketone, *see* A-00032
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- O*-(*p*-Methylphenylsulfonyl)-*o*-methylquinone monoxime, M-00242
- N*-(4-Methylphenyl)tetradecanohydroxamic acid, *see* H-00316
- 3-Methyl-1-phenyl-4-thiobenzoyl-5-pyrazolone, *see* D-00442
- ▷ *N*-Methyl-*N'*-phenylthiourea, *in* P-00201
- 4-Methyl-2-(5-phenyl-1,2,4-triazol-3-yl)pyridine, *see* M-00293
- 3-Methyl-1-phenyl-4-trifluoroacetyl-5-pyrazolone, *see* D-00449
- Methylphenyl triketone, *see* P-00109
- P*-Methylphosphonamidothioic acid, M-00243
- ▷ Methylphosphonic acid, M-00244
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- 6-Methylpicolinaldehyde, *see* M-00266
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- 6-Methylpicolinamidoxime, *in* M-00271
- 6-Methylpicolinic acid, *see* M-00271
- 6-Methylpicolinimidic acid hydrazide, *see* M-00270
- ▷ Methylpicrylnitramine, *see* M-00312
- 4-Methyl-1-piperazinecarbodithioic acid, *in* P-00238
- N*-Methylpiperazinedithiocarbamic acid, *in* P-00238
- 4-[5-(4-Methyl-1-piperazinyl)]2,5'-*bi*-1*H*-benzimidazol-2'-yl]phenol, *see* H-00488
- ▷ 10-[3-(4-Methyl-1-piperazinyl)propyl]-10*H*-phenothiazine, *see* P-00043
- ▷ 1-[10-[3-(4-Methyl-1-piperazinyl)propyl]-10*H*-phenothiazin-2-yl]-1-butanone, *see* B-00609
- ▷ 10-[3-(4-Methyl-1-piperazinyl)propyl]-2-(trifluoromethyl)-10*H*-phenothiazine, *see* T-00238
- ▷ 10-[2-(1-Methyl-2-piperidinyl)ethyl]-2-(methylthio)-10*H*-phenothiazine, *see* T-00173
- 2-[[5-(1-Methyl-1-piperidinyl)-2-pyridinyl]azo]-1,4-benzenediol, M-00247
- 4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248
- 4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, M-00249
- 1-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenol, M-00250
- 2-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenol, M-00251
- 3-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2,6-pyridinediamine, M-00252
- 7-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-8-quinolinol, M-00253
- 5-[[5-(1-Methyl-2-piperidinyl)-2-pyridyl]azo]-1-naphthalenesulfonic acid, M-00254
- 2-Methyl-2-propaneboronic acid, *see* B-00620
- ▷ 2-Methyl-1-propanol, M-00255
- ▷ 2-Methyl-2-propenoic acid, M-00256
- ▷ 2-Methylpropyl acetate, M-00257
- 2-Methylpropyl carbonochloridate, *see* I-00057
- 3-Methyl-5-propyl-2,6-dimercapto-4*H*-thiopyran-4-one, M-00258
- O*-(1-Methylpropyl)hydroxylamine, M-00259
- O*-(2-Methylpropyl)hydroxylamine, M-00260
- ▷ Methyl propyl ketone, *see* P-00036
- 4-(2-Methylpropyl)-2,5-oxazolidinedione, M-00261
- 4-(1-Methylpropyl)-2-(1-phenylethyl)phenol, *see* B-00637
- (2-Methylpropyl)phosphonic acid, M-00262
- 2-[(3-Methyl-5-propyl-2-pyrrolidinyl)azo]phenol, M-00263
- Methyl pyrazinyl ketone, *see* A-00033
- 3-Methyl-5-pyrazolone-4-dithiocarboxylic acid, *see* D-00440
- ▷ 2-Methylpyridine, M-00264
- ▷ 4-Methylpyridine, M-00265
- 6-Methyl-2-pyridinocarboxaldehyde, M-00266
- 6-Methyl-2-pyridinocarboxaldehyde azine, M-00267
- 6-Methyl-2-pyridinocarboxaldehyde [(6-methyl-2-pyridinyl)methylene]hydrazone, *see* M-00267
- 6-Methyl-2-pyridinocarboxaldehyde 2-pyridinylhydrazone, M-00268
- 6-Methyl-2-pyridinocarboxaldehyde 2-quinolinylhydrazone, M-00269
- 6-Methyl-2-pyridinocarboxamidoxime, *in* M-00271
- 6-Methyl-2-pyridinocarboximidic acid hydrazide, M-00270
- 6-Methyl-2-pyridinocarboxylic acid, M-00271
- 2-Methyl-4-pyridinocarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, M-00272
- 3-Methyl-2-pyridinethiol, M-00273
- 4-Methyl-2-pyridinethiol, *see* M-00274
- 5-Methyl-2-pyridinethiol, *see* M-00275
- 6-Methyl-2-pyridinethiol, *see* M-00276

- 4-Methyl-2-pyridinethiol 1-oxide, *in* M-00274
 3-Methyl-2(1*H*)-pyridinethione, *see* M-00273
 4-Methyl-2(1*H*)-pyridinethione, M-00274
 5-Methyl-2(1*H*)-pyridinethione, M-00275
 6-Methyl-2(1*H*)-pyridinethione, M-00276
 4-Methyl-6-(2-pyridinylazo)-1,3-benzenediamine, M-00277
 2-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00278
 4-[(5-Methyl-2-pyridinyl)azo]-1,3-benzenediol, M-00279
 5-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00280
 1-[(5-Methyl-2-pyridinyl)azo]-2-naphthalenol, M-00281
 1-[(6-Methyl-2-pyridinyl)azo]-2-naphthalenol, M-00282
 4-Methyl-2-(2-pyridinylazo)phenol, M-00283
 5-Methyl-2-(2-pyridinylazo)phenol, M-00284
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 3-(6-Methyl-2-pyridinyl)-5,6-diphenyl-1,2,4-triazine, M-00286
 1-(4-Methyl-2-pyridinyl)ethanone, *see* A-00023
 1-(6-Methyl-2-pyridinyl)ethanone, *see* A-00024
 3-[(5-Methyl-2-pyridinyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, M-00287
 3-(4-Methyl-2-pyridinyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, M-00288
 4-Methyl-2-[(2-pyridinylmethylene)amino]phenol, M-00289
 5-[(6-Methyl-2-pyridinyl)methylene]-4-imidazolidinone, M-00290
 5-[(6-Methyl-2-pyridinyl)methylene]-2-thioxo-4-imidazolidinone, M-00291
 4-Methyl-2-pyridinylphenylmethanone, *see* B-00134
 (6-Methyl-2-pyridinyl)phenylmethanone, *see* B-00135
 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazine, M-00292
 [3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazin-6-yl]phenylmethanone, *see* B-00136
 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazole, M-00293
 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazoline, *see* D-00452
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 3-(4-Methyl-2-pyridinyl)-1,2,4-triazine, M-00294
 6-Methyl-2(1*H*)-pyridone-3-carboxylic acid, *see* D-00441
 5-(5-Methyl-2-pyridylazo)-2,4-diaminotoluene, *see* M-00201
 1-(5-Methyl-2-pyridylazo)-2-naphthol, *see* M-00281
 (5-Methyl-2-pyridylazo)resorcinol, *see* M-00280
 2-(4-Methyl-2-pyridyl)benzimidazole, M-00295
 3-(4-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00296
 3-(6-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00297
 3-(4-Methyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, M-00298
 3-(4-Methyl-2-pyridyl)-5,6-di-2-pyridyl-*as*-triazine, *see* M-00296
 3-(6-Methyl-2-pyridyl)-5,6-di-2-pyridyl-*as*-triazine, *see* M-00297
 2-(4-Methyl-2-pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, M-00299
 2-(4-Methyl-2-pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, M-00300
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 3-(4-Methyl-2-pyridyl)-5-phenyl-6-(2-pyridyl)-1,2,4-triazine, M-00303
N-Methyl-2-(3-pyridyl)piperidine- α -azo-2-methoxyphenol, *see* M-00092
 5-Methyl-2-(2-pyridyl)pyrimidine, M-00304
 5-(6-Methyl-2-pyridyl)-2-thiohydantoin, *see* M-00290
 (4-Methyl-2-pyridyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, M-00305
 ▶ 5-Methyl-2,4(1*H*,3*H*)-pyrimidinedione, *see* T-00179
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 3-Methylpyrocatechol, *see* M-00127
 1-Methylquinaldinium(1+), *see* D-00913
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 4-Methyl-*N*-8-quinolinylbenzenesulfonamide, *in* A-00340
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 ▶ Methyl red, M-00309
 ▶ 5-Methylresorcinol, *see* M-00128
 ▶ Methylrosaniline, *see* C-00320
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 5-Methylsalicylaldehyde, *see* H-00277
 4-Methylsalicylaldoxime, *in* H-00276
 ▶ 3-Methylsalicylic acid, *see* H-00278
 5-Methylsalicylic acid, *see* H-00279
 Methyl succinate, *in* S-00034
 ▶ Methyl sulfate, *see* D-00916
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N-Methyl-5,10,15,20-tetrakis(4-sulfophenyl)porphine, *in* P-00250
 ▶ *N*-Methyl-*N*,2,4,6-tetranitroaniline, M-00312
 ▶ *N*-Methyl-*N*,2,4,6-tetranitrobenzenamine, *see* M-00312
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 2-[(6-Methyl-1,4,8,11-tetraoxacyclotetradec-6-yl)methyl]-4,6-dinitrophenol, *see* H-00156
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- 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,m*]-[1,4,8,12]dioxadiazaacyclopentadecine, O-00013
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- ▶ 6,7,9,10,17,18,20,21-Octahydrodibenzo[*b,k*]-[1,4,7,10,13,16]hexaoxacyclopentadecine, *see* D-00156
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- 6,7,9,10,18,19,20,21-Octahydrodibenzo[*h,r*]-[1,4,7,11,16]trioxadiazacyclononadecine, O-00020
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- 6,7,9,10,17,18,20,21-Octahydro-7,18-dimethyldibenzo[*b,k*]-[1,4,7,10,13,16]hexaoxacyclopentadecine, O-00024
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dioctyldibenzo[*b,k*]-[1,4,7,10,13,16]hexaoxacyclopentadecine, O-00025
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 ▶ Tegosept M, *in* H-00113
 ▶ Telepathine, *see* M-00090
 Temposil, *in* A-00184
 Temposil, *in* A-00184
 ▶ Tentone, *in* M-00070
 Terasin, *see* T-00072
 Terenol, *in* D-00533
 Teresantalal, *in* T-00004
 α -Teresantallic acid, *in* T-00004
 Teresantalol, T-00004
 Terosine, *in* T-00378
 Terosite, *see* T-00378
 Terosole, *in* T-00378
 2,2':6',2''-Terpyridine, T-00005
 α -Terpyridyl, *see* T-00005
 ▶ Tersan, *see* T-00106
 TES, *see* H-00136
 ▶ Tetmosol, *see* M-00341
 ▶ Tetra, *see* C-00025
 1,1,3,3-Tetraacetyle-2-(*o*-chlorophenyl)propane, *see* D-00034
 3,3',4,4'-Tetraamino-1,1'-binaphthyl, T-00006
 ▶ 3,3',4,4'-Tetraaminobiphenyl, T-00007
 (1,4,7,10-Tetraazacyclododecane-*N,N',N'',N'''*-tetramethylenephosphonato) dysprostate(5-), T-00008
 [1,4,7,10-Tetraazacyclododecane-*N,N',N'',N'''*-tetramethylenephosphonato]terbate(III) (5-), T-00009
 [1,4,7,10-Tetraazacyclododecane-*N,N',N'',N'''*-tetramethylenephosphonato]thulate(III) (5-), T-00010
 [[[1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetrayltetakis(methylene)] tetakis[phosphonato]](8-)] dysprostate(5-), 12Cl, *see* T-00008
 [[[1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetrayltetakis(methylene)] tetakis[phosphonato]](8-)-*N,N',N'',N'''*,*O*^P,*O*^P,*O*^P,*O*^P]terbate(5-), 12Cl, *see* T-00009
 [[[1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetrayltetakis(methylene)] tetakis[phosphonato]](8-)]thulate(5-), *see* T-00010
 ▶ 1,3,5,7-Tetraazatricyclo[3.3.1.1^{3,7}]decane, *see* H-00057
 ▶ Tetra base, *see* B-00320
 Tetrabenzof[*b,f,j,n*]-1,5,9,13-tetraaza-8,16-cyclohexadecadiene, *see* T-00068
 Tetrabenzotetraazoporphinetetrasulfonic acid, *see* P-00231
 Tetrabromoanilinesulfonephthalein, T-00011
 Tetrabromoarsenazo III, *see* B-00255
 ▶ Tetrabromo-1,2-benzenediol, T-00012
 4,5,6,7-Tetrabromo-1,3-benzodioxole, *in* T-00012
 4,4'-(4,5,6,7-Tetrabromo-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] *S,S*-dioxide, T-00013
 4,4'-(4,5,6,7-Tetrabromo-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromophenol] *S,S*-dioxide, T-00014
 4,4'-(4,5,6,7-Tetrabromo-3*H*-2,1-benzoxathiol-3-ylidene)bisphenol *S,S*-dioxide, *see* P-00065
 4,5,6,7-Tetrabromo-1,1-bis(3,5-dibromo-4-hydroxyphenyl)-1,1-dihydro-3*H*-2,1-benzoxathiol-3-one, 1-oxide, *see* T-00020
 ▶ Tetrabromocatechol, *see* T-00012
 Tetrabromochrysin, *see* T-00015
 3,3',5,5'-Tetrabromo-*m*-cresolsulfonephthalein, *see* B-00498
 2',4',5',7'-Tetrabromo-4,7-dichloro-3',6'-dihydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* P-00212
 2,4,5,7-Tetrabromo-1,8-dihydroxy-9,10-anthracenedione, *see* T-00015
 2,4,5,7-Tetrabromo-1,8-dihydroxyanthraquinone, T-00015
 2',3',4',7'-Tetrabromo-3',6'-dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3*H*),9'[9*H*]xanthen]-3-one, T-00016
 1-[2',3',4',7'-Tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-5-yl]-1*H*-pyrrole-2,5-dione, T-00017
 ▶ 2',4',5',7'-Tetrabromo-3',6'-dihydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* E-00007
 1,2,3,4-Tetrabromo-5,6-dimethoxybenzene, *in* T-00012
 Tetrabromo-*N*-ethylanilinesulfonephthalein, T-00018
 ▶ 2',4',5',7'-Tetrabromofluorescein, *see* E-00007
 Tetrabromoguaiaicol, *in* T-00012
 2-(2,4,5,7-Tetrabromo-6-hydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid ethyl ester, *in* E-00007
 2,3,4,5-Tetrabromo-6-methoxyphenol, *in* T-00012
 Tetrabromomethylenedioxybenzene, *in* T-00012
 Tetrabromophenolphthalein, T-00019
 Tetrabromophenoltetrabromosulfonephthalein, T-00020
 Tetrabromophenoltetrachlorosulfonephthalein, T-00021
 Tetrabromophenoltetraiodophthalein, T-00022
 ▶ Tetrabromopyrocatechol, *see* T-00012
 Tetrabromo(R)tetrachloro(P)fluorescein, *see* P-00213
 Tetrabromosalicylfluorone, *see* D-00181
 Tetrabromosulfonephthalein, *see* B-00542
 2',4',5',7'-Tetrabromo-4,5,6,7-tetrachloro-3',6'-dihydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* P-00213
 Tetrabromoveratrole, *in* T-00012
 Tetrabutylammonium(1+), T-00023
 Tetrabutyl 1,2-ethanedylbisphosphonate, *in* E-00026
 Tetrabutylphosphonium(1+), T-00024
 ▶ Tetracemin, *see* E-00078
 ▶ Tetrachloro-1,4-benzoquinone, T-00025
 4,4'-(4,5,6,7-Tetrachloro-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] *S,S*-dioxide, T-00026
 4,4'-(4,5,6,7-Tetrachloro-3*H*-2,1-benzoxathiol-3-ylidene)bisphenol *S,S*-dioxide, *see* P-00066
 4,5,6,7-Tetrachloro-3,3-bis[4-hydroxy-2-methyl-5-(1-methylethyl)phenyl]-1(3*H*)-isobenzofuranone, *see* T-00184
 4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, T-00027
 4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)phthalide, *see* T-00027
 ▶ 2,3,5,6-Tetrachloro-2,5-cyclohexadiene-1,4-dione, *see* T-00025
 Tetra- μ -chlorodi- μ_3 -chlorodiethylhexakis(tetrahydrofuran) tetramagnesium, *in* C-00115
 4,5,6,7-Tetrachloro-3-(2,4-dihydroxyphenyl)-3-methyl-1(3*H*)-isobenzofuranone, T-00028
 4,5,6,7-Tetrachloro-3',6'-dihydroxy-2',4',5',7'-tetraiodospiro[isobenzofuran-1(3*H*),9'(9*H*)xanthen]-3-one, *see* R-00010
 2,2',3,3'-Tetrachlorodithizone, T-00029
 2,2',4,4'-Tetrachlorodithizone, T-00030
 2,2',5,5'-Tetrachlorodithizone, T-00031
 2,2',6,6'-Tetrachlorodithizone, T-00032
 3,3',4,4'-Tetrachlorodithizone, T-00033
 3,3',5,5'-Tetrachlorodithizone, T-00034
 Tetrachlorogallein, T-00035
 ▶ Tetrachloromethane, *see* C-00025
 ▶ Tetrachloroquinone, *see* T-00025
 4,5,6,7-Tetrachloro-3',4',5',6'-tetrahydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, *see* T-00035
 3,4,5,6-Tetrachloro-2',4',5',7'-tetraiodofluorescein, *see* R-00010
 ▶ Tetracosahydrodibenz[*b,n*] [1,4,7,10,13,16,19,22] octaoxacyclotetracosin, T-00036
 ▶ Tetracyanoethene, *see* T-00037
 ▶ Tetracyanoethylene, T-00037
 ▶ Tetracyanoquindimethane, T-00038
 ▶ Tetracycline, T-00039
 ▶ Tetracycline hydrochloride, *in* T-00039
 Tetracycline phosphate complex, *in* T-00039
 Tetracyclohexyl thioperoxydiphosphate, *see* B-00294
 Tetradeuteriohydrazine, *in* H-00079
 Tetraethoxy-1,4-benzoquinone, *in* T-00072
 1,1,2,2-Tetraethoxypropane, *in* P-00446
 ▶ 1,1,3,3-Tetraethoxypropane, T-00040
 ▶ Tetraethylammonium(1+), T-00041
N,N,N',N'-Tetraethylbenzidine, *in* D-00053
 Tetraethylborate(1-), T-00042
 ▶ Tetraethylene glycol, T-00043
 ▶ Tetraethylenepentamine, T-00044
 Tetraethylenepentamineheptaacetic acid, T-00045
 Tetraethyl 1,2-ethanedylbisphosphonate, *in* E-00026
 Tetraethyl (1-hydroxyethylidene) bisphosphonate, *in* H-00178
 Tetraethylphenosafranine, *in* P-00070
 Tetraethyl phosphor(isocyanatidic) diamide, *in* T-00046
 Tetraethyl phosphor(isothiocyanatidic) diamide, *in* T-00046
 Tetraethylphosphorodiamidic acid, T-00046
 5,10,15,20-Tetraethyl-21*H*,23*H*-porphine, *see* M-00062
 Tetraethylrhodamine, *in* R-00002
 2,3,6,7-Tetraethyl-1,4,5,8-tetramethylporphyrin, *see* A-00067
 3,7,13,17-Tetraethyl-2,8,12,18-tetramethylporphyrin, *see* A-00067
 ▶ Tetraethylthiodicarbonyl acid diamide, *see* M-00341
 ▶ Tetraethyl thioperoxydicarbonyl diamide, *see* D-01107
 ▶ Tetraethylthiuram disulfide, *see* D-01107
 Tetrafluoro-1,4-benzoquinone, T-00047
 2,3,5,6-Tetrafluoro-2,5-cyclohexadiene-1,4-dione, *see* T-00047
 $\alpha,\alpha,\alpha,4$ -Tetrafluoro-3-nitrotoluene, *see* F-00032
 Tetraheptylammonium(1+), T-00048
 Tetrahexylammonium(1+), T-00049
 Tetrahydroanabasine, *in* P-00244
 7,8,9,10-Tetrahydrobenzo[*c*][1,10]phenanthroline, T-00050
 1,2,3,4-Tetrahydrobenzo[*h*]quinolin-3-ol, T-00051
 2,2',3,3'-Tetrahydro-2,2'-bibenzothiazole, T-00052
 2,2',3,3'-Tetrahydro-2,2'-bibenzoxazole, T-00053
 5,6,7,8-Tetrahydro-2,4-bis(2-pyridyl)quinazoline, T-00054

- 2,3,5,6-Tetrahydro-7-cyano-5H-dibenzo[*h,o*]-1,4,7,10,11,13,14-trioxatetraazacyclohexadecine, *see* T-00058
- 8,9,17,18-Tetrahydro-7H-dibenzo[*e,m*][1,4,8,12]-dioxadiazacyclopentadecine, T-00055
- 2-[(7,8,16,17-Tetrahydro-6H,15H-dibenzo[*b,i*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]butanoic acid, T-00056
- 3-[(7,8,16,17-Tetrahydro-6H,15H-dibenzo[*b,i*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]propanoic acid, T-00057
- 6,7,9,10-Tetrahydro-16H-dibenzo[*b,i*][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine-18-carbonitrile, T-00058
- ▷ Tetrahydro-2,5-dimethoxyfuran, T-00059
- ▷ 1,2,3,6-Tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid, *see* O-00045
- 5,6,7,8-Tetrahydro-2,4-di-2-pyridylquinazoline, *see* T-00054
- 2-[(Tetrahydro-2,4-dithioxo-2H-1,3-thiazin-5-yl)azo]benzoic acid, T-00060
- ▷ Tetrahydrofuran, T-00061
- O-[(Tetrahydro-2-furanyl)methyl]carbonodithioate, T-00062
- (2-Tetrahydrofurfuryl)xanthate, *see* T-00062
- 1,2,3,4-Tetrahydro-3-hydroxybenzo[*h*]quinoline, *see* T-00051
- 1,2,3,4-Tetrahydro-1-hydroxyiminophenazine, *in* D-00466
- 1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid, T-00063
- 1,2,3,4-Tetrahydro-8-mercaptoquinoline, *see* T-00067
- Tetrahydro-5-[[4-(1-methylethyl)phenyl]methyl]-2-thioxo-4-thiazolidinone, *see* I-00070
- Tetrahydro-4-methyl-2(1H)-pyrimidinethione, T-00064
- ▷ Tetrahydro-1,4-oxazine, *see* M-00344
- 1,2,3,6-Tetrahydro-6-oxo-2-thioxo-4-pyrimidinecarboxylic acid, *see* H-00261
- 6,7,9,10-Tetrahydro-18-phenyl-16H-dibenzo[*b,i*][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine, T-00065
- ▷ Tetrahydro-2(1H)-pyrimidinethione, T-00066
- ▷ Tetrahydropyrrole, *see* P-00440
- 1,2,3,4-Tetrahydro-8-quinolinethiol, T-00067
- 1,2,3,4-Tetrahydroquinoline-2,3,4-trione, *see* Q-00022
- 5,6,17,18-Tetrahydro-2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18-tetraazacyclohexadecine, T-00068
- 6,7,29,30-Tetrahydro-16,39,47,50-tetrahydroxy-15,18,38,41-dithieno-21,17,44,40-dimetheno-17H,40H-tetrabenzo[*b,o,u,h*]-[1,17,20,36,4,5,13,14,23,24,32,33]tetraoxaoctaazacyclooctatriacontine-20,43,49,52-tetra-sulfonic acid, *see* T-00112
- ▷ Tetrahydrothiophene-1,1-dioxide, T-00069
- 1,7,8,9-Tetrahydro-8-thioxo-6H-purin-6-one, *see* H-00260
- 2,3,6,7-Tetrahydro-9-(trifluoromethyl)-1H,5H,11H-[1]benzopyrano[6,7,8-*ij*]quinolizin-11-one, *see* C-00304
- ▷ Tetrahydroxyadic acid, *see* G-00001
- 1,4,9,10-Tetrahydroxyanthracene, *see* A-00381
- ▷ 1,2,5,8-Tetrahydroxy-9,10-anthracenedione, *see* T-00070
- ▷ 1,2,5,8-Tetrahydroxy-9,10-anthraquinone, T-00070
- 3,4,5,8-Tetrahydroxyanthraquinone-2-sulfonic acid, T-00071
- ▷ 2,3,4,6-Tetrahydroxy-5H-benzocyclohepten-5-one, *see* P-00282
- Tetrahydroxy-1,4-benzoquinone, T-00072
- ▷ 1,2,3,4-Tetrahydroxy-1,4-butanedicarboxylic acid, *see* G-00001
- Tetrahydroxybutanedioic acid, T-00073
- 2,3,5,6-Tetrahydroxy-2,5-cyclohexadiene-1,4-dione, *see* T-00072
- ▷ 3',4',5,7-Tetrahydroxydihydroflavonol, *see* P-00023
- 2',3,5,7-Tetrahydroxyflavone, T-00074
- ▷ 3,3',4',7-Tetrahydroxyflavone, T-00075
- ▷ 3,4',5,7-Tetrahydroxyflavone, T-00076
- ▷ 3',4',5,7-Tetrahydroxyflavone, T-00077
- ▷ 2',4',5,7-Tetrahydroxyflavonol, *see* P-00024
- ▷ 3',4',5,7-Tetrahydroxyflavonol, *see* P-00025
- ▷ 3',4',5,7-Tetrahydroxyflavonol, *see* P-00026
- 3',4',5',6'-Tetrahydroxyfluran, *see* G-00004
- ▷ 3,3',4',5-Tetrahydroxy-7-methoxyflavone, T-00078
- 2,3,7,8-Tetrahydroxyphenazine, T-00079
- 2',3',6',7'-Tetrahydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, *see* D-00613
- 3',4',5',6'-Tetrahydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, *see* G-00004
- Tetrahydroxysuccinic acid, *see* T-00073
- Tetraisopropyl thioperoxydiphosphate, *see* B-00310
- 4,4'-(4,5,6,7-Tetraiodo-3H-2,1-benzoxathiol-3-ylidene)bisphenol *S,S*-dioxide, *see* P-00068
- Tetraiodobismuthate(III)(1-), T-00080
- ▷ Tetraiodofluorescein, *see* E-00020
- Tetraiodophenoltetraiodophthalein, T-00081
- Tetrakis(benzoyltrifluoroacetylacetonato)uranium(IV), *see* T-00090
- 2,2,5,5-Tetrakis(carboxymethylthio)-*p*-dithiane, T-00082
- $\alpha,\beta,\gamma,\delta$ -Tetrakis(4-carboxyphenyl)porphine, *see* P-00251
- Tetrakis(4-chlorophenyl)borate(1-), T-00083
- ▷ Tetrakis(cyanomethyl)ethylenediamine, *in* E-00078
- Tetrakis(4-fluorophenyl)borate(1-), T-00084
- Tetrakis(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato)europate(III)(1-), T-00085
- Tetrakis(hexafluoroacetylacetonato)uranium(IV), *see* T-00086
- Tetrakis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-*O,O'*)uranium(IV), T-00086
- ▷ *N,N,N',N'*-Tetrakis(2-hydroxypropyl)ethylenediamine, *see* E-00001
- 2,3,14,15-Tetrakis(2-methoxyphenyl)-1,4,7,10,13,16,19,22-octaazacyclotetracosane-2,14-diene, T-00087
- Tetrakis(1-methylethyl)thioperoxydiphosphate, *see* B-00310
- 5,10,15,20-Tetrakis(2-methylpropyl)-21H,23H-porphine, *see* M-00063
- 2,2',3,3'-Tetrakis(6-methyl-2-pyridyl)-6,6'-biquinoxaline, T-00088
- $\alpha,\beta,\gamma,\delta$ -Tetrakis(4-*N*-methylpyridyl)porphine, *see* P-00252
- N,N,N',N'*-Tetrakis(phosphonomethyl)-1,2-cyclohexanediamine, T-00089
- N,N,N',N'*-Tetrakis(phosphonomethyl)-1,2-ethanediamine, *see* E-00032
- 5,10,15,20-Tetrakis(4-sulfophenyl)porphine, *see* P-00250
- $\alpha,\beta,\gamma,\delta$ -Tetrakis(*p*-sulfophenyl)porphine, *see* P-00250
- Tetrakis(4,4,4-trifluoro-1-phenyl-1,3-butanedionato-*O,O'*)uranium, T-00090
- N,N,N',N'*-Tetrakis(trimethylsilyl)-1,2-ethanediamine, T-00091
- ▷ Tetralite, *see* M-00312
- Tetramethoxy-1,4-benzoquinone, *in* T-00072
- 2',3,5,7-Tetramethoxyflavone, *in* T-00074
- 3',4',5,7-Tetramethoxyflavonol, *in* P-00025
- ▷ *N,N,N',N'*-Tetramethyl-3,6-acridinediamine, *see* B-00313
- Tetramethylammonium(1+), T-00092
- ▷ 3,3',5,5'-Tetramethylbenzidine, *see* D-00128
- N,N,N',N'*-Tetramethylbenzidine, *in* D-00053
- N,N,N',N'*-Tetramethylbenzidine-3-sulfonic acid, *in* D-00058
- ▷ 3,3',5,5'-Tetramethyl[1,1'-biphenyl]-4,4'-diamine, *see* D-00128
- 2,2,7,7-Tetramethyl-3,6-bis(trimethylsilyl)-3,6-diaza-2,7-disilaoctane, *see* T-00091
- 5,5',6,6'-Tetramethyl-3,3-bi(1,2,4-triazine), T-00093
- 5-(1,1,3,3-Tetramethylbutyl)-1,2,3-benzenetriol, T-00094
- α -[4-(1,1,3,3-Tetramethylbutyl)phenyl]-*co*-hydroxypoly(oxy-1,2-ethanediyl), *see* T-00429
- ▷ 4,4'-Tetramethyldiaminobenzhydrol, *see* B-00321
- ▷ 4,4'-Tetramethyldiaminodiphenylmethane, *see* B-00320
- 4,4'-Tetramethyldiaminotriphenylmethane, *see* B-00327
- 6,8,15,17-Tetramethyldibenzo-5,9,14,18-tetraazacyclotetradecene, *see* D-00491
- N,N,N',N'*-Tetramethyl-3,3'-dimethylbenzidine, *in* D-00083
- Tetramethyldipicrylamine, *see* T-00096
- 1,1,3,3-Tetramethyldisilazane, *see* D-00915
- Tetramethylenebis(triphenylphosphonium)(2+), *see* B-00602
- Tetramethylenedithiocarbamic acid, *see* P-00441
- ▷ Tetramethylenimine, *see* P-00440
- ▷ Tetramethylene oxide, *see* T-00061
- ▷ Tetramethylene sulfone, *see* T-00069
- Tetramethylenethiourea, *see* H-00037
- Tetramethyl 1,2-ethanediylbisphosphonate, *in* E-00026
- 2,2,6,6-Tetramethyl-3,5-heptanedione, T-00095
- 3,3',5,5'-Tetramethyl-2,2',4,4',6,6'-hexanitrodiphenylamine, T-00096
- Tetramethyl (1-hydroxyethylidene)bisphosphonate, *in* H-00178
- Tetramethylmurexide, *in* P-00281
- 2,4,7,9-Tetramethyl-1,10-phenanthroline, T-00097
- 3,4,6,7-Tetramethyl-1,10-phenanthroline, T-00098
- 3,4,6,8-Tetramethyl-1,10-phenanthroline, T-00099
- 3,4,7,8-Tetramethyl-1,10-phenanthroline, T-00100
- 3,5,6,8-Tetramethyl-1,10-phenanthroline, T-00101
- 3',3'',5',5''-Tetramethylphenolphthalein, *see* B-00366
- Tetramethylphenosafranone, *see* B-00323
- N,N,N',N'*-Tetramethyl-10H-phenothiazine-3,7-diamine, *see* B-00316
- Tetramethylphosphinooxide, T-00102
- ▷ Tetramethylsilane, T-00103
- Tetramethylsuccinamide, *in* S-00034
- 1,4,8,11-Tetramethyl-1,4,8,11-tetraazacyclotetradecane, T-00104
- ▷ Tetramethylthiocarbamic diamide, T-00105
- ▷ Tetramethylthioperoxydicarbonyl diamide, *see* T-00106
- ▷ Tetramethyl thioperoxydiphosphate, *see* B-00312
- ▷ Tetramethylthiuram disulfide, T-00106
- ▷ Tetramethylthiuram sulfide, *see* T-00105
- N*,1,1,1-Tetramethyl-*N*-(trimethylsilyl)silanamine, *in* B-00471
- ▷ Tetrammonium formate, *in* T-00092
- ▷ Tetrammonium iodide, *in* T-00092
- 2,2',4,4'-Tetranitrobiphenyl, T-00107
- ▷ Tetranitromethane, T-00108
- 3,3',5,5'-Tetranitrophenolsulfonephthalein, T-00109
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- 5,10,15,20-Tetraoctyl-21H,23H-porphine, *see* M-00064
- 1,4,7,10-Tetraoxa-13-azacyclopentadecane, T-00111
- 1,4,7,10-Tetraoxa-13-azacyclopentadecane-13-ethanol, *see* H-00182
- Tetraoxacycloazochrome, T-00112
- ▷ 1,4,7,10-Tetraoxacyclododecane, T-00113
- 2-(1,4,7,10-Tetraoxacyclododec-2-yl)methoxyphenol, *see* H-00444
- 4,7,13,18-Tetraoxa-1,10-diazabicyclo[8.5.5]cicosane, T-00114

- 2,2'-[1,4,7,10-Tetraoxa-13,16-diazacyclooctadecane-13,16-diylbis(methylene)]bis[4-nitrophenol], 9CI, *see* B-00386
- 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[4-nitrophenol], 9CI, T-00115
- 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[*N*-(2,4,6-trinitrophenyl)]benzenamine, T-00116
- 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyl-di-3,1-propanediyl]bis[4-[(4-nitrophenyl)azo]phenol], T-00117
- 1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane, T-00118
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- ▷ Tetraphenylarsonium(1+), T-00119
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- ▷ Tetraphenylboron sodium, *see* S-00015
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- $\alpha,\beta,\gamma,\delta$ -Tetraphenylporphinetrisulfonic acid, *see* P-00166
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- ▷ Tetraphenylstibonium bromide, *see* B-00577
- ▷ Tetraphenyl- μ -sulfatodithallium, T-00123
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- ▷ Tetrapropylammonium(1+), T-00124
- 5,10,15,20-Tetrapropyl-21*H*,23*H*-porphine, *see* M-00065
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- 2,2'-(2,5,8,11-Tetrathiadodecane-1,2-diyl)bis[5-methylthiophene], T-00128
- 2,2'-(2,5,8,11-Tetrathiadodecane-1,12-diyl)bis[thiophene], *see* D-01115
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- ▷ Tetrathion, *see* T-00106
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- 2,6,7-Trihydroxy-9-(2-hydroxy-3-nitrophenyl)-3*H*-xanthen-3-one, T-00290
- 2,6,7-Trihydroxy-9-(2-hydroxy-5-nitrophenyl)-3*H*-xanthen-3-one, T-00291
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- 2,6,7-Trihydroxy-9-(4-hydroxyphenyl)-3*H*-xanthen-3-one, T-00294
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- 2,6,7-Trihydroxy-9-methyl-3*H*-xanthen-3-one, T-00299
- 2,6,7-Trihydroxy-9-[4-(4-morpholinyl)phenyl]-3*H*-xanthen-3-one, *see* M-00349
- 2,5,8-Trihydroxy-1,4-naphthoquinone, T-00300
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- 2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, T-00301
- 2,6,7-Trihydroxy-9-(3-nitrophenyl)-3*H*-xanthen-3-one, T-00302
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- 2-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00310
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- ▶ 3,5,7-Trihydroxy-2-phenyl-4*H*-1-benzopyran-4-one, *see* T-00284
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- 5,7,8-Trihydroxy-2-phenyl-4*H*-1-benzopyran-4-one, *see* T-00286
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- (2,3,4-Trihydroxyphenyl)phenylmethanone, *see* T-00278
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- 2,6,7-Trihydroxy-9-propyl-3*H*-xanthen-3-one, T-00316
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- 2,6,7-Trihydroxy-9-(3-pyridinyl)-3*H*-xanthen-3-one, T-00318
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- 2,6,7-Trihydroxy-9-(2-quinoxalyl)-3*H*-xanthen-3-one, T-00321
- 2,6,7-Trihydroxy-9-(2-sulfoxyphenyl)-3*H*-xanthen-3-one, T-00322
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- ▶ 3,5,7-Trihydroxy-2-(3,4,5-trihydroxyphenyl)-4*H*-1-benzopyran-4-one, *see* H-00055
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- ▶ α ,4,4'-Trihydroxytriphenylmethane-2-carboxylic acid lactone, *see* P-00063
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- 2',3',4'-Trimethoxyacetophenone, *in* T-00269
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- 3,4,5-Trimethoxybenzaldehyde, *in* T-00273
- 1,2,3-Trimethoxybenzene, *in* B-00034
- 1,2,4-Trimethoxybenzene, *in* B-00035
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- Trimethylacetohydroxamic acid, T-00324
- ▶ 1,1,1-Trimethylacetone, *see* D-00845
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- ▶ Trimethylamine-1,1',1''-tricarboxylic acid, *see* N-00074
- ▶ Trimethylanium hydroxide, *in* T-00336
- 1,8,8-Trimethyl-3-azabicyclo[3.2.1]octane-2,4-dione, *in* T-00325
- N,N,N*-Trimethylbenzenaminium(1+), *see* T-00336
- Trimethyl citrate, *in* C-00299
- ▶ 4-(2,6,6-Trimethyl-1-cyclohexen-1-yl)-3-buten-2-one, *see* M-00010
- ▶ 1,2,2-Trimethyl-1,3-cyclopentenedicarboxylic acid, T-00325
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- ▶ Trimethyl(dimethylamino)silane, T-00326
- N,N,N*-Trimethyl-1-dodecanaminium(1+), *see* L-00002
- 7,7'-Trimethylenebis[1,3-dimethyl-8-thiouric acid], T-00327
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- 2,2'-(Trimethylenediimino)bis[2-(hydroxymethyl)-1,3-propanediol], *see* P-00263
- ▶ Trimethylene phosphorochloridite, *see* C-00110
- O,O*-Trimethylene phosphorochloridoselenoate, *in* C-00110
- ▶ Trimethylenethiourea, *see* T-00066
- 1,3,3-Trimethyl-2-formylindolinium 4-methoxy-2-nitrophenylhydrazone, *see* M-00096
- N,N,N*-Trimethyl-1-hexadecanaminium, *see* H-00029
- N,N,N*-Trimethylmethanaminium, *see* T-00092
- Trimethyl(*N*-methylacetamido)silane, *see* M-00330
- 1,3,3-Trimethyl-2-[2-(2-methyl-1*H*-indol-3-yl)ethylene]-3*H*-indolium(1+), T-00328
- 4,4,6-Trimethyl-1-(4-methyl-2-nitrophenyl)-2(1*H*,4*H*)-pyrimidinethiol, *see* D-00498
- 1,3,3-Trimethyl-2-[2-(1-methyl-2-phenyl-1*H*-indol-3-yl)ethenyl]-3*H*-indolium(1+), *see* A-00453
- N,N,\beta*-Trimethyl-2-(methylthio)-10*H*-phenothiazine-10-propanamine, *see* M-00069
- ▶ Trimethylolaminomethane, *see* A-00198
- Trimethylloxonium, T-00329
- Trimethylloxonium tetrafluoroborate, *in* T-00329
- ▶ 2,2,4-Trimethyl-1,3-pentanediol, T-00330
- 3,4,6-Trimethyl-1,10-phenanthroline, T-00331
- 3,4,7-Trimethyl-1,10-phenanthroline, T-00332
- 3,5,6-Trimethyl-1,10-phenanthroline, T-00333
- 3,5,7-Trimethyl-1,10-phenanthroline, T-00334
- 3,5,8-Trimethyl-1,10-phenanthroline, T-00335
- N*⁸,*N*⁸,3-Trimethyl-2,8-phenazinediamine, *see* N-00065
- Trimethylphenylammonium(1+), T-00336
- N*-(2,4,5-Trimethylphenyl)anilinesulfonephthalen, *in* A-00369
- 4,4,6-Trimethyl-1-(4-phenylthiazolyl)-1*H*,4*H*-pyrimidine-2-thiol, *see* D-00502
- Trimethyl(piperidino)silane, *see* T-00343
- 1,2,3-Trimethyl-3-pyrazoline-5-thione, *in* D-00451
- 2,4,6-Trimethylpyridine, T-00337
- 4,4,6-Trimethyl-1*H*,4*H*-pyrimidine-2-thiol, *see* D-00504
- Trimethyl(1-pyrrolidinyl)silane, *see* T-00346
- ▶ *N*-(Trimethylsilyl)acetamide, T-00338
- N*-(Trimethylsilyl)acetanilide, *see* P-00210
- Trimethylsilylacetic acid, T-00339
- (Trimethylsilyl)acetyl chloride, *in* T-00339
- Trimethylsilyl bromide, *see* B-00582
- ▶ Trimethylsilyl chloride, *see* C-00267
- ▶ Trimethylsilyldiethylamine, *see* D-00336
- N*-Trimethylsilyldimethylamine, *see* T-00326
- Trimethylsilyl diphenylphosphinodithioate, *in* D-01039
- ▶ *N*-(Trimethylsilyl)ethanimidic acid trimethylsilyl ester, *see* B-00470
- (Trimethylsilyl)ethenone, T-00340
- ▶ 1-(Trimethylsilyl)-1*H*-imidazole, T-00341
- Trimethylsilylketene, *see* T-00340
- 4-(Trimethylsilyl)morpholine, T-00342
- Trimethylsilyl phenylphosphinate, *in* P-00163
- 1-(Trimethylsilyl)piperidine, T-00343
- 3-(Trimethylsilyl)-1-propanesulfonic acid, T-00344
- 3-(Trimethylsilyl)propanoic acid, T-00345
- 1-(Trimethylsilyl)pyrrolidine, T-00346
- ▶ Trimethylsilyl *N*-(trimethylsilyl)acetamidate, *see* B-00470
- ▶ Trimethylsilyl *N*-(trimethylsilyl)ethanimidate, *see* B-00470
- Trimethylsulfonium(1+), T-00347
- N,N,N*-Trimethyl-3-(trifluoromethyl)benzenaminium(1+), *see* T-00256
- 1,1,1-Trimethyl-*N*-(trimethylsilyl)silanamine, *see* B-00471
- Trinalin, *in* M-00122
- ▶ 2,4,6-Trinitroanisole, *in* T-00355

- 1,2,4-Trinitrobenzene, T-00348
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 ▶ 2,4,7-Trinitro-9*H*-fluoren-9-one, T-00353
 (2,4,7-Trinitro-9*H*-fluoren-9-ylidene)propanedinitrile, *see* D-00306
 4,5,7-Trinitro-9-oxo-9*H*-fluorene-2-carboxylic acid, T-00354
 ▶ 2,4,6-Trinitrophenol, T-00355
 ▶ 2,4,6-Trinitroresorcinol, *see* T-00350
 2,4,6-Trinitro-*N*-[2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)phenyl]benzenamine, T-00356
 ▶ 2,4,6-Trinitro-*N*-(2,4,6-trinitrophenyl)benzenamine, *see* H-00065
 ▶ Trioctylamine, T-00357
N,N,N-Trioctyl-1-octanaminium(1+), *see* T-00110
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 2,2'-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diylbis(methylene)]bis[4-nitrophenol], *see* B-00382
N,N'-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diylbis(methylene-2,1-phenylene)]bis[2,4,6-trinitrobenzenamine], T-00361
 2,2'-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyl-di-3,1-propanediyl]bis[4-[(4-nitrophenyl)azo]phenol], T-00362
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 ▶ Triphenylarsine, T-00363
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 2,4,6-Triphenyl-*N*-(3,5-diphenyl-4-oxidophenyl)pyridinium betaine, T-00365
 ▶ 1,2,3-Triphenylguanidine, *see* T-00366
 ▶ *N,N',N''*-Triphenylguanidine, T-00366
 2,4,6-Triphenyl-*N*-(4-hydroxyphenyl)pyridinium betaine, *see* H-00513
 ▶ 2,4,5-Triphenylimidazole, T-00367
 Triphenylmethane-*p*-hydroxamic acid, *see* H-00168
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 ▶ Triphenylphosphine, T-00370
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 Tris[*N*-(diphenylphosphinyl)-*P,P*-diphenylphosphineamidato-*O,O'*]praseodymium, *see* T-00422
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 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)dysprosium(III), T-00393
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)europium(III), T-00394
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)gadolinium(III), T-00395
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)holmium(III), T-00396
 Tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyl-4,6-octanedionato)iron(III), *see* T-00397
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)iron(III), T-00397
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)lanthanum(III), T-00398
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)neodymium(III), T-00399
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)praseodymium(III), T-00400
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)terbium(III), T-00401
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)ytterbium(III), T-00402
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)yttrium(III), T-00403
 Tris[3-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-onato-*O,O'*]europium, *see* T-00391
 Tris[3-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-onato-*O,O'*]praseodymium, *see* T-00404
 Tris[3-(heptafluoropropylhydroxymethylene)-*d*-camphorato]europium(III), *see* T-00391
 Tris[3-(heptafluoropropylhydroxymethylene)-*d*-camphorato]praseodymium(III), T-00404
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 [Tris(hydroxymethyl)methyl]amino]acetic acid, T-00407
N-Tris(hydroxymethyl)methyl-2-aminoethanesulfonic acid, *see* H-00136
 3-[*N*-Tris(hydroxymethyl)methylamino]-2-hydroxypropanesulfonic acid, *see* H-00192
N-Tris(hydroxymethyl)methyl-3-aminopropanesulfonic acid, *see* H-00137
N-[Tris(hydroxymethyl)methyl]dithiocarbamic acid, *see* H-00138
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 2,4,6-Tris(2-hydroxy-4-sulfo-1-naphthylazo)-1,3,5-triazine, *see* T-00198
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 2,4,6-Tris[6-(2-pyridyl)-2-pyridyl]-*s*-triazine, *see* T-00202
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 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)dysprosium(III), T-00415
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)europium(III), T-00416
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)gadolinium(III), T-00417
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)holmium(III), T-00418
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)lanthanum(III), T-00419
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)praseodymium(III), T-00420
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 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)ytterbium(III), T-00421
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- Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-*O,O'*]ytterbium(III), T-00426
- Tris[1,7,7-trimethyl-3-(trifluoroacetyl)bicyclo[2.2.1]heptan-2-onato-*O,O'*]europium, *see* T-00423
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- ▶ [Vinylenebis[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triy]]dinitrilo]octaacetic acid, V-00007
- ▶ *N,N',N''*-[Vinylenebis[3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triy]]tetraglycine, *see* D-00129
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- ▶ Yodurtam, *in* T-00092
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- ▶ Z 12007, *in* R-00014
- ▶ Zephiramine, Z-00001
- ▶ Zimco, *in* D-00519
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Molecular Formula Index

The Molecular Formula Index lists the molecular formulae of all reagents in the Dictionary whether they occur as main Entry compounds or as derivatives.

Where a molecular formula applies to a derivative the Dictionary Number is prefixed by the word '*in*'.

The Symbol \triangleright preceding an index term indicates the Dictionary Entry contains information on toxic or hazardous properties of the compound.

Molecular Formula Index

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- CCl₄**
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- CHCl₃**
▷ Chloroform, C-00118
- CH₂N₄S**
Tetrazole-5-thione, T-00131
- CH₂O**
▷ Formaldehyde, F-00035
- CH₂OS₂**
▷ Dithiocarbonic acid, D-01125
- CH₂O₂**
▷ Formic acid, F-00037
- CH₃Br₂OP**
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- CH₃ClO₂S**
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- CH₃Cl₂OP**
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- CH₃Cl₂PS**
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- CHI**
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- CH₃NO**
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- CH₃NOS**
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▷ Nitromethane, N-00113
- CH₃NS₂**
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- CH₃N₆OP**
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- CH₄N₂S**
▷ Thiourea, T-00175
- CH₄N₂Se**
▷ Selenourea, S-00009
- CH₄O**
▷ Methanol, M-00068
- CH₄O₃S**
▷ Hydroxymethanesulfonic acid, H-00262
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- CH₄BO₂**
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- CH₅FNPS**
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- CH₅NO**
▷ O-Methylhydroxylamine, M-00187
- CH₅NO₂S**
Methanesulfonic acid; Amide, *in* M-00066
- CH₅N₃**
▷ Guanidine, G-00044
- CH₅O₃P**
▷ Methylphosphonic acid, M-00244
- CH₅O₄P**
(Hydroxymethyl)phosphonic acid, H-00318
- CH₆NOPS**
P-Methylphosphonamidothioic acid, M-00243
- CH₆N₄**
▷ Aminoguanidine, A-00179
- CH₇N₂S₂**
Ammonium dithiocarbamate, *in* D-01124
- CN₄O₈**
▷ Tetranitromethane, T-00108
- CS₂**
▷ Carbon disulfide, C-00023
- C₂BrCl₃O**
Trichloroacetic acid; Bromide, *in* T-00218
- C₂Br₂O₂**
▷ Oxalyl bromide, *in* O-00048
- C₂ClF₂N**
Chlorocyanodifluoromethane, *in* C-00092
- C₂Cl₂F₂O**
Chlorodifluoroacetic acid; Chloride, *in* C-00092
- C₂Cl₃IO**
Trichloroacetic acid; Iodide, *in* T-00218
- C₂Cl₃N**
▷ Trichloroacetoneitrile, *in* T-00218
- C₂Cl₄O**
▷ Trichloroacetic acid; Chloride, *in* T-00218
- C₂HClF₂O₂**
Chlorodifluoroacetic acid, C-00092
- C₂HCl₂N**
▷ Dichlorocyanomethane, *in* D-00246
- C₂HCl₃O**
▷ Dichloroacetic acid; Chloride, *in* D-00246
- C₂HCl₃O₂**
▷ Trichloroacetic acid, T-00218
- C₂HF₃O₂**
▷ Trifluoroacetic acid, T-00239
- C₂HF₃O₃**
▷ Trifluoroperacetic acid, T-00258
- C₂H₂BrClO**
Chloroacetyl bromide, *in* C-00054
- C₂H₂ClF₂NO**
Chlorodifluoroacetic acid; Amide, *in* C-00092
- C₂H₂ClIO**
Iodoacetyl chloride, *in* I-00036
- C₂H₂Cl₂O**
▷ Chloroacetyl chloride, C-00056
- C₂H₂Cl₂O₂**
▷ Dichloroacetic acid, D-00246
- C₂H₂Cl₃NO**
▷ 2,2,2-Trichloroacetamide, *in* T-00218
- C₂H₂Cl₃NO₂**
2,2,2-Trichloroacetohydroxamic acid, T-00219
- C₂H₂F₃NO**
Trifluoroacetamide, *in* T-00239
- C₂H₂IN**
Iodoacetic acid; Nitrile, *in* I-00036
- C₂H₂N₂S₃**
▷ 5-Amino-1,2,4-dithiazolidine-3-thione, A-00168
▷ 5-Mercapto-1,3,4-thiadiazoline-2-thione, M-00060
- C₂H₂O₂S₂**
Ethanebis(thioic) acid, E-00023
- C₂H₂O₃**
▷ Glyoxylic acid, G-00038
- C₂H₂O₄**
▷ Oxalic acid, O-00048
- C₂H₂O₅**
Dicarbonic acid, D-00243
- C₂H₃ClO**
▷ Acetyl chloride, *in* A-00006
▷ Chloroacetaldehyde, C-00053
- C₂H₃ClO₂**
▷ Chloroacetic acid, C-00054
▷ Methyl chloroformate, M-00155
- C₂H₃Cl₂NO**
▷ Dichloroacetamide, *in* D-00246
- C₂H₃Cl₃O**
▷ 2,2,2-Trichloroethanol, T-00222
- C₂H₃F₃O**
▷ 2,2,2-Trifluoroethanol, T-00245
- C₂H₃IO₂**
▷ Iodoacetic acid, I-00036
- C₂H₃NS**
▷ Mercaptoacetoneitrile, *in* M-00016
- C₂H₃N₃**
1,2,4-Triazole, T-00199
- C₂H₃N₃S**
▷ 1,2-Dihydro-3H-1,2,4-triazole-3-thione, D-00496
- C₂H₃N₃S₂**
▷ 5-Amino-1,3,4-thiadiazoline-2(3H)-thione, A-00354
- C₂H₄ClNO**
▷ Chloroacetaldehyde; Oxime, *in* C-00053
- C₂H₄ClO₂P**
2-Chloro-1,3,2-dioxaphospholane, C-00109
- C₂H₄Cl₄O₂P₂**
1,2-Ethanediybis[phosphonic dichloride], *in* E-00026
- C₂H₄N₂**
▷ Diazoethane, D-00144
- C₂H₄N₂O₂**
▷ Glyoxime, G-00037
▷ Oxamide, *in* O-00048
- C₂H₄N₂O₄**
▷ Oxalohydroxamic acid, O-00049
- C₂H₄N₂S₂**
▷ Ethanedithioamide, E-00027
- C₂H₄N₂S₄**
▷ Thioperoxydicarbonic diamide, T-00166
- C₂H₄N₄**
▷ 3(5)-Amino-1,2,4-triazole, A-00364
- C₂H₄N₄S**
1H-Tetrazole-5-thiol; S-Me, *in* T-00131
Tetrazole-5-thione; 1-Me, *in* T-00131
- C₂H₄O**
▷ Acetaldehyde, A-00002
- C₂H₄OS**
▷ Ethanethioic acid, E-00038

- C₂H₄O₂**
▷ Acetic acid, A-00006
- C₂H₄O₂S**
▷ Mercaptoacetic acid, M-00016
- C₂H₄O₃**
▷ Peracetic acid, P-00042
- C₂H₄O₃S**
▷ Sulfoacetic acid, S-00039
- C₂H₅ClMg**
Chloroethylmagnesium, C-00115
- C₂H₅CIN₂O**
Chloroacetic acid; Hydrazide, in C-00054
- C₂H₅ClO**
▷ 2-Chloroethanol, C-00114
- C₂H₅Cl₂PS**
Ethylphosphonothioic dichloride, E-00105
- C₂H₅I**
▷ Iodoethane, I-00043
- C₂H₅NO**
▷ Acetaldoxime, in A-00002
▷ Acetamide, A-00003
- C₂H₅NOS**
▷ Mercaptoacetic acid; Amide, in M-00016
Methylcarbamothioic acid, M-00154
Thiocarbamic acid; *O*-Me ester, in T-00159
Thiocarbamic acid; *S*-Me ester, in T-00159
- C₂H₅NO₂**
▷ Glycine, G-00016
▷ Nitroethane, N-00108
- C₂H₅NS**
▷ Thioacetamide, in E-00038
- C₂H₅NS₂**
Dithiocarbamic acid; Me ester, in D-01124
- C₂H₅N₃O₂**
▷ Aminoacetic acid hydrazide, A-00291
Biuret, B-00474
- C₂H₅N₃S₂**
▷ Thioimidodicarbonic diamide, T-00163
- C₂H₆Cl₂Si**
▷ Dichlorodimethylsilane, D-00267
- C₂H₆N₂O**
▷ Acetamidoxime, A-00004
▷ Acetylhydrazide, in A-00006
- C₂H₆N₂S**
Ethanethioic acid; Hydrazide, in E-00038
- C₂H₆N₂Se**
Selenourea; *N*-Me, in S-00009
- C₂H₆N₄O₂**
▷ Oxalic acid; Dihydrazide, in O-00048
Oxamidoxime, in O-00048
- C₂H₆N₆S**
4-Amino-3-hydrazino-5-mercapto-1,2,4-triazole, A-00181
- C₂H₆O**
▷ Ethanol, E-00040
- C₂H₆OS**
▷ 2-Mercaptoethanol, M-00031
- C₂H₆O₃S**
▷ Dimethyl sulfite, D-00917
▷ Methanesulfonic acid; Me ester, in M-00066
- C₂H₆O₄S**
▷ Dimethyl sulfate, D-00916
- C₂H₆O₅S₂**
Methanesulfonic acid; Anhydride, in M-00066
- C₂H₆S**
▷ Ethanethiol, E-00039
- C₂H₆S₂**
▷ 1,2-Ethanedithiol, E-00028
- C₂H₇ClSi**
Chlorodimethylsilane, C-00105
- C₂H₇N**
▷ Dimethylamine, D-00777
- C₂H₇NO**
▷ 2-Aminoethanol, A-00171
O-Ethylhydroxylamine, E-00089
- C₂H₇NS**
▷ 2-Aminoethanethiol, A-00170
- C₂H₇N₃O₂**
Ethanediamine; *N*-Nitro, in E-00024
- C₂H₇O₂PS₂**
▷ *O*,*O*-Dimethyl phosphorodithioate, D-00896
- C₂H₈NOPS**
O-Methyl *P*-methylphosphonamidothioate, in M-00243
S-Methyl *P*-methylphosphonamidothioate, in M-00243
- C₂H₈N₂**
▷ 1,1-Dimethylhydrazine, D-00864
▷ Ethanediamine, E-00024
- C₂H₈O₆P₂**
1,2-Ethanediphosphonic acid, E-00026
- C₂H₈O₇P₂**
▷ (1-Hydroxyethylidene)bisphosphonic acid, H-00178
- C₂H₁₂B₉[⊖]**
Dodecahydro-7,8-dicarbundecaborate(1-), D-01137
- C₂H₁₂B₉K**
Cuproselect, in D-01137
- C₃ClF₅O**
Pentafluoropropanoic acid; Chloride, in P-00021
- C₃Cl₂F₄O**
▷ 1,3-Dichloro-1,1,3,3-tetrafluoro-2-propanone, D-00303
- C₃Cl₃F₃O**
1,1,1-Trichloro-3,3,3-trifluoro-2-propanone, T-00227
- C₃Cl₃NO₂**
▷ Trichloroacetyl isocyanate, T-00220
- C₃F₅N**
Pentafluoropropanoic acid; Nitrile, in P-00021
- C₃F₆O**
▷ 1,1,1,3,3,3-Hexafluoro-2-propanone, H-00033
- C₃HF₅O₂**
▷ Pentafluoropropanoic acid, P-00021
- C₃HF₆N**
1,1,1,3,3,3-Hexafluoro-2-propanone; Imine, in H-00033
- C₃H₂ClF₅O**
1-Chloro-1,1,3,3,3-pentafluoro-2-propanol, C-00192
- C₃H₂Cl₄O₂**
▷ 2,2,2-Trichloroethyl chloroformate, T-00223
- C₃H₂F₅NO**
Pentafluoropropanoic acid; Amide, in P-00021
- C₃H₂F₆O**
▷ 1,1,1,3,3,3-Hexafluoro-2-propanol, H-00032
- C₃H₂F₆O₂**
1,1,1,3,3,3-Hexafluoro-2,2-propanediol, in H-00033
- C₃H₂O₃**
2-Oxopropanedial, O-00070
- C₃H₂S₃**
3*H*-1,2-Dithiole-3-thione, D-01133
- C₃H₃ClF₂O₂**
Chlorodifluoroacetic acid; Me ester, in C-00092
- C₃H₃ClO**
▷ 2-Propenoic acid; Chloride, in P-00269
- C₃H₃ClO₂**
Vinyl chloroformate, V-00005
- C₃H₃Cl₃O₂**
▷ Trichloroacetic acid; Me ester, in T-00218
- C₃H₃F₃OS₂**
O-(2,2,2-Trifluoroethyl)carbonodithioate, T-00246
Trifluoroethylxanthic acid, T-00247
- C₃H₃F₃O₂**
Trifluoroacetic acid; Me ester, in T-00239
- C₃H₃F₅O**
▷ 2,2,3,3,3-Pentafluoro-1-propanol, P-00022
- C₃H₃N**
▷ Vinyl cyanide, in P-00269
- C₃H₃NO**
Acetyl cyanide, in P-00448
- C₃H₃NOS₂**
▷ 2-Thioxo-4-thiazolidinone, T-00176
- C₃H₃NO₂**
▷ Cyanoacetic acid, C-00324
- C₃H₃N₂OP**
Methylphosphonic acid; Dicyanide, in M-00244
- C₃H₃N₂OPS₂**
Methylphosphonic acid; Diisothiocyanate, in M-00244
- C₃H₃N₂O₃P**
Methylphosphonic acid; Diisocyanate, in M-00244
- C₃H₃N₃O₂S**
3,5-Dihydroxy-6-mercapto-1,2,4-triazine, D-00639
- C₃H₄Cl₂O₂**
▷ Dichloroacetic acid; Me ester, in D-00246
- C₃H₄Cl₃NO**
Trichloroacetic acid; Methylamide, in T-00218
- C₃H₄Cl₃NO₂**
▷ Trichloroethanol carbamate, in T-00222
- C₃H₄N₂**
▷ 1*H*-Imidazole, I-00001
- C₃H₄N₂O**
▷ Cyanoacetamide, in C-00324
- C₃H₄N₂OS₂**
3-Aminorhodanine, A-00346
- C₃H₄N₂O₃**
▷ Diisonitrosacetone, in O-00070
- C₃H₄N₂S**
▷ 1,3-Dihydro-2*H*-imidazole-2-thione, D-00424
- C₃H₄N₂S₃**
3-Methyl-1,3,4-thiadiazolidine-2,5-dithione, in M-00060
5-Methylthio-1,3,4-thiadiazole-2(3*H*)-thione, in M-00060
- C₃H₄O₂**
▷ 2-Propenoic acid, P-00269
▷ Pyruvaldehyde, P-00446
- C₃H₄O₃**
▷ Pyruvic acid, P-00448
- C₃H₄O₄**
Oxalic acid; Mono-Me ester, in O-00048
▷ Propanedioic acid, P-00261
- C₃H₅ClO₂**
▷ Ethyl chloroformate, E-00068
▷ Methyl chloroacetate, in C-00054
- C₃H₅IO₂**
Iodoacetic acid; Me ester, in I-00036
- C₃H₅KOS₂**
▷ Potassium *O*-ethyl dithiocarbonate, P-00253
- C₃H₅NO**
▷ Acrylamide, in P-00269

- C₃H₅NO₂**
 ▶ Isonitrosoacetone, *in* P-00446
 Pyruvic acid; Amide, *in* P-00448
- C₃H₅NO₃**
 2-Isonitrosopropanoic acid, *in* P-00448
- C₃H₅N₃**
 1*H*-Imidazole; 1-Amino, *in* I-00001
- C₃H₅N₃O₂S**
 [(Aminothioxomethyl)hydrazono]acetic acid,
in G-00038
- C₃H₆ClO₂P**
 ▶ 2-Chloro-1,3,2-dioxaphosphorinane, C-00110
- C₃H₆ClO₂PSe**
O,O-Trimethylene
 phosphorochloridoselenoate, *in* C-00110
- C₃H₆Cl₂O**
 ▶ 1,3-Dichloro-2-propanol, D-00298
- C₃H₆N₂**
 Alanine; Nitrile; B,HCl, *in* A-00074
 1-Diazopropane, D-00154
- C₃H₆N₂O₂**
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 Methylglyoxime, *in* P-00446
 Pyruvic acid; Amide, oxime, *in* P-00448
- C₃H₆N₂S**
 ▶ 2-Imidazolidinethione, I-00003
- C₃H₆N₂S₂**
 Propanedithioamide, P-00262
- C₃H₆N₄S**
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 Tetrazole-5-thione; 1,4-Di-Me, *in* T-00131
 Tetrazole-5-thione; 1-Et, *in* T-00131
- C₃H₆N₆**
 ▶ 1,3,5-Triazine-2,4,6-triamine, T-00197
- C₃H₆O**
 ▶ Acetone, A-00007
 ▶ Propanal, P-00259
 1-Propen-2-ol, P-00270
 ▶ 2-Propen-1-ol, P-00271
- C₃H₆OS**
 Ethanethioic acid; *O*-Me ester, *in* E-00038
 Ethanethioic acid; *S*-Me ester, *in* E-00038
- C₃H₆OS₂**
 Dithiocarbonic acid; *S,S*-Di-Me ester, *in*
 D-01125
 ▶ Xanthic acid, X-00002
- C₃H₆O₂S**
 ▶ Mercaptoacetic acid; Me ester, *in* M-00016
 ▶ 2-Mercaptopropanoic acid, M-00051
 ▶ 3-Mercaptopropanoic acid, M-00052
 Methylmercaptoacetic acid, *in* M-00016
- C₃H₆O₂S₂**
 2,3-Dimercapto-propanoic acid, D-00762
- C₃H₆O₃**
 ▶ 2-Hydroxypropanoic acid, H-00516
- C₃H₆O₄S**
 Acetyl methanesulfonate, A-00020
- C₃H₇Br**
 ▶ 2-Bromopropane, B-00560
- C₃H₇ClMg**
 Chloropropylmagnesium, C-00250
- C₃H₇F₂OP**
 Isopropylphosphonic acid; Difluoride, *in*
 I-00077
- C₃H₇I**
 ▶ 1-Iodopropane, I-00050
- C₃H₇NO**
 ▶ Acetoxime, *in* A-00007
 ▶ Dimethylformamide, D-00861
 Propanal oxime, *in* P-00259
- C₃H₇NOS**
O-Ethyl carbamothioate, *in* T-00159
- S*-Ethyl carbamothioate, *in* T-00159
 2-Mercaptopropanoic acid; Amide, *in*
 M-00051
- C₃H₇NO₂**
 ▶ Alanine, A-00074
 Glycine; Me ester, *in* G-00016
 ▶ Propyl nitrite, *in* P-00265
- C₃H₇NO₂S**
 Cysteine, C-00370
- C₃H₇NO₃**
 Propyl nitrate, *in* P-00265
- C₃H₇NSe₂**
 Dimethylcarbamodiselenic acid, D-00846
- C₃H₇N₃O**
 Guanidine; 1-*N*-Ac, *in* G-00044
- C₃H₇N₃O₂**
 Biuret; *N*-Me, *in* B-00474
- C₃H₇N₃S₂**
 1-Methyl-2,4-dithiobiuret, *in* T-00163
- C₃H₈BrClSi**
 (Bromomethyl)dimethylchlorosilane, B-00521
- C₃H₈ClSi**
 Chloro(iodomethyl)dimethylsilane, C-00165
- C₃H₈Cl₂Si**
 Chloro(chloromethyl)dimethylsilane, C-00081
- C₃H₈NO₂PS₃**
S-(Thiocarbamoyl)dithiophosphoric acid;
O,O'-Di-Me, *in* T-00161
- C₃H₈N₂**
 Isopropylidenediazide, *in* A-00007
- C₃H₈N₂O**
 Alanine; Amide, *in* A-00074
- C₃H₈N₂O₂**
N-Hydroxy-*N*-nitroso-2-propanamine,
 H-00418
- C₃H₈N₂Se**
 Selenourea; *N,N*-Di-Me, *in* S-00009
- C₃H₈N₄O₂**
 Propanedioic acid; Dihydrazide, *in* P-00261
- C₃H₈O**
 ▶ 1-Propanol, P-00265
 ▶ 2-Propanol, P-00266
- C₃H₈OS**
 3-Mercapto-1-propanol, M-00053
- C₃H₈OS₂**
 ▶ 2,3-Dimercapto-1-propanol, D-00763
- C₃H₈O₂**
 ▶ 2-Methoxyethanol, M-00087
- C₃H₈O₂S**
 ▶ 3-Mercapto-1,2-propanediol, M-00050
- C₃H₈O₃**
 ▶ Glycerol, G-00015
- C₃H₈O₃S₃**
 ▶ 2,3-Dimercapto-1-propanesulfonic acid,
 D-00761
- C₃H₉BrS**
 Trimethylsulfonium(1+); Bromide, *in*
 T-00347
- C₃H₉BrSi**
 Bromotrimethylsilane, B-00582
- C₃H₉ClOSi**
 Chloromethoxydimethylsilane, C-00166
- C₃H₉ClO₂Si**
 Chlorodimethoxymethylsilane, C-00097
- C₃H₉CIS**
 Trimethylsulfonium(1+); Chloride, *in*
 T-00347
- C₃H₉CISi**
 ▶ Chlorotrimethylsilane, C-00267
- C₃H₉IS**
 ▶ Trimethylsulfonium(1+); Iodide, *in* T-00347
- C₃H₉N**
 ▶ 2-Propylamine, P-00274
- C₃H₉NO**
 ▶ 2-(Methylamino)ethanol, *in* A-00171
O-Propylhydroxylamine, P-00277
- C₃H₉N₃O₃**
 Hexahydro-1,3,5-trihydroxy-1,3,5-triazine,
 H-00051
- C₃H₉O[⊕]**
 Trimethylloxonium, T-00329
- C₃H₉O₃P**
 Isopropylphosphonic acid, I-00077
- C₃H₉O₄P**
 Dimethyl (hydroxymethyl)phosphonate, *in*
 H-00318
- C₃H₉S[⊕]**
 Trimethylsulfonium(1+), T-00347
- C₃H₁₀NOPS**
O-Ethyl *P*-methylphosphonamidothioate, *in*
 M-00243
S-Ethyl *P*-methylphosphonamidothioate, *in*
 M-00243
- C₃H₁₀N₂**
 ▶ *N*-Methyl-1,2-ethanediamine, *in* E-00024
- C₄BrF₇O**
 Heptafluorobutanoic acid; Bromide, *in*
 H-00004
- C₄ClF₇O**
 Heptafluorobutanoic acid; Chloride, *in*
 H-00004
- C₄Cl₂F₄O₃**
 Chlorodifluoroacetic acid; Anhydride, *in*
 C-00092
- C₄Cl₆O₃**
 Trichloroacetic acid; Anhydride, *in* T-00218
- C₄F₆O₃**
 ▶ Trifluoroacetic acid; Anhydride, *in* T-00239
- C₄F₇IO**
 Heptafluorobutanoic acid; Iodide, *in* H-00004
- C₄F₇N**
 Heptafluorobutanoic acid; Nitrile, *in* H-00004
- C₄F₈O**
 Heptafluorobutanoic acid; Fluoride, *in*
 H-00004
- C₄HF₆NO₂**
 Bis(trifluoroacetamide), B-00461
- C₄HF₇O₂**
 ▶ Heptafluorobutanoic acid, H-00004
- C₄H₂Cl₂O₂**
 ▶ Fumaroyl chloride, *in* F-00038
- C₄H₂Cl₄O₃**
 ▶ Dichloroacetic acid; Anhydride, *in* D-00246
- C₄H₂F₇NO**
 ▶ Heptafluorobutanoic acid; Amide, *in* H-00004
- C₄H₂N₂**
 ▶ Fumaronitrile, *in* F-00038
- C₄H₂N₂S₂**
 2,3-Dimercapto-2-butenedinitrile, *in* D-00753
- C₄H₂O₃**
 ▶ 2-Oxo-3-butynoic acid, O-00058
- C₄H₂O₄**
 ▶ 3,4-Dihydroxy-3-cyclobutene-1,2-dione,
 D-00569
- C₄H₃ClF₃NO₂**
 [(Trifluoroacetyl)amino]acetyl chloride, *in*
 T-00240
- C₄H₃ClN₂O**
 6-Chloro-3(2*H*)-pyridazinone, C-00251

- C₄H₃Cl₃O₂**
Trichloroacetic acid; Vinyl ester, *in* T-00218
- C₄H₃F₅O₂**
Pentafluoropropanoic acid; Me ester, *in* P-00021
- C₄H₃NO₂**
▷ 1*H*-Pyrrole-2,5-dione, P-00439
- C₄H₃N₃O₃**
2-Amino-4,5,6(1*H*)-pyrimidinetrione, A-00337
- C₄H₃N₃O₃S**
Dihydro-5-nitroso-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00462
Dihydro-2-thioxo-4,5,6(1*H*)-pyrimidinetrione 5-oxime, D-00493
- C₄H₃N₃O₄**
6-Hydroxy-5-nitroso-2,4(1*H*,3*H*)-pyrimidinedione, H-00420
▷ 2,4,5,6(1*H*,3*H*)-Pyrimidinetrione 5-oxime, P-00428
- C₄H₃N₃O₅**
▷ 5-Nitro-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione, N-00153
- C₄H₄BrNO₂**
▷ *N*-Bromosuccinimide, B-00576
- C₄H₄Cl₂O₃**
Chloroacetic acid; Anhydride, *in* C-00054
- C₄H₄F₃NO₃**
N-(Trifluoroacetyl)glycine, T-00240
- C₄H₄I₂O₃**
Iodoacetic acid; Anhydride, *in* I-00036
- C₄H₄N₂**
▷ Pyrazine, P-00283
- C₄H₄N₂O**
1*H*-Imidazole-1-carboxaldehyde, *in* I-00001
Pyrazine; 1-Oxide, *in* P-00283
- C₄H₄N₂O₅**
▷ 2,3-Dihydro-2-thioxo-4(1*H*)-pyrimidinone, D-00494
- C₄H₄N₂O₂**
▷ 1,2-Dihydro-3,6-pyridazinedione, D-00481
Pyrazine; 1,4-Dioxide, *in* P-00283
- C₄H₄N₂O₂S**
▷ Dihydro-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00492
- C₄H₄N₂O₃**
▷ 2,4,6(1*H*,3*H*,5*H*)-Pyrimidinetrione, P-00429
- C₄H₄N₂S**
2-Mercaptopyrimidine, M-00056
- C₄H₄N₄O₂S**
6-Amino-2,3-dihydro-5-nitroso-2-thioxo-4(1*H*)-pyrimidinone, A-00154
- C₄H₄N₄O₃**
2-Amino-5-nitroso-4,6(1*H*,5*H*)-pyrimidinedione, A-00287
6-Amino-5-nitroso-2,4(1*H*,3*H*)-pyrimidinedione, A-00288
- C₄H₄N₁₂O₂**
Bis(1*H*-tetrazol-5-ylazo)acetic acid, B-00459
- C₄H₄O₃**
▷ Dihydro-2,5-furandione, D-00405
- C₄H₄O₄**
2,3-Dioxobutanoic acid, D-00986
▷ Fumaric acid, F-00038
- C₄H₄O₄S₂**
2,3-Dimercapto-2-butenedioic acid, D-00753
- C₄H₄O₆**
Dihydroxybutenedioic acid, D-00567
- C₄H₅ClF₂O₂**
Chlorodifluoroacetic acid; Et ester, *in* C-00092
- C₄H₅CIN₄**
6-Chloro-3-hydrazinopyridazine, *in* C-00251
- C₄H₅ClO**
▷ 2-Methyl-2-propenoic acid; Chloride, *in* M-00256
- C₄H₅ClO₂S**
Mercaptoacetic acid; *S*-Ac, chloride, *in* M-00016
- C₄H₅Cl₂NO₂**
N-Chloroacetylchloroacetamide, *in* C-00054
- C₄H₅Cl₃O₂**
Ethyl trichloroacetate, *in* T-00218
- C₄H₅F₃O₂**
Trifluoroacetic acid; Et ester, *in* T-00239
- C₄H₅F₅O₃S**
2,2,3,3,3-Pentafluoro-1-propanol; Methanesulfonate, *in* P-00022
- C₄H₅N**
▷ 2-Cyanopropene, *in* M-00256
▷ Pyrrole, P-00436
- C₄H₅NOS**
4-Methyl-2(3*H*)-thiazolone, M-00316
- C₄H₅NO₂**
▷ Methyl cyanoacetate, *in* C-00324
1-Propen-2-ol; Isocyanate, *in* P-00270
▷ 2,5-Pyrrolidinedione, P-00442
- C₄H₅NO₃**
4-Amino-4-oxo-2-butenic acid, *in* F-00038
2,5-Pyrrolidinedione; *N*-Hydroxy, *in* P-00442
- C₄H₅N₃O**
1,2,4-Triazole; 1-Ac, *in* T-00199
- C₄H₅N₃OS**
5-Hydroxy-3-mercapto-6-methyl-1,2,4-triazine, H-00258
- C₄H₅N₃O₂**
▷ 5-Amino-2,4-dihydroxypyrimidine, A-00159
1*H*-Pyrrole-2,5-dione; Dioxime, *in* P-00439
- C₄H₅N₃O₂**
2,6-Diamino-5-nitroso-4(1*H*)-pyrimidinone, D-00109
- C₄H₆BrClO**
2-Bromobutanoic acid; Chloride, *in* B-00496
- C₄H₆Br₂O**
2-Bromobutanoic acid; Bromide, *in* B-00496
- C₄H₆Cl₃NO**
Trichloroacetic acid; Dimethylamide, *in* T-00218
- C₄H₆N₂**
▷ 1-Methylimidazole, M-00190
1*H*-Pyrrol-1-amine, *in* P-00436
- C₄H₆N₂O₂**
Fumaric acid; Diamide, *in* F-00038
2,5-Pyrrolidinedione; Oxime, *in* P-00442
- C₄H₆N₂S**
▷ 2-Amino-4-methylthiazole, A-00257
1,2-Dihydro-5-methyl-3*H*-pyrazole-3-thione, D-00451
2-(Methylthio)-1*H*-imidazole, *in* D-00424
- C₄H₆N₂S₂**
4,5-Dihydro-1*H*-pyrazole-1-carbodithioic acid, D-00479
- C₄H₆N₂S₃**
2,5-Bis(methylthio)-1,3,4-thiadiazole, *in* M-00060
3-Methyl-5-(methylthio)-1,3,4-thiadiazole-2(3*H*)-thione, *in* M-00060
- C₄H₆N₄O**
▷ 3(5)-Amino-1,2,4-triazole; 3-*N*-Ac, *in* A-00364
4,5-Diamino-6-hydroxypyrimidine, D-00098
- C₄H₆N₄O₂**
5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedione, D-00120
- C₄H₆N₄S**
5,6-Diamino-4(1*H*)-pyrimidinethione, D-00122
- C₄H₆N₄S₂**
5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedithione, D-00121
- C₄H₆N₆O**
2,4,6-Triamino-5-nitrosopyrimidine, T-00193
- C₄H₆O₂**
▷ 2,3-Butanedione, B-00587
▷ Methyl acrylate, *in* P-00269
▷ 2-Methyl-2-propenoic acid, M-00256
- C₄H₆O₂S₂**
Ethanebis(thioic acid); Di-Me ester, *in* E-00023
- C₄H₆O₃**
Glyoxylic acid; Et ester, *in* G-00038
▷ 4-Methyl-1,3-dioxolan-2-one, M-00160
Pyruvic acid; Me ester, *in* P-00448
- C₄H₆O₃S**
▷ Mercaptoacetic acid; *S*-Ac, *in* M-00016
- C₄H₆O₄**
Dimethyl oxalate, *in* O-00048
▷ Succinic acid, S-00034
- C₄H₆O₄S**
▷ Mercaptobutanedioic acid, M-00026
- C₄H₆O₄S₂**
▷ 2,3-Dimercaptobutanedioic acid, D-00751
- C₄H₆O₅**
Dimethyl dicarbonate, *in* D-00243
- C₄H₆O₆**
Tartaric acid, T-00002
- C₄H₆O₈**
Tetrahydroxybutanedioic acid, T-00073
- C₄H₇BrO₂**
▷ 2-Bromobutanoic acid, B-00496
- C₄H₇CIN₃SSe**
6-(Chloromethyl)dihydro-2*H*-1,2,4-selenodiazine-3(4*H*)-thione, C-00175
- C₄H₇ClO**
▷ Butyryl chloride, *in* B-00604
- C₄H₇N**
▷ Butyronitrile, *in* B-00604
- C₄H₇NO**
▷ Methacrylamide, *in* M-00256
▷ 2-Pyrrolidinone, P-00443
- C₄H₇NOS**
4-Methyl-2-thiazolidinone, M-00315
- C₄H₇NOS₂**
Dithiocarbamic acid; Me ester, *N*-Ac, *in* D-01124
- C₄H₇NO₂**
▷ 2,3-Butanedione; Monoxime, *in* B-00587
N-Hydroxy-2-butenamide, H-00143
- C₄H₇NO₂S**
Thiocarbamic acid; *O*-Me ester, *N*-Ac, *in* T-00159
Thiocarbamic acid; *S*-Me ester, *N*-Ac, *in* T-00159
- C₄H₇NO₂S₂**
N-(Dithiocarboxy)sarcosine, D-01126
Glycinedithiocarbamic acid, G-00018
- C₄H₇NO₃**
4-Amino-4-oxobutanoic acid, *in* S-00034
Pyruvic acid; Me ester, oxime, *in* P-00448
- C₄H₇NO₃S**
Mercaptobutanedioic acid; 4-Monoamide, *in* M-00026
- C₄H₇NO₄**
▷ Aspartic acid, A-00447
N-Hydroxysuccinamic acid, *in* S-00034
- C₄H₇N₃O₂**
2,5-Pyrrolidinedione; Dioxime, *in* P-00442

- C₄H₇N₃O₂S**
Pyroracemic acid thiosemicarbazone, *in* P-00448
- C₄H₇N₃O₃**
Biuret; *N*-Ac, *in* B-00474
- C₄H₈N₅**
2,4,6-Triaminopyrimidine, T-00194
- C₄H₈BrNO**
2-Bromobutanoic acid; Amide, *in* B-00496
- C₄H₈ClO₂P**
2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, C-00099
- C₄H₈ClO₂PS**
O,O-2,3-Butylene chlorothiophosphate, *in* C-00099
- C₄H₈Cl₂FO₃P**
Bis(2-chloroethyl) phosphorofluoridate, *in* B-00281
- C₄H₈Cl₂O**
▷ 1,1'-Oxybis(2-chloroethane), O-00077
- C₄H₈Cl₃O₃P**
▷ Bis(2-chloroethyl) phosphorochloridate, *in* B-00281
- C₄H₈N₂**
1-Diazobutane, D-00143
- C₄H₈N₂O₂**
Acetamidoxime; *O*-Ac, *in* A-00004
▷ Dimethylglyoxime, D-00862
Succinamide, *in* S-00034
- C₄H₈N₂O₂S**
3-[(Aminoiminomethyl)thio]propanoic acid, A-00228
- C₄H₈N₂S**
2-Imidazolidinethione; 1-Me, *in* I-00003
▷ Tetrahydro-2(1*H*)-pyrimidinethione, T-00066
- C₄H₈N₂S₄**
▷ Ethylenebisdithiocarbamic acid, E-00072
- C₄H₈N₆S₂**
Glyoxal bis(thiosemicarbazone), G-00034
- C₄H₈O**
▷ 2-Butanone, B-00608
▷ 2-Methoxypropene, *in* P-00270
▷ Tetrahydrofuran, T-00061
- C₄H₈OS**
Ethanethioic acid; *O*-Et ester, *in* E-00038
Ethyl thiolacetate, *in* E-00038
▷ 1,4-Oxathiane, O-00051
- C₄H₈OS₂**
Dithiocarbonic acid; *S*-Me, *S*-Et ester, *in* D-01125
S-Methyl *O*-ethyl xanthate, *in* X-00002
- C₄H₈O₂**
▷ Butanoic acid, B-00604
▷ 1,4-Dioxane, D-00985
▷ Ethyl acetate, E-00062
- C₄H₈O₂S**
(Ethylsulfonyl)ethene, E-00114
Mercaptoacetic acid; *S*-Et, *in* M-00016
▷ Mercaptoacetic acid; Et ester, *in* M-00016
Mercaptoacetic acid; *S*-Me, Me ester, *in* M-00016
2-Mercaptoethanol; *O*-Ac, *in* M-00031
2-Mercaptoethanol; *S*-Ac, *in* M-00031
3-Mercaptopropanoic acid; Me ester, *in* M-00052
3-Methylmercaptopropanoic acid, *in* M-00052
2-(Methylthio)propanoic acid, *in* M-00051
▷ Tetrahydrothiophene-1,1-dioxide, T-00069
- C₄H₈O₂S₂**
1,4-Dithiane; 1,1-Dioxide, *in* D-01111
- C₄H₈O₃**
2-Hydroxypropanoic acid; Me ester, *in* H-00516
Sarcosine; Me ester, *in* H-00516
- C₄H₈O₃S**
2-(Ethenylsulfonyl)ethanol, E-00048
- C₄H₈O₅S**
Sulfoacetic acid; Carboxy-Et ester, *in* S-00039
- C₄H₈S₂**
1,4-Dithiane, D-01111
- C₄H₉ClMg**
▷ Butylchloromagnesium, B-00622
- C₄H₉ClO₂**
▷ 2-Chloro-1,1-dimethoxyethane, *in* C-00053
- C₄H₉Cl₂OP**
(2-Methylpropyl)phosphonic acid; Dichloride, *in* M-00262
- C₄H₉Cl₂O₄P**
Bis(2-chloroethyl) phosphate, B-00281
- C₄H₉I**
▷ 1-Iodobutane, I-00042
- C₄H₉N**
▷ Pyrrolidine, P-00440
- C₄H₉NO**
▷ 2-Butanone; Oxime, *in* B-00608
Butyramide, *in* B-00604
▷ Morpholine, M-00344
- C₄H₉NOS**
Ethyl *N*-methylthiocarbamate, *in* M-00154
Mercaptoacetic acid; *S*-Et, amide, *in* M-00016
- C₄H₉NO₂**
Alanine; Me ester, *in* A-00074
▷ Butyl nitrite, B-00633
N-Hydroxybutanamide, H-00142
▷ *N*-(2-Hydroxyethyl)acetamide, *in* A-00171
- C₄H₉NO₂S**
Methyl cysteine, *in* C-00370
- C₄H₉NS**
N,N-Dimethylthioacetamide, *in* E-00038
- C₄H₉N₃S**
▷ 2-(1-Methylethylidene)hydrazinecarbothioamide, *in* A-00007
- C₄H₁₀ClO₃P**
▷ Diethyl phosphorochloridate, D-00355
- C₄H₁₀Cl₂NO₃P**
Bis(2-chloroethyl) phosphoramidate, *in* B-00281
- C₄H₁₀N₂**
▷ Piperazine, P-00237
- C₄H₁₀N₂O**
N-(2-Aminoethyl)acetamide, *in* E-00024
Butanoic acid; Hydrazide, *in* B-00604
- C₄H₁₀N₂O₄S**
2-[(2-Amino-2-oxoethyl)amino]ethanesulfonic acid, A-00293
- C₄H₁₀N₂S**
▷ Thiourea; *N*-Tri-Me, *in* T-00175
- C₄H₁₀N₃O₅P**
N-Phosphocreatine, P-00214
- C₄H₁₀N₄**
2,3-Butanedione dihydrazone, *in* B-00587
- C₄H₁₀NaO₃PSe**
O,O-Diethylphosphoroselenoic acid; Na salt, *in* D-00357
- C₄H₁₀O**
▷ 1-Butanol, B-00606
▷ 2-Butanol, B-00607
▷ Diethyl ether, D-00346
▷ 2-Methyl-1-propanol, M-00255
- C₄H₁₀OS**
▷ 2-Mercaptoethanol; *S*-Et, *in* M-00031
3-Methylthio-1-propanol, *in* M-00053
- C₄H₁₀OS₂**
3-Methoxy-1,2-propanedithiol, *in* D-00763
- C₄H₁₀O₂**
▷ 2,3-Butanediol, B-00586
▷ 1,1-Dimethoxyethane, *in* A-00002
- C₄H₁₀O₂S₂**
1,4-Dimercapto-2,3-butanediol, D-00752
- C₄H₁₀O₃**
2-Methoxy-1,3-propanediol, *in* G-00015
3-Methoxy-1,2-propanediol, *in* G-00015
- C₄H₁₀O₃S**
1-Butanesulfonic acid, B-00603
- C₄H₁₀O₄S**
▷ Diethyl sulfate, D-00358
- C₄H₁₀S₃**
2,2'-Thiobisethanethiol, T-00157
- C₄H₁₁BO₂**
tert-Butylboronic acid, B-00620
Butyldihydroxyborane, B-00626
- C₄H₁₁N**
▷ Butylamine, B-00616
▷ Diethylamine, D-00314
- C₄H₁₁NO**
▷ 2-Ethylaminoethanol, *in* A-00171
O-(1-Methylpropyl)hydroxylamine, M-00259
O-(2-Methylpropyl)hydroxylamine, M-00260
- C₄H₁₁NO₃**
▷ 2-Amino-2-hydroxymethyl-1,3-propanediol, A-00198
- C₄H₁₁NO₈P₂**
▷ Glyphosate, G-00040
- C₄H₁₁NS**
▷ 2-(Dimethylamino)ethanethiol, *in* A-00170
- C₄H₁₁OPS₂**
Butylphosphonodithioic acid, B-00638
- C₄H₁₁O₂PS₂**
▷ *O,O*-Diethyl phosphorodithioate, D-00356
- C₄H₁₁O₃P**
(2-Methylpropyl)phosphonic acid, M-00262
Propyl hydrogen methylphosphonate, *in* M-00244
- C₄H₁₁O₃PSe**
O,O-Diethylphosphoroselenoic acid, D-00357
- C₄H₁₁O₄P**
Monobutyl phosphate, M-00338
- C₄H₁₂BrN**
▷ Tetramethylammonium(1+); Bromide, *in* T-00092
- C₄H₁₂Br₃N**
Tetramethylammonium(1+); Tribromide, *in* T-00092
- C₄H₁₂IN**
▷ Tetrammonium iodide, *in* T-00092
- C₄H₁₂N[⊕]**
Tetramethylammonium(1+), T-00092
- C₄H₁₂NOPS₃**
Phosphorotrithioic acid *O*-[2-(dimethylamino)ethyl]ester, P-00218
- C₄H₁₂NO₃P**
Diethylphosphoramidic acid, D-00353
- C₄H₁₂NP**
Tetramethylphosphinous amide, T-00102
- C₄H₁₂N₂**
N-Ethyl-1,2-ethanediamine, *in* E-00024
- C₄H₁₂N₂S**
2,2'-Thiobisethanamine, T-00156
- C₄H₁₂N₂S₂**
▷ Bis(2-aminoethyl) disulfide, B-00244
- C₄H₁₂O₄P₂S₄**
▷ Bis(dimethoxyphosphinothioyl) disulfide, B-00312
- C₄H₁₂Si**
▷ Tetramethylsilane, T-00103

- C₄H₁₃NO**
▷ Tetramethylammonium(1+); Hydroxide, *in* T-00092
- C₄H₁₃N₃**
▷ Diethylenetriamine, D-00345
- C₄H₁₅NSi₂**
N-(Dimethylsilyl)-1,1-dimethylsilanamine, D-00915
- C₄H₁₆BN**
Tetramethylammonium(1+); Borohydride, *in* T-00092
- C₅H₇ClN₃O₄**
2-Chloro-3,5-dinitropyridine, C-00107
- C₅H₂F₆O₂**
Hexafluoroacetylacetone, H-00030
- C₅H₂O₅**
4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571
- C₅H₃BrO₂**
5-Bromo-2-furancarboxaldehyde, B-00507
- C₅H₃ClO₂**
▷ 2-Furancarboxylic acid; Chloride, *in* F-00050
- C₅H₃FN₂O₂**
▷ 2-Fluoro-3-nitropyridine, F-00031
- C₅H₃F₃N₂O**
1-(Trifluoroacetyl)-1*H*-imidazole, T-00241
- C₅H₃F₆NO₂**
N-Methylbis(trifluoroacetamide), *in* B-00461
- C₅H₃F₇O₂**
Heptafluorobutanoic acid; Me ester, *in* H-00004
- C₅H₃NO**
2-Cyanofuran, *in* F-00050
- C₅H₃NO₄**
▷ 5-Nitro-2-furancarboxaldehyde, N-00109
- C₅H₃N₃**
Pyrazinecarbonitrile, *in* P-00285
- C₅H₃N₃O**
Pyrazinecarboxylic acid; Nitrile, 1-oxide, *in* P-00285
- C₅H₄ClN**
▷ 2-Chloropyridine, C-00252
- C₅H₄ClNO₂**
5-Chloro-3-hydroxy-2(1*H*)-pyridinone, C-00151
- C₅H₄Cl₂O₂**
▷ 2-Methylenebutanedioic acid; Dichloride, *in* M-00176
- C₅H₄N₂O₂**
Pyrazinecarboxylic acid, P-00285
- C₅H₄N₂O₃**
2,6-Dihydroxy-3-nitrosopyridine, D-00673
4-Hydroxy-3-nitroso-2(1*H*)-pyridinone, H-00419
Pyrazinecarboxylic acid; 1-Oxide, *in* P-00285
- C₅H₄N₂O₃S**
6-Hydroxy-2-mercapto-4-pyrimidinecarboxylic acid, H-00261
- C₅H₄N₂O₄**
5-Nitro-2-furancarboxaldehyde; (*E*)-Oxime, *in* N-00109
▷ Orotic acid, O-00045
- C₅H₄N₄O**
▷ Hypoxanthine, H-00564
- C₅H₄N₄OS**
6-Hydroxy-8-mercaptopurine, H-00260
- C₅H₄N₄O₂**
▷ Hypoxanthine; 1-Oxide, *in* H-00564
1*H*-Pyrazolo[3,4-*d*]pyrimidine-4,6(5*H*,7*H*)-dione, P-00302
- C₅H₄N₄S**
1,3-Dihydro-2*H*-purine-2-thione, D-00478
- C₅H₄OS**
▷ 2-Thiophenecarboxaldehyde, T-00169
- C₅H₄OS₂**
2-Thiophenecarbothioic acid, T-00167
- C₅H₄OSe**
2-Selenophenecarboxaldehyde, S-00006
- C₅H₄O₂**
▷ 2-Furancarboxaldehyde, F-00042
3-Furancarboxaldehyde, F-00043
- C₅H₄O₂S**
2-Furancarbothioic acid, F-00040
- C₅H₄O₃**
▷ 2-Furancarboxylic acid, F-00050
2-Methylenebutanedioic acid; Anhydride, *in* M-00176
- C₅H₄O₄**
1-Hydroxy-2-methoxycyclobutenedione, *in* D-00569
- C₅H₅ClO₃**
Fumaric acid; Mono-Me ester; B,HCl, *in* F-00038
- C₅H₅Cl₃O₂**
Trichloroacetic acid; Allyl ester, *in* T-00218
- C₅H₅F₃OS**
1,1,1-Trifluoro-4-thioxo-2-pentanone, T-00265
- C₅H₅F₃O₂**
1,1,1-Trifluoro-2,4-pentanedione, T-00257
- C₅H₅F₅O₂**
Pentafluoropropanoic acid; Et ester, *in* P-00021
- C₅H₅N**
▷ Pyridine, P-00316
- C₅H₅NO**
▷ Pyridine *N*-oxide, P-00356
Pyrrole; *N*-Formyl, *in* P-00436
- C₅H₅NO₃**
1-Hydroxy-2(1*H*)-pyridinethione, *in* P-00357
3-Hydroxy-2(1*H*)-pyridinethione, H-00520
2-Pyridinethiol *N*-oxide, *in* P-00357
1*H*-Pyrrole-2-carbothioic acid, P-00437
2-Thiophenecarboxaldehyde; Oxime, *in* T-00169
- C₅H₅NOSe**
2-Selenophenecarboxaldehyde; Oxime, *in* S-00006
- C₅H₅NO₂**
3-Furancarboxaldehyde; Oxime, *in* F-00043
2-Furancarboxaldehyde; (*E*)-Oxime, *in* F-00042
2-Furancarboxamide, *in* F-00050
3-Hydroxy-2(1*H*)-pyridinone, H-00521
Methyl β-cyanoacrylate, *in* F-00038
▷ 1*H*-Pyrrole-2,5-dione; *N*-Me, *in* P-00439
- C₅H₅NO₂S**
N-Hydroxy-2-thiophenecarboxamide, H-00554
- C₅H₅NO₃**
1,3-Dihydroxy-2(1*H*)-pyridinone, *in* H-00521
2-Furohydroxamic acid, F-00064
- C₅H₅NS**
▷ 2(1*H*)-Pyridinethione, P-00357
- C₅H₅N₃O**
▷ Pyrazinecarboxamide, *in* P-00285
- C₅H₅N₃O₂S**
2-Amino-6-mercapto-4-pyrimidinecarboxylic acid, A-00231
- C₅H₅N₃O₄**
▷ 5-Aminoortotic acid, A-00290
2,4,5,6(1*H*,3*H*)-Pyrimidinetetrone 5-oxime; Me ether, *in* P-00428
- C₅H₆**
▷ 2-Methyl-1-buten-3-yne, M-00149
- C₅H₆Br₂N₂O₂**
▷ 1,3-Dibromo-5,5-dimethyl-2,4-imidazolidinedione, D-00185
- C₅H₆Cl₂N₂O₂**
▷ 1,3-Dichloro-5,5-dimethyl-2,4-imidazolidinedione, *in* D-00866
- C₅H₆Cl₄O₂**
2,2,2-Trichloro-*tert*-butyloxycarbonyl chloride, T-00221
- C₅H₆I₂N₂O₂**
▷ 1,3-Diiodo-5,5-dimethyl-2,4-imidazolidinedione, *in* D-00866
- C₅H₆N₂**
▷ 2-Aminopyridine, A-00333
- C₅H₆N₂O**
▷ *N*-Acetylimidazole, *in* I-00001
2-Amino-3-hydroxypyridine, A-00216
- C₅H₆N₂OS**
2,3-Dihydro-2-thioxo-4(1*H*)-pyrimidinone; 1-Me, *in* D-00494
2,3-Dihydro-2-thioxo-4(1*H*)-pyrimidinone; 3-Me, *in* D-00494
5-Ethylidene-2-thioxo-4-imidazolidinone, E-00095
2-Furanthiocarboxylhydrazide, *in* F-00040
2-(Methylthio)-4(1*H*)-pyrimidinone, *in* D-00494
- C₅H₆N₂OS₂**
4,5-Dihydro-3-methyl-5-oxo-1*H*-pyrazole-4-carbodithioic acid, D-00440
- C₅H₆N₂O₂**
1,2-Dihydro-3,6-pyridazinedione; 1-Me, *in* D-00481
▷ 2-Furoylhydrazine, *in* F-00050
1*H*-Imidazole; *N*-Methoxycarbonyl, *in* I-00001
▷ Thymine, T-00179
- C₅H₆N₂O₄**
4,5-Dihydro-1*H*-pyrazole-3,4-dicarboxylic acid, D-00480
- C₅H₆N₂S₂**
2-Cyano-3-iminodithiobutyric acid, C-00328
2-Thiophenecarbothioic acid; Hydrazide, *in* T-00167
- C₅H₆N₄O₂S₂**
(4-Methyl-5-nitro-2-thiazolyl)thiourea, M-00208
- C₅H₆O₂**
1,2-Cyclopentanedione, C-00362
2-Pentenedial, P-00038
- C₅H₆O₃**
2,3,4-Pentane-trione, P-00033
- C₅H₆O₄**
2,3-Dioxobutanoic acid; Me ester, *in* D-00986
Fumaric acid; Mono-Me ester, *in* F-00038
2-Methylenebutanedioic acid, M-00176
- C₅H₇ClO₄**
3-[(Chlorocarbonyl)oxy]butanoic acid, C-00078
- C₅H₇IN₂**
Pyrazine; B, MeI, *in* P-00283
- C₅H₇NOS**
4-Methyl-2(3*H*)-thiazolone; *N*-Me, *in* M-00316
- C₅H₇NOS₂**
3-Ethyl-2-thioxo-4-thiazolidinone, *in* T-00176
- C₅H₇NO₂**
1,2-Cyclopentanedione; Oxime, *in* C-00362
▷ Ethyl cyanoacetate, *in* C-00324
Glutarimide, G-00014
- C₅H₇NO₃**
2,3,4-Pentane-trione; 2-Oxime, *in* P-00033
- C₅H₇NO₄S₂**
Bis(carboxymethyl)dithiocarbamic acid, B-00279
- C₅H₇NS₂**
2-Mercapto-4,5-dimethylthiazole, M-00029

- C₅H₇N₂O₃P**
Isopropylphosphonic acid; Diisocyanate, *in* I-00077
- C₅H₇N₃**
▷ 2,3-Diaminopyridine, D-00118
▷ 2,6-Diaminopyridine, D-00119
- C₅H₇N₃O**
2,6-Diaminopyridine; 1-Oxide, *in* D-00119
- C₅H₇N₃S**
2-Pyrrolothiocarboxylhydrazide, *in* P-00437
- C₅H₇N₅**
Pyrazinecarboximidic acid hydrazide, P-00284
3-Pyridazylhydrazidine, P-00314
2-Pyrimidinecarboximidic acid hydrazide, P-00426
4-Pyrimidinecarboximidic acid hydrazide, P-00427
- C₅H₈CIN**
2-Chloro-3-methylbutanoic acid; Nitrile, *in* C-00174
- C₅H₈Cl₂O**
2-Chloro-3-methylbutanoic acid; Chloride, *in* C-00174
- C₅H₈Cl₂O₂**
1,3-Dichloro-2-propanol; Ac, *in* D-00298
- C₅H₈N₂**
3,5-Dimethyl-1*H*-pyrazole, D-00904
- C₅H₈N₂O₂**
1,2-Cyclopentanedione dioxime, *in* C-00362
▷ 5,5-Dimethyl-2,4-imidazolidinedione, D-00866
2-Hydroxyimino-6-oxopiperidine, *in* G-00014
2-Methylenebutanedioic acid; Diamide, *in* M-00176
- C₅H₈N₂O₂S**
Thiourea; *N,S*-Di-Ac, *in* T-00175
- C₅H₈N₂O₃**
2,3,4-Pentane-trione; 2,3-Dioxime, *in* P-00033
- C₅H₈N₂O₃S**
4-[(Aminothioxomethyl)amino]-4-oxobutanoic acid, A-00362
- C₅H₈N₄O**
5,6-Diamino-2-methyl-4(1*H*)-pyrimidinone, D-00104
- C₅H₈N₄O₅**
1-Thiocarbamido-3-methyl-5-pyrazolone, T-00160
- C₅H₈N₄O₂**
2,3-Dihydro-5-methyl-2-ureido-3*H*-pyrazol-3-one, D-00460
- C₅H₈O**
▷ Cyclopentanone, C-00364
- C₅H₈O₅**
2-Thio-2,4-pentanedione, T-00165
- C₅H₈O₂**
▷ Isopropenyl acetate, *in* P-00270
▷ Methyl methacrylate, *in* M-00256
▷ 2,3-Pentanedione, P-00029
▷ 2,4-Pentanedione, P-00030
▷ 2-Propen-1-ol; Ac, *in* P-00271
- C₅H₈O₃**
Pyruvic acid; Et ester, *in* P-00448
- C₅H₈O₃S**
2-Mercaptopropanoic acid; *S*-Ac, *in* M-00051
- C₅H₈O₄**
▷ Dimethyl malonate, *in* P-00261
- C₅H₈BrO₂**
2-Bromobutanoic acid; Me ester, *in* B-00496
- C₅H₉ClO**
▷ Pivaloyl chloride, *in* D-00899
- C₅H₉ClO₂**
2-Chloro-3-methylbutanoic acid, C-00174
Isobutyl chloroformate, I-00057
- C₅H₉N**
2-Cyano-2-methylpropane, *in* D-00899
- C₅H₉NO**
4-Amino-3-penten-2-one, A-00294
▷ Cyclopentanone; Oxime, *in* C-00364
3,4-Dihydro-5-methoxy-2*H*-pyrrole, *in* P-00443
4-Imino-2-pentanone, *in* P-00030
▷ 2-Isocyanato-2-methylpropane, I-00063
- C₅H₉NOS₂**
▷ 4-Morpholinecarbodithioic acid, M-00345
- C₅H₉NO₂**
Isonitrosoacetylacetone, *in* P-00030
▷ Isonitrosodiethyl ketone, *in* P-00029
▷ Isonitrosopropyl methyl ketone, *in* P-00029
▷ 4-Morpholinecarboxaldehyde, *in* M-00344
▷ Proline, P-00257
- C₅H₉NO₂S**
O-Ethyl acetylcarbamothioate, *in* T-00159
S-Ethyl acetylcarbamothioate, *in* T-00159
- C₅H₉NO₃**
Alanine; *N*-Ac, *in* A-00074
Pyruvic acid; Et ester, oxime, *in* P-00448
- C₅H₉NS₂**
1-Pyrrolidinecarbodithioic acid, P-00441
- C₅H₉N₃OS**
2,3-Butanedione; Thiosemicarbazone, *in* B-00587
1,6-Dihydro-5-hydroxy-3-mercapto-6,6-dimethyl-1,2,4-triazine, D-00409
- C₅H₉N₃O₂**
Glutarimide dioxime, *in* G-00014
- C₅H₉N₃O₃**
2,3,4-Pentane-trione; Trioxime, *in* P-00033
- C₅H₉N₅**
2,4,6-Triaminopyrimidine; *N*⁴-Me, *in* T-00194
- C₅H₉N₅O**
2-Guanidino-1,2-dihydro-5-methyl-3*H*-pyrazol-3-one, G-00045
2,4,6-Triaminopyrimidine; *N*⁴-Me, *N*¹-oxide, *in* T-00194
- C₅H₁₀NNaS₂**
Sodium diethyldithiocarbamate, *in* D-00344
- C₅H₁₀N₂O**
Proline; Amide, *in* P-00257
- C₅H₁₀N₂O₂**
Ethylmethylglyoxime, *in* P-00029
2,4-Pentanedione; Dioxime, *in* P-00030
- C₅H₁₀N₂S**
Hexahydro-2*H*-1,3-diazepine-2-thione, H-00037
▷ 2-Imidazolidinethione; 1,3-Di-Me, *in* I-00003
Tetrahydro-4-methyl-2(1*H*)-pyrimidinethione, T-00064
- C₅H₁₀N₂S₂**
1-Piperazinecarbodithioic acid, P-00238
- C₅H₁₀N₄OS**
2,3-Butanedione; Monoxime, thiosemicarbazone, *in* B-00587
- C₅H₁₀N₄O₂**
2,3-Butanedione; Monoxime, semicarbazone, *in* B-00587
- C₅H₁₀N₄S**
4-Amino-2,4-dihydro-5-propyl-3*H*-1,2,4-triazole-3-thione, A-00157
 α -Thiosemicarbazidoisobutyric acid; Nitrile, *in* T-00174
- C₅H₁₀N₄S₂**
N-2-Propenyl-1,2-hydrazinedicarbothioamide, P-00272
- C₅H₁₀O**
2,2-Dimethylpropanal, D-00897
▷ 2-Pentanone, P-00036
- C₅H₁₀OS**
Ethanethioic acid; *O*-Propyl ester, *in* E-00038
Ethanethioic acid; *S*-Propyl ester, *in* E-00038
- C₅H₁₀OS₂**
Dithiocarbonic acid; *O*-Butyl ester, *in* D-01125
Dithiocarbonic acid; *S,S*-Di-Et ester, *in* D-01125
- C₅H₁₀OSi**
(Trimethylsilyl)ethanone, T-00340
- C₅H₁₀O₂**
▷ 2,2-Dimethylpropanoic acid, D-00899
▷ Methyl butyrate, *in* B-00604
Propyl acetate, *in* P-00265
- C₅H₁₀O₂S**
2-Mercaptopropanoic acid; Et ester, *in* M-00051
2-Mercaptopropanoic acid; Me ester, *S*-Me ether, *in* M-00051
3-Mercaptopropanoic acid; *S*-Me, Me ester, *in* M-00052
3-Mercapto-1-propanol; *O*-Ac, *in* M-00053
3-Mercapto-1-propanol; *S*-Ac, *in* M-00053
- C₅H₁₀O₃**
▷ 2-Methoxyethyl acetate, *in* M-00087
- C₅H₁₁BrMg**
Pentylmagnesium bromide, P-00041
- C₅H₁₁ClOSi**
(Trimethylsilyl)acetyl chloride, *in* T-00339
- C₅H₁₁ClSi**
Chlorodimethyl-2-propenylsilane, C-00104
- C₅H₁₁N**
▷ Piperidine, P-00241
- C₅H₁₁NO**
2,2-Dimethylpropanal; Oxime, *in* D-00897
2,2-Dimethylpropanoic acid; Amide, *in* D-00899
▷ Morpholine; *N*-Me, *in* M-00344
2-Pentanone; Oxime, *in* P-00036
- C₅H₁₁NOS**
O-Ethyl dimethylcarbamothioate, *in* T-00159
Isopropyl *N*-methylthiocarbamate, *in* M-00154
- C₅H₁₁NOS₂**
Diethyldithiocarbamic acid; *S*-Oxide, *in* D-00344
- C₅H₁₁NO₂**
Alanine; Et ester, *in* A-00074
▷ 3-Methyl-1-butyl nitrite, M-00151
Morpholine; *N*-Me, *N*-Oxide, *in* M-00344
Trimethylacetohydroxamic acid, T-00324
- C₅H₁₁NO₂S₂**
▷ Bis(2-hydroxyethyl)carbamidithioic acid, B-00373
- C₅H₁₁NO₃**
Alanine; *N*-(2-Hydroxyethyl), *in* A-00074
- C₅H₁₁NO₃S₂**
[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl] carbamidithioic acid, H-00138
- C₅H₁₁NS₂**
Butyldithiocarbamic acid, B-00631
▷ Diethyldithiocarbamic acid, D-00344
- C₅H₁₁NSe₂**
Diethyldiselenocarbamic acid, D-00343
- C₅H₁₁N₃O₂**
Biuret; 1,3,5-Tri-Me, *in* B-00474
- C₅H₁₁N₃O₂S**
 α -Thiosemicarbazidoisobutyric acid, T-00174
- C₅H₁₂NO₂PS₃**
S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Di-Et, *in* T-00161
- C₅H₁₂N₂**
▷ 1-Aminopiperidine, A-00329

- C₅H₁₂N₂Se**
Selenourea; *N,N,N',N'*-Tetra-Me, *in* S-00009
- C₅H₁₂N₄OS**
 α -Thiosemicarbazidoisobutyric acid; Amide, *in* T-00174
- C₅H₁₂O**
▷ 3-Methyl-1-butanol, M-00147
3-Methyl-2-butanol, M-00148
▷ 1-Pentanol, P-00034
▷ 2-Pentanol, P-00035
- C₅H₁₂OS**
Ethyl 3-mercaptopropyl ether, *in* M-00053
3-Ethylthio-1-propanol, *in* M-00053
- C₅H₁₂O₂**
▷ Diethoxymethane, *in* F-00035
1,1-Dimethoxypropane, *in* P-00259
2,2-Dimethoxypropane, *in* A-00007
- C₅H₁₂O₂Si**
Trimethylsilylacetic acid, T-00339
- C₅H₁₂O₃**
1,3-Dimethoxy-2-propanol, *in* G-00015
2,3-Dimethoxy-1-propanol, *in* G-00015
- C₅H₁₂O₃S**
1-Butanesulfonic acid; Me ester, *in* B-00603
1-Pentanesulfonic acid, P-00032
- C₅H₁₃N**
▷ Butylamine; *N*-Me, *in* B-00616
- C₅H₁₃NO**
▷ 2-Isopropylaminoethanol, *in* A-00171
O-Pentylhydroxylamine, P-00040
- C₅H₁₃NOSi**
N-Methyl-*N*-(trimethylsilyl)formamide, M-00331
▷ *N*-(Trimethylsilyl)acetamide, T-00338
- C₅H₁₃NO₂**
1,1-Dimethoxy-*N,N*-dimethylmethanamine, D-00774
- C₅H₁₃N₃S₂**
Bis(2-aminoethyl)dithiocarbamic acid, B-00245
- C₅H₁₃OPS₂**
O-Methyl butylphosphonodithioate, *in* B-00638
- C₅H₁₃O₃P**
Dimethyl isopropylphosphonate, *in* I-00077
- C₅H₁₃O₄P**
Diethyl (hydroxymethyl)phosphonate, *in* H-00318
- C₅H₁₄ClN₃O**
Girard's reagent T; Chloride, *in* G-00009
- C₅H₁₄N₃O[⊕]**
Girard's reagent T, G-00009
- C₅H₁₅NSi**
▷ Trimethyl(dimethylamino)silane, T-00326
- C₆BaCl₂O₄**
Barium chloroanilate, *in* D-00262
- C₆Br₂F₄**
1,4-Dibromo-2,3,5,6-tetrafluorobenzene, D-00216
- C₆ClF₅O₂S**
Pentafluorobenzenesulfonyl chloride, P-00011
- C₆Cl₂HgO₄**
Mercury chloroanilate, *in* D-00262
- C₆Cl₄O₂**
▷ Tetrachloro-1,4-benzoquinone, T-00025
- C₆Cl₆**
▷ Hexachlorobenzene, H-00021
- C₆F₄O₂**
Tetrafluoro-1,4-benzoquinone, T-00047
- C₆F₆**
▷ Hexafluorobenzene, H-00031
- C₆F₁₀O₃**
Pentafluoropropanoic acid; Anhydride, *in* P-00021
- C₆H₂Br₂ClNO**
▷ 2,6-Dibromo-4-(chloroimino)-2,5-cyclohexadien-1-one, D-00180
- C₆H₂Br₂O₄**
2,5-Dibromo-3,6-dihydroxy-1,4-benzoquinone, D-00182
- C₆H₂Br₄O₂**
▷ Tetrabromo-1,2-benzenediol, T-00012
- C₆H₂ClN₃O₃**
▷ 4-Chloro-7-nitrobenzofurazan, C-00189
- C₆H₂ClN₃O₄**
4-Chloro-7-nitrobenzofurazan; 1-Oxide, *in* C-00189
- C₆H₂ClN₃O₆**
▷ 2-Chloro-1,3,5-trinitrobenzene, C-00268
- C₆H₂Cl₂O₂**
2,5-Dichloro-1,4-benzoquinone, D-00250
▷ 2,6-Dichloro-1,4-benzoquinone, D-00251
- C₆H₂Cl₂O₄**
▷ 2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone, D-00262
- C₆H₂Cl₃NO**
▷ 2,6-Dichloro-4-(chloroimino)-2,5-cyclohexadien-1-one, D-00257
- C₆H₂FN₃O₃**
4-Fluoro-7-nitrobenzofurazan, F-00030
- C₆H₂F₈O₂**
1,1,1,5,5,6,6,6-Octafluoro-2,4-hexanedione, O-00003
- C₆H₂N₂O₃**
2,3-Pyrazinedicarboxylic acid; Anhydride, *in* P-00286
- C₆H₂N₄**
2,3-Dicyanopyrazine, *in* P-00286
- C₆H₂O₆**
5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone, D-00570
- C₆H₃BF₄N₄O₄**
2,4-Dinitrobenzenediazonium(1+); Tetrafluoroborate(1-), *in* D-00938
- C₆H₃Br₃O**
▷ 2,4,6-Tribromophenol, T-00205
- C₆H₃Br₃O₃**
4,5,6-Tribromo-1,2,3-benzenetriol, T-00204
- C₆H₃ClN₂O₄**
▷ 1-Chloro-2,4-dinitrobenzene, C-00106
- C₆H₃ClN₂O₄S**
7-Chloro-4-benzofurazansulfonic acid, C-00063
▷ 2,4-Dinitrobenzenesulfonyl chloride, D-00943
- C₆H₃ClN₂O₆S**
2,4-Dinitrobenzenesulfonic acid; Chloride, *in* D-00944
- C₆H₃ClN₄O₃**
6-Chloro-1-hydroxy-4-nitro-1*H*-benzotriazole, C-00137
- C₆H₃Cl₂NO₂**
2,5-Dichloro-4-nitrosophenol, *in* D-00250
2,6-Dichloro-4-nitrosophenol, *in* D-00251
- C₆H₃Cl₃O₂S**
2,5-Dichlorobenzenesulfonic acid; Chloride, *in* D-00248
- C₆H₃FN₂O₄**
▷ 1-Fluoro-2,4-dinitrobenzene, F-00027
- C₆H₃FN₂O₄S**
7-Fluoro-4-benzofurazansulfonic acid, F-00023
- C₆H₃F₅N₂**
▷ (Pentafluorophenyl)hydrazine, P-00020
- C₆H₃N₃O₂S**
4-Hydroxy-5-nitroso-2,1,3-benzothiadiazole, H-00408
5-Hydroxy-4-nitroso-2,1,3-benzothiadiazole, H-00409
- C₆H₃N₃O₆**
1,2,4-Trinitrobenzene, T-00348
▷ 1,3,5-Trinitrobenzene, T-00349
- C₆H₃N₃O₇**
▷ 2,4,6-Trinitrophenol, T-00355
- C₆H₃N₃O₈**
▷ 2,4,6-Trinitro-1,3-benzenediol, T-00350
- C₆H₃N₃O₉S**
▷ 2,4,6-Trinitrobenzenesulfonic acid, T-00351
- C₆H₃N₄O₄[⊕]**
2,4-Dinitrobenzenediazonium(1+), D-00938
- C₆H₄BF₄N₃O₂**
4-Nitrobenzenediazonium(1+); Tetrafluoroborate, *in* N-00084
- C₆H₄BrClO₂S**
4-Bromobenzenesulfonic acid; Chloride, *in* B-00487
- C₆H₄Br₂O₂S**
4-Bromobenzenesulfonic acid; Bromide, *in* B-00487
- C₆H₄ClO₂S**
4-Iodobenzenesulfonyl chloride, *in* I-00039
- C₆H₄CINO**
▷ 4-(Chloroimino)-2,5-cyclohexadien-1-one, C-00164
2-Pyridinecarboxylic acid; Chloride, *in* P-00342
- C₆H₄CINO₂**
4-Chloro-2-nitrosophenol, C-00190
- C₆H₄CINO₂S**
▷ 2-Nitrobenzenesulfonyl chloride, N-00088
- C₆H₄Cl₂N₂O₂**
2,5-Dichloro-1,4-benzoquinone; Dioxime, *in* D-00250
- C₆H₄Cl₂O₃S**
2,5-Dichlorobenzenesulfonic acid, D-00248
- C₆H₄FN₃O₃S**
7-Fluoro-4-benzofurazansulfonamide, *in* F-00023
- C₆H₄FN₃O₄**
5-Fluoro-2,4-dinitroaniline, F-00026
- C₆H₄F₂NO₄P**
4-Nitrophenyl phosphorodifluoridate, *in* M-00340
- C₆H₄N₂**
2-Cyanopyridine, *in* P-00342
- C₆H₄N₂O₃S**
▷ 4-Diazobenzenesulfonic acid, D-00142
2-Diazoniumbenzenesulfonate, *in* S-00040
- C₆H₄N₂O₄**
4,5-Dihydroxy-3,6-diimino-1,2-benzoquinone, D-00573
▷ 1,2-Dinitrobenzene, D-00935
▷ 1,3-Dinitrobenzene, D-00936
▷ 1,4-Dinitrobenzene, D-00937
2,3-Pyrazinedicarboxylic acid, P-00286
- C₆H₄N₂O₄S**
▷ 2,4-Dinitrobenzenethiol, D-00945
- C₆H₄N₂O₅**
4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid, D-00674
▷ 2,3-Dinitrophenol, D-00957
▷ 2,4-Dinitrophenol, D-00958
▷ 2,5-Dinitrophenol, D-00959
▷ 2,6-Dinitrophenol, D-00960
▷ 3,4-Dinitrophenol, D-00961

- C₆H₄N₂O₆**
 ▷ 2,4-Dinitro-1,3-benzenediol, D-00940
 3,4-Dinitro-1,2-benzenediol, D-00941
 3,5-Dinitro-1,2-benzenediol, D-00942
- C₆H₄N₂O₅S**
 ▷ 2,4-Dinitrobenzenesulfonic acid, D-00944
- C₆H₄N₂Se**
 2,1,3-Benzoselenadiazole-*Se*^{IV}, B-00084
- C₆H₄N₃O₂[⊕]**
 ▷ 4-Nitrobenzenediazonium(1+), N-00084
- C₆H₄N₄**
 ▷ 2-Amino-1-propene-1,1,3-tricarbonitrile, A-00330
- C₆H₄N₄OS₃**
 5-(2-Thiazolylazo)-2-thioxo-4-thiazolidinone, T-00146
- C₆H₄N₄O₃**
 4-Amino-7-nitrobenzofurazan, A-00282
- C₆H₄N₄S**
 3-(2-Thiazolyl)-1,2,4-triazine, T-00148
- C₆H₄O₂**
 ▷ 1,2-Benzoquinone, B-00075
 ▷ 1,4-Benzoquinone, B-00076
- C₆H₄O₃S₃**
 2,6-Dimercapto-4-oxo-4*H*-thiopyran-3-carboxylic acid, D-00759
- C₆H₄O₄**
 2,5-Dihydroxy-1,4-benzoquinone, D-00540
- C₆H₄O₅**
 Aconitic acid; Anhydride, *in* A-00061
 5-Hydroxy-4-oxo-4*H*-pyran-2-carboxylic acid, H-00434
- C₆H₄O₆**
 Tetrahydroxy-1,4-benzoquinone, T-00072
- C₆H₅BCl₂O₂**
 (2,4-Dichlorophenyl)dihydroxyborane, D-00293
 (2,6-Dichlorophenyl)dihydroxyborane, D-00294
 (3,5-Dichlorophenyl)dihydroxyborane, D-00295
- C₆H₅BiCl₂**
 Dichlorophenylbismuthine, D-00292
- C₆H₅BrO₂**
 4-Bromo-1,3-benzenediol, B-00486
- C₆H₅BrO₃S**
 4-Bromobenzenesulfonic acid, B-00487
- C₆H₅Br₂NO₂S**
N,N-Dibromobenzenesulfonamide, D-00179
- C₆H₅ClF₃NO₂S**
 3-(Trifluoroacetyl)-4-thiazolidinecarboxylic acid; Chloride, *in* T-00243
- C₆H₅ClO**
 ▷ 4-Chlorophenol, C-00196
- C₆H₅ClOS**
 ▷ Benzenesulfonic acid; Chloride, *in* B-00025
- C₆H₅ClO₂**
 ▷ 4-Chloro-1,3-benzenediol, C-00061
- C₆H₅ClO₂S**
 ▷ Benzenesulfonic acid; Chloride, *in* B-00026
- C₆H₅Cl₂NO₂S**
 Dichloramine B, *in* B-00026
 2,5-Dichlorobenzenesulfonic acid; Amide, *in* D-00248
- C₆H₅F₇O₂**
 ▷ Heptafluorobutanoic acid; Et ester, *in* H-00004
- C₆H₅IO₃S**
 4-Iodobenzenesulfonic acid, I-00039
- C₆H₅NO**
 Nitrosobenzene, N-00155
- 2-Pyridinecarboxaldehyde, P-00318
 3-Pyridinecarboxaldehyde, P-00319
 4-Pyridinecarboxaldehyde, P-00320
- C₆H₅NO₂**
 3-Hydroxy-2-pyridinecarboxaldehyde, H-00518
 ▷ Nitrobenzene, N-00083
 ▷ 2-Nitrosophenol, *in* B-00075
 3-Pyridinecarboxaldehyde; *N*-Oxide, *in* P-00319
 ▷ 2-Pyridinecarboxylic acid, P-00342
 ▷ 3-Pyridinecarboxylic acid, P-00343
- C₆H₅NO₃**
 ▷ 2-Nitrophenol, N-00117
 ▷ 3-Nitrophenol, N-00118
 ▷ 4-Nitrophenol, N-00119
 ▷ 4-Nitroso-1,3-benzenediol, N-00156
 2-Pyridinecarboxylic acid; 1-Oxide, *in* P-00342
- C₆H₅NO₄**
 ▷ 2,6-Dihydroxy-4-pyridinecarboxylic acid, D-00721
 4-Nitro-1,2-benzenediol, N-00087
- C₆H₅N₂O₃S[⊕]**
 ▷ 2-Sulfobenzenediazonium(1+), S-00040
- C₆H₅N₃**
 6-Amino-3-pyridinecarbonitrile, *in* A-00334
 ▷ 1*H*-Benzotriazole, B-00110
- C₆H₅N₃OS**
 ▷ Benzenesulfinyl azide, *in* B-00025
- C₆H₅N₃O₅**
 ▷ 2-Amino-4,6-dinitrophenol, A-00164
- C₆H₅N₃O₆S**
 2,4-Dinitrobenzenesulfonic acid; Amide, *in* D-00944
- C₆H₅N₃O₆S₃**
 7-Amino-2,1,3-benzothiadiazole-4,6-disulfonic acid, A-00112
- C₆H₅N₅O₃**
 4-Hydrazino-7-nitrobenzofurazan, H-00084
- C₆H₆AsNO₅**
 ▷ 2-Nitrophenylarsonic acid, N-00121
- C₆H₆AsNO₆**
 ▷ 4-Hydroxy-3-nitrophenylarsonic acid, H-00392
- C₆H₆BBrO₂**
 ▷ (4-Bromophenyl)dihydroxyborane, B-00549
- C₆H₆BNO₄**
 ▷ Dihydroxy(3-nitrophenyl)borane, D-00670
- C₆H₆BrNO₂S**
 Bromamine B, *in* B-00026
 ▷ 4-Bromobenzenesulfonic acid; Amide, *in* B-00487
- C₆H₆BrN₃O₅**
 5-Bromo-2-furancarboxaldehyde; Thiosemicarbazone, *in* B-00507
- C₆H₆Br₂N₂**
 1,2-Diamino-3,5-dibromobenzene, D-00067
- C₆H₆CIN**
 ▷ 2-Chloroaniline, C-00058
 ▷ 3-Chloroaniline, C-00059
 ▷ 4-Chloroaniline, C-00060
- C₆H₆CINO₂S**
 Chloramine B, *in* B-00026
- C₆H₆CINS**
 2-Amino-4-chlorobenzenethiol, A-00135
- C₆H₆CIN₃OS**
 5-Chloro-2-furancarboxaldehyde thiosemicarbazone, C-00119
- C₆H₆Cl₂N₂**
 1,2-Diamino-4,5-dichlorobenzene, D-00069
- C₆H₆F₃NO₃S**
 3-(Trifluoroacetyl)-4-thiazolidinecarboxylic acid, T-00243
- C₆H₆NO₄Sb**
 4-Nitrophenylstibinic acid, N-00144
- C₆H₆NO₆P**
 Mono(4-nitrophenyl) phosphate, M-00340
- C₆H₆N₂O**
 2-Acetylpyrazine, A-00033
 4-Nitrosoaniline, N-00154
 ▷ 2-Pyridinecarboxaldehyde; Oxime, *in* P-00318
 ▷ 3-Pyridinecarboxaldehyde; Oxime, *in* P-00319
 4-Pyridinecarboxaldehyde; Oxime, *in* P-00320
 ▷ 3-Pyridinecarboxamide, P-00341
- C₆H₆N₂O₂**
 2-Amino-5-nitrosophenol, A-00285
 6-Amino-3-pyridinecarboxylic acid, A-00334
 1,2-Benzoquinone; Dioxime, *in* B-00075
 ▷ 1,4-Benzoquinone; Dioxime, *in* B-00076
 ▷ 1-Hydroxy-2-phenyldiazene 2-oxide, H-00471
 3-Hydroxy-2-pyridinecarboxaldehyde; Oxime, *in* H-00518
N-Hydroxy-3-pyridinecarboxamide, *in* P-00341
 ▷ 4-Nitroaniline, N-00077
 Pyrazinecarboxylic acid; Me ester, *in* P-00285
 3-Pyridinecarboxamide; *N*-Oxide, *in* P-00341
- C₆H₆N₂O₃**
 Pyrazinecarboxylic acid; Me ester, 1-oxide, *in* P-00285
 Pyrazinecarboxylic acid; Me ester, 4-oxide, *in* P-00285
- C₆H₆N₂O₄**
 Orotic acid; Me ester, *in* O-00045
- C₆H₆N₂S**
 2-Pyridinecarbothioamide, P-00317
- C₆H₆N₄**
 Nitrilotriacetoneitrile, *in* N-00074
- C₆H₆N₄OS**
 1,7-Dihydro-8-methylthio-6*H*-purin-6-one, *in* H-00260
- C₆H₆N₄O₂**
 2,3-Pyrazinedicarboxylic acid; Diamide, *in* P-00286
- C₆H₆N₄O₄**
 ▷ (2,4-Dinitrophenyl)hydrazine, D-00972
 ▷ Nitrofurazone, *in* N-00109
- C₆H₆N₄S₂**
 2,2'-Dithiobis-1*H*-imidazole, *in* D-00424
- C₆H₆O**
 ▷ Phenol, P-00060
- C₆H₆OS₃**
 2,6-Dimercapto-3-methyl-4*H*-thiopyran-4-one, D-00758
- C₆H₆O₂**
 ▷ 1,2-Benzenediol, B-00020
 ▷ 1,3-Benzenediol, B-00021
 ▷ 1,4-Benzenediol, B-00022
 ▷ 5-Methyl-2-furancarboxaldehyde, M-00179
- C₆H₆O₂S**
 Benzenesulfonic acid, B-00025
 2-Mercapto-1,3-benzenediol, M-00020
 4-Mercapto-1,3-benzenediol, M-00021
- C₆H₆O₂Se**
 ▷ Benzeneseleninic acid, B-00024
- C₆H₆O₂Te**
 Phenyltellurous acid, P-00197
- C₆H₆O₃**
 ▷ 1,2,3-Benzenetriol, B-00034
 ▷ 1,2,4-Benzenetriol, B-00035
 ▷ 1,3,5-Benzenetriol, B-00036
 ▷ 1,2,3-Cyclohexanetriol, C-00346
 ▷ 2-Furancarboxylic acid; Me ester, *in* F-00050
 ▷ 3-Hydroxy-2-methyl-4*H*-pyran-4-one, H-00323
 2-Oxo-3-butyric acid; Et ester, *in* O-00058
 2-Propenoic acid; Anhydride, *in* P-00269
- C₆H₆O₃S**
 ▷ Benzenesulfonic acid, B-00026
- C₆H₆O₄**
 1,2-Dimethoxycyclobutenedione, *in* D-00569
 ▷ 5-Hydroxy-2-(hydroxymethyl)-4*H*-pyran-4-one, H-00222

- C₆H₆O₄S**
S-Acetylmercaptosuccinic anhydride, *in* M-00026
 Sulfuric acid monophenyl ester, *in* P-00060
- C₆H₆O₅S**
 3,4-Dihydroxybenzenesulfonic acid, D-00527
- C₆H₆O₆**
 ▶ Aconitic acid, A-00061
- C₆H₆O₆S**
 2,3,4-Trihydroxybenzenesulfonic acid, T-00274
- C₆H₆O₇S₂**
 4-Hydroxy-1,3-benzenedisulfonic acid, H-00111
- C₆H₆O₈S₂**
 2,5-Dihydroxy-1,4-benzenedisulfonic acid, D-00526
 ▶ Tiron, T-00186
- C₆H₆S**
 ▶ Benzenethiol, B-00030
- C₆H₇AsO₃**
 ▶ Phenylarsonic acid, P-00090
- C₆H₇AsO₄**
 ▶ (4-Hydroxyphenyl)arsonic acid, H-00447
- C₆H₇BO₂**
 ▶ Phenylidihydroxyborane, P-00112
- C₆H₇ClIN**
 2-Chloro-1-methylpyridinium(1+); Iodide, *in* C-00185
- C₆H₇CIN[⊕]**
 2-Chloro-1-methylpyridinium(1+), C-00185
- C₆H₇CIN₂**
 ▶ 1,2-Diamino-4-chlorobenzene, D-00064
- C₆H₇N**
 ▶ Aniline, A-00368
 ▶ 2-Methylpyridine, M-00264
 ▶ 4-Methylpyridine, M-00265
- C₆H₇NO**
 ▶ 2-Aminophenol, A-00300
 ▶ 3-Aminophenol, A-00301
 ▶ 4-Aminophenol, A-00302
 2-Cyanocyclopentanone, *in* O-00060
 ▶ 4-Methylpyridine; *N*-Oxide, *in* M-00265
 ▶ *N*-Phenylhydroxylamine, P-00135
 Pyrrole; *N*-Ac, *in* P-00436
- C₆H₇NOS**
 Benzenesulfonic acid; Amide, *in* B-00025
 1-Hydroxy-4-methyl-2(1*H*)-pyridinethione, *in* M-00274
 3-Methyl-2-pyridinethiol; *N*-Oxide, *in* M-00273
 5-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00275
 6-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00276
 2(1*H*)-Pyridinethione; *S*-Me, *N*-Oxide, *in* P-00357
 1*H*-Pyrrole-2-carbothioic acid; *S*-Me ester, *in* P-00437
- C₆H₇NO₂**
N-Ethylmaleimide, *in* P-00439
 3-Hydroxy-2(1*H*)-pyridinone; *N*-Me, *in* H-00521
 3-Methylene-2,6-piperidinedione, M-00178
 5-Methyl-2-furancarboxaldehyde; Oxime, (*E*-), *in* M-00179
 5-Methyl-2-furancarboxaldehyde; Oxime, (*Z*-), *in* M-00179
- C₆H₇NO₂S**
 ▶ Benzenesulfonic acid; Amide, *in* B-00026
- C₆H₇NO₃**
 2,5-Pyrrolidinedione; *N*-Ac, *in* P-00442
- C₆H₇NO₃S**
 2-Aminobenzenesulfonic acid, A-00099
 ▶ 4-Aminobenzenesulfonic acid, A-00100
 ▶ Benzenesulfohydroxamic acid, *in* B-00026
- C₆H₇NO₄S**
 3-Amino-4-hydroxybenzenesulfonic acid, A-00183
 ▶ 2-Hydroxy-2-(2-pyridyl)methanesulfonic acid, H-00524
- C₆H₇NO₅**
 2,5-Dioxo-4-oxazolidinepropanoic acid, D-00993
- C₆H₇NS**
 ▶ 2-Aminobenzenethiol, A-00101
 3-Methyl-2-pyridinethiol, M-00273
 4-Methyl-2(1*H*)-pyridinethione, M-00274
 5-Methyl-2(1*H*)-pyridinethione, M-00275
 6-Methyl-2(1*H*)-pyridinethione, M-00276
 ▶ 2(1*H*)-Pyridinethione; *N*-Me, *in* P-00357
 2(1*H*)-Pyridinethione; *S*-Me, *in* P-00357
- C₆H₇N₃**
 3-Pyridinecarboxaldehyde; Hydrazone, *in* P-00319
- C₆H₇N₃O**
 ▶ 6-Aminonicotinamide, *in* A-00334
 ▶ Isoniazid, I-00069
 2-Pyridinecarboxylic acid; Hydrazone, *in* P-00342
 ▶ 3-Pyridinecarboxylic acid; Hydrazone, *in* P-00343
- C₆H₇N₃OS**
 2-Furancarboxaldehyde thiosemicarbazone, *in* F-00042
- C₆H₇N₃O₂**
 ▶ 1,2-Diamino-4-nitrobenzene, D-00108
 Nicotinamidoxime, *in* P-00341
 ▶ (2-Nitrophenyl)hydrazine, N-00137
 ▶ (4-Nitrophenyl)hydrazine, N-00138
- C₆H₇N₃O₂S**
 2-Amino-6-(methylthio)-4-pyrimidinecarboxylic acid, *in* A-00231
- C₆H₇N₃O₃**
 2,6-Dihydroxy-4-pyridinecarboxylic acid; Hydrazone, *in* D-00721
- C₆H₇N₃S**
 2-Pyridinylthiourea, P-00410
- C₆H₇N₃S₂**
 2-Thiophenecarboxaldehyde; Thiosemicarbazone, *in* T-00169
- C₆H₇N₅O₃S**
 7-Hydrazino-4-benzofurazansulfonamide, H-00081
- C₆H₇O₂P**
 Phenylphosphinic acid, P-00163
- C₆H₇O₂PS₂**
 ▶ *O,O*-Di-2-propynyl phosphorodithioate, D-01061
- C₆H₇O₃P**
 ▶ Phenylphosphonic acid, P-00164
- C₆H₈AsNO₃**
 ▶ 2-Aminophenylarsonic acid, A-00306
 ▶ 4-Aminophenylarsonic acid, A-00307
- C₆H₈CIN₂O**
 Amiloride, A-00090
- C₆H₈Cl₂O₂**
 Hexanedioic acid; Dichloride, *in* H-00062
- C₆H₈F₃NO₃**
N-(Trifluoroacetyl)glycine; Et ester, *in* T-00240
- C₆H₈NO₄P**
 (Hydroxy-3-pyridinylmethyl)phosphoric acid, H-00523
- C₆H₈N₂**
 ▶ 1,2-Diaminobenzene, D-00046
 ▶ 1,3-Diaminobenzene, D-00047
 ▶ 1,4-Diaminobenzene, D-00048
 ▶ 1,4-Dicyanobutane, *in* H-00062
 2-Methylaminopyridine, *in* A-00333
 ▶ Phenylhydrazine, P-00134
- C₆H₈N₂O**
 2,5-Diaminophenol, D-00111
- C₆H₈N₂OS**
 2,3-Dihydro-2-thioxo-4(1*H*)-pyrimidinone; 1,3-Di-Me, *in* D-00494
 2-(Ethylthio)-4(1*H*)-pyrimidinone, *in* D-00494
 5-Propylidene-2-thioxo-4-imidazolidinone, P-00278
- C₆H₈N₂O₂**
 4,5-Diamino-1,2-benzenediol, D-00049
 1,2-Dihydro-3,6-pyridazinedione; 1,2-Di-Me, *in* D-00481
 1*H*-Imidazole; *N*-Ethoxycarbonyl, *in* I-00001
 6-Methoxy-2-methyl-3(2*H*)-pyridazinone, *in* D-00481
- C₆H₈N₂O₂S**
 2-Aminobenzenesulfonic acid; Amide, *in* A-00099
 ▶ Sulfanilamide, *in* A-00100
- C₆H₈N₂O₃**
 1,3-Dimethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetriene, *in* P-00429
 2,4,6(1*H*,3*H*,5*H*)-Pyrimidinetriene; *N*-Et, *in* P-00429
- C₆H₈N₂O₃S**
 ▶ 4-Hydrazinobenzenesulfonic acid, H-00080
- C₆H₈N₂O₄**
 Glyoxal bis-*O*-acetylloxime, *in* G-00037
- C₆H₈N₄O**
 ▶ 6-Amino-3-pyridinecarboxylic acid; Hydrazone, *in* A-00334
- C₆H₈N₄O₂S₂**
N-Methyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, *in* M-00208
- C₆H₈N₄O₃**
 ▶ Daxime, D-00002
- C₆H₈N₁₂O₂**
 Bis(1*H*-tetrazol-5-ylazo)acetic acid; Et ester, *in* B-00459
- C₆H₈O₂**
 ▶ 1,2-Cyclohexanedione, C-00337
 ▶ 1,3-Cyclohexanedione, C-00338
 1,4-Cyclohexanedione, C-00339
 3-Methyl-1,2-cyclopentanedione, M-00159
- C₆H₈O₃**
 2-Oxocyclopentanecarboxylic acid, O-00060
- C₆H₈O₄**
 ▶ Fumaric acid; Di-Me ester, *in* F-00038
 2-Methylenebutanedioic acid; 4-Mono-Me ester, *in* M-00176
- C₆H₈O₆**
 Ascorbic acid, A-00446
 Dihydroxyfumaric acid; Di-Me ester, *in* D-00567
- C₆H₈O₇**
 ▶ Citric acid, C-00299
- C₆H₉CIN₂**
 1-Chloromethyl-3,5-dimethylpyrazole, *in* D-00904
- C₆H₉F₃O₂**
 Trifluoroacetic acid; *tert*-Butyl ester, *in* T-00239
- C₆H₉NO₂**
N-Hydroxy-2,4-hexadienamide, H-00185
 ▶ 2-Pyrrolidinone; *N*-Ac, *in* P-00443
- C₆H₉NO₂S₂**
 2-Carboxy-1-pyrrolidinecarbodithioic acid, C-00044
- C₆H₉NO₄**
 Ethyl- α -isonitrosoacetoacetate, *in* D-00986
- C₆H₉NO₄S**
 Arabinopyranosyl isothiocyanate, A-00399
- C₆H₉NO₆**
 ▶ Nitrilotriacetic acid, N-00074

- C₆H₉NS₂**
2-Amino-1-cyclopentene-1-dithiocarboxylic acid, A-00147
- C₆H₉N₃**
▷ 1,2,4-Triaminobenzene, T-00192
- C₆H₉N₃OS**
N-(2-Furanylmethyl)hydrazinocarbothioamide, F-00057
- C₆H₉N₃O₂**
▷ Cupferron, in H-00471
2,6-Dihydroxyimino-3-methylenepiperidine, in M-00178
- C₆H₉N₃O₃**
Aconitic acid; Triamide, in A-00061
Niconoxime, in C-00346
- C₆H₉N₅O₂**
6-Amino-2-(dimethylamino)-5-nitroso-4(1*H*)-pyrimidinone, A-00161
- C₆H₉N₇O₃**
4-Hydrazino-7-nitrobenzofurazan; Compd. with hydrazine (1:1), in H-00084
- C₆H₁₀N₂O₂**
1,3-Cyclohexanedione; Dioxime, in C-00338
1,4-Cyclohexanedione; Dioxime, in C-00339
3-Methyl-1,2-cyclopentanedione; Dioxime, in M-00159
Nioxime, in C-00337
- C₆H₁₀N₂O₃**
N-[2-(Hydroxyimino)-1-methylpropylidene]glycine, H-00247
- C₆H₁₀N₂O₅**
N-Acetamidoinodiactic acid, in N-00074
- C₆H₁₀N₂S**
1,2,3-Trimethyl-3-pyrazoline-5-thione, in D-00451
- C₆H₁₀N₂S₄**
1,4-Piperazinedicarbodithioic acid, P-00239
- C₆H₁₀N₄O₂**
5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedione; 1,3-Di-Me, in D-00120
- C₆H₁₀O**
▷ Cyclohexanone, C-00347
▷ 4-Methyl-3-penten-2-one, M-00219
- C₆H₁₀O₂**
Ethyl methacrylate, in M-00256
▷ 2,5-Hexanedione, H-00063
4-Methoxy-3-penten-2-one, in P-00030
- C₆H₁₀O₂S₂**
O-[(Tetrahydro-2-furanyl)methyl]carbonodithioate, T-00062
- C₆H₁₀O₂S₃**
Xanthic acid; Anhydride, in X-00002
- C₆H₁₀O₃**
Ethyl acetoacetate, E-00063
Glyoxylic acid; *tert*-Butyl ester, in G-00038
- C₆H₁₀O₃S**
2-Mercaptoethanol; Di-Ac, in M-00031
- C₆H₁₀O₄**
Dimethyl succinate, in S-00034
▷ Hexanedioic acid, H-00062
- C₆H₁₀O₄S₂**
2,3-Dimercaptobutanedioic acid; Di-Me ester, in D-00751
Ethylenedithiodiacetic acid, E-00080
- C₆H₁₀O₅**
▷ Cellulose, C-00049
▷ Diethyl dicarbonate, in D-00243
▷ Starch, S-00025
- C₆H₁₀O₆**
Dimethyl tartrate, in T-00002
- C₆H₁₀O₇**
Glucuronic acid, G-00013
- C₆H₁₀O₈**
▷ Galactaric acid, G-00001
Tetrahydroxybutanedioic acid; Di-Me ester, in T-00073
- C₆H₁₁ClO**
Hexanoic acid; Chloride, in H-00066
- C₆H₁₁N**
▷ Hexanenitrile, in H-00066
- C₆H₁₁NO**
Cyclohexanone; Oxime, in C-00347
5-Ethoxy-3,4-dihydro-2*H*-pyrrole, in P-00443
4-Methyl-3-penten-2-one; Oxime, in M-00219
- C₆H₁₁NOS₂**
4-Morpholinecarbodithioic acid; Me ester, in M-00345
- C₆H₁₁NO₂**
Cyanodithoxymethane, in G-00038
2,5-Hexanedione; Monoxime, in H-00063
Proline; Me ester, in P-00257
- C₆H₁₁NO₃**
Adipamic acid, in H-00062
- C₆H₁₁NS**
Hexahydro-2*H*-azepine-2-thione, H-00036
- C₆H₁₁NS₂**
1-Piperidinedicarbodithioic acid, P-00242
- C₆H₁₁N₃O₄**
Citramide, in C-00299
- C₆H₁₁N₅**
2,4,6-Triaminopyrimidine; *N*²,*N*²-Di-Me, in T-00194
2,4,6-Triaminopyrimidine; *N*⁴,*N*⁴-Di-Me, in T-00194
2,4,6-Triaminopyrimidine; *N*⁴-Et, in T-00194
2,4,6-Triaminopyrimidine; *N*⁴,*N*⁶-Di-Me, in T-00194
- C₆H₁₁O₂PS₂**
O,O-Di-2-propenyl phosphorodithioate, D-01058
- C₆H₁₂F₃NOSi**
▷ *N*-Methyl-*N*-(trimethylsilyl)trifluoroacetamide, M-00332
- C₆H₁₂N₂O₂**
N,N-1,2-Ethanedilylacetamide, in E-00024
▷ Hexanediamide, in H-00062
2,5-Hexanedione; Dioxime, in H-00063
N-Hydroxy-*N*-nitrosocyclohexanamine, H-00411
- C₆H₁₂N₂O₂S₂**
▷ *N,N'*-Bis(2-hydroxyethyl)ethanedithioamide, B-00374
- C₆H₁₂N₂O₆S₄**
N,N'-Bis(2-sulfoethyl)dithiooxamide), B-00455
- C₆H₁₂N₂S₂**
N-Methylpiperazinedithiocarbamic acid, in P-00238
- C₆H₁₂N₂S₃**
▷ Tetramethylthiocarbamic diamide, T-00105
- C₆H₁₂N₂S₄**
▷ Ethylenebisdithiocarbamic acid; Di-Me ester, in E-00072
▷ Tetramethylthiuram disulfide, T-00106
- C₆H₁₂N₂Si**
▷ 1-(Trimethylsilyl)-1*H*-imidazole, T-00341
- C₆H₁₂N₄**
▷ Hexamethylenetetramine, H-00057
3-Methyl-1,2-cyclopentanedione; Dihydrazone, in M-00159
- C₆H₁₂N₄O₃**
Nitrilotriacetic acid; Triamide, in N-00074
- C₆H₁₂O**
▷ 3,3-Dimethyl-2-butanone, D-00845
▷ 4-Methyl-2-pentanone, M-00218
- C₆H₁₂O₂**
▷ Butyl acetate, B-00615
- 2,2-Dimethylpropanoic acid; Me ester, in D-00899
▷ Ethyl butyrate, in B-00604
▷ Hexanoic acid, H-00066
▷ 2-Methylpropyl acetate, M-00257
- C₆H₁₂O₂S**
Mercaptoacetic acid; *S*-Et, Et ester, in M-00016
3-Mercapto-1-propanol; *S*-Me, *O*-Ac, in M-00053
- C₆H₁₂O₂S₂**
[[2-(Ethylthio)ethyl]thio]acetic acid, E-00119
- C₆H₁₂O₃**
▷ *tert*-Butyl peracetate, in P-00042
▷ Tetrahydro-2,5-dimethoxyfuran, T-00059
- C₆H₁₂O₄**
Diethoxyacetic acid, in G-00038
- C₆H₁₂O₄Si**
Diacetoxymethylsilane, D-00031
- C₆H₁₂O₅**
1,4-Anhydroglucitol, A-00367
- C₆H₁₂O₅S**
Sulfoacetic acid; Di-Et ester, in S-00039
- C₆H₁₂O₇**
▷ Gluconic acid, G-00011
- C₆H₁₃BO₂**
▷ Cyclohexylboronic acid, C-00352
- C₆H₁₃NO**
N-Butylacetamide, in B-00616
3,3-Dimethyl-2-butanone; Oxime, in D-00845
▷ Hexanamide, in H-00066
▷ Morpholine; *N*-Et, in M-00344
- C₆H₁₃NOS**
2-Aminoethanethiol; *N*-Di-Me, *S*-Ac, in A-00170
O-Isopropyl-*N*-ethylthiocarbamate, in T-00159
- C₆H₁₃NO₂**
N-Hydroxyhexanamide, H-00186
Trimethylacetohydroxamic acid; Me ester, in T-00324
- C₆H₁₃NO₄**
▷ [Bis(2-hydroxyethyl)amino]acetic acid, B-00367
- C₆H₁₃NO₄S**
2-(*N*-Morpholino)ethanesulfonic acid, M-00348
- C₆H₁₃NO₅**
[Tris(hydroxymethyl)methyl]amino]acetic acid, T-00407
- C₆H₁₃NS₂**
▷ Diethylthiocarbamic acid; Me ester, in D-00344
- C₆H₁₃N₃O₂**
Biuret; 1,1,3,5-Tetra-Me, in B-00474
- C₆H₁₄N₂**
▷ Hexahydro-1*H*-azepin-1-amine, H-00034
- C₆H₁₄N₂O**
▷ 4-Morpholinethanamine, M-00347
- C₆H₁₄N₄O₂**
▷ Arginine, A-00400
- C₆H₁₄O**
▷ Diisopropyl ether, D-00748
3,3-Dimethyl-2-butanol, D-00844
1-Methoxy-3-methylbutane, in M-00147
1-Methoxypentane, in P-00034
3-Methyl-2-butanol; Me ether, in M-00148
- C₆H₁₄O₂**
▷ 2-Butoxyethanol, B-00613
▷ 2-Methyl-2,4-pentanediol, M-00217
- C₆H₁₄O₂S₂**
3,3'-Dithiobis-1-propanol, in M-00053
- C₆H₁₄O₂Si**
3-(Trimethylsilyl)propanoic acid, T-00345

- C₆H₁₄O₃**
1,2,3-Trimethoxypropane, *in* G-00015
- C₆H₁₄O₃S**
1-Hexanesulfonic acid, H-00064
1-Pentanesulfonic acid; Me ester, *in* P-00032
- C₆H₁₄O₆**
Glucitol, G-00010
Mannitol, M-00008
- C₆H₁₅BO₂**
tert-Butylboronic acid; Di-Me ester, *in* B-00620
- C₆H₁₅BrTe**
Triethyltelluronium; Bromide, *in* T-00237
- C₆H₁₅ClSi**
▷ *tert*-Butylchlorodimethylsilane, B-00621
Chlorotriethylsilane, C-00265
- C₆H₁₅IS**
Triethylsulfonium(1+); Iodide, *in* T-00236
- C₆H₁₅N**
▷ Triethylamine, T-00231
- C₆H₁₅NO**
2-[(1,1-Dimethyl)amino]ethanol, *in* A-00171
- C₆H₁₅NOSi**
N-Methyl-*N*-(trimethylsilyl)acetamide, M-00330
- C₆H₁₅NO₃**
▷ Tris(2-hydroxyethyl)amine, T-00406
- C₆H₁₅NO₄**
Tris(2-hydroxyethyl)amine; *N*-Oxide, *in* T-00406
- C₆H₁₅NO₅S**
2-[Bis(2-hydroxyethyl)amino]ethanesulfonic acid, B-00369
- C₆H₁₅NO₆S**
2-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]ethanesulfonic acid, H-00136
- C₆H₁₅NS**
▷ 2-Aminoethanethiol; *N*-Di-Et, *in* A-00170
- C₆H₁₅OPS₂**
O-Ethyl butylphosphonodithioate, *in* B-00638
- C₆H₁₅O₂PS₂**
O,O-Diisopropyl phosphorodithioate, D-00750
O,O-Dipropyl phosphorodithioate, D-01060
O,O,S-Triethyl phosphorodithioate, T-00235
- C₆H₁₅S[⊕]**
Triethylsulfonium(1+), T-00236
- C₆H₁₅Te[⊕]**
Triethyltelluronium, T-00237
- C₆H₁₆NOPS₃**
Phosphorotriethic acid *O*-[2-(diethylamino)ethyl] ester, P-00217
- C₆H₁₆NO₃P**
Dimethyl diethylphosphoramidate, *in* D-00353
- C₆H₁₆N₂**
▷ Ethanediamine; *N,N'*-Di-Et, *in* E-00024
▷ 1,6-Hexanediamine, H-00061
- C₆H₁₆N₂O₂**
N,N'-Dihydroxy-2,3-dimethyl-2,3-butanediamine, D-00578
- C₆H₁₆O₃SSi**
3-(Trimethylsilyl)-1-propanesulfonic acid, T-00344
- C₆H₁₆O₆P₂**
Tetramethyl 1,2-ethanediylbisphosphonate, *in* E-00026
- C₆H₁₆O₇P₂**
Tetramethyl (1-hydroxyethylidene) bisphosphonate, *in* H-00178
- C₆H₁₇Cl₂NSi₂**
▷ Bis[(chloromethyl)dimethylsilyl]amine, B-00284
- C₆H₁₇N₃**
▷ 3,3'-Diaminodipropylamine, D-00092
- C₆H₁₈N₃OP**
▷ Hexamethylphosphoric triamide, H-00058
- C₆H₁₈N₄**
▷ Triethylenetetramine, T-00232
- C₆H₁₉NSi₂**
▷ Bis(trimethylsilyl)amine, B-00471
- C₆H₂₀N₂O₁₂P₄**
[[1,2-Ethanediy]bis[nitrilobis[methylene]]] tetrakisphosphonic acid, E-00032
- C₆N₄**
▷ Tetracyanoethylene, T-00037
- C₇ClF₅O**
Pentafluorobenzoic acid; Chloride, *in* P-00012
- C₇F₅N**
Pentafluorobenzonitrile, *in* P-00012
- C₇F₅NS**
Pentafluoroisothiocyanatobenzene, P-00018
- C₇HF₅N₂**
(Diazomethyl)pentafluorobenzene, D-00152
- C₇HF₅O**
Pentafluorobenzaldehyde, P-00010
- C₇HF₅O₂**
▷ Pentafluorobenzoic acid, P-00012
- C₇H₂BrF₅**
▷ (Bromomethyl)pentafluorobenzene, B-00532
- C₇H₂Br₃ClO₂**
2,4,6-Tribromophenyl chloroformate, T-00206
- C₇H₂Br₄O₂**
4,5,6,7-Tetrabromo-1,3-benzodioxole, *in* T-00012
- C₇H₂ClF₃N₂O₄**
▷ 2-Chloro-1,3-dinitro-5-(trifluoromethyl)benzene, C-00108
- C₇H₂CINO₄**
2-Chloro-5-cyano-3,6-dihydroxybenzoquinone, C-00090
- C₇H₂CIN₃O₇**
▷ 2,4,6-Trinitrobenzoic acid; Chloride, *in* T-00352
- C₇H₂F₅NO**
Pentafluorobenzaldehyde; Oxime, *in* P-00010
Pentafluorobenzoic acid; Amide, *in* P-00012
- C₇H₂F₁₀O₂**
1,1,1,2,2,6,6,7,7,7-Decafluoro-3,5-heptanedione, D-00003
1,1,1,5,5,6,6,7,7,7-Decafluoro-2,4-heptanedione, D-00004
- C₇H₃Cl₂O₂**
3,5-Diiodosalicylic acid; Chloride, *in* D-00745
- C₇H₃CIN₂O₅**
▷ 3,4-Dinitrobenzoic acid; Chloride, *in* D-00947
▷ 3,5-Dinitrobenzoic acid; Chloride, *in* D-00948
- C₇H₃Cl₂N**
2,4-Dichloro-1-cyanobenzene, *in* D-00249
- C₇H₃Cl₃O**
2,4-Dichlorobenzoic acid; Chloride, *in* D-00249
- C₇H₃Cl₃O₂**
2,4,5-Trichlorophenyl formate, *in* F-00037
- C₇H₃F₄NO₂**
1-Fluoro-2-nitro-4-(trifluoromethyl)benzene, F-00032
- C₇H₃F₅N₂**
Pentafluorobenzaldehyde; Hydrazone, *in* P-00010
- C₇H₃F₅O**
2,3,4,5,6-Pentafluorobenzyl alcohol, P-00014
- C₇H₃F₇N₂O**
1-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-1*H*-imidazole, H-00009
- C₇H₃N₃**
2,6-Dicyanopyridine, *in* P-00353
- C₇H₃N₃O₄**
▷ 1-Cyano-3,5-dinitrobenzene, *in* D-00948
- C₇H₃N₃O₅**
2-Cyano-4,6-dinitrophenol, *in* H-00154
- C₇H₃N₃O₈**
▷ 2,4,6-Trinitrobenzoic acid, T-00352
- C₇H₄BrClO**
4-Bromobenzoic acid; Chloride, *in* B-00488
- C₇H₄BrN**
▷ 1-Bromo-4-cyanobenzene, *in* B-00488
- C₇H₄BrNO₃S**
Saccharin; *N*-Br, *in* S-00001
- C₇H₄BrNS**
▷ 1-Bromo-4-isothiocyanatobenzene, B-00515
- C₇H₄Br₂O**
4-Bromobenzoic acid; Bromide, *in* B-00488
- C₇H₄Br₂O₅**
2,6-Dibromo-3,4,5-trihydroxybenzoic acid, D-00220
- C₇H₄Br₄O₂**
2,3,4,5-Tetrabromo-6-methoxyphenol, *in* T-00012
- C₇H₄ClFO**
▷ 4-Fluorobenzoic acid; Chloride, *in* F-00024
- C₇H₄ClF₃O₂S**
▷ 3-(Trifluoromethyl)benzenesulfonic acid; Chloride, *in* T-00251
- C₇H₄ClO**
4-Iodobenzoic acid; Chloride, *in* I-00041
- C₇H₄CIN**
▷ 1-Chloro-2-cyanobenzene, *in* C-00066
▷ 1-Chloro-4-cyanobenzene, *in* C-00067
- C₇H₄CINO₂S**
γ-Saccharin chloride, *in* C-00062
- C₇H₄CINO₃**
▷ 3-Nitrobenzoic acid; Chloride, *in* N-00092
▷ 4-Nitrobenzoic acid; Chloride, *in* N-00093
▷ 2-Nitrobenzoyl chloride, *in* N-00091
- C₇H₄CINS**
3-Chloro-1,2-benzisothiazole, C-00062
- C₇H₄Cl₂O**
2-Chlorobenzoic acid; Chloride, *in* C-00066
4-Chlorobenzoic acid; Chloride, *in* C-00067
2,4-Dichlorobenzaldehyde, D-00247
- C₇H₄Cl₂O₂**
▷ 2,4-Dichlorobenzoic acid, D-00249
- C₇H₄FN**
p-Fluorobenzonitrile, *in* F-00024
- C₇H₄F₅NO**
O-(Pentafluorobenzyl)hydroxylamine, P-00016
- C₇H₄IN**
1-Cyano-4-iodobenzene, *in* I-00041
- C₇H₄I₂O₃**
▷ 3,5-Diiodosalicylic acid, D-00745
- C₇H₄N₂O₂**
▷ 1-Cyano-2-nitrobenzene, *in* N-00091
▷ 1-Cyano-3-nitrobenzene, *in* N-00092
▷ 1-Cyano-4-nitrobenzene, *in* N-00093
- C₇H₄N₂O₂S₂**
▷ 6-Nitro-2(3*H*)-benzothiazolethione, N-00096
- C₇H₄N₂O₃**
2-Cyano-4-nitrophenol, *in* H-00383
- C₇H₄N₂O₆**
3,4-Dinitrobenzoic acid, D-00947
3,5-Dinitrobenzoic acid, D-00948

- C₇H₄N₂O₇**
2-Hydroxy-3,5-dinitrobenzoic acid, H-00154
- C₇H₄N₄O₃**
2-Nitrobenzoic acid; Azide, *in* N-00091
3-Nitrobenzoic acid; Azide, *in* N-00092
4-Nitrobenzoic acid; Azide, *in* N-00093
- C₇H₄N₄O₇**
2,4,6-Trinitrobenzoic acid; Amide, *in* T-00352
- C₇H₄O₇**
3-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic acid, H-00435
- C₇H₅BrN₂O₄**
1-Bromomethyl-2,4-dinitrobenzene, B-00522
- C₇H₅BrO₂**
▷ 4-Bromobenzoic acid, B-00488
5-Bromo-2-hydroxybenzaldehyde, B-00509
- C₇H₅Br₂O**
1,3,5-Tribromo-2-methoxybenzene, *in* T-00205
- C₇H₅ClHgO₂**
▷ (4-Carboxyphenyl)chloromercury, C-00039
- C₇H₅ClO**
▷ Benzoyl chloride, *in* B-00059
- C₇H₅ClO₂**
▷ 2-Chlorobenzoic acid, C-00066
▷ 4-Chlorobenzoic acid, C-00067
3-(5-Chloro-2-furanyl)-2-propenal, C-00120
4-Chloro-2-hydroxybenzaldehyde, C-00121
▷ 5-Chloro-2-hydroxybenzaldehyde, C-00122
5-Chloro-2-hydroxy-2,4,6-cycloheptatrien-1-one, C-00127
- C₇H₅ClO₃**
▷ 3-Chloroperbenzoic acid, C-00193
- C₇H₅ClO₅S**
2-Hydroxy-5-sulfobenzoic acid; Sulfonyl chloride, *in* H-00538
- C₇H₅Cl₂NO**
▷ 2,4-Dichlorobenzaldehyde; Oxime, *in* D-00247
2,4-Dichlorobenzoic acid; Amide, *in* D-00249
- C₇H₅FO₂**
4-Fluorobenzoic acid, F-00024
- C₇H₅F₃O₃S**
3-(Trifluoromethyl)benzenesulfonic acid, T-00251
- C₇H₅IO₂**
4-Iodobenzoic acid, I-00041
- C₇H₅IO₃**
2-Iodosylbenzoic acid, I-00053
- C₇H₅IO₄**
▷ 2-Iodylbenzoic acid, I-00055
- C₇H₅NO**
▷ Phenyl isocyanate, P-00138
- C₇H₅NOS**
2(3*H*)-Benzothiazolone, B-00090
▷ 2(3*H*)-Benzoxazolethione, B-00113
2-Hydroxybenzothiazole, H-00125
4-Hydroxybenzothiazole, H-00126
6-Hydroxybenzothiazole, H-00127
- C₇H₅NO₃**
▷ 2-Nitrobenzaldehyde, N-00081
▷ 4-Nitrobenzaldehyde, N-00082
- C₇H₅NO₃S**
▷ Saccharin, S-00001
- C₇H₅NO₄**
2-Hydroxy-4-nitrobenzaldehyde, H-00379
2-Hydroxy-5-nitrobenzaldehyde, H-00380
4-Hydroxy-2-nitrobenzaldehyde, H-00381
2-Hydroxy-5-nitro-2,4,6-cycloheptatrien-1-one, H-00388
2-Hydroxy-3-nitrosobenzoic acid, H-00406
▷ 2-Nitrobenzoic acid, N-00091
▷ 3-Nitrobenzoic acid, N-00092
▷ 4-Nitrobenzoic acid, N-00093
3-(5-Nitro-2-furanyl)-2-propenal, N-00110
4-Nitrophenyl formate, *in* F-00037
2,6-Pyridinedicarboxylic acid, P-00353
- C₇H₅NO₅**
2-Hydroxy-5-nitrobenzoic acid, H-00383
- C₇H₅NS**
▷ Phenyl isothiocyanate, P-00139
- C₇H₅NS₂**
2-Benzothiazolethiol, B-00089
- C₇H₅N₃O**
 α -(Hydroxyimino)-2-pyridineacetonitrile, H-00251
- C₇H₅N₃O₅**
3,5-Dinitrobenzamide, *in* D-00948
3,4-Dinitrobenzoic acid; Amide, *in* D-00947
- C₇H₅N₃O₆**
3,5-Dinitrobenzohydroxamic acid, D-00946
2-Hydroxy-3,5-dinitrobenzoic acid; Amide, *in* H-00154
- C₇H₅N₃O₇**
▷ 2-Methoxy-1,3,5-trinitrobenzene, *in* T-00355
- C₇H₅N₃S₃**
3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, P-00407
- C₇H₅N₅O₈**
▷ *N*-Methyl-*N*,2,4,6-tetranitroaniline, M-00312
- C₇H₆BrI**
1-Bromo-4-(iodomethyl)benzene, B-00514
- C₇H₆BrNO**
Benzamide; *N*-Bromo, *in* B-00008
▷ 4-Bromobenzamide, *in* B-00488
- C₇H₆BrNO₂**
5-Bromo-2-hydroxybenzaldehyde; Oxime, *in* B-00509
4-Bromo-*N*-hydroxybenzamide, B-00510
1-(Bromomethyl)-4-nitrobenzene, B-00530
- C₇H₆BrNO₃**
5-Bromo-*N*,2-dihydroxybenzamide, B-00503
2-(Bromomethyl)-4-nitrophenol, B-00531
- C₇H₆ClNO**
3-Aminobenzoic acid; Chloride, *in* A-00104
2-Chlorobenzamide, *in* C-00066
4-Chlorobenzamide, *in* C-00067
N-Chlorobenzamide, *in* B-00008
m-Chloroformanilide, *in* C-00059
p-Chloroformanilide, *in* C-00060
- C₇H₆ClNO₂**
2-Chlorobenzohydroxamic acid, C-00064
4-Chlorobenzohydroxamic acid, C-00065
5-Chloro-2-hydroxybenzaldehyde; Oxime, *in* C-00122
▷ 1-Chloromethyl-4-nitrobenzene, C-00178
- C₇H₆ClNO₅S**
4-Chloro-3-methyl-5-nitrobenzenesulfonic acid, C-00179
- C₇H₆Cl₂**
▷ 1-Chloro-2-(chloromethyl)benzene, C-00079
▷ 1-Chloro-4-(chloromethyl)benzene, C-00080
- C₇H₆Cl₂N₂O₃**
4,5-Dichloro-6-oxo-1(6*H*)-pyridazinepropanoic acid, D-00287
- C₇H₆FNO**
4-Fluorobenzoic acid; Amide, *in* F-00024
- C₇H₆F₃NO₂S**
3-(Trifluoromethyl)benzenesulfonic acid; Amide, *in* T-00251
- C₇H₆HgO₃**
▷ (2-Carboxyphenyl)hydroxymercury, C-00041
- C₇H₆INO**
4-Iodobenzoic acid; Amide, *in* I-00041
- C₇H₆INO₂**
2-Iodobenzohydroxamic acid, I-00040
1-Iodomethyl-4-nitrobenzene, I-00047
- C₇H₆N₂**
Phenyldiazomethane, P-00111
- C₇H₆N₂O**
4-Amino-2-hydroxybenzonitrile, *in* A-00184
- C₇H₆N₂O₃**
2-Nitrobenzaldehyde; (*E*)-Oxime, *in* N-00081
4-Nitrobenzaldehyde; (*E*)-Oxime, *in* N-00082
▷ 2-Nitrobenzoic acid; Amide, *in* N-00091
3-Nitrobenzoic acid; Amide, *in* N-00092
4-Nitrobenzoic acid; Amide, *in* N-00093
- C₇H₆N₂O₃S**
Saccharin; Oxime, *in* S-00001
- C₇H₆N₂O₄**
2-Hydroxy-5-nitrobenzaldehyde; Oxime, *in* H-00380
2-Nitrobenzohydroxamic acid, N-00089
3-Nitrobenzohydroxamic acid, N-00090
p-Nitrobenzohydroxamic acid, *in* N-00093
- C₇H₆N₂O₄S**
2,4-Dinitrothioanisole, *in* D-00945
- C₇H₆N₂O₅**
3,5-Dinitrobenzyl alcohol, D-00950
1-Methoxy-2,3-dinitrobenzene, *in* D-00957
▷ 1-Methoxy-2,4-dinitrobenzene, *in* D-00958
2-Methoxy-1,3-dinitrobenzene, *in* D-00960
▷ 2-Methoxy-1,4-dinitrobenzene, *in* D-00959
4-Methoxy-1,2-dinitrobenzene, *in* D-00961
- C₇H₆N₂O₆**
2-Methoxy-3,4-dinitrophenol, *in* D-00941
2-Methoxy-3,5-dinitrophenol, *in* D-00942
2-Methoxy-4,6-dinitrophenol, *in* D-00942
3-Methoxy-2,6-dinitrophenol, *in* D-00940
6-Methoxy-2,3-dinitrophenol, *in* D-00941
- C₇H₆N₂S**
▷ 2-Aminobenzothiazole, A-00113
2-Mercaptobenzimidazole, M-00022
- C₇H₆N₄S**
1*H*-Tetrazole-5-thiol; *S*-Ph, *in* T-00131
▷ Tetrazole-5-thione; 1-Ph, *in* T-00131
- C₇H₆O**
▷ Benzaldehyde, B-00004
- C₇H₆OS**
2-Mercapto-2,4,6-cycloheptatrien-1-one, M-00027
▷ Thiobenzoic acid, T-00155
- C₇H₆OS₂**
2-Hydroxydithiobenzoic acid, H-00175
4-Hydroxydithiobenzoic acid, H-00176
- C₇H₆O₂**
▷ Benzoic acid, B-00059
3-(2-Furanyl)-2-propenal, F-00060
▷ 2-Hydroxybenzaldehyde, H-00101
▷ 4-Hydroxybenzaldehyde, H-00102
Phenol; Formyl, *in* P-00060
▷ Tropolone, T-00432
- C₇H₆O₂S**
2-Hydroxybenzenecarbothioic acid, H-00110
▷ 2-Mercaptobenzoic acid, M-00023
- C₇H₆O₂S₂**
2,4-Dihydroxybenzenecarbothioic acid, D-00522
- C₇H₆O₃**
2,4-Dihydroxybenzaldehyde, D-00517
2,5-Dihydroxybenzaldehyde, D-00518
▷ 3,4-Dihydroxybenzaldehyde, D-00519
▷ 2-Hydroxybenzoic acid, H-00112
▷ 4-Hydroxybenzoic acid, H-00113
- C₇H₆O₃S**
2,4-Dihydroxybenzenecarbothioic acid, D-00523
3-(2-Furanyl)-2-mercapto-2-propenoic acid, F-00054
- C₇H₆O₄**
▷ 2,4-Dihydroxybenzoic acid, D-00531
▷ 2,5-Dihydroxybenzoic acid, D-00532
2,6-Dihydroxybenzoic acid, D-00533
▷ 3,5-Dihydroxybenzoic acid, D-00534
3,4,5-Trihydroxybenzaldehyde, T-00273
- C₇H₆O₅**
4,5-Dimethoxy-4-cyclopentene-1,2,3-trione, *in* D-00571

- 5-Hydroxy-4-oxo-4H-pyran-2-carboxylic acid; Me ester, *in* H-00434
 5-Methoxy-4-oxo-4H-pyran-2-carboxylic acid, *in* H-00434
 2,3,4-Trihydroxybenzoic acid, T-00276
 ▶ 3,4,5-Trihydroxybenzoic acid, T-00277
- C₇H₆O₅S**
 4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-sulfonic acid, H-00429
- C₇H₆O₆S**
 ▶ 2-Hydroxy-5-sulfobenzoic acid, H-00538
- C₇H₆O₇S**
 2,4-Dihydroxy-5-sulfobenzoic acid, D-00731
- C₇H₆S₂**
 Dithiobenzoic acid, D-01117
- C₇H₇Br**
 ▶ Benzyl bromide, B-00174
- C₇H₇BrO₂**
 2-Bromo-5-methoxyphenol, *in* B-00486
 4-Bromo-3-methoxyphenol, *in* B-00486
- C₇H₇BrO₃S**
 4-Bromobenzenesulfonic acid; Me ester, *in* B-00487
- C₇H₇Cl**
 ▶ Chloromethylbenzene, C-00173
- C₇H₇ClF₃NO₂**
 1-(Trifluoroacetyl)-2-pyrrolidinedicarbonyl chloride, T-00242
- C₇H₇CIN₂O**
 2-Chlorobenzoic acid; Hydrazide, *in* C-00066
 4-Chlorobenzoic acid; Hydrazide, *in* C-00067
- C₇H₇CIO**
 1-Chloro-4-methoxybenzene, *in* C-00196
- C₇H₇CIO₂**
 4-Chloro-3-methoxyphenol, *in* C-00061
- C₇H₇CIO₂S**
 Tosyl chloride, *in* M-00130
- C₇H₇Cl₂NO₂S**
N,N-Dichloro-4-methylbenzenesulfonamide, D-00285
- C₇H₇FO₂S**
 ▶ 4-Methylbenzenesulfonic acid; Fluoride, *in* M-00130
- C₇H₇I**
 ▶ Benzyl iodide, B-00186
- C₇H₇N**
 4-Vinylpyridine, V-00009
- C₇H₇NO**
 2-Acetylpyridine, A-00039
 2-Aminobenzaldehyde, A-00096
 ▶ 4-Aminobenzaldehyde, A-00097
 α-Benzaldoxime, *in* B-00004
 ▶ Benzamide, B-00008
 6-Methyl-2-pyridinecarboxaldehyde, M-00266
- C₇H₇NOS**
 Thiocarbamic acid; *O*-Ph ester, *in* T-00159
 Thiocarbamic acid; *S*-Ph ester, *in* T-00159
 Thiosalicylamide, *in* M-00023
- C₇H₇NO₂**
 ▶ 2-Aminobenzoic acid, A-00103
 ▶ 3-Aminobenzoic acid, A-00104
 ▶ 4-Aminobenzoic acid, A-00105
 ▶ 2-Hydroxybenzamide, *in* H-00112
 ▶ *N*-Hydroxybenzamide, H-00109
 2-Hydroxyformanilide, *in* A-00300
 3-Methoxy-2-pyridinecarboxaldehyde, *in* H-00518
 5-Methyl-2-nitrosophenol, M-00207
 6-Methyl-2-pyridinecarboxaldehyde; 1-Oxide, *in* M-00266
 6-Methyl-2-pyridinecarboxylic acid, M-00271
 2-Pyridinecarboxylic acid; Me ester, *in* P-00342
 ▶ Salicylaldoxime, *in* H-00101
- C₇H₇NO₂S**
 1-Acetoxy-2(1*H*)-pyridinethione, *in* P-00357
N-Hydroxy-3-(2-thienyl)-2-propenamide, H-00553
- C₇H₇NO₂S₃**
 (Phenylsulfonyl)carbonimidodithioic acid, P-00195
- C₇H₇NO₃**
 ▶ 4-Amino-2-hydroxybenzoic acid, A-00184
 1,2-Dihydro-6-methyl-2-oxo-3-pyridinecarboxylic acid, D-00441
 2,5-Dihydroxybenzaldehyde; Oxime, *in* D-00518
 3,4-Dihydroxybenzaldehyde; Oxime, *in* D-00519
 3-(2-Furanyl)-*N*-hydroxy-2-propenamide, F-00053
 3-Hydroxy-2(1*H*)-pyridinone; 3-Ac, *in* H-00521
 ▶ 1-Methoxy-2-nitrobenzene, *in* N-00117
 ▶ 1-Methoxy-3-nitrobenzene, *in* N-00118
 ▶ 1-Methoxy-4-nitrobenzene, *in* N-00119
 ▶ 3-Methoxy-4-nitrosophenol, *in* N-00156
 5-Methoxy-2-nitrosophenol, *in* N-00156
 2-Methyl-4-nitroso-1,3-benzenediol, M-00206
 6-Methyl-2-pyridinecarboxylic acid; 1-Oxide, *in* M-00271
 4-Nitrobenzyl alcohol, N-00097
 Resoreylaldoxime, *in* D-00517
 β-Resoreylamide, *in* D-00531
 Salicylhydroxamic acid, *in* H-00112
- C₇H₇NO₄**
 2,6-Dihydroxy-4-pyridinecarboxylic acid; Me ester, *in* D-00721
 ▶ 2-Methoxy-4-nitrophenol, *in* N-00087
 2-Methoxy-5-nitrophenol, *in* N-00087
 3,4,5-Trihydroxybenzaldehyde; Oxime, *in* T-00273
- C₇H₇NO₅S**
 2-Hydroxy-5-sulfobenzoic acid; Sulfonamide, *in* H-00538
- C₇H₇NO₆S**
 3-Amino-2-hydroxy-5-sulfobenzoic acid, A-00221
- C₇H₇N₃O₂**
o-Nitrobenzylidenehydrazine, *in* N-00081
 ▶ Phenylurea; 1-*N*-Nitroso, *in* P-00211
- C₇H₇N₃O₃**
N-Hydroxy-3-nitrobenzenecarboximidamide, H-00382
p-Nitrobenzhydrazide, *in* N-00093
- C₇H₇N₃O₅**
 2-Amino-4,6-dinitrophenol; *N*-Me, *in* A-00164
 2-Methoxy-3,5-dinitroaniline, *in* A-00164
- C₇H₇N₃S**
 5-Amino-2-benzimidazolethiol, A-00102
 ▶ 2-Hydrazinobenzothiazole, H-00083
- C₇H₇N₇**
 2,4-Diamino-6-(3-pyridazinyl)-1,3,5-triazine, D-00117
 2,4-Diamino-6-(2-pyrimidinyl)-1,3,5-triazine, D-00123
 2,4-Diamino-6-(4-pyrimidinyl)-1,3,5-triazine, D-00124
- C₇H₈BrNO₂S**
N-Bromo-4-methylbenzenesulfonamide, *in* M-00130
- C₇H₈CIN**
 2-Chloroaniline; *N*-Me, *in* C-00058
 3-Chloroaniline; *N*-Me, *in* C-00059
 4-Chloroaniline; *N*-Me, *in* C-00060
 ▶ 3-Chloro-4-methylaniline, C-00171
- C₇H₈CINO₂S**
 ▶ Chloramine T, *in* M-00130
- C₇H₈N₂**
 Benzamidine, B-00009
 Benzylidenehydrazine, *in* B-00004
- C₇H₈N₂O**
 Acepox, *in* A-00039
- 2-Aminobenzaldehyde; Oxime, *in* A-00096
 4-Aminobenzaldehyde; Oxime, *in* A-00097
 2-Aminobenzamide, *in* A-00103
 ▶ 3-Aminobenzoic acid; Amide, *in* A-00104
 4-Aminobenzoic acid; Amide, *in* A-00105
 2-Aminopyridine; 2-*N*-Ac, *in* A-00333
 Benzoylhydrazine, *in* B-00059
 2-Hydroxybenzaldehyde; Hydrazone, *in* H-00101
 6-Methyl-2-pyridinecarboxaldehyde; (*E*)-Oxime, *in* M-00266
 4-Nitrosoaniline; *N*-Me, *in* N-00154
 ▶ Phenylurea, P-00211
- C₇H₈N₂OS**
o-Hydroxythiobenzhydrazide, *in* H-00110
 2-Mercapto-*N*-2-pyridinylacetamide, M-00055
- C₇H₈N₂O₂**
 2-Amino-*N*-hydroxybenzamide, *in* A-00103
 3,4-Diaminobenzoic acid, D-00050
 ▶ 3,5-Diaminobenzoic acid, D-00051
 1,2-Diamino-4,5-methylenedioxybenzene, D-00103
 4-Hydrazinobenzoic acid, H-00082
 4-Hydroxybenzoic acid; Hydrazide, *in* H-00113
 1-Hydroxy-1-phenylurea, *in* P-00211
 3-Hydroxy-2-pyridinecarboxaldehyde; Me ether, oxime, *in* H-00518
 1-Methoxy-2-phenyldiazene 2-oxide, *in* H-00471
 4-Nitroaniline; *N*-Me, *in* N-00077
 4-Nitrobenzylamine, N-00098
 Salicylamidoxime, *in* H-00112
 ▶ Salicyloyl hydrazide, *in* H-00112
- C₇H₈N₂O₃**
O-(*p*-Nitrobenzyl)hydroxylamine, N-00099
- C₇H₈N₂O₃S**
 2-(Ethylthio)-6-hydroxy-4-pyrimidinecarboxylic acid, *in* H-00261
 6-Methoxy-2-methylthio-4-pyrimidinecarboxylic acid, *in* H-00261
- C₇H₈N₂O₄**
 Orotic acid; 1,3-Di-Me, *in* O-00045
 Orotic acid; Et ester, *in* O-00045
- C₇H₈N₂S**
 6-Methylthiopicolinamide, *in* M-00271
 ▶ Phenylthiourea, P-00201
 Thiobenzoic acid; Hydrazide, *in* T-00155
- C₇H₈N₂S₂**
 2-Aminophenylcarbomodithioic acid, A-00320
 4-Aminophenylcarbomodithioic acid, A-00321
- C₇H₈N₂Se**
 Selenourea; *N*-Ph, *in* S-00009
- C₇H₈N₄O**
 6-Hydroxy-7,9-dimethyl-7*H*-purinium hydroxide inner salt, *in* H-00564
 Hypoxanthine; 1,7-Di-Me, *in* H-00564
 Hypoxanthine; 1,9-Di-Me, *in* H-00564
 Hypoxanthine; 3,7-Di-Me, *in* H-00564
- C₇H₈N₄OS**
 3-Hydroxy-2-pyridinecarboxaldehyde; Thiosemicarbazone, *in* H-00518
- C₇H₈N₄O₂**
 1*H*-Pyrazolo[3,4-*d*]pyrimidine-4,6(5*H*,7*H*)-dione; 1,5-Di-Me, *in* P-00302
 1*H*-Pyrazolo[3,4-*d*]pyrimidine-4,6(5*H*,7*H*)-dione; 5,7-Di-Me, *in* P-00302
- C₇H₈N₄S**
 ▶ 2-(3-Pyridinylmethylene)hydrazinecarbothioamide, *in* P-00319
- C₇H₈N₄Se**
 2-Pyridinecarboxaldehyde; Selenosemicarbazone, *in* P-00318
- C₇H₈O**
 ▶ Methoxybenzene, M-00078
- C₇H₈OS**
 2-Mercapto-4-methylphenol, M-00035

- C₇H₈OS₃**
2,6-Dimercapto-3,5-dimethyl-4*H*-thiopyran-4-one, D-00754
- C₇H₈OSe**
1-(2-Selenophenyl)-2-propanone, S-00007
- C₇H₈O₂**
▷ 2-Methoxyphenol, M-00102
▷ 4-Methoxyphenol, *in* B-00022
▷ *m*-Methoxyphenol, *in* B-00021
3-Methyl-1,2-benzenediol, M-00127
▷ 5-Methyl-1,3-benzenediol, M-00128
- C₇H₈O₂S**
▷ Benzenesulfinic acid; Me ester, *in* B-00025
- C₇H₈O₃**
▷ 2-Furancarboxylic acid; Et ester, *in* F-00050
2-Methoxy-1,3-benzenediol, *in* B-00034
2-Methoxy-1,4-benzenediol, *in* B-00035
3-Methoxy-1,2-benzenediol, *in* B-00034
4-Methoxy-1,3-benzenediol, *in* B-00035
2-Oxo-3-butynoic acid; Isopropyl ester, *in* O-00058
2-Pentenedial; Ac, *in* P-00038
- C₇H₈O₃S**
Benzenesulfonic acid; Me ester, *in* B-00026
▷ 4-Methylbenzenesulfonic acid, M-00130
- C₇H₈O₄**
3,4-Dioxocyclohexanecarboxylic acid, D-00989
Pyruvaldehyde; Di-Ac, *in* P-00446
- C₇H₈O₆**
Aconitic acid; α -Mono-Me ester, *in* A-00061
Aconitic acid; β -Mono-Me ester, *in* A-00061
Aconitic acid; γ -Mono-Me ester, *in* A-00061
- C₇H₈S**
▷ 2-Methylbenzenethiol, M-00131
3-Methylbenzenethiol, M-00132
▷ 4-Methylbenzenethiol, M-00133
- C₇H₈S₂**
▷ 4-Methyl-1,2-benzenedithiol, M-00129
- C₇H₉ClN₂O**
▷ Nicotinamide methochloride, *in* A-00134
- C₇H₉IN₂O**
Nicotinamide methiodide, *in* A-00134
- C₇H₉N**
▷ Benzylamine, B-00163
▷ 2-Methylaniline, M-00123
▷ 4-Methylaniline, M-00124
Pyrrole; *N*-(2-Propenyl), *in* P-00436
- C₇H₉NO**
▷ 4-Aminophenol; *N*-Me, *in* A-00302
O-Benzylhydroxylamine, B-00184
▷ 2-Methoxyaniline, M-00072
▷ 4-Methoxyaniline, M-00073
- C₇H₉NOS**
3-Methoxy-2-(methylthio)pyridine, *in* H-00520
1*H*-Pyrrole-2-carbothioic acid; *S*-Et ester, *in* P-00437
1*H*-Pyrrole-2-carbothioic acid; 1-Me, *S*-Me ester, *in* P-00437
- C₇H₉NO₂**
2,3-Dimethoxypyridine, *in* H-00521
2,5-Pyrrolidinedione; *N*-(2-Propenyl), *in* P-00442
- C₇H₉NO₂S**
▷ 4-Methylbenzenesulfonic acid; Amide, *in* M-00130
- C₇H₉NO₃S**
4-Aminobenzenesulfonic acid; Me ester, *in* A-00100
N-(2-Hydroxyphenyl)methanesulfonamide, *in* A-00300
2-(Methylamino)benzenesulfonic acid, *in* A-00099
4-(Methylamino)benzenesulfonic acid, *in* A-00100
- C₇H₉NO₄**
1-(1-Oxopropoxy)-2,5-pyrrolidinedione, *in* P-00442
- C₇H₉NO₅**
2,5-Dioxo-4-oxazolidinepropanoic acid; Me ester, *in* D-00993
1-[(Ethoxycarbonyl)oxy]-2,5-pyrrolidinedione, E-00054
- C₇H₉NS**
2-Aminobenzenethiol; *N*-Me, *in* A-00101
o-Thioanisidine, *in* A-00101
- C₇H₉N₂O[⊕]**
▷ 3-(Aminocarbonyl)-1-methylpyridinium(1+), A-00134
- C₇H₉N₃**
2-Acetylpyridine; Hydrazone, *in* A-00039
- C₇H₉N₃O**
2,6-Diaminopyridine; *N*-Ac, *in* D-00119
▷ 3-Hydroxy-3-methyl-1-phenyltriazeno, H-00317
6-Methyl-2-pyridinecarboxamidoxime, *in* M-00271
2-Phenylsemicarbazide, P-00192
4-Phenylsemicarbazide, P-00193
- C₇H₉N₃OS**
5-Methyl-2-furancarboxaldehyde thiosemicarbazone, *in* M-00179
- C₇H₉N₃O₂**
1,2-Diamino-4-nitrobenzene; 1-*N*-Me, *in* D-00108
1,2-Diamino-4-nitrobenzene; 2-*N*-Me, *in* D-00108
- C₇H₉N₃O₃**
Orotic acid dimethylamide, *in* O-00045
- C₇H₉N₃O₄S**
4-Pyridinecarboxylic acid 2-(sulfomethyl)hydrazide, *in* I-00069
- C₇H₉N₃S**
▷ 1-Phenylthiosemicarbazide, P-00199
▷ 4-Phenylthiosemicarbazide, P-00200
- C₇H₉N₅**
2-Pyridinecarboxaldehyde guanylhydrazone, P-00325
- C₇H₉N₅O₂**
2,6-Pyridinediamidoxime, *in* P-00353
- C₇H₉O₂P**
Methyl phenylphosphinate, *in* P-00163
- C₇H₁₀IN**
2-Picoline methiodide, *in* M-00264
- C₇H₁₀NOPS**
P-Methylphosphonamidothioic acid; *O*-Ph ester, *in* M-00243
- C₇H₁₀N₂**
1,3-Diaminobenzene; *N*-Me, *in* D-00047
▷ 1,2-Diamino-4-methylbenzene, D-00101
2-(Dimethylamino)pyridine, *in* A-00333
2-(Ethylamino)pyridine, *in* A-00333
1-Methyl-1-phenylhydrazine, M-00229
- C₇H₁₀N₂O**
3,5-Dimethyl-1*H*-pyrazole; *N*-Ac, *in* D-00904
2-Furancarboxaldehyde; Dimethylhydrazone, *in* F-00042
- C₇H₁₀N₂O₂**
4-Acetyl-2,4-dihydro-2,5-dimethyl-3*H*-pyrazol-3-one, A-00015
Glycylproline; Lactam, *in* G-00020
Thymine; 1,3-Di-Me, *in* T-00179
- C₇H₁₀N₂O₂S**
2-Aminobenzenesulfonic acid; *N*-Me, amide, *in* A-00099
4-Aminobenzenesulfonic acid; *N*-Me, amide, *in* A-00100
▷ *p*-Toluenesulfonylhydrazine, *in* M-00130
- C₇H₁₀N₂O₃**
5,5-Dimethyl-2,4-imidazolidinedione; 3-*N*-Ac, *in* D-00866
- C₇H₁₀N₂O₄**
4-Carboxynioxime, *in* D-00989
4,5-Dihydro-1*H*-pyrazole-3,4-dicarboxylic acid; Di-Me ester, *in* D-00480
- C₇H₁₀N₂S**
4-(Methylthio)-1,2-benzenediamine, M-00325
- C₇H₁₀N₄**
6-Methyl-2-pyridinecarboximidic acid hydrazide, M-00270
- C₇H₁₀N₄O₂S₂**
N,N-Dimethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00870
- C₇H₁₀O₂**
1,2-Cycloheptanedione, C-00333
3-Methyl-1,2-cyclohexanedione, M-00156
4-Methyl-1,2-cyclohexanedione, M-00157
- C₇H₁₀O₃**
4-Hydroxy-3-penten-2-one; Ac, *in* P-00030
2-Oxocyclopentanecarboxylic acid; Me ester, *in* O-00060
- C₇H₁₀O₄**
2-Methylenebutanedioic acid; Di-Me ester, *in* M-00176
- C₇H₁₁ClO**
Cyclohexanecarboxylic acid; Chloride, *in* C-00336
- C₇H₁₁N**
Cyclohexanecarbonitrile, *in* C-00336
Pyrrole; *N*-Isopropyl, *in* P-00436
Pyrrole; *N*-Propyl, *in* P-00436
- C₇H₁₁NO**
▷ 1-Cyanocyclohexanol, *in* H-00146
- C₇H₁₁NO₂**
tert-Butyl cyanoacetate, *in* C-00324
3-Methyl-1,2-cyclohexanedione; 1-Oxime, *in* M-00156
4-Methyl-1,2-cyclohexanedione; 1-Oxime, *in* M-00157
4-Methyl-1,2-cyclohexanedione; 2-Oxime, *in* M-00157
- C₇H₁₁NO₃**
4-(2-Methylpropyl)-2,5-oxazolidinedione, M-00261
Proline; *N*-Ac, *in* P-00257
- C₇H₁₁NO₅S**
Glucopyranosyl isothiocyanate, G-00012
- C₇H₁₁NS₂**
2-Amino-1-cyclohexene-1-dithiocarboxylic acid, A-00146
- C₇H₁₁N₃**
2,6-Bis(methylamino)pyridine, *in* D-00119
- C₇H₁₂N₂**
(Diazomethyl)cyclohexane, D-00149
- C₇H₁₂N₂O₂**
Heptoxime, *in* C-00333
3-Methylnoxime, *in* M-00156
▷ 4-Methylnoxime, *in* M-00157
Proline; Amide, *N*-Ac, *in* P-00257
- C₇H₁₂N₂O₃**
Glycylproline, G-00020
- C₇H₁₂N₂S**
3,4-Dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00504
- C₇H₁₂N₄O₂**
4,5-Dihydro-1*H*-pyrazole-3,4-dicarboxylic acid; Diamide, *N*-di-Me, *in* D-00480
- C₇H₁₂O**
▷ Cycloheptanone, C-00334
- C₇H₁₂O₂**
▷ Cyclohexanecarboxylic acid, C-00336
1,4-Dioxaspiro[4.4]nonane, *in* C-00364
- C₇H₁₂O₃**
1-Hydroxycyclohexanecarboxylic acid, H-00146

- C₇H₁₂O₃S**
2-Mercaptopropanoic acid; Et ester, *S*-Ac, in M-00051
3-Mercapto-1-propanol; Di-Ac, in M-00053
- C₇H₁₂O₃S₂**
2,3-Dimercapto-1-propanol; 2,3-Di-Ac, in D-00763
- C₇H₁₂O₄**
Hexanedioic acid; Me ester, in H-00062
- C₇H₁₃ClO₂**
2-Chloro-3-methylbutanoic acid; Et ester, in C-00174
- C₇H₁₃NO**
▷ Cyclohexanecarboxylic acid; Amide, in C-00336
▷ Piperidine; 1-Ac, in P-00241
- C₇H₁₃NO₂**
N-Hydroxycyclohexanecarboxamide, H-00145
1-Hydroxycyclohexanecarboxylic acid; Amide, in H-00146
Proline; Et ester, in P-00257
- C₇H₁₃NS₂**
Hexahydro-1*H*-azepine-1-carbodithioic acid, H-00035
1-Piperidinedicarbodithioic acid; Me ester, in P-00242
- C₇H₁₃N₃S**
1-Amino-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, in D-00504
- C₇H₁₃O₃P**
Di-2-propenyl methylphosphonate, in M-00244
- C₇H₁₄N₂**
Alanine; *N*-Di-Et, nitrile, in A-00074
- C₇H₁₄N₂O₃**
2-Pentanol; Allophanate, in P-00035
- C₇H₁₄O**
▷ 2,4-Dimethyl-3-pentanone, D-00879
▷ 4-Heptanone, H-00012
- C₇H₁₄O₂**
2,3-Butanediol; 2,3-Isopropylidene deriv., in B-00586
▷ Hexanoic acid; Me ester, in H-00066
Isopentyl acetate, in M-00147
3-Methyl-2-butanol; Ac, in M-00148
2-Pentanol; Ac, in P-00035
Pentyl acetate, in P-00034
- C₇H₁₄O₃**
2,3-Pentanedione; Di-Me acetal, in P-00029
- C₇H₁₄O₄**
2,2-Diethoxypropanoic acid, in P-00448
- C₇H₁₅I**
1-Iodoheptane, I-00044
- C₇H₁₅N**
▷ 1-Ethylpiperidine, E-00106
- C₇H₁₅NO**
2,4-Dimethyl-3-pentanone; Oxime, in D-00879
4-Heptanone; Oxime, in H-00012
- C₇H₁₅NO₂**
Alanine; *N*-Et, Et ester, in A-00074
- C₇H₁₅NO₃**
2-Butoxyethanol; Urethane, in B-00613
2,2-Diethoxypropanamide, in P-00448
- C₇H₁₅NO₄S**
4-Morpholinepropanesulfonic acid, M-00346
- C₇H₁₅NO₅S**
 β -Hydroxy-4-morpholinepropanesulfonic acid, H-00335
- C₇H₁₅O₃P**
Cyclohexyl hydrogen methylphosphonate, in M-00244
- C₇H₁₆NO₂PS₃**
[Bis(1-methylethoxy)phosphinothioyl] carbamodithioic acid, B-00404
S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Dipropyl, in T-00161
- C₇H₁₆O**
1-Ethoxy-3-methylbutane, in M-00147
2-Ethoxypentane, in P-00035
- C₇H₁₆O₂Si**
Ethyl trimethylsilylacetate, in T-00339
- C₇H₁₆O₃S**
1-Heptanesulfonic acid, H-00011
1-Hexanesulfonic acid; Me ester, in H-00064
- C₇H₁₇AsO₃**
Heptylarsonic acid, H-00015
- C₇H₁₇NOSi**
4-(Trimethylsilyl)morpholine, T-00342
- C₇H₁₇NO₂**
(Diethoxymethyl)dimethylamine, D-00313
- C₇H₁₇NO₅S**
2-Hydroxy-3-[[2-hydroxy-1,1-dimethylethyl]amino]-1-propanesulfonic acid, H-00197
- C₇H₁₇NO₆S**
3-[Bis(2-hydroxyethyl)amino]-2-hydroxy-1-propanesulfonic acid, B-00371
3-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, H-00137
- C₇H₁₇NO₇S**
2-Hydroxy-3-[[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, H-00192
- C₇H₁₇NSi**
1-(Trimethylsilyl)pyrrolidine, T-00346
- C₇H₁₇OPS₂**
O-Isopropyl butylphosphonodithioate, in B-00638
- C₇H₁₇O₃P**
Diethyl isopropylphosphonate, in I-00077
▷ Diisopropyl methylphosphonate, in M-00244
Dipropyl methylphosphonate, in M-00244
- C₇H₁₉NSi**
▷ (Diethylamino)trimethylsilane, D-00336
- C₇H₁₉N₃**
▷ *N,N*-Bis(3-aminopropyl)methylamine, in D-00092
- C₇H₂₀N₂OSi₂**
N,N'-Bis(trimethylsilyl)urea, B-00472
- C₇H₂₁NSi₂**
N,1,1,1-Tetramethyl-*N*-(trimethylsilyl)silanamine, in B-00471
- C₇H₂₁O₃PSi₂**
Methylphosphonic acid; Bis(trimethylsilyl) ester, in M-00244
- C₈ClF₁₅O**
Pentadecafluorooctanoic acid; Chloride, in P-00008
- C₈Cl₂N₂O₂**
▷ 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone, D-00260
- C₈F₁₄O₃**
Heptafluorobutanoic acid; Anhydride, in H-00004
- C₈F₁₅N**
Pentadecafluorooctanoic acid; Nitrile, in P-00008
- C₈F₁₆O**
Pentadecafluorooctanoic acid; Fluoride, in P-00008
- C₈HF₁₅O**
Pentadecafluorooctanal, P-00007
- C₈HF₁₅O₂**
▷ Pentadecafluorooctanoic acid, P-00008
- C₈H₂ClF₅O₂**
Pentafluorobenzyl chloroformate, P-00015
- C₈H₂F₁₂O₂**
1,1,1,2,2,6,6,7,7,8,8,8-Dodecafluoro-3,5-octanedione, D-01136
- C₈H₂F₁₅NO**
Pentadecafluorooctanoic acid; Amide, in P-00008
- C₈H₃F₅N₂**
(1-Diazoethyl)pentafluorobenzene, D-00147
- C₈H₃NO₅**
4-Nitro-1,3-isobenzofurandione, in N-00085
- C₈H₄BrNO₂**
Phthalimide; *N*-Bromo, in P-00223
- C₈H₄ClF₃O**
3-(Trifluoromethyl)benzoic acid; Chloride, in T-00252
4-(Trifluoromethyl)benzoic acid; Chloride, in T-00253
- C₈H₄CINO₂**
Phthalimide; *N*-Chloro, in P-00223
- C₈H₄CIN₂O₂RhS**
(2,1,3-Benzothiadiazole-*S*²⁻) dicarbonylchlororhodium, B-00085
- C₈H₄Cl₂O₂**
1,2-Benzenedicarboxylic acid; Dichloride, in B-00018
▷ 1,3-Benzenedicarboxylic acid; Dichloride, in B-00019
- C₈H₄F₃N**
1-Cyano-3-(trifluoromethyl)benzene, in T-00252
1-Cyano-4-(trifluoromethyl)benzene, in T-00253
- C₈H₄F₃NO**
▷ 1-Isocyanato-3-(trifluoromethyl)benzene, I-00066
- C₈H₄N₂**
▷ 1,3-Dicyanobenzene, in B-00019
- C₈H₄N₂O₂**
2,3-Dicyano-1,4-benzenediol, in D-00525
- C₈H₄N₂O₄**
2-Cyano-6-nitrobenzoic acid, in N-00085
4-Nitro-1*H*-isoindole-1,3(2*H*)-dione, in N-00085
- C₈H₄N₂O₈**
3,6-Dinitro-1,2-benzenedicarboxylic acid, D-00939
- C₈H₄O₃**
▷ Phthalic anhydride, P-00222
- C₈H₅BF₆O₂**
[3,5-Bis(trifluoromethyl)phenyl]boronic acid, B-00464
- C₈H₅BrN₂S₃**
3-(4-Bromophenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, B-00553
- C₈H₅Br₃O₂**
2,4,6-Tribromophenol; Ac, in T-00205
- C₈H₅ClO₂**
 α -Oxobenzeneacetic acid; Chloride, in O-00055
- C₈H₅Cl₃N₂**
▷ 2-(Trichloromethyl)-1*H*-benzimidazole, T-00226
- C₈H₅Cl₃O₂**
Trichloroacetic acid; Phenyl ester, in T-00218
- C₈H₅F₃OS₂**
1,1,1-Trifluoro-4-mercapto-4-(2-thienyl)-3-buten-2-one, T-00249
- C₈H₅F₃O₂**
Phenyl trifluoroacetate, in T-00239
3-(Trifluoromethyl)benzoic acid, T-00252
4-(Trifluoromethyl)benzoic acid, T-00253

- C₈H₅F₃O₂S**
4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione, T-00264
- C₈H₅F₃O₂Se**
4,4,4-Trifluoro-1-selenophen-2-yl-1,3-butanedione, T-00263
- C₈H₅F₃O₃**
4,4,4-Trifluoro-1,2-furanyl-1,3-butanedione, T-00248
- C₈H₅NO**
Benzoyl cyanide, *in* O-00055
- C₈H₅NO₂**
4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carbonitrile, *in* H-00428
▷ Isatin, I-00056
▷ Phthalimide, P-00223
- C₈H₅NO₂S₂**
5-(2-Furanylmethylene)-2-thioxo-4-thiazolidinone, F-00056
- C₈H₅NO₄**
4,7-Dihydroxy-1*H*-isoindole-1,3 (2*H*)-dione, D-00636
- C₈H₅NO₆**
▷ 3-Nitro-1,2-benzenedicarboxylic acid, N-00085
4-Nitro-1,2-benzenedicarboxylic acid, N-00086
- C₈H₅NS₂**
1*H*-Isoindole-1,3(2*H*)-dithione, I-00068
- C₈H₅N₃O₂S₂**
1,4-Dihydro-6-nitro-2,3-quinoxalinedithione, D-00461
- C₈H₅N₃O₈**
2,4,6-Trinitrobenzoic acid; Me ester, *in* T-00352
2,4,6-Trinitrophenol; Ac, *in* T-00355
- C₈H₅N₅O₆**
Purpuric acid, P-00281
- C₈H₆**
▷ Phenylacetylene, P-00077
- C₈H₆BrNO₃**
2-Bromo-4'-nitroacetophenone, B-00539
- C₈H₆Br₂O**
▷ 2,4'-Dibromoacetophenone, D-00176
- C₈H₆Br₂O₄**
2,5-Dibromo-3,6-dimethoxy-1,4-benzoquinone, *in* D-00182
- C₈H₆Br₄O₂**
1,2,3,4-Tetrabromo-5,6-dimethoxybenzene, *in* T-00012
- C₈H₆ClF₃**
1-(Chloromethyl)-3-(trifluoromethyl)benzene, C-00186
- C₈H₆ClF₅Si**
Chlorodimethyl(pentafluorophenyl)silane, C-00100
- C₈H₆ClNO**
p-Chloromandelonitrile, *in* C-00222
- C₈H₆ClNO₃**
(4-Nitrophenyl)acetic acid; Chloride, *in* N-00120
- C₈H₆ClNO₄**
2-Hydroxy-5-nitrobenzoic acid; Me ether, chloride, *in* H-00383
- C₈H₆Cl₂O₂**
2,4-Dichlorobenzoic acid; Me ester, *in* D-00249
3',5'-Dichloro-2'-hydroxyacetophenone, D-00277
- C₈H₆Cl₂O₄**
2,5-Dichloro-3,6-dimethoxy-1,4-benzoquinone, *in* D-00262
- C₈H₆Cl₃NO**
▷ 2,2,2-Trichloro-*N*-phenylacetamide, *in* T-00218
- C₈H₆FN₃O₅**
5-Fluoro-2,4-dinitroaniline; *N*-Ac, *in* F-00026
- C₈H₆F₃NO**
2,2,2-Trifluoro-*N*-phenylacetamide, T-00259
- C₈H₆F₃NO₂S**
4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione; Oxime, *in* T-00264
- C₈H₆I₂O₃**
3,5-Diiodosalicylic acid; Me ester, *in* D-00745
- C₈H₆N₂**
1,5-Naphthyridine, N-00056
- C₈H₆N₂O**
1*H*-Benzimidazole-2-carboxaldehyde, B-00039
5-Hydroxyquinoxaline, H-00536
▷ Indole; *N*-Nitroso, *in* I-00033
1,5-Naphthyridine; 1-Oxide, *in* N-00056
- C₈H₆N₂OS₂**
5-(1*H*-Pyrrol-2-ylmethylene)-2-thioxo-4-thiazolidinone, P-00445
5-(2-Thienylmethylene)-2-thioxo-4-imidazolidinone, T-00152
- C₈H₆N₂O₂**
▷ 1-(Cyanomethyl)-4-nitrobenzene, *in* N-00120
Isatin; 2-Oxime, *in* I-00056
▷ Isatin; 3-Oxime, *in* I-00056
1,5-Naphthyridine; 1,5-Dioxide, *in* N-00056
Phthalimide; Monoxime, *in* P-00223
- C₈H₆N₂O₂S₂**
6-Nitro-2(3*H*)-benzothiazolethione; *S*-Me, *in* N-00096
- C₈H₆N₂O₃S₄**
Bismuthiol II sulfonic acid, *in* M-00060
- C₈H₆N₂O₅**
3-Nitro-1,2-benzenedicarboxylic acid; 1-Amide, *in* N-00085
- C₈H₆N₂O₆**
3,4-Dinitrobenzoic acid; Me ester, *in* D-00947
3,5-Dinitrobenzoic acid; Me ester, *in* D-00948
2,4-Dinitrophenol; Ac, *in* D-00958
- C₈H₆N₂O₇**
2-Hydroxy-3,5-dinitrobenzoic acid; Me ester, *in* H-00154
2-Methoxy-3,5-dinitrobenzoic acid, *in* H-00154
- C₈H₆N₂S**
3-Amino-1*H*-isoindole-1-thione, A-00229
- C₈H₆N₂S₂**
▷ 1,4-Dihydro-2,3-quinoxalinedithione, D-00489
- C₈H₆N₂S₃**
Bismuthiol II, *in* M-00060
- C₈H₆N₄**
2,2'-Bipyrazine, B-00218
3,3'-Bipyridazine, B-00219
2,2'-Bipyrimidine, B-00235
3-(2-Pyridinyl)-1,2,4-triazine, P-00411
- C₈H₆N₄O₂S**
2-(2,4-Dihydroxyphenylazo)-1,3,4-thiadiazole, D-00703
- C₈H₆N₄O₂S₂**
2-Mercapto-5-(2,4-dihydroxyphenylazo)-1,3,4-thiadiazole, M-00028
- C₈H₆N₄O₃**
▷ (4-Nitrophenyl)acetic acid; Azide, *in* N-00120
- C₈H₆N₈S₂**
1,1'-[1,3-Phenylene]bis-2-tetrazoline-5-thione, P-00122
1,1'-[1,4-Phenylene]bis-2-tetrazoline-5-thione, P-00123
- C₈H₆O₂**
▷ 1,2-Benzenedicarboxaldehyde, B-00016
Phenylglyoxal, P-00132
- C₈H₆O₃**
▷ α -Oxobenzeneacetic acid, O-00055
- C₈H₆O₄**
▷ 1,2-Benzenedicarboxylic acid, B-00018
▷ 1,3-Benzenedicarboxylic acid, B-00019
4,5-Dihydroxy-1,3-benzenedicarboxaldehyde, D-00524
6,7-Dihydroxy-3(2*H*)-benzofuranone, D-00530
4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carboxylic acid, H-00428
- C₈H₆O₆**
3,6-Dihydroxy-1,2-benzenedicarboxylic acid, D-00525
- C₈H₇BrN₂O₃**
2-Bromo-4'-nitroacetophenone; Oxime, *in* B-00539
- C₈H₇BrN₂O₄**
2-(Bromoacetamido)-4-nitrophenol, B-00482
- C₈H₇BrO**
▷ 2-Bromoacetophenone, B-00483
4-Methylbenzoic acid; Bromide, *in* M-00138
- C₈H₇BrO₂**
4-Bromobenzoic acid; Me ester, *in* B-00488
▷ 2-Bromo-4'-hydroxyacetophenone, B-00508
5-Bromo-2-methoxybenzaldehyde, *in* B-00509
- C₈H₇BrO₃**
2-Bromo-2',4'-dihydroxyacetophenone, B-00501
2-Bromo-2',5'-dihydroxyacetophenone, B-00502
2-(4-Bromophenyl)-2-hydroxyacetic acid, B-00550
- C₈H₇Br₂NO**
2,4'-Dibromoacetophenone; Oxime, *in* D-00176
- C₈H₇Br₃O**
1,3,5-Tribromo-2-ethoxybenzene, *in* T-00205
- C₈H₇Br₃O₃**
3,4,5-Tribromo-2,6-dimethoxyphenol, *in* T-00204
- C₈H₇ClO**
▷ 2-Chloroacetophenone, C-00055
3-Methylbenzoic acid; Chloride, *in* M-00137
▷ 4-Methylbenzoic acid; Chloride, *in* M-00138
- C₈H₇ClO₂**
▷ Anisoyl chloride, *in* M-00079
2-Chlorobenzoic acid; Me ester, *in* C-00066
4-Chlorobenzoic acid; Me ester, *in* C-00067
4-Chloro-2-methoxybenzaldehyde, *in* C-00121
▷ 4-Chlorophenol; Ac, *in* C-00196
2-Hydroxy-3-methylbenzoic acid; Chloride, *in* H-00278
Phenyl chloroacetate, *in* C-00054
- C₈H₇ClO₃**
2-(3-Chlorophenyl)-2-hydroxyacetic acid, C-00221
2-(4-Chlorophenyl)-2-hydroxyacetic acid, C-00222
- C₈H₇Cl₂NO₂**
3',5'-Dichloro-2'-hydroxyacetophenone; Oxime, *in* D-00277
- C₈H₇Cl₂NO₃**
2,4-Dichlorophenoxyacetohydroxamic acid, D-00288
- C₈H₇FO₂**
4-Fluorobenzoic acid; Me ester, *in* F-00024
- C₈H₇IO₂**
4-Iodobenzoic acid; Me ester, *in* I-00041
- C₈H₇N**
▷ Benzeneacetonitrile, *in* P-00076
▷ 1-Cyano-3-methylbenzene, *in* M-00137
▷ Indole, I-00033
▷ *p*-Tolunitrile, *in* M-00138
- C₈H₇NO**
2-Cyano-4-methylphenol, *in* H-00279
2-Cyano-6-methylphenol, *in* H-00278
4-Methoxybenzonitrile, *in* M-00079
- C₈H₇NOS**
2(3*H*)-Benzoxazolethione; 3-Me, *in* B-00113

- 2(3*H*)-Benzoxazolethione; *S*-Me, in B-00113
1-Methoxybenzothiazole, in H-00125
3-Methyl-2-benzothiazolone, in B-00090
- C₈H₇NO₂**
Glyoxylic acid; Anilide, in G-00038
▷ Isonitrosoacetophenone, in P-00132
α-Oxobenzeneacetic acid; Amide, in O-00055
- C₈H₇NO₃**
Isonitrosophenylacetic acid, in O-00055
Isophthalamic acid, in B-00019
Oxanilic acid, in O-00048
- C₈H₇NO₃S**
Saccharin; *N*-Me, in S-00001
- C₈H₇NO₄**
2-Methoxy-5-nitrobenzaldehyde, in H-00380
2-Nitrobenzoic acid; Me ester, in N-00091
3-Nitrobenzoic acid; Me ester, in N-00092
▷ 4-Nitrobenzoic acid; Me ester, in N-00093
3-Nitrophenol; *O*-Ac, in N-00118
▷ 4-Nitrophenol; *O*-Ac, in N-00119
2-Nitrophenyl acetate, in N-00117
▷ (4-Nitrophenyl)acetic acid, N-00120
- C₈H₇NO₅**
2-Hydroxy-5-nitrobenzoic acid; Me ester, in H-00383
2-Methoxy-5-nitrobenzoic acid, in H-00383
- C₈H₇NO₆**
2-Carboxy-5-hydroxy-4-oxo-1(4*H*)-pyridineacetic acid, C-00031
- C₈H₇NS₂**
2-Benzothiazolethiol; *S*-Me, in B-00089
- C₈H₇N₃**
▷ 1-Imino-1*H*-isoindol-3-amine, I-00022
- C₈H₇N₃O**
1*H*-Benzotriazole; *N*-Ac, in B-00110
Isatin hydrazone, in I-00056
- C₈H₇N₃O₂**
5-(1*H*-Pyrrol-2-ylmethylene)-2-thioxo-4-imidazolidinone, P-00444
- C₈H₇N₃O₂**
6-Amino-2,3-dihydro-1,4-phthalazinedione, A-00156
Luminol, L-00014
- C₈H₇N₃O₄**
3-Nitro-1,2-benzenedicarboxylic acid; Diamide, in N-00085
- C₈H₇N₃O₆**
2-Amino-4,6-dinitrophenol; *N*-Ac, in A-00164
2-Amino-4,6-dinitrophenol; *O*-Ac, in A-00164
- C₈H₇N₃O₇**
2,4,6-Trinitrophenol; *O*-Et, in T-00355
- C₈H₇N₃O₈**
2,4,6-Trinitro-1,3-benzenediol; Di-Me ether, in T-00350
- C₈H₇N₃S**
2-Amino-3-quinoxalinetioliol, A-00345
2,4-Dihydro-4-phenyl-3*H*-1,2,4-triazole-3-thione, D-00471
- C₈H₇N₃S₂**
▷ 5-(Phenylamino)-1,3,4-thiadiazole-2(3*H*)-thione, P-00087
- C₈H₇N₅O₂S**
4-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-1,3-benzenediol, A-00355
- C₈H₇BrNO**
2-Bromoacetophenone; (*E*)-Oxime, in B-00483
- C₈H₇BrNO₃**
▷ 2-(Bromomethyl)-1-methoxy-4-nitrobenzene, in B-00531
- C₈H₇BrN₃O₂**
5-Bromo-2-hydroxybenzaldehyde; Semicarbazone, in B-00509
- C₈H₈CINO**
▷ *m*-Chloroacetanilide, in C-00059
o-Chloroacetanilide, in C-00058
- ▷ *p*-Chloroacetanilide, in C-00060
α-Chloroacetanilide, in C-00054
2-Chloroacetophenone; Oxime, in C-00055
- C₈H₈CINO₂**
2-(4-Chlorophenyl)-2-hydroxyacetic acid; Amide, in C-00222
- C₈H₈CIN₃O₃S**
3-(5-Chloro-2-furanoyl)-2-propenal; Thiosemicarbazone, in C-00120
5-Chloro-2-hydroxybenzaldehyde; Thiosemicarbazone, in C-00122
- C₈H₈CIN₃O₂**
4-Chloro-2-hydroxybenzaldehyde; Semicarbazone, in C-00121
5-Chloro-2-hydroxybenzaldehyde; Semicarbazone, in C-00122
- C₈H₈F₃N**
2,2,2-Trifluoro-1-phenylethylamine, T-00261
- C₈H₈F₅NSi**
1,1-Dimethyl-1-(pentafluorophenyl)silanamine, D-00878
- C₈H₈HgO₂**
▷ (Acetato-*O*)phenylmercury, A-00005
- C₈H₈N₂**
▷ 2-Methylbenzimidazole, M-00134
- C₈H₈N₂O**
Phenylglyoxal; 2-Hydrazone, in P-00132
- C₈H₈N₂OS**
▷ Benzoylthiourea, B-00161
- C₈H₈N₂O₂**
1,3-Benzenedicarboxylic acid; Diamide, in B-00019
4-Methylnitrosoaminobenzaldehyde, in A-00097
p-Nitrosoacetanilide, in N-00154
Phenylglyoxal; Dioxime, in P-00132
Phenylglyoxime, P-00133
- C₈H₈N₂O₃**
2,4-Dihydroxybenzaldehyde; Formylhydrazone, in D-00517
▷ *N*-(2-Nitrophenyl)acetamide, in N-00077
(4-Nitrophenyl)acetic acid; Amide, in N-00120
- C₈H₈N₂O₄**
Isophthaldihydroxamic acid, in B-00019
4-Nitro-*o*-anisaldoxime, in H-00379
2-Nitro-*p*-anisaldoxime, in H-00381
2,3-Pyrazinedicarboxylic acid; Di-Me ester, in P-00286
- C₈H₈N₂O₄S**
2,4-Dinitrothiophenetole, in D-00945
- C₈H₈N₂O₅**
4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid; Et ester, in D-00674
▷ 1-Ethoxy-2,3-dinitrobenzene, in D-00957
▷ 1-Ethoxy-2,4-dinitrobenzene, in D-00958
2-Ethoxy-1,3-dinitrobenzene, in D-00960
2-Ethoxy-1,4-dinitrobenzene, in D-00959
4-Ethoxy-1,2-dinitrobenzene, in D-00961
- C₈H₈N₂O₆**
1,2-Dimethoxy-3,4-dinitrobenzene, in D-00941
1,2-Dimethoxy-3,5-dinitrobenzene, in D-00942
1,3-Dimethoxy-2,4-dinitrobenzene, in D-00940
- C₈H₈N₂S**
▷ 2-Aminobenzothiazole; 2-*N*-Me, in A-00113
1*H*-Benzimidazole-2-methanethiol, B-00041
▷ 2-Mercaptobenzimidazole; *S*-Me, in M-00022
- C₈H₈N₄**
3-Amino-1-phenyl-1,2,4-triazole, in A-00364
5-Amino-1-phenyl-1*H*-1,2,4-triazole, in A-00364
▷ 1-Hydrazinophthalazine, H-00086
2-(5-Methyl-1*H*-1,2,4-triazol-3-yl)pyridine, M-00329
- C₈H₈N₄O₃S**
3-(5-Nitro-2-furyl)-2-propenal; Thiosemicarbazone, in N-00110
- C₈H₈N₄O₅**
(2,4-Dinitrophenyl)hydrazine; *N*-Ac, in D-00972
- C₈H₈N₄S**
5,6-Dimethyl-3-(2-thiazolyl)-1,2,4-triazine, D-00926
1*H*-Tetrazole-5-thiol; 1-*N*-Ph, *S*-Me, in T-00131
Tetrazole-5-thione; 1-Me, 4-Ph, in T-00131
- C₈H₈N₆**
6,6'-Diamino-3,3'-bipyridazine, D-00060
- C₈H₈N₆S**
3-(2-Thiazolylazo)-2,6-pyridinediamine, T-00145
- C₈H₈O**
▷ Acetophenone, A-00008
- C₈H₈OS**
Ethanethioic acid; *O*-Ph ester, in E-00038
▷ Ethanethioic acid; *S*-Ph ester, in E-00038
2-Mercapto-2,4,6-cycloheptatrien-1-one; *S*-Me, in M-00027
Thiobenzoic acid; *O*-Me ester, in T-00155
Thiobenzoic acid; *S*-Me ester, in T-00155
- C₈H₈OS₂**
Carbonodithioic acid *O*-(phenylmethyl) ester, C-00024
2-Hydroxydithiobenzoic acid; Me ester, in H-00175
4-Hydroxydithiobenzoic acid; Me ester, in H-00176
- C₈H₈O₂**
▷ 2'-Hydroxyacetophenone, H-00089
▷ 4'-Hydroxyacetophenone, H-00090
2-Hydroxy-4-methylbenzaldehyde, H-00276
2-Hydroxy-5-methylbenzaldehyde, H-00277
2-Hydroxy-3-methyl-2,4,6-cycloheptatrien-1-one, H-00285
▷ 2-Methoxybenzaldehyde, M-00074
▷ 4-Methoxybenzaldehyde, M-00075
▷ Methyl benzoate, in B-00059
▷ 3-Methylbenzoic acid, M-00137
▷ 4-Methylbenzoic acid, M-00138
3-(5-Methyl-2-furyl)-2-propenal, M-00182
▷ Phenyl acetate, in P-00060
▷ Phenylacetic acid, P-00076
Tropolone; Me ether, in T-00432
- C₈H₈O₂S**
α-Mercaptobenzenecetic acid, M-00019
▷ 2-Mercaptobenzoic acid; Me ester, in M-00023
1-(2-Thienyl)-1,3-butanedione, T-00150
- C₈H₈O₂Se**
Selenoylacetone, S-00010
- C₈H₈O₃**
▷ 3-Acetoxyphenol, in B-00021
1,2-Benzenediol; Mono-Ac, in B-00020
1,4-Benzenediol; Mono-Ac, in B-00022
▷ 2',4'-Dihydroxyacetophenone, D-00507
▷ 2',5'-Dihydroxyacetophenone, D-00508
7,10-Dioxaspiro[5.4]deca-2,5-dien-4-one, in B-00076
2-Hydroxy-4-methoxybenzaldehyde, in D-00517
▷ 2-Hydroxy-5-methoxybenzaldehyde, in D-00518
4-Hydroxy-2-methoxybenzaldehyde, in D-00517
▷ 4-Hydroxy-3-methoxybenzaldehyde, in D-00519
▷ 2-Hydroxy-3-methylbenzoic acid, H-00278
2-Hydroxy-5-methylbenzoic acid, H-00279
▷ Mandelic acid, M-00007
▷ 4-Methoxybenzoic acid, M-00079
▷ Methyl 4-hydroxybenzoate, in H-00113
- C₈H₈O₃S**
2,4-Dihydroxybenzenecarbothioic acid; *S*-Me ester, in D-00523
- C₈H₈O₄**
▷ 3-Acetyl-4-hydroxy-6-methyl-2*H*-pyran-2-one, A-00019
2,4-Dihydroxybenzoic acid; Me ester, in D-00531

- 2,5-Dihydroxybenzoic acid; Me ester, *in* D-00532
 2,6-Dihydroxybenzoic acid; Me ester, *in* D-00533
 3,5-Dihydroxybenzoic acid; Me ester, *in* D-00534
 ▶ 3,4-Dihydroxy-5-methoxybenzaldehyde, *in* T-00273
 3,5-Dihydroxy-4-methoxybenzaldehyde, *in* T-00273
 ▶ (3,4-Dihydroxyphenyl)acetic acid, D-00687
 2,5-Dimethoxy-1,4-benzoquinone, *in* D-00540
 2-Hydroxy-6-methoxybenzoic acid, *in* D-00533
 3-Hydroxy-5-methoxybenzoic acid, *in* D-00534
 2,3,4'-Trihydroxyacetophenone, T-00268
 ▶ 2',3',4'-Trihydroxyacetophenone, T-00269
- C₈H₈O₅**
 5-Ethoxy-4-oxo-4*H*-pyran-2-carboxylic acid, *in* H-00434
 5-Hydroxy-4-oxo-4*H*-pyran-2-carboxylic acid; Et ester, *in* H-00434
 ▶ Methyl gallate, *in* T-00277
 2,3,4-Trihydroxybenzoic acid; Me ester, *in* T-00276
- C₈H₈O₆**
 2,5-Dihydroxy-3,6-dimethoxy-2,5-cyclohexadiene-1,4-dione, *in* T-00072
- C₈H₈S₂**
 Benzeneethane(dithioic) acid, B-00023
 Dithiobenzoic acid; Me ester, *in* D-01117
- C₈H₉Br**
 ▶ 1-(Bromomethyl)-4-methylbenzene, B-00527
- C₈H₉BrO₂**
 1-Bromo-2,4-dimethoxybenzene, *in* B-00486
- C₈H₉BrO₂S**
 4-Bromobenzenesulfonic acid; Et ester, *in* B-00487
- C₈H₉ClO**
 1-Chloro-4-ethoxybenzene, *in* C-00196
 [(Chloromethoxy)methyl]benzene, C-00167
- C₈H₉ClO₂**
 1-Chloro-2,4-dimethoxybenzene, *in* C-00061
- C₈H₉F₃N₂**
 [α-(Trifluoromethyl)benzyl]hydrazine, T-00254
- C₈H₉F₇O₂**
 Heptafluorobutanoic acid; Butyl ester, *in* H-00004
- C₈H₉I**
 1-(Iodomethyl)-4-methylbenzene, I-00046
- C₈H₉NO**
 ▶ Acetanilide, *in* A-00368
 Acetophenone; (*E*)-Oxime, *in* A-00008
 Acetophenone; (*Z*)-Oxime, *in* A-00008
 2-Acetyl-4-methylpyridine, A-00023
 2-Acetyl-6-methylpyridine, A-00024
 ▶ 4'-Aminoacetophenone, A-00091
 2-Aminobenzaldehyde; *N*-Me, *in* A-00096
 4-Aminobenzaldehyde; *N*-Me, *in* A-00097
 ▶ Benzeneacetamide, *in* P-00076
 4-Methylaniline; *N*-Formyl, *in* M-00124
 4-Methylbenzoic acid; Amide, *in* M-00138
m-Toluamide, *in* M-00137
- C₈H₉NOS**
 1-Acetoxy-4-methyl-2(1*H*)-pyridinethione, *in* M-00274
 2-Aminobenzenethiol; *N*-Ac, *in* A-00101
 ▶ 2-Mercapto-*N*-phenylacetamide, *in* M-00016
 Thiocarbamic acid; *S*-Benzyl ester, *in* T-00159
- C₈H₉NO₂**
 ▶ 2-Acetamidophenol, *in* A-00300
 2-Acetyl-4-methoxypyridine, A-00021
 2-Aminobenzoic acid; *N*-Me, *in* A-00103
 ▶ 2-Aminobenzoic acid; Me ester, *in* A-00103
 3-Aminobenzoic acid; Me ester, *in* A-00104
 α-Anisaloxime, *in* M-00075
 β-Anisaloxime, *in* M-00075
 Anisamide, *in* M-00079
 ▶ 4-Hydroxyacetanilide, *in* A-00302
- 2'-Hydroxyacetophenone; Oxime, *in* H-00089
 4'-Hydroxyacetophenone; Oxime, *in* H-00090
 2-Hydroxy-5-methylbenzaldehyde; Oxime, *in* H-00277
 2-Hydroxy-3-methylbenzamide, *in* H-00278
 2-Hydroxy-5-methylbenzoic acid; Amide, *in* H-00279
N-Hydroxy-*N*-phenylacetamide, *in* P-00135
 2-Methoxybenzaldehyde; (*E*)-Oxime, *in* M-00074
 4-(Methylamino)benzoic acid, *in* A-00105
 2-Methylbenzohydroxamic acid, M-00135
 4-Methylbenzohydroxamic acid, M-00136
 6-Methyl-2-pyridinecarboxylic acid; Me ester, *in* M-00271
 4-Methylsalicylaldoxime, *in* H-00276
 2-Pyridinecarboxylic acid; Et ester, *in* P-00342
- C₈H₉NO₂S**
 [(4-Aminophenyl)thio]acetic acid, A-00327
N-Hydroxy-4-methoxybenzenecarbothioamide, H-00265
N-(3-Hydroxyphenyl)-2-mercaptoacetamide, H-00476
- C₈H₉NO₃**
 4-Amino-2-hydroxybenzoic acid; Me ester, *in* A-00184
 4-Amino-2-methoxybenzoic acid, *in* A-00184
 2',4'-Dihydroxyacetophenone; Oxime, *in* D-00507
 2',5'-Dihydroxyacetophenone; Oxime, *in* D-00508
 3,4-Dihydroxybenzaldehyde; 3-Me ether, oxime, *in* D-00519
 α,*N*-Dihydroxybenzeneacetamide, D-00521
 2,4-Dimethoxy-1-nitrosobenzene, *in* N-00156
 ▶ 1-Ethoxy-2-nitrobenzene, *in* N-00117
 1-Ethoxy-3-nitrobenzene, *in* N-00118
 ▶ 1-Ethoxy-4-nitrobenzene, *in* N-00119
 2-Hydroxy-5-anisaloxime, *in* D-00518
N-Hydroxy-2-methoxybenzamide, H-00263
N-Hydroxy-4-methoxybenzamide, H-00264
 Pyridoxal, P-00414
- C₈H₉NO₄**
 3-Acetyl-4-hydroxy-6-methyl-2*H*-pyran-2-one; Oxime, *in* A-00019
 1,2-Dimethoxy-4-nitrobenzene, *in* N-00087
 2',3',4'-Trihydroxyacetophenone; Oxime, *in* T-00269
- C₈H₉NO₄S**
N-(Phenylsulfonyl)glycine, P-00196
- C₈H₉NO₄S₂**
 4-[(Mercaptoacetyl)amino]benzenesulfonic acid, M-00017
- C₈H₉NS**
 ▶ Thioacetanilide, T-00153
- C₈H₉N₃**
 1*H*-Benzotriazole; 1-Et, *in* B-00110
 2,3-Dihydro-5-(2-pyridinyl)-1*H*-imidazole, D-00482
- C₈H₉N₃O**
N-(Aminoiminoethyl)benzamide, A-00226
- C₈H₉N₃OS**
 3-(2-Furanyl)-2-propenal; Thiosemicarbazone, *in* F-00060
 ▶ 2-Hydroxybenzaldehyde; Thiosemicarbazone, *in* H-00101
- C₈H₉N₃O₂**
 2-Hydroxybenzaldehyde; Semicarbazone, *in* H-00101
- C₈H₉N₃O₂S**
 2,4-Dihydroxybenzaldehyde; Thiosemicarbazone, *in* D-00517
 3-(2-Thiazolylazo)-2,4-pentanedione, T-00144
- C₈H₉N₃O₃**
 Acetic acid; 2-(4-Nitrophenylhydrazide), *in* A-00006
 2-Amino-4-nitroacetanilide, *in* D-00108
 2-Amino-5-nitroacetanilide, *in* D-00108
 2,4-Dihydroxybenzaldehyde; Semicarbazone, *in* D-00517
- 2,5-Dihydroxybenzaldehyde; Semicarbazone, *in* D-00518
 2-(3-Hydroxy-3-methyl-1-triazenyl)benzoic acid, H-00332
 (2-Nitrophenyl)hydrazine; Ac, *in* N-00137
- C₈H₉N₃O₅**
 2-Amino-4,6-dinitrophenol; *N*-Di-Me, *in* A-00164
- C₈H₉N₃O₇**
 5-Amino-2,4,6-pyrimidinetrione-*N*⁵,*N*⁵-diacetic acid, A-00338
- C₈H₉N₃S**
 ▶ MBTH, *in* B-00090
- C₈H₉N₃S₂**
 1-Phenyl-2,4-dithiobiuret, *in* T-00163
- C₈H₉O₃P**
 2-Phenylethylphosphonic acid, P-00129
- C₈H₁₀CIN**
 2-Chloroaniline; *N*-Di-Me, *in* C-00058
 3-Chloroaniline; *N*-Di-Me, *in* C-00059
 4-Chloroaniline; *N*-Di-Me, *in* C-00060
 2-Chloroaniline; *N*-Et, *in* C-00058
 3-Chloroaniline; *N*-Et, *in* C-00059
 4-Chloroaniline; *N*-Et, *in* C-00060
- C₈H₁₀NO₆P**
 ▶ Pyridoxal phosphate, P-00416
- C₈H₁₀N₂**
 Acetophenone; Hydrazone, *in* A-00008
- C₈H₁₀N₂O**
 ▶ Acetic acid 2-phenylhydrazide, *in* P-00134
 2-Acetyl-4-methylpyridine; Oxime (*E*-), *in* A-00023
 2-Acetyl-6-methylpyridine; Oxime (*E*-), *in* A-00024
 4'-Aminoacetophenone; Oxime, *in* A-00091
 ▶ 1,3-Diaminobenzene; *N*-Ac, *in* D-00047
 ▶ *N,N*-Dimethyl-4-nitrosoaniline, D-00876
 2'-Hydroxyacetophenone; Hydrazone, *in* H-00089
N-Hydroxy-4-methylbenzenecarboximidamide, *in* M-00138
N-Hydroxy-*N'*-phenylethanimidamide, *in* A-00004
 4-Methoxybenzaldehyde; Hydrazone, *in* M-00075
 4-Methoxybenzimidine, M-00077
 4-Methylbenzoic acid; Hydrazide, *in* M-00138
 Phenylhydrazine; *N*¹-Ac, *in* P-00134
- C₈H₁₀N₂OS**
N-Hydroxy-*N'*-methyl-*N*-phenylthiourea, *in* T-00175
- C₈H₁₀N₂O₂**
 2-Acetyl-4-methoxypyridine; Oxime (*Z*-), *in* A-00021
N-(*p*-Aminophenyl)glycine, A-00323
 6-Amino-3-pyridinecarboxylic acid; Et ester, *in* A-00334
 3,4-Diaminobenzoic acid; Me ester, *in* D-00050
 2,3-Dihydro-1,4-benzodioxin-6,7-diamine, D-00371
 5-(Dimethylamino)-2-nitrosophenol, D-00804
 4-Nitroaniline; *N*-Di-Me, *in* N-00077
 4-Nitroaniline; *N*-Et, *in* N-00077
 1-(4-Nitrophenyl)ethylamine, N-00135
- C₈H₁₀N₂O₃**
 Pyridoxal; Oxime, *in* P-00414
- C₈H₁₀N₂O₃S**
N-Methanesulfonylbenzamidoxime, M-00067
 ▶ Sulfacetamide, *in* A-00100
- C₈H₁₀N₂O₄**
 Orotic acid; 1,3-Di-Me, Me ester, *in* O-00045
- C₈H₁₀N₂S**
 ▶ 2-Benzyl-2-thiopseudourea, B-00193
 ▶ 2-Ethyl-4-pyridinecarbothioamide, E-00107
 5-Ethyl-2-pyridinecarbothioamide, E-00108
 ▶ *N*-Methyl-*N'*-phenylthiourea, *in* P-00201

- C₈H₁₀N₄**
2-(4,5-Dihydro-5-methyl-1*H*-1,2,4-triazol-3-yl)pyridine, *in* M-00329
- C₈H₁₀N₄O**
2-Hydroxybenzaldehyde guanylhydrazone, H-00105
- C₈H₁₀N₄O₂**
2,4-Dihydroxybenzaldehyde guanylhydrazone, D-00520
2-[(3,4-Dihydroxyphenyl)methylene]hydrazinecarboximidamide, D-00712
1*H*-Pyrazolo[3,4-*d*]pyrimidine-4,6(5*H*,7*H*)-dione; 1,5,7-Tri-Me, *in* P-00302
1*H*-Pyrazolo[3,4-*d*]pyrimidine-4,6(5*H*,7*H*)-dione; 2,5,7-Tri-Me, *in* P-00302
- C₈H₁₀N₄S**
2-Acetylpyridine; Thiosemicarbazone, *in* A-00039
6-Methyl-2-pyridinecarboxaldehyde; Thiosemicarbazone, *in* M-00266
- C₈H₁₀N₆**
▷ Dihydralazine, D-00370
- C₈H₁₀O**
▷ 2,4-Dimethylphenol, D-00884
▷ 2,6-Dimethylphenol, D-00885
▷ 3,4-Dimethylphenol, D-00886
- C₈H₁₀OS₃**
2,6-Dimercapto-3-propyl-4*H*-thiopyran-4-one, D-00764
- C₈H₁₀O₂**
▷ 1,2-Dimethoxybenzene, D-00766
2-Ethoxyphenol, *in* B-00020
4-Ethoxyphenol, *in* B-00022
m-Ethoxyphenol, *in* B-00021
2-Methoxy-3-methylphenol, *in* M-00127
3-Methoxy-5-methylphenol, *in* M-00128
- C₈H₁₀O₂S**
1-Methyl-4-(methylsulfonyl)benzene, *in* M-00203
- C₈H₁₀O₃**
2,3-Dimethoxyphenol, *in* B-00034
▷ 2,6-Dimethoxyphenol, *in* B-00034
5,5-Dimethyl-1,2,3-cyclohexanetriene, D-00848
- C₈H₁₀O₃S**
Benzenesulfonic acid; Et ester, *in* B-00026
▷ 4-Methylbenzenesulfonic acid; Me ester, *in* M-00130
- C₈H₁₀O₄**
1,2-Diethoxycyclobutenedione, *in* D-00569
2,4,5,7-Octanetetrone, O-00035
- C₈H₁₀O₅**
Diallyl dicarbonate, *in* D-00243
- C₈H₁₀O₆S₂**
2,3-Dimercaptobutanedioic acid; Di-*S*-Ac, *in* D-00751
- C₈H₁₀O₈**
2-Acetoxytricarballic acid, *in* C-00299
- C₈H₁₀S**
1-Methyl-4-(methylthio)benzene, M-00203
- C₈H₁₀S₂**
4,5-Dimethyl-1,2-benzenedithiol, D-00832
- C₈H₁₁AsO₃**
Dimethyl phenylarsenate, *in* P-00090
- C₈H₁₁ClN₂**
1,2-Diamino-4-chlorobenzene; 1,2-*N*-Di-Me, *in* D-00064
- C₈H₁₁ClN₂O**
3-(Aminocarbonyl)-1,4-dimethylpyridinium(1+); Chloride, *in* A-00133
- C₈H₁₁ClN₂S**
5-Benzylthiuronium chloride, *in* B-00193
- C₈H₁₁CISi**
Chlorodimethylphenylsilane, C-00103
- C₈H₁₁F₃O₂**
1,1,1-Trifluoro-5,5-dimethyl-2,4-hexanedione, T-00244
- C₈H₁₁IN₂O**
3-(Aminocarbonyl)-1,4-dimethylpyridinium(1+); Iodide, *in* A-00133
- C₈H₁₁N**
Benzylamine; *N*-Me, *in* B-00163
▷ 2,3-Dimethylaniline, D-00827
▷ 2,5-Dimethylaniline, D-00828
▷ 2,6-Dimethylaniline, D-00829
▷ 3,4-Dimethylaniline, D-00830
▷ *N,N*-Dimethylaniline, D-00831
▷ 1-Phenylethylamine, P-00130
2,4,6-Trimethylpyridine, T-00337
- C₈H₁₁NO**
O-Benzylhydroxylamine; *N*-Me, *in* B-00184
2-(Dimethylamino)phenol, *in* A-00300
▷ 4-Ethoxyaniline, E-00051
▷ 4-Hydroxydimethylaniline, *in* A-00302
2-Methoxy-*N*-methylaniline, *in* M-00072
4-Methoxy-*N*-methylaniline, *in* M-00073
- C₈H₁₁NOS**
Benzenesulfonic acid; Dimethylamide, *in* B-00025
- C₈H₁₁NO₃**
Isonitrosodimedone, *in* D-00848
- C₈H₁₁NO₃S**
2-(Dimethylamino)benzenesulfonic acid, *in* A-00099
- C₈H₁₁NO₅**
2,5-Dioxo-4-oxazolidinepropanoic acid; Et ester, *in* D-00993
- C₈H₁₁NS**
2-Aminobenzenethiol; *N,N*-Di-Me, *in* A-00101
2-Aminobenzenethiol; *N,S*-Di-Me, *in* A-00101
2-Aminobenzenethiol; *N*-Et, *in* A-00101
2-Aminobenzenethiol; *S*-Et, *in* A-00101
- C₈H₁₁N₂O[⊕]**
3-(Aminocarbonyl)-1,4-dimethylpyridinium(1+), A-00133
- C₈H₁₁N₂O₆P**
Pyridoxal phosphate; Oxime, *in* P-00416
- C₈H₁₁N₃O**
2,4-Diaminoacetanilide, *in* T-00192
4-Phenylsemicarbazide; 2-Me, *in* P-00193
- C₈H₁₁N₃O₂**
2-Amino-*N*-dimethyl-4-nitroaniline, *in* D-00108
1,2-Diamino-4-nitrobenzene; 1,2-*N*-Di-Me, *in* D-00108
- C₈H₁₁N₃O₃S**
1,3-Diethyldihydro-5-nitroso-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, *in* D-00462
- C₈H₁₁N₅O₃S**
7-[(2-Aminoethyl)amino]-4-benzofurazansulfonamide, A-00174
7-Hydrazino-4-benzofurazansulfonamide; *N,N*-Di-Me, *in* H-00081
- C₈H₁₁O₂P**
▷ Ethyl phenylphosphinate, *in* P-00163
- C₈H₁₂Br₂O₃**
2-Bromobutanoic acid; Anhydride, *in* B-00496
- C₈H₁₂F₇NOSi**
2,2,3,3,4,4,4-Heptafluoro-*N*-methyl-*N*-(trimethylsilyl)butanamide, H-00007
- C₈H₁₂N₂**
1,3-Diaminobenzene; *N,N*-Di-Me, *in* D-00047
1,3-Diaminobenzene; *N,N'*-Di-Me, *in* D-00047
▷ 1,4-Diaminobenzene; *N,N'*-Di-Me, *in* D-00048
1,3-Diaminobenzene; *N*-Et, *in* D-00047
1,4-Diaminobenzene; *N*-Et, *in* D-00048
▷ 1,2-Diamino-4,5-dimethylbenzene, D-00080
1,2-Diamino-4-methylbenzene; 1-*N*-Me, *in* D-00101
- ▷ *N,N*-Dimethyl-1,4-phenylenediamine, *in* D-00048
N-(1-Methylethyl)-2-pyridinamine, *in* A-00333
- C₈H₁₂N₂O**
2,5-Diaminophenol; 5-*N*-Di-Me, *in* D-00111
- C₈H₁₂N₂O₂**
4,5-Dimethoxy-1,2-benzenediamine, *in* D-00049
Pyridoxamine, P-00417
- C₈H₁₂N₂O₂S**
5,5-Diethyldihydro-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00341
- C₈H₁₂N₂O₃**
3-Acetyl-1,5,5-trimethyl-2,4-imidazolidinedione, *in* D-00866
1,3-Diethylbarbituric acid, *in* P-00429
- C₈H₁₂N₂O₄S₂**
N,N'-1,2-Phenylenebismethanesulfonamide, P-00118
- C₈H₁₂N₆O₄S₂**
3,4-Dioxohexanedioic acid bis(thiosemicarbazide), D-00990
- C₈H₁₂O₂**
1,2-Cyclooctanedione, C-00361
5,5-Dimethyl-1,3-cyclohexanedione, D-00847
- C₈H₁₂O₃**
1,4-Dioxaspiro[4.5]decan-8-one, *in* C-00339
2-Ethoxycarbonylcyclopentanone, *in* O-00060
- C₈H₁₂O₄**
2,3-Butanedione; Dimer, *in* B-00587
Fumaric acid; Di-Et ester, *in* F-00038
- C₈H₁₂O₆**
Vitamin C; 2,3-Di-Me, *in* A-00446
- C₈H₁₃N**
Pyrrole; *N*-Butyl, *in* P-00436
Pyrrole; *N*-*tert*-Butyl, *in* P-00436
- C₈H₁₃NO₂**
5,5-Dimethyl-1,3-cyclohexanedione; Monoxime, *in* D-00847
- C₈H₁₃N₃**
2,4-Diamino-*N*-dimethylaniline, *in* T-00192
4-Dimethylamino-1,2-phenylenediamine, *in* T-00192
- C₈H₁₃N₅O₂**
6-Amino-2-(diethylamino)-5-nitroso-4(1*H*)-pyrimidinone, *in* D-00109
- C₈H₁₄F₃NOSi**
N-(Dimethyl-2-propenylsilyl)-2,2,2-trifluoro-*N*-methylacetamide, D-00901
- C₈H₁₄N₂O₂**
5,5-Dimethyl-1,3-cyclohexanedione; Dioxime, *in* D-00847
Fumaric acid; Bis(dimethylamide), *in* F-00038
Octoxime, *in* C-00361
- C₈H₁₄N₂O₅**
Nitrilotriacetic acid; Monoamide, di-Me ester, *in* N-00074
- C₈H₁₄N₂O₆**
Ethylene-diaminetriacetic acid, E-00079
- C₈H₁₄N₂Si**
1-(Dimethyl-2-propenylsilyl)-1*H*-imidazole, D-00900
- C₈H₁₄N₄S₂**
1,6-Diallyl-2,5-dithiobiurea, D-00040
- C₈H₁₄N₆S₂**
1,2-Cyclohexanedione bis(thiosemicarbazone), C-00344
1,3-Cyclohexanedione bis(thiosemicarbazone), C-00345
2,2'-(1,4-Cyclohexanediylidene)bishydrazinecarbothioamide, *in* C-00339
2,2'-(3-Methyl-1,2-cyclopentandiylidene)bishydrazinecarbothioamide, *in* M-00159
- C₈H₁₄O**
(Ethenyloxy)cyclohexane, E-00047

- C₈H₁₄O₂**
 ▶ Cyclohexanecarboxylic acid; Me ester, *in* C-00336
 5,5-Dimethyl-2,4-hexanedione, D-00863
 4,5-Octanedione, O-00033
- C₈H₁₄O₃**
 ▶ Butanoic acid; Anhydride, *in* B-00604
 1-Hydroxycyclohexanecarboxylic acid; Me ester, *in* H-00146
- C₈H₁₄O₄**
 2,3-Butanediol; Di-Ac, *in* B-00586
 ▶ Diethyl succinate, *in* S-00034
 ▶ Hexanedioic acid; Di-Me ester, *in* H-00062
- C₈H₁₄O₄S**
 Mercaptobutanedioic acid; Di-Et ester, *in* M-00026
- C₈H₁₄O₄S₂**
 Succimer; Di-S-Me, di-Me ester, *in* D-00751
- C₈H₁₅BrO₂**
 2-Bromobutanoic acid; Isobutyl ester, *in* B-00496
- C₈H₁₅ClO**
 Octanoic acid; Chloride, *in* O-00036
- C₈H₁₅N**
 ▶ Octanenitrile, *in* O-00036
- C₈H₁₅NO₂**
 4-(Aminomethyl)cyclohexanecarboxylic acid, A-00238
 4,5-Octanedione; Oxime, *in* O-00033
- C₈H₁₅N₅**
 2,4,6-Triaminopyrimidine; *N*⁴,*N*⁶-Di-Et, *in* T-00194
 2,4,6-Triaminopyrimidine; *N*²,*N*²,*N*⁴,*N*⁴-Tetra-Me, *in* T-00194
 2,4,6-Triaminopyrimidine; *N*⁴,*N*⁴,*N*⁶,*N*⁶-Tetra-Me, *in* T-00194
- C₈H₁₅O₂PS₂**
 Phosphorodithioic acid *O,O*-bis(2-methylallyl) ester, P-00216
- C₈H₁₆N₂O₂**
 Dipropylglyoxime, *in* O-00033
 1,6-Hexanediamine; *N,N'*-Diformyl, *in* H-00061
N-Hydroxy-*N*-nitrosooctylamine, H-00412
 Tetramethylsuccinamide, *in* S-00034
- C₈H₁₆N₂O₄**
N,N'-1,2-Ethanediybisalanine, E-00029
- C₈H₁₆N₄**
 1,2-Cyclooctanedione; Dihydrazone, *in* C-00361
- C₈H₁₆O₂**
 3,3-Dimethyl-2-butanol; Ac, *in* D-00844
 ▶ Octanoic acid, O-00036
- C₈H₁₆O₄**
 Glyoxylic acid; Di-Et acetal, Et ester, *in* G-00038
 ▶ 1,4,7,10-Tetraoxacyclododecane, T-00113
- C₈H₁₇BO₂**
 Dimethyl cyclohexylboronate, *in* C-00352
- C₈H₁₇ClO₂S**
 1-Octanesulfonic acid; Chloride, *in* O-00034
- C₈H₁₇ClSi**
 1-Chloro-1-*tert*-butylsilylacyclopentane, C-00076
- C₈H₁₇NO**
 Octanoic acid; Amide, *in* O-00036
- C₈H₁₇NO₂**
N-Hydroxyoctanamide, H-00424
- C₈H₁₇NO₃**
 1,4,7-Trioxa-10-azacyclododecane, T-00359
- C₈H₁₇NO₃S**
 2-(Cyclohexylamino)ethanesulfonic acid, C-00348
- C₈H₁₈F₃NOSi₂**
 2,2,2-Trifluoro-*N*-(trimethylsilyl)ethanimidic acid trimethylsilyl ester, T-00266
- C₈H₁₈NO₃P**
 Diethylphosphoramidic acid cyclic 1-methyltrimethylene ester, D-00354
- C₈H₁₈N₂O₄S**
 4-(2-Hydroxyethyl)-1-piperazineethanesulfonic acid, H-00180
- C₈H₁₈N₂O₆S₂**
 1,4-Piperazinediethanesulfonic acid, P-00240
- C₈H₁₈O**
 2-Ethyl-1-hexanol, E-00083
 ▶ 2-Octanol, O-00037
- C₈H₁₈O₂**
 2-Butanone; Di-Et acetal, *in* B-00608
 ▶ 2,2,4-Trimethyl-1,3-pentanediol, T-00330
- C₈H₁₈O₃S**
 1-Heptanesulfonic acid; Me ester, *in* H-00011
 1-Octanesulfonic acid, O-00034
- C₈H₁₈O₅**
 ▶ Tetraethylene glycol, T-00043
- C₈H₁₉AsO₂**
 ▶ Dibutylarsinic acid, D-00226
- C₈H₁₉N**
 ▶ Dibutylamine, D-00223
- C₈H₁₉NO₃**
 2-[Bis(2-hydroxyethyl)amino]-2-methyl-1-propanol, B-00372
N,N-Bis(2-hydroxypropyl)ethanolamine, B-00393
- C₈H₁₉NO₅**
 2-[Bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)-1,3-propanediol, B-00370
- C₈H₁₉NS**
 ▶ 2-Aminoethanethiol; *N*-Diisopropyl, *in* A-00170
- C₈H₁₉NSi**
 1-(Trimethylsilyl)piperidine, T-00343
- C₈H₁₉O₂PS**
O,O-Dibutyl phosphonothioate, D-00240
- C₈H₁₉O₂PS₂**
O,O-Bis(2-methylpropyl) phosphorodithioate, B-00413
O,O-Dibutyl phosphorodithioate, D-00241
- C₈H₁₉O₃P**
 Diethyl (2-methylpropyl)phosphonate, *in* M-00262
- C₈H₁₉O₃PS**
O,O-Dibutyl phosphorothioate, D-00242
- C₈H₁₉O₄P**
 ▶ Dibutyl phosphate, D-00237
 Mono(2-ethylhexyl) phosphate, M-00339
- C₈H₂₀B[⊖]**
 Tetraethylborate(1-), T-00042
- C₈H₂₀BLi**
 Tetraethylborate(1-); Li salt, *in* T-00042
- C₈H₂₀BNa**
 Sodium tetraethylborate, *in* T-00042
- C₈H₂₀BrN**
 ▶ Tetrylammonium bromide, *in* T-00041
- C₈H₂₀CIN**
 ▶ Etamon chloride, *in* T-00041
- C₈H₂₀FN**
 Tetraethylammonium(1+); Fluoride, *in* T-00041
- C₈H₂₀FN₂OP**
 ▶ Tetraethylphosphorodiamidic acid; Fluoride, *in* T-00046
- C₈H₂₀N[⊕]**
 ▶ Tetraethylammonium(1+), T-00041
- C₈H₂₀NO₃P**
 Diethyl diethylphosphoramidate, D-00340
- C₈H₂₀N₂**
N,N'-Dimethyl-1,6-hexanediamine, *in* H-00061
- C₈H₂₀N₅OP**
 Tetraethylphosphorodiamidic acid; Azide, *in* T-00046
- C₈H₂₁NO**
 ▶ Tetraethylammonium(1+); Hydroxide, *in* T-00041
- C₈H₂₁NOSi₂**
 ▶ *N,O*-Bis(trimethylsilyl)acetamide, B-00470
- C₈H₂₁N₂O₂P**
 Tetraethylphosphorodiamidic acid, T-00046
- C₈H₂₃N₅**
 ▶ Tetraethylenepentamine, T-00044
- C₈H₂₄N₂O₁₂P₄**
 1,4-Butanediamine-*N,N,N,N'*-tetrakis(methylphosphonic acid), B-00585
- C₉HCIF₁₆O**
 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Chloride, *in* H-00022
- C₉HF₁₆N**
 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Nitrile, *in* H-00022
- C₉H₂F₁₆O₂**
 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid, H-00022
- C₉H₃Cl₂NO₂**
 6,7-Dichloro-5,8-quinolinedione, D-00302
- C₉H₃Cl₂NO₃**
 6,7-Dichloro-5,8-quinolinedione; *N*-Oxide, *in* D-00302
- C₉H₃F₁₅O₂**
 Pentadecafluorooctanoic acid; Me ester, *in* P-00008
- C₉H₃F₁₆NO**
 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Amide, *in* H-00022
- C₉H₃N₃**
 1,2,3-Benzenetricarbonitrile, *in* B-00031
 1,2,4-Tricyanobenzene, *in* B-00032
- C₉H₄O₃**
 1,2,3-Indanetrione, I-00025
- C₉H₄O₅**
 1,2,3-Benzenetricarboxylic acid; Anhydride, *in* B-00031
 ▶ 1,3-Dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, *in* B-00032
- C₉H₅Br₂NO**
 ▶ 5,7-Dibromo-8-hydroxyquinoline, D-00193
- C₉H₅Br₂NO₂**
 5,7-Dibromo-8-hydroxyquinoline; *N*-Oxide, *in* D-00193
- C₉H₅ClINO**
 ▶ 5-Chloro-8-hydroxy-7-iodoquinoline, C-00134
- C₉H₅CIN₂O₂**
 3-Chloro-2-quinoxalinecarboxylic acid, C-00260
- C₉H₅CIN₂O₄**
 2-(Chloromethyl)-5-nitro-1*H*-isoindole-1,3(2*H*)-dione, C-00180
- C₉H₅ClO₄S**
 2-Oxo-2*H*-1-benzopyran-6-sulfonyl chloride, *in* O-00057
- C₉H₅Cl₂NO**
 5,7-Dichloro-8-hydroxyquinoline, D-00283
- C₉H₅Cl₂NO₂**
 5,7-Dichloro-8-hydroxyquinoline; 1-Oxide, *in* D-00283

- C₉H₅F₅O₂**
Pentafluorobenzoic acid; Et ester, *in* P-00012
- C₉H₄I₂NO**
▷ 5,7-Diiodo-8-quinolinol, D-00744
- C₉H₅N₂O₂**
5,8-Quinolinedione, Q-00019
- C₉H₅NO₃**
1,2,3-Indanetrione; 2-Oxime, *in* I-00025
2,3,4(1*H*)-Quinolinetriene, Q-00022
- C₉H₅N₄O₄**
1,2,3-Benzenetricarboxylic acid; Imide, *in* B-00031
2-Cyano-1,4-benzenedicarboxylic acid, *in* B-00032
4-Hydroxy-3-nitroso-2*H*-1-benzopyran-2-one, H-00407
2-Nitro-1,3-indanedione, N-00112
- C₉H₅N₃O₅**
8-Hydroxy-5,7-dinitroquinoline, H-00165
- C₉H₅N₃O₆**
8-Hydroxy-5,7-dinitroquinoline; *N*-Oxide, *in* H-00165
- C₉H₅N₅O₅S₃**
5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2,4-thiazolidinedithione, H-00162
- C₉H₅N₅O₆S₂**
5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2-thioxo-4-thiazolidinone, H-00163
- C₉H₆BrN₃O₂S**
4-Bromo-6-(2-thiazolylazo)-1,3-benzenediol, B-00578
- C₉H₆ClNO₂**
1-(Chloromethyl)-1*H*-indole-2,3-dione, C-00177
Phthalimide; *N*-Chloromethyl, *in* P-00223
- C₉H₆ClNO₄S**
7-Chloro-8-hydroxy-5-quinolinesulfonic acid, C-00152
- C₉H₆ClN₃O**
3-Chloro-2-quinoxalinecarboxylic acid; Amide, *in* C-00260
- C₉H₆ClN₃O₂S**
4-Chloro-6-(2-thiazolylazo)-1,3-benzenediol, C-00263
- C₉H₆ClN₃O₄S₄**
5-Chloro-3-[(2,4-dithioxo-5-thiazolidinyl)azo]-2-hydroxybenzenesulfonic acid, C-00112
- C₉H₆ClN₃O₅S₂Se**
5-Chloro-2-hydroxy-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, C-00140
- C₉H₆ClN₃O₅S₃**
5-Chloro-2-hydroxy-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00141
- C₉H₆FNO**
5-Fluoro-8-hydroxyquinoline, F-00029
- C₉H₆F₃NO**
1-Cyano-2,2,2-trifluoro-1-phenylethanol, *in* H-00512
- C₉H₆INO₄S**
▷ 8-Hydroxy-7-iodo-5-quinolinesulfonic acid, H-00255
- C₉H₆N₂O₂**
▷ 8-Hydroxy-5-nitrosoquinoline, *in* Q-00019
7-Nitroso-8-hydroxyquinoline, N-00158
5-Nitroso-6-quinolinol, N-00162
3-Phenyl-1*H*-pyrazole-4,5-dione, P-00173
- C₉H₆N₂O₃**
2,4-Dihydroxy-3-nitrosoquinoline, D-00675
3-Hydroxy-2-quinoxalinecarboxylic acid, H-00537
2,3,4(1*H*)-Quinolinetriene; 3-Oxime, *in* Q-00022
- C₉H₆N₂O₄**
Methyl 2-cyano-3-nitrobenzoate, *in* N-00085
- C₉H₆N₂O₅S**
8-Hydroxy-7-nitroso-5-quinolinesulfonic acid, H-00421
- C₉H₆N₄O₃S**
2-[(5-Nitro-2-thiazolyl)azo]phenol, N-00166
- C₉H₆N₄O₃SSe**
5-[(4-Nitrophenyl)azo]-4-thioxo-2-selenazolidinone, N-00131
- C₉H₆N₄O₃S₂**
5-[(4-Nitrophenyl)azo]-2-thioxo-4-thiazolidinone, N-00132
- C₉H₆N₄O₄S**
4-[(5-Nitro-2-thiazolyl)azo]-1,3-benzenediol, N-00165
- C₉H₆N₄O₇S₂**
4-(5-Sulfothiazolylazo)-2-nitroresorcinol, S-00057
- C₉H₆N₄O₇S₂Se**
2-Hydroxy-5-nitro-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, H-00390
- C₉H₆N₄O₇S₃**
2-Hydroxy-5-nitro-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, H-00391
- C₉H₆OS₂**
▷ Di-2-thienyl ketone, D-01113
2-Mercapto-4*H*-1-benzopyran-4-thione, M-00024
2-Mercapto-4*H*-1-benzothiopyran-4-one, M-00025
- C₉H₆O₂**
▷ 4*H*-1-Benzopyran-4-one, B-00072
1,2-Indanedione, I-00023
▷ 1,3-Indanedione, I-00024
- C₉H₆O₃**
▷ 7-Hydroxy-2*H*-1-benzopyran-2-one, H-00124
- C₉H₆O₄**
4,5-Dihydroxy-2*H*-1-benzopyran-2-one, D-00537
▷ 6,7-Dihydroxy-2*H*-1-benzopyran-2-one, D-00538
7,8-Dihydroxy-2*H*-1-benzopyran-2-one, D-00539
▷ Ninhydrin, N-00071
- C₉H₆O₅S**
2-Oxo-2*H*-1-benzopyran-6-sulfonic acid, O-00057
- C₉H₆O₆**
1,2,3-Benzenetricarboxylic acid, B-00031
▷ 1,2,4-Benzenetricarboxylic acid, B-00032
1,3,5-Benzenetricarboxylic acid, B-00033
- C₉H₆O₈**
3-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic acid; Ac, *in* H-00435
- C₉H₆S₃**
4-Phenyl-3*H*-1,2-dithiole-3-thione, P-00115
5-Phenyl-3*H*-1,2-dithiole-3-thione, P-00116
- C₉H₇ClN₄O₅S₂**
5-Chloro-2-hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00133
- C₉H₇ClN₄O₅S₃**
3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]-5-chloro-2-hydroxy-benzenesulfonic acid, *in* C-00141
- C₉H₇Cl₃O₂**
Trichloroacetic acid; Benzyl ester, *in* T-00218
- C₉H₇F₃O₃**
2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid, H-00512
- C₉H₇N**
▷ Isoquinoline, I-00080
▷ Quinoline, Q-00007
- C₉H₇NO**
▷ 8-Hydroxyquinoline, H-00525
1-Hydroxyquinolinizinium betaine, H-00533
Indole; *N*-Formyl, *in* I-00033
Isoquinoline; Oxide, *in* I-00080
▷ Quinoline; *N*-Oxide, *in* Q-00007
- C₉H₇NOS₂**
Di(2-thenyl)ketoxime, *in* D-01113
- C₉H₇NO₂**
▷ 8-Hydroxyquinoline; *N*-Oxide, *in* H-00525
1*H*-Indane-1,2(3*H*)-dione-2-oxime, *in* I-00023
Phthalimide; *N*-Me, *in* P-00223
- C₉H₇NO₃S**
2(3*H*)-Benzothiazolone; *N*(?)*-Ac*, *in* B-00090
2(3*H*)-Benzoxazolethione; 3-*Ac*, *in* B-00113
2-Hydroxybenzothiazole; Ac, *in* H-00125
- C₉H₇NO₃**
5-Hydroxy-1*H*-indole-2-carboxylic acid, H-00253
Phthalimide; *N*-Hydroxymethyl, *in* P-00223
- C₉H₇NO₃S₂**
8-Mercapto-5-quinolinesulfonic acid, M-00057
- C₉H₇NO₄**
3,3-Dihydroxy-2,4(1*H*,3*H*)-quinolinedione, *in* Q-00022
N-Glyoxyloylantranilic acid, G-00039
- C₉H₇NO₄S**
8-Hydroxy-5-quinolinesulfonic acid, H-00528
- C₉H₇NO₅**
1,2,4-Benzenetricarboxylic acid; 1-Amide, *in* B-00032
1,2,4-Benzenetricarboxylic acid; 2-Amide, *in* B-00032
1,2,4-Benzenetricarboxylic acid; 4-Amide, *in* B-00032
- C₉H₇NO₆**
3-Nitro-1,2-benzenedicarboxylic acid; 1-Me ester, *in* N-00085
3-Nitro-1,2-benzenedicarboxylic acid; 2-Me ester, *in* N-00085
4-Nitro-1,2-benzenedicarboxylic acid; 1-Me ester, *in* N-00086
4-Nitro-1,2-benzenedicarboxylic acid; 2-Me ester, *in* N-00086
- C₉H₇NS**
8-Quinolinetioliol, Q-00021
- C₉H₇NSe**
8-Quinolineselenol, Q-00020
- C₉H₇N₃O**
1,2,4-Triazole; 1-Benzoyl, *in* T-00199
- C₉H₇N₃OS**
5-(2-Pyridinylmethylene)-2-thioxo-4-imidazolidinone, P-00398
- C₉H₇N₃O₂**
3-Phenyl-1*H*-pyrazole-4,5-dione; 4-Oxime, *in* P-00173
5,8-Quinolinedione; Dioxime, *in* Q-00019
- C₉H₇N₃O₂S**
2-(2-Thiazolylazo)-1,4-benzenediol, T-00139
4-(2-Thiazolylazo)-1,2-benzenediol, T-00140
4-(2-Thiazolylazo)-1,3-benzenediol, T-00141
- C₉H₇N₃O₂S₂**
5-[(2-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00460
5-[(3-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00461
5-[(4-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00462
- C₉H₇N₃O₃**
1,2,3-Indanetrione; Trioxime, *in* I-00025
- C₉H₇N₃O₄S₃**
2-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00074

- 3-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00075
4-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00076
- C₉H₇N₃O₅S**
2-[[Aminothioxomethyl]amino]carbonyl]-6-nitrobenzoic acid, A-00361
- C₉H₇N₃S**
6-Phenyl-1,2,4-triazine-3(2*H*)-thione, P-00205
- C₉H₇N₅O₃S**
5-Amino-2-(5-nitro-2-thiazolylazo)phenol, A-00289
- C₉H₇N₅O₇S₂**
2-Hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]-5-nitrobenzenesulfonic acid, H-00249
2-Hydroxy-5-nitro-3-[(2-thioxo-4-oxopyrrolidinyl)azo]benzenesulfonic acid, H-00423
- C₉H₇N₅O₇S₃**
3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, *in* H-00391
- C₉H₈AsN₃O₃S₃**
5-[(2-Arsonophenyl)azo]-2,4-thiazolidinedithione, A-00443
- C₉H₈AsN₃O₄S₂**
5-[(2-Arsonophenyl)azo]-2-thioxo-4-thiazolidinone, A-00444
- C₉H₈F₃NO₂**
2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; Amide, *in* H-00512
- C₉H₈I₂O₃**
3,5-Diiodosalicylic acid; Et ester, *in* D-00745
- C₉H₈NO₃P**
2-Quinolinyolphosphonic acid, Q-00036
- C₉H₈N₂**
▷ 8-Aminoquinoline, A-00340
- C₉H₈N₂O**
Cyanacetanilide, *in* C-00324
Hippuric acid; Nitrile, *in* H-00078
- C₉H₈N₂OS**
2-Aminobenzothiazole; 2-*N*-Ac, *in* A-00113
2-Aminobenzothiazole; 3-*N*-Ac, *in* A-00113
- C₉H₈N₂O₃**
3-(*p*-Methoxyphenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, M-00111
- C₉H₈N₂O₂**
1,3-Indanedione; Dioxime, *in* I-00024
- C₉H₈N₂O₂S₂**
6-Nitro-2(3*H*)-benzothiazolethione; *S*-Et, *in* N-00096
- C₉H₈N₂O₃S**
2-[[Aminothioxomethyl]amino]carbonyl]benzoic acid, *in* B-00018
- C₉H₈N₂O₄**
N-Glyoxyloylantranilic acid; Monooxime, *in* G-00039
- C₉H₈N₂O₆**
3,4-Dinitrobenzoic acid; Et ester, *in* D-00947
3,5-Dinitrobenzoic acid; Et ester, *in* D-00948
- C₉H₈N₂O₇**
3,4-Dinitro-1,2-benzenediol; 1-Me ether, Ac, *in* D-00941
3,4-Dinitro-1,2-benzenediol; 2-Me ether, Ac, *in* D-00941
3,5-Dinitro-1,2-benzenediol; 2-Me ether, Ac, *in* D-00942
2-Hydroxy-3,5-dinitrobenzoic acid; Et ester, *in* H-00154
2-Hydroxy-3,5-dinitrobenzoic acid; Me ether, Me ester, *in* H-00154
- C₉H₈N₂S**
3-Amino-2(1*H*)-quinolinethione, A-00341
4-Phenyl-2-mercaptoimidazole, P-00140
- C₉H₈N₄**
3-(4-Methyl-2-pyridinyl)-1,2,4-triazine, M-00294
- C₉H₈N₄OS**
2-(4-Amino-2-hydroxyphenylazo)thiazole, A-00214
2-Amino-6-(2-thiazolylazo)phenol, A-00360
4-Methyl-2-(1,3,4-thiadiazol-2-ylazo)phenol, M-00314
- C₉H₈N₄OS₂**
2-Mercapto-5-(2-hydroxy-5-methylphenylazo)-1,3,4-thiadiazole, M-00032
- C₉H₈N₄O₂S**
6-Hydroxy-3-[(4-methyl-2-thiazolyl)azo]-2(1*H*)-pyridinone, H-00331
o-Phenalahozothiohydantoin, P-00061
- C₉H₈N₄O₂S₂**
3-Amino-5-[(4-hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, *in* H-00462
- C₉H₈N₄O₄S₃**
3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, *in* O-00075
- C₉H₈N₄S**
2-Pyridinecarboxaldehyde 2-thiazolylhydrazone, P-00340
4-(2-Thiazolylazo)aniline, T-00138
- C₉H₈N₄S₂**
2-(3-Mercapto-2-quinoxalyl)-2-thiopseudourea, M-00058
- C₉H₈N₆OS₂**
1-(1,5-Di-2-thiazolylformazanyl)ethanone, D-01112
- C₉H₈N₆O₂**
5-[(4-Aminophenyl)azo]-1*H*-1,2,4-triazole-3-carboxylic acid, A-00317
- C₉H₈N₆O₃**
5-(4-Amino-2-hydroxyphenylazo)-1*H*-1,2,4-triazole-3-carboxylic acid, A-00215
- C₉H₈O**
▷ 3-Phenyl-2-propenal, P-00168
- C₉H₈O₂**
5-(2-Furanyl)-2,4-pentadienal, F-00058
▷ 3-Phenyl-2-propenoic acid, P-00169
- C₉H₈O₂S**
2-Mercapto-2,4,6-cycloheptatrien-1-one; *S*-Ac, *in* M-00027
2-Mercapto-3-phenyl-2-propenoic acid, M-00049
- C₉H₈O₃**
2,3-Dihydro-2-hydroxy-4*H*-1-benzopyran-4-one, D-00406
2,3-Dihydro-3-hydroxy-4*H*-1-benzopyran-4-one, D-00407
2,3-Dihydro-5-hydroxy-4*H*-1-benzopyran-4-one, D-00408
Glyoxylic acid; Benzyl ester, *in* G-00038
4-Hydroxybenzaldehyde; Ac, *in* H-00102
3-(2-Hydroxyphenyl)-2-propenoic acid, H-00500
 α -Oxobenzeneacetic acid; Me ester, *in* O-00055
2-Oxo-3-phenylpropanoic acid, O-00068
3-Oxo-3-phenylpropanoic acid, O-00069
▷ Tropolone; Ac, *in* T-00432
- C₉H₈O₃S**
▷ Thioaspirin, *in* M-00023
- C₉H₈O₄**
▷ 2-Acetoxybenzoic acid, A-00010
1,2-Benzenedicarboxylic acid; Mono-Me ester, *in* B-00018
1,3-Benzenedicarboxylic acid; Mono-Me ester, *in* B-00019
▷ 3-(3,4-Dihydroxyphenyl)-2-propenoic acid, D-00716
4-Hydroxy-5-methoxy-1,3-benzenedicarboxaldehyde, *in* D-00524
- 6-Hydroxy-2-methyl-7-oxo-1,3,5-cycloheptatriene-1-carboxylic acid, H-00298
- C₉H₈O₇**
3-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic acid; Di-Me ester, *in* H-00435
- C₉H₉BrO₂**
4-Bromobenzoic acid; Et ester, *in* B-00488
2-Bromo-4'-methoxyacetophenone, *in* B-00508
- C₉H₉BrO₃**
2-(4-Bromophenyl)-2-hydroxyacetic acid; Me ester, *in* B-00550
- C₉H₉Br₃O₃**
1,2,3-Tribromo-4,5,6-trimethoxybenzene, *in* T-00204
- C₉H₉ClN₂O₃**
N-(4-Chloro-2-methoxyphenyl)-2-(hydroxyimino)acetamide, C-00169
- C₉H₉ClN₄S₂**
S-(3-Mercapto-2-quinoxalyl)thiuronium(1+); Chloride, *in* M-00059
- C₉H₉ClO**
2,4-Dimethylbenzoic acid; Chloride, *in* D-00835
2-Phenylpropanoic acid; Chloride, *in* P-00167
- C₉H₉ClO₂**
2-Chlorobenzoic acid; Et ester, *in* C-00066
4-Chlorobenzoic acid; Et ester, *in* C-00067
2-Chloroethanol; Benzoyl, *in* C-00114
5-Chloro-2-hydroxy-4-methylacetophenone, C-00135
 α -Methoxybenzeneacetyl chloride, *in* M-00007
- C₉H₉ClO₃**
2-(4-Chlorophenyl)-2-hydroxyacetic acid; Me ether, *in* C-00222
(3-Chlorophenyl)methoxyacetic acid, *in* C-00221
- C₉H₉FN₂O₅**
2-[(5-Fluoro-2,4-dinitrophenyl)amino]propanamide, F-00028
- C₉H₉FO₂**
4-Fluorobenzoic acid; Et ester, *in* F-00024
- C₉H₉F₃O₃S**
3-(Trifluoromethyl)benzenesulfonic acid; Et ester, *in* T-00251
- C₉H₉IO₂**
4-Iodobenzoic acid; Et ester, *in* I-00041
- C₉H₉N**
1-Cyano-2,4-dimethylbenzene, *in* D-00835
 α -Methylbenzeneacetonitrile, *in* P-00167
- C₉H₉NO**
(1-Isocyanoethyl)benzene, I-00067
3-Phenyl-2-propenal; (*E,E*)-Oxime, *in* P-00168
- C₉H₉NOS**
2(3*H*)-Benzoxazolethione; 3-Et, *in* B-00113
2(3*H*)-Benzoxazolethione; *S*-Et, *in* B-00113
1-Ethoxybenzothiazole, *in* H-00125
 β -Oxobenzenepropanethioamide, O-00056
- C₉H₉NO₂**
2-Aminobenzaldehyde; *N*-Ac, *in* A-00096
4-Aminobenzaldehyde; *N*-Ac, *in* A-00097
2,6-Diacetylpyridine, D-00035
▷ *N*-Hydroxy-3-phenylpropenamide, H-00499
2-Oxo-3-phenylpropanoic acid; Amide, *in* O-00068
3-Oxo-3-phenylpropanoic acid; Amide, *in* O-00069
2,6-Pyridinediacetaldehyde, P-00352
- C₉H₉NO₃**
3-Aminobenzoic acid; *N*-Ac, *in* A-00104
▷ Hippuric acid, H-00078
 α -(Hydroxyimino)benzenepropanoic acid, *in* O-00068
- C₉H₉NO₃S**
Saccharin; *N*-Et, *in* S-00001

- C₉H₉NO₄**
2-Nitrobenzoic acid; Et ester, *in* N-00091
3-Nitrobenzoic acid; Et ester, *in* N-00092
▷ 4-Nitrobenzoic acid; Et ester, *in* N-00093
(4-Nitrophenyl)acetic acid; Me ester, *in* N-00120
2,6-Pyridinedicarboxylic acid; Di-Me ester, *in* P-00353
2,6-Pyridinedicarboxylic acid; Mono-Et ester, *in* P-00353
- C₉H₉NS₂**
2-Benzothiazolethiol; *S*-Et, *in* B-00089
- C₉H₉N₃**
1,2,4-Triazole; 1-Benzyl, *in* T-00199
1,2,4-Triazole; 4-Benzyl, *in* T-00199
- C₉H₉N₃O₂S**
α-Oxobenzeneacetic acid; Thiosemicarbazone, *in* O-00055
- C₉H₉N₃O₂S₂**
▷ Sulphathiazole, S-00059
- C₉H₉N₃O₃**
Aminooxoacetic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00292
Biuret; *N*-Benzoyl, *in* B-00474
- C₉H₉N₃O₈**
2,4,6-Trinitro-1,3-benzenediol; Me-Et ether, *in* T-00350
- C₉H₉N₃S**
2-Amino-3-quinoxalinethiol; *N*-Me, *in* A-00345
- C₉H₉N₄S₂[⊕]**
S-(3-Mercapto-2-quinoxaliny)thiuronium(1+), M-00059
- C₉H₉N₅**
5,6-Dimethyl-3-pyrazinyl-1,2,4-triazine, D-00903
5,6-Dimethyl-3-(3-pyridazinyl)-1,2,4-triazine, D-00907
5,6-Dimethyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-00912
- C₉H₉N₅O**
2-[[1-(Hydroxyimino)ethyl]azo]-1*H*-benzimidazole, H-00245
- C₉H₉N₅O₅**
4-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-4-methylphenol, A-00357
- C₉H₉N₅O₂**
2-Methyl-4-(1*H*-1,2,4-triazol-3-ylazo)-1,3-benzenediol, M-00328
- C₉H₉N₅S**
2-Acetylpyrazine; 2-Thiazolyldiazone, *in* A-00033
- C₉H₉O₃P**
1*H*-Inden-2-ylphosphonic acid, I-00026
- C₉H₁₀CINO**
▷ *N*-(3-Chloro-4-methylphenyl)acetamide, *in* C-00171
- C₉H₁₀CINO₂**
5-Chloro-2-hydroxy-4-methylacetophenone; Oxime, *in* C-00135
o-Chlorophenylurethane, *in* C-00058
- C₉H₁₀N₂OS**
N-(Aminothioxomethyl)-*N*-phenylacetamide, *in* P-00201
N-[(Phenylamino)thioxomethyl]acetamide, *in* P-00201
- C₉H₁₀N₂O₂**
Hippuric acid; Amide, *in* H-00078
2-Oxo-3-phenylpropanoic acid; Amide, oxime, *in* O-00068
Phenylurea; 1-*N*-Ac, *in* P-00211
Phenylurea; 3-*N*-Ac, *in* P-00211
- C₉H₁₀N₂O₂S**
▷ *S*-Carbamidothioglycolic anilide, C-00019
- C₉H₁₀N₂O₃**
2-Hydroxybenzoic acid 2-acetylhydrazide, H-00114
4-Nitrobenzylamine; *N*-Ac, *in* N-00098
- C₉H₁₀N₂S**
▷ 4-(Dimethylamino)phenyl isothiocyanate, D-00817
2-Mercaptobenzimidazole; *S*-Et, *in* M-00022
- C₉H₁₀N₄O₄**
Acetone; 2,4-Dinitrophenylhydrazone, *in* A-00007
- C₉H₁₀N₄S**
Tetrazole-5-thione; 3-Et, 1-Ph, *in* T-00131
- C₉H₁₀N₆O**
2,4-Dimethyl-6-(1*H*-tetrazol-5-ylazo)phenol, D-00920
- C₉H₁₀O**
▷ 2-Propenyloxybenzene, *in* P-00060
- C₉H₁₀OS**
Ethanethioic acid; *O*-Benzyl ester, *in* E-00038
Thiobenzoic acid; *O*-Et ester, *in* T-00155
Thiobenzoic acid; *S*-Et ester, *in* T-00155
- C₉H₁₀OS₂**
4-Hydroxydithiobenzoic acid; Et ester, *in* H-00176
- C₉H₁₀O₂**
2,4-Dimethylbenzoic acid, D-00835
▷ 4-Ethoxybenzaldehyde, *in* H-00102
2-Ethyl-4-(2-furanyl)propenal, E-00082
2'-Hydroxy-5'-methylacetophenone, H-00275
1-(2-Hydroxyphenyl)-1-propanone, H-00498
2'-Methoxyacetophenone, *in* H-00089
▷ 4'-Methoxyacetophenone, *in* H-00090
2-Methoxy-4-methylbenzaldehyde, *in* H-00276
2-Methoxy-5-methylbenzaldehyde, *in* H-00277
3-Methylbenzoic acid; Me ester, *in* M-00137
▷ 4-Methylbenzoic acid; Me ester, *in* M-00138
▷ Phenylacetic acid; Me ester, *in* P-00076
2-Phenylpropanoic acid, P-00167
- C₉H₁₀O₂S**
α-Mercaptobenzeneacetic acid; Me ester, *in* M-00019
2-Mercapto-3-phenylpropanoic acid, M-00047
3-Mercapto-3-phenylpropanoic acid, M-00048
- C₉H₁₀O₂Se**
2-(Phenylseleno)propanoic acid, P-00191
- C₉H₁₀O₃**
1-(2,4-Dihydroxyphenyl)-1-propanone, D-00715
2,4-Dimethoxybenzaldehyde, *in* D-00517
2,5-Dimethoxybenzaldehyde, *in* D-00518
▷ 3-Ethoxy-4-hydroxybenzaldehyde, *in* D-00519
▷ Ethylparaben, *in* H-00113
▷ Ethyl salicylate, *in* H-00112
▷ 2'-Hydroxy-4'-methoxyacetophenone, *in* D-00507
2'-Hydroxy-5'-methoxyacetophenone, *in* D-00508
4'-Hydroxy-2'-methoxyacetophenone, *in* D-00507
2-Hydroxy-3-methylbenzoic acid; Me ester, *in* H-00278
2-Hydroxy-5-methylbenzoic acid; Me ester, *in* H-00279
3-(4-Hydroxyphenyl)propanoic acid, H-00497
Mandelic acid; Me ester, *in* M-00007
▷ 4-Methoxybenzoic acid; Me ester, *in* M-00079
2-Methoxy-3-methylbenzoic acid, *in* H-00278
2-Methoxy-5-methylbenzoic acid, *in* H-00279
2-Methoxyphenol; Ac, *in* M-00102
- C₉H₁₀O₄**
3-Acetyl-4-hydroxy-6-methyl-2*H*-pyran-2-one; Me enol ether, *in* A-00019
2,5-Dihydroxybenzoic acid; Et ester, *in* D-00532
2,4'-Dihydroxy-3'-methoxyacetophenone, *in* T-00268
3-Hydroxy-4,5-dimethoxybenzaldehyde, *in* T-00273
- ▷ 4-Hydroxy-3,5-dimethoxybenzaldehyde, *in* T-00273
4-Hydroxy-3-methoxyphenylacetic acid, *in* D-00687
- C₉H₁₀O₅**
2,3,4-Trihydroxybenzoic acid; Et ester, *in* T-00276
- C₉H₁₀S₂**
Dithiobenzoic acid; Et ester, *in* D-01117
- C₉H₁₁ClO₃S**
▷ 2-Chloroethanol; 4-Methylbenzenesulfonate, *in* C-00114
- C₉H₁₁F₅O₂**
1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione, P-00017
- C₉H₁₁N**
Isopropylidencaniline, *in* A-00007
- C₉H₁₁NO**
▷ Acet-*o*-toluidide, *in* M-00123
2-Acetyl-4-ethylpyridine, A-00016
2-Aminobenzaldehyde; *N,N*-Di-Me, *in* A-00096
4-Aminobenzaldehyde; *N*-Et, *in* A-00097
▷ Benzamide; *N*-Et, *in* B-00008
▷ 4-(Dimethylamino)benzaldehyde, D-00779
2,3-Dimethylaniline; *N*-Formyl, *in* D-00827
2,5-Dimethylaniline; *N*-Formyl, *in* D-00828
2,6-Dimethylaniline; *N*-Formyl, *in* D-00829
3,4-Dimethylaniline; *N*-Formyl, *in* D-00830
2,4-Dimethylbenzoic acid; Amide, *in* D-00835
1-[4-(Methylamino)phenyl]ethanone, *in* A-00091
▷ 4-Methylaniline; *N*-Ac, *in* M-00124
4-Methylbenzoic acid; Methylamide, *in* M-00138
1-Phenylethylamine; *N*-Formyl, *in* P-00130
2-Phenylpropanoic acid; Amide, *in* P-00167
- C₉H₁₁NOS**
2-Aminobenzenethiol; *S*-Me, *N*-Ac, *in* A-00101
Mercaptoacetic acid; *S*-Me, anilide, *in* M-00016
2-Mercapto-*N*-(4-methylphenyl)acetamide, M-00036
2-Mercapto-*N*-phenylpropanamide, *in* M-00051
3-Mercapto-*N*-phenylpropanamide, *in* M-00052
- C₉H₁₁NOS₂**
5-(Cyclopentylmethylene)-2-thioxo-4-thiazolidinone, C-00366
- C₉H₁₁NO₂**
2-Acetylpyridine; Ethylene ketal, *in* A-00039
3-Aminobenzoic acid; *N,N*-Di-Me, *in* A-00104
3-Aminobenzoic acid; *N*-Et, *in* A-00104
3-Aminobenzoic acid; Et ester, *in* A-00104
4-Aminobenzoic acid; *N*-Me, Me ester, *in* A-00105
4-Aminophenol; *N*-Me, Ac, *in* A-00302
▷ Ethyl 4-aminobenzoate, *in* A-00105
2'-Hydroxyacetophenone; Me ether, oxime, *in* H-00089
4'-Hydroxyacetophenone; Me ether, oxime, *in* H-00090
2-[(2-Hydroxyethyl)imino]methylphenol, H-00179
2'-Hydroxy-5'-methylacetophenone; Oxime, *in* H-00275
3-(4-Hydroxyphenyl)propanoic acid; Amide, *in* H-00497
1-(2-Hydroxyphenyl)-1-propanone; Oxime, *in* H-00498
▷ 2-Methoxyacetanilide, *in* M-00072
▷ *N*-(4-Methoxyphenyl)acetamide, *in* M-00073
- C₉H₁₁NO₂S**
2-Mercapto-*N*-(4-methoxyphenyl)acetamide, M-00033
- C₉H₁₁NO₃**
▷ 4-Amino-2-hydroxybenzoic acid; Et ester, *in* A-00184
2,4-Dihydroxybenzaldehyde; Di-Me ether, oxime, *in* D-00517

- 1-(2,4-Dihydroxyphenyl)-1-propanone; Oxime, *in* D-00715
Tyrosine, T-00435
- C₉H₁₁NO₃S**
N-(Ethylsulfonyl)benzamide, E-00113
4-Nitrobenzaldehyde; Di-Me thioacetal, *in* N-00082
- C₉H₁₁NO₄**
1-(Dimethoxymethyl)-2-nitrobenzene, *in* N-00081
1-(Dimethoxymethyl)-4-nitrobenzene, *in* N-00082
- C₉H₁₁NO₄S**
3-(Benzenesulfonylamino)propanoic acid, B-00027
- C₉H₁₁NO₅**
3-(Aminomethyl)furan-*N,N*-diacetic acid, A-00242
- C₉H₁₁NS**
1,2,3,4-Tetrahydro-8-quinolinethiol, T-00067
- C₉H₁₁N₃O**
2,3-Butanedione mono(2-pyridinylhydrazone), B-00600
- C₉H₁₁N₃OS**
2'-Hydroxyacetophenone; Thiosemicarbazone, *in* H-00089
2-Hydroxy-5-methylbenzaldehyde; Thiosemicarbazone, *in* H-00277
4-Methoxybenzaldehyde; Thiosemicarbazone, *in* M-00075
3-(5-Methyl-2-furanyl)-2-propenal; Thiosemicarbazone, *in* M-00182
- C₉H₁₁N₃O₂**
3-(2-Acetophenyl)methyltriazene *N*-oxide, A-00009
2,6-Diacetylpyridine; Dioxime, *in* D-00035
2,6-Diaminopyridine; 2,6-*N*-Di-Ac, *in* D-00119
Hippuric acid; Hydrazone, *in* H-00078
2-Hydroxy-5-methylbenzaldehyde; Semicarbazone, *in* H-00277
2-[(2-Hydroxy-4-methylphenyl)methylene]hydrazinecarboxamide, *in* H-00276
2,6-Pyridinediacetoxime, *in* P-00352
- C₉H₁₁N₃O₂S**
2',4'-Dihydroxyacetophenone; Thiosemicarbazone, *in* D-00507
▷ 2-[(4-Hydroxy-3-methoxyphenyl)methylene]hydrazinecarbothioamide, H-00271
- C₉H₁₁N₃O₃**
2,6-Diaminopyridine; 2,6-*N*-Di-Ac, 1-oxide, *in* D-00119
2',4'-Dihydroxyacetophenone; Semicarbazone, *in* D-00507
- C₉H₁₁N₃S₂**
N,N'-Dimethyl-2,6-pyridinedicarbothioamide, D-00908
- C₉H₁₁O₃P**
Methyl hydrogen (2-phenylethenyl) phosphonate, *in* P-00129
- C₉H₁₂BrNO₃S**
(2-Hydroxy-5-nitrobenzyl)dimethylsulfonium(1+); Bromide, *in* H-00384
- C₉H₁₂ClNO₃S**
(2-Hydroxy-5-nitrobenzyl)dimethylsulfonium(1+); Chloride, *in* H-00384
- C₉H₁₂NO₃S[⊕]**
(2-Hydroxy-5-nitrobenzyl)dimethylsulfonium(1+), H-00384
- C₉H₁₂N₂O**
Acetamidoxime; *O*-Benzyl, *in* A-00004
2-Acetyl-4-ethylpyridine; Oxime (*Z*-), *in* A-00016
4-(Dimethylamino)benzaldehyde; (*E*)-Oxime, *in* D-00779
- N*-Hydroxy-2,4-dimethylbenzencarboximidamide, *in* D-00835
- C₉H₁₂N₂O₂**
3,4-Diaminobenzoic acid; Et ester, *in* D-00050
3,5-Diaminobenzoic acid; Et ester, *in* D-00051
- C₉H₁₂N₂O₃S**
N-(Ethylsulfonyl)benzamide; Oxime, *in* E-00113
- C₉H₁₂N₂O₄**
2-Amino-1-(4-nitrophenyl)-1,3-propanediol, A-00284
5,5-Dimethyl-2,4-imidazolidinedione; 1,3-*N*-Di-Ac, *in* D-00866
- C₉H₁₂N₂S**
N,N-Dimethyl-*N'*-phenylthiourea, *in* P-00201
- C₉H₁₂N₄O**
2,3-Butanedione; Monoxime, 2-pyridylhydrazone, *in* B-00587
- C₉H₁₂N₆O₃**
1,3,5-Triazine-2,4,6-triamine; *N,N',N''*-Tri-Ac, *in* T-00197
- C₉H₁₂O**
1-Methoxy-2,4-dimethylbenzene, *in* D-00884
2-Methoxy-1,3-dimethylbenzene, *in* D-00885
4-Methoxy-1,2-dimethylbenzene, *in* D-00886
- C₉H₁₂OS₃**
3,5-Diethyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00342
3-Methyl-5-propyl-2,6-dimercapto-4*H*-thiopyran-4-one, M-00258
- C₉H₁₂O₂**
1,2-Dimethoxy-3-methylbenzene, *in* M-00127
1,3-Dimethoxy-5-methylbenzene, *in* M-00128
1-Ethoxy-2-methoxybenzene, *in* B-00020
1-Ethoxy-3-methoxybenzene, *in* B-00021
1-Ethoxy-4-methoxybenzene, *in* B-00022
▷ 1-Methyl-1-phenylethyl hydroperoxide, M-00228
- C₉H₁₂O₂S**
3-Phenylthio-1,2-propanediol, *in* M-00050
- C₉H₁₂O₃**
2,5-Dimethoxybenzyl alcohol, D-00768
1,2,3-Trimethoxybenzene, *in* B-00034
1,2,4-Trimethoxybenzene, *in* B-00035
- C₉H₁₂O₃S**
▷ 4-Methylbenzenesulfonic acid; Et ester, *in* M-00130
- C₉H₁₂O₆**
Aconitic acid; Tri-Me ester, *in* A-00061
5,6-*O*-Isopropylidene-*L*-threo-hex-2-enono-1,4-lactone, *in* A-00446
- C₉H₁₂S**
1-(Ethylthio)-2-methylbenzene, *in* M-00131
1-Methyl-4-(ethylthio)benzene, *in* M-00133
- C₉H₁₃F₃O₂**
1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255
- C₉H₁₃N**
▷ Benzylamine; *N,N*-Di-Me, *in* B-00163
2,3-Dimethylaniline; *N*-Me, *in* D-00827
2,5-Dimethylaniline; *N*-Me, *in* D-00828
2,6-Dimethylaniline; *N*-Me, *in* D-00829
▷ 4-Methylaniline; *N*-Et, *in* M-00124
1-Phenylethylamine; *N*-Me, *in* P-00130
1-Phenylethylamine; *N*-Me, *in* P-00130
▷ 1-Phenyl-2-propylamine, P-00172
- C₉H₁₃NO**
1-(Dimethylamino)-2-methoxybenzene, *in* A-00300
4-Methoxy-*N,N*-dimethylaniline, *in* M-00073
2-[(Phenylmethyl)amino]ethanol, P-00144
- C₉H₁₃N₃O**
▷ Adrenaline, A-00066
- C₉H₁₃NS**
2-Aminobenzenethiol; *N,N,S*-Tri-Me, *in* A-00101
- C₉H₁₃N₃**
6-Methyl-2-pyridinecarboxaldehyde; Dimethylhydrazone, *in* M-00266
- C₉H₁₃N₃O**
2-(Dimethylamino)benzoic acid hydrazide, D-00780
4-Phenylsemicarbazide; 1,1-Di-Me, *in* P-00193
2-Phenylsemicarbazide; 4-Et, *in* P-00192
- C₉H₁₃N₃O₂**
Tyrosine; Hydrazone, *in* T-00435
- C₉H₁₃O₂P**
Isopropyl phenylphosphinate, *in* P-00163
- C₉H₁₄Br₃N**
PTAB, *in* T-00336
- C₉H₁₄ClNO₄**
Trimethylphenylammonium(1+); Perchlorate, *in* T-00336
- C₉H₁₄IN**
▷ Trimethylphenylammonium(1+); Iodide, *in* T-00336
- C₉H₁₄N[⊕]**
Trimethylphenylammonium(1+), T-00336
- C₉H₁₄NO₄P**
[(Ethylamino)(2-hydroxyphenyl)methyl]phosphonic acid, E-00065
- C₉H₁₄N₂**
1,3-Diaminobenzene; *N,N,N'*-Tri-Me, *in* D-00047
1,2-Diamino-4-methylbenzene; 1,2-*N*-Di-Me, *in* D-00101
1,2-Diamino-4-methylbenzene; 1-*N*-Di-Me, *in* D-00101
- C₉H₁₄N₂O**
1-[(2-Aminophenyl)amino]-2-propanol, A-00305
- C₉H₁₄N₂O₄**
4,5-Dihydro-1*H*-pyrazole-3,4-dicarboxylic acid; Di-Et ester, *in* D-00480
- C₉H₁₄N₄O₂S**
5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 3-thiosemicarbazone, *in* D-00848
- C₉H₁₄N₄O₂S₂**
N,N-Diethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00349
- C₉H₁₄O₂**
1,2-Cyclononanedione, C-00360
4-Isopropyl-1,2-cyclohexanedione, I-00071
- C₉H₁₄O₂S**
3-Cyclohexyl-2-mercapto-2-propenoic acid, C-00355
- C₉H₁₄O₄**
2-Methylenebutanedioic acid; Di-Et ester, *in* M-00176
- C₉H₁₄O₅S**
3-Mercapto-1,2-propanediol; Tri-Ac, *in* M-00050
- C₉H₁₄O₇**
Trimethyl citrate, *in* C-00299
- C₉H₁₅ClO₄**
3-[(Chlorocarbonyl)oxy]butanoic acid; *tert*-Butyl ester, *in* C-00078
- C₉H₁₅NO₆**
Nitriilotriacetic acid; Tri-Me ester, *in* N-00074
- C₉H₁₅N₃OS**
6-Hexyl-4,5-dihydro-5-thioxo-1,2,4-triazin-3(2*H*)-one, H-00074
- C₉H₁₅N₅O₂S**
2-[2,3-Bis(hydroxyimino)-5,5-dimethylcyclohexylidene]hydrazinecarbothioamide, *in* D-00848
- C₉H₁₅O₂PSi**
Trimethylsilyl phenylphosphinate, *in* P-00163

- C₉H₁₆N₂O₂**
1,2-Cyclononanedione; Dioxime, *in* C-00360
4-Isopropylloxime, *in* I-00071
- C₉H₁₆N₂S**
1-Ethyl-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, E-00069
- C₉H₁₆N₆S₂**
1,3-Cyclopentanedione bis(4-methylthiosemicarbazone), C-00363
- C₉H₁₆O**
2-Propylcyclohexanone, P-00275
- C₉H₁₆O₂**
7-Methyl-2,4-octanedione, M-00209
4,6-Nonanedione, N-00168
- C₉H₁₆O₃**
1-Hydroxycyclohexanecarboxylic acid; Et ester, *in* H-00146
- C₉H₁₇NO**
2-Propylcyclohexanone; Oxime, *in* P-00275
- C₉H₁₈F₃NOSi**
N-(*tert*-Butyldimethylsilyl)-*N*-methyltrifluoroacetamide, B-00630
- C₉H₁₈N₂O₂**
4,6-Nonanedione; Dioxime, *in* N-00168
- C₉H₁₈N₂O₂S₂**
4-Morpholinecarbodithioic acid; Compd. with morpholine, *in* M-00345
- C₉H₁₈N₂O₃**
Leucylalanine, L-00005
- C₉H₁₈N₂Si**
N-(*tert*-Butyldimethylsilyl)imidazole, B-00628
- C₉H₁₈N₄**
1,2-Cyclononanedione; Dihydrazone, *in* C-00360
- C₉H₁₈OS₂**
O,S-Dibutyldithiocarbonate, *in* D-01125
- C₉H₁₈O₂**
Octanoic acid; Me ester, *in* O-00036
- C₉H₁₈O₃**
Dibutyl carbonate, D-00229
- C₉H₁₉NO₂**
Alanine; *N*-Di-Et, Et ester, *in* A-00074
- C₉H₁₉NO₃**
10-Methyl-1,4,7-trioxa-10-azacyclodecane, *in* T-00359
- C₉H₁₉NO₃S**
3-(Cyclohexylamino)-1-propanesulfonic acid, C-00350
- C₉H₁₉NO₄S**
3-(Cyclohexylamino)-2-hydroxy-1-propanesulfonic acid, C-00349
- C₉H₁₉NS₂**
N-Dibutyldithiocarbamic acid, D-00232
- C₉H₁₉NSe₂**
Dibutyldiselenocarbamic acid, D-00231
- C₉H₂₀NO₂PS₃**
S-Ethyl-*N*-(diisopropylthiophosphoryl)dithiocarbamate, *in* B-00404
- C₉H₂₀N₂O₄S**
4-(2-Hydroxyethyl)-1-piperazinepropanesulfonic acid, H-00181
- C₉H₂₀N₂O₅S**
 β -Hydroxy-4-(2-hydroxyethyl)-1-piperazinepropanesulfonic acid, H-00203
- C₉H₂₀N₂S**
N,N'-Bis(1,1-dimethylethyl)thiourea, *in* T-00175
Thiourea; *N*-Tetra-Et, *in* T-00175
- C₉H₂₀N₃OPS**
Tetraethyl phosphor(isothiocyanatidic) diamide, *in* T-00046
- C₉H₂₀N₃O₂P**
Tetraethyl phosphor(isocyanatidic) diamide, *in* T-00046
- C₉H₂₀O**
2-Octanol; Me ether, *in* O-00037
- C₉H₂₀O₂**
2,2-Dimethoxy-pentane, *in* P-00036
- C₉H₂₀O₂Si**
tert-Butyl trimethylsilylacetate, *in* T-00339
- C₉H₂₀O₃S**
1-Octanesulfonic acid; Me ester, *in* O-00034
- C₉H₂₁ClSi**
Chlorotripropylsilane, C-00272
- C₉H₂₁N**
▷ Dibutylmethylamine, *in* D-00223
▷ Tripropylamine, T-00380
- C₉H₂₁NOSi**
N-(*tert*-Butyldimethylsilyl)-*N*-methylacetamide, B-00629
- C₉H₂₁NO₂**
Dimethyl(dipropoxymethyl)amine, D-00854
Tetraethylammonium(1+); Formate, *in* T-00041
- C₉H₂₁O₃P**
Dibutyl methylphosphonate, *in* M-00244
Di-*tert*-butyl methylphosphonate, *in* M-00244
- C₉H₂₂N₂S₂**
Diethylammonium diethyldithiocarbamate, *in* D-00344
- C₉H₂₃N₂O₂P**
Methyl tetraethylphosphorodiamidate, *in* T-00046
- C₁₀H₂O₆**
▷ 1*H*,3*H*-Benzo[1,2-*c*:4,5-*c'*]difuran-1,3,5,7-tetrone, *in* B-00029
- C₁₀H₄Cl₂O₂**
▷ 2,3-Dichloro-1,4-naphthoquinone, D-00286
- C₁₀H₅BrO₂**
3-Bromo-1,2-naphthoquinone, B-00537
▷ 6-Bromo-1,2-naphthoquinone, B-00538
- C₁₀H₅ClO₂**
4-Chloro-1,2-naphthoquinone, C-00187
6-Chloro-1,2-naphthoquinone, C-00188
- C₁₀H₅F₆IO₄**
[Bis(trifluoroacetoxy)iodo]benzene, B-00462
- C₁₀H₅F₁₅O₂**
Pentadecafluorooctanoic acid; Et ester, *in* P-00008
- C₁₀H₅NO₂**
2-Cyano-1,3-indanedione, *in* D-00991
- C₁₀H₆BrClN₂**
4-Bromo-1-naphthalenediazonium(1+); Chloride, *in* B-00536
- C₁₀H₆BrNO₂**
3-Bromo-1-nitroso-2-naphthalenol, *in* B-00537
3-Bromo-2-nitroso-1-naphthalenol, *in* B-00537
- C₁₀H₆BrN₂[⊕]**
4-Bromo-1-naphthalenediazonium(1+); B-00536
- C₁₀H₆Br₂O₆**
2,5-Dibromo-3,6-dihydroxy-1,4-benzoquinone; Di-Ac, *in* D-00182
- C₁₀H₆Br₄O₄**
Tetrabromo-1,2-benzenediol; Di-Ac, *in* T-00012
- C₁₀H₆ClNO**
2-Quinolinecarboxylic acid; Chloride, *in* Q-00017
- C₁₀H₆ClNO₂**
4-Chloro-2-nitroso-1-naphthol, *in* C-00187
- C₁₀H₆Cl₂N₂**
4,4'-Dichloro-2,2'-bipyridine, D-00253
- C₁₀H₆Cl₂O₅S₂**
7-Hydroxy-1,3-naphthalenedisulfonic acid; Dichloride, *in* H-00343
- C₁₀H₆Cl₂O₆**
2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone; Di-Ac, *in* D-00262
- C₁₀H₆Cl₂O₈S₂**
3,6-Dichloro-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00263
- C₁₀H₆F₃NO₂**
7-Amino-4-(trifluoromethyl)-2*H*-1-benzopyran-2-one, A-00365
- C₁₀H₆F₆O₂**
1,1,1,3,3,3-Hexafluoro-2-propanol; Benzoyl, *in* H-00032
- C₁₀H₆N₂**
2-Cyanoquinoline, *in* Q-00017
8-Quinolinecarbonitrile, *in* Q-00018
- C₁₀H₆N₂O₂**
 α -(Hydroxymethylene)-2-benzoxazoleacetone, H-00287
- C₁₀H₆N₂O₂S**
1-(Isothiocyanatomethyl)-1*H*-indole-2,3-dione, I-00096
- C₁₀H₆N₂O₆**
▷ 1,8-Dihydroxy-2,4-dinitronaphthalene, D-00582
- C₁₀H₆N₂O₈S**
8-Hydroxy-5,7-dinitro-2-naphthalenesulfonic acid, H-00158
- C₁₀H₆N₂O₁₀S₂**
4,5-Dihydroxy-3,6-dinitroso-2,7-naphthalenedisulfonic acid, D-00583
- C₁₀H₆N₂Se**
Naphtho[2,3-*c*][1,2,5]selenadiazole, N-00038
- C₁₀H₆N₄O₄S₂**
▷ 2,2'-Dithiobis[5-nitropyridine], D-01121
- C₁₀H₆N₄O₆S**
2,4-Dihydroxy-5-[[5-nitro-2-thiazolyl]azo]benzoic acid, D-00680
- C₁₀H₆O₂**
▷ 1,2-Naphthoquinone, N-00031
▷ 1,4-Naphthoquinone, N-00032
- C₁₀H₆O₂S₆**
3,3'-Bi[2,6-dimercapto-4*H*-thiopyran-4-one], B-00203
- C₁₀H₆O₃**
5-Hydroxy-1,2-naphthoquinone, H-00372
7-Hydroxy-1,2-naphthoquinone, H-00373
- C₁₀H₆O₄**
▷ Di(2-furyl)ethanedione, D-00364
1,3-Dioxo-2-indanecarboxylic acid, D-00991
- C₁₀H₆O₅**
2-Furancarboxylic acid; Anhydride, *in* F-00050
7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, H-00426
2,5,8-Trihydroxy-1,4-naphthoquinone, T-00300
- C₁₀H₆O₅S**
▷ 1,2-Naphthoquinone-4-sulfonic acid, N-00033
1,2-Naphthoquinone-5-sulfonic acid, N-00034
1,2-Naphthoquinone-6-sulfonic acid, N-00035
1,2-Naphthoquinone-7-sulfonic acid, N-00036
- C₁₀H₆O₈**
▷ 1,2,4,5-Benzenetetracarboxylic acid, B-00029
- C₁₀H₇BrN₂O₂**
6-Bromo-1,2-naphthoquinone; Dioxime, *in* B-00538
- C₁₀H₇BrN₄O₂**
5-(5-Bromo-2-pyridinylazo)-6-hydroxy-2(1*H*)-pyridinone, B-00571

- C₁₀H₇BrN₄O₂S**
5-Amino-2-(5-bromo-2-thiazolylazo)benzoic acid, A-00128
- C₁₀H₇BrO₃**
4-(Bromomethyl)-7-hydroxy-2*H*-1-benzopyran-2-one, B-00524
- C₁₀H₇Br₂NO**
5,7-Dibromo-8-hydroxy-2-methylquinoline, D-00190
5,7-Dibromo-8-methoxyquinoline, *in* D-00193
- C₁₀H₇Br₂P**
Dibromo-1-naphthylphosphine, *in* N-00055
- C₁₀H₇ClN₂O₂**
4-Chloro-1,2-naphthoquinone; Dioxime, *in* C-00187
6-Chloro-1,2-naphthoquinone; Dioxime, *in* C-00188
- C₁₀H₇ClN₄O₇S**
Lumomagneson, L-00016
- C₁₀H₇ClO₂S**
2-Naphthalenesulfonic acid; Chloride, *in* N-00015
- C₁₀H₇Cl₂NO**
▷ 5,7-Dichloro-8-hydroxy-2-methylquinoline, D-00280
- C₁₀H₇Cl₂P**
Dichloro-1-naphthylphosphine, *in* N-00055
- C₁₀H₇FO₂S**
2-Naphthalenesulfonic acid; Fluoride, *in* N-00015
- C₁₀H₇F₃OS**
1,1,1-Trifluoro-4-phenyl-4-thioxo-2-butanone, T-00262
- C₁₀H₇F₃O₂**
4,4,4-Trifluoro-1-phenyl-1,3-butanedione, T-00260
- C₁₀H₇F₅O₃**
2,3,4,5,6-Pentafluoro- α -methoxy- α -methylbenzeneacetic acid, P-00019
- C₁₀H₇NO**
2-Quinolinecarboxaldehyde, Q-00009
- C₁₀H₇NOS**
2-Pyridinyl-2-thienylmethanone, P-00408
5-(4-Pyridinyl)-2-thiophenecarboxaldehyde, P-00409
- C₁₀H₇NOS₂**
5-Phenylmethylene-2-thioxo-4-thiazolidinone, P-00148
- C₁₀H₇NO₂**
▷ 1-Nitroso-2-naphthol, N-00160
▷ 2-Nitroso-1-naphthol, N-00161
▷ 2-Quinolinecarboxylic acid, Q-00017
8-Quinolinecarboxylic acid, Q-00018
- C₁₀H₇NO₂S₂**
5-[3-(2-Furanyl)-2-propenylidene]-2-thioxo-4-thiazolidinone, F-00061
5-[(2-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00486
5-[(3-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00487
- C₁₀H₇NO₃**
1,3-Dioxo-2-indanecarboxylic acid; Amide, *in* D-00991
 α -(Hydroxymethylene)-2-benzoxazoleacetaldehyde, H-00286
6-Hydroxy-4-quinolinecarboxylic acid, H-00527
▷ Isatin; *N*-Ac, *in* I-00056
1-Nitroso-2,7-naphthalenediol, N-00159
Phthalimide; *N*-Ac, *in* P-00223
2-Quinolinecarboxylic acid; *N*-Oxide, *in* Q-00017
2,3,4(1*H*)-Quinolinetrione; 1-Me, *in* Q-00022
- C₁₀H₇NO₄**
▷ Di(2-furyl)ethanedione; Monoxime, *in* D-00364
- 6,7-Dihydroxy-1-isoquinolinecarboxylic acid, D-00637
5-Hydroxy-3-phenyl-4-isoxazolecarboxylic acid, H-00475
Isatin; 1-Methoxycarbonyl, *in* I-00056
- C₁₀H₇NO₅S**
4-Hydroxy-3-nitroso-1-naphthalenesulfonic acid, H-00415
- C₁₀H₇NO₈S₂**
▷ 3-Hydroxy-4-nitroso-2,7-naphthalenedisulfonic acid, H-00414
- C₁₀H₇NO₉S₂**
4,5-Dihydroxy-3-nitroso-2,7-naphthalenedisulfonic acid, D-00672
- C₁₀H₇NS₂**
4-Quinolinecarbodithioic acid, Q-00008
- C₁₀H₇N₃**
1*H*-Naphtho[2,3-*d*]triazole, N-00039
- C₁₀H₇N₃O₂S**
1,2,3-Indanetrione; 2-(Thiosemicarbazone), *in* I-00025
- C₁₀H₈**
▷ Azulene, A-00481
▷ Naphthalene, N-00001
- C₁₀H₈BrNO₃**
3-(Bromomethyl)-7-methoxy-2*H*-1,4-benzoxazin-2-one, B-00525
- C₁₀H₈ClF₃O₂**
2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; Me ether, chloride, *in* H-00512
- C₁₀H₈CINO₃S**
8-Methoxy-5-quinolinesulfonyl chloride, M-00121
- C₁₀H₈CIN₃O₄S₄**
5-Chloro-2-hydroxy-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzenesulfonic acid, C-00163
- C₁₀H₈MgN₂O₆S₃**
Bispyrithione magsulfex, *in* D-01122
- C₁₀H₈N₂**
▷ 2,2'-Bipyridine, B-00220
▷ 2,3'-Bipyridine, B-00221
▷ 4,4'-Bipyridine, B-00222
- C₁₀H₈N₂O**
2,2'-Bipyridine; 1-Oxide, *in* B-00220
2,3'-Bipyridine; 1'-Oxide, *in* B-00221
4,4'-Bipyridine; *N*-Oxide, *in* B-00222
1*H*-Imidazole; *N*-Benzoyl, *in* I-00001
2-Quinolinecarboxaldehyde; Oxime, *in* Q-00009
2-Quinolinecarboxamide, *in* Q-00017
- C₁₀H₈N₂O₅**
5-Benzyl-2-thioxo-4-imidazolidinone, B-00194
2-Pyridyl-2-thienyl- β -ketoxime, *in* P-00408
- C₁₀H₈N₂O₅S₂**
3-[(Phenylmethylene)amino]-2-thioxo-4-thiazolidinone, P-00146
- C₁₀H₈N₂O₂**
2,2'-Bipyridine; 1,1'-Dioxide, *in* B-00220
2,3'-Bipyridine; 1,1'-Dioxide, *in* B-00221
4,4'-Bipyridine; *N,N'*-Dioxide, *in* B-00222
1,2-Dihydro-3,6-pyridazinedione; 1-Phenyl, *in* D-00481
3-Methyl-1-phenyl-1*H*-pyrazole-4,5-dione, M-00239
1,4-Naphthoquinone; Dioxime, *in* N-00032
1,2-Naphthoquinone; Dioxime (1*Z*,2*E*), *in* N-00031
Neocupferron, N-00061
N-2-Pyridinyl-2-furancarboxamide, P-00390
- C₁₀H₈N₂O₂S**
5-[(2-Hydroxyphenyl)methylene]-2-thioxo-4-imidazolidinone, H-00485
- C₁₀H₈N₂O₂S₂**
Dipyrrithione, *in* D-01122
- C₁₀H₈N₂O₃**
5-Hydroxy-1,2-naphthoquinone; Dioxime, *in* H-00372
7-Hydroxy-1,2-naphthoquinone; Dioxime, *in* H-00373
- C₁₀H₈N₂O₄**
▷ α -Furildioxime, *in* D-00364
- C₁₀H₈N₂O₅S**
5,6-Dihydro-5,6-bis(hydroxyimino)-1-naphthalenesulfonic acid, *in* N-00034
5,6-Dihydro-5,6-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00035
7,8-Dihydro-7,8-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00036
1,2-Naphthoquinone-4-sulfoic acid; Dioxime, *in* N-00033
- C₁₀H₈N₂O₈**
3,5-Dinitro-1,2-benzenediol; Di-Ac, *in* D-00942
- C₁₀H₈N₂S₂**
▷ 2,2'-Dithiobispyridine, D-01122
4,4'-Dithiobispyridine, D-01123
- C₁₀H₈N₄**
1*H*-Naphtho[2,3-*d*]triazole; 1-Amino, *in* N-00039
- C₁₀H₈N₄O₂S**
6-Amino-2,3-dihydro-5-nitroso-1-phenyl-2-thioxo-4(1*H*)-pyrimidinone, A-00153
5-Amino-2-(2-thiazolylazo)benzoic acid, A-00359
- C₁₀H₈N₄O₅**
▷ Picrolonic acid, P-00235
- C₁₀H₈N₄O₆S₄**
2-Hydroxy-5-nitro-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzenesulfonic acid, H-00422
- C₁₀H₈O**
▷ 1-Naphthol, N-00025
▷ 2-Naphthol, N-00026
- C₁₀H₈O₂**
▷ 4-Methyl-2*H*-1-benzopyran-2-one, M-00141
3-Methyl-1,2-indandione, M-00194
▷ 1,2-Naphthalenediol, N-00007
▷ 1,3-Naphthalenediol, N-00008
1,8-Naphthalenediol, N-00009
▷ 2,3-Naphthalenediol, N-00010
▷ 2,7-Naphthalenediol, N-00011
- C₁₀H₈O₂Se**
2-Naphthaleneselenic acid, N-00014
- C₁₀H₈O₃**
5-Hydroxy-2-methyl-4*H*-1-benzopyran-4-one, H-00281
5-Hydroxy-3-methyl-4*H*-1-benzopyran-4-one, H-00282
▷ 7-Hydroxy-4-methyl-2*H*-1-benzopyran-2-one, H-00283
1-Phenyl-1,2,3-butanetrione, P-00109
- C₁₀H₈O₃S**
▷ 2-Naphthalenesulfonic acid, N-00015
- C₁₀H₈O₄**
4,5-Dihydroxy-2*H*-1-benzopyran-2-one; 4-*O*-Me, *in* D-00537
4,5-Dihydroxy-2*H*-1-benzopyran-2-one; 5-*O*-Me, *in* D-00537
3,5-Dihydroxy-2-methyl-4*H*-1-benzopyran-4-one, D-00644
5,7-Dihydroxy-2-methyl-4*H*-1-benzopyran-4-one, D-00645
5,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00646
6,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00647
▷ 7,8-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00648
▷ Furoin, F-00065
7-Hydroxy-4-(hydroxymethyl)-2*H*-1-benzopyran-2-one, H-00209

- C₁₀H₈O₄S**
 1-Hydroxy-2-naphthalenesulfonic acid, H-00344
 4-Hydroxy-1-naphthalenesulfonic acid, H-00345
 5-Hydroxy-1-naphthalenesulfonic acid, H-00346
 ▶ 6-Hydroxy-2-naphthalenesulfonic acid, H-00347
- C₁₀H₈O₅S**
 4,5-Dihydroxy-1-naphthalenesulfonic acid, D-00657
 6,7-Dihydroxy-2-naphthalenesulfonic acid, D-00658
- C₁₀H₈O₆**
 1,2,3-Benzenetricarboxylic acid; 2-Me ester, *in* B-00031
 1,2,4-Benzenetricarboxylic acid; 1-Me ester, *in* B-00032
 1,2,4-Benzenetricarboxylic acid; 2-Me ester, *in* B-00032
 1,2,4-Benzenetricarboxylic acid; 4-Me ester, *in* B-00032
 1,3,5-Benzenetricarboxylic acid; Mono-Me ester, *in* B-00033
 2,5-Dihydroxy-1,4-benzoquinone; Di-Ac, *in* D-00540
- C₁₀H₈O₇**
 2-Hydroxy-4-(4-hydroxy-6-methyl-2-oxo-2H-pyran-3-yl)-4-oxo-2-butenic acid, H-00221
- C₁₀H₈O₇S₂**
 ▶ 3-Hydroxy-2,7-naphthalenedisulfonic acid, H-00342
 7-Hydroxy-1,3-naphthalenedisulfonic acid, H-00343
- C₁₀H₈O₈S₂**
 Chromotropic acid, C-00294
- C₁₀H₈O₁₀S₂**
 Sulmarin, *in* D-00647
- C₁₀H₈S₂**
 1,8-Naphthalenedithiol, N-00012
- C₁₀H₈S₃**
 4-Methyl-5-phenyl-3H-1,2-dithiole-3-thione, M-00227
- C₁₀H₉BrO₂**
 1-(4-Bromophenyl)-1,3-butanedione, B-00548
- C₁₀H₉BrO₃**
 2-Bromo-4'-hydroxyacetophenone; Ac, *in* B-00508
- C₁₀H₉BrO₄**
 4-Bromo-1,3-benzenediol; Di-Ac, *in* B-00486
- C₁₀H₉ClO₂**
 1-(4-Chlorophenyl)-1,3-butanedione, C-00207
- C₁₀H₉ClO₄**
 4-Chloro-1,3-benzenediol; Di-Ac, *in* C-00061
- C₁₀H₉F₃O₃**
 2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; Me ester, *in* H-00512
 α-Methoxy-α-(trifluoromethyl)benzeneacetic acid, *in* H-00512
- C₁₀H₉N**
 ▶ 2-Methylquinoline, M-00306
 ▶ 1-Naphthylamine, N-00041
 ▶ 2-Naphthylamine, N-00042
- C₁₀H₉NO**
 1-Amino-2-naphthalenol, A-00273
 ▶ 8-Amino-2-naphthalenol, A-00274
 8-Hydroxy-2-methylquinoline, H-00326
 Indole; *N*-Ac, *in* I-00033
 8-Methoxyquinoline, *in* H-00525
 2-Methyl-5-hydroxyisoquinolinium betaine, M-00186
 1-Methyl-6-hydroxyquinolinium betaine, M-00188
 1-Methyl-8-hydroxyquinolinium betaine, M-00189
 2-Methylquinoline; *N*-Oxide, *in* M-00306
 1-Methylquinolinium-8-olate, *in* H-00525
- C₁₀H₉NO₂**
 7-Amino-4-methyl-2H-1-benzopyran-2-one, A-00237
- C₁₀H₉NO₂S**
 2-Naphthalenesulfonic acid; Amide, *in* N-00015
- C₁₀H₉NO₃**
 5-Hydroxy-1H-indole-2-carboxylic acid; Me ester, *in* H-00253
 ▶ 5-Methoxy-1H-indole-2-carboxylic acid, *in* H-00253
 1-Phenyl-1,2,3-butanetrione; 2-Oxime, *in* P-00109
- C₁₀H₉NO₃S**
 ▶ 4-Amino-1-naphthalenesulfonic acid, A-00264
 5-Amino-1-naphthalenesulfonic acid, A-00265
 ▶ 5-Amino-2-naphthalenesulfonic acid, A-00266
 6-Amino-1-naphthalenesulfonic acid, A-00267
 6-Amino-2-naphthalenesulfonic acid, A-00268
 7-Amino-1-naphthalenesulfonic acid, A-00269
 8-Amino-2-naphthalenesulfonic acid, A-00270
 4-[(2-Mercaptophenyl)amino]-2-butenic acid, M-00040
- C₁₀H₉NO₄**
 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-2-propenamide, B-00056
 α-Furoinoxime, *in* F-00065
- C₁₀H₉NO₄S**
 4-Amino-3-hydroxy-1-naphthalenesulfonic acid, A-00202
 6-Amino-4-hydroxy-2-naphthalenesulfonic acid, A-00203
 ▶ 7-Amino-4-hydroxy-2-naphthalenesulfonic acid, A-00204
- C₁₀H₉NO₆**
 2,6-Dihydroxy-4-pyridinecarboxylic acid; Di-Ac, *in* D-00721
 3-Nitro-1,2-benzenedicarboxylic acid; Di-Me ester, *in* N-00085
 4-Nitro-1,2-benzenedicarboxylic acid; Di-Me ester, *in* N-00086
 4-Nitro-1,2-benzenediol; Di-Ac, *in* N-00087
- C₁₀H₉NO₆S₂**
 ▶ 7-Amino-1,3-naphthalenedisulfonic acid, A-00263
- C₁₀H₉NO₇S₂**
 3-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00199
 ▶ 4-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00200
 5-Amino-4-hydroxy-1,3-naphthalenedisulfonic acid, A-00201
- C₁₀H₉NO₉S₃**
 5-Amino-1,3,7-naphthalenetrisulfonic acid, A-00271
 8-Amino-1,3,5-naphthalenetrisulfonic acid, A-00272
- C₁₀H₉NS**
 2-Methyl-8-quinolinethiol, M-00307
- C₁₀H₉N₃**
 5-Methyl-2-(2-pyridyl)pyrimidine, M-00304
- C₁₀H₉N₃O**
 2-Furancarboxaldehyde 2-pyridinylhydrazone, F-00049
- C₁₀H₉N₃OS**
 5-[(6-Methyl-2-pyridinyl)methylene]-4-imidazolidinone, M-00290
 4-Methyl-2-(2-thiazolylazo)phenol, M-00323
 5-Methyl-2-(2-thiazolylazo)phenol, M-00324
 5-[1-(2-Pyridinyl)ethylidene]-2-thioxo-4-imidazolidinone, P-00389
 Pyruvaldehyde 1-(2-benzothiazolylhydrazone), P-00447
- C₁₀H₉N₃OS₂**
 3-Amino-4,5-dihydro-5-oxo-1-phenyl-1H-pyrazole-4-carbodithioic acid, A-00155
- C₁₀H₉N₃O₂**
 Methylphenylpyrazolone oxime, *in* M-00239
- C₁₀H₉N₃O₂S**
 4-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00139
 5-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00141
 2-[(4-Methyl-2-thiazolyl)azo]-1,4-benzenediol, M-00318
 4-[(4-Methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00319
 4-[(5-Methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00320
 5-Methyl-4-(2-thiazolylazo)-1,3-benzenediol, M-00321
- C₁₀H₉N₃O₃S**
 4-[[4-(Hydroxymethyl)-2-thiazolyl]azo]-1,2-benzenediol, H-00328
- C₁₀H₉N₅**
 2-Pyridinecarboxaldehyde 2-pyrazinylhydrazone, P-00333
 2-Pyridinecarboxaldehyde 2-pyrimidinylhydrazone, P-00336
- C₁₀H₉N₅S**
 4,5-Dihydro-5-(2-pyridyl)-3-(2-thiazolyl)-1H-1,2,4-triazole, D-00487
- C₁₀H₉O₂P**
 1-Naphthylphosphonous acid, N-00055
- C₁₀H₉O₆P**
 7-Hydroxy-4-methyl-2H-1-benzopyran-2-one; Dihydrogen phosphate, *in* H-00283
- C₁₀H₁₀AgF₇O₂**
 (6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)silver, H-00005
- C₁₀H₁₀BrNO₂**
 1-(4-Bromophenyl)-1,3-butanedione; 3-Oxime, *in* B-00548
- C₁₀H₁₀Br₂N₂O₂**
 3,5-Bis(bromomethyl)-2,6-dimethyl-1H,7H-pyrazolo[1,2-*a*]pyrazole-1,7-dione, B-00269
 1,2-Diamino-3,5-dibromobenzene; 1,2-*N*-Di-Ac, *in* D-00067
- C₁₀H₁₀Br₂O₅**
 2,6-Dibromo-3,4,5-trimethoxybenzoic acid, *in* D-00220
- C₁₀H₁₀CINO₂**
 1-(4-Chlorophenyl)-1,3-butanedione; 3-Oxime, *in* C-00207
N-(4-Chlorophenyl)-*N*-hydroxy-2-butenamide, C-00223
- C₁₀H₁₀CIN₂**
 Pyridylpyridinium(1+); Chloride, *in* P-00422
- C₁₀H₁₀Cl₂O₄**
 2,5-Dichloro-3,6-diethoxy-1,4-benzoquinone, *in* D-00262
- C₁₀H₁₀Fe**
 ▶ Ferrocene, F-00004
- C₁₀H₁₀N₂**
 ▶ 1,2-Diaminonaphthalene, D-00105
 2,3-Diaminonaphthalene, D-00106
- C₁₀H₁₀N₂[⊕]**
 Pyridylpyridinium(1+), P-00422
- C₁₀H₁₀N₂O**
 5-(Aminomethyl)-8-hydroxyquinoline, A-00244
 ▶ 2,4-Dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one, D-00443
 2-Methylbenzimidazole; *N*-Ac, *in* M-00134
- C₁₀H₁₀N₂O₂**
 3-Methyl-1,2-indandione; Dioxime, *in* M-00194
- C₁₀H₁₀N₂O₂S**
 5-Amino-2-naphthalenesulfonamide, *in* A-00266
 7-Amino-1-naphthalenesulfonamide, *in* A-00269
 4-Amino-1-naphthalenesulfonic acid; Amide, *in* A-00264

- 5-Amino-1-naphthalenesulfonic acid; Amide, *in* A-00265
- 6-Amino-1-naphthalenesulfonic acid; Amide, *in* A-00267
- 8-Amino-2-naphthalenesulfonic acid; Amide, *in* A-00270
- N*-8-Quinolylmethanesulfonamide, *in* A-00340
- C₁₀H₁₀N₂O₃**
Benzoylmethylglyoxime, *in* P-00109
- C₁₀H₁₀N₂O₄**
4,4'-Ethyliidenebis[3-methyl-2-isoxazolin-5-one], E-00094
- C₁₀H₁₀N₂S₂**
4,5-Dihydro-3-phenyl-1*H*-pyrazole-1-carbodithioic acid, D-00468
- C₁₀H₁₀N₄**
4,4'-Diamino-2,2'-bipyridine, D-00061
5,5'-Dimethyl-3,3'-bipyridazine, D-00838
6,6'-Dimethyl-3,3'-bipyridazine, D-00839
5,6-Dimethyl-3-(2-pyridinyl)-1,2,4-triazine, D-00911
3-Isoquinolinecarboximidic acid hydrazide, I-00086
- C₁₀H₁₀N₄O**
3(5)-Amino-1,2,4-triazole; 1-Ph, 3-*N*-Ac, *in* A-00364
- C₁₀H₁₀N₄O₂**
5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedione; 1-Phenyl, *in* D-00120
6,6'-Dimethoxy-3,3'-bipyridazine, D-00773
2-(4-Methyl-3-imidazolylazo)-1,4-benzenediol, M-00191
- C₁₀H₁₀N₄S**
2-Acetylpyridine 2-thiazolylhydrazone, A-00047
- C₁₀H₁₀N₆**
2-Acetylpyrazine pyrazinylhydrazone, A-00034
2-Acetylpyrazine 2-pyrimidinylhydrazone, A-00035
2(1*H*)-Pyrazinone [1-(3-pyridazinyl)ethylidene]hydrazone, P-00293
3-(2-Pyridinylazo)-2,6-pyridinediamine, P-00379
- C₁₀H₁₀OS**
3-Mercapto-1-phenyl-2-buten-1-one, M-00044
1-Phenyl-3-thioxo-1-butanone, P-00202
4-Phenyl-4-thioxo-2-butanone, P-00203
- C₁₀H₁₀O₂**
1,2-Diacetylbenzene, D-00032
3,4-Dihydro-5-hydroxy-1(2*H*)-naphthalenone, D-00413
▷ Methyl cinnamate, *in* P-00169
1-Phenyl-1,3-butanedione, P-00107
- C₁₀H₁₀O₂S**
2-Mercapto-3-phenyl-2-butenic acid, M-00043
2-Mercapto-3-phenyl-2-propenoic acid; *S*-Me, *in* M-00049
- C₁₀H₁₀O₃**
2,3-Dihydro-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, *in* H-00281
2'-Hydroxyacetophenone; Ac, *in* H-00089
3-(2-Methoxyphenyl)-2-propenoic acid, *in* H-00500
3-Oxo-3-phenylpropanoic acid; Me ester, *in* O-00069
- C₁₀H₁₀O₃S**
2-Mercapto-3-(4-methoxyphenyl)-2-propenoic acid, M-00034
2-Mercaptopropanoic acid; *S*-Benzoyl, *in* M-00051
- C₁₀H₁₀O₄**
2-Acetoxybenzoic acid; Me ester, *in* A-00010
▷ 1,3-Benzenedicarboxylic acid; Di-Me ester, *in* B-00019
1,3-Benzenedicarboxylic acid; Mono-Et ester, *in* B-00019
1,2-Benzenediol; Di-Ac, *in* B-00020
▷ 1,3-Benzenediol; Di-Ac, *in* B-00021
1,4-Benzenediol; Di-Ac, *in* B-00022
Benzoic ethylcarbonic anhydride, B-00067
Caffeic acid; Me ester, *in* D-00716
4,5-Dimethoxy-1,3-benzenedicarboxaldehyde, *in* D-00524
▷ Dimethyl phthalate, *in* B-00018
3-(3-Hydroxy-4-methoxyphenyl)-2-propenoic acid, *in* D-00716
2-Hydroxy-3-methylbenzoic acid; Ac, *in* H-00278
4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carboxylic acid; Me ester, Me ether, *in* H-00428
- C₁₀H₁₀O₆**
3,6-Dihydroxy-1,2-benzenedicarboxylic acid; Di-Me ester, *in* D-00525
3,6-Dimethoxy-1,2-benzenedicarboxylic acid, *in* D-00525
5-Hydroxy-4-oxo-4*H*-pyran-2-carboxylic acid; Et ester, Ac, *in* H-00434
- C₁₀H₁₁BFeO₂**
Ferrocenyldihydroxyborane, F-00005
- C₁₀H₁₁BrN₂O₂**
3-(Bromomethyl)-2,5,6-trimethyl-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-1,7-dione, B-00535
- C₁₀H₁₁BrO₃**
2-(4-Bromophenyl)-2-hydroxyacetic acid; Et ester, *in* B-00550
- C₁₀H₁₁Br₂NO₄**
2,6-Dibromo-3,4,5-trihydroxybenzoic acid; Tri-Me ether, amide, *in* D-00220
- C₁₀H₁₁ClN₂O₂**
1,2-Diamino-4-chlorobenzene; 1,2-*N*-Di-Ac, *in* D-00064
- C₁₀H₁₁ClO**
2-Phenylbutanoic acid; Chloride, *in* P-00110
- C₁₀H₁₁F₇O₂**
6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedione, H-00006
- C₁₀H₁₁N**
2-Phenylbutanoic acid; Nitrile, *in* P-00110
- C₁₀H₁₁NO**
3-(4-Hydroxyphenyl)propanoic acid; Me ether, nitrile, *in* H-00497
- C₁₀H₁₁NOS**
3-Oxo-*N*-phenylbutanethioamide, O-00065
- C₁₀H₁₁NO₂**
N-Acetyl-*N*-phenylacetamide, *in* A-00368
4'-Aminoacetophenone; *N*-Ac, *in* A-00091
▷ 3,4-Dimethoxyphenylacetone nitrile, *in* D-00687
N-Phenylcrotonohydroxamic acid, *in* H-00143
1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid, T-00063
- C₁₀H₁₁NO₂S**
2-Aminobenzenethiol; *N,S*-Di-Ac, *in* A-00101
- C₁₀H₁₁NO₃**
Alanine; *N*-Benzoyl, *in* A-00074
Ethyl oxanilate, *in* O-00048
Hippuric acid; Me ester, *in* H-00078
3-(2-Hydroxybenzylideneamino)propanoic acid, H-00130
N-Hydroxy-3-(4-methoxyphenyl)-2-propenamide, H-00272
N-Phenylhydroxylamine; *N,O*-Di-Ac, *in* P-00135
- C₁₀H₁₁NO₄**
(4-Nitrophenyl)acetic acid; Et ester, *in* N-00120
- C₁₀H₁₁N₃**
2-(3,5-Dimethyl-1*H*-pyrazol-1-yl)pyridine, D-00905
- C₁₀H₁₁N₃OS**
2-[5-(2-Furanyl)-2,4-pentadienylidene]hydrazinecarbothioamide, *in* F-00058
5-[(6-Methyl-2-pyridinyl)methylene]-2-thioxo-4-imidazolidinone, M-00291
- C₁₀H₁₁N₃O₂**
6-(Dimethylamino)-2,3-dihydro-1,4-phthalazinedione, *in* A-00156
- C₁₀H₁₁N₃O₄**
1,2-Diamino-4-nitrobenzene; 1,2-*N*-Di-Ac, *in* D-00108
(2-Nitrophenyl)hydrazine; Di-Ac, *in* N-00137
- C₁₀H₁₁N₃O₈**
2,4,6-Trinitro-1,3-benzenediol; Di-Et ether, *in* T-00350
- C₁₀H₁₁N₃S**
▷ 3-Phenyl-2-propenal; Thiosemicarbazone, *in* P-00168
- C₁₀H₁₁N₅S**
2-Methyl-4-(2-thiazolylazo)-1,3-benzenediamine, M-00317
- C₁₀H₁₁N₇O₂S₂**
4,7-Dihydroxy-1*H*-isoindole-1,3(2*H*)-dione; Dithiosemicarbazone, *in* D-00636
- C₁₀H₁₁N₇S₂**
Phthalimide; Dithiosemicarbazone, *in* P-00223
- C₁₀H₁₂ClNO₆S**
3-Amino-4-hydroxybenzenesulfonic acid; *O,N*-Di-Ac; B,HCl, *in* A-00183
- C₁₀H₁₂FN₃O₄**
FDNDEA, *in* F-00026
- C₁₀H₁₂N₂O**
1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid; Amide, *in* T-00063
- C₁₀H₁₂N₂OS**
N,N-Dimethyl-*N'*-benzoylthiourea, *in* T-00175
- C₁₀H₁₂N₂O₂**
Benzylmethylglyoxime, *in* P-00107
1,2-Diacetylbenzene; Dioxime, *in* D-00032
1,3-Diaminobenzene; *N,N'*-Di-Ac, *in* D-00047
Phenylhydrazine; *N',N'*-Di-Ac, *in* P-00134
- C₁₀H₁₂N₂O₂S**
β-Benzoyl-*α*-(ethanol)thiourea, B-00129
S-Carbamidothioglycolic acid *N*-methylanilide, *in* C-00019
- C₁₀H₁₂N₂O₃**
3-[(2-Aminoethyl)imino]methyl]-2-hydroxybenzoic acid, A-00175
2,5-Diaminophenol; 2,5-*N*-Di-Ac, *in* D-00111
- C₁₀H₁₂N₂O₄**
4,5-Diamino-1,2-benzenediol; Di-Ac, *in* D-00049
2,3-Pyrazinedicarboxylic acid; Di-Et ester, *in* P-00286
- C₁₀H₁₂N₂O₅**
▷ 6-Isopropyl-3-methyl-2,4-dinitrophenol, I-00073
- C₁₀H₁₂N₂O₆**
2,4-Dinitro-1,3-benzenediol; Di-Et ether, *in* D-00940
- C₁₀H₁₂N₄OS**
▷ Thiacetazone, *in* A-00097
- C₁₀H₁₂N₄O₂**
3-Pyridine-[2-(hydroxyimino)-1-methylpropylidene]carboxylic acid, P-00355
- C₁₀H₁₂N₄O₃**
2,3-Butanedione; Monoxime, (4-nitrophenyl)hydrazone, *in* B-00587
2,3-Butanedione oxime 4-nitrophenylhydrazone, B-00601
- C₁₀H₁₂N₆**
▷ Ethylenediamine tetraacetone nitrile, *in* E-00078
5,5',6,6'-Tetramethyl-3,3-bi(1,2,4-triazine), T-00093
- C₁₀H₁₂N₆S₂**
1,2-Benzenedicarboxaldehyde bis(thiosemicarbazone), B-00017
- C₁₀H₁₂O₂**
2,4-Dimethylbenzoic acid; Me ester, *in* D-00835

- 2,4-Dimethylphenol; Ac, *in* D-00884
 3,4-Dimethylphenol; Ac, *in* D-00886
 2-Hydroxy-3-isopropyl-2,4,6-cycloheptatrien-1-one, H-00256
 2'-Hydroxy-5'-methylacetophenone; Me ether, *in* H-00275
 1-(2-Hydroxyphenyl)-1-butanone, H-00469
 1-(2-Methoxyphenyl)-1-propanone, *in* H-00498
 ▶ 2-Methoxy-4-(2-propenyl)phenol, M-00120
 3-Methylbenzoic acid; Et ester, *in* M-00137
 4-Methylbenzoic acid; Et ester, *in* M-00138
 ▶ 2-Phenylbutanoic acid, P-00110
 2-Phenylpropanoic acid; Me ester, *in* P-00167
- C₁₀H₁₂O₂S**
 2-Mercapto-3-phenylpropanoic acid; Me ester, *in* M-00047
 3-Mercapto-3-phenylpropanoic acid; Me ester, *in* M-00048
- C₁₀H₁₂O₂S₂**
 S-Propyl 2,4-dihydroxydithiobenzoate, P-00276
- C₁₀H₁₂O₃**
 1-(2,4-Dihydroxyphenyl)-1-butanone, D-00707
 1-(2,4-Dihydroxyphenyl)-1-propanone; 4-Me ether, *in* D-00715
 2',4'-Dimethoxyacetophenone, *in* D-00507
 2',5'-Dimethoxyacetophenone, *in* D-00508
 2,2-Dimethoxy-1-phenylethanone, *in* P-00132
 2-Hydroxy-5-methylbenzoic acid; Et ester, *in* H-00279
 3-(4-Hydroxyphenyl)propanoic acid; Me ester, *in* H-00497
 ▶ 4-Methoxybenzoic acid; Et ester, *in* M-00079
 3-(4-Methoxyphenyl)propanoic acid, *in* H-00497
- C₁₀H₁₂O₃S**
 2,4-Dihydroxybenzenecarbothioic acid; S-Propyl ester, *in* D-00523
 2-Propen-1-ol; *p*-Toluenesulfonyl, *in* P-00271
- C₁₀H₁₂O₄**
 3-Acetyl-4-hydroxy-6-methyl-2*H*-pyran-2-one; Et enol ether, *in* A-00019
 1,2,3-Benzenetriol; 1,3-Di-Me ether, Ac, *in* B-00034
 1,4-Benzoquinone; Bis(ethylene ketal), *in* B-00076
 2,5-Diethoxy-1,4-benzoquinone, *in* D-00540
 ▶ (3,4-Dimethoxyphenyl)acetic acid, *in* D-00687
 2-Hydroxy-3',4'-dimethoxyacetophenone, *in* T-00268
 1-(2,3,4-Trihydroxyphenyl)-1-butanone, T-00314
 3,4,5-Trimethoxybenzaldehyde, *in* T-00273
- C₁₀H₁₂O₅**
 ▶ Propyl gallate, *in* T-00277
- C₁₀H₁₂O₆**
 Tetramethoxy-1,4-benzoquinone, *in* T-00072
- C₁₀H₁₂S₂**
 Benzenebutane(dithioic)acid, B-00013
- C₁₀H₁₃CINOP**
 2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine, C-00101
- C₁₀H₁₃CINOPS**
 2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine; 2-Sulfide, *in* C-00101
- C₁₀H₁₃CINO₂P**
 2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine; 2-Oxide, *in* C-00101
- C₁₀H₁₃ClO**
 Teresantalol; 8-Carboxylic acid, chloride, *in* T-00004
- C₁₀H₁₃F₃IN**
 (3-Trifluoromethylphenyl) trimethylammonium(1+); Iodide, *in* T-00256
- C₁₀H₁₃F₃N[⊕]**
 (3-Trifluoromethylphenyl) trimethylammonium(1+), T-00256
- C₁₀H₁₃NO**
 ▶ Butyranilide, *in* B-00604
 ▶ 2,3-Dimethylaniline; *N*-Ac, *in* D-00827
 ▶ 2,5-Dimethylaniline; *N*-Ac, *in* D-00828
 ▶ 2,6-Dimethylaniline; *N*-Ac, *in* D-00829
 ▶ 3,4-Dimethylaniline; *N*-Ac, *in* D-00830
 3-Methylbenzoic acid; Dimethylamide, *in* M-00137
 4-Methylbenzoic acid; Dimethylamide, *in* M-00138
N-(α -Methylphenethyl)formamide, *in* P-00172
 ▶ Morpholine; *N*-Ph, *in* M-00344
 ▶ 2-Phenylbutanoic acid; Amide, *in* P-00110
 1-Phenylethylamine; *N*-Ac, *in* P-00130
- C₁₀H₁₃NO₂**
 Alanine; Benzyl ester; B,HCl, *in* A-00074
 ▶ *N*-(4-Ethoxyphenyl)acetamide, *in* E-00051
 1-(2-Hydroxyphenyl)-1-butanone; Oxime, *in* H-00469
 3-(4-Hydroxyphenyl)propanoic acid; Me ether, amide, *in* H-00497
 4-Methylaniline; *N*-Ethoxycarbonyl, *in* M-00124
- C₁₀H₁₃NO₃**
 2,4-Diethoxy-1-nitrosobenzene, *in* N-00156
 (3,4-Dihydroxyphenyl)acetic acid; Di-Me ether, amide, *in* D-00687
 1-(2,4-Dihydroxyphenyl)-1-butanone; Oxime, *in* D-00707
N-(4-Ethoxyphenyl)-2-hydroxyacetamide, *in* E-00051
 Tyrosine; Me ester, *in* T-00435
- C₁₀H₁₃NO₄**
 ▶ 2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid, A-00158
 3,4,5-Trihydroxybenzaldehyde; Tri-Me ether, oxime, *in* T-00273
- C₁₀H₁₃N₃O**
 2-Aminobenzoic acid (1-methylethylidene) hydrazide, A-00109
- C₁₀H₁₃N₃OS**
 2-Ethyl-4-(2-furanyl)propenal; Thiosemicarbazone, *in* E-00082
 2'-Hydroxy-5'-methylacetophenone; Thiosemicarbazone, *in* H-00275
- C₁₀H₁₃N₃O₂**
 2'-Hydroxy-5'-methylacetophenone; Semicarbazone, *in* H-00275
 1,2,4-Triaminobenzene; 1,4-*N*-Di-Ac, *in* T-00192
- C₁₀H₁₃N₅O₃S**
 4-(Aminosulfonyl)-7-(1-piperazinyl)-2,1,3-benzoxadiazole, A-00351
- C₁₀H₁₃O₃P**
 Monoethyl (2-phenylethenyl)phosphonate, *in* P-00129
- C₁₀H₁₄BrNO₃S**
 MNB sulfonium bromide, *in* H-00384
- C₁₀H₁₄CIN**
 3-Chloroaniline; *N*-Di-Et, *in* C-00059
- C₁₀H₁₄F₃NO**
 (3-Trifluoromethylphenyl) trimethylammonium(1+); Hydroxide, *in* T-00256
- C₁₀H₁₄NO₃S[⊕]**
 Dimethyl(2-methoxy-5-nitrobenzyl) sulfonium(1+), *in* H-00384
- C₁₀H₁₄N₂**
 ▶ 3-(2-Piperidinyl)pyridine, P-00244
- C₁₀H₁₄N₂O**
N,N-Diethyl-4-nitrosoaniline, D-00350
- C₁₀H₁₄N₂O₂**
 5-(Diethylamino)-2-nitrosophenol, *in* A-00285
 4-Nitroaniline; *N*-Di-Et, *in* N-00077
- C₁₀H₁₄N₂O₆**
 Thymine; 1- α -D-Xylofuranosyl, *in* T-00179
 Thymine; 1- β -D-Xylofuranosyl, *in* T-00179
- C₁₀H₁₄N₂S**
N-Butyl-2-pyridinecarbothioamide, *in* P-00317
- C₁₀H₁₄N₄S**
 4-Acetylpyridine 4-ethyl-3-thiosemicarbazone, A-00041
- C₁₀H₁₄N₆S**
 2,3-Butanedione; Thiosemicarbazone, (2-pyridyl)hydrazone, *in* B-00587
- C₁₀H₁₄O**
 1-Ethoxy-2,4-dimethylbenzene, *in* D-00884
 2-Ethoxy-1,3-dimethylbenzene, *in* D-00885
 4-Ethoxy-1,2-dimethylbenzene, *in* D-00886
 ▶ 2-Isopropyl-5-methylphenol, 1-00075
 Teresantalol, *in* T-00004
- C₁₀H₁₄OS₂**
 2,3-Dimercapto-1-propanol; Benzyl ether, *in* D-00763
- C₁₀H₁₄OS₃**
 2,6-Dimercapto-3-pentyl-4*H*-thiopyran-4-one, D-00760
- C₁₀H₁₄O₂**
 ▶ 1,2-Diethoxybenzene, *in* B-00020
 1,3-Diethoxybenzene, *in* B-00021
 1,4-Diethoxybenzene, *in* B-00022
 α -Teresantalol, *in* T-00004
- C₁₀H₁₄O₃**
 (+)-Camphoric acid; Anhydride, *in* T-00325
 Dimethoxy(4-methoxyphenyl)methane, *in* M-00075
- C₁₀H₁₄O₄**
 3,4-Dihydroxy-3-cyclobutene-1,2-dione; Diisopropyl ether, *in* D-00569
- C₁₀H₁₄O₆S₂**
 Succimer; Di-Ac, di-Me ester, *in* D-00751
- C₁₀H₁₄S₂**
 1,2-Dimethyl-4,5-bis(methylthio)benzene, *in* D-00832
- C₁₀H₁₅AsO₃**
 Diethyl phenylarsonate, *in* P-00090
- C₁₀H₁₅ClO**
 Chrysanthemic acid; Chloride, *in* C-00296
- C₁₀H₁₅ClO₃S**
 Camphor-10-sulfonic acid; Chloride, *in* C-00016
- C₁₀H₁₅N**
 ▶ *N*-Butylaniline, B-00617
 ▶ *N,N*-Diethylaniline, D-00337
 2,3-Dimethylaniline; *N*-Di-Me, *in* D-00827
 2,5-Dimethylaniline; *N*-Di-Me, *in* D-00828
 2,6-Dimethylaniline; *N*-Di-Me, *in* D-00829
 3,4-Dimethylaniline; *N*-Di-Me, *in* D-00830
 2-Methylamino-1-phenylpropane, *in* P-00172
 1-Phenylethylamine; *N,N*-Di-Me, *in* P-00130
 1-Phenylethylamine; *N*-Et, *in* P-00130
- C₁₀H₁₅NO**
 ▶ 2-Methylamino-1-phenyl-1-propanol, M-00122
- C₁₀H₁₅NO₂**
 1,8,8-Trimethyl-3-azabicyclo[3.2.1]octane-2,4-dione, *in* T-00325
- C₁₀H₁₅NO₃**
 ▶ *N*-Methyladrenaline, *in* A-00066
- C₁₀H₁₅NO₃S**
N-Methyl-*N*-sulfopropylaniline, M-00311
- C₁₀H₁₅NS**
 7-Isothiocyanato-1,7-dimethylbicyclo[2.2.1]heptane, 1-00093
- C₁₀H₁₆N₂**
 1,3-Diaminobenzene; *N,N*-Di-Et, *in* D-00047
 1,3-Diaminobenzene; *N,N'*-Di-Et, *in* D-00047
 ▶ 1,4-Diaminobenzene; *N,N'*-Di-Et, *in* D-00048
 1,3-Diaminobenzene; *N,N,N',N'*-Tetra-Me, *in* D-00047
 ▶ 1,4-Diaminobenzene; *N,N,N',N'*-Tetra-Me, *in* D-00048
 ▶ *N,N*-Diethyl-1,4-phenylenediamine, *in* D-00048

- C₁₀H₁₆N₂O₂**
3,3'-(1,2-Ethanediyldinitrilo)bis-2-butanone, E-00035
- C₁₀H₁₆N₂O₂S₂**
N,N'-(Dithiodi-2,1-ethanediy)bis-2-propenamides, *in* B-00244
- C₁₀H₁₆N₂O₂S₄**
▷ 4,4'-(Dithiodicarbonothioyl)bismorpholine, D-01128
- C₁₀H₁₆N₂O₃**
Proline; Anhydride, *in* P-00257
- C₁₀H₁₆N₂O₈**
▷ Ethylenediaminetetraacetic acid, E-00078
- C₁₀H₁₆O**
Terasantalol, T-00004
- C₁₀H₁₆O₂**
4-*tert*-Butyl-1,2-cyclohexanedione, B-00623
▷ Chrysanthemic acid, C-00296
1,2-Cyclodecanedione, C-00331
- C₁₀H₁₆O₄**
▷ 1,2,2-Trimethyl-1,3-cyclopentanedicarboxylic acid, T-00325
- C₁₀H₁₆O₄S**
Camphor-10-sulfonic acid, C-00016
- C₁₀H₁₆O₇**
Citric acid; Tri-Me ester, Me ether, *in* C-00299
- C₁₀H₁₇ClO**
Cyclohexanebutanoic acid; Chloride, *in* C-00335
- C₁₀H₁₇NO₂**
4-*tert*-Butyl-1,2-cyclohexanedione; 2-Oxime, *in* B-00623
- C₁₀H₁₇N₃**
1,2,4-Triaminobenzene; 2,2,4,4-*N*-Tetra-Me, *in* T-00192
- C₁₀H₁₇N₃O₅**
Choline orotate, *in* O-00045
- C₁₀H₁₇N₇OS₂**
5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 1,3-bisthiosemicarbazone, *in* D-00848
- C₁₀H₁₈N₂**
Tetrahydroanabasine, *in* P-00244
- C₁₀H₁₈N₂O₂**
4-*tert*-Butylloxime, *in* B-00623
1,2-Cyclodecanedione; Dioxime, *in* C-00331
- C₁₀H₁₈N₂O₇**
▷ *N*-(2-Hydroxyethyl)ethylenediaminetriacetic acid, H-00177
- C₁₀H₁₈N₂S**
3,4-Dihydro-4,4,6-trimethyl-1-propyl-2(1*H*)-pyrimidinethione, *in* D-00504
- C₁₀H₁₈N₄O₂**
3,3'-(1,2-Ethanediyldinitrilo)bis-2-butanone; Dioxime, *in* E-00035
- C₁₀H₁₈N₆S₂**
5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, *in* D-00847
- C₁₀H₁₈O₂**
Cyclohexanebutanoic acid, C-00335
- C₁₀H₁₈O₃**
Pivalic anhydride, *in* D-00899
- C₁₀H₁₈O₄**
▷ Decanedioic acid, D-00022
2-Hexylbutanedioic acid, H-00073
2-Methyl-2,4-pentanediol; Di-Ac, *in* M-00217
- C₁₀H₁₈O₅**
Di-*tert*-butyl dicarbonate, *in* D-00243
- C₁₀H₁₈O₆**
Decanediperoic acid, D-00023
- C₁₀H₁₉BrO₂**
2-Bromodecanoic acid, B-00500
- C₁₀H₁₉ClO**
Decanoic acid; Chloride, *in* D-00025
- C₁₀H₁₉N₃O₃**
Diethylenetriamine; Tri-Ac, *in* D-00345
- C₁₀H₂₀N₂**
2,2'-Bipiperidine, B-00217
- C₁₀H₂₀N₂O₂**
1,2-Di-4-morpholinylethane, D-00928
1,6-Hexanediamine; *N,N'*-Di-Ac, *in* H-00061
- C₁₀H₂₀N₂O₄S₄Zn**
Bis(2-hydroxyethyl)carbomodithioic acid; Zn salt (2:1), *in* B-00373
- C₁₀H₂₀N₂S₃**
▷ Monosulfiram, M-00341
- C₁₀H₂₀N₂S₄**
▷ Disulfiram, D-01107
- C₁₀H₂₀O**
▷ *p*-Menthane-3-ol, M-00012
- C₁₀H₂₀O₂**
▷ Decanoic acid, D-00025
2-Ethyl-1-hexanol; Ac, *in* E-00083
2-Octanol; Ac, *in* O-00037
- C₁₀H₂₀O₂S**
▷ Isooctyl thioglycolate, *in* M-00016
Mercaptoacetic acid; 2-Ethylhexyl ester, *in* M-00016
- C₁₀H₂₀O₅**
1,4-Anhydroglucitol; Tetra-Me ether, *in* A-00367
▷ 15-Crown-5, C-00314
- C₁₀H₂₀S₄**
1,4,8,11-Tetrathiacyclotetradecane, T-00126
- C₁₀H₂₀S₆**
1,2,5,8,11,14-Hexathiacyclohexadecane, H-00069
- C₁₀H₂₁BO₂**
Diethyl cyclohexylboronate, *in* C-00352
- C₁₀H₂₁NO**
Decanoic acid; Amide, *in* D-00025
- C₁₀H₂₁NO₂**
N-Hydroxydecanamide, H-00147
- C₁₀H₂₁NO₄**
1,4,7,10-Tetraoxa-13-azacyclopentadecane, T-00111
- C₁₀H₂₂BNO₆**
Tetramethylammonium(1+); Triacetoxylborohydride, *in* T-00092
- C₁₀H₂₂N₂O₈S₂**
 β,β' -Dihydroxy-1,4-piperazinedipropanesulfonic acid, D-00720
- C₁₀H₂₂O**
▷ 1-Decanol, D-00026
- C₁₀H₂₂O₃S**
1-Decanesulfonic acid, D-00024
1-Octanesulfonic acid; Et ester, *in* O-00034
- C₁₀H₂₂O₅**
2,5,8,11,14-Pentaoxapentadecane, *in* T-00043
- C₁₀H₂₂S₆**
3,6,9,12-Tetrathia-1,14-tetradecanedithiol, T-00130
- C₁₀H₂₃AsO₂**
Ethyl dibutylarsinate, *in* D-00226
- C₁₀H₂₃BO₂**
Butyldiisopropoxyborane, B-00627
- C₁₀H₂₃OPS₂**
O-Hydroxybutylphosphonodithioate, *in* B-00638
- C₁₀H₂₃O₂PS₂**
O,O-Diisopentyl phosphorodithioate, D-00746
O,O-Dipentyl phosphorodithioate, D-00996
- C₁₀H₂₄NO₃P**
Diisopropyl diethylphosphoramidate, *in* D-00353
- C₁₀H₂₄O₆P₂**
1,2-Ethanediphosphonic acid; *P,P'*-Dibutyl ester, *in* E-00026
Tetraethyl 1,2-ethanediybisphosphonate, *in* E-00026
- C₁₀H₂₄O₇P₂**
Tetraethyl (1-hydroxyethylidene) bisphosphonate, *in* H-00178
- C₁₀H₂₅N₂O₂P**
Ethyl tetraethylphosphorodiamidate, *in* T-00046
- C₁₀H₂₆N₂O₁₂P₄**
N,N,N',N'-Tetrakis(phosphonomethyl)-1,2-cyclohexanediamine, T-00089
- C₁₁HCIF₂₀O**
2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-Eicosfluoroundecanoic acid; Chloride, *in* E-00002
- C₁₁H₂F₂₀O₂**
▷ 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-Eicosfluoroundecanoic acid, E-00002
- C₁₁H₆F₁₆O₂**
2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Et ester, *in* H-00022
- C₁₁H₇BrO₄**
8-(Bromomethyl)-6*H*-1,3-dioxolo[4,5-*g*] [1]benzopyran-6-one, B-00523
- C₁₁H₇Br₂N₃O₂**
4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediol, D-00200
- C₁₁H₇ClO**
1-Naphthalenecarboxylic acid; Chloride, *in* N-00005
- C₁₁H₇ClO₂**
3-Hydroxy-2-naphthoic acid; Chloride, *in* H-00370
2-Naphthyl chloroformate, N-00048
- C₁₁H₇ClO₄**
7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid; Me ether, chloride, *in* H-00426
- C₁₁H₇Cl₂NO₂**
5,7-Dichloro-8-hydroxyquinoline; *O*-Ac, *in* D-00283
- C₁₁H₇FO₄**
7-Methoxy-2-oxo-2*H*-1-benzopyran-3-carbonyl fluoride, *in* H-00426
- C₁₁H₇N**
1-Cyanonaphthalene, *in* N-00005
- C₁₁H₇NO**
Benz[*cd*]indol-2-(1*H*)-one, B-00050
2-Cyano-1-naphthol, *in* H-00369
3-Cyano-2-naphthol, *in* H-00370
▷ 1-Isocyanatonaphthalene, I-00064
- C₁₁H₇NO₄**
3-Hydroxy-4-nitroso-2-naphthalenecarboxylic acid, H-00413
- C₁₁H₇NO₄S₄**
N-Succinimidoyl tetrathiafulvalene-2-carboxylate, S-00035
- C₁₁H₇NS₂**
2-(2-Thienyl)benzothiazole, T-00149
- C₁₁H₇N₃O**
 α -(Hydroxyimino)-2-quinolineacetonitrile, H-00252
- C₁₁H₇N₃O₄**
7-Methoxy-2-oxo-2*H*-1-benzopyran-3-carbonyl azide, *in* H-00426
7-Methoxy-2-oxo-2*H*-1-benzopyran-4-carbonyl azide, M-00097

- C₁₁H₈BrNO₅**
4-(Bromomethyl)-7-methoxy-6-nitro-2*H*-benzopyran-2-one, B-00526
- C₁₁H₈BrN₃O₂**
4-(5-Bromo-2-pyridinylazo)-1,3-benzenediol, B-00563
- C₁₁H₈Br₂N₄O**
5-Amino-2-(3,5-dibromo-2-pyridylazo)phenol, A-00150
- C₁₁H₈ClNO₂S**
N-Hydroxy-2-thiophenecarboxamide; *N*-(3-Chlorophenyl), in H-00554
- C₁₁H₈ClNO₃**
N-(3-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, in F-00064
N-(4-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, in F-00064
- C₁₁H₈ClN₃O₄**
2-(2,4-Dinitrophenyl)pyridinium(1+); Chloride, in D-00974
- C₁₁H₈ClN₃O₄S**
4-(Chloromethyl)-2-[(3,4-dihydroxyphenyl)azo]-5-thiazolecarboxylic acid, C-00176
- C₁₁H₈ClN₃O₅S**
4-[(5-Chloro-1,2-dihydro-3-hydroxy-2-oxo-4-pyridinyl)azo]benzenesulfonic acid, C-00093
- C₁₁H₈F₃NO₅S**
2-Phthalimidodethyl trifluoromethanesulfonate, P-00224
- C₁₁H₈N₂**
▷ 1-(Diazomethyl)naphthalene, D-00151
- C₁₁H₈N₂O**
Benzoylpyrazine, B-00148
4-Cyano-6-methoxyquinoline, in H-00527
Di-2-pyridinylmethanone, D-01071
- C₁₁H₈N₂O₃**
4-(Diazomethyl)-7-methoxy-2*H*-1-benzopyran-2-one, D-00150
- C₁₁H₈N₂O₆**
8-Methoxy-2,4-dinitro-1-naphthol, in D-00582
8-Methoxy-5,7-dinitro-1-naphthol, in D-00582
- C₁₁H₈N₃O₄[⊕]**
2-(2,4-Dinitrophenyl)pyridinium(1+), D-00974
- C₁₁H₈N₄**
2-(Pyrazinyl)benzimidazole, P-00296
2-(3-Pyridazinyl)benzimidazole, P-00312
2-(2-Pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, P-00420
2-(2-Pyrimidinyl)benzimidazole, P-00431
- C₁₁H₈N₄O₄S₂**
5,5'-(1-Propen-1-yl-3-ylidene)bis[2-thiobarbituric acid], P-00273
- C₁₁H₈N₆O₇S₂**
3-Hydroxy-4-(1*H*-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, H-00546
- C₁₁H₈N₆O₈S₂**
4,5-Dihydroxy-3-(1*H*-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, D-00738
- C₁₁H₈O**
▷ 1-Naphthalenecarboxaldehyde, N-00003
- C₁₁H₈OS₂**
1-Hydroxy-2-naphthalenecarbodithioic acid, H-00339
- C₁₁H₈O₂**
2-Hydroxy-1-naphthaldehyde, H-00336
▷ 1-Naphthalenecarboxylic acid, N-00005
- C₁₁H₈O₂SSe**
1-(2-Selenophenyl)-3-(2-thienyl)-1,3-propanedione, S-00008
- C₁₁H₈O₂Se₂**
1,3-Di-2-selenophenyl-1,3-propanedione, D-01106
- C₁₁H₈O₃**
▷ 2-Hydroxy-3-methyl-1,4-naphthoquinone, H-00292
1-Hydroxy-2-naphthoic acid, H-00369
▷ 3-Hydroxy-2-naphthoic acid, H-00370
5-Methoxy-1,2-naphthoquinone, in H-00372
7-Methoxy-1,2-naphthoquinone, in H-00373
- C₁₁H₈O₃Se**
1-(2-Furanyl)-3-(2-selenophenyl)-1,3-propanedione, F-00062
- C₁₁H₈O₄**
3-Acetyl-4-hydroxy-2*H*-1-benzopyran-2-one, A-00017
Acetylbulliferone, in H-00124
1,3-Dioxo-2-indanecarboxylic acid; Me ester, in D-00991
3,4,6-Trihydroxy-5*H*-benzocyclohept-5-one, T-00275
- C₁₁H₈O₅**
7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid; Me ester, in H-00426
7-Methoxycoumarin-3-carboxylic acid, in H-00426
2-Methoxy-5,8-dihydroxy-1,4-naphthoquinone, in T-00300
▷ Purpurogallin, P-00282
- C₁₁H₈O₆S**
1-Hydroxy-4-sulfo-2-naphthoic acid, H-00540
- C₁₁H₈S₂**
1-Naphthalenecarbodithioic acid, N-00002
- C₁₁H₉BrN₂O₃**
3-(Bromomethyl)-6,7-(methylenedioxy)-1-methyl-2(1*H*)-quinoxalinone, B-00528
- C₁₁H₉BrN₄O**
5-Amino-2-(5-bromo-2-pyridinylazo)phenol, A-00126
- C₁₁H₉BrN₄O₂**
4-[(2-Amino-5-bromo-3-pyridinyl)azo]-1,3-benzenediol, A-00124
- C₁₁H₉BrO₃**
4-(Bromomethyl)-7-methoxy-2*H*-1-benzopyran-2-one, in B-00524
- C₁₁H₉Br₂N₅**
4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediamine, D-00199
- C₁₁H₉ClN₂O₂**
3-Chloro-2-quinoxalinecarboxylic acid; Et ester, in C-00260
- C₁₁H₉ClN₄**
2-Pyridinecarboxaldehyde (5-chloro-2-pyridinyl)hydrazone, P-00322
- C₁₁H₉ClN₄O**
5-Amino-2-[(5-chloro-2-pyridinyl)azo]phenol, A-00145
- C₁₁H₉Cl₂N₅**
4-[(3,5-Dichloro-2-pyridinyl)azo]-1,3-benzenediamine, D-00299
- C₁₁H₉F₅O₃**
Methyl 2,3,4,5,6-pentafluoro- α -methoxy- α -methylbenzeneacetate, in P-00019
- C₁₁H₉FeN₃O**
(Azidocarbonyl)ferrocene, A-00459
- C₁₁H₉NO**
4-Amino-1-naphthalenecarboxaldehyde, A-00262
N-(2-Furanyl)methylene)benzamine, in F-00042
1-Naphthalenecarboxaldehyde; Oxime, in N-00003
1-Naphthalenecarboxylic acid; Amide, in N-00005
2-(2-Pyridinyl)phenol, P-00399
Pyrrole; *N*-Benzoyl, in P-00436
- C₁₁H₉NO₂**
3-Amino-1-naphthoic acid, A-00279
▷ 3-Amino-2-naphthoic acid, A-00280
- 2-Hydroxy-1-naphthaldehyde; Oxime, in H-00336
▷ *N*-Hydroxy-2-naphthalenecarboxamide, H-00340
3-Hydroxy-2-naphthoic acid; Amide, in H-00370
8-Hydroxyquinoline; *O*-Ac, in H-00525
1-Methoxy-2-nitrosophthalene, in N-00161
2-Methoxy-1-nitrosophthalene, in N-00160
2-Naphthohydroxamic acid, N-00024
2-Quinolincarboxylic acid; Me ester, in Q-00017
8-Quinolincarboxylic acid; Me ester, in Q-00018
- C₁₁H₉NO₂S**
N-Hydroxy-2-thiophenecarboxamide; *N*-Ph, in H-00554
- C₁₁H₉NO₂S₂**
▷ 5-[(4-Methoxyphenyl)methylene]-2-thioxo-4-thiazolidinone, M-00113
- C₁₁H₉NO₃**
2-Hydroxy-3-methyl-1,4-naphthoquinone; Monoxime, in H-00292
3-Hydroxy-2-naphthohydroxamic acid, in H-00370
N-Hydroxy-*N*-phenyl-2-furancarboxamide, H-00472
6-Methoxy-4-quinolincarboxylic acid, in H-00527
2,5-Pyrrolidinedione; *N*-Benzoyl, in P-00442
- C₁₁H₉NO₄**
5,6-Dimethyl-2-nitro-1,3-indanedione, D-00873
5-Hydroxy-3-phenyl-4-isoxazolecarboxylic acid; Me ester, in H-00475
Isatin; 1-Ethoxycarbonyl, in I-00056
- C₁₁H₉NO₅**
4,8-Dimethyl-7-hydroxy-6-nitro-2*H*-1-benzopyran-2-one, D-00865
- C₁₁H₉NS₂**
2-[(2-Thienylmethylene)amino]benzenethiol, T-00151
- C₁₁H₉N₃**
▷ 2-Aminoperimidine, A-00297
N-(2-Pyridinylmethylene)-2-pyridinamine, P-00396
- C₁₁H₉N₃O**
Di-2-pyridinylmethanone; Oxime, in D-01071
2-Pyrazinyl-1-(2-pyridinyl)ethanone, P-00299
1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone, P-00405
- C₁₁H₉N₃OS**
2-(1-Oxo-2(1*H*)-naphthalenyldene)hydrazinecarbothioamide, in N-00031
- C₁₁H₉N₃O₂**
2-Pyridinecarboxaldehyde 2-furoylhydrazone, P-00324
4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
- C₁₁H₉N₃O₂S₃**
2-[(Tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzoic acid, T-00060
- C₁₁H₉N₃O₄S₂**
1,2-Naphthoquinone-4-sulfonic acid; 2-(Thiosemicarbazone), in N-00033
- C₁₁H₉N₃O₅S**
2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid, D-00696
1,2-Naphthoquinone-4-sulfonic acid; 2-Semicarbazone, in N-00033
- C₁₁H₉N₃O₆S₄**
2-Hydroxy-5-sulfo-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzoic acid, H-00545
- C₁₁H₉N₅O₂**
2-Pyridinecarboxaldehyde (5-nitro-2-pyridinyl)hydrazone, P-00330

- C₁₁H₉N₅O₃**
2-Amino-4-[(4-nitrophenyl)azo]-3-pyridinol, A-00283
- C₁₁H₁₀BrN₅**
4-[(5-Bromo-2-pyridinyl)azo]-1,3-benzenediamine, B-00562
- C₁₁H₁₀IN₅**
4-[(5-Iodo-2-pyridinyl)azo]-1,3-benzenediamine, I-00052
- C₁₁H₁₀N₂**
1-Naphthalenecarboxaldehyde; Hydrazone, *in* N-00003
- C₁₁H₁₀N₂O**
8-Aminoquinoline; 8-*N*-Ac, *in* A-00340
N-Hydroxy-1-naphthalenecarboximidamide, *in* N-00005
- C₁₁H₁₀N₂O₂**
6-Methoxy-2-phenyl-1(2*H*)-pyridazinone, *in* D-00481
- C₁₁H₁₀N₂O₃S₂**
5-[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2-thioxo-4-thiazolidinone, H-00220
- C₁₁H₁₀N₂O₄**
1-[(Phenylamino)carbonyl]oxy]-2,5-pyrrolidinedione, P-00081
- C₁₁H₁₀N₂S**
1-Naphthalenethiocarboxylhydrazide, N-00016
- C₁₁H₁₀N₄**
Di-2-pyridinylmethanone; Hydrazone, *in* D-01071
2-Pyridinecarboxaldehyde 2-pyridylhydrazone, P-00335
- C₁₁H₁₀N₄O**
5-Amino-2-(2-pyridinylazo)phenol, A-00336
 α -(Hydroxyimino)-1,5-dimethyl-1*H*-benzimidazole-2-acetonitrile, H-00244
3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509
2-Pyrazinyl-1-(2-pyridinyl)ethanone; Oxime, *in* P-00299
- C₁₁H₁₀N₄O₂**
5*H*-Imidazole-4-carboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, I-00002
- C₁₁H₁₀N₄O₂S**
5-Amino-2-(4-methyl-2-thiazolylazo)benzoic acid, A-00258
6-Amino-5-nitroso-2-[(phenylmethyl)thio]-4(1*H*)-pyrimidinone, A-00286
- C₁₁H₁₀N₄O₄S**
4-[(2-Amino-3-hydroxy-4-pyridinyl)azo]benzenesulfonic acid, A-00217
- C₁₁H₁₀N₄S**
2-Quinolinecarboxaldehyde thiosemicarbazone, *in* Q-00009
- C₁₁H₁₀N₆**
[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyrazine, D-00484
3-[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyridazine, D-00485
4-[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyrimidine, D-00486
- C₁₁H₁₀O₂**
3,3-Dimethyl-1,2-indanedione, D-00868
1-Methoxy-2-naphthol, *in* N-00007
3-Methoxy-2-naphthol, *in* N-00010
4-Methoxy-2-naphthol, *in* N-00008
7-Methoxy-2-naphthol, *in* N-00011
8-Methoxy-1-naphthol, *in* N-00009
- C₁₁H₁₀O₂S**
2-Mercapto-5-phenyl-2,4-pentadienoic acid, M-00046
- C₁₁H₁₀O₃**
2-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00084
- 3-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00085
5-Hydroxy-2,3-dimethyl-4*H*-1-benzopyran-4-one, H-00150
7-Hydroxy-4,8-dimethyl-2*H*-1-benzopyran-2-one, H-00151
5-Methoxy-2-methyl-4*H*-1-benzopyran-4-one, *in* H-00281
7-Methoxy-4-methyl-2*H*-1-benzopyran-4-one, *in* H-00283
- C₁₁H₁₀O₃S**
2-Naphthalenesulfonic acid; Me ester, *in* N-00015
- C₁₁H₁₀O₄**
4,5-Dihydroxy-2*H*-1-benzopyran-2-one; Di-O-Me, *in* D-00537
5,7-Dihydroxy-2,6-dimethyl-4*H*-1-benzopyran-4-one, D-00575
2,2-Dimethoxy-1,3-indanedione, *in* N-00071
5-Hydroxy-7-methoxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00645
4-(Hydroxymethyl)-7-methoxy-2*H*-1-benzopyran-2-one, *in* H-00209
3-(2-Hydroxyphenyl)-2-propenoic acid; Ac, *in* H-00500
- C₁₁H₁₀O₅**
2,4-Dihydroxybenzaldehyde; Di-Ac, *in* D-00517
2,5-Dihydroxybenzaldehyde; Di-Ac, *in* D-00518
3,4-Dihydroxybenzaldehyde; Di-Ac, *in* D-00519
- C₁₁H₁₀O₆**
1,2,3-Benzenetricarboxylic acid; 1,3-Di-Me ester, *in* B-00031
1,2,4-Benzenetricarboxylic acid; 1,2-Di-Me ester, *in* B-00032
2,4-Dihydroxybenzoic acid; Di-Ac, *in* D-00531
3,5-Dihydroxybenzoic acid; Di-Ac, *in* D-00534
- C₁₁H₁₁ClO₃**
6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00576
7,8-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00577
- C₁₁H₁₁F₅O₂**
Pentafluorobenzaldehyde; Di-Et acetal, *in* P-00010
- C₁₁H₁₁N**
2-Naphthylamine; *N*-Me, *in* N-00042
1-Naphthylmethylamine, N-00051
Pyrrole; *N*-Benzyl, *in* P-00436
- C₁₁H₁₁NO**
1-Amino-2-naphthalenol; Me ether, *in* A-00273
1,2-Cyclopentanedione; Monoanil, *in* C-00362
8-Ethoxyquinoline, *in* H-00525
8-Methoxy-2-methylquinoline, *in* H-00326
- C₁₁H₁₁NO₃**
5-Hydroxy-1*H*-indole-2-carboxylic acid; Et ester, *in* H-00253
- C₁₁H₁₁NO₆**
2-[Bis(carboxymethyl)amino]benzoic acid, B-00276
2,6-Dihydroxy-4-pyridinecarboxylic acid; Di-Ac, Me ester, *in* D-00721
- C₁₁H₁₁NS**
8-Quinolinethiol; S-Et, *in* Q-00021
- C₁₁H₁₁N₃OS**
2,3-Butanedione (2-benzothiazolyl)hydrazone, B-00588
2,4-Dimethyl-6-(2-thiazolylazo)phenol, D-00923
2-(2-Hydroxy-5-methylphenylazo)-4-methylthiazole, H-00301
2-(2-Methoxy-4-methylphenylazo)thiazole, *in* M-00324
- C₁₁H₁₁N₃OS₂**
6-[(Benzylmercapto)methyl]-5-hydroxy-3-mercapto-1,2,4-triazine, B-00187
- C₁₁H₁₁N₃O₂S**
4-Methoxy-2-[(4-methyl-2-thiazolyl)azo]phenol, *in* M-00318
2-Methyl-4-[(4-methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00202
- C₁₁H₁₁N₅**
2-Acetylpyridine 2-pyrazinylhydrazone, A-00043
2-Acetylpyridine 2-pyrimidinylhydrazone, A-00044
[2,2'-Bipyridine]-6-carboximidic acid hydrazide, B-00223
2(1*H*)-Pyridinone (1-pyrazinylethylidene) hydrazone, P-00366
2(1*H*)-Pyridinone [(1-(3-pyridazinyl)ethylidene) hydrazone, P-00369
4-(2-Pyridinylazo)-1,3-benzenediamine, P-00372
- C₁₁H₁₁N₅O₃S**
5-(Dimethylamino)-2-[(5-nitro-2-thiazolyl)azo]phenol, *in* A-00289
- C₁₁H₁₁O₃⁺**
6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+), D-00576
7,8-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+), D-00577
- C₁₁H₁₂ClN**
1,2-Dimethylquinolinium(1+); Chloride, *in* D-00913
- C₁₁H₁₂IN**
1,2-Dimethylquinolinium(1+); Iodide, *in* D-00913
- C₁₁H₁₂N⁺**
1,2-Dimethylquinolinium(1+), D-00913
- C₁₁H₁₂N₂**
2,4-Dimethyl-1*H*-1,5-benzodiazepine, D-00834
- C₁₁H₁₂N₂O**
1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00392
- C₁₁H₁₂N₂O₂**
3,3-Dimethyl-1,2-indanedione; Dioxime, *in* D-00868
- C₁₁H₁₂N₂O₄**
3,4-Diaminobenzoic acid; 3,4-*N*-Di-Ac, *in* D-00050
- C₁₁H₁₂N₂S**
1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione, D-00391
- C₁₁H₁₂N₄**
5,6-Dimethyl-3-(4-methyl-2-pyridinyl)-1,2,4-triazine, D-00871
- C₁₁H₁₂N₄OS**
5-Amino-2-[(4,5-dimethyl-2-thiazolyl)azo]phenol, A-00163
2,3-Butanedione (2-benzothiazolyl)hydrazone; Oxime, *in* B-00588
5-(Dimethylamino)-2-(2-thiazolylazo)phenol, *in* A-00214
4,5-Dimethyl-2-[(5-methyl-1,3,4-thiadiazol-2-yl)azo]phenol, D-00872
- C₁₁H₁₂N₄O₂**
4-Methoxy-2-[(5-methylimidazol-4-yl)azo]phenol, *in* M-00191
▶ Todralazine, T-00188
- C₁₁H₁₂N₄O₂S**
2-[(5-Ethyl-1,3,4-thiadiazol-2-yl)azo]-4-methoxyphenol, E-00116
- C₁₁H₁₂N₄O₄**
Dihydro-5-[3-(1,2,3,4-tetrahydro-6-hydroxy-4-oxo-5-pyrimidinyl)-2-propenylidene]-4,6(1*H*,5*H*)-pyrimidinedione, D-00490
- C₁₁H₁₂N₄O₄S₂**
2-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]ethanesulfonic acid, H-00550

- C₁₁H₁₂N₄S**
1,3-Dimethyl-4-(phenylazo)-1*H*-pyrazole-5-thiol, D-00887
- C₁₁H₁₂N₆S₂**
2,2'-(1*H*-Indene-1,3(2*H*)-diylidene)bishydrazinecarbothioamide, in I-00024
- C₁₁H₁₂N₈O**
1,5-Bis(6-methyl-4-pyrimidyl)carbazone, B-00425
- C₁₁H₁₂O₂**
▷ 3,4-Dihydroxy-5-methoxy-1(2*H*)-naphthalene, in D-00413
- C₁₁H₁₂O₂S₂**
Acetyl dithiol, in M-00129
- C₁₁H₁₂O₃**
2-Oxo-3-phenylpropanoic acid; Et ester, in O-00068
- C₁₁H₁₂O₄**
2-Acetoxybenzoic acid; Et ester, in A-00010
Caffeic acid; Et ester, in D-00716
3-(4-Hydroxyphenyl)propanoic acid; Ac, in H-00497
5-Methyl-1,3-benzenediol; Di-Ac, in M-00128
- C₁₁H₁₂O₄S**
Mercaptobutanedioic acid; *S*-Benzyl, in M-00026
- C₁₁H₁₂O₅**
1,2,3-Benzenetriol; 1-Me ether, di-Ac, in B-00034
1,2,3-Benzenetriol; 2-Me ether, di-Ac, in B-00034
1,2,4-Benzenetriol; 1-Me ether, 2,4-di-Ac, in B-00035
1,2,4-Benzenetriol; 2-Me ether, 1,4-di-Ac, in B-00035
- C₁₁H₁₂O₇**
3-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic acid; Di-Et ester, in H-00435
- C₁₁H₁₃NO**
3-[4-(Dimethylamino)phenyl]-2-propenal, D-00823
4-(Phenylimino)-2-pentanone, in P-00030
- C₁₁H₁₃NO₂**
N-Hydroxy-*N*-(4-methylphenyl)-2-butenamide, in H-00143
4-Methylaniline; *N*-Di-Ac, in M-00124
1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid; Me ester, in T-00063
- C₁₁H₁₃NO₃**
Hippuric acid; Et ester, in H-00078
2-Oxo-3-phenylpropanoic acid; Et ester, oxime, in O-00068
- C₁₁H₁₃NO₄**
2,6-Pyridinedicarboxylic acid; Di-Et ester, in P-00353
- C₁₁H₁₃NO₄S**
2-[(1-Methyl-3-oxobutylidene)amino]benzenesulfonic acid, M-00213
- C₁₁H₁₃N₃O**
▷ 4-Amino-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00152
- C₁₁H₁₃N₃OS**
5-(5-Methyl-2-furanyl)-2,4-pentadienalthiosemicarbazone, M-00181
- C₁₁H₁₃N₃O₅**
N-(4-Nitrophenyl)glutamine, N-00136
- C₁₁H₁₃N₅O₉**
6-Hydroxy-1,3,5-triazine-2,4-diyldinitrotetraacetic acid, H-00555
- C₁₁H₁₄N₂O**
Methylglyoxal 4-dimethylaminoanil, M-00184
- C₁₁H₁₄N₂O₂**
1,2-Diamino-4-methylbenzene; 1,2-*N*-Di-Ac, in D-00101
- C₁₁H₁₄N₂O₅**
Corynecin I, in A-00284
- C₁₁H₁₄N₄OS**
2,3-Butanedione; Monoxime, phenylthiosemicarbazone, in B-00587
2-[2-(Hydroxyimino)-1-methylpropylidene]-*N*-phenylhydrazinecarbothioamide, H-00248
- C₁₁H₁₄N₄O₃**
2,3-Pentanedione; 3-Oxime, 4-nitrophenylhydrazone, in P-00029
- C₁₁H₁₄O₂**
(3,3-Dimethyl-1-propenyl)benzene, in P-00168
1-(2-Hydroxy-5-methylphenyl)-1-butanone, H-00309
2-Phenylbutanoic acid; Me ester, in P-00110
- C₁₁H₁₄O₂S**
3-Mercapto-3-phenylpropanoic acid; Et ester, in M-00048
- C₁₁H₁₄O₃**
1-(2,4-Dihydroxyphenyl)-1-pentanone, D-00714
1-(2,4-Dihydroxyphenyl)-1-propanone; Di-Me ether, in D-00715
3-(4-Hydroxyphenyl)propanoic acid; Et ester, in H-00497
3-(4-Hydroxyphenyl)propanoic acid; Me ether, Me ester, in H-00497
- C₁₁H₁₄O₄**
(3,4-Dihydroxyphenyl)acetic acid; Di-Me ether, Me ester, in D-00687
2,3',4'-Trimethoxyacetophenone, in T-00268
2',3',4'-Trimethoxyacetophenone, in T-00269
- C₁₁H₁₄O₆S**
2-Hydroxy-5-sulfobenzoic acid; Di-Et ester, in H-00538
- C₁₁H₁₅N**
Pyrrolidine; *N*-Benzyl, in P-00440
- C₁₁H₁₅NO**
4-Aminobenzaldehyde; *N,N*-Di-Et, in A-00097
▷ Benzamide; *N*-Di-Et, in B-00008
2,6-Dimethylaniline; *N*-Me, *N*-Ac, in D-00829
1-Phenyl-2-propylamine; *N*-Ac, in P-00172
1-(2-Pyridyl)-1-hexanone, P-00418
- C₁₁H₁₅NO₂**
3-Aminobenzoic acid; *N,N*-Di-Et, in A-00104
4-Butylbenzohydroxamic acid, B-00618
4-*tert*-Butylbenzohydroxamic acid, B-00619
1-(2-Hydroxy-5-methylphenyl)-1-butanone; Oxime, in H-00309
N-Hydroxy-*N*-phenylpentanamide, H-00492
▷ *N*-Methylphenacetin, in E-00051
- C₁₁H₁₅NO₂S**
1-[(4-Ethoxyphenyl)amino]-2-mercapto-1-propanone, E-00058
3-Mercapto-*p*-propionophenetidine, M-00054
- C₁₁H₁₅NO₃**
1,2-Dihydro-6-methyl-2-oxo-3-pyridinecarboxylic acid; *tert*-Butyl ester, in D-00441
1-(2,4-Dihydroxyphenyl)-1-pentanone; Oxime, in D-00714
- C₁₁H₁₅NO₄**
2-Nitrobenzaldehyde; Di-Et acetal, in N-00081
- C₁₁H₁₅N₅O₅S₂**
5'-Amino-2',3',4'-tetrahydro-4,4,6-trimethyl-2,2'-dithioxo[1(2*H*),4'-bipyrimidin]-6'(1'*H*)-one, A-00352
- C₁₁H₁₆N₂O**
1-(2-Pyridyl)-1-hexanone; Oxime, in P-00418
- C₁₁H₁₆O**
1-Isopropyl-2-methoxy-4-methylbenzene, in I-00075
- C₁₁H₁₆OS₃**
2,6-Dimercapto-3,5-dipropyl-4*H*-thiopyran-4-one, D-00756
3-Hexyl-2,6-dimercapto-4*H*-thiopyran-4-one, H-00075
- C₁₁H₁₆O₂**
(Diethoxymethyl)benzene, in B-00004
- C₁₁H₁₆O₃**
3-(2-Furanyl)-2-propenal; Di-Et acetal, in F-00060
- C₁₁H₁₆O₃S**
2-Butanol; *p*-Toluenesulphonyl, in B-00607
- C₁₁H₁₆O₈**
Citric acid; Tri-Me ester, Ac, in C-00299
- C₁₁H₁₇N**
N-Butyl-*N*-methylaniline, in B-00617
▷ Etilamfetamine, in P-00172
2-Hexylpyridine, H-00077
Levamphetamine; *N,N*-Di-Me, in P-00172
4-Methylaniline; *N*-Di-Et, in M-00124
- C₁₁H₁₇NOSi**
N-Phenyl-*N*-(trimethylsilyl)acetamide, P-00210
- C₁₁H₁₇NO₃**
2-(Diethoxymethyl)-3-methoxypyridine, in H-00518
- C₁₁H₁₇NO₃S**
3-(Ethylphenylamino)-1-propanesulfonic acid, E-00102
- C₁₁H₁₇N₃O**
2-(Diethylamino)benzoic acid hydrazide, D-00315
- C₁₁H₁₇N₅O₃S**
7-[(5-Aminopentyl)amino]-4-benzofurazansulfonamide, A-00295
- C₁₁H₁₈IN**
Levamphetamine; *N*-Me; B,MeI, in P-00172
- C₁₁H₁₈NO₄P**
[(Ethylamino)(2-hydroxyphenyl)methyl]phosphonic acid; Et ester, in E-00065
- C₁₁H₁₈N₂**
1,2-Diamino-4-methylbenzene; 1,2-*N*-Tetra-Me, in D-00101
- C₁₁H₁₈N₂O₈**
▷ 1,2-Diaminopropane-*N,N,N',N'*-tetraacetic acid, D-00115
- C₁₁H₁₈N₂O₉**
▷ 1,3-Diamino-2-propanol-*N,N,N',N'*-tetraacetic acid, D-00116
- C₁₁H₁₈O₂**
1,2-Cycloundecanedione, C-00369
- C₁₁H₁₈O₃**
4,4-Dimethyl-2,6-dioxaspiro[6.6]undecan-9-one, in C-00339
- C₁₁H₁₉ClO₂**
Menthyl chloroformate, M-00014
- C₁₁H₁₉NO**
Trimethylphenylammonium(1+); Ethoxide, in T-00336
- C₁₁H₁₉NS**
3-Isothiocyanato-*p*-menthane, I-00095
- C₁₁H₁₉N₂O₃P**
 α -(Ethylamino)-*p*-(dimethylamino)benzylphosphonic acid, E-00064
- C₁₁H₂₀EuN₂NaO₁₁**
Triaqua[[*N,N'*-(1-methyl-1,2-ethanediy)bis[*N*-(carboxymethyl)glycinato]](4-)-*N,N'*-*O,O',O''*,*O''*jeuropate(1-); Na salt, in T-00196
- C₁₁H₂₀EuN₂O₁₁[⊖]**
Triaqua[[*N,N'*-(1-methyl-1,2-ethanediy)bis[*N*-(carboxymethyl)glycinato]](4-)-*N,N'*-*O,O',O''*,*O''*jeuropate(1-), T-00196
- C₁₁H₂₀N₂O₂**
1,2-Cycloundecanedione; Dioxime, in C-00369
- C₁₁H₂₀N₂S**
1-Butyl-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, in D-00504

- C₁₁H₂₀O₂**
Cyclohexanebutanoic acid; Me ester, *in* C-00335
2,8-Dimethyl-4,6-nonanedione, D-00877
2,2,6,6-Tetramethyl-3,5-heptanedione, T-00095
5,7-Undecanedione, U-00001
- C₁₁H₂₀O₄**
Decanedioic acid; Mono-Me ester, *in* D-00022
Propanedioic acid; Di-*tert*-butyl ester, *in* P-00261
- C₁₁H₂₁BrO₂**
2-Bromodecanoic acid; Me ester, *in* B-00500
- C₁₁H₂₂O₂**
Decanoic acid; Me ester, *in* D-00025
- C₁₁H₂₃NO₄**
10-(2-Methoxyethyl)-1,4,7-trioxa-10-azacyclododecane, *in* T-00359
13-Methyl-1,4,7,10-tetraoxa-13-azacyclotetradecane, *in* T-00111
- C₁₁H₂₃O₄P**
2-(Dibutylphosphinyl)-2-hydroxypropanoic acid, D-00239
- C₁₁H₂₄O₃S**
1-Decanesulfonic acid; Me ester, *in* D-00024
- C₁₁H₂₄O₄**
1,1,2,2-Tetraethoxypropane, *in* P-00446
▷ 1,1,3,3-Tetraethoxypropane, T-00040
- C₁₁H₂₄S₄**
3,6,10,13-Tetrathiapentadecane, T-00129
- C₁₁H₂₅AsO₂**
Propyl dibutylarsinate, *in* D-00226
- C₁₁H₂₅NO₂**
1,1-Dibutoxytrimethylamine, D-00221
1,1-Di-*tert*-butoxytrimethylamine, D-00222
- C₁₁H₂₅O₃P**
Methylphosphonic acid; Bis(3-methylbutyl) ester, *in* M-00244
- C₁₁H₂₅O₃PS**
Dibutyl-(2-hydroxypropyl)thiophosphonic acid, D-00234
- C₁₁H₂₆N₂O₆**
2,2'-(1,3-Propanedioldiimino)bis[2-(hydroxymethyl)-1,3-propanediol], P-00263
- C₁₂H₄N₄**
▷ Tetracyanoquinodimethane, T-00038
- C₁₂H₅NO₄**
5-Nitro-1,2-acenaphthylene-dione, N-00076
- C₁₂H₅N₇O₁₂**
▷ 2,2',4,4',6,6'-Hexanitrodiphenylamine, H-00065
- C₁₂H₆Cl₂N₂O₂**
[2,2'-Bipyridine]-4,4'-dicarboxylic acid; Dichloride, *in* B-00224
- C₁₂H₆Cl₃NO₂**
2,6-Dichloro-4-[(3-chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00256
2,6-Dichloro-4-[(2-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00258
2,6-Dichloro-4-[(3-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00259
- C₁₂H₆Cl₄O₂S**
▷ Bis(2,4-dichloro-6-hydroxyphenyl)disulfide, B-00293
- C₁₂H₆Cl₄O₃S**
▷ Bithionoloxide, *in* B-00293
- C₁₂H₆N₄O₈**
2,2',4,4'-Tetranitrobiphenyl, T-00107
- C₁₂H₆O₂**
Acenaphthenequinone, A-00001
- C₁₂H₇BrN₂**
5-Bromo-1,10-phenanthroline, B-00541
- C₁₂H₇Br₂NO₂**
2,6-Dibromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00191
- C₁₂H₇Br₂NO₅S**
2,6-Dibromo-4-[(4-hydroxy-2-sulfophenyl)imino]-2,5-cyclohexadien-1-one, D-00194
5-[(3,5-Dibromo-4-oxo-2,5-cyclohexylidene)amino]-2-hydroxybenzenesulfonic acid, D-00197
- C₁₂H₇ClN₂**
5-Chloro-1,10-phenanthroline, C-00195
- C₁₂H₇ClN₂O₃**
7-Amino-2-chloro-1-hydroxy-3*H*-phenoxazin-3-one, A-00138
- C₁₂H₇Cl₂NO₂**
2,6-Dichloro-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00282
- C₁₂H₇FN₂O₄S**
7-(Phenylloxy)-4-benzofurazansulfonyl fluoride, P-00153
- C₁₂H₇F₃O₂S**
1-Benzo[*b*]thien-2-yl-4,4,4-trifluoro-1,3-butanedione, B-00109
- C₁₂H₇NO₂**
Acenaphthenequinone; Monoxime, *in* A-00001
1*H*-Benz[*de*]isoquinoline-1,3(2*H*)-dione, B-00051
- C₁₂H₇NO₂S**
7-Hydroxy-3*H*-phenothiazin-3-one, H-00441
- C₁₂H₇NO₃**
2-Hydroxy-1*H*-Benz[*de*]isoquinoline-1,3(2*H*)-dione, *in* B-00051
2-Hydroxy-3*H*-phenoxazin-3-one, H-00442
7-Hydroxy-3*H*-phenoxazin-3-one, H-00443
- C₁₂H₇NO₄**
▷ Resazurin, *in* H-00443
- C₁₂H₇NO₅**
1,7,9-Trihydroxy-3*H*-phenoxazin-3-one, T-00308
- C₁₂H₇N₃O₂**
5-Nitro-1,10-phenanthroline, N-00116
- C₁₂H₇N₃O₄**
5-Nitro-1,2-acenaphthylene-dione; Dioxime, *in* N-00076
- C₁₂H₈BrNO₂**
2-Bromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, B-00512
- C₁₂H₈BrNO₄S**
O-(*p*-Bromophenylsulfonyl)quinone monoxime, B-00557
- C₁₂H₈BrN₃S₂**
5-Bromo-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, B-00580
- C₁₂H₈Br₂N₄O₂**
5-Amino-2-[(3,5-dibromo-2-pyridyl)azo]benzoic acid, A-00148
- C₁₂H₈Br₂O₅S₂**
4-Bromobenzenesulfonic acid; Anhydride, *in* B-00487
- C₁₂H₈CINO**
1-Chloromethylbenz[*cd*]indol-2(1*H*)-one, *in* B-00050
- C₁₂H₈CINO₂**
4-[(3-Chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, C-00149
- C₁₂H₈CINS**
2-Chloro-10*H*-phenothiazine, C-00198
- C₁₂H₈ClN₃S₂**
5-Chloro-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, C-00264
- C₁₂H₈Cl₂I[⊕]**
Bis(4-chlorophenyl)iodonium(1+), B-00287
- C₁₂H₈Cl₃I**
Bis(4-chlorophenyl)iodonium(1+); Chloride, *in* B-00287
- C₁₂H₈Cl₃O₃P**
Bis(4-chlorophenyl) phosphorochloridate, *in* B-00289
- C₁₂H₈F₂N₄**
1-(4,6-Difluoro-1,3,5-triazin-2-yl)-2-methyl-2*H*-isoindole, D-00362
- C₁₂H₈F₃NO₃**
7-Amino-4-(trifluoromethyl)-2*H*-1-benzopyran-2-one; *N*-Ac, *in* A-00365
- C₁₂H₈I₂O₅S₂**
Pipsan, *in* I-00039
- C₁₂H₈N₂**
▷ 1,10-Phenanthroline, P-00052
- C₁₂H₈N₂O**
4-Hydroxy-1,10-phenanthroline, H-00437
6-Hydroxy-1,7-phenanthroline, H-00438
2-Hydroxyphenazine, H-00439
1,10-Phenanthroline; *N*-Oxide, *in* P-00052
- C₁₂H₈N₂O₂**
Acenaphthenequinone; Dioxime, *in* A-00001
▷ 2-Amino-3*H*-phenoxazin-3-one, A-00303
7-Amino-3*H*-phenoxazin-3-one, A-00304
1*H*-Benz[*de*]isoquinoline-1,3(2*H*)-dione; *N*-Amino, *in* B-00051
4,7-Dihydroxy-1,10-phenanthroline, D-00685
5,6-Dihydroxy-1,10-phenanthroline, D-00686
Di-2-pyridinylethanedione, D-01063
2-Hydroxyphenazine; 10-Oxide, *in* H-00439
1,10-Phenanthroline; *N,N'*-Dioxide, *in* P-00052
- C₁₂H₈N₂O₃**
7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, A-00208
- C₁₂H₈N₂O₃S**
1,10-Phenanthroline-3-sulfonic acid, P-00054
1,10-Phenanthroline-5-sulfonic acid, P-00055
- C₁₂H₈N₂O₄**
[2,2'-Bipyridine]-4,4'-dicarboxylic acid, B-00224
2,3,7,8-Tetrahydroxyphenazine, T-00079
- C₁₂H₈N₂O₄S₂**
▷ Bis(4-nitrophenyl) disulfide, B-00431
- C₁₂H₈N₂O₆S**
1,4-Benzoquinone mono[*O*-[(*p*-nitrophenyl)sulfonyl]oxime], B-00080
- C₁₂H₈N₂O₇**
1,8-Dihydroxy-2,4-dinitronaphthalene; 1-Ac, *in* D-00582
1,8-Dihydroxy-2,4-dinitronaphthalene; 8-Ac, *in* D-00582
- C₁₂H₈N₂S₃**
5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione, M-00039
- C₁₂H₈N₄OS**
1-(1,3,4-Thiadiazol-2-ylazo)-2-naphthalenol, T-00134
- C₁₂H₈N₄OS₂**
5-[(2-Hydroxy-1-naphthalenyl)azo]-1,3,4-thiadiazole-2(3*H*)-thione, H-00357
5-(8-Quinolinyloxy)-2-thioxo-4-thiazolidinone, Q-00034
- C₁₂H₈N₄O₄S₂**
8-Hydroxy-7-(2-thiazolylazo)-5-quinolinesulfonic acid, H-00552
- C₁₂H₈N₄O₄S₃**
5-[(4,5-Dihydro-5-thioxo-1,3,4-thiadiazol-2-yl)azo]-6-hydroxy-2-naphthalenesulfonic acid, D-00495
- C₁₂H₈N₄O₆**
4-[(2,4-Dinitrophenyl)azo]-1,2-benzenediol, D-00963

- C₁₂H₈N₄O₇**
4-[(2-Hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, H-00160
- C₁₂H₈N₄S₃**
5-(8-Quinolinyloxy)-2,4-thiazolidinedithione, Q-00033
- C₁₂H₈O₂**
2,3-Naphthalenedicarboxaldehyde, N-00006
- C₁₂H₈O₆**
7-Hydroxy-2-oxo-2H-1-benzopyran-3-carboxylic acid; Ac, in H-00426
- C₁₂H₉BrN₂O₅**
2-Thiophenecarboxaldehyde 3-bromobenzoylhydrazone, T-00171
- C₁₂H₉BrN₂O₂**
2-Furancarboxaldehyde 3-bromobenzoylhydrazone, F-00045
- C₁₂H₉BrN₂O₄**
2-Furancarboxaldehyde 4-bromobenzoylhydrazone, F-00046
- C₁₂H₉BrN₂O₃**
4-[(4-Bromophenyl)azo]-1,2,3-benzenetriol, B-00545
- C₁₂H₉BrN₂O₅S**
4-[(2-Bromo-4,5-dihydroxyphenyl)azo] benzenesulfonic acid, B-00504
- C₁₂H₉BrO**
2-(Bromoacetyl)naphthalene, B-00484
- C₁₂H₉BrO₄**
7-Acetoxy-4-(bromomethyl)coumarin, in B-00524
- C₁₂H₉Br₂N₃O₂**
2-[(3,5-Dibromo-2-pyridinyl)azo]-5-methoxyphenol, in D-00200
- C₁₂H₉Br₂N₃O₃S**
4-(4-Aminophenylazo)-3,5-dibromobenzenesulfonic acid, A-00310
- C₁₂H₉ClN₂O**
4-Chloro-*N*-(2-pyridinyl)benzamide, C-00256
- C₁₂H₉ClN₂O₂**
4-Chloro-2-[(2-pyridinylmethylene)amino]phenol, C-00258
- C₁₂H₉ClN₂O₂S**
Azobenzene-4-sulfonic acid; Chloride, in A-00468
- C₁₂H₉ClN₂O₃**
4-[(4-Chlorophenyl)azo]-1,2,3-benzenetriol, C-00200
- C₁₂H₉ClN₂O₆S**
▶ Lumogallion, L-00015
- C₁₂H₉ClO**
4-Chlorophenol; Ph ether, in C-00196
- C₁₂H₉ClO₄**
(1-Naphthyl)acetic acid; Chloride, in N-00040
- C₁₂H₉ClO₄**
7-(Chlorocarbonylmethoxy)-4-methylcoumarin, C-00077
- C₁₂H₉ClO₄S**
5-Hydroxy-1-naphthalenesulfonic acid; Chloride, Ac, in H-00346
- C₁₂H₉Cl₂NO₄S₂**
4,4'-Dichlorodiphenylsulfonamide, D-00268
- C₁₂H₉Cl₂N₃O₃S**
4-(4-Aminophenylazo)-2,5-dichlorobenzenesulfonic acid, A-00311
- C₁₂H₉Cl₂O₄P**
Bis(4-chlorophenyl) phosphate, B-00289
- C₁₂H₉F₃N₂O₂**
2,4-Dihydro-5-methyl-2-phenyl-4-(trifluoroacetyl)-3H-pyrazol-3-one, D-00449
- C₁₂H₉IN₂O₃**
4-[(4-Iodophenyl)azo]-1,2,3-benzenetriol, I-00049
- C₁₂H₉N**
▶ 1-(Cyanomethyl)naphthalene, in N-00040
- C₁₂H₉NO**
Benz[*cd*]indol-2-(1*H*)-one; *N*-Me, in B-00050
- ▶ 2-Benzoylpyridine, B-00151
- 2-Hydroxycarbazole, H-00144
- C₁₂H₉NOS**
Phenothiazine; *S*-Oxide, in P-00073
- C₁₂H₉NOS₂**
5-(3-Phenyl-2-propenylidene)-2-thioxo-4-thiazolidinone, P-00171
- C₁₂H₉NO₂**
Indophenol, I-00034
- 2-Pyridinecarboxylic acid; Ph ester, in P-00342
- C₁₂H₉NO₂S₂**
5-[5-(2-Furanyl)-2,4-pentadienylidene]-2-thioxo-4-thiazolidinone, F-00059
- C₁₂H₉NO₃**
1-Naphthylloxamic acid, N-00053
- C₁₂H₉NO₃S**
N-(4-Oxo-2,5-cyclohexadien-1-ylidene) benzenesulfonamide, O-00059
- C₁₂H₉NO₄S**
1,4-Benzoquinone mono(*O*-phenylsulfonyl) oxime, B-00081
- N*-(3,6-Dioxo-1,4-cyclohexadien-1-yl) benzenesulfonamide, D-00988
- 3-(2-Pyridinylcarbonyl)benzenesulfonic acid, P-00386
- C₁₂H₉NS**
▶ Phenothiazine, P-00073
- C₁₂H₉NSe**
10*H*-Phenoselenazine, P-00072
- C₁₂H₉N₃**
5-Amino-1,10-phenanthroline, A-00299
- 2-(2-Pyridinyl)-1*H*-benzimidazole, P-00385
- C₁₂H₉N₃OS**
2-Furancarboxaldehyde 2-benzothiazolyhydrazone, F-00044
- C₁₂H₉N₃O₂**
9-Amino-2,3-dihydrobenzo[*f*]phthalazine-1,4-dione, A-00151
- Di-2-pyridylmonoxime, in D-01063
- C₁₂H₉N₃O₃**
2-[(4-Nitrophenyl)azo]phenol, N-00128
- C₁₂H₉N₃O₄**
4-[(4-Nitrophenyl)azo]-1,2-benzenediol, N-00122
- 4-[(4-Nitrophenyl)azo]-1,3-benzenediol, N-00123
- C₁₂H₉N₃O₅**
4-[(4-Nitrophenyl)azo]-1,2,3-benzenetriol, N-00124
- C₁₂H₉N₃O₈S**
3-[2,4-Dihydroxyphenylazo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00698
- C₁₂H₉N₃O₈S₂**
3-Nitro-*N*-[(3-nitrophenyl)sulfonyl] benzenesulfonamide, N-00115
- C₁₂H₉N₃S₂**
2-Thiophenecarboxaldehyde 2-benzothiazolyhydrazone, T-00170
- C₁₂H₉N₅**
3,5-Di-2-pyridyl-1,2,4-triazole, D-01099
- C₁₂H₉N₅O**
1-(1*H*-1,2,4-Triazol-3-ylazo)-2-naphthalenol, T-00200
- C₁₂H₉N₅OS**
1-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, A-00358
- C₁₂H₉N₅O₄S₂**
5-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-6-hydroxy-2-naphthalenesulfonic acid, A-00356
- C₁₂H₉N₅O₆**
2-(4-Amino-2-hydroxyphenylazo)-4,6-dinitrophenol, A-00210
- C₁₂H₁₀AsClN₂O₆**
[5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxyphenyl]arsonic acid, C-00096
- C₁₂H₁₀BrI**
Diphenyliodonium(1+); Bromide, in D-01028
- C₁₂H₁₀BrNO₂S**
4-Bromobenzenesulfonic acid; Anilide, in B-00487
- C₁₂H₁₀BrN₃O₂**
2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, in B-00563
- C₁₂H₁₀BrN₃O₃S**
4-(4-Aminophenylazo)-3-bromobenzenesulfonic acid, A-00308
- C₁₂H₁₀Br₂N₂**
4,4'-Diamino-3,3'-dibromobiphenyl, D-00068
- C₁₂H₁₀Br₂N₄O**
5-Amino-2-[(3,5-dibromo-2-pyridyl)azo]-4-methylphenol, A-00149
- C₁₂H₁₀ClI**
Diphenyliodonium(1+); Chloride, in D-01028
- C₁₂H₁₀ClN**
4-Amino-4'-chlorobiphenyl, A-00136
- C₁₂H₁₀ClN₃O**
3-Chlorobenzoic acid (1*H*-pyrrol-2-ylmethylene)hydrazide, C-00069
- 3-(4-Chlorophenyl)-3-hydroxy-1-phenyltriazene, C-00233
- C₁₂H₁₀ClN₃O₃S**
4-(4-Aminophenylazo)-3-chlorobenzenesulfonic acid, A-00309
- C₁₂H₁₀ClN₃O₄S**
4-(Chloromethyl)-2-[(3,4-dihydroxyphenyl)azo]-5-thiazolecarboxylic acid; Me ester, in C-00176
- C₁₂H₁₀ClN₃S**
▶ Thionine hydrochloride, in L-00003
- C₁₂H₁₀FI**
Diphenyliodonium(1+); Fluoride, in D-01028
- C₁₂H₁₀FNO₃**
7-(Dimethylamino)-2-oxo-2H-1-benzopyran-3-carbonyl fluoride, D-00805
- C₁₂H₁₀F₃NO₂**
7-Amino-4-(trifluoromethyl)-2*H*-1-benzopyran-2-one; *N*-Et, in A-00365
- C₁₂H₁₀I[⊕]**
Diphenyliodonium(1+), D-01028
- C₁₂H₁₀INO₃**
Diphenyliodonium(1+); Nitrate, in D-01028
- C₁₂H₁₀I₂**
Diphenyliodonium(1+); Iodide, in D-01028
- C₁₂H₁₀N₂**
▶ 3-Aminocarbazole, A-00132
- 1-(1-Diazoethyl)naphthalene, D-00145
- 2-(1-Diazoethyl)naphthalene, D-00146
- 1,2-Di(2-pyridyl)ethylene, D-01090
- N*-(2-Pyridinylmethylene)benzenamine, P-00394
- C₁₂H₁₀N₂O**
2-Benzoylpyridine; (*E*)-Oxime, in B-00151
- 2-Benzoylpyridine; (*Z*)-Oxime, in B-00151
- 2,7-Diaminodibenzofuran, D-00066
- 3,4-Dihydro-1(2*H*)-phenazinone, D-00466
- ▶ Diphenylnitrosamine, in D-01000
- ▶ 4-Nitrosodiphenylamine, N-00157
- Norharmane, in M-00090
- N*-2-Pyridinylbenzamide, in A-00333
- 2-[(2-Pyridinylmethylene)amino]phenol, P-00393
- C₁₂H₁₀N₂OS**
8-Hydroxy-10*H*-phenothiazin-1-amine, H-00440

- N*-(2-Hydroxyphenyl)-2-pyridinecarbothioamide, H-00502
5-(3-Phenyl-2-propenylidene)-2-thioxo-4-imidazolidinone, P-00170
- C₁₂H₁₀N₂O₂**
2,2'-Dihydroxyazobenzene, D-00514
3,4-Dihydroxyazobenzene, D-00515
4,4'-Dihydroxyazobenzene, D-00516
1,2-Di(2-pyridyl)ethylene; *N,N'*-Dioxide, *in* D-01090
2-[(2-Hydroxyphenyl)methylene]amino]-3-pyridinol, H-00480
▷ 2-Nitrodiphenylamine, N-00104
▷ 4-Nitrodiphenylamine, N-00105
4-[(4-Nitrophenyl)methyl]pyridine, N-00139
Pyridoin, P-00412
- C₁₂H₁₀N₂O₃**
4-[(2-Hydroxyphenyl)azo]-1,3-benzenediol, H-00449
4-(Phenylazo)-1,2,3-benzenetriol, P-00092
Thymine; 1-*N*-Benzoyl, *in* T-00179
Thymine; 3-*N*-Benzoyl, *in* T-00179
- C₁₂H₁₀N₂O₃S**
Azobenzene-4-sulfonic acid, A-00468
2-(Benzylthio)-6-hydroxy-4-pyridimidinecarboxylic acid, *in* H-00261
5-Salicylidene-1-acetyl-2-thioimidazole, *in* H-00485
- C₁₂H₁₀N₂O₅S**
4-[(2,4-Dihydroxyphenyl)azo]benzenesulfonic acid, D-00688
- C₁₂H₁₀N₂O₆**
1,8-Dimethoxy-2,4-dinitronaphthalene, *in* D-00582
- C₁₂H₁₀N₂O₆S**
3-[(2,4-Dihydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00693
4-[(2,3,4-Trihydroxyphenyl)azo]benzenesulfonic acid, T-00309
- C₁₂H₁₀N₂O₁₀S₂**
Chrome red brown 5RD, C-00284
- C₁₂H₁₀N₂S**
N-Phenyl-2-thiopicolinamide, *in* P-00317
N-2-Pyridinylbenzenecarbothioamide, P-00383
- C₁₂H₁₀N₂S₂**
2,3-Dihydro-2-(2-mercaptophenyl)-1,2,3-benzothiadiazole, D-00425
- C₁₂H₁₀N₃S[⊕]**
Lauth's violet, L-00003
- C₁₂H₁₀N₄**
2-(4-Methyl-2-pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, M-00300
2-Pyridinecarboxaldehyde (2-pyridinylmethylene)hydrazone, P-00334
- C₁₂H₁₀N₄O**
1-Phenyl-1,2-ethanedione 2-(2-pyrazinyl)hydrazone, P-00128
3-Pyridinecarboxylic acid (2-pyridinylmethylene)hydrazide, P-00351
- C₁₂H₁₀N₄O₂**
4-Amino-4'-nitroazobenzene, A-00281
[2,2'-Bipyridine]-4,4'-dicarboxylic acid; Diamide, *in* B-00224
2,2'-Dipyridyl- α -glyoxime, *in* D-01063
3-Hydroxy-2-pyridinecarboxaldehyde [(3-hydroxy-2-pyridinyl)methylene]hydrazone, H-00519
2-Pyridinecarboxaldehyde 4-nitrophenylhydrazone, P-00329
- C₁₂H₁₀N₄O₃**
3-Hydroxy-1-(2-nitrophenyl)-3-phenyl-1-triazene, H-00403
3-Hydroxy-1-(4-nitrophenyl)-3-phenyl-1-triazene, H-00404
- C₁₂H₁₀N₄O₄**
2-(4-Amino-2-hydroxyphenylazo)-4-nitrophenol, A-00213
- C₁₂H₁₀N₄O₅S**
4-[3-(4-Nitrophenyl)-1-triazenyl]benzenesulfonic acid, N-00145
- C₁₂H₁₀N₆**
1-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, D-00130
3-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, D-00131
- C₁₂H₁₀N₆O₅**
2-[(2,4-Diaminophenyl)azo]-4,6-dinitrophenol, D-00112
- C₁₂H₁₀O**
▷ 2-Biphenylol, B-00210
▷ 4-Biphenylol, B-00211
- C₁₂H₁₀OS₃**
3-Benzyl-2,6-dimercapto-4*H*-thiopyran-4-one, B-00178
2,6-Dimercapto-3-methyl-5-phenyl-4*H*-thiopyran-4-one, D-00757
- C₁₂H₁₀OSe**
Diphenyl selenoxide, D-01049
- C₁₂H₁₀O₂**
1-Acetyl-2-naphthol, A-00025
2-Acetyl-1-naphthol, A-00026
▷ 4,4'-Biphenyldiol, B-00208
2-Methoxy-1-naphthaldehyde, *in* H-00336
1-Naphthol; Ac, *in* N-00025
2-Naphthol; Ac, *in* N-00026
▷ (1-Naphthyl)acetic acid, N-00040
- C₁₂H₁₀O₂S**
▷ Diphenyl sulfone, D-01052
- C₁₂H₁₀O₃**
1-(2-Furanyl)-2-hydroxy-2-phenylethanone, F-00052
 α -Hydroxy-2-naphthaleneacetic acid, H-00338
1-Hydroxy-2-naphthoic acid; Me ester, *in* H-00369
3-Hydroxy-2-naphthoic acid; Me ester, *in* H-00370
▷ 2-(1-Oxopropyl)-1*H*-indene-1,3(2*H*)-dione, O-00071
- C₁₂H₁₀O₃S**
Benzenesulfonic acid; Ph ester, *in* B-00026
- C₁₂H₁₀O₃S₂**
Benzenesulfonic acid; Anhydride, *in* B-00025
- C₁₂H₁₀O₃Se₂**
Benzeneseleninic anhydride, *in* B-00024
- C₁₂H₁₀O₄**
6-Acetyl-7-hydroxy-4-methyl-2*H*-1-benzopyran-2-one, A-00018
1,3-Dioxo-2-indanecarboxylic acid; Et ester, *in* D-00991
7-Hydroxy-4-methyl-2*H*-1-benzopyran-2-one; Ac, *in* H-00283
- C₁₂H₁₀O₅**
3-Acetyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00644
7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid, H-00295
7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid; Et ester, *in* H-00426
7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid; Me ether, Me ester, *in* H-00426
- C₁₂H₁₀O₅S₂**
Benzenesulfonic acid; Anhydride, *in* B-00026
- C₁₂H₁₀O₆**
[(7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-6-yl)oxy]acetic acid, *in* D-00647
- C₁₂H₁₀O₈**
1,2,4,5-Benzenetetracarboxylic acid; 1,4-Di-Me ester, *in* B-00029
- C₁₂H₁₀S**
▷ Diphenyl sulfide, D-01051
- C₁₂H₁₁BrN₄O**
5-Amino-2-[(5-bromo-2-pyridinyl)azo]-4-methylphenol, A-00125
- C₁₂H₁₁BrO₄**
4-(Bromomethyl)-6,7-dimethoxy-2*H*-1-benzopyran-2-one, B-00519
- C₁₂H₁₁BrO₅**
2-Bromo-2',5'-dihydroxyacetophenone; Di-Ac, *in* B-00502
- C₁₂H₁₁Br₂N₅**
5-(3,5-Dibromo-2-pyridylazo)-2,4-diaminotoluene, D-00210
- C₁₂H₁₁ClN₂O₄**
3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinolinecarboxyl chloride, *in* D-00379
- C₁₂H₁₁ClN₄**
4-[(4-Chlorophenyl)azo]-1,3-benzenediamine, C-00199
- C₁₂H₁₁Cl₂N₅**
4-[(3,5-Dichloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, D-00301
- C₁₂H₁₁N**
▷ 2-Aminobiphenyl, A-00116
▷ 4-Aminobiphenyl, A-00117
2-Benzylpyridine, B-00192
▷ Diphenylamine, D-01000
- C₁₂H₁₁NO**
N-1-Naphthylacetamide, *in* N-00041
▷ (1-Naphthyl)acetic acid; Amide, *in* N-00040
▷ 2-Naphthylamine; Ac, *in* N-00042
- C₁₂H₁₁NOS**
Benzenesulfonic acid; Anilide, *in* B-00025
2-Mercapto-*N*-2-naphthylacetamide, M-00038
- C₁₂H₁₁NO₂**
8-Acetoxyquinoline, *in* H-00326
2-Acetyl-1-naphthol; Oxime, *in* A-00026
 α -Amino-1-naphthaleneacetic acid, A-00261
1-Amino-2-naphthalenol; *N*-Ac, *in* A-00273
8-Amino-2-naphthalenol; *N*-Ac, *in* A-00274
3-Amino-1-naphthoic acid; Me ester, *in* A-00279
3-Amino-2-naphthoic acid; Me ester, *in* A-00280
1-Ethoxy-2-nitrosonephthalene, *in* N-00161
2-Ethoxy-1-nitrosonephthalene, *in* N-00160
2-Hydroxy-1-acetonaphthoxime, *in* A-00025
3-Hydroxy-2-methyl-1-phenyl-4(1*H*)-pyridinone, H-00315
N-Hydroxy-1-naphthaleneacetamide, H-00337
2-Quinolinecarboxylic acid; Et ester, *in* Q-00017
8-Quinolinecarboxylic acid; Et ester, *in* Q-00018
- C₁₂H₁₁NO₂S**
▷ Benzenesulfonic acid; Anilide, *in* B-00026
N-Hydroxy-2-thiophenecarboxamide; *N*-(4-Methylphenyl), *in* H-00554
- C₁₂H₁₁NO₃**
Benzofuroin oxime, *in* F-00052
6-Ethoxy-4-quinolinecarboxylic acid, *in* H-00527
N-Hydroxy-*N*-(4-methylphenyl)-2-furancarboxamide, *in* F-00064
6-Hydroxy-4-quinolinecarboxylic acid; Et ester, *in* H-00527
6-Hydroxy-4-quinolinecarboxylic acid; Me ether, Me ester, *in* H-00527
- C₁₂H₁₁NO₃S**
4-Aminophenylbenzenesulfonic acid, A-00319
Diphenylamine-4-sulfonic acid, *in* A-00100
N-Hydroxy-*N*-(2-methoxyphenyl)-2-thiophenecarboxamide, *in* H-00554
- C₁₂H₁₁NO₃S₂**
8-(2-Propenylthio)-5-quinolinesulfonic acid, *in* M-00057
- C₁₂H₁₁NO₄**
6,7-Dimethoxy-1-isoquinolinecarboxylic acid, *in* D-00637

- 4-(4-Hydroxy-3-methoxybenzylidene)-3-methyl-5(4*H*)-isoxazolone, H-00266
7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Amide, *in* H-00295
5-Hydroxy-3-phenyl-4-isoxazolecarboxylic acid; Et ester, *in* H-00475
- C₁₂H₁₁NO₄S₂**
Diphenyldisulfimide, D-01008
- C₁₂H₁₁NO₅**
7-Hydroxy-8-(aminomethyl)coumarin-*N*-acetic acid, H-00096
- C₁₂H₁₁NO₆S₂**
4,4'-Dihydroxydiphenyl disulfimide, D-00586
- C₁₂H₁₁NS**
Allthiox, A-00083
2-Aminobenzenethiol; *S*-Ph, *in* A-00101
- C₁₂H₁₁N₂O₅P**
Azophosphon, A-00475
- C₁₂H₁₁N₃**
▶ 4-Aminoazobenzene, A-00094
Benzaldehyde-2-pyridinylhydrazone, B-00006
2-Benzoylpyridine; Hydrazone, *in* B-00151
2-Pyridinecarboxaldehyde; Phenylhydrazone, *in* P-00318
4-Pyridinecarboxaldehyde; Phenylhydrazone, *in* P-00320
- C₁₂H₁₁N₃O**
3-Hydroxy-1,3-diphenyl-1-triazene, H-00170
4-Methyl-2-(2-pyridinylazo)phenol, M-00283
5-Methyl-2-(2-pyridinylazo)phenol, M-00284
4-(Phenyl-*N,N,O*-azoxy)benzenamine, *in* A-00094
4-(Phenyl-*O,N,N*-azoxy)benzenamine, *in* A-00094
2-(3-Phenyl-2-triazenyl)phenol, P-00204
1,2,3,4-Tetrahydro-1-hydroxyiminophenazine, *in* D-00466
- C₁₂H₁₁N₃OS**
2-Furancarboxaldehyde phenylthiosemicarbazone, F-00047
2-Hydroxy-1-naphthaldehyde; Thiosemicarbazone, *in* H-00336
- C₁₂H₁₁N₃O₂**
2-Hydroxy-1-naphthaldehyde; Semicarbazone, *in* H-00336
5-Methoxy-2-(2-pyridinylazo)phenol, *in* P-00373
2-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00278
4-[(5-Methyl-2-pyridinyl)azo]-1,3-benzenediol, M-00279
5-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00280
2-(3-Phenyl-2-triazenyl)phenol; *N*¹-Oxide, *in* P-00204
- C₁₂H₁₁N₃O₅S**
Azobenzene-4-sulfonic acid; Amide, *in* A-00468
- C₁₂H₁₁N₃O₄S**
4-(3-Hydroxy-3-phenyl-1-triazenyl) benzenesulfonic acid, H-00506
- C₁₂H₁₁N₃O₅S**
2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid; Me ester, *in* D-00696
- C₁₂H₁₁N₃S**
▶ *N*-Phenyl-*N'*-pyridinylthiourea, P-00177
- C₁₂H₁₁N₅**
2-(4,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl) pyrazine, D-00474
3-(4,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl) pyridazine, D-00475
4-(2,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl) pyrimidine, D-00477
3,5-Di-2-pyridyl-1,2,4-triazoline, *in* D-01099
- C₁₂H₁₁N₅O₄**
3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl azide, *in* D-00379
- C₁₂H₁₁N₅O₄S₂**
N,N-Dimethyl-*N'*-[5-nitro-4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00874
- C₁₂H₁₁N₅S**
Di-2-pyridinylmethanone thiosemicarbazone, D-01084
- C₁₂H₁₁O₂P**
Phenyl phenylphosphinate, *in* P-00163
- C₁₂H₁₁O₂PS₂**
O,O-Diphenyl phosphorodithioate, D-01040
- C₁₂H₁₁PS₂**
Diphenylphosphinodithioic acid, D-01039
- C₁₂H₁₂AsN₃O₃**
▶ 4-Aminoazobenzene-4'-arsonic acid, A-00095
- C₁₂H₁₂BrN₅**
4-[(5-Bromo-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, B-00572
- C₁₂H₁₂ClNO₂**
N-(4-Chlorophenyl)-*N*-hydroxy-2,4-hexadienamide, *in* H-00185
- C₁₂H₁₂ClNO₂S**
▶ 5-(Dimethylamino)-1-naphthalenesulfonyl chloride, D-00796
- C₁₂H₁₂ClN₅**
4-[(5-Chloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, C-00253
- C₁₂H₁₂FNO₂S**
5-(Dimethylamino)-1-naphthalenesulfonyl fluoride, D-00797
- C₁₂H₁₂N₂**
2-Aminodiphenylamine, A-00165
▶ 4-Aminodiphenylamine, A-00166
2-Benzylaminopyridine, B-00164
▶ 4,4'-Diaminobiphenyl, D-00053
4,4'-Dimethyl-2,2'-bipyridine, D-00840
1,1-Diphenylhydrazine, D-01020
- C₁₂H₁₂N₂O**
1-Acetyl-2-naphthol; Hydrazone, *in* A-00025
4-Amino-4'-hydroxydiphenylamine, A-00185
4,4'-Diamino-3-biphenylol, D-00057
3,5-Dimethyl-1*H*-pyrazole; *N*-Benzoyl, *in* D-00904
- C₁₂H₁₂N₂OS**
▶ 4,4'-Diaminodiphenyl sulfoxide, D-00091
- C₁₂H₁₂N₂OS₂**
▶ 5-[[4-(Dimethylamino)phenyl]ethylene]-2-thioxo-4-thiazolidinone, D-00813
Dithioantipyric acid, D-01116
- C₁₂H₁₂N₂O₂**
▶ 4,4'-Diamino-3,3'-biphenyldiol, D-00056
3-Dimethylamino-6-nitroso-1-naphthol, D-00803
1,2-Di-2-pyridyl-1,2-ethanediol, D-01089
- C₁₂H₁₂N₂O₂S**
4-Aminophenylbenzenesulfonamide, *in* A-00319
N-(2-Aminophenyl)benzenesulfonamide, A-00318
Benzenesulfonic acid; 2-Phenylhydrazide, *in* B-00026
▶ 4,4'-Diaminodiphenyl sulfone, D-00090
- C₁₂H₁₂N₂O₃S**
3-Amino-4-hydroxybenzenesulfonic acid; Anilide, *in* A-00183
▶ 4,4'-Diaminobiphenyl-3-sulfonic acid, D-00058
- C₁₂H₁₂N₂O₅**
3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarboxylic acid, D-00379
- C₁₂H₁₂N₂S**
▶ 4,4'-Diaminodiphenyl sulfide, D-00089
- C₁₂H₁₂N₂S₂**
▶ Bis(2-aminophenyl) disulfide, B-00251
- C₁₂H₁₂N₄**
6-Methyl-2-pyridinecarboxaldehyde 2-pyridinylhydrazone, M-00268
2-Pyridinecarboxaldehyde (5-methyl-2-pyridinyl)hydrazone, P-00328
- C₁₂H₁₂N₄O**
5-Amino-4-methyl-2-(2-pyridinylazo)phenol, A-00253
4-[(2,4-Diaminophenyl)azo]phenol, D-00114
- C₁₂H₁₂N₄O₂S**
5-(Dimethylamino)-1-naphthalenesulfonyl azide, D-00795
- C₁₂H₁₂N₄O₂S₂**
N,N-Dimethyl-*N'*-[4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00875
- C₁₂H₁₂N₄O₃S**
2-[(4-Phenylazo)phenyl]hydrazinesulfonic acid, P-00097
- C₁₂H₁₂N₄O₅S₂**
4-Methyl-5-(sulfomethylamino)-2-(2-thiazolylazo)benzoic acid, M-00310
- C₁₂H₁₂N₆**
Di-2-pyridinylethanedione; Dihydrazone, *in* D-01063
Di-2-pyridinylmethanone guanylhydrazone, D-01078
- C₁₂H₁₂O₂**
1,2-Dimethoxynaphthalene, *in* N-00007
1,8-Dimethoxynaphthalene, *in* N-00009
2,3-Dimethoxynaphthalene, *in* N-00010
2,7-Dimethoxynaphthalene, *in* N-00011
- C₁₂H₁₂O₃**
2-Ethyl-5-hydroxy-3-methyl-4*H*-1-benzopyran-4-one, E-00090
3-Ethyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, E-00091
- C₁₂H₁₂O₃P₂**
Phenylphosphonic acid; Anhydride, *in* P-00163
- C₁₂H₁₂O₃S**
2-Naphthalenesulfonic acid; Et ester, *in* N-00015
- C₁₂H₁₂O₄**
5-Hydroxy-7-methoxy-2,6-dimethyl-4*H*-1-benzopyran-4-one, *in* D-00575
- C₁₂H₁₂O₅**
2',4'-Dihydroxyacetophenone; Di-Ac, *in* D-00507
2',5'-Dihydroxyacetophenone; 2,5-Di-Ac, *in* D-00508
- C₁₂H₁₂O₆**
1,2,3-Benzenetricarboxylic acid; Tri-Me ester, *in* B-00031
1,2,4-Benzenetricarboxylic acid; Tri-Me ester, *in* B-00032
1,3,5-Benzenetricarboxylic acid; Tri-Me ester, *in* B-00033
1,2,3-Benzenetriol; Tri-Ac, *in* B-00034
1,2,4-Benzenetriol; Tri-Ac, *in* B-00035
1,3,5-Benzenetriol; Tri-Ac, *in* B-00036
2,3',4'-Trihydroxyacetophenone; 3',4'-Di-Ac, *in* T-00268
- C₁₂H₁₂O₇**
2-Hydroxy-4-(4-hydroxy-6-methyl-2-oxo-2*H*-pyran-3-yl)-4-oxo-2-butenic acid; Et ester, *in* H-00221
- C₁₂H₁₂S₂**
1,8-Bis(methylthio)naphthalene, *in* N-00012
- C₁₂H₁₃BrN₂O₃**
3-(Bromomethyl)-6,7-dimethoxy-1-methyl-2(1*H*)-quinoxalinone, B-00520
- C₁₂H₁₃ClN₂O₂S**
N-Chloro-5-(dimethylamino)-1-naphthalenesulfonamide, C-00098
- C₁₂H₁₃N**
1-Naphthylamine; *N*-Et, *in* N-00041
2-Naphthylamine; *N*-Et, *in* N-00042
1-(1-Naphthyl)ethylamine, N-00049

- C₁₂H₁₃NO**
2-Amino-8-ethoxynaphthalene, *in* A-00274
2-Isopropyl-8-quinolinol, I-00078
- C₁₂H₁₃NO₂**
N-Hydroxy-*N*-phenyl-2,4-hexadienamide, *in* H-00185
2-Oxo-*N*-phenylcyclopentanecarboxamide, *in* O-00060
- C₁₂H₁₃NO₂S**
5-(Dimethylamino)-1-naphthalenesulfonic acid, D-00794
- C₁₂H₁₃NO₃**
5-Hydroxy-1-*H*-indole-2-carboxylic acid; Me ether, Et ester, *in* H-00253
2-[(1-Methyl-3-oxobutylidene)amino]benzoic acid, M-00214
- C₁₂H₁₃NO₃S**
5-Dimethylamino-1-naphthalenesulfonic acid, *in* A-00265
- C₁₂H₁₃NO₆**
3-Nitro-1,2-benzenedicarboxylic acid; Di-Et ester, *in* N-00085
- C₁₂H₁₃N₃**
▷ 2,4-Diaminodiphenylamine, D-00085
4,4'-Diaminodiphenylamine, D-00086
- C₁₂H₁₃N₃OS**
5-[[4-(Dimethylamino)phenyl]methylene]-2-thioxo-4-imidazolidinone, D-00819
- C₁₂H₁₃N₃O₄S₂**
4,4'-Diaminodiphenyldisulfimide, D-00088
- C₁₂H₁₃N₅**
4-Methyl-6-(2-pyridinylazo)-1,3-benzenediamine, M-00277
- C₁₂H₁₃N₅O₆**
1,3-Dimethyl-5-[(tetrahydro-1,3-dimethyl-2,4,6-trioxo-5(2*H*)-pyrimidinylidene)amino]-2,4,6(1*H*,3*H*, 5*H*)-pyrimidinetrione, *in* P-00281
- C₁₂H₁₃O₂P**
Dimethyl 1-naphthylphosphonite, *in* N-00055
- C₁₂H₁₄Cl₂N₂**
▷ Paraquat dichloride, *in* D-00841
- C₁₂H₁₄N₂**
▷ *N*-(1-Naphthyl)ethylenediamine, N-00050
- C₁₂H₁₄N₂²⁺**
▷ 1,1'-Dimethyl-4,4'-bipyridinium(2+), D-00841
- C₁₂H₁₄N₂O₃S**
2-Isocyanato-1-[(4-methylphenyl)sulfonyl]pyrrolidine, I-00062
- C₁₂H₁₄N₂O₃Se**
N-Benzoyl-*N'*-(ethoxycarbonylmethyl)selenourea, B-00130
- C₁₂H₁₄N₂O₄**
2,5-Diaminophenol; 1,2,5-Tri-Ac, *in* D-00111
2,3-Dioxobutanoic acid; 2-(2-Hydroxyphenyl)hydrazone, Et ester, *in* D-00986
- C₁₂H₁₄N₄**
N,N'-Bis(1-*H*-pyrrol-2-ylmethylene)-1,2-ethanediamine, B-00448
▷ 3,3',4,4'-Tetraaminobiphenyl, T-00007
- C₁₂H₁₄N₄OS**
5-Dimethylamino-2-[(4-methyl-2-thiazolyl)azo]phenol, D-00793
2-(Ethylamino)-4-methyl-2-(2-thiazolylazo)phenol, E-00066
- C₁₂H₁₄N₄O₄S₂**
2-[[3-Hydroxy-4-[methyl-2-thiazolylazo]phenyl]amino]ethanesulfonic acid, H-00329
3-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, H-00551
- C₁₂H₁₄N₈S₄**
2,2'-Diacetyl-4,4'-bithiazolebis(thiosemicarbazone), D-00033
- C₁₂H₁₄O₃**
▷ Aceteugenol, *in* M-00120
- C₁₂H₁₄O₄**
▷ 1,3-Benzenedicarboxylic acid; Di-Et ester, *in* B-00019
- C₁₂H₁₄O₅**
o-Methoxybenzylidene diacetate, *in* M-00074
2,3',4'-Trihydroxyacetophenone; 3',4'-Di-Me ether, 2-Ac, *in* T-00268
- C₁₂H₁₄O₆**
3,6-Dihydroxy-1,2-benzenedicarboxylic acid; Di-Et ester, *in* D-00525
3,6-Dihydroxy-1,2-benzenedicarboxylic acid; Di-Me ether, di-Me ester, *in* D-00525
- C₁₂H₁₅N**
Indole; *N*-Butyl, *in* I-00033
- C₁₂H₁₅NO**
▷ Piperidine; 1-Benzoyl, *in* P-00241
- C₁₂H₁₅NO₂**
1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid; Et ester, *in* T-00063
- C₁₂H₁₅NO₄**
Methyl 4-(acetylamino)-2-ethoxybenzoate, *in* A-00184
- C₁₂H₁₅NO₇S**
Arabinopyranosyl isothiocyanate; 2,3,4-Tri-Ac, *in* A-00399
- C₁₂H₁₅N₃O₂**
6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, *in* A-00156
- C₁₂H₁₅N₃O₂S**
Dansylhydrazine, *in* A-00265
- C₁₂H₁₅N₃O₃**
5-(*p*-Ethoxyanilino)-5,6-dihydrouracil, E-00052
- C₁₂H₁₅N₃S**
3,4-Dihydro-4,4,6-trimethyl-1-(2-pyridinyl)-2(1*H*)-pyrimidinethione, D-00503
- C₁₂H₁₅N₅**
4-[[5-(*p*-Dimethylamino)phenyl]azo]-5-methylimidazole, D-00809
- C₁₂H₁₅N₅O**
5-(Dimethylamino)-2-[(5-methylimidazol-4-yl)azo]phenol, D-00789
- C₁₂H₁₆F₅NSi**
(Diethylamino)dimethyl(pentafluorophenyl)silane, D-00316
- C₁₂H₁₆N₂O**
Anabasine; *N*-Ac, *in* P-00244
- C₁₂H₁₆N₂OS**
N,N-Diethyl-*N'*-benzoylthiourea, D-00338
- C₁₂H₁₆N₂O₂**
1,2-Diamino-4,5-dimethylbenzene; 1,2-*N*-Di-Ac, *in* D-00080
- C₁₂H₁₆N₂O₃S**
N'-Benzoyl-*N,N*-bis(2-hydroxyethyl)thiourea, B-00124
- C₁₂H₁₆N₂O₅**
Corynecin II, *in* A-00284
- C₁₂H₁₆N₂O₆**
2,5-Bis(2-hydroxyethylamino)-1,4-benzenedicarboxylic acid, B-00368
- C₁₂H₁₆O₂**
2-Isopropyl-5-methylphenol; Ac, *in* I-00075
- C₁₂H₁₆O₃**
▷ 2,2-Diethoxy-1-phenylethanone, *in* P-00132
- C₁₂H₁₆O₄**
Benzo-12-crown-4, B-00052
(3,4-Dihydroxyphenyl)acetic acid; Di-Me ether, Et ester, *in* D-00687
- C₁₂H₁₆O₆**
5,6-*O*-Cyclohexylidene-*L*-*threo*-hex-2-enono-1,4-lactone, *in* A-00446
- C₁₂H₁₆O₇**
1,2-Benzenediol; *O*-β-D-Glucopyranosyl, *in* B-00020
- C₁₂H₁₆O₈**
Dianthoside, *in* H-00323
- C₁₂H₁₆O₈S₆**
2,2,5,5-Tetrakis(carboxymethylthio)-*p*-dithiane, T-00082
- C₁₂H₁₇ClN₄OS**
▷ Thiamine monochloride, *in* T-00135
- C₁₂H₁₇NO**
▷ *N*-Butylacetanilide, *in* B-00617
▷ Diethyltoluamide, *in* M-00137
- C₁₂H₁₇NO₂**
Ephedrine; *N*-Ac, *in* M-00122
N-Hydroxy-*N*-phenylhexanamide, *in* H-00186
2-Methylamino-1-phenyl-1-propanol; *N*-Ac, *in* M-00122
- C₁₂H₁₇N₃O₂**
1,2,4-Triaminobenzene; 1-*N*-Di-Me, 2,4-di-*N*-Ac, *in* T-00192
- C₁₂H₁₇N₃O₃**
Leucyl-*p*-nitroanilide, L-00006
- C₁₂H₁₇N₄OS⁺**
Thiamine, T-00135
- C₁₂H₁₇N₅O₄S**
Thiamine mononitrate, *in* T-00135
- C₁₂H₁₇O₃P**
Diethyl (2-phenylethenyl)phosphonate, *in* P-00129
- C₁₂H₁₈ClN₄O₄PS**
Monophosphothiamine chloride, *in* T-00135
- C₁₂H₁₈Cl₂N₄OS**
▷ Thiamine hydrochloride, *in* T-00135
- C₁₂H₁₈N₂O₅S**
3-[(3-Hydroxy-4-nitrosophenyl)propylamino]-1-propanesulfonic acid, H-00417
- C₁₂H₁₈O**
2-Ethoxy-1-isopropyl-4-methylbenzene, *in* I-00075
- C₁₂H₁₈O₂**
▷ 4-Hexyl-1,3-benzenediol, H-00071
- C₁₂H₁₈O₆**
2,3-Butanedione; Trimer, *in* B-00587
- C₁₂H₁₈O₆S₂**
Dithioerythritol; Tetra-Ac, *in* D-00752
- C₁₂H₁₉BrN₂O₂**
4-Bromo-*N,N'*-bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494
- C₁₂H₁₉NO₂**
1,1'-(Phenylimino)bis-2-propanol, P-00136
- C₁₂H₁₉NO₃S**
3-[Ethyl-(2-methylphenyl)amino]-1-propanesulfonic acid, E-00098
3-[Ethyl-(3-methylphenyl)amino]-1-propanesulfonic acid, E-00099
3-[Ethyl-(4-methylphenyl)amino]-1-propanesulfonic acid, E-00100
- C₁₂H₁₉NO₄S**
3-[Ethyl(3-methoxyphenyl)amino]-1-propanesulfonic acid, E-00097
- C₁₂H₂₀IN**
Triethylphenylammonium(1+); Iodide, *in* T-00234
- C₁₂H₂₀N⁺**
Triethylphenylammonium(1+), T-00234
- C₁₂H₂₀N₂O₂**
N,N'-Bis(2-hydroxypropyl)-1,2-benzenediamine, B-00392
4,4'-(1,2-Ethanediyldinitrilo)bis[(2-pentanone)], E-00037

- C₁₂H₂₀N₂S₄
▷ 1,1'-(Dithiodicarbonothioyl)bispiperidine, D-01130
- C₁₂H₂₀N₆O₄S₂
3,4-Dioxohexanedioic acid bis(thiosemicarbazide); Di-Et ester, *in* D-00990
- C₁₂H₂₀O₂
1,2-Cyclododecanedione, C-00332
- C₁₂H₂₀O₇
▷ Citric acid; Tri-Et ester, *in* C-00299
- C₁₂H₂₁ClO₂
3-Menthoxycetic acid; Chloride, *in* M-00013
- C₁₂H₂₁NO
Triethylphenylammonium(1+); Hydroxide, *in* T-00234
- C₁₂H₂₁NO₃
Dihydro-4-hydroxy-2-(1-methyl-1-piperidinoethyl)-3(2*H*)-furanone, D-00412
- C₁₂H₂₁NO₆
Tris(2-hydroxyethyl)amine; Tri-Ac, *in* T-00406
- C₁₂H₂₁N₃
1,2,4-Triaminobenzene; *N*-Hexa-Me, *in* T-00192
- C₁₂H₂₂F₃NOSi₂
N,*O*-Bis(allyldimethylsilyl)trifluoroacetamide, B-00241
- C₁₂H₂₂N₂O₂
1,2-Cyclododecanedione; Dioxime, *in* C-00332
- C₁₂H₂₂N₂O₆
N-Butylethylenediaminetriacetic acid, *in* E-00079
- C₁₂H₂₂O₂
Cyclohexanecarboxylic acid; Et ester, *in* C-00335
(*E*)-2-Hexenyl hexanoate, *in* H-00066
- C₁₂H₂₂O₃
Hexanoic acid; Anhydride, *in* H-00066
3-Menthoxycetic acid, M-00013
- C₁₂H₂₂O₄
Succinic acid; Di-*tert*-Butyl ester, *in* S-00034
- C₁₂H₂₂O₁₁
▷ Sucrose, S-00036
- C₁₂H₂₃N
▷ Dicyclohexylamine, D-00307
- C₁₂H₂₃NO₃
N-Heptylhydroxyproline, H-00016
- C₁₂H₂₄DyN₄O₁₂P₄^{5⊖}
(1,4,7,10-Tetraazacyclododecane-*N*,*N'*,*N''*,*N'''*-tetramethylenephosphonato) dysprosate(5-), T-00008
- C₁₂H₂₄N₂O₂
N-Hydroxy-*N*-nitrosocyclododecanamine, H-00410
- C₁₂H₂₄N₂O₃
4,10,15-Trioxa-1,7-diazabicyclo[5.5.5]heptadecane, T-00360
- C₁₂H₂₄N₄O₁₂P₄Tb^{5⊖}
[1,4,7,10-Tetraazacyclododecane-*N*,*N'*,*N''*,*N'''*-tetramethylenephosphonato]terbate(III) (5-), T-00009
- C₁₂H₂₄N₄O₁₂P₄Tm^{5⊖}
[1,4,7,10-Tetraazacyclododecane-*N*,*N'*,*N''*,*N'''*-tetramethylenephosphonato]thulate(III) (5-), T-00010
- C₁₂H₂₄N₈O₄S₆
2,2,5,5-Tetrakis(carboxymethylthio)-*p*-dithiane; Tetrahydrazide, *in* T-00082
- C₁₂H₂₄O₂
▷ Decanoic acid; Et ester, *in* D-00025
- C₁₂H₂₄O₃
Peroxydodecanoic acid, P-00045
- C₁₂H₂₄O₂S₂
1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane, T-00118
- C₁₂H₂₄O₆
▷ 18-Crown-6, C-00315
- C₁₂H₂₄S₆
1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
- C₁₂H₂₅NO₂
Laurohydroxamic acid, L-00001
- C₁₂H₂₅NO₅
13-Hydroxyethyl-1,4,7,10-tetraoxa-13-azacyclopentadecane, H-00182
- C₁₂H₂₆N₄S₂
N,*N'*-Bis(3-dimethylaminopropyl)dithiooxamide, B-00325
- C₁₂H₂₆O₄S
▷ 1-Dodecyl sulfate, D-01155
- C₁₂H₂₆S
▷ 1-Dodecanethiol, D-01140
- C₁₂H₂₇AsO₂
Butyl dibutylarsinate, *in* D-00226
- C₁₂H₂₇ClSi
Tributylchlorosilane, T-00209
- C₁₂H₂₇N
▷ Dihexylamine, D-00367
▷ Dodecylamine, D-01142
▷ Tributylamine, T-00208
Tris(2-methylpropyl)amine, T-00409
- C₁₂H₂₇OP
▷ Tributylphosphine oxide, T-00213
- C₁₂H₂₇OPS₂
S,S-Dibutyl butylphosphonodithioate, *in* B-00638
- C₁₂H₂₇O₂PS₂
O,O-Dihexyl phosphorodithioate, D-00369
- C₁₂H₂₇O₃P
Bis(2-methylpropyl) (2-methylpropyl) phosphonate, *in* M-00262
- C₁₂H₂₇O₃PS
O,O,O-Tributyl phosphorothioate, T-00215
- C₁₂H₂₇O₄P
▷ Tributyl phosphate, T-00211
- C₁₂H₂₇P
▷ Tributylphosphine, T-00212
- C₁₂H₂₇PS
▷ Tributylphosphine sulfide, T-00214
- C₁₂H₂₇Pte
Tributylphosphine; Telluride, *in* T-00212
- C₁₂H₂₈BrN
Tetrapropylammonium(1+); Bromide, *in* T-00124
- C₁₂H₂₈N[⊕]
▷ Tetrapropylammonium(1+), T-00124
- C₁₂H₂₈NO₃P
Dibutyl diethylphosphoramidate, *in* D-00353
- C₁₂H₂₈OSn
▷ Tributyltin hydroxide, T-00217
- C₁₂H₂₈O₄P₂S₄
Bis(diisopropoxyphosphinothioyl) disulfide, B-00310
- C₁₂H₂₉NO
Tetrapropylammonium(1+); Hydroxide, *in* T-00124
- C₁₂H₃₀N₃OP
N,N',N''-Tributylphosphoric triamide, *in* T-00216
- C₁₂H₃₀N₃P
N,N',N''-Tributylphosphorous triamide, T-00216
- C₁₂H₃₀N₃PS
N,N',N''-Tributylphosphorothioic triamide, *in* T-00216
- C₁₂H₃₀N₆
▷ 1,4,7,10,13,16-Hexaazacyclooctadecane, H-00019
- C₁₃H₅N₃O₇
▷ 2,4,7-Trinitro-9*H*-fluoren-9-one, T-00353
- C₁₃H₆N₄OS
3-(2-Thiazolyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, T-00147
- C₁₃H₆N₄O₇
2,4,7-Trinitro-9*H*-fluoren-9-one; Oxime, *in* T-00353
- C₁₃H₇Br₃O₂
2,4,6-Tribromophenol; Benzoyl, *in* T-00205
- C₁₃H₇Cl₂N₃OS
2-(2-Benzothiazolylazo)-4,6-dichlorophenol, B-00093
- C₁₃H₇NO₄
1-Hydroxy-2-nitroso-3*H*-naphtho[2,1-*b*]pyran-3-one, H-00416
- C₁₃H₇N₃O₈
2,4,6-Trinitrophenol; Benzoyl, *in* T-00355
- C₁₃H₇N₇O₁₂
Methyldipicrylamine, *in* H-00065
- C₁₃H₈BrN₃OS
1-[(5-Bromo-2-thiazolyl)azo]-2-naphthalenol, B-00579
- C₁₃H₈CIN
9-Chloroacridine, C-00057
- C₁₃H₈CINO
N-Chloroformylcarbazole, *in* C-00020
- C₁₃H₈CIN₃O₃
4'-Nitro-4-azobenzenecarboxylic acid; Chloride, *in* N-00080
- C₁₃H₈CIN₃O₆
N-(4-Chlorophenyl)-*N*-hydroxy-3,5-dinitrobenzamide, *in* D-00946
- C₁₃H₈Cl₄N₄S
2,2',3,3'-Tetrachlorodithizone, T-00029
2,2',4,4'-Tetrachlorodithizone, T-00030
2,2',5,5'-Tetrachlorodithizone, T-00031
2,2',6,6'-Tetrachlorodithizone, T-00032
3,3',4,4'-Tetrachlorodithizone, T-00033
3,3',5,5'-Tetrachlorodithizone, T-00034
- C₁₃H₈N₂
9*H*-Carbazole-9-carboxylic acid; Nitrile, *in* C-00020
- C₁₃H₈N₂O₅S₂
Saccharin; *N*-(2-Nitrobenzenesulfonyl), *in* S-00001
- C₁₃H₈N₂O₇
2-Hydroxy-3,5-dinitrobenzoic acid; Ph ester, *in* H-00154
- C₁₃H₈O
▷ 9*H*-Fluoren-9-one, F-00015
- C₁₃H₈O₂S
2-Phenoxathiincarboxaldehyde, P-00074
- C₁₃H₈O₃
Dibenzo[*b,e*][1,4]dioxin-2-carboxaldehyde, D-00162
2,3-Dihydroxy-1*H*-phenalen-1-one, D-00684
1-Hydroxyxanthone, H-00562
- C₁₃H₈O₄
2,2-Dihydroxy-1*H*-benz[*f*]indene-1,3(2*H*)dione, D-00529
2,2-Dihydroxy-1*H*-phenalene-1,3(2*H*)-dione, D-00683
1,3-Dihydroxyxanthone, D-00741
3,6-Dihydroxyxanthone, D-00742
- C₁₃H₉BrClNO₂
5-Chloro-*N*-(2-hydroxy-5-bromobenzylidene)-2-hydroxyaniline, C-00126

- C₁₃H₉BrN₄OS**
5-Amino-2-[(6-bromo-2-benzothiazolyl)azo]phenol, A-00123
- C₁₃H₉ClO₂**
2-Chlorobenzoic acid; Ph ester, *in* C-00066
4-Chlorobenzoic acid; Ph ester, *in* C-00067
4-Chlorophenol; Benzoyl, *in* C-00196
- C₁₃H₉ClO₂S**
9*H*-Fluorene-2-sulfonyl chloride, *in* F-00014
- C₁₃H₉ClO₃**
4'-Chloro-2,4-dihydroxybenzophenone, C-00095
- C₁₃H₉Cl₂N**
N-(2,4-Dichlorobenzylidene)aniline, *in* D-00247
- C₁₃H₉Cl₂NO₂**
5-Chloro-2-hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, C-00130
2,6-Dichloro-4-[(4-hydroxy-3-methylphenyl)imino]-2,5-cyclohexadien-1-one, D-00279
2,4-Dichloro-*N*-hydroxy-*N*-phenylbenzamide, D-00281
- C₁₃H₉Cl₂N₅O₂**
1,5-Bis(2-chlorophenyl)-3-nitroformazan, B-00288
- C₁₃H₉F₃O₃S**
3-(Trifluoromethyl)benzenesulfonic acid; Ph ester, *in* T-00251
- C₁₃H₉N**
▷ Acridine, A-00062
▷ Benzof[quinoline], B-00073
- C₁₃H₉NO**
Acridine; *N*-Oxide, *in* A-00062
1-Hydroxyacridine, H-00091
4-Hydroxyacridine, H-00092
9-Hydroxyacridine, H-00093
4-Isocyanato-1,1'-biphenyl, I-00060
- C₁₃H₉NOS**
2(3*H*)-Benzoxazolethione; *S*-Ph, *in* B-00113
- C₁₃H₉NO₂**
Benz[*cd*]indol-2-(1*H*)-one; *N*-Ac, *in* B-00050
1*H*-Benz[*de*]isoquinoline-1,3(2*H*)-dione; *N*-Me, *in* B-00051
9*H*-Carbazole-9-carboxylic acid, C-00020
4-Hydroxyacridone, H-00095
▷ 2-(2-Hydroxyphenyl)benzoxazole, H-00467
- C₁₃H₉NO₂S**
2-Phenoxathiincarboxaldehyde; Oxime, *in* P-00074
- C₁₃H₉NO₃**
Dibenzo[*b,e*][1,4]dioxin-2-carboxaldehyde; Oxime, *in* D-00162
7-Hydroxy-3*H*-phenoxazin-3-one; Me ether, *in* H-00443
2-Methoxy-3*H*-phenoxazin-3-one, *in* H-00442
- C₁₃H₉NO₄**
Benzoic acid 2-nitrophenyl ester, *in* N-00117
7-Hydroxy-3*H*-phenoxazin-3-one; Me ether, 10-oxide, *in* H-00443
3-Nitrophenol; *O*-Benzoyl, *in* N-00118
4-Nitrophenol; *O*-Benzoyl, *in* N-00119
- C₁₃H₉N₃**
4-Cyanoazobenzene, *in* A-00467
2-(2-Pyridyl)quinazoline, P-00423
- C₁₃H₉N₃O**
1*H*-Benzotriazole; *N*-Benzoyl, *in* B-00110
- C₁₃H₉N₃OS**
2-(2-Oxo-1(2*H*)-acenaphthylidene)hydrazinecarbothioamide, *in* A-00001
1-(2-Thiazolylazo)-2-naphthalenol, T-00142
4-(2-Thiazolylazo)-1-naphthalenol, T-00143
- C₁₃H₉N₃O₂S**
4-(2-Benzothiazolylazo)-1,2-benzenediol, B-00091
4-(2-Benzothiazolylazo)-1,3-benzenediol, B-00092
- C₁₃H₉N₃O₄**
4'-Nitro-4-azobenzenecarboxylic acid, N-00080
- C₁₃H₉N₃O₄S**
4-Cyano-5-[(3,4-dihydroxyphenyl)azo]-3-methyl-2-thiophenecarboxylic acid, C-00326
- C₁₃H₉N₃O₄S₂**
6-Hydroxy-5-(2-thiazolylazo)-2-naphthalenesulfonic acid, H-00549
- C₁₃H₉N₃O₅**
▷ Alizarine chrome orange G, A-00075
Alizarine yellow G, A-00082
2-Hydroxy-4-(4-nitrophenylazo)benzoic acid, H-00393
- C₁₃H₉N₃O₆**
2-Amino-4,6-dinitrophenol; *N*-Benzoyl, *in* A-00164
2-Amino-4,6-dinitrophenol; *O*-Benzoyl, *in* A-00164
2-Hydroxy-3,5-dinitrobenzoic acid; Anilide, *in* H-00154
N-Hydroxy-3,5-dinitro-*N*-phenylbenzamide, *in* D-00946
- C₁₃H₉N₃O₇S₃**
3-Hydroxy-4-(2-thiazolylazo)-2,7-naphthalenedisulfonic acid, H-00548
- C₁₃H₉N₃O₈S₃**
4,5-Dihydroxy-3-[(2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00739
- C₁₃H₉N₃S**
▷ (4-Isothiocyantophenyl)phenyldiazene, I-00099
- C₁₃H₉N₅O₈**
2-[(2-Hydroxy-5-methyl-3-nitrophenyl)azo]-4,6-dinitrophenol, H-00293
- C₁₃H₁₀BrNO₂**
2-Hydroxy-*N*-(2-hydroxy-5-bromobenzylidene)aniline, H-00193
- C₁₃H₁₀BrNO₂S**
N-(4-Bromophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, B-00552
- C₁₃H₁₀BrNO₃**
N-(4-Bromophenyl)-2,6-dihydroxybenzamide, *in* D-00533
- C₁₃H₁₀BrN₃OS**
N-Benzoyl-*N'*-(5-bromo-2-pyridyl)thiourea, B-00125
- C₁₃H₁₀Br₂N₄S**
2,2'-Dibromodithizone, D-00186
4,4'-Dibromodithizone, D-00187
- C₁₃H₁₀CIN**
3-Chloroaniline; *N*-Benzylidene, *in* C-00059
4-Chloroaniline; *N*-Benzylidene, *in* C-00060
- C₁₃H₁₀CINO**
2-Chloroaniline; *N*-Benzoyl, *in* C-00058
3-Chloroaniline; *N*-Benzoyl, *in* C-00059
4-Chloroaniline; *N*-Benzoyl, *in* C-00060
- C₁₃H₁₀CINO₂**
1,4-Benzoquinone *O*-(2-chlorobenzyl)oxime, B-00077
1,4-Benzoquinone *O*-(4-chlorobenzyl)oxime, B-00078
4-Chloro-2-(2-hydroxybenzylideneamino)phenol, C-00125
4-Chloro-2-hydroxy-*N*-(2-hydroxybenzylidene)aniline, C-00129
N-(2-Chlorophenyl)-*N*-hydroxybenzamide, *in* H-00109
2-Hydroxy-*N*-(2-hydroxy-3-chlorobenzylidene)aniline, H-00195
2-Hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, H-00196
N-Hydroxy-*N*-phenyl-2-chlorobenzamide, H-00470
- C₁₃H₁₀CINO₂S**
N-(4-Chlorophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, C-00234
- C₁₃H₁₀CINO₃**
N-(4-Chlorophenyl)-3-(2-furanyl)-*N*-hydroxy-2-propenamide, *in* F-00053
N-(4-Chlorophenyl)-3-(2-furanyl)-*N*-hydroxy-2-propenamide, C-00220
- C₁₃H₁₀Cl₂N₂**
2-Chloro-*N*-(4-chlorophenyl)benzamide, C-00082
- C₁₃H₁₀Cl₂N₄S**
2,2'-Dichlorodithizone, D-00270
4,4'-Dichlorodithizone, D-00271
- C₁₃H₁₀Cl₃NO₂**
2,2,2-Trichloroethanol; 1-Naphthylurethane, *in* T-00222
- C₁₃H₁₀F₂N₄S**
2,2'-Difluorodithizone, D-00360
4,4'-Difluorodithizone, D-00361
- C₁₃H₁₀F₃IO₃S**
Diphenyliodonium(1+); Trifluoromethanesulfonate, *in* D-01028
- C₁₃H₁₀INO₂**
2-Hydroxy-*N*-(2-hydroxy-5-iodobenzylidene)aniline, H-00204
N-(*o*-Iodobenzoyl)phenylhydroxylamine, *in* I-00040
- C₁₃H₁₀I₂N₄S**
4,4'-Diiododithizone, D-00743
- C₁₃H₁₀N₂**
9*H*-Fluoren-9-one; Hydrazone, *in* F-00015
2-Methyl-1,10-phenanthroline, M-00220
5-Methyl-1,10-phenanthroline, M-00221
- C₁₃H₁₀N₂O**
9*H*-Carbazole-9-carboxylic acid; Amide, *in* C-00020
2-(2-Hydroxyphenyl)benzimidazole, H-00465
6-Methoxy-1,7-phenanthroline, *in* H-00438
2-Methoxyphenazine, *in* H-00439
10-Methyl-2(10*H*)-phenazinone, *in* H-00439
- C₁₃H₁₀N₂O₂**
7-Amino-1-methyl-3*H*-phenoxazin-3-one, A-00247
Azobenzene-4-carboxylic acid, A-00467
3,6-Diaminoxanthone, D-00132
N-(2-Fluorenyl)-*N*-nitrosohydroxylamine, *in* A-00178
2-(4-Hydroxyphenylazo)benzaldehyde, H-00448
2-Nitrobenzaldehyde; Anil, *in* N-00081
4-Nitro-*N*-(phenylmethylene)benzenamide, *in* N-00077
- C₁₃H₁₀N₂O₃**
2-Nitrobenzoic acid; Anilide, *in* N-00091
3-Nitrobenzoic acid; Anilide, *in* N-00092
4-Nitrobenzoic acid; Anilide, *in* N-00093
- C₁₃H₁₀N₂O₄**
1,4-Benzoquinone *O*-(*m*-nitrobenzyl)oxime, B-00082
1,4-Benzoquinone *O*-(*p*-nitrobenzyl)oxime, B-00083
2-[(3,4-Dihydroxyphenyl)azo]benzoic acid, D-00689
N-Hydroxy-3-nitro-*N*-phenylbenzamide, *in* N-00090
▷ 2'-Nitrodiphenylamine-2-carboxylic acid, N-00106
- C₁₃H₁₀N₂O₄S**
N-Hydroxy-*N*-(4-nitrophenyl)-3-(2-thienyl)-2-propenamide, H-00405
- C₁₃H₁₀N₂O₅**
2-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00310
4-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00311
- C₁₃H₁₀N₂O₆S**
2-Hydroxy-4-[(4-sulfophenyl)azo]benzoic acid, H-00541
2-Hydroxy-5-[(4-sulfophenyl)azo]benzoic acid, H-00542

- C₁₃H₁₀N₂S**
2-Anilinobenzothiazole, *in* A-00113
- C₁₃H₁₀N₄**
2-(5-Phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, P-00208
- C₁₃H₁₀N₄O**
2-Furancarboxaldehyde 1-phthalazinylhydrazone, F-00048
2-(1,10-Phenanthrolyl)amidoxime, P-00058
1-(1*H*-Pyrazol-3-ylazo)-2-naphthalenol, P-00303
- C₁₃H₁₀N₄O₃**
2-(3-Hydroxy-3-phenyl-1-triazenyl)benzothiazole, H-00508
1-[(5-Methyl-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, M-00313
- C₁₃H₁₀N₄O₃**
4'-Nitro-4-azobenzenecarboxylic acid; Amide, *in* N-00080
7-Nitro-*N*-(phenylmethyl)-4-benzofurazanamine, *in* A-00282
- C₁₃H₁₀N₄O₄**
7-Benzylamino-4-nitrobenzofuroxan, *in* A-00282
- C₁₃H₁₀N₄O₅**
(2,4-Dinitrophenyl)hydrazine; *N*-Benzoyl, *in* D-00972
- C₁₃H₁₀N₄O₅S**
3-[(4,5-Dihydro-5-oxo-1*H*-pyrazol-4-yl)azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00464
- C₁₃H₁₀N₄O₆**
▷ 5,5'-(1,3-Pentadien-1-yl-5-ylidene)dibarbituric acid, P-00009
- C₁₃H₁₀N₄O₆S₃**
Thioaminazo F, T-00154
- C₁₃H₁₀N₄O₇S₅**
4-Amino-8-[(2,4-dithioxo-5-thiazolidinyl)azo]-5-hydroxy-1,7-naphthalenedisulfonic acid, A-00169
- C₁₃H₁₀N₄S**
3-Isoquinolinecarboxaldehyde 2-thiazolylhydrazone, I-00085
2-Pyridinecarboxaldehyde 2-benzothiazolylhydrazone, P-00321
2-Quinolinecarboxaldehyde 2-thiazolylhydrazone, Q-00016
2-Thiazolecarboxaldehyde 2-quinolinylhydrazone, T-00137
- C₁₃H₁₀O**
▷ Benzophenone, B-00069
- C₁₃H₁₀OS**
Thiobenzoic acid; *O*-Ph ester, *in* T-00155
Thiobenzoic acid; *S*-Ph ester, *in* T-00155
- C₁₃H₁₀OS₂**
1,5-Di-2-thienyl-1,4-pentadien-3-one, D-01114
- C₁₃H₁₀O₂**
4-Phenoxybenzaldehyde, *in* H-00102
▷ Phenyl benzoate, *in* P-00060
▷ 9*H*-Xanthen-9-ol, X-00001
- C₁₃H₁₀O₂S**
2-Mercapto-3-(1-naphthalenyl)-2-propenoic acid, M-00037
2-(Phenylthio)benzoic acid, *in* M-00023
- C₁₃H₁₀O₂Se**
1-Phenyl-3-(selenophen-2-yl)-1,3-propanedione, P-00190
- C₁₃H₁₀O₃**
1,2-Benzenediol; Monobenzoyl, *in* B-00020
▷ 1,3-Benzenediol; Monobenzoyl, *in* B-00021
1,4-Benzenediol; Monobenzoyl, *in* B-00022
1,5-Di-2-furanyl-1,4-pentadien-3-one, D-00363
2,2'-Dihydroxybenzophenone, D-00535
▷ 2,4-Dihydroxybenzophenone, D-00536
4-Hydroxy-3-biphenylcarboxylic acid, H-00132
2-Phenoxybenzoic acid, P-00075
- C₁₃H₁₀O₃S**
9*H*-Fluorene-2-sulfonic acid, F-00014
- C₁₃H₁₀O₄**
3,5-Dihydroxybenzoic acid; Ph ester, *in* D-00534
2-(1,3-Dioxobutyl)-1*H*-indene-1,3-(2*H*)-dione, D-00987
2-Hydroxy-3-methyl-1,4-naphthoquinone; Ac, *in* H-00292
3-Hydroxy-2-methyl-4*H*-pyran-4-one; Benzoyl, *in* H-00323
2,3,4-Trihydroxybenzophenone, T-00278
2,4,4'-Trihydroxybenzophenone, T-00279
- C₁₃H₁₀O₆**
7,8-Dihydroxy-2*H*-1-benzopyran-2-one; Di-Ac, *in* D-00539
- C₁₃H₁₀O₇**
2,3,3',4,4',5'-Hexahydroxybenzophenone, H-00054
- C₁₃H₁₀O₉**
Bis(3-hydroxy-6-hydroxymethyl-4-oxo-4*H*-pyran-2-yl)methanone, B-00377
- C₁₃H₁₀S₂**
Dithiobenzoic acid; Ph ester, *in* D-01117
- C₁₃H₁₁BrN₂OS**
N-(4-Bromophenyl)-*N*-hydroxy-*N*-phenylthiourea, B-00551
- C₁₃H₁₁N**
▷ 2-Aminofluorene, A-00178
- C₁₃H₁₁NO**
2-Acetyl-4-phenylpyridine, A-00031
2-Acetyl-6-phenylpyridine, A-00032
2-Aminobenzophenone, A-00111
2-Aminobiphenyl; *N*-Formyl, *in* A-00116
4-Aminobiphenyl; *N*-Formyl, *in* A-00117
▷ Benzophenone; Oxime, *in* B-00069
2-Benzoyl-4-methylpyridine, B-00134
2-Benzoyl-6-methylpyridine, B-00135
9-Methyl-9*H*-carbazol-2-ol, *in* H-00144
- C₁₃H₁₁NOS**
2-(2,3-Dihydro-2-benzothiazolyl)phenol, D-00372
N-[(2-Mercaptophenyl)imino]methylphenol, M-00045
N-Phenylthiobenzohydroxamic acid, P-00198
Thiocarbamic acid; *N*-Ph, *S*-Ph ester, *in* T-00159
- C₁₃H₁₁NO₂**
N-Benzoyl-*N*-phenylhydroxylamine, *in* P-00135
2-Hydroxybenzanilide, *in* A-00300
2-(2-Hydroxybenzylideneamino)phenol, H-00129
2-Hydroxy-*N*-phenylbenzamide, *in* H-00112
2-Phenoxybenzoic acid; Amide, *in* P-00075
▷ *N*-Phenylanthranilic acid, P-00089
Phenylcarbamic acid hydroxyphenyl ester, *in* P-00060
- C₁₃H₁₁NO₂S**
N-Hydroxy-*N*-phenyl-3-(2-thienyl)-2-propenamide, H-00505
- C₁₃H₁₁NO₃**
3-Amino-1-naphthoic acid; *N*-Ac, *in* A-00279
3-Amino-2-naphthoic acid; *N*-Ac, *in* A-00280
N-(2,3-Dihydroxybenzylidene)-2-hydroxyaniline, D-00541
N-(2,4-Dihydroxybenzylidene)-2-hydroxyaniline, D-00542
N-(2,5-Dihydroxybenzylidene)-2-hydroxyaniline, D-00543
2,4-Dihydroxy-*N*-(2-hydroxybenzylidene)aniline, D-00614
N,4-Dihydroxy-*N*-phenylbenzamide, D-00704
3-(2-Furanyl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* F-00053
2'-Hydroxydiphenylamine-2-carboxylic acid, H-00167
1-Nitro-4-(phenoxyethyl)benzene, *in* N-00097
Phenyl aminosalicilate, *in* A-00184
- C₁₃H₁₁NO₃S**
N-(Phenylsulfonyl)benzamide, P-00194
- C₁₃H₁₁NO₄**
1,4-Dihydro-5-hydroxy-1-(4-methylphenyl)-4-oxo-2-pyridinecarboxylic acid, D-00411
- C₁₃H₁₁NO₄S**
1,4-Benzoquinone mono[*O*-[(*p*-methylphenyl)sulfonyl]]oxime, B-00079
- C₁₃H₁₁NO₅S**
4-Hydroxy-3-[[2-(hydroxyphenyl)methylene]amino]benzenesulfonic acid, H-00238
2-[(Hydroxyphenylamino)carbonyl]benzenesulfonic acid, H-00445
O-(*p*-Methoxyphenylsulfonyl)quinone monoxime, M-00118
N-(4-Sulfohenyl)-2-aminobenzoic acid, S-00056
N-(Sulfohenyl)benzohydroxamic acid, *in* H-00109
- C₁₃H₁₁N₃**
1*H*-Benzotriazole; 1-Benzyl, *in* B-00110
▷ 3,6-Diaminoacridine, D-00042
2-(4-Methyl-2-pyridyl)benzimidazole, M-00295
- C₁₃H₁₁N₃O**
Azobenzene-4-carboxylic acid; Amide, *in* A-00467
4-Hydroxy-3,6-acridinediamine, H-00094
(Phenylazo)benzaldoxime, P-00091
Phenylglyoxal; Mono(2-pyridyl)hydrazone, *in* P-00132
- C₁₃H₁₁N₃OS**
N-Benzoyl-*N'*-(2-pyridyl)thiourea, B-00159
- C₁₃H₁₁N₃O₂**
Benzaldehyde (4-nitrophenyl)hydrazone, B-00005
2-Pyridinecarboxaldehyde (2-hydroxybenzoyl)hydrazone, P-00326
2-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00348
3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00349
4-Pyridinecarboxylic acid [(4-hydroxyphenyl)methylene]hydrazide, P-00350
Salinazid, S-00003
- C₁₃H₁₁N₃O₃**
Hydrazo II, H-00087
2-(3-Hydroxy-3-phenyl-1-triazenyl)benzoic acid, H-00507
(2-Nitrophenyl)hydrazine; Benzoyl, *in* N-00137
4-Pyridinecarboxylic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, P-00345
- C₁₃H₁₁N₃O₄**
2,4-Dihydroxy-6-methyl-4'-nitroazobenzene, D-00650
- C₁₃H₁₁N₃O₆S**
2-[(2-Hydroxy-5-methylphenyl)azo]-5-nitrobenzenesulfonic acid, H-00302
2-(3-Hydroxy-3-phenyl-1-triazenyl)-5-sulfobenzoic acid, H-00510
- C₁₃H₁₁N₃O₇S**
2-Amino-4,6-dinitrophenol; *N*-(4-Methylbenzenesulfonyl), *in* A-00164
- C₁₃H₁₁N₃S₂**
5-Methyl-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, M-00326
- C₁₃H₁₁N₅**
1,10-Phenanthroline-2-carboximidic acid hydrazide, P-00053
- C₁₃H₁₁N₅O₃**
(4-Nitrophenyl)diazene-carboxylic acid 2-phenylhydrazide, N-00133
1-(4-Nitrophenyl)-5-phenylcarbazone, N-00141
- C₁₃H₁₁N₅O₆S₂**
Lucifer yellow CH, *in* L-00011

- C₁₃H₁₁N₇**
2,4-Diamino-6-(2,2'-bipyridyl)-1,3,5-triazine, D-00062
- C₁₃H₁₂AsNO₄**
[2-[[[(2-Hydroxyphenyl)methylene]amino]phenyl]jarsonic acid, H-00479
- C₁₃H₁₂AsNO₅**
[2-[[[(2,4-Dihydroxyphenyl)methylene]amino]phenyl]jarsonic acid, D-00711
- C₁₃H₁₂BrN₃O**
2-[(5-Bromo-2-pyridinyl)azo]-4,5-dimethylphenol, B-00564
- C₁₃H₁₂Br₂N₄O₄S**
2-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]ethanesulfonic acid, *in* A-00149
- C₁₃H₁₂ClNO₂**
4-Chloro-2-[[[(2-hydroxyphenyl)methylene]amino]phenol, C-00150
- C₁₃H₁₂ClN₃S**
▷ Azure C, *in* L-00003
- C₁₃H₁₂Cl₂N₄O**
2-[(3,5-Dichloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, D-00300
- C₁₃H₁₂Cl₂O₄**
▷ Ethacrynic acid, E-00022
- C₁₃H₁₂N₂**
Benzophenone; Hydrazone, *in* B-00069
▷ 2,7-Diaminofluorene, D-00097
- C₁₃H₁₂N₂O**
2-Acetyl-4-phenylpyridine; Oxime (*E*-), *in* A-00031
2-Acetyl-6-phenylpyridine; Oxime (*E*-), *in* A-00032
2-Aminobenzophenone; (*E*)-Oxime, *in* A-00111
2-Aminobenzophenone; (*Z*)-Oxime, *in* A-00111
1,3-Diaminobenzene; *N*-Benzoyl, *in* D-00047
▷ 7-Methoxy-1-methyl-β-carboline, M-00090
4-Methyl-*N*-2-pyridinylbenzamide, M-00285
4-Methyl-2-[(2-pyridinylmethylene)amino]phenol, M-00289
Phenylbenzylnitrosamine, *in* B-00165
Phenylhydrazine; *N'*-Benzoyl, *in* P-00134
Phenylhydrazine; *N''*-Benzoyl, *in* P-00134
3-Pyridinecarboxamide; *N'*-Benzyl, *in* P-00341
- C₁₃H₁₂N₂OS**
2-[(3-Mercaptophenyl)azo]-4-methylphenol, M-00041
N-(2-Methoxyphenyl)-2-pyridinecarbothioamide, *in* H-00502
- C₁₃H₁₂N₂O₂**
1-Benzoyloxy-2-phenyldiazene 2-oxide, *in* H-00471
Di-2-pyridinylmethanone; Ethylene ketal, *in* D-01071
Harmine *N*-oxide, *in* M-00090
4-Hydroxy-3-methoxyazobenzene, *in* D-00515
2-Nitrodiphenylamine; *N*-Me, *in* N-00104
- C₁₃H₁₂N₂O₂S**
N-(3-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, A-00324
N-(4-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, A-00325
- C₁₃H₁₂N₂O₃S**
▷ *N*-[(4-Aminophenyl)sulfonyl]benzamide, *in* A-00100
Benzohydroxamic acid benzenesulfonamide, *in* P-00194
- C₁₃H₁₂N₂S**
Bis(4-aminophenyl)methanethione, B-00254
▷ *N,N'*-Diphenylthiourea, D-01055
4-Isothiocyanato-*N,N*-dimethyl-1-naphthalenamine, I-00094
N-(Phenylmethyl)-2-pyridinecarbothioamide, *in* P-00317
N-*o*-Tolyl-2-thiopicolinamide, *in* P-00317
- C₁₃H₁₂N₂Se**
Selenourea; *N,N*-Di-Ph, *in* S-00009
- C₁₃H₁₂N₄**
2-(4,5-Dihydro-4-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, D-00476
- C₁₃H₁₂N₄O**
2-[4,5-Dihydro-3-(2-pyridyl)-1*H*-1,2,4-triazolyl]phenol, D-00488
Diphenylcarbazon, D-01005
- C₁₃H₁₂N₄O₂**
4-Amino-4'-nitrozobenzene; *N*-Me, *in* A-00281
- C₁₃H₁₂N₄O₃S₂**
3-[[[Aminothioxomethyl]hydrazone]-2-pyridinylmethyl]benzenesulfonic acid, *in* P-00386
- C₁₃H₁₂N₄O₄**
5-[(1-Acetyl-2-oxopropyl)azo]-2,3-dihydro-1,4-phthalazinedione, A-00027
- C₁₃H₁₂N₄O₆S₃**
4,4'-Disulfodithizone, D-01109
- C₁₃H₁₂N₄S**
▷ Dithizone, D-01135
2-Pyridinecarboxaldehyde phenylthiosemicarbazone, P-00331
- C₁₃H₁₂N₄Se**
Selenazone, S-00005
- C₁₃H₁₂N₆O**
Bis(2-pyridylmethylene)carbonic acid dihydrazide, B-00442
- C₁₃H₁₂N₆S**
Bis(2-pyridylmethylene)carbonothioic acid dihydrazide, B-00444
- C₁₃H₁₂N₆S**
4-Amino-5-thioxo-1,2,4-triazolidin-3-one di-(2-pyridinylmethylene)hydrazone, A-00363
- C₁₃H₁₂O**
▷ 4-(Hydroxymethyl)biphenyl, H-00284
▷ 2-Methoxybiphenyl, *in* B-00210
▷ 4-Methoxybiphenyl, *in* B-00211
- C₁₃H₁₂O₂**
1-Acetyl-2-naphthol; Me ether, *in* A-00025
2-Acetyl-1-naphthol; Me ether, *in* A-00026
1-Naphthalenecarboxylic acid; Et ester, *in* N-00005
▷ (1-Naphthyl)acetic acid; Me ester, *in* N-00040
2-Propanoyl-1-naphthol, P-00267
- C₁₃H₁₂O₃**
1-Hydroxy-2-naphthoic acid; Et ester, *in* H-00369
3-Hydroxy-2-naphthoic acid; Et ester, *in* H-00370
α-Methoxy-2-naphthaleneacetic acid, *in* H-00338
- C₁₃H₁₂O₃S**
4-Methylbenzenesulfonic acid; Ph ester, *in* M-00130
- C₁₃H₁₂O₅**
7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Me ether, *in* H-00295
7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid; Me ether, Et ester, *in* H-00426
- C₁₃H₁₂O₆**
Caffeic acid; Di-Ac, *in* D-00716
- C₁₃H₁₂O₇**
3,4,5-Trihydroxybenzaldehyde; Tri-Ac, *in* T-00273
- C₁₃H₁₂O₈**
2,3,4-Trihydroxybenzoic acid; Tri-Ac, *in* T-00276
- C₁₃H₁₃ClN₄O**
2-[(5-Chloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, *in* A-00145
- C₁₃H₁₃Cl₃N₂S**
3,4-Dihydro-4,4,6-trimethyl-1-(2,4,6-trichlorophenyl)-2(1*H*)-pyrimidinethione, D-00505
- C₁₃H₁₃FeN₃O**
(3-Azido-3-oxopropyl)ferrocene, A-00461
- C₁₃H₁₃N**
N-Benzylaniline, B-00165
2-(Methylamino)biphenyl, *in* A-00116
3-Methyldiphenylamine, M-00161
4-Methyldiphenylamine, M-00162
- C₁₃H₁₃NO**
4-(Dimethylamino)-1-naphthalenecarboxaldehyde, *in* A-00262
1-[(Ethylimino)methyl]-2-naphthalenol, E-00096
1-Naphthylmethylamine; *N*-Ac, *in* N-00051
1,2,3,4-Tetrahydrobenzo[*h*]quinolin-3-ol, T-00051
- C₁₃H₁₃NO₂**
3-Amino-2-naphthoic acid; Et ester, *in* A-00280
3-Hydroxy-2-methyl-1-(4-methylphenyl)-4(1*H*)-pyridinone, H-00289
2-Propanoyl-1-naphthol; Oxime, *in* P-00267
- C₁₃H₁₃N₂O₂S**
4-Methylbenzenesulfonic acid; Anilide, *in* M-00130
- C₁₃H₁₃NO₃**
6-Hydroxy-4-quinolinecarboxylic acid; Me ether, Et ester, *in* H-00527
- C₁₃H₁₃NO₃S**
2-Methyldiphenylamine-4-sulfonic acid, M-00165
N-Methyldiphenylamine-4-sulfonic acid, M-00166
- C₁₃H₁₃NO₅**
2,5-Dioxo-4-oxazolidinepropanoic acid; Benzyl ester, *in* D-00993
N-[7-Hydroxy-4-methyl-2-oxo-(2*H*)-1-(benzopyran-8-yl)methyl]glycine, H-00297
1-[3-(4-Hydroxyphenyl)-1-oxopropoxy]-2,5-pyrrolidinedione, H-00491
1-[(Methoxyphenylacetyl)oxy]-2,5-pyrrolidinedione, M-00105
- C₁₃H₁₃NO₆**
1-[[[4-Hydroxy-3-methoxyphenyl]acetyl]oxy]-2,5-pyrrolidinedione, H-00269
- C₁₃H₁₃N₃**
4-Aminoazobenzene; *N*-Me, *in* A-00094
▷ 1,3-Diphenylguanidine, D-01018
2-[2-(4-Hydrazinophenyl)ethenyl]pyridine, H-00085
2-(2-Pyridyl)-5,6,7,8-tetrahydroquinazoline, *in* P-00423
- C₁₃H₁₃N₃O**
4,5-Dimethyl-2-(2-pyridinylazo)phenol, D-00910
2,4-Diphenylsemicarbazide, D-01050
- C₁₃H₁₃N₃OS**
1,3-Diamino-8-methoxyphenothiazine, D-00100
- C₁₃H₁₃N₃O₂**
5-Amino-2-(2-hydroxy-5-methylphenylazo)phenol, A-00197
5-Ethoxy-2-(2-pyridinylazo)phenol, *in* P-00373
3-Methoxy-2-methyl-6-(2-pyridinylazo)phenol, *in* M-00278
5-Methoxy-2-[(5-methyl-2-pyridinyl)azo]phenol, *in* M-00279
- C₁₃H₁₃N₃S**
1,4-Diphenylthiosemicarbazide, D-01053
2,4-Diphenylthiosemicarbazide, D-01054
- C₁₃H₁₃N₅**
4,5-Dihydro-5-methyl-3,5-di-2-pyridyl-1*H*-1,2,4-triazole, D-00430
4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-(2-pyridinyl)-1,2,4-triazole, D-00453

- C₁₃H₁₃N₇
Bis(2-pyridylmethylene)carbonimidic acid dihydrazide, B-00443
- C₁₃H₁₃PS₂
Methyl diphenylphosphinodithioate, *in* D-01039
- C₁₃H₁₄NO₃P
[Phenyl(phenylamino)]methylphosphonic acid, P-00155
- C₁₃H₁₄N₂
4,4'-Diamino-3-methylbiphenyl, D-00102
- C₁₃H₁₄N₂O
2-Amino-*N*-2-naphthalenylpropanamide, A-00278
3-Methoxy-4-aminodiphenylamine, M-00071
3-Methoxybenzidine, *in* D-00057
N-(4-Methoxyphenyl)-1,4-benzenediamine, *in* A-00185
1-(1-Oxo-2-phenylbutyl)-1*H*-imidazole, O-00066
- C₁₃H₁₄N₂O₂S
2-Amino-*N*-(4-methylphenyl) benzenesulfonamide, A-00248
N-(2-Aminophenyl)-4-methylbenzenesulfonamide, A-00326
- C₁₃H₁₄N₂O₄S
5-Amino-2-[(4-methoxyphenyl)amino] benzenesulfonic acid, A-00232
- C₁₃H₁₄N₂O₅
3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarboxylic acid; Me ester, *in* D-00379
- C₁₃H₁₄N₄
N,N-Dimethyl-4-(2-pyridinylazo)benzenamine, D-00909
- C₁₃H₁₄N₄O
4-[(2,4-Diaminophenyl)azo]-2-methylphenol, D-00113
5-(Dimethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
Diphenylcarbazine, D-01004
4-[(4-Hydroxyphenyl)azo]-6-methyl-1,3-benzenediamine, H-00451
4-[(4-Methoxyphenyl)azo]-1,3-benzenediamine, M-00106
4-Methyl-5-(methylamino)-2-(2-pyridinylazo)phenol, *in* A-00253
- C₁₃H₁₄N₄O₄
Pasiniazid, *in* A-00184
- C₁₃H₁₄N₄S
▷ 2,2'-Diphenylcarbonothioic dihydrazide, D-01007
- C₁₃H₁₄O₃
3-Ethyl-5-hydroxy-2,7-dimethyl-4*H*-1-benzopyran-4-one, E-00086
- C₁₃H₁₅NO
5-[(4-Dimethylamino)phenyl]-2,4-pentadienal, D-00821
3,3a,4,5,6,7-Hexahydro-3-phenyl-2,1-benzisoxazole, H-00050
- C₁₃H₁₅NOS₂
5-(4-Isopropylbenzyl)-2-thioxo-4-thiazolidinone, I-00070
- C₁₃H₁₅NO₂
N-Hydroxy-*N*-(3-methylphenyl)-2,4-hexadienamide, *in* H-00185
- C₁₃H₁₅N₃OS
2-[(4,5-Dimethyl-2-thiazolyl)azo]-4,6-dimethylphenol, D-00921
- C₁₃H₁₅N₃O₂S
3,4-Dihydro-4,4,6-trimethyl-1-(4-nitrophenyl)-2(1*H*)-pyrimidinethione, D-00499
- C₁₃H₁₅N₅
4-Methyl-6-[(5-methyl-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, M-00201
- C₁₃H₁₅N₅O₄S
1-[(2,4-Dinitrophenyl)amino]-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00962
- C₁₃H₁₅N₇O₂S₂
5,6-Dimethyl-2-nitro-1,3-indanedione; Bis(thiosemicarbazone), *in* D-00873
- C₁₃H₁₆N₂OS
N-(1-Piperidinylthioxomethyl)benzamide, P-00245
- C₁₃H₁₆N₂O₂S
N-8-Quinoliny-1-butanesulfonamide, *in* A-00340
- C₁₃H₁₆N₂O₆
Corynecin IV, *in* A-00284
- C₁₃H₁₆N₂S
▷ 3,4-Dihydro-4,4,6-trimethyl-1-phenyl-2(1*H*)-pyrimidinethione, D-00501
- C₁₃H₁₆N₄OS
2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, *in* A-00214
2-(Diethylamino)-6-(2-thiazolylazo)phenol, *in* A-00360
- C₁₃H₁₆N₄O₄S₂
3-[[3-Hydroxy-4-[(4-methyl-2-thiazolyl)azo]phenyl]amino]-1-propanesulfonic acid, H-00330
- C₁₃H₁₆N₄S
N,N-Diethyl-4-(2-thiazolylazo)benzenamine, *in* T-00138
- C₁₃H₁₆N₆O₃
5-[[4-Diethylamino-2-hydroxyphenyl]azo]-1*H*-1,2,4-triazole-3-carboxylic acid, *in* A-00215
- C₁₃H₁₆O₇
4-Glucosyloxybenzaldehyde, *in* H-00102
- C₁₃H₁₆O₉
Neocrenatin, *in* T-00273
- C₁₃H₁₇NO₂
Cyclohexanoylphenylhydroxylamine, *in* H-00145
- C₁₃H₁₇NO₅
Racpinefrine; Di-Ac, *in* A-00066
- C₁₃H₁₇N₃O
▷ Aminopyrine, A-00339
- C₁₃H₁₇N₃O₄S
▷ Dipyrone, D-01100
- C₁₃H₁₇N₃S
3,4-Dihydro-4,4,6-trimethyl-1-(phenylamino)-2(1*H*)-pyrimidinethione, D-00500
- C₁₃H₁₇O₃P
Diethyl 1*H*-inden-2-ylphosphonate, *in* I-00026
- C₁₃H₁₈N₂O₅
Corynecin III, *in* A-00284
- C₁₃H₁₈N₂S
Hexahydro-*N*-phenyl-1*H*-azepine-1-carbothioamide, H-00049
- C₁₃H₁₈N₄O₂
6-[(4-Aminobutyl)methylamino]-2,3-dihydro-1,4-phthalazinedione, A-00131
- C₁₃H₁₈O₂
(3,3-Diethoxy-1-propenyl)benzene, *in* P-00168
- C₁₃H₁₈O₂S
3-Mercapto-3-phenylpropanoic acid; Butyl ester, *in* M-00048
3-Mercapto-3-phenylpropanoic acid; 2-Methylpropyl ester, *in* M-00048
- C₁₃H₁₈O₃
2-Butoxyethanol; Benzoyl, *in* B-00613
- C₁₃H₁₈O₄
3,3-Diethoxy-3-phenylpropanoic acid, *in* O-00069
- C₁₃H₁₈O₈
1,2,4-Benzenetriol; 2-Me ether, 1-*O*-β-D-glucopyranoside, *in* B-00035
- C₁₃H₁₉BrN₃O₂[⊕]
5-(Bromomethyl)-*N,N,N*,-2,6-pentamethyl-1,7-dioxo-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-3-methanaminium(1+), B-00533
- C₁₃H₁₉Br₂N₃O₂
5-(Bromomethyl)-*N,N,N*,-2,6-pentamethyl-1,7-dioxo-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-3-methanaminium(1+); Bromide, *in* B-00533
- C₁₃H₁₉NO₂
N-Hydroxy-*N*-(4-methylphenyl)hexanamide, *in* H-00186
- C₁₃H₂₀NO₂PS₂
Phosphoramidithioic acid *O,O*-bis(1-methylethyl)ester, P-00215
- C₁₃H₂₀N₄O₂
4,4'-Heptylidenebis[1,2-dihydro-3*H*-pyrazol-3-one], H-00018
- C₁₃H₂₀O
▷ 5,7-Megastigmadien-9-one, M-00010
- C₁₃H₂₀OS₃
3,5-Dibutyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00230
- C₁₃H₂₁NO₂S
4-Methyl-*N,N*-dipropylbenzenesulfonamide, *in* M-00130
- C₁₃H₂₁NO₂Si
N-(4-Ethoxyphenyl)-*N*-(trimethylsilyl)acetamide, E-00060
- C₁₃H₂₁NO₃S
3-(Butylphenylamino)-1-propanesulfonic acid, B-00636
- C₁₃H₂₁N₃O
2-(Diisopropylamino)benzoic acid hydrazide, D-00747
- C₁₃H₂₂N₂
▷ Dicyclohexylcarbodiimide, D-00309
2-Octylaminopyridine, *in* A-00333
- C₁₃H₂₂O
β-Ionol, *in* M-00010
- C₁₃H₂₂O₄
2-Methylenebutanedioic acid; Dibutyl ester, *in* M-00176
- C₁₃H₂₃N₂O₃P
α-(Ethylamino)-*p*-(dimethylamino)benzylphosphonic acid; Et ester, *in* E-00064
- C₁₃H₂₃N₃O
Cyclohexyl(2-morpholinoethyl)carbodiimide, C-00356
- C₁₃H₂₄O₂
6,8-Tridecanedione, T-00228
- C₁₃H₂₆N₂S
Hexahydro-*N*-(4-methylpentyl)-1*H*-azepine-1-carbothioamide, H-00048
- C₁₃H₂₇NO₅
1,4,7,10-Tetraoxa-13-azacyclotetradecane; *N*-(2-Methoxyethyl), *in* T-00111
- C₁₃H₂₇NS₂
N-Dibutylidithiocarbamic acid; Butyl ester, *in* D-00232
- C₁₃H₂₉N
Dodecylamine; *N*-Me, *in* D-01142
- C₁₃H₃₀IP
Tributylmethylphosphonium iodide, *in* T-00212
- C₁₃H₃₃O₄PSi₂
Bis(triethylsilyl) (hydroxymethyl)phosphonate, *in* H-00318
- C₁₄F₁₀O₃
Pentafluorobenzoic acid; Anhydride, *in* P-00012

- C₁₄H₄Br₄O₄
2,4,5,7-Tetrabromo-1,8-dihydroxyanthraquinone, T-00015
- C₁₄H₄ClN₃O₈
4,5,7-Trinitro-9-oxo-9H-fluorene-2-carboxylic acid; Chloride, *in* T-00354
- C₁₄H₄Cl₆O₄
Bis(2,4,6-trichlorophenyl) oxalate, B-00460
- C₁₄H₄N₆O₁₅
2,4,6-Trinitrobenzoic acid; Anhydride, *in* T-00352
- C₁₄H₅N₃O₉
4,5,7-Trinitro-9-oxo-9H-fluorene-2-carboxylic acid, T-00354
- C₁₄H₆Cl₂O₄
1,4-Dichloro-5,8-dihydroxyanthraquinone, D-00261
- C₁₄H₆N₄O₄S₄
6-Nitro-2(3*H*)-benzothiazolethione; Disulfide, *in* N-00096
- C₁₄H₆N₄O₁₁
3,5-Dinitrobenzoic acid; Anhydride, *in* D-00948
- C₁₄H₆N₄O₁₂
Bis(2,4-dinitrophenyl) oxalate, B-00335
- C₁₄H₇ClO₃
3-Oxo-3*H*-naphtho[2,1-*b*]pyran-2-carboxylic acid; Chloride, *in* O-00064
- C₁₄H₇Cl₃O₅
2,6,7-Trihydroxy-9-(trichloromethyl)-3*H*-xanthen-3-one, T-00323
- C₁₄H₇NO₆
Alizarine orange, A-00080
- C₁₄H₇N₇O₁₃
2,2',4,4',6,6'-Hexanitrodiphenylamine; *N*-Ac, *in* H-00065
- C₁₄H₈BrNO₂
6-(4-Bromophenyl)-5*H*-2-pyridine-5,7(6*H*)-dione, B-00556
- C₁₄H₈Br₂O₃
4-Bromobenzoic acid; Anhydride, *in* B-00488
- C₁₄H₈ClNO₂
6-(4-Chlorophenyl)-5*H*-2-pyridine-5,7(6*H*)-dione, C-00239
- C₁₄H₈Cl₂O₂
2,2'-Biphenyldicarboxylic acid; Dichloride, *in* B-00207
Bis(4-chlorophenyl)ethanedione, B-00285
- C₁₄H₈Cl₂O₃
2-Chlorobenzoic acid; Anhydride, *in* C-00066
4-Chlorobenzoic acid; Anhydride, *in* C-00067
- C₁₄H₈FNO₂
6-(4-Fluorophenyl)-5*H*-2-pyridine-5,7(6*H*)-dione, F-00033
- C₁₄H₈F₆O₅S₂
3-(Trifluoromethyl)benzenesulfonic acid; Anhydride, *in* T-00251
- C₁₄H₈I₂O₃
4-Iodobenzoic acid; Anhydride, *in* I-00041
- C₁₄H₈N₂
2,2'-Dicyanobiphenyl, *in* B-00207
- C₁₄H₈N₂O₂
2,2'-Bibenzoxazole, B-00202
- C₁₄H₈N₂O₄
4-Nitro-2-phenyl-1*H*-isoindole-1,3(2*H*)-dione, *in* N-00085
- C₁₄H₈N₂O₆
Bis(4-nitrophenyl)ethanedione, B-00432
- C₁₄H₈N₂O₇
▷ 2-Nitrobenzoic acid; Anhydride, *in* N-00091
3-Nitrobenzoic acid; Anhydride, *in* N-00092
4-Nitrobenzoic acid; Anhydride, *in* N-00093
- C₁₄H₈N₂O₈S₂
3,3'-Dithiobis[6-nitrobenzoic acid], D-01120
- C₁₄H₈N₂S
9-Isothiocyanatoacridine, I-00091
- C₁₄H₈N₄O₁₀
 α -(2,4-Dinitrophenyl)-2,4-dinitrobenzeneacetic acid, D-00971
- C₁₄H₈O₂
▷ 9,10-Phenanthraquinone, P-00047
- C₁₄H₈O₂S
▷ 1-Mercaptoanthraquinone, M-00018
- C₁₄H₈O₃
2,2'-Biphenyldicarboxylic acid; Anhydride, *in* B-00207
- C₁₄H₈O₄
▷ 1,2-Dihydroxyanthraquinone, D-00510
▷ 1,4-Dihydroxyanthraquinone, D-00511
▷ 1,8-Dihydroxyanthraquinone, D-00512
- C₁₄H₈O₅
▷ 1,2,4-Trihydroxyanthraquinone, T-00270
▷ 1,2,7-Trihydroxyanthraquinone, T-00271
- C₁₄H₈O₅S
▷ Anthraquinone-2-sulfonic acid, A-00388
- C₁₄H₈O₆
▷ 1,2,5,8-Tetrahydroxy-9,10-anthraquinone, T-00070
- C₁₄H₈O₇S
Alizarine red S, A-00081
Quinizarin S, Q-00006
- C₁₄H₈O₈
1,2,3,5,6,7-Hexahydroxyanthraquinone, H-00052
1,2,4,5,6,8-Hexahydroxyanthraquinone, H-00053
3-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic acid; Benzoyl, *in* H-00435
- C₁₄H₈O₉S
3,4,5,8-Tetrahydroxyanthraquinone-2-sulfonic acid, T-00071
- C₁₄H₈O₁₀S₂
1,5-Dihydroxyanthraquinone-2,6-disulfonic acid, D-00513
- C₁₄H₉BrO₂
4-(Bromomethyl)-2*H*-naphtho[1,2-*b*]pyran-2-one, B-00529
- C₁₄H₉BrO₃
5-Bromo-2-hydroxybenzaldehyde; Benzoyl, *in* B-00509
- C₁₄H₉ClO
9*H*-Fluorene-9-carboxylic acid; Chloride, *in* F-00013
- C₁₄H₉ClO₂
(4-Chlorophenyl)phenylethanedione, C-00238
- C₁₄H₉Cl₂NO₂
2,2'-Iminodibenzoic acid; Dichloride, *in* I-00013
- C₁₄H₉Cl₂N₅O₂
1,5-Bis(5-chloro-2-hydroxyphenyl)-3-cyanoformazan, B-00283
- C₁₄H₉Cl₂N₅O₈S₂
1,5-Bis(2-hydroxy-3-sulfo-5-chlorophenyl)-3-cyanoformazan, B-00394
- C₁₄H₉F₃O₃S
Pentafluorobenzyl *p*-toluenesulfonate, *in* P-00014
- C₁₄H₉N
9-Cyanofluorene, *in* F-00013
- C₁₄H₉NO
2-Isocyanato-9*H*-fluorene, I-00061
- C₁₄H₉NO₂
2'-Cyanobiphenyl-2-carboxylic acid, *in* B-00207
- Diphenimide, *in* B-00207
9,10-Phenanthraquinone; Monoxime, *in* P-00047
- C₁₄H₉NO₂S₂
5-[(2-Hydroxy-1-naphthalenyl)methylene]-2-thioxo-4-thiazolidinone, H-00364
- C₁₄H₉NO₃
▷ 1-Amino-4-hydroxyanthraquinone, A-00182
3,4-Dihydroxy-10-imino-9(10*H*)-anthracenone, D-00634
- C₁₄H₉NO₄
o-Acetoresorufin, *in* H-00443
Alizarine maroon, A-00079
(4-Nitrophenyl)phenylethanedione, N-00142
- C₁₄H₉NO₄S
Anthraquinone-2-sulfonic acid; Amide, *in* A-00388
Saccharin; Benzoyl, *in* S-00001
- C₁₄H₉NO₅
o-Acetylnesazurin, *in* H-00443
- C₁₄H₉NO₅S
5-Aminoanthraquinone-2-sulfonic acid, A-00093
- C₁₄H₉NO₆
3-[(7-Methoxy-2-oxo-2*H*-1-benzopyran-3-yl)carbonyl]-2(3*H*)-oxazolone, M-00098
- C₁₄H₉NO₆S
9,10-Dihydro-3,4-dihydroxy-10-imino-9-oxo-2-anthracenesulfonic acid, D-00378
- C₁₄H₉N₃O₃S
2-[(2-Hydroxy-1-naphthalenyl)azo]-4-thiazolecarboxylic acid, H-00358
3-Hydroxy-4-(2-thiazolylazo)-2-naphthalenecarboxylic acid, H-00547
- C₁₄H₉N₃O₄
▷ 1,4-Diamino-5-nitroanthraquinone, D-00107
- C₁₄H₉N₃O₆
Bis(4-nitrophenyl)ethanedione; Monoxime, *in* B-00432
- C₁₄H₉N₇O₁₂
Ethylidipicrylamine, *in* H-00065
- C₁₄H₁₀
▷ Anthracene, A-00375
- C₁₄H₁₀BrClN₂O₂
4-Chlorobenzoic acid [(2-bromo-6-hydroxyphenyl)methylene]hydrazide, C-00068
- C₁₄H₁₀BrN
9-(Bromomethyl)acridine, B-00516
- C₁₄H₁₀BrN₃O
▷ Bromazepam, B-00481
- C₁₄H₁₀BrN₃OS
2-[(6-Bromo-2-benzothiazolyl)azo]-4-methylphenol, B-00491
- C₁₄H₁₀Cl₂N₂O₂
Bis(4-chlorophenyl)ethanedione; Dioxime, *in* B-00285
- C₁₄H₁₀F₃NO₂
N-Hydroxy-*N*-phenyl-3-(trifluoromethyl)benzamide, H-00511
- C₁₄H₁₀N₂O
3-Phenyl-2,7-naphthyridin-1(2*H*)-one, P-00152
- C₁₄H₁₀N₂OS
2-Aminobenzothiazole; 2-*N*-Benzoyl, *in* A-00113
2-[(4-Benzothiazolylimino)methyl]phenol, B-00104
- C₁₄H₁₀N₂OS₂
3-Phenyl-5-(2-furyl)-1-pyrazolinedithiocarbamic acid, P-00131
- C₁₄H₁₀N₂O₂
▷ 1,2-Diaminoanthraquinone, D-00043
2-Hydroxyphenazine; Ac, *in* H-00439
9,10-Phenanthraquinone; Dioxime, *in* P-00047

- C₁₄H₁₀N₂O₃
N-(3-Oxo-3*H*-phenoxazin-2-yl)acetamide, *in* A-00303
- C₁₄H₁₀N₂O₄
▷ 1,5-Diamino-4,8-dihydroxyanthraquinone, D-00074
▷ 1,8-Diamino-4,5-dihydroxyanthraquinone, D-00075
1,2-Dinitro-1,2-diphenylethylene, D-00952
(4-Nitrophenyl)phenylethanedione; Monoxime, *in* N-00142
- C₁₄H₁₀N₂O₅S
3,4-Diaminoanthraquinone-1-sulfonic acid, D-00045
- C₁₄H₁₀N₂O₈S₂
1,4-Diaminoanthraquinone-2,3-disulfonic acid, D-00044
- C₁₄H₁₀N₂O₁₀S₂
4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, D-00073
- C₁₄H₁₀N₄
2,3-Di-2-pyridylpyrazine, D-01091
2,4-Di-2-pyridylpyrimidine, D-01092
4,6-Di-2-pyridylpyrimidine, D-01093
- C₁₄H₁₀N₄O
4-Hydroxy-2,6-di-2-pyridinylpyrimidine, H-00171
5-(4-Pyridinylazo)-8-quinolinol, P-00380
7-(2-Pyridinylazo)-8-quinolinol, P-00381
7-(4-Pyridinylazo)-8-quinolinol, P-00382
2-(2-Pyrimidinylazo)-1-naphthalenol, P-00430
- C₁₄H₁₀N₄OS
5-(Di-2-pyridinylmethylene)-2-thioxo-4-imidazolidinone, D-01085
- C₁₄H₁₀N₄O₂
α-(Phenylazo)-4-nitrobenzeneacetonitrile, P-00094
5-(4-Pyridinylazo)-8-quinolinol; N⁴-Oxide, *in* P-00380
7-(4-Pyridinylazo)-8-quinolinol; N⁴-Oxide, *in* P-00382
- C₁₄H₁₀N₄O₃S
5-Amino-2-(2-benzothiazolylazo)benzoic acid, A-00114
- C₁₄H₁₀N₄O₃
3-[(2-Hydroxy-1-naphthalenyl)azo]-1*H*-pyrazole-4-carboxylic acid, H-00353
5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1*H*,3*H*)-pyrimidinedione, H-00354
3-[(2-Hydroxy-1-naphthyl)azo]-4-pyrazolecarboxylic acid, H-00376
Isatin; 3-(4-Nitrophenylhydrazone), *in* I-00056
- C₁₄H₁₀N₄O₆
Bis(4-nitrophenyl)ethanedione; Dioxime, *in* B-00432
- C₁₄H₁₀N₄S
2,9-Dihydro-9-phenyl-3*H*-1,2,4-triazolo[4,3-*a*]benzimidazole-3-thione, D-00472
- C₁₄H₁₀O
Anthrone, A-00390
▷ 9*H*-Fluorene-2-carboxaldehyde, F-00012
- C₁₄H₁₀O₂
▷ Benzil, B-00038
9*H*-Fluorene-9-carboxylic acid, F-00013
- C₁₄H₁₀O₃
▷ Benzoic anhydride, *in* B-00059
3-(4-Hydroxyphenyl)-1-(3*H*)-isobenzofuranone, H-00474
2-Methoxyxanthone, *in* H-00562
- C₁₄H₁₀O₄
1,4,9,10-Anthracenetetrol, A-00381
2,2'-Biphenyldicarboxylic acid, B-00207
▷ Dibenzoyl peroxide, D-00165
1-Hydroxy-3-methoxyxanthone, *in* D-00741
- C₁₄H₁₀O₅
2,6,7-Trihydroxy-9-methyl-3*H*-xanthen-3-one, T-00299
- C₁₄H₁₀O₆S
3,3'-Thiobis[6-hydroxybenzoic acid], T-00158
- C₁₄H₁₀O₉
Digallic acid, D-00365
- C₁₄H₁₁BrN₂O₂
(4-Bromophenyl)phenylethanedione dioxime, B-00555
- C₁₄H₁₁BrN₂S
1-Benzyl-5-bromo-1,3-dihydro-2*H*-benzimidazole-2-thione, B-00175
- C₁₄H₁₁BrO
2-Bromo-4'-phenylacetophenone, B-00544
- C₁₄H₁₁Br₂N₃OS
2-[(3,5-Dibromo-2-hydroxyphenyl)methylene]-*N*-phenylhydrazinecarbothioamide, D-00192
- C₁₄H₁₁ClN[⊕]
9-Chloro-10-methylacridinium(1+), C-00170
- C₁₄H₁₁ClN₂O₂
(4-Chlorophenyl)phenylethanedione; Dioxime, *in* C-00238
- C₁₄H₁₁ClO
▷ Diphenylacetic acid; Chloride, *in* D-00999
- C₁₄H₁₁ClO₃
4'-Chloro-2-hydroxy-4-methoxybenzophenone, *in* C-00095
- C₁₄H₁₁Cl₂NO₃
2-(2,4-Dichlorophenoxy)-*N*-phenylacetohydroxamic acid, *in* D-00288
- C₁₄H₁₁Cl₂N₃OS
3,5-Dichloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, D-00278
- C₁₄H₁₁Cl₂N₅O
1,5-Bis(2-chlorophenyl)-3-formazancarboxamide, B-00286
- C₁₄H₁₁F₅N₂O₂
2,4-Dihydro-5-methyl-2-(4-methylphenyl)-4-(2,2,3,3,3-pentafluoro-1-oxopropyl)-3*H*-pyrazol-3-one, D-00433
- C₁₄H₁₁N
▷ 9-Aminophenanthrene, A-00298
▷ Diphenylacetoneitrile, *in* D-00999
- C₁₄H₁₁NO
9*H*-Fluorene-9-carboxylic acid; Amide, *in* F-00013
1-Methoxyacridine, *in* H-00091
4-Methoxyacridine, *in* H-00092
9-Methoxyacridine, *in* H-00093
- C₁₄H₁₁NOS
2(3*H*)-Benzoxazolethione; 3-Benzyl, *in* B-00113
Phenothiazine; *N*-Ac, *in* P-00073
- C₁₄H₁₁NO₂
2-Aminobenzaldehyde; *N*-Benzoyl, *in* A-00096
Benzil; (Z)-Monoxime, *in* B-00038
9*H*-Carbazole-9-carboxylic acid; Me ester, *in* C-00020
Diphenylethanedione monoxime, *in* B-00038
4-Hydroxyacridone; Me ether, *in* H-00095
2-Hydroxycarbazole; Ac, *in* H-00144
- C₁₄H₁₁NO₃
3-Aminobenzoic acid; *N*-Benzoyl, *in* A-00104
2,2'-Biphenyldicarboxylic acid; Monoamide, *in* B-00207
N-Hydroxybenzamide; *O*-Benzoyl, *in* H-00109
7-Hydroxy-3*H*-phenoxazin-3-one; Et ether, *in* H-00443
Indophenol; Ac, *in* I-00034
- C₁₄H₁₁NO₄
4-(Benzamido)salicylic acid, *in* A-00184
4-(Benzoylhydroxyamino)benzoic acid, B-00133
4-Hydroxy-3-[[2-(hydroxyphenyl)imino]methyl]benzoic acid, H-00237
3-Hydroxy-4-[[2-(hydroxyphenyl)methylene]amino]benzoic acid, H-00239
- 4-Hydroxy-3-[[2-(hydroxyphenyl)methylene]amino]benzoic acid, H-00240
7-Hydroxy-3*H*-phenoxazin-3-one; Et-ether, 10-oxide, *in* H-00443
▷ 2,2'-Iminodibenzoic acid, I-00013
2,3'-Iminodibenzoic acid, I-00014
2,4'-Iminodibenzoic acid, I-00015
4-Nitrobenzyl alcohol; *O*-Benzoyl, *in* N-00097
- C₁₄H₁₁NO₆
4-[(3,4,5-Trihydroxybenzoyl)amino]benzoic acid, T-00280
- C₁₄H₁₁NS₂
2-Benzothiazolethiol; *S*-Benzyl, *in* B-00089
- C₁₄H₁₁N₃O
N-Phenyl-1*H*-benzimidazolecarboxaldehyde, P-00102
- C₁₄H₁₁N₃O₂
2-(2-Benzothiazolylazo)-4-methylphenol, B-00097
1-[(4-Methyl-2-thiazolyl)azo]-2-naphthalenol, M-00322
- C₁₄H₁₁N₃OS₂
5-[(1-*p*-Tolylimidazol-4-yl)methylene]rhodamine, T-00191
- C₁₄H₁₁N₃O₂S
2-(2-Benzothiazolylazo)-5-methoxyphenol, *in* B-00092
- C₁₄H₁₁N₃O₄
4'-Nitro-4-azobenzenecarboxylic acid; Me ester, *in* N-00080
4-Nitrobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, N-00094
(4-Nitrophenyl)phenylethanedione; Dioxime, *in* N-00142
- C₁₄H₁₁N₃O₆
N-Hydroxy-*N*-(4-methylphenyl)-3,5-dinitrobenzamide, *in* D-00946
- C₁₄H₁₁N₃S
2-Thiophenecarboxaldehyde 2-quinolinylhydrazone, T-00172
- C₁₄H₁₁N₅
3-Isoquinolinecarboxaldehyde 2-pyrimidinylhydrazone, I-00081
2-Pyridinecarboxaldehyde 1-phthalazinylhydrazone, P-00332
2-Quinolinecarboxaldehyde 2-pyrimidinylhydrazone, Q-00013
- C₁₄H₁₁N₅O
2-[[[(Hydroxyimino)phenylmethyl]azo]-1*H*-benzimidazole, H-00250
- C₁₄H₁₁N₅O₂
1,5-Bis(2-hydroxyphenyl)-3-cyanoformazan, B-00388
- C₁₄H₁₁N₅O₅
Isonitrosoacetophenone 2,4-dinitrophenylhydrazone, *in* P-00132
- C₁₄H₁₁N₅O₈S₂
3-Cyano-1,5-bis(2-hydroxy-5-sulphophenyl)formazan, C-00325
- C₁₄H₁₁N₅S
2-Benzoylpyrazine 2-thiazolylhydrazone, B-00150
Di-2-pyridinylmethanone 2-thiazolylhydrazone, D-01083
- C₁₄H₁₂
▷ 1,1-Diphenylethylene, D-01016
- C₁₄H₁₂Br₂N₄O₂
2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(dimethylamino)benzoic acid, D-00201
- C₁₄H₁₂ClNO
4-Amino-4'-chlorobiphenyl; *N*-Ac, *in* A-00136
3-Chloro-4-methylaniline; *N*-Benzoyl, *in* C-00171

- C₁₄H₁₂ClNO₂**
2-Chloro-*N*-hydroxy-*N*-(2-methylphenyl) benzamide, *in* C-00064
4-Chloro-*N*-hydroxy-*N*-(2-methylphenyl) benzamide, *in* C-00065
- C₁₄H₁₂ClN₃OS**
5-Chloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, C-00123
- C₁₄H₁₂INO₂**
N-m-Tolyl-*o*-iodobenzohydroxamic acid, *in* I-00040
N-o-Tolyl-*o*-iodobenzohydroxamic acid, *in* I-00040
- C₁₄H₁₂N₂**
Bis(4-aminophenyl)acetylene, B-00249
9,10-Diaminophenanthrene, D-00110
2,9-Dimethyl-1,10-phenanthroline, D-00880
3,8-Dimethyl-1,10-phenanthroline, D-00881
4,7-Dimethyl-1,10-phenanthroline, D-00882
5,6-Dimethyl-1,10-phenanthroline, D-00883
- C₁₄H₁₂N₂O**
3-Aminocarbazole; *N*-Ac, *in* A-00132
Benzil; Monohydrazone, *in* B-00038
4-(Dimethylamino)- α -oxo-1-naphthaleneacetonitrile, D-00807
2,9-Dimethyl-1,10-phenanthroline; *N*-Oxide, *in* D-00880
- C₁₄H₁₂N₂OS**
N-(Aminothioxomethyl)-*N*-phenylbenzamide, *in* P-00201
▷ *N*-[(Phenylamino)thioxomethyl]benzamide, *in* P-00201
- C₁₄H₁₂N₂OS₂**
(2-Furanyl)-2,3-dihydro-4-phenyl-1*H*-pyrazole-1-carbonodithioic acid, F-00051
- C₁₄H₁₂N₂O₂**
Azobenzene-4-carboxylic acid; Me ester, *in* A-00467
2,2'-Biphenyldicarboxylic acid; Diamide, *in* B-00207
Bis(6-methyl-2-pyridyl)ethanedione, B-00415
4,7-Dimethoxy-1,10-phenanthroline, *in* D-00685
5,6-Dimethoxy-1,10-phenanthroline, *in* D-00686
2,9-Dimethyl-4,7-dihydroxy-1,10-phenanthroline, D-00850
(*E,E*)-Diphenylglyoxime, *in* B-00038
(*E,Z*)-Diphenylglyoxime, *in* B-00038
(*Z,Z*)-Diphenylglyoxime, *in* B-00038
Glyoxal bis(2-hydroxyanil), G-00027
2-Hydroxybenzaldehyde *N*-benzoylhydrazone, H-00104
Salicylaldehyde benzoylhydrazone, *in* H-00101
2,2',3,3'-Tetrahydro-2,2'-bibenzoxazole, T-00053
- C₁₄H₁₂N₂O₃**
3-Aminobenzoic acid; Anhydride, *in* A-00104
Benzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, B-00061
Chrome bordeaux B, C-00279
7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, D-00786
2-Hydroxybenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, H-00120
4-Nitrobenzylamine; *N*-Benzoyl, *in* N-00098
- C₁₄H₁₂N₂O₄**
[2,2'-Bipyridine]-4,4'-dicarboxylic acid; Di-Me ester, *in* B-00224
2-Hydroxybenzoic acid [(2,3-dihydroxyphenyl)methylene]hydrazide, H-00115
2-Hydroxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, H-00116
N-Hydroxy-*N*-(3-methylphenyl)-2-nitrobenzamide, *in* N-00089
N-Hydroxy-*N*-(3-methylphenyl)-3-nitrobenzamide, *in* N-00090
- C₁₄H₁₂N₂O₆S₂**
5,5'-Dithiodisalicylhydroxamic acid, D-01131
- C₁₄H₁₂N₂O₂S**
3,5-Dinitrobenzyl alcohol; 4-Methylbenzenesulfonyl, *in* D-00950
- C₁₄H₁₂N₂S**
2-Mercaptobenzimidazole; *S*-Benzyl, *in* M-00022
- C₁₄H₁₂N₂S₂**
Glyoxal bis(2-mercaptoanil), G-00029
N-[(Phenylamino)thioxomethyl]benzenecarbothioamide, P-00088
2,2',3,3'-Tetrahydro-2,2'-bibenzothiazole, T-00052
- C₁₄H₁₂N₄**
2,3-Dihydro-5,6-di-(2-pyridyl)pyrazine, D-00404
3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazole, M-00293
1*H*-Pyrrole-2-carboxaldehyde 8-quinolinylhydrazone, P-00438
- C₁₄H₁₂N₄O**
N-Hydroxy-*N'*-phenyl-1*H*-benzimidazole-2-carboximidamide, *in* P-00102
5-Methyl-2-furancarboxaldehyde 1-phthalazinylhydrazone, M-00180
1-[(5-Methylimidazol-4-yl)azo]-2-naphthol, M-00192
- C₁₄H₁₂N₄OS**
2-Amino-5-(2-benzothiazolyl)-4-methylphenol, A-00115
- C₁₄H₁₂N₄O₃**
4-Amino-4'-nitroazobenzene; *N*-Ac, *in* A-00281
Isonitrosoacetophenone *p*-nitrophenylhydrazone, *in* P-00132
- C₁₄H₁₂N₄O₃S**
2-[(2-Hydroxy-5-nitrophenyl)methylene]-*N*-phenylhydrazinecarbothioamide, *in* H-00380
- C₁₄H₁₂N₄O₄**
N-[(4-Methoxyphenyl)methyl]-7-nitro-4-benzofuranamine, M-00114
- C₁₄H₁₂N₄O₄S₂**
7-(4,5-Dimethyl-2-thiazolyl)azo-8-hydroxy-5-quinolinesulfonic acid, D-00922
- C₁₄H₁₂N₄S**
2-Acetylpyridine 2-benzothiazolylhydrazone, A-00040
- C₁₄H₁₂N₆S**
2-Pyrazinyl-1-(2-pyridinyl)ethanone; 2-Thiazolylhydrazone, *in* P-00299
1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone; 2-Thiazolylhydrazone, *in* P-00405
- C₁₄H₁₂N₈**
2(1*H*)-Pyrazinone (1,2-dipyrazinylethylidene)hydrazone, P-00287
- C₁₄H₁₂OS**
2-Mercapto-2,4,6-cycloheptatrien-1-one; *S*-Benzyl, *in* M-00027
▷ Tibenzate, *in* T-00155
- C₁₄H₁₂O₂**
▷ Benzoil, B-00068
▷ Benzyl benzoate, *in* B-00059
2-Biphenylol; Ac, *in* B-00210
4-Biphenylol; Ac, *in* B-00211
4,4'-Dihydroxystilbene, D-00730
▷ Diphenylacetic acid, D-00999
3-Methylbenzoic acid; Ph ester, *in* M-00137
4-Methylbenzoic acid; Ph ester, *in* M-00138
- C₁₄H₁₂O₃**
2-Acetyl-1-naphthol; Ac, *in* A-00026
4-Hydroxy-3-biphenylcarboxylic acid; Me ester, *in* H-00132
▷ 2-Hydroxy-2,2-diphenylacetic acid, H-00166
▷ (2-Hydroxy-4-methoxyphenyl)methanone, *in* D-00536
4-Methoxybenzoic acid; Ph ester, *in* M-00079
- 4-Methoxy-3-biphenylcarboxylic acid, *in* H-00132
2-Methoxyphenol; Benzoyl, *in* M-00102
2-Phenoxybenzoic acid; Me ester, *in* P-00075
- C₁₄H₁₂O₄**
2,3-Dihydroxy-4-methoxybenzophenone, *in* T-00278
2,4-Dihydroxy-4'-methoxybenzophenone, *in* T-00279
2,4'-Dihydroxy-4-methoxybenzophenone, *in* T-00279
1,2-Naphthalenediol; Di-Ac, *in* N-00007
1,3-Naphthalenediol; Di-Ac, *in* N-00008
1,8-Naphthalenediol; Di-Ac, *in* N-00009
2,7-Naphthalenediol; Di-Ac, *in* N-00011
2-Phenyl-1-(2,4,6-trihydroxyphenyl)ethanone, P-00209
- C₁₄H₁₂O₆**
7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Ac, *in* H-00295
7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid; Et ester, Ac, *in* H-00426
- C₁₄H₁₂O₁₀**
Tetrahydroxy-1,4-benzoquinone; Tetra-Ac, *in* T-00072
- C₁₄H₁₃Br₂N₃O₃S**
3,5-Dibromo-4-[(4-dimethylaminophenyl)azo]benzenesulfonic acid, *in* A-00310
- C₁₄H₁₃Cl₂N₃O₃S**
2,5-Dichloro-4-[[4-(4-dimethylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
- C₁₄H₁₃IO₃**
Diphenyliodonium *I*-oxide acetate, *in* D-01028
- C₁₄H₁₃N**
4-Methylaniline; *N*-Benzylidene, *in* M-00124
- C₁₄H₁₃NO**
▷ 2-Acetamidobiphenyl, *in* A-00116
2-Aminobenzophenone; *N*-Me, *in* A-00111
▷ 4-Aminobiphenyl; *N*-Ac, *in* A-00117
2-Benzoyl-4-ethylpyridine, B-00132
N-Benzylbenzamide, *in* B-00163
▷ *N*-Diphenylacetamide, *in* D-01000
▷ Diphenylacetic acid; Amide, *in* D-00999
2-Ethoxycarbazole, *in* H-00144
4-Methylaniline; *N*-Benzoyl, *in* M-00124
4-Methylbenzoic acid; Anilide, *in* M-00138
- C₁₄H₁₃NO₂**
Benzoil; (*E*)-Oxime, *in* B-00068
N-Benzylbenzohydroxamic acid, *in* H-00109
2-Hydroxy-2,2-diphenylacetic acid; Amide, *in* H-00166
2-Hydroxy-*N*-(2-hydroxybenzylidene)-4-methylaniline, H-00190
2-Hydroxy-*N*-(2-hydroxybenzylidene)-5-methylaniline, H-00191
2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)aniline, H-00210
2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)aniline, H-00211
2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)aniline, H-00212
N-Hydroxy-*N*-(2-methylphenyl)benzamide, *in* H-00109
N-Hydroxy-2-methyl-*N*-phenylbenzamide, H-00306
N-Hydroxy-4-methyl-*N*-phenylbenzamide, H-00307
N-Hydroxy-*N*-phenylbenzenacetamide, H-00463
2-[[[(2-Hydroxyphenyl)methylene]amino]methyl]phenol, H-00478
4-Methoxybenzoic acid; Anilide, *in* M-00079
▷ 2'-Methyldiphenylamine-2-carboxylic acid, M-00163
▷ 3'-Methyldiphenylamine-2-carboxylic acid, M-00164
- C₁₄H₁₃NO₂S**
N-Hydroxy-*N*-(3-methylphenyl)-3-(2-thienyl)-2-propenamide, *in* H-00553
- C₁₄H₁₃NO₃**
3-Acetyl-4-hydroxy-6-methyl-2*H*-pyran-2-one; Anilide, *in* A-00019

- 3-(2-Furanyl)-*N*-hydroxy-*N*-(4-methylphenyl)-2-propenamide, *in* F-00053
N-(2-Hydroxy-3-methoxybenzylidene)-2-hydroxyaniline, *in* D-00541
N-2-Hydroxy-5-methoxybenzylidene-2-hydroxyaniline, *in* D-00543
N-Hydroxy-2-methoxy-*N*-phenylbenzamide, *in* H-00263
N-Hydroxy-4-methoxy-*N*-phenylbenzamide, *in* D-00704
2-Hydroxy-4-methoxy-*N*-salicylideneaniline, *in* D-00614
▷ 2'-Methoxydiphenylamine-2-carboxylic acid, *in* H-00167
- C₁₄H₁₃NO₃S**
N-Hydroxy-*N*-(3-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00273
N-Hydroxy-*N*-(4-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00274
- C₁₄H₁₃NO₄S**
O-(*p*-Methylphenylsulfonyl)-*o*-methylquinone monooxime, M-00242
- C₁₄H₁₃NO₅S**
O-(*p*-Methoxyphenylsulfonyl)-*o*-methylquinone monooxime, M-00117
- C₁₄H₁₃NO₆S**
4-Amino-3-hydroxy-1-naphthalenesulfonic acid; *O,N*-Di-Ac, *in* A-00202
- C₁₄H₁₃NO₇**
7-Hydroxy-8-(aminomethyl)coumarin-*N,N*-diacetic acid, H-00097
- C₁₄H₁₃N₃O**
▷ 4-Aminoazobenzene; *N*-Ac, *in* A-00094
2-(3,5-Dimethyl-1-pyrazolyl)-8-quinolinol, D-00906
- C₁₄H₁₃N₃OS**
2-Hydroxybenzaldehyde phenylthiosemicarbazone, H-00107
- C₁₄H₁₃N₃O₂**
2-Aminobenzoic acid 2-benzoylhydrazide, A-00106
4-Aminobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00110
2-Hydroxybenzaldehyde *N*-(4-aminobenzoyl)hydrazide, H-00103
2-Hydroxybenzaldehyde 6-methyl-2-nicotinoylhydrazide, H-00106
2-Hydroxybenzoic acid [2-(2-pyridinyl)ethylidene]hydrazide, H-00121
2-(4-Hydroxyphenylazo)benzaldehyde; Me ether, oxime, *in* H-00448
2,2'-Iminobisbenzamide, *in* I-00013
2-Methyl-4-pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, M-00272
- C₁₄H₁₃N₃O₂S**
2,2'-Dihydroxybenzophenone; Thiosemicarbazone, *in* D-00535
- C₁₄H₁₃N₃O₃**
2-Aminobenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, A-00107
2,4-Dihydroxybenzophenone; Semicarbazone, *in* D-00536
- C₁₄H₁₃N₃S**
Benzophenone; Thiosemicarbazone, *in* B-00069
- C₁₄H₁₃N₃S₂**
N,N'-Diphenylthioimidodicarbonic diamide, *in* T-00163
- C₁₄H₁₃N₅OS**
[(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00483
[(4-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00484
- C₁₄H₁₃N₅O₂**
[(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonic dihydrazide, H-00482
- C₁₄H₁₃N₅O₂S**
[(2,4-Dihydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, D-00713
- C₁₄H₁₃N₅O₂S₂**
1,2-Dihydro-1,5-dimethyl-4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-phenyl-3*H*-pyrazol-3-one, D-00389
- C₁₄H₁₃N₅O₆**
2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4,6-dinitrophenol, *in* A-00210
- C₁₄H₁₃OPS₂**
S-Acetyl diphenylphosphinodithioate, *in* D-01039
- C₁₄H₁₄BrN₃O₃S**
3-Bromo-4-[(4-dimethylaminophenyl)azo]benzenesulfonic acid, *in* A-00308
- C₁₄H₁₄Br₂N₄O**
2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00149
- C₁₄H₁₄Br₂N₄O₄S**
3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, *in* A-00149
- C₁₄H₁₄Br₂N₄O₅S**
3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-2-hydroxy-1-propanesulfonic acid, D-00205
- C₁₄H₁₄ClN₃**
3,6-Diamino-10-methylacridinium chloride, *in* D-00042
- C₁₄H₁₄ClN₃O₂S**
4'-Dimethylaminoazobenzene-4-sulfonyl chloride, *in* M-00210
- C₁₄H₁₄ClN₃O₃S**
3-Chloro-4-[(4-dimethylaminophenyl)azo]benzenesulfonic acid, *in* A-00309
- C₁₄H₁₄ClN₃S**
▷ Azure A, *in* L-00003
Lauth's violet; N(3),N(7)-Di-Me, chloride, *in* L-00003
- C₁₄H₁₄N₂O**
4-(Acetylamino)diphenylamine, *in* A-00166
1-Acetyl-2,2-diphenylhydrazine, *in* D-01020
2-Aminodiphenylamine; 2-*N*-Ac, *in* A-00165
▷ 4,4'-Diaminobiphenyl; *N*-Ac, *in* D-00053
N-Hydroxy-*N'*-(4-methylphenyl)benzenecarboximidamide, H-00308
▷ Phenol blue, P-00062
- C₁₄H₁₄N₂OS**
1-Amino-8-ethoxyphenothiazine, *in* H-00440
4-Methyl-2-[[2-(methylthio)phenyl]azo]phenol, *in* M-00041
- C₁₄H₁₄N₂O₂**
1,2-Diaminonaphthalene; *N,N'*-Di-Ac, *in* D-00105
2',4'-Dihydroxyacetophenone; Phenylhydrazide, *in* D-00507
2,2'-Dihydroxy-4,4'-dimethylazobenzene, D-00574
2,2'-Dimethoxyazobenzene, *in* D-00514
3,4-Dimethoxyazobenzene, *in* D-00515
4,4'-Dimethoxyazobenzene, *in* D-00516
4'-Ethoxy-4-hydroxyazobenzene, *in* D-00516
N-Hydroxy-*N'*-(4-methoxyphenyl)benzenecarboximidamide, H-00270
- C₁₄H₁₄N₂O₃S**
Sulfoacetic acid; Dianilide, *in* S-00039
- C₁₄H₁₄N₂O₆S₂**
▷ 4,4'-Diaminostilbene-2,2'-disulfonic acid, D-00125
- C₁₄H₁₄N₂S**
7-Amino-2-ethylphenothiazine, A-00177
Bis(4-methylphenyl)sulfur diimide, B-00411
5-Ethyl-*N*-phenyl-2-pyridinecarbothioamide, *in* E-00108
- C₁₄H₁₄N₄**
Benzil; Dihydrazone, *in* B-00038
N,N'-Bis(pyridinylmethylene)-1,2-ethanediamine, B-00441
4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-phenyl-1*H*-1,2,4-triazole, D-00452
6-Methyl-2-pyridinecarboxaldehyde azine, M-00267
- C₁₄H₁₄N₄O₂**
4,4'-Diamino-2,2'-bipyridine; *N,N'*-Di-Ac, *in* D-00061
N,N'-Diphenyl-1,2-ethanediamine; *N,N'*-Dinitroso, *in* D-01011
1-(4-Methylphenyl)-3-[(4-nitrophenyl)methyl]-1-triazene, M-00234
- C₁₄H₁₄N₄O₃**
Pyridoxal nicotinoylhydrazone, P-00415
- C₁₄H₁₄N₄O₄**
2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-nitrophenol, *in* A-00213
- C₁₄H₁₄N₄O₅**
5-Hydroxy-6-methyl-2-[(4-nitrophenyl)azo]-3,4-pyridinedimethanol, H-00294
- C₁₄H₁₄N₄S**
2-Acetylpyridine phenylthiosemicarbazone, A-00042
- C₁₄H₁₄N₆**
1,2-Dihydro-3,6-bis(4-methyl-2-pyridinyl)-1,2,4,5-tetrazine, D-00373
- C₁₄H₁₄N₈S₂**
Di-2-pyridylglyoxal dithiosemicarbazone, *in* D-01063
- C₁₄H₁₄O**
2-Ethoxybiphenyl, *in* B-00210
- C₁₄H₁₄OS**
▷ Dibenzyl sulfoxide, D-00172
- C₁₄H₁₄O₂**
2-Acetyl-1-naphthol; Et ether, *in* A-00026
4,4'-Dimethoxybiphenyl, *in* B-00208
▷ (1-Naphthyl)acetic acid; Et ester, *in* N-00040
2-Propanoyl-1-naphthol; Me ether, *in* P-00267
- C₁₄H₁₄O₃**
2-Methoxy-2-(1-naphthyl)propanoic acid, M-00095
Naproxen, N-00057
- C₁₄H₁₄O₅**
5,7-Dihydroxy-2,6-dimethyl-4*H*-1-benzopyran-4-one; 7-Me ether, 5-Ac, *in* D-00575
7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Et ester, *in* H-00295
7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Me ether, Me ester, *in* H-00295
- C₁₄H₁₄O₅S₂**
4-Methylbenzenesulfonic acid; Anhydride, *in* M-00130
- C₁₄H₁₄O₇**
2,3',4'-Trihydroxyacetophenone; 2,3',4'-Tri-Ac, *in* T-00268
2',3',4'-Trihydroxyacetophenone; Tri-Ac, *in* T-00269
- C₁₄H₁₄O₈**
1,2,4,5-Benzenetetracarboxylic acid; Tetra-Me ester, *in* B-00029
- C₁₄H₁₄S**
Dibenzyl sulfide, D-00171
- C₁₄H₁₄S₂**
▷ Dibenzyl disulfide, D-00168
- C₁₄H₁₄Se**
Dibenzyl selenide, D-00170
- C₁₄H₁₅BrN₄O**
2-[(5-Bromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00125
- C₁₄H₁₅BrN₄O₂S**
2-(5-Bromo-2-thiazolylazo)-5-(diethylamino)benzoic acid, *in* A-00128

- C₁₄H₁₅BrN₄O₄S**
3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, B-00566
- C₁₄H₁₅N₂O₄S**
5-[[2-[(iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, I-00037
8-[[2-[(iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, I-00038
- C₁₄H₁₅N**
▷ Dibenzylamine, D-00166
2-(Dimethylamino)biphenyl, *in* A-00116
▷ 4-(Dimethylamino)biphenyl, *in* A-00117
4-(Ethylamino)biphenyl, *in* A-00117
4-Methylalanine; *N*-Benzyl, *in* M-00124
- C₁₄H₁₅NO₂**
1-Hydroxycyclohexanecarboxylic acid; Nitrile, benzoyl, *in* H-00146
- C₁₄H₁₅NO₂S**
(5-Dimethylamino-1-naphthyl) vinyl sulfone, D-00802
- C₁₄H₁₅NO₅**
Methylcalcein blue, M-00153
- C₁₄H₁₅N₃**
▷ 4-Dimethylaminoazobenzene, D-00778
1-(4-Methylphenyl)-3-(phenylmethyl)-1-triazene, M-00237
- C₁₄H₁₅N₃O**
3-Hydroxy-1,3-bis(4-methylphenyl)triazene, H-00139
- C₁₄H₁₅N₃O₂**
4-Dimethylamino-2,2'-dihydroxyazobenzene, D-00783
- C₁₄H₁₅N₃O₃S**
▷ Methyl orange, M-00210
- C₁₄H₁₅N₃O₅S**
3-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-hydroxybenzenesulfonic acid, D-00787
- C₁₄H₁₅N₅**
2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-4-methylpyridine, D-00455
- C₁₄H₁₅N₅O₂**
2-Benzoyl-4-(2-nitrophenyl)acetohydrazine, B-00141
- C₁₄H₁₅PS₂**
Ethyl diphenylphosphinodithioate, *in* D-01039
- C₁₄H₁₆AsN₃O₃**
4-Aminoazobenzene-4'-arsonic acid; *N*-Di-Me, *in* A-00095
- C₁₄H₁₆BNO**
(2-Aminoethoxy)diphenylborane, A-00173
- C₁₄H₁₆BNO₃**
(2-Aminoethoxy)diphenoxyborane, A-00172
- C₁₄H₁₆N₂**
▷ 4,4'-Diamino-3,3'-dimethylbiphenyl, D-00083
N,N'-Dimethylbenzidine, *in* D-00053
1,2-Diphenyl-1,2-ethanediamine, D-01010
▷ *N,N'*-Diphenyl-1,2-ethanediamine, D-01011
N-Ethylbenzidine, *in* D-00053
- C₁₄H₁₆N₂O**
4-Amino-2-methyl-4'-methoxydiphenylamine, A-00246
4,4'-Diamino-3-ethoxybiphenyl, *in* D-00057
N-(4-Ethoxyphenyl)-1,4-benzenediamine, *in* A-00185
- C₁₄H₁₆N₂OS₂**
5-[[4-(Diethylamino)phenyl]methylene]-2-thioxo-4-thiazolidinone, D-00334
- C₁₄H₁₆N₂O₂**
4-Amino-2,4'-dimethoxydiphenylamine, A-00160
▷ 4,4'-Diamino-3,3'-dimethoxybiphenyl, *in* D-00056
3,3'-(1,2-Phenylenedinitrilo)bis-2-butanone, P-00127
- C₁₄H₁₆N₂O₅**
3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinepropanoic acid, D-00380
- C₁₄H₁₆N₂O₈**
1,2-Phenylenediamine-*N,N,N',N'*-tetraacetic acid, P-00126
- C₁₄H₁₆N₄O**
▷ 2,4-Diamino-4'-ethoxyazobenzene, D-00095
2,4-Diamino-4'-methoxy-5-methylazobenzene, D-00099
5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, *in* A-00253
3-Hydroxy-3-(*p*-dimethylaminophenyl)-1-phenyltriazene, H-00149
- C₁₄H₁₆N₄O₂S**
5-Diethylamino-2-(2-thiazolylazo)benzoic acid, *in* A-00359
- C₁₄H₁₆N₆**
Bis(6-methyl-2-pyridyl)ethanedione; Dihydrazone, *in* B-00415
2,3-Butanedione; Bis(2-pyridylhydrazone), *in* B-00587
Oxamide bisphenylhydrazone, O-00050
- C₁₄H₁₆O₂**
2,7-Diethoxynaphthalene, *in* N-00011
- C₁₄H₁₇N**
2-Naphthylamine; *N*-Di-Et, *in* N-00042
- C₁₄H₁₇N₃**
4,4'-Diaminodiphenylamine; 4-*N*-Di-Me, *in* D-00086
- C₁₄H₁₇N₃O**
2-[(3-Methyl-5-propyl-2-pyrrolidinyl)azo]phenol, M-00263
- C₁₄H₁₇N₃O₂**
4-[[4-(Aminophenyl)azo]-5,5-dimethyl-1,3-cyclohexanedione, A-00313
- C₁₄H₁₇N₃O₂S**
3,4-Dihydro-4,4,6-trimethyl-1-(4-methyl-2-nitrophenyl)-2(1*H*)-pyrimidinethione, D-00498
- C₁₄H₁₇N₃O₃**
7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-carboxylic acid hydrazide, D-00326
- C₁₄H₁₇N₅O₂S**
Dabsyl hydrazine, *in* M-00210
- C₁₄H₁₇O₂P**
Diethyl 1-naphthylphosphonite, *in* N-00055
- C₁₄H₁₈Cl₂N₂**
1,1'-Diethyl-4,4'-bipyridinium(2+); Dichloride, *in* D-00339
- C₁₄H₁₈NS₂[⊖]**
Cyclohexylbenzylidithiocarbamate(1-), C-00351
- C₁₄H₁₈N₂**
4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine, D-00790
- C₁₄H₁₈N₂^{2⊕}**
1,1'-Diethyl-4,4'-bipyridinium(2+), D-00339
- C₁₄H₁₈N₂OS**
3,4-Dihydro-1-(4-methoxyphenyl)-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00429
- C₁₄H₁₈N₂O₆**
Corynecin V, *in* A-00284
- C₁₄H₁₈N₄O₂**
Bis(2-hydroxyimino-3-butyldiene)-*o*-phenylenediimine, *in* P-00127
- C₁₄H₁₈N₄O₃S₂**
3-[Ethyl[4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, E-00118
- C₁₄H₁₈N₄O₄**
3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinepropanoic acid; Hydrazide, *in* D-00380
- C₁₄H₁₈O₄**
▷ Trolox C, T-00430
- C₁₄H₁₈O₇**
Piceoside, *in* H-00090
- C₁₄H₁₈O₁₂**
Galactaric acid; 2,3,4,5-Tetra-Ac, *in* G-00001
- C₁₄H₁₉NO₂**
2,2'-(Iminodimethylidene)biscyclohexanone, I-00017
- C₁₄H₁₉NO₁₀S₂**
4-Hydroxybenzyl glucosinolate, H-00128
- C₁₄H₁₉NS₂**
Cyclohexyl(phenylmethyl)carbomodithioic acid, C-00357
- C₁₄H₁₉N₃O₂S**
6-(Diethylamino)-2-naphthalenesulfonic acid hydrazide, D-00325
- C₁₄H₂₀N₂OS**
N-[(Dipropylamino)thioxomethyl]benzamide, D-01059
N-Hexyl-*N'*-benzoylthiourea, H-00072
- C₁₄H₂₀N₂O₈S**
▷ 1,1'-Dimethyl-4,4'-bipyridinium(2+); Bismethylsulfate, *in* D-00841
- C₁₄H₂₀N₄O₂**
6-[[4-(Aminobutyl)ethylamino]-2,3-dihydro-1,4-phthalazinedione, A-00130
- C₁₄H₂₀O₂S**
3-Mercapto-3-phenylpropanoic acid; 3-Methylbutyl ester, *in* M-00048
3-Mercapto-3-phenylpropanoic acid; Pentyl ester, *in* M-00048
- C₁₄H₂₀O₂S₃**
2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatrichiaxyclopentadecine, O-00004
- C₁₄H₂₀O₃**
4-Hexyl-1,3-benzenediol; 1-Ac, *in* H-00071
4-Hexyl-1,3-benzenediol; 3-Ac, *in* H-00071
- C₁₄H₂₀O₄**
Benzo-14-crown-4, B-00053
- C₁₄H₂₀O₅**
Benzo-15-crown-5, B-00054
- C₁₄H₂₀O₆**
Tetraethoxy-1,4-benzoquinone, *in* T-00072
- C₁₄H₂₁ClN₆**
3-[[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1*H*-1,2,4-triazolium(1+); Chloride, *in* D-00328
- C₁₄H₂₁NO₂**
Heptyl 4-aminobenzoate, *in* A-00105
N-Hydroxy-*N*-phenyl-2-propylpentanamide, H-00501
N-Phenyloctanohydroxamic acid, *in* H-00424
- C₁₄H₂₁N₃O₃**
N,N'-Diisopropyl-*O*-*p*-nitrobenzylisourea, D-00749
- C₁₄H₂₁N₆[⊕]**
3-[[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1*H*-1,2,4-triazolium(1+), D-00328
- C₁₄H₂₂N₂O₈**
▷ 1,2-Diaminocyclohexane-*N,N,N',N'*-tetraacetic acid, D-00065
- C₁₄H₂₂N₄O₂**
▷ Cuprizone, C-00321
- C₁₄H₂₂N₄O₆**
Neocuprizone, N-00062

- C₁₄H₂₂O₂**
3,5-Di-*tert*-butyl-1,2-benzenediol, D-00227
- C₁₄H₂₂O₃**
Cyclohexanecarboxylic acid; Anhydride, *in* C-00336
4,6-Di-*tert*-butyl-1,2,3-benzenetriol, D-00228
5-(1,1,3,3-Tetramethylbutyl)-1,2,3-benzenetriol, T-00094
- C₁₄H₂₂O₈**
▶ Citric acid; Tri-Et ester, Ac, *in* C-00299
- C₁₄H₂₃N**
4-(1-Butylpentyl)pyridine, B-00635
2-Nonylpyridine, N-00169
N-Octylaniline, O-00038
- C₁₄H₂₃NO**
2-Nonylpyridine; *N*-Oxide, *in* N-00169
- C₁₄H₂₃NO₃S**
N-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
- C₁₄H₂₃NO₄**
1-[(1-Oxodecyl)oxy]-2,5-pyrrolidinedione, O-00061
- C₁₄H₂₃NO₅**
1-[(3-Hydroxy-1-oxodecyl)oxy]-2,5-pyrrolidinedione, H-00431
- C₁₄H₂₃N₃O₁₀**
▶ Pentetic acid, P-00039
- C₁₄H₂₃N₃S**
β-Iononethiosemicarbazone, *in* M-00010
- C₁₄H₂₃O₃P**
Bis(2-methylpropyl) phenylphosphonate, *in* P-00164
- C₁₄H₂₄N₂**
1,3-Diaminobenzene; *N,N,N',N'*-Tetra-Et, *in* D-00047
- C₁₄H₂₄N₂O₄S₂**
N,N'-Bis(butanesulfonyl)-1,2-benzenediamine, B-00271
- C₁₄H₂₄N₂O₆**
N-(Cyclohexyl)ethylenediaminetriacetic acid, *in* E-00079
- C₁₄H₂₄N₂O₈**
Ethylenediaminetetraacetic acid; Tetra-Me ester, *in* E-00078
- C₁₄H₂₄N₂O₁₀**
▶ 3,12-Bis(carboxymethyl)-6,9-dioxa-3,12-diazatetradecanedioic acid, B-00278
- C₁₄H₂₄N₂S₄**
1,1'-(Dithiodicarbonothioyl)bis[hexahydro-1*H*-azepine], D-01127
- C₁₄H₂₅NO**
Dicyclohexylamine; *N*-Ac, *in* D-00307
- C₁₄H₂₈N₂O₄**
4,7,13,18-Tetraoxa-1,10-diazabicyclo[8.5.5]icosane, T-00114
- C₁₄H₂₈N₂S₄**
Bis(diisopropylthiocarbamoyl) disulfide, *in* T-00166
- C₁₄H₂₈O₇**
1,4,10,13,16,19-Heptaoxacycloheneicosane, H-00013
- C₁₄H₂₉NO₂**
Tributylacetohydroxamic acid, T-00207
- C₁₄H₃₀S₂**
1,2-Bis(hexylthio)ethane, B-00359
- C₁₄H₃₁NO**
▶ Dodecylamine; *N*-Di-Me, *N*-oxide, *in* D-01142
- C₁₄H₃₂N₂O₄**
▶ Edetol, E-00001
- C₁₄H₃₂N₄**
1,4,8,11-Tetramethyl-1,4,8,11-tetrazacyclotetradecane, T-00104
- C₁₄H₄₀N₂S₄**
N,N,N',N'-Tetrakis(trimethylsilyl)-1,2-ethanediamine, T-00091
- C₁₅H₃CrF₁₈O₆**
Tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-*O,O'*)chromium(III), T-00405
- C₁₅H₇N₃O₉**
4,5,7-Trinitro-9-oxo-9*H*-fluorene-2-carboxylic acid; Me ester, *in* T-00354
- C₁₅H₈BrN₅O₆**
5-Bromo-8-hydroxy-7-[(2-hydroxy-3,5-dinitrophenyl)azo]quinoline, B-00511
- C₁₅H₈ClN₃**
N-Chloro-2*H*-phenanthro[9,10-*d'*]imidazol-2-imine, C-00194
- C₁₅H₈Cl₄O₄**
4,5,6,7-Tetrachloro-3-(2,4-dihydroxyphenyl)-3-methyl-1(3*H*)-isobenzofuranone, T-00028
- C₁₅H₈Cl₆N₄O₃**
3-Acetyl-1,5-bis[bis(3,5,6-trichloro-2-hydroxyphenyl)]formazan, A-00013
- C₁₅H₈O₅**
1-Hydroxyanthraquinone-2-carboxylic acid, H-00099
- C₁₅H₈O₇**
1,3,4-Trihydroxyanthraquinone-2-carboxylic acid, T-00272
- C₁₅H₉NO**
2-Isocyanatoanthracene, I-00059
- C₁₅H₉NO₃**
2,3,4(1*H*)-Quinolinetriene; 1-Ph, *in* Q-00022
- C₁₅H₉N₅O₅**
5-(2,4-Dinitrophenylazo)-8-hydroxyquinoline, D-00968
- C₁₅H₉N₅O₇**
5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-8-quinolinol 1-oxide, H-00161
- C₁₅H₉N₅O₉S**
Picriminazosulfoxine, P-00234
- C₁₅H₁₀BrN₃O**
1-[(5-Bromo-2-pyridinyl)azo]-2-naphthalenol, B-00573
- C₁₅H₁₀ClNO₂**
3-(2-Phthalimidyl)benzoyl chloride, P-00227
4-(2-Phthalimidyl)benzoyl chloride, P-00228
- C₁₅H₁₀ClN₃O**
5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206
1-(5-Chloro-2-pyridylazo)-2-naphthol, C-00259
- C₁₅H₁₀F₃NO₅S**
2-(1,3-Dihydro-1,3-dioxo-2*H*-benz[*f*]isoindol-2-yl)ethyltrifluoromethanesulfonate, D-00397
- C₁₅H₁₀F₅N₃O₂**
1-[[1-(Pentafluorobenzoyl)-2-pyrrolidinyl]carbonyl]-1*H*-imidazole, P-00013
- C₁₅H₁₀F₆N₄S**
3,3'-Bis(trifluoromethyl)dithizone, B-00463
- C₁₅H₁₀N₂**
9-(Diazomethyl)anthracene, D-00148
- C₁₅H₁₀N₂OS**
2-(4-Isocyanatophenyl)-6-methylbenzothiazole, I-00065
- C₁₅H₁₀N₂S₂**
Di-2-benzothiazolylmethane, D-00163
- C₁₅H₁₀N₄**
1-(1*H*-Imidazo[4,5-*c*]pyridin-2-yl)isoquinoline, I-00004
3-(1*H*-Imidazo[4,5-*c*]pyridin-2-yl)isoquinoline, I-00005
2-(2-Pyridyl)-3*H*-imidazo[4,5-*h*]quinoline, P-00421
- C₁₅H₁₀N₄O₂**
3-(2-Phthalimidyl)benzoyl azide, P-00225
4-(2-Phthalimidyl)benzoyl azide, P-00226
- C₁₅H₁₀N₄O₃**
5-[(4-Nitrophenyl)azo]-8-quinolinol, N-00129
2-[(5-Nitro-2-pyridinyl)azo]-1-naphthalenol, N-00148
- C₁₅H₁₀N₄O₄**
5-[(4-Nitrophenyl)azo]-8-quinolinol; 1-Oxide, *in* N-00129
- C₁₅H₁₀N₄O₁₀**
α-(2,4-Dinitrophenyl)-2,4-dinitrobenzeneacetic acid; Me ester, *in* D-00971
- C₁₅H₁₀N₄S₂**
2-Benzothiazolecarboxaldehyde 2-benzothiazolylhydrazone, B-00086
- C₁₅H₁₀O₂**
1-Anthracenecarboxylic acid, A-00376
2-Anthracenecarboxylic acid, A-00377
▶ 9-Anthracenecarboxylic acid, A-00378
3-Phenyl-1,2-indanedione, P-00137
- C₁₅H₁₀O₃**
3'-Hydroxyflavone, H-00183
5-Hydroxyflavone, H-00184
▶ 3-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one, H-00466
- C₁₅H₁₀O₄**
5,7-Dihydroxyflavone, D-00612
7,8-Dihydroxy-3-phenyl-2*H*-1-benzopyran-2-one, D-00705
7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
6,7-Dihydroxy-4-phenylcoumarin, D-00708
1-Hydroxy-2-methoxyanthraquinone, *in* D-00510
1-Hydroxy-4-methoxyanthraquinone, *in* D-00511
1-Hydroxy-8-methoxyanthraquinone, *in* D-00512
2-Hydroxy-1-methoxyanthraquinone, *in* D-00510
1-Hydroxyxanthone; Ac, *in* H-00562
3-Oxo-3*H*-naphtho[2,1-*b*]pyran-2-carboxylic acid; Me ester, *in* O-00064
- C₁₅H₁₀O₅**
2,4-Dihydroxy-1-methoxyanthraquinone, *in* T-00270
1,3-Dihydroxyxanthone; 3-Ac, *in* D-00741
3,4',7-Trihydroxyflavone, T-00283
▶ 3,5,7-Trihydroxyflavone, T-00284
▶ 4',5,7-Trihydroxyflavone, T-00285
5,7,8-Trihydroxyflavone, T-00286
4,5,7-Trihydroxy-3-phenyl-2*H*-1-benzopyran-2-one, T-00313
- C₁₅H₁₀O₅S**
Anthraquinone-2-sulfonic acid; Me ester, *in* A-00388
- C₁₅H₁₀O₆**
2',3,5,7-Tetrahydroxyflavone, T-00074
▶ 3,3',4',7-Tetrahydroxyflavone, T-00075
▶ 3,4',5,7-Tetrahydroxyflavone, T-00076
▶ 3',4',5',7-Tetrahydroxyflavone, T-00077
- C₁₅H₁₀O₆S**
2-(3-Hydroxy-4-oxo-4*H*-1-benzopyran-2-yl)benzenesulfonic acid, H-00427
- C₁₅H₁₀O₇**
▶ 2',3,4',5,7-Pentahydroxyflavone, P-00024
▶ 3,3',4',5,7-Pentahydroxyflavone, P-00025
▶ 3,3',4',5',7-Pentahydroxyflavone, P-00026
- C₁₅H₁₀O₈**
2-(3,4-Dihydroxyphenyl)-3,5,6,7-tetrahydroxy-4*H*-1-benzopyran-4-one, D-00717
▶ 3,3',4',5,5',7-Hexahydroxyflavone, H-00055
- C₁₅H₁₀O₉**
Wood's reagent, W-00001
- C₁₅H₁₀O₁₀S**
3,5,7,3',4'-Pentahydroxyflavone-6'-sulfonic acid, P-00027

- C₁₅H₁₁Br**
1-(Bromomethyl)anthracene, B-00517
▷ 9-(Bromomethyl)anthracene, B-00518
- C₁₅H₁₁Cl**
▷ 9-(Chloromethyl)anthracene, C-00172
- C₁₅H₁₁ClF₃NO₂S**
9-Chloro-10-methylacridinium(1+); Trifluoromethanesulfonate, *in* C-00170
- C₁₅H₁₁ClO₂**
9-Fluorenyl methyl chloroformate, F-00018
- C₁₅H₁₁Cl₂N₃O**
2,4-Dichloro-6-(4-ethoxy-1-naphthalenyl)-1,3,5-triazine, D-00272
- C₁₅H₁₁F₇N₂O₂**
4-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-2,4-dihydro-5-methyl-2-(4-methylphenyl)-3H-pyrazol-3-one, H-00008
- C₁₅H₁₁NO**
▷ 1-Anthracenecarboxylic acid; Amide, *in* A-00376
▷ 2-Anthracenecarboxylic acid; Amide, *in* A-00377
9-Anthracenecarboxylic acid; Amide, *in* A-00378
▷ 2,5-Diphenyloxazole, D-01031
8-Hydroxy-2-phenylquinoline, H-00503
Indole; *N*-Benzoyl, *in* I-00033
- C₁₅H₁₁NO₃**
▷ 1-Amino-4-methoxyanthraquinone, *in* A-00182
1-Hydroxy-4-(methylamino)anthraquinone, *in* A-00182
2-(2-Hydroxyphenyl)benzoxazole; *O*-Ac, *in* H-00467
- C₁₅H₁₁NO₄**
1-[(2-Naphthalenylcarbonyl)oxy]-2,5-pyrrolidinedione, N-00018
- C₁₅H₁₁NO₄S**
Phthalimide; *N*-(4-Methylbenzenesulfonyl), *in* P-00223
- C₁₅H₁₁N₃**
4-Phenyl-2-(2-pyridyl)pyrimidine, P-00186
4-Phenyl-6-(2-pyridyl)pyrimidine, P-00187
5-Phenyl-2-(2-pyridyl)pyrimidine, P-00188
N-(2-Pyridinylmethylene)-8-quinolinamine, P-00397
2,2':6',2''-Terpyridine, T-00005
- C₁₅H₁₁N₃O**
5-Phenylazo-8-quinolinol, P-00100
1-(2-Pyridinylazo)-2-naphthalenol, P-00374
2-(2-Pyridinylazo)-1-naphthalenol, P-00375
4-(2-Pyridinylazo)-1-naphthalenol, P-00376
4-(2-Quinolylazo)phenol, Q-00032
2,2':6',2''-Terpyridine; 1-*N*-Oxide, *in* T-00005
- C₁₅H₁₁N₃OS**
9,10-Phenanthraquinone; Monothiosemicarbazone, *in* P-00047
- C₁₅H₁₁N₃O₂**
5-(2-Hydroxyphenylazo)-8-quinolinol, H-00456
5-(3-Hydroxyphenylazo)-8-quinolinol, H-00457
5-(4-Hydroxyphenylazo)-8-quinolinol, H-00458
9,10-Phenanthraquinone; Dioxime, mono-Me ether, *in* P-00047
5-Phenylazo-8-quinolinol; *N*-Oxide, *in* P-00100
2,2':6',2''-Terpyridine; 1,1'-Di-*N*-oxide, *in* T-00005
- C₁₅H₁₁N₃O₃**
5-(2-Quinolylazo)-1,2,4-benzenetriol, Q-00028
2,2':6',2''-Terpyridine; Tri-*N*-oxide, *in* T-00005
- C₁₅H₁₁N₃O₄S**
4-Hydroxy-3-(2-pyridinylazo)-1-naphthalenesulfonic acid, H-00522
4-[(8-Hydroxy-7-quinolyl)azo]benzenesulfonic acid, H-00529
Phenylazoxine S, P-00101
- C₁₅H₁₁N₃O₅S**
6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid, D-00724
- C₁₅H₁₁N₃O₈**
4-[(3,5-Dinitrobenzoyl)hydroxyamino]benzoic acid methyl ester, *in* D-00946
- C₁₅H₁₁N₃O₈S₂**
4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722
4,5-Dihydroxy-3-[(3-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00723
- C₁₅H₁₁N₃S**
2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione, D-00402
- C₁₅H₁₁N₅OS**
Di-2-pyridinylethanedione; Mono(2-thiazolylmethyl)hydrazone, *in* D-01063
- C₁₅H₁₁N₅O₂S**
5-[[4-(Phenylazo)phenyl]azo]-2-thioxo-4-thiazolidinone, P-00096
- C₁₅H₁₁N₅O₅S₂**
3-[[[(5-Nitro-2-pyridinyl)hydrazone]-2-thiazolylmethyl]benzenesulfonic acid, N-00152
- C₁₅H₁₁N₅O₅S₃**
2-Hydroxy-5-[[[4-(4-oxo-2-thioxo-5-thiazolidinyl)azo]phenyl]azo]benzenesulfonic acid, H-00436
- C₁₅H₁₂ClNO₂**
N-(4-Chlorophenyl)-*N*-hydroxy-3-phenyl-2-propenamide, C-00232
- C₁₅H₁₂Cl₂NO[⊕]**
6,9-Dichloro-2-methoxy-10-methylacridinium(1+), D-00284
- C₁₅H₁₂F₃NO₂**
N-Hydroxy-2-methyl-*N*-[3-(trifluoromethyl)phenyl]benzamide, H-00333
- C₁₅H₁₂N₂**
3,4-Cyclopenteno-1,10-phenanthroline, C-00365
- C₁₅H₁₂N₂O**
1-Anthracenecarboxylic acid; Hydrazide, *in* A-00376
2-Anthracenecarboxylic acid; Hydrazide, *in* A-00377
1-(Phenylmethyl)-1*H*-benzimidazole-2-carboxaldehyde, *in* B-00039
- C₁₅H₁₂N₂O₂**
3-Phenyl-1,2-indanedione; Dioxime, *in* P-00137
- C₁₅H₁₂N₂O₂S**
8-(Benzenesulfonylamino)quinoline, B-00028
- C₁₅H₁₂N₂O₃S**
2-[[[(Benzoilamino)thioxomethyl]amino]benzoic acid, B-00121
- C₁₅H₁₂N₂O₄**
N-Hydroxy-3-(3-nitrophenyl)-*N*-phenyl-2-propenamide, H-00402
1-[[[(1-Naphthalenylamino)carbonyl]oxy]-2,5-pyrrolidinedione, N-00058
N-(3-Nitrophenyl)- β -oxobenzene propenamide, N-00140
- C₁₅H₁₂N₂O₅**
3-[[[7-(Dimethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]carbonyl]-2(3*H*)-oxazolone, D-00806
- C₁₅H₁₂N₂O₆S₃**
5-Amino-2-[2-(4-isothiocyano-2-sulfophenyl)ethenyl]benzenesulfonic acid, A-00230
- C₁₅H₁₂N₂S**
1,3-Dihydro-4,5-diphenyl-2*H*-imidazole-2-thione, D-00399
- C₁₅H₁₂N₄**
8-Amino-5-(phenylazo)quinoline, A-00315
2-Methyl-4,6-di-2-pyridinylpyrimidine, M-00167
- 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazine, M-00292
2-Pyridinecarboxaldehyde 2-quinolylhydrazone, P-00337
2-Pyridinecarboxaldehyde 3-quinolylhydrazone, P-00338
2-Pyridinecarboxaldehyde 8-quinolylhydrazone, P-00339
2-Quinolincarboxaldehyde 2-pyridylhydrazone, Q-00012
- C₁₅H₁₂N₄O**
5-Amino-2-(2-quinolylazo)phenol, A-00344
2-Hydroxybenzaldehyde 1-phthalazinylhydrazone, H-00108
4-Methoxy-2,6-bis(2-pyridyl)pyrimidine, M-00085
- C₁₅H₁₂N₄O₃S**
8-Amino-7-(phenylazo)-5-quinolinesulfonic acid, A-00316
- C₁₅H₁₂N₄O₇S₂**
5-Amino-4-hydroxy-3-(2-pyridinylazo)-2,7-naphthalenedisulfonic acid, A-00218
- C₁₅H₁₂N₄S**
2-Benzoylpyridine 2-thiazolylhydrazone, B-00158
9-Benzyl-*s*-triazolo-[4,3-*a*]-benzimidazole-3-thione, B-00195
- C₁₅H₁₂N₆**
Benzoylpyrazine; 2-Pyrimidinylhydrazone, *in* B-00148
Di-2-pyridinylmethanone 2-pyrimidinylhydrazone, D-01081
2(1*H*)-Pyrazinone (di-2-pyridinylmethylene)hydrazone, P-00289
2(1*H*)-Pyrazinone (phenylpyrazinylmethylene)hydrazone, P-00290
- C₁₅H₁₂N₆O₇**
1,5-Bis(2-hydroxy-4-nitrophenyl)-3-acetylformazan, B-00387
- C₁₅H₁₂O**
9-Anthracenemethanol, A-00380
- C₁₅H₁₂OS**
3-Mercapto-1,3-diphenyl-2-propen-1-one, M-00030
- C₁₅H₁₂O₂**
1,3-Diphenyl-1,3-propanedione, D-01041
9*H*-Fluorene-9-carboxylic acid; Me ester, *in* F-00013
3-(2-Hydroxyphenyl)-1-phenyl-2-propen-1-one, H-00496
- C₁₅H₁₂O₃**
4-(6-Methyl-2-naphthalenyl)-4-oxo-2-butenic acid, M-00204
- C₁₅H₁₂O₄**
Acetylsalol, *in* A-00010
2,2'-Biphenyldicarboxylic acid; Mono-Me ester, *in* B-00207
1,3-Dimethoxyxanthone, *in* D-00741
3,6-Dimethoxyxanthone, *in* D-00742
- C₁₅H₁₂O₅**
9-Ethyl-2,6,7-trihydroxy-3*H*-xanthen-3-one, E-00121
4',5',7'-Trihydroxyflavanone, T-00281
5,7,8-Trihydroxyflavanone, T-00282
- C₁₅H₁₂O₅S**
4-(1,3-Dioxo-3-phenylpropyl)benzenesulfonic acid, D-00994
- C₁₅H₁₂O₇**
▷ 3,3',4',5',7-Pentahydroxyflavanone, P-00023
- C₁₅H₁₃Cl₂NO₃**
2-(2,4-Dichlorophenoxy)-*N*-(4-methylphenyl)acetohydroxamic acid, *in* D-00288
- C₁₅H₁₃N**
Indole; *N*-Benzyl, *in* I-00033
9-Phenanthrenemethylamine, P-00048
- C₁₅H₁₃NO**
▷ 2-Aminofluorene; *N*-Ac, *in* A-00178

- O*-(1-Anthracenylmethyl)hydroxylamine, A-00384
O-(2-Anthracenylmethyl)hydroxylamine, A-00385
O-(9-Anthracenylmethyl)hydroxylamine, A-00386
 4,5-Dihydro-3,5-diphenylisoxazole, D-00400
 4-Ethoxyacridine, in H-00092
 9-Ethoxyacridine, in H-00093
- C₁₅H₁₃NOS**
 β -Oxo-*N*-phenylbenzenepropanethioamide, in O-00056
- C₁₅H₁₃NO₂**
 4'-Aminoacetophenone; *N*-Benzoyl, in A-00091
 2-Aminobenzophenone; *N*-Ac, in A-00111
 Benzil; (*E*)-Monoxime, *O*-Me, in B-00038
 Benzil; (*Z*)-Monoxime, *O*-Me, in B-00038
 2-Benzoylacetanilide, in O-00069
 9*H*-Carbazole-9-carboxylic acid; Et ester, in C-00020
N-Cinnamoylphenylhydroxylamine, in H-00499
 1,3-Diphenyl-1,3-propanedione; Monoxime, in D-01041
 4-Ethoxyacridone, in H-00095
- C₁₅H₁₃NO₃**
 Hippuric acid; Ph ester, in H-00078
N-Hydroxy-3-(4-hydroxyphenyl)-*N*-phenyl-2-propenamide, H-00241
- C₁₅H₁₃NO₄**
 2-(Acetyloxy)-*N*-hydroxy-*N*-phenylbenzamide, A-00028
 4-(Benzoylhydroxyamino)benzoic acid; Me ester, in B-00133
 α ,*N*-Dihydroxybenzeneacetamide; Benzoyl, in D-00521
 2-Hydroxy-*N*-(2-hydroxy-5-carbomethoxybenzylidene)aniline, in H-00237
- C₁₅H₁₃N₂O₅[⊕]**
 Gallocyanine, G-00005
- C₁₅H₁₃N₃O**
 1*H*-Benzimidazole-2-carboxaldehyde; 1-Benzyl, oxime, in B-00039
- C₁₅H₁₃N₃OS**
 2-[(2-Benzothiazolyl)azo]-4,5-dimethylphenol, B-00095
 2-(2-Benzothiazolylazo)-4,6-dimethylphenol, B-00096
- C₁₅H₁₃N₃O₄**
 4'-Nitro-4-azobenzenecarboxylic acid; Et ester, in N-00080
- C₁₅H₁₃N₃O₄S**
 2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxycarbonylthiophene, in C-00326
- C₁₅H₁₃N₃O₅**
N-(3,5-Dinitrobenzoyl)- α -phenylethylamine, D-00949
- C₁₅H₁₃N₃O₈S₃**
 4,5-Dihydroxy-3-[4,5-(dimethyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00579
- C₁₅H₁₃N₅**
 2-Acetylpyrazine 2-quinolyldiazone, A-00036
 2-Acetylpyrazine 3-quinolyldiazone, A-00037
 2-Acetylpyrazine 8-quinolyldiazone, A-00038
 3-[2,2'-Bipyridin-6-yl]-5,6-dimethyl-1,2,4-triazine, B-00226
- C₁₅H₁₃N₅O**
 5-(2-Benzoxazolyl)-3-methyl-1-phenylformazan, B-00116
- C₁₅H₁₃N₅S**
 5-(2-Benzothiazolyl)-3-methyl-1-phenylformazan, B-00105
 1-(2-Pyridinyl)-2-(3-pyridinyl)ethanone 2-thiazolylhydrazone, P-00403
- C₁₅H₁₃N₇**
 2(1*H*)-Pyrazinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, P-00291
 2(1*H*)-Pyrazinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00292
 2(1*H*)-Pyrazinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, P-00294
 2(1*H*)-Pyrazinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, P-00295
 2-Pyrazinyl-1-(2-pyridinyl)ethanone 2-pyrimidinylhydrazone, P-00300
 2(1*H*)-Pyridinone (1,2-dipyrazinylethylidene)hydrazone, P-00358
N-2-Pyridinyl-2-pyridinecarboximidic acid 2-pyrazinylhydrazone, P-00402
 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone 2-pyrimidinylhydrazone, P-00406
- C₁₅H₁₄BrN₅O₃**
 Benzoic acid [1-[2-(4-bromo-2-nitrophenyl)hydrazino]ethylidene]hydrazone, B-00060
- C₁₅H₁₄Br₂N₄O₅S**
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(3-sulfopropyl)amino]benzoic acid, in A-00148
- C₁₅H₁₄Br₂N₄O₆S**
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(2-hydroxy-3-sulfopropyl)amino]benzoic acid, D-00208
- C₁₅H₁₄ClNO₃S**
 1-(2-Naphthalenylsulfonyl)-2-pyrrolidincarbonyl chloride, N-00022
- C₁₅H₁₄ClN₃O₄**
 Gallamine blue; Chloride, in G-00003
- C₁₅H₁₄Cl₂N₄S**
 3,3'-Dichloro-2,2'-dimethyldithione, D-00264
 4,4'-Dichloro-2,2'-dimethyldithione, D-00265
 5,5'-Dichloro-2,2'-dimethyldithione, D-00266
- C₁₅H₁₄NO[⊕]**
 9-Methoxy-10-methylacridinium(1+), M-00088
- C₁₅H₁₄N₂**
 3,4,6-Trimethyl-1,10-phenanthroline, T-00331
 3,4,7-Trimethyl-1,10-phenanthroline, T-00332
 3,5,6-Trimethyl-1,10-phenanthroline, T-00333
 3,5,7-Trimethyl-1,10-phenanthroline, T-00334
 3,5,8-Trimethyl-1,10-phenanthroline, T-00335
- C₁₅H₁₄N₂O**
 2,7-Diaminofluorene; 2-*N*-Ac, in D-00097
- C₁₅H₁₄N₂OS**
 1-Benzyl-5-methoxy-1,3-dihydro-2*H*-benzimidazole-2-thione, B-00188
 \triangleright *N*-[[[(2-Methylphenyl)amino]thioxomethyl]benzamide, M-00223
- C₁₅H₁₄N₂O₂**
 7-(Dimethylamino)-1-methyl-3*H*-phenoxazin-3-one, D-00792
 Isonitrosodibenzoylmethane, in D-01041
- C₁₅H₁₄N₂O₃S**
 [[2-[(2-Hydroxy-5-methylphenyl)azo]phenyl]thio]acetic acid, H-00303
- C₁₅H₁₄N₂O₄**
 4-Methoxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazone, M-00080
- C₁₅H₁₄N₂O₆**
 3,3'-Methylenebis[*N*,6-dihydroxybenzamide], M-00170
- C₁₅H₁₄N₂O₆S**
 2-[(2-Hydroxy-3,5-dimethylphenyl)azo]-5-sulfobenzoic acid, H-00152
- C₁₅H₁₄N₂O₈S**
 Gallocyanine MS, G-00006
- C₁₅H₁₄N₂S**
 1-Benzyl-5-methyl-2,3-dihydro-2*H*-benzimidazole-2-thione, B-00189
- C₁₅H₁₄N₂S₂**
N,N'-Diphenylpropanedithioamide, in P-00262
- C₁₅H₁₄N₃O₄[⊕]**
 Gallamine blue, G-00003
- C₁₅H₁₄N₄OS**
 2-(2-Benzothiazolylazo)-5-(dimethylamino)phenol, B-00094
 5-(2-Benzothiazolylazo)-4-methyl-2-(methylamino)phenol, in A-00115
- C₁₅H₁₄N₄O₂**
 4-[2*H*-[1,3]Dioxolo[4,5- β]benzotriazol-2-yl]benzenethanamine, D-00992
- C₁₅H₁₄N₄O₂S**
 3-(Carboxymethylthio)-1,5-diphenylformazan, C-00034
- C₁₅H₁₄N₄O₃**
 4-Amino-4'-nitroazobenzene; *N*-Ac, *N*-Me, in A-00281
 Bis[(2-hydroxyphenyl)methylene]carbonic dihydrazide, B-00390
- C₁₅H₁₄N₄O₄S**
 Bis[(2,3-dihydroxyphenyl)methylene]carbonothioic dihydrazide, B-00308
- C₁₅H₁₄N₄S**
 4-[(4-Isothiocyanatophenyl)azo]-*N,N*-dimethylbenzenamine, I-00098
- C₁₅H₁₄N₆**
 1-(1*H*-Benzimidazol-4-yl)-3-methyl-5-phenylformazan, B-00046
- C₁₅H₁₄N₆O₅**
 Benzoic acid [1-[2-(2,4-dinitrophenyl)hydrazino]ethylidene]hydrazone, B-00062
 4-Nitrobenzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazone, N-00095
- C₁₅H₁₄O**
 1,3-Diphenyl-2-propanone, D-01042
- C₁₅H₁₄O₂**
 Benzoin; Me ether, in B-00068
 2,4-Dimethylphenol; Benzoyl, in D-00884
 Diphenylacetic acid; Me ester, in D-00999
 4-(Hydroxymethyl)biphenyl; *O*-Ac, in H-00284
- C₁₅H₁₄O₂S**
 α -Mercaptobenzenoacetic acid; *S*-Benzyl, in M-00019
 3-Mercapto-3-phenylpropanoic acid; Ph ester, in M-00048
- C₁₅H₁₄O₃**
 2,2'-Dimethoxybenzophenone, in D-00535
 2,4-Dimethoxybenzophenone, in D-00536
 2-Hydroxy-2,2-diphenylacetic acid; Me ester, in H-00166
 \triangleright 2-Hydroxy-3-prenyl-naphthoquinone, H-00515
 2-Methoxy-2,2-diphenylacetic acid, in H-00166
- C₁₅H₁₄O₄**
 1,2,3-Benzenetriol; 1,2-Di-Me ether, benzoyl, in B-00034
 2,6-Dihydroxybenzoic acid; Me ether, benzyl ester, in D-00533
- C₁₅H₁₅N**
 \triangleright 2-Aminofluorene; *N,N*-Di-Me, in A-00178
- C₁₅H₁₅NO**
 2-Aminobenzophenone; *N,N*-Di-Me, in A-00111
N-Benzylaniline; *N*-Ac, in B-00165
 2,5-Dimethylaniline; *N*-Benzoyl, in D-00828
 2,6-Dimethylaniline; *N*-Benzoyl, in D-00829
 1,3-Diphenyl-2-propanone; Oxime, in D-01042
 4-Methyldiphenylamine; *N*-Ac, in M-00162
 1-Phenylethylamine; *N*-Benzoyl, in P-00130

- C₁₅H₁₅NO₂**
N-(*o*-Ethoxybenzoyl)phenylhydroxylamine, *in* H-00112
 4-Ethyl-*N*-hydroxy-*N*-phenylbenzamide, E-00093
 2-Hydroxy-*N*-(2-hydroxy-5-ethylbenzylidene)aniline, H-00201
 2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)-5-methylaniline, H-00213
 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-4-methylaniline, H-00214
 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-5-methylaniline, H-00215
 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-4-methylaniline, H-00216
 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-5-methylaniline, H-00217
N-Hydroxy-2-methyl-*N*-(2-methylphenyl)benzamide, *in* M-00135
N-Hydroxy-2-methyl-*N*-(3-methylphenyl)benzamide, *in* M-00135
N-Hydroxy-4-methyl-*N*-(3-methylphenyl)benzamide, *in* M-00136
N-Phenylanthranilic acid; Et ester, *in* P-00089
- C₁₅H₁₅NO₃**
N-Acetyllalanine 1-naphthyl ester, A-00011
 4-Ethoxy-2-hydroxy-*N*-salicylideneaniline, *in* D-00614
N-Hydroxy-2-methoxy-*N*-(2-methylphenyl)benzamide, *in* H-00263
N-(4-Methylphenyl)-2-phenoxyacetohydroxamic acid, M-00235
- C₁₅H₁₅NO₄**
 1,4-Dihydro-5-hydroxy-1-(4-methylphenyl)-4-oxo-2-pyridinecarboxylic acid; Et ester, *in* D-00411
- C₁₅H₁₅NO₆S₄**
 Bis(4-sulfobenzyl)dithiocarbamic acid, B-00454
- C₁₅H₁₅NO₇**
 Calcein blue, C-00011
- C₁₅H₁₅NO₈**
 8-(Aminomethyl)-6,7-dihydroxy-4-methylcoumarin-*N,N*-diacetic acid, A-00241
- C₁₅H₁₅NO₁₂S₂**
 4,5-Dihydroxy-3-[*N,N*-bis(carboxymethyl)aminomethyl]-2,7-naphthalenedisulfonic acid, D-00547
- C₁₅H₁₅NS₂**
 Dibenzylthiocarbamic acid, *in* D-01124
- C₁₅H₁₅N₃**
 ▶ 3,6-Diamino-2,7-dimethylacridine, D-00079
- C₁₅H₁₅N₃O**
 ▶ 3,9-Diamino-7-ethoxyacridine, D-00094
 4-Ethoxy-3,6-acridinediamine, *in* H-00094
- C₁₅H₁₅N₃OS**
 Benzointhiosemicarbazone, *in* B-00068
 1,4-Diphenylthiosemicarbazide; 4-Ac, *in* D-01053
 2,4-Diphenylthiosemicarbazide; 1-Ac, *in* D-01054
 4-Methoxybenzaldehyde phenylthiosemicarbazone, M-00076
- C₁₅H₁₅N₃O₂**
 ▶ Methyl red, M-00309
- C₁₅H₁₅N₃O₄**
 Pyridoxal; Salicyloylhydrazone, *in* P-00414
- C₁₅H₁₅N₅O₂**
 Bis[(2-hydroxyphenyl)methylene]carbonimidic dihydrazide, B-00391
- C₁₅H₁₅N₅O₃**
 Benzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00065
 Benzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00066
- C₁₅H₁₅N₇**
 2,4-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00333
 2,6-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00334
- C₁₅H₁₅O₃P**
 Mono(phenylmethyl) (2-phenylethenyl)phosphonate, *in* P-00129
- C₁₅H₁₅PS₂**
 2-Propenyl diphenylphosphinodithioate, *in* D-01039
- C₁₅H₁₆Br₂N₄**
 4-(3,5-Dibromo-2-pyridylazo)-*N,N*-diethylaniline, D-00211
- C₁₅H₁₆Br₂N₄O**
 2-[(3,5-Dibromo-2-pyridyl)azo]-5-(diethylamino)phenol, *in* A-00150
- C₁₅H₁₆Br₂N₄S**
 4-Bromo-2-methylphenyldiazene-carbithioic acid 2-(4-bromo-2-methylphenyl)hydrazide, B-00534
o,o'-Dibromo-*p,p'*-dimethyldithizone, D-00184
- C₁₅H₁₆CINO₄S**
 2-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]ethyl carbonochloridate, D-00800
- C₁₅H₁₆CIN₃O**
 2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, C-00254
 4-[3-Chloro-4-(pyridinylazo)-5-methyl-2-(1-methylethyl)]phenol, C-00255
- C₁₅H₁₆CIN₃S**
 ▶ Azure B, *in* L-00003
 ▶ Tolonium chloride, *in* T-00189
- C₁₅H₁₆N₂O**
 2-[[[4-(Dimethylamino)phenyl]imino]methyl]phenol, D-00816
- C₁₅H₁₆N₂S**
 ▶ *N,N'*-Bis(2-methylphenyl)thiourea, B-00412
- C₁₅H₁₆N₃S[⊕]**
 Toluidine blue, T-00189
- C₁₅H₁₆N₄**
 2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-4-methylpyridine, D-00446
 ▶ Neutral red, N-00065
- C₁₅H₁₆N₄O**
 4-Pyridinecarboxylic acid [[4-(dimethylamino)phenyl]methylene]hydrazide, P-00346
- C₁₅H₁₆N₄O₂**
 Diphenylcarbazine; Ac, *in* D-01004
- C₁₅H₁₆N₄O₂S**
 4-(4,5-Dihydro-3-phenyl-1*H*-pyrazol-1-yl)benzenesulfonic acid hydrazide, D-00469
 4,4'-Dimethoxydithizone, D-00775
- C₁₅H₁₆N₄S**
 2,2'-Dimethyldithizone, D-00856
 3,3'-Dimethyldithizone, D-00857
 4,4'-Dimethyldithizone, D-00858
- C₁₅H₁₆O₂**
 1,1'-(Dimethoxymethylene)bisbenzene, *in* B-00069
 2-Propanoyl-1-naphthol; Et ether, *in* P-00267
- C₁₅H₁₆O₅**
 7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Me ether, Et ester, *in* H-00295
- C₁₅H₁₇BrN₄O**
 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00126
- C₁₅H₁₇BrO₃**
 Cyclohexanecarboxylic acid; 4-Bromophenacyl ester, *in* C-00336
- C₁₅H₁₇CIN₄O**
 2-[(5-Chloro-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00145
- C₁₅H₁₇N**
 Dibenzylamine; *N*-Me, *in* D-00166
- C₁₅H₁₇NO₂**
N-Hydroxy-*N*-1-naphthalenylpentanamide, H-00366
- C₁₅H₁₇NO₆**
 Bis(2,3,4-trihydroxybenzyl)methylamine, B-00466
- C₁₅H₁₇N₃O**
 3-Methyl-6-(1-methylethyl)-2-(2-pyridinylazo)phenol, M-00197
 5-Methyl-2-(1-methylethyl)-4-(2-pyridinylazo)phenol, M-00198
- C₁₅H₁₇N₃O₂**
 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-methylphenol, *in* A-00197
- C₁₅H₁₇N₅**
 2-[4-(Aminomethyl)phenyl]-*N,N*-dimethyl-2*H*-benzotriazol-5-amine, A-00249
- C₁₅H₁₇N₅O₃**
 3,7-Dihydro-8-[[[4-hydroxyphenyl]amino]methyl]-1,3,7-trimethyl-1*H*-purine-2,6-dione, D-00418
- C₁₅H₁₇O₃P**
 Diphenyl isopropylphosphonate, *in* I-00077
- C₁₅H₁₇PS₂**
 Isopropyl diphenylphosphinodithioate, *in* D-01039
- C₁₅H₁₈N₂**
 ▶ *N*-(1-Methylethyl)-*N'*-phenyl-1,4-benzenediamine, *in* D-00048
- C₁₅H₁₈N₂O**
 7-(1-Piperidinylmethyl)-8-quinolinol, P-00243
- C₁₅H₁₈N₄O**
 2-(Diethylamino)-6-(2-pyridinylazo)phenol, D-00335
 5-(Diethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
 4-[(4-Ethoxyphenyl)azo]-6-methyl-1,3-benzenediamine, *in* H-00451
- C₁₅H₁₈N₄O₂S**
 2-(4-Methyl-2-thiazolylazo)-5-diethylaminobenzoic acid, *in* A-00258
- C₁₅H₁₈N₄S**
 4-(4'-Dimethylaminophenyl)-1-phenylthiosemicarbazide, D-00822
- C₁₅H₁₈N₆O₁₂**
 2,4,6-Triamino-1,3,5-triazine-*N,N,N',N'',N'''*-hexaacetic acid, T-00195
- C₁₅H₁₈O₆**
 1,2,3-Benzenetricarboxylic acid; Tri-Et ester, *in* B-00031
 1,2,4-Benzenetricarboxylic acid; Tri-Et ester, *in* B-00032
 1,3,5-Benzenetricarboxylic acid; Tri-Et ester, *in* B-00033
- C₁₅H₁₈O₉**
 Linocaffein, *in* D-00716
- C₁₅H₁₉CIN₄**
 Toluylene blue; Chloride, *in* T-00190
- C₁₅H₁₉NO₆S**
 TAGIT, *in* G-00012
- C₁₅H₁₉N₄[⊕]**
 Toluylene blue, T-00190
- C₁₅H₁₉PS₂Si**
 Trimethylsilyl diphenylphosphinodithioate, *in* D-01039

- C₁₅H₂₀N₂O₆**
N-Benzylethylenediaminetriacetic acid, *in* E-00079
- C₁₅H₂₀N₄OS**
5-(Diethylamino)-2-[(4,5-dimethyl-2-thiazolyl)azol]phenol, *in* A-00163
- C₁₅H₂₀O₃**
2-Methoxy-4-(2-propenyl)phenol; 3-Methylbutanoyl, *in* M-00120
1-Oxo-4-eudesmen-12,6-olide, O-00063
- C₁₅H₂₀O₈**
2',5'-Dihydroxyacetophenone; 5-Me ether, 2-O-β-D-glucopyranoside, *in* D-00508
Glucopaenonol, *in* D-00507
- C₁₅H₂₁CrO₆**
▷ Tris(2,4-pentanedionato-O,O')chromium(III), T-00410
- C₁₅H₂₁FeO₆**
▷ Tris(2,4-pentanedionato-O,O')iron(III), T-00411
- C₁₅H₂₁NO₅**
N-(3,5-Dimethoxybenzoyl)isoleucine, D-00767
- C₁₅H₂₁NO₁₀S₂**
4-Methoxybenzyl glucosinolate, *in* H-00128
- C₁₅H₂₁N₃O**
▷ Primaquine, P-00254
- C₁₅H₂₂N₂O₆**
10-(2-Hydroxy-5-nitrobenzyl)-1,4,7-trioxa-10-azacyclododecane, H-00387
- C₁₅H₂₂OS**
Tioctilate, *in* T-00155
- C₁₅H₂₂O₂**
7-Drime-11,12-dial, D-01160
2-Octanol; Benzoyl, *in* O-00037
- C₁₅H₂₂O₃**
12-Oxo-7-drimen-11-oic acid, *in* D-01160
- C₁₅H₂₂O₅**
15-Methyl-1,4,7,10,13-benzopentaoxacyclopentadecin, M-00139
- C₁₅H₂₂O₆**
(2-Hydroxyphenoxyethyl)-12-crown-4, H-00444
- C₁₅H₂₂S₄**
1,3,4,7,8,10,11,13-Octahydro-6H-2,5,9,12-benzotetrathiacyclopentadecine, O-00009
- C₁₅H₂₃NO₂**
N-Hydroxy-3,5,5-trimethyl-N-phenylhexanamide, H-00561
N-p-Tolyloctanohydroxamic acid, *in* H-00424
- C₁₅H₂₃NO₃**
1,4,7-Trioxa-10-azacyclododecane; N-Benzyl, *in* T-00359
- C₁₅H₂₃NS₄**
1,3,4,7,8,10,11,13-Octahydro-6H-2,5,9,12-benzotetrathiacyclopentadecin-15-amine, O-00008
- C₁₅H₂₄O₃**
4,6-Di-*tert*-butyl-3-methoxy-1,2-benzenediol, *in* D-00228
- C₁₅H₂₅ClO**
Drimanoyl chloride, *in* D-01159
- C₁₅H₂₆N₂**
Sparteine, S-00023
- C₁₅H₂₆N₂O**
Pachycarpine N¹⁶-oxide, *in* S-00023
- C₁₅H₂₆O₂**
11-Drmanoic acid, D-01159
- C₁₅H₃₄BrN**
▷ Lauryltrimethylammonium(1+); Bromide, *in* L-00002
- C₁₅H₃₄BrNO**
2-Hydroxy-N,N,N-trimethyl-1-dodecanaminium(1+); Bromide, *in* H-00560
- C₁₅H₃₄ClN**
Lauryltrimethylammonium(1+); Chloride, *in* L-00002
- C₁₅H₃₄N[⊕]**
Lauryltrimethylammonium(1+), L-00002
- C₁₅H₃₄NO[⊕]**
2-Hydroxy-N,N,N-trimethyl-1-dodecanaminium(1+), H-00560
- C₁₅H₃₅N₂O₂P**
Heptyl tetraethylphosphorodiamidate, *in* T-00046
- C₁₆F₃₀O₃**
Pentadecafluorooctanoic acid; Anhydride, *in* P-00008
- C₁₆H₅N₅O₆**
9-Dicyanomethylene-2,4,7-trinitrofluorene, D-00306
- C₁₆H₆N₄O₁₅**
3,6-Dinitro-1,2-benzenedicarboxylic acid; Anhydride, *in* D-00939
- C₁₆H₈Br₂N₂O₂**
6,6'-Dibromoindigotin, D-00195
- C₁₆H₈Cl₄O₄**
3-Acetyl-4,5,6,7-tetrachloro-3-(2-hydroxyphenyl)-1(3H)-isobenzofuranone, A-00048
3-Acetyl-4,5,6,7-tetrachloro-3-(4-hydroxyphenyl)-1(3H)-isobenzofuranone, A-00049
- C₁₆H₈O₈S₄**
Thioindigo 5,5'-disulfonic acid, T-00164
- C₁₆H₉ClO₂S**
1-Pyrenesulfonic acid; Chloride, *in* P-00309
- C₁₆H₉Cl₂NO₂**
5,7-Dichloro-8-hydroxyquinoline; O-Benzoyl, *in* D-00283
- C₁₆H₉Cl₂NO₅S**
1-Hydroxy-4-[(3,5-dichloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid, H-00148
- C₁₆H₉Cl₃N₂O₅S**
4-Hydroxy-3-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid, H-00556
- C₁₆H₉NO**
α-Oxo-1-anthraceneacetonitrile, O-00054
α-Oxo-9-anthraceneacetonitrile, *in* O-00053
- C₁₆H₉NO₂**
9-Benzo[*a*]phenoxazin-9-one, B-00070
- C₁₆H₉NO₃**
9-Hydroxy-5H-benzo[*a*]phenoxazin-5-one, H-00123
- C₁₆H₉NO₅**
2-Benzoyl-4-nitro-1H-indene-1,3(2H)-dione, B-00139
2-Benzoyl-5-nitro-1H-indene-1,3(2H)-dione, B-00140
- C₁₆H₉N₅O**
3-(1-Cyano-2H-isoindol-2-yl)benzoyl azide, C-00329
- C₁₆H₁₀ClN₃O₇S**
Omega chrome blue 35, O-00040
- C₁₆H₁₀Cl₂N₂O₈S₂**
3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00289
- C₁₆H₁₀Cl₃N₃O₅S**
8-Amino-2-(2-hydroxy-3,5,6-trichlorophenylazo)-1-naphthol-5-sulfonic acid, A-00225
- C₁₆H₁₀Cl₃N₃O₅S₂**
Mordant blue 44, M-00342
- C₁₆H₁₀F₃NO₂**
7-Amino-4-(trifluoromethyl)-2H-1-benzopyran-2-one; N-Ph, *in* A-00365
- C₁₆H₁₀N₂**
2-Phenyl-4-quinolinecarbonitrile, *in* P-00189
- C₁₆H₁₀N₂O₅S**
Indigo-5-sulfonic acid, I-00027
- C₁₆H₁₀N₂O₆S₄**
2,2'-(1,2-Ethenediyl)bis[5-isothiocyanatobenzenesulfonic acid], E-00046
- C₁₆H₁₀N₂O₈S₂**
▷ Indigotindisulfonic acid, I-00029
- C₁₆H₁₀N₂O₁₁S₃**
Indigo-5,5',7-trisulfonic acid, I-00030
- C₁₆H₁₀N₂O₁₄S₄**
Indigo-5,5',7,7'-tetrasulfonic acid, I-00028
- C₁₆H₁₀N₄**
2,2'-Biquinoxaline, B-00239
- C₁₆H₁₀N₄O**
3-(4-Methyl-2-pyridinyl)-9H-indeno[1,2-*e*]-1,2,4-triazin-9-one, M-00288
- C₁₆H₁₀N₄O₆**
1-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2-naphthol, D-00954
4-(3,5-Dinitro-2-hydroxyphenylazo)-1-naphthol, D-00955
- C₁₆H₁₀N₄O₈S**
3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00966
3-[(3,5-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00967
- C₁₆H₁₀N₄O₈S₂**
Ferene, F-00003
- C₁₆H₁₀N₄O₉S**
4-Hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-1-naphthalenesulfonic acid, H-00199
6-Hydroxy-5-[(2-hydroxy-3,5-dinitrophenyl)azo]-2-naphthalenesulfonic acid, H-00200
- C₁₆H₁₀N₄O₁₁S₂**
4-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00953
3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, D-00965
- C₁₆H₁₀N₄O₁₂S₂**
3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00198
- C₁₆H₁₀N₄O₁₃S₂**
4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00581
4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00618
- C₁₆H₁₀N₆O₄**
[[Bis(4-nitrophenyl)amino]methylene]propanedinitrile, B-00430
- C₁₆H₁₀N₆S**
5,6-Di-2-pyridyl-3-(2-thiazolyl)-1,2,4-triazine, D-01096
- C₁₆H₁₀O₂**
2,3-Anthracenedicarboxaldehyde, A-00379
- C₁₆H₁₀O₃**
α-Oxo-9-anthraceneacetic acid, O-00053
- C₁₆H₁₀O₃S**
1-Pyrenesulfonic acid, P-00309
- C₁₆H₁₀O₄**
7-Hydroxy-2H-1-benzopyran-2-one; O-Benzoyl, *in* H-00124

- C₁₆H₁₀O₅**
1,4-Dihydroxyanthraquinone; Ac, *in* D-00511
1,2-Dihydroxyanthraquinone; 2-*O*-Ac, *in* D-00510
- C₁₆H₁₀O₁₀S₃**
▷ 8-Hydroxy-1,3,6-pyrenetrisulfonic acid, H-00517
- C₁₆H₁₁AsBrN₃O₁₃S₂**
Nitrobromoarsenazo, N-00101
- C₁₆H₁₁BrN₂O**
8-*N*-(5-Bromosalicylidene)aminoquinoline, B-00575
- C₁₆H₁₁BrN₂O₄S**
5-[(4-Bromophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, B-00547
- C₁₆H₁₁BrN₂O₈S₂**
3-[(4-Bromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00546
- C₁₆H₁₁ClFNO₂**
Flunoxapronfen; Chloride, *in* F-00008
- C₁₆H₁₁ClN₂O**
1-[(3-Chlorophenyl)azo]-2-naphthalenol, C-00205
- C₁₆H₁₁ClN₂O₄S**
5-[(4-Chlorophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, C-00204
- C₁₆H₁₁ClN₂O₅S**
Acid chrome violet BR, A-00054
Magneson IREA, M-00004
- C₁₆H₁₁ClN₂O₈S₂**
7-[(5-Chloro-2-hydroxyphenyl)azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, C-00147
6-(5-Chloro-2-hydroxy-4-sulfophenylazo)-5-hydroxy-1-naphthalenesulfonic acid, C-00161
3-[(3-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00202
3-[(4-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00203
- C₁₆H₁₁ClN₂O₉S₂**
Eriochrome blue SE, E-00011
- C₁₆H₁₁ClN₂O₁₁S₃**
Sulfchlorophenol R, S-00044
- C₁₆H₁₁ClN₂O₁₂S₃**
3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00158
- C₁₆H₁₁ClN₄O₅S₃**
5-Chloro-2-hydroxy-3-[(3-benzylideneamino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00124
- C₁₆H₁₁ClN₄O₆S₃**
5-Chloro-2-hydroxy-3-[(3-(2-hydroxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00128
- C₁₆H₁₁ClN₄O₁₀S₂**
5-Amino-3-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, A-00137
- C₁₆H₁₁ClO₅**
4-Carboxy-6,7-dihydroxy-2-phenyl-1-benzopyrylium(1+); Chloride, *in* C-00029
- C₁₆H₁₁F₃O**
▷ α -(Trifluoromethyl)-9-anthracenemethanol, T-00250
- C₁₆H₁₁IN₂O₄S**
6-Hydroxy-5-[(4-iodophenyl)azo]-2-naphthalenesulfonic acid, H-00254
- C₁₆H₁₁IN₂O₈S₂**
4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00635
- C₁₆H₁₁N**
▷ 1-Aminopyrene, A-00331
- C₁₆H₁₁NO₂**
▷ Benzoxiquine, *in* H-00525
▷ 2-Phenyl-4-quinolinecarboxylic acid, P-00189
- C₁₆H₁₁NO₃**
4-Benzoyl-3-phenyl-5(4*H*)-isoxazolone, B-00143
2-Phenyl-4-quinolinecarboxylic acid; 1-Oxide, *in* P-00189
2,3,4(1*H*)-Quinolinetriene; 1-Benzyl, *in* Q-00022
- C₁₆H₁₁NO₅S**
1-Hydroxy-4-[(4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid, H-00430
- C₁₆H₁₁NO₉S₃**
8-Amino-1,3,6-pyrenetrisulfonic acid, A-00332
- C₁₆H₁₁N₃**
1-(2-Benzimidazolyl)isoquinoline, B-00044
3-(2-Benzimidazolyl)isoquinoline, B-00045
2-(2-Quinolyl)benzimidazole, Q-00037
- C₁₆H₁₁N₃O₃**
4-*p*-Nitrobenzenazo-1-naphthol, *in* N-00032
4-[(4-Nitrophenyl)azo]-1-naphthalenol, N-00126
▷ 1-(4-Nitrophenylazo)-2-naphthol, *in* N-00031
- C₁₆H₁₁N₃O₃S**
Diphenylthioviolic acid, *in* D-00493
- C₁₆H₁₁N₃O₄**
1,3-Diphenyl-5-nitrosobarbituric acid, *in* P-00428
1-[(2-Hydroxy-4-nitrophenyl)azo]-2-naphthalenol, H-00395
1-[(2-Hydroxy-5-nitrophenyl)azo]-2-naphthalenol, H-00396
- C₁₆H₁₁N₃O₆S**
2-[(2-Hydroxy-1-naphthalenyl)azo]-5-nitrobenzenesulfonic acid, H-00351
- C₁₆H₁₁N₃O₇S**
Eriochrome fast grey RAS, E-00014
2-Hydroxy-3-[4-hydroxynaphthalenylazo]-5-nitrobenzenesulfonic acid, H-00223
Solochrome fast grey RA, S-00019
- C₁₆H₁₁N₃O₈S₂**
3-[(4-Nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, N-00125
- C₁₆H₁₁N₃O₉S₂**
Alpha blue, A-00084
Epsilon blue, E-00008
- C₁₆H₁₁N₃O₁₀S₂**
Chromotrope 2B, C-00290
3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-pyridinecarboxylic acid, D-00600
4,5-Dihydroxy-3-[(2-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00665
4,5-Dihydroxy-3-[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00666
8-Hydroxy-7-[(2-hydroxy-4-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00227
8-Hydroxy-7-[(2-hydroxy-5-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00228
5-Hydroxy-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, H-00230
5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, H-00231
5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2-naphthalenesulfonic acid, H-00232
Nevazol NS, N-00067
- C₁₆H₁₁N₃O₁₁S₂**
Eriochrome green B, E-00016
- C₁₆H₁₁N₃O₁₃S₃**
4-Hydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00229
Sulfonitrazo, S-00050
Sulfonitrophenol R, S-00053
- C₁₆H₁₁N₅**
2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*c*]pyridine, B-00230
- C₁₆H₁₁N₅O**
5-(1*H*-Benzimidazol-5-ylazo)-8-quinolinol, B-00043
- C₁₆H₁₁N₅O₈S**
Chrome dark green BN, C-00282
- C₁₆H₁₁N₅O₉S**
Acid monochrome green S, A-00057
- C₁₆H₁₁N₅O₁₂S₂**
4-Amino-5-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00186
5-Amino-4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00187
- C₁₆H₁₁N₅S**
2-Benzothiazolecarboxaldehyde 1(2*H*)-phthalazinylidenehydrazone, B-00087
- C₁₆H₁₁O₅[⊕]**
4-Carboxy-6,7-dihydroxy-2-phenyl-1-benzopyrylium(1+), C-00029
- C₁₆H₁₂Br₂O₆**
3-(3,5-Dibromo-2,4-dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00183
- C₁₆H₁₂ClNO₃**
3-(2-Phthalimidyl)-4-methoxybenzoyl chloride, P-00229
- C₁₆H₁₂ClNO₄**
N-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4-methylenedioxyphenyl)-2-propenamide, C-00226
- C₁₆H₁₂ClN₂O₁₀PS₂**
Chlorophosphonazo R, C-00245
- C₁₆H₁₂ClN₂O₁₁PS₂**
Chlorophosphonazo I, C-00241
- C₁₆H₁₂ClN₃O₅S**
3-[(8-Amino-2-hydroxy-1-naphthalenyl)azo]-5-chloro-2-hydroxybenzenesulfonic acid, A-00205
- C₁₆H₁₂ClN₃O₇S₂**
8-Amino-7-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2-naphthalenesulfonic acid, A-00143
8-Amino-7-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-3-naphthalenesulfonic acid, A-00144
- C₁₆H₁₂ClN₃O₈S₂**
5-Amino-3-[(5-chloro-2-hydroxyphenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, A-00139
- C₁₆H₁₂ClN₃O₁₀S₃**
4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,5-naphthalenedisulfonic acid, A-00140
4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00141
5-Amino-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-1,4-naphthalenedisulfonic acid, A-00142
- C₁₆H₁₂Cl₂F₃NO₄S**
6,9-Dichloro-2-methoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, *in* D-00284
- C₁₆H₁₂Cl₄N₆S₂**
Glyoxal bis(3,4-dichlorophenylthiosemicarbazone), G-00024
- C₁₆H₁₂FNO₃**
▷ Flunoxapronfen, F-00008
- C₁₆H₁₂N₂**
2,2'-Bi-1*H*-indole, B-00204
N-(2-Pyridinylmethylene)-1-naphthalenamine, P-00395

- C₁₆H₁₂N₂O**
8-Aminoquinoline; 8-*N*-Benzoyl, *in* A-00340
2-Phenyl-4-quinolinecarboxylic acid; Amide, *in* P-00189
1-[(2-Pyridinylmethylene)amino]-2-naphthalenol, P-00392
- C₁₆H₁₂N₂OS**
1-[(2-Mercaptophenyl)azo]-2-naphthalenol, M-00042
- C₁₆H₁₂N₂O₂**
1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, H-00455
5-[[4-(Phenylamino)phenyl]imino]-2(5*H*)-furanone, P-00085
1-[4-(Phenylamino)phenyl]-1*H*-pyrrole-2,5-dione, P-00086
- C₁₆H₁₂N₂O₂S**
1,3-Diphenyl-2-thiobarbituric acid, *in* D-00492
5-Salicylidene-3-phenyl-2-thioimidazole, *in* H-00485
- C₁₆H₁₂N₂O₃**
2-[(2-Hydroxyphenyl)azo]-1,5-naphthalenediol, H-00453
- C₁₆H₁₂N₂O₄**
Glyoxime; *O,O'*-Dibenzoyl, *in* G-00037
- C₁₆H₁₂N₂O₄S**
4-[(2-Hydroxy-1-naphthalenyl)azo]benzenesulfonic acid, H-00348
▷ Orange I, O-00043
- C₁₆H₁₂N₂O₅S**
▷ Acid chrome violet K, A-00055
- C₁₆H₁₂N₂O₆S**
4-[(2,4-Dihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00697
Solochrome black PV, S-00018
- C₁₆H₁₂N₂O₇S**
4-[(2,4,6-Trihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, T-00312
- C₁₆H₁₂N₂O₇S₂**
3-Hydroxy-4-(phenylazo)-2,7-naphthalenedisulfonic acid, H-00454
▷ Orange G, O-00042
- C₁₆H₁₂N₂O₇S₃**
3-Hydroxy-4-(2-mercaptophenylazo)-2,7-naphthalenedisulfonic acid, H-00259
- C₁₆H₁₂N₂O₈S₂**
8-Hydroxy-7-[(2-hydroxyphenyl)azo]-1,6-naphthalenedisulfonic acid, H-00233
- C₁₆H₁₂N₂O₉S₂**
4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00624
H-Resorcin, R-00001
- C₁₆H₁₂N₂O₁₀S₃**
3-Hydroxy-4-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00543
- C₁₆H₁₂N₂O₁₁S₃**
4,5-Dihydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00736
- C₁₆H₁₂N₂O₁₂S₃**
Acid chrome blue K, A-00053
- C₁₆H₁₂N₃O₁₃PS₂**
4,5-Dihydroxy-3-[(4-nitro-2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00671
- C₁₆H₁₂N₄**
2-(4-Methyl-2-pyridyl)-2*H*-imidazo[4,5-*h*]quinoline, M-00301
- C₁₆H₁₂N₄OS**
2-Furancarbothioic acid (di-2-pyridinyl)methylenehydrazide, F-00041
- C₁₆H₁₂N₄O₂**
Di-2-pyridinylmethanone 2-furoylhydrazone, D-01077
- C₁₆H₁₂N₄O₆S**
Chrome dark BLN, C-00280
Chrome dark green BGN, C-00281
- C₁₆H₁₂N₄O₇S**
6-Amino-4-hydroxy-5-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenesulfonic acid, A-00191
- C₁₆H₁₂N₄O₉S₂**
5-Amino-4-hydroxy-3-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00207
3-[[3-(Aminosulfonyl)-1-hydroxy-2-naphthalenyl]azo]-2-hydroxy-5-nitrobenzenesulfonic acid, A-00348
▷ Tartrazine, T-00003
- C₁₆H₁₂N₄O₁₀**
Ethylbis(2,4-dinitrophenyl) acetate, *in* D-00971
- C₁₆H₁₂N₄O₁₀S₂**
5-Amino-4-hydroxy-3-[(2-hydroxy-3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00189
5-Amino-4-hydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00190
- C₁₆H₁₂N₄O₁₂S₃**
Nitroxaminazo, N-00167
- C₁₆H₁₂N₄O₁₃S₃**
5-Amino-4-hydroxy-3-[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00192
- C₁₆H₁₂N₄S₂**
2-Thiophenecarbothioic acid (di-2-pyridinylmethylene)hydrazide, T-00168
- C₁₆H₁₂N₆O**
Di-2-pyridinylethanedione;
Mono(pyrazinyl)hydrazone, *in* D-01063
Di-2-pyridinylethanedione mono(2-pyrimidinyl)hydrazone, D-01069
2-Pyridinyl-4-pyrimidinylethanedione 1-(2-pyridinyl)hydrazone, P-00404
- C₁₆H₁₂N₆O₂**
Di-2-pyridinylmethanone 5-nitro-2-pyridylhydrazone, D-01079
- C₁₆H₁₂O₂**
1-Anthracenecarboxylic acid; Me ester, *in* A-00376
2-Anthracenecarboxylic acid; Me ester, *in* A-00377
9-Anthracenecarboxylic acid; Me ester, *in* A-00378
3-Methyl-3-phenyl-1,2-indanedione, M-00230
- C₁₆H₁₂O₃**
3'-Methoxyflavone, *in* H-00183
5-Methoxyflavone, *in* H-00184
3-Methoxy-2-phenyl-4*H*-1-benzopyran-4-one, *in* H-00466
- C₁₆H₁₂O₄**
3-Benzyl-4,5-dihydroxycoumarin, B-00177
5,5-Bis(4-hydroxyphenyl)-2(5*H*)-furanone, B-00389
1,2-Dimethoxyanthraquinone, *in* D-00510
1,4-Dimethoxyanthraquinone, *in* D-00511
1,8-Dimethoxyanthraquinone, *in* D-00512
5-Hydroxy-7-methoxyflavone, *in* D-00612
3-Oxo-3*H*-naphtho[2,1-*b*]pyran-2-carboxylic acid; Et ester, *in* O-00064
- C₁₆H₁₂O₅**
4',5-Dihydroxy-7-methoxyflavone, D-00640
▷ 5,7-Dihydroxy-4'-methoxyflavone, D-00641
1-Hydroxy-2,4-dimethoxyanthraquinone, *in* T-00270
2-Hydroxy-1,4-dimethoxyanthraquinone, *in* T-00270
- C₁₆H₁₂O₆**
5,5-[Bis(2,4-dihydroxyphenyl)]-2(5*H*)-furanone, B-00305
▷ Haematein, H-00001
2',3,5-Trihydroxy-7-methoxyflavone, *in* T-00074
- 3,5,7-Trihydroxy-2'-methoxyflavone, *in* T-00074
3',5,7-Trihydroxy-4'-methoxyflavone, T-00297
- C₁₆H₁₂O₇**
▷ 3,3',4',5'-Tetrahydroxy-7-methoxyflavone, T-00078
- C₁₆H₁₂O₈**
2,5,8-Trihydroxy-1,4-naphthoquinone; Tri-Ac, *in* T-00300
- C₁₆H₁₃AsN₂O₁₀S₂**
Thorin, T-00177
- C₁₆H₁₃AsN₂O₁₁S₂**
▷ Arsenazo I, A-00410
3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00436
- C₁₆H₁₃BiCl₂N₂**
Dichlorophenylbismuthine; Bipy complex, *in* D-00292
- C₁₆H₁₃BrN₂**
2-(4-Bromophenyl)-4-methyl-1*H*-1,5-benzodiazepine, B-00554
- C₁₆H₁₃ClN₂**
2-(4-Chlorophenyl)-4-methyl-1*H*-1,5-benzodiazepine, C-00236
- C₁₆H₁₃ClN₄O₅S**
Solochrome fast red, S-00020
- C₁₆H₁₃ClO₂**
1-(9*H*-Fluoren-9-yl)ethyl carbonochloridate, F-00017
- C₁₆H₁₃ClO₄**
6,7-Dihydroxy-2-(3-hydroxyphenyl)-4-methyl-1-benzopyrylium (1+); Chloride, *in* D-00627
- C₁₆H₁₃N**
▷ *N*-Phenyl-1-naphthylamine, P-00151
- C₁₆H₁₃NO**
▷ 9-Aminophenanthrene; *N*-Ac, *in* A-00298
8-Hydroxy-2-phenylquinoline; Me ether, *in* H-00503
- C₁₆H₁₃NO₃S**
5-Hydroxy-1-naphthalenesulfonic acid; Anilide, *in* H-00346
6-Hydroxy-2-naphthalenesulfonic acid; Anilide, *in* H-00347
6-(Phenylamino)-2-naphthalenesulfonic acid, P-00082
- C₁₆H₁₃NO₄**
3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* B-00056
- C₁₆H₁₃NO₅**
1-[[[2-Naphthalenyloxy]acetyl]oxy]-2,5-pyrrolidinedione, N-00020
- C₁₆H₁₃NO₇**
1-[[[7-Hydroxy-4-methyl-2-oxo-2*H*-benzopyran-3-yl]acetyl]oxy]-2,5-pyrrolidinedione, H-00296
- C₁₆H₁₃N₂O₁₀PS₂**
3-Hydroxy-4-[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00514
- C₁₆H₁₃N₃**
Benzaldehyde 8-quinolinylhydrazone, B-00007
2-Methyl-4-phenyl-6-(2-pyridinyl)pyrimidine, M-00241
▷ 4-Phenylazo-1-naphthylamine, P-00093
- C₁₆H₁₃N₃O**
4-(4-Amino-1-naphthalenylazo)phenol, A-00277
5-[(4-Methylphenyl)azo]-8-quinolinol, M-00224
1-[(5-Methyl-2-pyridinyl)azo]-2-naphthalenol, M-00281
1-[(6-Methyl-2-pyridinyl)azo]-2-naphthalenol, M-00282
- C₁₆H₁₃N₃O₂**
4-Methyl-2-(3-nitrophenyl)-1*H*-1,5-benzodiazepine, M-00205

- 5-[(4-Methylphenyl)azo]-8-quinolinol; 1-Oxide, *in* M-00224
1-[(6-Methyl-2-pyridinyl)azo]-2-naphthalenol; *N*-Oxide, *in* M-00282
- C₁₆H₁₃N₃O₃S**
5-(4-Aminophenylazo)-1-naphthalenesulfonic acid, A-00314
- C₁₆H₁₃N₃O₄S**
8-Hydroxy-7-[(4-methylphenyl)azo]-5-quinolinesulfonic acid, H-00304
- C₁₆H₁₃N₃O₆S₂**
5-[[4-(Aminosulfonyl)phenyl]azo]-6-hydroxy-2-naphthalenesulfonic acid, A-00350
- C₁₆H₁₃N₃O₇S₂**
4-Amino-5-hydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid, A-00212
- C₁₆H₁₃N₃O₈S₂**
4-Amino-5-hydroxy-7-[(2-hydroxyphenyl)azo]-1,3-naphthalenedisulfonic acid, A-00193
5-Amino-4-hydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00194
5-Amino-4-hydroxy-3-[[4-hydroxyphenyl]azo]-2,7-naphthalenedisulfonic acid, A-00195
4-(4-Amino-2-hydroxyphenylazo)-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00211
C.I. Acid violet 3, C-00001
3-Hydroxy-4-[(6-methyl-2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid *N*-oxide, H-00324
- C₁₆H₁₃N₃O₁₀S₃**
5-Amino-4-hydroxy-3-[[4-sulfofenyl]azo]-2,7-naphthalenedisulfonic acid, A-00224
7-[5-(Aminosulfonyl)-2-hydroxyphenyl]azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, A-00349
- C₁₆H₁₃N₃S**
2-Pyridinecarboxaldehyde (1-mercapto-2-naphthalenyl)hydrazone, P-00327
- C₁₆H₁₃N₅**
2-Benzoylpyridine 2-pyrimidinylhydrazone, B-00155
Di-2-pyridinylmethanone 2-pyridinylhydrazone, D-01080
- C₁₆H₁₃N₅O₂**
15,16-Dihydro-5*H*-dibenzo[*b*,*i*][1,11,4,5,7,8]dioxatetraazacyclotridecine-7-carbonitrile, D-00376
- C₁₆H₁₃N₅O₅S**
2-[(3-Methyl-1-phenyl-4-pyrazolyl)azo]-4-nitrobenzenesulfonic acid, M-00240
- C₁₆H₁₃N₅O₆S**
2-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]-5-nitrobenzenesulfonic acid, D-00438
- C₁₆H₁₃N₇O**
Pyrazinyl-2-pyridinylethanedione 2-(2-pyridinylhydrazone) 1-oxime, P-00298
2-Pyridinyl-4-pyrimidinylethanedione 1-(2-pyridinylhydrazone); 2-Oxime, *in* P-00404
- C₁₆H₁₃N₇O₁₂**
3,3',5,5'-Tetramethyl-2,2',4,4',6,6'-hexanitrodiphenylamine, T-00096
- C₁₆H₁₃O₄[⊕]**
6,7-Dihydroxy-2-(3-hydroxyphenyl)-4-methyl-1-benzopyrylium(1+), D-00627
- C₁₆H₁₃O₆S[⊕]**
6,7-Dihydroxy-4-methyl-2-(3-sulfofenyl)-1-benzopyrylium(1+), D-00656
- C₁₆H₁₄AsClN₄O₈S**
4-[4-[(3-Arsono-5-chloro-2-hydroxyphenyl)azo]-4,5-dihydro-3-methyl-5-oxo-1*H*-pyrazol-1-yl]benzenesulfonic acid, A-00419
- C₁₆H₁₄AsN₃O₉S₂**
Arsaminazo, A-00402
- C₁₆H₁₄AsN₃O₁₀S₂**
Arsenazo H, A-00409
- C₁₆H₁₄AsN₅O₆**
4-(2-Arsono-4-nitrophenylazo)-4,5-dihydro-3-methyl-1-phenyl-1*H*-pyrazol-5-one, A-00420
- C₁₆H₁₄ClNO₃**
N-(4-Chlorophenyl)-*N*-hydroxy-3-(4-methoxyphenyl)-2-propenamamide, C-00225
- C₁₆H₁₄CoN₂O₂**
▷ [N,N'-Ethylenebis(salicylideneiminato)]cobalt, E-00077
- C₁₆H₁₄F₂N₆S₂**
Glyoxal bis(2-fluorophenylthiosemicarbazone), G-00025
Glyoxal bis(4-fluorophenylthiosemicarbazone), G-00026
- C₁₆H₁₄F₃NO₂**
Coumarin 153, C-00304
- C₁₆H₁₄F₃NO₄S**
9-Methoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, *in* M-00088
- C₁₆H₁₄N₂**
4-Methyl-2-phenyl-1*H*-1,5-benzodiazepine, M-00225
7,8,9,10-Tetrahydrobenzo[*c*][1,10]phenanthroline, T-00050
- C₁₆H₁₄N₂O₂**
2-(4-Carboxyphenyl)-5,6-dimethylbenzimidazole, C-00040
3-Methyl-3-phenyl-1,2-indanedione; Dioxime, *in* M-00230
- C₁₆H₁₄N₂O₅S**
N-(8-Quinolyl)-4-toluenesulfonamide, *in* A-00340
- C₁₆H₁₄N₂O₃**
2,7-Diaminodibenzofuran; *N,N'*-Di-Ac, *in* D-00066
- C₁₆H₁₄N₂O₄**
2,2'-Dihydroxyazobenzene; Di-Ac, *in* D-00514
4,4'-Dihydroxyazobenzene; Di-Ac, *in* D-00516
1-[7-(Dimethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]-1*H*-pyrrole-2,5-dione, D-00791
Pyridoin; Di-Ac, *in* P-00412
- C₁₆H₁₄N₂O₈S₂**
Chromotrope 2R, C-00293
- C₁₆H₁₄N₄**
2-Acetylpyridine 2-quinolylhydrazone, A-00045
2-Acetylpyridine 8-quinolylhydrazone, A-00046
2,3-Bis(6-methyl-2-pyridyl)pyrazine, B-00420
5,6-Dimethyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-00895
6-Methyl-2-pyridinecarboxaldehyde 2-quinolylhydrazone, M-00269
2(1*H*)-Quinolinone [1-(2-pyridinyl)ethylidene]hydrazone, Q-00025
- C₁₆H₁₄N₄O**
2-Amino-4-methyl-6-(8-quinolylazo)phenol, A-00255
- C₁₆H₁₄N₄OS**
5-Amino-4-methyl-2-(4-phenyl-2-thiazolylazo)phenol, A-00250
- C₁₆H₁₄N₄O₃S₂**
4-[(4,5-Dihydro-3-methyl-1-phenyl-5-thioxo-1*H*-pyrazol-4-yl)azo]benzenesulfonic acid, D-00445
- C₁₆H₁₄N₄O₄**
Glyoxal bis(4-hydroxybenzoylhydrazone), G-00028
- C₁₆H₁₄N₄O₄S**
Flavazine L, F-00007
- C₁₆H₁₄N₄O₆**
Ethanedioic acid bis[[2,4-dihydroxyphenyl)methylene]hydrazide], E-00025
- C₁₆H₁₄N₄O₆S₂**
Aminobenzene AE, A-00098
Diaminazo, D-00041
- C₁₆H₁₄N₄O₆S₃**
4-[4,5-Dihydro-3-methyl-4-[(4-sulfofenyl)azo]-5-thioxo-1*H*-pyrazol-1-yl]benzenesulfonic acid, D-00459
- C₁₆H₁₄N₄O₇**
3-Amino-4-hydroxy-3'-nitroazobenzene-*N,N*-diacetic acid, A-00206
- C₁₆H₁₄N₄O₇S₂**
5-Amino-3-[[4-aminophenyl]azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, A-00092
- C₁₆H₁₄N₄S**
Azothiopyrine, A-00478
- C₁₆H₁₄N₆**
Benzenecarboximidic acid *N*-2-pyridinyl-2-pyrazinylhydrazone, B-00015
1,2-Di-2-pyridinylethanone 2-pyrimidinylhydrazone, D-01070
2(1*H*)-Pyrazinone (1,2-di-2-pyridinylethylidene)hydrazone, P-00288
2(1*H*)-Pyridinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, P-00367
2(1*H*)-Pyridinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00368
2(1*H*)-Pyridinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, P-00370
2(1*H*)-Pyridinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, P-00371
- C₁₆H₁₄N₈O₄S₂**
Glyoxal bis(4-nitrophenylthiosemicarbazone), G-00032
- C₁₆H₁₄O₂**
3-Methoxy-1,3-diphenyl-1-butanone, *in* D-01041
- C₁₆H₁₄O₃**
Benzoin; Ac, *in* B-00068
1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one, H-00311
3-Methylbenzoic acid; Anhydride, *in* M-00137
4-Methylbenzoic acid; Anhydride, *in* M-00138
- C₁₆H₁₄O₄**
2,2'-Biphenyldicarboxylic acid; Di-Me ester, *in* B-00207
2,2'-Biphenyldicarboxylic acid; Et ester, *in* B-00207
4,4'-Biphenyldiol; Di-Ac, *in* B-00208
- C₁₆H₁₄O₅**
Brazilin, B-00475
Dibenzyl dicarbonate, *in* D-00243
▷ 4-Methoxybenzoic acid; Anhydride, *in* M-00079
2,6,7-Trihydroxy-9-propyl-3*H*-xanthen-3-one, T-00316
- C₁₆H₁₄O₅S**
9,10-Dimethoxy-2-anthracenesulfonic acid, D-00765
- C₁₆H₁₄O₆**
3-(2,4-Dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00710
Haematopylin, H-00002
▷ 3',5',7-Trihydroxy-4'-methoxyflavanone, T-00296
- C₁₆H₁₅AsN₄O₄**
4-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]phenylarsonic acid, D-00439
- C₁₆H₁₅BiCl₂N₂**
Dichlorophenylbismuthine; Bis-Py complex, *in* D-00292
- C₁₆H₁₅ClN₂O₅**
Galloyanine; Me ester, chloride, *in* G-00005
- C₁₆H₁₅ClN₄O₅**
2,4-Dinitro-6-chlorophenylazothymol, D-00951

- C₁₆H₁₅N**
 α -Methyl-1-anthracenemethanamine, M-00125
 α -Methyl-2-anthracenemethanamine, M-00126
- C₁₆H₁₅NO₂**
 4-Aminobiphenyl; *N*-Di-Ac, in A-00117
N-*o*-Tolylcinnamohydroxamic acid, in H-00499
- C₁₆H₁₅NO₃**
 Hippuric acid; Benzyl ester, in H-00078
p-Methoxy-*N*-phenylcinnamohydroxamic acid, in H-00241
- C₁₆H₁₅NO₄**
 2,2'-Iminodibenzoic acid; Di-Me ester, in I-00013
 2,4'-Iminodibenzoic acid; Di-Me ester, in I-00015
- C₁₆H₁₅NO₇**
 4-[[Bis(carboxymethyl)amino]methyl]-3-hydroxy-2-naphthoic acid, B-00277
- C₁₆H₁₅N₅**
 \triangleright 2-[4-(Aminoiminomethyl)phenyl]-1*H*-indole-6-carboximidamide, A-00227
- C₁₆H₁₅N₅O**
 2-[[1-(Hydroxyimino)ethyl]azo]-1-(phenylmethyl)-1*H*-benzimidazole, in H-00245
- C₁₆H₁₆Br₂N₄O₂**
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(diethylamino)benzoic acid, in A-00148
- C₁₆H₁₆Br₂N₄O₃S**
 2-[(3,5-Dibromo-2-pyridinyl)azo]-4-methyl-5-[(3-sulfopropyl)amino]benzoic acid, D-00209
- C₁₆H₁₆NO⁺**
 9-Ethoxy-10-methylacridinium(1+), E-00056
- C₁₆H₁₆N₂**
 2,4,7,9-Tetramethyl-1,10-phenanthroline, T-00097
 3,4,6,7-Tetramethyl-1,10-phenanthroline, T-00098
 3,4,6,8-Tetramethyl-1,10-phenanthroline, T-00099
 3,4,7,8-Tetramethyl-1,10-phenanthroline, T-00100
 3,5,6,8-Tetramethyl-1,10-phenanthroline, T-00101
- C₁₆H₁₆N₂O₂**
 \triangleright *N,N'*-Bis(2-hydroxybenzylidene)-1,2-ethanediamine, B-00363
 \triangleright 4,4'-Diaminobiphenyl; 4,4'-Di-*N*-Ac, in D-00053
- C₁₆H₁₆N₂O₂S**
 4,4'-Diaminodiphenyl sulfide; 4,4'-*N*-Di-Ac, in D-00089
- C₁₆H₁₆N₂O₂S₂**
 Bis(2-aminophenyl) disulfide; 2,2'-*N*-Di-Ac, in B-00251
N,N'-Bis(2-mercaptobenzoyl)-1,2-ethanediamine, B-00397
- C₁₆H₁₆N₂O₃S**
 4,4'-Diaminodiphenyl sulfoxide; 4,4'-*N*-Di-Ac, in D-00091
- C₁₆H₁₆N₂O₄**
N,N'-Ethylenebis(4-methoxy-1,2-benzoquinone 2-imine), E-00076
- C₁₆H₁₆N₂O₄S**
 \triangleright Bis(4-acetamidophenyl)sulfone, in D-00090
- C₁₆H₁₆N₂O₅**
O-(4-Nitrobenzyl)tyrosine, N-00100
- C₁₆H₁₆N₂O₆S₄**
 α,α -[(Dithiooxalyl)diimino]di-*m*-toluenesulfonic acid, D-01134
- C₁₆H₁₆N₂S₂**
 1,2-Bis(2-mercaptobenzylideneamino)ethane, B-00398
 \triangleright Dibenzylidithioamide, D-00169
- C₁₆H₁₆N₂S₄**
 1,2-Ethanediybis[phenylcarbomethioic acid], E-00033
- C₁₆H₁₆N₄**
 2,3-Dihydro-5,6-bis(6-methyl-2-pyridyl)pyrazine, D-00374
- C₁₆H₁₆N₄OS**
 [[4-(5-Methyl-2-benzothiazolyl)phenyl]amino]acetohydrazide, M-00142
- C₁₆H₁₆N₄S**
 1,5-Diphenyl-3-(2-propenylthio)formazan, D-01043
- C₁₆H₁₆N₆O**
 4-[(6-Amino-3-pyridinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00335
- C₁₆H₁₆N₆S₂**
 Glyoxal bis(phenylthiosemicarbazone), G-00033
- C₁₆H₁₆O₂**
 4,4'-Dimethoxystilbene, in D-00730
 Diphenylacetic acid; Et ester, in D-00999
- C₁₆H₁₆O₃**
 2-Ethoxy-2,2-diphenylacetic acid, in H-00166
 2-Hydroxy-2,2-diphenylacetic acid; Et ester, in H-00166
 2-Methoxy-3-prenyl-naphthoquinone, in H-00515
- C₁₆H₁₆O₄**
 2,4,4'-Trimethoxybenzophenone, in T-00279
- C₁₆H₁₆O₅**
 2,6-Dihydroxybenzoic acid; Me ether, 2-methoxybenzyl ester, in D-00533
- C₁₆H₁₆O₆**
 7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Et ester, Ac, in H-00295
- C₁₆H₁₇AsN₄O₄**
 [4-[[[(5-Hydroxy-3-methyl-1-phenyl)-1*H*-pyrazol-4-yl]azo]phenyl]arsonic acid, H-00314
- C₁₆H₁₇ClN₄O₂S**
 \triangleright Methylene green; Chloride, in M-00177
- C₁₆H₁₇Cl₂N₃O₃S**
 2,5-Dichloro-4-[[4-(4-diethylamino)phenyl]azo]benzenesulfonic acid, in A-00311
- C₁₆H₁₇NO₂**
 2-Hydroxy-*N*-(2-Hydroxy-5-ethylbenzylidene)-5-methylaniline, H-00202
- C₁₆H₁₇N₃O₂**
 4-Cyclopentyl-6-(2-pyridinylazo)-1,3-benzenediol, C-00367
 2,4-Diaminodiphenylamine; 2,4-*N*-Di-Ac, in D-00085
- C₁₆H₁₇N₃O₆S**
 2-[[2-Hydroxy-4-methyl-5-(1-methylethyl)phenyl]azo]-5-nitrobenzenesulfonic acid, H-00288
- C₁₆H₁₇N₃S₂**
 3,4-Dihydro-4,4,6-trimethyl-1-(4-phenyl-2-thiazolyl)-2(1*H*)-pyrimidinethione, D-00502
- C₁₆H₁₇N₄O₂S⁺**
 Methylene green, M-00177
- C₁₆H₁₇N₅O₃S**
 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbothioic acid dihydrazide, H-00219
- C₁₆H₁₇N₅O₄**
 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbonic acid dihydrazide, H-00218
 4-Methoxybenzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, M-00083
- C₁₆H₁₇N₅O₆**
 2-[4-(Diethylamino)-2-hydroxyphenylazo]-4,6-dinitrophenol, D-00318
- C₁₆H₁₈Br₂N₄O**
 2-[(3,5-Dibromo-4-methyl-2-pyridinyl)azo]-5-(diethylamino)phenol, D-00196
- C₁₆H₁₈Br₂N₄O₃S**
 4-(3,5-Dibromo-2-pyridylazo)-*N*-ethyl-*N*-(3-sulfopropyl)aniline, D-00212
- C₁₆H₁₈Br₂N₄O₄S**
 3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, D-00206
- C₁₆H₁₈ClN₃O**
 Capri blue GN; Chloride, in C-00018
- C₁₆H₁₈ClN₃S**
 \triangleright Methylthionium chloride, in M-00175
- C₁₆H₁₈N₂O₂**
 2,2'-Azodiphenetole, in D-00514
- C₁₆H₁₈N₂O₄S**
 \triangleright Benzylpenicillin, B-00191
- C₁₆H₁₈N₃O**
 Capri blue GN, C-00018
- C₁₆H₁₈N₃O₅P**
N-[[Imino(diphenoxyphosphinylamino)methyl]-*N*-methylglycine, in P-00214
- C₁₆H₁₈N₃S⁺**
 Methylene blue, M-00175
- C₁₆H₁₈N₄**
N,N'-Bis(*o*-aminobenzylidene)ethylenediamine, B-00242
- C₁₆H₁₈N₄O₃**
 Azonol A1, A-00474
- C₁₆H₁₈N₄O₄**
N,N'-Ethylenebis(4-methoxy-1,2-benzoquinone 2-imine); Dioxime, in E-00076
- C₁₆H₁₈N₄O₇S**
 3-[2-(5-Diethylaminophenyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00330
- C₁₆H₁₈N₆**
 3,6-Bis(4-ethyl-2-pyridyl)-1,2-dihydro-1,2,4,5-tetrazine, B-00354
 1,2-Cyclohexanedione bis(2-pyridylhydrazone), C-00343
- C₁₆H₁₈O₈**
 1,2-Benzenedicarboxaldehyde; Tetra-Ac, in B-00016
- C₁₆H₁₈O₉**
 5,7-Dihydroxy-2-methyl-4*H*-1-benzopyran-4-one; 7-*O*- β -D-Glucopyranoside, in D-00645
 Schumanniofoside A, in D-00645
- C₁₆H₁₉BrN₄O₄S**
 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, B-00567
- C₁₆H₁₉NO₂**
N-Hydroxy-*N*-1-naphthalenylhexanamide, H-00361
 2-Pentanol; 1-Naphthylurethane, in P-00035
- C₁₆H₁₉N₃**
 \triangleright 4-Aminoazobenzene; *N*-Di-Et, in A-00094
- C₁₆H₁₉N₃O₅S**
 [3-(4-Diethylamino-2-hydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00319
- C₁₆H₁₉N₃S**
 3,7-Bis(dimethylamino)phenothiazine, B-00316
- C₁₆H₁₉OPS₂**
 S,S-Diphenyl butylphosphonodithioate, in B-00638
- C₁₆H₁₉O₃P**
 Diphenyl (2-methylpropyl)phosphonate, in M-00262

- C₁₆H₁₉PS₂**
tert-Butyl diphenylphosphinodithioate, *in* D-01039
- C₁₆H₂₀CIN₃**
Bindschedler's green; Chloride, *in* B-00206
- C₁₆H₂₀Cl₂S₆**
2,2'-(2,5,8,11-Tetrathiadodecane-1,12-diyl) bis[5-chlorothiophene], T-00127
- C₁₆H₂₀NO₃P**
Diphenyl diethylphosphoramidate, *in* D-00353
- C₁₆H₂₀N₂**
4,4'-Diamino-2,2'-diethylbiphenyl, D-00072
▷ 4,4'-Diamino-3,3',5,5'-tetramethylbiphenyl, D-00128
N,N'-Diethylbenzidine, *in* D-00053
1,2-Diphenyl-1,2-ethanediamine; *N,N'*-Di-Me, *in* D-01010
- C₁₆H₂₀N₂O₂**
1,2-Bis(4-methoxyphenyl)-1,2-ethanediamine, B-00401
4,4'-Diamino-3,3'-diethoxybiphenyl, *in* D-00056
- C₁₆H₂₀N₂O₂S**
4,4'-Diaminodiphenyl sulfone; *N,N,N',N'*-Tetra-Me, *in* D-00090
- C₁₆H₂₀N₂O₃S**
N,N,N',N'-Tetramethylbenzidine-3-sulfonic acid, *in* D-00058
- C₁₆H₂₀N₃[⊕]**
Bindschedler's green, B-00206
- C₁₆H₂₀N₄O**
5-(Diethylamino)-2-[(5-methyl-2-pyridinyl)azo]phenol, D-00324
2-[(2-Ethoxy-4-ethylamino-5-methylphenyl)azo]pyridine, *in* A-00253
- C₁₆H₂₁CIN₄**
4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Chloride, *in* D-00332
- C₁₆H₂₁IN₄**
4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Iodide, *in* D-00332
- C₁₆H₂₁NO₈**
19-Methoxy-3,6,9,12,15-pentaoxa-21-azabicyclo[15.3.1]heneicosa-1(21),17,19-triene-2,16-dione, M-00101
- C₁₆H₂₁N₃O₂**
4-[[4-(Dimethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, D-00808
- C₁₆H₂₁N₃O₂S**
1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]piperazine, D-00801
- C₁₆H₂₁N₃O₃**
4-(4-*N*-Ethyl-*N*-hydroxyaminophenylazo)-5,5-dimethyl-1,3-cyclohexanedione, *in* A-00313
- C₁₆H₂₁N₄[⊕]**
4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+), D-00332
- C₁₆H₂₁N₅O₃**
7-Arginylamino-4-methylcoumarin, A-00401
- C₁₆H₂₁N₇**
3-[(5-(1-Methyl-2-piperidinyl)-2-pyridinyl)azo]-2,6-pyridinediamine, M-00252
- C₁₆H₂₁O₂P**
Diisopropyl 1-naphthylphosphonite, *in* N-00055
- C₁₆H₂₂N₂O₄P₂**
[Ethylenebis(iminobenzylidene)]diphosphinic acid, E-00074
- C₁₆H₂₂N₂O₆P₂**
[1,2-Ethanediybis(imino(phenylmethylene))]bisphosphonic acid, E-00031
[Ethylenebis(iminosalicylidene)]diphosphinic acid, E-00075
- C₁₆H₂₂N₂O₈P₂**
[1,2-Ethanediybis(imino(2-hydroxyphenyl)methylene)]bisphosphonic acid, E-00030
- C₁₆H₂₂N₄O₄S₂**
3-[Ethyl[5-hydroxy-2-methyl-4-[(4-methyl-2-thiazolyl)azo]]-1-propanesulfonic acid, E-00092
- C₁₆H₂₂O₇**
Citrusin C, *in* M-00120
- C₁₆H₂₂O₁₁**
1,2,3,4,6-Penta-*O*-acetylglucopyranose, P-00006
- C₁₆H₂₂S₆**
1,12-Di-2-thienyl-2,5,8,11-tetrathiadodecane, D-01115
- C₁₆H₂₃NO₈**
2,3,5,6,8,9,11,12,14,15-Decahydro-18-nitro-1,4,7,10,13,16-benzoheptaacyclooctadecin, D-00018
- C₁₆H₂₄N₂**
▷ Xylometazoline, X-00008
- C₁₆H₂₄N₂OS**
N-[(Dibutylamino)thioxomethyl]benzamide, D-00225
- C₁₆H₂₄N₄O₂**
6-[(6-Aminohexyl)ethylamino]-2,3-dihydro-1,4-phthalazinedione, A-00180
- C₁₆H₂₄O₅**
2-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclododecane, P-00141
- C₁₆H₂₄O₆**
Benzo-18-crown-6, B-00055
2-Isopropyl-5-methylphenol; *O*-β-D-Glucopyranoside, *in* I-00075
- C₁₆H₂₄O₈S₆**
2,2,5,5-Tetrakis(carboxymethylthio)-*p*-dithiane; Tetra-Me ester, *in* T-00082
- C₁₆H₂₅NO₂**
N-Hydroxy-*N*-phenyldecanamide, *in* H-00147
- C₁₆H₂₅NO₄**
1,4,7,10-Tetraoxa-13-azacyclopentadecane; *N*-Ph, *in* T-00111
- C₁₆H₂₅O₂P**
Menthyl phenylphosphinate, *in* P-00163
- C₁₆H₂₅O₄P**
α-(Dibutylphosphinyl)-α-hydroxybenzeneacetic acid, D-00238
- C₁₆H₂₆EuN₄O₉[⊖]**
Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]europate(III)(1-), A-00396
- C₁₆H₂₆GdN₄O₉[⊖]**
Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]gadolinatate(III)(1-), A-00397
- C₁₆H₂₆O₃**
3-(2-Dodecenyl)dihydro-2,5-furandione, D-01141
- C₁₆H₂₆S₄**
1,2-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00355
1,3-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00356
1,4-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00357
- C₁₆H₂₈N₂S₄**
1,1'-(Dithiodicarbonylthio)bis[octahydroazocine], D-01129
- C₁₆H₂₈N₆S₂**
Glyoxal bis(4-cyclohexylthiosemicarbazone), G-00023
- C₁₆H₃₀N₂O₆**
N-Octylethylenediaminetriacetic acid, *in* E-00079
- C₁₆H₃₀O₃**
Octanoic acid; Anhydride, *in* O-00036
- C₁₆H₃₁ClO**
Hexadecanoic acid; Chloride, *in* H-00026
- C₁₆H₃₁N**
Hexadecanoic acid; Nitrile, *in* H-00026
- C₁₆H₃₂N₂O₅**
4,7,13,16,21-Pentaoxa-1,10-diazabicyclo[8.8.5]tricosane, P-00037
- C₁₆H₃₂N₄**
5,7,7,12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, H-00059
- C₁₆H₃₂O₂**
▷ Hexadecanoic acid, H-00026
- C₁₆H₃₃NO**
Hexadecanamide, *in* H-00026
- C₁₆H₃₄N₂O₆Sn**
Bis(nitrooxy)dioctylstannane, B-00429
- C₁₆H₃₄OS**
Dioctyl sulfoxide, D-00984
- C₁₆H₃₄S**
Dioctyl sulfide, D-00983
- C₁₆H₃₅AsO₂**
Di(*n*-octyl)arsinic acid, D-00982
- C₁₆H₃₅N**
▷ Bis(2-ethylhexyl)amine, B-00351
▷ Dioctylamine, D-00981
- C₁₆H₃₅O₂P**
Bis(2,4,4-trimethylpentyl)phosphinic acid, B-00468
- C₁₆H₃₅O₂PS₂**
▷ *O,O*-Bis(2-ethylhexyl) phosphorodithioate, B-00353
- C₁₆H₃₅O₄P**
▷ Bis(2-ethylhexyl) phosphate, B-00352
- C₁₆H₃₅PS₂**
Bis(2,4,4-trimethylpentyl)phosphinodithioic acid, B-00469
- C₁₆H₃₆BF₄N**
Tetrabutylammonium(1+); Tetrafluoroborate, *in* T-00023
- C₁₆H₃₆BrN**
▷ Tetrabutylammonium(1+); Bromide, *in* T-00023
- C₁₆H₃₆BrP**
▷ Tetrabutylphosphonium(1+); Bromide, *in* T-00024
- C₁₆H₃₆ClCrNO₃**
TBACC, *in* T-00023
- C₁₆H₃₆CINO₄**
Tetrabutylammonium(1+); Perchlorate, *in* T-00023
- C₁₆H₃₆CIP**
▷ Tetrabutylphosphonium(1+); Chloride, *in* T-00024
- C₁₆H₃₆Cl₄IN**
Tetrabutylammonium(1+); Iodotetrachloride, *in* T-00023
- C₁₆H₃₆FN**
Tetrabutylammonium(1+); Fluoride, *in* T-00023
- C₁₆H₃₆IP**
▷ Tetrabutylphosphonium(1+); Iodide, *in* T-00024
- C₁₆H₃₆N[⊕]**
Tetrabutylammonium(1+), T-00023
- C₁₆H₃₆N₄**
5,5,7,12,12,14-Hexamethyl-1,4,8,11-tetraazacyclotetradecane, H-00060
Tetrabutylammonium(1+); Azide, *in* T-00023
- C₁₆H₃₆P[⊕]**
Tetrabutylphosphonium(1+), T-00024

- C₁₆H₃₇F₂N**
Tetrabutylammonium(1+); Bifluoride, *in* T-00023
- C₁₆H₃₇NO**
▷ Tetrabutylammonium(1+); Hydroxide, *in* T-00023
- C₁₆H₄₀BN**
Tetrabutylammonium(1+); Borohydride, *in* T-00023
- C₁₇H₇F₁₂NO₂**
N-[3,5-Bis(trifluoromethyl)phenyl]-*N*-hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465
- C₁₇H₉NO₄**
5,6-Dihydroxynaphtho[2,3-*f*]quinoline-7,12-dione, D-00661
- C₁₇H₉NS**
1-Isothiocyantopyrene, I-00100
- C₁₇H₉N₇**
3-(Pyrazinyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00301
3-(3-Pyridazyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00315
- C₁₇H₁₀BrN₃OS**
1-[(6-Bromo-2-benzothiazolyl)azo]-2-naphthalenol, B-00492
- C₁₇H₁₀BrN₃O₈S₃**
3-[(6-Bromo-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00490
- C₁₇H₁₀F₃NO₃**
7-Amino-4-(trifluoromethyl)-2*H*-1-benzopyran-2-one; *N*-Benzoyl, *in* A-00365
- C₁₇H₁₀N₂**
1-(Diazomethyl)pyrene, D-00153
- C₁₇H₁₀N₂O₂**
1-(9-Acridinyl)-1*H*-pyrrole-2,5-dione, A-00063
- C₁₇H₁₀N₂O₃**
1-[4-(2-Benzoxazolyl)phenyl]-1*H*-pyrrole-2,5-dione, B-00118
- C₁₇H₁₀O**
1-Pyrenecarboxaldehyde, P-00306
- C₁₇H₁₀O₂**
1-Pyrenecarboxylic acid, P-00307
- C₁₇H₁₀O₄**
Fluorescamine, F-00019
- C₁₇H₁₁Br₂NO₂**
Broxaldine, *in* D-00190
- C₁₇H₁₁ClN₂O₇S**
4-[(5-Chloro-2-hydroxy-3-sulfohenyl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, C-00160
- C₁₇H₁₁ClN₄O₇S₂**
Chlorindazon DS, C-00052
- C₁₇H₁₁NO**
Benz[*ca*]indol-2-(1*H*)-one; *N*-Ph, *in* B-00050
1-Pyrenecarboxaldehyde; Oxime, *in* P-00306
- C₁₇H₁₁NO₂**
3-Benzoyl-2-quinolinecarboxaldehyde, B-00160
11-Methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00140
- C₁₇H₁₁NO₃**
1-(4-Benzoylphenyl)-1*H*-pyrrole-2,5-dione, B-00146
5-Hydroxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, H-00280
1-Nitroso-2-naphthol; Benzoyl, *in* N-00160
2-Nitroso-1-naphthol; Benzoyl, *in* N-00161
- C₁₇H₁₁N₃O**
2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid; Nitrile, *in* D-00463
- C₁₇H₁₁N₃OS**
1-(2-Benzothiazolylazo)-2-naphthalenol, B-00098
- C₁₇H₁₁N₃O₆S**
2-[(3,4-Dihydroxyphenyl)azo]-4-(4-carboxyphenyl)-5-thiazolecarboxylic acid, D-00690
- C₁₇H₁₁N₇**
5,6-Di-2-pyridinyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01086
3-Pyrazinyl-5,6-di-2-pyridyl-1,2,4-triazine, P-00297
3-(3-Pyridazyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, P-00313
- C₁₇H₁₂ClNO₂**
4-Chloro-*N*-hydroxy-*N*-1-naphthalenylbenzamide, C-00136
- C₁₇H₁₂F₂N₂O₂**
4-(2,6-Difluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00359
- C₁₇H₁₂N₂O₂**
5-Amino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00236
- C₁₇H₁₂N₂O₃**
2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid, D-00463
2-[(2-Hydroxy-1-naphthalenyl)azo]benzoic acid, H-00349
p-[(2-Hydroxy-1-naphthyl)azo]benzoic acid, H-00375
- C₁₇H₁₂N₂O₄**
N-Hydroxy-*N*-1-naphthalenyl-4-nitrobenzamide, H-00365
- C₁₇H₁₂N₂O₆S**
4-Hydroxy-3-[(2-hydroxybenzoyl)azo]-1-naphthalenesulfonic acid, H-00188
- C₁₇H₁₂N₂O₉S₂**
▷ Solochrome red B, S-00021
- C₁₇H₁₂N₂O₁₀S₂**
Chromotrope 2C, C-00291
3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00594
4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00595
- C₁₇H₁₂N₂O₁₁S₂**
4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-hydroxybenzoic acid, D-00598
- C₁₇H₁₂N₂O₁₄S₃**
Chromazol KS, C-00276
- C₁₇H₁₂N₄**
2-(2,2'-Bipyridin-6-yl)benzimidazole, B-00225
2-(4-Phenyl-2-pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, P-00183
- C₁₇H₁₂N₄O₇S₂**
4-(1*H*-Benzimidazol-5-ylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid, B-00042
- C₁₇H₁₂N₄S**
2-Benzothiazolecarboxaldehyde 2-quinolyldiazone, B-00088
2-Quinolinecarboxaldehyde 2-benzothiazolylhydrazone, Q-00010
- C₁₇H₁₂OS₃**
2,6-Dimercapto-3,5-diphenyl-4*H*-thiopyran-4-one, D-00755
- C₁₇H₁₂O₂**
1-Naphthol; Benzoyl, *in* N-00025
2-Naphthol; Benzoyl, *in* N-00026
- C₁₇H₁₂O₃**
 α -Oxo-9-anthraceneacetic acid; Me ester, *in* O-00053
- C₁₇H₁₂O₄**
7-Hydroxy-4-methyl-2*H*-1-benzopyran-2-one; Benzoyl, *in* H-00283
3-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one; Ac, *in* H-00466
- C₁₇H₁₂O₅**
2,3-Dihydro-8-hydroxy-9-phenyl-7*H*-pyrano[2,3-*f*]-1,4-benzodioxin-7-one, D-00422
Furoin; Benzoyl, *in* F-00065
- C₁₇H₁₂O₆**
1,3-Dihydroxyxanthone; Di-Ac, *in* D-00741
3,6-Dihydroxyxanthone; Di-Ac, *in* D-00742
- C₁₇H₁₃BrN₂O₂**
4-(2-Bromobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00493
- C₁₇H₁₃ClN₂O₂**
4-Benzoyl-2-(2-chlorophenyl)-2,4-dihydro-5-methyl-3*H*-pyrazol-3-one, B-00126
4-Benzoyl-2-(4-chlorophenyl)-2,4-dihydro-5-methyl-3*H*-pyrazol-3-one, B-00127
4-(2-Chlorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, C-00070
- C₁₇H₁₃ClN₄O₃**
5-Chloro-2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]benzoic acid, C-00094
- C₁₇H₁₃ClN₄O₃S**
3-[[5-Chloro-2-pyridinyl]hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, C-00257
- C₁₇H₁₃ClN₄O₇S₃**
5-Chloro-2-hydroxy-3-[(3-(2-hydroxy-3-methoxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00131
- C₁₇H₁₃ClO₂**
2-(9-Anthracenyl)ethyl carbonochloridate, A-00383
- C₁₇H₁₃FN₂O₂**
4-(2-Fluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, F-00025
- C₁₇H₁₃N**
1-Aminopyrene; *N*-Me, *in* A-00331
- C₁₇H₁₃NO**
1-Naphthylamine; Benzoyl, *in* N-00041
2-Naphthylamine; Benzoyl, *in* N-00042
- C₁₇H₁₃NO₂**
N-Benzoyl-*N*-(1-naphthyl)hydroxylamine, B-00138
2-Hydroxy-*N*-(2-hydroxynaphthylidene)aniline, H-00226
N-Hydroxy-*N*-phenyl-1-naphthalenecarboxamide, H-00489
N-Hydroxy-*N*-phenyl-2-naphthalenecarboxamide, *in* N-00024
Naphthol AS, *in* H-00370
1-Nitroso-2-naphthol; Benzyl ether, *in* N-00160
2-Phenyl-4-quinolinecarboxylic acid; Me ester, *in* P-00189
- C₁₇H₁₃NO₈S₂**
Azomethine H, A-00472
- C₁₇H₁₃NO₉S₂**
Azomethine HR, A-00473
- C₁₇H₁₃N₃O₂**
2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid; Amide, *in* D-00463
3-Hydroxy-4-(phenylazo)-2-naphthalenecarboxamide, H-00452
4-Pyridinecarboxylic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, P-00347
- C₁₇H₁₃N₃O₃**
1-Phenylazo-2-hydroxy-3-naphthylhydroxamic acid, *in* H-00452
- C₁₇H₁₃N₃O₄S₂**
1,2-Naphthoquinone-4-sulfonic acid 2-(phenylthiosemicarbazone), N-00037
- C₁₇H₁₃N₃O₆S**
2-[[7-Amino-1-hydroxy-3-sulfo-2-naphthalenyl]azo]benzoic acid, A-00222

- C₁₇H₁₃N₃O₈S₂**
2-[(1-Amino-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, A-00167
- C₁₇H₁₃N₃O₁₀S₂**
Nitroaniline blue, N-00078
- C₁₇H₁₃N₃S**
2,3-Dihydro-2,2-di-(2-pyridinyl)benzothiazole, D-00403
- C₁₇H₁₃N₅**
1*H*-Benzimidazole-2-carboxaldehyde 2-quinolinylhydrazone, B-00040
2-(5,6-Dimethyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, D-00927
- C₁₇H₁₃N₅O**
Di-2-pyridinylethanedione mono(2-pyridinylhydrazone), D-01068
- C₁₇H₁₃N₅O₅**
Nitroanthranilazo, N-00079
- C₁₇H₁₃N₅O₅S**
3-[[[5-Nitro-2-pyridinyl]hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, N-00151
- C₁₇H₁₄Br₂N₂O₆**
4-[[[3-Aminomethyl]-4-hydroxyphenyl]imino]-2,6-dibromo-2,5-cyclohexadien-1-one-*N,N*-diacetic acid, A-00243
- C₁₇H₁₄ClNO₂S**
2,6-Mansyl chloride, *in* M-00222
- C₁₇H₁₄Cl₂N₂O₆**
2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)phenol-*N,N*-diacetic acid, A-00240
- C₁₇H₁₄N₂OS**
2,4-Dihydro-5-methyl-2-phenyl-4-(phenylthioxomethyl)-3*H*-pyrazol-3-one, D-00442
N-Hydroxy-*N'*-2-naphthalenyl-*N*-phenylthiourea, H-00367
- C₁₇H₁₄N₂O₂**
4-Benzoyl-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00128
- C₁₇H₁₄N₂O₅S**
Calmagite, C-00015
- C₁₇H₁₄N₂O₇S₃**
4-Acetamido-4'-isothiocyantostilbene-2,2'-disulfonic acid, *in* A-00230
3-Hydroxy-4-[[2-(methylthio)phenyl]azo]-2,7-naphthalenedisulfonic acid, *in* H-00259
- C₁₇H₁₄N₂O₉S₂**
4,5-Dihydroxy-3-[(2-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00643
- C₁₇H₁₄N₄**
2-Benzoylpyridine 2-pyridylhydrazone, B-00154
Di-2-pyridinylmethanone; Phenylhydrazone, *in* D-01071
2-(4-Ethyl-2-pyridyl)-3*H*-imidazo[4,5-*h*]quinoline, E-00111
- C₁₇H₁₄N₄O₃S**
3-(2-Pyridinylcarbonyl)benzenesulfonic acid; 2-Pyridylhydrazone, *in* P-00386
- C₁₇H₁₄N₆**
6-[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00483
- C₁₇H₁₄N₆O**
Di-2-pyridinylethanedione mono(2-pyridinylhydrazone); Oxime, *in* D-01068
- C₁₇H₁₄O₂**
9-Anthracenemethanol; Ac, *in* A-00380
- C₁₇H₁₄O₃**
2-Methoxy-2,4-diphenyl-3(2*H*)-furanone, M-00086
- C₁₇H₁₄O₄**
6-(Benzoylacetyl)-1,4-benzodioxan, B-00119
2-Ethyl-5,7-dihydroxy-3-phenyl-4*H*-1-benzopyran-4-one, E-00070
- C₁₇H₁₄O₅**
2,2'-Dihydroxybenzophenone; Di-Ac, *in* D-00535
2,4-Dihydroxybenzophenone; Di-Ac, *in* D-00536
1,2,7-Trimethoxyanthraquinone, *in* T-00271
- C₁₇H₁₅AsN₄O₄**
[4-[1-[2-Amino-3-hydroxy-4-(2-pyridinyl)phenyl]azo]phenyl]arsonic acid, A-00219
- C₁₇H₁₅NO**
4,5-Dihydro-5-phenyl-3-(2-phenylethenyl)isoxazole, D-00467
9-Phenanthrenemethylamine; *N*-Ac, *in* P-00048
- C₁₇H₁₅NO₂**
N-Hydroxy-*N*,5-diphenyl-2,4-pentadienamido, H-00169
1-(Hydroxyphenylamino)-5-phenyl-1,4-pentadien-3-one, H-00446
- C₁₇H₁₅N₃O₃S**
6-(Methylphenylamino)-2-naphthalenesulfonic acid, M-00222
- C₁₇H₁₅NO₄**
3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(3-methylphenyl)-2-propenamido, *in* B-00056
- C₁₇H₁₅N₃O**
4,5-Dimethyl-2-(2-quinolinylazo)phenol, D-00914
- C₁₇H₁₅N₃O₅S**
4-(4-Amino-2-hydroxy-5-methylphenylazo)-3-hydroxy-1-naphthalenesulfonic acid, A-00196
- C₁₇H₁₅N₃O₈S₂**
5-Amino-4-hydroxy-3-[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* A-00195
- C₁₇H₁₅N₅O₂**
16,17-Dihydro-5*H*,15*H*-dibenzo[*b,f*] [1,11,4,5,7,8]dioxatetraazacyclotetradecine-7-carbonitrile, D-00375
- C₁₇H₁₅N₅O₆S**
2-[[5-Hydroxy-3-methyl-1-(phenylmethyl)-1*H*-pyrazol-4-yl]azo]-5-nitrobenzenesulfonic acid, H-00312
- C₁₇H₁₆F₃NO₄S**
9-Ethoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, *in* E-00056
- C₁₇H₁₆N₂**
4-Methyl-2-(4-methylphenyl)-1*H*-1,5-benzodiazepine, M-00199
- C₁₇H₁₆N₂O**
2-(4-Methoxyphenyl)-4-methyl-1*H*-1,5-benzodiazepine, M-00112
- C₁₇H₁₆N₂O₂**
2,7-Diaminofluorene; Di-*N*-Ac, *in* D-00097
- C₁₇H₁₆N₂O₂S**
(2,5-Dimethylbenzenesulfonylamino)quinoline, D-00833
4-Ethyl-*N*-(8-quinolinyl)benzenesulfonamide, E-00112
- C₁₇H₁₆N₂O₄**
1-[[[1-(1-Naphthalenyl)ethyl]amino]carbonyl]oxy]-2,5-pyrrolidinedione, N-00019
- C₁₇H₁₆N₄**
Propanal (3-phenyl-2-quinoxalyl)hydrazone, P-00260
- C₁₇H₁₆N₄O**
5-(Dimethylamino)-2-(8-quinolinylazo)phenol, D-00825
- C₁₇H₁₆N₄O₂**
1,2-Dihydro-4-[(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00419
- C₁₇H₁₆N₄O₃**
4-[(2,4-Dihydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00691
- C₁₇H₁₆N₄O₄**
1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(2,4,6-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00393
1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[5-(1,2,3-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00394
Methylglyoxal bis(4-hydroxybenzoylhydrazone), M-00183
- C₁₇H₁₆N₄O₅S**
3-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]-2-hydroxy-5-methylbenzenesulfonic acid, D-00437
- C₁₇H₁₆O₃**
1-(2-Hydroxy-5-methylphenyl)-3-(4-methoxyphenyl)-2-propen-1-one, *in* H-00311
- C₁₇H₁₆O₄**
2-Hydroxy-2,2-diphenylacetic acid; Me ester, Ac, *in* H-00166
- C₁₇H₁₇BrN₄OS**
2-[(6-Bromo-2-benzothiazolyl)azo]-5-(diethylamino)phenol, *in* A-00123
- C₁₇H₁₇Cl₂NO₃**
N-(4-Chlorophenyl)-4-chlorophenoxyisobutyrohydroxamic acid, C-00208
- C₁₇H₁₇FeNO₄**
[3-[(2,5-Dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]ferrocene, D-00995
- C₁₇H₁₇NO₂**
N-(2,3-Dimethylphenyl)-*N*-hydroxy-3-phenylpropanamide, D-00891
- C₁₇H₁₇NO₃**
2-[4,5-Dihydro-5-(4-methoxyphenyl)-3-isoxazolyl]-4-methylphenol, D-00427
N-Hydroxy-3-(4-methoxyphenyl)-2-propenamido; *N*-(3-Methylphenyl), *in* H-00272
N-Hydroxy-3-(4-methoxyphenyl)-2-propenamido; *N*-(4-Methylphenyl), *in* H-00272
1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one; 4-Me ether, oxime, *in* H-00311
- C₁₇H₁₇N₃O₂S**
Mansylhydrazine, *in* M-00222
- C₁₇H₁₇N₅O**
4-[(4-Aminophenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00312
- C₁₇H₁₇N₅O₂**
4-[[[(4-Amino-2-hydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00209
- C₁₇H₁₈Br₂N₄O₅S**
2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(3-sulfopropyl)amino]benzoic acid, D-00203
- C₁₇H₁₈Br₂N₄O₆S**
2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(2-hydroxy-3-sulfopropyl)amino]benzoic acid, D-00202
- C₁₇H₁₈CINO₃**
4-Butoxy-*N*-(4-chlorophenyl)benzohydroxamic acid, B-00612
- C₁₇H₁₈N₂**
N,N'-Bis(1-phenylethyl)carbodiimide, B-00439

- C₁₇H₁₈N₂O₂**
3,6-Bis(dimethylamino)-9*H*-xanthen-9-one, *in* D-00132
- C₁₇H₁₈N₂O₅**
O-(4-Nitrobenzyl)tyrosine; Me ester, *in* N-00100
- C₁₇H₁₈N₂S₂**
2,2'-[[1,3-Dimethyl-1,3-propanediylidene]dinitrilo]bisbenzenethiol, D-00898
- C₁₇H₁₈N₆S₂**
2,2'-(1-Methyl-1,2-ethanediylidene)bis[*N*-phenylhydrazinecarbothioamide], *in* P-00446
- C₁₇H₁₈O₂**
2-Isopropyl-5-methylphenol; Benzoyl, *in* I-00075
- C₁₇H₁₉ClN₂O**
▷ Pyronine G; Chloride, *in* P-00435
- C₁₇H₁₉ClN₂S**
▷ Chlorpromazine, C-00273
- C₁₇H₁₉ClO₄**
3,5-Diacetyl-4-(2-chlorophenyl)-2,6-heptanedione, D-00034
- C₁₇H₁₉NO₂**
N-(4-Butylbenzoyl)-*N*-phenylhydroxylamine, *in* B-00618
4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, *in* B-00619
2-Hydroxy-*N*-(2-hydroxy-5-*tert*-butylbenzylidene)aniline, H-00194
2-Hydroxy-*N*-(2-hydroxy-3-isopropyl-6-methylbenzylidene)aniline, H-00205
2-Hydroxy-*N*-(2-hydroxy-6-isopropyl-3-methylbenzylidene)aniline, H-00206
- C₁₇H₁₉NO₃**
4-Butoxy-*N*-hydroxy-*N*-phenylbenzamide, B-00614
- C₁₇H₁₉N₂O⁺**
Pyronine G, P-00435
- C₁₇H₁₉N₃**
▷ 3,6-Bis(dimethylamino)acridine, B-00313
3,3-Diethyl-1-(9*H*-fluoren-2-yl)-1-triazene, D-00347
- C₁₇H₁₉N₃O**
Brilliant cresyl blue, B-00477
- C₁₇H₁₉N₃O₂**
4-Cyclohexyl-6-(2-pyridinylazo)-1,3-benzenediol, C-00358
- C₁₇H₂₀Br₂N₄O₄S**
3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid, D-00204
3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, D-00207
- C₁₇H₂₀ClN₃O₅S**
3-[[4-[(5-Chloro-2-hydroxyphenyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, C-00148
- C₁₇H₂₀N₂O₄S**
Dansylproline, D-00001
- C₁₇H₂₀N₂S**
4,4'-Bis(dimethylamino)thiobenzophenone, B-00326
▷ Promazine, P-00258
- C₁₇H₂₀N₂S₂**
N-[2-(Butylthio)phenyl]-*N'*-phenylthiourea, B-00639
- C₁₇H₂₀N₄O**
4-Pyridinecarboxylic acid [[4-(diethylamino)phenyl]methylene]hydrazide, P-00344
- C₁₇H₂₀N₄O₂**
2-[[5-(1-Methyl-1-piperidinyl)-2-pyridinyl]azo]-1,4-benzenediol, M-00247
- 4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248
4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, M-00249
- C₁₇H₂₀N₄O₆**
▷ Riboflavine, R-00008
- C₁₇H₂₀N₆O₄S**
Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbothioic dihydrazide, B-00376
- C₁₇H₂₀N₆O₅**
Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbonic dihydrazide, B-00375
- C₁₇H₂₀N₈O₄S₂**
7,7'-Trimethylenebis[1,3-dimethyl-8-thiouric acid], T-00327
- C₁₇H₂₀O₂**
1,1'-(Diethoxymethylene)bisbenzene, *in* B-00069
- C₁₇H₂₁BrN₄O₄S**
3-[[4-[(5-Bromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid, B-00565
3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00569
3-[[4-[(6-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00570
- C₁₇H₂₁BrN₄O₅S**
3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-2-hydroxy-1-propanesulfonic acid, B-00568
- C₁₇H₂₁Br₂N₅O₃S**
2-(3,5-Dibromo-2-pyridylazo)-5-(*N*-propyl-*N*-sulfopropylamino)aniline, D-00214
- C₁₇H₂₁NO**
▷ Diphenhydramine, D-00998
- C₁₇H₂₁NO₂**
Amoxydramine, *in* D-00998
- C₁₇H₂₁NSi**
1,1-Dimethyl-*N,N*-diphenyl-1-(2-propenyl)silanamine, D-00853
- C₁₇H₂₁N₃**
▷ Auramine, A-00456
- C₁₇H₂₁N₃O₅S**
3-[Ethyl[3-hydroxy-4-[(2-hydroxyphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00088
- C₁₇H₂₁N₅O**
5-Amino-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, A-00252
- C₁₇H₂₂BrN₅O₃S**
3-[[3-Amino-4-[(5-bromo-2-pyridinyl)azo]phenyl]propylamino]-1-propanesulfonic acid, A-00127
- C₁₇H₂₂N₂**
▷ Bis(4-dimethylaminophenyl)methane, B-00320
- C₁₇H₂₂N₂O**
▷ Bis(4-dimethylaminophenyl)methanol, B-00321
- C₁₇H₂₃ClN₄**
4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+); Chloride, *in* D-00329
- C₁₇H₂₃NO₃**
Tropine tropate, T-00431
- C₁₇H₂₃NO₃S₃**
N-(2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatritriacyclopentadecin-15-yl)-2-propenamide, O-00005
- C₁₇H₂₃NO₄**
Aminoxytropine tropate, *in* T-00431
- C₁₇H₂₃NO₆**
N-(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)-2-propenamide, O-00007
- C₁₇H₂₃N₄⁺**
4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+), D-00329
- C₁₇H₂₄N₂O₂S**
8-Aminoquinoline; 8-*N*-Octanesulfonyl, *in* A-00340
- C₁₇H₂₄N₂O₉**
6-(2-Hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, H-00157
- C₁₇H₂₄N₂O₁₀**
2-Hydroxy-3,5-dinitrobenzyl-15-crown-5, H-00155
- C₁₇H₂₄N₂O₁₁**
(2-Hydroxy-3,5-dinitrophenoxymethyl)-15-crown-5, H-00159
- C₁₇H₂₄O₄**
3β-Acetoxypolygodial, *in* D-01160
- C₁₇H₂₅NOS**
N,N-Dibutyl-β-oxobenzene-propanethioamide, *in* O-00056
- C₁₇H₂₅NO₂**
N-(4-Butylcyclohexanoyl)-*N*-phenylhydroxylamine, B-00624
- C₁₇H₂₅N₃O₂S**
N-(5-Aminopentyl)-5-(dimethylamino)-1-naphthalenesulfonamide, A-00296
- C₁₇H₂₆N₂O₇**
13-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-1,3-azacyclopentadecane, H-00386
- C₁₇H₂₆O₄**
▷ 2,5-Dihydroxy-3-undecyl-1,4-benzoquinone, D-00740
- C₁₇H₂₆O₅**
5-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclotridecane, P-00143
- C₁₇H₂₆O₆**
2-(2-Methoxyphenyl)-1,4,7,10,13-pentaoxacyclopentadecane, M-00115
- C₁₇H₂₇NO₂**
N-Hydroxy-*N*-(3-methylphenyl)decanamide, *in* H-00147
N-Hydroxy-*N*-(4-methylphenyl)decanamide, *in* H-00147
- C₁₇H₂₈N₂O₆**
2-[[2-(2-Ethoxyethoxy)ethyl](2-ethoxyethyl)aminomethyl]-4-nitrophenol, E-00055
- C₁₇H₃₃N**
Heptadecanoic acid; Nitrile, *in* H-00003
- C₁₇H₃₄O₂**
▷ Heptadecanoic acid, H-00003
Hexadecanoic acid; Me ester, *in* H-00026
- C₁₇H₃₅NO**
Heptadecanoic acid; Amide, *in* H-00003
- C₁₇H₃₇N**
Diocylamine; *N*-Methyl, *in* D-00981
- C₁₇H₃₇NO₂**
Tetrabutylammonium(1+); Formate, *in* T-00023
- C₁₈Cl₆La₂O₁₂**
Lanthanum chloroanilate, *in* D-00262
- C₁₈H₈N₂O₇**
2-(2,3-Dihydro-2,2-dinitro-3-oxo-1*H*-inden-1-ylidene)-1*H*-indene-1,3(2*H*)-dione, D-00395
- C₁₈H₉Cl₃O₈S₃**
8-(Acetyloxy)-1,3,6-pyrenetrilsulfonyl trichloride, *in* H-00517
- C₁₈H₉NO₄**
2-[(3-Hydroxy-1-oxo-1*H*-inden-2-yl)imino]-1*H*-indene-1,3(2*H*)-dione, H-00433

- C₁₈H₁₀Cl₂N₂
4,4'-Dichloro-2,2'-biquinoline, D-00254
- C₁₈H₁₀Cl₂N₄
6,7-Dichloro-2,3-di-2-pyridylquinoxaline, D-00269
- C₁₈H₁₀N₆
2-Pyridyl-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00425
- C₁₈H₁₀O₃
▷ Bindone, B-00205
- C₁₈H₁₀O₆
Hydrindantin, H-00088
- C₁₈H₁₁ClN₄
6-Chloro-2,3-di-2-pyridylquinoxaline, C-00111
- C₁₈H₁₁ClN₄O₃
Chlorindazon C, C-00051
- C₁₈H₁₁NO₂
Benz[*c,d*]indol-2-(1*H*)-one; *N*-Benzoyl, *in* B-00050
2-[(2-Hydroxyphenyl)imino]-1-acenaphthenone, H-00473
- C₁₈H₁₁NO₅
2,6,7-Trihydroxy-9-(2-pyridinyl)-3*H*-xanthen-3-one, T-00317
2,6,7-Trihydroxy-9-(3-pyridinyl)-3*H*-xanthen-3-one, T-00318
2,6,7-Trihydroxy-9-(4-pyridinyl)-3*H*-xanthen-3-one, T-00319
- C₁₈H₁₁N₃O₂
5-[(8-Hydroxy-5-quinolyl)imino]-8(5*H*)-quinolone, H-00535
- C₁₈H₁₁N₅
2-(2-Pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, P-00419
- C₁₈H₁₁N₅O₂
6-Nitro-2,3-di-2-pyridylquinoxaline, N-00107
- C₁₈H₁₂BrNO
2-Bromo-*N*-1-pyrenylacetamide, B-00561
- C₁₈H₁₂Cl₂F₆N₆S₂
Glyoxal bis[4-(3-trifluoromethyl)-4-chlorophenyl]thiosemicarbazone, G-00035
- C₁₈H₁₂Cl₃N₃O₆S
Solochrome fast blue B, *in* A-00225
- C₁₈H₁₂INO
2-Iodo-*N*-1-pyrenylacetamide, I-00051
- C₁₈H₁₂N₂
2,2'-Biquinoline, B-00236
5-Phenyl-1,10-phenanthroline, P-00154
- C₁₈H₁₂N₂O₂
2,2'-Biquinoline; 1,1'-Dioxide, *in* B-00236
4,4'-Dihydroxy-2,2'-biquinoline, D-00545
8,8'-Dihydroxy-5,5'-biquinoline, D-00546
- C₁₈H₁₂N₂O₂S
1-[4-(6-Methyl-2-benzothiazolyl)phenyl]-1*H*-pyrrole-2,5-dione, M-00143
- C₁₈H₁₂N₂O₁₁S₂
2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenyl]-2-oxoacetic acid, D-00603
- C₁₈H₁₂N₂S₂
Di-8-quinolyl disulfide, D-01105
- C₁₈H₁₂N₄
2,3-Di-2-pyridinylquinoxaline, D-01087
Di-2-pyridylquinazoline, D-01094
- C₁₈H₁₂N₄O
6-Hydroxy-2,3-di-2-pyridinylquinoxaline, H-00172
- C₁₈H₁₂N₅O₆
▷ 2,2-Diphenyl-1-(2,4,6-trinitrophenyl)hydrazyl, D-01057
- C₁₈H₁₂N₆
2,4,6-Tri-2-pyridinyl-1,3,5-triazine, T-00381
3,5,6-Tri-2-pyridinyl-1,2,4-triazine, T-00382
- C₁₈H₁₂N₆O₅S
2,4-Dihydroxy-3,5-bis[(4-nitrophenyl)azo]benzenesulfonic acid, D-00555
- C₁₈H₁₂O₂
3-Benzoyl-2-naphthalenecarboxaldehyde, B-00137
1-Pyreneacetic acid, P-00304
1-Pyreneacarbonylic acid; Me ester, *in* P-00307
- C₁₈H₁₂O₄Se
2,5-Dibenzoyl-3,4-dihydroxyselenophene, D-00164
- C₁₈H₁₂O₆
1,2-Dihydroxyanthraquinone; Di-Ac, *in* D-00510
1,4-Dihydroxyanthraquinone; Di-Ac, *in* D-00511
▷ 1,8-Dihydroxyanthraquinone; Di-Ac, *in* D-00512
- C₁₈H₁₂O₇
1,2,4-Trihydroxyanthraquinone; 2,4-Di-Ac, *in* T-00270
- C₁₈H₁₃BiCl₂N₂
Dichlorophenylbismuthine; Phen complex, *in* D-00292
- C₁₈H₁₃BrN₂O₂
4-Bromobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00489
- C₁₈H₁₃Br₂N₃O₃S
4-(4-Amino-4-biphenylazo)-3,5-dibromobenzenesulfonic acid, A-00119
- C₁₈H₁₃ClN₄O
Di-2-pyridinylmethanone 2-chlorobenzoylhydrazone, D-01074
Di-2-pyridinylmethanone 3-chlorobenzoylhydrazone, D-01075
- C₁₈H₁₃Cl₂N₃O₃S
4-[(4'-Amino-4-biphenyl)azo]-2,5-dichlorobenzenesulfonic acid, A-00120
4'-Anilino-2,5-dichloroazobenzene-4-sulfonic acid, A-00370
- C₁₈H₁₃F₃N₂O₂
2,4-Dihydro-5-methyl-2-phenyl-4-[2-(trifluoromethyl)benzoyl]-3*H*-pyrazol-3-one, D-00450
- C₁₈H₁₃F₃O₂
 α -(Trifluoromethyl)-9-anthracenemethanol; Ac, *in* T-00250
- C₁₈H₁₃NO
1-Aminopyrene; *N*-Ac, *in* A-00331
2-Benzoyl-4-phenylpyridine, B-00144
2-Benzoyl-6-phenylpyridine, B-00145
- C₁₈H₁₃NO₃
2-[[[(2-Hydroxy-1-naphthalenyl)methylene]amino]benzoic acid, H-00362
5-Methoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00089
- C₁₈H₁₃N₂O₇P
Phenylphosphonic acid; Bis(4-nitrophenyl) ester, *in* P-00164
- C₁₈H₁₃N₃
2-(4-Phenyl-2-pyridyl)benzimidazole, P-00178
5-Phenyl-2-(2-pyridyl)benzimidazole, P-00179
- C₁₈H₁₃N₃O₂
2,2'-Iminobis-8-quinolinol, I-00010
- C₁₈H₁₃N₃O₈S₂
Azorhodine 2G; Di-Na salt, *in* A-00476
- C₁₈H₁₃N₃S
2-Naphthalenecarboxaldehyde 2-benzothiazolylhydrazone, N-00004
- C₁₈H₁₃N₅
2-Quinolinecarboxaldehyde 1-phthalazinylhydrazone, Q-00011
- C₁₈H₁₃N₅S
2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]thiazole, D-01026
Di-2-pyridinylmethanone 2-benzothiazolylhydrazone, D-01072
- C₁₈H₁₄BrN₃O₃S
4-[(4-Phenylaminophenyl)azo]-3-bromobenzenesulfonic acid, *in* A-00308
- C₁₈H₁₄ClN₃O₃S
3-Chloro-4-[(4-phenylamino)phenylazo]benzenesulfonic acid, *in* A-00309
- C₁₈H₁₄ClN₃O₆S
C.I. Mordant black 38, *in* A-00205
- C₁₈H₁₄ClN₃O₉S₂
5-(Acetylamino)-3-[(5-chloro-2-hydroxyphenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, *in* A-00139
- C₁₈H₁₄F₆N₆S₂
Glyoxal bis[4-(2-trifluoromethyl)phenyl]thiosemicarbazone, G-00036
- C₁₈H₁₄N₂O
2-Benzoyl-6-phenylpyridine; Oxime, *in* B-00145
3-[(2-Pyridinylmethylene)amino]-[1,1'-biphenyl]-4-ol, P-00391
- C₁₈H₁₄N₂O₂
Benzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00064
9-(Dimethylamino)-5*H*-benzo[*a*]phenoxazin-5-one, D-00782
- C₁₈H₁₄N₂O₃
3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl, D-00694
4-(3,4-Dihydroxyphenylazo)-4'-hydroxybiphenyl, D-00695
3-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00118
4-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00119
4-[4-Hydroxy-3-biphenylazo]-1,3-benzenediol, H-00133
- C₁₈H₁₄N₂O₃S
[[2-[(2-Hydroxy-1-naphthalenyl)azo]phenyl]thio]acetic acid, H-00352
- C₁₈H₁₄N₂O₉S₂
[2-(*o*-Methylbenzoyl)azo]-1,8-dihydroxynaphthalene-3,6-disulfonic acid, M-00144
- C₁₈H₁₄N₂O₁₀S₂
[*o*-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]acetic acid, D-00602
- C₁₈H₁₄N₂O₁₁
Mag-fura-2, M-00003
- C₁₈H₁₄N₂O₁₁S₂
[2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]-2-hydroxyacetic acid, D-00599
2-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenoxyacetic acid, D-00601
- C₁₈H₁₄N₄
4,4'-Diamino-2,2'-biquinoline, D-00063
- C₁₈H₁₄N₄O
Diphenylethanedione mono(pyrazinyl)hydrazone, D-01013
Di-2-pyridinylmethanone benzoylhydrazone, D-01073
- C₁₈H₁₄N₄OS
Benzenecarbothioic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, B-00014
- C₁₈H₁₄N₄O₂
Benzoic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, B-00063
- C₁₈H₁₄N₆O₂
Cadion, C-00006
1-(5-Nitro-2-pyridinyl)-3,5-diphenylformazan, N-00149

- 2(1*H*)-Pyridinone [(3-nitrophenyl)azo]phenylmethylene]hydrazone, P-00362
2(1*H*)-Pyridinone [(4-nitrophenyl)azo]phenylmethylene]hydrazone, P-00363
- C₁₈H₁₄N₆O₅S**
4-[[4-[3-(4-Nitrophenyl)-2-triazenyl]phenyl]azo]benzenesulfonic acid, N-00146
- C₁₈H₁₄N₆O₈S₂**
Cation IREA, C-00008
- C₁₈H₁₄O**
2-Phenoxybiphenyl, *in* B-00210
- C₁₈H₁₄O₃**
Cinnamamide; Anhydride, *in* P-00169
 α -Oxo-9-anthraceneacetic acid; Et ester, *in* O-00053
- C₁₈H₁₄O₆**
1,4,9,10-Anthracenetetrol; 9,10-Di-Ac, *in* A-00381
- C₁₈H₁₅As**
▷ Triphenylarsine, T-00363
- C₁₈H₁₅AsN₂O₁₂S₂**
p-Acetylarсени, A-00012
- C₁₈H₁₅AsN₆O₅**
Arsazen, A-00403
- C₁₈H₁₅AsN₆O₈S**
Sulfarsazen, S-00038
- C₁₈H₁₅AsO**
Triphenylarsine oxide, T-00364
- C₁₈H₁₅BrS**
Triphenylsulfonium(1+); Bromide, *in* T-00376
- C₁₈H₁₅BrSe**
Triphenylselenonium(1+); Bromide, *in* T-00375
- C₁₈H₁₅ClN₂O**
Meldola's blue; Chloride, *in* M-00011
- C₁₈H₁₅ClN₂O₂**
2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-methylbenzoyl)-3*H*-pyrazol-3-one, C-00210
2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(3-methylbenzoyl)-3*H*-pyrazol-3-one, C-00211
2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(4-methylbenzoyl)-3*H*-pyrazol-3-one, C-00212
Muscarine†; Chloride, *in* M-00350
- C₁₈H₁₅ClS**
Triphenylsulfonium(1+); Chloride, *in* T-00376
- C₁₈H₁₅ClSe**
Triphenylselenonium(1+); Chloride, *in* T-00375
- C₁₈H₁₅ClSi**
▷ Chlorotriphenylsilane, C-00270
- C₁₈H₁₅ClSn**
▷ Chlorotriphenylstannane, C-00271
- C₁₈H₁₅F₆SSb**
Triphenylsulfonium(1+); Hexafluoroantimonate, *in* T-00376
- C₁₈H₁₅IS**
Triphenylsulfonium(1+); Iodide, *in* T-00376
- C₁₈H₁₅ISe**
Triphenylselenonium(1+); Iodide, *in* T-00375
- C₁₈H₁₅ITe**
Triphenyltelluronium(1+); Iodide, *in* T-00377
- C₁₈H₁₅N**
2-(Diphenylmethyl)pyridine, D-01030
- C₁₈H₁₅NO**
N-Phenyl-1-naphthylamine; *N*-Ac, *in* P-00151
- C₁₈H₁₅NO₂**
N-Benzyl-2-naphthohydroxamic acid, *in* N-00024
N-Hydroxy-2-methyl-*N*-1-naphthalenylbenzamide, H-00290
- N*-Hydroxy-4-methyl-*N*-1-naphthalenylbenzamide, H-00291
3,3'-Iminobis[1-phenyl-2-propen-1-one], 1-00009
N-1-Naphthalenylacetohydroxamic acid, N-00054
2-Phenyl-4-quinolinecarboxylic acid; Et ester, *in* P-00189
- C₁₈H₁₅NO₃**
N-Hydroxy-2-methoxy-*N*-1-naphthalenylbenzamide, H-00267
N-Hydroxy-4-methoxy-*N*-1-naphthalenylbenzamide, H-00268
- C₁₈H₁₅NO₃S**
Triphenylsulfonium(1+); Nitrate, *in* T-00376
- C₁₈H₁₅NO₄**
7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Anilide, *in* H-00295
- C₁₈H₁₅NO₄S**
1-Hydroxy-2-naphthalenesulfonic acid; Anilide, Ac, *in* H-00344
- C₁₈H₁₅NO₇**
2-(Aminomethyl)-6-hydroxy-9*H*-xanthen-9-one-*N,N*-diacetic acid, A-00245
- C₁₈H₁₅N₂O⁺**
Meldola's blue, M-00011
- C₁₈H₁₅N₂O₂⁺**
Muscarine†, M-00350
- C₁₈H₁₅N₂O₇S₂⁺**
9-(Dimethylamino)benzo[*a*]phenoxazin-7-ium-2,5-disulfonic acid(1+), D-00781
Phenonaphthoxazine G acid, P-00069
- C₁₈H₁₅N₃OS**
2-[(2-Hydroxy-1-naphthalenyl)methylene]-*N*-phenylhydrazinecarbothioamide, H-00363
- C₁₈H₁₅N₃O₂**
2-Aminobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, A-00108
4-[(4'-Amino-(1,1'-biphenyl)-4-yl)azo]-1,2-benzenediol, A-00118
4-(Phenylmethyl)-6-(2-pyridinylazo)-1,3-benzenediol, P-00149
 α -(2-Quinolinylhydrazono)benzenepropanoic acid, Q-00035
- C₁₈H₁₅N₃O₃S**
▷ Acid yellow 2G, A-00059
4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid, P-00084
- C₁₈H₁₅N₃O₄**
4-Methyl-2-oxo-2*H*-1-benzopyran-7-yl 4-[(aminoiminomethyl)amino]benzoate, M-00211
- C₁₈H₁₅N₃O₈S₂**
▷ Azorhodie 2G, A-00476
- C₁₈H₁₅N₄⁺**
Phenosafuranine, P-00070
- C₁₈H₁₅N₅**
6-(2,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)-2,2'-bipyridine, D-00473
3-(4-Phenyl-2-pyridyl)-5-(2-pyridyl)-1,2,4-triazoline, P-00185
2(1*H*)-Pyridinone [phenyl(phenylazo)methylene]hydrazone, P-00364
1-(2-Pyridinyl)-3,5-diphenylformazan, P-00387
- C₁₈H₁₅N₅O**
Di-2-pyridinylethanedione;
Monophenylhydrazone oxime, *in* D-01063
2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenol, P-00098
- C₁₈H₁₅N₅O₃S**
1-(2-Pyridyl)-5-(4-sulfophenyl)-3-phenylformazan, P-00424
- C₁₈H₁₅N₅O₄**
1-(4-Nitro-2-hydroxybenzenazo)-2-(β -acetylhydrazino)naphthalene, N-00111
- C₁₈H₁₅O₃P**
▷ Triphenyl phosphite, T-00371
- C₁₈H₁₅P**
▷ Triphenylphosphine, T-00370
- C₁₈H₁₅PS₂**
Phenyl diphenylphosphinodithioate, *in* D-01039
- C₁₈H₁₅PTe**
Triphenylphosphine; Telluride, *in* T-00370
- C₁₈H₁₅S⁺**
Triphenylsulfonium(1+), T-00376
- C₁₈H₁₅Se⁺**
Triphenylselenonium(1+), T-00375
- C₁₈H₁₅Te⁺**
Triphenyltelluronium(1+), T-00377
- C₁₈H₁₆**
1,6-Diphenyl-1,3,5-hexatriene, D-01019
- C₁₈H₁₆AsN₅O₃**
[2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenyl]arsonic acid, P-00099
- C₁₈H₁₆AsN₅O₆S**
4-[4-(2-Arsonophenyltriazinyl)phenylazo]benzenesulfonic acid, A-00445
- C₁₈H₁₆BrN₅S**
2-(4,5-Dimethyl-2-thiazolyl)-3,5-diphenyl-2*H*-tetrazolium(1+); Bromide, *in* D-00924
- C₁₈H₁₆Br₂N₂O₆**
▷ Indoferron, I-00032
- C₁₈H₁₆ClN**
N-(*p*-Chlorobenzyl)-1-naphthalenemethylamine, C-00072
- C₁₈H₁₆ClN₃O₂S**
5-[[4-(Dimethylamino)phenyl]azo]-1-naphthalenesulfonyl chloride, *in* A-00314
- C₁₈H₁₆ClN₅S**
3-(4,5-Dimethyl-2-thiazolyl)-2,5-diphenyl-2*H*-tetrazolium(1+); Chloride, *in* D-00925
- C₁₈H₁₆Cl₂N₂O₆**
2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)-6-methylphenol *N,N*-diacetic acid, A-00239
- C₁₈H₁₆Cl₄N₆S₂**
2,3-Butanedione bis[4-(3,4-dichlorophenyl)thiosemicarbazone], B-00592
- C₁₈H₁₆N₂**
2,2'-Bi-1*H*-indole; 1,1'-Di-Me, *in* B-00204
- C₁₈H₁₆N₂O**
N-(4'-Dimethylaminophenyl)-1,4-naphthoquinone imine, D-00820
- C₁₈H₁₆N₂O₂**
Bis(4-aminophenyl)acetylene; Di-Ac, *in* B-00249
9,10-Diaminophenanthrene; Di-*N*-Ac, *in* D-00110
2,4-Dihydro-5-methyl-4-(2-methylbenzoyl)-2-phenyl-3*H*-pyrazol-3-one, D-00431
- C₁₈H₁₆N₂O₃**
2,4-Dihydro-4-(2-methoxybenzoyl)-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00426
- C₁₈H₁₆N₂O₄**
Dimethylglyoxime; Dibenzoyl, *in* D-00862
- C₁₈H₁₆N₂O₆**
N,N'-Bis[3-carboxysalicylidene]ethylenediamine, B-00280
- C₁₈H₁₆N₂O₇S₂**
▷ Acid red 26, A-00058
- C₁₈H₁₆N₃O₄P**
4-Nitrophenyl *N,N'*-diphenylphosphorodiamidate, *in* M-00340

- C₁₈H₁₆N₄**
2-(1*H*)-Pyridinone [2-phenyl-1-(2-pyridinyl) ethylidene]hydrazone, P-00365
5,6,7,8-Tetrahydro-2,4-bis(2-pyridyl) quinazoline, T-00054
- C₁₈H₁₆N₄O**
Pyridoin phenylhydrazone, P-00413
- C₁₈H₁₆N₄O₃S**
3-[[5-Methyl-2-pyridinyl)hydrazone]-2-pyridinylmethyl]benzenesulfonic acid, M-00287
- C₁₈H₁₆N₄O₅**
5-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-2,4-dihydroxybenzoic acid, D-00381
- C₁₈H₁₆N₄O₈S₂**
3-[[4-(Acetylamino)phenyl]azo]-5-amino-4-hydroxy-2,7-naphthalenedisulfonic acid, *in* A-00092
- C₁₈H₁₆N₅S[⊕]**
▷ 2-(4,5-Dimethyl-2-thiazolyl)-3,5-diphenyl-2*H*-tetrazolium(1+), D-00924
3-(4,5-Dimethyl-2-thiazolyl)-2,5-diphenyl-2*H*-tetrazolium(1+), D-00925
- C₁₈H₁₆N₆**
6-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00454
- C₁₈H₁₆O₄**
4,4'-Dihydroxystilbene; Di-Ac, *in* D-00730
2-Ethyl-5-hydroxy-7-methoxyisoflavone, *in* E-00070
- C₁₈H₁₇N**
N-Benzyl-1-naphthalenemethylamine, *in* N-00051
- C₁₈H₁₇NO₅**
1-[2-Methoxy-2-(1-naphthalenyl)-1-oxopropoxy]-2,5-pyrrolidinedione, M-00094
- C₁₈H₁₇N₃**
4-[(2-Ethylphenyl)azo]-1-naphthalenamine, E-00103
- C₁₈H₁₇N₃O**
4-[(4-Ethoxyphenyl)azo]-1-naphthalenamine, *in* A-00277
- C₁₈H₁₇N₃O₂**
1,2-Dihydro-4-[[2-(2-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00420
1,2-Dihydro-4-[[4-(4-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00421
- C₁₈H₁₇N₃O₅S**
4-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00788
- C₁₈H₁₇N₅O₃**
6,7,9,10-Tetrahydro-16*H*-dibenzo[*b,f*][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine-18-carbonitrile, T-00058
- C₁₈H₁₈ClNO₅**
N-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamamide, C-00235
- C₁₈H₁₈F₂N₆S₂**
2,3-Butanedione bis[(2-fluorophenyl)thiosemicarbazone], B-00593
2,3-Butanedione bis[(4-fluorophenyl)thiosemicarbazone], B-00594
- C₁₈H₁₈F₆N₂**
N,N'-Dimethyl-1,2-bis[3-(trifluoromethyl)phenyl]-1,2-ethanediamine, D-00843
- C₁₈H₁₈FeN₃O₃S₃**
4-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, tris Fe(III) complex, *in* M-00274
- C₁₈H₁₈N₂O₃**
2-(Benzoylamino)-3-[4-(dimethylamino)phenyl]-2-propenoic acid, B-00120
- C₁₈H₁₈N₄O**
2-(Ethylamino)-4-methyl-5-(8-quinolinylazo)phenol, *in* A-00255
- C₁₈H₁₈N₄O₅**
5-(Ethylamino)-4-methyl-2-[(4-phenyl-2-thiazolyl)azo]phenol, *in* A-00250
- C₁₈H₁₈N₄O₂S**
2-(Benzothiazolylazo)-5-diethylaminobenzoic acid, *in* A-00114
- C₁₈H₁₈N₄O₄**
4-Hydroxybenzoic acid (1,2-dimethyl-1,2-ethanediyldene)dihydrazide, H-00117
- C₁₈H₁₈N₄O₆S₄**
2,2'-Azinobis[3-ethyl-2,3-dihydro-6-benzothiazolesulfonic acid], A-00462
- C₁₈H₁₈N₄O₇**
4-Cyclohexyl-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, C-00354
- C₁₈H₁₈N₄S₂**
2,3-Butanedione bis[(thiobenzoyl)hydrazone], B-00598
- C₁₈H₁₈N₈**
4,4'-[1,3-Phenylenebis(azo)]bis-1,3-benzenediamine, P-00117
- C₁₈H₁₈N₈O₄S₂**
2,3-Butanedione bis[(4-nitrophenyl)thiosemicarbazone], B-00596
- C₁₈H₁₈O₄**
2,2'-Biphenyldicarboxylic acid; Di-Et ester, *in* B-00207
- C₁₈H₁₈O₆**
1,6-Bis(2,4-dihydroxyphenyl)-1,6-hexanedione, B-00307
- C₁₈H₁₈O₈**
1,6-Bis(2,4,6-trihydroxyphenyl)-1,6-hexanedione, B-00467
- C₁₈H₁₉BN₂O₄S**
3-[[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]amino]phenyl]boronic acid, D-00798
- C₁₈H₁₉F₃N₂S**
▷ Fluopromazine, F-00010
- C₁₈H₁₉N₅O**
2-[[1-(Hydroxyimino)-2-methylpropyl]azo]-1-(phenylmethyl)-1*H*-benzimidazole, H-00246
- C₁₈H₂₀N₂O₂**
4,4'-Diamino-3,3'-dimethylbiphenyl; 4,4'-Di-*N*-Ac, *in* D-00083
N,N'-Diphenyl-1,2-ethanediamine; *N,N'*-Di-Ac, *in* D-01011
- C₁₈H₂₀N₂O₃**
2-Methoxy-4-[*N*-(*p*-morpholinophenyl)formimidoyl]phenol, M-00093
- C₁₈H₂₀N₂O₆**
N,N'-Ethylenebis[2-(*o*-hydroxyphenyl)glycine], E-00073
- C₁₈H₂₀N₂S₄**
Ethylenebisdithiocarbamic acid; Dibenzyl ester, *in* E-00072
- C₁₈H₂₀N₄**
7,8,15,16,17,18-Hexahydrodibenzo[*e,m*][1,4,8,11]-tetraazacyclotetradecine, H-00044
- C₁₈H₂₀N₆S₂**
2,3-Butanedione bis(phenylthiosemicarbazone), B-00597
- C₁₈H₂₁BO₂**
Diphenyl cyclohexylboronate, *in* C-00352
- C₁₈H₂₁NO₂**
N-(5-*tert*-Butyl-2-hydroxybenzylidene)-2-hydroxy-5-methylaniline, B-00632
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* B-00619
N-[5-(1,1-Dimethylpropyl)-2-hydroxyphenyl]-2-hydroxyaniline, D-00902
- C₁₈H₂₂ClN₃S**
Thiazine blue; Chloride, *in* T-00136
- C₁₈H₂₂N₂OS**
▷ Methopromazine, M-00070
- C₁₈H₂₂N₂OS₂**
6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,k*][1,7,10,4,13]oxadithiadiazacyclopentadecine, H-00039
- C₁₈H₂₂N₂O₂**
5,6,7,8,9,10,16,17-Octahydrodibenzo[*e,m*][1,4,8,11]dioxadiazacyclotetradecine, O-00014
- C₁₈H₂₂N₂O₂S**
6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,m*][1,4,10,7,13]dioxathiadiazacyclopentadecine, H-00038
- C₁₈H₂₂N₂O₃**
6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,m*][1,4,10,7,13]trioxadiazacyclopentadecine, H-00045
- C₁₈H₂₂N₂S**
▷ Diethazine, D-00312
- C₁₈H₂₂N₂S₃**
6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,m*][1,4,10,7,13]trithiadiazacyclopentadecine, H-00046
- C₁₈H₂₂N₃S[⊕]**
Thiazine blue, T-00136
- C₁₈H₂₂N₄**
N,N'-Bis[1-(2-aminophenyl)ethylidene]-1,2-ethanediamine, B-00252
- C₁₈H₂₂N₄O**
4-Methyl-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, M-00200
- C₁₈H₂₂N₄O₂**
2-[(3,5-Dihydroxy-2-methylphenyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00653
2-Methoxy-6-[[5-(1-methyl)-2-piperidinyl-2-pyridyl]azo]phenol, M-00092
- C₁₈H₂₂O**
4-*sec*-Butyl-2-(1-phenylethyl)phenol, B-00637
- C₁₈H₂₂O₅**
2,3,5,6,8,9,11,12-Octahydronaphtho[2,3-*b*]1,4,7,10,13-pentaoxacyclopentadecine, O-00029
- C₁₈H₂₂O₈**
1,2,4,5-Benzenetetracarboxylic acid; Tetra-Et ester, *in* B-00029
- C₁₈H₂₃Br₂N₅O₃S**
2-(3,5-Dibromo-2-pyridylazo)-4-methyl-5-(*N*-propyl-*N*-sulfopropylamino)aniline, D-00213
- C₁₈H₂₃N₃O₅S**
3-[Ethyl[3-hydroxy-4-[(2-hydroxy-5-methylphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00087
- C₁₈H₂₄ClNO₂S**
5-(Dibutylamino)-1-naphthalenesulfonyl chloride, D-00224
- C₁₈H₂₄NO₃P**
Dibenzyl diethylphosphoramidate, *in* D-00353
- C₁₈H₂₄N₂**
4,4'-Bis(dimethylamino)-3,3'-dimethylbiphenyl, *in* D-00083
1,2-Diphenyl-1,2-ethanediamine; *N*-Tetra-Me, *in* D-01010
- C₁₈H₂₄N₂O**
Bis(4-dimethylaminophenyl)methanol; Me ether, *in* B-00321

- C₁₈H₂₄N₂O₂**
1,2-Bis(4-ethoxyphenyl)-1,2-ethanediamine, B-00350
2,4-Dihydro-5-methyl-4-(1-oxooctyl)-2-phenyl-3*H*-pyrazol-3-one, D-00436
- C₁₈H₂₄N₂O₄**
1,2-Bis(3,4-dimethoxyphenyl)-1,2-ethanediamine, B-00311
(7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)methyl-*N,N'*-bis(1-methylethyl)carbamimidate, M-00099
- C₁₈H₂₅ClN₄**
4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+); Chloride, *in* D-00333
- C₁₈H₂₅NO₂**
5-[(Octyloxy)methyl]-8-quinolinol, O-00039
- C₁₈H₂₅NO₃S**
1-Octanesulfonamido-2-naphthol, *in* A-00273
- C₁₈H₂₅N₃O₂**
4-[[4-(Diethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, *in* A-00313
- C₁₈H₂₅N₄**
4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+), D-00333
- C₁₈H₂₆N₂O₉**
6-(2-Hydroxy-3,5-dinitrobenzyl)-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00156
- C₁₈H₂₆S₆**
2,2'-(2,5,8,11-Tetrathiadodecane-1,2-diyl)bis[5-methylthiophene], T-00128
- C₁₈H₂₈O₅**
6-[(Phenylmethoxy)methyl]-1,4,8,11-tetraoxacyclotetradecane, P-00142
- C₁₈H₂₈O₇**
2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13-pentaoxacyclopentadecane, M-00104
- C₁₈H₂₉NO₂**
N-Hydroxy-*N*-phenyldodecanamide, *in* L-00001
- C₁₈H₃₀N₂O₄S**
Dihexylamine; 3-Nitrobenzenesulfonyl, *in* D-00367
- C₁₈H₃₀N₄O₁₂**
Triethylenetetramine-*N,N,N',N',N'',N''',N''''*-hexaacetic acid, T-00233
- C₁₈H₃₂N₂O₂**
5,5'-(1,2-Ethanediyldinitrilo)bis[2,2-dimethyl-3-hexanone], E-00036
- C₁₈H₃₂N₂O₈**
Ethylenediaminetetraacetic acid; Tetra-Et ester, *in* E-00078
- C₁₈H₃₃BO₂**
Dicyclohexyl cyclohexylboronate, *in* C-00352
- C₁₈H₃₄O₅**
15-(1,1-Dimethylethyl)tetradecahydro-1,4,7,10,13-benzopentaoxacyclopentadecin, D-00860
- C₁₈H₃₄O₆**
▷ Sorbitan monolaurate, *in* A-00367
- C₁₈H₃₅ClO**
Octadecanoic acid; Chloride, *in* O-00001
- C₁₈H₃₅N**
▷ Octadecanoic acid; Nitrile, *in* O-00001
- C₁₈H₃₆N₂O₆**
▷ 4,7,13,16,21,24-Hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, H-00068
- C₁₈H₃₆N₂S₄**
Bis(diisobutylthiocarbamoyl) disulfide, *in* T-00166
- C₁₈H₃₆O₂**
Heptadecanoic acid; Me ester, *in* H-00003
Hexadecanoic acid; Et ester, *in* H-00026
▷ Octadecanoic acid, O-00001
- C₁₈H₃₇NO**
▷ Octadecanoic acid; Amide, *in* O-00001
- C₁₈H₃₈N₂O₆Sn**
Dinonyltin dinitrate, D-00980
- C₁₈H₃₉ClSi**
Chlorotrihexylsilane, C-00266
- C₁₈H₃₉N**
N,N-Bis(3-methylbutyl)-1-octanamine, B-00403
Dinonylamine, D-00979
- C₁₈H₃₉NO₂**
Tetrabutylammonium(1+); Acetate, *in* T-00023
- C₁₈H₃₉O₂P**
Tetrabutylphosphonium(1+); Acetate, *in* T-00024
- C₁₈H₄₀NO₃P**
Diethylphosphoramidic acid; Diheptyl ester, *in* D-00353
- C₁₈H₄₀O₆P₂**
Tetrabutyl 1,2-ethanediybisphosphonate, *in* E-00026
- C₁₈H₄₂N₃PS**
N,N',N''-Trihexylphosphorothioic triamide, T-00267
- C₁₉H₆Br₄Cl₄O₅S**
Tetrabromophenoltetrachlorosulfonephthalein, T-00021
- C₁₉H₆Br₈O₅S**
Tetrabromophenoltetrabromosulfonephthalein, T-00020
- C₁₉H₈Br₄O₆**
4,5-Dibromo-9-(3,5-dibromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00181
- C₁₉H₈Br₆O₅S**
4,4'-(4,5,6,7-Tetrabromo-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromophenol] *S,S*-dioxide, T-00014
- C₁₉H₁₀Br₂Cl₂O₅S**
Bromochlorophenol blue, B-00497
- C₁₉H₁₀Br₂O₅**
9-(3,4-Dibromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00198
- C₁₉H₁₀Br₂O₈S**
Bromopyrogallol red, B-00574
- C₁₉H₁₀Br₄O₅S**
Bromophenol blue, B-00542
Phenoltetrabromosulfonephthalein, P-00065
- C₁₉H₁₀Cl₄O₅S**
Phenoltetrachlorosulfonephthalein, P-00066
- C₁₉H₁₀I₄O₅S**
Phenoltetraiodosulfonephthalein, P-00068
- C₁₉H₁₀N₂O₉**
9-(2,4-Dinitrophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00975
- C₁₉H₁₀N₄O₁₃S**
3,3',5,5'-Tetranitrophenolsulfonephthalein, T-00109
- C₁₉H₁₁BrO₅**
9-(4-Bromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00558
- C₁₉H₁₁BrO₆**
9-(5-Bromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00513
- C₁₉H₁₁ClO₅**
9-(2-Chlorophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00240
- C₁₉H₁₁NO₇**
9-(2-Carboxy-4-pyridyl)fluorone, C-00043
2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, T-00301
- 2,6,7-Trihydroxy-9-(3-nitrophenyl)-3*H*-xanthen-3-one, T-00302
2,6,7-Trihydroxy-9-(4-nitrophenyl)-3*H*-xanthen-3-one, T-00303
- C₁₉H₁₁NO₈**
2,6,7-Trihydroxy-9-(2-hydroxy-3-nitrophenyl)-3*H*-xanthen-3-one, T-00290
2,6,7-Trihydroxy-9-(2-hydroxy-5-nitrophenyl)-3*H*-xanthen-3-one, T-00291
- C₁₉H₁₂Br₂O₅S**
Bromophenol red, B-00543
- C₁₉H₁₂Br₄N₂O₅S**
Tetrabromoanilinesulfonephthalein, T-00011
- C₁₉H₁₂Cl₂O₅S**
Chlorophenol red, C-00197
- C₁₉H₁₂I₂O₅S**
4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2-iodophenol] *S,S*-dioxide, B-00111
- C₁₉H₁₂N₂O**
Di-2-quinolinylmethanone, D-01101
- C₁₉H₁₂N₂O₂**
2-Hydroxyphenazine; Benzoyl, *in* H-00439
- C₁₉H₁₂N₂O₉S**
4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[3-nitrophenol] *S,S*-dioxide, B-00112
- C₁₉H₁₂N₄**
2-(2-Benzimidazolyl)-4,7-phenanthroline, B-00048
2-(1-Isoquinolyl)-3*H*-imidazo[4,5-*h*]quinoline, I-00088
2-(3-Isoquinolyl)-3*H*-imidazo[4,5-*h*]quinoline, I-00089
- C₁₉H₁₂N₄OS**
6-Benzoyl-5-phenyl-3-(2-thiazolyl)-1,2,4-triazine, B-00147
- C₁₉H₁₂N₄O₂**
2,3-Di-2-pyridyl-6-quinoxalinecarboxylic acid, D-01095
- C₁₉H₁₂N₆**
(4-Methyl-2-pyridyl)-1,2,4-triazino[5,6-*f*][4,7]-phenanthroline, M-00305
- C₁₉H₁₂O₂**
2-Phenyl-4*H*-naphtho[1,2-*b*]pyran-4-one, P-00150
- C₁₉H₁₂O₃**
Bindone; Me ether, *in* B-00205
- C₁₉H₁₂O₅**
6,7-Dihydroxy-9-(2-hydroxyphenyl)-3*H*-xanthen-3-one, D-00628
2,6,7-Trihydroxy-9-phenyl-3*H*-xanthen-3-one, T-00315
- C₁₉H₁₂O₆**
▷ Dicoumarol, D-00305
2,6,7-Trihydroxy-9-(2-hydroxyphenyl)-3*H*-xanthen-3-one, T-00292
2,6,7-Trihydroxy-9-(3-hydroxyphenyl)-3*H*-xanthen-3-one, T-00293
2,6,7-Trihydroxy-9-(4-hydroxyphenyl)-3*H*-xanthen-3-one, T-00294
- C₁₉H₁₂O₆S**
Sulfonefluorescein, S-00049
- C₁₉H₁₂O₇**
9-(3,4-Dihydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00719
- C₁₉H₁₂O₈S**
Pyrogallol red, P-00434
2-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzenesulfonic acid, T-00305
2,6,7-Trihydroxy-9-(2-sulfophenyl)-3*H*-xanthen-3-one, T-00322
- C₁₉H₁₂O₁₁S₂**
4-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)-1,3-benzenedisulfonic acid, T-00304
- C₁₉H₁₃ClIN₅O₂**
INT, *in* I-00048

- C₁₉H₁₃Cl₃N₂**
2-Chloro-*N,N'*-bis(4-chlorophenyl)benzenecarboximidamide, C-00073
2-Chloro-*N*-(2-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide, C-00083
2-Chloro-*N*-(3-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide, C-00084
- C₁₉H₁₃Cl₃N₂O**
2-Chloro-*N,N'*-bis(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, C-00074
- C₁₉H₁₃IN₅O₂[⊕]**
Iodonitrotetrazolium violet, I-00048
- C₁₉H₁₃IO₂**
1-Pyrenylmethyl iodoacetate, P-00310
- C₁₉H₁₃NO**
2-(1-Naphthalenyl)-5-phenyloxazole, N-00021
9-Phenoxyacridine, *in* H-00093
- C₁₉H₁₃NO₅**
9-(4-Aminophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, A-00328
- C₁₉H₁₃N₃O**
2,2'-Diquinolylketoxime, *in* D-01101
8-Hydroxy-7-(2-naphthylazo)quinoline, H-00377
5-(1-Naphthalenylazo)-8-quinolinol, N-00017
1-(2-Pyridinylazo)-2-phenanthrenol, P-00377
10-(2-Pyridinylazo)-9-phenanthrenol, P-00378
1-(2-Quinolylazo)-2-naphthalenol, Q-00029
2-(2-Quinolylazo)-1-naphthalenol, Q-00030
- C₁₉H₁₃N₃O₂**
2-[(1-Hydroxy-2-naphthalenyl)azo]-8-quinolinol, H-00356
5-(1-Naphthalenylazo)-8-quinolinol; *N*¹-Oxide, *in* N-00017
- C₁₉H₁₃N₃O₄S**
8-Hydroxy-7-(1-naphthalenylazo)-5-quinolinesulfonic acid, H-00355
8-[(8-Hydroxy-5-quinolyl)azo]-1-naphthalenesulfonic acid, H-00532
- C₁₉H₁₃N₃O₇**
N-(3,5-Dinitrobenzoyl)-1-naphthylglycine, *in* A-00261
- C₁₉H₁₃N₃O₇S₂**
3-Hydroxy-4-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, H-00530
3-[(8-Hydroxy-7-quinolyl)azo]-1,5-naphthalenedisulfonic acid, H-00531
8-Hydroxy-7-[(4-sulfo-1-naphthalenyl)azo]-5-quinolinesulfonic acid, H-00539
Naphthylazoxine 4S, N-00043
Naphthylazoxine 5S, N-00045
Naphthylazoxine 6S, N-00047
- C₁₉H₁₃N₃O₈S₂**
Azoxin H, A-00480
- C₁₉H₁₃N₃O₈S₃**
4,5-Dihydroxy-3-[(4-phenyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00718
- C₁₉H₁₃N₃O₁₀S₃**
7-(5,8-Disulfo-2-naphthylazo)-8-hydroxy-5-quinolinesulfonic acid, D-01110
Naphthylazoxine 4,8S, N-00044
Naphthylazoxine 5,7S, N-00046
- C₁₉H₁₃N₅**
5,6-Diphenyl-3-(pyrazinyl)-1,2,4-triazine, D-01044
5,6-Diphenyl-3-(3-pyridazolyl)-1,2,4-triazine, D-01045
5,6-Diphenyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01047
2-(4-Methyl-2-pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, M-00299
5-Phenyl-3,6-di-2-pyridyl-1,2,4-triazine, P-00114
6-(5-Phenyl-1,2,4-triazin-3-yl)-2,2'-bipyridine, P-00206
- C₁₉H₁₃N₅O₅S₂**
3-[2-Benzothiazolyl[(5-nitro-2-pyridinyl)hydrazono]methyl]benzenesulfonic acid, B-00107
- C₁₉H₁₄ClN₅O₂**
2-(4-Nitrophenyl)-3,5-diphenyl-2*H*-tetrazolium(1+); Chloride, *in* N-00134
- C₁₉H₁₄Cl₂N₂**
2-Chloro-*N*-(2-chlorophenyl)-*N'*-phenylbenzenecarboximidamide, C-00088
2-Chloro-*N*-(4-chlorophenyl)-*N'*-phenylbenzenecarboximidamide, C-00089
N-(2-Chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide, C-00209
N-2,5-Dichlorophenyl-*N'*-phenylbenzamide, D-00296
- C₁₉H₁₄Cl₂N₂O**
2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, C-00087
- C₁₉H₁₄N₂O₂**
5,5'-Methylenebis[8-quinolinol], M-00174
- C₁₉H₁₄N₂O₄**
Thymine; 1*N*,3*N*-Dibenzoyl, *in* T-00179
- C₁₉H₁₄N₄**
3-Isoquinolinecarboxaldehyde 2-quinolinylhydrazone, I-00082
3-Isoquinolinecarboxaldehyde 3-quinolinylhydrazone, I-00083
3-Isoquinolinecarboxaldehyde 8-quinolinylhydrazone, I-00084
6-Methyl-2,3-di-2-pyridylquinoxaline, M-00168
6-Phenanthridinecarboxaldehyde 2-pyridylhydrazone, P-00050
4-Phenyl-2-(5-phenyl-1,2,4-triazol-3-yl)pyridine, P-00162
2-Quinolinecarboxaldehyde 2-quinolinylhydrazone, Q-00014
2-Quinolinecarboxaldehyde 8-quinolinylhydrazone, Q-00015
- C₁₉H₁₄N₄O**
8-Hydroxy-2-quinolinecarboxaldehyde 8-quinolinylhydrazone, H-00526
6-Methoxy-2,3-di-2-pyridinylquinoxaline, *in* H-00172
- C₁₉H₁₄N₄O₃S₂**
3-[(2-Benzothiazolyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, B-00102
- C₁₉H₁₄N₄O₆S**
Chromorange GR, C-00289
- C₁₉H₁₄N₄O₆S₂**
8-Amino-7-(8-quinolylazo)-3,6-naphthalenedisulfonic acid, A-00343
- C₁₉H₁₄N₄O₇S₂**
5-Amino-4-hydroxy-3-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, A-00220
- C₁₉H₁₄N₅O₂[⊕]**
2-(4-Nitrophenyl)-3,5-diphenyl-2*H*-tetrazolium(1+), N-00134
- C₁₉H₁₄N₆**
4,5-Dihydro-3-(1,10-phenanthroline-2-yl)-5-(2-pyridinyl)-1,2,4-triazole, D-00465
3-(4-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00296
3-(6-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00297
- C₁₉H₁₄N₆O₅S**
3-[1*H*-Benzimidazol-2-yl][(5-nitro-2-pyridinyl)hydrazono]methyl]benzenesulfonic acid, B-00047
- C₁₉H₁₄O₂**
Benzaurin, B-00012
2-Biphenylol; Benzoyl, *in* B-00210
4-Biphenylol; Benzoyl, *in* B-00211
1-Pyreneacetic acid; Me ester, *in* P-00304
1-Pyrenecarboxylic acid; Et ester, *in* P-00307
- C₁₉H₁₄O₃**
1-Acetyl-2-naphthol; Benzoyl, *in* A-00025
Aurin, A-00457
- C₁₉H₁₄O₅S**
▶ Phenolsulfonphthalein, P-00064
- C₁₉H₁₄O₆**
5,7-Dihydroxyflavone; Di-Ac, *in* D-00612
7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Benzoyl, *in* H-00295
- C₁₉H₁₄O₇S**
Pyrocatechol violet, P-00433
- C₁₉H₁₅BCsN**
(Cyano-*C*)triphenylborate(1-); Cs salt, *in* C-00330
- C₁₉H₁₅BN[⊕]**
(Cyano-*C*)triphenylborate(1-), C-00330
- C₁₉H₁₅BNa**
Cesignost, *in* C-00330
- C₁₉H₁₅BO₂**
(2-Hydroxybenzaldehydato-*O,O'*)diphenylboron, H-00100
- C₁₉H₁₅Cl**
▶ Chlorotriphenylmethane, C-00269
- C₁₉H₁₅ClN₂**
N-(4-Chlorophenyl)-*N'*-phenylbenzenecarboximidamide, C-00237
- C₁₉H₁₅ClN₂O**
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-phenylbenzenecarboximidamide, C-00230
N'-(4-Chlorophenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, C-00231
- C₁₉H₁₅ClN₄**
▶ TTC, *in* T-00379
- C₁₉H₁₅ClO₄**
▶ Coumachlor, C-00303
- C₁₉H₁₅F₃O₃S₂**
Triphenylsulfonium(1+); Trifluoromethanesulfonate, *in* T-00376
- C₁₉H₁₅NO**
2-Aminobiphenyl; *N*-Benzoyl, *in* A-00116
4-Aminobiphenyl; *N*-Benzoyl, *in* A-00117
N-Diphenylbenzamide, *in* D-01000
- C₁₉H₁₅NO₂**
Allylcinchophen, *in* P-00189
N-(2-Hydroxy-3-biphenyl)methylene-2-hydroxyaniline, H-00135
4-Hydroxy-*N*-(2-hydroxybenzylidene)-3-biphenylamine, H-00189
2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)aniline, H-00234
- C₁₉H₁₅NO₃**
5-Ethoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, E-00057
- C₁₉H₁₅NO₈**
▶ Alizarine fluorine blue, A-00076
- C₁₉H₁₅NO₉**
3-(Aminomethyl)-1,2,5-trihydroxyanthraquinone-*N,N*-diacetic acid, A-00259
3-(Aminomethyl)-1,2,7-trihydroxyanthraquinone-*N,N*-diacetic acid, A-00260
- C₁₉H₁₅NO₁₀**
3-(Aminomethyl)-1,2,5,8-tetrahydroxyanthraquinone-*N,N*-diacetic acid, A-00256
- C₁₉H₁₅NO₁₁S**
Alizarine fluorine blue S, A-00077
- C₁₉H₁₅N₃**
9*H*-Fluorene-2-carboxaldehyde; 2-Pyridylhydrazone, *in* F-00012
2-(4-Methyl-2-pyridyl)-5-phenylbenzimidazole, M-00302
- C₁₉H₁₅N₃O**
4-Aminoazobenzene; *N*-Benzoyl, *in* A-00094

- C₁₉H₁₅N₃O₂**
2,6-Diaminopyridine; 2,6-*N*-Dibenzoyl, *in* D-00119
2,2'-(Methylimino)bis-8-quinolinol, M-00193
N-Phenyl-4-(phenylazo)benzohydroxamic acid, P-00156
2,2'-[2,6-Pyridinediylbis(methylidynenitrilo)]bisphenol, P-00354
- C₁₉H₁₅N₃O₄S**
3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Benzoylhydrazone, *in* P-00386
- C₁₉H₁₅N₃O₅S**
2-Hydroxybenzoic acid [2-pyridinyl(3-sulfophenyl)methylene]hydrazide, H-00122
- C₁₉H₁₅N₃O₉S₃**
3-[(6-Ethoxy-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, E-00053
- C₁₉H₁₅N₄[⊕]**
2,3,5-Triphenyl-2*H*-tetrazolium(1+), T-00379
- C₁₉H₁₅N₅**
2,3-Bis(6-methyl-2-pyridyl)pyrido[2,3-*b*]pyrazine, B-00421
- C₁₉H₁₅N₅O**
6-(4-Acetylphenylazo)-2-aminoperimidine, A-00029
- C₁₉H₁₅OPS₂**
5-Benzoyl diphenylphosphinodithioate, *in* D-01039
- C₁₉H₁₆N₂**
N,N'-Diphenylbenzamide, D-01001
- C₁₉H₁₆N₂O**
2-Aminodiphenylamine; 2-*N*-Benzoyl, *in* A-00165
4,4'-Diaminobiphenyl; *N*-Benzoyl, *in* D-00053
N-Hydroxy-*N,N'*-diphenylbenzencarboximidamide, *in* D-01001
- C₁₉H₁₆N₂O₃**
2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid; Et ester, *in* D-00463
3-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00081
4-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00082
- C₁₉H₁₆N₂O₃S**
Anilinesulfonephthalcin, A-00369
- C₁₉H₁₆N₄**
5-Phenyl-3-(4-phenyl-2-pyridyl)-1,2,4-triazoline, P-00161
- C₁₉H₁₆N₄O**
2-Pyridinecarboxaldehyde diphenylsemicarbazone, P-00323
- C₁₉H₁₆N₄O₃S₂**
3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Phenylthiosemicarbazone, *in* P-00386
- C₁₉H₁₆N₄O₅**
N-[[1-Hydroxy-4-(4-nitrophenylazo)-2-naphthyl]methyl]glycine, H-00397
- C₁₉H₁₆N₄O₇S₂**
4-[3-Hydroxy-6-methyl-4-(4-sulfophenylazo)phenylazo]benzenesulfonic acid, H-00327
- C₁₉H₁₆N₄S**
2-Benzoylpyridine phenylthiosemicarbazone, B-00153
- C₁₉H₁₆N₆OS**
[(2-Hydroxyphenyl)methylene]carbonothioic acid (di-2-pyridinylmethylene) dihydrazide, H-00481
- C₁₉H₁₆O**
Triphenylmethanol, T-00368
- C₁₉H₁₆O₄**
1,7-Bis(4-hydroxyphenyl)-1,6-heptadiene-3,5-dione, *in* C-00323
- C₁₉H₁₆O₆**
Tris(2,4-dihydroxyphenyl)methane, T-00388
- C₁₉H₁₆O₇**
2,3,4-Trihydroxybenzophenone; Tri-Ac, *in* T-00278
2,4,4'-Trihydroxybenzophenone; Tri-Ac, *in* T-00279
- C₁₉H₁₇NO₄**
1-(4-Ethoxyphenyl)-4-(4-hydroxybenzylidene)-2,3-pyrrolidinedione, E-00059
- C₁₉H₁₇NO₇**
2,3,4-Trihydroxybenzophenone; Tri-Ac, oxime, *in* T-00278
- C₁₉H₁₇N₃**
▷ *N,N',N''*-Triphenylguanidine, T-00366
- C₁₉H₁₇N₃O**
2,4-Diaminodiphenylamine; 2-*N*-Benzoyl, *in* D-00085
- C₁₉H₁₇N₃O₃S**
Benzyl orange, B-00190
- C₁₉H₁₇N₃O₄**
3-Hydroxy-2-naphthalenecarboxylic acid [(3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl)methylene]hydrazide, H-00341
- C₁₉H₁₇N₅**
2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-4-phenylpyridine, D-00457
2(1*H*)-Pyridinone [(4-methylphenyl)azo]phenylmethylene]hydrazone, P-00361
- C₁₉H₁₇N₅O**
2(1*H*)-Pyridinone [(3-methoxyphenyl)azo]phenylmethylene]hydrazone, P-00359
2(1*H*)-Pyridinone [(4-methoxyphenyl)azo]phenylmethylene]hydrazone, P-00360
- C₁₉H₁₇N₅O₄**
2,6-Diacetylpyridine bis(2-furoylhydrazone), D-00037
Propanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, P-00264
- C₁₉H₁₇N₉**
2,4-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine, B-00445
2,6-Bis[3-(2-pyridyl)-1,2,4-triazolin-5-yl]pyridine, B-00446
2,6-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine, B-00447
- C₁₉H₁₇PS₂**
Benzyl diphenylphosphinodithioate, *in* D-01039
- C₁₉H₁₈As[⊕]**
Methyltriphenylarsonium(1+), M-00334
- C₁₉H₁₈AsBF₄**
Methyltriphenylarsonium(1+); Tetrafluoroborate, *in* M-00334
- C₁₉H₁₈AsBr**
Methyltriphenylarsonium(1+); Bromide, *in* M-00334
- C₁₉H₁₈AsCl**
Methyltriphenylarsonium(1+); Chloride, *in* M-00334
- C₁₉H₁₈AsI**
Methyltriphenylarsonium(1+); Iodide, *in* M-00334
- C₁₉H₁₈AsI₃**
Methyltriphenylarsonium(1+); Triiodide, *in* M-00334
- C₁₉H₁₈BF₄P**
Methyltriphenylphosphonium(1+); Tetrafluoroborate, *in* M-00335
- C₁₉H₁₈BrP**
Methyltriphenylphosphonium(1+); Bromide, *in* M-00335
- C₁₉H₁₈ClN₃**
Induline scarlet; Chloride, *in* I-00035
- C₁₉H₁₈ClO₄P**
Methyltriphenylphosphonium(1+); Perchlorate, *in* M-00335
- C₁₉H₁₈CIP**
Methyltriphenylphosphonium(1+); Chloride, *in* M-00335
- C₁₉H₁₈IP**
Methyltriphenylphosphonium(1+); Iodide, *in* M-00335
- C₁₉H₁₈MnO₄P**
▷ Methyltriphenylphosphonium(1+); Permanganate, *in* M-00335
- C₁₉H₁₈NO₅P**
N-(2,4-Dimethylphenyl)-3-(phosphonoxy)-2-naphthalenecarboxamide, D-00894
- C₁₉H₁₈N₂O**
Phenylalanine α -naphthylamide, P-00078
Phenylalanine β -naphthylamide, P-00079
- C₁₉H₁₈N₂O₃**
2,7-Diaminofluorene; Tri-*N*-Ac, *in* D-00097
- C₁₉H₁₈N₃[⊕]**
Induline scarlet, I-00035
- C₁₉H₁₈N₄O₅S**
N-(2,6-Dimethoxy-4-pyrimidinyl)-4-[[[(2-hydroxyphenyl)methylene]amino]benzenesulfonamide, D-00776
- C₁₉H₁₈N₄O₇S**
3-[(1-Butyl-2-oxo-3-quinolinyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, B-00634
- C₁₉H₁₈N₆O₂**
4,4'-Methylenbis[3-methyl-1-(2-pyridyl)-5-pyrazol-ol], M-00173
- C₁₉H₁₈O₅**
9-Cyclohexyl-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00359
- C₁₉H₁₈O₆**
2',3,5,7-Tetramethoxyflavone, *in* T-00074
- C₁₉H₁₈O₇**
3-Hydroxy-3',4',5',7-tetramethoxyflavone, *in* P-00025
- C₁₉H₁₈P[⊕]**
Methyltriphenylphosphonium(1+), M-00335
- C₁₉H₁₉AsO**
Methyltriphenylarsonium(1+); Hydroxide, *in* M-00334
- C₁₉H₁₉N**
N-(4-Methylbenzyl)-1-naphthylmethanamine, M-00145
- C₁₉H₁₉NO₄**
Palaudine, *in* P-00005
- C₁₉H₁₉N₃O**
2-Isopropyl-5-methyl-4-[(2-quinolinyl)azo]phenol, I-00076
8-Oxo-5-(*p*-diethylaminophenylimino)-5,8-dihydroquinoline, O-00062
Tris(4-aminophenyl)methanol, T-00383
- C₁₉H₁₉N₃O₂**
2-[[4-(Diethylamino)phenyl]azo]-1,3-indanedione, D-00331
1,2-Dihydro-4-[(2-hydroxy-5-methylphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00410
1,2-Dihydro-4-[[[(4-methoxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00428
- C₁₉H₁₉N₃O₃**
3,9-Diamino-7-ethoxyacridine; 3,9-Di-*N*-Ac, *in* D-00094

- C₁₉H₁₉N₃O₃S**
N-Phenyl-2-(4-methoxyphenylamino)-5-aminobenzenesulfonamide, *in* A-00232
- C₁₉H₁₉N₃O₅S**
4-[[4-(Ethylamino)-6-hydroxy-*m*-tolyl]azo]-3-hydroxy-1-*n*-naphthalenesulfonic acid, *in* A-00196
- C₁₉H₁₉N₅O**
4-Methyl-6-[[2-(phenylmethoxy)-2-pyridinyl]azo]-1,3-benzenediamine, M-00232
- C₁₉H₂₀N₂**
3,3a,4,5,6,7-Hexahydro-2,3-diphenyl-2*H*-indazole, H-00047
- C₁₉H₂₀N₂O₂**
8,9,17,18-Tetrahydro-7*H*-dibenzo[*e,n*][1,4,8,12]-dioxadiazacyclopentadecine, T-00055
- C₁₉H₂₀N₄OS**
3-Acetyl-2-methylindole *p*-tolylthiosemicarbazone, A-00022
- C₁₉H₂₀N₄O₂**
2-[[4-(Diethylamino)phenyl]azo]-1,3-indanedione; Monooxime, *in* D-00331
- C₁₉H₂₀N₄O₂S**
1-(2-Methylindol-3-ylacetyl)-4-(*p*-methoxyphenyl)thiosemicarbazide, M-00195
- C₁₉H₂₀O₆**
1,7-Bis(2,4-dihydroxyphenyl)-1,7-heptanedione, B-00306
- C₁₉H₂₁BrN₄O**
7-Bromo-1-[3-(dimethylamino)propyl]-1,3-dihydro-5-(2-pyridyl)-2*H*-1,4-benzodiazepin-2-one, B-00506
- C₁₉H₂₁ClN₄O₇**
2-[[[4-Methoxy-2-nitrophenyl]hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* M-00096
- C₁₉H₂₁N**
▶ Protriptyline, P-00280
- C₁₉H₂₁N₄O₃[⊕]**
2-[[[4-Methoxy-2-nitrophenyl]hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolium(1+); M-00096
- C₁₉H₂₂Br₂N₄O₁₀S₂**
5-[Bis(2-hydroxy-3-sulfopropyl)amino]-2-[(3,5-dibromo-2-pyridinyl)azo]-4-methylbenzoic acid, B-00395
- C₁₉H₂₂ClN₃O₅**
2-[[[2-Methoxyphenyl]hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* M-00110
- C₁₉H₂₂N₂O**
▶ Cinchonine, C-00298
- C₁₉H₂₂N₂O₄**
N,N'-Dihydroxy-*N,N'*-diphenylheptanediamide, D-00587
- C₁₉H₂₂N₃O[⊕]**
2-[[[2-Methoxyphenyl]hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolium(1+); M-00110
- C₁₉H₂₂O₅**
3,3-Bis[(2-methoxyphenoxy)methyl]oxetane, B-00400
Dibenzo-16-crown-5, D-00155
- C₁₉H₂₃ClN₂O₄S**
2-[2-[(5-Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* D-00826
- C₁₉H₂₃IN₂**
1-Ethyl-2-(1-ethyl-1,4-dihydro-4-pyridinyl)-6-methylquinolinium(1+); Iodide, *in* E-00081
- C₁₉H₂₃N₂[⊕]**
1-Ethyl-2-(1-ethyl-1,4-dihydro-4-pyridinyl)-6-methylquinolinium(1+), E-00081
- C₁₉H₂₃N₂S[⊕]**
2-[2-[(5-Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+), D-00826
- C₁₉H₂₄ClN₃O**
▶ Capri blue; Chloride, *in* C-00017
- C₁₉H₂₄N₂O**
Hydrocinchonine, *in* C-00298
- C₁₉H₂₄N₂O₂**
6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,n*][1,4,7,13]dioxadiazacyclopentadecine, O-00012
6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,n*][1,4,8,12]dioxadiazacyclopentadecine, O-00013
- C₁₉H₂₄N₂S**
▶ Ethopropazine, E-00050
- C₁₉H₂₄N₂S₂**
Methioneprazine, M-00069
6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,n*][1,4,7,13]dithiadiazacyclopentadecine, O-00015
- C₁₉H₂₄N₃O[⊕]**
Capri blue, C-00017
- C₁₉H₂₅NO₆**
7-Hydroxy-4-methyl-8-(1,4,7-trioxa-10-azacyclododec-10-ylmethyl)-2*H*-1-benzopyran-2-one, H-00334
- C₁₉H₂₆N₂O₃S**
3-[[4'-Amino-3,3',5,5'-tetramethyl[1,1-biphenyl]-4-yl]amino]-1-propanesulfonic acid, A-00353
- C₁₉H₂₆O₄**
Tocamphyl, *in* T-00325
- C₁₉H₂₇NO₇**
N-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecine-18-yl)-2-propenamide, D-00007
- C₁₉H₂₇N₄[⊕]**
1-Butyl-4-[[4-(diethylamino)phenyl]azo]pyridinium(1+), B-00625
- C₁₉H₂₈N₂O₁₂**
(2-Hydroxy-3,5-dinitrophenyl)oxymethyl-18-crown-6, H-00164
- C₁₉H₂₈O₅**
4,6-Di-*tert*-butyl-1,2,3-benzenetriol; 1-Me ether, di-Ac, *in* D-00228
- C₁₉H₃₀N₂O₈**
16-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10,13-penta-oxa-16-azacyclooctadecane, H-00385
- C₁₉H₃₀O₄**
2,5-Dihydroxy-3-undecyl-1,4-benzoquinone; Di-Me ether, *in* D-00740
- C₁₉H₃₀O₅**
Dodecyl gallate, *in* T-00277
- C₁₉H₃₀O₇**
2-(2-Methoxyphenyl)-1,4,7,10,13,16-hexaoxacyclooctadecane, M-00109
- C₁₉H₃₈O₂**
Heptadecanoic acid; Et ester, *in* H-00003
▶ Octadecanoic acid; Me ester, *in* O-00001
- C₁₉H₄₂BrN**
▶ Cetrimonium bromide, *in* H-00029
- C₁₉H₄₂ClN**
Cetrimonium chloride, *in* H-00029
- C₁₉H₄₂N[⊕]**
Hexadecyltrimethylammonium(1+), H-00029
- C₂₀H₄Br₄Cl₄O₅**
▶ Phloxine B, P-00213
- C₂₀H₄Cl₄I₄O₅**
▶ Rose bengal, R-00010
- C₂₀H₄F₂₄O₈U**
Tetrakis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-*O,O'*)uranium(IV), T-00086
- C₂₀H₆Br₄Cl₂O₅**
▶ Phloxin, P-00212
- C₂₀H₆Br₄I₄O₄**
Tetrabromophenoltetraiodophthalein, T-00022
- C₂₀H₆Cl₂I₄O₅**
Rose bengal A, R-00011
- C₂₀H₆I₈O₄**
Tetraiodophenoltetraiodophthalein, T-00081
- C₂₀H₈Br₄O₅**
▶ Eosine, E-00007
- C₂₀H₈Cl₄O₇**
Tetrachlorogallein, T-00035
- C₂₀H₈I₄O₅**
▶ Erythrosine, E-00020
- C₂₀H₉Cl₃O₅**
2',4',5'-Trichlorofluorescein, T-00224
2',4',7'-Trichlorofluorescein, T-00225
- C₂₀H₁₀Br₂HgO₆**
▶ Merbromin, M-00015
- C₂₀H₁₀Br₂O₅**
▶ 4',5'-Dibromofluorescein, D-00188
- C₂₀H₁₀Br₂O₇**
2,7-Dibromogallein, D-00189
- C₂₀H₁₀Br₄O₄**
Tetrabromophenolphthalein, T-00019
- C₂₀H₁₀Cl₂O₅**
2',4'-Dichlorofluorescein, D-00273
2',5'-Dichlorofluorescein, D-00274
2',7'-Dichlorofluorescein, D-00275
4',5'-Dichlorofluorescein, D-00276
- C₂₀H₁₀Cl₄O₄**
4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, T-00027
- C₂₀H₁₀I₂O₅**
Erythrosine Y, E-00021
- C₂₀H₁₀I₄O₄**
Phenoltetraiodophthalein, P-00067
- C₂₀H₁₁ClO₅**
2'-Chlorofluorescein, C-00116
4'-Chlorofluorescein, C-00117
- C₂₀H₁₁NO₂**
1-(3-Fluoranthenyl)-1*H*-pyrrole-2,5-dione, F-00011
1-(1-Pyrenyl)-1*H*-pyrrole-2,5-dione, P-00311
- C₂₀H₁₁NO₆S**
Alizarine green, A-00078
- C₂₀H₁₁NO₉S₂**
6-Hydroxy-5-oxo-5*H*-dibenzo[*a,j*]phenoxazine-8,11-disulfonic acid, H-00432
- C₂₀H₁₁N₃O₅**
Azido fluorescein, A-00460
- C₂₀H₁₁N₅O**
3-[2,2'-Bipyridin-6-yl]-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, B-00232
- C₂₀H₁₂Br₂O₁₀S₂**
▶ Dibromosulfonephthalein, D-00215
- C₂₀H₁₂Cl₄N₈O₆S₂**
2,2'-(1,2-Ethenediyl)bis[5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], E-00044
- C₂₀H₁₂F₁₂N₆S₂**
Glyoxal bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone], G-00022
- C₂₀H₁₂N₂O₂S**
5-Isothiocyanato-2-(4-methylphenyl)-1*H*-benz[*de*]isoquinoline-1,3(2*H*)-dione, I-00097

- C₂₀H₁₂N₂O₄**
[2,2'-Biquinoline]-4,4'-dicarboxylic acid, B-00237
- C₂₀H₁₂N₂O₈**
3,4-Dinitro-1,2-benzenediol; Dibenzoyl, *in* D-00941
- C₂₀H₁₂O₃S₂**
Dithiofluorescein, D-01132
- C₂₀H₁₂O₅**
▷ Fluorescein, F-00020
- C₂₀H₁₂O₆**
2,5-Dihydroxy-1,4-benzoquinone; Dibenzoyl, *in* D-00540
- C₂₀H₁₂O₇**
2',7'-Dihydroxyfluorescein, D-00613
Gallein, G-00004
p-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, T-00306
- C₂₀H₁₂O₈**
9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00032
2-Hydroxy-3-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00557
2-Hydroxy-4-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00558
3-Hydroxy-2-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00559
- C₂₀H₁₂O₁₁S₂**
9,10-Dihydro-1,4-dihydroxy-9,10-dioxo-3-(4-sulfophenoxy)-2-anthracenesulfonic acid, D-00377
- C₂₀H₁₃NO₄**
1,4-Dihydroxy-2-(2-pyridylmethyl)anthraquinone, D-00725
- C₂₀H₁₃NO₉**
2,6,7-Trihydroxy-9-(4-hydroxy-5-methoxy-2-nitrophenyl)-3*H*-xanthen-3-one, T-00287
- C₂₀H₁₃N₃O₅S**
Chrome black special, C-00278
3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, H-00224
- C₂₀H₁₃N₃O₁₂S₃**
4,5-Dihydroxy-3-nitroso-6-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00676
3-(2-Nitroso-4-sulfo-1-naphthalenylazo)-4,5-dihydroxynaphthalene-2,7-disulfonic acid, N-00163
- C₂₀H₁₃N₅**
2-(2,2'-Bipyridin-6-yl)-3*H*-imidazo[4,5-*h*]quinoline, B-00231
- C₂₀H₁₃O₄P**
4-Hydroxydinaphtho[2,1-*d*:1',2'-*f*][1,3,2]dioxaphosphepin 4-oxide, H-00153
- C₂₀H₁₄Cl₂N₂O₂**
1,2-Diamino-4,5-dichlorobenzene; 1,2-*N*-Dibenzoyl, *in* D-00069
- C₂₀H₁₄Cl₂N₄**
6,7-Dichloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, D-00255
- C₂₀H₁₄Cl₂N₈O₈S₂**
2,2'-(1,2-Ethenediyl)bis[5-[(4-hydroxy-6-chloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], E-00045
- C₂₀H₁₄N₂O**
2-[1,1'-Biphenyl]-4-yl-5-phenyl-1,3,4-oxadiazole, B-00216
- C₂₀H₁₄N₂O₂**
1-(8-Hydroxy-2-quinolyl)-2-(8-hydroxy-5-quinolyl)ethylene, H-00534
1-[4-(Phenylamino)-1-naphthalenyl]-1*H*-pyrrole-2,5-dione, P-00083
- C₂₀H₁₄N₂O₄S**
4-[(2-Hydroxy-1-naphthalenyl)azo]-1-naphthalenesulfonic acid, H-00350
- C₂₀H₁₄N₂O₅S**
Eriochrome blue black, E-00010
Solochrome black 6BN, S-00017
- C₂₀H₁₄N₂O₇S₂**
▷ Azorubine, A-00477
Chromotrope F4B, C-00292
- C₂₀H₁₄N₂O₈S₂**
Palatine fast blue GGNA CF, P-00001
- C₂₀H₁₄N₂O₉S₂**
4-[(2,3-Dihydroxy-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00660
- C₂₀H₁₄N₂O₁₀S₃**
▷ Amaranth, A-00087
Lucifer yellow VS, *in* L-00011
- C₂₀H₁₄N₂O₁₁S₃**
4,5-Dihydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00733
4,5-Dihydroxy-3-[(5-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00734
4,5-Dihydroxy-3-[(6-sulfo-2-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00735
3-Hydroxy-4-[(2-hydroxy-6-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, H-00243
Hydroxynaphthol blue, H-00371
- C₂₀H₁₄N₂O₁₂S₃**
4-[(2,3-Dihydroxy-6-sulfo-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00732
- C₂₀H₁₄N₂O₁₄S₄**
4,4'-Azobis[3-hydroxy-2,7-naphthalenedisulfonic acid], A-00469
- C₂₀H₁₄N₂O₁₅S₄**
Beryllon II, B-00199
Calcichrome, C-00012
- C₂₀H₁₄N₄**
4,4'-Diphenyl-2,2'-bipyrimidine, D-01003
2-Phenyl-4,6-di-2-pyridinylpyrimidine, P-00113
5-Phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, P-00158
3-(2-Pyridinyl)-5,6-diphenyl-1,2,4-triazine, P-00388
- C₂₀H₁₄N₄O₆S₂**
Ferrozine, F-00006
- C₂₀H₁₄N₆O₂S**
5-(2-Benzothiazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00106
- C₂₀H₁₄N₆O₃**
5-(2-Benzoxazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00117
- C₂₀H₁₄O₂**
2,2'-Dihydroxy-1,1'-binaphthyl, D-00544
- C₂₀H₁₄O₂S₂**
6,6'-Dithiobis[2-naphthalenol], D-01119
- C₂₀H₁₄O₃**
Bindone; Et ether, *in* B-00205
- C₂₀H₁₄O₄**
1,2-Benzenediol; Dibenzoyl, *in* B-00020
▷ 1,3-Benzenediol; Dibenzoyl, *in* B-00021
1,4-Benzenediol; Dibenzoyl, *in* B-00022
Diphenyl phthalate, *in* B-00018
▷ Phenolphthalein, P-00063
- C₂₀H₁₄O₅**
Fluorescein, F-00022
- C₂₀H₁₄O₆**
Anisylfluorone, A-00372
Phthalein violet, P-00220
- C₂₀H₁₄O₇**
2,6,7-Trihydroxy-9-(4-hydroxy-3-methoxyphenyl)-3*H*-xanthen-3-one, T-00288
- C₂₀H₁₄O₈**
1,2,4-Trihydroxyanthraquinone; Tri-Ac, *in* T-00270
1,2,7-Trihydroxyanthraquinone; Tri-Ac, *in* T-00271
- C₂₀H₁₅Br₂N₅O**
1,5-Bis(2-bromophenyl)-*N*-phenyl-3-formazancarboxamide, B-00270
- C₂₀H₁₅ClN₂O₂**
1,2-Diamino-4-chlorobenzene; 1,2-*N*-Dibenzoyl, *in* D-00064
- C₂₀H₁₅ClN₄**
6-Chloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, C-00075
- C₂₀H₁₅Cl₂N₅O**
1,5-Bis(2-chlorophenyl)-*N*-phenyl-3-formazancarboxamide, *in* B-00286
- C₂₀H₁₅Cl₂N₅O₇S₂**
3,3'-[3-(Phenylamino)carbonyl]-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid], P-00080
- C₂₀H₁₅F₂N₅O**
1,5-Bis(2-fluorophenyl)-*N*-phenyl-3-formazancarboxamide, B-00358
- C₂₀H₁₅I₂N₅O**
1,5-Bis(2-iodophenyl)-*N*-phenyl-3-formazancarboxamide, B-00396
- C₂₀H₁₅NO**
Phenyliminodeoxybenzoin, *in* B-00038
- C₂₀H₁₅NO₂**
2-Benzoylacetanilide, *in* A-00111
▷ *N*-Fluoren-1-ylbenzohydroxamic acid, F-00016
2-[[[2-Hydroxyphenyl]methylene]amino]-9*H*-fluoren-3-ol, H-00477
- C₂₀H₁₅NO₃**
N-Phenylhydroxylamine; *N,O*-Dibenzoyl, *in* P-00135
- C₂₀H₁₅NO₄**
Phenolphthalein; Oxime, *in* P-00063
- C₂₀H₁₅N₂O₃[⊕]**
▷ Rhodamine 110, R-00002
- C₂₀H₁₅N₃O₄**
1,2-Diamino-4-nitrobenzene; 1,2-*N*-Dibenzoyl, *in* D-00108
- C₂₀H₁₅N₃O₇S₂**
4-[(4-Amino-1-naphthalenyl)azo]-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00276
- C₂₀H₁₅N₃O₈S₂**
8-(7-Amino-1-hydroxy-3-sulfo-phenylazo)-7-hydroxy-1-naphthalenesulfonic acid, A-00223
- C₂₀H₁₅N₃O₁₄S₄**
4-Amino-5-hydroxy-6-[(8-hydroxy-3,6-disulfo-1-naphthalenyl)azo]-2,7-naphthalene-2,7-disulfonic acid, A-00188
Beryllon I, B-00198
- C₂₀H₁₅N₅**
2-Benzoylpyrazine 2-quinolylhydrazone, B-00149
2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]pyridine, D-01024
Di-2-pyridinylmethanone 2-quinolylhydrazide, D-01082
3-(4-Methyl-2-pyridyl)-5-phenyl-6-(2-pyridyl)-1,2,4-triazine, M-00303
3-[(1,10-Phenanthrolin-2-yl)]-5-phenyl-1,2,4-triazoline, P-00057
- C₂₀H₁₅N₅O**
5-(2-Benzoxazolyl)-1,3-diphenylformazan, B-00115
- C₂₀H₁₅N₅OS**
5-(2-Benzothiazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00103

- C₂₀H₁₅N₅O₂**
2,3-Bis(6-methyl-2-pyridyl)-5-nitroquinoxaline, B-00417
2,3-Bis(6-methyl-2-pyridyl)-6-nitroquinoxaline, B-00418
- C₂₀H₁₅N₅O₃S₂**
1-(2-Benzothiazolyl)-3-phenyl-5-(4-sulfophenyl)formazan, B-00108
- C₂₀H₁₅N₅S**
5-(2-Benzothiazolyl)-1,3-diphenylformazan, B-00101
- C₂₀H₁₆Cl₂F₆N₆S₂**
2,3-Butanedione bis[4-(4-chloro-3-(trifluoromethyl)phenyl)thiosemicarbazone], B-00591
- C₂₀H₁₆Cl₂N₂**
2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2-methylphenyl)benzenecarboximidamide, *in* C-00082
- C₂₀H₁₆Cl₂N₂O**
2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamidine, C-00086
N'-(4-Chloro-2-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, C-00181
N'-(3-Chloro-4-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, N-00170
- C₂₀H₁₆N₂O**
Benzil; Monophenylhydrazone, *in* B-00038
- C₂₀H₁₆N₂OS**
N,N-Diphenyl-*N'*-benzoylthiourea, *in* B-00161
- C₂₀H₁₆N₂O₂**
N,N'-Bis(2-hydroxybenzylidene)-1,2-benzenediamine, B-00362
1,3-Diaminobenzene; *N,N'*-Dibenzoyl, *in* D-00047
Phenylhydrazine; *N',N'*-Dibenzoyl, *in* P-00134
- C₂₀H₁₆N₂O₆S₂**
4,4'-Diamino-1,1'-binaphthalene-3,3'-disulfonic acid, D-00052
- C₂₀H₁₆N₂S₂**
2,2'-Dithiobis[1-naphthaleneamine], D-01118
- C₂₀H₁₆N₄**
2,3-Bis(6-methyl-2-pyridyl)quinoxaline, B-00422
6,7-Dimethyl-2,3-di(2-pyridyl)quinoxaline, D-00855
Nitron, N-00114
2(1*H*)-Quinolinone [1-(2-quinolinyl)ethylidene]hydrazone, Q-00026
- C₂₀H₁₆N₄O**
6-Hydroxy-2,3-bis(6-methyl-2-pyridyl)quinoxaline, H-00140
- C₂₀H₁₆N₄O₂**
Solochrome red ERS, S-00022
- C₂₀H₁₆N₄O₅S**
Eriochrome red B, E-00017
- C₂₀H₁₆N₄O₆S**
1-(2-Hydroxy-5-sulfophenyl)-3-phenyl-5-(2-carboxyphenyl)formazan, H-00544
- C₂₀H₁₆N₆**
2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00456
3-(4-Ethyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, E-00109
- C₂₀H₁₆N₁₀**
Di-2-pyridinylethanedione;
Bis(pyrazinylhydrazone), *in* D-01063
- C₂₀H₁₇CIN₂**
2-Chloro-*N*-(2-methylphenyl)-*N'*-phenylbenzenecarboximidamide, C-00184
N-(2-Methylphenyl)-*N'*-(4-chlorophenyl)benzamidine, M-00226
- C₂₀H₁₇CIN₂O**
N'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-phenylbenzamidine, C-00183
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(2-methylphenyl)benzenecarboximidamide, C-00227
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(3-methylphenyl)benzenecarboximidamide, C-00228
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methylphenyl)benzenecarboximidamide, C-00229
- C₂₀H₁₇CIN₂O₂**
N-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methoxyphenyl)benzenecarboximidamide, C-00224
- C₂₀H₁₇CIN₂O₆S**
5-Chloro-2-[7-(diethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]-6-benzoxazolesulfonic acid, C-00091
- C₂₀H₁₇NO**
N-Benzylaniline; *N*-Benzoyl, *in* B-00165
- C₂₀H₁₇NO₂**
N-Hydroxy-4-(diphenylmethyl)benzamide, H-00168
2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)-5-methylaniline, H-00235
1,2,3,4-Tetrahydrobenzo[*h*]quinolin-3-ol; Benzoyl, *in* T-00051
- C₂₀H₁₇N₃OS**
1,4-Diphenylthiosemicarbazide; 1-Benzoyl, *in* D-01053
- C₂₀H₁₇N₃O₃**
4-Catechylazo-4'-acetylamino-biphenyl, *in* A-00118
- C₂₀H₁₇N₃O₆S**
2-[(3,4-Dihydroxyphenyl)azo]-4-(4-carboxyphenyl)-5-thiazolecarboxylic acid; 4'-Me ester, 5-Et ester, *in* D-00690
Gallophe-nine, G-00007
- C₂₀H₁₇N₅O₂**
7-(4-Antipyrilazo)-8-hydroxyquinoline, A-00393
1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00423
- C₂₀H₁₈AsNs**
Methyltriphenylarsonium(1+); Thiocyanate, *in* M-00334
- C₂₀H₁₈AsN₃O₁₁S**
Beryllon IV, B-00200
- C₂₀H₁₈F₆N₆S₂**
2,3-Butanedione bis(2-trifluoromethylphenyl)thiosemicarbazone, B-00599
- C₂₀H₁₈INO₄**
Berberine; Iodide, *in* B-00197
- C₂₀H₁₈NO₄[⊕]**
▶ Berberine, B-00197
- C₂₀H₁₈N₂**
N-(4-Methylphenyl)-*N'*-phenylbenzenecarboximidamide, M-00236
- C₂₀H₁₈N₂O**
2-[[*p*-(Dimethylamino)phenyl]imino]-2'-acetonaphthone, D-00815
N,N-Diphenylmethyl-4-nitrosobenzeneamine, *in* N-00154
N-Hydroxy-*N'*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, *in* H-00308
N-Hydroxy-*N*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, H-00313
1-Pyrenebutanoic acid hydrazide, P-00305
- C₂₀H₁₈N₂OS**
4-Methyl-2-[[2-(phenylmethyl)thio]phenyl]azo]phenol, *in* M-00041
- C₂₀H₁₈N₂O₂**
N-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-phenylbenzenecarboximidamide, *in* H-00270
Nile red, N-00070
- C₂₀H₁₈N₄**
2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-4-phenylpyridine, D-00448
3,3',4,4'-Tetraamino-1,1'-binaphthyl, T-00006
- C₂₀H₁₈N₄O**
3-(2-Methoxyphenyl)-1,5-diphenylformazan, M-00107
- C₂₀H₁₈N₄O₂**
2,2'-Azinobis(8-hydroxy-1-methylquinoline), A-00463
4,4'-Bis(1-phenyl-3-methyl-5-pyrazolone), B-00440
3,3'-Dimethyl-1,1'-diphenyl-[4,4'-bi-2-pyrazoline]-5,5'-dione, D-00851
- C₂₀H₁₈N₆O**
4-[(2-Amino-7-quinolinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00342
- C₂₀H₁₈O₅**
2,6-Bis(3,4-dihydroxybenzylidene)cyclohexanone, B-00298
1-(4-Hydroxy-3-methoxyphenyl)-7-(4-hydroxyphenyl)-1,6-heptadiene-3,5-dione, *in* C-00323
- C₂₀H₁₈O₈**
Di-*p*-toluoyl tartrate, *in* T-00002
- C₂₀H₁₉CIN₄**
3-Amino-7-(dimethylamino)-5-phenylphenazinium(1+); Chloride, *in* A-00162
▶ 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+); Chloride, *in* D-00084
- C₂₀H₁₉CIS**
(3,5-Dimethylphenyl)diphenylsulfonium(1+); Chloride, *in* D-00888
- C₂₀H₁₉NO₂**
3,3'-Iminobis[1-(4-methylphenyl)-2-propen-1-one], I-00008
- C₂₀H₁₉NO₅**
▶ Berberine; Hydroxide, *in* B-00197
- C₂₀H₁₉N₃**
▶ Rosaniline, R-00009
- C₂₀H₁₉N₃O₂**
5-Amino-2-[(4-methoxyphenyl)amino]-*N*-phenylbenzamide, A-00233
4-Cyclopentyl-6-(2-quinolinylazo)-1,3-benzenediol, C-00368
- C₂₀H₁₉N₃O₉S₃**
Acid fuchsin, A-00056
- C₂₀H₁₉N₄[⊕]**
3-Amino-7-(dimethylamino)-5-phenylphenazinium(1+), A-00162
3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+), D-00084
- C₂₀H₁₉N₅O₄**
Butanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, B-00605
- C₂₀H₁₉S[⊕]**
(3,5-Dimethylphenyl)diphenylsulfonium(1+), D-00888
- C₂₀H₂₀CIN₃O**
New methylene blue NCG; Chloride, *in* N-00068
Nile blue A; Chloride, *in* N-00069
- C₂₀H₂₀N₂**
1,2,3,4,9,10,11,12-Octahydrodibenzo[*c,h*]phenanthroline, O-00016
- C₂₀H₂₀N₂O₃**
N-[4-(Dimethylamino)phenyl]-*N*-hydroxy-3-methoxy-2-naphthalenecarboxamide, D-00814

- C₂₀H₂₀N₂O₄**
4,4'-Diaminobiphenyl; Tetra-*N*-Ac, *in* D-00053
- C₂₀H₂₀N₂O₈**
2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00059
- C₂₀H₂₀N₂O₁₀**
3,3'-Dihydroxybenzidine-*N,N,N',N'*-tetraacetic acid, D-00528
4,4'-Dihydroxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00572
- C₂₀H₂₀N₃O[⊕]**
New methylene blue NCG, N-00068
Nile blue A, N-00069
- C₂₀H₂₀N₄O₂**
1,2-Cyclohexanedione bisbenzoylhydrazone, C-00340
- C₂₀H₂₀N₄O₄**
1,2-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone, C-00341
1,3-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone, C-00342
- C₂₀H₂₀O₈**
1,2,3,5,6,7-Hexamethoxyanthraquinone, *in* H-00052
- C₂₀H₂₀O₁₃**
Castamolissin, *in* T-00273
- C₂₀H₂₁BrN₄O₁₁**
16-Bromo-2,3,5,6,8,9,11,12-octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, B-00540
- C₂₀H₂₁NO₄**
▷ Papaverine, P-00005
- C₂₀H₂₁NO₆**
2-Demethylcolchicine, *in* C-00300
3-Demethylcolchicine, *in* C-00300
- C₂₀H₂₁N₃O**
Tris(4-aminophenyl)methanol; Me ether, *in* T-00383
- C₂₀H₂₁N₃O₄S**
5-Amino-*N*-(2-methoxyphenyl)-2-[(4-methoxyphenyl)amino]benzenesulfonamide, A-00234
- C₂₀H₂₁N₃O₅S**
4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00320
- C₂₀H₂₁N₃O₈S₂**
Beryllon III, *in* A-00211
2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-(*N,N*-diethylamino)phenol, H-00173
- C₂₀H₂₁N₅O**
2-[4-(1-Aminoethyl)-1-naphthyl]-6-methoxy-*N*-methyl-2*H*-benzotriazol-5-amine, A-00176
7-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-8-quinolinol, M-00253
- C₂₀H₂₁N₅O₄**
Macrocyclic formazan I, M-00001
- C₂₀H₂₁N₅O₄S**
8-Hydroxy-7-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-5-quinolinesulfonic acid, H-00322
- C₂₀H₂₁N₅O₁₃**
2,3,5,6,8,9,11,12-Octahydro-16-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, O-00030
- C₂₀H₂₁N₉O₂S₂**
N-(5-Ethyl-1,3,4-thiadiazol-2-yl)-4-[3-methyl-5-(1-methyl-1*H*-benzimidazol-2-yl)-1-formazanyl]benzenesulfonamide, E-00117
- C₂₀H₂₂N₂O₁₀**
1,5-Bis(aminomethyl)-2,6-naphthalenediol-*N,N',N',N'*-tetraacetic acid, B-00247
- C₂₀H₂₂N₄O**
4-[[[4-(Dimethylamino)phenyl]methylene]amino]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00818
- C₂₀H₂₂N₄O₉**
16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-trien-18-ol, D-00970
- C₂₀H₂₂N₄O₁₁**
2,3,5,6,8,9,11,12-Octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, O-00031
- C₂₀H₂₂N₆S₂**
1,3-Cyclohexanedione;
Bis(phenylthiosemicarbazone), *in* C-00338
- C₂₀H₂₂O₃**
2-Phenylbutanoic acid; Anhydride, *in* P-00110
- C₂₀H₂₃ClN₂O₃**
Rhodamine S; Chloride, *in* R-00006
- C₂₀H₂₃N₂O₃[⊕]**
Rhodamine S, R-00006
- C₂₀H₂₃N₃O₉**
N-(2,4-Dinitrophenyl)-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00973
- C₂₀H₂₃N₅O₂**
5-(4-Antipyrilazo)-2-monoethylamino-*p*-cresol, A-00395
- C₂₀H₂₄ClN₃S**
▷ Prochlorperazine, P-00256
- C₂₀H₂₄N₂O₂**
▷ Quinine, Q-00005
- C₂₀H₂₄N₂O₆**
N,N'-Bis(2-hydroxybenzyl)ethylenediamine-*N,N'*-diacetic acid, B-00360
▷ Dicarboxidine, D-00244
4-[(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)azo]phenol, O-00006
- C₂₀H₂₄N₄**
7,8,9,10,17,18,19,20-Octahydrodibenzo[*e,o*][1,4,8,13]tetraazacyclohexadecine, O-00018
- C₂₀H₂₄O₆**
▷ Dibenzo-18-crown-6, D-00156
- C₂₀H₂₅N₃S**
▷ Perazine, P-00043
- C₂₀H₂₆ClN₃O**
Ethyl capri blue; Chloride, *in* E-00067
- C₂₀H₂₆N₂O₄**
6,7,9,10,17,18,21,22-Octahydro-16*H*,20*H*-dibenzo-*[h,q]*[1,4,7,13,10,16]tetraoxadiazacyclooctadecine, O-00019
- C₂₀H₂₆N₂S**
Etymemazine, E-00123
- C₂₀H₂₆N₃O[⊕]**
Ethyl capri blue, E-00067
- C₂₀H₂₆O₆**
2,3,5,6,8,9,11,12,14,15-Decahydronaphtho[2,3-*b*]-1,4,7,10,13,16-hexaoxacyclooctadecine, D-00017
- C₂₀H₂₇NO₂**
N-Hydroxy-*N*-1-naphthalenyldecanamide, H-00359
- C₂₀H₂₇N₃O₃**
6,7,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,4,7,10,13,16]trioxatriazacyclooctadecine, D-00015
7,8,9,10,17,18,21,22-Octahydro-6*H*,16*H*,20*H*-dibenzo-*[b,k]*[1,7,13,4,10,16]trioxatriazacyclooctadecine, O-00022
- C₂₀H₂₈N₂O₂**
2,4-Dihydro-5-methyl-2-(methylphenyl)-4-(3,5,5-trimethyl-1-oxohexyl)-3*H*-pyrazol-3-one, D-00434
2,4-Dihydro-5-methyl-4-(1-oxodecyl)-2-phenyl-3*H*-pyrazol-3-one, D-00435
- C₂₀H₂₈N₄O₂**
7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,13,16]dioxatetraazacyclooctadecine, D-00010
- C₂₀H₂₈O₆**
4,6-Di-*tert*-butyl-1,2,3-benzenetriol; Tri-Ac, *in* D-00228
- C₂₀H₂₉NO₃S₄**
N-(2,3,5,6,9,10,12,13,15,16-Decahydro-8*H*-1,17,4,7,11,14-benzodioxatetrahiacyclononadecin-19-yl)-2-propenamide, D-00005
- C₂₀H₃₀N₂O**
N,N'-Dicyclohexyl-*O*-benzylisourea, D-00308
- C₂₀H₃₀O₃**
3-Hydroxyandrost-5-ene-17-carboxylic acid, H-00098
- C₂₀H₃₂N₂O₈S**
N,N-Dihexyl-*N'*-benzoylthiourea, *in* B-00161
- C₂₀H₃₂O₈**
2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13,16-hexaoxacyclooctadecane, M-00103
- C₂₀H₃₂O₈S₆**
2,2,5,5-Tetrakis(carboxymethylthio)-*p*-dithiane; Tetra-Et ester, *in* T-00082
- C₂₀H₃₃NO₂**
N-Hydroxy-*N*-phenyltetradecanamide, H-00504
- C₂₀H₃₄N₂S₂**
Cyclohexylbenzylidithiocarbamate(1-); Triethylammonium salt, *in* C-00351
Cyclohexyl(phenylmethyl)carbamodithioic acid; Et₃N salt, *in* C-00357
- C₂₀H₃₄O₃**
Cyclohexanebutanoic acid; Anhydride, *in* C-00335
- C₂₀H₃₆O₆**
▷ Eicosahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, E-00004
- C₂₀H₄₀N₂O₇**
4,7,10,16,19,24,27-Heptaoxa-1,13-diazabicyclo[11.8.8]nonacosane, H-00014
- C₂₀H₄₀N₄**
7,14-Dimethyl-5,7,12,14-tetraethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, D-00919
- C₂₀H₄₀O₂**
▷ Octadecanoic acid; Et ester, *in* O-00001
- C₂₀H₄₄BrN**
▷ Cetylclde, *in* E-00071
- C₂₀H₄₄N[⊕]**
N-Ethyl-*N,N*-dimethyl-1-hexadecanaminium(1+), E-00071
- C₂₁H₃EuF₃₀O₆**
Tris(1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato-*O,O'*)europium(III), T-00385
- C₂₁H₇Br₄NO₅S**
2',3',4',7'-Tetrabromo-3',6'-dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, T-00016
- C₂₁H₁₁NO₅S**
3',6'-Dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, D-00638
- C₂₁H₁₂Br₂Cl₄O₅S**
4,4'-(4,5,6,7-Tetrachloro-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] S.S-dioxide, T-00026

- C₂₁H₁₂Br₆O₅S**
4,4'-(4,5,6,7-Tetrabromo-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] S,S-dioxide, T-00013
- C₂₁H₁₂N₂O₅**
2,6,7-Trihydroxy-9-(2-quinoxalanyl)-3*H*-xanthen-3-one, T-00321
- C₂₁H₁₂N₄O**
3-(4-Phenyl-2-pyridinyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, P-00176
- C₂₁H₁₃ClO₃S**
4-[1-Oxo-3-phenyl-1*H*-inden-2-yl] benzenesulfonyl chloride, O-00067
- C₂₁H₁₃NO₆S**
N-(9,10-Dihydro-9,10-dioxo-2-sulfoanthracenyl)benzenecarboxamide, *in* A-00093
- C₂₁H₁₃N₃O**
2-(2-Quinolinyloxy)-1-acenaphthylenol, Q-00027
- C₂₁H₁₃N₃OS**
10-(2-Benzothiazolylazo)-9-phenanthrenol, B-00099
- C₂₁H₁₃N₅**
2-(5-Phenyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, P-00207
- C₂₁H₁₄Br₄O₅S**
Bromocresol green, B-00498
o-Cresoltetrabromosulfonephthalein, C-00311
- C₂₁H₁₄Cl₄O₅S**
o-Cresoltetrachlorosulfonephthalein, C-00312
- C₂₁H₁₄I₄O₅S**
o-Cresoltetraiodosulfonephthalein, C-00313
- C₂₁H₁₄N₂O₆S**
2-(2-Hydroxy-3-naphthoylazo)-1-hydroxy-4-naphthalenesulfonic acid, H-00374
- C₂₁H₁₄N₂O₇S**
3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid, H-00242
- C₂₁H₁₄N₂O₁₀S₂**
1-(3-Carboxy-2-hydroxy-1-naphthylazo)-2-naphthol-3,6-disulfonic acid, C-00030
- C₂₁H₁₄N₄**
2-(4-Phenyl-2-pyridyl)-3*H*-imidazo[4,5-*h*]quinoline, P-00184
- C₂₁H₁₄N₄O₄S₃**
Thioflavine S, T-00162
- C₂₁H₁₄N₄S**
6-Phenanthridinecarboxaldehyde 2-benzothiazolylhydrazone, P-00049
- C₂₁H₁₄N₆**
2-Amino-4,6-bis(1-isoquinolyl)-1,3,5-triazine, A-00121
- C₂₁H₁₄O₂**
3,3-Diphenyl-1,2-indanedione, D-01027
- C₂₁H₁₄O₃**
2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid, H-00131
- C₂₁H₁₄O₅**
Fluorescein; Me ester, *in* F-00020
Fluorescein; Me ether, *in* F-00020
- C₂₁H₁₄O₇**
Gallein; Me ester, *in* G-00004
p-Methoxycarbonylphenylfluorone, *in* T-00306
- C₂₁H₁₄O₉S**
Salicyl red, S-00002
- C₂₁H₁₅ClN₂O₂**
2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-naphthalenylcarbonyl)-3*H*-pyrazol-3-one, C-00213
- C₂₁H₁₅ClO₃**
6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00584
7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00585
- C₂₁H₁₅NO**
9-Aminophenanthrene; *N*-Benzoyl, *in* A-00298
2-[1,1'-Biphenyl]-4-yl-5-phenoxazole, B-00214
- C₂₁H₁₅NO₃**
▷ 1-Hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione, H-00300
- C₂₁H₁₅NO₆**
4-Acetamidophenylfluorone, *in* A-00328
- C₂₁H₁₅NO₈S₂**
4-Hydroxy-5-[[2-(2-hydroxy-1-naphthalenyl)methylene]amino]-2,7-naphthalenedisulfonic acid, H-00225
- C₂₁H₁₅N₃**
4,6-Diphenyl-2-(2-pyridinyl)pyrimidine, D-01046
- C₂₁H₁₅N₅O**
Di-2-pyridinylethanedione; 2-Quinolylhydrazone, *in* D-01063
- C₂₁H₁₅N₅O₃**
2-[(2-Hydroxy-5-nitrophenyl)azo]-4,5-diphenylimidazole, H-00394
- C₂₁H₁₅N₅O₅S**
3-[[[(5-Nitro-2-pyridinyl)hydrazono]-3-isoquinolinylmethyl]benzenesulfonic acid, N-00150
- C₂₁H₁₅N₇O₂**
1-(4-Nitrophenyl)-3-phenyl-5-(1-phthalazinyl)formazan, N-00143
- C₂₁H₁₅O₃[⊕]**
6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+), D-00584
7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+), D-00585
- C₂₁H₁₆BrN**
2,3-Diphenylquinolizinium(1+); Bromide, *in* D-01048
- C₂₁H₁₆Br₂O₂**
2-Bromo-4-[(3-bromo-4-hydroxy-5-methylphenyl)phenylmethylene]-6-methyl-2,5-cyclohexadien-1-one, B-00495
- C₂₁H₁₆Br₂O₅S**
Bromocresol purple, B-00499
- C₂₁H₁₆N[⊕]**
2,3-Diphenylquinolizinium(1+), D-01048
- C₂₁H₁₆N₂**
▷ 2,4,5-Triphenylimidazole, T-00367
- C₂₁H₁₆N₂O₂**
3,3-Diphenyl-1,2-indanedione; Dioxime, *in* D-01027
- C₂₁H₁₆N₂S**
▷ 1,3-Di-1-naphthyl-2-thiourea, D-00934
- C₂₁H₁₆N₄**
2-Benzoylpyridine 3-quinolylhydrazone, B-00156
2-Benzoylpyridine 8-quinolylhydrazone, B-00157
4,5-Diphenyl-2-(phenylazo)-1*H*-imidazole, D-01035
3-(6-Methyl-2-pyridinyl)-5,6-diphenyl-1,2,4-triazine, M-00286
3-(4-Methyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, M-00298
2(1*H*)-Quinolone (phenyl-2-pyridinylmethylene)hydrazone, Q-00024
- C₂₁H₁₆N₄O**
2-[(2-Hydroxyphenyl)azo]-4,5-diphenylimidazole, H-00450
- C₂₁H₁₆N₄O₂**
2,3-Bis(6-methyl-2-pyridyl)-6-quinoxalinecarboxylic acid, B-00423
- C₂₁H₁₆N₄O₃S**
2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo] benzenesulfonic acid, D-01021
- C₂₁H₁₆N₄S**
Dinaphthizone, D-00931
- C₂₁H₁₆N₆**
1-(1-Phthalazinyl)-3,5-diphenylformazan, P-00219
- C₂₁H₁₆N₆O₃**
1-Benzyl-2-(α -hydroxyimino-4-nitrobenzyl)-1*H*-imidazole, B-00183
- C₂₁H₁₆O₂S₂**
Benzoyl dithiol, *in* M-00129
- C₂₁H₁₆O₃**
Benzoin; Benzoyl, *in* B-00068
- C₂₁H₁₆O₄**
3-(4-Hydroxy-2-methylphenyl)-3-(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, H-00310
3-Methyl-1,2-benzenediol; Dibenzoyl, *in* M-00127
5-Methyl-1,3-benzenediol; Dibenzoyl, *in* M-00128
Phenolphthalein; Me ester (open-chain form), *in* P-00063
Phenolphthalein; Mono-Me ether, *in* P-00063
- C₂₁H₁₇AsN₄O₃**
[2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]phenyl] arsonic acid, D-01023
- C₂₁H₁₇NO₂**
4-Methylaniline; *N*-Dibenzoyl, *in* M-00124
- C₂₁H₁₇NO₅**
9-[4-(Dimethylamino)phenyl]-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00824
- C₂₁H₁₇N₅**
2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-1,10-phenanthroline, D-00447
- C₂₁H₁₇N₅O**
2-[[[(Hydroxyimino)phenylmethyl]azo]-1-(phenylmethyl)-1*H*-benzimidazole, *in* H-00250
- C₂₁H₁₇N₅OS**
5-Benzothiazolyl-3-(2-methoxyphenyl)-1-phenylformazan, *in* B-00103
- C₂₁H₁₈ClN₃S₂**
N-Phenylmethyl[[[(4-chlorophenyl)amino]thioxomethyl]-*N'*-phenylcarbamimidothioate, P-00145
- C₂₁H₁₈Cl₂N₂**
2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2,3-dimethylphenyl)benzenecarboximidamide, C-00085
- C₂₁H₁₈N₂**
4,5-Dihydro-1,3,5-triphenyl-1*H*-pyrazole, D-00506
- C₂₁H₁₈N₂O₂**
1,3-Bis(8-quinoloxo)propane, B-00453
- C₂₁H₁₈N₄**
6-Methyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, M-00146
- C₂₁H₁₈N₄O**
6-Methoxy-2,3-bis(6-methyl-2-pyridyl)quinoxaline, *in* H-00140
- C₂₁H₁₈N₄O₂**
1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00414
1,2-Dihydro-4-[(2-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00415

- 1,2-Dihydro-4-[(4-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00416
15,16-Dihydroxy-7-phenyl-5*H*-dibenzo[*b,f*][1,11,4,5,7,8]dioxatetraazacyclotridecine, D-00709
- C₂₁H₁₈N₄O₃**
4-[(1,7-Dihydroxy-2-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00659
- C₂₁H₁₈N₄O₅S**
8-(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-7-hydroxy-2-naphthalenesulfonic acid, D-00386
- C₂₁H₁₈N₄O₆S**
1-(2-Carboxyphenyl)-5-[1-(2-methoxy-5-sulfophenyl)]-3-phenylformazan, C-00042
- C₂₁H₁₈N₄O₇**
Naphthol violet, N-00030
- C₂₁H₁₈N₄O₉S₂**
3-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00382
- C₂₁H₁₈N₄S**
1,5-Di-(β -naphthyl)thiocarbazone, D-00933
- C₂₁H₁₈O₂**
o-Cresolbenzen, C-00305
- C₂₁H₁₈O₄**
3,5-Dibenzoyloxybenzoic acid, *in* D-00534
- C₂₁H₁₈O₅S**
m-Cresol purple, C-00309
Cresol red, C-00310
- C₂₁H₁₈O₆**
7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid; Et ester, benzoyl, *in* H-00295
- C₂₁H₁₈O₇S**
Orcinsulfonephthalein, O-00044
- C₂₁H₁₉ClN₂**
4-Chloro-*N*-(2,3-dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, C-00102
N-(4-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)benzenecarboximidamide, C-00214
- C₂₁H₁₉ClN₂O**
N'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamidine, C-00182
N-(3-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00215
N-(3-Chlorophenyl)-*N'*-(2,5-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00216
N-(3-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00217
N-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00218
- C₂₁H₁₉NO₇**
Isocein, I-00058
- C₂₁H₁₉N₃**
Benzoflavine, B-00057
- C₂₁H₁₉N₃O₁₂S₂**
4,5-Dihydroxy-3-[4-(aminomethyl)phenylazo]-2,7-naphthalenedisulfonic acid *N,N*-diacetic acid, D-00509
- C₂₁H₁₉N₅O**
4-[(4-Amino-1-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00275
- C₂₁H₁₉N₇**
2,4-Bis(4,5-dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, B-00296
2,6-Bis(4,5-dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, B-00297
- C₂₁H₁₉N₇O₂**
2,6-Diacetylpyridine bis (2-pyridylhydrazone), D-00039
- C₂₁H₂₀AsN₃O₁₅S₂**
N-[[7-[(2-Arsenophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]methyl]-*N*-(carboxymethyl)glycine, A-00430
- C₂₁H₂₀BrN₃**
► Homidium bromide, *in* D-00096
- C₂₁H₂₀N₂**
N-(2,3-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00892
N-(2,6-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00893
N-(4-Ethylphenyl)-*N'*-phenylbenzenecarboximidamide, E-00104
- C₂₁H₂₀N₂O**
N'-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-phenylbenzamidine, D-00890
N-Hydroxy-*N,N'*-bis(4-methylphenyl)benzenecarboximidamide, *in* H-00308
- C₂₁H₂₀N₂O₂**
N-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-(4-methylphenyl)benzenecarboximidamide, *in* H-00270
- C₂₁H₂₀N₂O₃S**
N-Methylaminiinesulfonephthalein, *in* A-00369
- C₂₁H₂₀N₂O₄**
2,7-Diaminofluorene; Tetra-*N*-Ac, *in* D-00097
- C₂₁H₂₀N₂O₄S**
 α -Hydroxy- α -phenylbenzeneacetic acid 2-[(4-methylphenyl)sulfonyl]hydrazide, H-00464
- C₂₁H₂₀N₂O₆S**
2-[7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]-5-methyl-6-benzoxazolesulfonic acid, D-00327
- C₂₁H₂₀N₃[⊕]**
► 3,8-Diamino-5-ethyl-6-phenylphenanthridinium(1+), D-00096
- C₂₁H₂₀O₄**
3-(2-Ethyl-3-oxo-1-phenylbutyl)-4-hydroxy-4*H*-1-benzopyran-4-one, E-00101
- C₂₁H₂₀O₅**
2,6-Bis(3,4-dihydroxybenzylidene)-3-methyl-1-cyclohexanone, B-00299
2,6-Bis(3,4-dihydroxybenzylidene)-4-methyl-1-cyclohexanone, B-00300
- C₂₁H₂₀O₆**
Curcumin, C-00323
- C₂₁H₂₀O₁₁**
Daticanin, *in* T-00074
5,7,8-Trihydroxyflavanone; 7-*O*-Glucuronopyranoside, *in* T-00282
- C₂₁H₂₀O₁₂**
Quercimeritrin, Q-00001
- C₂₁H₂₀O₁₃**
Cannabiscitrin, *in* H-00055
- C₂₁H₂₁ClN₄**
Rhoduline violet; Chloride, *in* R-00007
- C₂₁H₂₁N**
Tribenzylamine, T-00201
- C₂₁H₂₁N₃O₇**
Cacotheline, C-00005
- C₂₁H₂₁N₄[⊕]**
Rhoduline violet, R-00007
- C₂₁H₂₁N₉**
2,6-Bis[3-(4-methyl-2-pyridyl)-1,2,4-triazolin-5-yl]pyridine, B-00424
- C₂₁H₂₁P**
Triphenylpropylphosphonium(1+); Ylide, *in* T-00372
- C₂₁H₂₂BrP**
Isopropyltriphenylphosphonium(1+); Bromide, *in* I-00079
Triphenylpropylphosphonium(1+); Bromide, *in* T-00372
- C₂₁H₂₂ClO₄P**
Isopropyltriphenylphosphonium(1+); Perchlorate, *in* I-00079
- C₂₁H₂₂CIP**
Isopropyltriphenylphosphonium(1+); Chloride, *in* I-00079
Triphenylpropylphosphonium(1+); Chloride, *in* T-00372
- C₂₁H₂₂F₃N₃O₈**
N-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-3,4,6,7,10,11-hexahydro-2*H*,9*H*-1,5,8,12-benzotetraoxacyclotetradecin-14-amine, D-00976
- C₂₁H₂₂F₃N₃O₉**
N-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00977
N-[2,6-Dinitro-4-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00978
- C₂₁H₂₂IP**
Isopropyltriphenylphosphonium(1+); Iodide, *in* I-00079
Triphenylpropylphosphonium(1+); Iodide, *in* T-00372
- C₂₁H₂₂N₂O₂**
► Strychnine, S-00033
- C₂₁H₂₂N₄O**
1-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenol, M-00250
2-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenol, M-00251
- C₂₁H₂₂N₄O₂**
2-[(2,7-Dihydroxy-1-naphthyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00662
- C₂₁H₂₂N₄O₃S**
5-[[5-(1-Methyl-2-piperidinyl)-2-pyridyl]azo]-1-naphthalenesulfonic acid, M-00254
- C₂₁H₂₂N₄O₄S**
4-Hydroxy-3-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, H-00319
5-Hydroxy-6-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, H-00320
6-Hydroxy-5-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenesulfonic acid, H-00321
- C₂₁H₂₂N₄O₈S₂**
4,5-Dihydroxy-3-[[5-(1-methyl-2-piperidinyl)-2-pyridyl]azo]-2,7-naphthalenedisulfonic acid, D-00655
- C₂₁H₂₂N₄O₉**
3,5-Dinitro-4-[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)amino]benzotrile, D-00956
- C₂₁H₂₂P[⊕]**
Isopropyltriphenylphosphonium(1+), I-00079
Triphenylpropylphosphonium(1+), T-00372
- C₂₁H₂₃ClN₂O**
Furfurol green; Chloride, *in* F-00063
- C₂₁H₂₃IN₂**
Quinaldine red; Iodide, *in* Q-00004
- C₂₁H₂₃NO₆**
Colchicine, C-00300
- C₂₁H₂₃N₂[⊕]**
Quinaldine red, Q-00004
- C₂₁H₂₃N₂O[⊕]**
Furfurol green, F-00063
- C₂₁H₂₃N₃OS**
► Pericyazine, P-00044
- C₂₁H₂₃N₃OS₂**
5-[2,2-Bis(4-dimethylaminophenyl)ethylene]rhodanine, B-00318

- C₂₁H₂₃N₃O₈S₂**
4-[[4-[Ethyl(3-sulfopropyl)amino]-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, E-00115
- C₂₁H₂₃N₃O₁₁S₃**
2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-[*N*-ethyl-*N*-(sulfopropyl)amino]phenol, H-00174
- C₂₁H₂₄F₃N₃S**
▷ Trifluoperazine, T-00238
- C₂₁H₂₄N₄O₂S₂**
2,3-Pentanedione bis[*p*-methoxy(thiobenzoyl)hydrazonol], P-00031
- C₂₁H₂₄N₄O₆S₄**
1,3,4,7,8,10,11,13-Octahydro-*N*-(2,4,6-trinitrophenyl)-6*H*-2,5,9,12-benzotetrahiacyclopentadecin-15-amine, O-00032
- C₂₁H₂₄N₆S₂**
2-Methyl-1,3-cyclohexanedione bis(phenylthiosemicarbazone), M-00158
- C₂₁H₂₄O₆**
1,9-Bis(2,4-dihydroxyphenyl)-1,9-nonanedione, B-00309
- C₂₁H₂₄O₇**
3-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b*,*j*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]propanoic acid, T-00057
- C₂₁H₂₄O₈**
[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b*,*k*][1,4,7,10,13]pentaoxacyclohexadecin-18-yl)oxy]acetic acid, H-00040
- C₂₁H₂₅ClN₂**
2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Chloride, *in* D-00811
- C₂₁H₂₅ClN₂OS₄**
4-Chloro-2-[(1,3,4,7,8,10,11,13-octahydro-6*H*-2,5,9,12-benzotetrahiacyclopentadecin-15-yl)azo]phenol, C-00191
- C₂₁H₂₅N₂[⊕]**
2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+), D-00811
- C₂₁H₂₅N₂O₂[⊕]**
4-[2-Cyano-2-(3,4-dimethoxyphenyl)ethenyl]-*N,N,N*-trimethylbenzenemethanaminium(1+), C-00327
- C₂₁H₂₅N₅O₂**
2-(4-Antipyrilazo)-5-diethylaminophenol, A-00392
- C₂₁H₂₆ClN₃OS**
▷ Perphenazine, P-00046
- C₂₁H₂₆N₂OS₄**
4-[(1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrahiacyclopentadecin-15-yl)azo]phenol, O-00010
- C₂₁H₂₆N₂S₂**
▷ Thioridazine, T-00173
- C₂₁H₂₆N₄**
8,9,10,11,18,19,20,21-Octahydro-7*H*-dibenzo[*c*,*p*][1,4,8,14]tetraazacycloheptadecine, O-00017
- C₂₁H₂₆O₆**
Dibenzo-19-crown-6, D-00157
- C₂₁H₂₆O₁₃**
Schumannioside B, *in* D-00645
- C₂₁H₂₇ClN₂O₂**
▷ Hydroxyzine, H-00563
- C₂₁H₂₇ClN₄O₃S**
Maxilon blue GRL; Chloride, *in* M-00009
- C₂₁H₂₇NO₂**
Diphenylacetic acid; 3-(Diethylamino)propyl ester, *in* D-00999
- C₂₁H₂₇N₃O₃**
N-Hydroxy-4-(octyloxy)-*N*-phenylbenzamide, H-00425
- C₂₁H₂₇N₃O₃[⊕]**
Luminarin 4, L-00013
- C₂₁H₂₇N₄O₃S[⊕]**
Maxilon blue GRL, M-00009
- C₂₁H₂₈N₂O₃**
6,7,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*b*,*q*][1,4,7,10,16]trioxadiazacyclooctadecine, D-00014
6,7,10,11,18,19,20,21-Octahydro-5*H*,9*H*,17*H*-dibenzo[*b*,*k*][1,7,13,4,10]trioxadiazacyclooctadecine, O-00021
- C₂₁H₂₈N₂S**
Bis[4-(diethylamino)phenyl]methanethione, *in* B-00254
- C₂₁H₂₈N₄O**
3-Isopropyl-6-methyl-2-[[5-(1-methylpiperidinyl)-2-pyridinyl]azo]phenol, I-00074
- C₂₁H₂₈N₄S**
4,4'-Dibutylidithione, D-00233
- C₂₁H₂₉NO**
7-(1-Ethenyl-3,3,5,5-tetramethylhexyl)-8-quinolinol, E-00049
- C₂₁H₂₉N₃O₂**
6,7,8,9,10,11,18,19,20,21-Decahydro-5*H*,17*H*-dibenzo[*b*,*k*][1,13,4,7,10]dioxatriaacyclooctadecine, D-00011
7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*b*,*q*][1,7,4,10,16]dioxatriaacyclooctadecine, D-00012
- C₂₁H₂₉N₅O**
3-Diethylamino-4-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]phenol, D-00323
- C₂₁H₃₀NO₃P**
[Phenyl(phenylamino)methylphosphonic acid; Mono-octyl ester, *in* P-00155
- C₂₁H₃₀O₆**
2,5-Dihydroxy-3-undecyl-1,4-benzoquinone; Di-Ac, *in* D-00740
- C₂₁H₃₁N₈O₈**
N-(1,4,7,10,13,16,19-Benzoheptaaxacycloheptacosin-21-yl)-2-propenamide, B-00058
- C₂₁H₃₂BrN**
▷ Laurylisoquinolinium bromide, *in* I-00080
- C₂₁H₃₅NO₂**
N-Hydroxy-*N*-(4-methylphenyl)tetradecanamide, H-00316
- C₂₁H₃₈BrN**
▷ Benzylidimethyldodecylammonium(1+); Bromide, *in* B-00179
1-Hexadecylpyridinium(1+); Bromide, *in* H-00028
- C₂₁H₃₈ClN**
Benzododecinium chloride, *in* B-00179
▷ Cetylpyridinium chloride, *in* H-00028
- C₂₁H₃₈IN**
1-Hexadecylpyridinium(1+); Iodide, *in* H-00028
- C₂₁H₃₈N[⊕]**
Benzylidimethyldodecylammonium(1+), B-00179
1-Hexadecylpyridinium(1+), H-00028
- C₂₁H₃₈O₆**
Eicosahydro-20*H*-dibenzo[*b*,*n*][1,4,7,10,13,16]hexaaxacyclononadecin, E-00003
- C₂₁H₄₁NO₃**
N-Hexadecylhydroxyproline, H-00027
- C₂₁H₄₂O₅**
2-[(Dodecyloxy)methyl]-1,4,7,10-tetraoxacyclododecane, D-01154
- C₂₁H₄₄BrNO₂**
Septonex, *in* E-00061
- C₂₁H₄₄NO₂[⊕]**
1-Ethoxy-*N,N,N*-trimethyl-1-oxo-2-hexadecanaminium(1+), E-00061
- C₂₂H₁₀Br₄INO₆**
2-Iodo-*N*-(2',4',5',7'-tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3*H*),9'(9*H*)xanthen]-5-yl)acetamide, I-00054
- C₂₂H₁₁N₅O**
3-(1,10-Phenanthroline-2-yl)-9*H*-indeno[1,2-*c*]-1,2,4-triazin-9-one, P-00056
- C₂₂H₁₂Br₄O₅**
2-(2,4,5,7-Tetrabromo-6-hydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid ethyl ester, *in* E-00007
- C₂₂H₁₂Cl₂N₆O₁₄S₂**
3,6-[Bis(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00282
- C₂₂H₁₂N₆**
3-(3-Isoquinolyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, I-00090
- C₂₂H₁₂N₆O₁₈S₄**
4,5-Dihydroxy-3,6-bis[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00558
- C₂₂H₁₂N₈O₁₈S₂**
4,5-Dihydroxy-3,6-bis[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00549
- C₂₂H₁₂O₁₂S₂**
Lead blue, L-00004
- C₂₂H₁₃ClN₆O₁₄S₂**
3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00144
- C₂₂H₁₃ClN₆O₁₇S₃**
3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00155
- C₂₂H₁₃Cl₂N₅O₁₅S₃**
3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00138
- C₂₂H₁₃NO₅**
2,6,7-Trihydroxy-9-(2-quinolinyl)-3*H*-xanthen-3-one, T-00320
- C₂₂H₁₃NO₆**
2,6,7-Trihydroxy-9-(8-hydroxy-2-quinolinyl)-3*H*-xanthen-3-one, T-00295
- C₂₂H₁₃N₅**
2-(3-*H*-imidazo[4,5-*b*]quinolin-2-yl)-4,7-phenanthroline, I-00006
- C₂₂H₁₃N₇O₁₆S₂**
4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00615
- C₂₂H₁₃N₇O₁₉S₃**
4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00616
- C₂₂H₁₄AsBr₃N₄O₁₁S₂**
Tribromoarsenazo, T-00203

- C₂₂H₁₄As₂Br₄N₄O₁₄S₂**
3,6-Bis[(2-arsono-4,6-dibromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00255
- C₂₂H₁₄ClN₅O₁₄S₃**
3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00139
Sulfochlorophenol N, S-00043
- C₂₂H₁₄Cl₂N₄O₁₃S₃**
3-[(5-Chloro-2-hydroxyphenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00142
- C₂₂H₁₄Cl₂N₄O₁₅S₄**
3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-6-[(3-chloro-5-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00153
- C₂₂H₁₄Cl₂N₄O₁₆S₄**
4,5-Dihydroxy-3,6-bis[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00548
Sulfochlorophenol S, S-00045
- C₂₂H₁₄INO₆**
N-(3',6'-Dihydroxy-3-oxospiro[isobenzofuran-1(3*H*),9[9*H*]xanthen]-5-yl)-2-iodoacetamide, D-00681
- C₂₂H₁₄N₂O₄S**
Rosinduline 2G, R-00012
- C₂₂H₁₄N₄**
2,3-Di-2-pyridylbenzo[*g*]quinoxaline, D-01088
- C₂₂H₁₄N₄O₅S**
4-Hydroxy-3-[(5-hydroxybenzo[*a*]phenazin-6-yl)azo]benzenesulfonic acid, H-00187
- C₂₂H₁₄N₆**
3-(5,6-Di-2-pyridyl-1,2,4-triazin-3-yl)isoquinoline, D-01097
3-(2-Quinolyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, Q-00038
- C₂₂H₁₄N₆O₁₂S₂**
4,5-Dihydroxy-3,6-bis[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00556
4,5-Dihydroxy-3,6-bis[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00557
- C₂₂H₁₄N₆O₁₄S₂**
4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00580
- C₂₂H₁₄N₆O₁₆S₃**
Picramine M, P-00233
- C₂₂H₁₄N₆O₁₇S₃**
4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00617
- C₂₂H₁₄N₆O₁₉S₄**
4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-[(3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00622
- C₂₂H₁₄N₆O₂₀S₄**
4,5-Dihydroxy-3,6-bis[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00550
Sulfonitrophenol S, S-00054
- C₂₂H₁₄O₂**
1,2-Di(1-naphthalenyl)-1,2-ethanedione, D-00930
- C₂₂H₁₄O₃**
1-Naphthalenecarboxylic acid; Anhydride, *in* N-00005
- C₂₂H₁₄O₉**
Aurintricarboxylic acid, A-00458
- C₂₂H₁₅AsBr₂N₄O₁₄S₃**
Arsenazo DBS, A-00408
- C₂₂H₁₅AsClN₅O₁₄S₂**
3-[(2-Arsonophenyl)azo]-6-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00424
- C₂₂H₁₅AsN₆O₁₆S₂**
3-[(2-Arsonophenyl)azo]-6-[(3,5-dinitro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00441
- C₂₂H₁₅ClIN₄O₁₁PS₂**
3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00249
- C₂₂H₁₅ClN₄O₁₂S₃**
3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00146
3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-6-phenylazo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00162
- C₂₂H₁₅ClN₄O₁₃S₃**
3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00156
- C₂₂H₁₅ClN₄O₁₄S₄**
3-[(5-Chloro-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00262
- C₂₂H₁₅ClN₄O₁₅S₄**
Sulfochlorophenol M, S-00042
- C₂₂H₁₅ClN₄O₁₆S₄**
3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00157
- C₂₂H₁₅ClN₅O₁₃PS₂**
Chlorophosphonazo mN, C-00243
Chlorophosphonazo pN, C-00244
- C₂₂H₁₅ClO₂**
2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid; Me ether, chloride, *in* H-00131
- C₂₂H₁₅Cl₂N₄O₁₁PS₂**
Chlorophosphonazo-*m*-sulfonic acid, C-00246
- C₂₂H₁₅NO₂**
1,2-Di(1-naphthalenyl)-1,2-ethanedione; Monooxime, *in* D-00930
1,1'-(Iminodimethylidene)bis-2(1*H*)-naphthalenone, I-00020
- C₂₂H₁₅N₃**
1-(5-Phenyl-2-benzimidazolyl)isoquinoline, P-00103
3-(5-Phenyl-2-benzimidazolyl)isoquinoline, P-00104
- C₂₂H₁₅N₃O**
2-[(4-Methyl-2-quinolyl)azo]-1-acenaphthylenol, M-00308
- C₂₂H₁₅N₃O₃S**
2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole, D-00699
- C₂₂H₁₅N₃O₄S**
4-[2-[(3,4-Dihydroxyphenyl)azo]-5-phenyl-4-thiazolyl]benzoic acid, D-00700
- C₂₂H₁₅N₅O₁₀S₂**
4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00667
- C₂₂H₁₅N₅O₁₃S₃**
4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-[(*p*-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00669
4,5-Dihydroxy-3-[(5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00677
- C₂₂H₁₅N₅O₁₄S₃**
4,5-Dihydroxy-3-[(2-hydroxy-4-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00620
4,5-Dihydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00621
4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00623
- C₂₂H₁₅N₅O₁₆S₄**
4,5-Dihydroxy-3-[(4-nitro-2-sulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00678
4,5-Dihydroxy-3-[(5-nitro-3-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00679
- C₂₂H₁₅N₅O₁₇S₄**
Sulfonitrophenol M, S-00052
- C₂₂H₁₅N₅O₁₉S₅**
4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00605
- C₂₂H₁₆AsClN₄O₁₂S₂**
3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00425
- C₂₂H₁₆AsClN₄O₁₅S₃**
3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00426
- C₂₂H₁₆AsN₅O₁₃S₂**
3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00437
- C₂₂H₁₆AsN₅O₁₆S₃**
Arsenazo 4S3NB, A-00416
- C₂₂H₁₆AsN₅O₁₇S₃**
3-[(2-Arsonophenyl)azo]-6-[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00442
- C₂₂H₁₆As₂Br₂N₄O₁₄S₂**
Dibromoarsenazo III, D-00178
- C₂₂H₁₆Cl₂N₄O₁₄P₂S₂**
Chlorophosphonazo III, C-00242
- C₂₂H₁₆F₁₂N₆S₂**
2,3-Butanedione bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone], B-00590
- C₂₂H₁₆N₂**
4,4'-Diphenyl-2,2'-bipyridine, D-01002
- C₂₂H₁₆N₂O₂**
1-(4-Hydroxy-3-biphenylazo)-2-naphthol, H-00134
- C₂₂H₁₆N₂O₃**
2,3-Bis(2-hydroxybenzylideneamino)benzofuran, B-00361
- C₂₂H₁₆N₄O**
6-Benzoyl-3-(4-methyl-2-pyridyl)-5-methyl-1,2,4-triazine, B-00136
▷ 1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol, P-00095
- C₂₂H₁₆N₄O₂**
2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]benzoic acid, D-01022
- C₂₂H₁₆N₄O₇S₂**
Brilliant croceine, B-00478
- C₂₂H₁₆N₄O₈S₂**
4,5-Dihydroxy-3,6-bis(phenylazo)-2,7-naphthalenedisulfonic acid, D-00559
- C₂₂H₁₆N₄O₉S₂**
4,5-Dihydroxy-3-[(4-hydroxyphenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00625

- C₂₂H₁₆N₄O₁₀S₂**
4,5-Dihydroxy-3,6-bis[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00551
4,5-Dihydroxy-3,6-bis[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00552
- C₂₂H₁₆N₄O₁₁S₃**
4,5-Dihydroxy-3-(phenylazo)-6-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00702
Orthanil B, O-00047
- C₂₂H₁₆N₄O₁₂S₃**
4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00626
- C₂₂H₁₆N₄O₁₃S₃**
4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00631
- C₂₂H₁₆N₄O₁₄S₄**
4,5-Dihydroxy-3,6-bis[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00563
4,5-Dihydroxy-3,6-bis[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00564
4,5-Dihydroxy-3,6-bis[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00565
- C₂₂H₁₆N₄O₁₅S₄**
4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00633
- C₂₂H₁₆N₄O₁₆S₄**
4,5-Dihydroxy-3,6-bis[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00553
- C₂₂H₁₆N₄O₁₇S₅**
4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00607
- C₂₂H₁₆N₆**
Di-2-pyridinylmethanone di-2-pyridinylmethylenediazone, D-01076
- C₂₂H₁₆N₆O₂**
Cation 2B, C-00007
3-Phenyl-1-(1-phthalazinyl)-5-(*p*-carboxyphenyl)formazan, P-00165
- C₂₂H₁₆O₃**
2'-Methoxy-[1,1'-binaphthalene]-2-carboxylic acid, *in* H-00131
- C₂₂H₁₆O₅**
Fluorescein; Et ester, *in* F-00020
Fluorescein; Et ether, *in* F-00020
Fluorescein; Me ether, Me ester, *in* F-00020
- C₂₂H₁₇AsCl₄O₁₄PS₂**
3-[(2-Arsonophenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00427
- C₂₂H₁₇AsN₄O₁₁S₂**
Arsenazo B, A-00406
3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-(phenylazo)-2,7-naphthalenedisulfonic acid, A-00438
- C₂₂H₁₇AsN₄O₁₄S₃**
Arsenazo M, A-00414
Arsenazo SU, A-00417
Orthanil A, O-00046
- C₂₂H₁₇AsN₄O₁₅S₃**
3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00434
- C₂₂H₁₇As₂Cl₄O₁₄S₂**
3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00421
- C₂₂H₁₇Cl₄O₃**
 α -Benzamido-*o*-chlorocinnamic acid isonicotinylhydrazide, B-00010
- C₂₂H₁₇NO**
9-Phenanthrenemethylamine; *N*-Benzoyl, *in* P-00048
- C₂₂H₁₇NOS**
1-(2-Furanylmethyl)-4,6-diphenyl-2(1*H*)-pyridinethione, F-00055
- C₂₂H₁₇N₃O**
4'-(4-Methoxyphenyl)-2,2':6',6''-terpyridine, M-00119
- C₂₂H₁₇N₃O₂**
Anthrazo, A-00389
- C₂₂H₁₇O₂P**
Diphenyl 1-naphthylphosphonite, *in* N-00055
- C₂₂H₁₈AsN₅O₁₃S₃**
Arsenazo SA, A-00415
- C₂₂H₁₈As₂N₄O₁₄S₂**
▷ Arsenazo III, A-00412
3-[(2-Arsonophenyl)azo]-6-[(4-arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00423
Palladiazo, P-00002
- C₂₂H₁₈N₂**
▷ Cuprotest, C-00322
2,3-Dianilinonaphthalene, *in* D-00106
- C₂₂H₁₈N₂O₂**
2,4-Dihydro-5-methyl-2-(2-methylphenyl)-4-(2-naphthalenylcarbonyl)-3*H*-pyrazol-3-one, D-00432
6,7-Dihydrotribenzo[*e.i.m*][1,4,8,11]dioxadiazacyclotetradecine, D-00497
Sudan blue GA, S-00037
- C₂₂H₁₈N₂O₅S₂**
3-Hydroxy-2,7-naphthalenedisulfonic acid; Anilide, *in* H-00342
7-Hydroxy-1,3-naphthalenedisulfonic acid; Dianilide, *in* H-00343
- C₂₂H₁₈N₄**
3,6-Bis(4-methyl-2-pyridyl)-4-phenylpyridazine, B-00419
3-(4-Ethyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, E-00110
2(1*H*)-Quinolinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, Q-00023
- C₂₂H₁₈N₄O₄**
4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, D-00385
- C₂₂H₁₈N₄O₁₄P₂S₂**
4,5-Dihydroxy-3,6-bis[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00560
- C₂₂H₁₈N₆**
1-(4-Methylphenyl)-3-phenyl-5-(1-phthalazinyl)formazan, M-00238
- C₂₂H₁₈N₆O**
1-(4-Methoxyphenyl)-3-phenyl-5-(1-phthalazinyl)formazan, M-00116
- C₂₂H₁₈N₈**
Di-2-pyridinylethanedione bis(2-pyridinyl)hydrazone, D-01066
- C₂₂H₁₈O₂**
2,2'-Dimethoxy-1,1'-binaphthyl, *in* D-00544
- C₂₂H₁₈O₄**
m-Cresolphthalein, C-00306
▷ *o*-Cresolphthalein, C-00307
Phenolphthalein; Di-Me ether, *in* P-00063
- C₂₂H₁₈O₅**
Fluorescein; Di-Me ether, *in* F-00022
Fluorescein; Et ester, *in* F-00022
2,6,7-Trihydroxy-9-[4-(1-methylethyl)phenyl]-3*H*-xanthen-3-one, T-00298
- C₂₂H₁₈O₆**
3,3-Bis(4-hydroxy-3-methoxyphenyl)-1(3*H*)-isobenzofuranone, B-00379
- C₂₂H₁₉N**
Bis(1-naphthylmethyl)amine, B-00427
- C₂₂H₁₉NO₂**
2,2'-(1-iminodimethylidene)bis[3,4-dihydro-1(2*H*)-naphthalenone], I-00019
- C₂₂H₁₉N₃O₂**
1,2-Dihydro-4-[[2-(2-hydroxy-1-naphthalenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00417
- C₂₂H₁₉N₃O₅**
N-Benzoyltyrosine 4-nitroanilide, B-00162
- C₂₂H₁₉N₃O₇S₂**
Lanacyl violet BF(C), *in* A-00276
- C₂₂H₁₉N₇O₂**
1-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-5-(4-nitrophenyl)formazan, B-00171
5-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-1-(4-nitrophenyl)formazan, B-00172
- C₂₂H₂₀Br₂O₅**
2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)cyclohexanone, B-00265
- C₂₂H₂₀N₂**
4,4'-Diamino-3,3'-dimethyl-1,1'-binaphthyl, D-00082
- C₂₂H₂₀N₂O₂**
1,4-Bis(8-quinoloxyl)butane, B-00449
4,4'-Diamino-3,3'-dimethoxy-1,1'-binaphthyl, D-00077
- C₂₂H₂₀N₂O₆S₂**
4,4'-Diamino-3,3'-dimethyl-[1,1'-binaphthalene]-6,6'-disulfonic acid, D-00081
- C₂₂H₂₀N₂O₁₂**
4,4'-Diamino-3,3'-biphenyldicarboxylic acid *N,N,N',N'*-tetraacetic acid, D-00054
2,2'-Diaminobiphenyl-4,4'-dicarboxylic acid *N,N,N',N'*-tetraacetic acid, D-00055
4,4-Dicarboxy-2,2'-diaminobiphenyl *N,N,N',N'*-tetraacetic acid, D-00245
- C₂₂H₂₀N₄**
6,7-Dimethyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, D-00842
- C₂₂H₂₀N₆O**
5-(2-Benzoxazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00114
- C₂₂H₂₀N₆O₃S**
p-[1-(1-Benzyl-2-benzimidazolyl)-3-methyl-5-formazano]benzenesulfonic acid, B-00170
- C₂₂H₂₀N₆S**
5-(2-Benzothiazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00100
- C₂₂H₂₀O₆**
Rubrophen, R-00013
- C₂₂H₂₀O₁₃**
Carmine red, C-00045
- C₂₂H₂₁ClN₂O**
N-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxy-4-methylbenzenecarboximidamide, C-00219
- C₂₂H₂₁NO₂**
N-[Bis(4-methoxyphenyl)methylene]benzenemethanamine, B-00402
- C₂₂H₂₁N₃O₂**
2,2'-(Butylimino)bis-8-quinolinol, *in* I-00010
- C₂₂H₂₁N₄OS[⊕]**
6-Methoxy-3-methyl-2-[[4-(methylphenylamino)phenyl]azo]benzothiazolium(1+), M-00091
- C₂₂H₂₁N₅O**
1,5-Bis(2-methylphenyl)-*N*-phenyl-3-formazancarboxamide, B-00409
- C₂₂H₂₂Br₂N₂O₁₀**
1,2-Bis(2-amino-5-bromophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00243

- C₂₂H₂₂N₂O**
N'-(2,3-Dimethylphenyl)-N-hydroxy-N-(4-methylphenyl)benzamide, D-00889
- C₂₂H₂₂N₂O₂S**
1,3-Diphenyl-2-propanone; Tosylhydrazone, *in* D-01042
- C₂₂H₂₂N₂O₈**
4,4'-Diaminostilbene-N,N,N',N'-tetraacetic acid, D-00127
- C₂₂H₂₂N₂O₁₄S₂**
4,4'-Diamino-2,2'-stilbenedisulfonic acid N,N,N',N'-tetraacetic acid, D-00126
Stilbexon, S-00032
- C₂₂H₂₂N₄O₃**
3-Hydroxy-4-[[5-(1-methyl-2-pyrrolidinyl)-2-pyridinyl]azo]-2-naphthalenecarboxylic acid, H-00325
- C₂₂H₂₂N₆O**
2-[o-[(4,5-Dimethylimidazol-2-yl)azo]phenyl]-4,5,7-trimethyl-8-quinazolinol, D-00867
- C₂₂H₂₂O₆**
4,4',4''-Methylidynetris[2-methoxyphenol], *in* T-00388
- C₂₂H₂₂O₇**
5'-Methoxycurcumin, *in* C-00323
- C₂₂H₂₃ClN₂**
Astrafloxine FF; Chloride, *in* A-00449
1,3,3-Trimethyl-2-[2-(2-methyl-1*H*-indol-3-yl)ethylene]-3*H*-indolium(1+); Chloride, *in* T-00328
- C₂₂H₂₃I₂N₂O₃**
N-[4-[7-(Diethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]phenyl]-2-iodoacetamide, D-00321
- C₂₂H₂₃I₂N₄**
3,7-Bis(dimethylamino)-5-phenylphenazinium(1+); Iodide, *in* B-00323
- C₂₂H₂₃NO₇**
Narcotine, N-00060
- C₂₂H₂₃N₂[⊕]**
Astrafloxine FF, A-00449
1,3,3-Trimethyl-2-[2-(2-methyl-1*H*-indol-3-yl)ethylene]-3*H*-indolium(1+), T-00328
- C₂₂H₂₃N₃**
C.I. Basic violet 2, C-00003
- C₂₂H₂₃N₃O₉**
▶ Aluminon, *in* A-00458
- C₂₂H₂₃N₄[⊕]**
3,7-Bis(dimethylamino)-5-phenylphenazinium(1+), B-00323
- C₂₂H₂₃P**
Butyridenetriphenylphosphorane, *in* B-00640
- C₂₂H₂₄BrP**
▶ Butyltriphenylphosphonium(1+); Bromide, *in* B-00640
- C₂₂H₂₄ClP**
Butyltriphenylphosphonium(1+); Chloride, *in* B-00640
- C₂₂H₂₄IP**
▶ Butyltriphenylphosphonium(1+); Iodide, *in* B-00640
- C₂₂H₂₄I₃P**
Butyltriphenylphosphonium(1+); Triiodide, *in* B-00640
- C₂₂H₂₄I₅P**
Butyltriphenylphosphonium(1+); Pentaiodide, *in* B-00640
- C₂₂H₂₄I₇P**
Butyltriphenylphosphonium(1+); Heptaiodide, *in* B-00640
- C₂₂H₂₄N₂O₂**
4-[4-(1,1-Dimethylethyl)benzoyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3*H*-pyrazol-3-one, D-00859
- C₂₂H₂₄N₂O₈**
4,4'-Dimethyl-2,2'-diaminobiphenyl-N,N,N',N'-tetraacetic acid, D-00849
▶ Tetracycline, T-00039
- C₂₂H₂₄N₂O₁₀**
1,2-Bis(2-aminophenoxy)ethane-N,N,N',N'-tetraacetic acid, B-00248
4,4'-Diamino-3,3'-dimethoxybiphenyl-N,N,N',N'-tetraacetic acid, D-00078
4,4'-Dimethoxy-2,2'-diaminobiphenyl-N,N,N',N'-tetraacetic acid, *in* D-00572
- C₂₂H₂₄N₄**
5,14-Dihydro-6,8,15,17-tetramethyldibenzo[*b,h*][1,4,8,11]tetraazacyclotetradecine, D-00491
- C₂₂H₂₄N₆**
Neutral violet, N-00066
- C₂₂H₂₄P[⊕]**
Butyltriphenylphosphonium(1+), B-00640
- C₂₂H₂₅NO₈**
Nornarceine, *in* N-00059
- C₂₂H₂₅N₄[⊕]**
N-Benzyl-4-(4-diethylaminophenylazo)pyridinium(1+), B-00176
- C₂₂H₂₅N₅O₂**
N-[2-(Diethylamino)ethyl]-4-[(8-hydroxy-5-quinolinyl)azo]benzamide, D-00317
- C₂₂H₂₅N₅O₁₄**
2,3,5,6,8,9,11,12,14,15-Decahydro-19-nitro-N-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-amine, D-00019
- C₂₂H₂₆Cl₁N₂[⊕]**
Astrazon pink FG, A-00454
- C₂₂H₂₆Cl₂N₂**
Astrazon pink FG; Chloride, *in* A-00454
- C₂₂H₂₆F₃N₃OS**
▶ Fluphenazine, F-00034
- C₂₂H₂₆N₂O₂S₂**
Bis[2-[(tetrahydro-2*H*-pyran-2-yl)thio]phenyl]diazene, B-00458
- C₂₂H₂₆N₂O₃**
6,7,9,10,18,19,20,21-Octahydrodibenzo[*h,r*][1,4,7,11,16]trioxadiazacyclononadecine, O-00020
- C₂₂H₂₆N₄O₁₀**
19-[(2,4-Dinitrophenyl)azo]-3,6,9,12,15-pentaoxabicyclo[15.3.1]heneicosal(21),17,19-trien-21-ol, D-00969
- C₂₂H₂₆N₄O₁₂**
2,3,5,6,8,9,11,12,14,15-Decahydro-N-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-amine, D-00021
- C₂₂H₂₆N₆S₂**
2-[5,5-Dimethyl-3-[(phenylamino)thioxomethylhydrazino]-2-cyclohexen-1-ylidene]-N-phenylhydrazinecarbothioamide, *in* D-00847
- C₂₂H₂₆O₆**
1,10-Bis(2,4-dihydroxyphenyl)-1,10-decanedione, B-00304
- C₂₂H₂₆O₇**
2-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,h*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]butanoic acid, T-00056
- C₂₂H₂₇NO₂**
Lobeline, L-00010
- C₂₂H₂₇N₃O₈**
19-[(4-Nitrophenyl)azo]-3,6,9,12,15-pentaoxabicyclo[15.3.1]heneicosal(21),17,19-trien-21-ol, N-00127
- C₂₂H₂₇N₇O**
4-[[2-Amino-5-(1-methyl-2-piperidinyl)-3-pyridinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00251
4-[[2-Amino-1-methyl-6-(3-pyridinyl)-3-piperidinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00254
- C₂₂H₂₈N₄**
7,8,9,10,11,12,19,20,21,22-Decahydrodibenzo[*c,q*][1,4,8,15]tetraazacyclooctadecine, D-00013
- C₂₂H₂₈N₄O₇**
4-[(4-Nitrophenyl)azo]-2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-yl)phenol, N-00130
- C₂₂H₂₈O₆**
6,7,9,10,17,18,20,21-Octahydro-2,13-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00023
6,7,9,10,17,18,20,21-Octahydro-7,18-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00024
- C₂₂H₃₀N₂O₂**
7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*b,k*][1,13,4,10]dioxadiazacyclooctadecine, D-00009
- C₂₂H₃₁ClO₃**
3-Hydroxyandrost-5-ene-17-carboxylic acid; Ac. chloride, *in* H-00098
- C₂₂H₃₁NO₂**
N-Hydroxy-N-1-naphthalenyldodecanamide, H-00360
- C₂₂H₃₂N₂**
1,2-Diphenyl-1,2-ethanediamine; N-Tetra-Et, *in* D-01010
- C₂₂H₃₂O₄**
3-Hydroxyandrost-5-ene-17-carboxylic acid; Ac, *in* H-00098
- C₂₂H₃₆N₂O₆**
Cryptand 2,2,2 B, C-00317
- C₂₂H₃₇NO₂**
2-Hexyl-N-hydroxy-N-phenyldecanamide, H-00076
- C₂₂H₃₇N₅O₁₄**
Tetraethylenepentamineheptaacetic acid, T-00045
- C₂₂H₄₀N₂O₄S₂**
1,2-Bis(octanesulfonamido)benzene, B-00436
- C₂₂H₄₀O₆**
Eicosahydro-2,13-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, E-00005
- C₂₂H₄₂O₆**
Sorbitan monopalmitate, *in* A-00367
- C₂₂H₄₈N₄**
6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
- C₂₃H₁₂Cl₂N₄O₅**
5-[(4,6-Dichloro-1,3,5-triazin-2-yl)amino]-3',6'-dihydroxyspiro[isobenzofuran-(3*H*),9'-[9*H*]xanthen]-3-one, D-00304
- C₂₃H₁₃N₃O₅**
1,2-Dihydroxy-3-[5-(8-hydroxyquinolinyl)azo]anthraquinone, D-00629
- C₂₃H₁₃N₇**
3-(2,2'-Bipyridin-6-yl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, B-00234
- C₂₃H₁₄N₆**
2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, B-00229
- C₂₃H₁₄N₆O₁₅S₂**
Picramine K, P-00232

- C₂₃H₁₄O₆**
2,6,7-Trihydroxy-9-(2-hydroxy-1-naphthalenyl)-3*H*-xanthen-3-one, T-00289
- C₂₃H₁₅BrO₃**
4-(Bromoacetyl)phenyl 9-anthracenecarboxylate, B-00485
- C₂₃H₁₅ClN₄O₁₀S₂**
3-[[7-[4-Chlorophenylazo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]benzoic acid, C-00201
- C₂₃H₁₅ClN₄O₁₁S₂**
2-[[7-[(5-Chloro-2-hydroxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00143
- C₂₃H₁₅ClN₄O₁₃S₃**
2-[[1,8-Dihydroxy-7-[(5-chloro-3-sulfo)phenyl]azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00568
- C₂₃H₁₅ClN₄O₁₄S₃**
Sulfochlorophenol K, S-00041
- C₂₃H₁₅Cl₃O₆**
Eriochrome azurol G, E-00009
- C₂₃H₁₅NO**
2'-Methyl- α -oxo-[1,1'-binaphthalen]-2-acetonitrile, M-00212
- C₂₃H₁₅NO₄**
Oxine blue⁺, O-00052
- C₂₃H₁₅N₃O**
1-(2-Quinolinyloxy)-2-phenanthrenol, Q-00031
- C₂₃H₁₅N₅O₁₂S₂**
Carboxynitrazo, C-00035
2-[[1,8-Dihydroxy-7-[(2-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00663
2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00664
- C₂₃H₁₅N₅O₁₅S₃**
2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-nitro-5-sulfo)phenyl]azo]-2-naphthalenyl]azo]benzoic acid, D-00604
- C₂₃H₁₅N₅O₁₆S₃**
Sulfonitrophenol K, S-00051
- C₂₃H₁₅N₇**
3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine, B-00228
- C₂₃H₁₆ClNO₈**
Chromal blue G, C-00275
- C₂₃H₁₆ClN₄O₁₃PS₂**
3-[[7-[4-Chloro-2-phosphonophenyl]azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00247
- C₂₃H₁₆Cl₂O₆**
Solochrome azurine BS, S-00016
- C₂₃H₁₆Cl₂O₉S**
Chromazurol S, C-00277
- C₂₃H₁₆Cl₃N₃O₅S**
Mordant green 34, M-00343
- C₂₃H₁₆N₂O₂**
5-Anilino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00371
- C₂₃H₁₆N₄**
2-(2,2'-Bipyridin-6-yl)-5-phenylbenzimidazole, B-00233
6-Phenanthridinecarboxaldehyde 2-quinolinyldiazide, P-00051
- C₂₃H₁₆N₄O₆S**
2-[(1-Hydroxy-7-(phenylazo)-3-sulfo-2-naphthalenyl]azo]benzoic acid, H-00459
- C₂₃H₁₆N₄O₁₀S₂**
2-[[1,8-Dihydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00692
- C₂₃H₁₆N₄O₁₃S₃**
2-[[1,8-Dihydroxy-3,6-disulfo-7-[(2-sulfo)phenyl]azo]-2-naphthalenyl]azo]benzoic acid, D-00608
- C₂₃H₁₆N₄O₁₄S₃**
2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-sulfo)phenyl]azo]-2-naphthalenyl]azo]benzoic acid, D-00609
- C₂₃H₁₆N₄O₁₅S₃**
2-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfo)phenyl]azo]-2-naphthalenyl]azo]benzoic acid, D-00610
- C₂₃H₁₆N₄O₁₆S₃**
o-[[1,8-Dihydroxy-7-[(2-hydroxy-5-sulfo)phenyl]azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00630
- C₂₃H₁₆N₈**
2-Amino-4,6-bis[(2-pyridyl)-2-pyridyl]-s-triazine, A-00122
- C₂₃H₁₆O₂**
4-(Diphenylmethylene)-2-hydroxy-1(4*H*)-naphthalenone, D-01029
- C₂₃H₁₆O₃**
▷ Diphenadione, D-00997
- C₂₃H₁₇AsN₄O₁₃S₂**
2-[[7-[(4-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, A-00429
Carboxyarsenazo, C-00026
Carboxyarsenazo B, C-00027
- C₂₃H₁₇AsN₄O₁₆S₃**
2-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-5-sulfo]benzoic acid, A-00433
- C₂₃H₁₇AsN₄O₁₇S₃**
3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-2-hydroxy-5-sulfo]benzoic acid, A-00432
- C₂₃H₁₇BF₄O**
2,4,6-Triphenylpyrylium(1+); Tetrafluoroborate, *in* T-00374
- C₂₃H₁₇BrO**
2,4,6-Triphenylpyrylium(1+); Bromide, *in* T-00374
- C₂₃H₁₇ClN₄O₅S**
2-Chloro-5-[[5-hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-2-methylphenyl]azo]benzenesulfonic acid, C-00132
- C₂₃H₁₇ClO**
2,4,6-Triphenylpyrylium(1+); Chloride, *in* T-00374
- C₂₃H₁₇ClO₅**
2,4,6-Triphenylpyrylium(1+); Perchlorate, *in* T-00374
- C₂₃H₁₇IO**
2,4,6-Triphenylpyrylium(1+); Iodide, *in* T-00374
- C₂₃H₁₇N**
2,4,6-Triphenylpyridine, T-00373
- C₂₃H₁₇NO**
N-Phenyl-1-naphthylamine; *N*-Benzoyl, *in* P-00151
2,4,6-Triphenylpyridine; 1-Oxide, *in* T-00373
- C₂₃H₁₇NO₂**
2-(2-Hydroxy-1-naphthylideneamino)-4-biphenylol, H-00378
- C₂₃H₁₇N₃O**
Diphenylethanedione mono(2-quinolinyldiazide), D-01014
Diphenylethanedione mono(8-quinolinyldiazide), D-01015
- C₂₃H₁₇N₃O₄S**
4-[2-[(3,4-Dihydroxyphenyl)azo]-5-phenyl-4-thiazolyl]benzoic acid; Me ester, *in* D-00700
- C₂₃H₁₇N₃O₆S**
4-Hydroxy-3-[[2-hydroxy-3-(phenylcarbamoyl)-1-naphthyl]azo]benzenesulfonic acid, H-00236
2-[[1-Hydroxy-7-(phenylamino)-3-sulfo-2-naphthalenyl]azo]benzoic acid, *in* A-00222
- C₂₃H₁₇N₇O**
N-2-Pyridinyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00401
- C₂₃H₁₇O[⊕]**
2,4,6-Triphenylpyrylium(1+), T-00374
- C₂₃H₁₈As₂N₄O₁₆S₂**
3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-4-arsonobenzoic acid, A-00431
- C₂₃H₁₈N₂O₂**
Diphenadione; 1-Hydrazone, *in* D-00997
- C₂₃H₁₈N₄O₃**
Azo-azoxy BN, A-00465
1-[[2-[(2-Hydroxy-5-methylphenyl)-*O,N,N*-azoxy]phenyl]azo]-2-naphthalenol, H-00305
- C₂₃H₁₈N₄O₈S₂**
4,5-Dihydroxy-3-(3-methylphenylazo)-6-phenylazo-2,7-naphthalenedisulfonic acid, D-00654
- C₂₃H₁₈N₈O**
1,3-Bis[di(2-pyridyl)methyleneamino]urea, B-00345
- C₂₃H₁₈N₈S**
Bis[di(2-pyridinylmethylene)carbonothioic dihydrazide], B-00344
- C₂₃H₁₈O₉S**
Eriochrome cyanine R, E-00013
- C₂₃H₁₈O₁₂S₂**
Sulfochrome, S-00046
- C₂₃H₁₉AsN₄O₁₁S₂**
3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-methylphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00435
- C₂₃H₁₉Br₂NO₁₆S₄**
Dibromotichromin, D-00219
- C₂₃H₁₉NO₆**
4-(*N*-Morpholinophenyl)fluorone, M-00349
- C₂₃H₁₉N₂O₁₀PS₂**
4,5-Dihydroxy-3-[[2-[hydroxy(2-methylphenyl)phosphinyl]phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00619
- C₂₃H₁₉N₂O₈**
1-(2-Carboxymethoxy-4-nitrophenyl)-3-phenyl-5-(carboxymethoxyphenyl)formazan, C-00033
- C₂₃H₁₉N₉**
Bis[di(2-pyridinylmethylene)carbonimidic dihydrazide], B-00343
- C₂₃H₂₀As₂N₄O₁₄S₂**
3-[[2-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00422
- C₂₃H₂₀Br₂O₅S**
Bromoxylenol blue, B-00583
- C₂₃H₂₀Br₄N₂O₃S**
Tetrabromo-*N*-ethylanilinesulfonephthalein, T-00018
- C₂₃H₂₀N₂**
4,5-Dihydro-1,5-diphenyl-3-(2-phenylethenyl)-1*H*-pyrazole, D-00401
2,4,5-Triphenylimidazole; *N*-Et, *in* T-00367
- C₂₃H₂₀N₂O₃**
3,3-Bis(8-quinoloxymethyl)oxetane, B-00452
- C₂₃H₂₀N₄O₆**
1,5-Bis[2-(carboxymethoxy)phenyl]-3-phenylformazan, B-00275

- C₂₃H₂₀N₆O₃
Azo-azoxy PMP, A-00466
- C₂₃H₂₀O₅
Fluorescein; Di-Me ether, Me ester, in F-00022
- C₂₃H₂₁NO₅
4-Diethylaminophenylfluorone, in A-00328
- C₂₃H₂₁NO₁₆S₄
Tichromin, T-00185
- C₂₃H₂₁N₅O₂
2,6-Diacetylpyridine bis(benzoylhydrazone), D-00036
- C₂₃H₂₁N₅O₄
2,6-Diacetylpyridine bis(2-hydroxybenzoylhydrazone), D-00038
- C₂₃H₂₂Br₂O₅
2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)-3-methyl-1-cyclohexanone, B-00266
2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)-4-methyl-1-cyclohexanone, B-00267
- C₂₃H₂₂N₄O₃
6,7,9,10-Tetrahydro-18-phenyl-16H-dibenzo[*b,h*][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine, T-00065
- C₂₃H₂₂O₅S
Xylenol blue, X-00005
- C₂₃H₂₃ClO₆
3-[3-(3,3-Dimethyl-1(3*H*)-isobenzofuranylidene)-1-propenyl]-1,1-dimethyl-1*H*-isobenzofurylium(1+); Perchlorate, in D-00869
- C₂₃H₂₃N₃OS
4-Adamantyl-2-(2-hydroxy-1-naphthalenylazo)thiazole, A-00064
- C₂₃H₂₃O₂[⊕]
3-[3-(3,3-Dimethyl-1(3*H*)-isobenzofuranylidene)-1-propenyl]-1,1-dimethyl-1*H*-isobenzofurylium(1+), D-00869
- C₂₃H₂₄CIN₃O₂
o-Nitral green; Chloride, in N-00072
p-Nitral green; Chloride, in N-00073
- C₂₃H₂₄N₂O₃S
N-Ethylanilinesulfonephthalein, in A-00369
- C₂₃H₂₄N₂O₅S
N-(Hydroxyethyl)anilinesulfonephthalein, in A-00369
- C₂₃H₂₄N₂O₁₂S₂
Sulfochrome; Di-NH₄ salt, in S-00046
- C₂₃H₂₄N₃O₂[⊕]
o-Nitral green, N-00072
p-Nitral green, N-00073
- C₂₃H₂₄N₃O₅P
Benzyl *N*-[Imino(diphenoxyphosphinylamino)methyl]-*N*-methylglycinate, in P-00214
- C₂₃H₂₄N₄O₂
1,1-Diantipyrilmethane, D-00139
- C₂₃H₂₄N₄O₈S₂
Bis(1-*p*-sulfophenyl)-2,3-dimethylpyrazol-5-on-4-yl)methane, B-00456
- C₂₃H₂₄N₄S₂
4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-thione], M-00169
- C₂₃H₂₄N₆O₂S
Diantipyrilthiourea, D-00141
- C₂₃H₂₅CIN₂
2-[2-(1,2-Dihydro-1-methyl-6-quinolinyl)ethenyl]-1,3,3-trimethyl-3*H*-indolinium(1+); Chloride, in D-00458
▷ Malachite green; Chloride, in M-00006
- C₂₃H₂₅N₂[⊕]
2-[2-(1,2-Dihydro-1-methyl-6-quinolinyl)ethenyl]-1,3,3-trimethyl-3*H*-indolinium(1+), D-00458
Malachite green, M-00006
- C₂₃H₂₆N₂
4,4'-Bis(dimethylamino)triphenylmethane, B-00327
- C₂₃H₂₆N₂O₃S
2-[Bis[4-(dimethylamino)phenyl]methyl]benzenesulfonic acid, B-00322
- C₂₃H₂₆N₂O₄
▷ Brucine, B-00584
- C₂₃H₂₆N₂O₅
Brucine *N*-oxide, in B-00584
- C₂₃H₂₇NO₈
Narceine, N-00059
- C₂₃H₂₈CIN₃O₂S
▷ Perphenazine acetate, in P-00046
- C₂₃H₂₈N₂O₂
7,8,9,10,18,19,20,21-Octahydro-6*H*-dibenzo[*b,h*][1,14,5,10]dioxadiazacyclononadecine, O-00011
- C₂₃H₂₈O₈
4-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecine-18-yl)oxy]butanoic acid, H-00041
- C₂₃H₂₉CIN₂
Astra violet 3R; Chloride, in A-00451
- C₂₃H₂₉N₂[⊕]
Astra violet 3R, A-00451
- C₂₃H₂₉N₃O₈
2-Hydroxy-[5-(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00398
- C₂₃H₂₉N₃O₉
[2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-15-crown-5, H-00400
- C₂₃H₂₉N₅O₁₀
2,4,6-Trinitro-*N*-[2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)phenyl]benzenamine, T-00356
- C₂₃H₃₀CIN₃O
▷ Quinacrine, Q-00003
- C₂₃H₃₀N₄O₂
6'-[(5-Cyclohexyl-2,4-dihydroxyphenyl)azo]-1-methylanabasine, C-00353
- C₂₃H₃₀N₄O₈
1-[[*N*-[2-Methyl-*N*-[(phenylmethoxy)carbonyl]-*L*-valyl]alanyl]glycyl]oxy]-2,5-pyrrolidinedione, M-00231
- C₂₃H₃₀O₇
Dibenzo-22-crown-7, D-00158
- C₂₃H₃₂N₂S
N,N'-Diphenylcarbamimidothioic acid decyl ester, in D-01055
- C₂₃H₃₃NO₈
7-Hydroxy-4-methyl-8-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2*H*-1-benzopyran-2-one, H-00299
- C₂₃H₄₀N₄
1,1'-Methylenebis[4-ethyl-3,5-dipropyl-1*H*-pyrazole], M-00171
- C₂₃H₄₂CIN
Zephiramine; Chloride, in Z-00001
- C₂₃H₄₂N[⊕]
Zephiramine, Z-00001
- C₂₃H₄₆O₄
6-Dodecyl-6-methyl-1,4,8,11-tetraoxacyclotetradecane, D-01153
- C₂₄H₉Br₄NO₇
1-[2',3',4',7'-Tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-5-yl]-1*H*-pyrrole-2,5-dione, T-00017
- C₂₄H₁₂F₉O₆PrS₃
Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-*O,O'*]praseodymium(III), T-00425
- C₂₄H₁₂F₉O₆S₃Yb
Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-*O,O'*]ytterbium(III), T-00426
- C₂₄H₁₃NO₇
Fluorescein-5-maleimide, F-00021
- C₂₄H₁₄Cl₂N₄O₁₄S₂
3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-chlorosalicylic acid], D-00588
- C₂₄H₁₄N₂O₉S₂
4-[(9,10-Dihydro-9,10-dioxo-1-anthracenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00396
- C₂₄H₁₅N₃O₇
3',6'-Bis(acetyloxy)-5-azidospiro[isobenzofuran-1(3*H*), 9'-[9*H*]xanthen]-3-one, in A-00460
- C₂₄H₁₅N₅
2-(4-Phenyl-2-pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, P-00182
- C₂₄H₁₆BCl₄[⊖]
Tetrakis(4-chlorophenyl)borate(1-), T-00083
- C₂₄H₁₆BCl₄K
Tetrakis(4-chlorophenyl)borate(1-); K salt, in T-00083
- C₂₄H₁₆BF₄[⊖]
Tetrakis(4-fluorophenyl)borate(1-), T-00084
- C₂₄H₁₆BF₄Li
Tetrakis(4-fluorophenyl)borate(1-); Li salt, in T-00084
- C₂₄H₁₆BF₄Na
Tetrakis(4-fluorophenyl)borate(1-); Na salt, in T-00084
- C₂₄H₁₆N₂
2,9-Diphenyl-1,10-phenanthroline, D-01032
3,8-Diphenyl-1,10-phenanthroline, D-01033
4,7-Diphenyl-1,10-phenanthroline, D-01034
- C₂₄H₁₆N₂O₂
2,2'-(1,4-Phenylene)bis[5-phenyloxazole], P-00121
- C₂₄H₁₆N₂O₆S₂
Bathophenanthrolinedisulfonic acid, B-00003
- C₂₄H₁₆N₄
3-(5,6-Diphenyl-1,2,4-triazin-3-yl)isoquinoline, D-01056
3-(Isoquinolyl)-5,6-diphenyl-1,2,4-triazine, I-00087
3-(2-Quinolyl)-5,6-diphenyl-1,2,4-triazine, Q-00039
- C₂₄H₁₆N₄O₃
1-[(3-Methyl-5-oxo-1-phenyl-2-pyrazolin-4-yl)azo]anthraquinone, M-00215
- C₂₄H₁₆N₄O₆S₃
3-(Isoquinolyl)-5,6-diphenyl-1,2,4-triazine; Tris-SO₃H deriv., in I-00087
- C₂₄H₁₆N₄O₁₂S₂
Carboxybenzene S, C-00028
2-[[7-[(3-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00036
2-[[7-[(4-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00037
2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, D-00592

- 3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)bisbenzoic acid, D-00593
- C₂₄H₁₆N₄O₁₆S₃**
3-[7-[(2-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfobenzoic acid, C-00038
- C₂₄H₁₆N₄O₁₈S₄**
2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfobenzoic acid], D-00590
- C₂₄H₁₆N₄O₂₀S₄**
3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[2-hydroxy-5-sulfobenzoic acid], D-00589
- C₂₄H₁₆N₆**
3-(4-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00180
3-(6-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00181
2,3,5,6-Tetra(2-pyridyl)pyrazine, T-00125
- C₂₄H₁₆N₆O₆**
Phenazo, P-00059
- C₂₄H₁₆O₃**
3-[2-Hydroxyphenyl]-3-phenyl-naphtho[2,1-b]furan-1(3*H*)-one, H-00493
3-[4-Hydroxyphenyl]-3-phenyl-naphtho[2,1-b]furan-1(3*H*)-one, H-00494
- C₂₄H₁₆O₇**
Fluorescein; Di-Ac, *in* F-00020
- C₂₄H₁₇N₃**
5-Phenyl-2-(4-phenyl-2-pyridyl)benzimidazole, P-00159
- C₂₄H₁₇N₅**
8-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]quinoline, D-01025
Di-2-quinolinylmethanone 2-pyridinylhydrazone, D-01102
- C₂₄H₁₈As₂N₄O₁₈S₂**
3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bis[4-arsenobenzoic acid], D-00591
- C₂₄H₁₈CIN₃**
1-(*p*-Chlorobenzyl)-4,6-diphenyl-2-pyridinethione, C-00071
- C₂₄H₁₈CIN₄O₁₂PS₂**
3-[(3-Acetylphenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00030
- C₂₄H₁₈N₄**
2-Benzoylpyridine azine, B-00152
2,3-Bis(6-methyl-2-pyridyl)benzo[g]quinoxaline, B-00414
- C₂₄H₁₈N₄O₄**
4,4'-Bis(3,4-dihydroxyphenylazo)biphenyl, B-00302
- C₂₄H₁₈N₄O₁₀S₂**
2-[[1,8-Dihydroxy-7-[(3-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00651
2-[[1,8-Dihydroxy-7-[(4-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00652
- C₂₄H₁₈N₄O₁₁S₂**
2-[[1,8-Dihydroxy-7-[(4-methoxyphenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00642
- C₂₄H₁₈N₅O₁₄PS₂**
Nitrophosphonazo-mA, N-00147
- C₂₄H₁₈N₆O**
N-Phenyl-2-pyridinecarboximide acid (oxodi-2-pyridinylethylidene)hydrazide, P-00175
N-2-Pyridinylbenzenecarboximide acid (oxodi-2-pyridinylethylidene)hydrazide, P-00384
- C₂₄H₁₈N₆O₃**
1,3,5-Triazine-2,4,6-triamine; Tribenzoyl, *in* T-00197
- C₂₄H₁₈O₆**
Fluorescein; Et ester, Ac, *in* F-00020
Phenolphthalein; Di-Ac, *in* P-00063
- C₂₄H₁₈O₇**
Fluorescein; Di-Ac, *in* F-00022
- C₂₄H₁₉CIN₄O₁₂S₃**
3-[(5-Chloro-2-hydroxy-3-sulfofenyl)azo]-4,5-dihydroxy-6-[(2,4-dimethylphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00154
- C₂₄H₁₉NO₄**
1-[1-Oxo-4-(1-pyrenyl)butoxy]-2,5-pyrrolidinedione, O-00073
- C₂₄H₂₀As[⊕]**
▷ Tetraphenylarsonium(1+), T-00119
- C₂₄H₂₀AsBr**
Tetraphenylarsonium(1+); Bromide, *in* T-00119
- C₂₄H₂₀AsBr₃**
Tetraphenylarsonium(1+); Tribromide, *in* T-00119
- C₂₄H₂₀AsCl**
▷ Tetraphenylarsonium(1+); Chloride, *in* T-00119
- C₂₄H₂₀AsI**
Tetraphenylarsonium(1+); Iodide, *in* T-00119
- C₂₄H₂₀AsI₃**
Tetraphenylarsonium(1+); Triiodide, *in* T-00119
- C₂₄H₂₀BCs**
Caesium tetraphenylborate(1-), C-00009
- C₂₄H₂₀BNA**
▷ Sodium tetraphenylborate(III), S-00015
- C₂₄H₂₀BrP**
Tetraphenylphosphonium(1+); Bromide, *in* T-00120
- C₂₄H₂₀BrSb**
▷ Bromotetraphenylantimony, B-00577
- C₂₄H₂₀Br₃P**
Tetraphenylphosphonium(1+); Tribromide, *in* T-00120
- C₂₄H₂₀Br₃Sb**
Bromotetraphenylantimony; Br₃ complex (1:1), *in* B-00577
- C₂₄H₂₀CIN₃**
Neutral blue; Chloride, *in* N-00064
- C₂₄H₂₀CIP**
Tetraphenylphosphonium(1+); Chloride, *in* T-00120
- C₂₄H₂₀IP**
Tetraphenylphosphonium(1+); Iodide, *in* T-00120
- C₂₄H₂₀ISb**
Tetraphenylstibonium(1+); Iodide, *in* T-00122
- C₂₄H₂₀N₂**
4,4'-Dianilinobiphenyl, *in* D-00053
- C₂₄H₂₀N₂O**
1-(9-Anthracenyl)-2-[[4-(dimethylamino)phenyl]imino]ethanone, A-00382
- C₂₄H₂₀N₂O₂**
4-[[1,1'-Biphenyl]-4-ylcarbonyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3*H*-pyrazol-3-one, B-00213
- C₂₄H₂₀N₂O₂S₂**
2,2'-Dithiobis[1-naphthaleneamine]; *N,N'*-Di-Ac, *in* D-01118
- C₂₄H₂₀N₂O₃**
7-[α -(Carbomethoxyanilino)benzyl]-8-hydroxyquinoline, C-00022
- C₂₄H₂₀N₃[⊕]**
Neutral blue, N-00064
- C₂₄H₂₀N₃Sb**
Tetraphenylstibonium(1+); Azide, *in* T-00122
- C₂₄H₂₀N₄O₈S₂**
4,5-Dihydroxy-3,6-bis(*p*-tolylazo)-2,7-naphthalenedisulfonic acid, D-00566
- C₂₄H₂₀N₄O₁₀S₂**
4,5-Dihydroxy-3,6-bis[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* D-00552
4,5-Dihydroxy-3,6-bis[*o*-methoxyphenyl]azo]-2,7-naphthalenedisulfonic acid, *in* D-00551
- C₂₄H₂₀N₄O₁₄S₄**
3,6-Bis[(5-methyl-2-sulfofenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00426
4,5-Dihydroxy-3,6-bis[(4-methyl-2-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, D-00554
- C₂₄H₂₀N₆**
Diphenylethanedione bis(2-pyridinylhydrazone), D-01012
- C₂₄H₂₀N₆O₈S₂**
1,1'-(2,2'-Disulfo-4,4'-biphenylene)bis(3-hydroxy-3-phenyltriazene), D-01108
- C₂₄H₂₀N₆S₂**
Glyoxal bis(1-naphthylthiosemicarbazone), G-00031
- C₂₄H₂₀O₄P₂S₄**
Bis[(diphenoxyphosphino)thioyl] disulfide, B-00336
- C₂₄H₂₀O₄STl₂**
▷ Tetraphenyl- μ -sulfatodithallium, T-00123
- C₂₄H₂₀O₅**
Fluorescein; Et ester, Et ether, *in* F-00020
- C₂₄H₂₀O₆**
Glycerol; Tribenzoyl, *in* G-00015
- C₂₄H₂₀O₇**
Citric acid; Triphenyl ester, *in* C-00299
Gallein; Tri-Me ether, Me ester, *in* G-00004
- C₂₄H₂₀P[⊕]**
Tetraphenylphosphonium(1+), T-00120
- C₂₄H₂₀P₂S₃**
Diphenylphosphinodithioic acid; Anhydrosulfide, *in* D-01039
- C₂₄H₂₀Sb[⊕]**
Tetraphenylstibonium(1+), T-00122
- C₂₄H₂₁NO₈**
Cotarnilfluorone, C-00302
- C₂₄H₂₁NO₉S**
Semiphthaloxon S, S-00013
- C₂₄H₂₂**
1,4-Bis[2-(2-methylphenyl)ethenyl]benzene, B-00407
- C₂₄H₂₂AsN₅O₁₁S₂**
3-[(2-Arsenophenyl)azo]-6-[(4-dimethylaminophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00440
- C₂₄H₂₂As₂N₄O₁₄S₂**
3,6-Bis[(2-arseno-4-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00256
- C₂₄H₂₂Cl₂N₂**
▷ 1,1'-Dibenzyl-4,4'-bipyridinium(2+); Dichloride, *in* D-00167
- C₂₄H₂₂N₂^{2⊕}**
1,1'-Dibenzyl-4,4'-bipyridinium(2+), D-00167
- C₂₄H₂₂N₂O**
2-(4-Biphenyl)-5-(4-*tert*-butylphenyl)-1,3,4-oxadiazole, B-00212
- C₂₄H₂₂N₂O₂**
1,1-Bis(8-quinoloxymethyl)cyclobutane, B-00451

- C₂₄H₂₂N₂O₄**
1-[4-[7-(Diethylamino)-4-methyl-2-oxo-2H-1-benzopyran-3-yl]phenyl]-1H-pyrrole-2,5-dione, D-00322
- C₂₄H₂₂N₁₀O₁₂S₂**
N,N'-[Vinylenebis[(3-sulfo-*p*-phenylene)imino(6-hydroxy-*s*-triazine-4,2-diy)] diglycine, V-00006
- C₂₄H₂₂O₄**
3,3-Bis(4-hydroxy-2,5-dimethylphenyl)-1(3*H*)-isobenzofuranone, B-00365
3,3-Bis(4-hydroxy-3,5-dimethylphenyl)-1(3*H*)-isobenzofuranone, B-00366
Phenolphthalein; Et ester, Et ether (open-chain form), *in* P-00063
- C₂₄H₂₃ClN₂O₃**
Rhodamine G; Chloride, *in* R-00005
- C₂₄H₂₃NO₂**
6,6'-(1-iminodimethylidene)bis[6,7,8,9-tetrahydro-5*H*-benzocyclohepten-5-one], I-00021
- C₂₄H₂₃N₂O₃[⊕]**
Rhodamine G, R-00005
- C₂₄H₂₃N₃O₄**
Citric acid; Triamidide, *in* C-00299
- C₂₄H₂₃N₅O₃**
1-[α -Benzamido-*p*-(dimethylamino)cinnamoyl]-2-isonicotinoylhydrazide, B-00011
- C₂₄H₂₃N₉O₂**
1,5-Diantipyryl-3-formazancarbonitrile, D-00134
- C₂₄H₂₄N₂**
4,4'-Diamino-3,3'-diethyl-1,1'-binaphthyl, D-00071
- C₂₄H₂₄N₂O₂**
N,N'-Bis(4-benzoyl-ethyl)-1,2-benzenediamine, B-00257
- C₂₄H₂₆N₂O₁₀**
3,3'-Bis(aminomethyl)-4,4'-dihydroxystilbene-*N,N',N',N'*-tetraacetic acid, B-00246
4,4'-[1,2-Ethenediylbis(2-aminomethyl)phenol]-*N,N',N',N'*-tetraacetic acid, E-00042
- C₂₄H₂₆N₄O₂**
1,1-Diantipyrylethane, D-00136
- C₂₄H₂₆O₅**
2,6-Bis(3-ethoxy-4-hydroxybenzylidene)cyclohexanone, *in* B-00298
- C₂₄H₂₆O₆**
Pentamethoxy red, P-00028
- C₂₄H₂₇ClN₂O**
o-Anize green; Chloride, *in* A-00373
p-Anize green; Chloride, *in* A-00374
- C₂₄H₂₇N₂O[⊕]**
o-Anize green, A-00373
p-Anize green, A-00374
- C₂₄H₂₈ClN₅O₃**
▷ Diphenhydramine teoclate, *in* D-00998
- C₂₄H₂₈N₂O₁₀**
4,4'-Diamino-3,3'-diethoxybiphenyl-*N,N',N',N'*-tetraacetic acid, D-00070
- C₂₄H₂₈N₃[⊕]**
▷ Methyl violet, M-00336
- C₂₄H₃₀ClN₂[⊕]**
Astrazon red 6B, A-00455
- C₂₄H₃₀Cl₂N₂**
Astrazon red 6B; Chloride, *in* A-00455
- C₂₄H₃₀N₂O₉**
6-Benzyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00182
- C₂₄H₃₀N₄O₉**
6-[2-Hydroxy-3-nitro-5-[(4-nitrophenyl)azobenzyl]-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00389
- C₂₄H₃₁NO₇**
6-Benzyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00185
- C₂₄H₃₁N₃O₅**
▷ Butaperazine, B-00609
- C₂₄H₃₂N₂O₄**
(7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)methyl *N,N'*-dicyclohexylcarbamide, M-00100
- C₂₄H₃₂N₄O₉**
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,10-diaz-4,7,13-trioxacyclopentadecane, B-00382
N,N'-Bis(2-hydroxy-5-nitrobenzyl)10,13-diaz-1,4,7-trioxacyclopentadecane, B-00383
- C₂₄H₃₂O₄**
6,6-Dibenzyl-1,4,8,11-tetraoxacyclotetradecane, D-00173
- C₂₄H₃₂O₆**
2,13-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, D-00351
7,18-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecin, D-00352
- C₂₄H₃₂O₈**
Dibenzo-24-crown-8, D-00159
- C₂₄H₃₃ClN₂O₆S**
5-Chloro-3-[(5-dodecyl-2,4-dihydroxyphenyl)azo]-2-hydroxybenzenesulfonic acid, C-00113
- C₂₄H₃₅AsN₂O₄**
[2-[(5-Dodecyl-2-hydroxyphenyl)azo]phenyl]arsonic acid, D-01151
- C₂₄H₃₅NO₂**
N-Hydroxy-*N*-1-naphthalenyltetradecanamide, H-00368
- C₂₄H₄₄O₄P₂S₄**
Bis(dicyclohexyloxyphosphinothioyl) disulfide, B-00294
- C₂₄H₄₄O₆**
▷ Sorbitan monooleate, *in* A-00367
- C₂₄H₄₄O₈**
▷ Tetracosahydrodibenz[*b,n*]-[1,4,7,10,13,16,19,22]octaoxacyclotetracosin, T-00036
- C₂₄H₄₅N₃O₃**
▷ Gallamine, G-00002
- C₂₄H₄₆O₆**
▷ Sorbitan monostearate, *in* A-00367
- C₂₄H₅₁N**
▷ Trioctylamine, T-00357
Tris(6-methylheptyl)amine, T-00408
- C₂₄H₅₁OP**
Trioctylphosphine oxide, *in* T-00358
Tris(2-ethylhexyl)phosphine oxide, T-00390
- C₂₄H₅₁P**
Trioctylphosphine, T-00358
- C₂₄H₅₁PS**
Trioctylphosphine; Sulfide, *in* T-00358
- C₂₄H₅₂CIN**
Tetrahexylammonium(1+); Chloride, *in* T-00049
- C₂₄H₅₂IN**
Tetrahexylammonium(1+); Iodide, *in* T-00049
- C₂₄H₅₂N[⊕]**
Tetrahexylammonium(1+), T-00049
- C₂₄H₅₂N₄**
3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
- C₂₄H₅₃NO**
Tetrahexylammonium(1+); Hydroxide, *in* T-00049
- C₂₄H₅₄N₃OP**
Hexabutylphosphoric triamide, *in* H-00020
- C₂₄H₅₄N₃P**
Hexabutylphosphorous triamide, H-00020
- C₂₄H₅₄N₃PS**
Hexabutylphosphorothioic triamide, *in* H-00020
- C₂₅H₁₅N₇**
2-[5,6-Di-(2-pyridyl)-1,2,4-triazin-3-yl]-1,10-phenanthroline, D-01098
- C₂₅H₁₅N₇O₁₂S₂**
3-[(2,4-Dinitrophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00964
- C₂₅H₁₆ClN₅O₉S₂**
3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00145
- C₂₅H₁₆ClN₅O₁₂S₃**
3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00159
- C₂₅H₁₆N₆O₁₀S₂**
4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00668
- C₂₅H₁₇NO**
2-(4-Biphenyl)-6-phenylbenzoxazole, B-00215
- C₂₅H₁₇N₃**
Di-2-quinolylmethanone; Anil, *in* D-01101
- C₂₅H₁₇N₅**
3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine, B-00227
5-Phenyl-3-(4-phenyl-2-pyridyl)-6-(2-pyridyl)-1,2,4-triazine, P-00160
- C₂₅H₁₇N₅O₂**
N,N'-Di-(8-quinolyl)-2,6-pyridinedicarboxamide, D-01104
- C₂₅H₁₇N₅O₈S₂**
4,5-Dihydroxy-3-(phenylazo)-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00701
- C₂₅H₁₇N₅O₁₁S₃**
4,5-Dihydroxy-3-(8-quinolylazo)-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00728
4,5-Dihydroxy-3-(8-quinolylazo)-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00729
- C₂₅H₁₇N₅O₁₂S₃**
4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00632
- C₂₅H₁₈AsN₅O₁₁S₂**
3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, A-00439
- C₂₅H₁₈N₆**
2-[4,5-Dihydro-5-phenyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00470
- C₂₅H₁₉ClN₂GS**
2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazolo[3,2-*a*]pyridin-4-ium(1+); Chloride, *in* M-00108
- C₂₅H₁₉ClN₅O₁₄PS₂**
N-[4-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azobenzoyl]glycine, C-00248
- C₂₅H₁₉NO₂**
N-2-Hydroxy-5-phenylbenzylidene-2-hydroxy-5-phenylaniline, H-00468

- C₂₅H₁₉N₂OS[⊕]**
2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazolo[3,2-*a*]pyridin-4-ium(1+), M-00108
- C₂₅H₁₉N₅O**
N-2-Pyridinyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, P-00400
- C₂₅H₂₀Cl₂P[⊕]**
(3,4-Dichlorobenzyl)triphenylphosphonium(1+), D-00252
- C₂₅H₂₀Cl₃P**
▷ (3,4-Dichlorobenzyl)triphenylphosphonium(1+); Chloride, *in* D-00252
- C₂₅H₂₀N₄S**
Di-4-biphenylthiocarbazone, D-00175
2,2'-Diphenylthiozone, D-01009
- C₂₅H₂₀O₉**
Eriochrome geranol, E-00015
- C₂₅H₂₁ClO**
2,6-Bis(4-methylphenyl)-4-phenylpyrylium(1+); Chloride, *in* B-00410
- C₂₅H₂₁NOS**
1-(*p*-Methoxybenzyl)-4,6-diphenylpyridine-2-thione, M-00084
- C₂₅H₂₁NS**
1-[(4-Methylphenyl)methyl]-4,6-diphenyl-2(1*H*)-pyridinethione, M-00233
- C₂₅H₂₁N₃O₃**
Xylidine blue II, X-00007
- C₂₅H₂₁N₃O₆S**
Magon, M-00005
- C₂₅H₂₁N₅O₄**
Azo-azoxy AN, A-00464
- C₂₅H₂₁O[⊕]**
2,6-Bis(4-methylphenyl)-4-phenylpyrylium(1+), B-00410
- C₂₅H₂₂BrP**
Benzyltriphenylphosphonium(1+); Bromide, *in* B-00196
- C₂₅H₂₂ClP**
Benzyltriphenylphosphonium(1+); Chloride, *in* B-00196
- C₂₅H₂₂IP**
▷ Benzyltriphenylphosphonium(1+); Iodide, *in* B-00196
- C₂₅H₂₂I₃P**
Benzyltriphenylphosphonium(1+); Triiodide, *in* B-00196
- C₂₅H₂₂I₅P**
Benzyltriphenylphosphonium(1+); Pentaiodide, *in* B-00196
- C₂₅H₂₂I₇P**
Benzyltriphenylphosphonium(1+); Heptaoidide, *in* B-00196
- C₂₅H₂₂N₂O₄**
2,2'-Isopropylidenebis(4-acetyl-8-hydroxyquinoline), I-00072
- C₂₅H₂₂O₂P₂**
Bis(diphenylphosphinyl)methane, *in* B-00340
- C₂₅H₂₂O₃**
3,3-Bis(1-naphthylloxymethyl)oxetane, B-00428
- C₂₅H₂₂O₁₃**
2,3,3',4,4',5'-Hexahydroxybenzophenone; Hexa-Ac, *in* H-00054
- C₂₅H₂₂P[⊕]**
Benzyltriphenylphosphonium(1+), B-00196
- C₂₅H₂₂P₂**
Bis(diphenylphosphino)methane, B-00340
- C₂₅H₂₂P₂S₂**
Bis(diphenylphosphinothioyl)methane, *in* B-00340
- C₂₅H₂₂P₂Se**
Diphenyl[(diphenylphosphinoselenoyl)methyl]phosphine, *in* B-00340
- C₂₅H₂₂P₂Se₂**
Bis(diphenylphosphinoselenoyl)methane, *in* B-00340
- C₂₅H₂₃CIN₂**
4-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-phenylquinolinium(1+); Chloride, *in* D-00810
- C₂₅H₂₃N₂[⊕]**
4-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-phenylquinolinium(1+), D-00810
- C₂₅H₂₃OP**
Tetraphenylphosphonium(1+); Methoxide, *in* T-00120
- C₂₅H₂₄AsN₅O₁₄S₃**
Arsenazo T, A-00418
- C₂₅H₂₄N₆O**
▷ 2'-(4-Hydroxyphenyl)-5-(4-methyl-1-piperazinyl)-2,5'-bi-1*H*-benzimidazole, H-00488
- C₂₅H₂₅CIN₂**
1,1-Bis[4-(dimethylamino)phenyl-3-phenyl-2-propynyl]ium(1+); Chloride, *in* B-00324
- C₂₅H₂₅IN₂**
2-[2-(3*H*,5*H*-Benzo[*i,j*]quinolizin-9-yl)ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Iodide, *in* B-00074
- C₂₅H₂₅N₂[⊕]**
2-[2-(3*H*,5*H*-Benzo[*i,j*]quinolizin-9-yl)ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+), B-00074
1,1-Bis[4-(dimethylamino)phenyl-3-phenyl-2-propynyl]ium(1+), B-00324
- C₂₅H₂₅N₃O₄**
Tris(4-aminophenyl)methanol; 4,4',4''-Tri-*N*-Ac, *in* T-00383
- C₂₅H₂₆N₂O₂**
1,3-Bis(8-quinolyloxy)-2,2-diethylpropane, B-00450
- C₂₅H₂₆N₄O₄**
Macrocyclic formazan II, M-00002
- C₂₅H₂₆N₈O₃**
3-Acetyl-1,5-bis(1,2-dihydro-1,5-dimethyl-3-oxo-2-phenyl-4-pyrazolyl)formazan, A-00014
- C₂₅H₂₆O₁₃**
Ruberythric acid, *in* D-00510
- C₂₅H₂₈CIN₂[⊕]**
Astrazon blue B, A-00452
- C₂₅H₂₈Cl₂N₂**
Astrazon blue B; Chloride, *in* A-00452
- C₂₅H₂₈N₂O₃S**
N-Propylanilinesulfonephthalein, *in* A-00369
- C₂₅H₂₈N₂O₆S₂**
Xylene cyanole FF, X-00004
- C₂₅H₂₈O₅**
2,6-Bis(3-ethoxy-4-hydroxybenzylidene)-3-methyl-1-cyclohexanone, *in* B-00299
2,6-Bis(3-ethoxy-4-hydroxybenzylidene)-4-methyl-1-cyclohexanone, *in* B-00300
- C₂₅H₂₈O₇**
Hexamethoxy red, H-00056
- C₂₅H₂₉CIN₂**
Astrafloxine G; Chloride, *in* A-00450
- C₂₅H₂₉NO₈**
1,2-Dihydroxy-3-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)-9,10-anthracenedione, D-00737
- C₂₅H₂₉N₂[⊕]**
Astrafloxine G, A-00450
- C₂₅H₂₉N₃O₄S**
6,7,8,9,10,11,17,18-Octahydro-8-[(4-methylphenyl)sulfonyl]-5*H*-dibenzo[*c,n*][1,4,7,10,13]dioxatriazacyclopentadecine, O-00028
- C₂₅H₃₀CIN₃**
▷ Crystal violet; Chloride, *in* C-00320
Panacryl brilliant red; Chloride, *in* P-00004
- C₂₅H₃₀N₃[⊕]**
▷ Crystal violet, C-00320
Panacryl brilliant red, P-00004
- C₂₅H₃₁N₅O₈**
▷ Metescufylline, *in* D-00647
- C₂₅H₃₂O₈**
2-[6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*]-[1,4,7,10,13-pentaoxacyclohexadecin-18-yl]oxy]hexanoic acid, H-00042
- C₂₅H₃₃N₃O₉**
2-Hydroxy-5-(4-nitrophenylazo)phenylmethyl-18-crown-6, H-00399
- C₂₅H₃₃N₃O₁₀**
[2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-18-crown-6, H-00401
- C₂₅H₃₄N₂O₃**
2-[(5-Dodecyl-2-hydroxyphenyl)azo]benzoic acid, D-01150
- C₂₅H₄₈N₆O₈**
▷ Desferrioxamine, D-00029
- C₂₅H₅₄CIN**
Aliquat 336, *in* M-00333
- C₂₅H₅₄IP**
Methyltrioctylphosphonium iodide, *in* T-00358
- C₂₅H₅₄N[⊕]**
Methyltrioctylammonium, M-00333
- C₂₆H₁₇N₅O**
6-Benzoyl-3-(2,2'-bipyridin-6-yl)-5-phenyl-1,2,4-triazine, B-00123
- C₂₆H₁₇N₅O₆**
Carbazol yellow B, C-00021
- C₂₆H₁₇N₅O₁₀S₂**
o-[[1,8-Dihydroxy-7-(8-quinolyloxy)-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00726
- C₂₆H₁₈N₄**
N,N'-Bis(9-acridinyl)hydrazine, B-00240
5,6-Diphenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-01037
5,6-Diphenyl-3-(6-phenyl-2-pyridinyl)-1,2,4-triazine, D-01038
- C₂₆H₁₈N₄O₆**
Chromocitromin BH, C-00285
- C₂₆H₁₈N₄O₆S**
Acid alizarin black SE, A-00050
- C₂₆H₁₈N₄O₉S₂**
Acid alizarin black SN, A-00051
- C₂₆H₁₉AsN₄O₁₇S₄**
Arsenazo AG, A-00405
- C₂₆H₁₉AsN₄O₁₈S₄**
Arsenazo AE, A-00404
- C₂₆H₁₉NO**
4-(Triphenylmethyl)phenyl isocyanate, T-00369
- C₂₆H₁₉N₃O₁₀S₃**
▷ Anazolene, A-00366
- C₂₆H₂₀**
1,2-Di-4-biphenylethylene, D-00174
- C₂₆H₂₀N₂**
2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline, D-00852
N,N'-Di-2-naphthalenyl-1,4-benzenediamine, D-00929

- C₂₆H₂₀N₂O₂
1,4-Bis(4-methyl-5-phenyl-2-oxazolyl)benzene, B-00408
4,4'-Diaminobiphenyl; 4,4'-Di-*N*-benzoyl, *in* D-00053
- C₂₆H₂₀N₂O₄
2,2'-([1,1'-Biphenyl]-4,4'-diylidimino) bisbenzoic acid, B-00209
- C₂₆H₂₀N₂O₆S₂
Bathocuproinedisulfonic acid, B-00002
- C₂₆H₂₀N₄O
N-Phenyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, P-00174
- C₂₆H₂₀N₄O₈S₂
Brilliant yellow, B-00480
- C₂₆H₂₀N₄O₁₀S₂
Stilbazol, S-00027
- C₂₆H₂₀N₄O₁₂S₂
Stilbazogall I, S-00029
- C₂₆H₂₀N₆O
3-(2-Hydroxyphenyl)-1-phenyl-5-(1-phenyl-2-benzimidazolyl)formazan, H-00495
- C₂₆H₂₀N₆O₄
Di-2-pyridinylethanedione bis(2-hydroxybenzoylhydrazone), D-01065
- C₂₆H₂₀O₁₄
1,2,3,5,6,7-Hexahydroxyanthraquinone; Hexa-Ac, *in* H-00052
- C₂₆H₂₂N₄
Benzil osazone, *in* B-00038
- C₂₆H₂₂N₄O₆
4,4'-Bis(3',4'-dihydroxyphenylazo)-3,3'-dimethoxybiphenyl, B-00303
- C₂₆H₂₂N₈O₂
sym-Diphenylcarbazon, D-01006
- C₂₆H₂₂N₈S₂
Di-2-pyridinylethanedione bis(phenylthiosemicarbazone), *in* D-01063
- C₂₆H₂₂O₂P₂
1,2-Bis(diphenylphosphino)ethylene; *P,P'*-Dioxide, *in* B-00339
- C₂₆H₂₂O₉
Chromoxan violet 5B, C-00295
- C₂₆H₂₂O₁₀
Fluorescein; Mono- β -D-galactopyranoside, *in* F-00020
- C₂₆H₂₂P₂
1,2-Bis(diphenylphosphino)ethylene, B-00339
- C₂₆H₂₂P₂S₂
1,2-Bis(diphenylphosphino)ethylene; *P,P'*-Disulfide, *in* B-00339
- C₂₆H₂₃CIN₆
Janus green; Chloride, *in* J-00003
- C₂₆H₂₃N₆⁺
Janus green, J-00003
- C₂₆H₂₄N₂
N,N'-Dimethyldiphenylbenzidine, *in* D-00053
- C₂₆H₂₄OP₂
Diphenyl[(2-diphenylphosphinyl)ethyl] phosphine, *in* B-00338
- C₂₆H₂₄O₂P₂
1,2-Bis(diphenylphosphinyl)ethane, *in* B-00338
- C₂₆H₂₄O₆P₂
Tetraphenyl 1,2-ethanedylbisphosphonate, *in* E-00026
- C₂₆H₂₄P₂
▷ 1,2-Bis(diphenylphosphino)ethane, B-00338
- C₂₆H₂₄P₂S₂
1,2-Bis(diphenylphosphinothioyl)ethane, *in* B-00338
- C₂₆H₂₄P₂Se₂
1,2-Bis(diphenylphosphinoselenoyl)ethane, *in* B-00338
- C₂₆H₂₅CIN₄O
9-(Dimethylamino)-5-[[4-(dimethylamino)phenyl]amino]benzo[*a*]phenoxazin-7-ium(1+); Chloride, *in* D-00784
- C₂₆H₂₅NO₉S
Semixylenol orange, S-00014
- C₂₆H₂₅N₃O₉
2-(2-Aminostyryl)-6-methoxy-8-aminoquinoline-*N,N,N',N'*-tetraacetic acid, A-00347
- C₂₆H₂₅N₄O⁺
9-(Dimethylamino)-5-[[4-(dimethylamino)phenyl]amino]benzo[*a*]phenoxazin-7-ium(1+), D-00784
- C₂₆H₂₆N₂O₂S
2,5-Bis[5-*tert*-butyl-2-benzoxazolyl]thiophene, B-00272
- C₂₆H₂₆O₃
i-Oxo-1-pyrenedecanoic acid, O-00072
- C₂₆H₂₆O₁₆
Galiosin, *in* T-00272
- C₂₆H₂₇CIN₂O₃
Rhodamine 4G, *in* R-00005
- C₂₆H₂₇NO₂
2,2'-(1iminodimethylidene)bis[3,4-dihydro-5,7-dimethyl-1(2*H*)-naphthalenone], I-00018
- C₂₆H₂₇N₃O₁₀
Quin 2, Q-00002
- C₂₆H₂₈Br₂O₁₂
Bis[4-bromo-2-[[2-(2-methoxyethoxy)ethoxy]carbonyl]phenyl] ethanedioate, B-00268
- C₂₆H₂₈F₂O₁₂
Bis[4-fluoro-2-[[2-(2-methoxyethoxy)ethoxy]carbonyl]phenyl]ethanedioate, *in* B-00268
- C₂₆H₂₈N₂
4,4'-Diamino-3,3'-diisopropyl-1,1'-binaphthyl, D-00076
4,4'-Diamino-3,3'-dipropyl-1,1'-binaphthyl, D-00093
- C₂₆H₂₈N₂O₅
Cryptand 5, C-00316
- C₂₆H₂₉N₃O
Benzoylauramine G, B-00122
- C₂₆H₃₀N₄
4,4'-Bis(diethylamino)-2,2'-biquinoline, *in* D-00063
- C₂₆H₃₀N₄O₂
1,1-Diantipyrylbutane, D-00135
- C₂₆H₃₀N₄S₂
4,4'-(Propylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], P-00279
- C₂₆H₃₀O₈
Heptamethoxy red, H-00010
- C₂₆H₃₁CIN₄
Phenosafranin; *N,N,N',N'*-Tetra-Et. chloride, *in* P-00070
- C₂₆H₃₁N₄⁺
3,7-Bis(diethylamino)-5-phenylphenazinium(1+), *in* P-00070
- C₂₆H₃₂N₂O₁₀
1,2-Bis(2-aminophenoxy)ethane-*N,N,N',N'*-tetraacetic acid; Tetra-Me ester, *in* B-00248
- C₂₆H₃₃Cl₂N₃
C.I. Basic blue 20; Dichloride, *in* C-00002
- C₂₆H₃₃N₃²⁺
C.I. Basic blue 20, C-00002
- C₂₆H₃₆N₂O₆
Cryptand 2.2.2 BB, C-00318
- C₂₆H₃₆N₄O₁₀
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13,16-diazacyclooctadecane, B-00386
2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[4-nitrophenol], 9Cl, T-00115
- C₂₆H₃₆O₆
6,7,9,10,17,18,20,21-Octahydro-2,13-dipropylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecane, O-00027
- C₂₆H₃₆O₈
6,7,9,10,12,13,20,21,23,24,26,27-Dodecahydro-2,16-dimethyldibenzo[*b,h*][1,4,7,10,13,16,19,22]octaoxacyclotetracosin, D-01138
- C₂₆H₄₂N₂O
5-Dioctylaminomethyl-8-quinolinol, *in* A-00244
- C₂₆H₄₂N₂O₄S₂
1,8-Bis(octanesulfonamido)naphthalene, B-00437
- C₂₆H₄₂O₃
Oryzanol, *in* M-00120
- C₂₆H₄₃NO₂
2,2'-(1iminodimethylidene)biscyclododecanone, I-00016
- C₂₆H₄₈O₆
Dipropylcyclohexyl-18-crown-6, *in* O-00027
- C₂₆H₅₂N₂S₂
▷ *N,N'*-Didodecylethanedithioamide, D-00310
- C₂₆H₅₅N
▷ *N*-Tridecyl-1-tridecanamine, T-00229
- C₂₆H₅₅NO₇
Polyoxyethylenedecylamine, P-00248
- C₂₆H₅₆N₄
3-Dodecyl-1,5,10,14-tetraazacyclooctadecane, D-01157
- C₂₇H₁₆O₅
Anthrafluorone, A-00387
- C₂₇H₁₈InN₃O₃
Tris(8-quinolino)indium, *in* H-00525
- C₂₇H₁₈N₄O
Phenyl[5-phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazin-6-yl]methanone, P-00157
- C₂₇H₁₈N₄O₇S
Calcon-*m*-nitroanilide, C-00014
- C₂₇H₁₈N₄O₈S
Calconalide I, C-00013
Diamond green BW, D-00133
- C₂₇H₁₈O₂
 α -Naphtholbenzein, N-00027
- C₂₇H₁₈O₅S
 α -Naphtholsulfonephthalein, N-00029
- C₂₇H₁₈O₆
1,2,3-Benzenetriol; Tribenzoyl, *in* B-00034
- C₂₇H₁₉NO
2,5-Bis([1,1'-biphenyl]-4-yl)oxazole, B-00260
- C₂₇H₂₀N₄
2,3-Bis(6-methyl-2-pyridyl)-10*H*-indeno[1,2-*g*]quinoxaline, B-00416
- C₂₇H₂₀O₁₁
2',7'-Bis(carboxyethyl)carboxyfluorescein, B-00273
- C₂₇H₂₁CIN₄
2,5-Diphenyl-3-[4-(2-phenylethenyl)phenyl]-2*H*-tetrazolium(1+); Chloride, *in* D-01036
- C₂₇H₂₁N₃O₃
1,2,4-Triaminobenzene; 1,2,4-*N*-Tribenzoyl, *in* T-00192
- C₂₇H₂₁N₃O₁₀S₃
Acid blue 89, A-00052

- C₂₇H₂₁N₄[⊕]**
2,5-Diphenyl-3-[4-(2-phenylethenyl)phenyl]-2*H*-tetrazolium(1+), D-01036
- C₂₇H₂₁N₇O₂**
5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-(4-nitrophenyl)-3-phenylformazan, B-00173
- C₂₇H₂₂N₂**
4,4'-Diamino-3-methylbiphenyl; 4,4'-Di-*N*-benzylidene, *in* D-00102
- C₂₇H₂₂N₆**
5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1,3-diphenylformazan, B-00167
- C₂₇H₂₂N₆O**
5-(1-Benzyl-2-benzimidazolyl)-1-(2-hydroxyphenyl)-3-phenylformazan, B-00168
5-(1-Benzyl-2-benzimidazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00169
- C₂₇H₂₄N₄O**
1-Phenyl-1,3-butanedione 3-[[6-phenyl-4-(phenylmethyl)-3-pyridazinyl]hydrazone], P-00108
- C₂₇H₂₆ClNO₆**
Eriochrome brilliant violet B, E-00012
- C₂₇H₂₆ClN₃O**
Nile blue A; 5-*N*-Benzyl, chloride, *in* N-00069
- C₂₇H₂₆N₂O₆S₂**
Erio green B, E-00019
- C₂₇H₂₆N₃O[⊕]**
Nile blue 2B, *in* N-00069
- C₂₇H₂₇Br₂NO₇S**
Nitrobrothymol blue, N-00102
- C₂₇H₂₇ClN₂**
Naphthalene green; Chloride, *in* N-00013
- C₂₇H₂₇N₂[⊕]**
Naphthalene green, N-00013
- C₂₇H₂₈AsN₅O₁₄S₃**
3-[(2-Arsenophenyl)azo]-6-[[5-(diethylsulfamoyl)-2-methoxyphenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00428
- C₂₇H₂₈Br₂O₂**
3,3'-Dibromothymolbenzein, D-00217
- C₂₇H₂₈Br₂O₅S**
Bromothymol blue, B-00581
- C₂₇H₂₈N₂O₉S**
Glycinecresol red, G-00017
- C₂₇H₂₈N₄O₆**
1,5-Bis[2-(carboxymethoxy)-3,5-dimethylphenyl]-3-phenylformazan, B-00274
- C₂₇H₂₉Br₂NO₅S**
Aminobromothymol blue, A-00129
- C₂₇H₂₉ClN₂O**
Cationic red violet; Chloride, *in* C-00046
- C₂₇H₂₉ClN₂O₃**
Rhodamine 3G0; Chloride, *in* R-00004
- C₂₇H₂₉ClN₂O₆S₂**
9-[4-(Chlorosulfonyl)-2-sulfoxyphenyl]-3,6-bis(diethylamino)xanthylium, C-00261
- C₂₇H₂₉ClN₄O₂**
4-[Bis[*p*-(dimethylamino)phenyl]hydroxymethyl]-4-chloro-3-methyl-1-phenyl-2-pyrazolin-5-one, B-00319
- C₂₇H₂₉N₂O[⊕]**
Cationic red violet, C-00046
- C₂₇H₂₉N₂O₃[⊕]**
Rhodamine 3G0, R-00004
- C₂₇H₃₀N₄O₂**
4-Aminophenyl-4-ethylbenzylaminoantipyrinylcarbinol, A-00322
- C₂₇H₃₀O₅S**
Thymol blue, T-00181
- C₂₇H₃₀O₁₅**
Datiscin, *in* T-00074
- C₂₇H₃₀O₁₆**
▷ Rutin, R-00014
- C₂₇H₃₁IN₂O₂**
Pinachrome; Iodide, *in* P-00236
- C₂₇H₃₁N₂O₂[⊕]**
Pinachrome, P-00236
- C₂₇H₃₂N₂O₆S₂**
▷ Sulphan blue, S-00058
- C₂₇H₃₂N₄S₂**
4,4'-(3-Methylbutylidene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], M-00150
- C₂₇H₃₂O₂**
Thymolbenzein, T-00180
- C₂₇H₃₃NO₉**
1,2-Dihydroxy-3-(1,4,7,10,13-pentaoxa-16-azacyclooctadecylmethyl)-9,10-anthracenedione, D-00682
- C₂₇H₃₃N₂**
▷ Brilliant green, B-00479
- C₂₇H₃₃N₃O₅S**
6,7,9,10,17,18,19,20,21,22-Decahydro-19-[[4-methylphenyl)sulfonyl]-16*H*-dibenzo[*h,q*][1,4,7,10,13,16]trioxatriazacyclooctadecine, *in* D-00015
7,8,9,10,17,18,21,22-Octahydro-8-[[4-methylphenyl)sulfonyl]-6*H*,16*H*,20*H*-dibenzo[*b,k*][1,7,13,4,10,16]trioxatriazacyclooctadecine, *in* O-00022
- C₂₇H₃₅BrClN₃**
Methyl green; Bromide chloride, *in* M-00185
- C₂₇H₃₅N₃^{2⊕}**
Methyl green, M-00185
- C₂₇H₄₂ClNO₂**
▷ Benzethonium chloride, *in* B-00037
- C₂₇H₄₂NO₂[⊕]**
Benzethonium(1+), B-00037
- C₂₇H₄₄O₅**
Spirostane-2,3,15-triol, S-00024
- C₂₇H₄₄O₇**
5-Decyl-2-(1,4,7,10-tetraoxacyclotridec-5-ylmethoxy)benzoic acid, D-00028
- C₂₇H₅₀ClNO₄**
Benzyltrimethyloctadecylammonium(1+); Perchlorate, *in* B-00180
- C₂₇H₅₀N[⊕]**
Benzyltrimethyloctadecylammonium(1+), B-00180
- C₂₈H₁₃Cl₂NO₄**
1,1'-Iminobis[6-chloroanthraquinone], I-00007
- C₂₈H₁₅NO₄**
▷ 1,1'-Iminodianthraquinone, I-00011
2,2'-Iminodianthraquinone, I-00012
- C₂₈H₁₇N₅O**
6-Benzoyl-3-(1,10-phenanthroline-2-yl)-5-phenyl-1,2,4-triazine, B-00142
- C₂₈H₁₈N₂O₄**
1,2-Diaminoanthraquinone; 1,2-*N*-Dibenzoyl, *in* D-00043
- C₂₈H₁₈N₆O₈S₂**
4,5-Dihydroxy-3,6-bis(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00561
- C₂₈H₁₈O₂**
Bianthranol, B-00201
- C₂₈H₁₈O₃**
9*H*-Fluorene-9-carboxylic acid; Anhydride, *in* F-00013
- C₂₈H₁₈O₄**
3,3-Bis(4-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, B-00380
3,3-Bis(5-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, B-00381
- C₂₈H₁₈O₆**
Naphthochrome green G, N-00023
- C₂₈H₁₉N₃O₆S₂**
Azocarmine G, A-00471
- C₂₈H₁₉N₅**
Di-2-quinolinylmethanone 2-quinolinylhydrazone, D-01103
- C₂₈H₂₀N₂O₂**
Bis(4-aminophenyl)acetylene: Dibenzoyl, *in* B-00249
- C₂₈H₂₀N₄O₁₆S₂**
Stilbazogall II, S-00030
- C₂₈H₂₁N₃O₇S**
3-Hydroxy-4-[[2-hydroxy-3-[[[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00207
3-Hydroxy-4-[[2-hydroxy-3-[[[(4-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00208
- C₂₈H₂₁N₃O₉S₃**
Azocarmine B, A-00470
- C₂₈H₂₁N₅O₆S₄**
Titan yellow, T-00187
- C₂₈H₂₂N₂^{2⊕}**
Lucigenine, L-00012
- C₂₈H₂₂N₂O₂**
▷ 1,4-Bis[(4-methylphenylamino)]-9,10-anthracenedione, B-00406
- C₂₈H₂₂N₄O₄**
Diphenylglyoxal bis(2-hydroxybenzoylhydrazone), D-01017
- C₂₈H₂₂N₄O₆**
3,3'-[(3,3'-Dimethyl-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00836
- C₂₈H₂₂N₄O₈**
3,3'-[(3,3'-Dimethoxy-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00769
- C₂₈H₂₂N₈**
5-(1*H*-Benzimidazol-5-yl)-3-phenyl-1-[1-(phenylmethyl)-1*H*-benzimidazol-2-yl]formazan, B-00049
- C₂₈H₂₂O₃**
Diphenylacetic acid; Anhydride, *in* D-00999
- C₂₈H₂₃ClN₄O₂**
4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one, B-00253
- C₂₈H₂₃N₅O₃**
4-[[2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-phenyl-2-naphthalenecarboxamide, D-00388
- C₂₈H₂₄Br₂Cl₄O₄**
3,3'-Dibromothymoltetrachlorophthalein, D-00218
- C₂₈H₂₄N₂O₂**
4,4'-Diamino-3,3'-dimethylbiphenyl; 4,4'-Di-*N*-benzoyl, *in* D-00083
N,N'-Diphenyl-1,2-ethanediamine; *N,N'*-Dibenzoyl, *in* D-01011
- C₂₈H₂₄N₂O₄**
2,2'-[[3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl]diimino]bisbenzoic acid, D-00837
- C₂₈H₂₄N₂O₆**
2,2'-[[3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl]diimino]bisbenzoic acid, D-00772

- C₂₈H₂₄N₄
5,6,17,18-Tetrahydrotetrabenzob[*b,f,j,n*]-
1,5,9,13-tetraazacyclohexadecine, T-00068
- C₂₈H₂₄N₆O
5-(1-Benzyl-2-benzimidazolyl)-3-(2-
methoxyphenyl)-1-phenylformazan, *in*
B-00169
- C₂₈H₂₄N₆S₂
Glyoxal bis(4-biphenylthiosemicarbazone),
G-00021
- C₂₈H₂₆ClN₅O
Janus black; Chloride, *in* J-00001
- C₂₈H₂₆Cl₄O₄
Thymoltetrachlorophthalein, T-00184
- C₂₈H₂₆N₂O₉
Methylcalcein, M-00152
- C₂₈H₂₆N₄
N,N'-Bis(*o*-amino- α -phenylbenzylidene)
ethylenediamine, B-00250
- C₂₈H₂₆N₅O[⊕]
Janus black, J-00001
- C₂₈H₂₇Br₂NO₅S₂
Isothiocyanatobromothymol blue, I-00092
- C₂₈H₂₇ClN₂
Astrazon orange R; Chloride, *in* A-00453
- C₂₈H₂₇N₂[⊕]
Astrazon orange R, A-00453
- C₂₈H₂₈N₁₂O₁₄S₂
4,4'-[[4,6-Diamino-1,3,5-triazin-2-yl]amino]-
2,2'-stilbenedisulfonic acid-*N,N',N'',N'''*-
tetraacetic acid, D-00129
- C₂₈H₂₉NO₉S
Semimethylxlenol blue, S-00012
- C₂₈H₃₀I₂P₂
1,2-Ethanediybis-
[methylphenylphosphonium] diiodide, *in*
B-00338
- C₂₈H₃₀N₄
Mesotetraethylporphine, M-00062
- C₂₈H₃₀N₆O₆
Nitrochromopyrazole, N-00103
- C₂₈H₃₀O₃
t-Oxo-1-pyrenedecanoic acid; Et ester, *in*
O-00072
- C₂₈H₃₀O₄
3,3-Bis(4-hydroxy-2-isopropyl-5-
methylphenyl)-1(3*H*)-isobenzofuranone,
B-00378
Thymolphthalein, T-00182
- C₂₈H₃₁BrN₄O₂
4-[3-Bromo-4-(dimethylamino)- α -[*p*-
(dimethylamino)phenyl]- α -hydroxybenzyl]
antipyrine, B-00505
- C₂₈H₃₁ClN₂O₃
Rhodamine B, *in* R-00002
▷ Rhodamine 590; Chloride, *in* R-00003
- C₂₈H₃₁ClN₂O₇
Pilot 559P, *in* R-00003
- C₂₈H₃₁N₂O₃[⊕]
Rhodamine 590, R-00003
- C₂₈H₃₂N₄O₂
Chromopyrazole, C-00286
- C₂₈H₃₂O₂
1-Pyrenedodecanoic acid, P-00308
- C₂₈H₃₂O₁₅
Diosmin, *in* T-00297
- C₂₈H₃₂O₁₆
Ptaeroxylosin, *in* T-00074
- C₂₈H₃₃N₃O
Benzoylthylauramine, B-00131
- C₂₈H₃₄Cl₃N₃O₂Zn
Basic turquoise; Trichlorozincate, *in* B-00001
- C₂₈H₃₄N₃O₂[⊕]
Basic turquoise, B-00001
- C₂₈H₃₅N₃O₄S
6,7,8,9,10,11,18,19,20,21-Decahydro-8-[(4-
methylphenyl)sulfonyl]-5*H*,17*H*-
dibenzo[*b,k*][1,13,4,7,10]
dioxatriazacyclooctadecine, *in* D-00011
7,8,9,10,17,18,19,20,21,22-Decahydro-8-[(4-
methylphenyl)sulfonyl]-6*H*,16*H*-
dibenzo[*h,q*][1,7,4,10,16]
dioxatriazacyclooctadecine, *in* D-00012
- C₂₈H₃₆F₃N₃O₂S
Fluphenazine caproate, *in* F-00034
- C₂₈H₃₆N₁₂O₁₀S₂
2,2'-(1,2-Ethenediy)bis[4-[[4-amino-6-[bis(2-
hydroxyethyl)amino]-1,3,5-triazin-2-yl]
amino]benzenesulfonic acid], E-00041
- C₂₈H₃₈N₂O₁₄
6,7,9,10,12,13,15,23,24,26,27,29,30,32,33-
Hexadecahydro-2,19-dinitrodibenzo[*b,q*]-
[1,4,7,10,13,16,19,22,25,28]
decaoxacyclotriacontin, H-00024
- C₂₈H₃₈O₅
2,6,7-Trihydroxy-9-pentadecyl-3*H*-xanthen-3-
one, T-00307
- C₂₈H₃₈O₁₉
Sucrose; Octa-Ac, *in* S-00036
- C₂₈H₄₀N₄O₁₁
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10,13-
pentaoxa-15,18-diazacycloheneicosane,
B-00385
- C₂₈H₄₀O₆
2,13-Dibutyl-6,7,9,10,17,18,20,21-
octahydrodibenzo[*b,k*][1,4,7,10,13,16]
hexaoxacyclooctadecine, D-00235
7,18-Dibutyl-6,7,9,10,17,18,20,21-
octahydrodibenzo[*b,k*][1,4,7,10,13,16]
hexaoxacyclooctadecine, D-00236
- C₂₈H₄₀O₁₀
2,14-Bis(2-ethoxyethoxy)-6,7,9,10,17,18,20,21-
octahydrodibenzo[*b,k*][1,4,7,10,13,16]
hexaoxacyclooctadecine, B-00349
Dibenzo-30-crown-10, D-00160
- C₂₈H₄₄N₂O₂
3,4-Dihydro-3-methyl-1-phenyl-4-stearoyl-5-
pyrazolone, D-00444
- C₂₈H₄₆O₇
5-Decyl-2-(1,4,8,11-tetraoxacyclotetradec-6-yl-
methoxy)benzoic acid, D-00027
- C₂₈H₅₂BrN
Benzylododecylmethylcoctylammonium(1+);
Bromide, *in* B-00181
- C₂₈H₅₂ClN
Moonion A-9Q-08, *in* B-00181
- C₂₈H₅₂N[⊕]
Benzylododecylmethylcoctylammonium(1+),
B-00181
- C₂₈H₅₅NO₅
6-Dodecyl-*N,N*-diethyl-1,4,8,11-
tetraoxacyclotetradecane-6-acetamide,
D-01143
- C₂₈H₅₆N₂O₆
Cryptand 2.2.2 D, C-00319
- C₂₈H₅₈Cl₆Mg₄O₆
Tetra- μ -chlorodi- μ_5 -
chlorodiethylhexakis(tetrahydrofuran)
tetramagnesium, *in* C-00115
- C₂₈H₆₀As₂O₄
1,12-Dodecanediylbis[octylarsinic acid],
D-01139
- C₂₈H₆₀BrN
▷ Tetraheptylammonium(1+); Bromide, *in*
T-00048
- C₂₈H₆₀BrP
Tributyl(hexadecyl)phosphonium(1+);
Bromide, *in* T-00210
- C₂₈H₆₀ClN
Tetraheptylammonium(1+); Chloride, *in*
T-00048
- C₂₈H₆₀CIP
Tributyl(hexadecyl)phosphonium(1+);
Chloride, *in* T-00210
- C₂₈H₆₀IN
Tetraheptylammonium(1+); Iodide, *in*
T-00048
- C₂₈H₆₀IP
Tributyl(hexadecyl)phosphonium(1+); Iodide,
in T-00210
- C₂₈H₆₀N[⊕]
Tetraheptylammonium(1+), T-00048
- C₂₈H₆₀P[⊕]
Tributyl(hexadecyl)phosphonium(1+),
T-00210
- C₂₈H₆₁NO
Tetraheptylammonium(1+); Hydroxide, *in*
T-00048
- C₂₉H₁₈ClNO₄
9-Phenylbenzo(1,2)quinolizino[3,4,5,6-*def*]
phenanthridinium(1+); Perchlorate, *in*
P-00105
- C₂₉H₁₈N[⊕]
9-Phenylbenzo(1,2)quinolizino[3,4,5,6-*def*]
phenanthridinium(1+), P-00105
- C₂₉H₁₉N₅O₁₄S₄
8-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-
disulfo-2-naphthyl]azo]-1,6-
naphthalenedisulfonic acid, D-00727
- C₂₉H₂₀N₄O₁₁S₂
5-[[4-[(1,8-Dihydroxy-3,6-disulfo-2-
naphthalenyl)azo][1,1'-biphenyl]-4-yl]azo]-
2-hydroxybenzoic acid, D-00596
- C₂₉H₂₀N₆O₁₃S₃
2-[[[1,8-Dihydroxy-3,6-disulfo-7-[(4-phenylazo)
phenyl]azo]-2-naphthyl]azo]-5-sulfobenzoic
acid, D-00606
- C₂₉H₂₁NO
1-(4-Hydroxyphenyl)-2,4,6-
triphenylpyridinium hydroxide inner salt,
H-00513
- C₂₉H₂₂ClNO₄
2,4,6-Triphenylpyridine; *N*-Ph, perchlorate
(salt), *in* T-00373
- C₂₉H₂₂N[⊕]
1,2,4,6-Tetraphenylpyridinium, *in* T-00373
- C₂₉H₂₂N₆
1,1-Di-2-pyridinyl-*N,N'*-di-8-
quinolinylmethanediamine, D-01062
- C₂₉H₂₃N₁₁
2,6-Bis[3-(2,2'-bipyridin-6-yl)-1,2,4-triazolin-5-
yl]pyridine, B-00261
- C₂₉H₂₃P
1-Naphthalenylmethylenetriphenylphos-
phorane, *in* N-00052
- C₂₉H₂₄BrP
(1-Naphthylmethyl)
triphenylphosphonium(1+); Bromide, *in*
N-00052
- C₂₉H₂₄ClN₅O₄
N-(5-Chloro-2-methoxyphenyl)-4-[(2,3-
dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-
pyrazol-4-yl)azo]-3-hydroxy-2-
naphthalenecarboxamide, C-00168
- C₂₉H₂₄CIP
(1-Naphthylmethyl)
triphenylphosphonium(1+); Chloride, *in*
N-00052
- C₂₉H₂₄N₆
▷ 2,3-Dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-
naphthalenyl]azo]-1*H*-perimidine, D-00390

- C₂₉H₂₄P⁺**
(1-Naphthylmethyl)
triphenylphosphonium(1+), N-00052
- C₂₉H₂₅N₅O₃**
4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-2-(methylphenyl)-2-naphthalenecarboxamide, D-00384
- C₂₉H₂₅N₅O₄**
4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-(2-methoxyphenyl)-2-naphthalenecarboxamide, D-00383
- C₂₉H₂₆Br₂N₂O₁₃S**
Bromophthalhexon S, B-00559
- C₂₉H₂₇N₃O₁₄**
Fura 2, F-00039
- C₂₉H₂₇N₇**
5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00166
- C₂₉H₂₈N₂O₁₃S**
Phthalhexon S, P-00221
- C₂₉H₂₈N₂O₁₅S**
Pyrocatecholsulfonephthalein complexan, P-00432
- C₂₉H₂₈N₄O₂**
1,1-Diantipyrilphenylmethane, D-00140
- C₂₉H₂₈N₄O₃**
1,1-Diantipyril-2-hydroxyphenylmethane, D-00138
- C₂₉H₂₈N₄S₂**
4,4'-(Phenylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], P-00147
- C₂₉H₃₁ClN₂O₃**
Cationic violet; Chloride, *in* C-00047
- C₂₉H₃₁N₂O₃⁺**
Cationic violet, C-00047
- C₂₉H₃₂ClN₃**
▷ *N*-[4-[[4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+); Chloride, *in* D-00812
- C₂₉H₃₂N₂O₉S**
Sarcosine cresol red, S-00004
- C₂₉H₃₂N₃⁺**
N-[4-[[4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+), D-00812
- C₂₉H₃₂N₆O₁₀**
2-Hydroxy-3,5-bis[(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00141
- C₂₉H₃₄O₂**
1-Pyrenedodecanoic acid; Me ester, *in* P-00308
- C₂₉H₃₄O₁₇**
Monoxerutin INN, *in* R-00014
- C₂₉H₃₆N₄O₂**
1,1-Diantipyrilheptane, D-00137
- C₂₉H₃₆N₄S₂**
4,4'-Heptylidenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], H-00017
- C₂₉H₃₈F₃N₃O₂S**
▷ Fluphenazine enanthate, *in* F-00034
- C₂₉H₄₄BrN₃**
10-Dodecylacridine orange, *in* B-00315
- C₂₉H₄₄N₃⁺**
3,6-Bis(dimethylamino)-10-dodecylacridinium(1+), B-00315
- C₂₉H₄₈N₂O₉**
6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01145
- 6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01146
- C₂₉H₄₉NO₇**
6-Dodecyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01148
- C₃₀H₂₀Cl₂N₄**
4,4'-Di(*p*-chloroanilino)-2,2'-biquinoline, *in* D-00063
- C₃₀H₂₀N₄O₁₁S₃**
Fast sulphon black F, F-00002
- C₃₀H₂₀N₄O₁₃S₄**
Naphthol black 3B, N-00028
- C₃₀H₂₀N₄O₁₄S₄**
4,5-Dihydroxy-3,6-bis[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00562
- C₃₀H₂₀N₆O₁₂S₄**
4,4',4'',4'''-[3,3'-Bi-1,2,4-triazine]-5,5',6,6'-tetrayltetrakisbenzenesulfonic acid, B-00473
- C₃₀H₂₂FeN₆²⁺**
Bis(2,2':6',2''-terpyridine-*N,N',N''*)iron(II) (2+), B-00457
- C₃₀H₂₂N₄**
4,4'-Dianilino-2,2'-biquinoline, *in* D-00063
- C₃₀H₂₂N₄O₆S₃**
3,3'-Sulfonylbis[*N*-8-quinolylbenzenesulfonamide], S-00055
- C₃₀H₂₂N₄S₂**
2,2'-Dithiobis(4,5-diphenyl-1*H*-imidazole), *in* D-00399
- C₃₀H₂₂N₈**
Di-2-pyridinylethanedione bis(2-quinolinylhydrazone), D-01067
- C₃₀H₂₂O₂**
[9,9'-Bianthracene]-10,10'-diol; Di-Me ether, *in* B-00201
- C₃₀H₂₃N₂O₇SSb**
Tetraphenylstibonium(1+); 2,4-Dinitrobenzenesulfonate, *in* T-00122
- C₃₀H₂₄ClN₅O**
▷ Janus blue; Chloride, *in* J-00002
- C₃₀H₂₄FeN₆²⁺**
Tris(2,2'-bipyridine-*N,N'*)iron(II)(2+), T-00384
- C₃₀H₂₄N₅O⁺**
Janus blue, J-00002
- C₃₀H₂₅O₃SSb**
Tetraphenylstibonium(1+); Benzenesulfonate, *in* T-00122
- C₃₀H₂₆N₂O₁₃**
Calcein, C-00010
- C₃₀H₂₆N₈**
1,5-Bis(7-benzyl-2-benzimidazolyl)-3-methylformazan, B-00258
- C₃₀H₂₈N₄O₈S₂**
Chrysophenine G, C-00297
- C₃₀H₂₈N₆S₂**
2,3-Butanedione bis(4-biphenyl)thiosemicarbazone, B-00589
- C₃₀H₃₀CrF₂₁O₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)chromium(III), T-00392
- C₃₀H₃₀DyF₂₁O₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)dysprosium(III), T-00393
- C₃₀H₃₀EuF₂₁O₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)europium(III), T-00394
- C₃₀H₃₀F₂₁FeO₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)iron(III), T-00397
- C₃₀H₃₀F₂₁GdO₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)gadolinium(III), T-00395
- C₃₀H₃₀F₂₁HoO₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)holmium(III), T-00396
- C₃₀H₃₀F₂₁LaO₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)lanthanum(III), T-00398
- C₃₀H₃₀F₂₁NdO₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)neodymium(III), T-00399
- C₃₀H₃₀F₂₁O₆Pr**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)praseodymium(III), T-00400
- C₃₀H₃₀F₂₁O₆Tb**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)terbium(III), T-00401
- C₃₀H₃₀F₂₁O₆Y**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)yttrium(III), T-00403
- C₃₀H₃₀F₂₁O₆Yb**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)ytterbium(III), T-00402
- C₃₀H₃₀N₂O₁₉**
Mag-fura-2; Tetrakis(acetoxymethyl)ester, *in* M-00003
- C₃₀H₃₀N₄O₄**
Deuteroporphyrin IX, D-00030
- C₃₀H₃₀N₆O₆S₂**
4,4'-Bis(*p*-dimethylaminophenylazo)stilbene-2,2'-disulfonic acid, B-00317
- C₃₀H₃₀O₂P₂**
1,2-Ethenediylbis[4-(4-methylphenyl)phosphineoxide], E-00043
- C₃₀H₃₀O₈**
▷ Gossypol, G-00041
- C₃₀H₃₁ClN₆**
▷ C.I. 11050 Basic dye, *in* J-00004
- C₃₀H₃₁N₆⁺**
Janus green B, J-00004
- C₃₀H₃₂F₂₁LaO₇**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)lanthanum(III); Monohydrate, *in* T-00398
- C₃₀H₃₂F₂₁NdO₇**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)neodymium(III); Monohydrate, *in* T-00399
- C₃₀H₃₂F₂₁O₇Y**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)yttrium(III); Monohydrate, *in* T-00403
- C₃₀H₃₅ClN₂O₃**
Ethylrhodamine B, *in* R-00002
- C₃₀H₃₆N₂O₁₈**
Bis[2-[[2-(2-methoxyethoxy)ethoxy]ethoxy]carbonyl]-4-nitrophenyl]ethanedioate, B-00399
- C₃₀H₃₈Br₂N₂O₁₀**
1,2-Bis(2-amino-5-bromophenoxy)ethane-*N,N,N',N'*-tetraacetic acid; Tetra-Et ester, *in* B-00243

- C₃₀H₄₀N₂O₁₀**
1,2-Bis(2-aminophenoxy)ethane-*N,N,N',N'*-tetraacetic acid; Tetra-Et ester, *in* B-00248
- C₃₀H₄₄N₄O₁₂**
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,13,16,19-hexaoxa-10,22-diazacyclotetracosane, B-00384
- C₃₀H₄₄O₆**
6,7,9,10,17,18,20,21-Octahydro-2,13-dipentylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00026
- C₃₀H₄₄O₁₀**
6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-Hexadecahydro-2,20-dimethylidibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, H-00023
- C₃₁H₁₉N₁₁**
2,4-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00263
2,6-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00264
- C₃₁H₂₁N₄Na₃O₁₁S₂**
5-[[4'-(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, *in* D-00597
- C₃₁H₂₂Br₂N₂O₃S**
N-(*o*-Bromophenyl)anilinesulfonephthalein, *in* A-00369
- C₃₁H₂₃ClN₂O₉**
Chrome green G, C-00283
- C₃₁H₂₄N₂O₅S**
N-(3-Hydroxyphenyl)anilinesulfonephthalein, *in* A-00369
- C₃₁H₂₄N₄O₁₁S₂**
5-[[4'-(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid, D-00597
- C₃₁H₂₅NO₂**
2,4,6-Triphenylpyridine; *N*-Ph. acetate (salt), *in* T-00373
- C₃₁H₂₆N₄O₃S**
N-(*p*-Aminophenyl)anilinesulfonephthalein, *in* A-00369
- C₃₁H₂₇O₃SSb**
Tetraphenylstibonium(1+); 4-Methylbenzenesulfonate, *in* T-00122
- C₃₁H₂₈O₂P₂**
5,6-Bis(diphenylphosphinyl)bicyclo[2.2.1]hept-2-ene, *in* B-00337
- C₃₁H₂₈P₂**
5,6-Bis(diphenylphosphino)bicyclo[2.2.1]hept-2-ene, B-00337
- C₃₁H₂₉ClN₂O₆S₂**
Texas red, T-00133
- C₃₁H₃₀P₂**
2,3-Bis(diphenylphosphino)bicyclo[2.2.1]heptane, *in* B-00337
- C₃₁H₃₂N₂O₁₃S**
Xylenol orange, X-00006
- C₃₁H₃₂N₄**
Bis(4-dimethylaminobenzylidene)-4,4'-methylenedianiline, B-00314
- C₃₁H₃₂O₈**
Gossypol; 6-Me ether, *in* G-00041
- C₃₁H₃₃N₅O₃**
4,4'-[*p*-(Dimethylamino)- α -hydroxybenzylidene]diantipyrine, D-00785
- C₃₁H₃₄O₆**
8,9,11,12,14,15,17,18,20,21-Decahydro-29*H*-dinaphtho[2,1-*g*:1',2'-*i*][1,4,7,10,13,16]hexaoxacycloheneicosin, D-00016
- C₃₁H₃₆ClN₃O₅S**
▶ Perphenazine trimethoxybenzoate, *in* P-00046
- C₃₁H₃₇ClN₂O₆**
Hydroxyzine trimethoxybenzoate, *in* H-00563
- C₃₁H₃₈O₆**
Propeller crown 7, P-00268
- C₃₁H₄₂ClN₃**
Ethyl violet; Chloride, *in* E-00122
- C₃₁H₄₂N₃[⊕]**
Ethyl violet, E-00122
- C₃₁H₄₈O₇**
Neodigitogenin; 2,3-Di-Ac. *in* S-00024
- C₃₂H₁₆Cl₂N₈Si**
Dichloro[29*H*,31*H*-phthalocyaninato(2-)]silicon, D-00297
- C₃₂H₁₆CuN₈**
[29*H*,31*H*-[Phthalocyaninato(2-)]-*N*²⁹,*N*³⁰,*N*³¹,*N*³²]copper(II), P-00230
- C₃₂H₁₈N₈O₁₂S₄**
Phthalocyaninetetrasulfonic acid, P-00231
- C₃₂H₁₈O₁₀**
9,9'-(1,3-Phenylene)bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], P-00124
9,9'-(1,4-Phenylene)bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], P-00125
- C₃₂H₂₂As₂Br₂N₄O₂₂S₄**
Dibromoarsenazo II, D-00177
- C₃₂H₂₂N₂**
6,7-Dihydro-5,8-diphenylidibenzo[*b,j*][1.10]phenanthroline, D-00398
- C₃₂H₂₂N₄**
4-Phenyl-3,6-bis(4-phenyl-2-pyridyl)pyridazine, P-00106
- C₃₂H₂₂N₄O₄**
4,4'-([2,2'-Biquinoline]-4,4'-diyldiimino)bisbenzoic acid, B-00238
- C₃₂H₂₂O₄**
[9,9'-Bianthracene]-10,10'-diol; Di-Ac. *in* B-00201
- C₃₂H₂₄As₂N₄O₂₀S₄**
Thoron II, T-00178
- C₃₂H₂₄As₂N₄O₂₂S₄**
Arsenazo II, A-00411
- C₃₂H₂₄As₂N₆O₂₁S₄**
Arsenazo IV, A-00413
- C₃₂H₂₄N₂**
4,4'-Diamino-3,3'-diphenyl-1,1'-binaphthyl, D-00087
- C₃₂H₂₄N₆O₆S₂**
▶ Congo red, C-00301
- C₃₂H₂₄N₆O₁₅S₅**
Trypan red, T-00434
- C₃₂H₂₄N₆O₁₈S₅**
Sulfonazo, S-00048
- C₃₂H₂₅N₃O₉S₃**
Poirrier blue C4B, P-00246
- C₃₂H₂₅N₅O₃**
4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-1-naphthalenyl-2-naphthalenecarboxamide, D-00387
- C₃₂H₂₆N₄**
4,4'-Bis(benzylamino)-2,2'-biquinoline, *in* D-00063
- C₃₂H₂₆N₈S₄**
Glyoxal bis[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone, G-00030
- C₃₂H₂₈N₈O₁₀S₂**
Antipyrilazo III, A-00394
- C₃₂H₃₀N₆O₁₆S₂**
Aminomethylazo III, A-00235
- C₃₂H₃₁ClN₄O₂**
4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*⁴,*N*⁴,*N*⁴-Tetra-Me, *in* B-00253
- C₃₂H₃₁N₃O₁₂**
Indo 1, I-00031
- C₃₂H₃₂N₂O₁₂**
o-Cresolphthalexon, C-00308
Stil 1, S-00026
- C₃₂H₃₂O₁₅**
Fluorescein; Di-(β -D-galactopyranoside), *in* F-00020
- C₃₂H₃₄N₄O₄**
Deuteroporphyrin IX; Di-Me ester, *in* D-00030
- C₃₂H₃₄O₈**
Gossypol; 6,6'-Di-Me ether, *in* G-00041
- C₃₂H₃₅N₃O₉S**
8-[[4-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)azo]phenylamino]-1-naphthalenesulfonic acid, D-00006
- C₃₂H₃₆N₃O₆S₂**
Lissamine violet 10B, L-00008
- C₃₂H₃₆N₁₂O₁₄S₂**
N,N',N'',N'''-[Vinylenebis[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triyl]]tetrasarcosine, V-00008
- C₃₂H₃₇NO₉S**
Semimethyl thymol blue, S-00011
- C₃₂H₃₈N₄**
Aetioporphyrin II, A-00067
Mesotetrapropylporphine, M-00065
- C₃₂H₃₉ClN₂O₃**
Butylrhodamine B, *in* R-00002
- C₃₂H₄₀N₄O₂**
4-[Bis[4-(diethylamino)phenyl]hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, B-00295
- C₃₂H₄₄F₃N₃O₂S**
▶ Fluphenazine decanoate, *in* F-00034
- C₃₂H₄₈O₆**
2,13-Dihexyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, D-00368
- C₃₂H₄₈O₁₀**
2,19-Diethyl-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, D-00348
- C₃₂H₄₈O₁₂**
Dibenzo-36-crown-12, D-00161
- C₃₂H₅₈N₂O₇S**
▶ 3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate, C-00274
- C₃₂H₆₂O₃**
Hexadecanoic acid; Anhydride, *in* H-00026
- C₃₂H₆₈BrN**
Tetraoctylammonium(1+); Bromide, *in* T-00110
Tris(decyl)ethylammonium(1+); Bromide, *in* T-00386
- C₃₂H₆₈ClN**
Tetraoctylammonium(1+); Chloride, *in* T-00110
- C₃₂H₆₈N[⊕]**
Tetraoctylammonium(1+), T-00110
Tris(decyl)ethylammonium(1+), T-00386
- C₃₃H₂₁N₉**
2,4,6-Tri(2,2'-bipyridin-6-yl)-1,3,5-triazine, T-00202

- C₃₃H₂₁N₉O₁₂S₃**
4,4',4''-[1,3,5-Triazine-2,4,6-triyltris(azo)]tris[3-hydroxy-1-naphthalenesulfonic acid], T-00198
- C₃₃H₂₃N₃**
4,4',4''-Triphenyl-2,2':6',2''-terpyridine, T-00378
- C₃₃H₂₈N₂O₃S**
N-Benzylanilinesulfonephthalein, in A-00369
N-(*o*-Methylphenyl)anilinesulfonephthalein, in A-00369
- C₃₃H₂₉N₅O₉S₃**
Lissamine blue BF, L-00007
- C₃₃H₃₂CIN₃**
Victoria blue B; Chloride, in V-00002
- C₃₃H₃₂N₃[⊕]**
Victoria blue B, V-00002
- C₃₃H₃₄F₂₁N₂NdO₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)neodymium(III); Imidazole complex, in T-00399
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)neodymium(III); Pyrazole complex, in T-00399
- C₃₃H₃₅N₅O₁₀S₂**
Acilan fast green, A-00060
- C₃₃H₃₆N₂O₁₃S**
Methyl xlenol blue, M-00337
- C₃₃H₄₀CIN₃**
Victoria pure blue BO; Chloride, in V-00004
- C₃₃H₄₀N₂O₉S**
Glycinethymol blue, G-00019
- C₃₃H₄₀N₃[⊕]**
Victoria pure blue BO, V-00004
- C₃₃H₄₁NO₁₇**
Ethoxazorutoside, in R-00014
- C₃₃H₄₄O₄**
12-(9-Anthroyloxy)stearic acid, A-00391
- C₃₃H₄₆N₂O₆S₆**
N,N-Bis(2,3,5,6,8,9,11,12-octahydro-1,13,4,7,10-benzodioxatritriacyclopentadecin-15-yl)pentanediamide, B-00433
- C₃₃H₄₆N₂O₁₂**
N,N'-Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)pentanediamide, B-00435
- C₃₃H₅₇CrO₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)chromium(III), T-00414
- C₃₃H₅₇DyO₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)dysprosium(III), T-00415
- C₃₃H₅₇EuO₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)europium(III), T-00416
- C₃₃H₅₇GdO₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)gadolinium(III), T-00417
- C₃₃H₅₇HoO₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)holmium(III), T-00418
- C₃₃H₅₇LaO₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)lanthanum(III), T-00419
- C₃₃H₅₇O₆Pr**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)praseodymium(III), T-00420
- C₃₃H₅₇O₆Yb**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)ytterbium(III), T-00421
- C₃₃H₅₉DyO₇**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)dysprosium(III); Monohydrate, in T-00415
- C₃₄H₂₂N₄O₂₀S₄**
4,4'-Bis[(1,8-dihydroxy-3,6-disulfo-2-naphthyl)azo]-3,3'-biphenyldicarboxylic acid, B-00301
- C₃₄H₂₄N₄O₂₂S₆**
Stilbazochrome, S-00028
- C₃₄H₂₄N₆Na₄O₁₄S₄**
▷ Azovan blue, A-00479
- C₃₄H₂₅N₄O₆S₂**
Wool fast blue BL, W-00002
- C₃₄H₂₆Cl₂N₆O₁₂P₂S₂**
Chlorophosphonazo DAL, in C-00242
- C₃₄H₂₇N₄O₄PS₂**
O,O-Bis[(3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4(5*H*)-ylidene)phenylmethyl]phosphorodithioate, B-00405
- C₃₄H₂₈As₂N₆O₁₂S₂**
Arsenazo DAL, A-00407
- C₃₄H₂₈N₆O₆S₂**
Benzopurpurine 4B, B-00071
- C₃₄H₂₈N₆O₁₄S₄**
▷ Trypan blue, T-00433
- C₃₄H₃₀N₈S₄**
2,3-Butanedione bis[[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone], B-00595
- C₃₄H₃₄CIN₃**
Victoria blue 4R; Chloride, in V-00003
- C₃₄H₃₄N₃[⊕]**
Victoria blue 4R, V-00003
- C₃₄H₃₅Br₂NO₇S₂**
Sulfonamidebromothymol blue, S-00047
- C₃₄H₃₆N₄O₂**
Chromopyrazole I, C-00287
- C₃₄H₄₀N₂O₈**
Gossypol bis[*N*-(2-hydroxy)ethyleneimine], G-00042
- C₃₄H₄₀N₄O₆S₂**
7,8,9,10,17,18,19,20,21,22-Decahydro-8,19-bis[(4-methylphenyl)sulfonyl]-6*H*,16*H*-dibenzo-*[h,q]*[1,7,4,10,13,16]dioxatetraazacyclooctadecine, D-00008
- C₃₄H₄₄O₁₄**
2-Butenedioic acid bis[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)methyl]ester, B-00611
- C₃₄H₄₆O₁₄**
Bis(benzo-15-crown-5-ylmethyl)succinate, in B-00611
- C₃₄H₅₂O₆**
2,13-Diheptyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, D-00366
- C₃₄H₅₆O₃S**
4,5-Didodecyl-1-naphthalenesulfonic acid, D-00311
- C₃₄H₆₂O₁₂**
Dodecylmethylpropanedioate bis(1,4,7,10-tetraoxacyclododec-2-ylmethyl)ester, D-01152
- C₃₅H₂₃N₇**
2,4-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00341
- C₃₅H₂₃N₇**
2,6-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00342
- C₃₅H₃₂N₂O₃S**
N-(*o,p*-Dimethylphenyl)anilinesulfonephthalein, in A-00369
- C₃₅H₃₂N₂O₅S**
N-(*p*-Ethoxyphenyl)anilinesulfonephthalein, in A-00369
- C₃₅H₅₂N₄O₉**
6-Dodecyl-6-[2-hydroxy-3-nitro-5-(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01149
- C₃₆H₂₄FeN₆^{2⊕}**
Tris(1,10-phenanthroline-*N*¹,*N*¹⁰)iron(II)(2+), T-00412
- C₃₆H₂₄N₆O₉S₃**
2,4,6-Tris[4-(4-sulfophenyl)-2-pyridyl]-*s*-triazine, T-00413
- C₃₆H₂₅N₅O₁₀S₃**
Brilliant congo blue BFL, B-00476
- C₃₆H₂₅N₇O₁₀S₃**
C.I. Direct blue 72, C-00004
- C₃₆H₂₆N₈**
N,N'-Bis[4-(phenylazo)phenyl]-1,10-phenanthroline-4,7-diamine, B-00438
- C₃₆H₃₀Cl₂N₂O₁₃**
Fluo 3, F-00009
- C₃₆H₃₀N₂O₄**
4,4'-([2,2'-Biquinoline]-4,4'-diyl)diimino bisbenzoic acid; Di-Et ester, in B-00238
- C₃₆H₃₀N₆O₁₂S₄**
Dimethylsulfonazo DAL, D-00918
- C₃₆H₃₁As₂BrO₂**
Triphenylarsine oxide; 2B,HBr, in T-00364
- C₃₆H₃₆N₁₂O₂₂S₂**
[Vinylenebis{[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triyl]dinitrilo}]octaacetic acid, V-00007
- C₃₆H₃₆O₂P₂**
[1,2-Phenylenebis(methylene)]bis[bis(4-methylphenyl)]phosphine oxide, P-00119
- C₃₆H₃₈N₁₀O₁₅**
N,N'-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyl]bis(methylene-2,1-phenylene)]bis[2,4,6-trinitrobenzamine], T-00361
- C₃₆H₃₉CIN₄O₂**
4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*⁴,*N*⁴,*N*⁴-Tetra-Et, in B-00253
- C₃₆H₄₂EuF₉O₆**
Tris(3-trifluoroacetyl-*d*-camphorato)europium(III), T-00423
- C₃₆H₄₂F₉O₆Pr**
Tris(3-trifluoroacetyl-*d*-camphorato)praseodymium(III), T-00424
- C₃₆H₄₂F₉O₆Yb**
Tris[1,7,7-trimethyl-3-(trifluoroacetyl)bicyclo[2.2.1]heptan-2-onato-*O,O'*]ytterbium, T-00427
- C₃₆H₄₂N₄O₄**
Mesoporphyrin IX, M-00061
- C₃₆H₄₄N₄O₄**
6,7,13,14,15,16,17,18,24,25,31,32,33,34,35,36-Hexadecahydrotetrabenzo[*c,m,s,a*][1,4,15,18,8,11,22,25]tetraoxatetraazacyclooctacosine, H-00025
- C₃₆H₄₄O₁₀**
Dinaphtho-30-crown-10, D-00932
- C₃₆H₄₆N₄**
Mesotetraisobutylporphine, M-00063
Octaethylporphyrin, O-00002
- C₃₆H₄₆N₄O**
Octaethylporphyrin; *N*-Oxide, in O-00002
- C₃₆H₅₆O₆**
6,7,9,10,17,18,20,21-Octahydro-2,13-dioctylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00025

- C₃₆H₅₆O₁₀**
2,19-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzo[*b,g*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontine, B-00331
- C₃₆H₆₄LaNO₇**
(Dimethylformamide)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)lanthanum(III), *in* T-00419
- C₃₆H₇₀O₃**
Octadecanoic acid; Anhydride, *in* O-00001
- C₃₆H₇₅N**
Tridodecylamine, T-00230
- C₃₆H₇₅NO**
Tridodecylamine; *N*-Oxide, *in* T-00230
- C₃₆H₇₆BrN**
Trilaurylammonium bromide, *in* T-00230
- C₃₇H₃₄N₂O₁₀S₃**
▷ Fast green FCF, F-00001
- C₃₇H₃₆N₂O₃S**
N-(2,4,5-Trimethylphenyl)anilinesulfonephthalcin, *in* A-00369
- C₃₇H₃₇N₂O₉S₃[⊕]**
▷ Erioglaucine A, E-00018
- C₃₇H₄₄N₂O₁₃S**
Methylthymol blue, M-00327
- C₃₇H₄₄O₆**
6,7,9,10,12,13,15,16,18,19-Decahydro-2,4,21,23-tetramethyl-25-(1-naphthalenyl)-25*H*-dibenzo[*q,h*][1,4,7,10,13,16]hexaooxacycloheneicosin, D-00020
- C₃₇H₄₆CIN₃O₅**
Astracyanine B; Chloride, *in* A-00448
- C₃₇H₄₆N₃O₅[⊕]**
Astracyanine B, A-00448
- C₃₇H₅₂O₁₄**
Bis[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)methyl]heptanedioate, B-00434
- C₃₇H₅₄N₂O₁₄**
N,N'-Bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaooxacyclooctadecin-18-yl)pentanediamide, B-00292
- C₃₇H₅₆O₈**
17-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]-pentaooxacyclohexadecin-18-yl)oxy]octadecanoic acid, H-00043
- C₃₈H₂₈Cl₂N₈**
Neotetrazolium(2+); Dichloride, *in* N-00063
- C₃₈H₂₈N₈^{2⊕}**
Neotetrazolium(2+), N-00063
- C₃₈H₃₀N₈O₂**
Di-2-pyridinylethanedione bis(diphenylsemicarbazone), D-01064
- C₃₈H₃₄Br₂P₂**
▷ 1,2-Ethanediylobis(triphenylphosphonium)(2+); Dibromide, *in* E-00034
- C₃₈H₃₄P₂^{2⊕}**
1,2-Ethanediylobis(triphenylphosphonium)(2+), E-00034
- C₃₈H₄₀N₆**
4,4'-Di[(*p*-diethylamino)anilino]-2,2'-biquinoline, *in* D-00063
- C₃₈H₄₁N₃O₁₇**
2-(2-Aminostyryl)-6-methoxy-8-aminoquinoline-*N,N,N',N'*-tetraacetic acid; Tetrakis(acetoxymethyl) ester, *in* A-00347
- C₃₈H₄₂N₁₀O₁₆**
2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylobis(methylene)]bis[*N*-(2,4,6-trinitrophenyl)]benzenamine, T-00116
- C₃₈H₄₃N₃O₁₈**
Quin 2A, *in* Q-00002
- C₃₈H₄₄N₂O₁₂**
Thymolphthalhexon, T-00183
- C₃₈H₅₂O₁₆**
2-Butenedioic acid bis[(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaooxacyclooctadecin-18-yl)methyl] ester, B-00610
- C₃₈H₅₄O₁₆**
Bis(benzo-18-crown-6-ylmethyl)succinate, *in* B-00610
- C₃₈H₆₀O₁₁**
ar,ar'-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,18,19,26,27,29,30,32,33,35,36-octadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28,31]undecaooxacyclotriatriacontin, B-00332
- C₃₈H₆₂DyNO₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)dysprosium(III); Py complex, *in* T-00415
- C₃₈H₆₂GdNO₆**
(Pyridine)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)gadolinium(III), *in* T-00417
- C₃₈H₆₂HoNO₆**
(Pyridine)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)holmium(III), *in* T-00418
- C₃₈H₆₂NO₆Pr**
Pyridinetris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)praseodymium(III), *in* T-00420
- C₃₈H₆₂NO₆Yb**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)ytterbium(III); Py complex, *in* T-00421
- C₃₈H₆₆O₄**
Octacosyl (*E*)-isoferulate, *in* D-00716
- C₃₈H₇₆N₂O₂**
N,N'-Dioctadecanoylthanediamine, *in* E-00024
- C₃₈H₈₀BrN**
Ethyltridodecylammonium(1+); Bromide, *in* E-00120
- C₃₈H₈₀N[⊕]**
Ethyltridodecylammonium(1+), E-00120
- C₃₉H₂₄O₁₂**
9,9-[Methylenebis(6-hydroxy-3,1-phenylene)]bis-[2,6,7-trihydroxy-3*H*-xanthen-3-one], M-00172
- C₃₉H₂₇N₇O₉**
3,3',3''-[Nitro]tris(4,1-phenyleneazo)[tris(6-hydroxybenzoic acid)], N-00075
- C₃₉H₃₆O₁₉**
2',7'-Bis(carboxyethyl)carboxyfluorescein; Tetrakis(acetoxymethyl) ester, *in* B-00273
- C₃₉H₄₇N₃O₁₄**
Fura 2; Penta-Et ester, *in* F-00039
- C₃₉H₅₈N₂O₆S₈**
N,N'-Bis(2,3,5,6,9,10,12,13,15,16-decahydro-8*H*-1,7,4,7,11,14-benzodioxatetraphiaacylononadecin-19-yl)pentanediamide, B-00291
- C₄₀H₂₄F₁₂O₈U**
Tetrakis(4,4,4-trifluoro-1-phenyl-1,3-butanedionato-*O,O'*)uranium, T-00090
- C₄₀H₂₇N₇O₁₃S₄**
Eliamina blue FFL, E-00006
- C₄₀H₂₈Cl₂N₁₂O₁₀**
3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2,5-bis(4-nitrophenyl)-2*H*-tetrazolium](2+) 9Cl; Dichloride, *in* D-00770
- C₄₀H₂₈N₂O₆**
4,4'-Diamino-3,3'-biphenyldiol; Tetrabenzoyl, *in* D-00056
- C₄₀H₂₈N₁₂O₁₀^{2⊕}**
3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2,5-bis(4-nitrophenyl)-2*H*-tetrazolium](2+) 9Cl, D-00770
- C₄₀H₃₀Cl₂N₁₀O₆**
3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2-(3-nitrophenyl)-5-phenyl-2*H*-tetrazolium](2+); Dichloride, *in* D-00771
Nitro TB, *in* N-00164
- C₄₀H₃₀N₈**
2,2',3,3'-Tetrakis(6-methyl-2-pyridyl)-6,6'-biquinoxaline, T-00088
- C₄₀H₃₀N₁₀O₆^{2⊕}**
3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2-(3-nitrophenyl)-5-phenyl-2*H*-tetrazolium](2+), D-00771
Nitrotetrazolium blue, N-00164
- C₄₀H₃₂Cl₂N₈O₂**
▷ Tetrazolium blue; Dichloride, *in* T-00132
- C₄₀H₃₂MnN₁₀**
Bis[bis(3-methyl-2-pyridylimino)isoindolinato-*N,N',N''*]manganese(II), B-00262
- C₄₀H₃₂N₈O₂^{2⊕}**
Tetrazolium blue, T-00132
- C₄₀H₃₆P₂**
1,4-Butanediyldenebis(triphenylphosphorane), *in* B-00602
- C₄₀H₃₈Br₂P₂**
1,4-Butanediylobis(triphenylphosphonium)(2+); Dibromide, *in* B-00602
- C₄₀H₃₈Br₂P₂**
1,4-Butanediylobis(triphenylphosphonium)(2+); Perbromide, *in* B-00602
- C₄₀H₃₈F₂₁N₂NdO₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)neodymium(III); Bipy complex, *in* T-00399
- C₄₀H₃₈P₂^{2⊕}**
1,4-Butanediylobis(triphenylphosphonium)(2+), B-00602
- C₄₀H₄₀EuF₂₈O₈[⊖]**
Tetrakis(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato)europate(III)(1-), T-00085
- C₄₀H₄₀N₄O₂**
Chromopyrazole II, C-00288
- C₄₀H₄₀N₆O₆S**
▷ Nile blue A; Sulfate (2:1), *in* N-00069
- C₄₀H₄₈N₈O₉**
2,2'-(1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyl)di-3,1-propanediyl]bis[4-[(4-nitrophenyl)azo]phenol], T-00362
- C₄₀H₇₆O₂P₂**
[1,4-Phenylenebis(methylene)]bis[diocetylphosphine oxide], P-00120
- C₄₁H₂₉NO**
2,4,6-Triphenyl-*N*-(3,5-diphenyl-4-oxidophenyl)pyridinium betaine, T-00365
- C₄₁H₄₄N₃O₆S₂**
Xylene brilliant blue FBR, X-00003
- C₄₁H₅₆N₆O₉**
6-Dodecyl-6-[2-hydroxy-3,5-bis(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01144

- C₄₁H₆₂N₂O₁₆**
N,N'-Bis(2,3,5,6,8,9,11,12,14,15,17,18-dodecahydro-1,4,7,10,13,16,19-benzohexaaxacycloheneicosin-21-yl)pentanediamide, B-00346
- C₄₂H₂₆O₄**
[9,9'-Bianthracene]-10,10'-diol: Dibenzoyl, *in* B-00201
- C₄₂H₃₀N₄**
4,4'-Bis(4-biphenylamino)-2,2'-biquinoline, B-00259
- C₄₂H₃₆FeN₆^{2⊕}**
Tris(4,7-dimethyl-1,10-phenanthroline-N¹,N¹⁰)iron(II)(2+), T-00389
- C₄₂H₃₈F₂₁N₂NdO₆**
Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-O,O')neodymium(III); Phen complex, *in* T-00399
- C₄₂H₄₀N₂O₈**
Gossypol bis(4-hydroxyphenyl)imine, G-00043
- C₄₂H₄₂EuF₂₁O₆**
Tris(3-heptafluorobutyl-*d*-camphorato)europium(III), T-00391
- C₄₂H₄₂F₂₁O₆Pr**
Tris[3-(heptafluoropropylhydroxymethylene)-*d*-camphorato]praseodymium(III), T-00404
- C₄₂H₅₂N₈O₁₀**
2,2'-(1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyl)di-3,1-propanediyl]bis[4-[(4-nitrophenyl)azo]phenol], T-00117
- C₄₂H₆₃CeO₃**
Tris(2,6-di-*tert*-butylphenoxy)cerium(III), T-00387
- C₄₃H₃₈BP**
Methyltriphenylphosphonium(1+); Tetraphenylborate, *in* M-00335
- C₄₃H₅₉NO₇**
6-Dodecyl-6-[2-hydroxy-5-(1,8-naphthalenedicarboximido)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01147
- C₄₃H₆₅DyN₂O₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')dysprosium(III); Bipy complex, *in* T-00415
- C₄₃H₆₅GdN₂O₆**
(2,2'-Bipyridine-N,N')tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')gadolinium(III), *in* T-00417
- C₄₃H₆₅HoN₂O₆**
(2,2'-Bipyridine-N,N')tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')holmium(III), *in* T-00418
- C₄₃H₆₅N₂O₆Pr**
(2,2'-Bipyridine-N,N')tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')praseodymium(III), *in* T-00420
- C₄₃H₆₅N₂O₆Yb**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')ytterbium(III); Bipy complex, *in* T-00421
- C₄₄H₃₀N₄**
meso-Tetraphenylporphyrin, T-00121
- C₄₄H₃₀N₄O₉S₃**
4,4',4''-(20-Phenyl-21*H*,23*H*-porphine-5,10,15-triyl)trisbenzenesulfonic acid, P-00166
- C₄₄H₃₀N₄O₁₂S₄**
4,4',4'',4'''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakisbenzenesulfonic acid, P-00250
- C₄₄H₃₈N₆O₃₀S₆**
Stilbazokhimdu, S-00031
- C₄₄H₃₈N₈^{4⊕}**
4,4',4'',4'''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakis[1-methylpyridinium], P-00252
- C₄₄H₄₇N₃O₂₄**
Fura 2-AM, *in* F-00039
- C₄₄H₅₂O₁₂**
2,3,14,15-Tetrakis(2-methoxyphenyl)-1,4,7,10,13,16,19,22-octaoxacyclotetrasosa-2,14-diene, T-00087
- C₄₄H₇₂O₈**
2,13-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecane, B-00347
- 2,14-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecane, B-00348
- C₄₅H₃₂N₄O₁₂S₄**
N-Methyl-5,10,15,20-tetrakis(4-sulfophenyl)porphine, *in* P-00250
- C₄₅H₅₂Cl₂O₆**
29-(2,6-Dichlorophenyl)-3,26-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaoxacycloheneicosin, D-00290
- C₄₅H₆₅DyN₂O₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')dysprosium(III); Phen complex, *in* T-00415
- C₄₅H₆₅GdN₂O₆**
(1,10-Phenanthroline-N¹,N¹⁰)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')gadolinium(III), *in* T-00417
- C₄₅H₆₅HoN₂O₆**
(1,10-Phenanthroline-N,N')tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')holmium(III), *in* T-00418
- C₄₅H₆₅N₂O₆Pr**
(1,10-Phenanthroline)tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')praseodymium(III), *in* T-00420
- C₄₅H₆₅N₂O₆Yb**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')ytterbium(III); Phen complex, *in* T-00421
- C₄₅H₇₁HoN₂O₆**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')holmium(III); Bis(4-picoline) complex, *in* T-00418
- C₄₆H₇₀N₄O₁₈**
2,2'-Bis[3,4-(15-crown-5)-2-nitrophenylcarbamoxymethyl]tetradecane, B-00290
- C₄₇H₅₆Cl₂O₇**
32-(2,6-Dichlorophenyl)-3,29-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,23,24-dodecahydro-32*H*-dinaphtho[2,1-*r*:1',2'-*w*][1,4,7,10,13,16,19]-heptaaxacyclotetrasosa, D-00291
- C₄₇H₅₈O₆**
3,26-Bis(1,1-dimethylethyl)-29-(2,5-dimethylphenyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]-hexaoxacycloheneicosin, B-00329
- C₄₈H₃₀N₄O₈**
4,4',4'',4'''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakisbenzoic acid, P-00251
- C₄₈H₃₆N₈O₂₀S₄**
Tetraoxacycloazochrome, T-00112
- C₄₈H₆₄N₁₀**
Pallatriazo, P-00003
- C₄₈H₆₀O₉**
3,26-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29-(3,4,5-trimethoxyphenyl)-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaoxacycloheneicosin, B-00328
- C₅₀H₆₄O₁₀**
3,29-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,21,23,24-dodecahydro-32-(3,4,5-trimethoxyphenyl)-32*H*-dinaphtho[2,1-*r*:1',2'-*w*][1,4,7,10,13,16,19]heptaaxacyclotetrasosa, B-00330
- C₅₀H₈₂O₂₄**
Desglucodigitonin, *in* S-00024
- C₅₀H₁₀₀O₂**
Tetratriacontanyl palmitate, *in* H-00026
- C₅₁H₇₂O₇PPr**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')(triphenylphosphine oxide)praseodymium(III), *in* T-00420
- C₅₂H₄₄N₈O₂₂S₄**
Hexaoxacycloazochrome, H-00067
- C₅₂H₇₈N₄**
Mesotetraoctylporphine, M-00064
- C₅₂H₈₁CeN₂O₃**
Tris(2,6-di-*tert*-butylphenoxy)cerium(III); Bis(*tert*-butyl isocyanide) complex, *in* T-00387
- C₅₄H₅₄N₁₄O₁₆**
7,16-Bis[3-[2-hydroxy-3,5-bis(4-nitrophenyl)azo]phenyl]-1-oxopropyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane, B-00364
- C₅₄H₉₀N₆O₁₈**
▷ Valinomycin, V-00001
- C₅₆H₉₂O₂₉**
▷ Digitonin, *in* S-00024
- C₆₀H₁₀₈O₈**
Sorbitan trioleate, *in* A-00367
- C₆₆H₁₁₄Eu₂O₁₂**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')europium(III); Dimer, *in* T-00416
- C₆₆H₁₁₄Gd₂O₁₂**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')gadolinium(III); Dimer, *in* T-00417
- C₆₆H₁₁₄La₂O₁₂**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')lanthanum(III); Dimer, *in* T-00419
- C₆₆H₁₁₄O₁₂Pr₂**
Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')praseodymium(III); Dimer, *in* T-00420
- C₆₈H₅₄O₁₉**
Sucrose; Octabenzoyl, *in* S-00036
- C₇₂H₆₀N₃O₆P₆Pr**
Tris(tetraphenylimidodiphosphinato)praseodymium, T-00422
- ClH₄NO**
▷ Hydroxylamine hydrochloride, *in* H-00257
- D₄N₂**
Hydrazine-*d*₄, *in* H-00079
- H₃NO**
▷ Hydroxylamine, H-00257
- H₄N₂**
▷ Hydrazine, H-00079
- H₆N₂O**
▷ Hydrazine hydrate, *in* H-00079
- H₆N₂O₄S**
▷ Hydrazinium(2+) sulfate, *in* H-00079
- H₈N₂O₆S**
▷ Hydroxylamine sulfate, *in* H-00257

Chemical Abstracts Service Registry Number Index

This Index lists in numerical order all Chemical Abstracts Service (CAS) registry numbers contained in the Dictionary.

Where a CAS registry number applies to a derivative or to a stereoisomer or other variant embedded within the entry, the Dictionary number is preceded by the word '*in*'.

The Symbol \triangleright preceding an index term indicates that the Dictionary Entry contains information on toxic or hazardous properties.

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74-11-3 ▶ 4-Chlorobenzoic acid, C-00067
74-39-5 ▶ 4-[(4-Nitrophenyl)azo]-1,3-benzenediol, N-00123
74-61-3 ▶ 2,3-Dimercapto-1-propanesulfonic acid, D-00761
74-79-3 ▶ Arginine; (S)-form, in A-00400
74-88-4 ▶ Iodomethane, I-00045
75-03-6 ▶ Iodoethane, I-00043
75-07-0 ▶ Acetaldehyde, A-00002
75-08-1 ▶ Ethanethiol, E-00039
75-15-0 ▶ Carbon disulfide, C-00023
75-17-2 ▶ Formaldoxime, in F-00035
75-26-3 ▶ 2-Bromopropane, B-00560
75-31-0 ▶ 2-Propylamine, P-00274
75-36-5 ▶ Acetyl chloride, in A-00006
75-52-5 ▶ Nitromethane, N-00113
75-58-1 ▶ Tetrammonium iodide, in T-00092
75-75-2 ▶ Methanesulfonic acid, M-00066
75-76-3 ▶ Tetramethylsilane, T-00103
75-77-4 ▶ Chlorotrimethylsilane, C-00267
75-78-5 ▶ Dichlorodimethylsilane, D-00267
75-89-8 ▶ 2,2,2-Trifluoroethanol, T-00245
75-97-8 ▶ 3,3-Dimethyl-2-butanone, D-00845
75-98-9 ▶ 2,2-Dimethylpropanoic acid, D-00899
76-02-8 ▶ Trichloroacetic acid; Chloride, in T-00218
76-03-9 ▶ Trichloroacetic acid, T-00218
76-04-0 ▶ Chlorodifluoroacetic acid, C-00092
76-05-1 ▶ Trifluoroacetic acid, T-00239
76-21-1 ▶ 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid, H-00022
76-30-2 ▶ Tetrahydroxybutanedioic acid, T-00073
76-54-0 ▶ 2',7'-Dichlorofluorescein, D-00275
76-59-5 ▶ Bromothymol blue, B-00581
76-60-8 ▶ Bromocresol green, see B-00498
76-61-9 ▶ Thymol blue, T-00181
76-62-0 ▶ Tetraabromophenolphthalein, T-00019
76-83-5 ▶ Chlorotriphenylmethane, C-00269
76-84-6 ▶ Triphenylmethanol, T-00368
76-86-8 ▶ Chlorotriphenylsilane, C-00270

- 76-89-1 2-Hydroxy-2,2-diphenylacetic acid; Me ester, *in* H-00166
- 76-93-7 ▶ 2-Hydroxy-2,2-diphenylacetic acid, H-00166
- 77-09-8 ▶ Phenolphthalein, P-00063
- 77-32-7 5,5-Diethyldihydro-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00341
- 77-46-3 ▶ Bis(4-acetamidophenyl)sulfone, *in* D-00090
- 77-48-5 ▶ 1,3-Dibromo-5,5-dimethyl-2,4-imidazolidinedione, D-00185
- 77-71-4 ▶ 5,5-Dimethyl-2,4-imidazolidinedione, D-00866
- 77-76-9 2,2-Dimethoxypropane, *in* A-00007
- 77-78-1 ▶ Dimethyl sulfate, D-00916
- 77-86-1 ▶ 2-Amino-2-hydroxymethyl-1,3-propanediol, A-00198
- 77-89-4 ▶ Citric acid; Tri-Et ester, Ac, *in* C-00299
- 77-92-9 ▶ Citric acid, C-00299
- 77-93-0 ▶ Citric acid; Tri-Et ester, *in* C-00299
- 77-98-5 ▶ Tetraethylammonium(1+); Hydroxide, *in* T-00041
- 78-47-7 *O,O,O*-Tributyl phosphorothioate, T-00215
- 78-50-2 Trioctylphosphine oxide, *in* T-00358
- 78-64-8 *O,O*-Dihexyl phosphorodithioate, D-00369
- 78-80-8 ▶ 2-Methyl-1-buten-3-yn, M-00149
- 78-83-1 ▶ 2-Methyl-1-propanol, M-00255
- 78-92-2 ▶ 2-Butanol, B-00607
- 78-93-3 ▶ 2-Butanone, B-00608
- 78-98-8 ▶ Pyruvaldehyde, P-00446
- 79-04-9 ▶ Chloroacetyl chloride, C-00056
- 79-06-1 ▶ Acrylamide, *in* P-00269
- 79-10-7 ▶ 2-Propenoic acid, P-00269
- 79-11-8 ▶ Chloroacetic acid, C-00054
- 79-17-4 ▶ Aminoguanidine, A-00179
- 79-21-0 ▶ Peracetic acid, P-00042
- 79-22-1 ▶ Methyl chloroformate, M-00155
- 79-24-3 ▶ Nitroethane, N-00108
- 79-33-4 Sarcosolactic acid, *in* H-00516
- 79-36-7 ▶ Dichloroacetic acid; Chloride, *in* D-00246
- 79-39-0 ▶ Methacrylamide, *in* M-00256
- 79-40-3 ▶ Ethanedithioamide, E-00027
- 79-41-4 ▶ 2-Methyl-2-propenoic acid, M-00256
- 79-42-5 ▶ 2-Mercaptopropanoic acid, M-00051
- 79-43-6 ▶ Dichloroacetic acid, D-00246
- 79-85-6 Tetracycline, *see* T-00039
- 80-08-0 ▶ 4,4'-Diaminodiphenyl sulfone, D-00090
- 80-15-9 ▶ 1-Methyl-1-phenylethyl hydroperoxide, M-00228
- 80-16-0 Chloramine B, *in* B-00026
- 80-18-2 Benzenesulfonic acid; Me ester, *in* B-00026
- 80-40-0 ▶ 4-Methylbenzenesulfonic acid; Et ester, *in* M-00130
- 80-41-1 ▶ 2-Chloroethanol; 4-Methylbenzenesulfonate, *in* C-00114
- 80-48-8 ▶ 4-Methylbenzenesulfonic acid; Me ester, *in* M-00130
- 80-58-0 ▶ 2-Bromobutanoic acid, B-00496
- 80-62-6 ▶ Methyl methacrylate, *in* M-00256
- 81-05-0 6-Amino-1-naphthalenesulfonic acid, A-00267
- 81-07-2 ▶ Saccharin, S-00001
- 81-11-8 ▶ 4,4'-Diaminostilbene-2,2'-disulfonic acid, D-00125
- 81-48-1 ▶ 1-Hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione, H-00300
- 81-54-9 ▶ 1,2,4-Trihydroxyanthraquinone, T-00270
- 81-61-8 ▶ 1,2,5,8-Tetrahydroxy-9,10-anthraquinone, T-00070
- 81-64-1 ▶ 1,4-Dihydroxyanthraquinone, D-00511
- 81-82-3 ▶ Coumachlor, C-00303
- 81-83-4 1*H*-Benz[*de*]isoquinoline-1,3(2*H*)-dione, B-00051
- 81-88-9 Rhodamine B, *in* R-00002
- 81-93-6 Phenosafranin; Chloride, *in* P-00070
- 82-12-2 1,2,3,5,6,7-Hexahydroxyanthraquinone, H-00052
- 82-22-4 ▶ 1,1'-Iminodianthraquinone, I-00011
- 82-33-7 ▶ 1,4-Diamino-5-nitroanthraquinone, D-00107
- 82-66-6 ▶ Diphenadine, D-00997
- 82-71-3 ▶ 2,4,6-Trinitro-1,3-benzenediol, T-00350
- 82-86-0 Acenaphthenequinone, A-00001
- 83-07-8 ▶ 4-Amino-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00152
- 83-40-9 ▶ 2-Hydroxy-3-methylbenzoic acid, H-00278
- 83-73-8 ▶ 5,7-Diiodo-8-quinolinol, D-00744
- 83-88-5 ▶ Riboflavin, R-00008
- 83-89-6 ▶ Quinacrine, Q-00003
- 84-02-6 ▶ Campazine, *in* P-00256
- 84-06-0 ▶ Perphenazine acetate, *in* P-00046
- 84-11-7 ▶ 9,10-Phenanthraquinone, P-00047
- 84-48-0 Anthraquinone-2-sulfonic acid, A-00388
- 84-58-2 ▶ 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone, D-00260
- 84-62-8 Diphenyl phthalate, *in* B-00018
- 84-79-7 ▶ 2-Hydroxy-3-prenylanthraquinone, H-00515
- 84-86-6 ▶ 4-Amino-1-naphthalenesulfonic acid, A-00264
- 84-87-7 4-Hydroxy-1-naphthalenesulfonic acid, H-00345
- 84-89-9 5-Amino-1-naphthalenesulfonic acid, A-00265
- 84-95-7 1-Naphthylamine; *N*-Di-Et, *in* N-00041
- 84-97-9 ▶ Perazine, P-00043
- 85-02-9 ▶ Benzof[*qu*]inoline, B-00073
- 85-28-9 4'-Chloro-2-hydroxy-4-methoxybenzophenone, *in* C-00095
- 85-41-6 ▶ Phthalimide, P-00223
- 85-44-9 ▶ Phthalic anhydride, P-00222
- 85-85-8 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
- 85-86-9 1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol, P-00095
- 85-87-0 Pyridoxamine, P-00417
- 85-99-4 2-Aminobenzophenone; *N*-Ac, *in* A-00111
- 86-26-0 ▶ 2-Methoxybiphenyl, *in* B-00210
- 86-29-3 ▶ Diphenylacetone, *in* D-00999
- 86-30-6 ▶ Diphenylnitrosamine, *in* D-01000
- 86-40-8 3,6-Diaminoacridine, *see* D-00042
- 86-48-6 1-Hydroxy-2-naphthoic acid, H-00369
- 86-53-3 1-Cyanonaphthalene, *in* N-00005
- 86-54-4 ▶ 1-Hydrazinophthalazine, H-00086
- 86-55-5 ▶ 1-Naphthalenecarboxylic acid, N-00005
- 86-59-9 8-Quinolincarboxylic acid, Q-00018
- 86-65-7 ▶ 7-Amino-1,3-naphthalenedisulfonic acid, A-00263
- 86-68-0 6-Methoxy-4-quinolinecarboxylic acid, *in* H-00527
- 86-75-9 ▶ Benzoxiquine, *in* H-00525
- 86-79-3 2-Hydroxycarbazole, H-00144
- 86-81-7 3,4,5-Trimethoxybenzaldehyde, *in* T-00273
- 86-84-0 ▶ 1-Isocyanatonaphthalene, I-00064
- 86-86-2 ▶ (1-Naphthyl)acetic acid; Amide, *in* N-00040
- 86-87-3 ▶ (1-Naphthyl)acetic acid, N-00040
- 86-93-1 ▶ Tetrazole-5-thione; 1,4-Dihydro-*form*, 1-Ph, *in* T-00131
- 87-02-5 ▶ 7-Amino-4-hydroxy-2-naphthalenesulfonic acid, A-00204
- 87-17-2 2-Hydroxy-*N*-phenylbenzamide, *in* H-00112
- 87-39-8 ▶ 2,4,5,6(1*H*,3*H*)-Pyrimidinetetrone 5-oxime, P-00428
- 87-59-2 ▶ 2,3-Dimethylaniline, D-00827
- 87-66-1 ▶ 1,2,3-Benzenetriol, B-00034
- 87-69-4 ▶ *L*-Threonic acid, *in* T-00002
- 87-76-3 TCAP, *in* H-00029
- 87-78-5 Mannitol, M-00008
- 87-88-7 ▶ 2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone, D-00262
- 88-14-2 ▶ 2-Furancarboxylic acid, F-00050
- 88-21-1 2-Aminobenzenesulfonic acid, A-00099
- 88-42-6 2,5-Dichlorobenzenesulfonic acid, D-00248
- 88-68-6 2-Aminobenzamide, *in* A-00103
- 88-75-5 ▶ 2-Nitrophenol, N-00117
- 88-88-0 ▶ 2-Chloro-1,3,5-trinitrobenzene, C-00268
- 88-89-1 ▶ 2,4,6-Trinitrophenol, T-00355
- 88-95-9 1,2-Benzenedicarboxylic acid; Dichloride, *in* B-00018
- 88-99-3 ▶ 1,2-Benzenedicarboxylic acid, B-00018
- 89-01-0 2,3-Pyrazinedicarboxylic acid, P-00286
- 89-02-1 ▶ 2,4-Dinitrobenzenesulfonic acid, D-00944
- 89-05-4 ▶ 1,2,4,5-Benzenetetracarboxylic acid, B-00029
- 89-25-8 ▶ 2,4-Dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00443
- 89-32-7 ▶ 1*H*,3*H*-Benzol[1,2-*c*:4,5-*c'*]difuran-1,3,5,7-tetrone, *in* B-00029
- 89-56-5 2-Hydroxy-5-methylbenzoic acid, H-00279
- 89-73-6 Salicylhydroxamic acid, *in* H-00112
- 89-75-8 2,4-Dichlorobenzoic acid; Chloride, *in* D-00249
- 89-83-8 ▶ 2-Isopropyl-5-methylphenol, I-00075
- 89-84-9 ▶ 2',4'-Dihydroxyacetophenone, D-00507
- 89-86-1 ▶ 2,4-Dihydroxybenzoic acid, D-00531
- 90-02-8 ▶ 2-Hydroxybenzaldehyde, H-00101
- 90-04-0 ▶ 2-Methoxyaniline, M-00072
- 90-05-1 ▶ 2-Methoxyphenol, M-00102
- 90-15-3 ▶ 1-Naphthol, N-00025
- 90-18-6 2-(3,4-Dihydroxyphenyl)-3,5,6,7-tetrahydroxy-4*H*-1-benzopyran-4-one, D-00717
- 90-19-7 ▶ 3,3',4',5'-Tetrahydroxy-7-methoxyflavone, T-00078
- 90-20-0 ▶ 4-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00200
- 90-26-6 ▶ 2-Phenylbutanoic acid; (\pm)-*form*, Amide, *in* P-00110
- 90-27-7 ▶ 2-Phenylbutanoic acid, P-00110
- 90-30-2 ▶ *N*-Phenyl-1-naphthylamine, P-00151
- 90-33-5 ▶ 7-Hydroxy-4-methyl-2*H*-1-benzopyran-2-one, H-00283
- 90-34-6 ▶ Primaquine, P-00254
- 90-39-1 ▶ Lupinidine, *in* S-00023
- 90-40-4 3-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00199
- 90-41-5 ▶ 2-Aminobiphenyl, A-00116
- 90-43-7 ▶ 2-Biphenylol, B-00210
- 90-44-8 Anthrone, A-00390
- 90-46-0 ▶ 9*H*-Xanthen-9-ol, X-00001
- 90-51-7 6-Amino-4-hydroxy-2-naphthalenesulfonic acid, A-00203
- 90-64-2 ▶ Mandelic acid, M-00007
- 90-69-7 ▶ α -Lobeline, *in* L-00010
- 90-81-3 2-Methylamino-1-phenyl-1-propanol; (1*RS*,2*SR*)-*form*, *in* M-00122
- 90-82-4 ▶ ψ -Ephedrine, *in* M-00122
- 91-02-1 ▶ 2-Benzoylpyridine, B-00151
- 91-10-1 ▶ 2,6-Dimethoxyphenol, *in* B-00034
- 91-16-7 ▶ 1,2-Dimethoxybenzene, D-00766
- 91-20-3 ▶ Naphthalene, N-00001
- 91-22-5 ▶ Quinoline, Q-00007
- 91-23-6 ▶ 1-Methoxy-2-nitrobenzene, *in* N-00117
- 91-40-7 ▶ *N*-Phenylanthranilic acid, P-00089
- 91-49-6 ▶ *N*-Butylacetanilide, *in* B-00617
- 91-56-5 ▶ Isatin, I-00056
- 91-59-8 ▶ 2-Naphthylamine, N-00042
- 91-63-4 ▶ 2-Methylquinoline, M-00306
- 91-66-7 ▶ *N,N*-Diethylaniline, D-00337
- 91-95-2 ▶ 3,3',4,4'-Tetraaminobiphenyl, T-00007
- 92-26-2 ▶ 3,6-Diamino-2,7-dimethylacridine, D-00079

- 92-27-3 6,7-Dihydroxy-2-naphthalenesulfonic acid, D-00658
- 92-31-9 ▶ Tolonium chloride, *in* T-00189
- 92-32-0 ▶ Pyronine G; Chloride, *in* P-00435
- 92-39-7 2-Chloro-10*H*-phenothiazine, C-00198
- 92-44-4 ▶ 2,3-Naphthalenediol, N-00010
- 92-53-5 ▶ Morpholine; *N*-Ph, *in* M-00344
- 92-62-6 ▶ 3,6-Diaminoacridine, D-00042
- 92-67-1 ▶ 4-Aminobiphenyl, A-00117
- 92-69-3 ▶ 4-Biphenylol, B-00211
- 92-70-6 ▶ 3-Hydroxy-2-naphthoic acid, H-00370
- 92-71-7 ▶ 2,5-Diphenyloxazole, D-01031
- 92-77-3 Naphthol AS, *in* H-00370
- 92-84-2 ▶ Phenothiazine, P-00073
- 92-87-5 ▶ 4,4'-Diaminobiphenyl, D-00053
- 92-88-6 ▶ 4,4'-Biphenyldiol, B-00208
- 92-95-5 4-Isocyanato-1,1'-biphenyl, I-00060
- 93-00-5 6-Amino-2-naphthalenesulfonic acid, A-00268
- 93-01-6 ▶ 6-Hydroxy-2-naphthalenesulfonic acid, H-00347
- 93-02-7 2,5-Dimethoxybenzaldehyde, *in* D-00518
- 93-05-0 ▶ *N,N*-Diethyl-1,4-phenylenediamine, *in* D-00048
- 93-10-7 ▶ 2-Quinolinecarboxylic acid, Q-00017
- 93-11-8 2-Naphthalenesulfonic acid; Chloride, *in* N-00015
- 93-17-4 ▶ 3,4-Dimethoxyphenylacetoneitrile, *in* D-00687
- 93-23-2 ▶ Laurylisoquinolinium bromide, *in* I-00080
- 93-26-5 ▶ 2-Methoxyacetanilide, *in* M-00072
- 93-28-7 ▶ Acetegenol, *in* M-00120
- 93-35-6 ▶ 7-Hydroxy-2*H*-1-benzopyran-2-one, H-00124
- 93-40-3 ▶ (3,4-Dimethoxyphenyl)acetic acid, *in* D-00687
- 93-42-5 2-Mercapto-*N*-2-naphthylacetamide, M-00038
- 93-44-7 2-Naphthol; Benzoyl, *in* N-00026
- 93-58-3 ▶ Methyl benzoate, *in* B-00059
- 93-91-4 1-Phenyl-1,3-butanedione, P-00107
- 93-97-0 ▶ Benzoic anhydride, *in* B-00059
- 93-99-2 ▶ Phenyl benzoate, *in* P-00060
- 94-01-9 ▶ 1,3-Benzenediol; Dibenzoyl, *in* B-00021
- 94-08-6 4-Methylbenzoic acid; Et ester, *in* M-00138
- 94-09-7 ▶ Ethyl 4-aminobenzoate, *in* A-00105
- 94-10-0 ▶ 2,4-Diamino-4'-ethoxyazobenzene, D-00095
- 94-30-4 ▶ 4-Methoxybenzoic acid; Et ester, *in* M-00079
- 94-36-0 ▶ Dibenzoyl peroxide, D-00165
- 94-37-1 ▶ 1,1'-(Dithiodicarbonylthioyl) bispiperidine, D-01130
- 94-65-5 2-Propylcyclohexanone, P-00275
- 94-67-7 ▶ Salicylaldehyde, *in* H-00101
- 94-71-3 2-Ethoxyphenol, *in* B-00020
- 94-90-6 2-Hydroxybenzaldehyde guanyldrazine, H-00105
- 94-93-9 ▶ *N,N'*-Bis(2-hydroxybenzylidene)-1,2-ethanediamine, B-00363
- 95-01-2 2,4-Dihydroxybenzaldehyde, D-00517
- 95-05-6 ▶ Monosulfiram, M-00341
- 95-14-7 ▶ 1*H*-Benzotriazole, B-00110
- 95-45-4 ▶ Dimethylglyoxime, D-00862
- 95-51-2 ▶ 2-Chloroaniline, C-00058
- 95-53-4 ▶ 2-Methylaniline, M-00123
- 95-54-5 ▶ 1,2-Diaminobenzene, D-00046
- 95-55-6 ▶ 2-Aminophenol, A-00300
- 95-64-7 ▶ 3,4-Dimethylaniline, D-00830
- 95-65-8 ▶ 3,4-Dimethylphenol, D-00886
- 95-74-9 ▶ 3-Chloro-4-methylaniline, C-00171
- 95-78-3 ▶ 2,5-Dimethylaniline, D-00828
- 95-83-0 ▶ 1,2-Diamino-4-chlorobenzene, D-00064
- 95-88-5 ▶ 4-Chloro-1,3-benzenediol, C-00061
- 96-01-5 1,2-Cyclodecanedione, C-00331
- 96-23-1 ▶ 1,3-Dichloro-2-propanol, D-00298
- 96-27-5 ▶ 3-Mercapto-1,2-propanediol, M-00050
- 96-29-7 ▶ 2-Butanone; Oxime, *in* B-00608
- 96-33-3 ▶ Methyl acrylate, *in* P-00269
- 96-45-7 ▶ 2-Imidazolidinethione, I-00003
- 96-77-5 4-Hydroxy-1,3-benzenedisulfonic acid, H-00111
- 96-91-3 ▶ 2-Amino-4,6-dinitrophenol, A-00164
- 96-92-4 4-Chloro-3-methyl-5-nitrobenzenesulfonic acid, C-00179
- 96-97-9 2-Hydroxy-5-nitrobenzoic acid, H-00383
- 97-00-7 ▶ 1-Chloro-2,4-dinitrobenzene, C-00106
- 97-05-2 ▶ 2-Hydroxy-5-sulfobenzoic acid, H-00538
- 97-18-7 ▶ Bis(2,4-dichloro-6-hydroxyphenyl) disulfide, B-00293
- 97-26-7 Toluylene blue; Chloride, *in* T-00190
- 97-51-8 2-Hydroxy-5-nitrobenzaldehyde, H-00380
- 97-53-0 ▶ 2-Methoxy-4-(2-propenyl)phenol, M-00120
- 97-63-2 Ethyl methacrylate, *in* M-00256
- 97-65-4 2-Methylenebutanedioic acid, M-00176
- 97-74-5 ▶ Tetramethylthiocarbonyl diamide, T-00105
- 97-77-8 ▶ Disulfiram, D-01107
- 97-97-2 ▶ 2-Chloro-1,1-dimethoxyethane, *in* C-00053
- 98-01-1 ▶ 2-Furancarboxaldehyde, F-00042
- 98-03-3 ▶ 2-Thiophenecarboxaldehyde, T-00169
- 98-04-4 ▶ Trimethylphenylammonium(1+); Iodide, *in* T-00336
- 98-05-5 ▶ Phenylarsonic acid, P-00090
- 98-09-9 ▶ Benzenesulfonic acid; Chloride, *in* B-00026
- 98-10-2 ▶ Benzenesulfonic acid; Amide, *in* B-00026
- 98-14-6 ▶ (4-Hydroxyphenyl)arsonic acid, H-00447
- 98-37-3 3-Amino-4-hydroxybenzenesulfonic acid, A-00183
- 98-50-0 ▶ 4-Aminophenylarsonic acid, A-00307
- 98-58-8 4-Bromobenzenesulfonic acid; Chloride, *in* B-00487
- 98-59-9 Tosyl chloride, *in* M-00130
- 98-61-3 4-Iodobenzenesulfonyl chloride, *in* I-00039
- 98-71-5 ▶ 4-Hydrazinobenzenesulfonic acid, H-00080
- 98-80-6 ▶ Phenylidihydroxyborane, P-00112
- 98-84-0 ▶ 1-Phenylethylamine, P-00130
- 98-86-2 ▶ Acetophenone, A-00008
- 98-88-4 ▶ Benzoyl chloride, *in* B-00059
- 98-89-5 ▶ Cyclohexanecarboxylic acid, C-00336
- 98-91-9 ▶ Thiobenzoic acid, T-00155
- 98-92-0 ▶ 3-Pyridinecarboxamide, P-00341
- 98-95-3 ▶ Nitrobenzene, N-00083
- 98-96-4 ▶ Pyrazinecarboxamide, *in* P-00285
- 98-97-5 Pyrazinecarboxylic acid, P-00285
- 98-98-6 ▶ 2-Pyridinecarboxylic acid, P-00342
- 98-99-7 1-Piperidinecarbonylthioic acid, P-00242
- 99-00-3 1-Piperazinecarbonylthioic acid, P-00238
- 99-04-7 ▶ 3-Methylbenzoic acid, M-00137
- 99-05-8 ▶ 3-Aminobenzoic acid, A-00104
- 99-10-5 ▶ 3,5-Dihydroxybenzoic acid, D-00534
- 99-11-6 ▶ 2,6-Dihydroxy-4-pyridinecarboxylic acid, D-00721
- 99-22-9 Dibenzylthiocarbamic acid, *in* D-01124
- 99-24-1 ▶ Methyl gallate, *in* T-00277
- 99-33-2 ▶ 3,5-Dinitrobenzoic acid; Chloride, *in* D-00948
- 99-34-3 3,5-Dinitrobenzoic acid, D-00948
- 99-35-4 ▶ 1,3,5-Trinitrobenzene, T-00349
- 99-36-5 3-Methylbenzoic acid; Me ester, *in* M-00137
- 99-56-9 ▶ 1,2-Diamino-4-nitrobenzene, D-00108
- 99-63-8 ▶ 1,3-Benzenedicarboxylic acid; Dichloride, *in* B-00019
- 99-65-0 ▶ 1,3-Dinitrobenzene, D-00936
- 99-73-0 ▶ 2,4'-Dibromoacetophenone, D-00176
- 99-75-2 ▶ 4-Methylbenzoic acid; Me ester, *in* M-00138
- 99-76-3 ▶ Methyl 4-hydroxybenzoate, *in* H-00113
- 99-77-4 ▶ 4-Nitrobenzoic acid; Et ester, *in* N-00093
- 99-81-0 2-Bromo-4'-nitroacetophenone, B-00539
- 99-92-3 ▶ 4'-Aminoacetophenone, A-00091
- 99-93-4 ▶ 4'-Hydroxyacetophenone, H-00090
- 99-94-5 ▶ 4-Methylbenzoic acid, M-00138
- 99-96-7 ▶ 4-Hydroxybenzoic acid, H-00113
- 99-98-9 ▶ *N,N*-Dimethyl-1,4-phenylenediamine, *in* D-00048
- 100-01-6 ▶ 4-Nitroaniline, N-00077
- 100-02-7 ▶ 4-Nitrophenol, N-00119
- 100-06-1 ▶ 4'-Methoxyacetophenone, *in* H-00090
- 100-07-2 ▶ Anisoyl chloride, *in* M-00079
- 100-09-4 ▶ 4-Methoxybenzoic acid, M-00079
- 100-10-7 ▶ 4-(Dimethylamino)benzaldehyde, D-00779
- 100-11-8 1-(Bromomethyl)-4-nitrobenzene, B-00530
- 100-14-1 ▶ 1-Chloromethyl-4-nitrobenzene, C-00178
- 100-15-2 4-Nitroaniline; *N*-Me, *in* N-00077
- 100-16-3 ▶ (4-Nitrophenyl)hydrazine, N-00138
- 100-17-4 ▶ 1-Methoxy-4-nitrobenzene, *in* N-00119
- 100-22-1 ▶ 1,4-Diaminobenzene; *N,N,N',N'*-Tetra-Me, *in* D-00048
- 100-23-2 4-Nitroaniline; *N*-Di-Me, *in* N-00077
- 100-25-4 ▶ 1,4-Dinitrobenzene, D-00937
- 100-29-8 ▶ 1-Ethoxy-4-nitrobenzene, *in* N-00119
- 100-32-3 ▶ Bis(4-nitrophenyl) disulfide, B-00431
- 100-36-7 ▶ Ethanediamine; *N,N'*-Di-Et, *in* E-00024
- 100-38-9 2-Aminoethanethiol, *see* A-00170
- 100-39-0 ▶ Benzyl bromide, B-00174
- 100-43-6 4-Vinylpyridine, V-00009
- 100-44-7 ▶ Chloromethylbenzene, C-00173
- 100-46-9 ▶ Benzylamine, B-00163
- 100-52-7 ▶ Benzaldehyde, B-00004
- 100-63-0 ▶ Phenylhydrazine, P-00134
- 100-65-2 ▶ *N*-Phenylhydroxylamine, P-00135
- 100-66-3 ▶ Methoxybenzene, M-00078
- 100-70-9 2-Cyanopyridine, *in* P-00342
- 100-74-3 ▶ Morpholine; *N*-Et, *in* M-00344
- 100-97-0 ▶ Hexamethylenetetramine, H-00057
- 101-01-9 ▶ *N,N',N''*-Triphenylguanidine, T-00366
- 101-02-0 ▶ Triphenyl phosphite, T-00371
- 101-31-5 ▶ Hyoscyamine, *in* T-00431
- 101-38-2 ▶ 2,6-Dichloro-4-(chloroimino)-2,5-cyclohexadien-1-one, D-00257
- 101-41-7 ▶ Phenylacetic acid; Me ester, *in* P-00076
- 101-54-2 ▶ 4-Aminodiphenylamine, A-00166
- 101-57-5 Diphenylamine-4-sulfonic acid, *in* A-00100
- 101-61-1 ▶ Bis(4-dimethylaminophenyl)methane, B-00320
- 101-64-4 *N*-(4-Methoxyphenyl)-1,4-benzenediamine, *in* A-00185
- 101-72-4 ▶ *N*-(1-Methylethyl)-*N'*-phenyl-1,4-benzenediamine, *in* D-00048
- 101-82-6 2-Benzylpyridine, B-00192
- 101-83-7 ▶ Dicyclohexylamine, D-00307
- 102-04-5 1,3-Diphenyl-2-propanone, D-01042
- 102-05-6 Dibenzylamine; *N*-Me, *in* D-00166
- 102-06-7 ▶ 1,3-Diphenylguanidine, D-01018
- 102-08-9 ▶ *N,N'*-Diphenylthiourea, D-01055
- 102-28-3 ▶ 1,3-Diaminobenzene; *N*-Ac, *in* D-00047
- 102-29-4 ▶ 3-Acetoxyphenol, *in* B-00021
- 102-32-9 ▶ (3,4-Dihydroxyphenyl)acetic acid, D-00687
- 102-54-5 ▶ Ferrocene, F-00004
- 102-60-3 ▶ Edetol, E-00001
- 102-69-2 ▶ Tripropylamine, T-00380
- 102-71-6 ▶ Tris(2-hydroxyethyl)amine, T-00406
- 102-82-9 ▶ Tributylamine, T-00208

- 102-87-4 Tridodecylamine, T-00230
 102-92-1 3-Phenyl-2-propenoic acid, *see* P-00169
 102-94-3 3-Phenyl-2-propenoic acid; (*Z*)-form, *in* P-00169
 103-09-3 Δ 2-Ethyl-1-hexanol; (\pm)-form, Ac, *in* E-00083
 103-26-4 Δ Methyl cinnamate, *in* P-00169
 103-32-2 *N*-Benzylaniline, B-00165
 103-47-9 2-(Cyclohexylamino)ethanesulfonic acid, C-00348
 103-49-1 Δ Dibenzylamine, D-00166
 103-67-3 Benzylamine; *N*-Me, *in* B-00163
 103-71-9 Δ Phenyl isocyanate, P-00138
 103-72-0 Δ Phenyl isothiocyanate, P-00139
 103-81-1 Δ Benzeneacetamide, *in* P-00076
 103-82-2 Δ Phenylacetic acid, P-00076
 103-83-3 Δ Benzylamine; *N,N*-Di-Me, *in* B-00163
 103-84-4 Δ Acetanilide, *in* A-00368
 103-85-5 Δ Phenylthiourea, P-00201
 103-89-9 Δ 4-Methylaniline; *N*-Ac, *in* M-00124
 103-90-2 Δ 4-Hydroxyacetanilide, *in* A-00302
 104-03-0 Δ (4-Nitrophenyl)acetic acid, N-00120
 104-04-1 Δ *N*-(2-Nitrophenyl)acetamide, *in* N-00077
 104-06-3 Δ Thiacetazone, *in* A-00097
 104-15-4 Δ 4-Methylbenzenesulfonic acid, M-00130
 104-18-7 [(4-Aminophenyl)thio]acetic acid, A-00327
 104-24-5 Azobenzene-4-carboxylic acid; Chloride, *in* A-00467
 104-55-2 Δ 3-Phenyl-2-propanal, P-00168
 104-63-2 Δ [(Phenylmethyl)amino]ethanol, P-00144
 104-76-7 2-Ethyl-1-hexanol, E-00083
 104-81-4 Δ 1-(Bromomethyl)-4-methylbenzene, B-00527
 104-83-6 Δ 1-Chloro-4-(chloromethyl)benzene, C-00080
 104-85-8 Δ *p*-Tolunitrile, *in* M-00138
 104-94-9 Δ 4-Methoxyaniline, M-00073
 105-10-2 Δ 1,4-Diaminobenzene; *N,N'*-Di-Me, *in* D-00048
 105-11-3 Δ 1,4-Benzoquinone; Dioxime, *in* B-00076
 105-34-0 Δ Methyl cyanoacetate, *in* C-00324
 105-54-4 Δ Ethyl butyrate, *in* B-00604
 105-56-6 Δ Ethyl cyanoacetate, *in* C-00324
 105-67-9 Δ 2,4-Dimethylphenol, D-00884
 105-83-9 Δ *N,N*-Bis(3-aminopropyl)methylamine, *in* D-00092
 106-20-7 Δ Bis(2-ethylhexyl)amine, B-00351
 106-31-0 Δ Butanoic acid; Anhydride, *in* B-00604
 106-34-3 Δ Quinhydrone, *in* B-00076
 106-45-6 Δ 4-Methylbenzenethiol, M-00133
 106-47-8 Δ 4-Chloroaniline, C-00060
 106-48-9 Δ 4-Chlorophenol, C-00196
 106-49-0 Δ 4-Methylaniline, M-00124
 106-50-3 Δ 1,4-Diaminobenzene, D-00048
 106-51-4 Δ 1,4-Benzoquinone, B-00076
 106-70-7 Δ Hexanoic acid; Me ester, *in* H-00066
 107-07-3 Δ 2-Chloroethanol, C-00114
 107-08-4 Δ 1-Iodopropane, I-00050
 107-13-1 Δ Vinyl cyanide, *in* P-00269
 107-15-3 Δ Ethanediamine, E-00024
 107-18-6 Δ 2-Propen-1-ol, P-00271
 107-20-0 Δ Chloroacetaldehyde, C-00053
 107-29-9 Δ Acetaldoxime, *in* A-00002
 107-41-5 Δ 2-Methyl-2,4-pentanediol, M-00217
 107-56-2 Δ *O,O*-Diisopropyl phosphorodithioate, D-00750
 107-66-4 Δ Dibutyl phosphate, D-00237
 107-69-7 Δ Trichloroethanol carbamate, *in* T-00222
 107-71-1 Δ *tert*-Butyl peracetate, *in* P-00042
 107-87-9 Δ 2-Pentanone, P-00036
 107-91-5 Δ Cyanoacetamide, *in* C-00324
 107-92-6 Δ Butanoic acid, B-00604
 107-96-0 Δ 3-Mercaptopropanoic acid, M-00052
 108-02-1 Δ 2-(Dimethylamino)ethanethiol, *in* A-00170
 108-10-1 Δ 4-Methyl-2-pentanone, M-00218
 108-19-0 Biuret, B-00474
 108-20-3 Δ Diisopropyl ether, D-00748
 108-22-5 Δ Isopropenyl acetate, *in* P-00270
 108-30-5 Δ Dihydro-2,5-furandione, D-00405
 108-32-7 Δ 4-Methyl-1,3-dioxolan-2-one, M-00160
 108-40-7 3-Methylbenzenethiol, M-00132
 108-42-9 Δ 3-Chloroaniline, C-00059
 108-45-2 Δ 1,3-Diaminobenzene, D-00047
 108-46-3 Δ 1,3-Benzenediol, B-00021
 108-58-7 Δ 1,3-Benzenediol; Di-Ac, *in* B-00021
 108-59-8 Δ Dimethyl malonate, *in* P-00261
 108-73-6 Δ 1,3,5-Benzenetriol, B-00036
 108-75-8 2,4,6-Trimethylpyridine, T-00337
 108-78-1 Δ 1,3,5-Triazine-2,4,6-triamine, T-00197
 108-89-4 Δ 4-Methylpyridine, M-00265
 108-94-1 Δ Cyclohexanone, C-00347
 108-95-2 Δ Phenol, P-00060
 108-98-5 Δ Benzenethiol, B-00030
 109-02-4 Δ Morpholine; *N*-Me, *in* M-00344
 109-06-8 Δ 2-Methylpyridine, M-00264
 109-09-1 Δ 2-Chloropyridine, C-00252
 109-56-8 Δ 2-Isopropylaminoethanol, *in* A-00171
 109-73-9 Δ Butylamine, B-00616
 109-74-0 Δ Butyronitrile, *in* B-00604
 109-81-9 Δ *N*-Methyl-1,2-ethanediamine, *in* E-00024
 109-83-1 Δ 2-(Methylamino)ethanol, *in* A-00171
 109-86-4 Δ 2-Methoxyethanol, M-00087
 109-89-7 Δ Diethylamine, D-00314
 109-97-7 Δ Pyrrole, P-00436
 109-99-9 Δ Tetrahydrofuran, T-00061
 110-13-4 Δ 2,5-Hexanedione, H-00063
 110-14-5 Succinamide, *in* S-00034
 110-15-6 Δ Succinic acid, S-00034
 110-17-8 Δ Fumaric acid, F-00038
 110-19-0 Δ 2-Methylpropyl acetate, M-00257
 110-30-5 *N,N'*-Diocetadecanylethanedi-
 amine, *in* E-00024
 110-38-3 Δ Decanoic acid; Et ester, *in* D-00025
 110-42-9 Decanoic acid; Me ester, *in* D-00025
 110-46-3 Δ 3-Methyl-1-butyl nitrite, M-00151
 110-49-6 Δ 2-Methoxyethyl acetate, *in* M-00087
 110-68-9 Δ Butylamine; *N*-Me, *in* B-00616
 110-72-5 *N*-Ethyl-1,2-ethanediamine, *in* E-00024
 110-73-6 Δ 2-Ethylaminoethanol, *in* A-00171
 110-77-0 Δ 2-Mercaptoethanol; *S*-Et, *in* M-00031
 110-85-0 Δ Piperazine, P-00237
 110-86-1 Δ Pyridine, P-00316
 110-89-4 Δ Piperidine, P-00241
 110-91-8 Δ Morpholine, M-00344
 111-11-5 Octanoic acid; Me ester, *in* O-00036
 111-20-6 Δ Decanedioic acid, D-00022
 111-40-0 Δ Diethylenetriamine, D-00345
 111-44-4 Δ 1,1'-Oxybis(2-chloroethane), O-00077
 111-50-2 Hexanedioic acid; Dichloride, *in* H-00062
 111-54-6 Δ Ethylenebis(dithiocarbamic acid, E-00072
 111-61-5 Δ Octadecanoic acid; Et ester, *in* O-00001
 111-64-8 Octanoic acid; Chloride, *in* O-00036
 111-69-3 Δ 1,4-Dicyanobutane, *in* H-00062
 111-76-2 Δ 2-Butoxyethanol, B-00613
 111-92-2 Δ Dibutylamine, D-00223
 112-00-5 Luryltrimethylammonium(1+); Chloride, *in* L-00002
 112-02-7 Cetrimonium chloride, *in* H-00029
 112-13-0 Decanoic acid; Chloride, *in* D-00025
 112-24-3 Δ Triethylenetetramine, T-00232
 112-30-1 Δ 1-Decanol, D-00026
 112-39-0 Hexadecanoic acid; Me ester, *in* H-00026
 112-55-0 Δ 1-Dodecanethiol, D-01140
 112-57-2 Δ Tetraethylenepentamine, T-00044
 112-60-7 Δ Tetraethylene glycol, T-00043
 112-61-8 Δ Octadecanoic acid; Me ester, *in* O-00001
 112-67-4 Hexadecanoic acid; Chloride, *in* H-00026
 112-76-5 Octadecanoic acid; Chloride, *in* O-00001
 113-00-8 Δ Guanidine, G-00044
 113-98-4 Δ Benzylpenicillin; K salt, *in* B-00191
 114-76-1 2-Oxo-3-phenylpropanoic acid; Na salt, *in* O-00068
 114-83-0 Δ Acetic acid 2-phenylhydrazide, *in* P-00134
 115-20-8 Δ 2,2,2-Trichloroethanol, T-00222
 115-39-9 Bromophenol blue, B-00542
 115-40-2 Bromocresol purple, B-00499
 115-41-3 Pyrocatechol violet, P-00433
 115-66-2 Tocamphyl, *in* T-00325
 116-11-0 Δ 2-Methoxypropene, *in* P-00270
 116-54-1 Δ Dichloroacetic acid; Me ester, *in* D-00246
 116-63-2 4-Amino-3-hydroxy-1-naphthalenesulfonic acid, A-00202
 116-83-6 Δ 1-Amino-4-methoxyanthraquinone, *in* A-00182
 116-85-8 Δ 1-Amino-4-hydroxyanthraquinone, A-00182
 116-95-0 Sulphan blue, S-00058
 117-10-2 Δ 1,8-Dihydroxyanthraquinone, D-00512
 117-34-0 Δ Diphenylacetic acid, D-00999
 117-39-5 Δ 3,3',4',5,7-Pentahydroxyflavone, P-00025
 117-59-9 5-Hydroxy-1-naphthalenesulfonic acid, H-00346
 117-74-8 Δ Berberine; Hydroxide, *in* B-00197
 117-80-6 Δ 2,3-Dichloro-1,4-naphthoquinone, D-00286
 117-89-5 Δ Trifluoperazine, T-00238
 117-92-0 Quinaldine red; Iodide, *in* Q-00004
 118-10-5 Δ Cinchonine, C-00298
 118-31-0 1-Naphthylmethylamine, N-00051
 118-32-1 7-Hydroxy-1,3-naphthalenedisulfonic acid, H-00343
 118-46-7 Δ 8-Amino-2-naphthalenol, A-00274
 118-52-5 Δ 1,3-Dichloro-5,5-dimethyl-2,4-imidazolidinedione, *in* D-00866
 118-61-6 Δ Ethyl salicylate, *in* H-00112
 118-71-8 Δ 3-Hydroxy-2-methyl-4*H*-pyran-4-one, H-00323
 118-74-1 Hexachlorobenzene, H-00021
 118-75-2 Δ Tetrachloro-1,4-benzoquinone, T-00025
 118-76-3 5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone, D-00570
 118-79-6 Δ 2,4,6-Tribromophenol, T-00205
 118-91-2 Δ 2-Chlorobenzoic acid, C-00066
 118-92-3 Δ 2-Aminobenzoic acid, A-00103
 118-93-4 Δ 2'-Hydroxyacetophenone, H-00089
 119-26-6 Δ (2,4-Dinitrophenyl)hydrazine, D-00972
 119-27-7 Δ 1-Methoxy-2,4-dinitrobenzene, *in* D-00958
 119-28-8 8-Amino-2-naphthalenesulfonic acid, A-00270
 119-53-9 Δ Benzoin, B-00068
 119-58-4 Δ Bis(4-dimethylaminophenyl)methanol, B-00321
 119-59-5 Δ 4,4'-Diaminodiphenyl sulfoxide, D-00091
 119-61-9 Δ Benzophenone, B-00069
 119-62-0 Chloramphenicol base, *in* A-00284
 119-65-3 Δ Isoquinoline, I-00080
 119-75-5 Δ 2-Nitrodiphenylamine, N-00104
 119-79-9 Δ 5-Amino-2-naphthalenesulfonic acid, A-00266
 119-90-4 Δ 4,4'-Diamino-3,3'-dimethoxybiphenyl, *in* D-00056
 119-91-5 2,2'-Biquinoline, B-00236
 119-93-7 Δ 4,4'-Diamino-3,3'-dimethylbiphenyl, D-00083
 120-12-7 Δ Anthracene, A-00375
 120-18-3 Δ 2-Naphthalenesulfonic acid, N-00015

- 120-21-8 4-Aminobenzaldehyde; *N,N*-Di-Et, *in* A-00097
- 120-22-9 *N,N*-Diethyl-4-nitrosoaniline, D-00350
- 120-33-2 3-Methylbenzoic acid; Et ester, *in* M-00137
- 120-46-7 1,3-Diphenyl-1,3-propanedione, D-01041
- 120-47-8 ▶ Ethylparaben, *in* H-00113
- 120-51-4 ▶ Benzyl benzoate, *in* B-00059
- 120-66-1 ▶ Acet-*o*-toluidide, *in* M-00123
- 120-72-9 ▶ Indole, I-00033
- 120-80-9 ▶ 1,2-Benzenediol, B-00020
- 120-86-5 ▶ *N,N'*-Bis(2-hydroxyethyl) ethanedithioamide, B-00374
- 120-88-7 ▶ *N,N'*-Didodecylethanedithioamide, D-00310
- 120-92-3 ▶ Cyclopentanone, C-00364
- 121-08-4 Purpuric acid, P-00281
- 121-19-7 ▶ 4-Hydroxy-3-nitrophenylarsonic acid, H-00392
- 121-32-4 ▶ 3-Ethoxy-4-hydroxybenzaldehyde, *in* D-00519
- 121-33-5 ▶ 4-Hydroxy-3-methoxybenzaldehyde, *in* D-00519
- 121-44-8 ▶ Triethylamine, T-00231
- 121-54-0 ▶ Benzethonium chloride, *in* B-00037
- 121-57-3 ▶ 4-Aminobenzenesulfonic acid, A-00100
- 121-68-6 Dithiobenzoic acid, D-01117
- 121-69-7 ▶ *N,N*-Dimethylaniline, D-00831
- 121-79-9 ▶ Propyl gallate, *in* T-00277
- 121-81-3 3,5-Dinitrobenzamide, *in* D-00948
- 121-90-4 ▶ 3-Nitrobenzoic acid; Chloride, *in* N-00092
- 121-91-5 ▶ 1,3-Benzenedicarboxylic acid, B-00019
- 121-92-6 ▶ 3-Nitrobenzoic acid, N-00092
- 121-98-2 ▶ 4-Methoxybenzoic acid; Me ester, *in* M-00079
- 122-01-0 4-Chlorobenzoic acid; Chloride, *in* C-00067
- 122-04-3 ▶ 4-Nitrobenzoic acid; Chloride, *in* N-00093
- 122-31-6 ▶ 1,1,3,3-Tetraethoxypropane, T-00040
- 122-39-4 ▶ Diphenylamine, D-01000
- 122-65-6 ▶ Dibenzylidithioamide, D-00169
- 122-79-2 ▶ Phenyl acetate, *in* P-00060
- 122-85-0 4-Aminobenzaldehyde; *N*-Ac, *in* A-00097
- 122-95-2 1,4-Diethoxybenzene, *in* B-00022
- 123-03-5 ▶ Cetylpyridinium chloride, *in* H-00028
- 123-08-0 ▶ 4-Hydroxybenzaldehyde, H-00102
- 123-11-5 ▶ 4-Methoxybenzaldehyde, M-00075
- 123-19-3 ▶ 4-Heptanone, H-00012
- 123-25-1 ▶ Diethyl succinate, *in* S-00034
- 123-30-8 ▶ 4-Aminophenol, A-00302
- 123-31-9 ▶ 1,4-Benzenediol, B-00022
- 123-33-1 ▶ 1,2-Dihydro-3,6-pyridazinedione, D-00481
- 123-38-6 ▶ Propanal, P-00259
- 123-43-3 ▶ Sulfoacetic acid, S-00039
- 123-46-6 Girard's reagent T; Chloride, *in* G-00009
- 123-51-3 ▶ 3-Methyl-1-butanol, M-00147
- 123-54-6 ▶ 2,4-Pentanedione, P-00030
- 123-56-8 ▶ 2,5-Pyrrolidinedione, P-00442
- 123-75-1 ▶ Pyrrolidine, P-00440
- 123-86-4 ▶ Butyl acetate, B-00615
- 123-91-1 ▶ 1,4-Dioxane, D-00985
- 123-92-2 Isopentyl acetate, *in* M-00147
- 123-96-6 ▶ 2-Octanol, O-00037
- 124-03-8 ▶ Cetylclide, *in* E-00071
- 124-04-9 ▶ Hexanedioic acid, H-00062
- 124-07-2 ▶ Octanoic acid, O-00036
- 124-09-4 ▶ 1,6-Hexanediamine, H-00061
- 124-12-9 ▶ Octanenitrile, *in* O-00036
- 124-22-1 ▶ Dodecylamine, D-01142
- 124-26-5 ▶ Octadecanoic acid; Amide, *in* O-00001
- 124-40-3 ▶ Dimethylamine, D-00777
- 124-63-0 Mesyl chloride, *in* M-00066
- 124-83-4 (+)-Camphoric acid, *in* T-00325
- 125-20-2 Thymolphthalein, T-00182
- 125-31-5 Xylenol blue, X-00005
- 126-33-0 ▶ Tetrahydrothiophene-1,1-dioxide, T-00069
- 126-73-8 ▶ Tributyl phosphate, T-00211
- 126-81-8 5,5-Dimethyl-1,3-cyclohexanedione, D-00847
- 126-98-7 ▶ 2-Cyanopropene, *in* M-00256
- 127-06-0 ▶ Acetoxime, *in* A-00007
- 127-17-3 ▶ Pyruvic acid, P-00448
- 127-21-9 ▶ 1,3-Dichloro-1,1,3,3-tetrafluoro-2-propanone, D-00303
- 127-52-6 ▶ Benzenesulfonic acid; Amide, *N*-Chloro, Na salt, *in* B-00026
- 127-56-0 4-Aminobenzenesulfonic acid, *see* A-00100
- 127-63-9 ▶ Diphenyl sulfone, D-01052
- 127-65-1 ▶ Chloramine T, *in* M-00130
- 127-71-9 ▶ *N*-[(4-Aminophenyl)sulfonyl] benzamide, *in* A-00100
- 127-85-5 ▶ Sodium arsanilate, *in* A-00307
- 128-08-5 ▶ *N*-Bromosuccinimide, B-00576
- 128-44-9 ▶ Saccharin sodium, *in* S-00001
- 128-53-0 *N*-Ethylmaleimide, *in* P-00439
- 128-62-1 ▶ Narcotine; (1*R*,9*S*)-form, *in* N-00060
- 128-80-3 ▶ 1,4-Bis[(4-methylphenylamino)]-9,10-anthracenedione, B-00406
- 128-85-8 Sudan blue GA, S-00037
- 128-86-9 4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, D-00073
- 128-94-9 ▶ 1,8-Diamino-4,5-dihydroxyanthraquinone, D-00075
- 129-16-8 ▶ Merbromin; Di-Na salt, *in* M-00015
- 129-17-9 ▶ Sulphan blue; Na salt, *in* S-00058
- 129-66-8 ▶ 2,4,6-Trinitrobenzoic acid, T-00352
- 129-73-7 4,4'-Bis(dimethylamino) triphenylmethane, B-00327
- 129-79-3 ▶ 2,4,7-Trinitro-9*H*-fluoren-9-one, T-00353
- 130-00-7 Benz[*cd*]indol-2-(1*H*)-one, B-00050
- 130-13-2 4-Amino-1-naphthalenesulfonic acid; Na salt, *in* A-00264
- 130-15-4 ▶ 1,4-Naphthoquinone, N-00032
- 130-22-3 Alizarine red S; Na salt, *in* A-00081
- 130-26-7 ▶ 5-Chloro-8-hydroxy-7-iodoquinoline, C-00134
- 130-40-5 Riboflavine, *see* R-00008
- 130-61-0 ▶ Mellaril hydrochloride, *in* T-00173
- 130-89-2 Quinine; B.HCl, *in* Q-00005
- 130-95-0 ▶ Quinine, Q-00005
- 131-08-8 ▶ Anthraquinone-2-sulfonic acid; Na salt, *in* A-00388
- 131-11-3 ▶ Dimethyl phthalate, *in* B-00018
- 131-22-6 ▶ 4-Phenylazo-1-naphthylamine, P-00093
- 131-28-2 Narceine, N-00059
- 131-56-6 ▶ 2,4-Dihydroxybenzophenone, D-00536
- 131-57-7 ▶ (2-Hydroxy-4-methoxyphenyl) methanone, *in* D-00536
- 131-73-7 ▶ 2,2',4,4',6,6'-Hexanitrodiphenylamine, H-00065
- 131-91-9 ▶ 1-Nitroso-2-naphthol, N-00160
- 132-31-0 *N*-(4'-Dimethylaminophenyl)-1,4-naphthoquinone imine, D-00820
- 132-32-1 9-Ethyl-9*H*-carbazol-3-amine, *in* A-00132
- 132-33-2 Thorin, T-00177
- 132-53-6 ▶ 2-Nitroso-1-naphthol, N-00161
- 132-60-5 ▶ 2-Phenyl-4-quinolinecarboxylic acid, P-00189
- 132-75-2 ▶ 1-(Cyanomethyl)naphthalene, *in* N-00040
- 132-86-5 ▶ 1,3-Naphthalenediol, N-00008
- 133-09-5 4-Amino-2-hydroxybenzoic acid, *see* A-00184
- 133-10-8 4-Amino-2-hydroxybenzoic acid, *see* A-00184
- 133-11-9 Phenyl aminosalicylate, *in* A-00184
- 133-15-3 4-Amino-2-hydroxybenzoic acid, *see* A-00184
- 133-37-9 Tartaric acid; (2*RS*,3*RS*)-form, *in* T-00002
- 133-38-0 ▶ Dihydroxyfumaric acid, *in* D-00567
- 133-47-1 Dihydroxyfumaric acid; Di-Me ester, *in* D-00567
- 133-91-5 ▶ 3,5-Diiodosalicylic acid, D-00745
- 134-20-3 ▶ 2-Aminobenzoic acid; Me ester, *in* A-00103
- 134-31-6 8-Hydroxyquinoline, *see* H-00525
- ▶ Quinisol, *in* H-00525
- 134-32-7 ▶ 1-Naphthylamine, N-00041
- 134-55-4 Acetylsalol, *in* A-00010
- 134-62-3 ▶ Diethyltoluamide, *in* M-00137
- 134-63-4 ▶ Zoolobelin, *in* L-00010
- 134-64-5 α -Lobeline; B, $\frac{1}{2}$ H₂SO₄, *in* L-00010
- 134-65-6 Lobelidine, *in* L-00010
- 134-71-4 ▶ 2-Methylamino-1-phenyl-1-propanol; (1*RS*,2*SR*)-form, B.HCl, *in* M-00122
- 134-81-6 ▶ Benzil, B-00038
- 134-96-3 ▶ 4-Hydroxy-3,5-dimethoxybenzaldehyde, *in* T-00273
- 134-98-5 ▶ 2,3-Dimethylaniline; *N*-Ac, *in* D-00827
- 135-02-4 ▶ 2-Methoxybenzaldehyde, M-00074
- 135-19-3 ▶ 2-Naphthol, N-00026
- 135-20-6 ▶ Cupferron, *in* H-00471
- 135-49-9 ▶ Acridine yellow, *in* D-00079
- 135-51-3 3-Hydroxy-2,7-naphthalenedisulfonic acid, *see* H-00342
- 135-52-4 1-(2-Hydroxy-5-sulfofenyl)-3-phenyl-5-(2-carboxyphenyl) formazan, H-00544
- 135-68-2 4-Amino-4'-chlorobiphenyl, A-00136
- 135-73-9 2-Bromo-4'-phenylacetophenone, B-00544
- 135-77-3 1,2,4-Trimethoxybenzene, *in* B-00035
- 136-17-4 ▶ 2,4-Diaminodiphenylamine, D-00085
- 136-30-1 Dithiocarbamic acid, *see* D-01124
- 136-36-7 ▶ 1,3-Benzenediol; Monobenzoyl, *in* B-00021
- 136-77-6 ▶ 4-Hexyl-1,3-benzenediol, H-00071
- 136-95-8 ▶ 2-Aminobenzothiazole, A-00113
- 137-06-4 ▶ 2-Methylbenzethiol, M-00131
- 137-07-5 ▶ 2-Aminobenzenethiol, A-00101
- 137-26-8 ▶ Tetramethylthiuram disulfide, T-00106
- 137-97-3 ▶ *N,N'*-Bis(2-methylphenyl)thiourea, B-00412
- 138-14-7 ▶ Desferrioxamine mesilate, *in* D-00029
- 138-32-9 Cetrimonium tosilate, *in* H-00029
- 138-36-3 4-Bromobenzenesulfonic acid, B-00487
- 138-89-6 ▶ *N,N*-Dimethyl-4-nitrosoaniline, D-00876
- 139-02-6 ▶ Phenolate sodium, *in* P-00060
- Phenol, *see* P-00060
- 139-07-1 Benzododecinium chloride, *in* B-00179
- 139-08-2 Zephiramine, *see* Z-00001
- 139-10-6 ▶ Profetamine phosphate, *in* P-00172
- 139-13-9 ▶ Nitrotriacetic acid, N-00074
- 139-33-3 Ethylenediaminetetraacetic acid, *see* E-00078
- 139-65-1 ▶ 4,4'-Diaminodiphenyl sulfide, D-00089
- 139-66-2 ▶ Diphenyl sulfide, D-01051
- 139-71-9 *m*-Chloroformanilide, *in* C-00059
- 139-85-5 ▶ 3,4-Dihydroxybenzaldehyde, D-00519
- 139-89-9 *N*-(2-Hydroxyethyl) ethylenediaminetriacetic acid, *see* H-00177
- 140-01-2 Pentetic acid, *see* P-00039
- 140-10-3 Cinnamamide, *in* P-00169
- 140-22-7 Diphenylcarbazide, D-01004
- 140-29-4 ▶ Benzeneacetonitrile, *in* P-00076
- 140-72-7 1-Hexadecylpyridinium(1+); Bromide, *in* H-00028

- 140-88-5 ▶ Ethyl acrylate, *in* P-00269
 140-89-6 ▶ Potassium *O*-ethyl dithiocarbonate, P-00253
 141-43-5 ▶ 2-Aminoethanol, A-00171
 141-75-3 ▶ Butyryl chloride, *in* B-00604
 141-78-6 ▶ Ethyl acetate, E-00062
 141-79-7 ▶ 4-Methyl-3-penten-2-one, M-00219
 141-82-2 ▶ Propanedioic acid, P-00261
 141-84-4 ▶ 2-Thioxo-4-thiazolidinone, T-00176
 141-86-6 ▶ 2,6-Diaminopyridine, D-00119
 141-90-2 ▶ 2,3-Dihydro-2-thioxo-4(1*H*)-pyrimidinone, D-00494
 141-97-9 ▶ Ethyl acetoacetate; *Keto-form*, *in* E-00063
 141-98-0 ▶ *O*-Isopropyl-*N*-ethylthiocarbamate, *in* T-00159
 142-04-1 ▶ Aniline salt, *in* A-00368
 142-26-7 ▶ *N*-(2-Hydroxyethyl)acetamide, *in* A-00171
 142-59-6 ▶ Nabam, *in* E-00072
 142-61-0 ▶ Hexanoic acid; Chloride, *in* H-00066
 142-62-1 ▶ Hexanoic acid, H-00066
 143-16-8 ▶ Dihexamine, D-00367
 143-24-8 ▶ 2,5,8,11,14-Pentaoxapentadecane, *in* T-00043
 143-66-8 ▶ Sodium tetraphenylborate(III), S-00015
 143-74-8 ▶ Phenolsulfonphthalcin, P-00064
 144-19-4 ▶ 2,2,4-Trimethyl-1,3-pentanediol, T-00330
 144-62-7 ▶ Oxalic acid, O-00048
 144-74-1 ▶ Sulphathiazole; Na salt, *in* S-00059
 Sulphathiazole, *see* S-00059
 144-80-9 ▶ Sulfacetamide, *in* A-00100
 145-48-2 ▶ Quinizarin S, Q-00006
 145-49-3 ▶ 1,5-Diamino-4,8-dihydroxyanthraquinone, D-00074
 145-50-6 ▶ α -Naphtholbenzein, N-00027
 146-17-8 ▶ Riboflavine 5'-(dihydrogen phosphate), *in* R-00008
 146-28-1 ▶ Perphenazine; Ac; B,2HCl, *in* P-00046
 146-54-3 ▶ Fluopromazine, F-00010
 146-56-5 ▶ Fluphenazine hydrochloride, *in* F-00034
 146-68-9 ▶ INT, *in* I-00048
 147-14-8 ▶ [29*H*,31*H*-[Phthalocyaninato(2-)]-*N*²⁹,*N*³⁰,*N*³¹,*N*³²]copper(II), P-00230
 147-24-0 ▶ Diphenhydramine hydrochloride, *in* D-00998
 147-71-7 ▶ *D*-Threonic acid, *in* T-00002
 147-73-9 ▶ Racemic acid, *in* T-00002
 147-84-2 ▶ Diethyldithiocarbamic acid, D-00344
 147-85-3 ▶ Proline; (*S*)-*form*, *in* P-00257
 147-93-3 ▶ 2-Mercaptobenzoic acid, M-00023
 148-24-3 ▶ 8-Hydroxyquinoline, H-00525
 148-25-4 ▶ Chromotropic acid, C-00294
 148-75-4 ▶ 3-Hydroxy-2,7-naphthalenedisulfonic acid, H-00342
 148-86-7 ▶ 4-Biphenylol; Ac, *in* B-00211
 148-97-0 ▶ 1-Hydroxy-2-phenyldiazene 2-oxide, H-00471
 149-44-0 ▶ Rongalite, *in* H-00262
 149-45-1 ▶ Tiron, T-00186
 149-91-7 ▶ 3,4,5-Trihydroxybenzoic acid, T-00277
 150-05-0 ▶ Adrenaline; (*S*)-*form*, *in* A-00066
 150-11-8 ▶ *N*-Dibutyldithiocarbamic acid, D-00232
 150-13-0 ▶ 4-Aminobenzoic acid, A-00105
 150-19-6 ▶ *m*-Methoxyphenol, *in* B-00021
 150-25-4 ▶ [Bis(2-hydroxyethyl)amino]acetic acid, B-00367
 150-38-9 ▶ Edetate trisodium, *in* E-00078
 150-39-0 ▶ *N*-(2-Hydroxyethyl)ethylenediaminetriacetic acid, H-00177
 150-60-7 ▶ Dibenzyl disulfide, D-00168
 150-61-8 ▶ *N,N'*-Diphenyl-1,2-ethanediamine, D-01011
 150-75-4 ▶ 4-Aminophenol; *N*-Me, *in* A-00302
 150-76-5 ▶ 4-Methoxyphenol, *in* B-00022
 151-01-9 ▶ Xanthic acid, X-00002
 151-41-7 ▶ 1-Dodecyl sulfate, D-01155
 152-74-9 ▶ Rose bengal, *see* R-00010
 152-84-1 ▶ Ruberythric acid, *in* D-00510
 153-18-4 ▶ Rutin, R-00014
 153-76-4 ▶ Gallamine, G-00002
 153-78-6 ▶ 2-Aminofluorene, A-00178
 156-06-9 ▶ 2-Oxo-3-phenylpropanoic acid, O-00068
 156-10-5 ▶ 4-Nitrosodiphenylamine, N-00157
 156-34-3 ▶ Levamphetamine, *in* P-00172
 156-43-4 ▶ 4-Ethoxyaniline, E-00051
 156-57-0 ▶ 2-Aminoethanethiol; B,HCl, *in* A-00170
 176-32-9 ▶ 1,4-Dioxaspiro[4.4]nonane, *in* C-00364
 254-79-5 ▶ 1,5-Naphthyridine, N-00056
 260-94-6 ▶ Acridine, A-00062
 262-05-5 ▶ 10*H*-Phenosenelenazine, P-00072
 269-12-5 ▶ 1*H*-Naphtho[2,3-*d*]triazole, N-00039
 269-20-5 ▶ Naphtho[2,3-*c*][1,2,5]selenadiazole, N-00038
 275-51-4 ▶ Azulene, A-00481
 288-32-4 ▶ 1*H*-Imidazole, I-00001
 288-88-0 ▶ 1,2,4-Triazole, T-00199
 290-37-9 ▶ Pyrazine, P-00283
 294-93-9 ▶ 1,4,7,10-Tetraoxacyclododecane, T-00113
 296-35-5 ▶ 1,4,7,10,13,16-Hexaazacyclododecane, H-00019
 296-39-9 ▶ 1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane, T-00118
 296-41-3 ▶ 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
 298-06-6 ▶ *O,O*-Diethyl phosphorodithioate, D-00356
 298-07-7 ▶ Bis(2-ethylhexyl) phosphate, B-00352
 298-12-4 ▶ Glyoxylic acid, G-00038
 298-83-9 ▶ Nitro TB, *in* N-00164
 298-93-1 ▶ 2-(4,5-Dimethyl-2-thiazolyl)-3,5-diphenyl-2*H*-tetrazolium(1+), D-00924
 298-95-3 ▶ Neotetrazolium(2+); Dichloride, *in* N-00063
 298-96-4 ▶ TTC, *in* T-00379
 299-28-5 ▶ Gluconic acid, *see* G-00011
 299-39-8 ▶ Sparite sulfate, *in* S-00023
 299-42-3 ▶ Ephedrine, *in* M-00122
 300-42-5 ▶ 1-Phenyl-2-propylamine; (\pm)-*form*, *N*-Me; B,HCl, *in* P-00172
 300-62-9 ▶ 1-Phenyl-2-propylamine; (\pm)-*form*, *in* P-00172
 302-01-2 ▶ Hydrazine, H-00079
 302-72-7 ▶ Alanine; (\pm)-*form*, *in* A-00074
 303-07-1 ▶ 2,6-Dihydroxybenzoic acid, D-00533
 303-21-9 ▶ 6-Isopropyl-3-methyl-2,4-dinitrophenol, I-00073
 303-45-7 ▶ Gossypol, G-00041
 304-20-1 ▶ Hydralazine hydrochloride, *in* H-00086
 304-55-2 ▶ Succimer, *in* D-00751
 304-88-1 ▶ *N*-Benzoyl-*N*-phenylhydroxylamine, *in* P-00135
 304-91-6 ▶ 2-Iodosylbenzoic acid, I-00053
 305-01-1 ▶ 6,7-Dihydroxy-2*H*-1-benzopyran-2-one, D-00538
 305-80-6 ▶ 4-Diazobenzenesulfonic acid, D-00142
 306-03-6 ▶ Hyoscyamine hydrobromide, *in* T-00431
 306-08-1 ▶ 4-Hydroxy-3-methoxyphenylacetic acid, *in* D-00687
 306-44-5 ▶ Isonitrosoacetone, *in* P-00446
 310-24-7 ▶ Triethylphenylammonium(1+), T-00234
 314-13-6 ▶ Azovan blue, A-00479
 316-05-2 ▶ Quinacrine soluble, *in* Q-00003
 319-89-1 ▶ Tetrahydroxy-1,4-benzoquinone, T-00072
 321-97-1 ▶ 2-Methylamino-1-phenyl-1-propanol; (1*R*,2*R*)-*form*, *in* M-00122
 321-98-2 ▶ 2-Methylamino-1-phenyl-1-propanol; (1*S*,2*R*)-*form*, *in* M-00122
 322-23-6 ▶ Diphenyliodonium(1+); Fluoride, *in* D-01028
 323-87-5 ▶ 4-Hydroxy-3-biphenylcarboxylic acid, H-00132
 325-12-2 ▶ 2-Naphthalenesulfonic acid; Fluoride, *in* N-00015
 326-06-7 ▶ 4,4,4-Trifluoro-1-phenyl-1,3-butanedione, T-00260
 326-90-9 ▶ 4,4,4-Trifluoro-1,2-furanyl-1,3-butanedione, T-00248
 326-91-0 ▶ 4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione, T-00264
 329-01-1 ▶ 1-Isocyanato-3-(trifluoromethyl)benzene, I-00066
 329-15-7 ▶ 4-(Trifluoromethyl)benzoic acid; Chloride, *in* T-00253
 329-65-7 ▶ Racepinefrine, *in* A-00066
 329-71-5 ▶ 2,5-Dinitrophenol, D-00959
 329-89-5 ▶ 6-Aminocotinamide, *in* A-00334
 330-13-2 ▶ Mono(4-nitrophenyl) phosphate, M-00340
 331-39-5 ▶ 3-(3,4-Dihydroxyphenyl)-2-propenoic acid, D-00716
 333-18-6 ▶ Ethanediamine; B,2HCl, *in* E-00024
 334-48-5 ▶ Decanoic acid, D-00025
 335-42-2 ▶ Heptafluorobutanoic acid; Fluoride, *in* H-00004
 335-60-4 ▶ Pentadecafluorooctanal, P-00007
 335-64-8 ▶ Pentadecafluorooctanoic acid; Chloride, *in* P-00008
 335-66-0 ▶ Pentadecafluorooctanoic acid; Fluoride, *in* P-00008
 335-67-1 ▶ Pentadecafluorooctanoic acid, P-00008
 335-95-5 ▶ Pentadecafluorooctanoic acid; Na salt, *in* P-00008
 336-59-4 ▶ Heptafluorobutanoic acid; Anhydride, *in* H-00004
 338-69-2 ▶ Alanine; (*R*)-*form*, *in* A-00074
 341-70-8 ▶ Diethazine; B,HCl, *in* D-00312
 344-03-6 ▶ 1,4-Dibromo-2,3,5,6-tetrafluorobenzene, D-00216
 344-25-2 ▶ Proline; (*R*)-*form*, *in* P-00257
 345-12-0 ▶ 2,4-Dinitrobenzenediazonium(1+); Tetrafluoroborate(1-), *in* D-00938
 345-78-8 ▶ Pseudoephedrine hydrochloride, *in* M-00122
 354-24-5 ▶ Chlorodifluoroacetic acid; Chloride, *in* C-00092
 354-28-9 ▶ Chlorodifluoroacetic acid; Amide, *in* C-00092
 354-38-1 ▶ Trifluoroacetamide, *in* T-00239
 354-76-7 ▶ Pentafluoropropanoic acid; Amide, *in* P-00021
 356-24-1 ▶ Heptafluorobutanoic acid; Me ester, *in* H-00004
 356-27-4 ▶ Heptafluorobutanoic acid; Et ester, *in* H-00004
 356-42-3 ▶ Pentafluoropropanoic acid; Anhydride, *in* P-00021
 357-57-3 ▶ Brucine, B-00584
 359-48-8 ▶ Trifluoroacetic acid, T-00258
 366-13-2 ▶ Neutral red, N-00065
 366-18-7 ▶ 2,2'-Bipyridine, B-00220
 366-29-0 ▶ *N,N,N',N'*-Tetramethylbenzidine, *in* D-00053
 367-57-7 ▶ 1,1,1-Trifluoro-2,4-pentanedione, T-00257
 367-62-4 ▶ *N*-(Trifluoroacetyl)glycine; Et ester, *in* T-00240
 367-81-7 ▶ 5-Fluoro-2,4-dinitroaniline, F-00026
 367-86-2 ▶ 1-Fluoro-2-nitro-4-(trifluoromethyl)benzene, F-00032
 370-81-0 ▶ Cuprizone, C-00321
 372-09-8 ▶ Cyanoacetic acid, C-00324
 375-00-8 ▶ Heptafluorobutanoic acid; Nitrile, *in* H-00004
 375-16-6 ▶ Heptafluorobutanoic acid; Chloride, *in* H-00004
 375-22-4 ▶ Heptafluorobutanoic acid, H-00004
 376-19-2 ▶ 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Amide, *in* H-00022

- 376-27-2 Pentadecafluorooctanoic acid; Me ester, *in* P-00008
- 378-75-6 Pentafluoropropanoic acid; Me ester, *in* P-00021
- 383-62-0 Chlorodifluoroacetic acid; Et ester, *in* C-00092
- 383-63-1 Trifluoroacetic acid; Et ester, *in* T-00239
- 383-69-7 [(Trifluoroacetyl)amino]acetyl chloride, *in* T-00240
- 383-70-0 *N*-(Trifluoroacetyl)glycine, T-00240
- 387-97-3 5-Fluoro-8-hydroxyquinoline, F-00029
- 388-51-2 ▶ Perphenazine trimethoxybenzoate, *in* P-00046
- 392-56-3 ▶ Hexafluorobenzene, H-00031
- 393-75-9 ▶ 2-Chloro-1,3-dinitro-5-(trifluoromethyl)benzene, C-00108
- 399-80-4 1-Benzo[*b*]thien-2-yl-4,4,4-trifluoro-1,3-butanedione, B-00109
- 400-52-2 Trifluoroacetic acid; *tert*-Butyl ester, *in* T-00239
- 403-33-8 4-Fluorobenzoic acid; Me ester, *in* F-00024
- 403-43-0 ▶ 4-Fluorobenzoic acid; Chloride, *in* F-00024
- 404-24-0 2,2,2-Trifluoro-*N*-phenylacetamide, T-00259
- 407-24-9 Bis(trifluoroacetamide), B-00461
- 407-25-0 ▶ Trifluoroacetic acid; Anhydride, *in* T-00239
- 420-37-1 Trimethylxonium tetrafluoroborate, *in* T-00329
- 421-05-6 Chlorocyanodifluoromethane, *in* C-00092
- 422-04-8 Pentafluoropropanoic acid; Nitrile, *in* P-00021
- 422-05-9 ▶ 2,2,3,3,3-Pentafluoro-1-propanol, P-00022
- 422-59-3 Pentafluoropropanoic acid; Chloride, *in* P-00021
- 422-64-0 ▶ Pentafluoropropanoic acid, P-00021
- 423-54-1 Pentadecafluorooctanoic acid; Amide, *in* P-00008
- 423-95-0 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Chloride, *in* H-00022
- 426-65-3 Pentafluoropropanoic acid; Et ester, *in* P-00021
- 426-80-2 Tetraphenylstibonium(1+); Tetrafluoroborate, *in* T-00122
- 429-41-4 Tetrabutylammonium(1+); Fluoride, *in* T-00023
- 431-03-8 ▶ 2,3-Butanedione, B-00587
- 431-47-0 Trifluoroacetic acid; Me ester, *in* T-00239
- 434-84-4 [9,9-Bianthracene]-10,10'(9*H*,9'*H*)-dione, *in* B-00201
- 437-64-9 4',5'-Dihydroxy-7-methoxyflavone, D-00640
- 438-60-8 ▶ Protriptyline, P-00280
- 440-17-5 ▶ Trifluoperazine hydrochloride, *in* T-00238
- 440-60-8 2,3,4,5,6-Pentafluorobenzyl alcohol, P-00014
- 441-38-3 Benzoin, *see* B-00068
- 442-16-0 3,9-Diamino-7-ethoxyacridine, D-00094
- 442-51-3 ▶ 7-Methoxy-1-methyl- β -carboline, M-00090
- 448-65-7 Deuteroporphyrin IX, D-00030
- 448-70-4 Aetioporphyrin II, A-00067
- 451-46-7 4-Fluorobenzoic acid; Et ester, *in* F-00024
- 452-58-4 ▶ 2,3-Diaminopyridine, D-00118
- 454-92-2 3-(Trifluoromethyl)benzoic acid, T-00252
- 455-16-3 ▶ 4-Methylbenzenesulfonic acid; Fluoride, *in* M-00130
- 455-24-3 4-(Trifluoromethyl)benzoic acid, T-00253
- 456-22-4 4-Fluorobenzoic acid, F-00024
- 456-27-9 4-Nitrobenzenediazonium(1+); Tetrafluoroborate, *in* N-00084
- 457-87-4 ▶ Etilamfetamine, *in* P-00172
- 458-37-7 Curcumin, C-00323
- 462-95-3 ▶ Diethoxymethane, *in* F-00035
- 464-07-3 3,3-Dimethyl-2-butanol, D-00844
- 467-25-4 3,3-Bis(4-hydroxy-3-methoxyphenyl)-1(3*H*)-isobenzofuranone, B-00379
- 471-46-5 ▶ Oxamide, *in* O-00048
- 473-29-0 Dichloramine B, *in* B-00026
- 473-34-7 *N,N*-Dichloro-4-methylbenzenesulfonamide, D-00285
- 474-07-7 Brazilin, B-00475
- 475-25-2 ▶ Haematein, H-00001
- 476-41-5 1,3,4-Trihydroxyanthraquinone-2-carboxylic acid, T-00272
- 476-60-8 1,4,9,10-Anthracenetetrol, A-00381
- 477-27-0 ▶ Colchicine; (*S*)-form, *in* C-00300
- 477-73-6 ▶ 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+); Chloride, *in* D-00084
- 479-45-8 ▶ *N*-Methyl-*N*,2,4,6-tetranitroaniline, M-00312
- 480-12-6 5-Hydroxy-7-methoxy-2,6-dimethyl-4*H*-1-benzopyran-4-one, *in* D-00575
- 480-15-9 2',3,5,7-Tetrahydroxyflavone, T-00074
- 480-16-0 ▶ 2',3',4',5',7-Pentahydroxyflavone, P-00024
- 480-18-2 ▶ 3',4',5',7-Pentahydroxyflavanone, P-00023
- 480-29-5 Beryllon II, B-00199
- 480-34-2 5-Hydroxy-7-methoxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00645
- 480-40-0 5,7-Dihydroxyflavone, D-00612
- 480-41-1 4',5,7-Trihydroxyflavanone; (*S*)-form, *in* T-00281
- 480-44-4 ▶ 5,7-Dihydroxy-4'-methoxyflavone, D-00641
- 480-68-2 ▶ 5-Nitro-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione, N-00153
- 482-05-3 2,2'-Biphenyldicarboxylic acid, B-00207
- 482-54-2 ▶ 1,2-Diaminocyclohexane-*N,N,N'*-tetraacetic acid, D-00065
- 482-82-6 6,7-Dihydroxy-4-phenylcoumarin, D-00708
- 483-20-5 Indigotinidulfonic acid, I-00029
- 483-55-6 ▶ 2-Hydroxy-3-methyl-1,4-naphthoquinone, H-00292
- 483-71-6 Phenylazoxine S, P-00101
- 483-89-6 Nornarceine, *in* N-00059
- 484-11-7 2,9-Dimethyl-1,10-phenanthroline, D-00880
- 484-23-1 ▶ Dihydralazine, D-00370
- 484-47-9 ▶ 2,4,5-Triphenylimidazole, T-00367
- 485-47-2 ▶ Ninhydrin, N-00071
- 485-65-4 Hydrocinchonine, *in* C-00298
- 486-25-9 ▶ 9*H*-Fluoren-9-one, F-00015
- 486-35-1 7,8-Dihydroxy-2*H*-1-benzopyran-2-one, D-00539
- 487-88-7 Nitron, N-00114
- 488-47-1 ▶ Tetrabromo-1,2-benzenediol, T-00012
- 488-86-8 4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571
- 490-31-3 ▶ 3,3',4',5',7-Pentahydroxyflavone, P-00026
- 490-78-8 ▶ 2',5'-Dihydroxyacetophenone, D-00508
- 490-79-9 ▶ 2,5-Dihydroxybenzoic acid, D-00532
- 491-33-8 8-Quinolinethiol, Q-00021
- 491-38-3 ▶ 4*H*-1-Benzopyran-4-one, B-00072
- 491-48-5 5,7-Dihydroxy-2,6-dimethyl-4*H*-1-benzopyran-4-one, D-00575
- 491-50-9 Quercimeritrin, Q-00001
- 491-70-3 ▶ 3',4',5',7-Tetrahydroxyflavone, T-00077
- 491-78-1 5-Hydroxyflavone, H-00184
- 492-08-0 ▶ Pachycarpine, *in* S-00023
- 492-37-5 2-Phenylpropanoic acid, P-00167
- 492-73-9 Di-2-pyridinylethanedione, D-01063
- 492-80-8 ▶ Auramine, A-00456
- 492-86-4 2-(4-Chlorophenyl)-2-hydroxyacetic acid, C-00222
- 492-94-4 ▶ Di(2-furyl)ethanedione, D-00364
- 492-99-9 Nioxime, *in* C-00337
- 493-33-4 4'-Hydroxy-2'-methoxyacetophenone, *in* D-00507
- 493-42-5 7-Amino-1-methyl-3*H*-phenoxazin-3-one, A-00247
- 493-52-7 ▶ Methyl red, M-00309
- 494-38-2 ▶ 3,6-Bis(dimethylamino)acridine, B-00313
- 494-52-0 ▶ Anabasine, *in* P-00244
- 494-77-9 Chromocitromin BH, C-00285
- 495-18-1 ▶ *N*-Hydroxybenzamide, H-00109
- 495-69-2 ▶ Hippuric acid, H-00078
- 495-79-4 Coumarinic acid, *in* H-00500
- 495-84-1 Salinazid, S-00003
- 496-72-0 ▶ 1,2-Diamino-4-methylbenzene, D-00101
- 496-74-2 ▶ 4-Methyl-1,2-benzenedithiol, M-00129
- 497-16-5 2-Oxopropanedial, O-00070
- 497-59-6 3-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic acid, H-00435
- 498-60-2 3-Furancarboxaldehyde, F-00043
- 499-12-7 ▶ Aconitic acid, A-00061
- 499-27-4 4-Methoxybenzyl glucosinolate, *in* H-00128
- 499-78-5 5-Hydroxy-4-oxo-4*H*-pyran-2-carboxylic acid, H-00434
- 499-83-2 2,6-Pyridinedicarboxylic acid, P-00353
- 500-22-1 3-Pyridinecarboxaldehyde, P-00319
- 500-73-2 Phenyl trifluoroacetate, *in* T-00239
- 500-85-6 Indophenol, I-00034
- 501-16-6 ▶ Caffeic acid, *in* D-00716
- 501-30-4 ▶ 5-Hydroxy-2-(hydroxymethyl)-4*H*-pyran-4-one, H-00222
- 501-58-6 4,4'-Dimethoxyazobenzene, *in* D-00516
- 501-97-3 3-(4-Hydroxyphenyl)propanoic acid, H-00497
- 502-42-1 ▶ Cycloheptanone, C-00334
- 503-81-1 Dicarboxic acid, D-00243
- 504-02-9 ▶ 1,3-Cyclohexanedione, C-00338
- 504-15-4 ▶ 5-Methyl-1,3-benzenediol, M-00128
- 504-17-6 ▶ Dihydro-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00492
- 504-29-0 ▶ 2-Aminopyridine, A-00333
- 504-90-5 ▶ Thioperoxydicarbonic diamide, T-00166
- 505-10-2 3-Methylthio-1-propanol, *in* M-00053
- 505-29-3 1,4-Dithiane, D-01111
- 506-12-7 ▶ Heptadecanoic acid, H-00003
- 507-09-5 ▶ Ethanethioic acid, E-00038
- 507-27-7 Tetraphenylarsonium(1+); Bromide, *in* T-00119
- 507-28-8 ▶ Tetraphenylarsonium(1+); Chloride, *in* T-00119
- 509-14-8 ▶ Tetranitromethane, T-00108
- 511-34-2 Digitogenin, *in* S-00024
- 512-35-6 Benzenesulfonic acid; Anhydride, *in* B-00026
- 513-85-9 ▶ 2,3-Butanediol, B-00586
- 515-42-4 ▶ Benzenesulfonic acid; Na salt, *in* B-00026
- 515-46-8 Benzenesulfonic acid; Et ester, *in* B-00026
- 515-84-4 Ethyl trichloroacetate, *in* T-00218
- 515-96-8 ▶ Aminoxxoacetic acid hydrazide, A-00291
- 517-28-2 ▶ Haematoxylin; (+)-form, *in* H-00002
- 517-75-9 Galiosin, *in* T-00272
- 518-44-5 Fluorescin, F-00022
- 518-47-8 ▶ Fluorescein sodium, *in* F-00020
- 519-44-8 ▶ 2,4-Dinitro-1,3-benzenediol, D-00940
- 519-87-9 ▶ *N*-Diphenylacetamide, *in* D-01000
- 520-07-0 ▶ Antipyrine salicylate, *in* D-00392
- 520-10-5 Arsenazo I; Tri-Na salt, *in* A-00410

- 520-13-8 3,5,7-Trihydroxy-2'-methoxyflavone, *in* T-00074
- 520-14-9 Cannabiscitrin, *in* H-00055
- 520-18-3 ▶ 3,4',5,7-Tetrahydroxyflavone, T-00076
- 520-27-4 Diosmin, *in* T-00297
- 520-28-5 5-Hydroxy-7-methoxyflavone, *in* D-00612
- 520-33-2 3',5,7-Trihydroxy-4'-methoxyflavanone; (*S*)-form, *in* T-00296
- 520-34-3 3',5,7-Trihydroxy-4'-methoxyflavone, T-00297
- 520-36-5 ▶ 4',5,7-Trihydroxyflavone, T-00285
- 520-45-6 3-Acetyl-4-hydroxy-6-methyl-2H-pyran-2-one, *see* A-00019
- 521-24-4 ▶ 1,2-Naphthoquinone-4-sulfonic acid; Na salt, *in* N-00033
- 521-31-3 Luminol, L-00014
- 521-74-4 ▶ 5,7-Dibromo-8-hydroxyquinoline, D-00193
- 522-00-9 ▶ Ethiopropazine, E-00050
- 522-23-6 ▶ Perphenazine; 3,4,5-Trimethoxybenzoyl, difumarate, *in* P-00046
- 522-27-0 ▶ α -Furildioxime, *in* D-00364
- 522-34-9 (*E,E*)-Diphenylglyoxime, *in* B-00038
- 523-21-7 5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone; Di-Na salt, *in* D-00570
- 523-44-4 ▶ C.I. Acid orange 20, *in* O-00043
- 523-54-6 Etymemazine, E-00123
- 523-67-1 Xylidine blue II, X-00007
- 523-87-5 ▶ Diphenhydramine teoclate, *in* D-00998
- 524-34-5 Allylcinchophen, *in* P-00189
- 524-36-7 ▶ Pyridoxamine; B,2HCl, *in* P-00417
- 524-42-5 ▶ 1,2-Naphthoquinone, N-00031
- 524-96-9 *N*-[Bis(4-methoxyphenyl)methylene]benzenemethanamine, B-00402
- 525-05-3 ▶ Nitroso R salt, *in* H-00414
- 525-52-0 1,2,3-Benzenetriol; Tri-Ac, *in* B-00034
- 525-64-4 ▶ 2,7-Diaminofluorene, D-00097
- 526-36-3 ▶ Xylometazoline, X-00008
- 526-84-1 Dihydroxymaleic acid, *in* D-00567
- 526-94-3 L-Threarcic acid; Mono-Na salt, *in* T-00002
- 526-95-4 Gluconic acid; D-form, *in* G-00011
- 526-99-8 ▶ Galactaric acid, G-00001
- 527-21-9 Tetrafluoro-1,4-benzoquinone, T-00047
- 527-89-9 2-Hydroxydithiobenzoic acid, H-00175
- 528-21-2 ▶ 2',3',4'-Trihydroxyacetophenone, T-00269
- 528-29-0 ▶ 1,2-Dinitrobenzene, D-00935
- 528-44-9 ▶ 1,2,4-Benzenetricarboxylic acid, B-00032
- 528-45-0 3,4-Dinitrobenzoic acid, D-00947
- 528-48-3 ▶ 3,3',4',7-Tetrahydroxyflavone, T-00075
- 528-76-7 ▶ 2,4-Dinitrobenzenesulfonyl chloride, D-00943
- 528-79-0 2-Isopropyl-5-methylphenol; Ac, *in* I-00075
- 528-96-1 4-Amino-2-hydroxybenzoic acid, *see* A-00184
- 529-23-7 2-Aminobenzaldehyde, A-00096
- 529-44-2 ▶ 3,3',4',5,5',7-Hexahydroxyflavone, H-00055
- 529-68-0 2-Acetoxybenzoic acid; Et ester, *in* A-00010
- 529-84-0 6,7-Dihydroxy-4-methyl-2H-1-benzopyran-2-one, D-00647
- 530-14-3 Piceoside, *in* H-00090
- 530-48-3 ▶ 1,1-Diphenylethylene, D-01016
- 530-50-7 1,1-Diphenylhydrazine, D-01020
- 530-64-3 Quinoline; B,HCl, *in* Q-00007
- 530-97-2 Heptoxime, *in* C-00333
- 531-37-3 2-Methoxyphenol; Benzoyl, *in* M-00102
- 531-53-3 ▶ Azure A, *in* L-00003
- 531-55-5 ▶ Azure B, *in* L-00003
- 531-57-7 ▶ Azure C, *in* L-00003
- 531-67-9 2,2'-Bipiperidine, B-00217
- 531-85-1 ▶ 4,4'-Diaminobiphenyl; B,2HCl, *in* D-00053
- 531-91-9 4,4'-Dianilinobiphenyl, *in* D-00053
- 532-27-4 ▶ 2-Chloroacetophenone, C-00055
- 532-43-4 Thiamine mononitrate, *in* T-00135
- 532-54-7 ▶ Isonitrosoacetophenone, *in* P-00132
- 532-90-1 Monophosphothiamine chloride, *in* T-00135
- 533-17-5 *o*-Chloroacetanilide, *in* C-00058
- 533-73-3 ▶ 1,2,4-Benzenetriol, B-00035
- 533-75-5 ▶ Tropolone, T-00432
- 534-25-8 3H-1,2-Dithiole-3-thione, D-01133
- 534-85-0 2-Aminodiphenylamine, A-00165
- 535-87-5 ▶ 3,5-Diaminobenzoic acid, D-00051
- 536-08-3 Digallic acid, D-00365
- 536-17-4 ▶ 5-[[4-(Dimethylamino)phenyl]ethylene]-2-thioxo-4-thiazolidinone, D-00813
- 536-33-4 ▶ 2-Ethyl-4-pyridinecarbothioamide, E-00107
- 536-40-3 4-Chlorobenzoic acid; Hydrazide, *in* C-00067
- 536-74-3 ▶ Phenylacetylene, P-00077
- 537-20-2 4-Amino-2-hydroxybenzoic acid, *see* A-00184
- 537-45-1 ▶ 2,6-Dibromo-4-(chloroimino)-2,5-cyclohexadien-1-one, D-00180
- 537-47-3 4-Phenylsemicarbazide, P-00193
- 537-65-5 4,4'-Diaminodiphenylamine, D-00086
- 537-73-5 3-(3-Hydroxy-4-methoxyphenyl)-2-propenoic acid, *in* D-00716
- 538-28-3 S-Benzylthiuronium chloride, *in* B-00193
- 538-62-5 Diphenylcarbazone, D-01005
- 538-74-9 Dibenzyl sulfide, D-00171
- 538-75-0 ▶ Dicyclohexylcarbodiimide, D-00309
- 539-03-7 *p*-Chloroacetanilide, *in* C-00060
- 539-97-9 1,6-Diallyl-2,5-dithiobiurea, D-00040
- 540-23-8 4-Methylaniline; B,HCl, *in* M-00124
- 540-63-6 1,2-Ethanedithiol, E-00028
- 541-16-2 Propanedioic acid; Di-*tert*-butyl ester, *in* P-00261
- 541-35-5 Butyramide, *in* B-00604
- 541-41-3 ▶ Ethyl chloroformate, E-00068
- 541-53-7 ▶ Thioimidodicarbonic diamide, T-00163
- 541-59-3 ▶ 1H-Pyrrole-2,5-dione, P-00439
- 542-52-9 Dibutyl carbonate, D-00229
- 542-69-8 ▶ 1-Iodobutane, I-00042
- 543-27-1 Isobutyl chloroformate, I-00057
- 543-67-9 ▶ Propyl nitrite, *in* P-00265
- 544-16-1 ▶ Butyl nitrite, B-00633
- 545-06-2 ▶ Trichloroacetone, *in* T-00218
- 547-57-9 4-[(2,4-Dihydroxyphenyl)azo]benzenesulfonic acid; Na salt, *in* D-00688
- 547-58-0 ▶ Methyl orange; Na salt, *in* M-00210
- 547-91-1 ▶ 8-Hydroxy-7-iodo-5-quinolinesulfonic acid, H-00255
- 548-62-9 ▶ Crystal violet; Chloride, *in* C-00320
- 548-80-1 Chromotrope 2B; Di-Na salt, *in* C-00290
- 548-83-4 ▶ 3,5,7-Trihydroxyflavone, T-00284
- 550-24-3 ▶ 2,5-Dihydroxy-3-undecyl-1,4-benzoquinone, D-00740
- 550-44-7 Phthalimide; *N*-Me, *in* P-00223
- 550-74-3 ▶ Picrolonic acid, P-00235
- 550-82-3 ▶ Resazurin, *in* H-00443
- 552-16-9 ▶ 2-Nitrobenzoic acid, N-00091
- 552-30-7 ▶ 1,3-Dihydro-1,3-dioxo-5-isobenzofuran-2-carboxylic acid, *in* B-00032
- 552-41-0 ▶ 2'-Hydroxy-4'-methoxyacetophenone, *in* D-00507
- 552-86-3 ▶ Furoin, F-00065
- 552-89-6 ▶ 2-Nitrobenzaldehyde, N-00081
- 553-24-2 Neutral red; B,HCl, *in* N-00065
- 553-26-4 ▶ 4,4'-Bipyridine, B-00222
- 553-30-0 ▶ 3,6-Diaminoacridine; B,H₂SO₄, *in* D-00042
- 553-53-7 ▶ 3-Pyridinecarboxylic acid; Hydrazide, *in* P-00343
- 553-90-2 Dimethyl oxalate, *in* O-00048
- 554-68-7 Triethylamine; B,HCl, *in* T-00231
- 554-73-4 4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084
- 554-84-7 ▶ 3-Nitrophenol, N-00118
- 554-95-0 1,3,5-Benzenetricarboxylic acid, B-00033
- 554-99-4 ▶ *N*-Methyladrenaline, *in* A-00066
- 555-03-3 ▶ 1-Methoxy-3-nitrobenzene, *in* N-00118
- 555-16-8 ▶ 4-Nitrobenzaldehyde, N-00082
- 555-21-5 ▶ 1-(Cyanomethyl)-4-nitrobenzene, *in* N-00120
- 555-30-6 2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid; (*S*)-form, *in* A-00158
- 555-90-8 ▶ 2-(3-Pyridinylmethylene)hydrazinecarbothioamide, *in* P-00319
- 556-02-5 Tyrosine; (*R*)-form, *in* T-00435
- 556-03-6 Tyrosine, T-00435
- 556-18-3 ▶ 4-Aminobenzaldehyde, A-00097
- 556-21-8 4-Aminobenzaldehyde; *N*-Me, *in* A-00097
- 556-61-6 ▶ Methyl isothiocyanate, M-00196
- 557-30-2 ▶ Glyoxime, G-00037
- 561-20-6 Catotheline, C-00005
- 562-17-4 ▶ Tetraethylphosphorodiamidic acid; Fluoride, *in* T-00046
- 562-66-3 α -Terentsallic acid, *in* T-00004
- 565-80-0 ▶ 2,4-Dimethyl-3-pentanone, D-00879
- 567-18-0 1-Hydroxy-2-naphthalenesulfonic acid, H-00344
- 567-19-1 γ -Saccharin chloride, *in* C-00062
- 568-02-5 5,6-Dihydroxynaphtho[2,3-*f*]quinoline-7,12-dione, D-00661
- 568-93-4 Alizarin orange, A-00080
- 569-42-6 1,8-Naphthalenediol, N-00009
- 569-51-7 1,2,3-Benzenetricarboxylic acid, B-00031
- 569-58-4 ▶ Aluminum, *in* A-00458
- 569-60-8 Benzaurin, B-00012
- 569-64-2 ▶ Malachite green, M-00006
- 569-77-7 ▶ Purpurogallin, P-00282
- 569-84-6 Antipyrine acetylsalicylate, *in* D-00392
- 572-45-2 (*Z,Z*)-Diphenylglyoxime, *in* B-00038
- 572-82-7 2,2'-Iminodianthranquinone, I-00012
- 573-56-8 ▶ 2,6-Dinitrophenol, D-00960
- 573-58-0 ▶ Congo red; Di-Na salt, *in* C-00301
- 573-89-7 4-[(2-Hydroxy-1-naphthalenyl)azo]benzenesulfonic acid, H-00348
- 574-00-5 ▶ 1,2-Naphthalenediol, N-00007
- 574-13-0 Cupron, *in* B-00068
- 574-15-2 Diphenylethanedione monoxime, *in* B-00038
- 574-16-3 Benzil; (*Z*)-Monoxime, *in* B-00038
- 574-17-4 ▶ Isatin; *N*-Ac, *in* I-00056
- 574-19-6 1-Acetyl-2-naphthol, A-00025
- 574-61-8 Benzophenone; Phenylhydrazone, *in* B-00069
- 574-64-1 Trypan red; Penta-Na salt, *in* T-00434
- 574-66-3 ▶ Benzophenone; Oxime, *in* B-00069
- 575-36-0 *N*-1-Naphthylacetamide, *in* N-00041
- 576-15-8 Indole; *N*-Ac, *in* I-00033
- 576-26-1 ▶ 2,6-Dimethylphenol, D-00885
- 576-28-3 2,3-Dihydro-2-thioxo-4(1H)-pyrimidinone; *NH*-form, 3-Me, *in* D-00494
- 577-48-0 4-Aminobenzoic acid, *see* A-00105
- 577-71-9 ▶ 3,4-Dinitrophenol, D-00961
- 577-85-5 ▶ 3-Hydroxy-2-phenyl-4H-1-benzopyran-4-one, H-00466
- 578-66-5 ▶ 8-Aminoquinoline, A-00340
- 579-44-2 Benzoin; (\pm)-form, *in* B-00068
- 579-58-8 4-Aminophenol; *N*-Me, Ac, *in* A-00302
- 579-72-6 2-Aminobenzaldehyde; *N,N*-Di-Me, *in* A-00096

- 579-74-8 2'-Methoxyacetophenone, *in* H-00089
- 579-92-0 ▶ 2,2'-Iminodibenzoic acid, I-00013
- 580-02-9 2-Acetoxybenzoic acid; Me ester, *in* A-00010
- 580-35-8 2,4,6-Triphenylpyridine, T-00373
- 581-50-0 ▶ 2,3'-Bipyridine, B-00221
- 581-64-6 ▶ Thionine hydrochloride, *in* L-00003
- 581-97-5 ▶ 2-Naphthylamine; Ac, *in* N-00042
- 582-17-2 ▶ 2,7-Naphthalenediol, N-00011
- 582-33-2 3-Aminobenzoic acid; Et ester, *in* A-00104
- 582-78-5 4-Methylamine; *N*-Benzoyl, *in* M-00124
- 583-11-9 Acetophenone; Phenylhydrazine, *in* A-00008
- 583-17-5 3-(2-Hydroxyphenyl)-2-propenoic acid, H-00500
- 583-46-0 5-Benzyl-2-thioxo-4-imidazolidinone, B-00194
- 583-63-1 ▶ 1,2-Benzoquinone, B-00075
- 584-42-9 Alizarine yellow G; Na salt, *in* A-00082
- 585-84-2 Aconitic acid; (*Z*)-form, *in* A-00061
- 586-75-4 4-Bromobenzoic acid; Chloride, *in* B-00488
- 586-76-5 ▶ 4-Bromobenzoic acid, B-00488
- 586-96-9 Nitrosobenzene, N-00155
- 587-23-5 Hexamethylenamine mandelate, *in* H-00057
- 587-48-4 3-Aminobenzoic acid; *N*-Ac, *in* A-00104
- 587-54-2 3-Aminobenzoic acid; *N*-Benzoyl, *in* A-00104
- 587-98-4 ▶ Acid yellow 2G; Na salt, *in* A-00059
- 588-07-8 ▶ *m*-Chloroacetamide, *in* C-00059
- 588-52-3 4,4'-Dihydroxyazobenzene, *see* D-00516
- 588-64-7 Benzaldehyde; Phenylhydrazine, *in* B-00004
- 589-33-3 Pyrrole; *N*-Butyl, *in* P-00436
- 591-08-2 ▶ *N*-(Aminothioxomethyl)acetamide, *in* T-00175
- 591-27-5 ▶ 3-Aminophenol, A-00301
- 591-87-7 ▶ 2-Propen-1-ol; Ac, *in* P-00271
- 593-56-6 ▶ *O*-Methylhydroxylamine; B,HCl, *in* M-00187
- 593-82-8 ▶ 1,1-Dimethylhydrazine; B,HCl, *in* D-00864
- 594-07-0 ▶ Dithiocarbamic acid, D-01124
- 594-65-0 ▶ 2,2,2-Trichloroacetamide, *in* T-00218
- 595-32-4 (-)-Isocamphoric acid, *in* T-00325
- 596-01-0 3,3-Bis(4-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, B-00380
- 596-03-2 ▶ 4',5'-Dibromofluorescein, D-00188
- 596-09-8 Fluorescein; Lactone-form, Di-Ac, *in* F-00020
- 596-27-0 ▶ *o*-Cresolphthalein, C-00307
- 596-28-1 Phthalein violet, P-00220
- 598-75-4 3-Methyl-2-butanol, M-00148
- 598-98-1 2,2-Dimethylpropanoic acid; Me ester, *in* D-00899
- 598-99-2 ▶ Trichloroacetic acid; Me ester, *in* T-00218
- 599-71-3 ▶ Benzenesulfhydroxamic acid, *in* B-00026
- 600-14-6 ▶ 2,3-Pentanedione, P-00029
- 600-22-6 Pyruvic acid; Me ester, *in* P-00448
- 600-23-7 Oxalic acid; Mono-Me ester, *in* O-00048
- 602-09-5 2,2'-Dihydroxy-1,1'-binaphthyl, D-00544
- 602-65-3 1,2,7-Trihydroxyanthraquinone, T-00271
- 602-92-6 2,6-Dibromo-3,4,5-trihydroxybenzoic acid, D-00220
- 602-94-8 ▶ Pentafluorobenzoic acid, P-00012
- 603-11-2 ▶ 3-Nitro-1,2-benzenedicarboxylic acid, N-00085
- 603-32-7 ▶ Triphenylarsine, T-00363
- 603-35-0 ▶ Triphenylphosphine, T-00370
- 603-45-2 Aurin, A-00457
- 603-62-3 4-Nitro-1*H*-isoindole-1,3(2*H*)-dione, *in* N-00085
- 603-64-5 Antipyrine mandelate, *in* D-00392
- 604-59-1 2-Phenyl-4*H*-naphtho[1,2-*b*]pyran-4-one, P-00150
- 604-68-2 1,2,3,4,6-Penta-*O*-acetylglucopyranose; α -*D*-form, *in* P-00006
- 604-69-3 1,2,3,4,6-Penta-*O*-acetylglucopyranose; β -*D*-form, *in* P-00006
- 605-18-5 Indigo-5-sulfonic acid, I-00027
- 605-65-2 ▶ 5-(Dimethylamino)-1-naphthalenesulfonyl chloride, D-00796
- 605-75-4 ▶ Asterfenazine, *in* T-00238
- 606-23-5 ▶ 1,3-Indanedione, I-00024
- 606-27-9 2-Nitrobenzoic acid; Me ester, *in* N-00091
- 606-35-9 ▶ 2-Methoxy-1,3,5-trinitrobenzene, *in* T-00355
- 607-09-0 7-Hydroxy-1,2-naphthoquinone, H-00373
- 607-28-3 ▶ Isatin; 3-Oxime, *in* I-00056
- 607-42-1 ▶ 1-Anthracenecarboxylic acid, A-00376
- 607-55-6 1-Naphthol; Benzoyl, *in* N-00025
- 607-71-6 ▶ 4-Methyl-2*H*-1-benzopyran-2-one, M-00141
- 607-92-1 2,6-Dimethylaniline; *N*-Formyl, *in* D-00829
- 607-95-4 2,4,6-Tribromophenol; Ac, *in* T-00205
- 607-99-8 1,3,5-Tribromo-2-methoxybenzene, *in* T-00205
- 608-68-4 Dimethyl tartrate, *in* T-00002
- 609-29-0 ▶ Isonitrosopropyl methyl ketone, *in* P-00029
- 609-36-9 Proline; (\pm)-form, *in* P-00257
- 609-38-1 2-Furancarboxamide, *in* F-00050
- 609-41-6 Pyrrole; *N*-Ac, *in* P-00436
- 609-66-5 2-Chlorobenzamide, *in* C-00066
- 609-99-4 2-Hydroxy-3,5-dinitrobenzoic acid, H-00154
- 610-02-6 2,3,4-Trihydroxybenzoic acid, T-00276
- 610-14-0 ▶ 2-Nitrobenzoyl chloride, *in* N-00091
- 610-15-1 ▶ 2-Nitrobenzoic acid; Amide, *in* N-00091
- 610-22-0 4-Nitro-1,2-benzenedicarboxylic acid; Di-Me ester, *in* N-00086
- 610-27-5 4-Nitro-1,2-benzenedicarboxylic acid, N-00086
- 610-31-1 1,2,4-Trinitrobenzene, T-00348
- 610-34-4 2-Nitrobenzoic acid; Et ester, *in* N-00091
- 610-54-8 ▶ 1-Ethoxy-2,4-dinitrobenzene, *in* D-00958
- 610-64-0 2-Nitrobenzaldehyde; Phenylhydrazine, *in* N-00081
- 610-67-3 ▶ 1-Ethoxy-2-nitrobenzene, *in* N-00117
- 610-69-5 2-Nitrophenyl acetate, *in* N-00117
- 610-96-8 2-Chlorobenzoic acid; Me ester, *in* C-00066
- 610-99-1 1-(2-Hydroxyphenyl)-1-propanone, H-00498
- 611-01-8 2,4-Dimethylbenzoic acid, D-00835
- 611-13-2 ▶ 2-Furancarboxylic acid; Me ester, *in* F-00050
- 611-19-8 ▶ 1-Chloro-2-(chloromethyl)benzene, C-00079
- 611-39-2 4,5-Dihydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00733
- 611-71-2 Mandelic acid; (*R*)-form, *in* M-00007
- 611-72-3 Mandelic acid; (\pm)-form, *in* M-00007
- 611-73-4 ▶ α -Oxobenzeneacetic acid, O-00055
- 612-24-8 ▶ 1-Cyano-2-nitrobenzene, *in* N-00091
- 612-31-7 2-Diazoniumbenzenesulfonate, *in* S-00040
- 612-52-2 2-Naphthylamine; B,HCl, *in* N-00042
- 613-03-6 1,2,4-Benzenetriol; Tri-Ac, *in* B-00035
- 613-08-1 ▶ 2-Anthracenecarboxylic acid, A-00377
- 613-11-6 3,7-Bis(dimethylamino)phenothiazine, B-00316
- 613-35-4 ▶ 4,4'-Diaminobiphenyl; 4,4'-Di-*N*-Ac, *in* D-00053
- 613-37-6 ▶ 4-Methoxybiphenyl, *in* B-00211
- 613-45-6 2,4-Dimethoxybenzaldehyde, *in* D-00517
- 613-48-9 4-Methylaniline; *N*-Di-Et, *in* M-00124
- 613-54-7 2-(Bromoacetyl)naphthalene, B-00484
- 613-55-8 2,2'-Dimethoxyazobenzene, *in* D-00514
- 613-70-7 2-Methoxyphenol; Ac, *in* M-00102
- 613-84-3 2-Hydroxy-5-methylbenzaldehyde, H-00277
- 613-90-1 Benzoyl cyanide, *in* O-00055
- 613-94-5 Benzoylhydrazine, *in* B-00059
- 614-17-5 ▶ Benzamide; *N*-Et, *in* B-00008
- 614-20-0 3-Oxo-3-phenylpropanoic acid, O-00069
- 614-23-3 ▶ Benzoylthiourea, B-00161
- 614-27-7 3-Oxo-3-phenylpropanoic acid; Me ester, *in* O-00069
- 614-33-5 Glycerol; Tribenzoyl, *in* G-00015
- 614-60-8 ▶ 3-(2-Hydroxyphenyl)-2-propenoic acid; (*E*)-form, *in* H-00500
- 614-65-3 2-Hydroxybenzaldehyde; Phenylhydrazine, *in* H-00101
- 614-80-2 ▶ 2-Acetamidophenol, *in* A-00300
- 614-99-3 ▶ 2-Furancarboxylic acid; Et ester, *in* F-00050
- 615-08-7 2-Furancarboxylic acid; Anhydride, *in* F-00050
- 615-15-6 ▶ 2-Methylbenzimidazole, M-00134
- 615-21-4 ▶ 2-Hydrazinobenzothiazole, H-00083
- 615-47-4 1,2,4-Triaminobenzene, *see* T-00192
- 615-71-4 ▶ 1,2,4-Triaminobenzene, T-00192
- 615-78-1 2,3-Dihydro-2-thioxo-4(1*H*)-pyrimidinone; *NH*-form, 1-Me, *in* D-00494
- 615-93-0 2,5-Dichloro-1,4-benzoquinone, D-00250
- 615-94-1 2,5-Dihydroxy-1,4-benzoquinone, D-00540
- 616-42-2 ▶ Dimethyl sulfite, D-00917
- 616-45-5 ▶ 2-Pyrrolidinone, P-00443
- 616-47-7 ▶ 1-Methylimidazole, M-00190
- 617-35-6 Pyruvic acid; Et ester, *in* P-00448
- 617-45-8 Aspartic acid; (\pm)-form, *in* A-00447
- 617-52-7 2-Methylenebutanedioic acid; Di-Me ester, *in* M-00176
- 617-90-3 2-Cyanofuran, *in* F-00050
- 618-36-0 1-Phenylethylamine; (\pm)-form, *in* P-00130
- 618-39-3 Benzamidine, B-00009
- 618-40-6 1-Methyl-1-phenylhydrazine, M-00229
- 618-41-7 Benzenesulfonic acid, B-00025
- 618-42-8 ▶ Piperidine; 1-Ac, *in* P-00241
- 618-47-3 *m*-Toluamide, *in* M-00137
- 618-56-4 ▶ 3,5-Diaminobenzoic acid; B,2HCl, *in* D-00051
- 618-71-3 3,5-Dinitrobenzoic acid; Et ester, *in* D-00948
- 618-81-5 5-(2-Furanylmethylene)-2-thioxo-4-thiazolidinone, *see* F-00056
- 618-95-1 3-Nitrobenzoic acid; Me ester, *in* N-00092
- 618-98-4 3-Nitrobenzoic acid; Et ester, *in* N-00092
- 619-05-6 3,4-Diaminobenzoic acid, D-00050
- 619-24-9 ▶ 1-Cyano-3-nitrobenzene, *in* N-00092
- 619-42-1 4-Bromobenzoic acid; Me ester, *in* B-00488

- 619-44-3 4-Iodobenzoic acid; Me ester, *in* I-00041
- 619-45-4 Methyl 4-aminobenzoate, *in* A-00105
- 619-50-1 ▶ 4-Nitrobenzoic acid; Me ester, *in* N-00093
- 619-55-6 4-Methylbenzoic acid; Amide, *in* M-00138
- 619-56-7 4-Chlorobenzamide, *in* C-00067
- 619-58-9 4-Iodobenzoic acid, I-00041
- 619-60-3 ▶ 4-Hydroxydimethylaniline, *in* A-00302
- 619-67-0 4-Hydrazinobenzoic acid, H-00082
- 619-72-7 ▶ 1-Cyano-4-nitrobenzene, *in* N-00093
- 619-73-8 4-Nitrobenzyl alcohol, N-00097
- 619-80-7 4-Nitrobenzoic acid; Amide, *in* N-00093
- 620-02-0 ▶ 5-Methyl-2-furancarboxaldehyde, M-00179
- 620-03-1 2-Furancarboxaldehyde; (*E*)-Oxime, *in* F-00042
- 620-05-3 ▶ Benzyl iodide, B-00186
- 620-22-4 ▶ 1-Cyano-3-methylbenzene, *in* M-00137
- 620-40-6 Tribenzylamine, T-00201
- 620-61-1 Tropine tropate, *see* T-00431
- 620-84-8 4-Methyldiphenylamine, M-00162
- 621-03-4 Cyanoacetanilide, *in* C-00324
- 621-08-9 ▶ Dibenzyl sulfoxide, D-00172
- 621-34-1 *m*-Ethoxyphenol, *in* B-00021
- 621-52-3 1-Ethoxy-3-nitrobenzene, *in* N-00118
- 621-79-4 3-Phenyl-2-propenoic acid, *see* P-00169
- 621-82-9 ▶ 3-Phenyl-2-propenoic acid, P-00169
- 621-85-2 ▶ 2-Benzyl-2-thiopseudourea, B-00193
- 622-03-7 ▶ 2,2'-Diphenylcarbonothioic dihydrazide, D-01007
- 622-31-1 α -Benzaldoxime, *in* B-00004
- 622-32-2 Benzaldehyde; (*Z*)-Oxime, *in* B-00004
- 622-33-3 *O*-Benzylhydroxylamine, B-00184
- 622-57-1 ▶ 4-Methylaniline; *N*-Et, *in* M-00124
- 622-61-7 1-Chloro-4-ethoxybenzene, *in* C-00196
- 622-62-8 4-Ethoxyphenol, *in* B-00022
- 622-68-4 4-Aminoazobenzene-4'-arsonic acid; *N*-Di-Me, *in* A-00095
- 623-00-7 ▶ 1-Bromo-4-cyanobenzene, *in* B-00488
- 623-03-0 ▶ 1-Chloro-4-cyanobenzene, *in* C-00067
- 623-12-1 1-Chloro-4-methoxybenzene, *in* C-00196
- 623-13-2 1-Methyl-4-(methylthio)benzene, M-00203
- 623-30-3 3-(2-Furanyl)-2-propenal, F-00060
- 623-39-2 3-Methoxy-1,2-propanediol, *in* G-00015
- 623-40-5 2-Pentanone; Oxime, *in* P-00036
- 623-42-7 ▶ Methyl butyrate, *in* B-00604
- 623-51-8 ▶ Mercaptoacetic acid; Et ester, *in* M-00016
- 623-54-1 *S*-Methyl *O*-ethyl xanthate, *in* X-00002
- 623-65-4 Hexadecanoic acid; Anhydride, *in* H-00026
- 623-66-5 Octanoic acid; Anhydride, *in* O-00036
- 623-69-8 1,3-Dimethoxy-2-propanol, *in* G-00015
- 623-80-3 Dithiocarbonic acid; *S,S*-Di-Et ester, *in* D-01125
- 623-91-6 Fumaric acid; Di-Et ester, *in* F-00038
- 624-49-7 ▶ Fumaric acid; Di-Me ester, *in* F-00038
- 624-75-9 Iodoacetic acid; Nitrile, *in* I-00036
- 624-84-0 ▶ Hydrazinecarboxaldehyde, *in* F-00037
- 624-86-2 *O*-Ethylhydroxylamine, E-00089
- 625-57-0 *O*-Ethyl carbamothioate, *in* T-00159
- 625-60-5 Ethyl thiolacetate, *in* E-00038
- 626-17-5 ▶ 1,3-Dicyanobenzene, *in* B-00019
- 626-91-5 1-Methoxy-3-methylbutane, *in* M-00147
- 627-04-3 Mercaptoacetic acid; *S*-Et, *in* M-00016
- 627-39-4 Propanol oxime, *in* P-00259
- 627-63-4 ▶ Fumaroyl chloride, *in* F-00038
- 627-64-5 Fumaric acid; Diamide, *in* F-00038
- 627-91-8 Hexanedioic acid; Me ester, *in* H-00062
- 627-93-0 ▶ Hexanedioic acid; Di-Me ester, *in* H-00062
- 628-02-4 ▶ Hexanamide, *in* H-00066
- 628-04-6 1-Ethoxy-3-methylbutane, *in* M-00147
- 628-13-7 ▶ Pyridine; B,HCl, *in* P-00316
- 628-73-9 ▶ Hexanenitrile, *in* H-00066
- 628-80-8 1-Methoxypentane, *in* P-00034
- 628-94-4 ▶ Hexanediamide, *in* H-00062
- 628-97-7 Hexadecanoic acid; Et ester, *in* H-00026
- 629-01-6 Octanoic acid; Amide, *in* O-00036
- 629-54-9 Hexadecanamide, *in* H-00026
- 630-10-4 ▶ Selenourea, S-00009
- 630-18-2 2-Cyano-2-methylpropane, *in* D-00899
- 630-19-3 2,2-Dimethylpropanal, D-00897
- 630-55-7 Hexacamphamine, *in* H-00057
- 631-57-2 Acetyl cyanide, *in* P-00448
- 631-66-3 Pyruvic acid; Amide, *in* P-00448
- 632-68-8 ▶ Rose Bengal B, *in* R-00010
- 632-69-9 Rose bengal, *see* R-00010
- 632-99-5 ▶ Fuchsine, *in* R-00009
- 633-03-4 ▶ Brilliant green; Hydrogen sulfate, *in* B-00479
- 633-65-8 Berberine, *see* B-00197
- 633-66-9 ▶ Berberine; Chloride, *in* B-00197
- 633-96-5 ▶ Berberine; Sulfate, *in* B-00197
- 633-96-5 4-[(2-Hydroxy-1-naphthalenyl)azo] benzenesulfonic acid; Na salt, *in* H-00348
- 634-36-6 1,2,3-Trimethoxybenzene, *in* B-00034
- 635-10-9 1,2,4,5-Benzenetetracarboxylic acid; Tetra-Me ester, *in* B-00029
- 635-67-6 1,2-Benzenediol; Di-Ac, *in* B-00020
- 635-78-9 7-Hydroxy-3*H*-phenoxazin-3-one, H-00443
- 635-93-8 ▶ 5-Chloro-2-hydroxybenzaldehyde, C-00122
- 636-25-9 2,5-Diaminophenol, D-00111
- 636-53-3 ▶ 1,3-Benzenedicarboxylic acid; Di-Et ester, *in* B-00019
- 636-70-4 Triethylamine; B,HBr, *in* T-00231
- 636-79-3 3-Pyridinecarboxylic acid; B,HCl, *in* P-00343
- 636-93-1 2-Methoxy-5-nitrophenol, *in* N-00087
- 636-97-5 *p*-Nitrobenzhydrazide, *in* N-00093
- 637-39-8 Tris(2-hydroxyethyl)amine; B,HCl, *in* T-00406
- 637-53-6 ▶ Thioacetanilide, T-00153
- 637-61-6 ▶ 4-(Chloroimino)-2,5-cyclohexadien-1-one, C-00164
- 637-88-7 1,4-Cyclohexanedione, C-00339
- 637-91-2 2,2-Dimethylpropanal; Oxime, *in* D-00897
- 637-98-9 *S*-Ethyl carbamothioate, *in* T-00159
- 638-32-4 4-Amino-4-oxobutanoic acid, *in* S-00034
- 638-65-3 ▶ Octadecanoic acid; Nitrile, *in* O-00001
- 639-44-1 4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, T-00027
- 639-58-7 ▶ Chlorotriphenylstannane, C-00271
- 640-60-8 4-Methylbenzenesulfonic acid; Ph ester, *in* M-00130
- 641-70-3 4-Nitro-1,3-isobenzofurandione, *in* N-00085
- 643-62-9 9-Hydroxyacridine, H-00093
- 643-79-8 ▶ 1,2-Benzenedicarboxaldehyde, B-00016
- 643-94-7 1,2-Benzenediol; Dibenzoyl, *in* B-00020
- 644-78-0 3-(2-Hydroxyphenyl)-1-phenyl-2-propen-1-one, H-00496
- 644-87-1 Mercaptobutanedioic acid; (\pm)-*form*, *in* M-00026
- 645-09-0 3-Nitrobenzoic acid; Amide, *in* N-00092
- 645-48-7 ▶ 1-Phenylthiosemicarbazide, P-00199
- 646-01-5 3-Methylmercaptopropanoic acid, *in* M-00052
- 647-12-1 Pentadecafluorooctanoic acid; Nitrile, *in* P-00008
- 652-31-3 Pentafluorobenzoic acid; Amide, *in* P-00012
- 653-03-2 ▶ Butaperazine, B-00609
- 653-37-2 Pentafluorobenzaldehyde, P-00010
- 659-22-3 4,4'-Dihydroxystilbene, D-00730
- 659-49-4 4-Nitrosoaniline, N-00154
- 662-50-0 ▶ Heptafluorobutanoic acid; Amide, *in* H-00004
- 665-46-3 Tetraethylammonium(1+); Fluoride, *in* T-00041
- 670-40-6 2-Methylamino-1-phenyl-1-propanol, *see* M-00122
- 670-54-2 ▶ Tetracyanoethylene, T-00037
- 670-98-4 ▶ Benzenesulfonic acid; Me ester, *in* B-00025
- 672-13-9 ▶ 2-Hydroxy-5-methoxybenzaldehyde, *in* D-00518
- 673-22-3 2-Hydroxy-4-methoxybenzaldehyde, *in* D-00517
- 676-84-6 Trimethylsulfonium(1+); T-00347
- 676-97-1 ▶ Methylphosphonic dichloride, M-00245
- 676-98-2 ▶ Methylphosphonothioic dichloride, M-00246
- 677-42-9 Isopropylphosphonic acid; Difluoride, *in* I-00077
- 680-31-9 ▶ Hexamethylphosphoric triamide, H-00058
- 683-63-6 Thiocarbamic acid; *O*-Me ester, *in* T-00159
- 683-72-7 ▶ Dichloroacetamide, *in* D-00246
- 683-84-1 Tetramethylphosphinous amide, T-00102
- 684-16-2 ▶ 1,1,1,3,3,3-Hexafluoro-2-propanone, H-00033
- 685-27-8 *N*-Methylbis(trifluoroacetamide), *in* B-00461
- 686-07-7 ▶ Diethyldithiocarbamic acid; Me ester, *in* D-00344
- 693-04-9 ▶ Butylchloromagnesium, B-00622
- 693-25-4 Pentylmagnesium bromide, P-00041
- 694-59-7 ▶ Pyridine *N*-oxide, P-00356
- 696-54-8 4-Pyridinecarboxaldehyde; Oxime, *in* P-00320
- 696-59-3 ▶ Tetrahydro-2,5-dimethoxyfuran, T-00059
- 697-91-6 ▶ 2,6-Dichloro-1,4-benzoquinone, D-00251
- 698-01-1 2-Chloroaniline; *N*-Di-Me, *in* C-00058
- 698-17-9 1-Piperidinecarbodithioic acid; Me ester, *in* P-00242
- 698-27-1 2-Hydroxy-4-methylbenzaldehyde, H-00276
- 698-31-7 ▶ 4-Nitroso-1,3-benzenediol, N-00156
- 698-63-5 ▶ 5-Nitro-2-furancarboxaldehyde, N-00109
- 698-67-9 ▶ 4-Bromobenzamide, *in* B-00488
- 698-69-1 4-Chloroaniline; *N*-Di-Me, *in* C-00060
- 700-75-4 1-(Dimethylamino)-2-methoxybenzene, *in* A-00300
- 701-34-8 ▶ 4-Bromobenzenesulfonic acid; Amide, *in* B-00487
- 701-54-2 4-(Aminomethyl) cyclohexanecarboxylic acid, A-00238
- 701-56-4 4-Methoxy-*N,N*-dimethylaniline, *in* M-00073
- 704-00-7 1,2-Diacetylbenzene, D-00032
- 704-15-4 Glycylproline; (*S*)-*form*, *in* G-00020
- 704-38-1 ▶ Di-2-thienyl ketone, D-01113

- 705-15-7 2'-Hydroxy-5'-methoxyacetophenone, *in* D-00508
- 705-29-3 1-(Chloromethyl)-3-(trifluoromethyl)benzene, C-00186
- 705-62-4 *N,N*-Dimethyl-*N'*-phenylthiourea, *in* P-00201
- 708-06-5 2-Hydroxy-1-naphthaldehyde, H-00336
- 708-08-7 Pyridoxal; Oxime, *in* P-00414
- 709-09-1 1,2-Dimethoxy-4-nitrobenzene, *in* N-00087
- 711-79-5 2-Acetyl-1-naphthol, A-00026
- 713-15-5 4,4,4-Trifluoro-1-selenophen-2-yl-1,3-butanedione, T-00263
- 715-56-0 1-[(Ethylimino)methyl]-2-naphthalenol, E-00096
- 719-41-5 1-Hydroxyxanthone, H-00562
- 720-82-1 2-Amino-*N*-2-naphthalenylpropanamide; (*S*)-*form*, *in* A-00278
- 723-42-2 4-Methyl-*N,N*-dipropylbenzenesulfonamide, *in* M-00130
- 723-62-6 ▶ 9-Anthracenecarboxylic acid, A-00378
- 729-46-4 ▶ 4,4'-(Dithiodicarbonothioyl)bismorpholine, D-01128
- 729-63-5 3-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic acid; Di-Et ester, *in* H-00435
- 730-40-5 4-Amino-4'-nitroazobenzene, A-00281
- 731-72-6 9-Benzo[*a*]phenoxazin-9-one, B-00070
- 734-88-3 3-Oxo-3*H*-naphtho[2,1-*b*]pyran-2-carboxylic acid; Et ester, *in* O-00064
- 740-57-8 Phenylalanine β -naphthylamide; (*S*)-*form*, *in* P-00079
- 742-01-8 4,5-Dihydro-1,3,5-triphenyl-1*H*-pyrazole, D-00506
- 747-30-8 Aminophenazone cyclamate, *in* A-00339
- 754-10-9 2,2-Dimethylpropanoic acid; Amide, *in* D-00899
- 756-80-9 ▶ *O,O*-Dimethyl phosphorodithioate, D-00896
- 758-08-7 ▶ Mercaptoacetic acid; Amide, *in* M-00016
- 758-42-9 1,1,1-Trichloro-3,3,3-trifluoro-2-propanone, T-00227
- 761-06-8 2-Methoxy-1,3-propanediol, *in* G-00015
- 764-02-3 1-Diazopropane, D-00154
- 764-42-1 ▶ Fumaronitrile, *in* F-00038
- 764-43-2 1-Diazobutane, D-00143
- 765-39-9 1*H*-Pyrrol-1-amine, *in* P-00436
- 765-70-8 3-Methyl-1,2-cyclopentanedione, M-00159
- 765-87-7 ▶ 1,2-Cyclohexanedione, C-00337
- 766-05-2 Cyclohexanecarbonitrile, *in* C-00336
- 766-09-6 ▶ 1-Ethylpiperidine, E-00106
- 766-91-6 Phenyl diazomethane, P-00111
- 767-71-5 2,6-Dimethylaniline; *N*-Me, *in* D-00829
- 768-33-2 Chlorodimethylphenylsilane, C-00103
- 769-06-2 2,6-Dimethylaniline; *N*-Di-Me, *in* D-00829
- 769-42-6 1,3-Dimethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetriene, *in* P-00429
- 769-68-6 2-Phenylbutanoic acid, *see* P-00110
- 770-00-3 Pyrazinocarboxylic acid; Me ester, 4-oxide, *in* P-00285
- 770-03-6 3,4-Dimethylaniline; *N*-Di-Me, *in* D-00830
- 771-03-9 ▶ 3-Acetyl-4-hydroxy-6-methyl-2*H*-pyran-2-one, A-00019
- 771-97-1 2,3-Diaminonaphthalene, D-00106
- 772-33-8 2-(Bromomethyl)-4-nitrophenol, B-00531
- 773-76-2 5,7-Dichloro-8-hydroxyquinoline, D-00283
- 773-82-0 Pentafluorobenzonitrile, *in* P-00012
- 774-48-1 (Diethoxymethyl)benzene, *in* B-00004
- 776-75-0 ▶ Piperidine; 1-Benzoyl, *in* P-00241
- 777-44-6 ▶ 3-(Trifluoromethyl)benzenesulfonic acid; Chloride, *in* T-00251
- 779-27-1 7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, H-00426
- 780-21-2 3-Chloroaniline; *N*-Benzylidene, *in* C-00059
- 785-29-5 5-Ethyl-*N*-phenyl-2-pyridinecarbothioamide, *in* E-00108
- 785-81-9 4-Nitro-*N*-(phenylmethylene)benzenamide, *in* N-00077
- 792-08-5 9-Hydroxy-5*H*-benzo[*a*]phenoxazin-5-one, H-00123
- 794-94-5 ▶ 4-Methoxybenzoic acid; Anhydride, *in* M-00079
- 796-42-9 4-Pyridinecarboxylic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, P-00347
- 796-47-4 2-[[[(2-Hydroxy-1-naphthalenyl)methylene]amino]benzoic acid, H-00362
- 814-29-9 ▶ Tributylphosphine oxide, T-00213
- 814-49-3 ▶ Diethyl phosphorochloridate, D-00355
- 814-68-6 ▶ 2-Propenoic acid; Chloride, *in* P-00269
- 816-00-2 Biuret; 1,3,5-Tri-Me, *in* B-00474
- 817-73-2 Ethyl *N*-methylthiocarbamate, *in* M-00154
- 818-88-2 Decanedioic acid; Mono-Me ester, *in* D-00022
- 821-42-1 2-Pentenedial, P-00038
- 822-39-9 2-Chloro-1,3,2-dioxaphospholane, C-00109
- 824-40-8 2-Pyridinecarboxylic acid; 1-Oxide, *in* P-00342
- 824-46-4 2-Methoxy-1,4-benzenediol, *in* B-00035
- 824-75-9 4-Fluorobenzoic acid; Amide, *in* F-00024
- 824-88-4 Thiocarbamic acid; *O*-Ph ester, *in* T-00159
- 826-10-8 ▶ Levamphetamine; *N*-Me; B,HCl, *in* P-00172
- 826-81-3 8-Hydroxy-2-methylquinoline, H-00326
- 828-73-9 ▶ (Pentafluorophenyl)hydrazine, P-00020
- 829-20-9 2',4'-Dimethoxyacetophenone, *in* D-00507
- 830-03-5 ▶ 4-Nitrophenol; *O*-Ac, *in* N-00119
- 830-81-9 1-Naphthol; Ac, *in* N-00025
- 831-00-5 1-(2,4-Dihydroxyphenyl)-1-propanone; Di-Me ether, *in* D-00715
- 831-52-7 2-Amino-4,6-dinitrophenol, *see* A-00164
- 832-53-1 Pentafluorobenzesulfonyl chloride, P-00011
- 835-11-0 2,2'-Dihydroxybenzophenone, D-00535
- 835-64-3 ▶ 2-(2-Hydroxyphenyl)benzoxazole, H-00467
- 836-30-6 ▶ 4-Nitrodiphenylamine, N-00105
- 840-81-3 4-Pyridinecarboxylic acid [(4-hydroxyphenyl)methylene]hydrazide, P-00350
- 842-01-3 7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
- 843-33-4 4-[(4-Nitrophenyl)azo]-1,2-benzenediol, N-00122
- 844-26-8 ▶ Bithionoloxide, *in* B-00293
- 846-63-9 2-(1-Naphthalenyl)-5-phenyloxazole, N-00021
- 846-70-8 8-Hydroxy-5,7-dinitro-2-naphthalenesulfonic acid; Di-Na salt, *in* H-00158
- 852-37-9 2-[1,1'-Biphenyl]-4-yl-5-phenoxazole, B-00214
- 852-38-0 2-[1,1'-Biphenyl]-4-yl-5-phenyl-1,3,4-oxadiazole, B-00216
- 857-48-7 2,3-Di-2-pyridylbenzo[*g*]quinoxaline, D-01088
- 860-22-0 ▶ Indigo carmine, *in* I-00029
- 866-17-1 Tetrahydroxybutanedioic acid, *see* T-00073
- 868-54-2 ▶ 2-Amino-1-propene-1,1,3-tricarbonitrile, A-00330
- 868-84-8 Dithiocarbonic acid; *S,S*-Di-Me ester, *in* D-01125
- 870-72-4 ▶ Formaldehyde; Bisulfite compd., *in* F-00035
- 870-74-6 4-Imino-2-pentanone, *in* P-00030
- 871-58-9 Dithiocarbonic acid; *O*-Butyl ester, *in* D-01125
- 871-76-1 2,2'-Thiobisethanamine, T-00156
- 871-78-3 *N,N*-1,2-Ethanediylbisacetamide, *in* E-00024
- 872-35-5 ▶ 1,3-Dihydro-2*H*-imidazole-2-thione, D-00424
- 872-73-1 2-Picoline methiodide, *in* M-00264
- 872-85-5 4-Pyridinecarboxaldehyde, P-00320
- 872-90-2 Pyridine; B,EtI, *in* P-00316
- 873-32-5 ▶ 1-Chloro-2-cyanobenzene, *in* C-00066
- 873-58-5 4-Morpholinecarbodithioic acid, *see* M-00345
- 873-69-8 ▶ 2-Pyridinecarboxaldehyde; Oxime, *in* P-00318
- 874-42-0 2,4-Dichlorobenzaldehyde, D-00247
- 874-56-6 Hexahydro-1*H*-azepine-1-carbodithioic acid, H-00035
- 874-58-8 4-Methylbenzoic acid; Bromide, *in* M-00138
- 874-60-2 ▶ 4-Methylbenzoic acid; Chloride, *in* M-00138
- 874-90-8 4-Methoxybenzonitrile, *in* M-00079
- 876-27-7 ▶ 4-Chlorophenol; Ac, *in* C-00196
- 876-87-9 ▶ 1,2-Dimethylquinolinium(1+); Iodide, *in* D-00913
- 877-53-2 2,4-Dimethylphenol; Ac, *in* D-00884
- 878-00-2 4-Hydroxybenzaldehyde; Ac, *in* H-00102
- 879-18-5 1-Naphthalenecarboxylic acid; Chloride, *in* N-00005
- 880-12-6 4-(Phenylimino)-2-pentanone, *in* P-00030
- 881-05-0 3-Methyl-1-phenyl-1*H*-pyrazole-4,5-dione, M-00239
- 881-67-4 1-(Dimethoxymethyl)-4-nitrobenzene, *in* N-00082
- 883-99-8 3-Hydroxy-2-naphthoic acid; Me ester, *in* H-00370
- 884-09-3 Thiobenzoic acid; *S*-Ph ester, *in* T-00155
- 884-29-7 2-Chloroaniline; *N*-Benzylidene, *in* C-00058
- 886-60-2 ▶ *N*-Phenyl-*N'*-pyridinylthiourea, P-00177
- 886-77-1 1,5-Di-2-furanyl-1,4-pentadien-3-one, D-00363
- 886-78-2 1,5-Di-2-thienyl-1,4-pentadien-3-one, D-01114
- 894-93-9 2-Hydroxy-*N*-(2-hydroxynaphthylidene)aniline, H-00226
- 902-47-6 4-Nitrobenzoic acid; Anhydride, *in* N-00093
- 912-60-7 Narcotine, *see* N-00060
- 915-67-3 ▶ Amaranth; Tri-Na salt, *in* A-00087
- 917-23-7 *meso*-Tetraphenylporphyrin, T-00121
- 919-48-2 Tetrabutyl 1,2-ethanediylbisphosphonate, *in* E-00026
- 920-46-7 ▶ 2-Methyl-2-propenoic acid; Chloride, *in* M-00256
- 920-66-1 ▶ 1,1,1,3,3,3-Hexafluoro-2-propanol, H-00032
- 920-68-3 *N*,1,1,1-Tetramethyl-*N*-(trimethylsilyl)silanamine, *in* B-00471

921-08-4	2-Chloro-3-methylbutanoic acid, C-00174	986-06-1	1,2-Bis(diphenylphosphino)ethylene; (<i>Z</i>)-form, <i>P,P'</i> -Disulfide, in B-00339	1068-57-1	▶ Acetylhydrazide, in A-00006
921-11-9	2,3,4-Pentanetrione, P-00033			1070-03-7	Mono(2-ethylhexyl) phosphate, M-00339
922-32-7	<i>N</i> -Phosphocreatine; Di-Na salt, in P-00214	986-07-2	1,2-Bis(diphenylphosphino)ethylene; (<i>E</i>)-form, <i>P,P'</i> -Disulfide, in B-00339	1072-12-4	Glyoxal bis(thiosemicarbazone), G-00034
924-44-7	Glyoxylic acid; Et ester, in G-00038	989-38-8	▶ Rhodamine 590; Chloride, in R-00003	1072-71-5	▶ 5-Mercapto-1,3,4-thiadiazoline-2-thione, M-00060
925-56-4	Methyl β -cyanoacrylate, in F-00038	992-59-6	▶ Benzopurpurine 4B; Di-Na salt, in B-00071	1073-38-7	2-Mercapto-2,4,6-cycloheptatrien-1-one, M-00027
926-26-1	Succinic acid; Di- <i>tert</i> -Butyl ester, in S-00034	993-13-5	▶ Methylphosphonic acid, M-00244	1074-12-0	Phenylglyoxal, P-00132
926-67-0	Ethanethioic acid; <i>O</i> -Et ester, in E-00038	993-22-6	Tetrabutylammonium(1+); Azide, in T-00023	1074-18-6	2-Aminobenzenethiol; <i>N</i> -Et, in A-00101
928-74-5	[(Aminothioxomethyl)hydrazono]acetic acid, in G-00038	993-43-1	Ethylphosphonothioic dichloride, E-00105	1076-28-4	2-Methylquinoline; <i>N</i> -Oxide, in M-00306
930-73-4	▶ Pyridine; B,MeI, in P-00316	994-07-0	Chlorodimethoxymethylsilane, C-00097	1076-56-8	1-Isopropyl-2-methoxy-4-methylbenzene, in I-00075
930-88-1	▶ 1 <i>H</i> -Pyrrole-2,5-dione; <i>N</i> -Me, in P-00439	994-30-9	Chlorotriethylsilane, C-00265	1081-15-8	Formaldehyde; 2,4-Dinitrophenylhydrazone, in F-00035
931-46-4	5-Ethoxy-3,4-dihydro-2 <i>H</i> -pyrrole, in P-00443	995-25-5	Chlorotripropylsilane, C-00272	1083-48-3	4-[(4-Nitrophenyl)methyl]pyridine, N-00139
931-97-5	▶ 1-Cyanocyclohexanol, in H-00146	995-32-4	Tetraethyl 1,2-ethanedylbisphosphonate, in E-00024	1084-32-8	8-Hydroxy-5,7-dinitroquinoline, H-00165
932-17-2	▶ 2-Pyrrolidinone; <i>N</i> -Ac, in P-00443	995-45-9	Tributylchlorosilane, T-00209	1084-96-4	2,5-Dihydroxybenzoic acid, see D-00532
932-32-1	2-Chloroaniline; <i>N</i> -Me, in C-00058	996-50-9	▶ (Diethylamino)trimethylsilane, D-00336	1094-08-2	Ethopropazine hydrochloride, in E-00050
932-52-5	▶ 5-Amino-2,4-dihydroxypyrimidine, A-00159	996-98-5	▶ Oxalic acid; Dihydrazide, in O-00048	1098-60-8	▶ Triflupromazine hydrochloride, in F-00010
932-96-7	4-Chloroaniline; <i>N</i> -Me, in C-00060	998-40-3	▶ Tributylphosphine, T-00212	1100-88-5	Benzyltriphenylphosphonium(1+); Chloride, in B-00196
934-00-9	3-Methoxy-1,2-benzenediol, in B-00034	999-05-3	7-Methyl-2,4-octanedione, M-00209	1102-19-8	▶ 1,1'-Dibenzyl-4,4'-bipyridinium(2+); Dichloride, in D-00167
934-34-9	2-Hydroxybenzothiazole, H-00125	999-97-3	▶ Bis(trimethylsilyl)amine, B-00471	1105-53-9	3-Cyano-1,5-bis(2-hydroxy-5-sulfophenyl)formazan, C-00325
934-60-1	6-Methyl-2-pyridinecarboxylic acid, M-00271	1001-53-2	<i>N</i> -(2-Aminoethyl)acetamide, in E-00024	1110-58-3	Gossypol; (\pm)-form, 6,6'-Di-Me ether, in G-00041
934-87-2	▶ Ethanethioic acid; <i>S</i> -Ph ester, in E-00038	1003-67-4	▶ 4-Methylpyridine; <i>N</i> -Oxide, in M-00265	1113-74-2	2,4-Dimethyl-3-pentanone; Oxime, in D-00879
936-61-8	Thiobenzoic acid; <i>O</i> -Et ester, in T-00155	1004-00-8	2-Amino-4-chlorobenzenethiol, A-00135	1114-91-6	2,4,5,7-Octanetetrone, O-00035
936-63-0	Dithiobenzoic acid; Et ester, in D-01117	1004-38-2	2,4,6-Triaminopyrimidine, T-00194	1114-92-7	2,3-Butanediol, see B-00586
937-14-4	▶ 3-Chloroperbenzoic acid, C-00193	1004-66-6	2-Methoxy-1,3-dimethylbenzene, in D-00885	1116-40-1	Tris(2-methylpropyl)amine, T-00409
937-34-8	Sulfuric acid monophenyl ester, in P-00060	1005-24-9	▶ Nicotinamide methochloride, in A-00134	1116-76-3	▶ Triocylamine, T-00357
938-05-6	<i>N,N</i> -Dibromobenzenesulfonamide, D-00179	1006-23-1	2,4,6-Triamino-5-nitrosopyrimidine, T-00193	1116-98-9	<i>tert</i> -Butyl cyanoacetate, in C-00324
938-24-9	1,2,3-Indanetrione, I-00025	1010-19-1	Triethylphenylammonium(1+); Iodide, in T-00234	1117-96-0	▶ Diazoethane, D-00144
938-25-0	▶ 1,2-Diaminonaphthalene, D-00105	1011-54-7	3-(2-Methoxyphenyl)-2-propenoic acid, in H-00500	1118-66-7	4-Amino-3-penten-2-one, A-00294
938-33-0	8-Methoxyquinoline, in H-00525	1013-20-3	▶ Neocupferron; NH ₄ salt, in N-00061	1118-71-4	2,2,6,6-Tetramethyl-3,5-heptanedione, T-00095
938-79-4	2-Phenylbutanoic acid; (<i>R</i>)-form, in P-00110	1013-69-0	5,7-Dihydroxy-2-methyl-4 <i>H</i> -1-benzopyran-4-one, D-00645	1119-34-2	▶ Arginine hydrochloride, in A-00400
944-99-0	1,2,3-Benzenetriol; 1,3-Di-Me ether, Ac, in B-00034	1015-38-9	Diphenylphosphinodithioic acid, D-01039	1119-49-9	<i>N</i> -Butylacetamide, in B-00616
947-60-4	3,4,6-Trihydroxy-5 <i>H</i> -benzocyclohept-5-one, T-00275	1018-24-2	Diethyl (2-phenylethyl) phosphonate, in P-00129	1119-94-4	▶ Lauryltrimethylammonium(1+); Bromide, in L-00002
947-73-9	▶ 9-Aminophenanthrene, A-00298	1020-31-1	3,5-Di- <i>tert</i> -butyl-1,2-benzenediol, D-00227	1120-48-5	▶ Dioctylamine, D-00981
948-03-8	1-Hydroxy-2-naphthoic acid; Me ester, in H-00369	1025-07-6	1,10-Phenanthroline-2-carboximidic acid hydrazide, P-00053	1121-31-9	2-Pyridinethiol <i>N</i> -oxide, in P-00357
949-00-8	Dithiobenzoic acid; Ph ester, in D-01117	1031-15-8	Methyltriphenylphosphonium(1+); Chloride, in M-00335	1121-60-4	2-Pyridinecarboxaldehyde, P-00318
951-87-1	1,2-Diphenyl-1,2-ethanediamine; (1 <i>RS</i> ,2 <i>SR</i>)-form, in D-01010	1032-84-4	1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one, see H-00311	1121-89-7	Glutarimide, G-00014
956-48-9	2,6-Dichloro-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00282	1040-23-9	6,7-Dihydroxy-4-methyl-2 <i>H</i> -1-benzopyran-2-one, see D-00647	1122-56-1	▶ Cyclohexanecarboxylic acid; Amide, in C-00336
959-22-8	4-Nitrophenol; <i>O</i> -Benzoyl, in N-00119	1046-56-6	3-(2-Pyridinyl)-5,6-diphenyl-1,2,4-triazine, P-00388	1122-62-9	2-Acetylpyridine, A-00039
959-43-3	5-[(4-Nitrophenyl)azo]-2-thioxo-4-thiazolidinone, N-00132	1047-14-9	Wood's reagent, W-00001	1122-72-1	6-Methyl-2-pyridinecarboxaldehyde, M-00266
959-66-0	2-Benzoylacetylacetamide, in O-00069	1052-38-6	4,4'-[1,3-Phenylenebis(azo)]bis-1,3-benzenediamine, P-00117	1123-28-0	1-Hydroxycyclohexanecarboxylic acid, H-00146
959-74-0	2-[[[4-(Dimethylamino)phenyl]imino]methyl]phenol, D-00816	1058-71-5	5,6-Diphenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-01037	1124-52-3	Isopropylideneaniline, in A-00007
964-53-4	3,3-Dimethyl-2-butanone; 2,4-Dinitrophenylhydrazone, in D-00845	1058-92-0	Eriochrome blue SE; Di-Na salt, in E-00011	1125-34-4	6-Methyl-2-pyridinecarboxylic acid; 1-Oxide, in M-00271
964-83-0	4-Methyl-3-penten-2-one; 2,4-Dinitrophenylhydrazone, in M-00219	1063-55-4	▶ Butaperazine maleate, in B-00609	1125-70-8	2-Phenylpropanoic acid, see P-00167
966-64-3	2,6,7-Trihydroxy-9-propyl-3 <i>H</i> -xanthen-3-one, T-00316	1066-35-9	Chlorodimethylsilane, C-00105	1126-46-1	4-Chlorobenzoic acid; Me ester, in C-00067
973-82-0	2-Hydroxy-4-methylbenzaldehyde; 2,4-Dinitrophenylhydrazone, in H-00276	1066-97-3	<i>O,O</i> -Dimethyl phosphorodithioate; NH ₄ salt, in D-00896	1126-78-9	▶ <i>N</i> -Butylaniline, B-00617
975-17-7	2,6,7-Trihydroxy-9-phenyl-3 <i>H</i> -xanthen-3-one, T-00315	1067-97-6	▶ Tributyltin hydroxide, T-00217	1127-45-3	▶ 8-Hydroxyquinoline; <i>N</i> -Oxide, in H-00525
981-81-7	2,6,7-Trihydroxy-9-(4-nitrophenyl)-3 <i>H</i> -xanthen-3-one, T-00303	1068-20-8	Methylphosphonic acid; Diisocyanate, in M-00244	1128-67-2	▶ MBTH, in B-00090
983-81-3	1,2-Bis(diphenylphosphino)ethylene; (<i>E</i>)-form, in B-00339	1068-22-0	▶ <i>O,O</i> -Diethyl phosphorodithioate; NH ₄ salt, in D-00356	1129-30-2	2,6-Diacetylpyridine, D-00035

1132-44-1	<i>N</i> -[(Phenylamino)thioxomethyl]acetamide, <i>in</i> P-00201	1204-21-3	2-Bromo-1-(2,5-dimethoxyphenyl)ethanone, <i>in</i> B-00502	1450-85-7	2-Mercaptopyrimidine, M-00056
1132-61-2	4-Morpholinepropanesulfonic acid, M-00346	1204-75-7	3-Hydroxy-2-quinoxalinecarboxylic acid, H-00537	1452-63-7	2-Pyridinecarboxylic acid; Hydrazide, <i>in</i> P-00342
1134-10-7	2-Nitrobenzoic acid; Azide, <i>in</i> N-00091	1205-64-7	3-Methyldiphenylamine, M-00161	1455-91-0	Tetrazole-5-thione; 1,4-Dihydroform, 1-Me, 4-Ph, <i>in</i> T-00131
1134-35-6	4,4'-Dimethyl-2,2'-bipyridine, D-00840	1205-91-0	1,4-Benzenediol; Di-Ac, <i>in</i> B-00022	1455-92-1	1 <i>H</i> -Tetrazole-5-thiol; 1- <i>N</i> -Ph, <i>S</i> -Me, <i>in</i> T-00131
1134-60-7	4- <i>tert</i> -Butyltin oxide, <i>in</i> B-00623	1206-43-5	6-Amino-1-naphthalenesulfonic acid; Amide, <i>in</i> A-00267	1457-55-2	1,2-Diamino-4-nitrobenzene; 1,2- <i>N</i> -Di-Me, <i>in</i> D-00108
1135-40-6	3-(Cyclohexylamino)-1-propanesulfonic acid, C-00350	1207-69-8	9-Chloroacridine, C-00057	1457-85-8	Ethyl oxanilate, <i>in</i> O-00048
1137-68-4	2-(2-Pyridinyl)-1 <i>H</i> -benzimidazole, P-00385	1207-71-2	Phenothiazine; <i>S</i> -Oxide, <i>in</i> P-00073	1459-93-4	▶ 1,3-Benzenedicarboxylic acid; Di-Me ester, <i>in</i> B-00019
1137-79-7	▶ 4-(Dimethylamino)biphenyl, <i>in</i> A-00117	1214-24-0	3,6-Dihydroxyxanthone, D-00742	1461-15-0	Calcein, C-00010
1141-05-5	1,2-Di-2-pyridyl-1,2-ethanediol, D-01089	1215-43-6	3-Mercapto-1,3-diphenyl-2-propen-1-one, <i>see</i> M-00030	1461-17-2	1,1-Diantipyrylbutane, D-00135
1141-06-6	Pyridoin, P-00412	1218-35-5	▶ Xylometazoline hydrochloride, <i>in</i> X-00008	1462-73-3	▶ Dexamphetamine; B,HCl, <i>in</i> P-00172
1141-59-9	4-(2-Pyridinylazo)-1,3-benzenediol, P-00373	1222-43-1	3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarboxylic acid, D-00379	1465-25-4	▶ <i>N</i> -(1-Naphthyl)ethylenediamine; B,2HCl, <i>in</i> N-00050
1141-88-4	▶ Bis(2-aminophenyl) disulfide, B-00251	1224-25-5	5,5-Bis(4-hydroxyphenyl)-2(5 <i>H</i>)-furanone, B-00389	1468-95-7	9-Anthracenemethanol, A-00380
1143-72-2	2,3,4-Trihydroxybenzophenone, T-00278	1225-55-4	▶ Protriptyline hydrochloride, <i>in</i> P-00280	1470-79-7	2,4,4'-Trihydroxybenzophenone, T-00279
1143-74-4	<i>N</i> -Hydroxy- <i>N</i> -(2-methylphenyl)benzamide, <i>in</i> H-00109	1226-46-6	4,4'-Bis(dimethylamino)thiobenzophenone, B-00326	1480-87-1	▶ 2-Fluoro-3-nitropyridine, F-00031
1147-56-4	1-(2-Thiazolylazo)-2-naphthalenol, T-00142	1238-91-1	3,3-Bis(2-methoxyphenoxy)methyl oxetane, B-00400	1483-72-3	Diphenyliodonium(1+); Chloride, <i>in</i> D-01028
1147-65-5	2-[Bis(carboxymethyl)amino]benzoic acid, B-00276	1239-45-8	▶ Homidium bromide, <i>in</i> D-00096	1483-73-4	Diphenyliodonium(1+); Bromide, <i>in</i> D-01028
1148-79-4	2,2':6',6''-Terpyridine, T-00005	1239-94-7	Dansylproline; (<i>S</i>)-form, <i>in</i> D-00001	1484-17-9	Thiobenzoic acid; <i>S</i> -Et ester, <i>in</i> T-00155
1149-16-2	Glyoxal bis(2-hydroxyanil), G-00027	1240-37-5	▶ 1,3-Di-1-naphthyl-2-thiourea, D-00934	1484-88-4	2,4,6-Triphenylpyrylium(1+); Perchlorate, <i>in</i> T-00374
1152-14-3	<i>o</i> -Acetoresorufin, <i>in</i> H-00443	1243-97-6	▶ Benzyltriphenylphosphonium(1+); Iodide, <i>in</i> B-00196	1485-70-7	<i>N</i> -Benzylbenzamide, <i>in</i> B-00163
1152-90-5	Pyridine; Picrate, <i>in</i> P-00316	1244-78-6	3-Hydroxy-3',4',5,7-tetramethoxyflavone, <i>in</i> P-00025	1490-04-6	▶ <i>p</i> -Menthane-3-ol, M-00012
1153-05-5	Triphenylarsine oxide, T-00364	1245-13-2	[2,2'-Biquinoline]-4,4'-dicarboxylic acid, B-00237	1496-76-0	Indole; <i>N</i> -Benzoyl, <i>in</i> I-00033
1160-28-7	Di-8-quinolyl disulfide, D-01105	1251-85-0	1,1-Diantipyrylmethane, D-00139	1499-30-5	1,2-Ethanedylbis[phosphonic dichloride], <i>in</i> E-00026
1160-54-9	Glycylproline; (<i>S</i>)-form, <i>N</i> -Benzoyloxycarbonyl, <i>in</i> G-00020	1257-76-7	Thioridazine; (±)-form, Tartrate, <i>in</i> T-00173	1499-33-8	Methyltriphenylarsonium(1+); Iodide, <i>in</i> M-00334
1165-91-9	Bis(2,4,6-trichlorophenyl) oxalate, B-00460	1257-78-9	Prochlorperazine, <i>see</i> P-00256	1503-92-0	<i>N</i> -Hydroxy- <i>N</i> -(4-methylphenyl)benzamide, <i>in</i> H-00109
1166-52-5	Dodecyl gallate, <i>in</i> T-00277	1257-78-9	▶ Prochlorperazine edisylate, <i>in</i> P-00256	1504-39-8	9-Anthracenecarboxylic acid; Me ester, <i>in</i> A-00378
1170-02-1	<i>N,N'</i> -Ethylenebis[2-(<i>o</i> -hydroxyphenyl)glycine], E-00073	1258-71-5	2,4,6-Triamino-1,3,5-triazine- <i>N,N,N',N'',N'''</i> -hexaacetic acid, T-00195	1514-87-0	Chlorodifluoroacetic acid; Me ester, <i>in</i> C-00092
1172-02-7	9-Dicyanomethylene-2,4,7-trinitrofluorene, D-00306	1260-17-9	Carmine red, C-00045	1517-66-4	3-Methyl-2-butanol; (<i>S</i>)-form, <i>in</i> M-00148
1180-59-2	2,3-Pentanedione; Bis-2,4-dinitrophenylhydrazone, <i>in</i> P-00029	1273-85-4	(Azidocarbonyl)ferrocene, A-00459	1517-67-5	3,3-Dimethyl-2-butanol; (<i>S</i>)-form, <i>in</i> D-00844
1182-75-8	1,5-Bis(7-benzyl-2-benzimidazolyl)-3-methylformazan, B-00258	1301-55-9	3,3-Bis(5-hydroxy-1-naphthalenyl)-1(3 <i>H</i>)-isobenzofuranone, B-00381	1518-16-7	▶ Tetracyanoquinodimethane, T-00038
1184-43-6	3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2,5-bis(4-nitrophenyl)-2 <i>H</i> -tetrazolium](2+) 9Cl; Dichloride, <i>in</i> D-00770	1317-31-3	Calcium trisodium pentetate, <i>in</i> P-00039	1518-58-7	▶ Contramine, <i>in</i> D-00344
1186-15-8	<i>N,N',N''</i> -Trihexylphosphorothioic triamide, T-00267	1323-70-2	<i>N,N'</i> -Di-2-naphthalenyl-1,4-benzenediamine, D-00929	1519-21-7	2-Phenylbutanoic acid; (±)-form, Anhydride, <i>in</i> P-00110
1188-33-6	(Diethoxymethyl)dimethylamine, D-00313	1324-05-6	Rosinduline 2G; Na salt, <i>in</i> R-00012	1519-45-5	▶ 1,2-Ethanedylbis [triphenylphosphonium](2+); Dibromide, <i>in</i> E-00034
1188-63-2	4-Heptanone; Oxime, <i>in</i> H-00012	1326-12-1	Thioflavine S, T-00162	1522-20-9	4-Hydroxy-3-penten-2-one, <i>in</i> P-00030
1190-93-8	▶ Mercaptoacetic acid; <i>S</i> -Ac, <i>in</i> M-00016	1333-41-1	4-Methylpyridine, <i>see</i> M-00265	1522-22-1	Hexafluoroacetylacetone, H-00030
1192-28-5	▶ Cyclopentanone; Oxime, <i>in</i> C-00364	1336-20-5	Tetracycline phosphate complex, <i>in</i> T-00039	1523-06-4	3-Nitrophenol; <i>O</i> -Ac, <i>in</i> N-00118
1193-92-6	▶ 3-Pyridinecarboxaldehyde; Oxime, <i>in</i> P-00319	1338-39-2	▶ Sorbitan monolaurate, <i>in</i> A-00367	1523-11-1	2-Naphthol; Ac, <i>in</i> N-00026
1194-02-1	<i>p</i> -Fluorobenzonitrile, <i>in</i> F-00024	1338-41-6	▶ Sorbitan monostearate, <i>in</i> A-00367	1523-12-2	Benzoic acid 2-nitrophenyl ester, <i>in</i> N-00117
1194-98-5	2,5-Dihydroxybenzaldehyde, D-00518	1338-43-8	▶ Sorbitan monooleate, <i>in</i> A-00367	1523-13-3	3-Nitrophenol; <i>O</i> -Benzoyl, <i>in</i> N-00118
1195-40-0	6-Methyl-2-pyridinecarboxaldehyde; (<i>E</i>)-Oxime, <i>in</i> M-00266	1399-00-4	2',3',5,7-Tetrahydroxyflavone, <i>see</i> T-00074	1528-72-9	▶ Bis(2-hydroxyethyl)carbamdithioic acid, B-00373
1196-29-8	2'-Hydroxyacetophenone; Oxime, <i>in</i> H-00089	1420-46-8	Pentetic acid, <i>see</i> P-00039	1528-82-1	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxybenzamide, <i>in</i> H-00109
1197-17-7	4-(Aminomethyl)cyclohexanecarboxylic acid; <i>cis</i> -form, <i>in</i> A-00238	1429-50-1	[1,2-Ethanedylbis[nitriobis [methylene]]]tetrakisphosphonic acid, E-00032	1529-40-4	9-Cyanofluorene, <i>in</i> F-00013
1197-18-8	▶ Tranexamic acid, <i>in</i> A-00238	1433-79-0	Chromopyrazole II, C-00288	1530-33-2	Isopropyltriphenylphosphonium (1+); Bromide, <i>in</i> I-00079
1199-03-7	▶ 1,4-Dihydro-2,3-quinoxalinedithione, D-00489	1433-81-4	Chromopyrazole, C-00286	1532-72-5	Isoquinoline; Oxide, <i>in</i> I-00080
1199-60-6	5-Methoxy-4-oxo-4 <i>H</i> -pyran-2-carboxylic acid, <i>in</i> H-00434	1436-43-7	2-Cyanoquinoline, <i>in</i> Q-00017	1534-08-3	Ethanethioic acid; <i>S</i> -Me ester, <i>in</i> E-00038
1201-38-3	2',5'-Dimethoxyacetophenone, <i>in</i> D-00508	1437-15-6	1,2-Di(2-pyridyl)ethylene, D-01090	1538-69-8	Diethyl isopropylphosphonate, <i>in</i> I-00077
		1437-66-7	Tetrazole-5-thione, <i>see</i> T-00131	1538-72-3	Diphenyl isopropylphosphonate, <i>in</i> I-00077
		1438-16-0	3-Aminorhodanine, A-00346	1538-75-6	Pivalic anhydride, <i>in</i> D-00899
		1445-75-6	▶ Diisopropyl methylphosphonate, <i>in</i> M-00244	1541-09-9	2-Octanol; (±)-form, Me ether, <i>in</i> O-00037
		1449-46-3	Benzyltriphenylphosphonium(1+); Bromide, <i>in</i> B-00196	1546-79-8	1-(Trifluoroacetyl)-1 <i>H</i> -imidazole, T-00241
		1450-58-4	2-Furancarboxaldehyde; (<i>Z</i>)-Oxime, <i>in</i> F-00042		
		1450-72-2	2'-Hydroxy-5'-methylacetophenone, H-00275		

1555-81-3	1,3-Diphenyl-2-propanone; 2,4-Dinitrophenylhydrazone, <i>in</i> D-01042	1655-41-0	4-Heptanone; 2,4-Dinitrophenylhydrazone, <i>in</i> H-00012	1733-12-6	Cresol red, C-00310
1555-94-8	8-Ethoxyquinoline, <i>in</i> H-00525	1656-44-6	2,4-Dinitrobenzenesulfonic acid; Chloride, <i>in</i> D-00944	1734-36-7	<i>N</i> -(3-Nitrophenyl)- β -oxobenzenepropenamide, N-00140
1556-34-9	9-(Bromomethyl)acridine, B-00516	1657-71-2	DPS, <i>in</i> D-00174	1738-02-9	4,5-Dihydroxy-3,6-bis[(2-sulphophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00563
1559-07-5	Heptafluorobutanoic acid; Butyl ester, <i>in</i> H-00004	1657-73-4	1,2-Di-4-biphenylethylene; (<i>Z</i>)-form, <i>in</i> D-00174	1738-08-5	3,3-Diphenyl-1,2-indanedione; Dioxime, <i>in</i> D-01027
1562-85-2	▶ Gallocyanine; Chloride, <i>in</i> G-00005	1658-62-4	7,8-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, <i>in</i> D-00577	1738-10-9	2,6-Dimercapto-4-oxo-4 <i>H</i> -thiopyran-3-carboxylic acid, D-00759
1562-93-2	Azobenzene-4-carboxylic acid, A-00467	1658-85-1	Acid chrome violet BR, A-00054	1738-11-0	2,6-Dimercapto-3-methyl-4 <i>H</i> -thiopyran-4-one, D-00758
1562-95-4	Di-2-pyridinylmethanone; Oxime, <i>in</i> D-01071	1660-93-1	3,4,7,8-Tetramethyl-1,10-phenanthroline, T-00100	1738-12-1	2,6-Dimercapto-3,5-dimethyl-4 <i>H</i> -thiopyran-4-one, D-00754
1563-02-6	Gallamine blue, G-00003	1662-01-7	4,7-Diphenyl-1,10-phenanthroline, D-01034	1740-57-4	1,3-Benzenedicarboxylic acid; Diamide, <i>in</i> B-00019
1563-87-7	<i>N</i> -Acetyl- <i>N</i> -phenylacetamide, <i>in</i> A-00368	1663-45-2	▶ 1,2-Bis(diphenylphosphino)ethane, B-00338	1746-13-0	▶ 2-Propenyloxybenzene, <i>in</i> P-00060
1565-68-0	3-Acetyl-1,5-bis[bis(3,5,6-trichloro-2-hydroxyphenyl)]formazan, A-00013	1663-47-4	2,5-Dioxo-4-oxazolidinepropanoic acid; (<i>S</i>)-form, Me ester, <i>in</i> D-00993	1750-12-5	4-Amino-3-hydrazino-5-mercapto-1,2,4-triazole, A-00181
1565-69-1	1,5-Bis(2-hydroxy-4-nitrophenyl)-3-acetylformazan, B-00387	1667-99-8	Chromazurol S; Tri-Na salt, <i>in</i> C-00277	1752-30-3	▶ 2-(1-Methylethylidene)hydrazinecarbothioamide, <i>in</i> A-00007
1567-89-1	Acetone; 2,4-Dinitrophenylhydrazone, <i>in</i> A-00007	1668-00-4	▶ Arsenazo III, A-00412	1753-78-2	5-Hydroxy-4-nitroso-2,1,3-benzothiadiazole, H-00409
1571-33-1	▶ Phenylphosphonic acid, P-00164	1670-14-0	Benzamidine; B,HCl, <i>in</i> B-00009	1755-51-7	Pentamethoxy red, P-00028
1571-36-4	Stilbazo; Di-NH ₄ salt, <i>in</i> S-00027	1671-85-8	3,5-Di-2-pyridyl-1,2,4-triazole, D-01099	1758-54-9	Acepox, <i>in</i> A-00039
1571-46-6	[2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]-2-hydroxyacetic acid, D-00599	1672-48-6	6-Amino-2,3-dihydro-5-nitroso-2-thioxo-4(1 <i>H</i>)-pyrimidinone, A-00154	1758-68-5	▶ 1,2-Diaminoanthraquinone, D-00043
1572-93-6	3-Methyl-2-butanol; (<i>R</i>)-form, <i>in</i> M-00148	1672-50-0	4,5-Diamino-6-hydroxypyrimidine, D-00098	1758-73-2	Formamidinesulfonic acid, F-00036
1574-10-3	Benzaldehyde; Semicarbazone, <i>in</i> B-00004	1678-25-7	▶ Benzenesulfonic acid; Anilide, <i>in</i> B-00026	1759-09-7	Levometiomeprazine, <i>in</i> M-00069
1575-38-8	1,2-Diamino-3,5-dibromobenzene, D-00067	1680-37-1	Selenoylacetone, S-00010	1760-46-9	Diphenylacetic acid; Anhydride, <i>in</i> D-00999
1576-35-8	▶ <i>p</i> -Toluenesulfonylhydrazine, <i>in</i> M-00130	1681-60-3	C.I. Acid violet 3; Di-Na salt, <i>in</i> C-00001	1761-30-4	<i>N</i> -(2-Hydroxy-3-methoxybenzylidene)-2-hydroxyaniline, <i>in</i> D-00541
1576-47-2	2-Naphthalenesulfonic acid; Amide, <i>in</i> N-00015	1687-60-1	▶ Oxalohydroxamic acid, O-00049	1761-31-5	4-Chloro-2-[[[(2-hydroxyphenyl)methylene]amino]phenol, C-00150
1587-20-8	Trimethyl citrate, <i>in</i> C-00299	1688-32-0	3-Phenyl-1 <i>H</i> -pyrazole-4,5-dione; 4-Oxime, <i>in</i> P-00173	1761-40-6	2-Hydroxy- <i>N</i> -(2-hydroxy-5-methylbenzylidene)aniline, H-00212
1594-58-7	Nicotinamidoxime, <i>in</i> P-00341	1691-93-6	2,4-Dihydro-5-methyl-2-phenyl-4-(trifluoroacetyl)-3 <i>H</i> -pyrazol-3-one, D-00449	1761-41-7	2-Hydroxy- <i>N</i> -(2-hydroxy-5-methylbenzylidene)-5-methylaniline, H-00217
1595-14-8	5-Chloro-2-hydroxybenzaldehyde; Oxime, <i>in</i> C-00122	1696-17-9	▶ Benzamide; <i>N</i> -Di-Et, <i>in</i> B-00008	1761-42-8	2-Hydroxy- <i>N</i> -(2-hydroxy-4-methylbenzylidene)aniline, H-00211
1595-15-9	2-Hydroxy-5-nitrobenzaldehyde; Oxime, <i>in</i> H-00380	1697-18-3	<i>N</i> -(2-Chlorophenyl)- <i>N</i> -hydroxybenzamide, <i>in</i> H-00109	1761-43-9	2-Hydroxy- <i>N</i> -(2-hydroxy-3-methylbenzylidene)aniline, H-00210
1596-56-1	<i>N</i> -(2,4-Dimethylphenyl)-3-(phosphonoxy)-2-naphthalenecarboxamide, D-00894	1698-54-0	1,2-Dihydro-3,6-pyridazinedione; <i>A</i> -form, 1-Phenyl, <i>in</i> D-00481	1761-44-0	<i>N</i> -2-Hydroxy-5-methoxybenzylidene-2-hydroxyaniline, <i>in</i> D-00543
1603-91-4	▶ 2-Amino-4-methylthiazole, A-00257	1701-77-5	Mandelic acid, <i>see</i> M-00007	1761-46-2	2-Hydroxy- <i>N</i> -(2-hydroxy-5-phenylbenzylidene)aniline, H-00234
1606-55-9	1,1-Diantipryl-2-hydroxyphenylmethane, D-00138	1704-37-6	Tetracyanoquinodimethane; Compd. with anthracene (1:1), <i>in</i> T-00038	1761-47-3	2-Hydroxy- <i>N</i> -(2-hydroxy-5-chlorobenzylidene)aniline, H-00196
1606-56-0	1,1-Diantiprylethane, D-00136	1707-07-9	2-Phenylethenylphosphonic acid, <i>see</i> P-00129	1761-48-4	5-Chloro-2-hydroxy- <i>N</i> -(2-hydroxy-5-chlorobenzylidene)aniline, C-00130
1606-67-3	▶ 1-Aminopyrene, A-00331	1707-08-0	2-Phenylethenylphosphonic acid, P-00129	1761-51-9	2-Hydroxy- <i>N</i> -(2-hydroxy-5-bromobenzylidene)aniline, H-00193
1609-47-8	▶ Diethyl dicarbonate, <i>in</i> D-00243	1707-95-5	▶ Bindone, B-00205	1761-52-0	2-[[[(2-Hydroxyphenyl)methylene]amino]-9 <i>H</i> -fluoren-3-ol, H-00477
1609-86-5	▶ 2-Isocyanato-2-methylpropane, I-00063	1710-20-9	Benz[<i>cd</i>]indol-2-(1 <i>H</i>)-one; <i>N</i> -Me, <i>in</i> B-00050	1761-55-3	<i>N</i> -(2,5-Dihydroxybenzylidene)-2-hydroxyaniline, D-00543
1611-35-4	Xylenol orange, X-00006	1711-02-0	4-Iodobenzoic acid; Chloride, <i>in</i> I-00041	1761-56-4	2-(2-Hydroxybenzylideneamino)phenol, H-00129
1613-37-2	▶ Quinoline; <i>N</i> -Oxide, <i>in</i> Q-00007	1711-06-4	3-Methylbenzoic acid; Chloride, <i>in</i> M-00137	1761-57-5	2-Hydroxy- <i>N</i> -(2-hydroxy-5-methylaniline, H-00191
1613-76-9	<i>p</i> -Nitrobenzohydroxamic acid, <i>in</i> N-00093	1713-68-4	3,5-Dichloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, D-00278	1761-58-6	<i>N</i> -(2,3-Dihydroxybenzylidene)-2-hydroxyaniline, D-00541
1613-88-3	4-Chlorobenzohydroxamic acid, C-00065	1713-69-5	2-[(3,5-Dibromo-2-hydroxyphenyl)methylene]- <i>N</i> -phenylhydrazinecarbothioamide, D-00192	1761-59-7	<i>N</i> -(2,4-Dihydroxybenzylidene)-2-hydroxyaniline, D-00542
1621-46-1	Haematoxylin; (\pm)-form, <i>in</i> H-00002	1719-57-9	Chloro(chloromethyl)dimethylsilane, C-00081	1761-61-1	5-Bromo-2-hydroxybenzaldehyde, B-00509
1623-15-0	Monobutyl phosphate, M-00338	1720-32-7	1,6-Diphenyl-1,3,5-hexatriene, D-01019		
1628-29-1	Phenothiazine; <i>N</i> -Ac, <i>in</i> P-00073	1723-94-0	1,2-Di-4-morpholinylethane, D-00928		
1629-51-2	1,2-Dihydroxyanthraquinone; Di-Ac, <i>in</i> D-00510	1723-98-4	Glyoxal bis(2-mercaptoanil), G-00029		
1633-33-6	4-Bromobenzoic acid; Anhydride, <i>in</i> B-00488	1726-86-9	2-Hydroxy-5-methylbenzaldehyde; Oxime, <i>in</i> H-00277		
1636-82-4	2-Pentanone; 2,4-Dinitrophenylhydrazone, <i>in</i> P-00036	1731-92-6	Heptadecanoic acid; Me ester, <i>in</i> H-00003		
1638-80-8	5,5'-(1-Propen-1-yl-3-ylidene)bis[2-thiobarbituric acid], P-00273				
1643-05-6	4,4'-Dichlorodithizone, D-00271				
1643-06-7	4,4'-Dibromodithizone, D-00187				
1643-19-2	▶ Tetrabutylammonium(1+); Bromide, <i>in</i> T-00023				
1643-20-5	▶ Dodecylamine; <i>N</i> -Di-Me, <i>N</i> -oxide, <i>in</i> D-01142				
1643-69-2	3-(Trifluoromethyl)benzenesulfonic acid, T-00251				

1761-91-7	2-Hydroxy- <i>N</i> -(2-hydroxy-5-methylbenzylidene)-4-methylaniline, H-00216	1843-21-6	2-Anilinothiazole, <i>in</i> A-00113	1963-82-2	▶ 1,8-Dihydroxyanthraquinone: Di-Ac, <i>in</i> D-00512
1762-41-0	4,4'-Dichloro-2,2'-bipyridine, D-00253	1849-53-2	3-Methoxy-2-pyridinecarboxaldehyde, <i>in</i> H-00518	1964-89-2	4,5-Dihydroxy-3,6-bis[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00558
1765-40-8	▶ (Bromomethyl)pentafluorobenzene, B-00532	1849-55-4	3-Hydroxy-2-pyridinecarboxaldehyde, H-00518	1971-49-9	Phthalimide; <i>N</i> -Ac, <i>in</i> P-00223
1765-48-6	▶ 2.2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-Eicosaflluoroundecanoic acid, E-00002	1858-47-5	1-Phenyl-2-propylamine, <i>see</i> P-00172	1982-99-6	2,3-Butanedione; Monoxime, semicarbazone, <i>in</i> B-00587
1768-59-8	1,4-Diphenylthiosemicarbazide, D-01053	1859-76-3	2-Aminobenzophenone; <i>N</i> -Me, <i>in</i> A-00111	1985-12-2	▶ 1-Bromo-4-isothiocyanatobenzene, B-00515
1768-87-2	3-Benzyl-2,6-dimercapto-4 <i>H</i> -thiopyran-4-one, B-00178	1861-84-3	1,1-Diantipyrilphenylmethane, D-00140	1986-81-8	3-Pyridinecarboxamide; <i>N</i> -Oxide, <i>in</i> P-00341
1768-94-1	3-Hexyl-2,6-dimercapto-4 <i>H</i> -thiopyran-4-one, H-00075	1864-94-4	Phenol; Formyl, <i>in</i> P-00060	1986-89-6	Diocetyl sulfoxide, D-00984
1772-02-7	Sulfarsazen; Na salt, <i>in</i> S-00038	1871-22-3	▶ Tetrazolium blue; Dichloride, <i>in</i> T-00132	1989-33-9	9 <i>H</i> -Fluorene-9-carboxylic acid, F-00013
1773-07-5	2-Methylquinoline; Picrate, <i>in</i> M-00306	1871-76-7	▶ Diphenylacetic acid; Chloride, <i>in</i> D-00999	2001-45-8	Tetraphenylphosphonium(1+); Chloride, <i>in</i> T-00120
1773-49-5	4-Methoxybenzaldehyde; 2,4-Dinitrophenylhydrazone, <i>in</i> M-00075	1874-22-2	3-(5-Nitro-2-furanyl)-2-propenal, N-00110	2001-94-7	Edetate dipotassium, <i>in</i> E-00078
1773-51-9	1-Naphthalenecarboxaldehyde; 2,4-Dinitrophenylhydrazone, <i>in</i> N-00003	1887-02-1	Tetrahydroxy-1,4-benzoquinone, <i>see</i> T-00072	2001-95-8	▶ Valinomycin, V-00001
1779-28-8	1,2-Ethanediphosphonic acid, <i>see</i> E-00026	1889-59-4	(Ethylsulfonyl)ethane, E-00114	2016-88-8	Amiloride hydrochloride, <i>in</i> A-00090
1779-48-2	Phenylphosphinic acid, P-00163	1891-19-6	1,10-Phenanthroline; <i>N</i> -Oxide, <i>in</i> P-00052	2034-65-3	3,4',7-Trihydroxyflavone, T-00283
1779-49-3	Methyltriphenylphosphonium(1+); Bromide, <i>in</i> M-00335	1898-66-4	▶ 2,2-Diphenyl-1-(2,4,6-trinitrophenyl)hydrazyl, D-01057	2038-03-1	▶ 4-Morpholinethanamine, M-00347
1779-51-7	▶ Butyltriphenylphosphonium(1+); Bromide, <i>in</i> B-00640	1899-02-1	▶ Trimethylanilinium hydroxide, <i>in</i> T-00336	2039-68-1	1,2-Di-4-biphenylethylene, D-00174
1785-84-8	1,3-Dioxo-2-indanecarboxylic acid; Me ester, <i>in</i> D-00991	1899-24-7	5-Bromo-2-furancarboxaldehyde, B-00507	2039-96-5	DSS, <i>in</i> T-00344
1787-57-1	▶ Capri blue; Chloride, <i>in</i> C-00017	1900-85-2	4-Methylbenzoic acid; Ph ester, <i>in</i> M-00138	2044-21-5	Dinonylamine, D-00979
1787-61-7	Chrome black special; Mono-Na salt, <i>in</i> C-00278	1906-79-2	Pyridine; B,EtBr, <i>in</i> P-00316	2044-27-1	▶ 2(1 <i>H</i>)-Pyridinethione; Thione- <i>form</i> , <i>N</i> -Me, <i>in</i> P-00357
1788-31-4	1,3-Diphenyl-2-propanone; Oxime, <i>in</i> D-01042	1910-42-5	▶ Parquat dichloride, <i>in</i> D-00841	2045-00-3	▶ 2-Aminophenylarsonic acid, A-00306
1793-80-2	Stilbazogall II, S-00030	1913-88-8	2,6-Dimercapto-3,5-dipropyl-4 <i>H</i> -thiopyran-4-one, D-00756	2049-73-2	1,3-Diethoxybenzene, <i>in</i> B-00021
1795-83-1	<i>N</i> -Hydroxy- <i>N</i> -phenylacetamide, <i>in</i> P-00135	1913-89-9	3,5-Diethyl-2,6-dimercapto-4 <i>H</i> -thiopyran-4-one, D-00342	2050-14-8	2,2'-Dihydroxyazobenzene, D-00514
1796-05-0	1,2-Dinitro-1,2-diphenylethylene; (<i>Z</i>)- <i>form</i> , <i>in</i> D-00952	1913-90-2	2,6-Dimercapto-3,5-diphenyl-4 <i>H</i> -thiopyran-4-one, D-00755	2050-16-0	4,4'-Dihydroxyazobenzene, D-00516
1796-92-5	Solochrome azurine BS, <i>see</i> S-00016	1913-93-5	Thymolphthalexon, T-00183	2050-34-2	4,[(2,4-Dihydroxyphenyl)azo]benzenesulfonic acid, D-00688
1799-47-9	2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Et ester, <i>in</i> H-00022	1914-99-4	Chlorophosphonazo III, C-00242	2050-44-4	▶ 2,5-Dimethylaniline; <i>N</i> -Ac, <i>in</i> D-00828
1804-15-5	Methylglyoxime, <i>in</i> P-00446	1915-49-7	2-Hydroxy-3 <i>H</i> -phenoxazin-3-one, H-00442	2050-46-6	▶ 1,2-Diethoxybenzene, <i>in</i> B-00020
1806-34-4	2,2'-(1,4-Phenylene)bis[5-phenyloxazole], P-00121	1916-55-8	<i>N</i> -(3-Oxo-3 <i>H</i> -phenoxazin-2-yl)acetamide, <i>in</i> A-00303	2051-49-2	Hexanoic acid; Anhydride, <i>in</i> H-00066
1806-41-3	[Phenyl(phenylamino)]methylphosphonic acid; Mono-octyl ester, <i>in</i> P-00155	1916-59-2	▶ 2-Amino-3 <i>H</i> -phenoxazin-3-one, A-00303	2051-50-5	2-Octanol; (\pm)- <i>form</i> , Ac, <i>in</i> O-00037
1812-30-2	▶ Bromazepam, B-00481	1923-70-2	Tetrabutylammonium(1+); Perchlorate, <i>in</i> T-00023	2051-89-0	▶ 4,4'-Diaminobiphenyl-3-sulfonic acid, D-00058
1820-59-3	2,2',4,4'-Tetranitrophenyl, T-00107	1931-60-8	▶ 2-Methylenebutanedioic acid; Dichloride, <i>in</i> M-00176	2051-97-0	Pyrrrole; <i>N</i> -Benzyl, <i>in</i> P-00436
1820-99-1	3,3'-Thiobis[6-hydroxybenzoic acid], T-00158	1932-08-7	Acenaphthenequinone; Dioxime, <i>in</i> A-00001	2052-25-7	Solochrome black PV; Na salt, <i>in</i> S-00018
1821-34-7	<i>N</i> -Chlorobenzamide, <i>in</i> B-00008	1932-60-1	Cyclohexyl hydrogen methylphosphonate, <i>in</i> M-00244	2052-49-5	▶ Tetrabutylammonium(1+); Hydroxide, <i>in</i> T-00023
1823-44-5	4-Methyl-2-(2-thiazolylazo)phenol, M-00323	1934-21-0	▶ Tartrazine; Tri-Na salt, <i>in</i> T-00003	2055-46-1	▶ Tetrahydro-2(1 <i>H</i>)-pyrimidinethione, T-00066
1823-48-9	2,2'-[2,6-Pyridinediylbis(methylidynenitrilo)]bisphenol, P-00354	1934-24-3	Solochrome fast red; Na salt, <i>in</i> S-00020	2059-71-4	4,4'-Diiododithione, D-00743
1823-91-2	2-Phenylpropanoic acid, <i>see</i> P-00167	1936-15-8	Orange G; Di-Na salt, <i>in</i> O-00042	2065-66-9	Methyltriphenylphosphonium(1+); Iodide, <i>in</i> M-00335
1825-68-9	Chloromethoxydimethylsilane, C-00166	1938-78-9	Aminomethylazo III, A-00235	2065-67-0	Tetraphenylphosphonium(1+); Iodide, <i>in</i> T-00120
1829-00-1	Titan yellow; Di-Na salt, <i>in</i> T-00187	1938-82-5	Chlorophosphonazo I, C-00241	2066-89-9	Pasiniazid, <i>in</i> A-00184
1829-92-1	Triethylsulfonium(1+); Iodide, <i>in</i> T-00236	1941-30-6	Tetrapropylammonium(1+); Bromide, <i>in</i> T-00124	2066-93-5	▶ 1,2-Naphthoquinone-4-sulfonic acid, N-00033
1830-57-5	Benz[<i>c</i>]indol-2-(1 <i>H</i>)-one; <i>N</i> -Ph, <i>in</i> B-00050	1942-48-9	5,7-Undecanedione, U-00001	2071-20-7	Bis(diphenylphosphino)methane, B-00340
1836-22-2	▶ Solochrome red B; Tri-Na salt, <i>in</i> S-00021	1942-52-5	▶ 2-Aminoethanethiol; <i>N</i> -Di-Et, <i>in</i> A-00170	2071-21-8	Bis(diphenylphosphinyl)methane, <i>in</i> B-00340
1836-27-7	4-Bromo- <i>N</i> -hydroxybenzamide, B-00510	1944-96-3	<i>O</i> -(<i>p</i> -Nitrobenzyl)hydroxylamine, N-00099	2074-02-4	2-Furancarboxaldehyde; 2,4-Dinitrophenylhydrazone, <i>in</i> F-00042
1837-57-6	▶ Rivanol, <i>in</i> D-00094	1945-77-3	Methylthymol blue, M-00327	2074-50-2	▶ 1,1'-Dimethyl-4,4'-bipyridinium(2+); Bismethylsulfate, <i>in</i> D-00841
1837-73-6	(1-Isocyanoeethyl)benzene, I-00067	1945-78-4	Di-2-benzothiazolylmethane, D-00163	2083-09-2	2,5-Bis([1,1'-biphenyl]-4-yl)oxazole, B-00260
1842-38-2	Dibenzyl selenide, D-00170	1946-74-3	2-Hydroxy-3-isopropyl-2,4,6-cycloheptatrien-1-one, H-00256	2083-91-2	▶ Trimethyl(dimethylamino)silane, T-00326
		1949-51-5	3,5-Diaminobenzoic acid; Et ester, <i>in</i> D-00051	2086-26-2	<i>O</i> -(<i>p</i> -Nitrobenzyl)hydroxylamine; B, HCl, <i>in</i> N-00099
		1950-39-6	Deferoxamine hydrochloride, <i>in</i> D-00029	2086-83-1	▶ Berberine, B-00197
		1950-71-6	4-Bromobenzenesulfonic acid; Bromide, <i>in</i> B-00487	2092-55-9	▶ Acid chrome violet K; Na salt, <i>in</i> A-00055
		1952-38-1	2-[(2-Hydroxyethyl)imino]methylphenol, H-00179	2099-63-0	2-Aminobenzoic acid; B.HCl, <i>in</i> A-00103
				2103-60-8	2-Mercapto-1,3-benzenediol, M-00020

2103-64-2	Gallein, G-00004	2211-14-5	2-Isonitrosopropanoic acid, <i>in</i> P-00448	2328-25-8	2-Phenylpropanoic acid; (\pm)- <i>form</i> , Amide, <i>in</i> P-00167
2103-67-5	Sulfochlorophenol K, S-00041	2213-43-6	▶ 1-Aminopiperidine, A-00329	2342-60-1	3-(Trifluoromethyl)benzenesulfonic acid; S-Benzythiuronium salt, <i>in</i> T-00251
2103-68-6	Sulfonazo, S-00048	2215-33-0	▶ 2-Pyridinecarboxaldehyde 2-pyridyl-hydrazone, P-00335	2345-38-2	Trimethylsilylacetic acid, T-00339
2103-73-3	Sulfochlorophenol S, S-00045	2216-15-1	4-Nitroaniline; <i>N</i> -Di-Et, <i>in</i> N-00077	2349-55-5	1-Hexadecylpyridinium(1+); Iodide, <i>in</i> H-00028
2103-74-4	Sulfochlorophenol R, S-00044	2216-51-5	▶ (-)-Menthol, <i>in</i> M-00012	2349-58-8	1,3-Dihydro-4,5-diphenyl-2 <i>H</i> -imidazole-2-thione, D-00399
2107-76-8	5,7-Dihydroxy-4-methyl-2 <i>H</i> -1-benzopyran-2-one, D-00646	2216-67-3	2-Naphthylamine; <i>N</i> -Me, <i>in</i> N-00042	2349-67-9	▶ 5-Amino-1,3,4-thiadiazoline-2(3 <i>H</i>)-thione, A-00354
2107-77-9	▶ 7,8-Dihydroxy-4-methyl-2 <i>H</i> -1-benzopyran-2-one, D-00648	2216-75-3	2-Furancarboxaldehyde; Phenylhydrazone, <i>in</i> F-00042	2353-45-9	Fast green FCF; Di-Na salt, <i>in</i> F-00001
2113-47-5	▶ 2-Acetamidobiphenyl, <i>in</i> A-00116	2217-79-0	Diphenyliodonium(1+); Iodide, <i>in</i> D-01028	2363-23-7	2,4-Dinitrothioanisole, <i>in</i> D-00945
2113-72-6	<i>N</i> -2-Propenyl-1,2-hydrazinedicarbothioamide, P-00272	2218-96-4	▶ 2,4-Dinitrobenzenethiol, D-00945	2365-44-8	Isatin hydrazone, <i>in</i> I-00056
2116-41-8	Phenylhydrazine; <i>N</i> ¹ -Ac, <i>in</i> P-00134	2225-23-2	Ethylene dithiotosylate, <i>in</i> E-00028	2365-48-2	▶ Mercaptoacetic acid; Me ester, <i>in</i> M-00016
2122-70-5	▶ (1-Naphthyl)acetic acid; Et ester, <i>in</i> N-00040	2232-12-4	▶ 1,3-Diiodo-5,5-dimethyl-2,4-imidazolidinedione, <i>in</i> D-00866	2373-98-0	▶ 4,4'-Diamino-3,3'-biphenyldiol, D-00056
2127-03-9	▶ 2,2'-Dithiobispyridine, D-01122	2234-82-4	Chloropropylmagnesium, C-00250	2374-69-8	1-Butanesulfonic acid; Me ester, <i>in</i> B-00603
2127-10-8	▶ 2,2'-Dithiobis[5-nitropyridine], D-01121	2235-01-0	1,1'-(Dimethoxymethylene) bisbenzene, <i>in</i> B-00069	2376-43-4	Fluphenazine caproate, <i>in</i> F-00034
2131-64-8	▶ 4-(Dimethylamino)phenyl isothiocyanate, D-00817	2243-42-7	2-Phenoxybenzoic acid, P-00075	2381-85-3	Nile blue A; Chloride, <i>in</i> N-00069
2132-80-1	4,4'-Dimethoxybiphenyl, <i>in</i> B-00208	2243-76-7	▶ Alizarine chrome orange G, A-00075	2382-08-3	1 <i>H</i> -Benz[de]isoquinoline-1,3(2 <i>H</i>)-dione; <i>N</i> -Me, <i>in</i> B-00051
2134-08-9	1- α -Benzamido- <i>p</i> -(dimethylamino) cinnamoyl]-2-isonicotinoylhydrazide, B-00011	2243-81-4	1-Naphthalenecarboxylic acid; Amide, <i>in</i> N-00005	2382-96-9	▶ 2(3 <i>H</i>)-Benzoxazolethione, B-00113
2138-24-1	Tetrahexylammonium(1+); Iodide, <i>in</i> T-00049	2246-46-0	4-(2-Thiazolylazo)-1,3-benzenediol, T-00141	2385-70-8	2-Bromobutanoic acid; (\pm)- <i>form</i> , <i>in</i> B-00496
2143-79-5	2-Anthracenecarboxylic acid; Hydrazide, <i>in</i> A-00377	2248-93-3	2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-Eicosafuoroundecanoic acid; Chloride, <i>in</i> E-00002	2386-47-2	1-Butanesulfonic acid, B-00603
2145-68-8	1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione, P-00017	2251-50-5	Pentafluorobenzoic acid; Chloride, <i>in</i> P-00012	2386-54-1	1-Butanesulfonic acid; Na salt, <i>in</i> B-00603
2148-14-3	9-Phenoxyacridine, <i>in</i> H-00093	2253-43-2	<i>O</i> , <i>O</i> -Dipropyl phosphorodithioate, D-01060	2386-64-3	Chloroethylmagnesium, C-00115
2149-46-4	2-Amino- <i>N</i> -2-naphthalenylpropanamide, <i>see</i> A-00278	2253-44-3	<i>O</i> , <i>O</i> -Dibutyl phosphorodithioate, D-00241	2387-48-6	2,6-Diamino-5-nitroso-4(1 <i>H</i>)-pyrimidinone, D-00109
2150-44-9	3,5-Dihydroxybenzoic acid; Me ester, <i>in</i> D-00534	2253-52-3	<i>O</i> , <i>O</i> -Bis(2-methylpropyl) phosphorodithioate, B-00413	2388-50-3	2-Aminobenzenethiol; <i>N,N,S</i> -Tri-Me, <i>in</i> A-00101
2150-45-0	2,6-Dihydroxybenzoic acid; Me ester, <i>in</i> D-00533	2253-54-5	<i>O</i> , <i>O</i> -Dipentyl phosphorodithioate, D-00996	2390-56-9	3-Amino-7-(dimethylamino)-5-phenylphenazinium(1+); Chloride, <i>in</i> A-00162
2150-46-1	2,5-Dihydroxybenzoic acid; Me ester, <i>in</i> D-00532	2253-60-3	<i>O</i> , <i>O</i> -Diphenyl phosphorodithioate, D-01040	2390-59-2	Ethyl violet, E-00122
2150-47-2	2,4-Dihydroxybenzoic acid; Me ester, <i>in</i> D-00531	2259-14-5	Chrysanthemic acid; (1 <i>S</i> ,3 <i>S</i>)- <i>form</i> , <i>in</i> C-00296	2390-60-5	Victoria pure blue BO; Chloride, <i>in</i> V-00004
2150-58-5	▶ Phenol blue, P-00062	2259-85-0	<i>N</i> -Hydroxydecanamide, H-00147	2390-63-8	Ethylrhodamine B, <i>in</i> R-00002
2155-30-8	▶ 2-Hydroxypropanoic acid; (\pm)- <i>form</i> , Me ester, <i>in</i> H-00516	2272-45-9	4-Methylaniline; <i>N</i> -Benzylidene, <i>in</i> M-00124	2391-29-9	Thiazine blue; Chloride, <i>in</i> T-00136
2155-60-4	2-Methylenebutanedioic acid; Dibutyl ester, <i>in</i> M-00176	2276-40-6	3-Mercapto-1,3-diphenyl-2-propenyl-1-one, M-00030	2391-78-8	Diethylammonium diethylthiocarbamate, <i>in</i> D-00344
2157-56-4	2,4-Pentanedione; <i>Oxo-form</i> , Dioxime, <i>in</i> P-00030	2289-36-3	1,4-Dihydroxyanthraquinone; Di-Ac, <i>in</i> D-00511	2404-73-1	Dibutyl methylphosphonate, <i>in</i> M-00244
2157-57-5	2,5-Hexanedione; Dioxime, <i>in</i> H-00063	2290-89-3	<i>N</i> -Benzylaniline; B,HCl, <i>in</i> B-00165	2409-52-1	2-Methylenebutanedioic acid; Di-Et ester, <i>in</i> M-00176
2161-40-2	Tropolone; Me ether, <i>in</i> T-00432	2291-38-5	2,3,4(1 <i>H</i>)-Quinolinetrione; 1-Ph, <i>in</i> Q-00022	2411-89-4	<i>o</i> -Cresolphthalexon, C-00308
2168-78-7	Dithiobenzoic acid; Me ester, <i>in</i> D-01117	2291-40-9	2,3,4(1 <i>H</i>)-Quinolinetrione; 1-Me, <i>in</i> Q-00022	2417-77-8	▶ 9-(Bromomethyl)anthracene, B-00518
2169-98-4	3,4-Dihydroxybenzaldehyde, <i>see</i> D-00519	2292-53-7	α , <i>N</i> -Dihydroxybenzeneacetamide, D-00521	2418-14-6	▶ 2,3-Dimercaptobutanedioic acid, D-00751
2170-03-8	2-Methylenebutanedioic acid; Anhydride, <i>in</i> M-00176	2294-71-5	2-Phenylbutanoic acid; (\pm)- <i>form</i> , Me ester, <i>in</i> P-00110	2420-26-0	4-Chloro-2-hydroxybenzaldehyde, C-00121
2170-13-0	4-Biphenylol; Benzoyl, <i>in</i> B-00211	2300-16-5	3,6-Dinitro-1,2-benzenedicarboxylic acid, D-00939	2423-65-6	Pyrazine; 1-Oxide, <i>in</i> P-00283
2172-27-2	3-Hydroxy-4-(2-thiazolylazo)-2,7-naphthalenedisulfonic acid, H-00548	2302-90-1	β -Iononethiosemicarbazone, <i>in</i> M-00010	2423-84-9	Pyrazine; 1,4-Dioxide, <i>in</i> P-00283
2181-42-2	▶ Trimethylsulfonium(1+); Iodide, <i>in</i> T-00347	2303-01-7	<i>m</i> -Cresol purple, C-00309	2427-90-9	2,3-Pyrazinedicarboxylic acid; Di-Et ester, <i>in</i> P-00286
2182-55-0	(Ethenyloxy)cyclohexane, E-00047	2304-30-5	▶ Tetrabutylphosphonium(1+); Chloride, <i>in</i> T-00024	2437-03-8	2-Naphthylamine; <i>N</i> -Et, <i>in</i> N-00042
2182-66-3	Diacetoxymethylsilane, D-00031	2305-53-5	Chromoxan violet 5B, C-00295	2437-61-8	1-(2,3,4-Trihydroxyphenyl)-1-butanone, T-00314
2185-86-6	▶ <i>N</i> -[4-[(4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]- <i>N</i> -methylmethanaminium(1+); Chloride, <i>in</i> D-00812	2307-10-0	Ethanethioic acid; <i>S</i> -Propyl ester, <i>in</i> E-00038	2439-85-2	Phthalimide; <i>N</i> -Bromo, <i>in</i> P-00223
2185-87-7	Victoria blue 4R; Chloride, <i>in</i> V-00003	2313-87-3	Ethoxazene hydrochloride, <i>in</i> D-00095	2439-99-8	▶ Glyphosine, G-00040
2186-92-7	Dimethoxy(4-methoxyphenyl)methane, <i>in</i> M-00075	2315-97-1	Lucigenine; Dinitrate, <i>in</i> L-00012	2444-19-1	1,4-Benzenediol; Monobenzoyl, <i>in</i> B-00022
2192-20-3	▶ Atarax, <i>in</i> H-00563	2319-29-1	Decanoic acid; Amide, <i>in</i> D-00025	2444-37-3	Methylmercaptoacetic acid, <i>in</i> M-00016
2198-53-0	▶ 2,6-Dimethylaniline; <i>N</i> -Ac, <i>in</i> D-00829	2320-44-7	2',7'-Dihydroxyfluorescein, D-00613	2447-79-2	2,4-Dichlorobenzoic acid; Amide, <i>in</i> D-00249
2198-54-1	▶ 3,4-Dimethylaniline; <i>N</i> -Ac, <i>in</i> D-00830	2320-95-8	4'-Chlorofluorescein, C-00117	2449-49-2	▶ 1-Phenylethylamine; (\pm)- <i>form</i> , <i>N,N</i> -Di-Me, <i>in</i> P-00130
2208-34-6	Benzylamine; B,H ₂ SO ₄ , <i>in</i> B-00163	2320-96-9	4',5'-Dichlorofluorescein, D-00276	2452-70-2	Methylphosphonic acid; Bis(3-methylbutyl) ester, <i>in</i> M-00244
		2320-97-0	2',5'-Dichlorofluorescein, D-00274	2455-80-3	2',4',7'-Trichlorofluorescein, T-00225
		2320-99-2	2',4'-Dichlorofluorescein, D-00273	2459-07-6	2-Pyridinecarboxylic acid; Me ester, <i>in</i> P-00342
		2321-03-1	2'-Chlorofluorescein, C-00116		
		2321-07-5	▶ Fluorescein, F-00020		
		2328-24-7	2-Phenylpropanoic acid; (\pm)- <i>form</i> , <i>in</i> P-00167		

2459-10-1	1,2,4-Benzenetricarboxylic acid; Tri-Me ester, <i>in</i> B-00032	2582-42-5	2,6-Dichloro-4-[(3-chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00256	2740-25-2	▶ 2-(1-Oxopropyl)-1 <i>H</i> -indene-1,3(2 <i>H</i>)-dione, O-00071
2460-58-4	2-Hydroxy-4-nitrobenzaldehyde, H-00379	2588-24-1	Eriochrome cyanine R, E-00013	2746-57-8	2-Furancarboxaldehyde 2-pyridinylhydrazone, F-00049
2465-27-2	▶ C.I. Basic yellow 2, <i>in</i> A-00456	2590-82-1	3-[(2-Arsonophenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00427	2746-81-8	▶ Fluphenazine enanthate, <i>in</i> F-00034
2465-59-0	1 <i>H</i> -Pyrazolo[3,4- <i>d</i>]pyrimidine-4,6(5 <i>H</i> ,7 <i>H</i>)-dione, P-00302		<i>o</i> -Chloroformanilide, <i>in</i> C-00058	2747-04-8	7-Acetoxy-4-(bromomethyl) coumarin, <i>in</i> B-00524
2466-76-4	▶ <i>N</i> -Acetylimidazole, <i>in</i> I-00001	2596-93-2	8-Hydroxyquinoline; <i>O</i> -Ac, <i>in</i> H-00525	2747-05-9	7-Hydroxy-4-methyl-2 <i>H</i> -1-benzopyran-2-one; Ac, <i>in</i> H-00283
2475-92-5	4'-Hydroxyacetophenone; Me ether, oxime, <i>in</i> H-00090	2598-29-0	2-(Pyrazinyl)benzimidazole, P-00296	2747-15-1	3,5,6,8-Tetramethyl-1,10-phenanthroline, T-00101
2475-93-6	3,3-Dimethyl-2-butanone; Oxime, <i>in</i> D-00845	2602-88-2	3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bis[4-arsonobenzoic acid], D-00591	2751-90-8	Tetraphenylphosphonium(1+); Bromide, <i>in</i> T-00120
2481-94-9	▶ 4-Aminoazobenzene; <i>N</i> -Di-Et, <i>in</i> A-00094	2604-69-5	Amiloride, A-00090	2756-87-8	Fumaric acid; Mono-Me ester, <i>in</i> F-00038
2484-88-0	Azobenzene-4-sulfonic acid, A-00468	2609-46-3	Induline scarlet; Chloride, <i>in</i> I-00035	2768-89-0	Rhodamine G; Chloride, <i>in</i> R-00005
2485-62-3	Methyl cysteine, <i>in</i> C-00370	2611-49-6	(Hydroxymethyl)phosphonic acid, H-00318	2783-48-4	Bis(2-methylpropyl) phenylphosphonate, <i>in</i> P-00164
2486-80-8	4-Amino-2-methoxybenzoic acid, <i>in</i> A-00184	2617-47-2	<i>p</i> -Chloroformanilide, <i>in</i> C-00060	2783-89-3	Triethylenetetramine- <i>N,N',N'',N'''</i> -hexaacetic acid, T-00233
2486-89-7	Trilaurylammonium chloride, <i>in</i> T-00230	2617-79-0	Diphenyldisulfimide, D-01008	2785-32-2	Tris(2-ethylhexyl)phosphine oxide, T-00390
2489-77-2	▶ Thiourea; <i>N</i> -Tri-Me, <i>in</i> T-00175	2618-96-4	▶ Pericyazine, P-00044	2786-62-1	3-Methyl-2-benzothiazolone, <i>in</i> B-00090
2491-17-0	Cyclohexyl(2-morpholinoethyl) carbodiimide; Metho- <i>p</i> -toluenesulfonate, <i>in</i> C-00356	2622-26-6	4- <i>sec</i> -Butyl-2-(1-phenylethyl)phenol, B-00637	2797-54-8	<i>S,S</i> -Dibutyl butylphosphonodithioate, <i>in</i> B-00638
2491-38-5	▶ 2-Bromo-4'-hydroxyacetophenone, B-00508	2622-87-9	Pentetic acid, <i>see</i> P-00039	2800-80-8	Bromophenol red, B-00543
2491-39-6	2-Bromo-2',4'-dihydroxyacetophenone, B-00501	2623-95-2	2-Bromodecanoic acid, B-00500	2801-99-2	1-(2-Furanyl)-3-(2-selenophenyl)-1,3-propanedione, F-00062
2492-23-1	▶ (3,4-Dichlorobenzyl) triphenylphosphonium(1+); Chloride, <i>in</i> D-00252	2632-13-5	2-Bromo-4'-methoxyacetophenone, <i>in</i> B-00508	2802-07-5	1,3-Cyclohexanedione; Dioxime, <i>in</i> C-00338
2496-26-6	4'-Ethoxy-4-hydroxyazobenzene, <i>in</i> D-00516	2637-34-5	▶ 2(1 <i>H</i>)-Pyridinethione, P-00357	2805-80-3	4,4'-Difluorodithizone, D-00361
2496-71-1	4,5-Dichloro-6-oxo-1(6 <i>H</i>)-pyridazinepropanoic acid, D-00287	2645-22-9	4,4'-Dithiobispyridine, D-01123	2809-21-4	(1-Hydroxyethylidene) bisphosphonic acid, H-00178
2502-94-5	4,4'-Dimethoxydithizone, D-00775	2650-17-1	Xylene cyanole FF; Na salt, <i>in</i> X-00004	2810-74-4	<i>N,N'</i> -Dimethylbenzidine, <i>in</i> D-00053
2503-55-1	3-Pyridinecarboxamide; <i>N'</i> -Benzyl, <i>in</i> P-00341	2650-18-2	▶ Erioglaucine A; Di-NH ₄ salt, <i>in</i> E-00018	2818-66-8	5-Amino-2-benzimidazoethiol, A-00102
2508-19-2	▶ 2,4,6-Trinitrobenzenesulfonic acid, T-00351	2666-14-0	▶ (1-Hydroxyethylidene) bisphosphonic acid; Tri-Na salt, <i>in</i> H-00178	2828-64-0	Pipsan, <i>in</i> I-00039
2511-09-3	▶ Ethyl phenylphosphinate, <i>in</i> P-00163	2666-53-7	2,4,6-Tribromophenol, <i>see</i> T-00205	2829-27-8	4-Nitrobenzaldehyde; Phenylhydrazone, <i>in</i> N-00082
2515-62-0	4,5-Dihydro-1,5-diphenyl-3-(2-phenylethenyl)-1 <i>H</i> -pyrazole, D-00401	2669-98-9	2-(2,4-Dinitrophenyl) pyridinium(1+), D-00974	2832-30-6	1,4-Dichloro-5,8-dihydroxyanthraquinone, D-00261
2524-09-6	<i>O,O,S</i> -Triethyl phosphorodithioate, T-00235	2672-57-3	1,2,3-Benzenetricarboxylic acid; Tri-Me ester, <i>in</i> B-00031	2832-45-3	1-Hexanesulfonic acid; Na salt, <i>in</i> H-00064
2524-52-9	2-Pyridinecarboxylic acid; Et ester, <i>in</i> P-00342	2672-58-4	1,3,5-Benzenetricarboxylic acid; Tri-Me ester, <i>in</i> B-00033	2834-23-3	Chlorodifluoroacetic acid; Anhydride, <i>in</i> C-00092
2525-18-0	Trimethylphenylammonium(1+); Perchlorate, <i>in</i> T-00336	2679-01-8	▶ Methylene green; Chloride, <i>in</i> M-00177	2834-92-6	1-Amino-2-naphthalenol, A-00273
2531-75-1	Pentetic acid, <i>see</i> P-00039	2681-77-8	Pyridoxal nicotinoylhydrazone, P-00415	2835-77-0	2-Aminobenzophenone, A-00111
2536-71-2	5,5'-Methylenebis[8-quinolinol], M-00174	2683-82-1	Octaethylporphyrin, O-00002	2836-04-6	1,3-Diaminobenzene; <i>N,N</i> -Di-Me, <i>in</i> D-00047
2538-79-6	Eriochrome blue black, E-00010	2687-43-6	▶ <i>O</i> -Benzylhydroxylamine; B,HCl, <i>in</i> B-00184	2843-27-8	2-Hydroxyformanilide, <i>in</i> A-00300
2538-85-4	▶ Eriochrome blue black; Na salt, <i>in</i> E-00010	2690-08-6	Dioctyl sulfide, D-00983	2844-92-0	▶ Aurantia, <i>in</i> H-00065
2551-53-3	Trioctylphosphine; Sulfide, <i>in</i> T-00358	2697-53-2	1-Pentanesulfonic acid; Me ester, <i>in</i> P-00032	2845-83-2	4-Methoxy-3-penten-2-one, <i>in</i> P-00030
2553-70-0	4-Mercapto-1,3-benzenediol, M-00021	2701-88-4	4-[(3-Chloro-4-hydroxyphenyl) imino]-2,5-cyclohexadien-1-one, C-00149	2846-89-1	5,6-Diamino-4(1 <i>H</i>)-pyrimidinethione, D-00122
2553-71-1	Bromochlorophenol blue, B-00497	2702-58-1	3,5-Dinitrobenzoic acid; Me ester, <i>in</i> D-00948	2847-14-5	<i>N,N'</i> -Bis(pyridinylmethylene)-1,2-ethanediamine, <i>see</i> B-00441
2555-14-8	2,5-Pyrrolidinedione; <i>N</i> -(2-Propenyl), <i>in</i> P-00442	2703-74-4	Isonitrosodimedone, <i>in</i> D-00848	2850-61-5	▶ Dibutylarsinic acid, D-00226
2555-28-4	7-Methoxy-4-methyl-2 <i>H</i> -1-benzopyran-4-one, <i>in</i> H-00283	2712-78-9	[Bis(trifluoroacetoxy)iodo]benzene, B-00462	2857-97-8	Bromotrimethylsilane, B-00582
2555-37-5	3-Acetyl-4-hydroxy-2 <i>H</i> -1-benzopyran-2-one, A-00017	2719-13-3	Acetic acid; 2-(4-Nitrophenylhydrazide), <i>in</i> A-00006	2861-02-1	4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid; Na salt, <i>in</i> D-00073
2556-46-9	<i>N,N'</i> -Diphenylbenzamidine, D-01001	2719-27-9	Cyclohexanecarboxylic acid; Chloride, <i>in</i> C-00336	2861-41-8	2',4',5'-Trichlorofluorescein, T-00224
2563-97-5	▶ 2,2,2-Trichloro- <i>N</i> -phenylacetamide, <i>in</i> T-00218	2719-73-5	Benzaldehyde 2-pyridinylhydrazone, B-00006	2869-83-2	▶ C.I. 11050 Basic dye, <i>in</i> J-00004
2578-45-2	2-Chloro-3,5-dinitropyridine, C-00107	2720-79-8	▶ Carbonodithioic acid <i>O</i> -(phenylmethyl) ester; K salt, <i>in</i> C-00024	2870-32-8	Chrysophenine G; Di-Na salt, <i>in</i> C-00297
2580-56-5	Victoria blue B; Chloride, <i>in</i> V-00002	2724-69-8	▶ <i>N</i> -Methyl- <i>N'</i> -phenylthiourea, <i>in</i> P-00201	2874-33-1	3,4-Dihydroxybenzaldehyde; 3-Me ether, oxime, <i>in</i> D-00519
2580-79-2	Oxamidoxime, <i>in</i> O-00048	2725-55-5	4,4'-Dichlorodiphenyldisulfimide, D-00268	2876-18-8	2-Methoxyphenazine, <i>in</i> H-00439
2582-33-4	2,6-Dibromo-4-[(4-hydroxyphenyl) imino]-2,5-cyclohexadien-1-one, D-00191	2733-41-7	4-Nitrobenzoic acid; Azide, <i>in</i> N-00093	2876-78-0	▶ (1-Naphthyl)acetic acid; Me ester, <i>in</i> N-00040
		2736-47-2	Isopropylphosphonic acid; Diisocyanate, <i>in</i> I-00077	2890-10-0	9-Amino-2,3-dihydrobenzof[<i>g</i>] phthalazine-1,4-dione, A-00151

2892-51-5	▶ 3,4-Dihydroxy-3-cyclobutene-1,2-dione, D-00569	3027-06-3	2,5-Pyrrolidinedione; <i>N</i> -Ac, <i>in</i> P-00442	3144-16-9	Camphor-10-sulfonic acid; (+)- <i>form</i> , <i>in</i> C-00016
2893-33-6	2,6-Dicyanopyridine, <i>in</i> P-00353	3028-06-6	2-Aminobenzothiazole; 2- <i>N</i> -Ac, <i>in</i> A-00113	3144-59-0	2,6-Dihydroxybenzoic acid, <i>see</i> D-00533
2905-52-4	Xanthic acid; Anhydride, <i>in</i> X-00002	3029-19-4	1-Pyrenecarboxaldehyde, P-00306	3145-86-6	1-Iodomethyl-4-nitrobenzene, I-00047
2912-79-0	2-Hydroxy-3,5-dinitrobenzoic acid; Amide, <i>in</i> H-00154	3030-93-1	2,4-Dihydroxybenzaldehyde; Semicarbazone, <i>in</i> D-00517	3147-14-6	Calmagite, C-00015
2918-80-1	3-[(2,4-Dihydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00693	3030-97-5	2-Hydroxybenzaldehyde; Semicarbazone, <i>in</i> H-00101	3147-45-3	β -Resorcyllamide, <i>in</i> D-00531
2918-88-9	Azobenzene-4-carboxylic acid; Me ester, <i>in</i> A-00467	3031-21-8	Bis(diisopropoxyphosphinothioyl) disulfide, B-00310	3147-50-0	2,6-Dihydroxybenzoic acid, <i>see</i> D-00533
2931-90-0	4-Hydroxy-5-methoxy-1,3-benzenedicarboxaldehyde, <i>in</i> D-00524	3033-80-5	8-Methoxy-2-methylquinoline, <i>in</i> H-00326	3147-62-4	3,5-Dihydroxybenzoic acid, <i>see</i> D-00534
2935-46-8	Tributylphosphine; Telluride, <i>in</i> T-00212	3034-19-3	▶ (2-Nitrophenyl)hydrazine, N-00137	3147-64-6	2-Hydroxy-6-methoxybenzoic acid, <i>in</i> D-00533
2935-90-2	3-Mercaptopropanoic acid; Me ester, <i>in</i> M-00052	3044-64-2	2,6-Dimercapto-3-propyl-4 <i>H</i> -thiopyran-4-one, D-00764	3148-72-9	▶ 1,3-Diamino-2-propanol- <i>N,N,N',N'</i> -tetraacetic acid, D-00116
2938-24-1	2-(2-Benzothiazolylazo)-4-methylphenol, B-00097	3048-12-2	1-Nitro-4-(phenoxyethyl)benzene, <i>in</i> N-00097	3164-29-2	▶ L-Threonic acid; Di-NH ₄ salt, <i>in</i> T-00002
2941-29-9	2-Cyanocyclopentanone, <i>in</i> O-00060	3051-09-0	Murexide, <i>in</i> P-00281	3166-00-5	<i>N</i> -(Aminoiminomethyl)benzamide, A-00226
2945-08-6	(4-Nitrophenyl)acetic acid; Me ester, <i>in</i> N-00120	3051-11-4	Brilliant yellow; Di-Na salt, <i>in</i> B-00480	3167-49-5	6-Amino-3-pyridinecarboxylic acid, A-00334
2947-64-0	Eriochrome geranol, E-00015	3051-27-2	1-(2-Thienyl)-1,3-butanedione, T-00150	3167-69-9	Diethyl diethylphosphoramidate, D-00340
2961-47-9	4-(1-Butylpentyl)pyridine, B-00635	3056-93-7	1,3,3-Trimethyl-2-[2-(2-methyl-1 <i>H</i> -indol-3-yl)ethylene]-3 <i>H</i> -indolium(1+); Chloride, <i>in</i> T-00328	3171-45-7	▶ 1,2-Diamino-4,5-dimethylbenzene, D-00080
2963-66-8	2-(2-Hydroxyphenyl)benzimidazole, H-00465	3058-39-7	1-Cyano-4-iodobenzene, <i>in</i> I-00041	3179-31-5	▶ 1,2-Dihydro-3 <i>H</i> -1,2,4-triazole-3-thione, D-00496
2973-26-4	2-Phenyl-4-quinolinecarbonitrile, <i>in</i> P-00189	3062-36-0	7-Chloro-8-hydroxy-5-quinolinesulfonic acid, C-00152	3179-84-8	Eriochrome fast grey RAS; Na salt, <i>in</i> E-00014
2978-11-2	<i>N,N'</i> -Diisopropyl- <i>O</i> - <i>p</i> -nitrobenzylisourea, D-00749	3064-73-1	Bis(diisobutylthiocarbonyl) disulfide, <i>in</i> T-00166	3185-99-7	1-Methyl-4-(methylsulfonyl)benzene, <i>in</i> M-00203
2987-53-3	<i>o</i> -Thioanisidine, <i>in</i> A-00101	3068-40-4	Rhodamine 3G0; Chloride, <i>in</i> R-00004	3190-70-3	4-(2-Methylpropyl)-2,5-oxazolidinedione; (<i>S</i>)- <i>form</i> , <i>in</i> M-00261
2987-87-3	4-Amino-4-oxo-2-butenic acid, <i>in</i> F-00038	3073-59-4	1,6-Hexanediamine; <i>N,N'</i> -Di-Ac, <i>in</i> H-00061	3190-71-4	2,5-Dioxo-4-oxazolidinepropanoic acid; (<i>S</i>)- <i>form</i> , Benzyl ester, <i>in</i> D-00993
2999-40-8	1,3,5-Benzenetriol; Tri-Ac, <i>in</i> B-00036	3073-87-8	1,4-Bis(4-methyl-5-phenyl-2-oxazolyl)benzene, B-00408	3197-61-3	1 <i>H</i> -Imidazole-1-carboxaldehyde, <i>in</i> I-00001
3002-18-4	Tris(2-hydroxyethyl)amine; Tri-Ac, <i>in</i> T-00406	3076-05-9	2-(Cyclohexylamino)ethanesulfonic acid, <i>see</i> C-00348	3198-23-0	Cyclohexanecarboxylic acid, <i>see</i> C-00336
3002-30-0	9 <i>H</i> -Fluorene-9-carboxylic acid; Me ester, <i>in</i> F-00013	3077-13-2	1,1'-(Phenylimino)bis-2-propanol, P-00136	3219-56-5	Acid chrome violet K, A-00055
3002-77-5	2-Methyl-1,10-phenanthroline, M-00220	3078-09-9	Benzaldehyde (4-nitrophenyl)hydrazone, B-00005	3220-35-7	5-[(4-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00462
3002-78-6	5-Methyl-1,10-phenanthroline, M-00221	3084-13-7	2-Hydroxy-5-nitro-2,4,6-cycloheptatrien-1-one, H-00388	3232-36-8	2-Hydroxybenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, H-00120
3002-80-0	3,8-Dimethyl-1,10-phenanthroline, D-00881	3084-17-1	5-Chloro-2-hydroxy-2,4,6-cycloheptatrien-1-one, C-00127	3232-37-9	Salicylaldehyde benzoylhydrazone, <i>in</i> H-00101
3002-81-1	5,6-Dimethyl-1,10-phenanthroline, D-00883	3084-40-0	Diethyl (hydroxymethyl)phosphonate, <i>in</i> H-00318	3233-32-7	1,4-Benzenediol; Mono-Ac, <i>in</i> B-00022
3003-07-4	▶ Tetraphenyl- μ -sulfatodithallium, T-00123	3084-50-2	▶ Tributylphosphine sulfide, T-00214	3234-59-1	Tetraethylenepentamineheptaacetic acid, T-00045
3006-10-8	Mecetronium ethylsulfate, <i>in</i> E-00071	3084-53-5	Trimethylsulfonium(1+); Bromide, <i>in</i> T-00347	3237-23-8	<i>N</i> -(2-Furanyl)methylene)benzenamine, <i>in</i> F-00042
3007-71-4	<i>N</i> -Octylaniline, O-00038	3085-54-9	4-Methylaniline; <i>N</i> -Formyl, <i>in</i> M-00124	3240-72-0	5,6-Diamino-2,4(1 <i>H</i> ,3 <i>H</i>)-pyrimidinedione, D-00120
3007-97-4	1-Naphthalenecarboxylic acid; Et ester, <i>in</i> N-00005	3086-29-1	Trimethylsulfonium(1+); Chloride, <i>in</i> T-00347	3244-88-0	Acid fuchsin; Di-Na salt, <i>in</i> A-00056
3008-34-2	1,2-Cycloundecanedione, C-00369	3087-82-9	Caesium tetraphenylborate(1-), C-00009	3248-05-3	4,7-Dimethyl-1,10-phenanthroline, D-00882
3008-36-4	1,2-Cyclononanedione, C-00360	3088-14-0	1,10-Bis(2,4-dihydroxyphenyl)-1,10-decanedione, B-00304	3248-91-7	C.I. Basic violet 2; B. HCl, <i>in</i> C-00003
3008-37-5	1,2-Cyclooctanedione, C-00361	3095-79-2	Bis(2-aminophenyl) disulfide; 2,2'- <i>N</i> -Di-Ac, <i>in</i> B-00251	3248-93-9	▶ Rosaniline, R-00009
3008-39-7	1,2-Cycloheptanedione, C-00333	3098-65-5	Arpenal, <i>in</i> D-00999	3251-56-7	▶ 2-Methoxy-4-nitrophenol, <i>in</i> N-00087
3008-40-0	1,2-Cyclopentanedione, C-00362	3106-60-3	▶ 3-(Aminocarbonyl)-1-methylpyridinium(1+), A-00134	3258-74-0	Acid alizarin black SN; Di-Na salt, <i>in</i> A-00051
3008-41-1	1,2-Cyclododecanedione, C-00332	3108-24-5	Pentadecafluorooctanoic acid; Et ester, <i>in</i> P-00008	3265-35-8	Isatin; 2-Oxime, <i>in</i> I-00056
3008-42-2	4-Methyl-1,2-cyclohexanedione, M-00157	3115-66-0	▶ Tetrabutylphosphonium(1+); Iodide, <i>in</i> T-00024	3266-92-0	4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carbonitrile, <i>in</i> H-00428
3008-43-3	3-Methyl-1,2-cyclohexanedione, M-00156	3115-68-2	▶ Tetrabutylphosphonium(1+); Bromide, <i>in</i> T-00024	3267-40-1	Eriochrome azurol G; Di-Na salt, <i>in</i> E-00009
3010-30-8	▶ 1,4-Diaminobenzene; <i>N,N'</i> -Di-Et, <i>in</i> D-00048	3117-03-1	2,5-Dimethoxy-1,4-benzoquinone, <i>in</i> D-00540	3270-25-5	Acid chrome blue K; Tri-Na salt, <i>in</i> A-00053
3010-45-5	1-[(3-Chlorophenyl)azo]-2-naphthalenol, C-00205	3117-06-4	Tetramethoxy-1,4-benzoquinone, <i>in</i> T-00072	3271-80-5	2-Biphenylol; Ac, <i>in</i> B-00210
3012-48-4	1-[(4-Methyl-2-thiazolyl)azo]-2-naphthalenol, M-00322	3125-07-3	Tetraoctylammonium(1+); Chloride, <i>in</i> T-00110	3282-30-2	▶ Pivaloyl chloride, <i>in</i> D-00899
3012-50-8	1-(2-Benzothiazolylazo)-2-naphthalenol, B-00098	3138-57-6	Tetraphenylphosphonium(1+); Tribromide, <i>in</i> T-00120	3283-40-7	4-Vinylpyridine, <i>see</i> V-00009
3012-52-0	4-Methoxy-2-(2-thiazolylazo)phenol, <i>in</i> T-00139	3144-09-0	Methanesulfonic acid; Amide, <i>in</i> M-00066	3287-84-1	<i>O,O</i> -Dipropyl phosphorodithioate; K salt, <i>in</i> D-01060
3012-56-4	2,4-Dimethyl-6-(2-thiazolylazo)phenol, D-00923				
3013-38-5	1-Bromomethyl-2,4-dinitrobenzene, B-00522				
3018-12-0	▶ Dichlorocyanomethane, <i>in</i> D-00246				
3019-71-4	▶ Trichloroacetyl isocyanate, T-00220				

3287-86-3	<i>O,O</i> -Dipentyl phosphorodithioate; K salt, <i>in</i> D-00996	3449-06-7	Oxamide bisphenylhydrazine, O-00050	3566-95-8	1-[(6-Bromo-2-benzothiazolyl)azo]-2-naphthalenol, B-00492
3287-87-4	<i>O,O</i> -Dihexyl phosphorodithioate; K salt, <i>in</i> D-00369	3454-66-8	<i>O,O</i> -Diethyl phosphorodithioate; K salt, <i>in</i> D-00356	3567-23-5	Magneson IREA, M-00004
3287-99-8	▶ Benzylamine; B,HCl, <i>in</i> B-00163	3457-46-3	Bis(4-chlorophenyl)ethanedione, B-00285	3567-69-9	▶ Azorubine; Di Na salt, <i>in</i> A-00477
3291-00-7	2-Hydroxybenzaldehyde; Hydrazone, <i>in</i> H-00101	3457-52-1	2,3-Butanedione dihydrazine, <i>in</i> B-00587	3568-33-0	3,3-Dihydroxy-2,4(1 <i>H</i> ,3 <i>H</i>)-quinolinedione, <i>in</i> Q-00022
3292-42-0	▶ 2-Aminobenzenethiol; B,HCl, <i>in</i> A-00101	3457-77-0	1,3-Dioxo-2-indanecarboxylic acid; Et ester, <i>in</i> D-00991	3568-81-8	7-Hydroxy-3 <i>H</i> -phenothiazin-3-one, H-00441
3295-61-2	4-Methoxyacridine, <i>in</i> H-00092	3457-98-5	▶ 4-Aminoazobenzene; B,HCl, <i>in</i> A-00094	3569-82-2	2,6,7-Trihydroxy-9-(2-hydroxyphenyl)-3 <i>H</i> -xanthen-3-one, T-00292
3297-64-1	2-Quinolincarboxylic acid; <i>N</i> -Oxide, <i>in</i> Q-00017	3468-11-9	▶ 1-Imino-1 <i>H</i> -isoindol-3-amine, I-00022	3570-55-6	2,2'-Thiobisethanethiol, T-00157
3306-62-5	2-Aminobenzenesulfonic acid; Amide, <i>in</i> A-00099	3468-99-3	Diphenylacetic acid; Et ester, <i>in</i> D-00999	3570-58-9	▶ 2-Chloroethanol; Methanesulfonyl, <i>in</i> C-00114
3309-13-5	1-(1-Naphthyl)ethylamine, N-00049	3469-00-9	Diphenylacetic acid; Me ester, <i>in</i> D-00999	3570-93-2	Niconoxime, <i>in</i> C-00346
3309-33-9	2,4,7,9-Tetramethyl-1,10-phenanthroline, T-00097	3473-11-8	Formaldehyde; Oxime; B,HCl, <i>in</i> F-00035	3571-37-7	Butylrhodamine B, <i>in</i> R-00002
3314-30-5	1 <i>H</i> -Benzimidazole-2-carboxaldehyde, B-00039	3474-67-7	4',5'-Dichlorofluorescein; Di-Na salt, <i>in</i> D-00276	3578-28-7	Diphenylacetic acid; 3-(Diethylamino)propyl ester, <i>in</i> D-00999
3316-09-4	4-Nitro-1,2-benzenediol, N-00087	3477-69-8	4-Pyridinecarboxylic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, P-00345	3581-30-4	▶ 4-Morpholinecarbodithioic acid, M-00345
3321-92-4	3',5'-Dichloro-2'-hydroxyacetophenone, D-00277	3481-09-2	Phthalimide; <i>N</i> -Chloro, <i>in</i> P-00223	3584-65-4	▶ 2-(Trichloromethyl)-1 <i>H</i> -benzimidazole, T-00226
3326-32-7	3',6'-Dihydroxy-5-isothiocyanatospiro[isobenzofuran-(3 <i>H</i>),9'-[9 <i>H</i>]xanthen]-3-one, D-00638	3482-97-1	<i>N</i> -Hydroxydecanamide, <i>see</i> H-00147	3587-60-8	[(Chloromethoxy)methyl]benzene, C-00167
3326-71-4	▶ 2-Furoylhydrazine, <i>in</i> F-00050	3483-12-3	▶ DL-Dithiothreitol, <i>in</i> D-00752	3588-75-8	8-Methoxy-1-naphthol, <i>in</i> N-00009
3332-29-4	<i>O</i> -Ethylhydroxylamine; B,HCl, <i>in</i> E-00089	3495-60-1	2,4,6-Triphenylpyrylium(1+); Iodide, <i>in</i> T-00374	3597-91-9	▶ 4-(Hydroxymethyl)biphenyl, H-00284
3338-24-7	▶ Hostaflof, <i>in</i> D-00356	3506-47-6	<i>N,N'</i> -Bis(4-benzoylthyl)-1,2-benzenediamine, B-00257	3608-81-9	2-Quinolincarboxaldehyde thiosemicarbazone, <i>in</i> Q-00009
3343-41-7	▶ 2-Hydroxy-2-(2-pyridyl)methanesulfonic acid, H-00524	3514-82-7	<i>O,O</i> -Diphenyl phosphorodithioate; K salt, <i>in</i> D-01040	3618-43-7	Xylenol orange, <i>see</i> X-00006
3343-59-7	3,4-Dihydroxybenzaldehyde; Oxime, <i>in</i> D-00519	3532-31-8	3-Nitrobenzoic acid; Azide, <i>in</i> N-00092	3618-58-4	3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid; Na salt, <i>in</i> H-00224
3350-86-5	Anabesine; <i>N</i> -Ac, <i>in</i> P-00244	3535-67-9	2-Methoxy-1,3-dinitrobenzene, <i>in</i> D-00960	3618-63-1	Eriochrome red B; Na salt, <i>in</i> E-00017
3353-89-7	Triphenylsulfonium(1+); Bromide, <i>in</i> T-00376	3535-72-6	2-Nonylpyridine; <i>N</i> -Oxide, <i>in</i> N-00169	3619-22-5	4-Methylbenzoic acid; Hydrazide, <i>in</i> M-00138
3354-06-1	4-Methyl-2(1 <i>H</i>)-pyridinethione, <i>see</i> M-00274	3538-65-6	Butanoic acid; Hydrazide, <i>in</i> B-00604	3621-99-6	6-Nitro-2(3 <i>H</i>)-benzothiazolethione; <i>SH</i> -form, 5-Me, <i>in</i> N-00096
3354-37-8	4-Phenyl-3 <i>H</i> -1,2-dithiole-3-thione, P-00115	3544-24-9	▶ 3-Aminobenzoic acid; Amide, <i>in</i> A-00104	3624-68-8	6-(5-Chloro-2-hydroxy-4-sulfophenylazo)-5-hydroxy-1-naphthalenesulfonic acid; Di-Na salt, <i>in</i> C-00161
3365-87-5	3-Methoxybenzidine, <i>in</i> D-00057	3546-21-2	▶ 3,8-Diamino-5-ethyl-6-phenylphenanthridinium(1+), D-00096	3624-90-6	<i>N</i> -(2-Aminophenyl)-4-methylbenzenesulfonamide, A-00326
3365-89-7	4-Aminophenylbenzenesulfonic acid, A-00319	3548-08-1	<i>N,N'</i> -Bis(9-acridinyl)hydrazine, B-00240	3625-57-8	▶ Nile blue A; Sulfate (2:1), <i>in</i> N-00069
3366-54-9	4,4'-Diamino-3-biphenylol, D-00057	3549-10-8	2,4,6-Triaminopyrimidine; <i>N</i> ² , <i>N</i> ² , <i>N</i> ⁴ , <i>N</i> ⁴ -Tetra-Me, <i>in</i> T-00194	3626-00-4	Ethylenediaminetetraacetic acid; Tetra-Et ester, <i>in</i> E-00078
3366-61-8	▶ 4,4'-Diaminobiphenyl; <i>N</i> -Ac, <i>in</i> D-00053	3549-51-7	<i>O,O</i> -Dibutyl phosphorodithioate; K salt, <i>in</i> D-00241	3626-43-5	3-Hydroxy-4-(phenylazo)-2,7-naphthalenedisulfonic acid, H-00454
3368-04-5	7-Hydroxy-4-methyl-2 <i>H</i> -1-benzopyran-2-one; Dihydrogen phosphate, <i>in</i> H-00283	3549-52-8	<i>O,O</i> -Bis(2-methylpropyl) phosphorodithioate; K salt, <i>in</i> B-00413	3626-45-7	3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00198
3374-22-9	▶ Cysteine; (±)-form, <i>in</i> C-00370	3555-84-8	2,4-Dimethoxybenzophenone, <i>in</i> D-00536	3626-49-1	Thoron II, T-00178
3376-50-9	2,4,6-Trimethylpyridine; 1-Oxide, <i>in</i> T-00337	3559-04-4	<i>N</i> -(Phenylsulfonyl)benzamide, P-00194	3626-95-7	2-(Benzoylamino)-3-[4-(dimethylamino)phenyl]-2-propenoic acid, B-00120
3398-07-0	2-Aminobenzaldehyde; Oxime, <i>in</i> A-00096	3562-38-7	Phenosafranine; <i>N,N,N',N'</i> -Tetra-Et, chloride, <i>in</i> P-00070	3627-01-8	<i>H</i> -Resorcine, R-00001
3401-45-4	2,2'-(1 <i>H</i> -Indene-1,3(2 <i>H</i>)-diylidene)bishydrazinecarbothioamide, <i>in</i> I-00024	3562-46-7	Neutral violet; B,HCl, <i>in</i> N-00066	3627-04-1	Beryllon III, <i>in</i> A-00211
3403-03-0	5-[[4-(Phenylazo)phenyl]azo]-2-thioxo-4-thiazolidinone, P-00096	3563-69-7	Arsenazo M, A-00414	3627-07-4	Chlorophosphonazo R, C-00245
3403-42-7	▶ Tentone, <i>in</i> M-00070	3564-14-5	▶ Solochrome black 6BN; Na salt, <i>in</i> S-00017	3634-67-1	Chlorotrihexylsilane, C-00266
3405-45-6	▶ Dibutylmethylamine, <i>in</i> D-00223	3564-18-9	Eriochrome cyanine R; Tri-Na salt, <i>in</i> E-00013	3644-89-1	Ethyl tetraethylphosphorodiamidate, <i>in</i> T-00046
3419-18-9	4-Aminobenzaldehyde; Oxime, <i>in</i> A-00097	3564-27-0	Chromorange GR; Di-Na salt, <i>in</i> C-00289	3648-36-0	Astrazon pink FG; Chloride, <i>in</i> A-00454
3419-34-9	<i>O,O</i> -Diisopropyl phosphorodithioate; K salt, <i>in</i> D-00750	3564-28-1	5-Amino-4-hydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> A-00190	3665-80-3	4-Nitroaniline; <i>N</i> -Et, <i>in</i> N-00077
3424-93-9	Anisamide, <i>in</i> M-00079	3565-26-2	▶ 8-Hydroxy-5-nitrosoquinoline, <i>in</i> Q-00019	3667-38-7	4-(Aminomethyl)cyclohexanecarboxylic acid; <i>cis</i> -form, B,HCl, <i>in</i> A-00238
3426-74-2	Trimethylphenylammonium(1+), T-00336	3565-42-2	2,3,4(1 <i>H</i>)-Quinolinetriene, Q-00022	3667-39-8	Tranexamic acid; B,HCl, <i>in</i> A-00238
3430-09-9	Benzoylpyrazine, B-00148	3566-10-7	Ethylenebisdithiocarbamic acid; Di-NH ₄ salt, <i>in</i> E-00072	3669-32-7	▶ <i>N</i> -Hydroxy-3-phenylpropenamide, H-00499
3440-25-3	4,4'-Bis[(1,8-dihydroxy-3,6-disulfo-2-naphthyl)azo]-3,3'-biphenyldicarboxylic acid, B-00301			3674-10-0	1,3-Dichloro-2-propanol; Ac, <i>in</i> D-00298
3440-26-4	Chromotrope 2C, C-00291			3674-33-7	2-Nitro-1,3-indanedione, N-00112
3445-76-9	5-Phenyl-3 <i>H</i> -1,2-dithiole-3-thione, P-00116				
3446-58-0	3-Oxo-3-phenylpropanoic acid; Amide, <i>in</i> O-00069				
3449-05-6	<i>N</i> -[(2-Mercaptophenyl)imino]methylphenol, M-00045				

3678-70-4	2-(Diphenylmethyl)pyridine, D-01030	3784-04-1	2,4,6-Tribromophenol, <i>see</i> T-00205	3946-91-6	<i>N,N'</i> -Bis(2-hydroxybenzylidene)-1,2-benzenediamine, B-00362
3682-14-2	6-Amino-2,3-dihydro-1,4-phthalazinedione, A-00156	3786-29-6	2-Methylenebutanedioic acid; Diamide, <i>in</i> M-00176	3947-58-8	2-(Bromoacetamido)-4-nitrophenol, B-00482
3682-17-5	α -(Hydroxyimino)benzenepropanoic acid, <i>in</i> O-00068	3786-46-7	3,6-Dihydroxy-1,2-benzenedicarboxylic acid, D-00525	3949-47-1	Hexabutylphosphorothioic triamide, <i>in</i> H-00020
3682-32-4	4-Hydroxy-3-nitroso-1-naphthalenesulfonic acid, H-00415	3786-56-9	1-Pyrenecarboxaldehyde; Oxime, <i>in</i> P-00306	3950-29-6	<i>o</i> -Acetylnesazurin, <i>in</i> H-00443
3682-35-7	2,4,6-Tri-2-pyridinyl-1,3,5-triazine, T-00381	3788-82-7	2-Pyridinecarboxaldehyde 2-thiazolylhydrazone, P-00340	3950-31-0	7-Amino-3 <i>H</i> -phenoxazin-3-one, A-00304
3682-47-1	Fast sulphon black F; Na salt, <i>in</i> F-00002	3794-83-0	(1-Hydroxyethylidene) bisphosphonic acid, <i>see</i> H-00178	3952-78-1	▶ Alizarine fluorine blue, A-00076
3682-49-3	1-Naphthalenecarbodithioic acid, N-00002	3804-89-5	▶ Isonate sodium, <i>in</i> I-00069	3956-07-8	4-Iodobenzoic acid; Amide, <i>in</i> I-00041
3684-46-6	Broxaldine, <i>in</i> D-00190	3806-42-6	5-Phenylmethylene-2-thioxo-4-thiazolidinone, P-00148	3962-77-4	▶ 2-Methoxy-1,4-dinitrobenzene, <i>in</i> D-00959
3687-44-3	Orotic acid dimethylamide, <i>in</i> O-00045	3806-87-9	2-Quinolonecarboxaldehyde 2-benzothiazolylhydrazone, Q-00010	3963-78-8	Alizarine maroon, A-00079
3687-83-0	Acid monochrome green S; Na salt, <i>in</i> A-00057	3806-88-0	2-Quinolonecarboxaldehyde 2-thiazolylhydrazone, Q-00016	3973-90-8	2-Hydroxy-5'-methylacetophenone; Oxime, <i>in</i> H-00275
3688-18-4	1,1'-Diethyl-4,4'-bipyridinium(2+); Dichloride, <i>in</i> D-00339	3810-63-7	Glycinethymol blue, G-00019	3982-97-6	2,2'-Dimethyldithizone, D-00856
3688-91-3	Arsazen, A-00403	3814-79-7	3-Hydroxy-2-pyridinecarboxaldehyde; Thiosemicarbazone, <i>in</i> H-00518	3983-25-3	Stilbexon, S-00032
3688-92-4	Thorin, <i>see</i> T-00177	3815-86-9	Propanedioic acid; Dihydrazide, <i>in</i> P-00261	4023-65-8	Aconitic acid; (<i>E</i>)-form, <i>in</i> A-00061
3691-70-1	Stilbazochrome, S-00028	3818-04-0	1-Heptanesulfonic acid; Me ester, <i>in</i> H-00011	4023-81-8	1-(4-Bromophenyl)-1,3-butanedione, B-00548
3695-43-0	5-(Dimethylamino)-2-(2-thiazolylazo)phenol, <i>in</i> A-00214	3818-89-1	2-[<i>o</i> -(4,5-Dimethylimidazol-2-yl)azolphenyl]-4,5,7-trimethyl-8-quinazolinol, D-00867	4028-23-3	Chlorodimethyl-2-propenylsilane, C-00104
3696-28-4	Dipyrrithione, <i>in</i> D-01122	3819-12-3	Solochrome fast blue B, <i>in</i> A-00225	4038-15-7	2,4,4'-Trimethoxybenzophenone, <i>in</i> T-00279
3697-13-0	6-Hydroxy-1,7-phenanthroline, H-00438	3825-26-1	▶ Pentadecafluorooctanoic acid; NH ₄ salt, <i>in</i> P-00008	4041-95-6	<i>N,N'</i> -Bis(1,1-dimethylethyl)thiourea, <i>in</i> T-00175
3705-76-8	4-[[5-(<i>p</i> -Dimethylamino)phenyl]azo]-5-methylimidazole, D-00809	3837-14-7	Azo-azoxy BN, A-00465	4051-56-3	<i>N</i> -Diphenylbenzamide, <i>in</i> D-01000
3705-80-4	7-Hydroxy-3 <i>H</i> -phenoxazin-3-one; Et-ether, 10-oxide, <i>in</i> H-00443	3838-30-0	6-Hydroxy-5-[(2-hydroxy-3,5-dinitrophenyl)azo]-2-naphthalenesulfonic acid; Na salt, <i>in</i> H-00200	4055-71-4	4,6-Di- <i>tert</i> -butyl-3-methoxy-1,2-benzenediol, <i>in</i> D-00228
3706-50-1	4-(2-Benzothiazolylazo)-1,3-benzenediol, B-00092	3839-88-1	Bis(4-methylphenyl)sulfur diimide, B-00411	4056-56-8	<i>N</i> -(4-Oxo-2,5-cyclohexadien-1-ylidene)benzenesulfonamide, O-00059
3717-19-9	4-Nitrobenzaldehyde; (<i>E</i>)-Oxime, <i>in</i> N-00082	3844-45-9	▶ Erioglaucine A; Di-Na salt, <i>in</i> E-00018	4071-85-6	(Trimethylsilyl)ethenone, T-00340
3717-20-2	4-Nitrobenzaldehyde; (<i>Z</i>)-Oxime, <i>in</i> N-00082	3860-46-6	▶ Narcotine; (1 <i>R</i> ,9 <i>R</i>)-form, <i>in</i> N-00060	4071-88-9	Ethyl trimethylsilylacetate, <i>in</i> T-00339
3717-21-3	α -Anisaldoxime, <i>in</i> M-00075	3860-58-0	2-[(2-Pyridinylmethylene)amino]phenol, P-00393	4075-79-0	▶ 4-Aminobiphenyl; <i>N</i> -Ac, <i>in</i> A-00117
3717-22-4	β -Anisaldoxime, <i>in</i> M-00075	3861-73-2	▶ Anazolene sodium, <i>in</i> A-00366	4076-02-2	▶ 2,3-Dimercapto-1-propanesulfonic acid; (\pm)-form, Na salt, <i>in</i> D-00761
3717-25-7	2-Nitrobenzaldehyde; (<i>Z</i>)-Oxime, <i>in</i> N-00081	3861-75-4	Arsenazo II, A-00411	4076-62-4	<i>N</i> -Hydroxy-2,4-hexadienamide, H-00185
3722-53-0	1,3-Dimethoxyxanthone, <i>in</i> D-00741	3861-82-3	Beryllon IV, B-00200	4079-10-1	Glycinescresol red, G-00017
3728-50-5	Butyridenetriphenylphosphorane, <i>in</i> B-00640	3867-33-2	Arsenazo AE, A-00404	4105-92-4	1,3,5-Benzenetricarboxylic acid; Tri-Et ester, <i>in</i> B-00033
3734-67-6	Azorhodine 2G; Di-Na salt, <i>in</i> A-00476	3875-68-1	1,3-Dihydroxyxanthone, D-00741	4110-35-4	▶ 1-Cyano-3,5-dinitrobenzene, <i>in</i> D-00948
3737-33-5	Sergetyl, <i>in</i> E-00123	3878-55-5	Dimethyl succinate, <i>in</i> S-00034	4115-76-8	7-Hydroxy-4,8-dimethyl-2 <i>H</i> -1-benzopyran-2-one, H-00151
3737-95-9	3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid, H-00242	3881-20-7	Dibenzyl diethylphosphoramidate, <i>in</i> D-00353	4124-30-5	▶ Dichloroacetic acid; Anhydride, <i>in</i> D-00246
3741-66-0	Benzoic ethylcarbonic anhydride, B-00067	3885-61-8	8-Hydroxy-7-(2-thiazolylazo)-5-quinolinesulfonic acid, H-00552	4124-31-6	Trichloroacetic acid; Anhydride, <i>in</i> T-00218
3743-22-4	2-(Dimethylamino)phenol, <i>in</i> A-00300	3886-69-9	1-Phenylethylamine; (<i>R</i>)-form, <i>in</i> P-00130	4124-41-8	4-Methylbenzenesulfonic acid; Anhydride, <i>in</i> M-00130
3743-70-2	2-Hydroxybenzanilide, <i>in</i> A-00300	3886-70-2	1-(1-Naphthyl)ethylamine; (<i>R</i>)-form, <i>in</i> N-00049	4125-58-0	2-Methylamino-1-phenyl-1-propanol; (1 <i>RS</i> ,2 <i>RS</i>)-form, <i>in</i> M-00122
3744-08-9	Triphenylsulfonium(1+); Iodide, <i>in</i> T-00376	3897-09-4	Chromopyrazole I, C-00287	4128-31-8	2-Octanol; (\pm)-form, <i>in</i> O-00037
3746-79-0	Chromotrope F4B; Di-Na salt, <i>in</i> C-00292	3913-23-3	▶ 2-(Bromomethyl)-1-methoxy-4-nitrobenzene, <i>in</i> B-00531	4128-71-6	▶ 4-Aminoazobenzene; <i>N</i> -Ac, <i>in</i> A-00094
3756-02-3	Hexahydro-1,3,5-trihydroxy-1,3,5-triazine, H-00051	3922-40-5	4,7-Dihydroxy-1,10-phenanthroline, D-00685	4136-91-8	Bis(diisopropylthiocarbamoyl)disulfide, <i>in</i> T-00166
3761-53-3	▶ Acid red 26; Di-Na salt, <i>in</i> A-00058	3922-74-5	Amoxydramine, <i>in</i> D-00998	4136-97-4	4-Amino-2-hydroxybenzoic acid; Me ester, <i>in</i> A-00184
3768-56-7	1-(Trimethylsilyl)piperidine, T-00343	3929-44-0	α,α -[(Dithiooxalyl)diimino]di- <i>m</i> -toluenesulfonic acid, D-01134	4141-50-8	1,2-Bis(diphenylphosphinyl)ethane, <i>in</i> B-00338
3769-61-7	5-Amino-4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> A-00187	3932-14-7	1-[(5-Methylimidazol-4-yl)azo]-2-naphthol, M-00192	4159-77-7	Rose bengal, R-00010
3769-62-8	5-Amino-3-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, A-00137	3934-77-8	4,6-Di- <i>tert</i> -butyl-1,2,3-benzenetriol, D-00228	4178-93-2	Leucyl- <i>p</i> -nitroanilide; <i>S</i> -form, <i>in</i> L-00006
3772-44-9	Carboxyarsenazo, C-00026	3934-87-0	▶ 3,4-Dihydroxy-5-methoxybenzaldehyde, <i>in</i> T-00273	4179-19-5	3-Methoxy-5-methylphenol, <i>in</i> M-00128
3773-16-8	Lumomagneson, L-00016	3937-33-5	Stilbazogall I, S-00029	4181-97-9	4-Methoxybenzoic acid; Ph ester, <i>in</i> M-00079
3777-74-0	Dithioantipyrinic acid, D-01116	3943-82-6	Astrazon blue B; Chloride, <i>in</i> A-00452	4185-96-0	α -(Hydroxyimino)-2-pyridineacetonitrile, H-00251
3778-22-1	Methylthymol blue, <i>see</i> M-00327	3943-91-7	2,5-Dihydroxybenzoic acid; Et ester, <i>in</i> D-00532	4187-53-5	1-(4-Nitrophenyl)ethylamine; (<i>S</i>)-form, <i>in</i> N-00135
3778-76-5	Ecarazine hydrochloride, <i>in</i> T-00188	3944-72-7	1-Octanesulfonic acid, O-00034	4190-95-8	2-Hydroxyphenazine, H-00439
		3946-40-5	2-[[[(2-Hydroxyphenyl)methylene]amino]methyl]phenol, H-00478	4197-00-6	Naphthol black 3B; Tetra-Na salt, <i>in</i> N-00028

4197-07-3	Chromotrope 2R; Di-Na salt, <i>in</i> C-00293	4370-59-6	2,5-Dibromo-3,6-dihydroxy-1,4-benzoquinone, D-00182	4519-65-7	Methylphosphonic acid; Diisothiocyanate, <i>in</i> M-00244
4197-25-5	▶ 2,3-Dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]-1 <i>H</i> -perimidine, D-00390	4374-46-3	2,3-Dioxobutanoic acid, D-00986	4522-93-4	Pentafluorobenzoic acid; Et ester, <i>in</i> P-00012
4199-88-6	5-Nitro-1,10-phenanthroline, N-00116	4376-18-5	1,2-Benzenedicarboxylic acid; Mono-Me ester, <i>in</i> B-00018	4525-32-0	Di- <i>tert</i> -butyl dicarbonate, <i>in</i> D-00243
4199-89-7	5-Chloro-1,10-phenanthroline, C-00195	4382-54-1	▶ 5-Methoxy-1 <i>H</i> -indole-2-carboxylic acid, <i>in</i> H-00253	4525-33-1	Dimethyl dicarbonate, <i>in</i> D-00243
4207-56-1	PTAB, <i>in</i> T-00336	4386-25-8	▶ Lumogallion, L-00015	4531-71-9	5-[(4-Chlorophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, C-00204
4214-72-6	<i>N</i> -(1-Methylethyl)-2-pyridinamine, <i>in</i> A-00333	4386-39-4	2-Hydroxy-3-methylbenzoic acid; Ac, <i>in</i> H-00278	4538-11-8	Anilinesulfonephthalein, A-00369
4214-73-7	6-Amino-3-pyridinecarbonitrile, <i>in</i> A-00334	4390-92-5	1-(2,4-Dihydroxyphenyl)-1-butanone, D-00707	4546-11-6	Propyl hydrogen methylphosphonate, <i>in</i> M-00244
4221-99-2	2-Butanol; (<i>S</i>)- <i>form</i> , <i>in</i> B-00607	4394-85-8	▶ 4-Morpholinecarboxaldehyde, <i>in</i> M-00344	4546-48-9	2-Phenyl-4-quinolinecarboxylic acid; Me ester, <i>in</i> P-00189
4222-02-0	4,5,7-Trihydroxy-3-phenyl-2 <i>H</i> -1-benzopyran-2-one, T-00313	4394-99-4	3-Mercapto-1-phenyl-2-buten-1-one, M-00044	4551-69-3	4-Benzoyl-2,4-dihydro-5-methyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, B-00128
4225-54-1	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, <i>see</i> C-00099	4399-55-7	Eliamina blue FFL; Tetra-Na salt, <i>in</i> E-00006	4552-64-1	1,1,1-Trifluoro-4-mercapto-4-(2-thienyl)-3-buten-2-one, T-00249
4225-55-2	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, <i>see</i> C-00099	4401-71-2	Thymine; 1,3-Di-Me, <i>in</i> T-00179	4563-87-5	5-(3-Hydroxyphenylazo)-8-quinolinol, H-00457
4231-62-3	1 <i>H</i> -Benzotriazole; <i>N</i> -Benzoyl, <i>in</i> B-00110	4408-47-3	<i>N,N'</i> -Bis(<i>o</i> -aminobenzylidene) ethylenediamine, B-00242	4568-02-9	Orthanil B, O-00047
4232-27-3	2,4-Dinitrophenol; Ac, <i>in</i> D-00958	4408-48-4	<i>N,N'</i> -Bis(2-hydroxypropyl)-1,2-benzenediamine, B-00392	4568-04-1	2-[[[1,8-Dihydroxy-3,6-disulfo-7-[(2-sulfophenyl)azo]-2-naphthalenyl]azo] benzoic acid, D-00608
4255-54-3	4- <i>tert</i> -Butyl-1,2-cyclohexanedione, B-00623	4408-81-5	▶ 1,2-Diaminopropane- <i>N,N,N',N'</i> -tetraacetic acid, D-00115	4569-88-4	▶ Janus blue; Chloride, <i>in</i> J-00002
4263-84-7	Berberine; Iodide, <i>in</i> B-00197	4420-46-6	2-Phenyl-4-quinolinecarboxylic acid; Et ester, <i>in</i> P-00189	4574-60-1	Atropine oxide hydrochloride, <i>in</i> T-00431
4264-83-9	Mono(4-nitrophenyl) phosphate; Di-Na salt, <i>in</i> M-00340	4423-58-9	Corynecin I, <i>in</i> A-00284	4575-56-8	Anthrazo; B,HCl, <i>in</i> A-00389
4270-70-6	Triphenylsulfonium(1+); Chloride, <i>in</i> T-00376	4424-03-7	Sulfonefluorescein, S-00049	4589-12-2	<i>N</i> -2-Pyridinylbenzamide, <i>in</i> A-00333
4271-48-1	2-(Ethenylsulfonyl)ethanol, E-00048	4426-47-5	Butyldihydroxyborane, B-00626	4589-97-3	Phenylglyoxime, P-00133
4271-99-2	Aconitic acid; (<i>E</i>)- <i>form</i> , Tri-Me ester, <i>in</i> A-00061	4430-20-0	Chlorophenol red, C-00197	4595-00-0	2,3-Butanedione (2-benzothiazolyl) hydrzone, B-00588
4272-77-9	5-Dimethylamino-1-naphthalenesulfonic acid, <i>in</i> A-00265	4431-00-9	Aurintricarboxylic acid, A-00458	4612-24-2	<i>p</i> -Anize green; Chloride, <i>in</i> A-00374
4274-15-1	Thiourea; <i>N</i> -Tetra-Et, <i>in</i> T-00175	4432-31-9	2-(<i>N</i> -Morpholino)ethanesulfonic acid, M-00348	4618-88-6	Janus green; Chloride, <i>in</i> J-00003
4280-24-4	▶ 1-Ethoxy-2,3-dinitrobenzene, <i>in</i> D-00957	4435-51-2	1-Phenyl-1,2,3-butanetriene, P-00109	4620-70-6	2-[(1,1-Dimethyl)amino]ethanol, <i>in</i> A-00171
4280-28-8	4-Methoxy-1,2-dinitrobenzene, <i>in</i> D-00961	4438-22-6	Aminoxypine tropate, <i>in</i> T-00431	4628-94-8	5-Mercapto-1,3,4-thiadiazoline-2-thione; Di-K salt, <i>in</i> M-00060
4282-40-0	1-Iodoheptane, I-00044	4441-56-9	▶ Cyclohexylboronic acid, C-00352	4630-82-4	▶ Cyclohexanecarboxylic acid; Me ester, <i>in</i> C-00336
4286-15-1	2-Phenylbutanoic acid; (<i>S</i>)- <i>form</i> , <i>in</i> P-00110	4441-63-8	Cyclohexanecarboxylic acid, C-00355	4636-38-8	6-Hydroxy-2-methyl-7-oxo-1,3,5-cycloheptatriene-1-carboxylic acid, H-00298
4290-99-7	9-Benzyl- <i>s</i> -triazolo-[4,3- <i>a</i>]-benzimidazole-3-thione, B-00195	4443-09-8	5,7,8-Trihydroxyflavone, T-00286	4636-73-1	Triethylamine; B,HI, <i>in</i> T-00231
4312-09-8	5-Phenylazo-8-quinolinol, P-00100	4443-99-6	Janus black, J-00001	4637-24-5	1,1-Dimethoxy- <i>N,N</i> -dimethylmethanamine, D-00774
4312-44-1	6-Hydroxy-4-quinolinecarboxylic acid, H-00527	4444-23-9	2,5-Dihydroxy-1,4-benzenedisulfonic acid, D-00526	4638-92-0	Chrysanthemic acid; (1 <i>R</i> ,3 <i>R</i>)- <i>form</i> , <i>in</i> C-00296
4312-91-8	<i>N</i> -Hydroxybutanamide, H-00142	4450-68-4	4-Nitrobenzyl alcohol; 4-Methylbenzenesulfonyl, <i>in</i> N-00097	4657-00-5	Astrazon orange R; Chloride, <i>in</i> A-00453
4312-93-0	<i>N</i> -Hydroxyhexanamide, H-00186	4451-88-1	Nile blue A; 5- <i>N</i> -Benzyl, chloride, <i>in</i> N-00069	4674-24-2	2-(4-Chlorophenyl)-2-hydroxyacetic acid; (±)- <i>form</i> , Me ether, <i>in</i> C-00222
4318-52-9	1 <i>H</i> -Pyrazolo[3,4- <i>d</i>]pyrimidine-4,6(5 <i>H</i> ,7 <i>H</i>)-dione; 1 <i>H</i> - <i>form</i> , 1,5,7-Tri-Me, <i>in</i> P-00302	4455-26-9	Dioctylamine; <i>N</i> -Methyl, <i>in</i> D-00981	4680-51-7	1 <i>H</i> -Pyrazolo[3,4- <i>d</i>]pyrimidine-4,6(5 <i>H</i> ,7 <i>H</i>)-dione; 1 <i>H</i> - <i>form</i> , 5,7-Di-Me, <i>in</i> P-00302
4322-62-7	▶ 1,2,3-Cyclohexanetrione, C-00346	4457-41-4	4-Nitrobenzyl alcohol; <i>O</i> -Benzoyl, <i>in</i> N-00097	4685-14-7	▶ 1,1'-Dimethyl-4,4'-bipyridinium(2+), D-00841
4328-13-6	Tetrahexylammonium(1+), <i>see</i> T-00049	4463-33-6	1,2-Dimethoxy-3-methylbenzene, <i>in</i> M-00127	4685-47-6	4-Methoxy-1,2-dimethylbenzene, <i>in</i> D-00886
4329-79-7	Pyridine <i>N</i> -oxide; B,MeClO ₄ , <i>in</i> P-00356	4464-20-4	Dihydroxypropanedial, <i>in</i> O-00070	4694-36-4	<i>N,N'</i> -Bis(1 <i>H</i> -pyrrol-2-ylmethylene)-1,2-ethanediamine, B-00448
4330-20-5	Thymine; 3- <i>N</i> -Benzoyl, <i>in</i> T-00179	4466-96-0	▶ 7-Bromo-1-[3-(dimethylamino)propyl]-1,3-dihydro-5-(2-pyridyl)-2 <i>H</i> -1,4-benzodiazepin-2-one; B,2HCl, <i>in</i> B-00506	4695-09-4	α-Mercaptobenzenecetic acid, M-00019
4334-74-1	4-Methoxybenzaldehyde; Thiosemicarbazone, <i>in</i> M-00075	4471-10-7	4,4'-Diaminobiphenyl; 4,4'-Di- <i>N</i> -benzoyl, <i>in</i> D-00053	4695-13-0	▶ Diphenylacetic acid; Amide, <i>in</i> D-00999
4339-69-9	▶ Di(2-furyl)ethanedione; Monoxime, <i>in</i> D-00364	4481-28-1	Isophthalamic acid, <i>in</i> B-00019	4701-69-3	Promazine, <i>see</i> P-00258
4341-11-1	5-[(4-Nitrophenyl)azo]-8-quinolinol, N-00129	4484-74-6	1-(Iodomethyl)-4-methylbenzene, I-00046	4702-78-7	Benzil; Dihydrazone, <i>in</i> B-00038
4344-85-8	1 <i>H</i> -Benzimidazole-2-methanethiol, B-00041	4486-05-9	Bindschelder's green; Chloride, <i>in</i> B-00206	4703-96-2	5-(2-Furanylmethylene)-2-thioxo-4-thiazolidinone, F-00056
4353-72-4	Methyl violet, <i>see</i> M-00336	4489-14-9	Chrysanthemic acid; (1 <i>R</i> ,3 <i>R</i>)- <i>form</i> , Chloride, <i>in</i> C-00296	4705-34-4	4,4'-Dimethoxystilbene, <i>in</i> D-00730
4358-63-8	Benzenesulfonic acid; Ph ester, <i>in</i> B-00026	4491-33-2	2-Quinolinecarboxylic acid; Et ester, <i>in</i> Q-00017	4712-70-3	▶ C.I. 51010, <i>in</i> B-00477
4358-87-6	Mandelic acid; (±)- <i>form</i> , Me ester, <i>in</i> M-00007	4502-97-0	2,9-Dihydro-9-phenyl-3 <i>H</i> -1,2,4-triazolo[4,3- <i>a</i>]benzimidazole-3-thione, D-00472	4721-34-0	(2-Methylpropyl)phosphonic acid, M-00262
4361-00-6	3-Oxo-3 <i>H</i> -naphtho[2,1- <i>b</i>]pyran-2-carboxylic acid, O-00064	4503-82-6	4,4',4''-Methylidynetris[2-methoxyphenol], <i>in</i> T-00388	4721-37-3	Isopropylphosphonic acid, I-00077
4361-87-9	Isocaffeic acid, <i>in</i> D-00716	4517-26-4	9-(Dimethylamino)-5-[[4-(dimethylamino)phenyl]amino]benzo[<i>a</i>]phenoxazin-7-ium(1+); Chloride, <i>in</i> D-00784	4731-53-7	Triocetylphosphine, T-00358
4364-06-1	(3,3-Dimethyl-1-propenyl)benzene, <i>in</i> P-00168	4518-10-9	3-Aminobenzoic acid; Me ester, <i>in</i> A-00104	4732-12-1	2-Ethoxy-1-isopropyl-4-methylbenzene, <i>in</i> I-00075
4368-51-8	▶ Tetraheptylammonium(1+); Bromide, <i>in</i> T-00048			4732-14-3	2,4,6-Trinitrophenol; <i>O</i> -Et, <i>in</i> T-00355
4369-89-5	Nitroarsenazo; Di-Na salt, <i>in</i> N-00101				

4733-39-5	2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline, D-00852	5023-94-9	<i>N</i> -Hydroxy-3-nitrobenzenecarboximidamide, H-00382	5345-57-3	6-Hydroxy-4-quinolinecarboxylic acid; Me ether, Et ester, <i>in</i> H-00527
4733-50-0	2,3-Dicyano-1,4-benzenediol, <i>in</i> D-00525	5026-62-0	4-Hydroxybenzoic acid, <i>see</i> H-00113	5346-31-6	2-Nitrobenzaldehyde; Semicarbazone, <i>in</i> N-00081
4741-30-4	▶ Dithiocarbonic acid, D-01125	5032-13-3	▶ 3,4,5-Trihydroxybenzaldehyde; 3,5-Di-Me ether, oxime, <i>in</i> T-00273	5346-38-3	2-Pyridinecarbothioamide, P-00317
4741-45-1	2-Furancarbothioic acid, F-00040	5042-24-0	[α -(Trifluoromethyl)benzyl]hydrazine, T-00254	5348-42-5	1,2-Diamino-4,5-dichlorobenzene, D-00069
4743-99-1	<i>N</i> -Hydroxysuccinamic acid, <i>in</i> S-00034	5054-42-2	Phenylphosphinic acid; Anhydride, <i>in</i> P-00163	5349-83-7	2',3',4'-Trihydroxyacetophenone; Oxime, <i>in</i> T-00269
4744-10-9	1,1-Dimethoxypropane, <i>in</i> P-00259	5060-82-2	7-Methoxy-2-naphthol, <i>in</i> N-00011	5350-57-2	Benzophenone; Hydrazone, <i>in</i> B-00069
4746-87-6	2-Hydroxy-2,2-diphenylacetic acid; Amide, <i>in</i> H-00166	5074-77-1	<i>O</i> -Ethyl butylphosphonodithioate, <i>in</i> B-00638	5351-23-5	4-Hydroxybenzoic acid; Hydrazone, <i>in</i> H-00113
4775-86-4	Ethylmethylglyoxime, <i>in</i> P-00029	5076-72-2	1-Ethoxy-4-methoxybenzene, <i>in</i> B-00022	5351-51-9	2-Mercapto-4,5-dimethylthiazole, M-00029
4792-58-9	5-Hydroxy-1 <i>H</i> -indole-2-carboxylic acid; Me ether, Et ester, <i>in</i> H-00253	5087-35-4	5-(4-Hydroxyphenylazo)-8-quinolinol, H-00458	5351-69-9	▶ 4-Phenylthiosemicarbazide, P-00200
4795-31-7	Bis(4-chlorophenyl) phosphate, B-00289	5102-79-4	Diphenadione; 1-Hydrazone, <i>in</i> D-00997	5351-70-2	▶ 3-Phenyl-2-propenal; (<i>E</i>)-form, Thiosemicarbazone, <i>in</i> P-00168
4822-44-0	▶ 2-Mercapto- <i>N</i> -phenylacetamide, <i>in</i> M-00016	5103-42-4	Hydrindantin, H-00088	5351-81-5	1-Naphthalenecarboxaldehyde; Thiosemicarbazone, <i>in</i> N-00003
4836-00-4	2-Nitrobenzaldehyde; (<i>E</i>)-Oxime, <i>in</i> N-00081	5108-96-3	Ammonium pyrrolidine dithiocarbamate, <i>in</i> P-00441	5351-90-6	▶ 2-Hydroxybenzaldehyde; Thiosemicarbazone, <i>in</i> H-00101
4844-60-4	2-Aminobenzophenone; (<i>Z</i>)-Oxime, <i>in</i> A-00111	5117-01-1	3,3',4',5',7-Pentahydroxyflavanone, <i>see</i> P-00023	5351-91-7	2-Thiophenecarboxaldehyde; Thiosemicarbazone, <i>in</i> T-00169
4845-58-3	▶ 6-Nitro-2(3 <i>H</i>)-benzothiazolethione, N-00096	5121-00-6	(1-Naphthyl)acetic acid; Chloride, <i>in</i> N-00040	5351-92-8	▶ 2-[(4-Hydroxy-3-methoxyphenyl)methylene]hydrazinecarbothioamide, H-00271
4866-98-2	1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, H-00455	5138-53-4	2-Naphthalenesulfonic acid; Me ester, <i>in</i> N-00015	5367-52-2	2-Amino- <i>N</i> -dimethyl-4-nitroaniline, <i>in</i> D-00108
4867-02-1	4-[(2-Hydroxyphenyl)azo]-1,3-benzenediol, H-00449	5145-64-2	Pyrrrole; <i>N</i> -Propyl, <i>in</i> P-00436	5369-24-4	3,3',5,5'-Tetramethyl-2,2',4,4',6,6'-hexanitrodiphenylamine, T-00096
4870-46-6	Chrome bordeaux B, C-00279	5145-65-3	Pyrrrole; <i>N</i> -Benzoyl, <i>in</i> P-00436	5373-72-8	2,4-Dihydro-4-phenyl-3 <i>H</i> -1,2,4-triazole-3-thione, D-00471
4874-65-1	2-Oxo- <i>N</i> -phenylcyclopentanecarboxamide, <i>in</i> O-00060	5149-48-4	3-Mercapto-1,2-propanediol, <i>see</i> M-00050	5378-41-6	2-Hydroxy-5-sulfobenzoic acid; Sulfonamide, <i>in</i> H-00538
4880-96-0	2-Bromoacetophenone; 2,4-Dinitrophenylhydrazone, <i>in</i> B-00483	5150-42-5	2,3-Dimethoxyphenol, <i>in</i> B-00034	5382-42-3	2-Quinolinecarboxamide, <i>in</i> Q-00017
4881-22-5	Phenylglyoxal; Bis-2,4-dinitrophenylhydrazone, <i>in</i> P-00132	5177-68-4	4,5-Dihydroxy-3,6-bis[(2-hydroxy-3-nitro-5-sulfonylphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00550	5392-23-4	3,4-Dihydro-4,4,6-trimethyl-2(1 <i>H</i>)-pyrimidinethione, D-00504
4883-72-1	<i>N</i> -Hydroxy- <i>N</i> -nitrosocyclohexanamine, H-00411	5199-50-8	Iodoacetic acid; Me ester, <i>in</i> I-00036	5392-67-6	Cation, C-00006
4887-74-5	<i>N,N'</i> -Diphenylpropanedithioamide, <i>in</i> P-00262	5222-73-1	1,2-Dimethoxycyclobutenedione, <i>in</i> D-00569	5394-83-2	▶ (±)-Camphoric acid, <i>in</i> T-00325
4890-72-6	2-Mercapto-3-phenyl-2-propenoic acid; <i>S</i> -Me, <i>in</i> M-00049	5231-86-7	1-Hydroxy-2-methoxycyclobutenedione, <i>in</i> D-00569	5398-29-8	3-[(Aminoiminomethyl)thio]propanoic acid, A-00228
4892-02-8	▶ 2-Mercaptobenzoic acid; Me ester, <i>in</i> M-00023	5231-87-8	1,2-Diethoxycyclobutenedione, <i>in</i> D-00569	5398-96-9	<i>N</i> -(Phenylsulfonyl)glycine, P-00196
4894-23-9	4,5-Dihydro-3,5-diphenylisoxazole, D-00400	5255-66-3	4-Methylaniline; <i>N</i> -Ethoxycarbonyl, <i>in</i> M-00124	5399-68-8	Resorcyldoxime, <i>in</i> D-00517
4910-32-1	Thiocarbamic acid; <i>N</i> -Ph, <i>S</i> -Ph ester, <i>in</i> T-00159	5263-74-1	8-Hydroxy-7-nitroso-5-quinolinesulfonic acid, H-00421	5402-73-3	2,5-Dichlorobenzenesulfonic acid; Chloride, <i>in</i> D-00248
4921-82-8	▶ <i>N</i> -[(Phenylamino)thioxomethyl]benzamide, <i>in</i> P-00201	5263-74-1	3,4-Dihydro-5-methoxy-2 <i>H</i> -pyrrole, <i>in</i> P-00443	5405-15-2	4-Methylaniline; <i>N</i> -Benzyl, <i>in</i> M-00124
4921-86-2	<i>N</i> -Benzoyl- <i>N'</i> -(2-pyridyl)thiourea, B-00159	5264-35-7	2-[(2-Hydroxy-5-nitrophenyl)azo]-4,5-diphenylimidazole, H-00394	5407-46-5	2,6,7-Trihydroxy-9-methyl-3 <i>H</i> -xanthen-3-one, T-00299
4948-87-2	8-[(4,5-Diphenyl-1 <i>H</i> -imidazol-2-yl)azo]quinoline, D-01025	5264-46-0	2-[(4,5-Diphenyl-1 <i>H</i> -imidazol-2-yl)azo]benzoic acid, D-01022	5408-04-8	Ethyl- α -isonitrosoacetate, <i>in</i> D-00986
4949-88-6	▶ <i>N</i> -[[[(2-Methylphenyl)amino]thioxomethyl]benzamide, M-00223	5264-48-2	Di(<i>n</i> -octyl)arsinic acid, D-00982	5410-29-7	▶ 2-Nitrophenylarsonic acid, N-00121
4955-90-2	▶ Sodium gentisate, <i>in</i> D-00532	5274-32-8	Benzylidenehydrazine, <i>in</i> B-00004	5413-75-2	Brilliant croceine; Di-Na salt, <i>in</i> B-00478
4956-13-2	3,5-Dihydroxy-6-mercaptop-1,2,4-triazine, D-00639	5281-18-5	Isopropylidenehydrazide, <i>in</i> A-00007	5417-45-8	2,3-Dimethylaniline; B,HCl, <i>in</i> D-00827
4961-40-4	Triethylenetetramine; B,4HCl, <i>in</i> T-00232	5281-20-9	4-[(4-Nitrophenyl)azo]-1-naphthalenol, N-00126	5418-38-2	1-Hydroxy-4-[(4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid; Na salt, <i>in</i> H-00430
4961-41-5	Tetraethylenepentamine; B,5HCl, <i>in</i> T-00044	5290-62-0	▶ 3(5)-Amino-1,2,4-triazole; 3- <i>N</i> -Ac, <i>in</i> A-00364	5419-96-5	2-Furancarboxaldehyde thiosemicarbazone, <i>in</i> F-00042
4972-29-6	▶ Benzenesulfonic acid; Chloride, <i>in</i> B-00025	5295-23-8	2,4-Dihydroxy-4'-methoxybenzophenone, <i>in</i> T-00279	5422-72-0	2-Amino-4,6-dinitrophenol; <i>N</i> -Ac, <i>in</i> A-00164
4985-24-4	Sparteine; (±)-form, <i>in</i> S-00023	5298-27-1	▶ Cuprotest, C-00322	5423-07-4	3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> D-00965
4992-28-3	3-[(Phenylmethylene)amino]-2-thioxo-4-thiazolidinone, P-00146	5298-71-5	4-Nitrobenzaldehyde; Semicarbazone, <i>in</i> N-00082	5423-67-6	1,2,3,4-Tetrahydrobenzo[<i>h</i>]quinolin-3-ol; (±)-form, <i>in</i> T-00051
5002-47-1	▶ Fluphenazine decanoate, <i>in</i> F-00034	5315-87-7	1-Octanesulfonic acid; Na salt, <i>in</i> O-00034	5425-62-7	4-Aminophenylarsonic acid; <i>N</i> -Chloroacetyl, <i>in</i> A-00307
5005-14-1	2-Aminobenzothiazole; 2- <i>N</i> -Benzoyl, <i>in</i> A-00113	5324-84-5	4-Morpholinecarbodithioic acid; Compd. with morpholine, <i>in</i> M-00345	5426-04-0	Acetamidoxime; B,HCl, <i>in</i> A-00004
5012-80-6	2,3-Butanedione; Monoxime, thiosemicarbazone, <i>in</i> B-00587	5327-10-6	9-Aminophenanthrene; B,HCl, <i>in</i> A-00298	5428-95-5	▶ <i>S</i> -Carbamidothioglycolic anilide, C-00019
5014-74-4	<i>N,N'</i> -Diphenylbenzamidine; B,HCl, <i>in</i> D-01001	5328-67-6	2,3-Butanediol; (<i>2R,3SR</i>)-form, <i>in</i> B-00586	5433-07-8	1,2-Diamino-4-methylbenzene; 1,2- <i>N</i> -Di-Ac, <i>in</i> D-00101
5021-98-7	(2-Methylpropyl)phosphonic acid; Dichloride, <i>in</i> M-00262	5341-95-7	2,3-Butanediol, <i>see</i> B-00586	5436-01-1	1,2-Dihydro-3,6-pyridazinedione; <i>A</i> -form, 1-Me, <i>in</i> D-00481
		5344-88-7	Benzil; Monohydrazone, <i>in</i> B-00038		

5436-28-2	Quinoline, <i>see</i> Q-00007	5688-87-9	1,3-Dihydroxyxanthone; Di-Ac, <i>in</i> D-00741	5840-10-8	3-Methoxy-4-aminodiphenylamine, M-00071
5438-68-6	Mandelic acid; (\pm)- <i>form</i> , Ac, <i>in</i> M-00007	5690-46-0	1 <i>H</i> -Benz[<i>de</i>]isoquinoline-1,3(2 <i>H</i>)-dione; <i>N</i> -Amino, <i>in</i> B-00051	5842-07-9	▶ 2-Aminoethanethiol; <i>N</i> -Diisopropyl, <i>in</i> A-00170
5440-00-6	5,6-Diamino-2,4(1 <i>H</i> ,3 <i>H</i>)-pyrimidinedione; 1,3-Di-Me, <i>in</i> D-00120	5693-20-9	Chromotrope 2C, <i>see</i> C-00291	5848-65-7	Hexabutylphosphorous triamide, H-00020
5441-02-1	2,6-Diaminopyridine; 2,6- <i>N</i> -Di-Ac, <i>in</i> D-00119	5695-34-1	4-Amino-1-naphthalenesulfonic acid; Amide, <i>in</i> A-00264	5850-65-7	4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>m</i> D-00624
5442-24-0	6-Amino-5-nitroso-2,4(1 <i>H</i> ,3 <i>H</i>)-pyrimidinedione, A-00288	5697-20-1	Thiosalicylamide, <i>in</i> M-00023	5851-14-9	<i>O</i> , <i>O</i> -Di-2-propenyl phosphorodithioate, D-01058
5445-26-1	(4-Nitrophenyl)acetic acid; Et ester, <i>in</i> N-00120	5699-40-1	Guanidine; 1- <i>N</i> -Ac, <i>in</i> G-00044	5852-10-8	7-Hydroxy-4-methyl-2-oxo-2 <i>H</i> -1-benzopyran-3-acetic acid, H-00295
5449-49-0	2-Biphenylol; Benzoyl, <i>in</i> B-00210	5700-04-9	Hexahydro-2 <i>H</i> -1,3-diazepine-2-thione, H-00037	5852-50-6	4-Nitro-4-azobenzenecarboxylic acid; Et ester, <i>in</i> N-00080
5449-84-3	Phenolphthalein; Di-Ac, <i>in</i> P-00063	5700-60-7	1,2-Diphenyl-1,2-ethanediamine, D-01010	5857-99-8	1,3-Diaminobenzene; <i>N,N'</i> -Di-Et, <i>in</i> D-00047
5453-67-8	2,6-Pyridinedicarboxylic acid; Di-Me ester, <i>in</i> P-00353	5702-69-2	1,2-Dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazole-3-thione, D-00391	5858-44-6	Acid chrome violet BR; Na salt, <i>in</i> A-00054
5455-24-3	4,5-Octanedione, O-00033	5702-91-0	2-Hexylbutanedioic acid, H-00073	5858-47-9	4-Hydroxy-3-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid; Na salt, <i>in</i> H-00556
5455-54-9	1-Octanesulfonic acid; Et ester, <i>in</i> O-00034	5704-04-1	[Tris(hydroxymethyl)methylamino]acetic acid, T-00407	5858-89-9	5-[(4-Chlorophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, <i>see</i> C-00204
5460-83-3	Phthalimide; <i>N</i> -(4-Methylbenzenesulfonyl), <i>in</i> P-00223	5706-64-9	(Phenylsulfonyl)carbonimidodithioic acid, P-00195	5859-00-7	3-Hydroxy-4-(phenylazo)-2,7-naphthalenedisulfonic acid; Disodium salt, <i>in</i> H-00454
5462-60-2	Sulfoacetic acid, <i>see</i> S-00039	5712-49-2	<i>N</i> -Methylpiperazinedithiocarbamic acid, <i>in</i> P-00238	5862-40-8	2-Mercaptoethanol; <i>O</i> -Ac, <i>in</i> M-00031
5462-97-5	▶ 5-[(4-Methoxyphenyl)methylene]-2-thioxo-4-thiazolidinone, M-00113	5714-73-8	Hexamine hippurate, <i>in</i> H-00057	5863-53-6	Lissamine violet 10B, L-00008
5464-73-3	1-Hydroxyacridine, H-00091	5715-76-4	Naphthochrome green G; Di-Na salt, <i>in</i> N-00023	5873-86-9	Thiobenzoic acid; <i>O</i> -Me ester, <i>in</i> T-00155
5467-74-3	▶ (4-Bromophenyl)dihydroxyborane, B-00549	5725-89-3	7-Hydroxy-3 <i>H</i> -phenoxazin-3-one; Me ether, <i>in</i> H-00443	5873-91-6	Benzenethane(dithioic) acid, B-00023
5470-11-1	▶ Hydroxylamine hydrochloride, <i>in</i> H-00257	5725-91-7	7-Hydroxy-3 <i>H</i> -phenoxazin-3-one; Et ether, <i>in</i> H-00443	5876-92-6	1,2-Benzenediol; Monobenzoyl, <i>in</i> B-00020
5470-96-2	2-Quinolincarboxaldehyde, Q-00009	5740-34-1	2-Mercapto-3-phenyl-2-propenoic acid, M-00049	5882-44-0	<i>N,N</i> -Dimethylaniline; B,HCl, <i>in</i> D-00831
5486-06-6	1,2-Di-2-pyridyl-1,2-ethanediol, <i>see</i> D-01089	5740-35-2	2-Mercapto-3-(4-methoxyphenyl)-2-propenoic acid, M-00034	5892-39-7	5,7-Dihydroxy-4'-methoxyflavone; Di-Ac, <i>in</i> D-00641
5487-14-9	Neocupferron, N-00061	5748-27-6	7-Hydroxy-3 <i>H</i> -phenoxazin-3-one; Me ether, 10-oxide, <i>in</i> H-00443	5905-33-9	Astracyanine B; Chloride, <i>in</i> A-00448
5495-18-1	<i>O</i> -Hexylbutylphosphonodithioate, <i>in</i> B-00638	5749-67-7	2-Acetoxybenzoic acid, <i>see</i> A-00010	5906-35-4	▶ Hexahydro-1 <i>H</i> -azepin-1-amine, H-00034
5533-46-0	Selenourea; <i>N,N'</i> -Di-Me, <i>in</i> S-00009	5751-20-2	2-(Methylthio)-4(1 <i>H</i>)-pyrimidinone, <i>in</i> D-00494	5908-27-0	1,2-Naphthoquinone-4-sulfonic acid; K salt, <i>in</i> N-00033
5533-49-3	Selenourea; <i>N</i> -Me, <i>in</i> S-00009	5752-16-9	6-Hydroxy-7,9-dimethyl-7 <i>H</i> -purinium hydroxide inner salt, <i>in</i> H-00564	5910-75-8	▶ <i>N</i> -Tridecyl-1-tridecanamine, T-00229
5533-81-3	6-(Benzoylacetyl)-1,4-benzodioxan, B-00119	5756-69-4	▶ 3-Hydroxy-3-methyl-1-phenyltriazene, H-00317	5916-94-9	5-(2-Furanyl)-2,4-pentadienal, F-00058
5539-53-7	Acetyl methanesulfonate, A-00020	5756-82-1	3-Hydroxy-1,3-diphenyl-1-triazene, H-00170	5922-92-9	Tetrahexylammonium(1+); Chloride, <i>in</i> T-00049
5539-54-8	Benzenesulfonic acid; Dimethylamide, <i>in</i> B-00025	5756-85-4	3-Hydroxy-1,3-bis(4-methylphenyl)triazene, H-00139	5925-68-8	Thiobenzoic acid; <i>S</i> -Me ester, <i>in</i> T-00155
5539-66-2	1-Hydroxy-8-methoxyanthraquinone, <i>in</i> D-00512	5756-87-6	3-(4-Chlorophenyl)-3-hydroxy-1-phenyltriazene, C-00233	5927-50-4	Tetramethyl 1,2-ethanediybisphosphonate, <i>in</i> E-00026
5555-90-8	3-(5-Methyl-2-furanyl)-2-propenal, M-00182	5766-67-6	▶ Ethylenediamine tetraacetoneitrile, <i>in</i> E-00078	5928-66-5	Benzoic acid; (<i>R</i>)- <i>form</i> , <i>in</i> B-00068
5561-92-2	1-(2-Methoxyphenyl)-1-propanone, <i>in</i> H-00498	5778-17-6	3,4-Dihydro-4,4,6-trimethyl-2(1 <i>H</i>)-pyrimidinethione, <i>see</i> D-00504	5928-67-6	Benzoic acid; (<i>S</i>)- <i>form</i> , <i>in</i> B-00068
5577-69-5	<i>N,N,N',N'</i> -Tetrakis(trimethylsilyl)-1,2-ethanediamine, T-00091	5792-36-9	1-(2,4-Dihydroxyphenyl)-1-propanone, D-00715	5930-71-2	▶ Bis(dimethoxyphosphinothioyl) disulfide, B-00312
5579-16-8	Epinephryl borate, <i>in</i> A-00066	5792-43-8	<i>O</i> -Propylhydroxylamine, P-00277	5933-30-2	6-Methylthiopicolinamide, <i>in</i> M-00271
5597-50-2	3-(4-Hydroxyphenyl)propanoic acid; Me ester, <i>in</i> H-00497	5794-16-1	Antipyrine methylethylglycolate, <i>in</i> D-00392	5933-35-7	▶ 2'-Nitrodiphenylamine-2-carboxylic acid, N-00106
5618-62-2	<i>O</i> -(2-Methylpropyl)hydroxylamine, M-00260	5796-85-0	Decanediperoxoic acid, D-00023	5943-53-3	Selenourea; <i>N,N,N',N'</i> -Tetra-Me, <i>in</i> S-00009
5623-04-1	2-Amino- <i>N</i> -hydroxybenzamide, <i>in</i> A-00103	5798-49-2	Bis(1-naphthylmethyl)amine, B-00427	5949-16-6	Cinchonine; B,H ₂ SO ₄ , <i>in</i> C-00298
5625-37-6	1,4-Piperazinediethanesulfonic acid, P-00240	5798-75-4	4-Bromobenzoic acid; Et ester, <i>in</i> B-00488	5951-01-9	6,7-Dihydro-5,8-diphenyldibenzo[<i>b,j</i>]1,10 phenanthroline, D-00398
5631-00-5	4-Amino-2-hydroxybenzoic acid, <i>see</i> A-00184	5798-94-7	5-Bromo- <i>N</i> ,2-dihydroxybenzamide, B-00503	5953-85-5	4-Methoxybenzaldehyde; Hydrazone, <i>in</i> M-00075
5634-40-2	Levamisole succinate, <i>in</i> P-00172	5810-40-2	Trilaurylammonium bromide, <i>in</i> T-00230	5959-52-4	▶ 3-Amino-2-naphthoic acid, A-00280
5657-61-4	<i>N</i> -Hydroxy-3-pyridinecarboxamide, <i>in</i> P-00341	5810-42-4	Tetrapropylammonium(1+), <i>see</i> T-00124	5960-06-5	Sorbitan trioleate, <i>in</i> A-00367
5661-30-3	<i>N</i> -Hydroxy- <i>N'</i> -phenylethanimidamide, <i>in</i> A-00004	5810-88-8	▶ <i>O</i> , <i>O</i> -Bis(2-ethylhexyl) phosphorodithioate, B-00353	5961-59-1	4-Methoxy- <i>N</i> -methylaniline, <i>in</i> M-00073
5663-69-4	Aminoacetic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00292	5811-49-4	Thymolbenzoic acid, T-00180	5963-74-6	<i>O</i> -Pentylhydroxylamine, P-00040
5664-07-3	<i>o</i> -Cresolbenzene, C-00305	5814-05-1	2-Chlorobenzoic acid; Hydrazide, <i>in</i> C-00066	5965-83-3	2-Hydroxy-5-sulfobenzoic acid, <i>see</i> H-00538
5664-34-6	Rubrophen, R-00013	5825-36-5	8-Mercapto-5-quinolinesulfonic acid, M-00057		
5676-48-2	Tetrahydroxy-1,4-benzoquinone, <i>see</i> T-00072	5827-17-8	Diphenylphosphinodithioic acid; Na salt, <i>in</i> D-01039		
5678-73-9	2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Nitrile, <i>in</i> H-00022	5833-18-1	Ethylbis(2,4-dinitrophenyl) acetate, <i>in</i> D-00971		
		5840-09-5	1,4-Diaminobenzene; <i>N</i> -Et, <i>in</i> D-00048		

5969-44-8	4-Hydroxydithiobenzoic acid; Me ester, <i>in</i> H-00176	6098-80-2	9-(5-Bromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one, B-00513	6213-85-0	4-Bromobenzenesulfonic acid; Me ester, <i>in</i> B-00487
5980-33-6	7-Hydroxy-4-methyl-2 <i>H</i> -1-benzopyran-2-one, <i>see</i> H-00283	6098-81-3	2,6,7-Trihydroxy-9-(2-nitrophenyl)-3 <i>H</i> -xanthen-3-one, T-00301	6214-04-6	Diphenyl diethylphosphoramidate, <i>in</i> D-00353
5982-65-0	Ethyl 3-[(aminocarbonyl)hydrazono]butanoate, <i>in</i> E-00063	6098-83-5	9-(2,4-Dinitrophenyl)-2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one, D-00975	6217-25-0	2,6,7-Trihydroxy-9-(3-nitrophenyl)-3 <i>H</i> -xanthen-3-one, T-00302
5987-95-1	Benzoic acid; (±)-form, Me ether, <i>in</i> B-00068	6098-84-6	2,6,7-Trihydroxy-9-(2-hydroxy-3-nitrophenyl)-3 <i>H</i> -xanthen-3-one, T-00290	6220-25-3	2,3-Dimercaptopropanoic acid, D-00762
5988-39-6	4-(Dimethylamino)benzaldehyde; B,HCl, <i>in</i> D-00779	6098-85-7	2,6,7-Trihydroxy-9-(2-hydroxy-5-nitrophenyl)-3 <i>H</i> -xanthen-3-one, T-00291	6222-49-7	Mordant blue 44; Di-Na salt, <i>in</i> M-00342
6003-11-8	1-Hydroxy-2-methoxyanthraquinone, <i>in</i> D-00510	6098-86-8	9-[4-(Dimethylamino)phenyl]-2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one, D-00824	6228-47-3	Triphenylpropylphosphonium(1+); Bromide, <i>in</i> T-00372
6003-12-9	1,2-Dimethoxyanthraquinone, <i>in</i> D-00510	6098-88-0	4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248	6232-55-9	3-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-2-hydroxy-5-methylbenzenesulfonic acid; Na salt, <i>in</i> D-00437
6004-88-2	2-[(4-Phenylazo)phenyl]hydrazinesulfonic acid, P-00097	6098-94-8	Naphthylazoxine 5,7S, N-00046	6236-05-1	Nifuroxime, <i>in</i> N-00109
6005-58-9	Salicylamidoxime, <i>in</i> H-00112	6099-03-2	3-(2-Hydroxyphenyl)-2-propenoic acid, <i>see</i> H-00500	6245-34-7	2,5-Dihydroxybenzoic acid, <i>see</i> D-00532
6006-65-1	Dimethyl(dipropoxymethyl)amine, D-00854	6100-60-3	4-Methoxy-1,3-benzenediol, <i>in</i> B-00035	6264-40-0	5-Methylthio-1,3,4-thiadiazole-2(3 <i>H</i>)-thione, <i>in</i> M-00060
6018-19-5	Aminosalicylate sodium, <i>in</i> A-00184	6119-70-6	Quinine, <i>see</i> Q-00005	6270-44-6	1-(2,4-Dihydroxyphenyl)-1-propanone; 4-Me ether, <i>in</i> D-00715
6032-29-7	▶ 2-Pentanol, P-00035	6119-74-0	1,4-Dimethoxyanthraquinone, <i>in</i> D-00511	6271-25-6	3-Hydroxy-4-(phenylazo)-2-naphthalenecarboxamide, H-00452
6038-83-1	2,6-Dichloro-4-[(3-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00259	6124-02-3	Selenourea; <i>N</i> -Ph, <i>in</i> S-00009	6272-27-1	6,7-Dihydroxy-3(2 <i>H</i>)-benzofuranone, D-00530
6052-15-9	Bis(4-aminophenyl)acetylene, B-00249	6134-57-2	▶ 2,3,4-Pentatriene; Phenylhydrazone, <i>in</i> P-00033	6277-35-6	Pyrazine; B, MeI, <i>in</i> P-00283
6052-39-7	2-Methyldiphenylamine-4-sulfonic acid, M-00165	6134-79-8	2',4'-Dihydroxyacetophenone; Oxime, <i>in</i> D-00507	6283-26-7	Alizarine yellow G, A-00082
6054-99-5	2-Hydroxy-5-[(4-sulfophenyl)azo]benzoic acid; Di-Na salt, <i>in</i> H-00542	6136-93-2	Cyanodithoxymethane, <i>in</i> G-00038	6287-78-1	Gossypol bis[<i>N</i> -(2-hydroxy)ethyleneimine], G-00042
6055-52-3	1,6-Hexanediamine; B,2HCl, <i>in</i> H-00061	6145-31-9	1,2-Ethanediphosphonic acid, E-00026	6290-86-4	<i>N,N'</i> -Diethylbenzidine, <i>in</i> D-00053
6059-16-1	Aminosalicylate calcium, <i>in</i> A-00184	6145-35-3	1-Pyrenebutyric acid; Me ester, <i>in</i> P-00307	6292-71-3	4-Methoxybenzaldehyde; Semicarbazone, <i>in</i> M-00075
6059-17-2	▶ 4-Amino-2-hydroxybenzoic acid; Et ester, <i>in</i> A-00184	6147-87-1	4-Hydroxydithiobenzoic acid, H-00176	6297-20-7	4-Phenylsemicarbazide; 1,1-Di-Me, <i>in</i> P-00193
6065-82-3	Glyoxylic acid; Di-Et acetal, Et ester, <i>in</i> G-00038	6148-01-2	2,4,6-Trimethylpyridine; Picrate, <i>in</i> T-00337	6298-14-2	2-Naphthalenecarboxaldehyde 2-benzothiazolylhydrazone, N-00004
6066-82-6	2,5-Pyrrolidinedione; <i>N</i> -Hydroxy, <i>in</i> P-00442	6149-50-4	1-Hydroxycyclohexanecarboxylic acid; Me ester, <i>in</i> H-00146	6304-34-3	Trichloroacetic acid; Allyl ester, <i>in</i> T-00218
6067-45-4	Bis(4-nitrophenyl)ethanedione, B-00432	6151-30-0	Quinacrine, <i>see</i> Q-00003	6305-94-8	6-Hydroxy-8-mercaptapurine, H-00260
6070-21-9	3-Menthoxycetic acid; (–)-form, <i>in</i> M-00013	6152-67-6	4-Aminobenzenesulfonic acid; <i>N</i> -Ph, Na salt, <i>in</i> A-00100	6307-91-1	2,6-Dibromo-3,4,5-trimethoxybenzoic acid, <i>in</i> D-00220
6079-78-3	Diphenylphosphinodithioic acid; Anhydrosulfide, <i>in</i> D-01039	6153-89-5	5-Phenyl-1,10-phenanthroline, P-00154	6308-26-5	2-(Benzylthio)-6-hydroxy-4-pyridimidinocarboxylic acid, <i>in</i> H-00261
6083-67-6	2-Methoxy-3,5-dinitrobenzoic acid, <i>in</i> H-00154	6153-92-0	4,4'-Diphenyl-2,2'-bipyridine, D-01002	6308-28-7	2-(Ethylthio)-6-hydroxy-4-pyrimidinocarboxylic acid, <i>in</i> H-00261
6084-54-4	<i>O</i> -Propylhydroxylamine; B,HCl, <i>in</i> P-00277	6155-24-4	4-[(Mercaptoacetyl)amino]benzenesulfonic acid; Na salt, <i>in</i> M-00017	6310-11-8	<i>N</i> -(3-Hydroxyphenyl)-2-mercaptoacetamide, H-00476
6084-58-8	<i>O</i> -(2-Methylpropyl)hydroxylamine; B,HCl, <i>in</i> M-00260	6155-57-3	Saccharin, <i>see</i> S-00001	6310-76-5	4,4'-(1,2-Ethanediyldinitrilo)bis[(2-pentanone)], E-00037
6084-59-9	<i>O</i> -(1-Methylpropyl)hydroxylamine; B,HCl, <i>in</i> M-00259	6158-73-2	Triphenylselenonium(1+); Chloride, <i>in</i> T-00375	6315-80-6	Phenolphthalein; Di-Me ether, <i>in</i> P-00063
6087-94-1	▶ Bis(2-chloroethyl)phosphorochloridate, <i>in</i> B-00281	6160-12-9	Sparteine, <i>see</i> S-00023	6320-14-5	Astrafloxine G; Chloride, <i>in</i> A-00450
6088-51-3	6,6'-Dithiobis[2-naphthalenol], D-01119	6164-77-8	2,3-Pyrazinedicarboxylic acid; Di-Me ester, <i>in</i> P-00286	6321-12-6	(4-Nitrophenyl)acetic acid; Amide, <i>in</i> N-00120
6091-44-7	▶ Piperidine; B,HCl, <i>in</i> P-00241	6164-78-9	2,3-Pyrazinedicarboxylic acid; Diamide, <i>in</i> P-00286	6322-37-8	8-Amino-2-naphthalenesulfonic acid; Na salt, <i>in</i> A-00270
6093-71-6	7-Hydroxy-2-oxo-2 <i>H</i> -1-benzopyran-3-carboxylic acid; Et ester, <i>in</i> H-00426	6164-79-0	Pyrazinocarboxylic acid; Me ester, <i>in</i> P-00285	6336-79-4	1,2-Naphthalenediol; Di-Ac, <i>in</i> N-00007
6093-72-7	7-Hydroxy-2-oxo-2 <i>H</i> -1-benzopyran-3-carboxylic acid; Me ether, Et ester, <i>in</i> H-00426	6169-06-8	2-Octanol; (S)-form, <i>in</i> O-00037	6338-09-6	▶ 1-Mercaptoanthraquinone, M-00018
6098-74-4	2,6,7-Trihydroxy-9-(trichloromethyl)-3 <i>H</i> -xanthen-3-one, T-00323	6170-06-5	2-Hydroxy-1-methoxyanthraquinone, <i>in</i> D-00510	6343-27-7	2,5-Pyrrolidinedione; <i>N</i> -Benzoyl, <i>in</i> P-00442
6098-76-6	2,6,7-Trihydroxy-9-(4-hydroxyphenyl)-3 <i>H</i> -xanthen-3-one, T-00294	6175-45-7	▶ 2,2-Diethoxy-1-phenylethanone, <i>in</i> P-00132	6345-63-7	(2-Nitrophenyl)methanediol diacetate, <i>in</i> N-00081
6098-77-7	2,6,7-Trihydroxy-9-(4-hydroxy-3-methoxyphenyl)-3 <i>H</i> -xanthen-3-one, T-00288	6190-43-8	Citrohexamine, <i>in</i> H-00057	6358-20-9	5-(Diethylamino)-2-nitrosophenol, <i>in</i> A-00285
6098-78-8	2,6,7-Trihydroxy-9-(2-hydroxy-1-naphthalenyl)-3 <i>H</i> -xanthen-3-one, T-00289	6193-35-7	3-(4,5-Dimethyl-2-thiazolyl)-2,5-diphenyl-2 <i>H</i> -tetrazolium(1+); Chloride, <i>in</i> D-00925	6358-69-6	▶ C.I. Solvent green 7, <i>in</i> H-00517
6098-79-9	9-(4-Bromophenyl)-2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one, B-00558	6201-86-1	3-Amino-2-hydroxy-5-sulfobenzoic acid, A-00221	6359-05-3	Eosine, <i>see</i> E-00007
		6203-18-5	3-[4-(Dimethylamino)phenyl]-2-propenal; (E)-form, <i>in</i> D-00823	6359-21-3	Rhodamine 4G, <i>in</i> R-00005
		6209-17-2	4-Aminobenzenesulfonic acid, <i>see</i> A-00100	6359-38-2	Benzoilavine, B-00057
		6211-24-1	4-Aminobenzenesulfonic acid; <i>N</i> -Ph, Ba salt, <i>in</i> A-00100		

6359-45-1	Astra violet 3R; Chloride, <i>in</i> A-00451	6505-30-2	Xylene brilliant blue FBR; Na salt, <i>in</i> X-00003	6816-39-3	1 <i>H</i> -Benzimidazole-2-carboxaldehyde, <i>see</i> B-00039
6359-82-6	Flavazine L; Na salt, <i>in</i> F-00007	6528-66-1	3-(2-Benzimidazolyl)isoquinoline, B-00045	6822-41-9	3,3',4',5',5',7-Hexahydroxyflavone, <i>see</i> H-00055
6362-62-5	2-Oxo-3-phenylpropanoic acid; Amide, <i>in</i> O-00068	6541-19-1	6,7-Dichloro-5,8-quinolinedione, D-00302	6823-95-6	5-Methyl-2-furancarboxaldehyde thiosemicarbazone, <i>in</i> M-00179
6362-89-6	▶ 2-Chloro-1,3,2-dioxaphosphorinane, C-00110	6563-60-6	2-Methoxyxanthone, <i>in</i> H-00562	6833-18-7	4-Methylbenzoic acid; Anilide, <i>in</i> M-00138
6363-69-5	Neutral blue; Chloride, <i>in</i> N-00064	6566-25-2	1,8-Naphthalenediol; Di-Ac, <i>in</i> N-00009	6833-64-3	3,4-Dihydroxyazobenzene, D-00515
6363-82-2	Muscarinet; Chloride, <i>in</i> M-00350	6574-98-7	2,4-Dichloro-1-cyanobenzene, <i>in</i> D-00249	6839-89-0	2-Pyridinecarboxaldehyde phenylthiosemicarbazone, P-00331
6364-36-9	2-[(2,4-Diaminophenyl)azo]-4,6-dinitrophenol, D-00112	6579-46-0	<i>N</i> -Glyoxyloylantranilic acid; Monooxime, <i>in</i> G-00039	6839-90-3	2-Acetylpyridine; Thiosemicarbazone, <i>in</i> A-00039
6369-32-0	2-[[1-Hydroxy-7-(phenylamino)-3-sulfo-2-naphthalenyl]azo]benzoic acid, <i>in</i> A-00222	6590-81-4	2-(Dimethylamino)biphenyl, <i>in</i> A-00116	6839-91-4	Di-2-pyridinylmethanone thiosemicarbazone, D-01084
6370-37-2	4-[[4-Nitrophenyl]azo]-1,2,3-benzenetriol, N-00124	6596-69-6	Benzenesulfonic acid; 2-Phenylhydrazide, <i>in</i> B-00026	6840-29-5	<i>N</i> -Benzylaniline; <i>N</i> -Ac, <i>in</i> B-00165
6371-42-2	Indigo-5,5',7,7'-tetrasulfonic acid; Tetra-Na salt, <i>in</i> I-00028	6596-93-6	Methyltriphenylarsonium(1+); Chloride, <i>in</i> M-00334	6844-73-1	C.I. Mordant blue 18, <i>in</i> A-00139
6373-16-6	1-Hydroxy-4-(methylamino)anthraquinone, <i>in</i> A-00182	6597-22-4	Bis(1 <i>H</i> -tetrazol-5-ylazo)acetic acid; Et ester, di-Na salt, <i>in</i> B-00459	6846-35-1	▶ 5-Amino-1,2,4-dithiazolidine-3-thione, A-00168
6373-24-6	1,2,4,5,6,8-Hexahydroxyanthraquinone, H-00053	6613-41-8	2-Oxo-3-phenylpropanoic acid; Et ester, <i>in</i> O-00068	6848-13-1	3-Chloroaniline; <i>N</i> -Di-Me, <i>in</i> C-00059
6375-75-3	3-Chloroaniline; <i>N</i> -Di-Et, <i>in</i> C-00059	6624-48-2	1,3-Indanedione; Dioxime, <i>in</i> I-00024	6853-69-6	6-Methyl-2-pyridinecarboxaldehyde; Thiosemicarbazone, <i>in</i> M-00266
6378-88-7	Wool fast blue BL, W-00002	6626-15-9	4-Bromo-1,3-benzenediol, B-00486	6857-34-7	4-Phenyl-2-mercaptoimidazole, P-00140
6380-29-6	2-Isopropyl-5-methylphenol; Benzoyl, <i>in</i> I-00075	6626-39-7	Dibutyl diethylphosphoramidate, <i>in</i> D-00353	6860-63-5	<i>N,N,N',N'</i> -Tetraethylbenzidine, <i>in</i> D-00053
6381-91-5	Saccharin, <i>see</i> S-00001	6627-38-9	6,7-Dimethyl-2,3-di-(2-pyridyl)quinoxaline, D-00855	6869-00-7	3,3-Bis(4-hydroxy-2-isopropyl-5-methylphenyl)-(3 <i>H</i>)-isobenzofuranone, B-00378
6381-92-6	Ethylenediaminetetraacetic acid, <i>see</i> E-00078	6628-18-8	1,2-Bis(methylthio)ethane, <i>in</i> E-00028	6892-68-8	▶ Dithioerythritol, <i>in</i> D-00752
6385-58-6	▶ Bithionolate sodium, <i>in</i> B-00293	6630-11-1	Bis(6-methyl-2-pyridyl)ethanedione, B-00415	6899-03-2	▶ Aspartic acid, A-00447
6396-08-3	Triphenylphosphine; B,HI, <i>in</i> T-00370	6630-86-0	Benzil; Monophenylhydrazone, <i>in</i> B-00038	6899-10-1	Hexadecyltrimethylammonium (1+), H-00029
6397-77-9	1,1'-(Diethoxymethylene)bisbenzene, <i>in</i> B-00069	6632-09-3	7-(1-Piperidinylmethyl)-8-quinolinol, P-00243	6912-68-1	▶ Adrenaline, A-00066
6399-81-1	Triphenylphosphine; B,HBr, <i>in</i> T-00370	6632-68-4	▶ Daxime, D-00002	6917-48-2	FDNDEA, <i>in</i> F-00026
6402-89-7	4,4'-Diaminodiphenylsulfimide, D-00088	6634-01-1	1,2,4,5-Benzenetetracarboxylic acid; Tetra-Et ester, <i>in</i> B-00029	6926-84-7	2,2'-Biphenylcarboxylic acid; Mono-Me ester, <i>in</i> B-00207
6406-61-7	2-Chloro-5-[[5-hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-2-methylphenyl]azo]benzenesulfonic acid; Na salt, <i>in</i> C-00132	6635-29-6	1,2-Cyclopentanedione dioxime, <i>in</i> C-00362	6928-09-2	2-Pyridinecarboxaldehyde guanlylhydrazone, P-00325
6407-55-2	1,8-Dimethoxyanthraquinone, <i>in</i> D-00512	6635-73-0	1-Phenyl-2,4-dithiobiuret, <i>in</i> T-00163	6935-27-9	2-Benzylaminopyridine, B-00164
6409-06-9	Chrome red brown 5RD; Di-Na salt, <i>in</i> C-00284	6638-49-9	Bis[(2-hydroxyphenyl)methylene]carbonic dihydrazone, B-00390	6935-65-5	3-Methylbenzoic acid; Dimethylamide, <i>in</i> M-00137
6410-10-2	▶ 1-(4-Nitrophenylazo)-2-naphthol, <i>in</i> N-00031	6639-60-7	3,4-Dimethylaniline; <i>N</i> -Formyl, <i>in</i> D-00830	6937-91-3	Biuret; <i>N</i> -Me, <i>in</i> B-00474
6410-56-6	Dipropyl methylphosphonate, <i>in</i> M-00244	6655-90-9	4-Chloro-1,2-naphthoquinone, C-00187	6939-45-3	1-Methyl-2,4-dithiobiuret, <i>in</i> T-00163
6411-46-7	Carbazol yellow B, C-00021	6665-78-7	5,7-Dihydroxyflavone; Di-Ac, <i>in</i> D-00612	6939-79-3	3,3'-Dimethyldithizone, D-00857
6415-90-3	Atropine; B,HBr, <i>in</i> T-00431	6667-84-1	1,1-Diantiprylheptane, D-00137	6939-80-6	Dinaphthizone, D-00931
6416-04-2	Tetracycline, <i>see</i> T-00039	6685-67-2	3,3',4',5',7-Pentahydroxyflavanone; (2 <i>R</i> ,3 <i>R</i>)-form, Penta-Ac, <i>in</i> P-00023	6940-50-7	2-(4-Bromophenyl)-2-hydroxyacetic acid, B-00550
6416-29-1	Acilan fast green; Na salt, <i>in</i> A-00060	6703-67-9	Ethyl capri blue; Chloride, <i>in</i> E-00067	6940-57-4	2-Acetyl-6-methylpyridine, A-00024
6416-51-9	Galloycyanine; Me ester, chloride, <i>in</i> G-00005	6708-61-8	Cadion 2B, C-00007	6944-34-9	Propanedithioamide, P-00262
6431-92-1	2-Mercaptopropanoic acid; (±)-form, S-Ac, <i>in</i> M-00051	6717-34-6	C.I. Direct blue 72, C-00004	6953-60-2	S-Acetylmercaptosuccinic anhydride, <i>in</i> M-00026
6434-57-7	1-[(2-Hydroxy-4-nitrophenyl)azo]-2-naphthalenol, H-00395	6734-91-4	2-Ethoxybiphenyl, <i>in</i> B-00210	6953-78-2	6-Hydroxy-2-mercapto-4-pyrimidinecarboxylic acid, H-00261
6441-77-6	▶ Phloxin, P-00212	6735-60-0	Furfural green; Chloride, <i>in</i> F-00063	6954-48-9	▶ 6-Bromo-1,2-naphthoquinone, B-00538
6441-82-3	Astrazon red 6B, A-00455	6738-04-1	2-Phenoxybiphenyl, <i>in</i> B-00210	6955-47-1	6-Methyl-2-pyridinecarboxaldehyde azine, M-00267
6448-97-1	Lissamine blue BF; Di-Na salt, <i>in</i> L-00007	6738-17-6	<i>N,N'</i> -Dicyclohexyl- <i>O</i> -benzylisourea, D-00308	6956-56-5	2,2-Dimethoxy-1-phenylethanone, <i>in</i> P-00132
6456-44-6	Nicotinamide methiodide, <i>in</i> A-00134	6738-23-4	1-Methoxy-2,4-dimethylbenzene, <i>in</i> D-00884	6957-24-0	2-Pyridinecarboxaldehyde (2-pyridinylmethylene)hydrazone, P-00334
6485-34-3	▶ Saccharin calcium, <i>in</i> S-00001	6744-85-0	3-Nitro-1,2-benzenedicarboxylic acid; 2-Me ester, <i>in</i> N-00085	6961-25-7	8-Hydroxy-2-phenylquinoline, H-00503
6486-92-6	9,10-Dihydro-1,4-dihydroxy-9,10-dioxo-3-(4-sulfophenoxy)-2-anthracenesulfonic acid, D-00377	6754-20-7	▶ Polygodial, <i>in</i> D-01160	6962-75-0	2'-Hydroxyacetophenone; Hydrazone, <i>in</i> H-00089
6492-47-3	4-(Phenylazo)-1,2,3-benzenetriol, P-00092	6780-13-8	Ethanediamine; Monohydrate, <i>in</i> E-00024	6963-28-6	Ethanedioic acid bis[[2,4-dihydroxyphenyl)methylene]hydrazide], E-00025
6492-85-9	1,5-Dihydroxyanthraquinone-2,6-disulfonic acid, D-00513	6797-44-0	1-Phenyl-1,2,3-butanetriol; 2-Oxime, <i>in</i> P-00109	6965-19-1	2-(Ethylthio)-4(1 <i>H</i>)-pyrimidinone, <i>in</i> D-00494
6495-83-6	2,2'-Biquinoline; 1,1'-Dioxide, <i>in</i> B-00236	6806-03-7	[Vinylenebis[[3-sulfo- <i>p</i> -phenylene]imino- <i>s</i> -triazine-6,2,4-triyl]dinitrilo]octaacetic acid; Hexa-Na salt, <i>in</i> V-00007	6966-64-9	▶ 4-Aminoazobenzene-4'-arsonic acid, A-00095
6495-84-7	4,4'-Dichloro-2,2'-biquinoline, D-00254	6813-38-3	[2,2'-Bipyridine]-4,4'-dicarboxylic acid, B-00224	6976-37-0	2-[Bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)-1,3-propanediol, B-00370
6495-85-8	4,4'-Dihydroxy-2,2'-biquinoline, D-00545			6982-25-8	2,3-Butanediol; (2 <i>R</i> ,3 <i>R</i>)-form, <i>in</i> B-00586

6996-92-5	▶ Benzeneseleninic acid, B-00024	7249-72-1	2-Amino-6-(methylthio)-4-pyrimidinecarboxylic acid, <i>in</i> A-00231	7339-99-3	<i>N</i> -Benzylbenzohydroxamic acid, <i>in</i> H-00109
7006-52-2	3-Chloroaniline; <i>N</i> -Me, <i>in</i> C-00059			7341-60-8	Benzophenone; Thiosemicarbazone, <i>in</i> B-00069
7009-43-0	SKF 6270, <i>in</i> M-00069	7250-31-9	2-Carboxy-1-pyrrolidinecarbodithioic acid; (<i>S</i>)- <i>form</i> , <i>in</i> C-00044	7343-31-9	1,8-Bis(methylthio)naphthalene, <i>in</i> N-00012
7021-04-7	2-(4-Bromophenyl)-2-hydroxyacetic acid; (\pm)- <i>form</i> , <i>in</i> B-00550			7343-55-7	2,4-Dinitrothiophenetole, <i>in</i> D-00945
7021-09-2	Mandelic acid; (\pm)- <i>form</i> , Me ether, <i>in</i> M-00007	7250-94-4	2'-Hydroxyacetophenone; Ac, <i>in</i> H-00089	7356-54-9	3,4-Dimethylaniline; B,HCl, <i>in</i> D-00830
7032-25-9	<i>N</i> -(2-Pyridinylmethylene)benzenamine, P-00394	7254-33-3	1 <i>H</i> -Pyrzolo[3,4- <i>d</i>]pyrimidine-4,6(5 <i>H</i> ,7 <i>H</i>)-dione; 1 <i>H</i> - <i>form</i> , 1,5-Di-Me, <i>in</i> P-00302	7359-95-7	Tripropylamine; B,HBr, <i>in</i> T-00380
7033-76-3	1,3-Dioxo-2-indanecarboxylic acid, D-00991	7274-56-8	2,3-Butanedione; Thiosemicarbazone, <i>in</i> B-00587	7361-94-6	2-(2,3-Dihydro-2-benzothiazolyl)phenol, D-00372
7051-13-0	1-Chloro-2,4-dimethoxybenzene, <i>in</i> C-00061	7275-43-6	2,2'-Bipyridine; 1,1'-Dioxide, <i>in</i> B-00220	7361-97-9	Eriochrome blue SE, E-00011
7057-57-0	Meldola's blue; Chloride, <i>in</i> M-00011	7281-04-1	▶ Benzyltrimethyldecylammonium (1+); Bromide, <i>in</i> B-00179	7362-01-8	α -Methoxy-2-naphthaleneacetic acid, <i>in</i> H-00338
7057-97-8	Pyrrrole; <i>N</i> -Isopropyl, <i>in</i> P-00436	7283-41-2	2-Hydroxybenzenecarbothioic acid, H-00110	7365-44-8	2-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]ethanesulfonic acid, H-00136
7062-87-5	Trichloroacetic acid; Vinyl ester, <i>in</i> T-00218	7291-33-0	Trichloroacetic acid; Dimethylamide, <i>in</i> T-00218	7365-45-9	4-(2-Hydroxyethyl)-1-piperazineethanesulfonic acid, H-00180
7085-93-0	3-Aminobenzoic acid; <i>N</i> -Et, <i>in</i> A-00104	7298-73-9	▶ <i>N</i> -Methylphenacetin, <i>in</i> E-00051	7365-82-4	2-[(2-Amino-2-oxoethyl)amino]ethanesulfonic acid, A-00293
7110-50-1	Benzoic acid; (\pm)- <i>form</i> , (<i>Z</i>)-Oxime, <i>in</i> B-00068	7298-84-2	Leucylalanine; (<i>S,S</i>)- <i>form</i> , <i>in</i> L-00005	7369-44-0	<i>N</i> -Cinnamoylphenylhydroxylamine, <i>in</i> H-00499
7114-03-6	Methyl green, <i>see</i> M-00185	7300-59-6	<i>N</i> -(4-Nitrophenyl)glutamine; (<i>S</i>)- <i>form</i> , <i>in</i> N-00136	7377-03-9	<i>N</i> -Hydroxyoctanamide, H-00424
7128-64-5	2,5-Bis[5- <i>tert</i> -butyl-2-benzoxazolyl]thiophene, B-00272	7304-91-8	Diphenyl selenoxide, D-01049	7385-67-3	Nile red, N-00070
7134-09-0	3,4-Dihydroxybenzenesulfonic acid, D-00527	7307-04-2	5,5-Dimethyl-2,4-hexanedione, D-00863	7385-98-0	4-(2-Pyridinylazo)-1-naphthalenol, P-00376
7138-34-3	2-(4-Chlorophenyl)-2-hydroxyacetic acid; (\pm)- <i>form</i> , <i>in</i> C-00222	7307-08-6	2,8-Dimethyl-4,6-nonanedione, D-00877	7385-99-1	2-Pyridinecarboxaldehyde 2-quinolinylhydrazone, P-00337
7140-99-0	Basic turquoise; Trichlorozincate, <i>in</i> B-00001	7307-88-2	1,2-Diaminocyclohexane- <i>N,N,N',N'</i> -tetraacetic acid, <i>see</i> D-00065	7400-93-3	1-Hydroxyanthraquinone-2-carboxylic acid, H-00099
7143-01-3	Methanesulfonic acid; Anhydride, <i>in</i> M-00066	7311-30-0	Dodecylamine; <i>N</i> -Me, <i>in</i> D-01142	7405-23-4	4-Hydroxybenzothiazole, H-00126
7148-78-9	(3,3-Diethoxy-1-propenyl)benzene, <i>in</i> P-00168	7312-39-2	3,3-Diphenyl-1,2-indanedione, D-01027	7409-30-5	4-Nitrobenzylamine, N-00098
7149-49-7	2,3-Naphthalenedicarboxaldehyde, N-00006	7322-88-5	Mandelic acid; (<i>S</i>)- <i>form</i> , Ac, <i>in</i> M-00007	7410-40-4	2-Hydroxy-1-naphthaldehyde; Thiosemicarbazone, <i>in</i> H-00336
7149-79-3	▶ <i>N</i> -(3-Chloro-4-methylphenyl)acetamide, <i>in</i> C-00171	7324-96-1	4,4'-Diaminodiphenyl sulfone; <i>N,N'</i> -Di-Me, <i>in</i> D-00090	7411-49-6	▶ 3,3',4,4'-Tetraaminobiphenyl; Tra-B, HCl, <i>in</i> T-00007
7150-18-7	3-Hydroxyandrost-5-ene-17-carboxylic acid; (3 β ,17 β)- <i>form</i> , Ac, <i>in</i> H-00098	7327-60-8	Nitriilotriacetoneitrile, <i>in</i> N-00074	7414-83-7	▶ Calcimur, <i>in</i> H-00178
7152-24-1	▶ 2-Mercaptobenzimidazole; <i>S</i> -Me, <i>in</i> M-00022	7327-79-9	2',4'-Dihydroxyacetophenone; Phenylhydrazone, <i>in</i> D-00507	7422-32-4	Tetraphenylarsonium(1+); Iodide, <i>in</i> T-00119
7154-81-6	6-Methoxy-2-methyl-3(2 <i>H</i>)-pyridazinone, <i>in</i> D-00481	7327-87-9	▶ Nepresol, <i>in</i> D-00370	7429-97-2	3-Hydroxyandrost-5-ene-17-carboxylic acid; (3 β ,17 β)- <i>form</i> , Ac, chloride, <i>in</i> H-00098
7162-15-4	Methyl phenylphosphinate, <i>in</i> P-00163	7328-39-4	3-Mercapto-3-phenylpropanoic acid, M-00048	7435-07-6	Pyrrrole; <i>N</i> -(2-Propenyl), <i>in</i> P-00436
7163-25-9	3-Hydroxy-2-naphthoic acid; Et ester, <i>in</i> H-00370	7328-40-7	3-Mercapto-3-phenylpropanoic acid; (\pm)- <i>form</i> , Me ester, <i>in</i> M-00048	7441-53-4	2'-Hydroxyacetophenone; Thiosemicarbazone, <i>in</i> H-00089
7164-43-4	▶ 5-Aminoorotic acid, A-00290	7328-41-8	3-Mercapto-3-phenylpropanoic acid; (\pm)- <i>form</i> , Et ester, <i>in</i> M-00048	7449-74-3	<i>N</i> -Methyl- <i>N</i> -(trimethylsilyl)acetamide, M-00330
7170-36-7	2,6-Pyridinedicarboxylic acid; 6-Me ester, <i>in</i> P-00353	7328-43-0	3-Mercapto-3-phenylpropanoic acid; (\pm)- <i>form</i> , Butyl ester, <i>in</i> M-00048	7451-57-2	2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, D-00592
7185-16-2	2-[(3-Hydroxy-1-oxo-1 <i>H</i> -inden-2-yl)imino]-1 <i>H</i> -indene-1,3(2 <i>H</i>)-dione, H-00433	7328-44-1	3-Mercapto-3-phenylpropanoic acid; (\pm)- <i>form</i> , 2-Methylpropyl ester, <i>in</i> M-00048	7452-29-1	<i>O,O</i> -Diethylphosphoroseleonic acid; Na salt, <i>in</i> D-00357
7194-31-2	Anthrafluorone, A-00387	7328-45-2	3-Mercapto-3-phenylpropanoic acid; (\pm)- <i>form</i> , Pentyl ester, <i>in</i> M-00048	7452-52-0	Eriochrome brilliant violet B, E-00012
7197-93-5	5-Nitro-2-furancarboxaldehyde; (<i>E</i>)-Oxime, <i>in</i> N-00109	7328-46-3	3-Mercapto-3-phenylpropanoic acid; (\pm)- <i>form</i> , 3-Methylbutyl ester, <i>in</i> M-00048	7454-54-8	4-Bromobenzenesulfonic acid; Anilide, <i>in</i> B-00487
7199-02-2	Capri blue GN†, <i>in</i> C-00017	7334-51-2	Tetramethylsuccinamide, <i>in</i> S-00034	7460-12-0	Pseudoephedrine sulfate, <i>in</i> M-00122
7200-25-1	Arginine; (\pm)- <i>form</i> , <i>in</i> A-00400	7335-25-3	2-Chlorobenzoic acid; Et ester, <i>in</i> C-00066	7468-76-0	3-(4-Hydroxyphenyl)-1-(3 <i>H</i>)-isobenzofuranone, H-00474
7203-96-5	Hexahydro-2 <i>H</i> -azepine-2-thione, H-00036	7335-27-5	4-Chlorobenzoic acid; Et ester, <i>in</i> C-00067	7470-09-9	2-Hydroxy-1-naphthaldehyde; Oxime, <i>in</i> H-00336
7205-00-7	Dichlorophenylbismuthine, D-00292	7335-34-4	3-Nitrobenzohydroxamic acid, N-00090	7470-15-7	9-Phenanthrenemethylamine, <i>see</i> P-00048
7210-07-3	2,2'-Bibenzoxazole, B-00202	7336-20-1	4,4'-Diaminostilbene-2,2'-disulfonic acid; Di-Na salt, <i>in</i> D-00125	7471-95-6	9 <i>H</i> -Fluorene-9-carboxylic acid; Amide, <i>in</i> F-00013
7210-71-1	2,5-Dichloro-3,6-dimethoxy-1,4-benzoquinone, <i>in</i> D-00262	7336-34-7	3-Demethylcolchicine, <i>in</i> C-00300	7472-91-5	4-Methylaniline; <i>N</i> -Di-Ac, <i>in</i> M-00124
7215-44-3	3,3',4',5,7-Pentahydroxyflavone, <i>see</i> P-00025	7336-64-3	1-Hydroxy-4-methoxyanthraquinone, <i>in</i> D-00511	7474-83-1	3-Bromo-1,2-naphthoquinone, B-00537
7216-27-5	(\pm)-Camphoric acid; Anhydride, <i>in</i> T-00325	7338-27-4	2-Methylenebutanedioic acid; 4-Mono-Me ester, <i>in</i> M-00176	7474-92-2	3,6-Dihydroxy-1,2-benzenedicarboxylic acid; Di-Me ester, <i>in</i> D-00525
7216-95-7	Pentetic acid, <i>see</i> P-00039	7338-83-2	5-Hydroxy-3-mercapto-6-methyl-1,2,4-triazine, H-00258	7475-61-8	2-Methoxy-2,2-diphenylacetic acid, <i>in</i> H-00166
7220-79-3	Methylene blue, <i>see</i> M-00175			7477-67-0	3,3'-Dimethyl-1,1'-diphenyl-[4,4'-bi-pyrazoline]-5,5'-dione, D-00851
7232-51-1	Pararosaniline pamoate, <i>in</i> T-00383			7481-49-4	Acid red 26, A-00058
7239-22-7	1,4-Benzoquinone mono[<i>O</i> -[<i>p</i> -nitrophenyl]sulfonyl]oxime], B-00080			7488-76-8	Anazolene, A-00366
7244-02-2	Ethylenedithiodiacetic acid, E-00080				
7245-38-7	3-Amino-4,5-dihydro-5-oxo-1-phenyl-1 <i>H</i> -pyrazole-4-carbodithioic acid, A-00155				

7495-45-6	2-Ethoxy-2,2-diphenylacetic acid, <i>in</i> H-00166	7654-27-5	4-[(4-Ethoxyphenyl)azo]-1-naphthalenamine, <i>in</i> A-00277	10039-54-0	▶ Hydroxylamine sulfate, <i>in</i> H-00257
7500-69-8	1-Hydroxycyclohexanecarboxylic acid; Amide, <i>in</i> H-00146	7658-30-2	1,7-Bis(2,4-dihydroxyphenyl)-1,7-heptanedione, B-00306	10080-43-0	4,8-Dimethyl-7-hydroxy-6-nitro-2 <i>H</i> -1-benzopyran-2-one, D-00865
7500-86-9	▶ 2,4,6-Trinitrobenzoic acid; Chloride, <i>in</i> T-00352	7659-29-2	3,5-Dinitro-1,2-benzenediol, D-00942	10081-39-7	2,4,6-Triphenyl- <i>N</i> -(3,5-diphenyl-4-oxidophenyl)pyridinium betaine, T-00365
7505-92-2	α -Oxobenzeneacetic acid; Amide, <i>in</i> O-00055	7666-04-8	2-(Methylthio)-1 <i>H</i> -imidazole, <i>in</i> D-00424	10103-06-7	2,3-Dimethoxynaphthalene, <i>in</i> N-00010
7510-44-3	1-Naphthalenecarboxaldehyde; Semicarbazone, <i>in</i> N-00003	7669-54-7	▶ 2-Nitrobenzenesulfonyl chloride, N-00088	10112-13-7	Trichloroacetic acid; Phenyl ester, <i>in</i> T-00218
7519-65-5	4-Chloroaniline; <i>N</i> -Benzylidene, <i>in</i> C-00060	7685-97-4	1,2-Dihydro-3,6-pyridazinedione; <i>B</i> -form, 1,2-Di-Me, <i>in</i> D-00481	10113-40-3	2,5-Dimethylaniline; <i>N</i> -Formyl, <i>in</i> D-00828
7525-08-8	4,5-Dihydroxy-3,6-bis(phenylazo)-2,7-naphthalenedisulfonic acid, D-00559	7693-50-7	2-Naphthyl chloroformate, N-00048	10114-58-6	4,4'-[1,3-Phenylenebis(azo)]bis-1,3-benzenediamine; B,2HCl, <i>in</i> P-00117
7525-18-0	4,5-Dihydroxy-3,6-bis[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00565	7703-11-9	Tetrazolium blue, T-00132	10121-91-2	<i>N</i> -(5-Aminopentyl)-5-(dimethylamino)-1-naphthalenesulfonamide, A-00296
7525-70-4	2-[(2-Thienylmethylene)amino]benzenethiol, T-00151	7716-66-7	3-Chloro-1,2-benzisothiazole, C-00062	10122-32-4	Lobeline, <i>see</i> L-00010
7526-02-5	8-[(8-Hydroxy-5-quinolinyl)azo]-1-naphthalenesulfonic acid, H-00532	7720-45-8	2,5-Dichlorobenzenesulfonic acid; Amide, <i>in</i> D-00248	10130-11-7	4,4'-[(4,6-Diamino-1,3,5-triazin-2-yl)amino]-2,2'-stilbenedisulfonic acid- <i>N,N',N'',N'''</i> -tetraacetic acid; Hexa-Na salt, <i>in</i> D-00129
7526-03-6	1,4-Piperazinedicarbodithioic acid, P-00239	7727-07-3	2-Pyridinecarboxaldehyde; Phenylhydrazone; B,HCl, <i>in</i> P-00318	10143-02-9	Chromal blue G; Di-Na salt, <i>in</i> C-00275
7527-91-5	Acrisorcin, <i>in</i> H-00071	7727-09-5	2-Quinolinecarboxaldehyde; Phenylhydrazone, <i>in</i> Q-00009	10156-36-2	Mercaptoacetic acid; <i>S</i> -Me, anilide, <i>in</i> M-00016
7528-00-9	1-Phenyl-2-propylamine, <i>see</i> P-00172	7734-05-6	2-Acetylpyridine; Phenylhydrazone, <i>in</i> A-00039	10163-62-9	<i>O,O</i> -Dibutyl phosphorothioate, D-00242
7529-22-8	Morpholine; <i>N</i> -Me, <i>N</i> -Oxide, <i>in</i> M-00344	7755-70-6	2-Aminobenzaldehyde; <i>N</i> -Me, <i>in</i> A-00096	10172-60-8	Benzethonium(1+), B-00037
7529-23-9	Tris(2-hydroxyethyl)amine; <i>N</i> -Oxide, <i>in</i> T-00406	7757-39-3	4-Pyridinecarboxaldehyde; Phenylhydrazone, <i>in</i> P-00320	10182-84-0	Diphenyliodonium(1+), D-01028
7539-17-5	Bis (dicyclohexyloxyphosphinothioyl) disulfide, B-00294	7761-80-0	Indophenol; Ac, <i>in</i> I-00034	10182-91-9	Lauryltrimethylammonium(1+), L-00002
7543-56-8	4,5-Dihydroxy-3-[<i>N,N</i> -bis(carboxymethyl)aminomethyl]-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> D-00547	7771-17-7	8-Amino-5-(phenylazo)quinoline, A-00315	10191-18-1	2-[Bis(2-hydroxyethyl)amino]ethanesulfonic acid, B-00369
7545-73-5	2-Isopropyl-8-quinolinol, I-00078	7773-52-6	1-Hexadecylpyridinium(1+), H-00028	10198-69-3	4-Phenyl-2-(2-pyridyl)pyrimidine, P-00186
7556-88-9	5-Hydroxyquinoxaline, <i>see</i> H-00536	7782-24-3	2-Phenylpropanoic acid; (<i>S</i>)-form, <i>in</i> P-00167	10198-71-7	2,4-Di-2-pyridylpyrimidine, D-01092
7572-33-0	4,5-Dihydroxy-3,6-bis[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00564	7782-26-5	2-Phenylpropanoic acid; (<i>R</i>)-form, <i>in</i> P-00167	10198-73-9	4-Methoxy-2,6-bis(2-pyridyl)pyrimidine, M-00085
7578-43-0	Pentetic acid, <i>see</i> P-00039	7782-29-8	2-Phenylbutanoic acid; (\pm)-form, <i>in</i> P-00110	10198-79-5	5-Methyl-2-(2-pyridyl)pyrimidine, M-00304
7596-80-7	<i>N,N'</i> -1,2-Phenylenebismethanesulfonamide, P-00118	7795-95-1	1-Octanesulfonic acid; Chloride, <i>in</i> O-00034	10198-81-9	5-Phenyl-2-(2-pyridyl)pyrimidine, P-00188
7612-96-6	▶ (4-Isothiocyanatophenyl)phenyldiazene, I-00099	7797-81-1	2-Hydroxy-1 <i>H</i> -benz[<i>de</i>]isoquinoline-1,3(2 <i>H</i>)-dione, <i>in</i> B-00051	10198-85-3	2-(2-Pyridyl)-5,6,7,8-tetrahydroquinazoline, <i>in</i> P-00423
7612-98-8	4-[(4-Isothiocyanatophenyl)azo]- <i>N,N</i> -dimethylbenzenamine, I-00098	7803-49-8	▶ Hydroxylamine, H-00257	10198-86-4	5,6,7,8-Tetrahydro-2,4-bis(2-pyridyl)quinazoline, T-00054
7614-96-2	2,4,6-Trinitrophenol; Ac, <i>in</i> T-00355	7803-57-8	▶ Hydrazine hydrate, <i>in</i> H-00079	10198-90-0	4-Phenyl-6-(2-pyridyl)pyrimidine, P-00187
7619-65-0	2-Naphthalenesulfonic acid; Et ester, <i>in</i> N-00015	7859-86-1	Mercaptoacetic acid; 2-Ethylhexyl ester, <i>in</i> M-00016	10198-91-1	4,6-Di-2-pyridylpyrimidine, D-01093
7620-46-4	9-Isothiocyanatoacridine, I-00091	8002-90-2	8-Hydroxy-7-iodo-5-quinolinesulfonic acid, <i>see</i> H-00255	10198-94-4	2-(2-Pyridyl)quinazoline, P-00423
7620-71-5	Triethylphenylammonium(1+); Hydroxide, <i>in</i> T-00234	8004-87-3	▶ Methyl violet, M-00336	10198-95-5	Di-2-pyridylquinazoline, D-01094
7624-33-1	1-Allyl-2-tetrazoline-5-thione, <i>in</i> T-00131	8015-02-9	▶ Diamond green BW; Di-Na salt, <i>in</i> D-00133	10198-96-6	3,3'-Bipyridazine, B-00219
7630-14-0	<i>N</i> -Hydroxy- <i>N</i> -phenyl-2-furancarboxamide, H-00472	8050-35-9	Benzoin, <i>see</i> B-00068	10198-99-9	4,4'-Diphenyl-2,2'-bipyrimidine, D-01003
7634-42-6	1,4-Dimercapto-2,3-butanediol, D-00752	8063-24-9	3,6-Diamino-10-methylacridinium chloride, <i>in</i> D-00042	10199-00-5	2,2'-Bipyrazine, B-00218
7638-43-9	2,6,7-Trihydroxy-9-(2-pyridinyl)-3 <i>H</i> -xanthen-3-one, T-00317	9000-70-8	▶ Gelatin, G-00008	10199-89-0	▶ 4-Chloro-7-nitrobenzofurazan, C-00189
7638-44-0	2,6,7-Trihydroxy-9-(3-pyridinyl)-3 <i>H</i> -xanthen-3-one, T-00318	9002-18-0	▶ Agar, A-00068	10199-91-4	4-Amino-7-nitrobenzofurazan, A-00282
7638-45-1	2,6,7-Trihydroxy-9-(4-pyridinyl)-3 <i>H</i> -xanthen-3-one, T-00319	9002-81-7	▶ Polyoxymethylene, <i>in</i> F-00035	10213-91-9	Butaperazine; Maleate, <i>in</i> B-00609
7640-25-7	1,9-Bis(2,4-dihydroxyphenyl)-1,9-nonanedione, B-00309	9002-89-5	▶ Poly(vinyl alcohol), P-00249	10214-05-8	Chrome dark green BN; Na salt, <i>in</i> C-00282
7648-01-3	3-Ethyl-2-thioxo-4-thiazolidinone, <i>in</i> T-00176	9002-93-1	▶ Triton X 100, T-00428	10214-18-3	4-[(4-Amino-1-naphthalenyl)azo]-5-hydroxy-2,7-naphthalenedisulfonic acid; <i>N</i> -Et, di-Na salt, <i>in</i> A-00276
7651-11-8	(Diazomethyl)pentafluorobenzene, D-00152	9004-32-4	Carboxymethyl cellulose, <i>in</i> C-00049	10217-52-4	Hydrazine, <i>see</i> H-00079
7653-69-2	2,5-Bis(methylthio)-1,3,4-thiadiazole, <i>in</i> M-00060	9004-34-6	Cellulose, C-00049	10220-66-3	3-Mercapto- <i>N</i> -phenylpropanamide, <i>in</i> M-00052
		9004-35-7	Cellulose acetate, <i>in</i> C-00049	10220-83-4	1,4-Cyclohexanedione; Dioxime, <i>in</i> C-00339
		9004-70-0	▶ Nitrocellulose, <i>in</i> C-00049	10222-10-3	2-Methyl-8-quinolinethiol, M-00307
		9004-87-9	OP 7, O-00041	10222-11-4	2-Methyl-8-quinolinethiol, <i>see</i> M-00307
		9005-82-7	Amylose, <i>in</i> S-00025		
		9006-68-2	(4-Hydroxyphenyl)arsonic acid, <i>see</i> H-00447		
		9012-76-4	Chitosan, C-00050		
		9032-37-5	Cellulose xanthate, <i>in</i> C-00049		
		9037-22-3	Amylopectin, <i>in</i> S-00025		
		10008-75-0	▶ 2,3-Dimercaptobutanedioic acid; (2 <i>R</i> *,3 <i>R</i> *)-form, <i>in</i> D-00751		
		10010-67-0	1,4-Piperazinediethanesulfonic acid, <i>see</i> P-00240		
		10024-89-2	▶ Morpholine; B,HCl, <i>in</i> M-00344		
		10031-82-0	▶ 4-Ethoxybenzaldehyde, <i>in</i> H-00102		
		10034-93-2	▶ Hydrazinium(2+) sulfate, <i>in</i> H-00079		

10226-07-0	<i>O,S</i> -Dibutyldithiocarbonate, in D-01125	10378-23-1	Ethylenediaminetetraacetic acid, see E-00078	10567-02-9	Septonex, in E-00061
10228-14-5	1,2,4-Trihydroxyanthraquinone; Tri-Ac, in T-00270	10378-55-9	▶ 1-(Diazomethyl)naphthalene, D-00151	10589-94-3	Deuteroporphyrin IX; Di-Me ester, in D-00030
10228-90-7	9-Methoxyacridine, in H-00093	10387-49-2	Acetylbulliferone, in H-00124	10595-51-4	4-Nitrosoaniline; <i>N</i> -Me, in N-00154
10239-68-6	4-Hydroxy-2,6-di-2-pyridinylpyrimidine, H-00171	10399-73-2	Acridine; <i>N</i> -Oxide, in A-00062	10596-55-1	Dithiocarbonic acid; <i>S</i> -Me, <i>S</i> -Et ester, in D-01125
10246-75-0	Hydroxyzine pamoate, in H-00563	10401-59-9	9-(Diazomethyl)anthracene, D-00148	11024-24-1	▶ Digitonin, in S-00024
10247-90-2	Tetraheptylammonium(1+); Chloride, in T-00048	10416-59-8	▶ <i>N,O</i> -Bis(trimethylsilyl)acetamide, B-00470	11082-38-5	Pentetic acid, see P-00039
10253-83-5	▶ 5-(Phenylamino)-1,3,4-thiadiazole-2(3 <i>H</i>)-thione, P-00087	10418-07-2	2-[(3-Methyl-5-propyl-2-pyrrolidinyl)azo]phenol, M-00263	11121-48-5	Rose bengal, see R-00010
10254-18-9	5-Amino-4-methyl-2-(2-pyridinylazo)phenol, see A-00253	10418-09-4	Pyroracemic acid thiosemicarbazone, in P-00448	11128-96-4	Amberlite LA2, A-00089
10254-20-3	4,5,6,7-Tetrachloro-3-(2,4-dihydroxyphenyl)-3-methyl-1(3 <i>H</i>)-isobenzofuranone, T-00028	10420-89-0	1-(1-Naphthyl)ethylamine; (<i>S</i>)-form, in N-00049	11130-95-3	Dodecahydro-7,8-dicarbaundecaborate(1-), D-01137
10261-17-3	Solochrome red B, S-00021	10424-65-4	▶ Tetramethylammonium(1+); Hydroxide, in T-00092	12111-24-9	Pentetic acid, see P-00039
10268-78-7	1,3-Diaminobenzene; <i>N,N'</i> -Di-Ac, in D-00047	10437-96-4	2-(1,3-Dioxobutyl)-1 <i>H</i> -indene-1,3-(2 <i>H</i>)-dione, D-00987	12152-94-2	Ferrocenyldihydroxyborane, F-00005
10269-25-7	4-Methyl-5-phenyl-3 <i>H</i> -1,2-dithiole-3-thione, M-00227	10453-89-1	▶ Chrysanthemic acid, C-00296	12182-48-8	Glucalox, in G-00015
10286-78-9	3-Chloro-4-methylaniline; <i>N</i> -Benzoyl, in C-00171	10470-83-4	5,8-Quinolinedione, Q-00019	12244-57-4	Mercaptobutanedioic acid, see M-00026
10294-75-4	[9,9'-Bianthracene]-10,10'-diol; Di-Me ether, in B-00201	10471-68-8	1-Phenyl-3-(selenophen-2-yl)-1,3-propanedione, P-00190	12270-13-2	Maxilon blue GRL, M-00009
10299-10-2	1,4-Dihydro-5-hydroxy-1-(4-methylphenyl)-4-oxo-2-pyridinecarboxylic acid; Et ester, in D-00411	10472-24-9	2-Oxocyclopentanecarboxylic acid; (±)-form, Me ester, in O-00060	12304-72-2	Cuproselect, in D-01137
10304-39-9	<i>N</i> -(8-Quinoly)-4-toluenesulfonamide, in A-00340	10478-01-0	Isobutyl 3,5-dinitrobenzoate, in M-00255	12304-89-1	Dodecahydro-7,8-dicarbaundecaborate(1-); Me ₂ N salt, in D-01137
10307-26-3	1-Hexanesulfonic acid; Me ester, in H-00064	10489-23-3	Tioctilate, in T-00155	12385-59-0	Dodecahydro-7,8-dicarbaundecaborate(1-), see D-01137
10307-28-5	1-Octanesulfonic acid; Me ester, in O-00034	10495-74-6	2,4-Diamino-6-(2,2'-bipyridyl)-1,3,5-triazine, D-00062	12642-13-6	Amberlite LA1, A-00088
10315-85-2	1,1,1,3,3,3-Hexafluoro-2-propanol; Benzoyl, in H-00032	10495-75-7	2-Amino-4,6-bis(6-(2-pyridyl)-2-pyridyl)-s-triazine, A-00122	12768-78-4	Erio green B, E-00019
10325-79-8	3-Hydroxyandrost-5-ene-17-carboxylic acid; (3β,17β)-form, in H-00098	10495-76-8	2,4,6-Tri(2,2'-bipyridin-6-yl)-1,3,5-triazine, T-00202	13010-31-6	▶ Tetrapropylammonium(1+), T-00124
10326-41-7	2-Hydroxypropanoic acid; (<i>R</i>)-form, in H-00516	10495-77-9	[2,2'-Bipyridine]-6-carboximidic acid hydrazide, B-00223	13021-40-4	5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone; Di-K salt, in D-00570
10328-33-3	<i>N</i> -Ethyl- <i>N,N</i> -dimethyl-1-hexadecanaminium(1+), E-00071	10495-78-0	3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine, B-00227	13027-43-5	2-Ethoxy-1,3-dinitrobenzene, in D-00960
10328-35-5	Benzylidimethyldodecylammonium(1+), B-00179	10495-79-1	3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine, B-00228	13034-85-0	<i>N</i> -Phenylthiobenzohydroxamic acid, P-00198
10335-31-6	2-(2-Pyridinylazo)-1-naphthalenol, P-00375	10495-80-4	3-(2,2'-Bipyridin-6-yl)-1,2,4-triazino[5,6- <i>f</i>][4,7]phenanthroline, B-00234	13035-63-7	4-Iodobenzenesulfonic acid, I-00039
10335-38-3	2-(2-Pyrimidinylazo)-1-naphthalenol, P-00430	10504-35-5	Ascorbic acid; <i>D</i> -form, in A-00446	13055-06-6	5-Amino-2,4,6-pyrimidinetrione- <i>N</i> ⁵ , <i>N</i> ⁵ -diacetic acid, A-00338
10335-68-9	Laurohydroxamic acid, L-00001	10505-26-7	1 <i>H</i> -Pyrazolol[3,4- <i>d</i>]pyrimidine-4,6(5 <i>H</i> ,7 <i>H</i>)-dione; 2 <i>H</i> -form, 2,5,7-Tri-Me, in P-00302	13059-69-3	5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, in A-00253
10335-79-2	▶ <i>N</i> -Hydroxy-2-naphthalenecarboxamide, H-00340	10507-69-4	<i>N</i> -Hydroxy-4-methoxybenzamide, H-00264	13059-70-6	2-[[4-(Diethylamino)phenyl]azo]-1,3-indanedione; Monooxime, in D-00331
10335-80-5	<i>N</i> -Hydroxy-1-naphthaleneacetamide, H-00337	10523-35-0	2-Nonylpyridine, N-00169	13059-73-9	2-[[4-(Diethylamino)phenyl]azo]-1,3-indanedione, D-00331
10341-59-0	2-Butanone, see B-00608	10527-55-6	5-(4-Antipyrilazo)-2-monoethylamino- <i>p</i> -cresol, A-00395	13059-74-0	Picriminosulfonoxime, P-00234
10341-63-6	2-Butanone, see B-00608	10527-56-7	2-(4-Antipyrilazo)-5-diethylaminophenol, A-00392	13059-77-3	4-Pyridinecarboxylic acid [[4-(dimethylamino)phenyl]methylene]hydrazide, P-00346
10341-75-0	Acetophenone; (<i>E</i>)-Oxime, in A-00008	10534-59-5	Tetrabutylammonium(1+); Acetate, in T-00023	13061-96-6	Dihydroxy(methyl)borane, D-00649
10346-63-1	3,3'-Sulfonylbis[<i>N</i> -8-quinoly]benzenesulfonamide], S-00055	10536-24-0	4,5-Dimethoxy-1,3-benzenedicarboxaldehyde, in D-00524	13078-04-1	Neonicotine, in P-00244
10347-14-5	1,2,4-Tricyanobenzene, in B-00032	10536-76-2	Formic acid; 4-Bromophenacyl ester, in F-00037	13078-36-9	Pentetic acid, see P-00039
10353-86-3	<i>N,N</i> -Bis(2-hydroxypropyl)ethanolamine, B-00393	10541-78-3	2-Methoxy- <i>N</i> -methylaniline, in M-00072	13093-04-4	<i>N,N'</i> -Dimethyl-1,6-hexanediamine, in H-00061
10359-95-2	Acid blue 89, see A-00052	10541-83-0	4-(Methylamino)benzoic acid, in A-00105	13096-46-3	1,1'-Dibenzyl-4,4'-bipyridinium(2+), D-00167
10364-94-0	1 <i>H</i> -Imidazole; <i>N</i> -Benzoyl, in I-00001	10543-42-7	2-Oxo-2 <i>H</i> -1-benzopyran-6-sulfonyl chloride, in O-00057	13102-33-5	2,2'-Dimethoxybenzophenone, in D-00535
10368-91-9	5,5,7,12,12,14-Hexamethyl-1,4,8,11-tetraazacyclotetradecane; (7 <i>RS</i> ,14 <i>RS</i>)-form, in H-00060	10543-95-0	1,1,1,3,3,3-Hexafluoro-2,2-propanediol, in H-00033	13103-75-8	<i>N,N</i> -Dimethyl-4-(2-pyridinylazo)benzenamine, D-00909
10374-66-0	3-Oxo- <i>N</i> -phenylbutanethioamide, O-00065	10549-76-5	Tetrabutylammonium(1+), T-00023	13104-56-8	4'-(4-Methoxyphenyl)-2,2':6',2'-terpyridine, M-00119
10374-76-2	<i>N</i> -8-Quinolinylnmethanesulfonamide, in A-00340	10557-63-8	<i>N</i> -Phenyl- <i>N</i> -(trimethylsilyl)acetamide, P-00210	13136-51-1	α-Mercaptobenzeneacetic acid; (<i>S</i>)-form, <i>S</i> -Benzyl, in M-00019
		10558-11-9	4-Hydroxy-3-(2-pyridinylazo)-1-naphthalenesulfonic acid, H-00522	13136-52-2	α-Mercaptobenzeneacetic acid; (<i>R</i>)-form, <i>S</i> -Benzyl, in M-00019
		10558-42-6	2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, in A-00214	13138-48-2	4,4'-Diamino-3,3'-dimethyl-1,1'-binaphthyl, D-00082
		10558-44-8	Di(2-thenyl)ketoxime, in D-01113	13153-59-8	4-[Bis[4-(diethylamino)phenyl]hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, B-00295
				13158-69-5	Naphthalene green; Chloride, in N-00013
				13161-28-9	Pilot 559P, in R-00003
				13167-95-8	1,2,3-Indanetrione; 2-Oxime, in I-00025

13168-00-8	Diphenhydramine, <i>see</i> D-00998	13377-21-4	5-Chloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, C-00123	13762-95-3	Hydrazine- <i>d</i> ₄ , <i>in</i> H-00079
13168-78-0	▶ 2-Nitrosophenol, <i>in</i> B-00075	13379-22-1	2,5,8-Trihydroxy-1,4-naphthoquinone, T-00300	13804-47-2	Benzoin; (±)- <i>form</i> , 2,4-Dinitrophenylhydrazone, <i>in</i> B-00068
13179-84-5	2,4,6-Triphenylpyrylium(1+); Bromide, <i>in</i> T-00374	13393-34-5	<i>o</i> -Anize green; Chloride, <i>in</i> A-00373	13810-02-1	<i>N</i> -Hydroxycyclohexanecarboxamide, H-00145
13182-98-4	4-Methoxy-2-[(5-methylimidazol-4-yl)azo]phenol, <i>in</i> M-00191	13400-54-9	<i>m</i> -Chlorophenylurethane, <i>in</i> C-00059	13821-89-1	1,1'-(Dithiodicarbonothioyl) bis[hexahydro-1 <i>H</i> -azepine], D-01127
13182-99-5	5-(Dimethylamino)-2-[(5-methylimidazol-4-yl)azo]phenol, D-00789	13402-51-2	▶ Tibenzate, <i>in</i> T-00155	13889-02-6	<i>N</i> -Methyl- <i>N</i> -(trimethylsilyl)formamide, M-00331
13186-45-3	C.I. Mordant violet 39, <i>in</i> A-00458	13405-77-1	Methiomeprazine, M-00069	13891-29-7	Triphenylsulfonium(1+); Trifluoromethanesulfonate, <i>in</i> T-00376
13196-40-2	β-Oxo- <i>N</i> -phenylbenzenepropanethioamide, <i>in</i> O-00056	13408-69-0	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+), <i>see</i> T-00412	13895-38-0	▶ 3-Methoxy-4-nitrosophenol, <i>in</i> N-00156
13207-47-1	2,4-Diphenylthiosemicarbazide, D-01054	13419-61-9	1-Decanesulfonic acid, D-00024	13898-58-3	4-(Benzamido)salicylic acid, <i>in</i> A-00184
13222-85-0	4-Methylbenzoic acid; Anhydride, <i>in</i> M-00138	13431-10-2	2-Imidazolidinethione; 1-Me, <i>in</i> I-00003	13909-73-4	2',3',4'-Trimethoxyacetophenone, <i>in</i> T-00269
13225-84-8	<i>N</i> -Phenyl-2-thiopicolinamide, <i>in</i> P-00317	13435-12-6	▶ <i>N</i> -(Trimethylsilyl)acetamide, T-00338	13912-71-5	1,2,4-Benzenetricarboxylic acid; 1-Me ester, <i>in</i> B-00032
13225-86-0	<i>N</i> -(2-Methoxyphenyl)-2-pyridinecarbothioamide, <i>in</i> H-00502	13435-46-6	Barium chloroanilate, <i>in</i> D-00262	13920-91-7	2-Aminobenzenethiol; <i>S</i> -Et, <i>in</i> A-00101
13227-00-4	α-Amino-1-naphthaleneacetic acid, <i>see</i> A-00261	13437-79-1	1-Phenylethylamine; (±)- <i>form</i> , B,HCl, <i>in</i> P-00130	13940-95-9	1,2,4-Benzenetricarboxylic acid; 2-Me ester, <i>in</i> B-00032
13238-06-7	4',5,7-Trihydroxyflavanone, <i>see</i> T-00281	13447-95-5	4-Pyridinecarboxylic acid 2-(sulfomethyl)hydrazide, <i>in</i> I-00069	13942-61-5	2-Oxo-3-phenylpropanoic acid; Amide, oxime, <i>in</i> O-00068
13242-44-9	▶ Captamine hydrochloride, <i>in</i> A-00170	13461-16-0	▶ 2-Imidazolidinethione; 1,3-Di-Me, <i>in</i> I-00003	13951-60-5	4-[1-Oxo-3-phenyl-1 <i>H</i> -inden-2-yl]benzenesulfonyl chloride, O-00067
13261-51-3	5-Amino-2-naphthalenesulfonamide, <i>in</i> A-00266	13466-30-3	Acetophenone; Hydrazone, <i>in</i> A-00008	13972-90-2	7-(Dimethylamino)-1-hydroxy-3 <i>H</i> -phenoxazin-3-one, D-00786
13261-52-4	8-Amino-2-naphthalenesulfonic acid; Amide, <i>in</i> A-00270	13473-26-2	Phloxine B, P-00213	13999-00-3	2-(4-Amino-2-hydroxyphenylazo)thiazole, A-00214
13261-62-6	▶ 2-Aminofluorene; <i>N,N</i> -Di-Me, <i>in</i> A-00178	13481-25-9	2,3-Dicyanopyrazine, <i>in</i> P-00286	14002-59-6	Methyltriphenylarsonium(1+); Bromide, <i>in</i> M-00334
13275-02-0	1,2-Ethanediybis [triphenylphosphonium](2+), E-00034	13493-47-5	2-Aminobenzaldehyde; <i>N</i> -Ac, <i>in</i> A-00096	14008-60-7	2-Hydroxy-3-methylbenzamide, <i>in</i> H-00278
13277-21-9	Dimethylsulfonazo DAL, D-00918	13504-46-6	1-Naphthalenecarboxaldehyde; Oxime, <i>in</i> N-00003	14008-99-2	Phenylalanine β-naphthylamide, P-00079
13277-24-2	2-[[Benzoylamino]thioxomethyl]amino]benzoic acid, B-00121	13509-65-4	3,4-Dioxohexanedioic acid bis(thiosemicarbazide); Di-Et ester, <i>in</i> D-00990	14010-23-2	Heptadecanoic acid; Et ester, <i>in</i> H-00003
13278-32-5	▶ 2'-Methoxydiphenylamine-2-carboxylic acid, <i>in</i> H-00167	13519-74-9	2-Chloroaniline; <i>N</i> -Et, <i>in</i> C-00058	14024-18-1	▶ Tris(2,4-pentanedionato- <i>O,O'</i>)iron(III), T-00411
13280-61-0	1,4-Bis[2-(2-methylphenyl)ethenyl]benzene, B-00407	13521-01-2	4-(3-Hydroxy-3-phenyl-1-triazenyl)benzenesulfonic acid, H-00506	14040-57-4	2-(4-Methyl-2-pyridyl)-5-phenylbenzimidazole, M-00302
13291-61-7	1,2-Diaminocyclohexane- <i>N,N,N',N'</i> -tetraacetic acid; (1 <i>RS</i> ,2 <i>RS</i>)- <i>form</i> , <i>in</i> D-00065	13532-18-8	3-Mercaptopropanoic acid; <i>S</i> -Me, Me ester, <i>in</i> M-00052	14040-58-5	5-Phenyl-2-(4-phenyl-2-pyridyl)benzimidazole, P-00159
13301-33-2	5-Amino-4-hydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00190	13589-71-4	2-Cyano-6-methylphenol, <i>in</i> H-00278	14040-60-9	2-(2-Pyridyl)-1 <i>H</i> -imidazo[4,5- <i>f</i>][4,7]phenanthroline, P-00419
13302-76-6	3-Mercapto-1,3-diphenyl-2-propen-1-one, <i>see</i> M-00030	13595-73-8	1-Hexanesulfonic acid, H-00064	14040-61-0	2-(4-Methyl-2-pyridyl)-1 <i>H</i> -imidazo[4,5- <i>f</i>][4,7]phenanthroline, M-00299
13305-18-5	2-(3-Chlorophenyl)-2-hydroxyacetic acid; (±)- <i>form</i> , Me ester, <i>in</i> C-00221	13599-84-3	6-Hydroxybenzothiazole, H-00127	14040-62-1	2-(4-Phenyl-2-pyridyl)-1 <i>H</i> -imidazo[4,5- <i>f</i>][4,7]phenanthroline, P-00182
13312-83-9	<i>p</i> -Chloromandelonitrile, <i>in</i> C-00222	13602-11-4	6-Methyl-2-pyridinecarboxylic acid; Me ester, <i>in</i> M-00271	14040-63-2	2-(2,2'-Bipyridin-6-yl)-1 <i>H</i> -imidazo[4,5- <i>f</i>][4,7]phenanthroline, B-00229
13331-27-6	▶ Dihydroxy(3-nitrophenyl)borane, D-00670	13629-22-6	9 <i>H</i> -Fluoren-9-one; Hydrazone, <i>in</i> F-00015	14041-33-9	Picramine M, P-00233
13341-40-7	1,2-Di(2-pyridyl)ethylene; (<i>E</i>)- <i>form</i> , <i>in</i> D-01090	13652-09-0	2,2,2-Trifluoro-1-phenylethylamine, <i>see</i> T-00261	14041-34-0	3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-chlorosalicylic acid], D-00588
13354-14-8	9 <i>H</i> -Fluorene-2-sulfonic acid, <i>see</i> F-00014	13661-34-2	1,2-Dimethoxy-3,5-dinitrobenzene, <i>in</i> D-00942	14041-35-1	3-[(5-Chloro-2-hydroxy-3-sulfo)phenyl]azo]-4,5-dihydroxy-6-[(2,4-dimethylphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00154
13354-17-1	9 <i>H</i> -Fluorene-2-sulfonyl chloride, <i>in</i> F-00014	13663-53-1	<i>N</i> -Hydroxy- <i>N</i> -phenyldecaneamide, <i>in</i> L-00001	14041-36-2	Picramine K, P-00232
13365-26-9	3-Nitro-1,2-benzenedicarboxylic acid; Di-Me ester, <i>in</i> N-00085	13663-57-5	<i>N</i> -Hydroxy- <i>N</i> -phenylbenzeneacetamide, H-00463	14041-37-3	3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfo)phenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00138
13368-42-8	4-(Trimethylsilyl)morpholine, T-00342	13664-23-8	<i>N</i> -Hydroxy- <i>N</i> -(3-methylphenyl)benzamide, <i>in</i> H-00109	14044-47-4	2-(4-Methyl-2-pyridyl)benzimidazole, M-00295
13370-79-1	2-Pyridinecarboxaldehyde; Semicarbazone, <i>in</i> P-00318	13664-49-8	<i>N</i> -Hydroxy-4-methoxy- <i>N</i> -phenylbenzamide, <i>in</i> D-00704	14044-48-5	2-(2-Quinoly)benzimidazole, Q-00037
13370-80-4	3-Pyridinecarboxaldehyde; Semicarbazone, <i>in</i> P-00319	13672-17-8	2-Naphthylamine; <i>N</i> -Di-Et, <i>in</i> N-00042	14044-49-6	2-(2,2'-Bipyridin-6-yl)benzimidazole, B-00225
0-00-00	▶ 0000	13673-63-7	2(3 <i>H</i>)-Benzoxazolethione; <i>NH</i> - <i>form</i> , 3-Me, <i>in</i> B-00113		
13371-17-0	Butyltriphenylphosphonium(1+); Chloride, <i>in</i> B-00640	13677-79-7	3,4,5-Trihydroxybenzaldehyde, T-00273		
13372-62-8	2-Aminobenzenethiol; <i>N,S</i> -Di-Me, <i>in</i> A-00101	13677-81-1	3,4,5-Trihydroxybenzaldehyde; 2,4-Dinitrophenylhydrazone, <i>in</i> T-00273		
13372-96-8	α-Amino-1-naphthaleneacetic acid, A-00261	13681-82-8	▶ Tris(2,4-pentanedionato- <i>O,O'</i>)chromium(III), T-00410		
		13685-74-0	<i>O</i> -Methyl butylphosphonodithioate, <i>in</i> B-00638		
		13685-75-1	<i>O</i> -Isopropyl butylphosphonodithioate, <i>in</i> B-00638		
		13745-42-1	<i>N</i> -Phenyl-1 <i>H</i> -benzimidazolecarboxaldehyde, P-00102		

14044-50-9	2-(2-Benzimidazolyl)-4,7-phenanthroline, B-00048	14205-33-5	<i>N</i> -Benzoyl- <i>N'</i> -(ethoxycarbonylmethyl)selenourea, B-00130	14445-79-5	2-Chloro-5-cyano-3,6-dihydroxybenzoquinone; Di-Na salt, <i>in</i> C-00090
14044-51-0	2-(4-Phenyl-2-pyridyl)-3 <i>H</i> -imidazo[4,5- <i>h</i>]quinoline, P-00184	14208-17-4	1,2-Benzoquinone; Dioxime, <i>in</i> B-00075	14445-80-8	1 <i>H</i> -Pyrrole-2,5-dione; Dioxime, <i>in</i> P-00439
14044-52-1	2-(2,2'-Bipyridin-6-yl)-3 <i>H</i> -imidazo[4,5- <i>h</i>]quinoline, B-00231	14210-97-0	1,4-Benzenediol; Dibenzoyl, <i>in</i> B-00022	14445-82-0	3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00426
14044-80-5	3-Mercapto-3-phenylpropanoic acid; (±)- <i>form</i> , Ph ester, <i>in</i> M-00048	14230-18-3	1,2,4-Benzenetricarboxylic acid; Tri-Et ester, <i>in</i> B-00032	14448-67-0	2(3 <i>H</i>)-Benzothiazolone; <i>N</i> -Me, hydrazone; B,HCl, <i>in</i> B-00090
14044-81-6	1,5-Bis(2-hydroxyphenyl)-3-cyanofornazan, B-00388	14241-37-3	2-(3 <i>H</i> -Imidazo[4,5- <i>h</i>]quinolin-2-yl)-4,7-phenanthroline, I-00006	14464-29-0	1-(Acetyloxy)-2,5-pyrrolidinedione, <i>in</i> P-00442
14044-84-9	Arsenazo B; Di-Na salt, <i>in</i> A-00406	14241-38-4	2-(2,2'-Bipyridin-6-yl)-1 <i>H</i> -imidazo[4,5- <i>c</i>]pyridine, B-00230	14488-44-9	Tripropylamine; B,HCl, <i>in</i> T-00380
14044-85-0	Orthaniil A, O-00046	14248-47-6	4-Bromobenzenesulfonic acid; Anhydride, <i>in</i> B-00487	14489-75-9	1-Naphthylmethylamine; <i>N</i> -Methyl, <i>in</i> N-00051
14060-59-4	2-(4-Phenyl-2-pyridyl)benzimidazole, P-00178	14289-44-2	α-Hydroxy-2-naphthaleneacetic acid, H-00338	14503-46-9	2-(Dimethylamino)benzenesulfonic acid, <i>in</i> A-00099
14060-60-7	2-(4-Methyl-2-pyridyl)-2 <i>H</i> -imidazo[4,5- <i>h</i>]quinoline, M-00301	14294-11-2	2-Pyridinylthiourea, P-00410	14516-56-4	Perazine; Maleate (1:2), <i>in</i> P-00043
14060-61-8	2-(4-Ethyl-2-pyridyl)-3 <i>H</i> -imidazo[4,5- <i>h</i>]quinoline, E-00111	14309-40-1	Heptyl 4-aminobenzoate, <i>in</i> A-00105	14538-51-3	<i>N,N'</i> -Dihydroxy-2,3-dimethyl-2,3-butanediamine; Monosulfate, <i>in</i> D-00578
14060-62-9	2-(2-Pyridyl)-1 <i>H</i> -imidazo[4,5- <i>c</i>]pyridine, P-00420	14319-13-2	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)lanthanum(III), T-00419	14547-80-9	4-Methyl- <i>N</i> -2-pyridinylbenzamide, M-00285
14060-63-0	2-(4-Methyl-2-pyridyl)-1 <i>H</i> -imidazo[4,5- <i>c</i>]pyridine, M-00300	14331-04-5	7-Amino-1-hydroxy-3 <i>H</i> -phenoxazin-3-one, A-00208	14547-82-1	4-Chloro- <i>N</i> -(2-pyridinyl)benzamide, C-00256
14060-64-1	2-(4-Phenyl-2-pyridyl)-1 <i>H</i> -imidazo[4,5- <i>c</i>]pyridine, P-00183	14337-50-9	2-[(5-Bromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, <i>in</i> A-00125	14565-92-5	1-Ethoxy- <i>N,N,N</i> -trimethyl-1-oxo-2-hexadecanaminium (1+), E-00061
14060-65-2	5-Phenyl-2-(2-pyridyl)benzimidazole, P-00179	14337-51-0	2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, <i>in</i> A-00149	14568-16-2	Cesignost, <i>in</i> C-00330
14062-78-3	4-Methylbenzoic acid; Dimethylamide, <i>in</i> M-00138	14337-52-1	2-(Diethylamino)-6-(2-pyridinyl)azophenol, D-00335	14579-91-0	▶ Bis[(chloromethyl)dimethylsilyl]amine, B-00284
14066-61-6	▶ (2-Carboxyphenyl)hydroxymercury, C-00041	14337-53-2	2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, <i>in</i> A-00126	14585-15-0	2',3,5,7-Tetramethoxyflavone, <i>in</i> T-00074
14066-69-4	Formaldehyde; Semicarbazone, <i>in</i> F-00035	14337-54-3	2-[(3,5-Dibromo-2-pyridyl)azo]-5-(diethylamino)phenol, <i>in</i> A-00150	14586-54-0	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+); (±)- <i>form</i> , Diperchlorate, <i>in</i> T-00412
14090-76-7	9,10-Phenanthraquinone; Dioxime, <i>in</i> P-00047	14338-32-0	2-Chloro-1-methylpyridinium(1+); Iodide, <i>in</i> C-00185	14592-80-4	Tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato- <i>O,O'</i>)chromium(III), T-00405
14090-77-8	Benzil, <i>see</i> B-00038	14342-74-6	2-[(Phenylmethyl)amino]ethanol; Picrate, <i>in</i> P-00144	14602-86-9	Menthyl chloroformate; (–)- <i>form</i> , <i>in</i> M-00014
14090-88-1	4,6-Nonanedione, N-00168	14350-50-6	Triphenylpropylphosphonium (1+); Iodide, <i>in</i> T-00372	14607-06-8	2-[(6-Bromo-2-benzothiazolyl)azo]-4-methylphenol, B-00491
14098-24-9	Benzo-18-crown-6, B-00055	14359-86-5	2'-Hydroxydiphenylamine-2-carboxylic acid, H-00167	14609-54-2	4,4',4''-4'''-(2 <i>H</i> ,23 <i>H</i> -Porphine-5,10,15,20-tetrayl)tetrakisbenzoic acid, P-00251
14098-39-6	Dibenzo-19-crown-6, D-00157	14368-49-1	▶ 4-Nitrobenzenediazonium(1+), N-00084	14610-11-8	2-Mercaptobenzimidazole; S-Et, <i>in</i> M-00022
14098-44-3	Benzo-15-crown-5, B-00054	14371-10-9	3-Phenyl-2-propenal; (<i>E</i>)- <i>form</i> , <i>in</i> P-00168	14633-92-2	Bis(diphenylphosphinothioyl)methane, <i>in</i> B-00340
14134-41-9	4',5,7-Trihydroxyflavone, <i>see</i> T-00285	14384-45-3	<i>N,N'</i> -Dihydroxy-2,3-dimethyl-2,3-butanediamine, D-00578	14634-50-5	6-Methoxy-2-phenyl-1(2 <i>H</i>)-pyridazinone, <i>in</i> D-00481
14140-02-4	1,4-Naphthoquinone; Dioxime, <i>in</i> N-00032	14384-46-4	<i>N,N'</i> -Dihydroxy-2,3-dimethyl-2,3-butanediamine; Tripicrate, <i>in</i> D-00578	14634-91-4	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+); (±)- <i>form</i> , Sulfate, <i>in</i> T-00412
14140-03-5	1,2-Naphthoquinone, <i>see</i> N-00031	14386-66-4	2,3-Dihydro-2-hydroxy-4 <i>H</i> -1-benzopyran-4-one, <i>see</i> D-00406	14636-74-9	Tetraiodobismuthate(III)(1–), T-00080
14140-04-6	9,10-Phenanthraquinone; Monoxime, <i>in</i> P-00047	14393-12-5	<i>N</i> -Benzyl-1-naphthalenemethylamine, <i>in</i> N-00051	14644-86-1	Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato- <i>O,O'</i>]praseodymium(III), T-00425
14151-96-3	4-Methyl-2-(1,3,4-thiadiazol-2-yl)azophenol, M-00314	14393-17-0	<i>N</i> -(<i>p</i> -Chlorobenzyl)-1-naphthalenemethylamine, C-00072	14644-89-4	Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato- <i>O,O'</i>]ytterbium(III), T-00426
14151-97-4	1-(1,3,4-Thiadiazol-2-ylazo)-2-naphthalenol, T-00134	14393-23-8	<i>N</i> -(4-Methylbenzyl)-1-naphthylmethylamine, M-00145	14646-14-1	2-Quinolinylphosphonic acid, Q-00036
14152-97-7	TAGIT, <i>in</i> G-00012	14401-90-2	Isonitrosoacetylacetone, <i>in</i> P-00030	14649-03-7	(1-Isocyanethyl)benzene; (<i>S</i>)- <i>form</i> , <i>in</i> I-00067
14155-09-0	3-[(2-Arsonophenyl)azo]-6-[[5-(diethylsulfamoyl)-2-methoxyphenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00428	14401-99-1	<i>N</i> -(3,5-Dinitrobenzoyl)-α-phenylethylamine, D-00949	14660-20-9	2-Thio-2,4-pentanedione, T-00165
14155-11-4	Sulfochlorophenol M, S-00042	14402-00-7	<i>N</i> -(3,5-Dinitrobenzoyl)-α-phenylethylamine; (±)- <i>form</i> , <i>in</i> D-00949	14678-81-0	2-Methylbenzimidazole; <i>N</i> -Ac, <i>in</i> M-00134
14155-12-5	3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00146	14426-24-5	7,8-Dihydroxy-3-phenyl-2 <i>H</i> -1-benzopyran-2-one, D-00705	14679-73-3	▶ Todralazine, T-00188
14167-18-1	▶ [<i>N,N'</i> -Ethylenebis(salicylideneiminato)]cobalt, E-00077	14434-47-0	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)chromium(III), T-00414	14680-77-4	Tetrakis(4-chlorophenyl)borate(1–); K salt, <i>in</i> T-00083
14174-08-4	Benzo-12-crown-4, B-00052	14445-78-4	2-Chloro-5-cyano-3,6-dihydroxybenzoquinone, C-00090	14696-06-1	Dibenzo-16-crown-5, D-00155
14174-09-5	Dibenzo-24-crown-8, D-00159			14703-66-3	Monobutyl phosphate; Monocyclohexylammonium salt, <i>in</i> M-00338
14178-30-4	2-Benzoylpyridine; (<i>Z</i>)-Oxime, <i>in</i> B-00151			14703-85-6	2,5-Diaminophenol, <i>see</i> D-00111
14178-31-5	2-Benzoylpyridine; (<i>E</i>)-Oxime, <i>in</i> B-00151			14708-99-7	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+), T-00412
14181-73-8	2-Bromo-4'-nitroacetophenone; Oxime, <i>in</i> B-00539				
14187-32-7	▶ Dibenzo-18-crown-6, D-00156				
14189-31-2	1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255				
14192-51-9	3-Methyl-1,2-cyclohexanedione; 1-Phenylhydrazone, <i>in</i> M-00156				

14737-91-8	Coumarinic acid; Me ether, <i>in</i> H-00500	15103-39-6	2,5-Diaminophenol; 5- <i>N</i> -Di-Me, <i>in</i> D-00111	15406-79-8	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(<i>II</i>)(2+); (±)- <i>form</i> , Dibromide, <i>in</i> T-00412
14751-83-8	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(<i>II</i>)(2+); (±)- <i>form</i> , Dichloride, <i>in</i> T-00384	15108-19-7	2,3-Bis(2-hydroxybenzylideneamino)benzofuran, B-00361	15421-37-1	Promazine, <i>see</i> P-00258
14765-72-1	Arsenazo DAL, A-00407	15116-13-9	1-(2,4-Dihydroxyphenyl)-1-pentanone, D-00714	15448-99-4	Saccharin; <i>N</i> -Me, <i>in</i> S-00001
14768-15-1	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)gadolinium(<i>III</i>), T-00417	15128-65-1	Eicosahydrodibenzo[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecine; (2 <i>RS</i> ,3 <i>SR</i> ,11 <i>RS</i> ,12 <i>SR</i>)- <i>form</i> , <i>in</i> E-00004	15456-17-4	1,2-Diaminopropane- <i>N,N,N',N'</i> -tetraacetic acid; <i>D</i> - <i>form</i> , <i>in</i> D-00115
14777-25-4	Perazine, <i>see</i> P-00043	15128-66-2	Eicosahydrodibenzo[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecine; (2 <i>RS</i> ,3 <i>SR</i> ,11 <i>SR</i> ,12 <i>RS</i>)- <i>form</i> , <i>in</i> E-00004	15456-95-8	2-Hydroxybenzothiazole; Ac, <i>in</i> H-00125
14802-37-0	1,2-Di(2-pyridyl)ethylene; (<i>Z</i>)- <i>form</i> , <i>in</i> D-01090	15128-66-2	Eicosahydrodibenzo[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecine; (2 <i>RS</i> ,3 <i>SR</i> ,11 <i>SR</i> ,12 <i>RS</i>)- <i>form</i> , <i>in</i> E-00004	15460-75-0	2-(4-Bromophenyl)-2-hydroxyacetic acid; (±)- <i>form</i> , Na salt, <i>in</i> B-00550
14813-29-7	▶ 3,3',4',5,5',7-Hexahydroxyflavone; Hexa-Ac, <i>in</i> H-00055	15142-96-8	[1,2-Ethanedyl]bis[nitrilobis[methylene]]tetrakisphosphonic acid, <i>see</i> E-00032	15473-63-9	1-Phenyl-3-thioxo-1-butanone, P-00202
14846-47-0	Triocetylamine; B,HBr, <i>in</i> T-00357	15165-79-4	(1-Naphthyl)acetic acid, <i>see</i> N-00040	15473-64-0	4-Phenyl-4-thioxo-2-butanone, P-00203
14847-54-2	1-[(2-Hydroxy-5-nitrophenyl)azo]-2-naphthalenol, H-00396	15168-13-5	Pentetic acid, <i>see</i> P-00039	15475-86-2	4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00595
14854-13-8	2-(2-Pyridyl)-3 <i>H</i> -imidazo[4,5- <i>h</i>]quinoline, P-00421	15175-31-2	Azo-azoxy PMP, A-00466	15475-87-3	3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00436
14855-76-6	Methyl green; Bromide chloride, <i>in</i> M-00185	15185-37-2	2-Aminobenzophenone; (<i>E</i>)-Oxime, <i>in</i> A-00111	15475-98-6	2-Carboxy-1-pyrrolidinecarbodithioic acid, C-00044
14866-33-2	Tetraoctylammonium(1+); Bromide, <i>in</i> T-00110	15198-07-9	2-Hydroxy-3-methylbenzoic acid; Chloride, <i>in</i> H-00278	15479-05-7	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, <i>see</i> C-00099
14894-87-2	6,7-Dihydroxy-2 <i>H</i> -1-benzopyran-2-one; Di-Ac, <i>in</i> D-00538	15206-55-0	α-Oxobenzeneacetic acid; Me ester, <i>in</i> O-00055	15479-16-0	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane; (4 <i>RS</i> ,5 <i>RS</i>)- <i>form</i> , <i>in</i> C-00099
14898-79-4	2-Butanol; (<i>R</i>)- <i>form</i> , <i>in</i> B-00607	15207-88-2	Tetramethyl (1-hydroxyethylidene)bisphosphonate, <i>in</i> H-00178	15479-17-1	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, <i>see</i> C-00099
14899-08-2	Rhodamine 110, <i>see</i> R-00002	15208-15-8	2,2'-(1,2-Ethenedyl)bis[4-[[4-amino-6-bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]benzenesulfonic acid], E-00041	15492-48-5	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)praseodymium(<i>III</i>), T-00420
14901-07-6	▶ 5,7-Megastigmadien-9-one, M-00010	15208-17-0	2,2'-(1,2-Ethenedyl)bis[4-[[4-amino-6-bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]benzenesulfonic acid], <i>see</i> E-00041	15492-52-1	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)ytterbium(<i>III</i>), T-00421
14918-39-9	Antipyrilazo III, A-00394	15219-34-8	▶ Oxalyl bromide, <i>in</i> O-00048	15510-04-0	4'-Nitro-4-azobenzene-carboxylic acid; Me ester, <i>in</i> N-00080
14918-66-2	2-Methoxy-5,8-dihydroxy-1,4-naphthoquinone, <i>in</i> T-00300	15223-44-6	4-Methyl-2-thiazolidinone, M-00315	15518-82-8	▶ Metescufylline, <i>in</i> D-00647
14923-91-2	Chlorpromazine, <i>see</i> C-00273	15226-33-2	Tris(4,7-dimethyl-1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(<i>II</i>)(2+), T-00389	15522-69-7	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)dysprosium(<i>III</i>), T-00415
14925-09-8	2-(Methylamino)biphenyl, <i>in</i> A-00116	15250-41-6	1,2-Diaminopropane- <i>N,N,N',N'</i> -tetraacetic acid, <i>see</i> D-00115	15522-71-1	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)europium(<i>III</i>), T-00416
14936-97-1	Magon, <i>see</i> M-00005	15251-14-6	Rose bengal, <i>see</i> R-00010	15522-73-3	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)holmium(<i>III</i>), T-00418
14937-45-2	Tributyl(hexadecyl)phosphonium(1+); Bromide, <i>in</i> T-00210	15258-44-3	3-Chloroaniline; <i>N</i> -Et, <i>in</i> C-00059	15523-24-7	Sodium tetraethylborate, <i>in</i> T-00042
14938-70-6	2-Hydroxybenzaldehyde phenylthiosemicarbazone, H-00107	15259-78-6	Chrysanthemic acid; (1 <i>RS</i> ,3 <i>SR</i>)- <i>form</i> , <i>in</i> C-00296	15546-36-8	5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione, M-00039
14978-15-5	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(<i>II</i>)(2+); (±)- <i>form</i> , Dichloride, <i>in</i> T-00412	15288-70-7	Methyl diphenylphosphinodithioate, <i>in</i> D-01039	15546-42-6	1,4-Butanedylbis[triphenylphosphonium](2+); Dibromide, <i>in</i> B-00602
14979-11-4	4,5-Dihydroxy-3,6-bis(4-methyl-2-sulphophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00554	15289-17-5	2-Mercapto-5-phenyl-2,4-pentadienoic acid, M-00046	15553-52-3	Tetrabutylammonium(1+); Tetrafluoroborate, <i>in</i> T-00023
14984-34-0	Glucuronic acid; <i>D</i> - <i>form</i> , Na salt, <i>in</i> G-00013	15300-56-8	1 <i>H</i> -Naphtho[2,3- <i>d</i>]triazole; 1-Amino, <i>in</i> N-00039	15553-89-6	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(<i>II</i>)(2+); (±)- <i>form</i> , Diodide, <i>in</i> T-00412
15003-13-1	Tetraethylborate(1-); Li salt, <i>in</i> T-00042	15302-18-8	<i>N</i> -(α-Methylphenethyl)formamide, <i>in</i> P-00172	15570-18-0	2-(Phenylthio)benzoic acid, <i>in</i> M-00023
15007-07-5	3,6-Dimethoxyxanthone, <i>in</i> D-00742	15328-87-7	5-(3-Phenyl-2-propenylidene)-2-thioxo-4-thiazolidinone, P-00171	15572-56-2	▶ 2-Propylamine; B,HCl, <i>in</i> P-00274
15012-28-9	Solochrome azurine BS, S-00016	15331-60-9	2-[(4-Nitrophenyl)azo]phenol, N-00128	15574-54-6	5-Methoxy-2-(2-thiazolylazo)phenol, <i>in</i> T-00141
15012-38-1	2,4,6-Trinitrobenzoic acid; Me ester, <i>in</i> T-00352	15350-99-9	Amoxydramine camsilate, <i>in</i> D-00998	15580-20-8	Cyclohexyl(2-morpholinoethyl)carbodiimide, C-00356
15017-21-7	Benzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00064	15356-62-4	3-Menthoxycetic acid; (-)- <i>form</i> , Chloride, <i>in</i> M-00013	15584-03-9	6-Methoxy-2-methylthio-4-pyrimidincarboxylic acid, <i>in</i> H-00261
15017-27-3	3-Pyridinecarboxylic acid (2-pyridinylmethylene)hydrazide, P-00351	15388-48-4	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(<i>II</i>)(2+); (±)- <i>form</i> , Dipchlorate, <i>in</i> T-00384	15585-71-4	Brometenamine, <i>in</i> H-00057
15017-28-4	3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00349	15388-60-0	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(<i>II</i>)(2+); (±)- <i>form</i> , Diiodide, <i>in</i> T-00384	15598-34-2	▶ Pyridine; B,HClO ₄ , <i>in</i> P-00316
15025-74-8	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(<i>II</i>)(2+), T-00384	15398-91-1	9-Phenanthrenemethylamine, P-00048	15599-52-7	5,7-Dibromo-8-hydroxy-2-methylquinoline, D-00190
15028-10-1	1 <i>H</i> -Indane-1,2(3 <i>H</i>)-dione-2-oxime, <i>in</i> I-00023			15614-89-8	(2-Aminoethoxy)diphenylborane, A-00173
15073-39-9	Solochrome red ERS, S-00022			15658-60-3	2,6-Pyridinedicarboxylic acid; Di-Et ester, <i>in</i> P-00353
15074-53-0	Bis(4-chlorophenyl)phosphorochloridate, <i>in</i> B-00289				
15082-28-7	2-(4-Biphenyl)-5-(4- <i>tert</i> -butylphenyl)-1,3,4-oxadiazole, B-00212				
15086-94-9	▶ Eosine, E-00007				
15087-53-3	3,4-Diaminoanthraquinone-1-sulfonic acid, D-00045				
15097-49-1	1-(Trimethylsilyl)pyrrolidine, T-00346				

15712-32-0	Tris(4,7-dimethyl-1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II) (2+); Diperchlorate, <i>in</i> T-00389	16069-36-6	▷ Eicosahydrodibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecine, E-00004	16495-15-1	2,3-Dimercapto-1-propanol; (<i>S</i>)-form, Benzyl ether, <i>in</i> D-00763
15792-61-7	Chrome dark BLN; Na salt, <i>in</i> C-00280	16082-55-6	2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole, D-00699	16495-16-2	2,3-Dimercapto-1-propanol; (<i>S</i>)-form, <i>in</i> D-00763
15823-04-8	3-(4-Hydroxyphenyl)propanoic acid; Me ether, Me ester, <i>in</i> H-00497	16082-59-0	8-(Benzenesulfonylamino)quinoline, B-00028	16495-21-9	3-Mercapto-1,2-propanediol; (<i>R</i>)-form, <i>in</i> M-00050
15836-99-4	6-Amino-2,3-dihydro-5-nitroso-1-phenyl-2-thioxo-4(1 <i>H</i>)-pyrimidinone, A-00153	16085-59-9	2-Quinolincarboxaldehyde 2-pyridylhydrazone, Q-00012	16508-73-9	Rhoduline violet; Chloride, <i>in</i> R-00007
15853-35-7	Benzyltriphenylphosphonium(1+), B-00196	16085-60-2	2-Pyridinecarboxaldehyde 1-phthalazinyldiazole, P-00332	16519-43-0	Selenourea; <i>N,N'</i> -Di-Ph, <i>in</i> S-00009
15853-37-9	Tetrabutylphosphonium(1+), T-00024	16085-66-8	2-Quinolincarboxaldehyde 1-phthalazinyldiazole, Q-00011	16524-22-4	▷ 3'-Methyldiphenylamine-2-carboxylic acid, M-00164 (Bromomethyl) dimethylchlorosilane, B-00521
15873-51-5	4-Nitroaniline; B,HCl, <i>in</i> N-00077	16088-85-0	Palladiazo, P-00002	16532-02-8	Bis(2,4-dinitrophenyl) oxalate, B-00335
15892-23-6	▷ 2-Butanol; (±)-form, <i>in</i> B-00607	16091-26-2	1,3-Diaminobenzene; <i>N</i> -Benzoyl, <i>in</i> D-00047	16536-30-4	1-[(4-Ethoxyphenyl)amino]-2-mercapto-1-propanone, E-00058
15899-61-3	2,2'-(3-Methyl-1,2-cyclopentanediyliidene) bishydrazinecarbothioamide, <i>in</i> M-00159	16096-97-2	▷ L-Dithiothreitol, <i>in</i> D-00752	16555-98-9	6-Acetyl-7-hydroxy-4-methyl-2 <i>H</i> -1-benzopyran-2-one, A-00018
15905-32-5	▷ Erythrosine, E-00020	16116-44-2	2,2'-Dithiobis(4,5-diphenyl-1 <i>H</i> -imidazole), <i>in</i> D-00399	16566-55-5	7-(2-Pyridinylazo)-8-quinolinol, P-00381
15912-55-7	1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid, <i>see</i> T-00063	16171-40-7	2,3-Diphenylquinolinizinium(1+); Bromide, <i>in</i> D-01048	16574-43-9	Bromopyrogallol red, B-00574
15912-74-0	Methyltriphenylphosphonium(1+), M-00335	16177-82-5	Phenosafranine, P-00070	16586-60-0	5-(2-Benzothiazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00106
15912-75-1	Triphenylpropylphosphonium(1+), T-00372	16195-35-0	5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206	16586-65-5	5-(2-Benzoxazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00117
15912-80-8	▷ Tetraphenylarsonium(1+), T-00119	16201-50-6	α-Mercaptobenzeneacetic acid; (±)-form, <i>in</i> M-00019	16606-33-0	3-[(5-Chloro-2-hydroxy-3-sulfofenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00158
15912-81-9	Tetraphenylstibonium(1+), T-00122	16201-51-7	α-Mercaptobenzeneacetic acid; (<i>R</i>)-form, <i>in</i> M-00019	16606-34-1	4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00618
15922-79-9	1-Acetoxy-2(1 <i>H</i>)-pyridinethione, <i>in</i> P-00357	16201-52-8	α-Mercaptobenzeneacetic acid; (<i>R</i>)-form, Me ester, <i>in</i> M-00019	16610-44-9	▷ 2'-Methyldiphenylamine-2-carboxylic acid, M-00163
15930-48-0	4,5,6,7-Tetrabromo-1,3-benzodioxole, <i>in</i> T-00012	16214-27-0	1,2-Indanedione, I-00023	16623-47-5	4-[(2,4-Dihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00697
15933-59-2	<i>N</i> -(Dimethylsilyl)-1,1-dimethylsilanamine, D-00915	16273-37-3	2-(3-Chlorophenyl)-2-hydroxyacetic acid, C-00221	16630-55-0	3-Mercapto-1-propanol; <i>S</i> -Me, <i>O</i> -Ac, <i>in</i> M-00053
15935-39-4	Calconalide I, C-00013	16274-76-3	1,3,5-Triazine-2,4,6-triamine; B,HCl, <i>in</i> T-00197	16630-66-3	Mercaptoacetic acid; <i>S</i> -Me, Me ester, <i>in</i> M-00016
15959-35-0	2,4,6-Triphenylpyrylium(1+), T-00374	16279-54-2	3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, H-00224	16635-13-5	1-(2-Hydroxy-5-methylphenyl)-3-(4-methoxyphenyl)-2-propen-1-one, <i>in</i> H-00311
15964-79-1	(3,4-Dihydroxyphenyl)acetic acid; Di-Me ether, Me ester, <i>in</i> D-00687	16287-71-1	Zephiramine; Chloride, <i>in</i> Z-00001	16635-95-3	1,2-Diphenyl-1,2-ethanediamine; (1 <i>RS</i> ,2 <i>RS</i>)-form, <i>in</i> D-01010
15968-31-7	5-(Dimethylamino)-2-(8-quinolinylazo)phenol, D-00825	16291-71-7	α-Hydroxy-2-naphthaleneacetic acid; (±)-form, NH ₄ salt, <i>in</i> H-00338	16650-80-9	9-(Dimethylamino)-5 <i>H</i> -benzo[<i>a</i>]phenoxazin-5-one, D-00782
15969-44-5	5-Hydroxy-3-phenyl-4-isoxazolecarboxylic acid; Me ester, <i>in</i> H-00475	16303-98-3	2,5-Dibenzoyl-3,4-dihydroxyselenophene, D-00164	16666-78-7	Triphenylpropylphosphonium(1+); Ylide, <i>in</i> T-00372
15972-01-7	Cyclohexanebutanoic acid; Me ester, <i>in</i> C-00335	16310-92-2	Daticin, <i>in</i> T-00074	16687-42-6	Thiocarbamic acid; NH ₄ salt, <i>in</i> T-00159
15980-15-1	▷ 1,4-Oxathiane, O-00051	16315-07-4	1-Methoxy-2,3-dinitrobenzene, <i>in</i> D-00957	16696-83-6	Dithiocarbamic acid; Me ester, <i>in</i> D-01124
15989-99-8	Pentafluorobenzoic acid; Anhydride, <i>in</i> P-00012	16325-43-2	▷ 3,4-Dihydro-4,4,6-trimethyl-1-phenyl-2(1 <i>H</i>)-pyrimidinethione, D-00501	16696-88-1	Dithiocarbamic acid; Me ester, <i>N</i> -Ac, <i>in</i> D-01124
16002-17-8	4-Methoxy-2-[(4-methyl-2-thiazolyl)azo]phenol, <i>in</i> M-00318	16330-14-6	1,1,2,2-Tetraethoxypropane, <i>in</i> P-00446	16697-66-8	Sulfoacetic acid, <i>see</i> S-00039
16013-46-0	2,2'-(1,2-Ethenediyl)bis[5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], E-00044	16331-47-8	4-Bromobenzoic acid; Bromide, <i>in</i> B-00488	16707-41-8	1-[4-(2-Benzoxazolyl)phenyl]-1 <i>H</i> -pyrrole-2,5-dione, B-00118
16014-05-4	[9,9'-Bianthracene]-10,10'-diol, <i>in</i> B-00201	16331-50-3	9 <i>H</i> -Fluorene-9-carboxylic acid; Chloride, <i>in</i> F-00013	16721-43-0	Triphenylpropylphosphonium(1+); Chloride, <i>in</i> T-00372
16017-11-1	4,5-Dihydroxy-3,6-bis[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00560	16331-52-5	9-Anthracenecarbonyl chloride, <i>in</i> A-00378	16761-04-9	5-(Dimethylamino)-2-nitrosophenol, D-00804
16026-13-4	4,4'-Dimethyldithizone, D-00858	16341-11-0	3,3'-Bis(trifluoromethyl)dithizone, B-00463	16761-05-0	3-Bromo-1-nitroso-2-naphthalenol, <i>in</i> B-00537
16042-70-9	2,3-Butanedione; Bis(2-pyridylhydrazone), <i>in</i> B-00587	16352-28-6	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, C-00099	16782-24-4	Chlorophosphonazo DAL, <i>in</i> C-00242
16044-05-6	<i>p</i> -Nitral green, N-00073	16391-79-0	2-Pyridinecarboxaldehyde (5-nitro-2-pyridinyl)hydrazone, P-00330	16817-95-1	<i>N</i> -Phenylhydroxylamine; <i>N,O</i> -Dibenzoyl, <i>in</i> P-00135
16046-28-9	1-Hydroxy-2-phenyldiazene 2-oxide; 4-Methylbenzenesulfonyl, <i>in</i> H-00471	16396-64-8	8-Quinolineselenol, Q-00020	16822-45-0	2,2'-Thiobisethanamine; B,2HCl, <i>in</i> T-00156
16052-06-5	4-(2-Hydroxyethyl)-1-piperazinepropanesulfonic acid, H-00181	16411-05-5	4-Hydroxybenzyl glucosinolate, <i>see</i> H-00128	16845-41-3	2,4-Dichloro- <i>N</i> -hydroxy- <i>N</i> -phenylbenzamide, D-00281
16058-93-8	1,2,4-Triaminobenzene; 4- <i>N</i> -Di-Me; B,HCl, <i>in</i> T-00192	16423-68-0	▷ Ceplac, <i>in</i> E-00020	16846-41-6	5,7-Dibromo-8-hydroxyquinoline; <i>N</i> -Oxide, <i>in</i> D-00193
16066-31-2	Benzenesulfonic acid; Amide, <i>in</i> B-00025	16430-29-8	1-Naphthalenecarboxaldehyde; Hydrazone, <i>in</i> N-00003	16867-03-1	2-Amino-3-hydroxypyridine, A-00216
		16430-32-3	9-Anthracenemethanol; Ac, <i>in</i> A-00380		
		16492-25-4	7,7'-Trimethylenebis[1,3-dimethyl-8-thiouric acid]; Na salt, <i>in</i> T-00327		
		16495-07-1	2,3-Dimercapto-1-propanol; (<i>R</i>)-form, Benzyl ether, <i>in</i> D-00763		
		16495-08-2	2,3-Dimercapto-1-propanol; (<i>R</i>)-form, <i>in</i> D-00763		

16867-04-2	3-Hydroxy-2(1 <i>H</i>)-pyridinone, H-00521	17199-35-8	▶ Dibromosulfonephthalein, D-00215	17401-74-0	2,3-Di-2-pyridyl-6-quinoxalinecarboxylic acid, D-01095
16891-79-5	4-Aminobenzenesulfonic acid; <i>N</i> -Me, amide, in A-00100	17221-72-6	<i>N</i> -Hydroxy- <i>N</i> -phenyl-2-chlorobenzamide, H-00470	17401-75-1	2,3-Bis(6-methyl-2-pyridyl)pyrido[2,3- <i>b</i>]pyrazine, B-00421
16894-69-2	Bromotetraphenylantimony, see B-00577	17223-18-6	1,3-Diaminobenzene; <i>N,N'</i> -Dibenzoyl, in D-00047	17401-77-3	2,3-Bis(6-methyl-2-pyridyl)-10 <i>H</i> -indeno[1,2- <i>g</i>]quinoxaline, B-00416
16894-70-5	Tetraphenylstibonium(1+); Iodide, in T-00122	17241-45-1	2-Methoxy-3-prenyl-naphthoquinone, in H-00515	17401-79-5	2,2',3,3'-Tetrakis(6-methyl-2-pyridyl)-6,6'-biquinoxaline, T-00088
16905-00-3	Mercaptobutanedioic acid, see M-00026	17243-13-9	2-Hydroxy-5-sulfobenzoic acid; Sulfonyl chloride, in H-00538	17427-91-7	1,2-Bis(diphenylphosphino)ethylene, B-00339
16906-54-0	1,2-Dinitro-1,2-diphenylethylene; (<i>E</i>)-form, in D-00952	17257-04-4	4',5,7-Trihydroxyflavanone, see T-00281	17454-47-6	2,3,5,6,8,9,11,12-Octahydronaphtho[2,3- <i>b</i>]-1,4,7,10,13-pentaoxacyclopentadecine, O-00029
16909-14-1	1-Piperazinecarbodithioic acid, see P-00238	17257-70-4	2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (<i>R</i>)-form, in H-00512	17454-49-8	15-(1,1-Dimethylethyl)tetradecahydro-1,4,7,10,13-benzopentaoxacyclopentadecine, D-00860
16911-57-2	Thiobenzoic acid; <i>O</i> -Ph ester, in T-00155	17257-71-5	2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (<i>S</i>)-form, Me ether, in H-00512	17454-52-3	2,3,5,6,8,9,11,12,14,15-Decahydronaphtho[2,3- <i>b</i>]-1,4,7,10,13,16-hexaoxacyclooctadecine, D-00017
16917-09-2	Bromamine B, in B-00026	17273-30-2	Gossypol; (+)-form, Hexa-Me ether, in G-00041	17455-13-9	▶ 18-Crown-6, C-00315
16954-69-1	▶ 2-Aminobenzothiazole; 2- <i>N</i> -Me, in A-00113	17274-08-7	1,3,5-Benzenetricarboxylic acid; Tri-Na salt, in B-00033	17455-23-1	▶ Tetracosahydrodibenz[<i>b,n</i>][1,4,7,10,13,16,19,22]octaoxacyclotetracosin, T-00036
16992-40-8	1,6-Dihydro-5-hydroxy-3-mercapto-6,6-dimethyl-1,2,4-triazine, D-00409	17277-19-9	2,6-Dichloro-4-nitrosophenol, in D-00251	17455-25-3	Dibenz-30-crown-10, D-00160
17013-01-3	Fumaric acid, see F-00038	17279-39-9	▶ Dimetamfetamine, in P-00172	17455-70-8	Bis(2,2':6',2"-terpyridine- <i>N,N',N''</i>)iron(II)(2+), B-00457
17016-13-6	Glyoxime, see G-00037	17284-97-8	6-Chloro-3-hydrazinopyridazine, in C-00251	17504-10-8	4-Methoxy-3-biphenylcarboxylic acid, in H-00132
17016-15-8	Phenylglyoxime; (<i>E,E</i>)-form, in P-00133	17301-81-4	Brucine <i>N</i> -oxide, in B-00584	17504-13-1	4-Hydroxy-3-biphenylcarboxylic acid; Me ester, in H-00132
17017-03-7	2-Isocyanatoanthracene, I-00059	17302-46-4	2-Hydroxy-5-nitrobenzoic acid; Me ester, in H-00383	17512-68-4	2-Nitrobenzohydroxamic acid, N-00089
17018-60-9	Bis(1-naphthylmethyl)amine, see B-00427	17306-26-2	1-Hydroxy-2-naphthalenecarbodithioic acid, H-00339	17512-69-5	2-Chlorobenzohydroxamic acid, C-00064
17018-62-1	Bis(1-naphthylmethyl)amine, see B-00427	17306-34-2	5-[(8-Hydroxy-5-quinolyl)imino-8(5 <i>H</i>)-quinolone], H-00535	17512-73-1	2-Methylbenzohydroxamic acid, M-00135
17018-66-5	<i>N</i> -(<i>p</i> -Chlorobenzyl)-1-naphthalenemethylamine; B, HCl, in C-00072	17316-86-8	[Ethylenebis(iminobenzylidene)]diphosphinic acid, E-00074	17529-47-4	<i>O,O</i> -Dibutyl phosphonothioate, D-00240
17018-72-3	1-Naphthylmethylamine, see N-00051	17327-77-4	2,5-Dimethylaniline; <i>N</i> -Di-Me, in D-00828	17560-30-4	1-(4-Nitro-2-hydroxybenzenazo)-2-(β -acetylhydrazino)naphthalene, N-00111
17026-17-4	3-Hydroxy-1-(4-nitrophenyl)-3-phenyl-1-triazene, H-00404	17329-15-6	1,6-Diphenyl-1,3,5-hexatriene; (<i>E,E,E</i>)-form, in D-01019	17580-69-7	2-Hydroxy-5-anisaldoxime, in D-00518
17034-67-2	Pentetic acid, see P-00039	17332-57-9	2,4'-Iminodibenzoic acid, I-00015	17583-53-8	3-Isoquinolinecarboximidic acid hydrazide, I-00086
17040-79-8	4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid, P-00084	17341-93-4	▶ 2,2,2-Trichloroethyl chloroformate, T-00223	17583-54-9	3-(5,6-Diphenyl-1,2,4-triazin-3-yl)isoquinoline, D-01097
17054-71-6	Dibenzo[<i>b,e</i>][1,4]dioxin-2-carboxaldehyde, D-00162	17345-74-3	4,5,6-Tribromo-1,2,3-benzenetriol, T-00204	17583-55-0	3-(5,6-Di-2-pyridyl-1,2,4-triazin-3-yl)isoquinoline, I-00097
17054-73-8	Dibenzo[<i>b,e</i>][1,4]dioxin-2-carboxaldehyde; Oxime, in D-00162	17356-55-7	2-(3-Hydroxy-4-oxo-4 <i>H</i> -1-benzopyran-2-yl)benzenesulfonic acid, H-00427	17583-56-1	3-(3-Isoquinolyl)-1,2,4-triazino[5,6- <i>f</i>][4,7]phenanthroline, I-00090
17056-99-4	5-Hydroxyquinoxaline, H-00536	17372-87-1	▶ Eosine; Di-Na salt, in E-00007	17583-57-2	1-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, D-00130
17064-47-0	2-(4-Biphenyl)-6-phenylbenzoxazole, B-00215	17392-83-5	2-Hydroxypropanoic acid; (<i>R</i>)-form, Me ester, in H-00516	17583-58-3	3-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, D-00131
17081-97-9	Fumaric acid; Mono-Me ester; B, HCl, in F-00038	17401-57-9	1,1'-Iminobis[6-chloroanthraquinone], I-00007	17583-59-4	2-Amino-4,6-bis(1-isoquinolyl)-1,3,5-triazine, A-00121
17082-13-2	2-Bromoacetophenone; (<i>Z</i>)-Oxime, in B-00483	17401-58-0	2,3-Bis(6-methyl-2-pyridyl)quinoxaline, B-00422	17583-61-8	1-(2-Benzimidazolyl)isoquinoline, B-00044
17082-14-3	2-Bromoacetophenone; (<i>E</i>)-Oxime, in B-00483	17401-59-1	2,3-Bis(6-methyl-2-pyridyl)benzo[<i>g</i>]quinoxaline, B-00414	17583-63-0	2-(1-Isoquinolyl)-3 <i>H</i> -imidazo[4,5- <i>h</i>]quinoline, I-00088
17091-07-5	4-[[5-Methyl-2-pyridinyl]azo]-1,3-benzenediol, M-00279	17401-61-5	6,7-Dimethyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, D-00842	17583-64-1	2-(3-Isoquinolyl)-3 <i>H</i> -imidazo[4,5- <i>h</i>]quinoline, I-00089
17091-08-6	4-(5-Bromo-2-pyridinylazo)-1,3-benzenediol, B-00563	17401-62-6	6-Methyl-2,3-di-2-pyridylquinoxaline, M-00168	17583-65-2	1-(1 <i>H</i> -Imidazo[4,5- <i>c</i>]pyridin-2-yl)isoquinoline, I-00004
17120-09-1	2-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenoxyacetic acid, D-00601	17401-63-7	6-Methyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, M-00146	17583-66-3	3-(1 <i>H</i> -Imidazo[4,5- <i>c</i>]pyridin-2-yl)isoquinoline, I-00005
17120-15-9	<i>N</i> -Hydroxy-2-methyl- <i>N</i> -phenylbenzamide, H-00306	17401-64-8	6-Nitro-2,3-di-2-pyridylquinoxaline, N-00107	17583-67-4	1-(5-Phenyl-2-benzimidazolyl)isoquinoline, P-00103
17120-16-0	<i>N</i> -Hydroxy-4-methyl- <i>N</i> -phenylbenzamide, H-00307	17401-65-9	2,3-Bis(6-methyl-2-pyridyl)-6-nitroquinoxaline, B-00418	17583-68-5	3-(5-Phenyl-2-benzimidazolyl)isoquinoline, P-00104
17120-18-2	<i>N</i> -Hydroxy-3-nitro- <i>N</i> -phenylbenzamide, in N-00090	17401-67-1	2,3-Bis(6-methyl-2-pyridyl)-5-nitroquinoxaline, B-00417	17587-22-3	6,6,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedione, H-00006
17123-05-6	Di- <i>tert</i> -butyl methylphosphonate, in M-00244	17401-68-2	6-Methoxy-2,3-di-2-pyridinylquinoxaline, in H-00172	17600-72-5	1-Ethoxy-2-methoxybenzene, in B-00020
17139-66-1	2,4,5,7-Tetrabromo-1,8-dihydroxyanthraquinone, T-00015	17401-69-3	6-Methoxy-2,3-bis(6-methyl-2-pyridyl)quinoxaline, in H-00140		
17140-33-9	2-Acetoxytricarballic acid, in C-00299	17401-70-6	6-Chloro-2,3-di-2-pyridylquinoxaline, C-00111		
17140-54-4	Bismutural, in G-00015	17401-71-7	6-Chloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, C-00075		
17148-96-8	Ethanebis(thioic) acid, E-00023	17401-72-8	6,7-Dichloro-2,3-di-2-pyridylquinoxaline, D-00269		
17189-82-1	1-(2-Hydroxyphenyl)-1-propanone; 2,4-Dinitrophenylhydrazine, in H-00498	17401-73-9	6,7-Dichloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, D-00255		
17199-29-0	Mandelic acid; (<i>S</i>)-form, in M-00007				

17601-27-3	2,3-Bis(6-methyl-2-pyridyl)-6-quinoxalinecarboxylic acid, B-00423	17978-76-6	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)neodymium(III), T-00399	18109-39-2	2,6-Dimethylaniline; <i>N</i> -Benzoyl, in D-00829
17631-66-2	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)terbium(III), T-00401	17978-77-7	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)praseodymium(III), T-00400	18113-07-0	4-Chloro-3-methoxyphenol, in C-00061
17631-67-3	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)gadolinium(III), T-00395	17979-38-3	(Dimethylformamide)tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)lanthanum(III), in T-00419	18123-20-1	4-Hydroxyacridine, H-00092
17631-68-4	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)europium(III), T-00394	17996-38-2	<i>O</i> -Ethyl dimethylcarbamoithioate, in T-00159	18128-12-6	Dimethylglyoxime; Dibenzoyl, in D-00862
17633-07-7	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)yttrium(III); Monohydrate, in T-00402	17998-02-6	2,3-Butanediol, see B-00586	18138-19-7	1 <i>H</i> -Isoindole-1,3(2 <i>H</i>)-dithione, I-00068
17633-09-9	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)yttrium(III); Monohydrate, in T-00403	18016-24-5	Calcium gluconate, in G-00011	18150-03-3	2-Benzoyl-4-phenylpyridine; Oxime (<i>E</i> -), in B-00144
17640-29-8	Mercaptoacetic acid; <i>S</i> -Et, Et ester, in M-00016	18025-89-3	Gluconic acid, see G-00011	18150-04-4	2-Benzoyl-4-phenylpyridine; Oxime (<i>Z</i> -), in B-00144
17650-20-3	<i>N</i> -Hydroxy-4-methoxybenzencarbothioamide, H-00265	18029-18-0	Tetraethyl phosphor(isocyanatidic) diamide, in T-00046	18150-05-5	2-Benzoyl-6-methylpyridine; Oxime (<i>Z</i> -), in B-00135
17654-26-1	3,3',4',5,7-Pentahydroxyflavanone; (2 <i>R</i> ,3 <i>R</i>)-form, in P-00023	18029-36-2	3-Hydroxy-4-[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, in H-00514	18150-06-6	2-Benzoyl-6-methylpyridine; Oxime (<i>E</i> -), in B-00135
17654-88-5	Bismuthiol II, in M-00060	18048-95-8	4,5-Dihydroxy-3-[(4-nitro-2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00671	18150-07-7	2-Benzoyl-6-phenylpyridine; Oxime, in B-00145
17658-06-9	1-(4-Hydroxyphenyl)-2,4,6-triphenylpyridinium hydroxide inner salt, H-00513	18066-68-7	Corynecin III, in A-00284	18150-08-8	2-Benzoyl-4-methylpyridine; Oxime (<i>E</i> -), in B-00134
17664-98-1	<i>N</i> - <i>L</i> -Leucyl- <i>D</i> -alanine, in L-00005	18071-50-6	(3,4-Dihydroxyphenyl)acetic acid; Di-Me ether, Et ester, in D-00687	18150-09-9	2-Benzoyl-4-methylpyridine, see B-00134
17683-09-9	1-(4-Methylphenyl)-3-(phenylmethyl)-1-triazene, M-00237	18091-46-8	3,5-Diiodosalicylic acid; Me ester, in D-00745	18150-10-2	2-Benzoyl-4-ethylpyridine; Oxime (<i>E</i> -), in B-00132
17687-47-7	1-[4-(Methylamino)phenyl]ethanone, in A-00091	18091-47-9	4-Pyrimidinecarboximide acid hydrazide, P-00427	18150-11-3	2-Benzoyl-4-ethylpyridine; Oxime (<i>Z</i> -), in B-00132
17697-12-0	Benzeneseleninic anhydride, in B-00024	18091-48-0	5,6-Diphenyl-3-(pyrazinyl)-1,2,4-triazine, D-01045	18156-74-6	1-(Trimethylsilyl)-1 <i>H</i> -imidazole, T-00341
17698-15-6	<i>N</i> -Hydroxy-2-thiophenecarboxamide, H-00554	18091-49-1	5,6-Diphenyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01047	18162-48-6	<i>tert</i> -Butylchlorodimethylsilane, B-00621
17701-02-9	Tetraphenylstibonium(1+); Thiocyanate, in T-00122	18091-50-4	5,6-Diphenyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01047	18176-38-0	2-Pyridinecarboxaldehyde (2-hydroxybenzoyl)hydrazone, P-00326
17704-27-7	7-(Dimethylamino)-1-methyl-3 <i>H</i> -phenoxazin-3-one, D-00792	18091-51-5	3-Pyrazinyl-5,6-di-2-pyridyl-1,2,4-triazine, P-00297	18193-10-7	5,7-Dichloro-8-hydroxyquinoline; <i>O</i> -Benzoyl, in D-00283
17715-69-4	1-Bromo-2,4-dimethoxybenzene, in B-00486	18091-52-6	3-(3-Pyridazyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, P-00313	18196-14-0	4',5,7-Trihydroxyflavanone, see T-00281
17716-26-6	2,4-Dihydroxy-3,5-bis[(4-nitrophenyl)azo]benzenesulfonic acid, see D-00555	18091-53-7	5,6-Di-2-pyridinyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01086	18198-39-5	Tetraphenylphosphonium(1+), T-00120
17744-50-2	2-Hydroxyacetophenone; 2,4-Dinitrophenylhydrazone, in H-00089	18091-55-0	3-(3-Pyridazyl)-1,2,4-triazino[5,6- <i>jj</i>][4,7]phenanthroline, P-00315	18199-28-5	2,4-Dihydro-5-methyl-4-(1-oxodecyl)-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00435
17756-56-8	Tetrahexylammonium(1+); Hydroxide, in T-00049	18093-00-0	1,2,3-Benzenetriol; 1,2-Di-Me ether, benzoyl, in B-00034	18207-64-2	3-(Pyrazinyl)-1,2,4-triazino[5,6- <i>jj</i>][4,7]phenanthroline, P-00301
17799-73-4	11-Methyl-9 <i>H</i> -benzo[<i>a</i>]phenoxazin-9-one, M-00140	18099-98-4	6-Chloro-1,2-naphthoquinone, C-00188	18211-92-2	2,4-Diamino-6-(3-pyridazinyl)-1,3,5-triazine, D-00117
17799-75-6	5-Hydroxy-11-methyl-9 <i>H</i> -benzo[<i>a</i>]phenoxazin-9-one, H-00280	18102-31-3	2-Methoxy-3-methylphenol, in M-00127	18239-59-3	2-(3,5-Dimethyl-1-pyrazolyl)-8-quinolinol, D-00906
17799-98-3	5-Ethoxy-11-methyl-9 <i>H</i> -benzo[<i>a</i>]phenoxazin-9-one, E-00057	18103-77-0	2-Benzoyl-4-methylpyridine, B-00134	18241-33-3	2-Methylpyridine, see M-00264
17799-99-4	5-Amino-11-methyl-9 <i>H</i> -benzo[<i>a</i>]phenoxazin-9-one, A-00236	18103-79-2	2-Benzoyl-4-ethylpyridine, B-00132	18241-36-6	1,2-Dimethylquinolinium(1+), D-00913
17800-00-9	5-Methoxy-11-methyl-9 <i>H</i> -benzo[<i>a</i>]phenoxazin-9-one, M-00089	18103-80-5	2-Benzoyl-6-phenylpyridine, B-00145	18256-44-5	6-Methoxy-3-methyl-2-[[4-(methylphenylamino)phenyl]azo]benzothiazolium(1+); Chloride, in M-00091
17800-01-0	5-Anilino-11-methyl-9 <i>H</i> -benzo[<i>a</i>]phenoxazin-9-one, A-00371	18103-82-7	2-Benzoyl-4-phenylpyridine, B-00144	18258-47-4	2-Hydroxyphenazine; Ac, in H-00439
17809-13-1	8-Hydroxy-7-[(4-methylphenyl)azo]-5-quinolinesulfonic acid, H-00304	18103-84-9	2-Acetyl-4-methylpyridine, see A-00023	18261-99-9	Tartaric acid, see T-00002
17817-20-8	Fluorescein; Lactone-form, Di-(β - <i>D</i> -galactopyranoside), in F-00020	18103-85-0	2-Acetyl-4-ethylpyridine; Oxime (<i>Z</i> -), in A-00016	18265-55-9	Rose bengal A; Di-Na salt, in R-00011
17819-43-1	4,5-Dihydro-5-phenyl-3-(2-phenylethenyl)isoxazole, D-00467	18103-86-1	2-Acetyl-4-methoxypyridine; Oxime (<i>Z</i> -), in A-00021	18265-73-1	2,4-Dinitro-6-chlorophenylazothymol, D-00951
17913-63-2	4,4'-Diaminodiphenylamine; 4- <i>N</i> -Di-Me, in D-00086	18103-88-3	2-Acetyl-6-methylpyridine, see A-00024	18265-75-3	1-(2-Hydroxyphenyl)-1-propanone; Oxime, in H-00498
17932-21-7	2-Naphthaleneselenic acid, N-00014	18103-89-4	2-Acetyl-6-phenylpyridine, see A-00032	18271-22-2	2-Naphthylamine; Benzoyl, in N-00042
17966-86-8	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)chromium(III), T-00392	18106-98-4	2,4-Diamino-6-(2-pyrimidinyl)-1,3,5-triazine, D-00123	18271-49-3	Glutarimide dioxime, in G-00014
		18106-99-5	2,4-Diamino-6-(4-pyrimidinyl)-1,3,5-triazine, D-00124	18274-41-4	2-Hydroxyphenazine; 10-Oxide, in H-00439
		18107-01-2	2-(3-Pyridazinyl)benzimidazole, P-00312	18278-34-7	4-Hydroxy-2-methoxybenzaldehyde, in D-00517
		18107-02-3	2-(2-Pyrimidinyl)benzimidazole, P-00431	18278-71-2	2-Selenophenecarboxaldehyde; Oxime, in S-00006
		18107-03-4	Pyrazinecarboximide acid hydrazide, P-00284	18279-83-9	Methylphosphonic acid; Bis(trimethylsilyl) ester, in M-00244
		18107-04-5	3-Pyridazylhydrazidine, P-00314	18284-86-1	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)lanthanum(III); Monohydrate, in T-00398

18284-87-2	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)dysprosium(III); Monohydrate, <i>in</i> T-00393	18392-55-7	2,6-Mansyl chloride, <i>in</i> M-00222	18821-44-8	7-Amino-2-chloro-1-hydroxy-3- <i>H</i> -phenoxazin-3-one, A-00138
18284-88-3	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)gadolinium(III); Monohydrate, <i>in</i> T-00395	18398-34-0	7-Methoxy-1,2-naphthoquinone, <i>in</i> H-00373	18824-38-9	4-[[4-[3-(4-Nitrophenyl)-2-triazenyl]phenyl]azo]benzenesulfonic acid; Na salt, <i>in</i> N-00146
18284-89-4	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)europium(III), <i>see</i> T-00394	18438-38-5	2(1 <i>H</i>)-Pyridinethione; <i>SH-form</i> , <i>S-Me</i> , <i>in</i> P-00357	18824-41-4	2-[(5-Nitro-2-pyridinyl)azo]-1-naphthalenol, N-00148
18284-90-7	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)neodymium(III); Monohydrate, <i>in</i> T-00399	18465-25-3	Hydroxyzine trimethoxybenzoate, <i>in</i> H-00563	18835-47-7	2,6-Dimethylaniline; <i>N-Me</i> , <i>N-Ac</i> , <i>in</i> D-00829
18288-40-9	4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid; Et ester, <i>in</i> D-00674	18472-87-2	Phloxine B; Di-Na salt, <i>in</i> P-00213	18854-93-8	3-(5-Nitro-2-furanyl)-2-propenal; Thiosemicarbazone, <i>in</i> N-00110
18297-63-7	<i>N,N'</i> -Bis(trimethylsilyl)urea, B-00472	18486-81-2	1,2-Cyclodecanedione; Dioxime, <i>in</i> C-00331	18866-59-6	Glucopyranosyl isothiocyanate, <i>see</i> G-00012
18299-02-0	2-[(3,4-Dihydroxyphenyl)azo]benzoic acid, D-00689	18503-90-7	1,1-Dibutoxytrimethylamine, D-00221	18879-99-7	Butyldithiocarbamic acid, B-00631
18299-04-2	[5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxyphenyl]jarsonic acid, C-00096	18511-69-8	4,4'-Diamino-2,2'-bipyridine, D-00061	18895-91-5	5-Phenyl-3,6-di-2-pyridyl-1,2,4-triazine, P-00114
18299-07-5	[Vinylenebis[(3-sulfo- <i>p</i> -phenylene)imino- <i>s</i> -triazine-6,2,4-triyl]dinitrilo]octaacetic acid, V-00007	18515-10-1	1-Methoxy-2-naphthol, <i>in</i> N-00007	18895-92-6	3-(4-Methyl-2-pyridyl)-5-phenyl-6-(2-pyridyl)-1,2,4-triazine, M-00303
18299-08-6	4,4'-[(4,6-Diamino-1,3,5-triazin-2-yl)amino]-2,2'-stilbenedisulfonic acid- <i>N,N',N'',N'''</i> -tetraacetic acid, D-00129	18523-14-3	1,3-Dimethoxy-2,4-dinitrobenzene, <i>in</i> D-00940	18895-93-7	5-Phenyl-3-(4-phenyl-2-pyridyl)-6-(2-pyridyl)-1,2,4-triazine, P-00160
18299-10-0	2,2'-(1,2-Ethenediyl)bis[5-[(4-hydroxy-6-chloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], E-00045	18531-94-7	2,2'-Dihydroxy-1,1'-binaphthyl; (<i>R</i>)- <i>form</i> , <i>in</i> D-00544	18895-94-8	6-Methyl-2-pyridinecarboximidic acid hydrazide, M-00270
18300-68-0	4'-Aminoacetophenone; Semicarbazone, <i>in</i> A-00091	18531-99-2	2,2'-Dihydroxy-1,1'-binaphthyl; (<i>S</i>)- <i>form</i> , <i>in</i> D-00544	18895-96-0	3-(6-Methyl-2-pyridinyl)-5,6-diphenyl-1,2,4-triazine, M-00286
18300-85-1	2,4-Dinitrobenzenediazonium(1+), D-00938	18600-42-5	4-Nitrobenzylamine; B,HCl, <i>in</i> N-00098	18895-97-1	5,6-Diphenyl-3-(6-phenyl-2-pyridinyl)-1,2,4-triazine, D-01038
18310-14-0	Octoxime, <i>in</i> C-00361	18604-50-7	Citrusin C, <i>in</i> M-00120	18895-98-2	3-(6-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00297
18310-15-1	1,2-Cyclononanedione; Dioxime, <i>in</i> C-00360	18641-48-0	1,3-Dimethyl-5-[(tetrahydro-1,3-dimethyl-2,4,6-trioxo-5(2 <i>H</i>)-pyrimidinylidene)amino]-2,4,6(1 <i>H</i> ,3 <i>H</i> ,5 <i>H</i>)-pyrimidinetrione, <i>in</i> P-00281	18895-99-3	3-(6-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00181
18310-16-2	1,2-Cycloundecanedione; Dioxime, <i>in</i> C-00369	18664-71-6	2,4-Dihydro-5-methyl-4-(1-oxooctyl)-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00436	18917-95-8	2-Hydroxybenzoic acid, <i>see</i> H-00112
18310-17-3	1,2-Cyclododecanedione; Dioxime, <i>in</i> C-00332	18670-34-3	Glyoxal bis(phenylthiosemicarbazone), G-00033	18931-20-9	2,2-Dihydroxy-1- <i>H</i> -phenalene-1,3(2 <i>H</i>)-dione, D-00683
18310-18-4	3-Methylinoxime, <i>in</i> M-00156	18672-66-7	2-Benzothiazolecarboxaldehyde 2-benzothiazolylhydrazone, B-00086	18931-22-1	2,3-Dihydroxy-1- <i>H</i> -phenalen-1-one, D-00684
18310-19-5	4-Methylinoxime, <i>in</i> M-00157	18673-08-0	Glycerol, <i>see</i> G-00015	18936-06-6	1,4-Diaminoanthraquinone-2,3-disulfonic acid; Di-Na salt, <i>in</i> D-00044
18310-20-8	4-Isopropylinoxime, <i>in</i> I-00071	18686-81-2	1 <i>H</i> -Tetrazole-5-thiol, <i>in</i> T-00131	18938-33-5	Dibutylselenocarbamic acid; Na salt, <i>in</i> D-00231
18323-96-1	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)ytterbium(III), T-00402	18694-10-5	Palaudine, <i>in</i> P-00005	18957-52-3	1-Ethyl-3,4-dihydro-4,4,6-trimethyl-2(1 <i>H</i>)-pyrimidinethione, E-00069
18323-97-2	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)holmium(III), T-00396	18695-03-9	3',4',5,7-Tetrahydroxyflavone, <i>see</i> T-00077	18957-53-4	3,4-Dihydro-4,4,6-trimethyl-2(1 <i>H</i>)-pyrimidinethione, <i>see</i> D-00504
18323-98-3	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)dysprosium(III), T-00393	18697-31-9	6-(Dimethylamino)-2,3-dihydro-1,4-phthalazinedione, <i>in</i> A-00156	18957-56-7	3,4-Dihydro-1-(4-methoxyphenyl)-4,4,6-trimethyl-2(1 <i>H</i>)-pyrimidinethione, D-00429
18338-22-2	4,5-Dihydroxy-3-[(2-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00665	18712-20-4	Saccharin; <i>N-Et</i> , <i>in</i> S-00001	18969-97-6	<i>N,N',N'',N'''</i> -[Vinylenebis[(3-sulfo- <i>p</i> -phenylene)imino- <i>s</i> -triazine-6,2,4-triyl]tetrasarcosine, V-00008
18338-23-3	4,5-Dihydroxy-3-[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00666	18716-25-1	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)terbium(III); Monohydrate, <i>in</i> T-00401	18987-44-5	Triphenylselenonium(1+); Bromide, <i>in</i> T-00375
18358-63-9	4-Aminobenzoic acid; <i>N-Me</i> , <i>Me</i> ester, <i>in</i> A-00105	18721-61-4	3-Ethylthio-1-propanol, <i>in</i> M-00053	18987-45-6	Triphenylselenonium(1+); Iodide, <i>in</i> T-00375
18368-57-5	6-Methyl-2(1 <i>H</i>)-pyridinethione, M-00276	18763-65-0	1,2-Diaminocyclohexane- <i>N,N,N',N'</i> -tetraacetic acid; (<i>1RS,2RS</i>)- <i>form</i> , Tetra-Na salt, <i>in</i> D-00065	19010-26-5	3,3',4,4'-Tetraaminobiphenyl, <i>see</i> T-00007
18368-58-6	5-Methyl-2(1 <i>H</i>)-pyridinethione, M-00275	18773-93-8	1,2-Diaminocyclohexane- <i>N,N,N',N'</i> -tetraacetic acid, <i>see</i> D-00065	19045-66-0	Thiocarbamic acid, T-00159
18368-65-5	4-Methyl-2(1 <i>H</i>)-pyridinethione, M-00274	18779-43-4	1- <i>H</i> -Benzotriazole; <i>N-Ac</i> , <i>in</i> B-00110	19064-67-6	6-Chloro-3(2 <i>H</i>)-pyridazinone, C-00251
18368-66-6	3-Methyl-2-pyridinethiol, M-00273	18805-40-8	1,1'-(Dithiodicarbonothioyl)bis[octahydroazocine], D-01129	19065-85-1	4-Nitro-2-phenyl-1- <i>H</i> -isoindole-1,3(2 <i>H</i>)-dione, <i>in</i> N-00085
18370-11-1	4-Methylbenzoic acid; Methylamide, <i>in</i> M-00138	18818-52-5	1,2-Dihydro-3,6-bis(4-methyl-2-pyridinyl)-1,2,4,5-tetrazine, D-00373	19098-48-7	4-Aminobenzaldehyde; Phenylhydrazone, <i>in</i> A-00097
18371-09-0	4-[(4-Chlorophenyl)azo]-1,3-benzenediamine, C-00199	18818-53-6	3,6-Bis(4-ethyl-2-pyridyl)-1,2-dihydro-1,2,4,5-tetrazine, B-00354	19102-24-0	4-Phenylsemicarbazide; 2- <i>Me</i> , <i>in</i> P-00193
18378-03-5	7-Benzylamino-4-nitrobenzofuroxan, <i>in</i> A-00282	18818-55-8	3,6-Bis(4-methyl-2-pyridyl)-4-phenylpyridazine, B-00419	19106-89-9	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)lanthanum(III), T-00398
18378-20-6	7-Nitro- <i>N</i> -(phenylmethyl)-4-benzofurazanamine, <i>in</i> A-00282	18818-56-9	4-Phenyl-3,6-bis(4-phenyl-2-pyridyl)pyridazine, P-00106	19132-06-0	2,3-Butanediol; (2 <i>S</i> ,3 <i>S</i>)- <i>form</i> , <i>in</i> B-00586
		18820-71-8	Diethyldiselenocarbamic acid; K salt, <i>in</i> D-00343	19161-27-4	Pentafluorobenzaldehyde; Hydrazone, <i>in</i> P-00010
		18820-77-4	2,3-Dimercapto-2-butenedioic acid, <i>see</i> D-00753	19161-33-2	Pentafluorobenzaldehyde; Di-Et acetal, <i>in</i> P-00010
		18820-82-1	Pyridine; B,HBr, <i>in</i> P-00316	19163-92-9	Bis(2-hydroxyethyl) carbamodithioic acid; Zn salt (2:1), <i>in</i> B-00373
		18820-83-2	Pyridine; B,HI, <i>in</i> P-00316		

19184-08-8	3,5,7-Trihydroxyflavone, <i>see</i> T-00284	19780-11-1	3-(2-Dodecenyloxy)dihydro-2,5-furandione, D-01141	20307-76-0	Nitroanthranilazo, N-00079
19201-53-7	6,6'-Dibromoidigotin, D-00195	19801-99-1	Quinoline; <i>N</i> -CH ₃ Ph, nitrate salt, <i>in</i> Q-00007	20311-41-5	4-[(4-Methoxyphenyl)azo]-1,3-benzenediamine, M-00106
19213-72-0	1 <i>H</i> -Imidazole; <i>N</i> -Ethoxycarbonyl, <i>in</i> I-00001	19816-15-0	2,3-Dihydro-5-hydroxy-4 <i>H</i> -1-benzopyran-4-one, D-00408	20315-42-8	4-[Bis[<i>p</i> -(dimethylamino)phenyl]hydroxymethyl]-4-chloro-3-methyl-1-phenyl-2-pyrazolin-5-one, B-00319
19217-35-7	1-[[2-[(2-Hydroxy-5-methylphenyl)- <i>O,N,N</i> -azoxy]phenyl]azo]-2-naphthalenol, H-00305	19816-88-7	1,3-Diphenyl-2-propanone; Tosylhydrazone, <i>in</i> D-01042	20316-43-2	3-(4-Bromophenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, B-00553
19227-13-5	<i>N</i> -Hydroxy-4-methylbenzenecarboximidamide, <i>in</i> M-00138	19834-77-6	6-Hydroxy-4-quinolinecarboxylic acid; Me ether, Me ester, <i>in</i> H-00527	20335-18-6	2-Methyl-8-quinolinethiol, <i>see</i> M-00307
19253-84-0	4-Hydroxybenzyl glucosinolate, H-00128	19847-12-2	Pyrazinecarbonitrile, <i>in</i> P-00285	20349-50-2	2-Hydroxybenzoic acid 2-acetylhydrazide, H-00114
19258-20-9	2,2',3,3'-Tetrahydro-2,2'-bibenzothiazole, T-00052	19901-06-5	1,2-Cyclohexanedione bis(thiosemicarbazone), C-00344	20389-12-2	2-Phenyl-4-quinolinecarboxylic acid; 1-Oxide, <i>in</i> P-00189
19292-27-4	Pentafluorobenzaldehyde; Oxime, <i>in</i> P-00010	19964-97-7	Benzamide; <i>N</i> -Bromo, B-00008	20408-33-7	2-Phenylethylphosphonic acid; (<i>E</i>)-form, Di-Et ester, <i>in</i> P-00129
19293-45-9	5-Amino-2-[2-(4-isothiocyanato-2-sulfophenyl)ethyl] benzenesulfonic acid, <i>see</i> A-00230	20029-35-0	3,5-Dihydroxy-6-mercapto-1,2,4-triazine, <i>see</i> D-00639	20427-93-4	Tetraethyl (1-hydroxyethylidene) bisphosphonate, <i>in</i> H-00178
19302-12-6	1-Phenylethylamine; (\pm)-form, <i>N</i> -Et, <i>in</i> P-00130	20037-46-1	Benzohydroxamic acid benzenesulfonamide, <i>in</i> P-00194	20432-36-4	5-[(4-Dimethylamino)phenyl]-2,4-pentadienal; (<i>E,E</i>)-form, <i>in</i> D-00821
19329-67-0	Semixylenol orange, S-00014	20073-81-8	Isophthaldihydroxamic acid, <i>in</i> B-00019	20442-45-9	<i>O,O</i> -Di-2-propenyl phosphorodithioate; K salt, <i>in</i> D-01058
19333-10-9	Dichloro[29 <i>H</i> ,31 <i>H</i> -phthalocyaninato(2-)]silicon, D-00297	20082-71-7	Chlorodimethyl (pentafluorophenyl)silane, C-00100	20445-31-2	α -Methoxy- α -(trifluoromethyl) benzenecetic acid, <i>in</i> H-00512
19342-01-9	1-Phenylethylamine; (<i>R</i>)-form, <i>N,N</i> -Di-Me, <i>in</i> P-00130	20096-53-1	6-(Phenylamino)-2-naphthalenesulfonic acid, P-00082	20445-33-4	2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (<i>R</i>)-form, Me ether, chloride, <i>in</i> H-00512
19343-40-9	Azo-azoxy AN, A-00464	20129-61-7	Tetrahydroxy-1,4-benzoquinone; Tetra-Ac, <i>in</i> T-00072	20461-86-3	Diethoxyacetic acid, <i>in</i> G-00038
19343-43-2	3-(2-Ethyl-3-oxo-1-phenylbutyl)-4-hydroxy-4 <i>H</i> -1-benzopyran-4-one, E-00101	20155-37-7	Benzeneethane(dithioic) acid, <i>see</i> B-00023	20480-93-7	Hexal, <i>in</i> H-00057
19343-44-3	2,4-Dihydroxybenzenecarbothioic acid; <i>S</i> -Propyl ester, <i>in</i> D-00523	20161-55-1	Capri blue GN; Chloride, <i>in</i> C-00018	20536-09-8	[1,2-Ethanediy]bis(imino (phenylmethylene))] bisphosphonic acid, E-00031
19343-46-5	1,6-Bis(2,4,6-trihydroxyphenyl)-1,6-hexanedione, B-00467	20182-55-2	2,2'-(1,2-Ethenediy)bis[4-[[4-amino-6-bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino] benzenesulfonic acid; Di-Na salt, <i>in</i> E-00041	20541-83-7	Hydroxyzine; (\pm)-form, 3,4,5-Trimethoxybenzoyl; B,2HCl, <i>in</i> H-00563
19343-47-6	1,6-Bis(2,4-dihydroxyphenyl)-1,6-hexanedione, B-00307	20182-99-4	Mercaptobutanedioic acid; (<i>R</i>)-form, <i>in</i> M-00026	20576-99-2	5-Chloro-2-hydroxybenzaldehyde; Semicarbazone, <i>in</i> C-00122
19351-91-8	1-Naphthylmethylamine; <i>N</i> -Ac, <i>in</i> N-00051	20184-65-0	2-(3-Hydroxy-3-phenyl-1-triazenyl) benzoic acid, H-00507	20577-12-2	<i>N</i> -Hydroxy- <i>N,N'</i> -diphenylthiourea, <i>in</i> D-01055
19363-27-0	2,5-Dioxo-4-oxazolidinopropanoic acid; (<i>S</i>)-form, Et ester, <i>in</i> D-00993	20184-66-1	3,4-Dinitro-1,2-benzenediol, D-00941	20583-13-5	Phosphorotriethioic acid <i>O</i> -[2-(dimethylamino)ethyl]ester; Di-K salt, <i>in</i> P-00218
19365-01-6	3-Hydroxy-2(1 <i>H</i>)-pyridinone; <i>N</i> -Me, <i>in</i> H-00521	20196-67-2	Sinalbine, <i>in</i> H-00128	20583-15-7	Phosphorotriethioic acid <i>O</i> -[2-(diethylamino)ethyl] ester; Di-K salt, <i>in</i> P-00217
19376-45-5	Ethylenediaminetetraacetic acid; Tetra-Me ester, <i>in</i> E-00078	20211-18-1	4-Chloro-2-[(2-pyridinylmethylene)amino]phenol, C-00258	20583-66-8	1,1,1,5,5,6,6,7,7,7-Decafluoro-2,4-heptanedione, D-00004
19393-55-6	<i>N,N'</i> -[Vinylenebis(3-sulfo- <i>p</i> -phenylene)imino(6-hydroxy- <i>s</i> -triazine-4,2-diy)]diglycine; Tetra-Na salt, <i>in</i> V-00006	20211-19-2	4-Methyl-2-[(2-pyridinylmethylene)amino]phenol, M-00289	20587-64-8	Tridodecylamine; <i>N</i> -Oxide, <i>in</i> T-00230
19403-31-7	2,2'-Dichlorodithiazone, D-00270	20212-96-8	4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, M-00249	20591-87-1	Pyruvic acid; Et ester, oxime, <i>in</i> P-00448
19406-16-7	4-Methyl-2-(2-pyridinylazo)phenol, M-00283	20229-81-6	2-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenol, M-00251	20605-40-7	Thiobenzoic acid; Hydrazide, <i>in</i> T-00155
19430-64-9	Methylphosphonic acid; Dibromide, <i>in</i> M-00244	20229-82-7	5-[[5-(1-Methyl-2-piperidinyl)-2-pyridyl]azo]-1-naphthalenesulfonic acid, M-00254	20627-73-0	1-(Dimethoxymethyl)-2-nitrobenzene, <i>in</i> N-00081
19437-26-4	Di-2-pyridinylmethanone, D-01071	20234-13-3	5-Chloro-2-hydroxybenzaldehyde; Thiosemicarbazone, <i>in</i> C-00122	20628-07-3	2'-Hydroxy-5'-methylacetophenone; Me ether, <i>in</i> H-00275
19520-75-3	3-Hydroxy-5-methoxybenzoic acid, <i>in</i> D-00534	20254-76-6	3-Chloro-2-quinolinecarboxylic acid, C-00260	20637-49-4	1,2,3-Trimethoxypropane, <i>in</i> G-00015
19524-73-3	Tetraoctylammonium(1+), T-00110	20256-54-6	Tetrahexylammonium(1+), T-00049	20643-28-1	4-Hydroxybenzyl glucosinolate; Tetramethylammonium, <i>in</i> H-00128
19575-07-6	2-Quinolinecarboxylic acid; Me ester, <i>in</i> Q-00017	20260-35-9	Neocuprizon, N-00062	20649-80-3	5-Hydroxy-[6-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, H-00320
19600-48-7	Triphenylsulfonium(1+); Nitrate, <i>in</i> T-00376	20266-44-8	Phloxine B, <i>see</i> P-00213	20650-43-5	Sulfonitrophenol K, S-00051
19614-04-1	1,2-Diamino-4-chlorobenzene; 1,2- <i>N</i> -Dibenzoyl, <i>in</i> D-00064	20267-56-5	Ethanebis(thioic) acid; Di-K salt, <i>in</i> E-00023	20650-49-1	2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00609
19668-07-6	2-[(4,5-Diphenyl-1 <i>H</i> -imidazol-2-yl)azo]benzenesulfonic acid, D-01021	20267-58-7	2-Quinolinecarboxaldehyde 2-quinolinylhydrazone, <i>see</i> Q-00014	20650-52-6	4,5-Dihydroxy-3,6-bis[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00549
19672-91-4	<i>N</i> -Benzylaniline; <i>N</i> -Benzoyl, <i>in</i> B-00165	20281-91-8	3,3-Dimethyl-2-butanol; (\pm)-form, <i>in</i> D-00844	20651-88-1	3,3-Dimethyl-1,2-indanedione, D-00868
19680-34-3	4-Amino-4'-nitroazobenzene; <i>N</i> -Ac, <i>in</i> A-00281	20286-36-6	2-Oxo-3-butyric acid; Et ester, <i>in</i> O-00058		
19694-02-1	1-Pyrenecarboxylic acid, P-00307	20286-37-7	2-Oxo-3-butyric acid; Isopropyl ester, <i>in</i> O-00058		
19721-22-3	3-Mercapto-1-propanol, M-00053	20292-75-5	Phenylglyoxal; 2-Hydrazone, <i>in</i> P-00132		
19732-53-7	5-Nitroso-6-quinolinol, N-00162	20300-26-9	► Gossypol; (+)-form, <i>in</i> G-00041		
19735-68-3	1-[4-(6-Methyl-2-benzothiazolyl)phenyl]-1 <i>H</i> -pyrrole-2,5-dione, M-00143	20300-59-8	7-Methoxycoumarin-3-carboxylic acid, <i>in</i> H-00426		
19779-49-8	Xanthic acid; NH ₄ salt, <i>in</i> X-00002				

20654-67-5	2,3-Dimercapto-2-butenedinitrile, in D-00753	21119-13-1	Ethanethioic acid; <i>O</i> -Me ester, in E-00038	21542-82-5	2-Hydroxy-4-[(4-sulfophenyl)azo]benzoic acid, H-00541
20698-90-2	2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid, see H-00512	21147-18-2	2,2'-Dihydroxybenzophenone, see D-00535	21549-83-7	2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfobenzoic acid], D-00590
20698-91-3	Mandelic acid; (<i>R</i>)-form, Me ester, in M-00007	21168-33-2	5,7-Dichloro-8-hydroxyquinoline; 1-Oxide, in D-00283	21549-84-8	3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[2-hydroxy-5-sulfobenzoic acid], D-00589
20704-65-8	4-(Aminomethyl)cyclohexanecarboxylic acid; <i>cis</i> -form, <i>N</i> -Ac, in A-00238	21168-36-5	8-Hydroxy-5,7-dinitroquinoline; <i>N</i> -Oxide, in H-00165	21563-72-4	3-Aminobenzoic acid; Chloride, in A-00104
20704-66-9	Tranexamic acid; <i>N</i> -Ac, in A-00238	21230-20-6	▶ Benzenesulfinyl azide, in B-00025	21564-05-6	1-(2-Carboxyphenyl)-5-[1-(2-methoxy-5-sulfo)phenyl]-3-phenylformazan, C-00042
20708-36-5	[1,2-Ethanediy]bis[imino(2-hydroxyphenyl)methylene]]bisphosphonic acid, E-00030	21259-33-6	<i>N</i> - <i>o</i> -Tolyl-2-thiopicolinamide, in P-00317	21570-31-0	1,2,3,4-Tetrahydro-8-quinolinethiol, T-00067
20716-31-8	5-Amino-2-(2-pyridinylazo)phenol, A-00336	21263-92-3	Tris(4,7-dimethyl-1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II) (2+); Sulfate, in T-00389	21572-32-7	2-Chloroacetophenone; Oxime, in C-00055
20717-84-4	2-Naphthylamine; Picrate, in N-00042	21290-06-2	4-Hydroxybenzyl glucosinolate; 4-Me ether, tetramethylammonium salt, in H-00128	21577-69-5	3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediy]bis(azo)]bisbenzoic acid, D-00593
20717-98-0	<i>N</i> -Hydroxy- <i>N</i> '-2-naphthalenyl- <i>N</i> -phenylthiourea, H-00367	21325-07-5	Thiocarbamic acid; <i>S</i> -Me ester, in T-00159	21594-01-4	<i>o</i> -[[1,8-Dihydroxy-7-(8-quinolylo)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00726
20721-48-6	▶ Ethylenebisdithiocarbamic acid; Di-Me ester, in E-00072	21326-41-0	5-(1-Benzyl-1 <i>H</i> -benzimidazol-2-yl)-1,3-diphenylformazan, B-00167	21597-54-6	3-Amino-2-naphthoic acid; Me ester, in A-00280
20723-89-1	2-Amino- <i>N</i> -2-naphthalenylpropanamide, see A-00278	21326-44-3	5-(2-Benzothiazolyl)-1,3-diphenylformazan, B-00101	21598-06-1	5-Hydroxy-1 <i>H</i> -indole-2-carboxylic acid, H-00253
20726-64-1	Diethylphosphoramidic acid cyclic 1-methyltrimethylene ester, D-00354	21326-47-6	5-(2-Benzoxazolyl)-1,3-diphenylformazan, B-00115	21606-04-2	3-Nitro-1,2-benzenedicarboxylic acid; 1-Me ester, in N-00085
20731-46-8	Acetamide; B ₃ HBr, in A-00003	21338-92-1	<i>N,N'</i> -Bis[1-(2-aminophenyl)]ethylidene-1,2-ethanediamine, B-00252	21614-17-5	2,4-Dichloro-6-(4-ethoxy-1-naphthalenyl)-1,3,5-triazine, D-00272
20735-33-5	2-Amino-1-cyclopentene-1-dithiocarboxylic acid, A-00147	21347-28-4	Selenourea; <i>N,N</i> -Di-Ph, in S-00009	21639-28-1	2-Aminobenzenesulfonic acid; <i>N</i> -Me, amide, in A-00099
20739-39-3	2-Aminoethanethiol, see A-00170	21354-48-3	2,5-Dimethylaniline; <i>N</i> -Me, in D-00828	21659-28-9	2-(3-Mercapto-2-quinoxaliny)-2-thiouseourea; B, HCl, in M-00058
20752-34-5	(+)-Neoisomenthol, in M-00012	21372-73-6	Sulfoacetic acid; Py salt, in S-00039	21659-48-3	α-Furoinoxime, in F-00065
20753-31-5	Isopropyl <i>N</i> -methylthiocarbamate, in M-00154	21406-25-7	<i>O</i> -Ethyl acetylcarbamothioate, in T-00159	21660-66-2	(3-Chlorophenyl)methoxyacetic acid, in C-00221
20764-96-9	2,5-Dichloro-3,6-diethoxy-1,4-benzoquinone, in D-00262	21412-37-3	4-Hydroxybenzyl glucosinolate; 4-Me ether, tetra-Ac, in H-00128	21660-75-3	2-Propanoyl-1-naphthol; Oxime, in P-00267
20765-04-2	2,5-Diethoxy-1,4-benzoquinone, in D-00540	21436-98-6	2,6-Dimethylaniline, see D-00829	21660-76-4	1-Naphthyloxamic acid, N-00053
20783-73-7	4,4'-Ethylidenebis[3-methyl-2-isoxazolin-5-one], E-00094	21450-52-2	▶ Bromotetraphenylantimony, B-00577	21660-96-8	<i>N,N'</i> -Bis(2-sulfoethylidithioamide), B-00455
20788-07-2	<i>N</i> -(4-Bromophenyl)-2,6-dihydroxybenzamide, in D-00533	21468-89-3	4,5-Dihydroxy-3-[(4-phenyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00718	21667-43-6	1-(2-Hydroxyphenyl)-1-butanone; Oxime, in H-00469
20820-77-3	Aconitic acid, see A-00061	21468-90-6	4,5-Dihydroxy-3-[4,5-(dimethyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00579	21668-02-0	4,5-Dihydroxy-3,6-bis[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00551
20825-07-4	1,1,1,5,5,6,6,6-Octafluoro-2,4-hexanedione, O-00003	21468-91-7	3-[(6-Ethoxy-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, E-00053	21679-31-2	Tris(2,4-pentanedionato- <i>O,O'</i>)chromium(III), see T-00410
20826-48-6	1-Phenylethylamine; (<i>R</i>)-form, <i>N</i> -Benzoyl, in P-00130	21468-92-8	3-[(6-Bromo-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00490	21693-81-2	<i>P</i> -Methylphosphonamidithioic acid; Fluoride, in M-00243
20829-03-2	2-(4-Nitrophenyl)-3,5-diphenyl-2 <i>H</i> -tetrazolium(1+); Chloride, in N-00134	21482-14-4	<i>N,N',N'',N'''</i> -[Vinylenebis[(3-sulfo- <i>p</i> -phenylene)imino- <i>s</i> -triazine-6,2,4-triyl]]tetrasarcosine; Di-Na salt, in V-00008	21701-18-8	4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, in D-00618
20846-02-0	4-Bromobenzenesulfonic acid; Et ester, in B-00487	21495-00-1	4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, see M-00249	21701-41-7	5-Mercapto-1,3,4-thiadiazoline-2-thione, see M-00060
20847-13-6	Dianthoside, in H-00323	21542-33-6	3-Hydroxy-4-[[2-hydroxy-3-[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00207	21715-15-1	2,5-Dihydroxybenzoic acid, see D-00532
20883-45-8	(4-Carbomethoxyphenyl)chloromercury, in C-00039	21542-34-7	3-Hydroxy-4-[[2-hydroxy-3-[(4-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00208	21736-60-7	1-[(3-Methyl-5-oxo-1-phenyl-2-pyrazolin-4-yl)azo]anthraquinone, see M-00215
20900-71-4	Sulfonitrophenol R, S-00053	21542-40-5	1-(5-Nitro-2-pyridinyl)-3,5-diphenylformazan, N-00149	21749-63-3	2-Aminobenzenethiol; <i>N</i> -Me, in A-00101
20920-23-4	Methyltriphenylphosphonium (1+); Perchlorate, in M-00335	21542-41-6	5-(2-Benzothiazolyl)-1,3-diphenylformazan, see B-00101	21756-23-0	<i>N</i> -(2-Pyridinylmethylene)-2-pyridinamine, P-00396
20940-53-8	2-Hydroxy-4-(4-nitrophenylazo)benzoic acid, H-00393	21542-48-3	4-[[Bis(carboxymethyl)amino]methyl]-3-hydroxy-2-naphthoic acid, B-00277	21784-71-4	7,8-Dihydroxy-2 <i>H</i> -1-benzopyran-2-one; Di-Ac, in D-00539
20971-73-7	Dibromosulfonephthalein, see D-00215			21789-36-6	1-Cyano-2,4-dimethylbenzene, in D-00835
20982-28-9	5-Methyl-1,3-benzenediol, see M-00128			21855-16-3	2,6-Pyridinedicarboxylic acid; Mono-Et ester, in P-00353
21006-73-5	Tetraphenylarsonium hydrogen dichloride, in T-00119			21900-42-5	2,4-Dimethylbenzoic acid; Chloride, in D-00835
21018-71-3	2-(3,5-Dimethyl-1 <i>H</i> -pyrazol-1-yl)pyridine, D-00905			21905-56-6	2-Phenoxybenzoic acid; Me ester, in P-00075
21038-75-5	3,4-Dihydro-4,4,6-trimethyl-1-(4-nitrophenyl)-2(1 <i>H</i>)-pyrimidinethione, D-00499				
21103-84-4	2,3-Dioxobutanoic acid; 2-(2-Hydroxyphenyl)hydrazone, Et ester, in D-00986				
21108-84-9	<i>N</i> -(5-Ethyl-1,3,4-thiadiazol-2-yl)-4-[3-methyl-5-(1-methyl-1 <i>H</i> -benzimidazol-2-yl)-1-formazanyl]benzenesulfonamide, E-00117				

21945-37-9	2-Pyridinecarboxaldehyde 2-pyridylhydrazone; (<i>E</i>)-form, in P-00335	22138-11-0	8-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]-1,6-naphthalenedisulfonic acid, D-00727	22598-98-7	2-Ethyl-5-hydroxy-4 <i>H</i> -1-benzopyran-4-one, E-00084
21945-38-0	2-Pyridinecarboxaldehyde 2-pyridylhydrazone, see P-00335	22152-23-4	2,3-Butanediol; (<i>2R,S,3R,S</i>)-form, Di-Ac, in B-00586	22598-99-8	5-Hydroxy-3-methyl-4 <i>H</i> -1-benzopyran-4-one, H-00282
22014-99-9	Indole; <i>N</i> -Butyl, in I-00033	22204-53-1	▶ Naproxen; (<i>S</i>)-form, in N-00057	22599-00-4	3-Ethyl-5-hydroxy-4 <i>H</i> -1-benzopyran-4-one, E-00085
22020-96-8	2'-Hydroxy-5'-methylacetophenone; 2,4-Dinitrophenylhydrazone, in H-00275	22220-22-0	2-[[<i>p</i> -(Dimethylamino)phenyl]imino]-2'-acetonaphthone, D-00815	22599-01-5	3-Ethyl-5-hydroxy-2-methyl-4 <i>H</i> -1-benzopyran-4-one, E-00091
22026-06-8	3-Hydroxy-4-(2-thiazolylazo)-2-naphthalenecarboxylic acid, H-00547	22220-22-0	2-[[<i>p</i> -(Dimethylamino)phenyl]imino]-2'-acetonaphthone, D-00815	22599-02-6	2-Ethyl-5-hydroxy-3-methyl-4 <i>H</i> -1-benzopyran-4-one, E-00090
22029-76-1	β -Ional, in M-00010	22241-07-2	Nitrolotriacetic acid; Tri-Me ester, in N-00074	22608-11-3	1-(4-Hydroxy-3-methoxyphenyl)-7-(4-hydroxyphenyl)-1,6-heptadiene-3,5-dione, in C-00323
22037-15-6	Selenazone, S-00005	22244-13-9	Methyl green, M-00185	22608-12-4	1,7-Bis(4-hydroxyphenyl)-1,6-heptadiene-3,5-dione, in C-00323
22038-85-3	2,2,2-Trifluoro-1-phenylethylamine, see T-00261	22265-37-8	4-Methoxybenzamide, M-00077	22618-23-1	3,4-Dimethylphenol, see D-00886
22038-87-5	1-(4-Nitrophenyl)ethylamine; (<i>R</i>)-form, in N-00135	22271-58-5	5-Amino-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, A-00252	22633-33-6	2-Hydroxy-3,5-dinitrobenzoic acid; Me ester, in H-00154
22051-53-2	2-(1-Oxo-2(1 <i>H</i>)-naphthalenylidene)hydrazinecarbothioamide, in N-00031	22286-74-4	4'-Nitro-4-azobenzenecarboxylic acid; Chloride, in N-00080	22640-19-3	7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, in D-00585
22059-22-9	▶ Acetamidoxime, A-00004	22297-70-7	Quinizarin S; Na salt, in Q-00006	22668-53-7	Phenylglyoxal, see P-00132
22079-98-7	Bis(2,2':6',2''-terpyridine- <i>N,N',N''</i>)iron(II)(2+); Diperchlorate, in B-00457	22308-86-7	4-Hydroxy-3-nitroso-2 <i>H</i> -1-benzopyran-2-one, H-00407	22706-23-6	2,1,3-Benzoselenadiazole- <i>Se</i> ^{IV} , B-00084
22102-66-5	1-[(1-Oxodecyl)oxy]-2,5-pyrrolidinedione, O-00061	22318-07-6	Arsenazo IV, A-00413	22711-23-5	(4-Chlorophenyl)phenylethanedione, C-00238
22105-23-3	5-Methoxy-2-methyl-4 <i>H</i> -1-benzopyran-4-one, in H-00281	22322-96-9	3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[[4-(nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00437	22711-24-6	(4-Nitrophenyl)phenylethanedione, N-00142
22106-80-5	2,3,7,8-Tetrahydroxyphenazine, T-00079	22341-22-6	2,3',4'-Trimethoxyacetophenone, in T-00268	22713-55-9	<i>N</i> -(Aminothioxomethyl)- <i>N</i> -phenylacetamide, in P-00201
22106-81-6	4,5-Dihydroxy-3-(8-quinolylazo)-6-[[2-sulfo]phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00728	22364-17-6	Tetraiodobismuthate(III)(1-); Tetrabutylammonium salt, in T-00080	22717-57-3	2-Hydroxy-5-methylbenzoic acid; Me ester, in H-00279
22106-82-7	4,5-Dihydroxy-3-[(2-hydroxy-5-sulfo]phenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00632	22409-45-6	3-(2-Thiazolylazo)-2,6-pyridinediamine, T-00145	22767-49-3	1-Pentanesulfonic acid; Na salt, in P-00032
22106-83-8	3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00145	22414-26-2	2-Phenylpropanoic acid; (\pm)-form, Chloride, in P-00167	22767-50-6	1-Heptanesulfonic acid; Na salt, in H-00011
22106-84-9	3-[(2,4-Dinitrophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00964	22421-85-8	Hexabutylphosphoric triamide, in H-00020	22767-90-4	1,1,1,-Trifluoro-5,5-dimethyl-2,4-hexanedione, T-00244
22106-85-0	3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00159	22426-19-3	5-Amino-1,10-phenanthroline; B,2HBr, in A-00299	22820-92-4	3-Acetyl-1,5,5-trimethyl-2,4-imidazolidinedione, in D-00866
22106-86-1	4,5-Dihydroxy-3-(8-quinolylazo)-6-[[3-sulfo]phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00729	22426-20-6	5-Amino-1,10-phenanthroline; B,HBr, in A-00299	22861-42-3	<i>N</i> -Hydroxy- <i>N</i> ,5-diphenyl-2,4-pentadienamide, H-00169
22106-87-2	3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, A-00439	22440-93-3	1,3-Diaminobenzene; <i>N,N,N',N'</i> -Tetra-Me, in D-00047	22861-43-4	<i>N</i> -Hydroxy- <i>N</i> -phenyl-2,4-hexadienamide, in H-00185
22106-88-3	4,5-Dihydroxy-3-[(<i>p</i> -nitrophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00668	22442-48-4	3-(4-Hydroxyphenyl)propanoic acid; Me ether, nitrile, in H-00497	22861-44-5	<i>N</i> -Hydroxy- <i>N</i> -(3-methylphenyl)-2,4-hexadienamide, in H-00185
22106-89-4	4,5-Dihydroxy-3,6-bis(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00561	22444-89-9	Butyltriphenylphosphonium(1+), B-00640	22861-46-7	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy-2,4-hexadienamide, in H-00185
22106-91-8	3-[(5-Chloro-2-hydroxy-3-sulfo]phenyl)azo]-4,5-dihydroxy-6-[[2-(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00155	22472-26-0	2,7-Naphthalenediol; Di-Ac, in N-00011	22861-47-8	3-(2-Furanyl)- <i>N</i> -hydroxy- <i>N</i> -phenyl-2-propenamide, in F-00053
22107-33-1	2,3',4'-Trihydroxyacetophenone; Semicarbazone, in T-00269	22484-64-6	4-Aminobenzenesulfonic acid, see A-00100	22861-49-0	3-(2-Furanyl)- <i>N</i> -hydroxy- <i>N</i> -(4-methylphenyl)-2-propenamide, in F-00053
22112-75-0	Mesotetrapropylporphine, M-00065	22512-60-3	2,3,4-Pentanetrione; 2,3-Dioxime, in P-00033	22861-50-3	<i>N</i> - <i>o</i> -Tolylcinnamohydroxamic acid, in H-00499
22119-10-4	Mercaptobutanedioic acid; (\pm)-form, <i>S</i> -Benzyl, in M-00026	22513-22-0	<i>O</i> -Benzylhydroxylamine; <i>N</i> -Me, in B-00184	22861-51-4	<i>N</i> - <i>m</i> -Tolylcinnamohydroxamic acid, in H-00499
22128-42-3	Sulfoacetic acid, see S-00039	22514-54-1	4,5-Dihydroxy-3-[(<i>p</i> -nitrophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00667	22861-52-5	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy-3-phenyl-2-propenamide, C-00232
		22514-55-2	3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-(phenylazo)-2,7-naphthalenedisulfonic acid, A-00438	22861-53-6	<i>N</i> -Phenylcrotonohydroxamic acid, in H-00143
		22516-80-9	3,4-Dihydroxy-10-imino-9(10 <i>H</i>)-anthracenone, D-00634	22861-54-7	<i>N</i> -Hydroxy- <i>N</i> -(4-methylphenyl)-2-butanamide, in H-00143
		22518-95-2	3,4-Diaminoanthraquinone-1-sulfonic acid, see D-00045	22861-55-8	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy-2-butanamide, C-00223
		22521-79-5	<i>N</i> -(4-Ethoxyphenyl)-2-hydroxyacetamide, in E-00051	22903-88-4	Methyltriphenylarsonium(1+), see M-00334
		22525-25-3	4-(2-Thiazolylazo)-1,2-benzenediol, T-00140	22907-68-2	3,4-Dinitrobenzoic acid; Me ester, in D-00947
		22544-89-4	1-Methyl-8-hydroxyquinolinium betaine, M-00189	22914-89-2	1,7,9-Trihydroxy-3 <i>H</i> -phenoxazin-3-one, T-00308
		22557-74-0	2-Hydroxy-3,5-dinitrobenzoic acid; Et ester, in H-00154	22919-31-9	1-[(5-Bromo-2-pyridinyl)azo]-2-naphthalenol, B-00573
		22562-62-5	▶ Brazilin; (+)-form, in B-00475	22919-40-0	1,5-Bis(aminomethyl)-2,6-naphthalenediol- <i>N,N,N',N'</i> -tetraacetic acid, B-00247
		22583-30-8	Propanal (3-phenyl-2-quinoxaliny)hydrazone, P-00260	22919-58-0	1-(2,4-Dihydroxyphenyl)-1-propanone; Oxime, in D-00715
		22598-82-9	5-Hydroxy-2,3-dimethyl-4 <i>H</i> -1-benzopyran-4-one, H-00150	22919-59-1	1-(2,4-Dihydroxyphenyl)-1-butanone; Oxime, in D-00707
				22919-65-9	3-Mercapto- <i>p</i> -propionophenitide, M-00054

22949-84-4	▶ Butyltriphenylphosphonium(1+); Iodide, <i>in</i> B-00640	23204-21-9	4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00320	23652-84-8	4-Amino-3-penten-2-one, <i>see</i> A-00294
22960-27-6	2-[(1-Hydroxy-2-naphthalenyl)azo]-8-quinolinol, H-00356	23227-24-9	<i>N</i> -(<i>p</i> -Aminophenyl)glycine, A-00323	23711-00-4	4',5,7-Trihydroxyflavanone, <i>see</i> T-00281
22965-22-6	1-Aminopyrene; <i>N</i> -Me, <i>in</i> A-00331	23245-99-0	Acetophenone; (<i>E</i>)-2,4-Dinitrophenylhydrazone, <i>in</i> A-00008	23731-35-3	6-(Methylphenylamino)-2-naphthalenesulfonic acid, M-00222
22974-74-9	3-Hydroxy-2-naphthohydroxamic acid, <i>in</i> H-00370	23277-00-1	(1-Naphthylmethyl)triphenylphosphonium(1+); Chloride, <i>in</i> N-00052	23746-34-1	Bis(2-hydroxyethyl) carbamodithioic acid; K salt, <i>in</i> B-00373
22990-95-0	<i>N</i> -Hydroxy- <i>N</i> -nitrosocyclohexanamine, <i>see</i> H-00411	23287-26-5	2-Hydroxy-3-methylbenzoic acid; Me ester, <i>in</i> H-00278	23758-50-1	Pyridine; B,(COOH) ₂ , <i>in</i> P-00316
22990-96-1	<i>N</i> -Hydroxy- <i>N</i> -nitrosocyclohexanamine; NH ₄ salt, <i>in</i> H-00411	23287-85-6	Chlorindazon DS, C-00052	23766-37-2	Bis(4-chlorophenyl)ethanedione; Dioxime, <i>in</i> B-00285
22991-67-9	1,2-Diaminopropane- <i>N,N,N',N'</i> -tetraacetic acid, <i>see</i> D-00115	23287-86-7	2-Benzoyl-6-methylpyridine, <i>see</i> B-00135	23778-59-8	Bromocresol green, B-00498
22996-21-0	4-Methoxy-2-nitrobenzaldehyde, <i>in</i> H-00381	23292-23-1	2-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenoxyacetic acid, <i>see</i> D-00601	23847-23-6	3-Nitro- <i>N</i> -[(3-nitrophenyl)sulfonyl]benzenesulfonamide, N-00115
23003-22-7	3-Hydroxy-2(1 <i>H</i>)-pyridinethione, H-00520	23300-91-6	1-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenol, M-00250	23868-11-3	<i>N</i> -Phenylanthranilic acid; Et ester, <i>in</i> P-00089
23003-63-6	2-[(2-Hydroxyphenyl)imino]-1-acenaphthenone, H-00473	23309-74-2	2,3-Di-2-pyridinylquinoxaline, D-01087	23869-24-1	Monoxerutin INN, <i>in</i> R-00014
23003-64-7	2-Quinolincarboxaldehyde 2-quinolinylhydrazone, Q-00014	23330-82-7	4-[(2-Ethylphenyl)azo]-1-naphthalenamine, E-00103	23953-37-9	2,3-Dimercapto-2-butenedioic acid, <i>see</i> D-00753
23006-05-5	<i>N</i> -(4-Chlorophenyl)-3-(2-furanyl)- <i>N</i> -hydroxy-2-propenamide, C-00220	23333-79-1	8-Hydroxy-7-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-5-quinolinesulfonic acid; Na salt, <i>in</i> H-00322	23978-09-8	▶ 4,7,13,16,21,24-Hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, H-00068
23022-74-4	2,4,6-Triphenylpyridine; 1-Oxide, <i>in</i> T-00373	23333-80-4	2-[(3,5-Dihydroxy-2-methylphenyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00653	23981-80-8	Naproxen, N-00057
23036-77-3	Dihydro-2-thioxo-4,5,6(1 <i>H</i>)-pyrimidinetrione 5-oxime, D-00493	23333-81-5	3-Hydroxy-4-[[5-(1-methyl-2-pyrrolidinyl)-2-pyridinyl]azo]-2-naphthalenecarboxylic acid, H-00325	23999-86-2	1 <i>H</i> -Pyrrole-2-carbothioic acid; <i>S</i> -Et ester, <i>in</i> P-00437
23043-45-0	1-Methoxyacridine, <i>in</i> H-00091	23344-69-6	<i>N,N,N'</i> -Tributylphosphoric triamide, <i>in</i> T-00216	24003-13-2	2,4,6-Tribromophenol; Benzoyl, <i>in</i> T-00205
23060-11-9	Mercaptobutanedioic acid; (±)- <i>form</i> , Di-Et ester, <i>in</i> M-00026	23387-28-2	Arsenazo H, A-00409	24049-45-4	6,6'-Dimethyl-3,3'-bipyridazine, D-00839
23079-09-6	2-Isopropyl-5-methyl-4-[(2-quinolinyl)azo]phenol, I-00076	23397-05-9	4,5-Dihydroxy-3-[[5-(1-methyl-2-piperidinyl)-2-pyridyl]azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> D-00655	24049-46-5	6,6'-Dimethoxy-3,3'-bipyridazine, D-00773
23089-35-2	2-Acetyl-4-methylpyridine; Oxime (<i>E</i> -), <i>in</i> A-00023	23411-34-9	Ethylenediaminetetraacetic acid, <i>see</i> E-00078	24049-47-6	6,6'-Diamino-3,3'-bipyridazine, D-00060
23089-37-4	2-Acetyl-4-phenylpyridine; Oxime (<i>E</i> -), <i>in</i> A-00031	23443-31-4	4-Hydroxy-1,10-phenanthroline, H-00437	24049-48-7	5,5'-Dimethyl-3,3'-bipyridazine, D-00838
23089-39-6	2-Acetyl-6-methylpyridine; Oxime (<i>E</i> -), <i>in</i> A-00024	23480-37-7	[Ethylenebis(iminosalicylidene)]diphosphinic acid, E-00075	24090-98-0	1-Naphthalenecarboxaldehyde; Phenylhydrazone, <i>in</i> N-00003
23089-40-9	2-Acetyl-6-phenylpyridine; Oxime (<i>E</i> -), <i>in</i> A-00032	23484-31-3	5-Phenyl-1,10-phenanthroline; B,HCl, <i>in</i> P-00154	24114-27-0	5-Methyl-2-(1-methylethyl)-4-(2-pyridinylazo)phenol, M-00198
23101-11-3	4,5-Dihydroxy-3-[[<i>N,N</i> -bis(carboxymethyl)aminomethyl]-2,7-naphthalenedisulfonic acid, D-00547	23484-56-2	5-Nitro-1,10-phenanthroline; B,HCl, <i>in</i> N-00116	24162-11-6	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(II) (2+), <i>see</i> T-00384
23134-01-2	Astrafloxine FF; Chloride, <i>in</i> A-00449	23491-44-3	▶ 2'-(4-Hydroxyphenyl)-5-(4-methyl-1-piperazinyl)-2,5'-bi-1 <i>H</i> -benzimidazole, H-00488	24168-35-2	3,5-Dihydroxy-6-mercapto-1,2,4-triazine; Di-Na salt, <i>in</i> D-00639
23156-94-7	4,5-Dihydroxy-3,6-bis(<i>p</i> -tolylazo)-2,7-naphthalenedisulfonic acid, D-00566	23491-45-4	2'-(4-Hydroxyphenyl)-5-(4-methyl-1-piperazinyl)-2,5'-bi-1 <i>H</i> -benzimidazole; B,3HCl, <i>in</i> H-00488	24194-61-4	1,4,8,11-Tetrathiaacyclotetradecane, T-00126
23156-95-8	4,5-Dihydroxy-3,6-bis[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00557	23499-73-2	3-(5-Chloro-2-furanoyl)-2-propenal; Thiosemicarbazone, <i>in</i> C-00120	24221-86-1	▶ 2-Methylamino-1-phenyl-1-propanol; (1 <i>S</i> ,2 <i>R</i>)- <i>form</i> , B,HCl, <i>in</i> M-00122
23156-96-9	4,5-Dihydroxy-3-[(<i>p</i> -nitrophenyl)azo]-6-[(<i>p</i> -sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00669	23522-05-6	Taurin, <i>in</i> O-00063	24226-35-5	2,3-Dimethylaniline; <i>N</i> -Di-Me, <i>in</i> D-00827
23156-97-0	2-[[1,8-Dihydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00692	23554-55-4	3'-Methyldiphenylamine-2-carboxylic acid, <i>see</i> M-00164	24229-85-4	2,7-Diaminodibenzofuran, D-00066
23156-98-1	2-[[1,8-Dihydroxy-7-[(2-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00663	23564-71-8	2-Chloro- <i>N</i> -(4-chlorophenyl)benzamide, C-00082	24271-29-2	1,1'-[1,4-Phenylene]bis-2-tetrazoline-5-thione, P-00123
23157-01-9	4,5-Dihydroxy-3,6-bis[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00552	23583-01-9	1-[(Ethoxycarbonyloxy]-2,5-pyrrolidinedione, E-00054	24273-33-4	3-Methyl-1,2-indandione; 2-Oxime, <i>in</i> M-00194
23170-77-6	Trichloroacetic acid; Methylamide, <i>in</i> T-00218	23583-11-1	1-[[Phenylamino]carbonyloxy]-2,5-pyrrolidinedione, P-00081	24273-34-5	3-Methyl-1,2-indandione; Dioxime, <i>in</i> M-00194
23191-11-9	3,3'-Bis(aminomethyl)-4,4'-dihydroxystilbene- <i>N,N,N',N'</i> -tetraacetic acid; (<i>E</i>)- <i>form</i> , <i>in</i> B-00246	23616-79-7	Benzyltributylammonium chloride, <i>in</i> T-00208	24273-35-6	3,3-Dimethyl-1,2-indanedione; Dioxime, <i>in</i> D-00868
23204-20-8	4-[[4-(Ethylamino)-6-hydroxy-m-tolyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, <i>in</i> A-00196	23617-71-2	2,4-Dimethylbenzoic acid; Me ester, <i>in</i> D-00835	24273-38-9	3-Phenyl-1,2-indanedione; Dioxime, <i>in</i> P-00137
		23647-14-5	4,5-Dihydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid; Tri-Na salt, <i>in</i> D-00736	24273-39-0	3-Methyl-3-phenyl-1,2-indanedione; (±)- <i>form</i> , Dioxime, <i>in</i> M-00230
				24283-36-1	6-Methyl-2-pyridinecarboxamidoxime, <i>in</i> M-00271
				24322-63-2	Nitroxaminazo, N-00167
				24324-38-7	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+); Δ- <i>form</i> , <i>in</i> T-00412
					Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+), <i>see</i> T-00412
				24332-19-2	1-Chloro-1,1,3,3,3-pentafluoro-2-propanol, C-00192
				24338-66-7	2-Pentenedial; Ac, <i>in</i> P-00038
				24347-58-8	2,3-Butanediol; (2 <i>R</i> ,3 <i>R</i>)- <i>form</i> , <i>in</i> B-00586
				24368-63-6	4,4',4''-Triphenyl-2,2',2''-terpyridine, T-00378

24376-18-9	▶ 3,4-Dinitrobenzoic acid; Chloride, <i>in</i> D-00947	24863-57-8	3-Methyl-1,2-cyclohexanedione; 1-Oxime, <i>in</i> M-00156	25310-14-9	<i>N</i> -Phenylctanohydroxamic acid, <i>in</i> H-00424
24381-49-5	Choline orotate, <i>in</i> O-00045	24867-24-1	2,4,6-Triaminopyrimidine; <i>N</i> ⁴ -Me, <i>in</i> T-00194	25310-15-0	<i>N-p</i> -Tolyloctanohydroxamic acid, <i>in</i> H-00424
24383-66-2	2-Thiophenecarboxaldehyde; 2,4-Dinitrophenylhydrazone, <i>in</i> T-00169	24867-25-2	2,4,6-Triaminopyrimidine; <i>N</i> ⁴ , <i>N</i> ⁴ -Di-Me, <i>in</i> T-00194	25310-16-1	<i>N</i> -Hydroxy- <i>N</i> -phenyldecanamide, <i>in</i> H-00147
24387-36-8	2,5-Diphenyl-3-[4-(2-phenylethenyl)phenyl]-2 <i>H</i> -tetrazolium(1+); Chloride, <i>in</i> D-01036	24867-28-5	2,4,6-Triaminopyrimidine; <i>N</i> ⁴ , <i>N</i> ⁴ , <i>N</i> ⁶ , <i>N</i> ⁶ -Tetra-Me, <i>in</i> T-00194	25310-17-2	<i>N</i> -Hydroxy- <i>N</i> -(4-methylphenyl)decanamide, <i>in</i> H-00147
24430-49-7	4,5-Dihydroxy-3,6-bis[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00556	24867-49-0	4,5,7-Trinitro-9-oxo-9 <i>H</i> -fluorene-2-carboxylic acid; Me ester, <i>in</i> T-00354	25310-18-3	<i>N</i> -Hydroxy- <i>N</i> -(3-methylphenyl)decanamide, <i>in</i> H-00147
24430-51-1	4,5-Dihydroxy-3-(phenylazo)-6-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00702	24916-55-0	Rose bengal, <i>see</i> R-00010	25310-20-7	<i>N</i> -Hydroxy- <i>N</i> -(4-methylphenyl)tetradecanamide, H-00316
24430-55-5	Carboxybenzene S, C-00028	24921-21-9	3-[[7-[(2-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfobenzoic acid, C-00038	25310-24-1	<i>N</i> -(4-Methylphenyl)-2-phenoxyacetohydroxamic acid, M-00235
24430-56-6	8-Hydroxy-2-quinolinecarboxaldehyde 8-quinolylhydrazone, H-00526	24921-22-0	2-[[7-[(5-Chloro-2-hydroxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00143	25310-26-3	2-(2,4-Dichlorophenoxy)- <i>N</i> -phenylacetohydroxamic acid, <i>in</i> D-00288
24437-20-5	Tichromin; Tetra-Na salt; B,HCl, <i>in</i> T-00185	24921-23-1	<i>o</i> -[[1,8-Dihydroxy-7-[(2-hydroxy-5-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00630	25310-27-4	2-(2,4-Dichlorophenoxy)- <i>N</i> -(4-methylphenyl)acetohydroxamic acid, <i>in</i> D-00288
24447-99-2	4-(Methylamino)benzenesulfonic acid, <i>in</i> A-00100	24929-06-4	2-Benzoylpyridine 2-pyridylhydrazone, B-00154	25317-25-3	Chromotrope F4B, C-00292
24463-14-7	1-(Bromomethyl)anthracene, B-00517	24929-25-7	4,5,7-Trinitro-9-oxo-9 <i>H</i> -fluorene-2-carboxylic acid, T-00354	25317-39-9	Brilliant croceine, B-00478
24463-19-2	▶ 9-(Chloromethyl)anthracene, C-00172	24939-16-0	Curcumin, <i>see</i> C-00323	25322-68-3	▶ Polyethylene glycol, P-00247
24470-78-8	Isopropyltriphenylphosphonium (1+); Iodide, <i>in</i> I-00079	24950-73-0	1,1'-[1,3-Phenylene]bis-2-tetrazoline-5-thione, P-00122	25327-35-9	α -Oxobenzeneacetic acid, <i>see</i> O-00055
24490-31-1	2-Propanoyl-1-naphthol, P-00267	24985-85-1	5-Hydroxy-1 <i>H</i> -indole-2-carboxylic acid; Et ester, <i>in</i> H-00253	25327-36-0	α -Oxobenzeneacetic acid, <i>see</i> O-00055
24509-67-9	2,3,4-Pentanetrione; Trioxime, <i>in</i> P-00033	25001-18-7	3,5,7,3',4'-Pentahydroxyflavone-6'-sulfonic acid, P-00027	25327-36-0	α -Oxobenzeneacetic acid, <i>see</i> O-00055
24530-66-3	4-Hydroxydithiobenzoic acid; Et ester, <i>in</i> H-00176	25004-85-7	2-(Acetyloxy)- <i>N</i> -hydroxy- <i>N</i> -phenylbenzamide, A-00028	25349-54-6	6'-[(5-Cyclohexyl-2,4-dihydroxyphenyl)azo]-1-methylanabasine, C-00353
24542-06-1	5-Methyl-2-nitrosophenol, M-00207	25005-95-2	2,3-Dihydro-5,6-di-(2-pyridyl)pyrazine, D-00404	25349-56-8	3-Diethylamino-4-[5-(1-methyl-2-piperidinyl)-2-pyridyl]phenol, D-00323
24558-42-7	2',5'-Dihydroxyacetophenone; Oxime, <i>in</i> D-00508	25005-96-3	2,3-Di-2-pyridylpyrazine, D-01091	25349-58-0	4-Hydroxy-3-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid; Na salt, <i>in</i> H-00319
24558-44-9	6-[(Benzylmercapto)methyl]-5-hydroxy-3-mercapto-1,2,4-triazine, B-00187	25005-99-6	2,3-Dihydro-5,6-bis(6-methyl-2-pyridyl)pyrazine, D-00374	25349-59-1	2-[(2,7-Dihydroxy-1-naphthyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00662
24560-77-8	Alanine; (<i>S</i>)-form, <i>N</i> -(2-Hydroxyethyl), <i>in</i> A-00074	25006-00-2	2,3-Bis(6-methyl-2-pyridyl)pyrazine, B-00420	25356-40-5	4-Methyl-2-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azophenol, M-00200
24573-15-7	4,4'-Bipyridine; <i>N,N'</i> -Dioxide, <i>in</i> B-00222	25015-91-2	2-Bromo-2',5'-dihydroxyacetophenone, B-00502	25357-01-1	<i>N</i> -Hydroxy-3-(4-methoxyphenyl)-2-propenamide, H-00272
24589-77-3	4-Hydrazinobenzoic acid; B,HCl, <i>in</i> H-00082	25016-01-7	5-Bromo-2-methoxybenzaldehyde, <i>in</i> B-00509	25360-72-9	Azocarmine B; Di-Na salt, <i>in</i> A-00470
24589-78-4	▶ <i>N</i> -Methyl- <i>N</i> -(trimethylsilyl)trifluoroacetamide, M-00332	25016-02-8	2-Methoxy-5-nitrobenzaldehyde, <i>in</i> H-00380	25362-01-0	2-Phenylethenylphosphonic acid, <i>see</i> P-00129
24595-19-5	2-[[5-(1-Methyl-1-piperidinyl)-2-pyridinyl]azo]-1,4-benzenediol, M-00247	25039-82-1	2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid; Me ester, <i>in</i> D-00696	25363-69-3	4-Methyl-2(1 <i>H</i> -1,2,4-triazol-3-yl)pyridine, P-00208
24613-90-9	3-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2,6-pyridinediamine, M-00252	25045-36-7	2-Methoxy-5-methylbenzoic acid, <i>in</i> H-00279	25370-92-7	1-Benzoyloxy-2-phenyldiazene 2-oxide, <i>in</i> H-00471
24630-67-9	Dimethyl (hydroxymethyl) phosphonate, <i>in</i> H-00318	25058-64-4	10-(2-Benzothiazolylazo)-9-phenanthrenol, B-00099	25370-94-9	1-Methoxy-2-phenyldiazene 2-oxide, <i>in</i> H-00471
24650-61-1	9 <i>H</i> -Carbazole-9-carboxylic acid; Et ester, <i>in</i> C-00020	25079-77-0	1,8-Naphthalenedithiol, N-00012	25379-88-8	(3,4-Dihydroxyphenyl)acetic acid, <i>see</i> D-00687
24658-33-1	<i>O</i> -(2,2,2-Trifluoroethyl) carbonodithioate, T-00246	25102-12-9	Ethylenediaminetetraacetic acid, <i>see</i> E-00078	25413-27-8	3-(4-Hydroxyphenyl)propanoic acid; Me ether, amide, <i>in</i> H-00497
24678-65-7	Hexahydro-1 <i>H</i> -azepine-1-carbodithioic acid, <i>see</i> H-00035	25103-09-7	▶ Isooctyl thioglycolate, <i>in</i> M-00016	25429-07-6	Tris(6-methylheptyl)amine; B,HCl, <i>in</i> T-00408
24717-44-0	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+), <i>see</i> T-00412	25109-26-6	2-Selenophenecarboxaldehyde, S-00006	25433-29-8	2-(5-Phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)pyridine, P-00208
24722-90-5	1-Isothiocyanatopyrene, I-00100	25145-43-1	2-Phenylpropanoic acid, <i>see</i> P-00167	25433-36-7	2-(5-Methyl-1 <i>H</i> -1,2,4-triazol-3-yl)pyridine, M-00329
24763-66-4	4-Hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-1-naphthalenesulfonic acid, H-00199	25173-17-5	4-Chloro-1,3-benzenediol; Di-Ac, <i>in</i> C-00061	25506-69-8	2,4,6-Triphenylpyridine; <i>N</i> -Ph, perchlorate (salt), <i>in</i> T-00373
24764-40-7	Pyrrole; <i>N-tert</i> -Butyl, <i>in</i> P-00436	25308-58-1	1-Anthracenecarboxylic acid; Me ester, <i>in</i> A-00376	25522-89-8	Sulfochrome; Di-NH ₄ salt, <i>in</i> S-00046
24771-28-6	Pyrrole; <i>N</i> -Formyl, <i>in</i> P-00436	25308-60-5	2-Anthracenecarboxylic acid; Me ester, <i>in</i> A-00377	25538-77-6	4-Hydroxy-3-methoxyazobenzene, <i>in</i> D-00515
24801-50-1	Nevalol NS, N-00067	25310-08-1	<i>N</i> -[(Phenylamino)thioxomethyl]benzenecarbothioamide, P-00088	25548-34-9	4-Aminoazobenzene, <i>see</i> A-00094
24858-29-5	4-Methyl-1,2-cyclohexanedione; (\pm)-form, 2-Oxime, <i>in</i> M-00157	25310-10-5	<i>N</i> -Hydroxy- <i>N</i> -phenylpentanamide, H-00492	25548-35-0	4-Aminoazobenzene, <i>see</i> A-00094
24858-30-8	4- <i>tert</i> -Butyl-1,2-cyclohexanedione; 2-Oxime, <i>in</i> B-00623	25310-12-7	<i>N</i> -Hydroxy- <i>N</i> -phenylhexanamide, <i>in</i> H-00186	25549-16-0	Tris(6-methylheptyl)amine, T-00408
24858-31-9	4-Methyl-1,2-cyclohexanedione; (\pm)-form, 1-Oxime, <i>in</i> M-00157	25310-13-8	<i>N</i> -Hydroxy- <i>N</i> -(4-methylphenyl)hexanamide, <i>in</i> H-00186	25561-30-2	2,2,2-Trifluoro- <i>N</i> -(trimethylsilyl)ethanimidic acid trimethylsilyl ester, T-00266

25620-78-4	Tris(4-aminophenyl)methanol, T-00383	26069-54-5	3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00156	26197-92-2	4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00624
25635-22-7	8-Quinolincarboxylic acid; Et ester, <i>in</i> Q-00018	26069-57-8	Sulfochlorophenol N, S-00043	26207-67-0	4',5,7-Trihydroxyflavanone, <i>see</i> T-00281
25641-18-3	Azocarmine G; Na salt, <i>in</i> A-00471	26069-59-0	4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00615	26239-18-9	3-Acetyl-5-hydroxy-2-methyl-4 <i>H</i> -1-benzopyran-4-one, <i>in</i> D-00644
25642-33-5	Bis[4-(diethylamino)phenyl]methanethione, <i>in</i> B-00254	26069-60-3	3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00144	26239-55-4	<i>N</i> -Acetamidoiminodiacetic acid, <i>in</i> N-00074
25642-60-8	3-Aminobenzoic acid; <i>N,N</i> -Di-Et, <i>in</i> A-00104	26069-61-4	4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00633	26266-57-9	Sorbitan monopalmitate, <i>in</i> A-00367
25676-64-6	1,3,4,7,8,10,11,13-Octahydro-6 <i>H</i> -2,5,9,12-benzotetrahydropentadecine, O-00009	26069-62-5	4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00626	26266-58-0	1,4-Anhydroglucitol, <i>see</i> A-00367
25677-69-4	2,9-Diphenyl-1,10-phenanthroline, D-01032	26075-01-4	Carboxynitrazo, C-00035	26304-27-8	Azonol A1, A-00474
25726-04-9	α -Oxobenzeneacetic acid; Chloride, <i>in</i> O-00055	26075-04-7	2-[[7-[(4-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, A-00429	26323-01-3	Quinoline, <i>see</i> Q-00007
25741-02-0	2,2-Diethoxypropanoic acid, <i>in</i> P-00448	26075-06-9	2-[[7-[(3-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00036	26325-38-2	2-(Diethylamino)-6-(2-thiazolylazo)phenol, <i>in</i> A-00360
25747-08-4	Chrome black special, C-00278	26075-07-0	2-[[1,8-Dihydroxy-7-[(3-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00651	26334-33-8	4-(2-Methylpropyl)-2,5-oxazolidinedione, <i>see</i> M-00261
25747-09-5	Eriochrome fast grey RAS, E-00014	26075-08-1	2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00664	26358-63-4	4'-Hydroxyacetophenone, <i>see</i> H-00090
25763-79-5	6-Hydroxy-5-[[5-(1-methyl-2-piperidiny)-2-pyridinyl]azo]-2-naphthalenesulfonic acid, H-00321	26075-14-9	4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediol, D-00200	26464-76-6	2,2'-(1,2-Ethenediyl)bis[5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], <i>see</i> E-00044
25769-03-3	1-Pyrrolidinecarbodithioic acid, P-00441	26084-35-5	Diantipyrylthiourea, D-00141	26473-61-0	3-Mercapto-1-propanol; <i>O</i> -Ac, <i>in</i> M-00053
25776-12-9	Tetrakis(4-fluorophenyl)borate(1-); Na salt, <i>in</i> T-00084	26084-39-9	Heptyl tetraethylphosphorodiamidate, <i>in</i> T-00046	26507-91-5	2-Methoxy-3-methylbenzoic acid, <i>in</i> H-00278
25783-45-3	1-Ethoxy-3-methoxybenzene, <i>in</i> B-00021	26084-40-2	Diethylphosphoramidic acid; Diheptyl ester, <i>in</i> D-00353	26513-20-2	1,3-Diaminobenzene; <i>N,N</i> -Di-Et, <i>in</i> D-00047
25816-60-8	3-Oxo-3 <i>H</i> -naphtho[2,1- <i>b</i>]pyran-2-carboxylic acid; Me ester, <i>in</i> O-00064	26093-31-2	7-Amino-4-methyl-2 <i>H</i> -1-benzopyran-2-one, A-00237	26527-40-2	Phenylglyoxime; (<i>aE</i> , <i>bZ</i>)-form, <i>in</i> P-00133
25844-13-7	Heptadecanoic acid; Amide, <i>in</i> H-00003	26102-89-6	3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00434	26527-42-4	Phenylglyoxime; (<i>Z,Z</i>)-form, <i>in</i> P-00133
25844-84-2	2-Cyano-4,6-dinitrophenol, <i>in</i> H-00154	26118-56-9	<i>N</i> -Hydroxy- <i>N'</i> -methyl- <i>N</i> -phenylthiourea, <i>in</i> T-00175	26620-08-6	2-Ethoxy-1,3-dimethylbenzene, <i>in</i> D-00885
25849-37-0	Acid chrome blue K, A-00053	26119-52-8	<i>N</i> -(4-Sulfophenyl)-2-aminobenzoic acid, S-00056	26651-23-0	1-Pyrenesulfonic acid, P-00309
25926-45-8	Acid chrome blue K, <i>see</i> A-00053	26134-70-3	Δ 5,5'-(1,3-Pentadien-1-yl-5-ylidene) dibarbituric acid, P-00009	26658-19-5	Sorbitan tristearate, <i>in</i> A-00367
25926-45-8	Solochrome fast grey RA, S-00019	26159-31-9	Naproxen; (\pm)-form, <i>in</i> N-00057	26691-28-1	(3,4-Dihydroxyphenyl)acetic acid, <i>see</i> D-00687
25929-33-3	Triphenylselenium(1+), T-00375	26159-34-2	Δ Naproxen Sodium, <i>in</i> N-00057	26705-82-8	5-(2-Benzothiazolyl)-3-methyl-1-phenylformazan, B-00105
25954-90-9	2,6-Dihydroxy-3-nitrosopyridine, D-00673	26164-18-1	2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (<i>S</i>)-form, Me ester, <i>in</i> H-00512	26705-85-1	5-(2-Benzoxazolyl)-3-methyl-1-phenylformazan, B-00116
26015-51-0	2-[(5-Chloro-2-pyridinyl)azo]-5-(diethylamino)phenol, <i>in</i> A-00145	26184-62-3	2-Pentanol; (<i>S</i>)-form, <i>in</i> P-00035	26723-70-6	2,2'-Biquinoline; B,2Me ₂ SO ₄ , <i>in</i> B-00236
26015-96-3	7-Nitroso-8-hydroxyquinoline, N-00158	26190-37-4	2-[[1,8-Dihydroxy-7-[(4-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00652	26728-25-6	2-(4,5-Dihydro-4-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)pyridine, D-00476
26018-88-2	Bis(4-chlorophenyl)iodonium(1+), <i>see</i> B-00287	26190-39-6	2-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00610	26728-26-7	2,6-Bis(4,5-dihydro-5-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)pyridine, B-00297
26032-67-7	Glyoxal bis- <i>O</i> -acetyloxime, <i>in</i> G-00037	26190-56-7	2,3-Dihydro-8-hydroxy-9-phenyl-7 <i>H</i> -pyrano[2,3- <i>f</i>]-1,4-benzodioxin-7-one, D-00422	26750-44-7	2-(Ethylthio)ethanethiol, <i>in</i> E-00028
26069-45-4	Sulfonitrophenol M, S-00052	26196-08-7	Sulfonitrophenol S, S-00054	26754-93-8	Lauth's violet, L-00003
26069-48-7	3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00157			26799-78-0	2-(2,4,5,7-Tetrabromo-6-hydroxy-3-oxo-3 <i>H</i> -xanthen-9-yl)benzoic acid ethyl ester, <i>in</i> E-00007
26069-50-1	4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00623			26819-90-9	Δ <i>O,O</i> -Di-2-propynyl phosphorodithioate, D-01061
26069-51-2	3-[(5-Chloro-2-hydroxyphenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00142			26827-38-3	Trichloroacetic acid; Benzyl ester, <i>in</i> T-00218
26069-52-3	4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00617			26838-86-8	2-Pyridinecarboxylic acid; Ph ester, <i>in</i> P-00342
26069-53-4	4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00616			26842-96-6	<i>O,O</i> -Di-2-propynyl phosphorodithioate; K salt, <i>in</i> D-01061
				26856-98-4	3,3',4',5',5'',7'-Hexahydroxyflavone, <i>see</i> H-00055
				26878-34-2	2,6-Diaminopyridine; B,HCl, <i>in</i> D-00119
				26903-08-2	2,2',3,3'-Tetrahydro-2,2'-bibenzoxazole, T-00053
				26930-07-4	Phosphorodithioic acid <i>O,O</i> -bis(2-methylallyl) ester, P-00216
				26933-93-7	Phosphorodithioic acid <i>O,O</i> -bis(2-methylallyl) ester. K salt, <i>in</i> P-00216
				27008-84-0	Isatin; 1-Ethoxycarbonyl, <i>in</i> I-00056
				27037-61-2	8-Acetoxyquinaldine, <i>in</i> H-00326
				27060-34-0	<i>N</i> -2-Pyridinylbenzenecarbothioamide, P-00383

27109-12-2	2-Chloro- <i>N</i> -(4-chlorophenyl) benzamidine; B, HCl, <i>in</i> C-00082	27956-01-0	Di-2-pyridylmonoxime, <i>in</i> D-01063	28623-68-9	1-Phenylethylamine; (±)- <i>form</i> , <i>N</i> -Benzoyl, <i>in</i> P-00130
27164-41-6	<i>N,N'</i> -Dimethyldiphenylbenzidine, <i>in</i> D-00053	27956-02-1	1,1'-(2,2'-Disulfo-4,4'-biphenylene) bis(3-hydroxy-3-phenyltriazene); Di-Na salt, <i>in</i> D-01108	28631-66-5	Poirrier blue C4B; Di-Na salt, <i>in</i> P-00246
27200-96-0	6-Methoxy-3-methyl-2-[[4-(methylphenylamino)phenyl]azo] benzothiazolium(1+), M-00091	27961-01-9	3-[[2,4-Dinitrophenyl]azo]-4-hydroxy-1-naphthalenesulfonic acid; Na salt, <i>in</i> D-00966	28645-07-0	2-Phenylpropanoic acid; (<i>S</i>)- <i>form</i> , Me ester, <i>in</i> P-00167
27214-55-7	3,3',4',5,7-Pentahydroxyflavone, <i>see</i> P-00025	27961-02-0	3-[[3,5-Dinitrophenyl]azo]-4-hydroxy-1-naphthalenesulfonic acid; Na salt, <i>in</i> D-00967	28684-63-1	1,2-Diaminocyclohexane- <i>N,N,N',N'</i> -tetraacetic acid, <i>see</i> D-00065
27215-66-3	2-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenol, <i>see</i> M-00251	27963-15-1	4,5-Dihydroxy-3-[[4-(hydroxyphenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00625	28699-96-9	Indigo-5,5',7,7'-tetrasulfonic acid; Tetra-K salt, <i>in</i> I-00028
27242-29-1	2,6-Dimercapto-3-methyl-5-phenyl-4 <i>H</i> -thiopyran-4-one, D-00757	27963-16-2	4,5-Dihydroxy-3,6-bis[[4-methoxyphenyl]azo]-2,7-naphthalenedisulfonic acid, <i>in</i> D-00552	28718-90-3	2-[4-(Aminoiminomethyl)phenyl]-1 <i>H</i> -indole-6-carboximidamide, <i>see</i> A-00227
27262-80-2	Trimethylsilyl phenylphosphinate, <i>in</i> P-00163	27963-21-9	2-[[7-[[4-Carboxyphenyl]azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00037	28752-68-3	2,2'-Azinobis[3-ethyl-2,3-dihydro-6-benzothiazolesulfonic acid], A-00462
27299-07-6	4-Hydroxybenzyl glucosinolate, <i>see</i> H-00128	28008-00-6	2-[[1,8-Dihydroxy-7-[[4-methoxyphenyl]azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00642	28780-04-3	5-(1-Benzyl-1 <i>H</i> -benzimidazol-2-yl)-3-methyl-1-(4-nitrophenyl) formazan, B-00172
27299-12-3	1,4-Anhydroglucitol, A-00367	28024-03-5	Dithiofluorescein, D-01132	28832-58-8	1-(5-Chloro-2-pyridylazo)-2-naphthol, C-00259
27305-48-2	1,5-Naphthyridine; 1-Oxide, <i>in</i> N-00056	28048-33-1	Ferrozine; Di-Na salt, <i>in</i> F-00006	28832-63-5	3-[[8-Hydroxy-7-quinolinyl]azo]-1,5-naphthalenedisulfonic acid, H-00531
27305-49-3	1,5-Naphthyridine; 1,5-Dioxide, <i>in</i> N-00056	28052-09-7	4-Methyl-3-penten-2-one, <i>see</i> M-00219	28832-64-6	▶ 2-Aminoperimidine, A-00297
27318-28-1	Pentafluorobenzaldehyde, <i>see</i> P-00010	28052-10-0	4-Methyl-3-penten-2-one, <i>see</i> M-00219	28864-27-9	2-Aminobenzoic acid 2-benzoylhydrazide, A-00106
27337-63-9	2,9-Dimethyl-4,7-dihydroxy-1,10-phenanthroline, D-00850	28061-20-3	Bathophenanthrolinedisulfonic acid, B-00003	28866-91-3	Cadion IREA; Di-Na salt, <i>in</i> C-00008
27384-96-9	2-Amino- <i>N</i> -(4-methylphenyl) benzenesulfonamide, A-00248	28096-93-7	4,4'-Diaminostilbene-2,2'-disulfonic acid, <i>see</i> D-00125	28867-10-9	2,3-Butanedione (2-benzothiazolyl) hydrazone; Oxime, <i>in</i> B-00588
27389-57-7	(3-Trifluoromethylphenyl) trimethylammonium(1+); Iodide, <i>in</i> T-00256	28115-71-1	4-Hydroxy-3-[[5-(1-methyl-2-piperidinyl)2-pyridinyl]azo]-1-naphthalenesulfonic acid, H-00319	28882-68-0	▶ Proline, P-00257
27428-70-2	2,2'-Biphenyldicarboxylic acid; Et ester, <i>in</i> B-00207	28128-19-0	1,3-Dihydro-2 <i>H</i> -purine-2-thione, D-00478	28907-84-8	▶ 5-Amino-2-naphthalenesulfonic acid; Na salt, <i>in</i> A-00266
27428-79-1	1-Nitroso-2,7-naphthalenediol, N-00159	28150-74-5	1-(Isothiocyanatomethyl)-1 <i>H</i> -indole-2,3-dione, I-00096	28917-43-3	3,5-Dibenzoyloxybenzoic acid, <i>in</i> D-00534
27458-03-3	Phenoltetraiodophthalein, P-00067	28169-73-5	4-[[4-Amino-1-naphthalenyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, A-00275	28920-43-6	9-Fluorenyl methyl chloroformate, F-00018
27580-22-9	2-[2-(4-Hydrazinophenyl)ethenyl] pyridine, H-00085	28249-26-5	Ethylenebisdithiocarbamic acid; Dibenzyl ester, <i>in</i> E-00072	28924-87-0	Mesotetraethylporphine, M-00062
27593-93-7	Pinachrome; Iodide, <i>in</i> P-00236	28258-59-5	1-(Bromomethyl)-4-methylbenzene, <i>see</i> B-00527	28925-38-4	1,2-Dinitro-1,2-diphenylethylene, D-00952
27623-09-2	6-Phenyl-1,2,4-triazine-3(2 <i>H</i>)-thione, P-00205	28315-93-7	3,4-Dihydro-5-hydroxy-1(2 <i>H</i>)-naphthalenone, D-00413	28948-81-4	2-[[5-(Dodecyl-2-hydroxyphenyl) azo]benzoic acid, D-01150
27638-32-0	3,4',5,7-Tetrahydroxyflavone, <i>see</i> T-00076	28384-70-5	3,4',5,7-Tetrahydroxyflavone, <i>see</i> T-00076	28959-04-8	Glycerol, <i>see</i> G-00015
27644-20-8	Dihydro-4-hydroxy-2-(1-methyl-1-piperidinoethyl)-3(2 <i>H</i>)-furanone, D-00412	28415-92-1	3-Hydroxy-4-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, H-00530	28966-86-1	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(II) (2+); (±)- <i>form</i> , Bis-tetrafluoroborate, <i>in</i> T-00384
27693-67-0	2,3'-Iminodibenzoic acid, I-00014	28454-80-0	3,3',4',5,5',7'-Hexahydroxyflavone, <i>see</i> H-00055	28986-48-3	1 <i>H</i> -Tetrazole-5-thiol; <i>S</i> -Ph, <i>in</i> T-00131
27728-33-2	▶ Indoferron, I-00032	28467-51-8	4,5-Dihydroxy-3-[[2-thiazolyl]azo]-2,7-naphthalenedisulfonic acid, D-00739	29039-64-3	α-Thiosemicarbazidoisobutyric acid, T-00174
27739-37-3	2,2'-Biquinoxaline, B-00239	28480-70-8	5-Chloro-2-hydroxy-4-methylacetophenone, C-00135	29055-00-3	<i>N,N'</i> -Bis(α-amino-α-phenylbenzylidene) ethylenediamine, B-00250
27771-61-5	6-Amino-2-naphthalenesulfonamide, <i>in</i> A-00268	28484-25-5	<i>N,N'</i> -Dihydroxy- <i>N,N'</i> -diphenylheptanediamide, D-00587	29120-19-2	3-[[2-Hydroxy-1-naphthalenyl] azo]-1 <i>H</i> -pyrazole-4-carboxylic acid, <i>see</i> H-00353
27794-05-4	Methylglyoxal 4-dimethylaminoanil, M-00184	28518-02-7	2-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenol, <i>see</i> M-00251	29120-26-1	Hydroxynaphthol blue, H-00371
27801-08-7	Chlorindazon C, C-00051	28539-45-9	Azoxin H, A-00480	29120-27-2	3-[[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1 <i>H</i> -1,2,4-triazolium(1+); Chloride, <i>in</i> D-00328
27816-59-7	4-Acetamido-4-isothiocyanatostilbene-2,2'-disulfonic acid, <i>in</i> A-00230	28606-01-1	Indigo-5,5',7-trisulfonic acid, <i>see</i> I-00030	29128-56-1	2-[[2-Hydroxy-1-naphthalenyl]azo] benzoic acid, H-00349
27822-77-1	Gallocyanine MS, G-00006	28611-72-5	(2-Hydroxy-5-nitrobenzyl) dimethylsulfonium(1+), <i>see</i> H-00384	29146-60-9	β-Benzoyl-α-(ethanol)thiourea, B-00129
27822-98-6	α-(Phenylazo)-4-nitrobenzeneacetonitrile, P-00094	28611-73-6	(2-Hydroxy-5-nitrobenzyl) dimethylsulfonium(1+); Bromide, <i>in</i> H-00384	29171-27-5	7-(1-Ethenyl-3,3,5,5-tetramethylhexyl)-8-quinolinol, E-00049
27831-56-7	3-(<i>p</i> -Methoxyphenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, M-00111			29177-25-9	4,4'-Bis(diethylamino)-2,2'-biquinoline, <i>in</i> D-00063
27831-63-6	2,4-Dihydroxy-3,5-bis[[4-nitrophenyl]azo]benzenesulfonic acid, D-00555			29177-26-0	4,4'-Dianilino-2,2'-biquinoline, <i>in</i> D-00063
27841-33-4	4,5-Dimethoxy-1,2-benzenediamine, <i>in</i> D-00049			29177-33-9	4,4'-Di(<i>p</i> -chloroanilino)-2,2'-biquinoline, <i>in</i> D-00063
27871-49-4	Sarcosine; Me ester, <i>in</i> H-00516			29177-34-0	4,4'-Di[[<i>p</i> -diethylamino]anilino]-2,2'-biquinoline, <i>in</i> D-00063
27919-43-3	3,3',5,5'-Tetramethyl-2,2',4,4',6,6'-hexanitrodiphenylamine; Na salt, <i>in</i> T-00096			29177-35-1	4,4'-Bis(4-biphenylamino)-2,2'-biquinoline, B-00259
27926-72-3	4,4'-Bipyridine; B, HCl, <i>in</i> B-00222				
27926-80-3	Quinoline, <i>see</i> Q-00007				
27928-00-3	8-Hydroxy-1,3,6-pyrenetrisulfonic acid, H-00517				

29197-37-3	4,4'-([2,2'-Biquinoline]-4,4'-diylidimino)bisbenzoic acid; Di-Et ester, <i>in</i> B-00238	29639-09-6	(4-Nitrophenyl)diazenecarboxylic acid 2-phenylhydrazide, N-00133	30152-85-3	1,2-Diamino-4-nitrobenzene; 1,2- <i>N</i> -Di-Ac, <i>in</i> D-00108
29197-45-3	2-Phenyl-4-quinolinecarboxylic acid; Amide, <i>in</i> P-00189	29639-49-4	1,2,4-Benzenetricarboxylic acid; 4-Me ester, <i>in</i> B-00032	30168-88-8	2,6-Dichloro-4-[(2-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00258
29245-61-2	Triethylsulfonium(1+), T-00236	29660-56-8	5-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00280	30301-23-6	Pachycarpine <i>N</i> ¹⁶ -oxide, <i>in</i> S-00023
29246-94-4	2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (<i>S</i>)-form, <i>in</i> H-00512	29662-78-0	3,3',4',5,5',7-Hexahydroxyflavone, <i>see</i> H-00055	30304-08-6	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)iron(III), T-00397
29263-55-6	4,4'-Diamino-3-biphenylol, <i>see</i> D-00057	29670-64-2	2'-Benzoylacetyl, <i>in</i> A-00111	30342-87-1	4-Amino-2,4-dihydro-5-propyl-3 <i>H</i> -1,2,4-triazole-3-thione, A-00157
29265-64-3	<i>N</i> -Hydroxy-3-(4-methoxyphenyl)-2-propenamide; <i>N</i> -(3-Methylphenyl), <i>in</i> H-00272	29674-82-6	2,2',4,4'-Tetrachlorodithizone, T-00030	30345-49-4	Tetrabutylphosphonium(1+); Acetate, <i>in</i> T-00024
29265-65-4	<i>N</i> -Hydroxy-3-(4-methoxyphenyl)-2-propenamide; <i>N</i> -(4-Methylphenyl), <i>in</i> H-00272	29683-84-9	2-Thiophenecarboxaldehyde; Oxime, <i>in</i> T-00169	30364-55-7	1-(1-Oxopropoxy)-2,5-pyrrolidinedione, <i>in</i> P-00442
29265-66-5	3-(1,3-Benzodioxol-5-yl)- <i>N</i> -hydroxy- <i>N</i> -phenyl-2-propenamide, <i>in</i> B-00056	29703-23-9	<i>S,S</i> -Diphenyl butylphosphonodithioate, <i>in</i> B-00638	30453-21-5	3,3'-Dithiobis-1-propanol, <i>in</i> M-00053
29265-67-6	3-(1,3-Benzodioxol-5-yl)- <i>N</i> -hydroxy- <i>N</i> -(3-methylphenyl)-2-propenamide, <i>in</i> B-00056	29711-79-3	4-Isothiocyanato- <i>N,N</i> -dimethyl-1-naphthalenamine, I-00094	30486-42-1	2-[(2-Hydroxy-1-naphthalenyl)azo]-4-thiazolecarboxylic acid, H-00358
29265-68-7	3-(1,3-Benzodioxol-5-yl)- <i>N</i> -hydroxy- <i>N</i> -(4-methylphenyl)-2-propenamide, <i>in</i> B-00056	29721-96-8	Phthalocyaninetetrasulfonic acid; Tetra-Na salt, <i>in</i> P-00231	30525-89-4	▶ Paraformaldehyde, <i>in</i> F-00035
29267-67-2	2-Methoxy-1,3-benzenediol, <i>in</i> B-00034	29740-67-8	Trimethylacetohydroxamic acid, T-00324	30535-22-9	4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3 <i>H</i> -pyrazol-3-one; <i>N</i> ⁴ , <i>N</i> ^{4'} , <i>N</i> ^{4''} , <i>N</i> ^{4'''} -Tetra-Me, <i>in</i> B-00253
29270-56-2	4-Fluoro-7-nitrobenzofurazan, F-00030	29745-44-6	2-Pyridinecarboxylic acid; Chloride, <i>in</i> P-00342	30535-27-4	<i>N</i> -(4-Chloro-2-methoxyphenyl)-2-(hydroxyimino)acetamide, C-00169
29284-28-4	<i>N-p</i> -Tolylcinnamohydroxamic acid, <i>in</i> H-00499	29769-63-9	4,4'-[1,2-Ethenediylbis(2-(aminomethyl)phenyl)]- <i>N,N,N',N'</i> -tetraacetic acid; (<i>E</i>)-form, <i>in</i> E-00042	30536-60-8	12-(9-Anthroxoy)stearic acid; (\pm)-form, <i>in</i> A-00391
29284-60-4	4,5-Dimethyl-2-(2-quinolinylazo)phenol, D-00914	29797-34-0	1,3-Dihydro-2 <i>H</i> -imidazole-2-thione, <i>see</i> D-00424	30536-73-3	5-(1,1,3,3-Tetramethylbutyl)-1,2,3-benzenetriol, T-00094
29289-98-3	2,2,2-Trichloroacetohydroxamic acid, T-00219	29817-83-2	Tetrachlorogallein, T-00035	30565-53-8	2-(4-Bromophenyl)-2-hydroxyacetic acid; (\pm)-form, Et ester, <i>in</i> B-00550
29334-07-4	Sulmarin, <i>in</i> D-00647	29833-90-7	Phthalimide; Monoxime, <i>in</i> P-00223	30611-89-3	Diethylselenocarbamic acid; Na salt, <i>in</i> D-00343
29394-76-1	6-Chloro-1-hydroxy-4-nitro-1 <i>H</i> -benzotriazole, C-00137	29841-69-8	1,2-Diphenyl-1,2-ethanediamine; (1 <i>R</i> ,2 <i>R</i>)-form, <i>in</i> D-01010	30623-40-6	Ethanethioic acid; <i>O</i> -Ph ester, <i>in</i> E-00038
29412-85-9	Methyl xyleneol blue; Na salt, <i>in</i> M-00337	29865-85-8	3,5-Dihydroxy-4-methoxybenzaldehyde, <i>in</i> T-00273	30714-43-3	4-Aminophenylcarbomidothioic acid; NH ₄ salt, <i>in</i> A-00321
29415-71-2	6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, <i>in</i> A-00156	29865-90-5	3-Hydroxy-4,5-dimethoxybenzaldehyde, <i>in</i> T-00273	30718-90-2	<i>N</i> -(2-Hydroxyethyl)ethylenediaminetriacetic acid, <i>see</i> H-00177
29456-04-0	1-Propen-2-ol, P-00270	29873-00-5	4,5-Dihydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00621	30719-67-6	▶ Gossypol; (\pm)-form, Hexa-Ac, <i>in</i> G-00041
29463-09-0	1,3-Diamino-2-propanol- <i>N,N,N',N'</i> -tetraacetic acid, <i>see</i> D-00116	29882-36-8	3,5-Dinitrobenzohydroxamic acid, D-00946	30727-62-9	1,2,3,4-Tetrahydrobenzo[<i>h</i>]quinolin-3-ol; (\pm)-form, Benzoyl, <i>in</i> T-00051
29474-20-2	1,2-Dihydro-4-[(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00419	29900-74-1	<i>N</i> -Hydroxy-3-(4-methoxyphenyl)-2-propenamide, <i>see</i> H-00272	30742-81-5	2-Benzoylpyridine azine, B-00152
29477-54-1	2,3',4'-Trihydroxyacetophenone, T-00268	29914-17-8	1 <i>H</i> -Tetrazole-5-thiol; <i>S</i> -Me, <i>in</i> T-00131	30769-97-2	1-Benzyl-5-methyl-2,3-dihydro-2 <i>H</i> -benzimidazole-2-thione, B-00189
29543-60-0	3-[(2-Arsonophenyl)azo]-6-[(4-arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00423	29915-38-6	3-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, H-00137	30769-98-3	1-Benzyl-5-bromo-1,3-dihydro-2 <i>H</i> -benzimidazole-2-thione, B-00175
29546-26-7	3-Methyl-1,3,4-thiadiazolidine-2,5-dithione, <i>in</i> M-00060	29917-12-2	2,3,4-Pentanetrione; 3-Oxime, <i>in</i> P-00033	30805-88-0	2,2'-Dipyridyl- α -glyoxime, <i>in</i> D-01063
29550-55-8	Teresantalol, T-00004	29968-64-7	▶ <i>N</i> -Fluoren-1-ylbenzohydroxamic acid, F-00016	30833-53-5	▶ 2-Methyl-1-propanol; Acid phthalate, <i>in</i> M-00255
29556-13-6	<i>N</i> -Hydroxy-2-thiophenecarboxamide; <i>N</i> -Ph, <i>in</i> H-00554	29976-88-3	2-[4,5-Dihydro-5-(4-methoxyphenyl)-3-isoxazolyl]-4-methylphenol, D-00427	30842-86-5	1,5-Diantipyrinyl-3-formazancarbonitrile, D-00134
29556-14-7	<i>N</i> -Hydroxy-2-thiophenecarboxamide; <i>N</i> -(4-Methylphenyl), <i>in</i> H-00554	30084-90-3	▶ 9 <i>H</i> -Fluorene-2-carboxaldehyde, F-00012	30851-76-4	Ethoxazorutoside, <i>in</i> R-00014
29556-16-9	<i>N</i> -Hydroxy- <i>N</i> -(4-methylphenyl)-2-furancarboxamide, <i>in</i> F-00064	30091-50-0	3,3'-Iminobis[1-phenyl-2-propen-1-one], I-00009	30859-93-9	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy-3-(4-methoxyphenyl)-2-propenamide, C-00225
29556-17-0	<i>N</i> -Hydroxy- <i>N</i> -phenyl-1-naphthalenecarboxamide, H-00489	30091-53-3	3-(2-Pyridinyl)-1,2,4-triazine, P-00411	30859-97-3	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy-3-(3,4-methylenedioxyphenyl)-2-propenamide, C-00226
29556-18-1	<i>N</i> -Benzoyl- <i>N</i> -(1-naphthyl)hydroxylamine, B-00138	30091-54-4	5,6-Dimethyl-3-(2-pyridinyl)-1,2,4-triazine, D-00911	30897-83-7	2-(3-Hydroxy-3-phenyl-1-triazenyl)-5-sulfobenzoic acid, H-00510
29556-22-7	<i>N</i> -Hydroxy-3,5-dinitro- <i>N</i> -phenylbenzamide, <i>in</i> D-00946	30091-55-5	3-(4-Methyl-2-pyridinyl)-1,2,4-triazine, M-00294	30912-05-1	1-Benzyl-5-methoxy-1,3-dihydro-2 <i>H</i> -benzimidazole-2-thione, B-00188
29556-29-4	4-Chloro- <i>N</i> -hydroxy- <i>N</i> -(4-methylphenyl)benzamide, <i>in</i> C-00065	30091-56-6	5,6-Dimethyl-3-(4-methyl-2-pyridinyl)-1,2,4-triazine, D-00871	30915-37-8	2-Pyridinecarboxaldehyde, <i>see</i> P-00318
29600-83-7	Glucuronic acid; <i>D</i> -form, Ba salt, <i>in</i> G-00013	30091-57-7	5,6-Dimethyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-00895	30915-38-9	2-Pyridinecarboxaldehyde, <i>see</i> P-00318
29625-36-3	<i>p</i> -Methoxy- <i>N</i> -phenylcinnamohydroxamic acid, <i>in</i> H-00241	30091-58-8	3-(2-Thiazolyl)-1,2,4-triazine, T-00148	30922-52-2	3-Bromo-2-nitroso-1-naphthalenol, <i>in</i> B-00537
		30091-59-9	5,6-Dimethyl-3-(2-thiazolyl)-1,2,4-triazine, D-00926		
		30091-76-0	4-Phenyl-2-(5-phenyl-1,2,4-triazol-3-yl)pyridine, P-00162		

30937-57-6	[2-[(2-Hydroxyphenyl)methylene]amino]phenyljarsonic acid, H-00479	31571-71-8	3,12-Bis(carboxymethyl)-6,9-dioxo-3,12-diazatetradecanedioic acid; Na salt, <i>in</i> B-00278	32018-86-3	3-Amino-1-naphthoic acid, A-00279
30957-66-5	1,2-Dihydro-4-[(2-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00420	31579-37-0	1,2-Cyclopentanedione; Oxime, <i>in</i> C-00362	32041-50-2	5-Chloro-2-hydroxy-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00141
30980-88-2	2-(Dibutylphosphinyl)-2-hydroxypropanoic acid, D-00239	31610-09-0	6-Hydroxy-4-quinolinecarboxylic acid; Et ester, <i>in</i> H-00527	32041-51-3	5-Chloro-3-[(2,4-dithioxo-5-thiazolidinyl)azo]-2-hydroxybenzenesulfonic acid, C-00112
30992-74-6	4,5-Dihydroxy-2 <i>H</i> -1-benzopyran-2-one, D-00537	31610-87-4	Tropine tropate, <i>see</i> T-00431	32046-03-0	Pyrazinecarboxylic acid; Nitrile, 1-oxide, <i>in</i> P-00285
31005-05-7	7-Hydroxy-2 <i>H</i> -1-benzopyran-2-one; <i>O</i> -Benzoyl, <i>in</i> H-00124	31635-89-9	Bis(2-aminoethyl)dithiocarbamic acid, B-00245	32046-09-6	Pyrazinecarboxylic acid; 1-Oxide, <i>in</i> P-00285
31012-15-4	<i>N</i> -Hydroxy- <i>N</i> -phenyl-3-(trifluoromethyl)benzamide, H-00511	31641-59-5	Methylphosphonic acid; Dicyanide, <i>in</i> M-00244	32061-14-6	1,2-Dihydro-4-[(4-methoxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00428
31042-79-2	4-(2-Thiazolylazo)-1-naphthalenol, T-00143	31696-81-8	3-[2,2'-Bipyridin-6-yl]-5,6-dimethyl-1,2,4-triazine, B-00226	32099-65-3	1-[4-(Phenylamino)phenyl]-1 <i>H</i> -pyrrole-2,5-dione, P-00086
31087-44-2	2-Pentanol; (<i>R</i>)-form, <i>in</i> P-00035	31696-88-5	5,6-Dimethyl-3-pyrazinyl-1,2,4-triazine, D-00903	32186-90-6	Dibromo-1-naphthylphosphine, <i>in</i> N-00055
31107-06-9	Isatin; 3-(4-Nitrophenyl)hydrazone, <i>in</i> I-00056	31696-89-6	5,6-Dimethyl-3-(3-pyridazinyl)-1,2,4-triazine, D-00907	32189-34-7	2-(4-Bromophenyl)-2-hydroxyacetic acid; (<i>R</i>)-form, <i>in</i> B-00550
31139-36-3	Dibenzyl dicarbonate, <i>in</i> D-00243	31696-90-9	5,6-Dimethyl-3-(2-pyridinyl)-1,2,4-triazine, D-00912	32189-36-9	2-(4-Chlorophenyl)-2-hydroxyacetic acid; (<i>R</i>)-form, <i>in</i> C-00222
31158-53-9	1,2,3-Benzenetricarboxylic acid; 2-Me ester, <i>in</i> B-00031	31696-91-0	2-(4,5-Dihydro-5-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)pyrazine, D-00474	32222-43-8	2-(3-Chlorophenyl)-2-hydroxyacetic acid; (<i>S</i>)-form, <i>in</i> C-00221
31165-30-7	5-[(2-Hydroxy-1-naphthalenyl)azo]-1,3,4-thiadiazole-2(3 <i>H</i>)-thione, H-00357	31696-92-1	[4,5-Dihydro-5-(2-pyridinyl)-1 <i>H</i> -1,2,4-triazol-3-yl]pyrazine, D-00484	32266-60-7	Azomethine H; Na salt, <i>in</i> A-00472
31188-63-3	Ethylenedithiodiacetic acid; Di-Na salt, <i>in</i> E-00080	31696-93-2	3-(4,5-Dihydro-5-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)pyridazine, D-00475	32269-66-2	Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato- <i>O,O'</i>]praseodymium(<i>III</i>); Dihydrate, <i>in</i> T-00425
31231-08-0	2,3-Dihydro-2,2-di-(2-pyridinyl)benzothiazole, D-00403	31696-94-3	3-[4,5-Dihydro-5-(2-pyridinyl)-1 <i>H</i> -1,2,4-triazol-3-yl]pyridazine, D-00485	32269-75-3	Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato- <i>O,O'</i>]ytterbium(<i>III</i>), <i>see</i> T-00426
31231-39-7	4-Hydroxyacridone, H-00095	31696-95-4	4-(2,5-Dihydro-5-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)pyrimidine, D-00477	32323-27-6	1,2,3-Trimethyl-3-pyrazoline-5-thione, <i>in</i> D-00451
31250-06-3	4,7,13,18-Tetraoxa-1,10-diazabicyclo[8.5.5]eicosane, T-00114	31696-96-5	4-[4,5-Dihydro-5-(2-pyridinyl)-1 <i>H</i> -1,2,4-triazol-3-yl]pyrimidine, D-00486	32327-47-2	5-Amino-1-naphthalenesulfonic acid; Amide, <i>in</i> A-00265
31250-18-7	Cryptand 2.2.2 B, C-00317	31696-97-6	6-(2,5-Dihydro-5-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)-2,2'-bipyridine, D-00473	32340-52-6	Purpuric acid, <i>see</i> P-00281
31255-22-8	4,7,10,16,19,24,27-Heptaoxa-1,13-diazabicyclo[11.8.8]nonacosane, H-00014	31704-42-4	1-(Chloromethyl)-1 <i>H</i> -indole-2,3-dione, C-00177	32357-73-6	1,1,1,2,2,6,6,7,7,8,8,8-Dodecafluoro-3,5-octanedione, D-01136
31295-41-7	5,6-Diamino-2,4(1 <i>H</i> ,3 <i>H</i>)-pyrimidinedithione, D-00121	31709-14-5	3(5)-Amino-1,2,4-triazole; 1 <i>H</i> -form, 1-Ph, 3- <i>N</i> -Ac, <i>in</i> A-00364	32361-58-3	2,4-Dihydroxybenzenecarbodithioic acid, D-00522
31311-06-5	3-Isopropyl-6-methyl-2-[[5-(1-methylpiperidinyl)-2-pyridinyl]azo]phenol, I-00074	31773-90-7	1-Hydroxy-2-phenyldiazene 2-oxide, <i>see</i> H-00471	32379-40-1	1-Hydroxycyclohexanecarboxylic acid; Nitrile, benzoyl, <i>in</i> H-00146
31313-53-8	6-Phenanthridinecarboxaldehyde 2-pyridylhydrazone, P-00050	31791-97-6	<i>N</i> -Hydroxy-2-methoxybenzamide, H-00263	32430-59-4	Bis(2,3,4-trihydroxybenzyl)methylamine, B-00466
31313-54-9	6-Phenanthridinecarboxaldehyde 2-quinolinylhydrazone, P-00051	31830-33-8	<i>p</i> -[1-(1-Benzyl-2-benzimidazolyl)-3-methyl-5-formazano]benzenesulfonic acid, B-00170	32446-22-3	4,5-Dihydroxy-3-nitroso-2,7-naphthalenedisulfonic acid, D-00672
31364-42-8	4,7,13,16,21-Pentaoxa-1,10-diazabicyclo[8.8.5]tricosane, P-00037	31867-68-2	3-Ethyl-5-hydroxy-2,7-dimethyl-4 <i>H</i> -1-benzopyran-4-one, E-00086	32446-26-7	3-Hydroxy-4-nitroso-2-naphthalenecarboxylic acid, H-00413
31367-08-5	4-Chloro-2-hydroxy- <i>N</i> -(2-hydroxybenzylidene)aniline, C-00129	31867-73-9	4,5-Dimethyl-2-(2-pyridinylazo)phenol, D-00910	32446-27-8	3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, <i>see</i> H-00198
31378-25-3	Tris(2,4-pentanedionato- <i>O,O'</i>)chromium(<i>III</i>); Δ -form, <i>in</i> T-00410	31867-76-2	4-(4-Hydroxy-3-methoxybenzylidene)-3-methyl-5(4 <i>H</i>)-isoxazolone, H-00266	32446-72-3	3-(Aminomethyl)-1,2,7-trihydroxyanthraquinone- <i>N,N</i> -diacetic acid, A-00260
31390-84-8	(4-Nitrophenyl)phenylethanedione; Monoxime, <i>in</i> N-00142	31867-78-4	3-(Benzenesulfonylamino)propanoic acid, B-00027	32476-08-7	4,4'-Disulfodithione, D-01109
31397-09-8	2-Furancarboxaldehyde phenylthiosemicbazone, F-00047	31874-34-7	2,4-Dihydroxybenzaldehyde; Di-Me ether, oxime, <i>in</i> D-00517	32477-35-3	1-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-1 <i>H</i> -imidazole, H-00009
31405-72-8	2',5'-Dihydroxyacetophenone; 2,5-Di-Ac, <i>in</i> D-00508	31884-76-1	4-Aminobenzenesulfonic acid, <i>see</i> A-00100	32479-73-5	1,3-Diethylbarbituric acid, <i>in</i> P-00429
31427-08-4	1,2,4-Benzenetriol; 2-Me ether, 1- <i>O</i> - β - <i>D</i> -glucopyranoside, <i>in</i> B-00035	31892-44-1	9 <i>H</i> -Carbazole-9-carboxylic acid; Nitrile, <i>in</i> C-00020	32497-10-2	4-Methyl-2(3 <i>H</i>)-thiazolone, M-00316
31430-37-2	<i>N</i> -Benzoyl- <i>N'</i> -(5-bromo-2-pyridyl)thiourea, B-00125	31892-84-9	6-[4,5-Dihydro-5-(2-pyridinyl)-1 <i>H</i> -1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00483	32497-11-3	4-Methyl-2(3 <i>H</i>)-thiazolone; <i>N</i> -Me, <i>in</i> M-00316
31447-99-1	<i>N,N</i> -Bis(3-methylbutyl)-1-octanamine, B-00403	31950-08-0	Stilbazokhimdu, S-00031	32543-15-0	1-(2-Selenophenyl)-2-propanone, S-00007
31464-31-0	4-Amino-4'-nitroazobenzene; <i>N</i> -Me, <i>in</i> A-00281	31995-53-6	Gallophenine, G-00007		
31490-17-2	2-(1-Diazoethyl)naphthalene, D-00146	32003-66-0	5-(1-Benzyl-1 <i>H</i> -benzimidazol-2-yl)-1-(4-nitrophenyl)-3-phenylformazan, B-00173		
31502-34-8	1-Phenylethylamine; (<i>R</i>)-form, <i>N</i> -Formyl, <i>in</i> P-00130	32003-67-1	5-(1-Benzyl-1 <i>H</i> -benzimidazol-2-yl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00166		
31508-44-8	2-Phenylpropanoic acid; (\pm)-form, Me ester, <i>in</i> P-00167	32003-70-6	5-(2-Benzothiazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00100		
31511-11-2	Aconitic acid; (<i>Z</i>)-form, Anhydride, <i>in</i> A-00061	32003-74-0	5-(2-Benzoxazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00114		

32573-81-2	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)praseodymium(III); Dimer, <i>in</i> T-00420	33089-36-0	1,4,10,13,16,19-Heptaoxacycloheptacosane, H-00013	33293-89-9	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)ytterbium(III); Phen complex, <i>in</i> T-00421
32604-29-8	4,4'-Biphenyldiol; Di-Ac, <i>in</i> B-00208	33098-93-0	<i>N</i> -[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]methyl]- <i>N</i> -(carboxymethyl)glycine, A-00430	33308-41-7	Phthalocyaninetetrasulfonic acid, P-00231
32607-23-1	Lanthanum chloroanilate, <i>in</i> D-00262	33100-27-5	▶ 15-Crown-5, C-00314	33313-45-0	α -(Dibutylphosphinyl)- α -hydroxybenzeneacetic acid, D-00238
32609-14-6	Arabic acid, A-00398	33108-63-3	1-Hydroxy-1-phenylurea, <i>in</i> P-00211	33329-02-1	Ethyl diphenylphosphinodithioate, <i>in</i> D-01039
32615-84-2	2,2'-Iminobisbenzamide, <i>in</i> I-00013	33134-02-0	(2,2'-Bipyridine- <i>N,N'</i>)tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)praseodymium(III), <i>in</i> T-00420	33375-06-3	(1-Isocyanophenyl)benzene; (<i>R</i>)-form, <i>in</i> I-00067
32621-46-8	2,2'-Iminodibenzoic acid; Dichloride, <i>in</i> I-00013	33134-06-4	(1,10-Phenanthroline)tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)praseodymium(III), <i>in</i> T-00420	33378-63-1	Pyridinetris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)praseodymium(III), <i>in</i> T-00420
32624-43-4	<i>p</i> -[(2-Hydroxy-1-naphthyl)azo]benzoic acid, H-00375	33134-16-6	(Pyridine)tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)gadolinium(III), <i>in</i> T-00417	33388-35-1	1,10-Phenanthroline-3-sulfonic acid, P-00054
32638-88-3	Pyrogallol red, P-00434	33134-17-7	(2,2'-Bipyridine- <i>N,N'</i>)tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)gadolinium(III), <i>in</i> T-00417	33388-36-2	1,10-Phenanthroline-5-sulfonic acid, P-00055
32650-55-8	<i>O,O</i> -Diisopentyl phosphorodithioate, D-00746	33134-18-8	(1,10-Phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)gadolinium(III), <i>in</i> T-00417	33405-93-5	<i>N</i> -Hydroxy-2-methyl- <i>N</i> -(3-methylphenyl)benzamide, <i>in</i> M-00135
32650-57-0	1,1'-[1,4-Phenylene]bis-2-tetrazoline-5-thione; Di-Na salt, <i>in</i> P-00123	33135-12-5	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)dysprosium(III); Py complex, <i>in</i> T-00415	33419-89-5	7,8,15,16,17,18-Hexahydrodibenzo[<i>e,m</i>][1,4,8,11]-tetraazacyclotetradecine, H-00044
32651-15-3	▶ 2-Sulfobenzediazonium(1+), S-00040	33135-13-6	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)dysprosium(III); Bipy complex, <i>in</i> T-00415	33421-36-2	2-(2-Pyridinyl)phenol, P-00399
32651-57-3	Acid blue 89, A-00052	33135-14-7	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)dysprosium(III); Phen complex, <i>in</i> T-00415	33421-43-1	2,2'-Bipyridine; 1-Oxide, <i>in</i> B-00220
32702-27-5	15-Methyl-1,4,7,10,13-benzopentaoxacyclopentadecin, M-00139	33135-15-8	(2,2'-Bipyridine- <i>N,N'</i>)tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)holmium(III), <i>in</i> T-00418	33441-49-5	Ethyl 3-mercaptopropyl ether, <i>in</i> M-00053
32736-63-3	4,5-Dihydroxy-3,6-bis[<i>o</i> -methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, <i>in</i> D-00551	33135-19-2	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)ytterbium(III); Py complex, <i>in</i> T-00421	33454-77-2	1,2-Ethanediphosphonic acid; <i>P,P'</i> -Dibutyl ester, <i>in</i> E-00026
32736-66-6	Phthalaxon S, P-00221	33141-12-7	4-Bromo- <i>N,N'</i> -bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494	33489-49-5	Acenaphthenequinone; Monoxime, <i>in</i> A-00001
32743-88-7	6,8-Tridecanedione, T-00228	33171-05-0	Curcumin, <i>see</i> C-00323	33496-48-9	Pentadecafluorooctanoic acid; Anhydride, <i>in</i> P-00008
32748-05-3	4,5-Dihydroxy-3-(3-methylphenylazo)-6-phenylazo-2,7-naphthalenedisulfonic acid, D-00654	33178-96-0	2-Mercaptopropanoic acid; (<i>R</i>)-form, <i>in</i> M-00051	33519-48-1	Tetra- μ -chloro- μ_2 -chlorodiethylhexakis (tetrahydrofuran) tetramagnesium, <i>in</i> C-00115
32748-18-8	<i>N</i> -Methanesulfonylbenzamidoxime, M-00067	33179-02-1	2-Mercaptopropanoic acid; (<i>R</i>)-form, <i>S</i> -Benzoyl, <i>in</i> M-00051	33524-31-1	2,5-Dimethoxybenzyl alcohol, D-00768
32748-20-2	1-(2-Pyridyl)-5-(4-sulfophenyl)-3-phenylformazan, P-00424	33239-19-9	Erythrosine Y; Di-Na salt, <i>in</i> E-00021	33530-04-0	2-Demethylcolchicine, <i>in</i> C-00300
32796-55-7	Ferrozine, F-00006	33240-99-2	2,2'-Diquinolyketoxime, <i>in</i> D-01101	33682-80-3	3-Methyl-5-(methylthio)-1,3,4-thiadiazole-2(3 <i>H</i>)-thione, <i>in</i> M-00060
32796-72-8	Benzoylmethylglyoxime, <i>in</i> P-00109	33251-42-2	Selenourea; <i>N</i> -Et, <i>in</i> S-00009	33683-70-4	8-Hydroxy-7-[(2-hydroxyphenyl)azo]-1,6-naphthalenedisulfonic acid, H-00233
32818-79-4	▶ Isonitrosodiethyl ketone, <i>in</i> P-00029	33257-86-2	2,4'-Dihydroxy-4-methoxybenzophenone, <i>in</i> T-00279	33683-71-5	8-Hydroxy-7-[(2-hydroxy-4-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00227
32830-09-4	1,4-Dihydro-6-nitro-2,3-quinoxalinedithione, D-00461	33284-30-9	<i>N</i> -Hydroxy-2-methyl- <i>N</i> -(2-methylphenyl)benzamide, <i>in</i> M-00135	33683-72-6	8-Hydroxy-7-[(2-hydroxy-5-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00228
32884-46-1	3-Hydroxy-4-[(2-hydroxy-6-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, H-00243	33284-34-3	<i>N</i> -Hydroxy-4-methyl- <i>N</i> -(4-methylphenyl)benzamide, <i>in</i> M-00136	33683-73-7	7-[[5-(Aminosulfonyl)-2-hydroxyphenyl]azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, A-00349
32903-07-4	5-[(4-Methylphenyl)azo]-8-quinolinol, M-00224	33284-35-4	<i>N</i> -Hydroxy-4-methyl- <i>N</i> -(3-methylphenyl)benzamide, <i>in</i> M-00136	33683-74-8	7-[(5-Chloro-2-hydroxyphenyl)azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, C-00147
32919-54-3	<i>N</i> -Hydroxy- <i>N</i> -(3-methylphenyl)-3-nitrobenzamide, <i>in</i> N-00090	33293-87-7	(1,10-Phenanthroline- <i>N,N'</i>)tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)holmium(III), <i>in</i> T-00418	33683-76-0	Sulfonitrazo, S-00050
32919-57-6	<i>N</i> -Hydroxy- <i>N</i> -(4-methylphenyl)-3,5-dinitrobenzamide, <i>in</i> D-00946	33293-88-8	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)ytterbium(III); Bipy complex, <i>in</i> T-00421	33683-77-1	3-[[3-(Aminosulfonyl)-1-hydroxy-2-naphthalenyl]azo]-2-hydroxy-5-nitrobenzenesulfonic acid, A-00348
32939-57-4	4-Chloro- <i>N</i> -hydroxy- <i>N</i> -(3-methylphenyl)benzamide, <i>in</i> C-00065			33683-78-2	5-Hydroxy-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, H-00230
32939-61-0	<i>N</i> -Hydroxy- <i>N</i> -(3-methylphenyl)-2-nitrobenzamide, <i>in</i> N-00089				
32954-65-7	<i>N</i> -Phenylhydroxylamine; <i>N,O</i> -Di-Ac, <i>in</i> P-00135				
32974-36-0	Pentafluorobenzyl <i>p</i> -toluenesulfonate, <i>in</i> P-00014				
32997-75-4	<i>O,O</i> -Diisopropyl phosphorodithioate; Anilinium salt, <i>in</i> D-00750				
32999-99-8	5,5-Dimethyl-1,2,3-cyclohexanetrione, D-00848				
33008-06-9	Dansylhydrazine, <i>in</i> A-00265				
33043-68-4	2,5-Dioxo-4-oxazolidinopropanoic acid; (<i>S</i>)-form, <i>in</i> D-00993				
33078-24-9	Methylphosphonic acid; Diazide, <i>in</i> M-00244				
33088-21-0	(Pyridine)tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)holmium(III), <i>in</i> T-00418				

33683-79-3	5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulphophenyl)azo]-1-naphthalenesulfonic acid, H-00231	34274-30-1	[1,2-Ethanediy]bis[nitrilobis[methylene]]tetrakisphosphonic acid, <i>see</i> E-00032	34661-25-1	<i>N</i> -Hydroxy-2-methoxy- <i>N</i> -(3-methylphenyl)benzamide, <i>in</i> H-00263
33712-03-7	4-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-phenylquinolinium(1+); Chloride, <i>in</i> D-00810	34277-65-1	Thiocarbamic acid; <i>S</i> -Me ester, <i>N</i> -Ac, <i>in</i> T-00159	34661-26-2	<i>N</i> -Hydroxy- <i>N</i> -(4-methylphenyl)-3-nitrobenzamide, <i>in</i> N-00090
33725-74-5	Tetrabutylammonium(1+); Borohydride, <i>in</i> T-00023	34282-29-6	2-Mercapto- <i>N</i> -(4-methoxyphenyl)acetamide, M-00033	34661-31-9	<i>N</i> - <i>m</i> -Tolyl- <i>o</i> -iodobenzohydroxamic acid, <i>in</i> I-00040
33739-54-7	▶ Tropolone; Ac, <i>in</i> T-00432	34282-30-9	2-Mercapto- <i>N</i> -(4-methylphenyl)acetamide, M-00036	34661-32-0	2-Chloro- <i>N</i> -hydroxy- <i>N</i> -(3-methylphenyl)benzamide, <i>in</i> C-00064
33756-32-0	Triphenylarsine oxide; 2B.HBr, <i>in</i> T-00364	34283-37-9	2-[(1-Methyl-3-oxobutylidene)amino]benzoic acid, M-00214	34671-83-5	2,2'-Bipyrimidine, B-00235
33757-42-5	8-Aminoquinoline; 8- <i>N</i> -Ac, <i>in</i> A-00340	34295-85-7	3-(2-Hydroxybenzylideneamino)propanoic acid, H-00130	34700-74-8	Carboxyarsenazo B, C-00027
33757-48-1	8-Aminoquinoline; 8- <i>N</i> -Benzoyl, <i>in</i> A-00340	34317-06-1	1-Acetoxy-4-methyl-2(1 <i>H</i>)-pyridinethione, <i>in</i> M-00274	34709-44-9	5-[(2-Hydroxyphenyl)methylene]-2-thio-4-thiazolidinone, H-00486
33768-43-3	2-Aminobenzaldehyde; <i>N</i> -Benzoyl, <i>in</i> A-00096	34321-57-8	5-[(1- <i>p</i> -Tolylimidazol-4-yl)methylene]rhodanine, T-00191	34716-81-9	3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-methylphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00435
33770-60-4	Mercury chloroanilate, <i>in</i> D-00262	34334-90-2	3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-pyridinecarboxylic acid, D-00600	34771-62-5	Guanidine; B,AcOH, <i>in</i> G-00044
33796-05-3	Quinizarin S, <i>see</i> Q-00006	34334-91-3	4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722	34788-82-4	Tris(3-heptafluorobutyl- <i>d</i> -camphorato)europium(III), T-00391
33796-55-3	1-[(3-Hydroxy-1-oxodecyl)oxy]-2,5-pyrrolidinedione, <i>see</i> H-00431	34334-92-4	4,5-Dihydroxy-3-[(3-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00723	34810-13-4	9-Anthracenecarboxylic acid; Amide, <i>in</i> A-00378
33818-56-3	2-Phenylethenylphosphonic acid, <i>see</i> P-00129	34341-26-9	1-Hydroxy-4-methyl-2(1 <i>H</i>)-pyridinethione, <i>in</i> M-00274	34830-11-0	Tris(3-trifluoroacetyl- <i>d</i> -camphorato)europium(III), T-00423
33833-43-1	1,5-Di-(β -naphthyl)thiocarbazono, D-00933	34352-52-8	Bromophthalexon S, B-00559	34878-60-9	2-Methylbenzenethiol, <i>see</i> M-00131
33834-71-8	4-Aminophenyl-4-ethylbenzylaminoantipyrinylcarbinol, A-00322	34353-07-6	4,5-Dihydroxy-3-[(2-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00643	34881-29-3	2-Octanol; (<i>S</i>)-form, Benzoyl, <i>in</i> O-00037
33834-74-1	2-[(Hydroxyphenylamino)carbonyl]benzenesulfonic acid; Na salt, <i>in</i> H-00445	34353-08-7	[<i>o</i> -[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]acetic acid, D-00602	34907-24-9	4-Nitrobenzylamine; <i>N</i> -Benzoyl, <i>in</i> N-00098
33876-74-3	Phenylosazone, <i>in</i> P-00132	34353-10-1	2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenyl]-2-oxoacetic acid, D-00603	34915-18-9	▶ Dicarboxidine, D-00244
33892-75-0	▶ 3,4-Dihydroxy-5-methoxy-1(2 <i>H</i>)-naphthalenone, <i>in</i> D-00413	34366-90-0	2-Octylaminopyridine, <i>in</i> A-00333	34938-51-7	4,5-Diphenyl-2-(phenylazo)-1 <i>H</i> -imidazole, D-01035
33950-71-9	1-Hydroxy-2-naphthoic acid; Et ester, <i>in</i> H-00369	34368-73-5	6,7,9,10,17,18,20,21-Octahydro-2,13-dimethylidibenzo[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00023	34947-97-2	1,2-Naphthoquinone-4-sulfonic acid, <i>see</i> N-00033
33951-45-0	<i>N,N'</i> -Diphenylthioimidodicarbonic diamide, <i>in</i> T-00163	34373-38-1	[2-(<i>o</i> -Methylbenzoyl)azo]-1,8-dihydroxynaphthalene-3,6-disulfonic acid, M-00144	34958-52-6	Semiphthalexon S; Di-Na salt, <i>in</i> S-00013
33967-87-2	<i>N</i> -(Ethylsulfonyl)benzamide; Oxime, <i>in</i> E-00113	34387-32-1	4-Methyl-2(1 <i>H</i>)-pyridinethione; <i>N</i> -Oxide, tris Fe(III) complex, <i>in</i> M-00274	34967-19-6	2,5-Dihydroxybenzaldehyde, <i>see</i> D-00518
33984-50-8	<i>N</i> -[(4-Methoxyphenyl)methyl]-7-nitro-4-benzofurazanamine, M-00114	34400-83-4	Semimethyl thymol blue, S-00011	34972-19-5	2-Amino-3-quinoxalinetiol, A-00345
33988-01-1	9 <i>H</i> -Carbazole-9-carboxylic acid; Amide, <i>in</i> C-00020	34430-71-2	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)holmium(III); Bis(4-picoline) complex, <i>in</i> T-00418	35033-43-3	3,4-Dihydroxyazobenzene; Di-Na salt, <i>in</i> D-00515
34069-89-1	2,2'-Iminodibenzoic acid; Di-Me ester, <i>in</i> I-00013	34523-28-9	5-(Dimethylamino)-1-naphthalenesulfonyl fluoride, D-00797	35033-46-6	4-[(4-Nitrophenyl)azo]-1,2-benzenediol; Di-Na salt, <i>in</i> N-00122
34069-94-8	Trichloroacetic acid; Bromide, <i>in</i> T-00218	34523-34-7	4'-Hydroxyacetophenone; Oxime, <i>in</i> H-00090	35098-52-3	Corynecine II, <i>in</i> A-00284
34071-95-9	1-[3-(4-Hydroxyphenyl)-1-oxopropyl]-2,5-pyrrolidinedione, H-00491	34541-30-5	1-(2-Pyridyl)-1-hexanone; Oxime, <i>in</i> P-00418	35112-28-8	2,4-Dichlorobenzoic acid; Me ester, <i>in</i> D-00249
34074-14-1	<i>o</i> -Nitral green, N-00072	34573-74-5	3-Methylene-2,6-piperidinedione, M-00178	35117-30-7	1,2,3-Indanetrione; 2-(4-Nitrophenyl)hydrazone, <i>in</i> I-00025
34097-44-4	Laurohydroxamic acid, <i>see</i> L-00001	34598-65-7	2-(Phenylseleno)propanoic acid, P-00191	35132-20-8	1,2-Diphenyl-1,2-ethanediamine; (1 <i>S</i> ,2 <i>S</i>)-form, <i>in</i> D-01010
34161-38-1	3-(5-Methyl-2-furanyl)-2-propenal; Thiosemicarbazone, <i>in</i> M-00182	34661-14-8	<i>N</i> -Hydroxy-2-methoxy- <i>N</i> -(2-methylphenyl)benzamide, <i>in</i> H-00263	35136-70-0	1,2-Bis(2-mercaptobenzylideneamino)ethane, B-00398
34175-08-1	Tartrazine, T-00003	34661-16-0	<i>N</i> -Hydroxy-2-methoxy- <i>N</i> -phenylbenzamide, <i>in</i> H-00263	35161-65-0	1,6-Hexanediamine; <i>N,N'</i> -Diformyl, <i>in</i> H-00061
34185-21-2	Lauth's violet; N(3),N(7)-Di-Me, chloride, <i>in</i> L-00003	34661-21-7	4-Chloro- <i>N</i> -hydroxy- <i>N</i> -(2-methylphenyl)benzamide, <i>in</i> C-00065	35171-25-6	2,4-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00333
34197-46-1	MUGB, <i>in</i> M-00211	34661-22-8	<i>N</i> - <i>o</i> -Tolyl- <i>o</i> -iodobenzohydroxamic acid, <i>in</i> I-00040	35171-26-7	2,4-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00341
34202-69-2	1,1,1,3,3,3-Hexafluoro-2-propanone, <i>see</i> H-00033	34661-23-9	2-Chloro- <i>N</i> -hydroxy- <i>N</i> -(2-methylphenyl)benzamide, <i>in</i> C-00064	35171-27-8	2,6-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00334
34220-01-4	Bis(4-chlorophenyl)iodonium(1+); Chloride, <i>in</i> B-00287			35171-28-9	2,6-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00342
34237-98-4	4,4'-Diamino-3,3'-dibromobiphenyl, D-00068			35171-29-0	2,6-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00264
34238-55-6	<i>N</i> -(3,6-Dioxo-1,4-cyclohexadien-1-yl)benzenesulfonamide, D-00988			35171-30-3	2,4-Bis(4,5-dihydro-5-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)pyridine, B-00296
34243-38-4	2-(2-Thienyl)benzothiazole, T-00149			35171-31-4	2,4-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine, B-00445
34251-29-1	<i>N</i> -Hydroxy- <i>N</i> -phenyl-2-naphthalenecarboxamide, <i>in</i> N-00024			35171-33-6	2,6-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine, B-00447
34255-89-5	<i>O</i> -Ethyl <i>P</i> -methylphosphonamidothioate, <i>in</i> M-00243			35171-34-7	2,6-Bis[3-(4-methyl-2-pyridyl)-1,2,4-triazolin-5-yl]pyridine, B-00424
34265-58-2	2-Hydroxy-5-methylbenzoic acid; Et ester, <i>in</i> H-00279				

35171-35-8	2,6-Bis[3-(2,2'-bipyridin-6-yl)-1,2,4-triazolin-5-yl]pyridine, B-00261	35584-25-9	2,6-Dihydroxy-4-pyridinecarboxylic acid; Hydrazide, <i>in</i> D-00721	36237-34-0	<i>N</i> -Hydroxy- <i>N</i> -1-naphthalenylhexanamide, H-00361
35171-77-8	Isopropyltriphenylphosphonium (1+); Chloride, <i>in</i> I-00079	35605-70-0	2-Hydroxyphenazine; Benzoyl, <i>in</i> H-00439	36237-35-1	<i>N</i> -Hydroxy- <i>N</i> -1-naphthalenyldecanamide, H-00359
35185-03-6	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)europium(III); Dimer, <i>in</i> T-00416	35633-31-9	2-Hydroxy-5-nitro-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, H-00391	36237-36-2	<i>N</i> -Hydroxy- <i>N</i> -1-naphthalenyl-dodecanamide, H-00360
35185-40-1	Tetrakis(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato- <i>O,O'</i>)uranium(IV), T-00086	35633-33-1	5-[(2-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00460	36237-37-3	<i>N</i> -Hydroxy- <i>N</i> -1-naphthalenyl-tetradecanamide, H-00368
35186-99-3	1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid, T-00063	35733-58-5	Tetrabutylammonium(1+); Formate, <i>in</i> T-00023	36237-38-4	<i>N</i> -1-Naphthylphenylacetohydroxamic acid, N-00054
35193-63-6	4-Hydroxydinaphtho[2,1- <i>d</i> :1',2'- <i>f</i>][1,3,2]dioxaphosphin 4-oxide, H-00153	35733-86-9	Eriochrome green B, E-00016	36237-39-5	<i>N</i> -Hydroxy-4-methyl- <i>N</i> -1-naphthalenylbenzamide, H-00291
35193-64-7	4-Hydroxydinaphtho[2,1- <i>d</i> :1',2'- <i>f</i>][1,3,2]dioxaphosphin 4-oxide; (<i>S</i>)-form, <i>in</i> H-00153	35734-59-9	Dibutyl-(2-hydroxypropyl)thiophosphonic acid, D-00234	36237-40-8	<i>N</i> -Hydroxy-2-methyl- <i>N</i> -1-naphthalenylbenzamide, H-00290
35218-40-7	<i>N</i> -2-Pyridinyl-2-furancarboxamide, P-00390	35777-93-6	Semimethylxlenol blue, S-00012	36237-41-9	4-Chloro- <i>N</i> -hydroxy- <i>N</i> -1-naphthalenylbenzamide, C-00136
35218-75-8	4,4',4'',4'''-(21 <i>H</i> ,23 <i>H</i> -Porphine-5,10,15,20-tetrayl)tetrakisbenzenesulfonic acid, P-00250	35778-58-6	5-[[4-(Diethylamino)phenyl]methylene]-2-thioxo-4-thiazolidinone, D-00334	36237-42-0	<i>N</i> -Hydroxy- <i>N</i> -1-naphthalenyl-4-nitrobenzamide, H-00365
35221-12-6	1,3-Diphenyl-2-thiobarbituric acid, <i>in</i> D-00492	35794-22-0	4-Amino-5-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> A-00186	36237-43-1	<i>N</i> -Hydroxy-4-methoxy- <i>N</i> -1-naphthalenylbenzamide, H-00268
35221-88-6	2,4-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00263	35796-36-2	2-Hydroxy-3-methyl-1,4-naphthoquinone; Monoxime, <i>in</i> H-00292	36237-44-2	<i>N</i> -Hydroxy-2-methoxy- <i>N</i> -1-naphthalenylbenzamide, H-00267
35221-89-7	2,6-Bis[3-(2-pyridyl)-1,2,4-triazolin-5-yl]pyridine, B-00446	35799-19-0	4-Ethyl- <i>N</i> -(8-quinolinyl)benzenesulfonamide, E-00112	36240-11-6	2-Phenylpropanoic acid, <i>see</i> P-00167
35231-44-8	4-(Bromomethyl)-7-methoxy-2 <i>H</i> -1-benzopyran-2-one, <i>in</i> B-00524	35812-01-2	Saccharin; <i>N</i> -Br, <i>in</i> S-00001	36252-53-6	Methyltriphenylarsonium(1+); Tetrafluoroborate, <i>in</i> M-00334
35236-40-9	3-Methyl-1,2-benzenediol, <i>see</i> M-00127	35836-41-0	2,3-Dihydroxy-4-methoxybenzophenone, <i>in</i> T-00278	36256-68-5	Allthiox, A-00083
35236-70-5	2,7-Dibromogallein, D-00189	35841-55-5	2-(2-Quinolylazo)-1-naphthalenol, Q-00030	36283-44-0	1-Phenylethylamine; (<i>R</i>)-form, <i>N</i> -Ac, <i>in</i> P-00130
35285-69-9	4-Hydroxybenzoic acid, <i>see</i> H-00113	35862-62-5	Pyridylpyridinium(1+), P-00422	36302-45-1	2-Propylcyclohexanone; (<i>R</i>)-form, <i>in</i> P-00275
35294-28-1	2,2'-Dimethoxy-1,1'-binaphthyl, <i>in</i> D-00544	35887-40-2	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)europium(III); Hemihydrate, <i>in</i> T-00394	36307-95-6	1,2-Naphthoquinone-4-sulfonic acid; 2-Semicarbazone, <i>in</i> N-00033
35308-00-0	4-Hydroxyacridone; Me ether, <i>in</i> H-00095	35887-41-3	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)dysprosium(III); Dihydrate, <i>in</i> T-00393	36319-81-0	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(II) (2+); (±)-form, Dithiocyanate, <i>in</i> T-00384
35328-95-1	Heptylarsonic acid, H-00015	35896-24-3	2(1 <i>H</i>)-Quinolone (phenyl-2-pyridinylmethylene)hydrazone, Q-00024	36383-22-9	Bis[(diphenoxyphosphino)thioyl]disulfide, B-00336
35329-22-7	<i>O,O</i> -Dibutyl phosphorothioate; NH ₄ salt, <i>in</i> D-00242	35907-44-9	1 <i>H</i> -Benzimidazole-2-carboxaldehyde 2-quinolinylhydrazone, B-00040	36383-33-2	4-Nitro-1,2-benzenediol; Di-Ac, <i>in</i> N-00087
35332-95-7	3-Hydroxy-4-(1 <i>H</i> -tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, H-00546	35923-79-6	Pentafluoroisothiocyanatobenzene, P-00018	36383-37-6	3,5-Dinitro-1,2-benzenediol; 2-Me ether, Ac, <i>in</i> D-00942
35338-30-8	1-Ethoxy-2,4-dimethylbenzene, <i>in</i> D-00884	35940-93-3	3-Furanaldehyde; Oxime, <i>in</i> F-00043	36394-33-9	4,5-Dimethoxy-4-cyclopentene-1,2,3-trione, <i>in</i> D-00571
35340-49-9	Fluorescein; Di-Ac, <i>in</i> F-00022	35963-20-3	Camphor-10-sulfonic acid; (−)-form, <i>in</i> C-00016	36402-77-4	Benzyl orange; Na salt, <i>in</i> B-00190
35354-29-1	3,5-Dihydroxybenzoic acid; Di-Ac, <i>in</i> D-00534	35998-99-3	3,4-Dinitrobenzoic acid; Et ester, <i>in</i> D-00947	36408-59-0	1-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, A-00358
35357-33-6	1,4-Benzoquinone; Bis(ethylene ketal), <i>in</i> B-00076	36043-00-2	Dichloro-1-naphthylphosphine, <i>in</i> N-00055	36408-72-7	2,6-Diacetylpyridine; Dioxime, <i>in</i> D-00035
35357-34-7	7,10-Dioxaspiro[5.4]deca-2,5-dien-4-one, <i>in</i> B-00076	36053-26-6	2-[[[Aminothioxomethyl]amino]carbonyl]benzoic acid, <i>in</i> B-00018	36412-06-3	2,3,4(1 <i>H</i>)-Quinolinetriene; 3-Oxime, <i>in</i> Q-00022
35383-59-6	2-Chloro-3-methylbutanoic acid; (±)-form, Chloride, <i>in</i> C-00174	36061-59-3	Bis(carboxymethyl)dithiocarbamic acid, B-00279	36452-35-4	5,5-Dimethyl-2,4-imidazolidinedione; 1,3- <i>N</i> -Di-Ac, <i>in</i> D-00866
35388-09-1	4-[(3,4,5-Trihydroxybenzoyl)amino]benzoic acid, T-00280	36065-27-7	1-Phenylethylamine; (±)-form, <i>N</i> -Ac, <i>in</i> P-00130	36458-42-1	2,4-Dihydroxy-5-sulfobenzoic acid, D-00731
35414-25-6	Tetraheptylammonium(1+), T-00048	36101-15-2	1-Naphthylamine; <i>N</i> -Et; B,HCl, <i>in</i> N-00041	36478-11-2	4-[[4-(Diethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, <i>in</i> A-00313
35421-04-6	2,5-Dichloro-4-nitrosophenol, <i>in</i> D-00250	36105-94-9	5-Amino-3-[[4-aminophenyl]azo]-4-hydroxy-2,7-naphthalenedisulfonic acid; N ⁴ -Ac, Di-Na salt, <i>in</i> A-00092	36480-50-9	2-(2,6,7-Trihydroxy-3-oxo-3 <i>H</i> -xanthen-9-yl)benzenesulfonic acid, T-00305
35431-80-2	1-[(5-Bromo-2-thiazolyl)azo]-2-naphthalenol, B-00579	36116-88-8	3,3',4',5,5',7-Hexahydroxyflavone, <i>see</i> H-00055	36505-52-9	Magon, M-00005
35431-81-3	1,1,1-Trifluoro-4-thioxo-2-pentanone, T-00265	36148-03-5	Propanedioic acid, <i>see</i> P-00261	36517-00-7	4-[[2-Amino-1-methyl-6-(3-pyridinyl)-3-piperidinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, A-00254
35431-84-6	Di-2-pyridinylethanedione; Dihydrazone, <i>in</i> D-01063	36190-42-8	1-(2-Pyridinylazo)-2-phenanthrenol, P-00377	36517-11-0	<i>N,N'</i> -1,2-Ethanediylbisalanine, E-00029
35452-30-3	1-Pentanesulfonic acid, P-00032	36237-33-9	<i>N</i> -Hydroxy- <i>N</i> -1-naphthalenylpentanamide, H-00366	36530-93-5	4-[[4-(Dimethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, D-00808
35466-40-1	4-[[4-Nitrophenyl]methyl]pyridine, <i>see</i> N-00139				
35488-17-6	2,3,4,5-Tetrabromo-6-methoxyphenol, <i>in</i> T-00012				
35495-39-7	4-[(2-Bromo-4,5-dihydroxyphenyl)azo]benzenesulfonic acid, B-00504				
35501-54-3	Methyl xlenol blue, M-00337				
35509-27-4	8-Quinolincarbonitrile, <i>in</i> Q-00018				

36531-92-7	1-(2-Quinolinyloxy)-2-phenanthrenol, Q-00031	37004-76-5	6-Benzoyl-3-(2,2'-bipyridin-6-yl)-5-phenyl-1,2,4-triazine, B-00123	37929-28-5	1-Butyl-3,4-dihydro-4,4,6-trimethyl-2(1 <i>H</i>)-pyrimidinethione, <i>in</i> D-00504
36552-72-4	Triethylsulfonium(1+), <i>see</i> T-00236	37004-77-6	6-Benzoyl-3-(1,10-phenanthrolin-2-yl)-5-phenyl-1,2,4-triazine, B-00142	37933-61-2	5,7,7,12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, H-00059
36573-10-1	Tetraphenylstibonium(1+); Azide, <i>in</i> T-00122	37004-78-7	6-Benzoyl-5-phenyl-3-(2-thiazolyl)-1,2,4-triazine, B-00147	37947-92-5	2-Phenoxathiincarboxaldehyde, P-00074
36575-90-3	5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2-thioxo-4-thiazolidinone, H-00163	37004-79-8	3-(4-Methyl-2-pyridinyl)-9 <i>H</i> -indeno[1,2- <i>e</i>]-1,2,4-triazin-9-one, M-00288	37950-10-0	[4-[[[(5-Hydroxy-3-methyl-1-phenyl)-1 <i>H</i> -pyrazol-4-yl]azo]phenyl]arsonic acid, H-00314
36575-91-4	5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2,4-thiazolidinedithione, H-00162	37004-80-1	3-(4-Phenyl-2-pyridinyl)-9 <i>H</i> -indeno[1,2- <i>e</i>]-1,2,4-triazin-9-one, P-00176	37951-55-6	3,4-Dihydro-4,4,6-trimethyl-1-(4-methyl-2-nitrophenyl)-2(1 <i>H</i>)-pyrimidinethione, D-00498
36575-98-1	1,2-Dihydro-1,5-dimethyl-4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00389	37004-81-2	3-[2,2'-Bipyridin-6-yl]-9 <i>H</i> -indeno[1,2- <i>e</i>]-1,2,4-triazin-9-one, B-00232	37952-93-5	Saccharin; Benzoyl, <i>in</i> S-00001
36575-99-2	5-(8-Quinolinyloxy)-2-thioxo-4-thiazolidinone, Q-00034	37004-82-3	3-(1,10-Phenanthrolin-2-yl)-9 <i>H</i> -indeno[1,2- <i>e</i>]-1,2,4-triazin-9-one, P-00056	37961-71-0	4-(Dimethylamino)benzaldehyde; (<i>E</i>)-Oxime, <i>in</i> D-00779
36576-00-8	5-(8-Quinolinyloxy)-2,4-thiazolidinedithione, Q-00033	37004-83-4	3-(2-Thiazolyl)-9 <i>H</i> -indeno[1,2- <i>e</i>]-1,2,4-triazin-9-one, T-00147	37981-94-5	Dimethyl cyclohexylboronate, <i>in</i> C-00352
36576-01-9	5-(2-Thiazolylazo)-2-thioxo-4-thiazolidinone, T-00146	37013-20-0	TSP, <i>in</i> T-00345	38012-14-5	Benzylododecylmethylolammonium (1+); Bromide, <i>in</i> B-00181
36576-02-0	4-Amino-8-[(2,4-dithioxo-5-thiazolidinyl)azo]-5-hydroxy-1,7-naphthalenedisulfonic acid, A-00169	37095-49-1	4,10,15-Trioxa-1,7-diazabicyclo[5.5.5]heptadecane, T-00360	38016-39-6	2-[[[(2-Hydroxyphenyl)methylene]amino]-3-pyridinol, H-00480
36608-42-1	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+), <i>see</i> T-00412	37110-11-5	2,5-Dihydroxybenzaldehyde; Oxime, <i>in</i> D-00518	38020-81-4	Iodoacetyl chloride, <i>in</i> I-00036
36648-32-5	2-Aminobenzophenone; <i>N,N</i> -Di-Me, <i>in</i> A-00111	37181-48-9	2,5-Dihydroxybenzaldehyde, <i>see</i> D-00518	38028-39-6	5-Hydroxy-1,2-naphthoquinone, H-00372
36658-91-0	3,3'-(1,2-Ethanediyldinitrilo)bis-2-butanone; Dioxime, <i>in</i> E-00035	37181-49-0	2,3-Butanedione bis[(thiobenzoyl)hydrazone], B-00598	38053-99-5	Tris(3-trifluoroacetyl- <i>d</i> -camphorato)praseodymium(III), T-00424
36692-49-6	3,4-Diaminobenzoic acid; Me ester, <i>in</i> D-00050	37247-10-2	2,3-Pentanedione bis[<i>p</i> -methoxy(thiobenzoyl)hydrazone], P-00031	38054-03-4	Tris[1,7,7-trimethyl-3-(trifluoroacetyl)bicyclo[2.2.1]heptan-2-onato- <i>O,O'</i>]ytterbium, T-00427
36705-73-4	2,2'-(Iminodimethylidene)bis[3,4-dihydro-1-(2 <i>H</i>)-naphthalenone], I-00019	37296-80-3	Lauth's violet, <i>see</i> L-00003	38063-81-9	4-Aminoacetophenone; Oxime, <i>in</i> A-00091
36715-43-2	1-(2-Furanyl)-2-hydroxy-2-phenylethanone, F-00052	37422-44-9	Colestipol hydrochloride, <i>in</i> D-00345	38064-07-2	Phenylcarbamic acid hydroxyphenyl ester, <i>in</i> P-00060
36724-68-2	<i>N</i> -(Trifluoroacetyl)- <i>L</i> -prolyl chloride, <i>in</i> T-00242	37433-80-0	2-(2-Thiazolylazo)-1,4-benzenediol, T-00139	38102-00-0	2-Hydroxy-3,5-dinitrobenzoic acid; Me ether, <i>in</i> H-00154
36772-41-5	Di-2-pyridylglyoxal dithiosemicarbazone, <i>in</i> D-01063	37441-95-5	<i>N</i> -(<i>o</i> -Iodobenzoyl)phenylhydroxylamine, <i>in</i> I-00040	38105-50-9	2-Hydroxyimino-6-oxopiperidine, <i>in</i> G-00014
36779-25-6	4-Quinolincarboxithioic acid, Q-00008	37465-96-6	2(3 <i>H</i>)-Benzoxazolethione; <i>NH</i> -form, 3-Ac, <i>in</i> B-00113	38116-61-9	1,2-Dihydro-6-methyl-2-oxo-3-pyridinecarboxylic acid, D-00441
36783-03-6	3-[Ethyl(3-methylphenyl)amino]-1-propanesulfonic acid, E-00099	37466-90-3	Arsenazo AG, A-00405	38151-69-8	4,4'-Diaminostilbene-2,2'-disulfonic acid, <i>see</i> D-00125
36805-97-7	1,1-Di- <i>tert</i> -butoxytrimethylamine, D-00222	37469-24-2	3,4-Diaminobenzoic acid; Et ester, <i>in</i> D-00050	38151-70-1	4,4'-Diaminostilbene-2,2'-disulfonic acid, <i>see</i> D-00125
36854-57-6	2-Phenylbutanoic acid, <i>see</i> P-00110	37488-40-7	2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione, D-00402	38183-12-9	Fluorescamine, F-00019
36887-04-4	Glycerol, <i>see</i> G-00015	37530-35-1	Benzylamine; B, HBr, <i>in</i> B-00163	38184-50-8	3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2-(3-nitrophenyl)-5-phenyl-2 <i>H</i> -tetrazolium](2+); Dichloride, <i>in</i> D-00771
36887-74-8	Methylcarbamoithioic acid, M-00154	37530-63-5	5-[(3-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00487	38206-22-3	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, <i>see</i> C-00099
36889-52-8	<i>N</i> -(2,4-Dimethylphenyl)-3-(phosphonoxy)-2-naphthalenecarboxamide, <i>see</i> D-00894	37569-52-1	5-[3-(2-Furanyl)-2-propenylidene]-2-thioxo-4-thiazolidinone, F-00061	38260-01-4	Trientine hydrochloride, <i>in</i> T-00232
36913-04-9	Dexamphetamine; <i>N,N</i> -Di-Me; B, HCl, <i>in</i> P-00172	37569-53-2	2,6,7-Trihydroxy-9-(4-hydroxy-5-methoxy-2-nitrophenyl)-3 <i>H</i> -xanthen-3-one, T-00287	38262-57-6	2,2'-Dithiobis[1-naphthaleneamine], D-01118
36930-63-9	5-[[2-[(Iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, I-00037	37612-69-4	Anisylfluorane, A-00372	38262-58-7	2,2'-Dithiobis[1-naphthaleneamine]; <i>N,N'</i> -Di-Ac, <i>in</i> D-01118
36930-64-0	8-[[2-[(Iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, I-00038	37678-84-5	Benzyltrimethylolammonium (1+), B-00180	38304-37-9	4-Amino-5-hydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid, A-00212
36951-71-0	4,4',4''-(20-Phenyl-21 <i>H</i> ,23 <i>H</i> -porphine-5,10,15-triyl)trisbenzenesulfonic acid, P-00166	37682-28-3	3-[[4-(Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00203	38351-46-1	Diethylthiocarbamic acid, <i>see</i> D-00344
36954-50-4	<i>N</i> -Hydroxy- <i>N'</i> -(4-methylphenyl)benzenecarboximidamide, H-00308	37724-22-4	9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one, C-00032	38409-45-9	Silver diethylthiocarbamate, <i>in</i> D-00344
36968-48-6	2-[[3-(Hydroxy-1-oxo-1 <i>H</i> -inden-2-yl)imino]-1 <i>H</i> -indene-1,3(2 <i>H</i>)-dione, <i>see</i> H-00433	37734-35-3	1-(1 <i>H</i> -Benzimidazol-4-yl)-3-methyl-5-phenylformazan, B-00046	38420-87-0	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, <i>see</i> C-00099
36970-47-5	8-Hydroxy-5-quinolinesulfonic acid, H-00528	37734-36-4	3-(2-Pyridinylazo)-2,6-pyridinediamine, P-00379	38557-34-5	<i>N'</i> -(4-Bromophenyl)- <i>N</i> -hydroxy- <i>N</i> -phenylthiourea, B-00551
37004-74-3	6-Benzoyl-3-(4-methyl-2-pyridyl)-5-methyl-1,2,4-triazine, B-00136	37803-48-8	4,5-Dimethyl-1,2-benzenedithiol, D-00832	38557-35-6	1,6-Diphenyl-1,3,5-hexatriene; (<i>E,Z,E</i>)-form, <i>in</i> D-01019
37004-75-4	Phenyl[5-phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazin-6-yl]methanone, P-00157	37829-05-3	2-Hydroxy-3',4'-dimethoxyacetophenone, <i>in</i> T-00268	38567-24-7	1,6-Diphenyl-1,3,5-hexatriene; (<i>E,E,Z</i>)-form, <i>in</i> D-01019
		37907-80-5	1-(2-Benzothiazolyl)-3-phenyl-5-(4-sulfophenyl)formazan; Na salt, <i>in</i> B-00108		4,5-Dihydro-3-phenyl-1 <i>H</i> -pyrazole-1-carboxithioic acid, D-00468
			Diethyl phenylarsonate, <i>in</i> P-00090		

38577-97-8	Erythrosine Y, E-00021	38985-48-7	Glyoxal bis(4-biphenylthiosemicarbazone), G-00021	39561-76-7	2,3',4'-Trihydroxyacetophenone; 3',4'-Di-Me ether, 2-Ac, <i>in</i> T-00268
38579-98-5	Arsenazo SU, A-00417	39022-53-2	Glyoxal bis[4-(3-trifluoromethyl)-4-chlorophenyl]thiosemicarbazone, G-00035	39648-67-4	4-Hydroxydinaphtho[2,1- <i>d</i> :1',2'- <i>f</i>][1,3,2]dioxaphosphin 4-oxide; (<i>R</i>)-form, <i>in</i> H-00153
38589-71-8	5-Chloro-2-hydroxy-4-methylacetophenone; Oxime, <i>in</i> C-00135	39024-64-1	2,3-Butanedione bis(2-trifluoromethylphenyl)thiosemicarbazone, B-00599	39651-08-6	2-Phenylbutanoic acid, <i>see</i> P-00110
38608-07-0	1,2-Diamino-4,5-methylenedioxybenzene, D-00103	39024-65-2	2,3-Butanedione bis[4-(4-chloro-3-(trifluoromethyl)phenyl)thiosemicarbazone], B-00591	39658-41-8	6-Amino-3-pyridinecarboxylic acid; Et ester, <i>in</i> A-00334
38619-49-7	3-[2-Hydroxyphenyl]-3-phenyl-naphtho[2,1- <i>b</i>]furan-1(3 <i>H</i>)-one, H-00493	39049-12-2	3,3',4',5,5',7-Hexahydroxyflavone, <i>see</i> H-00055	39677-96-8	2-Thiophenecarboxaldehyde; Phenylhydrazine, <i>in</i> T-00169
38622-18-3	1,1-Diphenylhydrazine, <i>see</i> D-01020	39050-26-5	4,4',4'',4'''-(2 <i>H</i> ,23 <i>H</i> -Porphine-5,10,15,20-tetrayl)tetrakis[1-methylpyridinium], P-00252	39751-89-8	1,2-Dihydro-3 <i>H</i> -1,2,4-triazole-3-thione; K salt, <i>in</i> D-00496
38627-57-5	2,2-Dihydroxy-1 <i>H</i> -benz[<i>j</i>]indene-1,3(2 <i>H</i>)dione, D-00529	39070-33-2	4-(5-Sulfothiazolylazo)-2-nitroresorcinol, S-00057	39765-31-6	2-(Ethylamino)-4-methyl-2-(2-thiazolylazo)phenol, E-00066
38673-65-3	4,4',4'',4'''-(2 <i>H</i> ,23 <i>H</i> -Porphine-5,10,15,20-tetrayl)tetrakis[1-methylpyridinium], P-00252	39101-26-3	1-(2-Quinolylazo)-2-naphthalenol, Q-00029	39825-03-1	4-Chloro-2-nitroso-1-naphthol, <i>in</i> C-00187
38674-90-7	4-(Acetylamino)diphenylamine, <i>in</i> A-00166	39110-74-2	1-Naphthylmethylamine; B,HCl, <i>in</i> N-00051	39825-15-5	4-Chloro-2-nitrosophenol, C-00190
38676-30-1	C.I. Basic blue 20; Dichloride, <i>in</i> C-00002	39116-24-0	α -(Hydroxymethylene)-2-benzoxazoleacetaldehyde, H-00286	39835-09-1	2-Cyano-4-nitrophenol, <i>in</i> H-00383
38700-18-4	1,2,3-Benzenetricarbonitrile, <i>in</i> B-00031	39116-38-6	α -(Hydroxymethylene)-2-benzoxazoleacetonitrile, H-00287	39857-88-0	<i>O,O</i> -Diethyl phosphorodithioate; Et ₂ NH ₂ salt, <i>in</i> D-00356
38703-10-5	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+), <i>see</i> T-00412	39124-46-4	3-Phenyl-2-propenoic acid, <i>see</i> P-00169	40000-20-2	5-Bromo-1,10-phenanthroline, B-00541
38710-24-6	1,5-Naphthyridine, <i>see</i> N-00056	39138-50-6	4'-Nitro-4-azobenzene-carboxylic acid; Amide, <i>in</i> N-00080	40002-60-6	Moonion A-9Q-08, <i>in</i> B-00181
38756-90-0	3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid; Na salt, <i>in</i> H-00242	39171-65-8	(1-Naphthylmethyl)triphenylphosphonium(1+); Bromide, <i>in</i> N-00052	40012-16-6	1,1'-Methylenebis[4-ethyl-3,5-dipropyl-1 <i>H</i> -pyrazole], M-00171
38761-83-0	Pentetic acid, <i>see</i> P-00039	39182-30-4	4,4'-Bipyridine; <i>N</i> -Oxide, <i>in</i> B-00222	40019-43-0	<i>N</i> -Hydroxy-1-naphthalenecarboximidamide, <i>in</i> N-00005
38800-92-9	3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509	39200-23-2	Propanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, P-00264	40038-00-4	4,5-Didodecyl-1-naphthalenesulfonic acid, D-00311
38832-94-9	Tris[3-(heptafluoropropylhydroxymethylene)- <i>d</i> -camphorato]praseodymium(III), T-00404	39200-24-3	Butanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, B-00605	40070-59-5	Bromoxylene blue, B-00583
38873-91-5	Phenylphosphonic acid; Bis(4-nitrophenyl) ester, <i>in</i> P-00164	39201-89-3	3,4,5-Trihydroxybenzaldehyde; Tri-Me ether, oxime, <i>in</i> T-00273	40104-44-7	5-Bromo-2-furancarboxaldehyde; Thiosemicarbazone, <i>in</i> B-00507
38901-35-8	Glyoxal bis(4-nitrophenylthiosemicarbazone), G-00032	39232-68-3	2(1 <i>H</i>)-Pyridinone [phenyl(phenylazo)methylene]hydrazone, P-00364	40111-51-1	4-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00082
38901-36-9	2,3-Butanedione bis[(4-nitrophenyl)thiosemicarbazone], B-00596	39232-69-4	2(1 <i>H</i>)-Pyridinone [[(4-methylphenyl)azo]phenylmethylene]hydrazone, P-00361	40112-23-0	Gossypol; (\pm)-form, <i>in</i> G-00041
38901-37-0	2,3-Butanedione bis[(4-fluorophenyl)thiosemicarbazone], B-00594	39232-71-8	2(1 <i>H</i>)-Pyridinone [[(4-methoxyphenyl)azo]phenylmethylene]hydrazone, P-00360	40204-96-4	8-Hydroxy-7-nitroso-5-quinolinesulfonic acid, <i>see</i> H-00421
38901-38-1	Glyoxal bis(2-fluorophenylthiosemicarbazone), G-00025	39232-74-1	2(1 <i>H</i>)-Pyridinone [[(4-nitrophenyl)azo]phenylmethylene]hydrazone, P-00363	40210-84-2	Tetrathiafulvalene-tetracyanoquinodimethane, <i>in</i> T-00038
38901-39-2	2,3-Butanedione bis[(2-fluorophenyl)thiosemicarbazone], B-00593	39237-53-1	<i>N,N'</i> -Dimethyl-2,6-pyridinedicarbothioamide, D-00908	40212-77-9	3-Phenyl-2-propenal; (<i>E</i>)-form, (<i>E,E</i>)-Oxime, <i>in</i> P-00168
38901-40-5	Glyoxal bis[4-(2-trifluoromethyl)phenyl]thiosemicarbazone, G-00036	39275-94-0	Azophosphon, A-00475	40245-26-9	8-Quinolinecarboxylic acid; Me ester, <i>in</i> Q-00018
38901-41-6	2,3-Butanedione bis[3,5-bis(trifluoromethyl)phenyl]thiosemicarbazone], B-00590	39377-38-3	Gold sodium thiomalate, <i>in</i> M-00026	40263-64-7	2,6-Bis(methylamino)pyridine, <i>in</i> D-00119
38901-42-7	Glyoxal bis(3,4-dichlorophenylthiosemicarbazone), G-00024	39421-47-1	Alamine 336S, A-00073	40313-38-0	5-Methyl-2(1 <i>H</i>)-pyridinethione; <i>N</i> -Oxide, <i>in</i> M-00275
38901-43-8	2,3-Butanedione bis[4-(3,4-dichlorophenyl)thiosemicarbazone], B-00592	39421-48-2	Alamine oxide, A-00071	40318-20-5	2-Aminobenzophenone; B,HCl, <i>in</i> A-00111
38901-44-9	2,3-Butanedione bis(4-biphenyl)thiosemicarbazone, B-00589	39484-77-0	1-[(5-Methyl-2-pyridinyl)azo]-2-naphthalenol, M-00281	40324-80-9	2-Pyridinecarboxaldehyde; Selenosemicarbazone, <i>in</i> P-00318
38901-45-0	Glyoxal bis[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone, G-00030	39501-57-0	2,4-Dimethoxy-1-nitrosobenzene, <i>in</i> N-00156	0-00-00	► 0000
38901-46-1	2,3-Butanedione bis[[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone], B-00595	39501-58-1	5-Methoxy-2-nitrosophenol, <i>in</i> N-00156	40334-37-0	<i>O</i> -Methyl <i>P</i> -methylphosphonamid-othioate, <i>in</i> M-00243
38985-46-5	Glyoxal bis(4-fluorophenylthiosemicarbazone), G-00026	39510-76-4	Benzenesulfonic acid, <i>see</i> B-00026	40354-54-9	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+); Λ -form, (2 <i>R</i> ,3 <i>R</i>)-Antimonytartrate salt, <i>in</i> T-00412
38985-47-6	Glyoxal bis[3,5-bis(trifluoromethyl)phenyl]thiosemicarbazone], G-00022	39511-08-5	3-(2-Furanyl)-2-propenal; (<i>E</i>)-form, <i>in</i> F-00060	40412-97-3	3-Phenyl-2-propenal; (<i>E</i>)-form, (<i>E,Z</i>)-Oxime, <i>in</i> P-00168
		39538-93-7	2-Phenylsemicarbazide, P-00192	40424-82-6	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+), <i>see</i> T-00412
		39561-36-9	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+), <i>see</i> T-00412	40424-84-8	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+); Δ -form, Diperchlorate, <i>in</i> T-00412
				40453-77-8	2,3-Dimethoxy-1-propanol, <i>in</i> G-00015
				40468-55-1	1,2-Bis(diphenylphosphino)ethylene; (<i>Z</i>)-form, <i>P,P'</i> -Dioxide, <i>in</i> B-00339
				40471-97-4	Cryptand 2.2.2 BB, C-00318
				40472-04-6	2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid, <i>see</i> D-00696

40473-35-6	2-Phenylbutanoic acid; (<i>S</i>)-form, Chloride, in P-00110	41364-43-6	2-[(2-Hydroxy-5-methylphenyl)azo]-5-nitrobenzenesulfonic acid; K salt, in H-00302	42138-12-5	Phenolphthalein; Mono-Me ether, in P-00063
40520-03-4	<i>N</i> -(Dithiocarboxy)sarcosine, D-01126	41364-44-7	2-[[2-Hydroxy-4-methyl-5-(1-methylethyl)phenyl]azo]-5-nitrobenzenesulfonic acid; K salt, in H-00288	42142-15-4	1-(4-Nitrophenyl)ethylamine, N-00135
40522-21-2	Hydrazo II, H-00087	41372-10-5	Piperazine, see P-00237	42166-62-1	8-(2-Propenylthio)-5-quinolinesulfonic acid, in M-00057
40550-30-9	1-[[1-(Pentafluorobenzoyl)-2-pyrrolidinyl]carbonyl]-1 <i>H</i> -imidazole; (<i>S</i>)-form, in P-00013	41375-89-7	4',5,7-Trihydroxyflavone, see T-00285	42167-63-5	4-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00076
40567-66-6	<i>N</i> -Methyl- <i>N</i> -sulfopropylaniline, M-00311	41376-27-6	6,7,9,10,17,18,20,21-Octahydro-2,13-dipropylidibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecine, O-00027	42188-48-7	Bis(6-methyl-2-pyridyl)ethanedione; Dihydrazone, in B-00415
40588-70-3	[1,2-Ethanedylbis[nitrilobis[methylene]]tetrakisphosphonic acid, see E-00032	41376-28-7	Eicosahydro-2,13-dimethyldibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecine, E-00005	42189-56-0	1-(1-Pyrenyl)-1- <i>H</i> -pyrrole-2,5-dione, P-00311
40612-18-8	1,2-Bis(diphenylphosphino)ethylene; (<i>E</i>)-form, <i>P,P'</i> -Dioxide, in B-00339	41376-29-8	Dipropyldicyclohexyl-18-crown-6, in O-00027	42203-03-2	1-(2-Pyridyl)-1-hexanone, P-00418
40636-55-3	2,6,7-Trihydroxy-9-(3-hydroxyphenyl)-3 <i>H</i> -xanthen-3-one, T-00293	41377-31-5	2-[(2-Hydroxy-5-nitrophenyl)methylene]- <i>N</i> -phenylhydrazinecarbothioamide, in H-00380	42219-49-8	7-Amino-2,1,3-benzothiazole-4,6-disulfonic acid, A-00112
40751-89-1	2-Methoxy-5-nitrobenzoic acid, in H-00383	41387-42-2	10-Dodecylacridine orange, in B-00315	42224-53-3	3-(2-Hydroxyphenyl)-1-phenyl-2-propen-1-one; (<i>E</i>)-form, in H-00496
40758-37-0	2-Pyridyl-2-thienyl- β -ketoxime, in P-00408	41388-01-6	1-[(2,4-Dinitrophenyl)amino]-3,4-dihydro-4,4,6-trimethyl-2(1 <i>H</i>)-pyrimidinethione, D-00962	42253-96-3	α -Methylbenzeneacetonitrile, in P-00167
40774-59-2	1,2-Phenylenediamine- <i>N,N,N',N'</i> -tetraacetic acid, P-00126	41456-51-3	2,3-Dimethylaniline; <i>N</i> -Me, in D-00827	42272-79-7	1,2,3,4-Tetrahydro-1-hydroxyiminophenazine, in D-00466
40774-73-0	3-(2-Piperidinyl)pyridine, P-00244	41494-23-9	Tris(1,10-phenanthroline- <i>N',N''</i>)iron(II)(2+), see T-00412	42272-80-0	Glyoxal bis(4-hydroxybenzoylhydrazone), G-00028
40812-18-8	1,2-Bis(diphenylphosphino)ethylene, see B-00339	41514-71-0	1,3-Diphenyl-5-nitrosobarbituric acid, in P-00428	42279-61-8	2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1,3,3-trimethyl-3 <i>H</i> -indolium(1+); Chloride, in D-00811
40835-96-9	2-Aminoperimidine; B,HBr, in A-00297	41539-75-7	<i>O,O</i> -Bis(2-ethylhexyl)phosphorodithioate, see B-00353	42290-37-9	Drimanoyl chloride, in D-01159
40836-01-9	2,4,6-Triphenylpyrylium(1+); Chloride, in T-00374	41581-85-5	Mercaptobutanedioic acid, see M-00026	42322-96-3	5-Hydroxy-6-methyl-2-[(4-nitrophenyl)azo]-3,4-pyridinedimethanol, H-00294
40888-01-5	2(3 <i>H</i>)-Benzoxazolethione; <i>NH</i> -form, 3-Et, in B-00113	41696-97-3	3,5-Dihydroxybenzoic acid, see D-00534	42342-70-1	Dibromoarsenazo II, D-00177
40899-99-8	2,2'-Bi-1 <i>H</i> -indole, B-00204	41735-86-8	6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-Hexadecahydro-2,20-dimethyldibenzo[<i>b,q</i>] [1,4,7,10,13,16,19,22,25,28] decaoxacyclotriacontin, H-00023	42350-74-3	Methyltriphenylarsonium(1+); Triiodide, in M-00334
40958-11-0	Corynecin IV, in A-00284	41743-76-4	Arsenazo SA, A-00415	42352-53-4	Rose bengal sodium, in R-00010
40958-12-1	Corynecin V, in A-00284	41743-79-7	Arsenazo 4S3NB, A-00416	42352-89-6	Rose bengal, see R-00010
40975-46-0	1,2-Dihydroxyanthraquinone; 2- <i>O</i> -Ac, in D-00510	41775-76-2	1,4,7-Trioxa-10-azacyclododecane, T-00359	42382-92-3	2-Cyano-1,3-indanedione, in D-00991
40993-10-0	3,5-Dinitrobenzoic acid; Anhydride, in D-00948	41777-08-6	2,4-Dihydroxybenzaldehyde; Di-Ac, in D-00517	42412-76-0	2-Phenylpropanoic acid, see P-00167
41001-90-5	3',5,7-Trihydroxy-4'-methoxyflavanone; (\pm)-form, in T-00296	41820-68-2	<i>o</i> -Hydroxythiobenzhydrazide, in H-00110	42438-71-1	8-Amino-7-(8-quinolylazo)-3,6-naphthalenedisulfonic acid, A-00343
41002-50-0	4-Hydroxy-3-penten-2-one; Ac, in P-00030	41836-94-6	4-Benzoyl-3-phenyl-5(4 <i>H</i>)-isoxazolone, B-00143	42451-26-3	Tetraphenyl 1,2-ethanedylbisphosphonate, in E-00026
41030-30-2	Pentetic acid, see P-00039	41848-35-5	3-Amino-1 <i>H</i> -isoindole-1-thione, A-00229	42452-50-6	2-Hydroxybenzaldehyde guanylhydrazone; B, HCl, in H-00105
41042-18-6	Isatin; 1-Methoxycarbonyl, in I-00056	41886-31-1	Δ Diisonitrosacetone, in O-00070	42459-24-5	[4-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]phenyl]arsonic acid, D-00439
41062-51-5	Tris(1,10-phenanthroline- <i>N',N''</i>)iron(II)(2+), see T-00412	41939-61-1	1,2-Diamino-4-nitrobenzene; 1- <i>N</i> -Me, in D-00108	42485-45-0	2-(Ethylamino)-4-methyl-5-(8-quinolylazo)phenol, in A-00255
41085-71-6	<i>N</i> -Bromo-4-methylbenzenesulfonamide, in M-00130	41942-11-4	Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato- <i>O,O'</i>]ytterbium(III), see T-00426	42485-81-4	Tetraheptylammonium(1+); Carbonate (1:2), in T-00048
41087-85-8	2-Phenoxathiincarboxaldehyde; Oxime, in P-00074	41998-14-5	3-Methylbenzoic acid; Ph ester, in M-00137	42568-58-1	Methyltriphenylarsonium(1+); Tetraphenylborate, in M-00334
41108-81-0	<i>tert</i> -Butyl trimethylsilylacetate, in T-00339	42010-21-9	2-Benzylpyridine, see B-00192	42596-56-5	Δ 6-Amino-3-pyridinecarboxylic acid; Hydrazone, in A-00334
41123-85-7	Pentetic acid, see P-00039	42011-74-5	2,3,4,5,6-Pentafluoro- α -methoxy- α -methylbenzeneacetic acid, P-00019	42730-81-4	Tetrakis(4,4,4-trifluoro-1-phenyl-1,3-butanedionato- <i>O,O'</i>)uranium, T-00090
41203-22-9	1,4,8,11-Tetramethyl-1,4,8,11-tetraazacyclotetradecane, T-00104	42016-91-1	3,5-Diiodosalicylic acid; Chloride, in D-00745	42772-57-6	<i>N</i> -Hydroxy-2-methoxy- <i>N</i> -(4-methylphenyl)benzamide, in H-00263
41228-94-8	2-[(4-Benzothiazolylimino)methyl]phenol, B-00104	42049-35-4	Thiocarbamic acid; <i>S</i> -Benzyl ester, in T-00159	42772-86-1	Di-2-pyridinylmethanone; Ethylene ketal, in D-01071
41250-31-1	5-[[4-(Dimethylamino)phenyl]methylene]-2-thioxo-4-imidazolidinone, D-00819	42050-90-8	2-Carboxy-5-hydroxy-4-oxo-1(4 <i>H</i>)-pyridineacetic acid, C-00031	42838-18-6	2-(4,5-Dihydro-5-methyl-5-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)-4-methylpyridine, D-00446
41272-12-2	Tributyl(hexadecyl)phosphonium(1+); Chloride, in T-00210	42052-27-7	[[Bis(4-nitrophenyl)amino]methylene]propanedinitrile, B-00430	42838-19-7	2-(4,5-Dihydro-5-methyl-5-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)-4-phenylpyridine, D-00448
41317-10-6	5-(Dimethylamino)-2-nitrosophenol; B,HCl, in D-00804	42079-78-7	5-Methoxyflavone, in H-00184		
41330-47-6	3-Methyl-1,2-cyclopentanedione; Dioxime, in M-00159				
41364-41-4	2-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-5-nitrobenzenesulfonic acid; K salt, in D-00438				

42838-20-0	2-(4,5-Dihydro-5-methyl-5-phenyl-1 <i>H</i> -1,2,4-triazol-3-yl)-1,10-phenanthroline, D-00447	46322-73-0	2,4-Dihydroxybenzaldehyde guanyldiazide, D-00520	49792-35-0	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)europium(III); Monohydrate, <i>in</i> T-00394
42838-21-1	4,5-Dihydro-5-methyl-3,5-di-2-pyridyl-1 <i>H</i> -1,2,4-triazole, D-00430	46492-10-8	9-Chloro-10-methylacridinium(1+), C-00170		Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)europium(III), <i>see</i> T-00394
42838-22-2	2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1 <i>H</i> -1,2,4-triazol-3-yl]-4-methylpyridine, D-00455	46713-38-6	1,1'-Diethyl-4,4'-bipyridinium(2+), D-00339	49810-25-5	2,4,6-Triaminopyrimidine; <i>N</i> ² , <i>N</i> ² -Di-Me, <i>in</i> T-00194
42838-23-3	2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1 <i>H</i> -1,2,4-triazol-3-yl]-4-phenylpyridine, D-00457	46796-31-0	5-Hydroxy-3-phenyl-4-isoxazolecarboxylic acid; Et ester, <i>in</i> H-00475	50277-59-3	Menthyl chloroformate, <i>see</i> M-00014
42838-24-4	2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1 <i>H</i> -1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00456	47083-56-7	3-[[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1 <i>H</i> -1,2,4-triazolium(1+), D-00328	50291-21-9	Rose bengal, <i>see</i> R-00010
42838-25-5	6-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1 <i>H</i> -1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00454	47107-21-1	(Cyano-C)triphenylborate(1-), C-00330	50313-85-4	[2-[(5-Dodecyl-2-hydroxyphenyl)azo]phenyl]arsonic acid, D-01151
42838-26-6	2-[4,5-Dihydro-5-phenyl-2-pyridinyl)-1 <i>H</i> -1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00470	47165-04-8	2-[4-(Aminoiminomethyl)phenyl]-1 <i>H</i> -indole-6-carboximidamide, A-00227	50314-86-8	Acetophenone; (<i>Z</i>)-Oxime, <i>in</i> A-00008
42838-33-5	3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazine, M-00292	47636-72-6	Benzylododecylmethyloctylammonium(1+), B-00181	50322-15-1	Piperazine, <i>see</i> P-00237
42838-34-6	5-Phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, P-00158	47644-41-7	Cationic red violet, C-00046	50329-34-5	<i>O,O</i> -Diisopropyl phosphorodithioate; Cyclohexylammonium salt, <i>in</i> D-00750
42838-35-7	2-(5-Phenyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, P-00207	47836-89-5	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰ iron(II)(2+); Λ -form, <i>in</i> T-00412	50342-01-3	2-Quinolinecarboxylic acid; Chloride, <i>in</i> Q-00017
42838-36-8	6-(5-Phenyl-1,2,4-triazin-3-yl)-2,2'-bipyridine, P-00206	49539-07-3	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰ iron(II)(2+), <i>see</i> T-00412	50366-17-1	2-Methyl-4-pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, M-00272
42838-37-9	Di-2-pyridinylmethanone 2-pyridinylhydrazone, D-01080	49540-66-1	4-(1,3-Dioxo-3-phenylpropyl)benzenesulfonic acid, D-00994	50366-20-6	4-Nitrobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, N-00094
42882-26-8	1-Phenylethylamine; (\pm)-form, <i>N</i> -Me, <i>in</i> P-00130	49561-92-4	2-Carboxy-1-pyrrolidinecarbodithioic acid, <i>see</i> C-00044	50366-22-8	4-Aminobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00110
42882-31-5	1-(1-Naphthyl)ethylamine; (\pm)-form, <i>in</i> N-00049	49582-15-2	5,6-Dimethyl-2-nitro-1,3-indanedione, D-00873	50373-28-9	2-Ethyl-1-hexanol; ($-$)-form, <i>Ac</i> , <i>in</i> E-00083
42907-60-8	2,3'-Bipyridine, <i>see</i> B-00221	49582-16-3	Methyl isothiocyanate, <i>see</i> M-00196	50373-29-0	2-Ethyl-1-hexanol; ($-$)-form, <i>in</i> E-00083
42952-26-1	1,2-Dimethylquinolinium(1+); 4-Methylbenzenesulfonate, <i>in</i> D-00913	49582-16-3	2-Pyridinecarboxaldehyde 2-benzothiazolylhydrazone; (<i>Z</i>)-form, <i>in</i> P-00321	50434-36-1	(4-Nitrophenyl)acetic acid; Chloride, <i>in</i> N-00120
42992-96-1	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰ iron(II)(2+), <i>see</i> T-00412	49588-81-0	3-[2,4-Dihydroxyphenylazo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00698	50502-38-0	2,3,4,5,6-Pentafluoro- α -methoxy- α -methylbenzeneacetic acid, <i>see</i> P-00019
43040-76-2	5-(Dibutylamino)-1-naphthalenesulfonyl chloride, D-00224	49610-88-0	3-Hydroxy-2-pyridinecarboxaldehyde [(3-hydroxy-2-pyridinyl)methylene]hydrazone, H-00519	50502-39-1	2,3,4,5,6-Pentafluoro- α -methoxy- α -methylbenzeneacetic acid; (<i>S</i>)-form, <i>in</i> P-00019
43058-97-5	[Tris(hydroxymethyl)methyl]aminoacetic acid, <i>see</i> T-00407	49619-45-6	2-Nitrobenzoic acid; Anhydride, <i>in</i> N-00091	50505-47-0	Methyl 2,3,4,5,6-pentafluoro- α -methoxy- α -methylbenzeneacetate, <i>in</i> P-00019
43084-60-2	(4-Chlorophenyl)phenylethanedione; Dioxime, <i>in</i> C-00238	49628-34-4	2-Thiophenecarbothioic acid, T-00167	50505-49-2	2,3,4,5,6-Pentafluoro- α -methoxy- α -methylbenzeneacetic acid; (\pm)-form, <i>in</i> P-00019
43084-61-3	(4-Bromophenyl)phenylethanedione dioxime, B-00555	49652-51-9	5-Hydroxy-4-oxo-4 <i>H</i> -pyran-2-carboxylic acid; Me ester, <i>in</i> H-00434	50539-45-2	1-[4-(Phenylamino)-1-naphthalenyl]-1 <i>H</i> -pyrrole-2,5-dione, P-00083
43084-62-4	(4-Nitrophenyl)phenylethanedione; Dioxime, <i>in</i> N-00142	49671-10-5	6-Hexyl-4,5-dihydro-5-thioxo-1,2,4-triazin-3(2 <i>H</i>)-one, H-00074	50539-65-6	8-Hydroxy-7-(1-naphthalenylazo)-5-quinolinesulfonic acid, H-00355
43084-63-5	Bis(4-nitrophenyl)ethanedione; Dioxime, <i>in</i> B-00432	49679-45-0	3-Chloro-2-quinolinecarboxylic acid; Et ester, <i>in</i> C-00260	50567-35-6	Dipyrene, D-01100
43084-67-9	5-Nitro-1,2-acenaphthylenedione; Dioxime, <i>in</i> N-00076	49681-82-5	1-Phenyl-2-propylamine; (\pm)-form, <i>N,N</i> -Di-Me, <i>in</i> P-00172	50574-52-2	4-Hydroxydinaphtho[2,1- <i>d</i> :1',2'- Π][1,3,2]dioxaphosphepin 4-oxide; (\pm)-form, <i>in</i> H-00153
43085-74-1	2,4,6-Triphenyl- <i>N</i> -(3,5-diphenyl-4-oxidophenyl)pyridinium betaine, <i>see</i> T-00365	49744-73-2	3-Hydroxy-2-methyl-1-phenyl-4(1 <i>H</i>)-pyridinone, H-00315	50574-62-4	4-Hydroxydinaphtho[2,1- <i>d</i> :1',2'- Π][1,3,2]dioxaphosphepin 4-oxide, <i>see</i> H-00153
43109-88-2	6-Hydroxy-5-nitroso-2,4(1 <i>H</i> ,3 <i>H</i>)-pyrimidinedione, H-00420	49744-74-3	3-Hydroxy-2-methyl-1-(4-methylphenyl)-4(1 <i>H</i>)-pyridinone, H-00289	50595-48-7	2-Hydroxy- <i>N,N,N</i> -trimethyl-1-dodecanaminium(1+), H-00560
43146-51-6	1,2-Naphthoquinone-4-sulfonic acid; Dioxime, <i>in</i> N-00033	49746-10-3	Erythrosine, <i>see</i> E-00020	50617-73-7	1,3-Diaminobenzene; <i>N</i> -Me, <i>in</i> D-00047
43192-61-6	2,6,7-Trihydroxy-9-(2-quinolinyl)-3 <i>H</i> -xanthen-3-one, T-00320	49746-14-7	4,6-Di- <i>tert</i> -butyl-1,2,3-benzenetriol; 1-Me ether, di-Ac, <i>in</i> D-00228	50617-74-8	1,3-Diaminobenzene; <i>N</i> -Et, <i>in</i> D-00047
43200-31-3	<i>N</i> -(2-Aminophenyl)benzenesulfonamide, A-00318	49759-20-8	1-(9-Acridinyl)-1 <i>H</i> -pyrrole-2,5-dione, A-00063	50632-57-0	2-Methoxy-2,4-diphenyl-3(2 <i>H</i>)-furanone, M-00086
44640-72-4	Diethylselenocarbamic acid, D-00343	49791-42-6	2-Aminophenylcarbamodithioic acid; NH ₄ salt, <i>in</i> A-00320	50655-63-5	Diethyl (2-methylpropyl)phosphonate, <i>in</i> M-00262
44772-63-6	Tetraethylborate(1-), T-00042	49791-54-0	4-Morpholinecarbodithioic acid, <i>see</i> M-00345	50671-51-7	5-Hydroxy-4-oxo-4 <i>H</i> -pyran-2-carboxylic acid; Et ester, <i>in</i> H-00434
45016-22-6	Dibutylselenocarbamic acid, D-00231	49792-10-1	2,3,4-Trihydroxybenzenesulfonic acid; Na salt, <i>in</i> T-00274	50721-57-8	2,4,6(1 <i>H</i> ,3 <i>H</i> ,5 <i>H</i>)-Pyrimidinetrione; <i>N</i> -Et, <i>in</i> P-00429
45314-73-6	Ethyltridodecylammonium(1+), E-00120	49792-34-9	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)praseodymium(III); Monohydrate, <i>in</i> T-00400	50722-39-9	10-(2-Pyridinylazo)-9-phenanthrenol, P-00378
45644-14-2	Tetrahydro-4-methyl-2(1 <i>H</i>)-pyrimidinethione, T-00064				
45741-61-5	5,6-Diamino-2-methyl-4(1 <i>H</i>)-pyrimidinone, D-00104				
46154-39-6	4-Bromo-1-naphthalenediazonium(1+), B-00536				

50768-75-7	4-[(5-Bromo-2-pyridinyl)azo]-1,3-benzenediamine, B-00562	51101-43-0	2-(2-Benzothiazolylazo)-4,6-dichlorophenol, B-00093	51550-25-5	Beryllon II, <i>see</i> B-00199
50768-76-8	4-(2-Pyridinylazo)-1,3-benzenediamine, P-00372	51138-97-7	5,6-Bis(diphenylphosphino)bicyclo[2.2.1]hept-2-ene, <i>see</i> B-00337	51576-73-9	<i>O,O</i> -Diphenyl phosphorodithioate; Diethylammonium salt, <i>in</i> D-01040
50768-77-9	4-[(5-Iodo-2-pyridinyl)azo]-1,3-benzenediamine, I-00052	51147-02-5	3-[(2-Hydroxy-1-naphthalenyl)azo]-1 <i>H</i> -pyrazole-4-carboxylic acid, H-00353	51583-70-1	6-Methyl-2(1 <i>H</i>)-pyridinethione; <i>N</i> -Oxide, <i>in</i> M-00276
50768-78-0	4-[(3,5-Dichloro-2-pyridinyl)azo]-1,3-benzenediamine, D-00299	51152-29-5	2-(2-Hydroxybenzylideneamino)phenol, <i>see</i> H-00129	51584-72-6	1-Hydroxyxanthone; Ac, <i>in</i> H-00562
50768-79-1	4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediamine, D-00199	51174-98-2	Tris(1,10-phenanthroline- <i>N</i> ¹ , <i>N</i> ¹⁰)iron(II)(2+), <i>see</i> T-00412	51586-24-4	2,2,2-Trifluoro-1-phenylethylamine, T-00261
50783-80-7	5-(Dimethylamino)-2-(2-pyridinylazo)phenol, <i>in</i> A-00336	51196-88-4	5,6-Bis(diphenylphosphino)bicyclo[2.2.1]hept-2-ene, <i>see</i> B-00337	51589-08-3	4,4'-Diaminodiphenylamine; B,2HCl, <i>in</i> D-00086
50783-81-8	2-[(5-Chloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, <i>in</i> A-00145	51208-43-6	1,2-Bis(4-methoxyphenyl)-1,2-ethanediamine, B-00401	51589-61-8	2-(2-Hydroxyphenyl)benzoxazole; <i>O</i> -Ac, <i>in</i> H-00467
50783-82-9	2-[(5-Bromo-2-pyridinyl)azo]-5-(dimethylamino)phenol, <i>in</i> A-00126	51226-42-7	2,4,6-Trinitrobenzoic acid; Amide, <i>in</i> T-00352	51639-68-0	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy-2-furancarboxamide, <i>in</i> F-00064
50783-83-0	4-Dimethylamino-2,2'-dihydroxyazobenzene, D-00783	51234-27-6	▶ Flunoxaprofen, F-00008	51639-70-4	<i>N</i> -(3-Chlorophenyl)- <i>N</i> -hydroxy-2-furancarboxamide, <i>in</i> F-00064
50783-84-1	3-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-hydroxybenzenesulfonic acid, D-00787	51248-35-2	4-(2-Methylpropyl)-2,5-oxazolinedione, M-00261	51649-27-5	2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid, <i>see</i> D-00463
50783-85-2	2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-methylphenol, <i>in</i> A-00197	51259-57-5	Menthyl chloroformate, M-00014	51674-11-4	4,7-Dihydroxy-1 <i>H</i> -isoindole-1,3(2 <i>H</i>)-dione, D-00636
50783-86-3	2-(4-Amino-2-hydroxyphenylazo)-4-nitrophenol, A-00213	51260-39-0	4-Methyl-1,3-dioxolan-2-one; (<i>S</i>)- <i>form</i> , <i>in</i> M-00160	51679-09-5	3-Methylbenzenethiol, <i>see</i> M-00132
50783-87-4	2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4,6-dinitrophenol, <i>in</i> A-00210	51260-63-0	2-Phenylbutanoic acid, <i>see</i> P-00110	51685-18-8	(2-Aminoethoxy)diphenoxyborane, A-00172
50783-91-0	4-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00788	51274-49-8	Tetrahydroxybutanedioic acid; Di-Na salt, <i>in</i> T-00073	51721-68-7	4-Methoxybenzamidine; B,HCl, <i>in</i> M-00077
50783-92-1	5-(Dimethylamino)-2-[(5-nitro-2-thiazolyl)azo]phenol, <i>in</i> A-00289	51278-49-0	2-(2-Quinolinylazo)-1-acenaphthylene, Q-00027	51728-10-0	8- <i>N</i> -(5-Bromosalicylidene)aminoquinoline, B-00575
50787-05-8	5,6-Diamino-2,4(1 <i>H</i> ,3 <i>H</i>)-pyrimidinedione, <i>see</i> D-00120	51279-09-5	<i>N</i> -Hydroxy- <i>N</i> -nitrosocyclododecanamine, H-00410	51786-53-9	▶ 2,5-Dimethylaniline; B,HCl, <i>in</i> D-00828
50867-36-2	4-[(2-Hydroxy-1-naphthalenyl)azo]-1-naphthalenesulfonic acid; Ba salt, <i>in</i> H-00350	51282-90-7	2-Cyano-4-methylphenol, <i>in</i> H-00279	51825-87-7	<i>O,O</i> -Dibutyl phosphorothioate; K salt, <i>in</i> D-00242
50880-65-4	Sulf-R-azo, <i>in</i> H-00543	51289-07-7	1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00423	51833-03-5	6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, <i>in</i> D-00576
50882-16-1	2-Oxocyclopentanecarboxylic acid, O-00060	51290-77-8	2-Mercaptobenzimidazole; <i>S</i> -Benzyl, <i>in</i> M-00022	51833-06-8	4-Methyl-6-(2-pyridinylazo)-1,3-benzenediamine, M-00277
50886-45-8	4-[[4-Amino-2-hydroxyphenyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, A-00209	51300-82-4	4,6-Nonanedione; Bis-2,4-dinitrophenylhydrazone, <i>in</i> N-00168	51833-07-9	4-Methyl-6-[[2-(phenylmethoxy)-2-pyridinyl]azo]-1,3-benzenediamine, M-00232
50886-62-9	2-Aminobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, A-00108	51306-35-5	5-[(4,6-Dichloro-1,3,5-triazin-2-yl)amino]-3',6'-dihydroxyspiro[isobenzofuran-1(3 <i>H</i>),9'-[9 <i>H</i>]]xanthen-3-one, D-00304	51833-08-0	4-[(5-Chloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, C-00253
50906-05-3	2-Methylamino-1-phenyl-1-propanol, <i>see</i> M-00122	51327-62-9	3-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00075	51833-09-1	4-[(5-Bromo-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, B-00572
50925-79-6	Colestipol, <i>in</i> D-00345	51327-63-0	2-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00074	51833-10-4	4-[(3,5-Dichloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, D-00301
50934-62-8	Cyclohexanebutanoic acid; Et ester, <i>in</i> C-00335	51359-15-0	1,2-Dihydro-4-[(2-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00415	51846-67-4	9-Methyl-9 <i>H</i> -carbazol-2-ol, <i>in</i> H-00144
50967-99-2	2-(3-Hydroxy-3-methyl-1-triazenyl)benzoic acid, H-00332	51359-16-1	8-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-7-hydroxy-2-naphthalenesulfonic acid, D-00386	51860-46-9	4-Chloro-7-nitrobenzofurazan; 1-Oxide, <i>in</i> C-00189
50984-88-8	3,3-Bis(4-hydroxy-2,5-dimethylphenyl)-1(3 <i>H</i>)-isobenzofuranone, B-00365	51359-17-2	4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, D-00385	51864-09-6	2-Acetyl-1-naphthol; Oxime, <i>in</i> A-00026
50996-16-2	5,6-Diamino-2,4(1 <i>H</i> ,3 <i>H</i>)-pyrimidinedione, <i>see</i> D-00120	51359-18-3	1,2-Dihydro-4-[(4-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00416	51867-62-0	7-Hydroxy-2-oxo-2 <i>H</i> -1-benzopyran-3-carboxylic acid; Me ether, chloride, <i>in</i> H-00426
51018-87-2	4-(2-Methylpropyl)-2,5-oxazolinedione, <i>see</i> M-00261	51359-19-4	1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(2,4,6-trihydroxyphenyl)azo]-3 <i>H</i> -pyrazol-3-one, D-00393	51873-97-3	1-Naphthalenecarboxaldehyde, <i>see</i> N-00003
51023-76-8	5-Amino-2-[2-(4-isothiocyanato-2-sulfophenyl)ethenyl]benzenesulfonic acid; <i>N</i> -Ac, di-Na salt, <i>in</i> A-00230	51359-20-7	4-[(2,4-Dihydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00691	51895-44-4	Dimethylcarbamo-diselenoic acid; Na salt, <i>in</i> D-00846
51031-98-2	2-[(Aminothioxomethyl)amino]carbonyl-6-nitrobenzoic acid, A-00361	51451-05-9	▶ Chloroacetaldehyde; Oxime, <i>in</i> C-00053	51908-46-4	1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]aziridine, D-00799
51040-40-5	2'-Hydroxy-5'-methylacetophenone; Semicarbazone, <i>in</i> H-00275			51934-41-9	4-Iodobenzoic acid; Et ester, <i>in</i> I-00041
51089-88-4	2'-Hydroxy-5'-methylacetophenone; Thiosemicarbazone, <i>in</i> H-00275			51951-34-9	<i>O</i> -Pentylhydroxylamine; B,HCl, <i>in</i> P-00040
51095-63-7	4-Amino-4'-nitroazobenzene; <i>N</i> -Ac, <i>N</i> -Me, <i>in</i> A-00281			51953-23-2	Hypoxanthine; 1,9-Dihydro- <i>form</i> , <i>in</i> H-00564
				51964-33-1	3-(2-Pyridinylcarbonyl)benzenesulfonic acid, P-00386
				51987-58-7	8-Amino-1,3,6-pyrenetrisulfonic acid, A-00332
				51991-39-0	5-Hydroxy-1 <i>H</i> -indole-2-carboxylic acid; Me ester, <i>in</i> H-00253
				52000-06-3	2,6,7-Trihydroxy-9-pentadecyl-3 <i>H</i> -xanthen-3-one, T-00307

52009-72-0	3,7-Bis(dimethylamino)-5-phenylphenazinium(1+), B-00323	52496-67-0	Thioridazine, <i>see</i> T-00173	53013-55-1	3-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00382
52011-72-0	Isonitrosomalonylguanidine, <i>in</i> A-00337	52525-94-7	9H-Fluorene-2-sulfonic acid, F-00014		
52018-85-6	3-(2-Pyridinylcarbonyl)benzenesulfonic acid; 2-Pyridylhydrazone, <i>in</i> P-00386	52565-58-9	2-Acetyl-4-phenylpyridine, A-00031	53023-42-0	3-Mercapto-1,2-propanediol; (\pm)- <i>form</i> , <i>in</i> M-00050
52025-70-4	Dibromotichromin, D-00219	52597-40-7	4,4'-Diamino-2,2'-bipyridine; <i>N,N'</i> -Di-Ac, <i>in</i> D-00061	53036-42-3	2,2'-([1,1'-Biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, B-00209
52026-37-6	8,9,17,18-Tetrahydro-7H-dibenzo[<i>e,n</i>][1,4,8,12]-dioxadiazacyclopentadecine, T-00055	52601-75-9	1,4,7,10,13,16-Hexaazacyclooctadecane; Hexakis(4-methylbenzenesulfonyl), <i>in</i> H-00019	53046-93-8	2-Mercapto-4H-1-benzopyran-4-thione; K salt, <i>in</i> M-00024
52040-46-7	2-Hydroxy-3,5-dinitrobenzoic acid; Ph ester, <i>in</i> H-00154	52605-97-7	2,3-Dimethoxypyridine, <i>in</i> H-00521	53051-89-1	1-Hydroxy-2-nitroso-3H-naphtho[2,1- <i>b</i>]pyran-3-one, H-00416
52048-31-4	<i>N,N</i> -Diethyl-4-(2-thiazolylazo)benzenamine, <i>in</i> T-00138	52641-68-6	1-[(2-Pyridinylmethylene)amino]-2-naphthalenol, P-00392	53077-67-1	4-Cyclohexyl-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, C-00354
52061-82-2	Tributylacetohydroxamic acid, T-00207	52661-56-0	3-(5-Nitro-2-furanyl)-2-propenal, <i>see</i> N-00110	53091-77-3	9H-Fluorene-2-sulfonic acid, <i>see</i> F-00014
52086-66-5	3-(Aminomethyl)-1,2,5,8-tetrahydroanthraquinone- <i>N,N</i> -diacetic acid, A-00256	52691-87-9	Levamphetamine; <i>N,N</i> -Di-Me, <i>in</i> P-00172	53101-49-8	Trolox C; (<i>R</i>)- <i>form</i> , <i>in</i> T-00430
52164-99-5	2-Mercapto-4H-1-benzothiopyran-4-one, M-00025	52698-84-7	Bathocuproinedisulfonic acid, <i>see</i> B-00002	53101-52-3	Trolox C; (\pm)- <i>form</i> , Me ester, <i>in</i> T-00430
52168-28-2	Pentetic acid, <i>see</i> P-00039	52699-46-4	1-(1-Oxo-2-phenylbutyl)-1H-imidazole, O-00066	53118-98-2	1,4,8,11-Tetramethyl-1,4,8,11-tetrazacyclotetradecane, <i>see</i> T-00104
52172-47-1	5-Amino-4-hydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00224	52711-97-4	Hexahydro-1H-azepine-1-carbodithioic acid; K salt, <i>in</i> H-00035	53120-17-5	Benzylmethylglyoxime, <i>in</i> P-00107
52174-94-4	5,7-Dichloro-8-hydroxyquinoline; <i>O</i> -Ac, <i>in</i> D-00283	52744-21-5	Phenyl phenylphosphinate, <i>in</i> P-00163	53130-54-4	1,2-Naphthoquinone-5-sulfonic acid, N-00034
52182-15-7	2-Hydroxy-2,2-diphenylacetic acid; Et ester, <i>in</i> H-00166	52746-49-3	Bathophenanthrolinedisulfonic acid; Di-Na salt, <i>in</i> B-00003	53131-21-8	2-Aminobenzoic acid (1-methylethylidene)hydrazide, A-00109
52191-54-5	2-Benzoyl-4-nitro-1H-indene-1,3(2H)-dione, B-00139	52748-86-4	2-[Bis[4-(dimethylamino)phenyl]methyl]benzenesulfonic acid, B-00322	53145-53-2	2,4,6-Trinitrobenzoic acid, <i>see</i> T-00352
52191-55-6	2-Benzoyl-5-nitro-1H-indene-1,3(2H)-dione, B-00140	52748-90-0	Dihydro-5-[3-(1,2,3,4-tetrahydro-6-hydroxy-4-oxo-5-pyrimidinyl)-2-propenylidene]-4,6(1H,5H)-pyrimidinedione, D-00490	53148-14-4	3,4,5-Trihydroxybenzaldehyde; Oxime, <i>in</i> T-00273
52198-62-6	Ethanediamine; <i>N,N'</i> -Di-Et; B,2HCl, <i>in</i> E-00024	52752-16-6	2-Butanone; Di-Et acetal, <i>in</i> B-00608	53170-30-2	<i>N</i> -Hydroxy- <i>N,N'</i> -diphenylbenzenecarboximidamide, <i>in</i> D-01001
52212-90-5	9,10-Dimethoxy-2-anthracenesulfonic acid, D-00765	52788-87-1	3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00594	53174-06-4	Trolox C; (<i>S</i>)- <i>form</i> , <i>in</i> T-00430
52301-59-4	3-(3,5-Dibromo-2,4-dihydroxyphenyl)-4,5-dimethoxy-1(3H)-isobenzofuranone, D-00183	52797-94-1	<i>O,O</i> -Bis(2-methylpropyl)phosphorodithioate; Na salt, <i>in</i> B-00413	53174-07-5	Trolox C; (\pm)- <i>form</i> , Et ester, <i>in</i> T-00430
52337-56-1	(Cyano-C)triphenylborate(1-); Cs salt, <i>in</i> C-00330	52806-50-5	<i>N</i> -(4-Methylphenyl)- <i>N'</i> -phenylbenzenecarboximidamide, M-00236	53188-07-1	Trolox C; (\pm)- <i>form</i> , <i>in</i> T-00430
52357-13-8	3-(2,4-Dihydroxyphenyl)-4,5-dimethoxy-1(3H)-isobenzofuranone, D-00710	52809-57-1	4-Hydroxy-3-nitroso-2(1H)-pyridinone, H-00419	53214-57-6	▶ 2-Methylamino-1-phenyl-1-propanol, M-00122
52379-35-8	<i>N</i> -Butyl-2-pyridinecarbothioamide, <i>in</i> P-00317	52814-39-8	[(7-Hydroxy-4-methyl-2-oxo-2H-1-benzopyran-6-yl)oxy]acetic acid, <i>in</i> D-00647	53229-92-8	2-Ethoxycarbonylcyclopentanone, <i>in</i> O-00060
52379-37-0	<i>N</i> -(Phenylmethyl)-2-pyridinecarbothioamide, <i>in</i> P-00317	52820-18-5	1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, <i>see</i> H-00455	53233-89-9	5-Chloro-3-hydroxy-2(1H)-pyridinone, C-00151
52395-23-0	<i>N</i> -Hydroxy- <i>N'</i> -(4-methoxyphenyl)benzenecarboximidamide, H-00270	52840-38-7	7-Amino-4-(trifluoromethyl)-2H-1-benzopyran-2-one; <i>N</i> -Et, <i>in</i> A-00365	53235-71-5	Diphenyl (2-methylpropyl)phosphonate, <i>in</i> M-00262
52400-13-2	<i>N</i> -Hydroxy-2,4-dimethylbenzenecarboximidamide, <i>in</i> D-00835	52869-29-1	1,4-Dihydroxyanthraquinone; Ac, <i>in</i> D-00511	53253-03-5	4-(1,1-Dimethylethyl)- <i>N</i> -hydroxy- <i>N</i> -phenylbenzamide, <i>in</i> B-00619
52402-53-6	2,5-Hexanedione, <i>see</i> H-00063	52886-80-3	Capri blue GN, C-00018	53258-72-3	Chrome dark green BGN; Na salt, <i>in</i> C-00281
52405-73-9	2,5-Dihydroxybenzoic acid, <i>see</i> D-00532	52918-33-9	1-Oxo-4-eudesmen-12,6-olide, <i>see</i> O-00063	53285-61-3	Permethol, <i>in</i> D-00647
52443-88-6	7,14-Dimethyl-5,7,12,14-tetraethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, D-00919	52928-43-5	Bis(2-methylpropyl) (2-methylpropyl)phosphonate, <i>in</i> M-00262	53290-56-5	Ethyltridodecylammonium(1+); Bromide, <i>in</i> E-00120
52455-33-1	4-Hydrazinobenzoic acid, <i>see</i> H-00082	52950-16-0	2-(3-Chlorophenyl)-2-hydroxyacetic acid; (\pm)- <i>form</i> , <i>in</i> C-00221	53296-64-3	2,2,3,3,4,4,4-Heptafluoro- <i>N</i> -methyl- <i>N</i> -(trimethylsilyl)butanamide, H-00007
52470-25-4	▶ Guanidine; B, HNO ₃ , <i>in</i> G-00044	52959-43-0	2,2,5,5-Tetrakis(carboxymethylthio)- <i>p</i> -dithiane, T-00082	53326-91-3	3-Benzoyl-2-quinolinecarboxaldehyde, B-00160
52479-84-2	5-(1H-Benzimidazol-5-yl)-3-phenyl-1-[1-(phenylmethyl)-1H-benzimidazol-2-yl]formazan, B-00049	52962-95-5	2,2'-[(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, D-00772	53348-04-2	9,10-Diaminophenanthrene, D-00110
52479-85-3	2,3,3',4,4',5'-Hexahydroxybenzophenone, H-00054	52997-62-3	2-Nitrodiphenylamine; <i>N</i> -Me, <i>in</i> N-00104	53354-71-5	<i>N,N</i> -Dibutyl- β -oxobenzenepropanethioamide, <i>in</i> O-00056
52483-84-8	Mono(4-nitrophenyl) phosphate; Bis(cyclohexylammonium) salt, <i>in</i> M-00340	53003-96-6	1-(1H-1,2,4-Triazol-3-ylazo)-2-naphthalenol, T-00200	53364-04-8	<i>N,N,N'</i> -Tributylphosphorothioic triamide, <i>in</i> T-00216
52486-19-8	Thymine; 1- β -Xylofuranosyl, <i>in</i> T-00179	53005-05-3	2,2'-[(1,2-Ethenediyl)bis[5-isothiocyanatobenzenesulfonic acid], E-00046	53370-81-3	4-Hydroxy-5-nitroso-2,1,3-benzothiadiazole, H-00408
				53398-86-0	(<i>E</i>)-2-Hexenyl hexanoate, <i>in</i> H-00066
				53408-96-1	2,3,5,6,8,9,11,12,14,15-Decahydro-18-nitro-1,4,7,10,13,16-benzohexaacyclooctadecan, D-00018
				53410-48-3	4,5,7-Trinitro-9-oxo-9H-fluorene-2-carboxylic acid; Chloride, <i>in</i> T-00354

53428-07-2	5-(1 <i>H</i> -Pyrrol-2-ylmethylene)-2-thioxo-4-thiazolidinone, P-00445	53799-78-3	4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-thione], M-00169	54302-42-0	Gossypol; (±)- <i>form</i> , 6-Me ether, <i>in</i> G-00041
53442-07-2	<i>N</i> -Hydroxy- <i>N'</i> -(4-methylphenyl)benzenecarboximidamide, <i>see</i> H-00308	53846-87-0	2-Furancarboxaldehyde 2-benzothiazolylhydrazone, F-00044	54315-96-7	4-[[4-(Hydroxymethyl)-2-thiazolyl]azo]-1,2-benzenediol, H-00328
53464-35-0	3-Hydroxy-1-(2-nitrophenyl)-3-phenyl-1-triazene, H-00403	53846-93-8	2-Thiophenecarboxaldehyde 2-benzothiazolylhydrazone, T-00170	54326-75-9	6,7,9,10,12,13,20,21,23,24,26,27-Dodecahydro-2,16-dimethylidibenzo[<i>b,n</i>][1,4,7,10,13,16,19,22]octaoxacyclotetracosin, D-01138
53514-60-6	5-(3-Phenyl-2-propenylidene)-2-thioxo-4-imidazolidinone, P-00170	53851-92-6	4-Hydroxy-3-[[2-(hydroxyphenyl)methylene]amino]benzenesulfonic acid, H-00238	54375-47-2	Calcein blue, C-00011
53518-15-3	7-Amino-4-(trifluoromethyl)-2 <i>H</i> -1-benzopyran-2-one, A-00365	53851-94-8	4-Hydroxy-3-[[2-(hydroxyphenyl)methylene]amino]benzoic acid, H-00240	54383-26-5	Eicosahydrodibenzo[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecene; (2 <i>RS</i> ,3 <i>RS</i> ,11 <i>RS</i> ,12 <i>RS</i>)- <i>form</i> , <i>in</i> E-00004
53518-18-6	Coumarin 153, C-00304	53851-95-9	2-Hydroxy-5-methylbenzaldehyde; Thiosemicarbazone, <i>in</i> H-00277	54383-27-6	Eicosahydrodibenzo[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecene; (2 <i>RS</i> ,3 <i>RS</i> ,11 <i>SR</i> ,12 <i>SR</i>)- <i>form</i> , <i>in</i> E-00004
53519-80-5	α-(2-Quinolinyldiazono)benzenepropanoic acid, Q-00035	53899-51-7	3-Hydroxy-4-[[2-(hydroxyphenyl)methylene]amino]benzoic acid, H-00239	54455-37-7	2-(Chloromethyl)-5-nitro-1 <i>H</i> -isoindole-1,3(2 <i>H</i>)-dione, C-00180
53524-14-4	5-Amino-4-hydroxy-3-[[4-nitrophenyl]azo]-2,7-naphthalenedisulfonic acid, A-00207	53906-83-5	3'-Methoxyflavone, <i>in</i> H-00183	54462-49-6	Isocoin, I-00058
53526-74-2	Pentafluorobenzyl chloroformate, P-00015	53987-32-9	2-Amino-4-nitroacetanilide, <i>in</i> D-00108	54524-31-1	▶ Mercaptoacetoneitrile, <i>in</i> M-00016
53534-17-1	4-[[4-Aminophenyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, A-00312	54060-68-3	2,4,6-Tribromophenyl chloroformate, T-00206	54531-52-1	▶ Polybenzarsol, <i>in</i> H-00447
53581-86-5	4-Chloro-2-methoxybenzaldehyde, <i>in</i> C-00121	54070-65-4	Biuret; 1,1,3,5-Tetra-Me, <i>in</i> B-00474	54533-72-1	6,7,9,10,17,18,21,22-Octahydro-16 <i>H</i> ,20 <i>H</i> -dibenzo- <i>[h,q]</i> [1,4,7,13,10,16]tetraoxadiazacyclooctadecene, O-00019
53589-70-1	5-Hydroxy-1,2-naphthoquinone, <i>see</i> H-00372	54081-47-9	3,3',4',5,7-Pentahydroxyflavone, <i>see</i> P-00023	54533-75-4	7,8,9,10,17,18,21,22-Octahydro-6 <i>H</i> ,16 <i>H</i> ,20 <i>H</i> -dibenzo- <i>[b,k]</i> [1,7,13,4,10,16]trioxatriazacyclooctadecene, O-00022
53589-72-3	7-Hydroxy-1,2-naphthoquinone, <i>see</i> H-00373	54081-48-0	3,3',4',5,7-Pentahydroxyflavone, <i>see</i> P-00023	54533-77-6	7,8,9,10,17,18,19,20,21,22-Decahydro-6 <i>H</i> ,16 <i>H</i> -dibenzo[<i>h,q</i>][1,7,4,10,13,16]dioxatetraazacyclooctadecene, D-00010
53611-17-9	8-Hydroxy-7-[[4-sulfo-1-naphthalenyl]azo]-5-quinolinesulfonic acid; Di-Na salt, <i>in</i> H-00539	54089-27-9	Brazilin; (+)- <i>form</i> , Tri-Ac, <i>in</i> B-00475	54547-87-4	Bis(4-dimethylaminobenzylidene)-4,4'-methylenedianiline; B , 4HCl, <i>in</i> B-00314
53652-12-3	5-Chloro-2-furancarboxaldehyde thiosemicarbazone, C-00119	54108-26-8	2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid; Et ester, <i>in</i> D-00463	54552-77-1	Dimethyl isopropylphosphonate, <i>in</i> I-00077
53652-13-4	2-[5-(2-Furanyl)-2,4-pentadienylidene]hydrazinecarbothioamide, <i>in</i> F-00058	54111-78-3	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(II) (2+); (±)- <i>form</i> , Bis-tetraphenylborate, <i>in</i> T-00384	54582-20-6	2-Methoxybenzaldehyde; (<i>E</i>)-Oxime, <i>in</i> M-00074
53652-14-5	5-(5-Methyl-2-furanyl)-2,4-pentadienyl thiosemicarbazone, M-00181	54112-60-6	6,7,9,10,12,13,15,23,24,26,27,29,30,32,33-Hexadecahydro-2,19-dinitrodibenzo[<i>b,q</i>]-[1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, H-00024	54582-21-7	2'-Hydroxyacetophenone, <i>see</i> H-00089
53652-22-5	5-(5-Methyl-2-furanyl)-2,4-pentadienyl thiosemicarbazone, <i>see</i> M-00181	54112-61-7	6,7,9,10,12,13,15,16,18,19,26,27,29,30,32,33-Hexadecahydrodibenzo[<i>b,q</i>]-[1,4,7,10,13,16,19,22,25,28,31]undecaaxacyclotriacontin, B-00332	54582-27-3	2-Methoxybenzaldehyde; (<i>Z</i>)-Oxime, <i>in</i> M-00074
53657-07-1	1,1,1-Trifluoro-4-phenyl-4-thioxo-2-butanone, T-00262	54112-62-8	2,19-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzo[<i>b,q</i>]-[1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, B-00331	54582-28-4	2'-Hydroxyacetophenone, <i>see</i> H-00089
53665-56-8	1-[(3-Hydroxy-1-oxodecyl)oxy]-2,5-pyrrolidinedione, H-00431	54129-78-1	Ethanebis(thioic) acid; Di-Me ester, <i>in</i> E-00023	54648-92-9	3-Acetyl-2-methylindole <i>p</i> -tolylthiosemicarbazone, A-00022
53666-76-5	4,5-Dihydroxy-2 <i>H</i> -1-benzopyran-2-one; 5- <i>O</i> -Me, <i>in</i> D-00537	54141-72-9	3,3',4',5,7-Pentahydroxyflavone, <i>see</i> P-00023	54686-44-1	1-(2-Methylindol-3-ylacetyl)-4-(<i>p</i> -methoxyphenyl)thiosemicarbazide, M-00195
53666-77-6	4,5-Dihydroxy-2 <i>H</i> -1-benzopyran-2-one; Di- <i>O</i> -Me, <i>in</i> D-00537	54159-98-7	Dibenzo-36-crown-12, D-00161	54696-33-2	7-Hydroxy-8-(aminomethyl)coumarin- <i>N,N</i> -diacetic acid, H-00097
53669-09-3	7-Amino-1-naphthalenesulfonamide, <i>in</i> A-00269	54159-99-8	6-Phenanthridinecarboxaldehyde 2-benzothiazolylhydrazone, P-00049	54696-34-3	7-Hydroxy-8-(aminomethyl)coumarin- <i>N</i> -acetic acid, H-00096
53669-99-1	3,3'-Iminobis[1-(4-methylphenyl)-2-propen-1-one], I-00008	54160-00-8	Eicosahydro-20 <i>H</i> -dibenzo[<i>b,n</i>][1,4,7,10,13,16]hexaoxacyclonadecene, E-00003	54696-35-4	<i>N</i> -[7-Hydroxy-4-methyl-2-oxo-(2 <i>H</i>)-1-(benzopyran-8-yl)methyl]glycine, H-00297
53670-00-1	2,2'-(Iminodimethylidene)bis-cyclododecanone, I-00016	54160-01-9	Dibenzo-22-crown-7, D-00158	54696-36-5	8-(Aminomethyl)-6,7-dihydroxy-4-methylcoumarin- <i>N,N</i> -diacetic acid, A-00241
53670-01-2	2,2'-(Iminodimethylidene)bis-cyclohexanone, I-00017	54179-01-0	4,5-Dihydroxy-1-naphthalenesulfonic acid; Na salt, <i>in</i> D-00657	54696-40-1	9,9'-(1,4-Phenylene)bis[2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one], P-00125
53670-02-3	2,2'-(Iminodimethylidene)bis[3,4-dihydro-5,7-dimethyl-1(2 <i>H</i>)-naphthalenone], I-00018	54192-33-5	Finitin, <i>in</i> O-00063	54696-41-2	Methylcalcein blue, M-00153
53670-03-4	6,6'-(Iminodimethylidene)bis[6,7,8,9-tetrahydro-5 <i>H</i> -benzocyclohepten-5-one], I-00021	54258-41-2	5-Amino-1,10-phenanthroline, A-00299	54699-35-3	1,2-Di-Me ester, <i>in</i> B-00032
53685-81-7	4-[[2,4-Diaminophenyl]azo]phenol, D-00114	54267-83-3	5,6-Dihydroxy-1,10-phenanthroline, D-00686	54703-61-6	9,9'-[Methylenebis(6-hydroxy-3,1-phenylene)]bis[2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one], M-00172
53689-70-6	5-(Phenylamino)-1,3,4-thiadiazole-2(3 <i>H</i>)-thione, <i>see</i> P-00087	54267-84-4	2,6,7-Trihydroxy-9-(8-hydroxy-2-quinoliny)-3 <i>H</i> -xanthen-3-one, T-00295	54723-29-4	2-[4-(Diethylamino)-2-hydroxyphenylazo]-4,6-dinitrophenol, D-00318
53711-02-7	1-Methoxy-2-nitronaphthalene, <i>in</i> N-00161		2,6,7-Trihydroxy-9-(2-quinoxaliny)-3 <i>H</i> -xanthen-3-one, T-00321		
53711-03-8	2-Methoxy-1-nitronaphthalene, <i>in</i> N-00160				
53732-90-4	1,1'-(Iminodimethylidene)bis-2(1 <i>H</i>)-naphthalenone, I-00020				
53799-77-2	4-Cyclohexyl-6-(2-pyridylazo)-1,3-benzenediol, C-00358				

54723-32-9	7-(4-Antipyrilazo)-8-hydroxyquinoline, A-00393	55122-50-4	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(II) (2+); Δ -form, in T-00384	55927-40-7	2-Ethyl-5-hydroxy-7-methoxyisoflavone, in E-00070
54750-12-8	2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine; (2 <i>S</i> ,4 <i>S</i> ,5 <i>R</i>)-form, 2-Oxide, in C-00101	55141-44-1	Mansylhydrazine, in M-00222	55927-42-9	6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, in D-00584
54750-13-9	2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine; (2 <i>R</i> ,4 <i>S</i> ,5 <i>R</i>)-form, 2-Oxide, in C-00101	55145-14-7	1-[7-(Dimethylamino)-4-methyl-2-oxo-2 <i>H</i> -1-benzopyran-3-yl]-1 <i>H</i> -pyrrole-2,5-dione, D-00791	55968-30-4	Alizarine green; Na salt, in A-00078
54776-49-7	4-Methyl-6-[(5-methyl-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, M-00201	55154-51-3	3-Methyl-2-pyridinethiol; <i>N</i> -Oxide, in M-00273	55973-02-9	2,4,6-Triaminopyrimidine; <i>N</i> ⁴ -Me, <i>N</i> ¹ -oxide, in T-00194
54776-50-0	5-(3,5-Dibromo-2-pyridylazo)-2,4-diaminotoluene, D-00210	55154-52-4	4-Methyl-2(1 <i>H</i>)-pyridinethione; <i>N</i> -Oxide, Na salt, in M-00274	56003-84-0	<i>N'</i> -Benzoyl- <i>N,N</i> -[bis(2-hydroxyethyl)]thiourea, B-00124
54776-51-1	2-[(6-Bromo-2-benzothiazolyl)azo]-5-(diethylamino)phenol, in A-00123	55196-43-5	3,3',4',5'-Tetrahydroxy-7-methoxyflavone, see T-00078	56009-91-7	2-Benzoylpyridine; Hydrazone, in B-00151
54793-90-7	Teresantolol; 8-Carboxylic acid, chloride, in T-00004	55203-19-5	9-Chloro-10-methylacridinium(1+), see C-00170	56055-56-2	2,6-Dihydroxy-4-pyridinecarboxylic acid; Me ester, in D-00721
54820-44-9	6-(Chloromethyl)dihydro-2 <i>H</i> -1,2,4-selenodiazine-3(4 <i>H</i>)-thione, C-00175	55205-76-0	2,3-Butanedione; Monoxime, 2-pyridylhydrazone, in B-00587	56120-31-1	Ethyltridodecylammonium(1+), see E-00120
54825-06-8	2-Hydroxy- <i>N</i> -(2-hydroxy-5-methylbenzylidene)-5-methylaniline, see H-00217	55298-23-2	2-Hydroxy-5-nitro-2,4,6-cycloheptatrien-1-one, see H-00388	56128-66-6	2,3,4-Trihydroxybenzoic acid; Me ester, in T-00276
54825-07-9	2-Hydroxy- <i>N</i> -(2-Hydroxy-5-ethylbenzylidene)-5-methylaniline, H-00202	55306-09-7	Chromazol KS; Tri-Na salt, in C-00276	56135-03-6	2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (\pm)-form, Me ether, in H-00512
54825-08-0	2-Hydroxy- <i>N</i> -(2-hydroxy-5- <i>tert</i> -butylbenzylidene)aniline, H-00194	55310-46-8	Dithiocarbamic acid, see D-01124	56136-34-6	4',5'-Dibromofluorescein; Di-Na salt, in D-00188
54825-09-1	2-Hydroxy- <i>N</i> -(2-hydroxy-5-ethylbenzylidene)aniline, H-00201	55343-76-5	Chromoxane violet R, in E-00015	56187-09-8	1,4,7,10,13,16-Hexaazacyclooctadecane; B ₃ H ₂ SO ₄ , in H-00019
54825-10-4	2-[(2-Hydroxy-4-methylphenyl)methylene]hydrazinecarboxamide, in H-00276	55400-60-7	3-(Trifluoromethyl)benzenesulfonic acid; Ph ester, in T-00251	56222-10-7	4-Nitrobenzylamine; <i>N</i> -Ac, in N-00098
54825-11-5	2-Hydroxy-5-methylbenzaldehyde; Semicarbazone, in H-00277	55400-68-5	3-(Trifluoromethyl)benzenesulfonic acid; Et ester, in T-00251	56269-03-5	Butyl dibutylarsinate, in D-00226
54825-12-6	4-Chloro-2-hydroxybenzaldehyde; Semicarbazone, in C-00121	55435-18-2	1-(1 <i>H</i> -Pyrazol-3-ylazo)-2-naphthalenol, P-00303	56271-12-6	α -Methoxybenzeneacetyl chloride, in M-00007
54825-13-7	5-Bromo-2-hydroxybenzaldehyde; Semicarbazone, in B-00509	55485-74-0	(Diethylamino)dimethyl(pentafluorophenyl)silane, D-00316	56276-51-8	5,14-Dihydro-6,8,15,17-tetramethyldibenzo[<i>b,j</i>][1,4,8,11]tetraazacyclotetradecine, D-00491
54825-14-8	2,5-Dihydroxybenzaldehyde; Semicarbazone, in D-00518	55486-13-0	1-Pyrenebutanoic acid hydrazide, P-00305	56286-59-0	Gossypol bis(4-hydroxyphenyl)imine, G-00043
54827-17-7	▶ 4,4'-Diamino-3,3',5,5'-tetramethylbiphenyl, D-00128	55519-22-7	2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid, H-00512	56305-04-5	▶ Trolox C, T-00430
54886-81-6	9,9'-(1,3-Phenylene)bis[2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one], P-00124	55537-30-9	2-Pyridinecarboxaldehyde 4-nitrophenylhydrazone; (<i>E</i>)-form, in P-00329	56362-77-7	Tropine tropate, see T-00431
54907-61-8	Iodoacetic acid; Anhydride, in I-00036	55671-61-9	Alizarine fluorine blue S; K salt, in A-00077	56362-78-8	Tropine tropate, see T-00431
54925-63-2	1-Chloro-1- <i>tert</i> -butylsilylcyclopentane, C-00076	55671-62-0	Alizarine fluorine blue S, A-00077	56366-05-3	1,2,3-Benzenetricarboxylic acid; Tri-Et ester, in B-00031
54925-64-3	<i>N</i> -(<i>tert</i> -Butyldimethylsilyl)imidazole, B-00628	55671-79-9	Di-2-pyridinylmethanone di-2-pyridinylmethylenehydrazone, D-01076	56374-47-1	1-[(2-Naphthalenylcarbonyl)oxy]-2,5-pyrrolidinedione, N-00018
54928-38-0	Benzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00065	55671-80-2	2-(5,6-Dimethyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, D-00927	56383-71-2	9 <i>H</i> -Carbazole-9-carboxylic acid, C-00020
54928-42-6	Benzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00066	55680-81-4	1,2,3-Benzenetricarboxylic acid; Tri-Na salt, in B-00031	56413-74-2	(4-Nitrophenyl)hydrazine; B.HCl, in N-00138
54928-45-9	4-Nitrobenzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, N-00095	55728-51-3	Merbromin, M-00015	56413-75-3	(2-Nitrophenyl)hydrazine; B.HCl, in N-00137
54985-16-9	3',4',5,7'-Tetrahydroxyflavone, see T-00077	55730-74-0	1,4-Anhydroglucitol; <i>d</i> -form, 5,6- <i>O</i> -Isopropylidene, 2-mesyl, in A-00367	56444-96-3	4-Amino-5-hydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid; Di-Na salt, in A-00212
54986-14-0	Tetrazole-5-thione; 1,4-Dihydroform, 1,4-Di-Me, in T-00131	55730-75-1	1,4-Anhydroglucitol; <i>d</i> -form, 5,6- <i>O</i> -Isopropylidene, 2,3-dimesyl, in A-00367	56455-90-4	Dicarboxidene; B ₂ HCl, in D-00244
55034-26-9	4-Aminobenzenesulfonic acid; Me ester, in A-00100	55778-38-6	3,6-Dichloro-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00263	56468-60-1	3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, P-00407
55041-49-1	2,2'-Dihydroxy-4,4'-dimethylazobenzene, D-00574	55779-51-6	3',5'-Dichloro-2'-hydroxyacetophenone; Oxime, in D-00277	56474-80-7	4-Amino-4'-chlorobiphenyl; <i>N</i> -Ac, in A-00136
55041-60-6	2-Hydroxy- <i>N</i> -(2-hydroxybenzylidene)-4-methylaniline, H-00190	55802-03-4	4,4'-Diamino-3,3'-dimethyl-[1,1'-binaphthalene]-6,6'-disulfonic acid, D-00081	56496-20-9	5,6-Dihydro-5,6-bis(hydroxyimino)-1-naphthalenesulfonic acid, in N-00034
55051-98-4	2',3,5-Trihydroxy-7-methoxyflavone, in T-00074	55804-98-3	1,1-Dimethyl-1-(pentafluorophenyl)silanamine, D-00878	56496-21-0	5,6-Dihydro-5,6-bis(hydroxyimino)-2-naphthalenesulfonic acid, in N-00035
55111-84-7	3,4-Dihydro-4,4,6-trimethyl-1-(phenylamino)-2(1 <i>H</i>)-pyrimidinethione, D-00500	55819-78-8	▶ Thioaspirin, in M-00023	56496-22-1	7,8-Dihydro-7,8-bis(hydroxyimino)-2-naphthalenesulfonic acid, in N-00036
		55820-17-2	Tris(2,4-pentanedionato- <i>O,O'</i>)chromium(III), see T-00410	56496-23-2	5-Hydroxy-1,2-naphthoquinone; Dioxime, in H-00372
		55857-63-1	1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid; (\pm)-form, Et ester, in T-00063	56496-24-3	7-Hydroxy-1,2-naphthoquinone; Dioxime, in H-00373
		55883-45-9	1-Bromo-4-(iodomethyl)benzene, B-00514	56496-26-5	<i>N</i> -(2-Pyridinylmethylene)-8-quinolinamine, P-00397
		55905-13-0	2-Chloro-3-methylbutanoic acid; (\pm)-form, Me ester, in C-00174		
		55927-33-8	3-(2-Furanyl)-2-mercapto-2-propenoic acid, F-00054		

56512-49-3	4'-Dimethylaminoazobenzene-4-sulfonyl chloride, <i>in</i> M-00210	57125-58-3	1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[5-(1,2,3-trihydroxyphenyl)azo]-3H-pyrazol-3-one, D-00394	57964-27-9	S-Ethyl acetylcarbamothioate, <i>in</i> T-00159
56536-09-5	2-Hydroxy-1-naphthaldehyde; Semicarbazone, <i>in</i> H-00336	57129-06-3	Thioridazine; (\pm)- <i>form</i> , <i>in</i> T-00173	57965-30-7	2-Mercaptopropanoic acid; (<i>S</i>)- <i>form</i> , <i>in</i> M-00051
56541-67-4	5,6-Bis(diphenylphosphino)bicyclo[2.2.1]hept-2-ene, <i>see</i> B-00337	57134-50-6	Mesotetraoctylporphine, M-00064	57981-02-9	<i>O</i> -(Pentafluorobenzyl)hydroxylamine; B, HCl, <i>in</i> P-00016
56551-89-4	Tris(2,4-pentanedionato- <i>O,O'</i>)chromium(III), <i>see</i> T-00410	57194-69-1	3-Phenyl-2-propenal; (<i>Z</i>)- <i>form</i> , <i>in</i> P-00168	57991-55-6	1-(2,4-Dihydroxyphenyl)-1-pentanone; Oxime, <i>in</i> D-00714
56551-90-7	Tris(2,4-pentanedionato- <i>O,O'</i>)chromium(III), <i>see</i> T-00410	57233-86-0	1-(4-Nitrophenyl)ethylamine; (<i>R</i>)- <i>form</i> , B, HCl, <i>in</i> N-00135	57998-72-8	2,5-Dibromo-3,6-dimethoxy-1,4-benzoquinone, <i>in</i> D-00182
56551-91-8	Tris(2,4-pentanedionato- <i>O,O'</i>)chromium(III), <i>see</i> T-00410	57249-46-4	3-(Aminomethyl)furan- <i>N,N</i> -diacetic acid, <i>see</i> A-00242	58001-41-5	4',5,7-Trihydroxyflavanone, <i>see</i> T-00281
56566-64-4	2,3-Butanedione; Monoxime, phenylthiosemicarbazone, <i>in</i> B-00587	57252-81-0	1,5-Bis[2-(carboxymethoxy)phenyl]-3-phenylformazan, B-00275	58014-83-8	4-Hydroxy-3-[(2-hydroxybenzoyl)azo]-1-naphthalenesulfonic acid, H-00188
56566-65-5	[[2-(Ethylthio)ethyl]thio]acetic acid, E-00119	57292-15-6	Ethyltridodecylammonium(1+); Tetrahydroborate, <i>in</i> E-00120	58033-08-2	2-(2-Hydroxy-3-naphthoylazo)-1-hydroxy-4-naphthalenesulfonic acid, H-00374
56624-78-3	Thioaminoazo F, T-00154	57303-52-3	4-[(2,4-Dihydroxyphenyl)azo]benzenesulfonic acid, <i>see</i> D-00688	58088-24-7	2-Benzoyl-4-methylpyridine, <i>see</i> B-00134
56640-64-3	3-Methyl-2-butanol; (<i>S</i>)- <i>form</i> , Ac, <i>in</i> M-00148	57310-75-5	Cryptand 5, C-00316	58088-26-9	2-Benzoyl-4-ethylpyridine, <i>see</i> B-00132
56644-47-4	2',4'-Dihydroxyacetophenone; Semicarbazone, <i>in</i> D-00507	57340-35-9	2-(3-Hydroxy-3-phenyl-1-triazenyl)benzothiazole, H-00508	58088-27-0	2-Benzoyl-6-phenylpyridine, <i>see</i> B-00145
56722-36-2	<i>N</i> -(4-Chlorophenyl)- <i>N'</i> -phenylbenzenecarboximidamide, C-00237	57342-22-0	2,4'-Dibromoacetophenone; Oxime, <i>in</i> D-00176	58093-08-6	9-(2-Carboxy-4-pyridyl)fluorone, C-00043
56732-35-5	2-[[1,8-Dihydroxy-3,6-disulfo-7-[(2-sulfo)phenyl]azo]-2-naphthalenyl]azo] benzoic acid, <i>see</i> D-00608	57360-17-5	3-Aminocarbazole, <i>see</i> A-00132	58093-33-7	9-(4-Aminophenyl)-2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one, A-00328
56772-64-6	Tributyl(hexadecyl)phosphonium(1+); Iodide, <i>in</i> T-00210	57362-11-5	3-(Aminomethyl)furan- <i>N,N</i> -diacetic acid, A-00242	58100-47-3	3-(2-Acetophenyl)methyltriazene <i>N</i> -oxide, A-00009
56808-92-5	5-(Diethylamino)-2-[(5-methyl-2-pyridinyl)azo]phenol, D-00324	57400-09-6	1-(9-Anthracenyl)-2-[[4-(dimethylamino)phenyl]imino]ethanone, A-00382	58130-90-8	Ethanediamine; <i>N</i> -Nitro, <i>in</i> E-00024
56842-75-2	▶ 2-Oxo-3-butynoic acid, O-00058	57415-35-7	2-Methoxy-4-methylbenzaldehyde, <i>in</i> H-00276	58156-44-8	2,4,6-Trinitrophenol; Benzoyl, <i>in</i> T-00355
56843-28-8	▶ 2,4-Dichlorobenzaldehyde; Oxime, <i>in</i> D-00247	57421-52-0	2-[(2-Hydroxy-3,5-dimethylphenyl)azo]-5-sulfobenzoic acid, H-00152	58167-76-3	Ethylenediaminetetraacetic acid, <i>see</i> E-00078
56860-23-2	3,6-Bis(dimethylamino)-9 <i>H</i> -xanthen-9-one, <i>in</i> D-00132	57434-95-4	5-Fluoro-8-hydroxyquinoline, <i>see</i> F-00029	58244-15-8	1,2-Benzenedicarboxaldehyde bis(thiosemicarbazone), B-00017
56882-52-1	2,4-Dichlorobenzoic acid, <i>see</i> D-00249	57441-90-4	Nivemedone sodium, <i>in</i> D-00873	58262-33-2	3-Hydroxy-4-oxo-4 <i>H</i> -pyran-2,6-dicarboxylic acid; Di-Me ester, <i>in</i> H-00435
56932-43-5	Naphthylazoxine 6 <i>S</i> , N-00047	57471-92-8	4-(Chloromethyl)-2-[(3,4-dihydroxyphenyl)azo]-5-thiazolecarboxylic acid; Me ester, <i>in</i> C-00176	58306-86-8	6-Amino-2-naphthalenesulfonic acid; Na salt, <i>in</i> A-00268
56956-50-4	8-Hydroxy-7-nitroso-5-quinolinesulfonic acid; Na salt, <i>in</i> H-00421	57498-78-9	Harmine <i>N</i> -oxide, <i>in</i> M-00090	58306-87-9	6-Amino-1-naphthalenesulfonic acid; Na salt, <i>in</i> A-00267
56968-76-4	4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-sulfonic acid; NH ₄ salt, <i>in</i> H-00429	57500-34-2	1-Imino-1 <i>H</i> -isoindol-3-amine, <i>see</i> I-00022	58318-36-8	Alamine, A-00070
56968-86-6	4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carboxylic acid, H-00428	57573-32-7	2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine; (2 <i>R</i> ,4 <i>S</i> ,5 <i>R</i>)- <i>form</i> , 2-Sulfide, <i>in</i> C-00101	58324-47-3	<i>P</i> -Methylphosphoramidothioic acid; <i>O</i> -Ph ester, <i>in</i> M-00243
56973-25-2	5-Amino-4-hydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00194	57644-86-7	Phenyl diphenylphosphinodithioate, <i>in</i> D-01039	58328-36-2	<i>N,N</i> -Diethyl- <i>N'</i> -benzoylthiourea, D-00338
56979-55-6	2-Methylamino-1-phenyl-1-propanol, <i>see</i> M-00122	57644-87-8	Benzyl diphenylphosphinodithioate, <i>in</i> D-01039	58333-09-8	2-Pyridinecarboxaldehyde (5-methyl-2-pyridinyl)hydrazone, P-00328
56983-60-9	2-Amino-5-nitroso-4,6(1 <i>H</i> ,5 <i>H</i>)-pyrimidinedione, A-00287	57651-34-0	2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine; (2 <i>S</i> ,4 <i>S</i> ,5 <i>R</i>)- <i>form</i> , 2-Sulfide, <i>in</i> C-00101	58333-11-2	6-Methyl-2-pyridinecarboxaldehyde 2-pyridinylhydrazone, M-00268
57014-01-4	4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carboxylic acid; Me ester, Me ether, <i>in</i> H-00428	57669-32-6	2,3-Dihydro-2-hydroxy-4 <i>H</i> -1-benzopyran-4-one, D-00406	58346-55-7	Di-2-quinolinylmethanone, D-01101
57023-37-7	3-Pyridinecarboxaldehyde; Phenylhydrazone, <i>in</i> P-00319	57704-77-5	3,6,10,13-Tetrathiapentadecane, T-00129	58359-53-8	Azobenzene-4-sulfonic acid; Chloride, <i>in</i> A-00468
57060-86-3	1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid, <i>see</i> T-00063	57764-46-2	2,6-Dihydroxybenzoic acid, <i>see</i> D-00533	58415-38-6	<i>N</i> -(1-Piperidinylthioxomethyl)benzamide, P-00245
57060-88-5	1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid, <i>see</i> T-00063	57775-25-4	Dietilan, <i>in</i> D-00526	58434-59-6	1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one; 4-Me ether, oxime, <i>in</i> H-00311
57074-63-2	2-[(3,5-Dibromo-4-methyl-2-pyridinyl)azo]-5-(diethylamino)phenol, D-00196	57784-53-9	5-Methyl-2-furancarboxaldehyde; Oxime, (<i>Z</i> -), <i>in</i> M-00179	58495-35-5	Di-2-pyridinylethanedione; Mono(pyrazinylhydrazone), <i>in</i> D-01063
57083-05-3	Bis(4-methylphenyl)sulfur diimide, <i>see</i> B-00411	57784-58-4	5-Methyl-2-furancarboxaldehyde; Oxime, (<i>E</i> -), <i>in</i> M-00179	58495-36-6	2(1 <i>H</i>)-Pyridinone (1-pyrazinylethylidene)hydrazone, P-00366
57083-06-4	Bis(4-methylphenyl)sulfur diimide, <i>see</i> B-00411	57794-28-2	Benzoin, <i>see</i> B-00068	58495-38-8	2(1 <i>H</i>)-Pyridinone [1-(3-pyridazinyl)ethylidene]hydrazone, P-00369
57102-95-1	3-Aminocarbazole; <i>N</i> -Ac, <i>in</i> A-00132	57803-83-5	1,2-Diamino-4-chlorobenzene; B,2HCl, <i>in</i> D-00064	58495-39-9	Diphenylethanedione bis(2-pyridinylhydrazone), D-01012
57122-22-2	<i>N,N'</i> -Bis(1-phenylethyl)carbodiimide; (<i>S,S</i>)- <i>form</i> , <i>in</i> B-00439	57817-70-6	4-Methyl-2-oxo-2 <i>H</i> -1-benzopyran-7-yl 4-(aminoiminomethyl)amino]benzoate, M-00211	58495-41-3	2-Pyridinecarboxaldehyde 2-pyrazinylhydrazone, P-00333
		57840-38-7	Triphenylsulfonium(1+); Hexafluoroantimonate, <i>in</i> T-00376	58495-42-4	2-Acetylpyridine 2-pyrazinylhydrazone, A-00043
		57872-20-5	2',4'-Dihydroxyacetophenone; Thiosemicarbazone, <i>in</i> D-00507		

58495-43-5	2(1 <i>H</i>)-Pyrazinone (di-2-pyridinylmethylene)hydrazone, P-00289	58943-48-9	2-[(1-Methyl-3-oxobutylidene)amino]benzenesulfonic acid, M-00213	59158-21-3	<i>N</i> -2-Pyridinyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00401
58495-44-6	2-Acetylpyrazine pyrazinylhydrazone, A-00034	58950-98-4	3-Methoxy-1,2-propanedithiol, <i>in</i> D-00763	59158-22-4	Di-2-pyridinylethanedione mono(2-pyridinylhydrazone), D-01068
58495-45-7	2(1 <i>H</i>)-Pyrazinone (phenylpyrazinylmethylene)hydrazone, P-00290	58998-10-0	1-Phenylazo-2-hydroxy-3-naphthylhydroxamic acid, <i>in</i> H-00452	59158-23-5	Di-2-pyridinylethanedione bis(2-pyridinylhydrazone), D-01066
58495-46-8	Diphenylethanedione mono(pyrazinylhydrazone), D-01013	59008-15-0	6-Hydroxy-8-mercaptapurine; <i>S</i> -Me, Na salt, <i>in</i> H-00260	59275-69-3	1-Hydrazinophthalazine, <i>see</i> H-00086
58495-47-9	2(1 <i>H</i>)-Pyrazinone [1-(3-pyridazinyl)ethylidene]hydrazone, P-00293	59008-28-5	1,7-Dihydro-8-methylthio-6 <i>H</i> -purin-6-one, <i>in</i> H-00260	59283-92-0	<i>N,N',N''</i> -Triphenylguanidine; B.HCl, <i>in</i> T-00366
58495-48-0	Benzenecarboximidic acid <i>N</i> -2-pyridinyl-2-pyrazinylhydrazone, B-00015	59015-50-8	3-Phenyl-2-propenoic acid, <i>see</i> P-00169	59297-31-3	4-[(1,7-Dihydroxy-2-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00659
58495-50-4	Di-2-pyridinylethanedione; Bis(pyrazinylhydrazone), <i>in</i> D-01063	59079-36-6	<i>N</i> -(4-Ethoxyphenyl)- <i>N</i> -(trimethylsilyl)acetamide, E-00060	59300-39-9	Teresantatal, <i>in</i> T-00004
58519-98-5	1,2-Bis(4-methoxyphenyl)-1,2-ethanediamine; (1 <i>RS</i> ,2 <i>RS</i>)- <i>form</i> , <i>in</i> B-00401	59104-62-0	1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00414	59335-80-7	1,3-Naphthalenediol; Di-Ac, <i>in</i> N-00008
58520-03-9	1,2-Bis(4-methoxyphenyl)-1,2-ethanediamine; (1 <i>R</i> -a,2 <i>R</i> -a)- <i>form</i> , <i>in</i> B-00401	59104-63-1	4-[(6-Amino-3-pyridinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, A-00335	59387-13-2	<i>N</i> -Hydroxy- <i>N'</i> -(4-methylphenyl)- <i>N</i> -phenylbenzenecarboximidamide, <i>in</i> H-00308
58520-04-0	1,2-Bis(4-methoxyphenyl)-1,2-ethanediamine; (1 <i>S</i> -a,2 <i>S</i> -a)- <i>form</i> , <i>in</i> B-00401	59104-64-2	4-[(2-Amino-7-quinolinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, A-00342	59387-14-3	<i>N</i> -Hydroxy- <i>N'</i> -(4-methoxyphenyl)- <i>N</i> -phenylbenzenecarboximidamide, <i>in</i> H-00270
58520-45-9	1,2-Bis(4-methoxyphenyl)-1,2-ethanediamine; (1 <i>RS</i> ,2 <i>SR</i>)- <i>form</i> , <i>in</i> B-00401	59104-65-3	4-[[2-Amino-5-(1-methyl-2-piperidinyl)-3-pyridinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, A-00251	59387-26-7	<i>N'</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy- <i>N</i> -phenylbenzenecarboximidamide, C-00231
58528-46-4	<i>N</i> -2-Pyridinyl-2-pyridinecarboximidic acid 2-pyrazinylhydrazone, P-00402	59104-66-4	4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-3-hydroxy- <i>N</i> -phenyl-2-naphthalenecarboxamide, D-00388	59387-41-6	Benzenediamine, <i>see</i> B-00009 <i>N,N'</i> -Diphenylbenzenediamine, <i>see</i> D-01001
58531-34-3	α -(Trifluoromethyl)-9-anthracenemethanol; (<i>R</i>)- <i>form</i> , <i>in</i> T-00250	59104-67-5	4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-3-hydroxy- <i>N</i> -(2-methoxyphenyl)-2-naphthalenecarboxamide, D-00383	59488-05-0	[(Ethylamino)(2-hydroxyphenyl)methyl]phosphonic acid; Et ester, <i>in</i> E-00065
58535-78-7	Tetraethoxy-1,4-benzoquinone, <i>in</i> T-00072	59104-68-6	4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-3-hydroxy- <i>N</i> -2-(methylphenyl)-2-naphthalenecarboxamide, D-00384	59488-09-4	α -(Ethylamino)- <i>p</i> -(dimethylamino)benzylphosphonic acid; Et ester, <i>in</i> E-00064
58539-28-9	Bis(nitrooxy)dioctylstannane, B-00429	59104-69-7	<i>N</i> -(5-Chloro-2-methoxyphenyl)-4-[(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxamide, C-00168	59534-88-2	<i>N</i> -(2,6-Dimethoxy-4-pyrimidinyl)-4-[(2-hydroxyphenyl)methylene]amino]benzenesulfonamide, D-00776
58566-40-8	4-[(2-Hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, H-00160	59104-70-0	4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-3-hydroxy- <i>N</i> -1-naphthalenyl-2-naphthalenecarboxamide, D-00387	59558-95-1	1,2-Naphthoquinone-4-sulfonic acid; 2-(Thiosemicarbazone), <i>in</i> N-00033
58576-72-0	2-[(Phenylmethyl)amino]ethanol; B.HCl, <i>in</i> P-00144	59138-84-0	\blacktriangleright Tetrammonium formate, <i>in</i> T-00092	59558-96-2	1,2-Naphthoquinone-4-sulfonic acid, <i>see</i> N-00033
58607-68-4	2-Aminoethanethiol, <i>see</i> A-00170	59142-17-5	Bis(4-aminophenyl)methanethione, B-00254	59558-97-3	1,2-Naphthoquinone-4-sulfonic acid, <i>see</i> N-00033
58607-99-1	3,3'-[(3,3'-Dimethyl-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00836	59157-24-3	2-[(2-Hydroxy-1-naphthalenyl)methylene]- <i>N</i> -phenylhydrazinecarbothioamide, H-00363	59568-76-2	Isopropyl diphenylphosphinodithioate, <i>in</i> D-01039
58608-00-7	3,3'-[(3,3'-Dimethoxy-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00769	59158-16-6	<i>N</i> -Phenyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, P-00174	59576-26-0	2-Acetyl-4-methylpyridine, A-00023
58682-52-3	<i>N</i> -[(Dipropylamino)thioxomethyl]benzamide, D-01059	59158-17-7	<i>N</i> -Phenyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00175	59576-27-1	2-Acetyl-4-ethylpyridine, A-00016
58712-29-1	<i>N,N'</i> -Bis[4-(phenylazo)phenyl]-1,10-phenanthroline-4,7-diamine, B-00438	59158-19-9	<i>N</i> -2-Pyridinylbenzenecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00384	59576-29-3	2-Acetyl-6-phenylpyridine, A-00032
58732-04-0	1,2-Dihydro-4-[(2-hydroxy-1-naphthalenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00417	59158-20-2	<i>N</i> -2-Pyridinyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, P-00400	59654-94-3	Dithioral, <i>in</i> H-00175
58732-06-2	[2-[(2,4-Dihydroxyphenyl)methylene]amino]phenyl]arsonic acid, D-00711			59668-82-5	3-(Trifluoroacetyl)-4-thiazolidinecarboxylic acid; (<i>R</i>)- <i>form</i> , <i>in</i> T-00243
58760-92-2	Dinonyltin dinitrate, D-00980			59698-12-3	2-Hydroxy-4-(4-hydroxy-6-methyl-2-oxo-2 <i>H</i> -pyran-3-yl)-4-oxo-2-butenic acid; Et ester, <i>in</i> H-00221
58779-65-0	Benz[<i>cd</i>]indol-2-(1 <i>H</i>)-one; <i>N</i> -Ac, <i>in</i> B-00050			59734-97-3	7-Hydroxy-1,2-naphthoquinone, <i>see</i> H-00373
58795-12-3	5-(2-Benzothiazolylazo)-4-methyl-2-(methylamino)phenol, <i>in</i> A-00115			59740-66-8	Tetraethylphosphorodiamidic acid; Azide, <i>in</i> T-00046
58809-73-7	2-(Methylthio)propanoic acid, <i>in</i> M-00051			59742-91-5	2-Acetylpyridine; Hydrazone, <i>in</i> A-00039
58814-68-9	Bathocuproinedisulfonic acid; Di-Na salt, <i>in</i> B-00002			59836-77-0	2,4,6-Triphenylpyridine; <i>N</i> -Ph, acetate (salt), <i>in</i> T-00373
58869-05-9	<i>N</i> -[4-(Dimethylamino)phenyl]- <i>N</i> -hydroxy-3-methoxy-2-naphthalenecarboxamide, D-00814			59851-25-1	9,10-Phenanthraquinone; Monothiosemicarbazone, <i>in</i> P-00047
58874-05-8	4-[(5-Nitro-2-thiazolyl)azo]-1,3-benzenediol, N-00165			59862-11-2	2,2'-[(1,3-Dimethyl-1,3-propanediylidene)dinitrilo]bisbenzenethiol, D-00898
58888-58-7	Pyridine; B,2HCl, <i>in</i> P-00316				

59871-52-2	1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, in C-00345	60564-16-1	<i>O</i> -(2,2,2-Trifluoroethyl) carbonodithioate, see T-00246	61293-48-9	5-Chloro-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazine, C-00264
59890-68-5	Tetraiodobismuthate(III)(1-); Ph ₄ As salt, in T-00080	60586-80-3	Trifluoroethylxanthic acid; K salt, in T-00247	61293-49-0	5-Methyl-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazine, M-00326
59911-25-0	(2-Hydroxybenzaldehydato- <i>O,O'</i>) diphenylboron, H-00100	60592-95-2	1-Heptanesulfonic acid, H-00011	61317-28-0	5-Bromo-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazine, B-00580
59995-19-6	<i>N</i> -Hydroxy- <i>N</i> -(2-methoxyphenyl)-2-thiophenecarboxamide, in H-00554	60592-97-4	4-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-1,3-benzenediol, A-00355	61366-76-5	2-Mercaptopropanoic acid; (±)-form, Me ester, <i>S</i> -Me ether, in M-00051
59997-00-1	2,5-Diaminophenol; 2,5- <i>N</i> -Di-Ac, in D-00111	60592-98-5	5-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-6-hydroxy-2-naphthalenesulfonic acid, A-00356	61494-52-8	1-Pyrenesulfonic acid; Chloride, in P-00309
60037-63-0	2-[(2-Hydroxyphenyl)azo]-4,5-diphenylimidazole, H-00450	60592-99-6	2-Mercapto-5-(2,4-dihydroxyphenylazo)-1,3,4-thiadiazole, M-00028	61537-74-4	2-Hydroxy-1-acetonaphthonoxime, in A-00025
60037-64-1	[2-[(4,5-Diphenyl-1 <i>H</i> -imidazol-2-yl)azo]phenyl]arsonic acid, D-01023	60593-00-2	2-Mercapto-5-(2-hydroxy-5-methylphenylazo)-1,3,4-thiadiazole, M-00032	61539-67-1	5-Methoxy-1,2-naphthoquinone, in H-00372
60037-65-2	2-[(4,5-Diphenyl-1 <i>H</i> -imidazol-2-yl)azo]thiazole, D-01026	60593-01-3	5-[(4,5-Dihydro-5-thioxo-1,3,4-thiadiazol-2-yl)azo]-6-hydroxy-2-naphthalenesulfonic acid; Na salt, in D-00495	61578-72-1	3-(Trifluoroacetyl)-4-thiazolidinecarboxylic acid; (<i>S</i>)-form, Chloride, in T-00243
60037-66-3	2-[(4,5-Diphenyl-1 <i>H</i> -imidazol-2-yl)azo]pyridine, D-01024	60602-35-9	2-(2,4-Dihydroxyphenylazo)-1,3,4-thiadiazole, D-00703	61601-59-0	4-Adamantyl-2-(2-hydroxy-1-naphthalenylazo)thiazole, A-00064
60096-04-0	<i>N</i> -(Sulfofenyl)benzohydroxamic acid, in H-00109	60602-35-9	2,4-Dihydroxy-5-[(5-nitro-2-thiazolyl)azo]benzoic acid, D-00680	61626-14-0	5-Methyl-1,10-phenanthroline, see M-00221
60129-44-4	4-[(2,4-Dinitrophenyl)azo]-1,2-benzenediol, D-00963	60646-30-2	α -(Trifluoromethyl)-9-anthracenemethanol; (<i>S</i>)-form, in T-00250	61633-21-4	3-(5-Chloro-2-furanoyl)-2-propenal, C-00120
60129-45-5	2-[(3,4-Dihydroxyphenyl)azo]-4-(4-carboxyphenyl)-5-thiazolecarboxylic acid; 4'-Me ester, 5-Et ester, in D-00690	60683-89-8	4,4'-Diamino-3,3'-dimethoxybiphenyl- <i>N,N,N',N'</i> -tetraacetic acid; Tetra-Na salt, in D-00078	61642-86-2	Thiocarbamic acid; <i>S</i> -Ph ester, in T-00159
60129-47-7	1,5-Bis[2-(carboxymethoxy)-3,5-dimethylphenyl]-3-phenylformazan, B-00274	60686-64-8	α -(Trifluoromethyl)-9-anthracenemethanol; (±)-form, in T-00250	61695-97-4	5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo][1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, in D-00596
60129-48-8	1-(2-Carboxymethoxy-4-nitrophenyl)-3-phenyl-5-(carboxymethoxyphenyl)formazan, C-00033	60718-51-6	1,2,4-Triazole; 1 <i>H</i> -form, 1-Benzoyl, in T-00199	61695-98-5	5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo][1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, in D-00597
60146-71-6	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, see C-00099	60774-07-4	2-Mercapto-4-methylphenol, M-00035	61696-00-2	5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, in D-00597
60149-84-0	Tris(1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato- <i>O,O'</i>)europium(III), T-00385	60810-38-0	1,2-Bis(hexylthio)ethane, B-00359	61739-41-1	2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine; (2 <i>R,4S,5R</i>)-form, in C-00101
60162-44-9	3-Furancarboxaldehyde; Phenylhydrazine, in F-00043	60824-80-8	1-Naphthalenylmethylenetriphenylphosphorane, in N-00052	61757-43-5	4-Amino-1-naphthalenecarboxaldehyde, A-00262
60183-47-3	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, see C-00099	60835-77-0	4-(Phenylmethyl)-6-(2-pyridinylazo)-1,3-benzenediol, P-00149	61823-56-1	4',5,7-Trihydroxyflavone, see T-00281
60190-89-8	2-Phenylethylphosphonic acid; (<i>E</i>)-form, Di-Me ester, in P-00129	60965-26-6	2-Bromo-2',4'-dihydroxyacetophenone; Di-Me ether, in B-00501	61925-21-1	<i>N</i> -[2-(Diethylamino)ethyl]-4-[[8-hydroxy-5-quinolyl]azo]benzamide, D-00317
60221-52-5	4-Hydroxybenzaldehyde, see H-00102	60984-57-8	<i>N,N'</i> -(Dithiodi-2,1-ethanediy)bis-2-propenamide, in B-00244	61985-23-7	1 <i>H</i> -Imidazole; <i>N</i> -Methoxycarbonyl, in I-00001
60247-87-2	Mercaptoacetic acid; <i>S</i> -Et, amide, in M-00016	61007-32-7	1-(1-Benzyl-1 <i>H</i> -benzimidazol-2-yl)-3-methyl-5-(4-nitrophenyl)formazan, B-00171	61996-72-3	3,6-Bis[(2-arsono-4-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00256
60259-80-5	1-(4-Methylphenyl)-3-[[4-nitrophenyl)methyl]-1-triazene, M-00234	61008-98-8	2-(3-Chlorophenyl)-2-hydroxyacetic acid; (<i>R</i>)-form, in C-00221	62034-73-5	4- <i>tert</i> -Butylbenzohydroxamic acid, B-00619
60302-63-8	3,4',5,7-Tetrahydroxyflavone, see T-00076	61049-46-5	3,6-Bis(dimethylamino)-10-dodecylacridinium(1+), B-00315	62037-98-3	4-(Hydroxymethyl)biphenyl; <i>O</i> -Ac, in H-00284
60354-76-9	1-(3-Fluoranthenyl)-1 <i>H</i> -pyrrole-2,5-dione, F-00011	61050-68-8	Dipropylglyoxime, in O-00033	62106-14-3	3-[(3-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00202
60435-18-9	3-[(2-Pyridinylmethylene)amino]-[1,1'-biphenyl]-4-ol, P-00391	61053-98-3	Tetrabromophenoltetrabromosulfonophthalene, T-00020	62106-16-5	3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00289
60435-22-5	Phthalimide; Dithiosemicarbazone, in P-00223	61097-50-5	2-Methyl-4-phenyl-6-(2-pyridinyl)pyrimidine, M-00241	62141-84-8	Chloro(iodomethyl)dimethylsilane, C-00165
60457-49-0	<i>N</i> -(4-Ethoxyphenyl)-1,4-benzenediamine, in A-00185	61097-51-6	2-Methyl-4,6-di-2-pyridinylpyrimidine, M-00167	62164-45-8	3-(2-Methoxyphenyl)-1,5-diphenylformazan, M-00107
60488-36-0	5-Amino-2-(5-nitro-2-thiazolylazo)phenol, A-00289	61097-53-8	2-Phenyl-4,6-di-2-pyridinylpyrimidine, P-00113	62164-46-9	5-(2-Benzothiazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00103
60508-97-6	1,2-Diphenyl-1,2-ethanediamine; (1 <i>RS,2RS</i>)-form, <i>N,N'</i> -Di-Me, in D-01010	61097-54-9	4,6-Diphenyl-2-(2-pyridinyl)pyrimidine, D-01046		
60509-62-8	1,2-Diphenyl-1,2-ethanediamine; (1 <i>RS,2SR</i>)-form, <i>N,N'</i> -Di-Me, in D-01010	61098-08-6	4-[[[4-(Dimethylamino)phenyl]methylene]amino]-1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00818		
60520-47-0	2',3',4',7'-Tetrabromo-3',6'-dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3 <i>H</i>),9'(9 <i>H</i>)xanthen]-3-one, T-00016	61117-16-6	3,4',5,7-Tetrahydroxyflavone, see T-00076		
		61161-43-1	4,4'-Disulfodithione; Di-Na salt, in D-01109		
		61169-36-6	1,2,4,5,6,8-Hexahydroxyanthraquinone, see H-00053		

62164-47-0	5-Benzothiazolyl-3-(2-methoxyphenyl)-1-phenylformazan, <i>in</i> B-00103	62796-05-8	5,5'-(1,2-Ethanediyldinitrilo) bis[2,2-dimethyl-3-hexanone], E-00036	63508-56-5	10-Methyl-2(10 <i>H</i>)-phenazinone, <i>in</i> H-00439
62164-51-6	5-(1-Benzyl-2-benzimidazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00169	62796-29-6	9-[4-(Chlorosulfonyl)-2-sulfofenyl]-3,6-bis(diethylamino)xanthylum, C-00261	63528-68-7	2-Thiophenecarbothioic acid; Hydrazide, <i>in</i> T-00167
62164-52-7	5-(1-Benzyl-2-benzimidazolyl)-3-(2-methoxyphenyl)-1-phenylformazan, <i>in</i> B-00169	62804-16-4	3',4',5,7-Tetrahydroxyflavone, <i>see</i> T-00077	63586-97-0	1,12-Dodecanediylbis[octylarsinic acid], D-01139
62164-53-8	3-(2-Hydroxyphenyl)-1-phenyl-5-(1-phenyl-2-benzimidazolyl)formazan, H-00495	62817-76-9	5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1 <i>H</i> ,3 <i>H</i>)-pyrimidinedione, H-00354	63598-71-0	1,2,4-Triazole; 4 <i>H</i> -form, <i>in</i> T-00199
62197-94-8	2,2,2-Trifluoro-1-phenylethylamine; (<i>S</i>)-form, <i>in</i> T-00261	62846-71-3	2-Pyrazinyl-1-(2-pyridinyl)ethanone; Oxime, <i>in</i> P-00299	63604-94-4	2-Bromo-5-methoxyphenol, <i>in</i> B-00486
62209-30-7	1 <i>H</i> -Benzimidazole-2-carboxaldehyde; 1-Benzyl, oxime, <i>in</i> B-00039	62846-81-5	2-Pyrazinyl-1-(2-pyridinyl)ethanone, P-00299	63628-25-1	2-Methoxy-2-(1-naphthyl)propanoic acid; (\pm)-form, <i>in</i> M-00095
62209-31-8	<i>N</i> -Hydroxy- <i>N'</i> -phenyl-1 <i>H</i> -benzimidazole-2-carboximidamide, <i>in</i> P-00102	62858-07-5	3,3',4',5-Tetrahydroxy-7-methoxyflavone, <i>see</i> T-00078	63628-26-2	2-Methoxy-2-(1-naphthyl)propanoic acid; ($-$)-form, <i>in</i> M-00095
62267-71-4	2,5-Dihydroxy-3,6-dimethoxy-2,5-cyclohexadiene-1,4-dione, <i>in</i> T-00072	62869-74-3	4-Nitrobenzylamine; <i>N</i> -Propyl, <i>in</i> N-00098	63681-88-9	Dihydro-5-nitroso-2-thioxo-4,6(1 <i>H</i> ,5 <i>H</i>)-pyrimidinedione, D-00462
62349-60-4	3-Methyl-1-phenyl-1 <i>H</i> -pyrazole-4,5-dione, <i>see</i> M-00239	62869-76-5	3-[(4-Bromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00546	63698-06-6	2-Acetylpyridine phenylthiosemicarbazone, A-00042
62351-79-5	3-Nitro-1,2-benzenedicarboxylic acid; Di-Et ester, <i>in</i> N-00085	62869-77-6	4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00635	63721-83-5	Xylenol orange; Mono-Na salt, <i>in</i> X-00006
62386-05-4	3-Methyl-1-phenyl-1 <i>H</i> -pyrazole-4,5-dione, <i>see</i> M-00239	62903-82-6	5-Isothiocyanato-2-(4-methylphenyl)-1 <i>H</i> -benz[<i>de</i>]isoquinoline-1,3(2 <i>H</i>)-dione, I-00097	63835-31-4	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)yttrium(III), T-00403
62398-10-1	Benzoin; (\pm)-form, <i>Ac. in</i> B-00068	62936-58-7	5-[[4-(Aminosulfonyl)phenyl]azo]-6-hydroxy-2-naphthalenesulfonic acid, A-00350	63877-23-6	(Trimethylsilyl)acetyl chloride, <i>in</i> T-00339
62414-75-9	Arabinopyranosyl isothiocyanate; α - <i>D</i> -form, 2,3,4-Tri-Ac, <i>in</i> A-00399	62936-59-8	5-[(4-Bromophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, B-00547	63975-23-5	Pentetic acid, <i>see</i> P-00039
62424-07-1	Aconitic acid; (<i>E</i>)-form, γ -Mono-Me ester, <i>in</i> A-00061	62936-60-1	6-Hydroxy-5-[(4-iodophenyl)azo]-2-naphthalenesulfonic acid, H-00254	63975-57-5	2-Methoxy-4,6-dinitrophenol, <i>in</i> D-00942
62454-83-5	2,3-Butanedione; Monoxime, (4-nitrophenyl)hydrazone, <i>in</i> B-00587	63082-84-8	1,3-Diamino-8-methoxyphenothiazine, D-00100	64019-77-8	3,6-Dimethoxy-1,2-benzenedicarboxylic acid, <i>in</i> D-00525
62486-05-9	1,4-Butanediyldienebis[triphenylphosphorane], <i>in</i> B-00602	63096-37-7	2-(4-Bromophenyl)-2-hydroxyacetic acid, <i>see</i> B-00550	64023-57-0	2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine, C-00101
62512-05-4	3-Acetyl-4,5,6,7-tetrachloro-3-(2-hydroxyphenyl)-1(3 <i>H</i>)-isobenzofuranone, A-00048	63234-70-8	1-Aminopiperidine; B,HCl, <i>in</i> A-00329	64059-66-1	4-Aminobenzoic acid, <i>see</i> A-00105
62512-06-5	3-Acetyl-4,5,6,7-tetrachloro-3-(4-hydroxyphenyl)-1(3 <i>H</i>)-isobenzofuranone, A-00049	63257-93-2	(Phenylazo)benzaldoxime, P-00091	64116-31-0	<i>O,O</i> -Bis[3-methyl-5-oxo-1-phenyl-1 <i>H</i> -pyrazol-4(5 <i>H</i>)-ylidene]phenylmethyl phosphorodithioate; K salt, <i>in</i> B-00405
62526-02-7	1,5-Bis(2-chlorophenyl)- <i>N</i> -phenyl-3-formazancarboxamide, <i>in</i> B-00286	63319-28-8	5-Phenylazo-8-quinolinol; <i>N</i> -Oxide, <i>in</i> P-00100	64191-31-7	3,3',4',5,7-Pentahydroxyflavanone, <i>see</i> P-00023
62526-05-0	1,5-Bis(2-methylphenyl)- <i>N</i> -phenyl-3-formazancarboxamide, B-00409	63319-29-9	5-[(4-Methylphenyl)azo]-8-quinolinol; 1-Oxide, <i>in</i> M-00224	64191-33-9	3,3',4',5,7-Pentahydroxyflavanone, <i>see</i> P-00023
62543-18-4	Ethanethioic acid; Hydrazide, <i>in</i> E-00038	63319-31-3	5-[(4-Nitrophenyl)azo]-8-quinolinol; 1-Oxide, <i>in</i> N-00129	64214-63-7	Trimethylacetohydroxamic acid; Me ester, <i>in</i> T-00324
62554-27-2	<i>N,N'</i> -Diphenylcarbamidithioic acid decyl ester, <i>in</i> D-01055	63319-32-4	5-(1-Naphthalenylazo)-8-quinolinol; <i>N'</i> -Oxide, <i>in</i> N-00017	64221-33-6	2,6-Diacetylpyridine bis(2-pyridyl)hydrazone, D-00039
62574-31-6	2,4-Dihydro-5-methyl-2-phenyl-4-(phenylthioxomethyl)-3 <i>H</i> -pyrazol-3-one, D-00442	63319-33-5	5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-8-quinolinol 1-oxide, H-00161	64234-37-3	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, <i>see</i> C-00099
62604-08-4	4-Morpholinecarbodithioic acid; Me ester, <i>in</i> M-00345	63321-86-8	1-Methoxybenzothiazole, <i>in</i> H-00125	64247-47-8	2-Cyano-3-iminodithiobutyric acid, C-00328
62609-23-8	5,6,17,18-Tetrahydrodretabenz[<i>h,f,j,n</i>]-1,5,9,13-tetraazacyclohexadecine, T-00068	63346-84-9	1-[(2-Aminophenyl)amino]-2-propanol, A-00305	64287-26-9	1,3-Diaminobenzene; <i>N,N,N',N'</i> -Tetra-Et, <i>in</i> D-00047
62625-22-3	1-(2-Hydroxy-5-sulfofenyl)-3-phenyl-5-(2-carboxyphenyl)formazan, <i>see</i> H-00544	63347-25-1	4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid; Pentyl ester, <i>in</i> D-00674	64297-64-9	2-Iodylbenzoic acid, I-00055
62625-28-9	Bromophenol blue; Na salt, <i>in</i> B-00542	63368-54-7	<i>N</i> -(3',6'-Dihydroxy-3-oxospiro[isobenzofuran-1(3 <i>H</i>),9[9 <i>H</i>]xanthen-5-yl)-2-iodoacetamide, D-00681	64340-05-2	4-[3-Chloro-4-(pyridinylazo)-5-methyl-2-(1-methylethyl)]phenol, C-00255
62625-29-0	Cresol red; Na salt, <i>in</i> C-00310	63393-40-8	3,3',4',5,7-Pentahydroxyflavanone, <i>see</i> P-00023	64360-72-1	1,2-Naphthoquinone; Dioxime (1 <i>Z</i> ,2 <i>E</i>), <i>in</i> N-00031
62625-30-3	Bromocresol purple, <i>see</i> B-00499	63425-09-2	Bis(4-sulfofenyl)dithiocarbamic acid; Tri-Na salt, <i>in</i> B-00454	64381-98-2	Rhodamine 110, <i>see</i> R-00002
62625-31-4	<i>m</i> -Cresol purple; Na salt, <i>in</i> C-00309	63446-61-7	<i>N</i> -Phenylmethyl[[4-(chlorophenyl)amino]thioxomethyl]- <i>N'</i> -phenylcarbamidithioate, P-00145	64415-08-3	MNB sulfonium bromide, <i>in</i> H-00384
62681-14-5	Tetrazole-5-thione; 1,3-Dihydro- <i>form</i> , 3-Et, 1-Ph, <i>in</i> T-00131	63451-35-4	Hydroxynaphthol blue; Tri-Na salt, <i>in</i> H-00371	64419-93-8	5-Ethylidene-2-thioxo-4-imidazolidinone, E-00095
62770-30-3	New methylene blue NCG; Chloride, <i>in</i> N-00068	63467-66-3	2,4,6-Trinitrobenzoic acid, <i>see</i> T-00352	64431-96-5	2,2'-(1,3-Propanediylidimino)bis[2-(hydroxymethyl)-1,3-propanediol], P-00263
62770-38-1	Gossypol, <i>see</i> G-00041			64437-79-2	4-Nitro- <i>o</i> -anisaldoxime, <i>in</i> H-00379
				64437-80-5	2-Hydroxy-5-nitrobenzaldehyde, <i>see</i> H-00380
				64437-81-6	2-Nitro- <i>p</i> -anisaldoxime, <i>in</i> H-00381
				64448-12-0	Propyl dibutylarsinate, <i>in</i> D-00226
				64448-13-1	Ethyl dibutylarsinate, <i>in</i> D-00226
				64501-90-2	2,3-Butanedione bis(phenylthiosemicarbazone), B-00597

64588-36-9	(2,1,3-Benzothiadiazole- <i>S</i> ²) dicarbonylchlororhodium, <i>see</i> B-00085	65330-48-5	5-(Acetylamino)-3-[(5-chloro-2-hydroxyphenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, <i>in</i> A-00139	65953-57-3	4-[4-[(3-Arsono-5-chloro-2-hydroxyphenyl)azo]-4,5-dihydro-3-methyl-5-oxo-1 <i>H</i> -pyrazol-1-yl]benzenesulfonic acid, A-00419
64707-21-7	Sulfoacetic acid, <i>see</i> S-00039	65331-55-7	<i>S</i> -Ethyl <i>P</i> -methylphosphonamidothioate, <i>in</i> M-00243	66003-76-7	Diphenyliodonium(1+); Trifluoromethanesulfonate, <i>in</i> D-01028
64709-55-3	1-Pyreneacetic acid, P-00304	65366-39-4	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>)praseodymium(III), <i>see</i> T-00420	66074-95-1	4',5,7-Trihydroxyflavanone, <i>see</i> T-00281
64712-91-0	2,2'-Difluorodithione, D-00360	65370-31-2	<i>N,N'</i> -Bis(1-phenylethyl)carbodiimide, B-00439	66078-55-5	Phosphoramidothioic acid <i>O,O</i> -bis(1-methylethyl)ester, P-00215
64736-31-8	5-Chloro-2-hydroxy-3-[(tetrahydro-2,4-dithioxo-2 <i>H</i> -1,3-thiazin-5-yl)azo]benzenesulfonic acid, C-00163	65373-68-4	Pyridoin phenylhydrazone, P-00413	66185-72-6	7-Hydroxy-4-methyl-2 <i>H</i> -1-benzopyran-2-one; Benzoyl, <i>in</i> H-00283
64780-75-2	2-Hydroxy-3-nitrosobenzoic acid, H-00406	65388-10-5	4,4'-Dibutylidithione, D-00233	66248-00-8	1,2,4-Triaminobenzene, <i>see</i> T-00192
64780-76-3	2-[(Tetrahydro-2,4-dithioxo-2 <i>H</i> -1,3-thiazin-5-yl)azo]benzoic acid, T-00060	65389-08-4	8-Hydroxyquinoline, <i>see</i> H-00525	66270-36-8	2,2,2-Trichloro- <i>tert</i> -butyloxycarbonyl chloride, T-00221
64780-77-4	2-Hydroxy-5-nitro-3-[(tetrahydro-2,4-dithioxo-2 <i>H</i> -1,3-thiazin-5-yl)azo]benzenesulfonic acid, H-00422	65451-96-9	(1-Isocyanoethyl)benzene; (\pm)- <i>form</i> , <i>in</i> I-00067	66278-86-2	2-Mercapto- <i>N</i> -2-pyridinylacetamide, M-00055
64789-21-5	4-[(2,3,4-Trihydroxyphenyl)azo]benzenesulfonic acid, T-00309	65473-13-4	1-Naphthylmethylamine; <i>N</i> -Methyl, B,HCl, <i>in</i> N-00051	66289-10-9	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, <i>see</i> C-00099
64849-53-2	2,2'-(1-Methyl-1,2-ethanediyldiene)bis[<i>N</i> -phenylhydrazinecarbothioamide], <i>in</i> P-00446	65487-67-4	\blacktriangleright α -(Trifluoromethyl)-9-anthracenemethanol, T-00250	66341-33-1	4,7-Dihydroxy-1 <i>H</i> -isoindole-1,3(2 <i>H</i>)-dione; Dithiosemicarbazone, <i>in</i> D-00636
64887-75-8	2-Nitro-1,3-indanedione; Dihydrate, <i>in</i> N-00112	65489-47-6	3,6-Dihydroxy-1,2-benzenedicarboxylic acid; Di-Me ether, di-Me ester, <i>in</i> D-00525	66417-41-2	4-Bromo-1,3-benzenediol; Di-Ac, <i>in</i> B-00486
64919-31-9	Hexahydro- <i>N</i> -phenyl-1 <i>H</i> -azepine-1-carbothioamide, H-00049	65501-73-7	6-Hydroxy-5-oxo-5 <i>H</i> -dibenzo[<i>a,j</i>]phenoxazine-8,11-disulfonic acid, H-00432	66604-43-1	6-Amino-5-nitroso-2-[(phenylmethyl)thio]-4(1 <i>H</i>)-pyrimidinone, A-00286
64919-32-0	Hexahydro- <i>N</i> -(4-methylpentyl)-1 <i>H</i> -azepine-1-carbothioamide, H-00048	65518-40-3	2-Benzoylpyridine phenylthiosemicarbazone, B-00153	66612-29-1	6-[(4-Aminobutyl)ethylamino]-2,3-dihydro-1,4-phthalazinedione, A-00130
64921-11-5	<i>N</i> -(2-Pyridinylmethylene)-1-naphthalenamine, P-00395	65535-30-0	1-(Dimethyl-2-propenylsilyl)-1 <i>H</i> -imidazole, D-00900	66612-32-6	6-[(6-Aminohexyl)ethylamino]-2,3-dihydro-1,4-phthalazinedione, A-00180
64985-86-0	1-Naphthalenecarboxylic acid; Anhydride, <i>in</i> N-00005	65568-49-2	4-Methyl-2-[[2-[(phenylmethyl)thio]phenyl]azo]phenol, <i>in</i> M-00041	66686-18-8	4-Carboxy-6,7-dihydroxy-2-phenyl-1-benzopyrylium(1+); Chloride, <i>in</i> C-00029
65114-52-5	5-(4-Pyridinylazo)-8-quinolinol; <i>N</i> ⁴ -Oxide, <i>in</i> P-00380	65581-05-7	3-Mercapto-1-phenyl-2-buten-1-one, <i>see</i> M-00044	66695-90-7	1-Hydroxy-4-sulfo-2-naphthoic acid, H-00540
65128-80-5	(Hydroxy-3-pyridinylmethyl)phosphoric acid, H-00523	65593-06-8	3-[[4,5-Dihydro-5-oxo-1 <i>H</i> -pyrazol-4-yl]azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00464	66707-26-4	2-Mercaptopropanoic acid; (\pm)- <i>form</i> , Et ester, <i>in</i> M-00051
65144-68-5	1,2-Dihydro-4-[[2-hydroxy-5-methylphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00410	65594-66-3	2,2'-Dihydroxybenzophenone; Di-Ac, <i>in</i> D-00535	66750-10-5	1,4,7,10-Tetraoxa-13-azacyclotetradecane; <i>N</i> -Ph, <i>in</i> T-00111
65144-69-6	1,2-Dihydro-4-[[4-hydroxyphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00421	65596-11-4	1,4-Diaminoanthraquinone-2,3-disulfonic acid, D-00044	66807-98-5	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, <i>see</i> C-00099
65144-71-0	5-Chloro-3-[(5-dodecyl-2,4-dihydroxyphenyl)azo]-2-hydroxybenzenesulfonic acid; Na salt, <i>in</i> C-00113	65606-21-5	2-Aminopyridine, <i>see</i> A-00333	66824-85-9	1-Amino-8-ethoxyphenothiazine, <i>in</i> H-00440
65146-85-2	Aconitic acid; (<i>Z</i>)- <i>form</i> , α -Mono-Me ester, <i>in</i> A-00061	65611-80-5	6-Nitro-2(3 <i>H</i>)-benzothiazolethione; <i>SH-form</i> , <i>S</i> -Et, <i>in</i> N-00096	66917-88-2	Isonitrosodibenzoylmethane, <i>in</i> D-01041
65146-86-3	Aconitic acid; (<i>Z</i>)- <i>form</i> , β -Mono-Me ester, <i>in</i> A-00061	65629-33-6	Aconitic acid, <i>see</i> A-00061	66934-18-7	Flunoxaprofen; (<i>S</i>)- <i>form</i> , <i>in</i> F-00008
65146-87-4	Aconitic acid; (<i>Z</i>)- <i>form</i> , γ -Mono-Me ester, <i>in</i> A-00061	65639-43-2	6,7,8,9,10,11,17,18-Octahydro-5 <i>H</i> -dibenzo[<i>e,m</i>][1,4,8,12]dioxadiazacyclotetradecine, O-00013	66943-05-3	1,4,7,10-Tetraoxa-13-azacyclotetradecane, T-00111
65146-88-5	Aconitic acid; (<i>E</i>)- <i>form</i> , α -Mono-Me ester, <i>in</i> A-00061	65639-47-6	5,6,7,8,9,10,16,17-Octahydrodibenzo[<i>e,m</i>][1,4,8,11]dioxadiazacyclotetradecine, O-00014	66992-27-6	2-[Bis(2-hydroxyethyl)amino]ethanesulfonic acid, <i>see</i> B-00369
65146-89-6	Aconitic acid; (<i>E</i>)- <i>form</i> , β -Mono-Me ester, <i>in</i> A-00061	65659-19-0	Dimethyl diethylphosphoramidate, <i>in</i> D-00353	66997-36-2	Tributyl(hexadecyl)phosphonium(1+), T-00210
65158-90-9	1,2-Cyclohexanedione bisbenzoylhydrazone, C-00340	65666-41-3	Aluminumphthaloxon, A-00085	67013-49-4	1-Pyrenylmethyl iodoacetate, P-00310
65165-14-2	2,2'-(Methylimino)bis-8-quinolinol, M-00193	65666-42-4	Aluminumphthaloxon A, A-00086	67055-91-8	<i>N</i> -(3-Chlorophenyl)- <i>N</i> -hydroxybenzamide, <i>in</i> H-00109
65185-44-6	5-Chloro-3-[(5-dodecyl-2,4-dihydroxyphenyl)azo]-2-hydroxybenzenesulfonic acid, C-00113	65692-19-5	4,5-Dihydroxy-2 <i>H</i> -1-benzopyran-2-one; 4- <i>O</i> -Me, <i>in</i> D-00537	67073-40-9	1-(1-Phthalaziny)-3,5-diphenylformazan, P-00219
65201-92-5	Quinaldine red, <i>see</i> Q-00004	65720-39-0	Sarcosine cresol red, S-00004	67073-41-0	1-(4-Methylphenyl)-3-phenyl-5-(1-phthalaziny)formazan, M-00238
65271-28-5	4,5-Dihydroxy-3,6-bis[(4-methyl-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid; Tetra-Na salt, <i>in</i> D-00554	65732-17-4	2,2,2-Trifluoro-1-phenylethylamine, <i>see</i> T-00261	67073-42-1	1-(4-Methoxyphenyl)-3-phenyl-5-(1-phthalaziny)formazan, M-00116
65286-27-3	7-Arginylamino-4-methylcoumarin; (<i>S</i>)- <i>form</i> , <i>in</i> A-00401	65837-77-6	4-[(2-Amino-3-hydroxy-4-pyridinyl)azo]benzenesulfonic acid, A-00217	67073-44-3	3-Phenyl-1-(1-phthalaziny)-5-(<i>p</i> -carboxyphenyl)formazan, P-00165
65286-40-0	8-Aminoquinoline; 8- <i>N</i> -Octanesulfonyl, <i>in</i> A-00340	65837-79-8	4-[(5-Chloro-1,2-dihydro-3-hydroxy-2-oxo-4-pyridinyl)azo]benzenesulfonic acid, C-00093	67073-45-4	1-(4-Nitrophenyl)-3-phenyl-5-(1-phthalaziny)formazan, N-00143
65299-21-0	2,2-Dimethoxy-1,3-indanedione, <i>in</i> N-00071	65848-28-4	Aminobenzene AE, A-00098	67106-47-2	6-Bromo-1,2-naphthoquinone; Dioxime, <i>in</i> B-00538
		65882-00-0	2-Methyl-4-nitroso-1,3-benzenediol, M-00206	67106-48-3	4-Chloro-1,2-naphthoquinone; Dioxime, <i>in</i> C-00187
		65911-46-8	3-Nitro-1,2-benzenedicarboxylic acid; 1-Amide, <i>in</i> N-00085		
		65932-68-5	2,3,5,6,8,9,11,12-Octahydro- <i>N</i> -(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaacyclotetradecine-15-amine, O-00031		

67106-49-4	6-Chloro-1,2-naphthoquinone; Dioxime, <i>in</i> C-00188	67737-01-3	5'-Amino-2',3',4-tetrahydro-4,4,6-trimethyl-2,2'-dithioxo[1(2 <i>H</i>),4'-bipyrimidin]-6(1' <i>H</i>)-one, A-00352	68725-68-8	2,13-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecin, D-00235
67113-13-7	2-Propylcyclohexanone; (<i>S</i>)-form, <i>in</i> P-00275	67769-47-5	Lucifer yellow CH; Di-Li salt, <i>in</i> L-00011	68725-69-9	6,7,9,10,17,18,20,21-Octahydro-2,13-dipentylidibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecine, O-00026
67123-97-1	1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid; (\pm)-form, <i>in</i> T-00063	67779-44-6	1-Decanesulfonic acid; Me ester, <i>in</i> D-00024	68725-70-2	2,13-Dihexyl-6,7,9,10,17,18,20,21-octahydrodibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecin, D-00368
67176-26-5	2-Cyano-1-naphthol, <i>in</i> H-00369	67783-19-1	Neocrenatin, <i>in</i> T-00273	68725-71-3	2,13-Diheptyl-6,7,9,10,17,18,20,21-octahydrodibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecin, D-00366
67182-81-4	Bispyrithione magsulfex, <i>in</i> D-01122	67913-14-8	2-(2-Benzothiazolylazo)-4,6-dimethylphenol, B-00096	68725-72-4	6,7,9,10,17,18,20,21-Octahydro-2,13-dioctylidibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecine, O-00025
67201-68-7	2-Mercapto- <i>N</i> -phenylpropanamide, <i>in</i> M-00051	68062-20-4	1-Naphthalenethiocarboxylhydrazide, N-00016	68726-12-5	2,13-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecin, D-00351
67229-93-0	2-(4-Isocyanatophenyl)-6-methylbenzothiazole, I-00065	68062-21-5	2-Pyrroliothiocarboxylhydrazide, <i>in</i> P-00437	68726-13-6	6,7,9,10,17,18,20,21-Octahydro-2,13-dipropylidibenzo[<i>b,k</i>] [1,4,7,10,13,16] hexaoxacyclooctadecine, <i>see</i> O-00027
67242-52-8	5-Methyl <i>P</i> -methylphosphonamidothioate, <i>in</i> M-00243	68062-22-6	2-Furanthiocarboxylhydrazide, <i>in</i> F-00040	68865-30-5	<i>N</i> -(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)-2-propenamide, O-00007
67277-79-6	<i>N,N'</i> -Bis(1-phenylethyl)carbodiimide; (<i>R,R</i>)-form, <i>in</i> B-00439	68107-06-2	2-Chloro-3-methylbutanoic acid, <i>see</i> C-00174	68865-31-6	<i>N</i> -(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)-2-propenamide; Homopolymer, <i>in</i> O-00007
67333-92-0	<i>O,O</i> -Dipropyl phosphorodithioate; Anilinium salt, <i>in</i> D-01060	68140-33-0	2-Chloro-3-methylbutanoic acid; (<i>S</i>)-form, Chloride, <i>in</i> C-00174	68865-32-7	<i>N</i> -(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)-2-propenamide, D-00007
67335-73-3	<i>N,N'</i> -Bis(1-phenylethyl)carbodiimide, <i>see</i> B-00439	68141-55-9	Tetrakis(4-fluorophenyl)borate(1-); Li salt, <i>in</i> T-00084	68865-33-8	<i>N</i> -(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)-2-propenamide; Homopolymer, <i>in</i> D-00007
67467-52-1	4-(Benzoylhydroxyamino)benzoic acid; Me ester, <i>in</i> B-00133	68166-12-1	<i>N</i> -[[Dibutylamino]thioxomethyl]benzamide, D-00225	68925-71-3	2-Hydroxy-3-(2,6,7-trihydroxy-3-oxo-3 <i>H</i> -xanthen-9-yl)benzoic acid, H-00557
67467-54-3	4-[(3,5-Dinitrobenzoyl)hydroxyamino]benzoic acid methyl ester, <i>in</i> D-00946	68189-43-5	<i>N</i> -Hydroxy-2-thiophenecarboxamide; <i>N</i> -(4-Chlorophenyl), <i>in</i> H-00554	68925-72-4	3-Hydroxy-2-(2,6,7-trihydroxy-3-oxo-3 <i>H</i> -xanthen-9-yl)benzoic acid, H-00559
67469-02-7	4-(Methylthio)-1,2-benzenediamine, M-00325	68199-99-5	β,β' -Dihydroxy-1,4-piperazinedipropanesulfonic acid, D-00720	68925-73-5	2-Hydroxy-4-(2,6,7-trihydroxy-3-oxo-3 <i>H</i> -xanthen-9-yl)benzoic acid, H-00558
67483-13-0	2,2'-(1,2-Ethenediyl)bis[5-isothiocyanatobenzenesulfonic acid], <i>see</i> E-00046	68254-41-1	Tris(2,2,6,6-tetramethyl-3,5-heptanedionato- <i>O,O'</i>) (triphenylphosphine oxide) praseodymium(III), <i>in</i> T-00420	69003-12-9	<i>S</i> -(Thiocarbamoyl) dithiophosphoric acid; <i>O,O'</i> -Di-Me, <i>in</i> T-00161
67492-50-6	(3,5-Dichlorophenyl) dihydroxyborane, D-00295	68254-66-0	(3-Trifluoromethylphenyl) trimethylammonium(1+); Hydroxide, <i>in</i> T-00256	69003-13-0	<i>S</i> -(Thiocarbamoyl) dithiophosphoric acid; <i>O,O'</i> -Di-Et, <i>in</i> T-00161
67494-60-4	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy-3,5-dinitrobenzamide, <i>in</i> D-00946	68399-77-9	4-(Ethylamino)biphenyl, <i>in</i> A-00117	69019-54-1	4-(Diphenylmethylene)-2-hydroxy-1(4 <i>H</i>)-naphthalenone, D-01029
67508-90-1	2-[(2-Benzothiazolyl)azo]-4,5-dimethylphenol, B-00095	68399-78-0	β -Hydroxy-4-morpholinepropanesulfonic acid, H-00335	69038-91-1	<i>N</i> -Hydroxy- <i>N,N'</i> -bis(4-methylphenyl)benzenecarboximidamide, <i>in</i> H-00308
67509-28-8	2-[[[2-Methoxyphenyl]hydrazono]methyl]-1,3,3-trimethyl-3 <i>H</i> -indolinium(1+); Perchlorate, <i>in</i> M-00110	68399-79-1	β -Hydroxy-4-(2-hydroxyethyl)-1-piperazinepropanesulfonic acid, H-00203	69038-92-2	<i>N</i> -Hydroxy- <i>N'</i> -(4-methoxyphenyl)- <i>N</i> -(4-methylphenyl)benzenecarboximidamide, <i>in</i> H-00270
67514-01-6	Octaethylporphyrin; <i>N</i> -Oxide, <i>in</i> O-00002	68399-80-4	2-Hydroxy-3-[(2-hydroxy-1,1-dimethylethyl)amino]-1-propanesulfonic acid, H-00197	69038-93-3	<i>N</i> -Hydroxy- <i>N</i> -(4-methylphenyl)- <i>N</i> -phenylbenzenecarboximidamide, H-00313
67520-57-4	3-Methyl-6-(1-methylethyl)-2-(2-pyridinylazo)phenol, M-00197	68399-81-5	3-[Bis(2-hydroxyethyl)amino]-2-hydroxy-1-propanesulfonic acid, B-00371	69067-18-1	<i>N,N'</i> -Bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)pentanediamide, B-00292
67520-58-5	2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, C-00254	68438-24-4	2-Hydroxy-3-[[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, H-00192		
67580-39-6	9,10-Dimethoxy-2-anthracenesulfonic acid, <i>see</i> D-00765	68504-28-9	4,4',4'',4'''-(21 <i>H</i> ,23 <i>H</i> -Porphine-5,10,15,20-tetrayl) tetrakisbenzenesulfonic acid, <i>see</i> P-00250		
67604-48-2	4',5,7-Trihydroxyflavanone, T-00281	68504-29-0	3-[(3-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> C-00202		
67608-58-6	4-Amino-2-hydroxybenzonitrile, <i>in</i> A-00184	68504-32-5	3-[(4-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> C-00203		
67615-62-7	7-Amino-2-ethylphenothiazine, A-00177	68504-32-5	3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> D-00289		
67627-18-3	Indigo-5,5',7-trisulfonic acid, <i>see</i> I-00030	68537-93-9	2,4-Dimethyl-1 <i>H</i> -1,5-benzodiazepine, D-00834		
67627-19-4	Indigo-5,5',7,7'-tetrasulfonic acid, <i>see</i> I-00028	68579-70-4	Pyruvaldehyde 1-(2-benzothiazolylhydrazono), P-00447		
67627-62-7	2-Hydroxy-5-sulfo-3-[(tetrahydro-2,4-dithioxo-2 <i>H</i> -1,3-thiazin-5-yl)azo]benzoic acid, H-00545	68654-25-1	3,5-Bis(bromomethyl)-2,6-dimethyl-1 <i>H</i> ,7 <i>H</i> -pyrazolo[1,2- <i>a</i>]pyrazole-1,7-dione, B-00269		
67661-55-6	<i>p</i> -Nitrosoacetanilide, <i>in</i> N-00154	68716-47-2	(2,4-Dichlorophenyl) dihydroxyborane, D-00293		
67669-02-7	<i>N</i> -(4-Chlorophenyl)-3-(2-furanyl)- <i>N</i> -hydroxy-2-propenamide, <i>in</i> F-00053				
67683-35-6	4,4'-Diamino-3-methylbiphenyl, D-00102				
67708-10-5	▶ 1,8-Dihydroxy-2,4-dinitronaphthalene, D-00582				
67727-64-4	3,4-Dihydroxybenzaldehyde; Di-Ac, <i>in</i> D-00519				
67734-63-8	1-(Hydroxyphenylamino)-5-phenyl-1,4-pentadien-3-one, H-00446				

69079-96-5	<i>N</i> -(<i>o</i> -Ethoxybenzoyl) phenylhydroxylamine, <i>in</i> H-00112	69905-74-4	2,3-Dianilinonaphthalene, <i>in</i> D-00106	70916-29-9	2-(Methylamino)benzenesulfonic acid, <i>in</i> A-00099
69168-44-1	1-Pyrenedodecanoic acid; Me ester, <i>in</i> P-00308	69975-68-4	<i>N</i> -Acetylalanine 1-naphthyl ester; (<i>S</i>)-form, <i>in</i> A-00011	70946-42-8	α -Amino-1-naphthaleneacetic acid, <i>see</i> A-00261
69168-45-2	1-Pyrenedodecanoic acid, P-00308	69978-45-6	10-Methyl-1,4,7-trioxa-10-azacyclodecane, <i>in</i> T-00359	70975-94-9	Bis(benzo-15-crown-5-ylmethyl) maleate, <i>in</i> B-00611
69211-10-5	1,5-Bis(2-chlorophenyl)-3-formazancarboxamide, B-00286	69978-46-7	13-Methyl-1,4,7,10-tetraoxa-13-azacyclodecane, <i>in</i> T-00111	70975-95-0	Bis(benzo-15-crown-5-ylmethyl) fumarate, <i>in</i> B-00611
69271-95-0	<i>N,N'</i> -Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclodecyl-15-yl)pentanediamide, B-00435	70253-43-9	Diphenylethanedione mono(2-quinolinylhydrazone), D-01014	70981-66-7	Naproxen, <i>see</i> N-00057
69271-98-3	Bis[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclodecyl-15-yl)methyl]heptanedioate, B-00434	70292-64-7	1-Ethoxybenzothiazole, <i>in</i> H-00125	70989-46-7	<i>N,N'</i> -Diphenyl- <i>N'</i> -benzoylthiourea, <i>in</i> B-00161
69304-16-1	7-Arginylamino-4-methylcoumarin; (<i>S</i>)-form, B,HCl, <i>in</i> A-00401	70331-82-7	2-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino] ethanesulfonic acid, <i>see</i> H-00136	71022-43-0	3,5-Dinitrobenzyl alcohol, D-00950
69350-73-8	2-Phenylbutanoic acid; (\pm)-form, Nitrile, <i>in</i> P-00110	70384-39-3	2,2'-Dihydroxybenzophenone; Thiosemicarbazone, <i>in</i> D-00535	71022-77-0	19-Methoxy-3,6,9,12,15-pentaoxa-21-aza-bicyclo[15.3.1]heneicosane-1(21),17,19-triene-2,16-dione, M-00101
69373-22-4	3,3'-[3-(Phenylamino)carbonyl]-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid]; Di-K salt, <i>in</i> P-00080	70403-04-2	<i>N,N'</i> -Diethyl- <i>P</i> -phenylphosphinic amide, <i>in</i> P-00163	71034-55-4	2-[4-Methyl-2-quinolinyl]azo]-1-acenaphthyleneol, M-00308
69414-31-9	2-Iodo- <i>N</i> -(2',4',5',7'-tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3 <i>H</i>),9[9 <i>H</i>]xanthen]-5-yl) acetamide, I-00054	70424-51-0	Di-2-pyridinylethanedione bis(phenylthiosemicarbazone), <i>in</i> D-01063	71040-04-5	Benzoic acid [(2,4-dihydroxyphenyl)methylene] hydrazide, B-00061
69439-40-3	7-Arginylamino-4-methylcoumarin; (<i>S</i>)-form, B,AcOH, <i>in</i> A-00401	70424-52-1	<i>N'</i> -(3-Chloro-4-methylphenyl)- <i>N</i> -hydroxy- <i>N</i> -(4-methylphenyl) benzamide, C-00182	71042-54-1	5,6-Bis(diphenylphosphino) bicyclo[2.2.1]hept-2-ene; (1 <i>R</i> ,5 <i>R</i> ,6 <i>R</i>)-form, <i>in</i> B-00337
69467-96-5	Dihydralazine, <i>see</i> D-00370	70460-18-3	3'-Hydroxyflavone, H-00183	71042-55-2	5,6-Bis(diphenylphosphino) bicyclo[2.2.1]hept-2-ene; (1 <i>S</i> ,5 <i>S</i> ,6 <i>S</i>)-form, <i>in</i> B-00337
69501-06-0	3,4',5,7-Tetrahydroxyflavone, <i>see</i> T-00076	70477-21-3	2-Chloro-3-methylbutanoic acid; (\pm)-form, Nitrile, <i>in</i> C-00174	71071-46-0	[2,2'-Bipyridine]-4,4'-dicarboxylic acid; Di-Me ester, <i>in</i> B-00224
69519-52-4	4-(4'-Dimethylaminophenyl)-1-phenylthiosemicarbazide, D-00822	70478-94-3	2-Hydroxybenzoic acid [(2,4-dihydroxyphenyl)methylene] hydrazide, H-00116	71075-22-4	5,6-Bis(diphenylphosphino) bicyclo[2.2.1]hept-2-ene; (1 <i>RS</i> ,5 <i>RS</i> ,6 <i>RS</i>)-form, <i>P,P'</i> -Dioxide, <i>in</i> B-00337
69557-87-5	Di-2-pyridinylmethanone 2-pyrimidinylhydrazone, D-01081	70566-23-3	4,5-Dihydroxy-3-[[2-[hydroxy(2-methylphenyl)phosphinyl]phenyl]azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, <i>in</i> D-00619	71075-23-5	5,6-Bis(diphenylphosphinyl) bicyclo[2.2.1]hept-2-ene, <i>in</i> B-00337
69580-21-8	5-(2-Pyridinylmethylene)-2-thioxo-4-imidazolidinone; (<i>E</i>)-form, <i>in</i> P-00398	70566-29-9	α -(Hydroxyimino)-1,5-dimethyl-1 <i>H</i> -benzimidazole-2-acetonitrile, H-00244	71075-24-6	5,6-Bis(diphenylphosphino) bicyclo[2.2.1]hept-2-ene; (1 <i>S</i> ,5 <i>S</i> ,6 <i>S</i>)-form, <i>P,P'</i> -Dioxide, <i>in</i> B-00337
69580-22-9	5-[(6-Methyl-2-pyridinyl)methylene]-4-imidazolidinone, M-00290	70675-24-0	(1-Hydroxyethylidene) bisphosphonic acid, <i>see</i> H-00178	71081-51-1	2-Cyano-3-iminodithiobutyric acid; NH ₄ salt, <i>in</i> C-00328
69580-23-0	5-(Di-2-pyridinylmethylene)-2-thioxo-4-imidazolidinone, D-01085	70700-34-4	<i>r</i> -Oxo-1-pyrenedecanoic acid; Et ester, <i>in</i> O-00072	71089-33-3	1,2-Dimethoxy-3,4-dinitrobenzene, <i>in</i> D-00941
69580-24-1	5-[1-(2-Pyridinyl)ethylidene]-2-thioxo-4-imidazolidinone; (<i>E</i>)-form, <i>in</i> P-00389	70700-44-6	6-Amino-2-(dimethylamino)-5-nitroso-4(1 <i>H</i>)-pyrimidinone, A-00161	71112-97-5	3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene] hydrazide, <i>see</i> P-00349
69623-92-3	7-Isothiocyanato-1,7-dimethylbicyclo[2.2.1]heptane; ($-$)-form, <i>in</i> I-00093	70709-59-0	<i>N'</i> -(4-Chloro-2-methylphenyl)- <i>N</i> -(4-chlorophenyl)- <i>N</i> -hydroxybenzenecarboximidamide, C-00181	71114-52-8	2,5-Dimethylaniline; <i>N</i> -Benzoyl, <i>in</i> D-00828
69623-93-4	Neomenthyl isothiocyanate, <i>in</i> I-00095	70709-60-3	<i>N'</i> -(4-Chloro-2-methylphenyl)- <i>N</i> -(4-chlorophenyl)- <i>N</i> -hydroxybenzenecarboximidamide; B,HCl, <i>in</i> C-00181	71119-22-7	4-Morpholinepropanesulfonic acid, <i>see</i> M-00346
69632-31-1	<i>N</i> -(3,5-Dinitrobenzoyl)- α -phenylethylamine, <i>see</i> D-00949	70723-42-1	<i>O,O</i> -Diisopropyl phosphorodithioate; Dimethylammonium salt, <i>in</i> D-00750	71146-24-2	3-(Carboxymethylthio)-1,5-diphenylformazan, C-00034
69632-32-2	<i>N</i> -(3,5-Dinitrobenzoyl)- α -phenylethylamine; (<i>R</i>)-form, <i>in</i> D-00949	70758-89-3	2,3,5,6,8,9,11,12-Octahydro-16-nitro- <i>N</i> -(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclodecyl-15-amine, O-00030	71206-95-6	Lucifer yellow CH; Di-K salt, <i>in</i> L-00011
69633-16-5	Di-2-pyridinylmethanone 2-quinolinylhydrazone, D-01082	70758-90-6	16-Bromo-2,3,5,6,8,9,11,12-octahydro- <i>N</i> -(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclodecyl-15-amine, B-00540	71231-14-6	Lucifer yellow VS, <i>in</i> L-00011
69733-97-7	4-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00119	70787-41-6	2-[Bis(2-hydroxyethyl)amino]-2-methyl-1-propanol, B-00372	71277-14-0	3-(2-Furanyl)-2-propenal; (<i>Z</i>)-form, <i>in</i> F-00060
69733-98-8	4-Bromobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00489	70811-29-9	Tris(2,2'-bipyridine- <i>N,N'</i>)iron(II) (2+); (\pm)-form, Bis-hexafluorophosphate, <i>in</i> T-00384	71288-39-6	5-(Dimethylamino)-1-naphthalenesulfonic acid, D-00794
69733-99-9	3-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00118	70845-27-1	2-Acetylpyridine 2-quinolylhydrazone, A-00045	71310-44-6	4,5-Dihydro-3-methyl-5-oxo-1 <i>H</i> -pyrazole-4-carbodithioic acid, D-00440
69762-14-7	3-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00081	70845-30-6	2-Pyridinecarboxaldehyde 3-quinolinylhydrazone, P-00338	71316-35-3	[4-[1-(2-Amino-3-hydroxy-4-(2-pyridinyl)phenyl)azo]phenyl] arsonic acid, A-00219
69878-46-2	Cryptand 2.2.2 D, C-00319	70845-34-0	2(1 <i>H</i>)-Quinolone [1-(2-pyridinyl)ethylidene]hydrazone, Q-00025	71316-38-6	3-Amino-2(1 <i>H</i>)-quinolinethione, A-00341
69891-38-9	<i>N</i> -(2,3-Dimethylphenyl)- <i>N</i> -hydroxy-3-phenylpropanamide, D-00891	70897-16-4	Trolox C; (<i>R</i>)-form, Me ester, <i>in</i> T-00430	71334-91-3	[1,2-Ethanedylbis[nitrilobis[methylene]]]tetrakisphosphonic acid, <i>see</i> E-00032
		70897-17-5	Trolox C; (<i>S</i>)-form, Me ester, <i>in</i> T-00430	71336-88-4	2(1 <i>H</i>)-Pyrazinone (1,2-di-2-pyridinylethylidene)hydrazone, P-00288
				71336-89-5	2(1 <i>H</i>)-Pyridinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene] hydrazone, P-00367
				71336-90-8	2(1 <i>H</i>)-Pyrazinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene] hydrazone, P-00291

71336-91-9	2(1 <i>H</i>)-Pyridinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene] hydrazone, P-00371	72007-65-9	4-Acetamidophenylfluorone, <i>in</i> A-00328	73170-29-3	5-(1 <i>H</i> -Benzimidazol-5-ylazo)-8-quinolinol, B-00043
71336-92-0	2(1 <i>H</i>)-Pyrazinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene] hydrazone, P-00295	72007-66-0	4-Diethylaminophenylfluorone, <i>in</i> A-00328	73170-31-7	4-(1 <i>H</i> -Benzimidazol-5-ylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid, B-00042
71336-93-1	2(1 <i>H</i>)-Pyridinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene] hydrazone, P-00368	72007-67-1	9-Cyclohexyl-2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one, C-00359	73233-14-4	Di-2-quinolinylmethanone 2-pyridinylhydrazone, D-01102
71336-94-2	2(1 <i>H</i>)-Pyrazinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene] hydrazone, P-00292	72027-95-3	4-(<i>N</i> -Morpholinophenyl)fluorone, M-00349	73258-94-3	2,4-Dimethylbenzoic acid; Amide, <i>in</i> D-00835
71336-95-3	2(1 <i>H</i>)-Pyridinone (1,2-dipyrazinylethylidene)hydrazone, P-00358	72061-97-3	2,4,6-Trinitrobenzoic acid, <i>see</i> T-00352	73319-79-6	Diphenylglyoxal bis(2-hydroxybenzoylhydrazone), D-01017
71336-96-4	2(1 <i>H</i>)-Pyrazinone (1,2-dipyrazinylethylidene)hydrazone, P-00287	72072-13-0	1-[[[4-Hydroxy-3-methoxyphenyl]acetyl]oxy]-2,5-pyrrolidinedione, H-00269	73413-02-2	Cellex P, C-00048
71336-97-5	2(1 <i>H</i>)-Pyridinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene] hydrazone, P-00370	72072-29-8	3-Hydroxy-3-(<i>p</i> -dimethylaminophenyl)-1-phenyltriazene, H-00149	73429-89-7	4,4'-(3-Methylbutylidene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazole-3-thione], M-00150
71336-98-6	2(1 <i>H</i>)-Pyrazinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene] hydrazone, P-00294	72082-07-6	α -(Hydroxyimino)-2-quinolineacetoneitrile, H-00252	73448-02-9	2,3-Dihydro-1,4-benzodioxin-6,7-diamine; B,2HCl, <i>in</i> D-00371
71336-99-7	Di-2-pyridinylethanedione mono(2-pyridinylhydrazone); Oxime, <i>in</i> D-01068	72084-13-0	2-Phenoxybenzoic acid; Amide, <i>in</i> P-00075	73448-67-6	2-Benzothiazolecarboxaldehyde 1(2 <i>H</i>)-phthalazylidenehydrazone, B-00087
71337-00-3	Di-2-pyridinylethanedione; Monophenylhydrazone oxime, <i>in</i> D-01063	72208-19-6	Panacryl brilliant red, P-00004	73463-39-5	3-(Cyclohexylamino)-2-hydroxy-1-propanesulfonic acid, C-00349
71337-01-4	Pyrazinyl-2-pyridinylethanedione 2-(2-pyridinylhydrazone) 1-oxime, P-00298	72220-05-4	4,4'-Bis(3,4-dihydroxyphenylazo) biphenyl, B-00302	73499-66-8	Tetrahydroxybutanedioic acid; Di-Me ester, <i>in</i> T-00073
71337-02-5	2-Pyridinyl-4-pyrimidinylethanedione 1-(2-pyridinylhydrazone); 2-Oxime, <i>in</i> P-00404	72220-06-5	4-Chlorobenzoic acid [(2-bromo-6-hydroxyphenyl)methylene] hydrazide, C-00068	73500-82-0	<i>N</i> -Chloroformylcarbazole, <i>in</i> C-00020
71366-38-6	6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158	72272-49-2	2-Amino-1-cyclohexene-1-dithiocarboxylic acid, A-00146	73514-57-5	3-Hydroxy-4-[(6-methyl-2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid <i>N</i> -oxide; Di-Na salt, <i>in</i> H-00324
71369-42-1	4-[3-(4-Nitrophenyl)-1-triazenyl] benzenesulfonic acid; Na salt, <i>in</i> N-00145	72384-89-5	6-Hydroxy-3-[(4-methyl-2-thiazolyl)azo]-2(1 <i>H</i>)-pyridinone, H-00331	73568-87-3	1-(2-Pyridinyl)-2-(3-pyridinyl) ethanone 2-thiazolylhydrazone, P-00403
71384-12-8	Di-2-pyridinylethanedione; 2-Quinolylhydrazone, <i>in</i> D-01063	72386-19-7	2-[[[4-Methoxy-2-nitrophenyl]hydrazono]methyl]-1,3,3-trimethyl-3 <i>H</i> -indolium(1+); Perchlorate, <i>in</i> M-00096	73568-88-4	3-Isoquinolinecarboxaldehyde 2-thiazolylhydrazone, I-00085
71410-76-9	<i>N</i> -(4-Chlorophenyl)- <i>N'</i> -(2,3-dimethylphenyl)- <i>N</i> -hydroxy-4-methylbenzenecarboximidamide, C-00219	72433-26-2	4-(Hydroxymethyl)-7-methoxy-2 <i>H</i> -1-benzopyran-2-one, <i>in</i> H-00209	73568-89-5	2-Acetylpyridine 2-thiazolylhydrazone, A-00047
71418-44-5	3-(Bromomethyl)-2,5,6-trimethyl-1 <i>H</i> ,7 <i>H</i> -pyrazolo[1,2- <i>a</i>]pyrazole-1,7-dione, B-00535	72435-64-4	1,2-Diamino-4,5-dichlorobenzene; B,2HCl, <i>in</i> D-00069	73568-90-8	2-Benzoylpyridine 2-thiazolylhydrazone, B-00158
71418-45-6	5-(Bromomethyl)- <i>N,N,N</i> ,-2,6-pentamethyl-1,7-dioxo-1 <i>H</i> ,7 <i>H</i> -pyrazolo[1,2- <i>a</i>]pyrazole-3-methanaminium(1+); Bromide, <i>in</i> B-00533	72460-28-7	[2,2'-Bipyridine]-4,4'-dicarboxylic acid; Dichloride, <i>in</i> B-00224	73568-91-9	Di-2-pyridinylmethanone 2-thiazolylhydrazone, D-01083
71456-76-3	1,3-Bis(8-quinolyloxy)propane, B-00453	72553-18-5	5-[(4-Aminophenyl)azo]-1 <i>H</i> -1,2,4-triazole-3-carboxylic acid, A-00317	73568-92-0	2-Acetylpyrazine; 2-Thiazolylhydrazone, <i>in</i> A-00033
71468-56-9	1,4-Bis(8-quinolyloxy)butane, B-00449	72565-41-4	Dabsyl hydrazine, <i>in</i> M-00210	73568-93-1	2-Benzoylpyrazine 2-thiazolylhydrazone, B-00150
71563-86-5	2-Mercaptopropanoic acid; (\pm)- <i>form</i> , <i>in</i> M-00051	72629-95-9	Indigo-5-sulfonic acid, <i>see</i> I-00027	73568-94-2	Di-2-pyridinylethanedione; Mono(2-thiazolylhydrazone), <i>in</i> D-01063
71641-67-3	3,6-Diaminoxanthone, D-00132	72712-20-0	2',3',4'-Trihydroxyacetophenone; Tri-Ac, <i>in</i> T-00269	73568-95-3	2-Pyrazinyl-1-(2-pyridinyl) ethanone; 2-Thiazolylhydrazone, <i>in</i> P-00299
71759-46-1	6-(4-Acetylphenylazo)-2-aminoperimidine, A-00029	72771-47-2	1-Nitroso-2-naphthol; Benzoyl, <i>in</i> N-00160	73568-96-4	1-(2-Pyridinyl)-2-(2-pyrimidinyl) ethanone; 2-Thiazolylhydrazone, <i>in</i> P-00405
71803-12-8	4-Ethoxyacridone, <i>in</i> H-00095	72771-48-3	2-Nitroso-1-naphthol; Benzoyl, <i>in</i> N-00161	73568-97-5	2-Pyridinecarboxaldehyde 2-pyrimidinylhydrazone, P-00336
71890-93-2	1-(Trifluoroacetyl)-2-pyrrolidinecarbonyl chloride, <i>see</i> T-00242	72772-24-8	2-Mercapto-3-phenylpropanoic acid; (\pm)- <i>form</i> , <i>in</i> M-00047	73568-98-6	2-Quinolinecarboxaldehyde 2-pyrimidinylhydrazone, Q-00013
71942-38-6	3-Oxo-3 <i>H</i> -naphtho[2,1- <i>b</i>]pyran-2-carboxylic acid; Chloride, <i>in</i> O-00064	72799-24-7	1,10-Phenanthroline; <i>N,N'</i> -Dioxide, <i>in</i> P-00052	73569-00-3	3-Isoquinolinecarboxaldehyde 2-pyrimidinylhydrazone, I-00081
71954-21-7	Di-2-pyridinylethanedione bis(2-quinolinylhydrazone), <i>see</i> D-01067	72815-91-9	2-Methyl-4-(2-thiazolylazo)-1,3-benzenediamine, M-00317	73569-01-4	2-Acetylpyridine 2-pyrimidinylhydrazone, A-00044
71997-58-5	16,17-Dihydro-5 <i>H</i> ,15 <i>H</i> -dibenzo[<i>b,f</i>][1,11,4,5,7,8]dioxatetraazacyclotetradecine-7-carbonitrile, D-00375	72833-87-5	2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(dimethylamino)benzoic acid, D-00201	73569-02-5	2-Benzoylpyrazine 2-pyrimidinylhydrazone, A-00035
72007-64-8	2,6,7-Trihydroxy-9-[4-(1-methylethyl)phenyl]-3 <i>H</i> -xanthen-3-one, T-00298	72894-24-7	Cationic red violet, <i>see</i> C-00046	73569-03-6	Benzoylpyrazine; 2-Pyrimidinylhydrazone, <i>in</i> B-00148
		72915-12-9	<i>O</i> -(Pentafluorobenzyl) hydroxylamine, P-00016	73569-04-7	Di-2-pyridinylethanedione mono(2-pyrimidinylhydrazone), D-01069
		72968-14-0	Rhodamine S, R-00006	73569-05-8	2-Pyrazinyl-1-(2-pyridinyl) ethanone 2-pyrimidinylhydrazone, P-00300
		72974-99-3	Benzyltriphenylphosphonium(1+); Triiodide, <i>in</i> B-00196	73569-06-9	1-(2-Pyridinyl)-2-(2-pyrimidinyl) ethanone 2-pyrimidinylhydrazone, P-00406
		72975-00-9	Benzyltriphenylphosphonium(1+); Pentaiodide, <i>in</i> B-00196	73569-07-0	1,2-Di-2-pyridinylethanedione 2-pyrimidinylhydrazone, D-01070
		73008-85-2	9-(3,4-Dibromophenyl)-2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one, D-00198		
		73008-86-3	4-(2,6,7-Trihydroxy-3-oxo-3 <i>H</i> -xanthen-9-yl)-1,3-benzenedisulfonic acid, T-00304		
		73069-55-3	1-(4-Nitrophenyl)ethylamine; (\pm)- <i>form</i> , <i>in</i> N-00135		
		73087-87-3	4-(2-Chlorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, C-00070		
		73087-94-2	2,4-Dihydro-5-methyl-4-(2-methylbenzoyl)-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00431		

73569-08-1	1-(2-Pyridinyl)-2-(2-pyrimidinyl) ethanone, P-00405	74261-72-6	4-Hydroxy-3-[(5-hydroxybenzo[<i>a</i>]phenazin-6-yl)azo] benzenesulfonic acid, H-00187	75507-20-9	2-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclododecane, P-00141
73579-26-7	1,2,3,4-Tetrahydrobenzo[<i>h</i>]quinolin-3-ol; (±)-form, B,HCl, in T-00051	74305-33-2	2,6-Diaminopyridine; 2,6- <i>N</i> -Dibenzoyl, in D-00119	75586-67-3	9-Chloro-10-methylacridinium(1+), see C-00170
73630-07-6	1,2-Bis(2-aminophenoxy)ethane- <i>N,N,N',N'</i> -tetraacetic acid; Tetra-Et ester, in B-00248	74305-50-3	2,3,5,6,8,9,11,12,14,15-Decahydro-19-nitro- <i>N</i> -(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-amine, D-00019	75621-03-3	▶ 3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate, C-00274
73630-08-7	1,2-Bis(2-aminophenoxy)ethane- <i>N,N,N',N'</i> -tetraacetic acid, see B-00248	74341-46-1	1,2-Bis(octanesulfonamido)benzene, B-00436	75640-87-8	2,2'-Dihydroxy-1,1'-binaphthyl, see D-00544
73630-11-2	1,2-Bis(2-amino-5-bromophenoxy)ethane- <i>N,N,N',N'</i> -tetraacetic acid, see B-00243	74378-23-7	9,10-Phenanthraquinone; Dioxime, mono-Me ether, in P-00047	75685-01-7	2,2'-Dihydroxy-1,1'-binaphthyl, see D-00544
73630-12-3	1,2-Bis(2-amino-5-bromophenoxy)ethane- <i>N,N,N',N'</i> -tetraacetic acid; Tetra-Et ester, in B-00243	74385-48-1	4,5-Dihydroxy-3-(1 <i>H</i> -tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, D-00738	75697-71-1	2,4-Dihydroxybenzophenone; Di-Ac, in D-00536
73654-19-0	1-Pyreneacetic acid; Me ester, in P-00304	74403-62-6	Di-2-pyridinyloxyethanedione bis(2-hydroxybenzoylhydrazone), D-01065	75757-69-6	2-Methyl-4-[(4-methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00202
73697-16-2	2-Furancarbothioic acid (di-2-pyridinyl)methylenehydrazide, F-00041	74475-23-3	9,10-Dihydro-3,4-dihydroxy-10-imino-9-oxo-2-anthracenesulfonic acid, D-00378	75775-57-4	Di-2-pyridinylmethanone; Phenylhydrazone, in D-01071
73697-17-3	2-Thiophenecarbothioic acid (di-2-pyridinylmethylene)hydrazide, T-00168	74542-19-1	4-Hydroxybenzyl glucosinolate, see H-00128	75806-94-9	[3-[[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]amino]phenyl]boronic acid, D-00798
73697-18-4	Benzenecarbothioic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, B-00014	74567-60-5	7,16-Bis[3-[2-hydroxy-3,5-bis[(4-nitrophenyl)azo]phenyl]-1-oxopropyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane, B-00364	75885-29-9	<i>N</i> -Benzyl-4-(4-diethylaminophenylazo)pyridinium(1+), B-00176
73697-21-9	Benzoic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, B-00063	74567-68-3	4-[(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)azo]phenol, O-00006	75888-73-2	Phloxine B, see P-00213
73703-09-0	4-Methoxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, M-00080	74606-81-8	5-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]-2,4-dihydroxybenzoic acid, D-00381	75909-10-3	6,7,9,10,18,19,20,21-Octahydrodibenzo[<i>h,r</i>][1,4,7,11,16]-trioxadiazacyclononadecine, O-00020
73741-55-6	Ethanethioic acid; <i>O</i> -Propyl ester, in E-00038	74713-68-1	4,4'-(Phenylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazole-3-thione], P-00147	76019-74-4	4-(2-Quinolinyloxy)phenol, Q-00032
73818-26-5	2,6-Diacetylpyridine bis(benzoylhydrazone), D-00036	74713-69-2	4,4'-Heptylidenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3 <i>H</i> -pyrazole-3-thione], H-00017	76048-43-6	2,4-Dimethylphenol; Benzoyl, in D-00884
73852-17-2	(2,6-Dichlorophenyl)dihydroxyborane, D-00294	74716-93-1	4-[(9,10-Dihydro-9,10-dioxo-1-anthracenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid; Ba salt, in D-00396	76078-84-7	Bis(benzo-18-crown-6-ylmethyl)succinate, in B-00610
73852-19-4	[3,5-Bis(trifluoromethyl)phenyl]boronic acid, B-00464	74736-89-3	2,3-Dihydro-3-hydroxy-4 <i>H</i> -1-benzopyran-4-one, D-00407	76091-06-0	Bis(benzo-18-crown-6-ylmethyl)maleate, in B-00610
73859-64-0	Isatin, see I-00056	74804-05-0	Di-2-pyridinylmethanone; Hydrazone, in D-01071	76107-36-3	Bis(benzo-18-crown-6-ylmethyl)fumarate, in B-00610
73859-66-2	Isatin, see I-00056	74813-85-7	5-[[4-Diethylamino-2-hydroxyphenyl]azo]-1 <i>H</i> -1,2,4-triazole-3-carboxylic acid, in A-00215	76115-25-8	2,6-Diacetylpyridine bis(2-hydroxybenzoylhydrazone), D-00038
73901-01-6	2,4-Dinitrobenzenesulfonic acid; Amide, in D-00944	74920-80-2	4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Iodide, in D-00332	76121-99-8	(6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)silver, H-00005
73904-21-9	Epsilon blue; Di-Na salt, in E-00008	74928-57-7	α-Amino-1-naphthaleneacetic acid, see A-00261	76122-69-5	2-Hydroxybenzoic acid [2-(2-pyridinyl)ethylidene]hydrazide, H-00121
73952-77-9	Flunoxaprofen; (±)-form, in F-00008	74937-11-4	4-Acetyl-2,4-dihydro-2,5-dimethyl-3 <i>H</i> -pyrazol-3-one, A-00015	76128-52-4	2-[[1-(Hydroxyimino)ethyl]azo]-1 <i>H</i> -benzimidazole, H-00245
73980-65-1	4-Methyl-2-phenyl-1 <i>H</i> -1,5-benzodiazepine, M-00225	74953-22-3	Bis[2-[(tetrahydro-2 <i>H</i> -pyran-2-yl)thio]phenyl]diazene, B-00458	76128-53-5	2-[[[(Hydroxyimino)phenylmethyl]azo]-1 <i>H</i> -benzimidazole, H-00250
73980-66-2	2-(4-Chlorophenyl)-4-methyl-1 <i>H</i> -1,5-benzodiazepine, C-00236	74959-64-1	4-Methoxybenzaldehyde phenylthiosemicarbazone, M-00076	76128-54-6	2-[[1-(Hydroxyimino)ethyl]azo]-1-(phenylmethyl)-1 <i>H</i> -benzimidazole, in H-00245
73980-67-3	2-(4-Bromophenyl)-4-methyl-1 <i>H</i> -1,5-benzodiazepine, B-00554	75277-39-3	4-(2-Hydroxyethyl)-1-piperazineethanesulfonic acid, see H-00180	76128-55-7	2-[[1-(Hydroxyimino)-2-methylpropyl]azo]-1-(phenylmethyl)-1 <i>H</i> -benzimidazole, H-00246
73980-68-4	4-Methyl-2-(4-methylphenyl)-1 <i>H</i> -1,5-benzodiazepine, M-00199	75350-46-8	Fluorescein-5-maleimide, F-00021	76128-56-8	2-[[[(Hydroxyimino)phenylmethyl]azo]-1-(phenylmethyl)-1 <i>H</i> -benzimidazole, in H-00250
73980-69-5	2-(4-Methoxyphenyl)-4-methyl-1 <i>H</i> -1,5-benzodiazepine, M-00112	75356-78-4	1,3-Diethylidihydro-5-nitroso-2-thioxo-4,6(1 <i>H</i> ,5 <i>H</i>)-pyrimidinedione, in D-00462	76128-58-0	1-Benzyl-2-(α-hydroxyimino-4-nitrobenzyl)-1 <i>H</i> -imidazole, B-00183
73980-70-8	4-Methyl-2-(3-nitrophenyl)-1 <i>H</i> -1,5-benzodiazepine, M-00205	75389-07-0	Bis(2-hydroxyimino-3-butylidene)- <i>o</i> -phenylenedimine, in P-00127	76191-74-7	9-Phenylbenzo(1,2)quinolizino[3,4,5,6- <i>def</i>]phenanthridinium(1+), P-00105
74044-87-4	2,3,5,6,8,9,11,12,14,15-Decahydro- <i>N</i> -(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-amine, D-00021	75403-48-4	5-(Bromomethyl)- <i>N,N,N</i> ,-2,6-pentamethyl-1,7-dioxo-1 <i>H</i> ,7 <i>H</i> -pyrazolo[1,2- <i>a</i>]pyrazole-3-methanaminium(1+), B-00533	76196-64-0	(7-Methoxy-2-oxo-2 <i>H</i> -1-benzopyran-4-yl)methyl <i>N,N'</i> -dicyclohexylcarbamimidate, M-00100
74108-95-5	1-[(6-Methyl-2-pyridinyl)azo]-2-naphthalenol; <i>N</i> -Oxide, in M-00282	75350-46-8		76197-35-8	2,3-Anthracenedicarboxaldehyde, A-00379
74124-48-4	Diisopropyl diethylphosphoramidate, in D-00353	75356-78-4		76201-79-1	1-(4-Chlorophenyl)-1,3-butanedione; 3-Oxime, in C-00207
74158-10-4	2,3-Butanedione mono(2-pyridinylhydrazone), B-00600	75389-07-0		76260-35-0	4-[(4-Chlorophenyl)azo]-1,2,3-benzenetriol, C-00200
74163-81-8	1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid; (<i>S</i>)-form, in T-00063	75403-48-4		76265-98-0	4-[(Aminothioxomethyl)amino]-4-oxobutanoic acid, A-00362
74217-45-1	4-(4-Amino-1-naphthalenylazo)phenol, A-00277				

76268-67-2	4,5-Dihydroxy-3-[4-(aminomethyl)phenylazo]-2,7-naphthalenedisulfonic acid <i>N,N</i> -diacetic acid, D-00509	76877-41-3	4,4'-Azobis[3-hydroxy-2,7-naphthalenedisulfonic acid], A-00469	77350-03-9	3-Methoxy-2-methyl-6-(2-pyridinylazo)phenol, <i>in</i> M-00278
76281-03-3	4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine; (\pm)- <i>form</i> , <i>in</i> D-00790	76877-42-4	4-[(2,3-Dihydroxy-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00660	77350-04-0	Chlorophosphonazo mN, C-00243
76281-06-6	4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine; (<i>R</i>)- <i>form</i> , <i>in</i> D-00790	76877-43-5	4-[(2,3-Dihydroxy-6-sulfo-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00732	77350-05-1	3-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00247
76291-06-0	<i>N</i> -[2-(Hydroxyimino)-1-methylpropylidene]glycine, H-00247	76877-50-4	2-[[4,5-Dimethyl-2-thiazolyl]azo]-4,6-dimethylphenol, D-00921	77377-52-7	<i>N</i> -(<i>tert</i> -Butyldimethylsilyl)- <i>N</i> -methyltrifluoroacetamide, B-00630
76299-18-8	4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine; (<i>S</i>)- <i>form</i> , <i>in</i> D-00790	76882-03-6	1-(3-Carboxy-2-hydroxy-1-naphthylazo)-2-naphthol-3,6-disulfonic acid, C-00030	77585-91-2	<i>O,O</i> -Trimethylene phosphorochloridoselenoate, <i>in</i> C-00110
76573-00-7	Bis(benzo-15-crown-5-ylmethyl)succinate, <i>in</i> B-00611	76895-45-9	3-[[Aminothioxomethyl]hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, <i>in</i> P-00386	77783-17-6	1,3-Cyclohexanedione; Bis(phenylthiosemicarbazone), <i>in</i> C-00338
76575-10-5	4-Quinolincarbodithioic acid, <i>see</i> Q-00008	76895-46-0	3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Phenylthiosemicarbazone, <i>in</i> P-00386	77783-18-7	2-Methyl-1,3-cyclohexanedione bis(phenylthiosemicarbazone), M-00158
76587-46-7	<i>N</i> -Chloro-5-(dimethylamino)-1-naphthalenesulfonamide, C-00098	76936-87-3	2-Iodo- <i>N</i> -1-pyrenylacetamide, I-00051	77783-19-8	2-[5,5-Dimethyl-3-[2-(phenylamino)thioxomethylhydrazino]-2-cyclohexen-1-ylidene]]- <i>N</i> -phenylhydrazinocarbothioamide, <i>in</i> D-00847
76637-26-8	2(1 <i>H</i>)-Pyridinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00365	76948-54-4	2,4,6-Tris[4-(4-sulfophenyl)-2-pyridyl]- <i>s</i> -triazine, T-00413	77857-33-1	2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[4-nitrophenol], 9CI, T-00115
76652-67-0	3,5-Dinitro-4-[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecan-15-yl)amino]benzonitrile, D-00956	76950-23-7	2-Hydroxy- <i>N</i> -(2-hydroxy-3-methylbenzylidene)-5-methylaniline, H-00213	77857-34-2	<i>N,N</i> -Bis(2-hydroxy-5-nitrobenzyl)-1,10-diaza-4,7,13-trioxacyclopentadecane, B-00382
76652-69-2	<i>N</i> -Hexadecylhydroxyproline; (2 <i>S</i> ,4 <i>R</i>)- <i>form</i> , <i>in</i> H-00027	76950-24-8	2-Hydroxy- <i>N</i> -(2-hydroxy-4-methylbenzylidene)-4-methylaniline, H-00214	77930-24-6	4-Methylaniline; <i>N</i> -Dibenzoyl, <i>in</i> M-00124
76666-35-8	<i>N</i> -Heptylhydroxyproline; (2 <i>S</i> ,4 <i>R</i>)- <i>form</i> , <i>in</i> H-00016	76950-25-9	<i>N</i> -(5- <i>tert</i> -Butyl-2-hydroxybenzylidene)-2-hydroxy-5-methylaniline, B-00632	77958-62-4	4-[(4,5-Dihydro-3-methyl-1-phenyl-5-thioxo-1 <i>H</i> -pyrazol-4-yl)azo]benzenesulfonic acid, D-00445
76719-75-0	2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13-pentaoxacyclopentadecane, M-00104	76950-26-0	2-Hydroxy- <i>N</i> -(2-hydroxy-5-phenylbenzylidene)-5-methylaniline, H-00235	77958-63-5	4-[4,5-Dihydro-3-methyl-4-[(4-sulfophenyl)azo]-5-thioxo-1 <i>H</i> -pyrazol-1-yl]benzenesulfonic acid; Di-Na salt, <i>in</i> D-00459
76740-45-9	5,6-Bis(diphenylphosphino)bicyclo[2.2.1]hept-2-ene; (1 <i>RS</i> ,5 <i>RS</i> ,6 <i>RS</i>)- <i>form</i> , <i>in</i> B-00337	76950-27-1	2-Hydroxy- <i>N</i> -(2-hydroxy-4-methylbenzylidene)-5-methylaniline, H-00215	78017-86-4	2,2':6',2''-Terpyridine; Tri- <i>N</i> -oxide, <i>in</i> T-00005
76748-66-8	5-[(6-Methyl-2-pyridinyl)methyl]-2-thioxo-4-imidazolidinone, M-00291	76950-85-1	1-[(4-Methylphenyl)methyl]-4,6-diphenyl-2(1 <i>H</i>)-pyridinethione, M-00233	78062-05-2	4-(Dimethylamino)- α -oxo-1-naphthaleneacetonitrile, D-00807
76749-59-2	4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+), D-00333	76950-86-2	1-(<i>p</i> -Chlorobenzyl)-4,6-diphenyl-2-pyridinethione, C-00071	78154-59-3	2-Hydroxy-3,5-dinitrobenzoic acid; Anilide, <i>in</i> H-00154
76749-68-3	1-Butyl-4-[[4-(diethylamino)phenyl]azo]pyridinium(1+), B-00625	76950-87-3	1-(<i>p</i> -Methoxybenzyl)-4,6-diphenylpyridine-2-thione, M-00084	78181-58-5	<i>N</i> -Hydroxy-2-thiophenecarboxamide; <i>N</i> -(3-Chlorophenyl), <i>in</i> H-00554
76749-75-2	4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+), D-00332	76950-90-8	1-(2-Furanylmethyl)-4,6-diphenyl-2(1 <i>H</i>)-pyridinethione, F-00055	78226-66-1	2,5,8-Trihydroxy-1,4-naphthoquinone; Tri-Ac, <i>in</i> T-00300
76749-76-3	4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+), D-00329	77037-27-5	8,9,10,11,18,19,20,21-Octahydro-7 <i>H</i> -dibenzo[<i>e,p</i>][1,4,8,14]tetraazacycloheptadecane, O-00017	78277-34-6	7-Amino-4-(trifluoromethyl)-2 <i>H</i> -1-benzopyran-2-one; <i>N</i> -Ph, <i>in</i> A-00365
76787-88-7	4,4'-Diamino-3-methylbiphenyl; B, HCl, <i>in</i> D-00102	77038-70-1	<i>N,N</i> -Dimethyl-4-(2-pyridinylazo)benzenamine, <i>see</i> D-00909	78277-38-0	7-Amino-4-(trifluoromethyl)-2 <i>H</i> -1-benzopyran-2-one; <i>N</i> -Ac, <i>in</i> A-00365
76789-98-5	1-(4-Nitrophenyl)-5-phenylcarbazone, N-00141	77102-02-4	1,4,7,10-Tetraoxa-13-azacyclopentadecane; B,HCl, <i>in</i> T-00111	78277-39-1	7-Amino-4-(trifluoromethyl)-2 <i>H</i> -1-benzopyran-2-one; <i>N</i> -Benzoyl, <i>in</i> A-00365
76791-04-3	(2,1,3-Benzothiadiazole-5 ²)dicarbonylchlororhodium, B-00085	77145-76-7	4-(Dimethylamino)benzaldehyde; (<i>Z</i>)-Oxime, <i>in</i> D-00779	78377-23-8	1-(Diazomethyl)pyrene, D-00153
76832-37-6	Hexamethoxy red, H-00056	77162-07-3	3',6'-Bis(acetyloxy)-5-azidospiro[isobenzofuran-1(3 <i>H</i>),9'-[9 <i>H</i>]xanthen]-3-one, <i>in</i> A-00460	78431-22-8	Azothiopyrine, A-00478
76835-82-0	Butyltriphenylphosphonium(1+); Triiodide, <i>in</i> B-00640	77163-67-8	Azobenzene-4-sulfonic acid; Amide, <i>in</i> A-00468	78431-23-9	1,3-Dimethyl-4-(phenylazo)-1 <i>H</i> -pyrazole-5-thiol, D-00887
76835-83-1	Butyltriphenylphosphonium(1+); Pentaiodide, <i>in</i> B-00640	77326-46-6	Methyl 2-cyano-3-nitrobenzoate, <i>in</i> N-00085	78447-94-6	4-[(4-Bromophenyl)azo]-1,2,3-benzenetriol, B-00545
76835-84-2	Butyltriphenylphosphonium(1+); Heptaiodide, <i>in</i> B-00640	77349-98-5	5-Methoxy-2-(2-pyridinylazo)phenol, <i>in</i> P-00373	78560-77-7	2-Mercaptopropanoic acid; (<i>R</i>)- <i>form</i> , Et ester, <i>S</i> -Ac, <i>in</i> M-00051
76836-02-7	1,4-Piperazinediethanesulfonic acid, <i>see</i> P-00240	77349-99-6	5-Ethoxy-2-(2-pyridinylazo)phenol, <i>in</i> P-00373	78666-13-4	4-(2-Bromobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, B-00493
76845-78-8	2-[(5-Nitro-2-thiazolyl)azo]phenol, N-00166	77350-00-6	5-Methoxy-2-[(5-methyl-2-pyridinyl)azo]phenol, <i>in</i> M-00279	78687-05-5	2-Octanol; (<i>R</i>)- <i>form</i> , Benzoyl, <i>in</i> O-00037
76877-33-3	1-[4-[7-(Diethylamino)-4-methyl-2-oxo-2 <i>H</i> -1-benzopyran-3-yl]phenyl]-1 <i>H</i> -pyrrole-2,5-dione, D-00322	77350-01-7	2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, <i>in</i> B-00563	78697-30-0	2,4,6-Tribromophenol, <i>see</i> T-00205
76877-34-4	<i>N</i> -[4-[7-(Diethylamino)-4-methyl-2-oxo-2 <i>H</i> -1-benzopyran-3-yl]phenyl]-2-iodoacetamide, D-00321	77350-02-8	2-[(3,5-Dibromo-2-pyridinyl)azo]-5-methoxyphenol, <i>in</i> D-00200	78708-41-5	[(6,7,9,10,18,19-Hexahydro-17 <i>H</i> -dibenzo[<i>b,k</i>][1,4,7,10,13]pentaoxacyclohexadecan-18-yl)oxyl]acetic acid, H-00040
76877-40-2	4-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, C-00160				

78755-54-1	<i>N,N'</i> -Bis(butanesulfonyl)-1,2-benzenediamine, B-00271	79811-20-4	5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, <i>in</i> D-00847	81195-42-8	4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3 <i>H</i> -pyrazol-3-one; <i>N</i> ⁴ , <i>N</i> ⁴ , <i>N</i> ⁴ , <i>N</i> ⁴ -Tetra-Et, <i>in</i> B-00253
78833-30-4	<i>N,N</i> -Dimethyl- <i>N'</i> -[4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00875	79816-44-7	Tetrakis(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato)europate(III)(1-); Ag salt, <i>in</i> T-00085	81238-57-5	16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-trien-18-ol, D-00970
78857-85-9	<i>N</i> -[2,6-Dinitro-4-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00978	79948-22-4	1,2-Ethanediylbis [phenylcarbamoithioic acid]; Di-NH ₄ salt, <i>in</i> E-00033	81238-58-6	19-[(2,4-Dinitrophenyl)azo]-3,6,9,12,15-pentaoxabicyclo[15.3.1]heneicosa-1(21),17,19-trien-21-ol, D-00969
78857-86-0	<i>N</i> -[2,4-Dinitro-6-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00977	79948-23-5	1,2-Ethanediylbis [phenylcarbamoithioic acid], E-00033	81253-29-4	(5-Dimethylamino-1-naphthyl) vinyl sulfone, D-00802
78891-75-5	6,7,13,14,15,16,17,18,24,25,31,32,33,34,35,36-Hexadecahydrotetra benzo[<i>e,m,s,a</i>] ₁ [1,4,15,18,8,11,22,25] tetraoxatetraazacyclooctacosine, H-00025	80012-14-2	4-Amino-3-penten-2-one, <i>see</i> A-00294	81331-60-4	13-Hydroxyethyl-1,4,7,10-tetraoxa-13-azacyclopentadecane, H-00182
78972-98-2	6,7-Dihydrotribenzo[<i>e,i,m</i>][1,4,8,11]dioxadiazacyclotetradecine, D-00497	80070-43-5	3-Methyl-1,2-indandione, M-00194	81377-14-2	7-Chloro-4-benzofurazansulfonic acid; NH ₄ salt, <i>in</i> C-00063
79062-03-6	Bis[bis(3-methyl-2-pyridylimino) isoindolinato- <i>N,N',N''</i>] manganese(II), B-00262	80079-70-5	6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid, D-00724	81377-20-0	7-Chloro-4-benzofurazansulfonic acid, C-00063
79162-60-0	2,6-Dihydroxyimine-3-methylenepiperidine, <i>in</i> M-00178	80202-76-2	Heptamethoxy red, H-00010	81450-67-1	1,2-Dihydro-6-methyl-2-oxo-3-pyridinecarboxylic acid; <i>tert</i> -Butyl ester, <i>in</i> D-00441
79191-63-2	3,3',4',5',5'',7-Hexahydroxyflavone, <i>see</i> H-00055	80220-10-6	4-(1,1-Dimethylethyl)- <i>N</i> -hydroxy- <i>N</i> -(2-methylphenyl)benzamide, <i>in</i> B-00619	81484-17-5	4-(2-Hydroxyethyl)-1-piperazinepropanesulfonic acid, <i>see</i> H-00181
79211-64-6	3-[Ethyl-(4-methylphenyl)amino]-1-propanesulfonic acid; Na salt, <i>in</i> E-00100	80317-69-7	2'-Methoxy-[1,1'-binaphthalene]-2-carboxylic acid, <i>in</i> H-00131	81503-68-6	<i>N,N,N',N'</i> -Tetramethylbenzidine-3-sulfonic acid, <i>in</i> D-00058
79225-55-1	2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid; Nitrile, <i>in</i> D-00463	80403-59-4	2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid, <i>see</i> H-00131	81526-35-4	2,4-Dimethyl-6-(1 <i>H</i> -tetrazol-5-yl)azophenol, D-00920
79271-23-1	2-Iodobenzohydroxamic acid, I-00040	80457-30-3	Dodecylmethylpropanedioate bis(1,4,7,10-tetraoxacyclododec-2-ylmethyl)ester, D-01152	81608-06-2	3-[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00569
79319-41-8	2-Hydroxy-4-methoxy- <i>N</i> -salicylideneaniline, <i>in</i> D-00614	80459-15-0	<i>N,N</i> -Dihexyl- <i>N'</i> -benzoylthiourea, <i>in</i> B-00161	81711-02-6	1-[(2-Mercaptophenyl)azo]-2-naphthalenol, M-00042
79402-94-1	1,4,7,10-Tetraoxa-13-azacyclopentadecane; <i>N</i> -(2-Methoxyethyl), <i>in</i> T-00111	80473-45-6	3-[(3-Hydroxy-4-nitrosophenyl)propylamino]-1-propanesulfonic acid, H-00417	81741-69-7	2-Isocyanato-9 <i>H</i> -fluorene, I-00061
79458-82-5	<i>N</i> -(4-Ethylphenyl)- <i>N'</i> -phenylbenzenecarboximidamide, E-00104	80473-46-7	15,16-Dihydro-5 <i>H</i> -dibenzo[<i>b,j</i>][1,11,4,5,7,8]dioxatetraazacyclotridecine-7-carbonitrile, D-00376	81745-49-5	Glyoxime, <i>see</i> G-00037
79458-83-6	<i>N</i> -2,5-Dichlorophenyl- <i>N'</i> -phenylbenzamidine, D-00296	80473-47-8	6,7,9,10-Tetrahydro-16 <i>H</i> -dibenzo[<i>b,j</i>][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine-18-carbonitrile, T-00058	81760-15-8	[2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-15-crown-5, H-00400
79458-84-7	<i>N</i> -(2,6-Dimethylphenyl)- <i>N'</i> -phenylbenzenecarboximidamide, D-00893	80473-48-8	Macrocyclic formazan I, M-00001	81760-16-9	[2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-18-crown-6, H-00401
79458-85-8	<i>N</i> -(4-Chlorophenyl)- <i>N'</i> -(2,6-dimethylphenyl)benzenecarboximidamide, C-00214	80495-39-2	4,4'-Bis(3',4'-dihydroxyphenylazo)-3,3'-dimethoxybiphenyl, B-00303	81810-60-8	<i>N</i> -(2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatritriacyclopentadecin-15-yl)-2-propenamide, O-00005
79458-86-9	4-Chloro- <i>N</i> -(2,3-dimethylphenyl)- <i>N'</i> -phenylbenzenecarboximidamide, C-00102	80495-42-7	4-(3,4-Dihydroxyphenylazo)-4'-hydroxybiphenyl, D-00695	81810-61-9	<i>N</i> -(2,3,5,6,9,10,12,13,15,16-Decahydro-8 <i>H</i> -1,17,4,7,11,14-benzodioxatetraacyclopentadecin-19-yl)-2-propenamide, D-00005
79466-61-8	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)neodymium(III); Bipy complex, <i>in</i> T-00399	80495-43-8	4-[(4'-Amino-(1,1'-biphenyl)-4-yl)azo]-1,2-benzenediol, A-00118	81810-62-2	<i>N,N</i> -Bis(2,3,5,6,8,9,11,12-octahydro-1,13,4,7,10-benzodioxatritriacyclopentadecin-15-yl)pentanediamide, B-00433
79519-67-8	2-[6,7,9,10,18,19-Hexahydro-17 <i>H</i> -dibenzo[<i>b,k</i>][1,4,7,10,13-pentaoxacyclohexadecin-18-yl]oxy]hexanoic acid, H-00042	80495-44-9	4-Catecholyazo-4'-acetylamino-biphenyl, <i>in</i> A-00118	81810-65-3	<i>N,N</i> -Bis(2,3,5,6,9,10,12,13,15,16-decahydro-8 <i>H</i> -1,7,4,7,11,14-benzodioxatetraacyclopentadecin-19-yl)pentanediamide, B-00291
79556-00-0	Ferene <i>S</i> , <i>in</i> F-00003	80500-90-9	3,4-Dihydro-4,4,6-trimethyl-1-(2-pyridinyl)-2(1 <i>H</i>)-pyrimidinethione, D-00503	81833-45-6	Poly[2,3-(4'-acryloylamino)benzo]-1,4-dioxo-7,10,13-trithiacyclopentadeca-2-ene], <i>in</i> O-00005
79566-16-8	13-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13-azacyclopentadecane, H-00386	80527-63-5	4-[(4-Iodophenyl)azo]-1,2,3-benzenetriol, I-00049	81848-81-9	Poly[2,3-(4'-acryloylamino)benzo]-1,4-dioxo-7,10,14,17-tetrathiacyclopentadeca-2-ene], <i>in</i> D-00005
79566-16-8	3,3',3''-[Nitrilotris(4,1-phenyleneazo)]tris[6-hydroxybenzoic acid], N-00075	80527-64-6	4-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00311	81914-09-2	2-Hydroxybenzaldehyde 1-phthalazinylhydrazone, H-00108
79592-90-8	16-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-16-azacyclooctadecane, H-00385	80649-19-0	10-(2-Methoxyethyl)-1,4,7-trioxa-10-azacyclododecane, <i>in</i> T-00359	81927-47-1	<i>N,N'</i> -Ethylenebis[2-(<i>o</i> -hydroxyphenyl)glycine]; (<i>RS,S</i>)- <i>form</i> , <i>in</i> E-00073
79606-13-6	1-[(5-Methyl-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, M-00313	80927-24-8	Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]europate(III)(1-), <i>see</i> A-00396	81944-53-8	
79719-14-5	[1,4-Phenylenebis(methylene)]bis[diocetylphosphine oxide], P-00120	80936-04-5	4,4'-Heptylidenebis[1,2-dihydro-3 <i>H</i> -pyrazol-3-one], H-00018		
		80944-69-0	6-[(4-Aminobutyl)methylamino]-2,3-dihydro-1,4-phthalazine-dione, A-00131		
		81012-92-2	1-[(2-Naphthalenyloxy)acetyl]oxy]-2,5-pyrrolidinedione, N-00020		
		81012-93-3	Thymol blue, <i>see</i> T-00181		
		81017-23-4	7-Hydroxy-2-oxo-2 <i>H</i> -1-benzopyran-3-carboxylic acid; Ac, <i>in</i> H-00426		
		81029-05-2	Brilliant cresyl blue, <i>see</i> B-00477		
		81105-52-4	<i>N</i> -Hydroxy-3-(3-nitrophenyl)- <i>N</i> -phenyl-2-propenamide, H-00402		
		81138-76-3	Chlorophosphonazo pN, C-00244		

81944-54-9	<i>N,N'</i> -Ethylenebis[2-(<i>o</i> -hydroxyphenyl)glycine]; (<i>RS,RS</i>)- <i>form</i> , <i>in</i> E-00073	82633-15-6	2-Quinolincarboxaldehyde 8-quinolinylhydrazone, Q-00015	84071-22-7	5-(1 <i>H</i> -Pyrrol-2-ylmethylene)-2-thioxo-4-imidazolidinone, P-00444
81947-68-4	5-Amino-2-(2-quinolinylazo)phenol, A-00344	82633-17-8	3-Isoquinolincarboxaldehyde 8-quinolinylhydrazone, I-00084	84077-78-1	5-Amino-4-hydroxy-3-[[4-hydroxyphenyl]azo]-2,7-naphthalenedisulfonic acid, A-00195
82002-83-3	(7-Methoxy-2-oxo-2 <i>H</i> -1-benzopyran-4-yl)methyl- <i>N,N'</i> -bis(1-methylethyl)carbamimidate, M-00099	82644-63-1	3-Isoquinolincarboxaldehyde 3-quinolinylhydrazone, I-00083	84166-70-1	7-Hydroxy-4-methyl-8-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2 <i>H</i> -1-benzopyran-2-one, H-00299
82083-97-4	2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxycarbonylthiophene, <i>in</i> C-00326	82810-35-3	9 <i>H</i> -Fluorene-2-carboxaldehyde; 2-Pyridylhydrazone, <i>in</i> F-00012	84289-01-0	6,7-Dichloro-5,8-quinolinedione; <i>N</i> -Oxide, <i>in</i> D-00302
82085-22-1	3,3'-Methylenebis[<i>N</i> ,6-dihydroxybenzamide], M-00170	82855-20-7	4-(2-Thiazolyl)aniline, T-00138	84353-93-5	2-Pyridinecarboxaldehyde diphenylsemicarbazone, P-00323
82112-20-7	<i>N</i> -(<i>tert</i> -Butyldimethylsilyl)- <i>N</i> -methylacetamide, B-00629	82915-58-0	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)neodymium(III); Pyrazole complex, <i>in</i> T-00399	84356-27-4	3,4-Dihydro-3-methyl-1-phenyl-4-stearoyl-5-pyrazolone, D-00444
82138-69-0	4-Methyl-5-[(sulfomethyl)amino]-2-(2-thiazolylazo)benzoic acid, M-00310	82970-90-9	Pyridoxal; Salicyloylhydrazone, <i>in</i> P-00414	84356-80-9	<i>N</i> -(2-Hydroxyphenyl)-2-pyridinecarbothioamide, H-00502
82231-91-2	2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid, D-00463	83003-95-6	<i>N</i> -(2,4-Dinitrophenyl)-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, D-00973	84372-47-4	Diethyl 1-naphthylphosphonite, <i>in</i> N-00055
82354-19-6	Texas red, T-00133	83008-42-8	Datiscanin, <i>in</i> T-00074	84425-51-4	2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazolo[3,2- <i>a</i>]pyridin-4-ium(1+); Chloride, <i>in</i> M-00108
82358-78-9	1,1-Di-2-pyridinyl- <i>N,N'</i> -di-8-quinolinylmethanediamine, D-01062	83014-44-2	Quin 2, Q-00002	84461-48-3	Tetraatriacontyl palmitate, <i>in</i> H-00026
82361-90-8	2,2'-(Butylimino)bis-8-quinolinol, <i>in</i> I-00010	83073-86-3	5-(4-Dimethylamino)phenyl]-2,4-pentadienyl, D-00821	84471-16-9	4-(Diazomethyl)-7-methoxy-2 <i>H</i> -1-benzopyran-2-one, D-00150
82412-17-7	7-Hydroxy-4-methyl-2-oxo-2 <i>H</i> -1-benzopyran-3-acetic acid; Me ether, <i>in</i> H-00295	83104-85-2	Quin 2A, <i>in</i> Q-00002	84549-14-4	5-Ethyl- <i>N</i> -(diisopropylthiophosphoryl) dithiocarbamate, <i>in</i> B-00404
82517-11-1	3,3',4',5',7-Pentahydroxyflavanone, <i>see</i> P-00023	83153-73-5	<i>O</i> -(1-Methylpropyl)hydroxylamine, <i>see</i> M-00259	84592-07-4	3,3',5,5'-Tetrachlorodithizone, T-00034
82526-40-7	1,5-Diphenyl-3-(2-propenylthio)formazan, D-01043	83177-98-4	<i>N</i> -Methyl-5,10,15,20-tetrakis(4-sulfophenyl)porphine, <i>in</i> P-00250	84592-08-5	3,3',4,4'-Tetrachlorodithizone, T-00033
82531-21-3	1,3-Bis(di(2-pyridyl)methyleneamino)urea, B-00345	83411-71-6	Bis(2,4,4-trimethylpentyl)phosphinic acid, B-00468	84592-09-6	2,2',6,6'-Tetrachlorodithizone, T-00032
82531-22-4	Bis(di-2-pyridinylmethylene)carbonimidic dihydrazide, B-00343	83416-16-4	2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13,16-hexaoxacyclooctadecane, M-00103	84592-10-9	2,2',5,5'-Tetrachlorodithizone, T-00031
82531-23-5	5,5-Dimethyl-1,3-cyclohexanedione, <i>see</i> D-00847	83416-18-6	(2-Hydroxy-3,5-dinitrophenyl)oxymethyl-18-crown-6, H-00164	84592-11-0	2,2',3,3'-Tetrachlorodithizone, T-00029
82611-84-5	<i>N</i> -Methyl- <i>N</i> -sulfopropylaniline; Na salt, <i>in</i> M-00311	83416-20-0	(2-Hydroxy-3,5-dinitrophenoxymethyl)-15-crown-5, H-00159	84641-03-2	2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(diethylamino)benzoic acid, <i>in</i> A-00148
82611-85-6	3-(Ethylphenylamino)-1-propanesulfonic acid; Na salt, <i>in</i> E-00102	83446-24-6	2-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]ethanesulfonic acid, <i>see</i> H-00136	84740-96-5	<i>N</i> -(1,4,7,10,13,16,19-Benzoheptaoxacycloheneicosin-21-yl)-2-propenamide, B-00058
82611-86-7	3-(Butylphenylamino)-1-propanesulfonic acid; Na salt, <i>in</i> B-00636	83454-03-9	2,2'-(1,4-Cyclohexanediyldiene)bishydrazinecarbothioamide, <i>in</i> C-00339	84743-35-1	<i>N,N'</i> -Bis(2,3,5,6,8,9,11,12,14,15,17,18-dodecahydro-1,4,7,10,13,16,19-benzoheptaoxacycloheneicosin-21-yl)pentanediamide, B-00346
82611-87-8	3-[Ethyl-(2-methylphenyl)amino]-1-propanesulfonic acid; Na salt, <i>in</i> E-00098	83454-12-0	<i>N,N</i> -Dimethyl- <i>N'</i> -(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00870	84800-12-4	2-Mercapto-3-phenylpropanoic acid; (<i>R</i>)- <i>form</i> , <i>in</i> M-00047
82611-88-9	3-[Ethyl-(3-methoxyphenyl)amino]-1-propanesulfonic acid; Na salt, <i>in</i> E-00097	83459-10-3	3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156	84806-27-9	7-Fluoro-4-benzofurazansulfonic acid; NH ₄ salt, <i>in</i> F-00023
82633-02-1	2-Acetylpyrazine 2-quinolylhydrazone, A-00036	83459-11-4	3-Dodecyl-1,5,10,14-tetraazacyclooctadecane, D-01157	84890-01-7	1,5-Bis(5-chloro-2-hydroxyphenyl)-3-cyanoformazan, B-00283
82633-03-2	2-Benzoylpyrazine 2-quinolylhydrazone, B-00149	83484-86-0	2-Quinolincarboxaldehyde; Oxime; B,MeI, <i>in</i> Q-00009	85138-49-4	2',7'-Bis(carboxyethyl)carboxyfluorescein, B-00273
82633-04-3	3-Isoquinolincarboxaldehyde 2-quinolinylhydrazone, I-00082	83492-36-8	2-[(Dodecyloxy)methyl]-1,4,7,10-tetraoxacyclododecane, D-01154	85139-11-3	2,2'-Iminobis-8-quinolinol, I-00010
82633-05-4	2(1 <i>H</i>)-Quinolione [1-(2-quinolinyl)ethylidene]hydrazone, Q-00026	83678-67-5	Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]gadolate(III) (1-), <i>see</i> A-00397	85168-98-5	2,3-Dimercapto-1-propanesulfonic acid, <i>see</i> D-00761
82633-06-5	2-Benzoylpyridine 3-quinolylhydrazone, B-00156	83680-48-2	3,3',4',5',7-Pentahydroxyflavanone, <i>see</i> P-00023	85187-11-7	2,3-Dimercapto-1-propanesulfonic acid, <i>see</i> D-00761
82633-07-6	2-Acetylpyrazine 3-quinolylhydrazone, A-00037	83728-76-1	5-Methyl-2-furancarboxaldehyde 1-phthalazinylhydrazone, M-00180	85191-43-1	Bis(di-2-pyridinylmethylene)carbonothioic dihydrazide, B-00344
82633-08-7	2-Pyridinecarboxaldehyde 8-quinolinylhydrazone, P-00339	83728-77-2	2-Furancarboxaldehyde 1-phthalazinylhydrazone, F-00048	85224-00-6	<i>N</i> -(3-Chlorophenyl)- <i>N</i> -hydroxy- <i>N'</i> -(2-methylphenyl)benzenecarboximidamide, C-00227
82633-09-8	2-Acetylpyridine 8-quinolylhydrazone, A-00046	83826-53-3	1,2,3,4-Tetrabromo-5,6-dimethoxybenzene, <i>in</i> T-00012	85224-01-7	<i>N</i> -(3-Chlorophenyl)- <i>N</i> -hydroxy- <i>N'</i> -(3-methylphenyl)benzenecarboximidamide, C-00228
82633-10-1	2-Benzoylpyridine 8-quinolylhydrazone, B-00157	84071-20-5	5-Propylidene-2-thioxo-4-imidazolidinone, P-00278	85224-02-8	<i>N</i> -(3-Chlorophenyl)- <i>N</i> -hydroxy- <i>N'</i> -(4-methylphenyl)benzenecarboximidamide, C-00229
82633-11-2	2-Acetylpyrazine 8-quinolylhydrazone, A-00038	84071-21-6	5-(2-Thienylmethylene)-2-thioxo-4-imidazolidinone, T-00152		
82633-12-3	1 <i>H</i> -Pyrrole-2-carboxaldehyde 8-quinolinylhydrazone, P-00438				
82633-13-4	Diphenylethanedione mono(8-quinolinylhydrazone), D-01015				
82633-14-5	Benzaldehyde 8-quinolinylhydrazone, B-00007				

85224-03-9	<i>N</i> -(3-Chlorophenyl)- <i>N</i> -hydroxy- <i>N'</i> -(4-methoxyphenyl)benzenecarboximidamide, C-00224	85985-43-9	α -Oxo-1-anthraceneacetonitrile, O-00054	86486-16-0	2(1 <i>H</i>)-Quinolinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, Q-00023
85224-04-0	<i>N</i> -(3-Chlorophenyl)- <i>N'</i> -(2,5-dimethylphenyl)- <i>N</i> -hydroxybenzenecarboximidamide, C-00216	85985-44-0	α -Oxo-9-anthraceneacetic acid, O-00053	86516-36-1	1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]piperazine, D-00801
85224-05-1	<i>N</i> -(3-Chlorophenyl)- <i>N'</i> -(2,6-dimethylphenyl)- <i>N</i> -hydroxybenzenecarboximidamide, C-00217	86107-96-2	(4-Methyl-5-nitro-2-thiazolyl)thiourea, M-00208	86545-32-6	Butyldiisopropoxyborane, B-00627
85224-06-2	<i>N</i> -(3-Chlorophenyl)- <i>N'</i> -(2,3-dimethylphenyl)- <i>N</i> -hydroxybenzenecarboximidamide, C-00215	86107-97-3	<i>N</i> -Methyl- <i>N'</i> -(4-methyl-5-nitro-2-thiazolyl)thiourea, in M-00208	86565-64-2	2,5-Dichloro-4-[[4-(4-diethylamino)phenyl]azo]benzenesulfonic acid, in A-00311
85224-07-3	<i>N'</i> -(2,3-Dimethylphenyl)- <i>N</i> -hydroxy- <i>N</i> -phenylbenzamidine, D-00890	86107-98-4	<i>N,N</i> -Diethyl- <i>N'</i> -(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00349	86595-45-1	Diethyl cyclohexylboronate, in C-00352
85224-08-4	<i>N'</i> -(2,3-Dimethylphenyl)- <i>N</i> -hydroxy- <i>N</i> -(4-methylphenyl)benzamidine, D-00889	86107-99-5	<i>N,N</i> -Dimethyl- <i>N'</i> -[5-nitro-4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00874	86601-75-4	2-(Dimethylamino)benzoic acid hydrazide, D-00780
85224-09-5	<i>N</i> -(4-Chlorophenyl)- <i>N'</i> -(2,3-dimethylphenyl)- <i>N</i> -hydroxybenzenecarboximidamide, C-00218	86124-84-7	5-(Dimethylamino)-1-naphthalenesulfonic acid, <i>see</i> D-00794	86788-49-0	7-Hydroxy-2-oxo-2 <i>H</i> -1-benzopyran-3-carboxylic acid; Me ester, in H-00426
85233-19-8	1,2-Bis(2-aminophenoxy)ethane- <i>N,N,N',N'</i> -tetraacetic acid, B-00248	86166-64-5	2-(2,3-Dihydro-2,2-dinitro-3-oxo-1 <i>H</i> -inden-1-ylidene)-1 <i>H</i> -indene-1,3(2 <i>H</i>)-dione, <i>see</i> D-00395	86946-90-9	1,3-Cyclopentanedione bis(4-methylthiosemicarbazone); B,HCl, in C-00363
85261-26-3	2-[(3-Mercaptophenyl)azo]-4-methylphenol, M-00041	86167-87-5	3-[(3-Acetylphenyl)azo]-6-[[4-chloro-2-phosphonophenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00030	87035-60-7	3-[3-Amino-4-[(5-bromo-2-pyridinyl)azo]phenyl]propylamino]-1-propanesulfonic acid; Na salt, in A-00127
85261-27-4	4-Methyl-2-[[2-(methylthio)phenyl]azo]phenol, in M-00041	86190-01-4	3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, in A-00149	87035-61-8	3-[3-Amino-4-[(5-bromo-2-pyridinyl)azo]phenyl]propylamino]-1-propanesulfonic acid, A-00127
85261-28-5	[[2-[(2-Hydroxy-5-methylphenyl)azo]phenyl]thio]acetic acid, H-00303	86190-02-5	3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, B-00566	87035-62-9	2-(3,5-Dibromo-2-pyridylazo)-5-(<i>N</i> -propyl- <i>N</i> -sulfopropylamino)aniline, D-00214
85261-29-6	[[2-[(2-Hydroxy-1-naphthalenyl)azo]phenyl]thio]acetic acid, H-00352	86190-03-6	2-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]ethanesulfonic acid, in A-00149	87035-63-0	2-(3,5-Dibromo-2-pyridylazo)-5-(<i>N</i> -propyl- <i>N</i> -sulfopropylamino)aniline; Na salt, in D-00214
85261-30-9	3-Hydroxy-4-[[2-(methylthio)phenyl]azo]-2,7-naphthalenedisulfonic acid, in H-00259	86190-04-7	3-[[4-[(5-Bromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid, B-00565	87051-83-0	Benzothiosemicarbazone, in B-00068
85308-79-8	3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00249	86190-05-8	3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, B-00567	87147-65-7	2-Methyl-4-(1 <i>H</i> -1,2,4-triazol-3-ylazo)-1,3-benzenediol, M-00328
85407-79-0	<i>N</i> -Benzyl-2-naphthohydroxamic acid, in N-00024	86190-06-9	3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, D-00206	87187-84-6	Bis(2-pyridylmethylene) carbonothioic acid dihydrazide, B-00444
85464-94-4	2'-Methyl- α -oxo-[1,1'-binaphthalene]-2-acetonitrile; (\pm)- <i>form</i> , in M-00212	86217-77-8	α -Amino-1-naphthaleneacetic acid; (\pm)- <i>form</i> , Me ester; B,HCl, in A-00261	87187-85-7	Bis(2-pyridylmethylene) carbonimidic acid dihydrazide, B-00443
85464-95-5	2'-Methyl- α -oxo-[1,1'-binaphthalene]-2-acetonitrile; (+)- <i>form</i> , in M-00212	86252-93-9	1,8-Bis(octanesulfonamido)naphthalene, B-00437	87317-83-7	4-(Bromomethyl)-2 <i>H</i> -naphtho[1,2- <i>b</i>]pyran-2-one, B-00529
85464-96-6	2'-Methyl- α -oxo-[1,1'-binaphthalene]-2-acetonitrile; (-)- <i>form</i> , in M-00212	86252-94-0	<i>N</i> -(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490	87387-81-3	4,5-Dihydro-1 <i>H</i> -pyrazole-3,4-dicarboxylic acid; Di-Me ester, in D-00480
85565-50-0	5,6-Dihydroxy-1,10-phenanthroline, <i>see</i> D-00686	86252-95-1	<i>N</i> -8-Quinoliny-1-butan-sulfonamide, in A-00340	87435-73-2	Phenosafrazo blue, P-00071
85638-82-0	4,5-Dimethyl-2-[(5-methyl-1,3,4-thiadiazol-2-yl)azo]phenol, D-00872	86252-96-2	<i>N</i> -8-Quinolinyethanesulfonamide, in A-00340	87454-39-5	Nitrophosphonazo-mA, N-00147
85661-24-1	Pyrazinecarboxylic acid; Me ester, 1-oxide, in P-00285	86252-97-3	1-Octanesulfonamido-2-naphthol, in A-00273	87468-62-0	Di-2-pyridinylmethanone 2-benzothiazolylhydrazone, D-01072
85754-45-6	2-Thiophenecarboxaldehyde 2-quinolinylhydrazone, T-00172	86253-12-5	<i>tert</i> -Butylboronic acid, B-00620	87550-19-4	3,6-Dinitro-1,2-benzenedicarboxylic acid; Monopyridinium salt, in D-00939
85764-06-3	1,1-Bis[4-(dimethylamino)phenyl-3-phenyl-2-propynyl]onium(1+); Chloride, in B-00324	86277-62-5	2-(2-Aminostyryl)-6-methoxy-8-aminoquinoline- <i>N,N,N',N'</i> -tetraacetic acid; (<i>E</i>)- <i>form</i> , in A-00347	87555-93-9	Diethylenetriamine; <i>N,N,N'</i> -Tris(4-methylbenzenesulfonyl), in D-00345
85770-93-0	1-Phenyl-1,3-butanedione 3-[[6-phenyl-4-(phenylmethyl)-3-pyridazinyl]hydrazone], P-00108	86278-51-5	Benzofuroin oxime, in F-00052	87707-51-5	2(3 <i>H</i>)-Benzoxazolethione; <i>NH</i> - <i>form</i> , 3-Benzyl, in B-00113
85777-05-5	2-(2-Methoxyphenyl)-1,4,7,10,13,16-hexaoxacyclooctadecane, M-00109	86293-31-4	2-(2-Aminostyryl)-6-methoxy-8-aminoquinoline- <i>N,N,N',N'</i> -tetraacetic acid; (<i>E</i>)- <i>form</i> , Tetraakis(acetoxymethyl) ester, in A-00347	87802-52-6	Bis[bis(3-methyl-2-pyridylimino)isoindolato- <i>N,N,N'</i>]manganese(II), <i>see</i> B-00262
85777-06-6	2-(2-Methoxyphenyl)-1,4,7,10,13-pentaoxacyclooctadecane, M-00115	86328-83-8	(Diazomethyl)cyclohexane, D-00149	87816-65-7	<i>p</i> -Acetylarsenazo, A-00012
85908-62-9	1-Naphthalenethiocarboxyhydrazide, <i>see</i> N-00016	86328-83-8	(Diazomethyl)cyclohexane, D-00149	87834-21-7	6,7,9,10,17,18,20,21-Octahydro-7,18-dimethylidibenzof[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecane, O-00024
		86328-94-1	3,3a,4,5,6,7-Hexahydro-2,3-diphenyl-2 <i>H</i> -indazole, H-00047	87834-22-8	7,18-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzof[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecane, D-00352
		86328-95-2	3,3a,4,5,6,7-Hexahydro-3-phenyl-2,1-benzisoxazole, H-00050	87834-23-9	7,18-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzof[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecane, D-00236
		86414-85-9	5-(Thiocarbamoyl)dithiophosphoric acid, <i>O,O'</i> -Dipropyl, in T-00161		
		86444-19-1	1-[(3-Methyl-5-oxo-1-phenyl-2-pyrazolin-4-yl)azo]anthraquinone, M-00215		

87852-85-5	α -Hydroxy- α -phenylbenzeneacetic acid 2-[(4-methylphenyl)sulfonyl]hydrazide, H-00464	90457-25-3	4,5-Dibromo-9-(3,5-dibromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3 <i>H</i> -xanthen-3-one, D-00181	91999-89-2	3-[Ethyl[3-hydroxy-4-[(2-hydroxy-5-methylphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00087
88031-93-0	2,3-Dimercapto-1-propanesulfonic acid; (\pm)-form, in D-00761	90536-15-5	2-Mercapto-3-phenylpropanoic acid, M-00047	91999-90-5	3-[[4-[(5-Chloro-2-hydroxyphenyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, C-00148
88047-11-4	8,9,11,12,14,15,17,18,20,21-Decahydro-29 <i>H</i> -dinaphtho[2,1- <i>q</i> :1',2'- <i>i</i>][1,4,7,10,13,16]hexaoxacycloheneicosin, D-00016	90540-78-6	Triaquaa[[<i>N,N'</i> -(1-methyl-1,2-ethanediy)]bis[<i>N</i> -(carboxymethyl)glycinato]](4-)- <i>N,N'</i> - <i>O,O'</i> , <i>O'',O'''</i>]europate(1-); Na salt, in T-00196	91999-91-6	2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-[<i>N</i> -ethyl- <i>N</i> -(sulfopropyl)amino]phenol, H-00174
88053-38-7	2-Pyridinecarboxaldehyde 2-furoylhydrazone, P-00324	90691-98-8	Ferene, F-00003	91999-92-7	4-[[4-[Ethyl(3-sulfopropyl)amino]-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, E-00115
88054-84-6	3,3'-[3-(Phenylamino)carbonyl]-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid], P-00080	90704-68-0	4-[(2-Mercaptophenyl)amino]-2-butenic acid; (<i>Z</i>)-form, in M-00040	92071-88-0	2-(3-Phenyl-2-triazenyl)phenol; <i>N</i> ¹ -Oxide, in P-00204
88083-10-7	4',5,7-Trihydroxyflavone, see T-00285	90763-46-5	2-Hydroxy-5-nitrobenzoic acid; Me ether, chloride, in H-00383	92071-89-1	2-Hydroxybenzoic acid [(2,3-dihydroxyphenyl)methylene]hydrazide, H-00115
88083-35-6	Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]europate(III) (1-); Na salt, in A-00396	90895-52-6	4,5-Dihydroxy-3-(phenylazo)-6-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, D-00701	92076-92-1	1-(Trifluoroacetyl)-2-pyrrolidinecarbonyl chloride, see T-00242
88112-57-6	5-Chloro-2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1 <i>H</i> -pyrazol-4-yl)azo]benzoic acid, C-00094	90906-67-5	Macrocyclic formazan II, M-00002	92289-55-9	2-(2-Hydroxy-5-methylphenylazo)-4-methylthiazole, H-00301
88220-26-2	2-Mercapto-3-(1-naphthalenyl)-2-propanoic acid, M-00037	90906-68-6	6,7,9,10-Tetrahydro-18-phenyl-16 <i>H</i> -dibenzo[<i>b,i</i>][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine, T-00065	92437-15-5	1-Anthracenecarboxylic acid; Hydrazide, in A-00376
88381-00-4	2-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]ethyl carbonochloridate, D-00800	90906-69-7	15,16-Dihydroxy-7-phenyl-5 <i>H</i> -dibenzo[<i>b,i</i>][1,11,14,4,5,7,8]dioxatetraazacyclotridecine, D-00709	92569-68-1	5-(Diethylamino)-2-[(4,5-dimethyl-2-thiazolyl)azo]phenol, in A-00163
88404-25-5	4-(Bromomethyl)-6,7-dimethoxy-2 <i>H</i> -1-benzopyran-2-one, B-00519	91000-53-2	3-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, see H-00137	92744-65-5	Cyclohexyl(phenylmethyl) carbamodithioic acid; Et ₃ N salt, in C-00357
88637-37-0	Diphenhydramine citrate, in D-00998	91097-77-7	7-(4,5-Dimethyl-2-thiazolyl)azo-8-hydroxy-5-quinolinesulfonic acid, D-00922	92818-15-0	5-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclotridecane, P-00143
88718-32-5	Benzo-14-crown-4, B-00053	91097-78-8	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamide, C-00235	92818-22-9	6-[(Phenylmethoxy)methyl]-1,4,8,11-tetraoxacyclotetradecane, P-00142
88795-34-0	3-[Ethyl(3-methoxyphenyl)amino]-1-propanesulfonic acid, E-00097	91151-80-3	3-Pyridine-[2-(hydroxyimino)-1-methylpropylidene]carboxylic acid, P-00355	92836-59-4	Pyrocatecholsulfonephthalein complexan, P-00432
89104-48-3	2,3-Butylene chlorophosphate, in C-00099	91366-65-3	7-Fluoro-4-benzofurazansulfonamide, in F-00023	92845-55-1	2,2-Diethoxypropanamide, in P-00448
89104-49-4	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane, see C-00099	91379-47-4	Bis[(2-hydroxyphenyl)methylene] carbonimidic dihydrazide, B-00391	92905-81-2	3-Phenyl-2,7-naphthyridin-1(2 <i>H</i>)-one, P-00152
89104-49-4	2-Chloro-4,5-dimethyl-1,3,2-dioxaphospholane; (4 <i>R</i> ,5 <i>R</i>)-form, in C-00099	91454-65-8	7-(Chlorocarbonylmethoxy)-4-methylcoumarin, C-00077	92923-44-9	Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]gadoliniate(III) (1-); Na salt, in A-00397
89276-87-9	4-[(4-Amino-1-naphthalenyl)azo]-5-hydroxy-2,7-naphthalenedisulfonic acid, see A-00276	91491-51-9	Rose bengal; Bis Et ₃ NH salt, in R-00010	92944-71-3	1-(4-Benzoylphenyl)-1 <i>H</i> -pyrrole-2,5-dione, B-00146
89314-59-0	Bis(2-pyridylmethylene)carbonic acid dihydrazide, B-00442	91502-44-2	2,4,6-Triaminopyrimidine; <i>N</i> ⁴ -Et, in T-00194	93201-59-3	5-Amino-4-hydroxy-3-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, A-00220
89418-44-0	2,2'-Dithiois-1 <i>H</i> -imidazole, in D-00424	91539-72-9	6-Dodecyl-6-methyl-1,4,8,11-tetraoxacyclotetradecane, D-01153	93245-55-7	Benzoic acid [1-[2-(4-bromo-2-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00060
89618-08-6	Thymine; 1- α -D-Xylofuranosyl, in T-00179	91575-54-1	7-Fluoro-4-benzofurazansulfonic acid, F-00023	93245-56-8	Benzoic acid [1-[2-(2,4-dinitrophenyl)hydrazino]ethylidene]hydrazide, B-00062
89631-49-2	4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine, see D-00790	91630-54-5	[3-[(2,5-Dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]ferrocene, D-00995	93245-57-9	4-Methoxybenzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, M-00083
89631-83-4	5-(2-Quinolinyloxy)-1,2,4-benzenetriol, Q-00028	91816-63-6	1,3-Benzenedicarboxylic acid, see B-00019	93365-11-8	3-(Isoquinolyl)-5,6-diphenyl-1,2,4-triazine, see I-00087
89648-37-3	β -Hydroxy-4-(2-hydroxyethyl)-1-piperazinepropanesulfonic acid, see H-00203	91872-31-0	1-(2-Naphthalenylsulfonyl)-2-pyrrolidinecarbonyl chloride; (<i>S</i>)-form, in N-00022	93372-15-7	3-(Isoquinolyl)-5,6-diphenyl-1,2,4-triazine, I-00087
89819-06-7	Chlorophosphonazo- <i>m</i> -sulfonic acid, C-00246	91901-49-4	1,4-Dihydro-5-hydroxy-1-(4-methylphenyl)-4-oxo-2-pyridinecarboxylic acid, D-00411	93372-17-9	4,4',4'',4'''-[3,3'-Bi-1,2,4-triazine]-5,5',6,6'-tetrayltetrakisbenzenesulfonic acid; Tetra-NH ₄ salt, in B-00473
90043-70-2	2,19-Diethyl-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzob[<i>b,q</i>][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, D-00348	91991-08-1	8-(Acetyloxy)-1,3,6-pyrenetrisulfonyl trichloride, in H-00517	93376-74-0	2-Chloro- <i>N'</i> -(4-chlorophenyl)- <i>N</i> -hydroxy- <i>N</i> -phenylbenzenecarboximidamide, C-00087
90095-19-5	(2-Hydroxyphenoxymethyl)-12-crown-4, H-00444	91999-87-0	2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-(<i>N,N</i> -diethylamino)phenol, H-00173	93418-03-2	2-Furancarboxaldehyde 3-bromobenzoylethylhydrazone, F-00045
90141-22-3	Gossypol, see G-00041	91999-88-1	3-[Ethyl[3-hydroxy-4-[(2-hydroxyphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00088		
90142-20-4	1-Methyl-8-hydroxyquinolinium betaine, see M-00189				
90330-19-1	Thymine; 1- <i>N</i> -Benzoyl, in T-00179				
90332-36-8	3,3',4',5',7-Pentahydroxyflavone, see P-00025				
90358-66-0	Ferene, see F-00003				
90421-78-6	4-Hydrazino-7-nitrobenzofurazan, H-00084				
90429-62-2	8-Methoxy-5-quinolinesulfonyl chloride, M-00121				

93418-14-5	2-Thiophenecarboxaldehyde 3-bromobenzoylhydrazine, T-00171	94976-44-0	Bis(2,2':6',2''-terpyridine- <i>N,N',N''</i>) iron(<i>II</i>)(2+), <i>see</i> B-00457	96656-79-0	6,7,10,11,17,18-Hexahydro-5 <i>H</i> ,9 <i>H</i> -dibenzo[<i>e,n</i>][1,4,10,7,13]trithiadiazacyclopentadecine, H-00046
93418-23-6	3-Chlorobenzoic acid (1 <i>H</i> -pyrrol-2-ylmethylene)hydrazide, C-00069	95069-72-0	3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid; Ti complex, <i>in</i> B-00569	96684-97-8	5,5'-Dithiodisalicylhydroxamic acid, D-01131
93418-34-9	Di-2-pyridinylmethanone 2-chlorobenzoylhydrazine, D-01074	95088-66-7	<i>N</i> -[2,4-Dinitro-6-(trifluoromethyl)phenyl]-3,4,6,7,10,11-hexahydro-2 <i>H</i> ,9 <i>H</i> -1,5,8,12-benzotetraoxacylotetradecin-14-amine, D-00976	96735-88-5	1-[[[(7-Hydroxy-4-methyl-2-oxo-2 <i>H</i> -benzopyran-3-yl)acetyl]oxy]-2,5-pyrrolidinedione, H-00296
93418-35-0	Di-2-pyridinylmethanone 3-chlorobenzoylhydrazine, D-01075	95256-43-2	9-Chloro-10-methylacridinium(1+); Trifluoromethanesulfonate, <i>in</i> C-00170	96848-50-9	Di-2-pyridinylethanedione bis(diphenylsemicarbazone), D-01064
93426-81-4	Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]europate(<i>III</i>)(1-), A-00396	95264-76-9	2-(2-Oxo-1(2 <i>H</i>)-acenaphthylene)lidene)hydrazinecarbothioamide, <i>in</i> A-00001	96860-19-4	<i>N</i> -(2-Furanylmethyl)hydrazinecarbothioamide, F-00057
93444-96-3	2-Furancarboxaldehyde 4-bromobenzoylhydrazine, F-00046	95333-99-6	4-Butoxy- <i>N</i> -(4-chlorophenyl)benzohydroxamic acid, B-00612	96927-42-3	Tetraoxacyclozochrome, T-00112
93527-68-5	3-(Isoquinolyl)-5,6-diphenyl-1,2,4-triazine; Tris-SO ₃ H deriv., <i>in</i> I-00087	95334-00-2	4-Butoxy- <i>N</i> -hydroxy- <i>N</i> -phenylbenzamide, B-00614	96927-43-4	Hexaoxacyclozochrome, H-00067
93603-09-9	2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid; (±)- <i>form</i> , Me ether, <i>in</i> H-00131	95514-80-0	[(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbothioic dihydrazide, H-00483	96927-45-6	10-(2-Hydroxy-5-nitrobenzyl)-1,4,7-trioxo-10-azacyclododecane, H-00387
93628-49-0	2-Mercapto-3-phenyl-2-butenic acid, M-00043	95633-07-1	4-(Phenyl- <i>O,N,N</i> -azoxy)benzenamine, <i>in</i> A-00094	96941-70-7	<i>O</i> -[(Tetrahydro-2-furanyl)methyl]carbonodithioate; K salt, <i>in</i> T-00062
93638-57-4	Pallatriazo, P-00003	95633-08-2	4-(Phenyl- <i>N,N,O</i> -azoxy)benzenamine, <i>in</i> A-00094	97431-10-2	5-Decyl-2-(1,4,7,10-tetraoxacyclotridec-5-ylmethoxy)benzoic acid, D-00028
93913-15-6	1,2-Bis(3,4-dimethoxyphenyl)-1,2-ethanediamine, B-00311	95713-52-3	Marfey's reagent, <i>in</i> F-00028	97431-13-5	5-Decyl-2-(1,4,8,11-tetraoxacyclotetradec-6-ylmethoxy)benzoic acid, D-00027
93913-19-0	1,2-Bis(3,4-dimethoxyphenyl)-1,2-ethanediamine; (<i>RS,SR</i>)- <i>form</i> , <i>in</i> B-00311	95735-67-4	3-Hydroxy-2-naphthalenecarboxylic acid [[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazide, H-00341	97474-89-0	3-Amino-5-(4-hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, <i>in</i> H-00462
93913-20-3	1,2-Bis(3,4-dimethoxyphenyl)-1,2-ethanediamine, <i>see</i> B-00311	95833-33-3	5-Dimethylamino-2-[(4-methyl-2-thiazolyl)azo]phenol, D-00793	97516-27-3	2-Thiazolecarboxaldehyde 2-quinolinylhydrazine, T-00137
94075-19-1	Tribromoarsenazo, T-00203	95833-34-4	2-(2-Benzothiazolylazo)-5-methoxyphenol, <i>in</i> B-00092	97541-63-4	Di-2-pyridinylmethanone 2-furoylhydrazine, D-01077
94098-92-7	4-Bromo-1-naphthalenediazonium(1+); Chloride, <i>in</i> B-00536	95833-35-5	2-(2-Benzothiazolylazo)-5-(dimethylamino)phenol, B-00094	97605-79-3	3,26-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29-(3,4,5-trimethoxyphenyl)-29 <i>H</i> -dinaphtho[2,1- <i>q</i> :1'-2'- <i>r</i>][1,4,7,10,13,16]hexaoxacycloheptacosin, B-00328
94099-66-8	2,4-Dihydroxy-1-methoxyanthraquinone, <i>in</i> T-00270	96031-14-0	2-[(5-Ethyl-1,3,4-thiadiazol-2-yl)azo]-4-methoxyphenol, E-00116	97611-60-4	α-Amino-1-naphthaleneacetic acid; (±)- <i>form</i> , <i>in</i> A-00261
94194-73-7	7,8,9,10,18,19,20,21-Octahydro-6 <i>H</i> -dibenzo[<i>b,f</i>]-[1,14,5,10]dioxadiazacyclononadecine, O-00011	96314-94-2	Stil 1, S-00026	97632-67-2	7-Methoxy-2-oxo-2 <i>H</i> -1-benzopyran-3-carbonyl azide, <i>in</i> H-00426
94345-04-7	4-(Bromoacetyl)phenyl 9-anthracenecarboxylate, B-00485	96314-96-4	Indo 1, I-00031	97632-68-3	7-Methoxy-2-oxo-2 <i>H</i> -1-benzopyran-4-carbonyl azide, M-00097
94390-11-1	7,8,9,10,11,12,19,20,21,22-Decahydrodibenzo[<i>e,q</i>][1,4,8,15]tetraazacyclooctadecine, D-00013	96314-98-6	Fura 2, F-00039	97721-16-9	2,2':6',2''-Terpyridine; 1- <i>N</i> -Oxide, <i>in</i> T-00005
94413-93-1	1,2-Cyclohexanedione bis(2-pyridyl)hydrazine, C-00343	96315-04-7	Fura 2, <i>see</i> F-00039	97721-17-0	2,2':6',2''-Terpyridine; 1,1'-Di- <i>N</i> -oxide, <i>in</i> T-00005
94533-51-4	1,2-Diphenyl-1,2-ethanediamine; (<i>1RS,2SR</i>)- <i>form</i> , <i>N</i> -Tetra-Me, <i>in</i> D-01010	96331-97-4	Fura 2; Penta-Et ester, <i>in</i> F-00039	97744-84-8	8-(Bromomethyl)-6 <i>H</i> -1,3-dioxolo[4,5- <i>g</i>][1]benzopyran-6-one, B-00523
94533-52-5	1,2-Diphenyl-1,2-ethanediamine; (<i>1RS,2RS</i>)- <i>form</i> , <i>N</i> -Tetra-Me, <i>in</i> D-01010	96399-47-2	2-Amino-4-[(4-nitrophenyl)azo]-3-pyridinol, A-00283	97839-24-2	4-Chloro-6-(2-thiazolylazo)-1,3-benzenediol, C-00263
94533-53-6	1,2-Diphenyl-1,2-ethanediamine; (<i>1RS,2SR</i>)- <i>form</i> , <i>N</i> -Tetra-Et, <i>in</i> D-01010	96487-38-6	6,7-Dihydroxy-4-methyl-2-(3-sulfo)phenyl)-1-benzopyrylium(1+); Chloride, <i>in</i> D-00656	98095-85-3	<i>N</i> -(Aminothioxomethyl)- <i>N</i> -phenylbenzamide, <i>in</i> P-00201
94533-54-7	1,2-Diphenyl-1,2-ethanediamine; (<i>1RS,2SR</i>)- <i>form</i> , <i>N</i> -Tetra-Et, <i>in</i> D-01010	96487-39-7	6,7-Dihydroxy-2-(3-hydroxyphenyl)-4-methyl-1-benzopyrylium(1+), D-00627	98204-84-3	12-Oxo-7-drimen-11-oic acid, <i>in</i> D-01160
94616-63-4	1,2-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazine, C-00341	96511-68-1	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)neodymium(<i>III</i>); Imidazole complex, <i>in</i> T-00399	98213-15-1	3-Cyclohexyl-2-mercapto-2-propanoic acid, C-00355
94616-64-5	1,3-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazine, C-00342	96656-74-5	6,7,8,9,10,11,17,18-Octahydro-5 <i>H</i> -dibenzo[<i>e,n</i>][1,4,7,13]dioxadiazacyclopentadecine, O-00012	98213-15-1	<i>N,N'</i> -Bis(pyridinylmethylene)-1,2-ethanediamine, B-00441
94779-97-2	Arsenazo DBS, A-00408	96656-75-6	6,7,10,11,17,18-Hexahydro-5 <i>H</i> ,9 <i>H</i> -dibenzo[<i>e,n</i>][1,4,10,7,13]trioxadiazacyclopentadecine, H-00045	98241-37-3	Nitrilotriacetic acid, <i>see</i> N-00074
94787-51-6	3-[(2-Benzothiazolylhydrazono)-2-pyridinylmethyl]benzenesulfonic acid, B-00102	96656-76-7	6,7,10,11,17,18-Hexahydro-5 <i>H</i> ,9 <i>H</i> -dibenzo[<i>e,n</i>][1,4,10,7,13]trioxadiazacyclopentadecine, H-00038	98296-38-9	5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 1,3-bisthiosemicarbazone, <i>in</i> D-00848
94787-53-8	4-Hydroxy-5-[[[2-hydroxy-1-naphthalenyl)methylene]amino]-2,7-naphthalenedisulfonic acid, H-00225	96656-78-9	6,7,10,11,17,18-Hexahydro-5 <i>H</i> ,9 <i>H</i> -dibenzo[<i>e,n</i>][1,7,10,4,13]oxadithiadiazacyclopentadecine, H-00039	98311-71-8	3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-2-hydroxy-1-propanesulfonic acid, B-00568
94816-77-0	5-(1-Benzyl-2-benzimidazolyl)-1-(2-hydroxyphenyl)-3-phenylformazan, B-00168			98311-72-9	3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, D-00207

98311-73-0	3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid, D-00204	100344-00-1	6-(Diethylamino)-2-naphthalenesulfonic acid hydrazide, D-00325	101470-48-8	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)chromium(III), <i>see</i> T-00392
98367-20-5	4,4'-Diaminostilbene-2,2'-disulfonic acid, <i>see</i> D-00125	100363-98-2	2-(3,4-Dihydroxyphenyl)-3,5,6,7-tetrahydroxy-4 <i>H</i> -1-benzopyran-4-one, <i>see</i> D-00717	101583-43-1	3,5-Diacetyl-4-(2-chlorophenyl)-2,6-heptanedione, D-00034
98506-68-4	6-Dodecyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01148	100443-49-0	2-[[2-(2-Ethoxyethoxy)ethyl](2-ethoxyethyl)aminomethyl]-4-nitrophenol, E-00055	101615-74-1	[2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenyl]arsonic acid, P-00099
98506-70-8	6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01146	100443-50-3	7-Hydroxy-4-methyl-8-(1,4,7-trioxa-10-azacyclododec-10-ylmethyl)-2 <i>H</i> -1-benzopyran-2-one, H-00334	101645-04-9	5-Methyl-2-(2-pyridinylazo)phenol, M-00284
98627-11-3	3-Methoxy-2-(methylthio)pyridine, <i>in</i> H-00520	100443-51-4	1,2-Dihydroxy-3-(1,4,7,10-tetraoxa-13-azacyclotetradec-13-ylmethyl)-9,10-anthracenedione, D-00737	102036-43-1	1,2,3-Indanetrione; 2-(Thiosemicarbazone), <i>in</i> I-00025
98630-04-7	Mesotetraisobutylporphine, M-00063	100443-52-5	1,2-Dihydroxy-3-(1,4,7,10,13-pentaaxa-16-azacyclooctadecylmethyl)-9,10-anthracenedione, D-00682	102062-36-2	3-[[4'-Amino-3,3',5,5'-tetramethyl[1,1-biphenyl]-4-yl]amino]-1-propanesulfonic acid, A-00353
98670-02-1	(1-Diazoethyl)pentafluorobenzene, D-00147	100443-57-0	2-Hydroxy-3,5-dinitrobenzyl-15-crown-5, H-00155	102062-46-4	3-[[4'-Amino-3,3',5,5'-tetramethyl[1,1-biphenyl]-4-yl]amino]-1-propanesulfonic acid; Na salt, <i>in</i> A-00353
98701-60-1	1,3,4,7,8,10,11,13-Octahydro- <i>N</i> -(2,4,6-trinitrophenyl)-6 <i>H</i> -2,5,9,12-benzotetrahiacyclotetradec-15-amine, O-00032	100443-59-2	2-Hydroxy-[5-(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00398	102101-05-3	4',5,7-Trihydroxyflavanone, <i>see</i> T-00281
98701-62-3	1,3,4,7,8,10,11,13-Octahydro-6 <i>H</i> -2,5,9,12-benzotetrahiacyclotetradec-15-amine, O-00008	100443-60-5	2-Hydroxy-3,5-bis[(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00141	102269-67-0	5-Diethylaminomethyl-8-quinolinol, <i>in</i> A-00244
98716-92-8	3',4',5,7-Tetrahydroxyflavone, <i>see</i> T-00077	100443-61-6	2-Hydroxy-5-(4-nitrophenylazo)phenylmethyl-18-crown-6, H-00399	102269-68-1	5-[(Octyloxy)methyl]-8-quinolinol, O-00039
98742-60-0	2-(2,3-Dihydro-2,2-dinitro-3-oxo-1 <i>H</i> -inden-1-ylidene)-1 <i>H</i> -indene-1,3(2 <i>H</i>)-dione, D-00395	100462-81-5	2-Furancarboxaldehyde 2-pyridinylhydrazone, <i>see</i> F-00049	102286-67-9	Fluorescein; Lactone- <i>form</i> , Mono- β -D-galactopyranoside, <i>in</i> F-00020
98774-26-6	2-Hydroxybenzoic acid [2-pyridinyl(3-sulfophenyl)methylene]hydrazide, H-00122	100462-82-6	2-Furancarboxaldehyde 2-pyridinylhydrazone, <i>see</i> F-00049	102362-77-6	5-[Bis(2-hydroxy-3-sulfopropyl)amino]-2-[(3,5-dibromo-2-pyridinyl)azo]-4-methylbenzoic acid, B-00395
98793-05-6	Dinaphtho-30-crown-10, D-00932	100499-11-4	Bismuthiol II sulfonic acid, <i>in</i> M-00060	102362-78-7	3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-2-hydroxy-1-propanesulfonic acid, D-00205
99093-71-7	2-Acetylpyridine 2-benzothiazolylhydrazone, A-00040	100556-76-1	2,3-Butanedione; Thiosemicarbazone, (2-pyridyl)hydrazone, <i>in</i> B-00587	102387-11-1	2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(3-sulfopropyl)amino]benzoic acid, <i>in</i> A-00148
99223-48-0	[(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonic dihydrazide, H-00482	100595-07-1	3-(Bromomethyl)-6,7-dimethoxy-1-methyl-2(1 <i>H</i>)-quinoxalinone, B-00520	102387-12-2	2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(2-hydroxy-3-sulfopropyl)amino]benzoic acid, D-00208
99348-39-7	2,2'-Bis[3,4-(15-crown-5)-2-nitrophenylcarbamoxymethyl]tetradecane, B-00290	100743-65-5	4-(3,5-Dibromo-2-pyridylazo)- <i>N</i> -ethyl- <i>N</i> -(3-sulfopropyl)aniline, D-00212	102387-13-3	2-[(3,5-Dibromo-2-pyridinyl)azo]-5-ethyl(2-hydroxy-3-sulfopropyl)amino]benzoic acid, D-00202
99380-57-1	4-Amino-5-thioxo-1,2,4-triazolidin-3-one di-(2-pyridinylmethylene)hydrazone, A-00363	100743-66-6	4-(3,5-Dibromo-2-pyridylazo)- <i>N,N</i> -diethylaniline, D-00211	102387-14-4	2-[(3,5-Dibromo-2-pyridinyl)azo]-4-methyl-5-[(3-sulfopropyl)amino]benzoic acid, D-00209
99514-57-5	1,5-Bis(2-chlorophenyl)-3-nitroformazan, B-00288	100743-67-7	3-[Ethyl[4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, E-00118	102387-15-5	2-[(3,5-Dibromo-2-pyridinyl)azo]-5-ethyl(3-sulfopropyl)amino]benzoic acid, D-00203
99688-02-5	2-[2,3-Bis(hydroxyimino)-5,5-dimethylcyclohexylidene]hydrazinecarbothioamide, <i>in</i> D-00848	100852-76-4	4-[[4-Nitrophenyl]azo]-2-(1,4,7,10-tetraoxa-13-azacyclotetradec-13-yl)phenol, N-00130	102421-45-4	1-(1-Diazoethyl)naphthalene, D-00145
99776-84-8	4'-Anilino-2,5-dichloroazobenzene-4-sulfonic acid, A-00370	100896-07-9	α -Amino-1-naphthaleneacetic acid; (<i>R</i>)- <i>form</i> , <i>in</i> A-00261	102430-61-5	1,5-Bis(6-methyl-4-pyrimidyl)carbazone, B-00425
99796-49-3	3,4-Dihydro-4,4,6-trimethyl-1-(2,4,6-trichlorophenyl)-2(1 <i>H</i>)-pyrimidinethione, D-00505	101013-07-4	Triton X 100; Hexahydro, <i>in</i> T-00428	102502-25-0	2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbonic acid dihydrazide, H-00218
100108-74-5	Fura 2, <i>see</i> F-00039	101021-61-8	3,3-Bis(8-quinolyloxymethyl)oxetane, B-00452	102530-21-2	2,14-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecine, B-00348
100111-29-3	3,4-Dihydro-4,4,6-trimethyl-1-(4-phenyl-2-thiazolyl)-2(1 <i>H</i>)-pyrimidinethione, D-00502	101231-86-1	3-[3-(3,3-Dimethyl-1(3 <i>H</i>)-isobenzofuranylidene)-1-propenyl]-1,1-dimethyl-1 <i>H</i> -isobenzofurylium(1+); Perchlorate, <i>in</i> D-00869	102530-22-3	2,13-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecine, B-00347
100215-37-0	Fura 2, <i>see</i> F-00039	101342-95-4	Di-2-pyridinylmethanone benzoylhydrazone, D-01073	102563-30-4	(3-Azido-3-oxopropyl)ferrocene, A-00461
100331-92-8	1-(2-Naphthalenylsulfonyl)-2-pyrrolidinedicarbonyl chloride, N-00022	101342-96-5	Di-2-quinolinylmethanone 2-quinolinylhydrazone, D-01103	102601-34-3	3-(Cyclohexylamino)-2-hydroxy-1-propanesulfonic acid, <i>see</i> C-00349
100343-95-1	[[4-(5-Methyl-2-benzothiazolyl)phenyl]amino]acetohydrazide, M-00142	101373-14-2	5-(Ethylamino)-4-methyl-2-[[4-phenyl-2-thiazolyl]azo]phenol, <i>in</i> A-00250		
100343-96-2	2-(Diisopropylamino)benzoic acid hydrazide, D-00747	101412-82-2	2-(4-Amino-2-hydroxyphenylazo)thiazole, <i>see</i> A-00214		
100343-97-3	2-(Diethylamino)benzoic acid hydrazide, D-00315	101469-88-9	Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- <i>O,O'</i>)chromium(III), <i>see</i> T-00392		
100343-98-4	7-(Diethylamino)-2-oxo-2 <i>H</i> -1-benzopyran-3-carboxylic acid hydrazide, D-00326				
100343-99-5	4-(4,5-Dihydro-3-phenyl-1 <i>H</i> -pyrazol-1-yl)benzenesulfonic acid hydrazide, D-00469				

102607-46-5	Octacosyl (<i>E</i>)-isoferulate, <i>in</i> D-00716	104077-15-8	3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl chloride, <i>in</i> D-00379	106029-97-4	8-[[4-[(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)azo]phenyl]amino]-1-naphthalenesulfonic acid, D-00006
102636-89-5	3-(Ethylphenylamino)-1-propanesulfonic acid, E-00102	104170-12-9	5,5'-Dichloro-2,2'-dimethyldithizone, D-00266	106150-44-1	Tris(tetraphenylimidodiphosphinato)praseodymium, T-00422
102691-87-2	α -Methyl-2-anthracenemethanamine; (\pm)- <i>form</i> , <i>in</i> M-00126	104170-13-0	4,4'-Dichloro-2,2'-dimethyldithizone, D-00265	106288-59-9	3-[[[(5-Methyl-2-pyridinyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, M-00287
102691-89-4	α -Methyl-1-anthracenemethanamine; ($-$)- <i>form</i> , <i>in</i> M-00125	104170-14-1	3,3'-Dichloro-2,2'-dimethyldithizone, D-00264	106288-60-2	3-[[[(5-Nitro-2-pyridinyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, N-00151
102691-90-7	α -Methyl-1-anthracenemethanamine; (+)- <i>form</i> , <i>in</i> M-00125	104180-30-5	<i>t</i> -Oxo-1-pyrenedecanoic acid, O-00072	106314-88-9	3-[[[(5-Chloro-2-pyridinyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, C-00257
102691-91-8	α -Methyl-2-anthracenemethanamine; ($-$)- <i>form</i> , <i>in</i> M-00126	104184-03-4	6,7,8,9,10,11,17,18-Octahydro-5 <i>H</i> -dibenzo[<i>e,n</i>][1,4,7,13]dithiadiazacyclopentadecine, O-00015	106419-28-7	6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01145
102691-92-9	α -Methyl-1-anthracenemethanamine; (\pm)- <i>form</i> , <i>in</i> M-00125	104316-48-5	Tetraphenylstibonium(1+); Methanesulfonate, <i>in</i> T-00122	106419-31-2	6-Dodecyl-6-[2-hydroxy-3,5-bis(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01144
102691-93-0	2-Methoxy-2-(1-naphthyl)propanoic acid, <i>see</i> M-00095	104316-49-6	Tetraphenylstibonium(1+); Trifluoromethanesulfonate, <i>in</i> T-00122	106419-32-3	6-Dodecyl-6-[2-hydroxy-3-nitro-5-(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01149
102771-42-6	<i>N</i> -[[4-[[7-(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoyl]glycine, C-00248	104316-51-0	Tetraphenylstibonium(1+); Benzenesulfonate, <i>in</i> T-00122	106419-35-6	6-(2-Hydroxy-3,5-dinitrobenzyl)-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00156
102783-18-6	4,5-Diamino-6-hydroxypyrimidine; Sulfate, <i>in</i> D-00098	104316-52-1	Tetraphenylstibonium(1+), <i>see</i> T-00122	106419-36-7	6-[2-Hydroxy-3-nitro-5-(4-nitrophenylazo)benzyl]-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00389
102819-15-8	α -Methyl-2-anthracenemethanamine; (+)- <i>form</i> , <i>in</i> M-00126	104316-53-2	Tetraphenylstibonium(1+); 4-Methylbenzenesulfonate, <i>in</i> T-00122	106419-38-9	6-Benzyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00185
102915-34-4	2-Aminobenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, A-00107	104316-54-3	Tetraphenylstibonium(1+); 2,4-Dinitrobenzenesulfonate, <i>in</i> T-00122	106419-39-0	6-Benzyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00182
102929-91-9	2,14-Bis(2-ethoxyethoxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[<i>b,k</i>][1,4,7,10,13,16]hexaoxacyclooctadecine, B-00349	104700-27-8	6,7,8,9,10,11,17,18-Octahydro-8-[(4-methylphenyl)sulfonyl]-5 <i>H</i> -dibenzo[<i>e,n</i>][1,4,7,10,13]dioxatriazacyclopentadecine, O-00028	106434-35-9	6-(2-Hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, H-00157
102937-82-6	<i>O</i> -(4-Nitrobenzyl)tyrosine, <i>see</i> N-00100	104928-17-8	4-Chloro-2-[(1,3,4,7,8,10,11,13-octahydro-6 <i>H</i> -2,5,9,12-benzotetrathiacyclopentadecin-15-yl)azo]phenol, C-00191	106531-68-4	5-(Dimethylamino)-1-naphthalenesulfonyl azide, D-00795
102937-83-7	<i>O</i> -(4-Nitrobenzyl)tyrosine; (<i>R</i>)- <i>form</i> , Me ester, <i>in</i> N-00100	104932-68-5	2-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]ethanesulfonic acid, H-00550	106538-73-2	2,4-Dihydroxybenzophenone; Semicarbazone, <i>in</i> D-00536
103129-97-1	1-(2-Naphthalenylsulfonyl)-2-pyrrolidinedecarbonyl chloride, <i>see</i> N-00022	104932-69-6	3-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, H-00551	106569-22-6	3,3-Bis(1-naphthylloxymethyl)oxetane, B-00428
103445-61-0	2,6-Bis(4-methylphenyl)-4-phenylpyrylium(1+); Chloride, <i>in</i> B-00410	104932-70-9	2-[[3-Hydroxy-4-(methyl-2-thiazolylazo)phenyl]amino]ethanesulfonic acid, H-00329	106569-27-1	1,3-Bis(8-quinoloxyl)-2,2-diethylpropane, B-00450
103499-59-8	2-Mercapto-3-phenylpropanoic acid; (<i>R</i>)- <i>form</i> , Me ester, <i>in</i> M-00047	104932-71-0	3-[[3-Hydroxy-4-[(4-methyl-2-thiazolyl)azo]phenyl]amino]-1-propanesulfonic acid, H-00330	106694-40-0	2-[(3,4-Dihydroxyphenyl)methylene]hydrazinecarboximidamide, D-00712
103582-37-2	1-(2-Hydroxy-5-methylphenyl)-1-butanone; (<i>E</i>)- <i>form</i> , Oxime, <i>in</i> H-00309	104932-72-1	3-[Ethyl[5-hydroxy-2-methyl-4-[(4-methyl-2-thiazolyl)azo]]-1-propanesulfonic acid, E-00092	106868-21-7	6,6-Dibenzyl-1,4,8,11-tetraoxacyclotetradecane, D-00173
103600-03-9	5-(2,4-Dinitrophenylazo)-8-hydroxyquinoline, D-00968	104951-60-2	4-[(1,3,4,7,8,10,11,13-Octahydro-6 <i>H</i> -2,5,9,12-benzotetrathiacyclopentadecin-15-yl)azo]phenol, O-00010	106868-32-0	6-Dodecyl- <i>N,N</i> -diethyl-1,4,8,11-tetraoxacyclotetradecane-6-acetamide, D-01143
103603-62-9	4-(Bromomethyl)-7-methoxy-6-nitro-2 <i>H</i> -benzopyran-2-one, B-00526	105140-25-8	2-Hydroxy-3-[[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, <i>see</i> H-00192	106909-96-0	2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid, <i>see</i> H-00131
103616-07-5	2-Mercaptopropanoic acid; (<i>R</i>)- <i>form</i> , Et ester, <i>in</i> M-00051	105488-58-2	2,4,6-Trinitro- <i>N</i> -[2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)phenyl]benzenamine, T-00356	107140-28-3	Di-2-pyridinylethanedione bis(2-quinolinylhydrazone), D-01067
103616-08-6	α -Mercaptobenzenoacetic acid; (<i>S</i>)- <i>form</i> , <i>in</i> M-00019	105488-60-6	<i>N,N'</i> -[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diylbis(methylene-2,1-phenylene)]bis[2,4,6-trinitrobenzenamine], T-00361	107396-38-3	1,12-Di-2-thienyl-2,5,8,11-tetrathiadodecane, D-01115
103638-91-1	Bis[2-[[2-[2-(2-methoxyethoxy)ethoxy]ethoxy]carbonyl]-4-nitrophenyl]ethanedioate, B-00399	105504-95-8	2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[<i>N</i> -(2,4,6-trinitrophenyl)]benzenamine, T-00116	107474-79-3	1-(9 <i>H</i> -Fluoren-9-yl)ethyl carbonochloridate; (+)- <i>form</i> , <i>in</i> F-00017
103666-99-5	3,3',4',5',7-Pentahydroxyflavone, <i>see</i> P-00025	105609-13-0	5-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2-thioxo-4-thiazolidinone, H-00220	107624-52-2	9 <i>H</i> -Carbazole-9-carboxylic acid; Me ester, <i>in</i> C-00020
103682-76-4	7-(4-Pyridinylazo)-8-quinolinol; <i>N</i> ⁴ -Oxide, <i>in</i> P-00382				
103764-33-6	7-Hydroxy-4-methyl-2 <i>H</i> -1-benzopyran-2-one, <i>see</i> H-00283				
103835-64-9	1-[[[(1-Naphthalenylamino)carbonyl]oxy]-2,5-pyrrolidinedione, N-00058				
104077-14-7	3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarboxylic acid; Me ester, <i>in</i> D-00379				

108011-98-9	4-(6-Methyl-2-naphthalenyl)-4-oxo-2-butenic acid, M-00204	109888-85-9	6,7,8,9,10,11,18,19,20,21-Decahydro-8-[(4-methylphenyl)sulfonyl]-5 <i>H</i> ,17 <i>H</i> -dibenzo[<i>b,k</i>][1,13,4,7,10]dioxatriazacyclooctadecine, <i>in</i> D-00011	112077-80-2	Phenylalanine α -naphthylamide; (<i>S</i>)- <i>form</i> , <i>in</i> P-00078
108100-42-1	[(2-Hydroxyphenyl)methylene]carbonothioic acid (di-2-pyridinylmethylene) dihydrazide, H-00481	109888-86-0	7,8,9,10,17,18,19,20,21,22-Decahydro-6 <i>H</i> ,16 <i>H</i> -dibenzo[<i>h,q</i>][1,7,4,10,16]dioxatriazacyclooctadecine, D-00012	112096-42-1	2-[2-[(5-Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3 <i>H</i> -indolium(1+); Perchlorate, <i>in</i> D-00826
108472-65-7	4-[2-Cyano-2-(3,4-dimethoxyphenyl)ethenyl]- <i>N,N,N</i> -trimethylbenzenemethanaminium(1+); Trifluoromethanesulfonate, <i>in</i> C-00327	109888-87-1	7,8,9,10,17,18,19,20,21,22-Decahydro-8-[(4-methylphenyl)sulfonyl]-6 <i>H</i> ,16 <i>H</i> -dibenzo[<i>h,q</i>][1,7,4,10,16]dioxatriazacyclooctadecine, <i>in</i> D-00012	112359-95-2	1,2,3-Indanetriore; Trioxime, <i>in</i> I-00025
108491-56-1	4-Cyclopentyl-6-(2-pyridinylazo)-1,3-benzenediol, C-00367	109904-91-8	6,7,8,9,10,11,18,19,20,21-Decahydro-5 <i>H</i> ,17 <i>H</i> -dibenzo[<i>b,k</i>][1,13,4,7,10]dioxatriazacyclooctadecine, D-00011	112603-59-5	3-[[4-[(6-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00570
108576-22-3	3-(5-Methyl-2-furanyl)-2-propenal, <i>see</i> M-00182	109955-51-3	Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]europate(III) (1-), <i>see</i> A-00396	112700-77-3	3,29-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,21,23,24-dodecahydro-32-(3,4,5-trimethoxyphenyl)-32 <i>H</i> -dinaphtho[2,1- <i>r</i> :1',2'- <i>w</i>][1,4,7,10,13,16,19]heptaoxacyclotetracosin, B-00330
108602-37-5	3,7-Dihydro-8-[[4-(4-hydroxyphenyl)amino]methyl]-1,3,7-trimethyl-1 <i>H</i> -purine-2,6-dione, D-00418	110090-64-7	5-[[4-(Phenylamino)phenyl]imino]-2(5 <i>H</i>)-furanone, P-00085	112700-82-0	29-(2,6-Dichlorophenyl)-3,26-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29 <i>H</i> -dinaphtho[2,1- <i>q</i> :1',2'- <i>r</i>][1,4,7,10,13,16]hexaaxacycloheneicis, D-00290
108609-82-1	2-[(3,5-Dichloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, D-00300	110346-97-9	3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Benzoylhydrazone, <i>in</i> P-00386	112700-83-1	32-(2,6-Dichlorophenyl)-3,29-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,23,24-dodecahydro-32 <i>H</i> -dinaphtho[2,1- <i>r</i> :1',2'- <i>w</i>][1,4,7,10,13,16,19]heptaaxacyclotetracosin, D-00291
108964-32-5	Fura 2-AM, <i>in</i> F-00039	110470-26-3	α -Amino-1-naphthaleneacetic acid, <i>see</i> A-00261	112756-82-8	1,5-Bis(2-iodophenyl)- <i>N</i> -phenyl-3-formazancarboxamide, B-00396
109173-46-8	4-Cyclopentyl-6-(2-quinolinylazo)-1,3-benzenediol, C-00368	110470-39-8	α -Amino-1-naphthaleneacetic acid, <i>see</i> A-00261	112756-83-9	1,5-Bis(2-bromophenyl)- <i>N</i> -phenyl-3-formazancarboxamide, B-00270
109173-47-9	Di-2-pyridinylmethanone guanylhidrazone, D-01078	110470-40-1	α -Amino-1-naphthaleneacetic acid, <i>see</i> A-00261	112756-84-0	1,5-Bis(2-fluorophenyl)- <i>N</i> -phenyl-3-formazancarboxamide, B-00358
109328-98-5	1-(1,5-Di-2-thiazolylformazanil)ethanone, D-01112	110484-52-1	1,2-Naphthoquinone-4-sulfonic acid 2-(phenylthiosemicarbazone); Na salt, <i>in</i> N-00037	112794-29-3	1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid, <i>see</i> T-00063
109632-03-3	5-[(1-Acetyl-2-oxopropyl)azo]-2,3-dihydro-1,4-phthalazinedione, A-00027	110518-92-8	19-[[4-Nitrophenyl]azo]-3,6,9,12,15-pentaaxabicyclo[15.3.1]heneicosa-1(21),17,19-trien-21-ol, N-00127	112794-30-6	1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid, <i>see</i> T-00063
109632-04-4	2,6-Diacetylpyridine bis(2-furoylhydrazone), D-00037	110926-94-8	3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl azide, <i>in</i> D-00379	112828-31-6	1-[(6-Methyl-2-pyridinyl)azo]-2-naphthalenol, M-00282
109672-90-4	4,4',4''-[1,3,5-Triazine-2,4,6-triyltris(azo)]tris[3-hydroxy-1-naphthalenesulfonic acid], T-00198	110999-36-5	3-(Aminocarbonyl)-1,4-dimethylpyridinium(1+); Chloride, <i>in</i> A-00133	112926-02-0	Indo 1AM, <i>in</i> I-00031
109704-53-2	Tetramethylammonium(1+); Triacetoxylborohydride, <i>in</i> T-00092	111025-40-2	3-(Aminocarbonyl)-1,4-dimethylpyridinium(1+); Iodide, <i>in</i> A-00133	113034-77-8	Tris(2,6-di- <i>tert</i> -butylphenoxy)cerium(III), T-00387
109715-11-9	Indigo-5,5',7-trisulfonic acid, I-00030	111052-01-8	<i>N</i> -Hydroxy-4-(octyloxy)- <i>N</i> -phenylbenzamide, H-00425	113034-80-3	Tris(2,6-di- <i>tert</i> -butylphenoxy)cerium(III); Bis(<i>tert</i> -butyl isocyanide) complex, <i>in</i> T-00387
109731-58-0	Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbonic dihydrazide, B-00375	111248-72-7	1,2-Bis(2-amino-5-bromophenoxy)ethane- <i>N,N,N',N'</i> -tetraacetic acid, B-00243	113282-02-3	1,3-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00356
109888-79-1	7,8,9,10,17,18,19,20,21,22-Decahydro-6 <i>H</i> ,16 <i>H</i> -dibenzo[<i>b,k</i>][1,13,4,10]dioxadiazacyclooctadecine, D-00009	111278-71-8	2,4-Dihydro-5-methyl-2-(4-methylphenyl)-4-(2,2,3,3,3-pentafluoro-1-oxopropyl)-3 <i>H</i> -pyrazol-3-one, D-00433	113282-03-4	1,4-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00357
109888-80-4	6,7,9,10,17,18,19,20,21,22-Decahydro-19-[(4-methylphenyl)sulfonyl]-16 <i>H</i> -dibenzo[<i>h,q</i>][1,4,7,10,13,16]trioxatriazacyclooctadecine, <i>in</i> D-00015	111278-72-9	4-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-2,4-dihydro-5-methyl-2-(4-methylphenyl)-3 <i>H</i> -pyrazol-3-one, H-00008	113305-25-2	1,2-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00355
109888-82-6	7,8,9,10,17,18,21,22-Octahydro-8-[(4-methylphenyl)sulfonyl]-6 <i>H</i> ,16 <i>H</i> ,20 <i>H</i> -dibenzo[<i>b,k</i>][1,7,13,4,10,16]trioxatriazacyclooctadecine, <i>in</i> O-00022	111283-09-1	2-Pyridinecarboxaldehyde (5-chloro-2-pyridinyl)hydrazzone, P-00322	113340-90-2	2-Chloro- <i>N</i> -(4-chlorophenyl)- <i>N'</i> -phenylbenzenecarboximidamide, C-00089
109888-83-7	6,7,10,11,18,19,20,21-Octahydro-5 <i>H</i> ,9 <i>H</i> ,17 <i>H</i> -dibenzo[<i>b,k</i>][1,7,13,4,10]trioxadiazacyclooctadecine, O-00021	111313-19-0	Phenylglyoxal; Mono(2-pyridyl)hydrazone, <i>in</i> P-00132	113340-91-3	2-Chloro- <i>N</i> -(2-chlorophenyl)- <i>N'</i> -(4-chlorophenyl)benzenecarboximidamide; B,HCl, <i>in</i> C-00083
109888-84-8	7,8,9,10,17,18,19,20,21,22-Decahydro-8,19-bis[(4-methylphenyl)sulfonyl]-6 <i>H</i> ,16 <i>H</i> -dibenzo[<i>h,q</i>][1,7,4,10,13,16]dioxatetraazacyclooctadecine, D-00008	111313-20-3	5,6-Dimethyl-2-nitro-1,3-indanedione; Bis(thiosemicarbazone), <i>in</i> D-00873	113361-88-9	2-Chloro- <i>N</i> -(4-chlorophenyl)- <i>N'</i> -(3-methylphenyl)benzenecarboximidamide, <i>in</i> C-00082
		112011-36-6	Tributyl(hexadecyl)phosphonium(1+), <i>see</i> T-00210	113361-89-0	2-Chloro- <i>N</i> -(4-chlorophenyl)- <i>N'</i> -(2-methylphenyl)benzenecarboximidamide, <i>in</i> C-00082

113361-90-3	2-Chloro- <i>N</i> -(4-chlorophenyl)- <i>N'</i> -(4-methylphenyl)benzenecarboximidamide, <i>in</i> C-00082	115621-32-4	<i>N,N'</i> -Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10,13-penta-oxa-15,18-diazacycloheicosane, B-00385	117932-58-8	2-[[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-[(2-hydroxyphenyl)methylene]carbothioic acid dihydrazide, H-00219
113361-91-4	2-Chloro- <i>N</i> -(3-chlorophenyl)- <i>N'</i> -(4-chlorophenyl)benzenecarboximidamide; B,HCl, <i>in</i> C-00084	115654-93-8	2,2'-(1,4,10-Trioxa-7,13-diazacyclotetradecane-7,13-diyl)-3,1-propanediylbis[4-[(4-nitrophenyl)azo]phenol], T-00362	117932-59-9	Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbothioic dihydrazide, B-00376
113361-92-5	2-Chloro- <i>N,N'</i> -bis(4-chlorophenyl)benzenecarboximidamide; B,HCl, <i>in</i> C-00073	115654-94-9	2,2'-(1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyl)-3,1-propanediylbis[4-[(4-nitrophenyl)azo]phenol], T-00117	117951-04-9	3,26-Bis(1,1-dimethylethyl)-29-(2,5-dimethylphenyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29 <i>H</i> -dinaphtho[2,1- <i>q</i> :1',2'- <i>j</i>][1,4,7,10,13,16]-hexa-oxacycloheicosin, B-00329
113389-01-8	4-Ethyl- <i>N</i> -hydroxy- <i>N'</i> -phenylbenzamide, E-00093	115701-67-2	(1,4,7,10-Tetraazacyclododecane- <i>N,N',N'',N'''</i> -tetramethylenephosphonato) dysprosate(5-), T-00008	118378-76-0	3',6'-Dihydroxy-5-isothiocyanatospiro [isobenzofuran-1(3 <i>H</i>),9'-[9 <i>H</i>]xanthen]-3-one, <i>see</i> D-00638
113389-03-0	<i>N</i> -Hydroxy-2-methyl- <i>N'</i> -[3-(trifluoromethyl)phenyl]benzamide, H-00333	116247-66-6	5-[[4-(Dimethylamino)phenyl]azo]-1-naphthalenesulfonyl chloride, <i>in</i> A-00314	118609-65-7	1-(9 <i>H</i> -Fluoren-9-yl)ethyl carbonochloridate, F-00017
113389-04-1	<i>N</i> -[3,5-Bis(trifluoromethyl)phenyl]- <i>N'</i> -hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465	116381-11-4	3-(Bromomethyl)-6,7-(methylenedioxy)-1-methyl-2(1 <i>H</i>)-quinoxalinone, B-00528	118746-64-8	2,3,14,15-Tetrakis(2-methoxyphenyl)-1,4,7,10,13,16,19,22-octa-oxacyclotetracosane-2,14-diene, T-00087
113694-64-7	Fura 2; Penta-K salt, <i>in</i> F-00039	116489-11-3	<i>N</i> -(2-Chlorophenyl)- <i>N'</i> -(4-chlorophenyl)benzenecarboximidamide, C-00209	118747-05-0	3-(2-Thiazolylazo)-2,4-pentanedione, T-00144
113701-20-5	1-[[[1-(1-Naphthalenyl)ethyl]amino]carbonyloxy]-2,5-pyrrolidinedione; (<i>R</i>)- <i>form</i> , <i>in</i> N-00019	116489-14-6	<i>N</i> -(2,3-Dimethylphenyl)- <i>N'</i> -phenylbenzenecarboximidamide, D-00892	118747-06-1	3-Acetyl-1,5-bis(1,2-dihydro-1,5-dimethyl-3-oxo-2-phenyl-4-pyrazolyl)formazan, A-00014
113701-21-6	1-[[[1-(1-Naphthalenyl)ethyl]amino]carbonyloxy]-2,5-pyrrolidinedione; (<i>S</i>)- <i>form</i> , <i>in</i> N-00019	116741-65-2	2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid; (<i>S</i>)- <i>form</i> , Me ether, chloride, <i>in</i> H-00131	118792-46-4	1 <i>H</i> -Pyrrole-2-carbothioic acid; <i>S</i> -Me ester, <i>in</i> P-00437
114044-23-4	1-Chloromethylbenz[<i>cd</i>]indol-2(1 <i>H</i>)-one, <i>in</i> B-00050	116921-74-5	6,7,9,10,12,13,15,16,18,19-Decahydro-2,4,21,23-tetramethyl-25-(1-naphthalenyl)-25 <i>H</i> -dibenzo[<i>g,h</i>][1,4,7,10,13,16]hexa-oxacycloheicosin, D-00020	118792-47-5	1 <i>H</i> -Pyrrole-2-carbothioic acid; 1-Me, <i>S</i> -Me ester, <i>in</i> P-00437
114320-90-0	Bis(2,2':6,2''-terpyridine- <i>N,N',N''</i>)iron(II)(2+); Bis-hexafluorophosphate, <i>in</i> B-00457	116967-85-2	2-Chloro- <i>N</i> -(4-chlorophenyl)- <i>N'</i> -(2,3-dimethylphenyl)benzenecarboximidamide, C-00085	118896-77-8	2,9-Dimethyl-1,10-phenanthroline; <i>N</i> -Oxide, <i>in</i> D-00880
114341-13-8	4-(2-Phthalimidyl)benzoyl chloride, P-00228	117001-30-6	2-Chloro- <i>N</i> -(2-chlorophenyl)- <i>N'</i> -phenylbenzenecarboximidamide, C-00088	119191-00-3	2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenol, P-00098
114341-15-0	3-(2-Phthalimidyl)benzoyl chloride, P-00227	117001-31-7	2-Chloro- <i>N</i> -(2-methylphenyl)- <i>N'</i> -phenylbenzenecarboximidamide, C-00184	119426-78-7	3,4-Dihydro-1(2 <i>H</i>)-phenazinone, D-00466
114341-16-1	3-(2-Phthalimidyl)-4-methoxybenzoyl chloride, P-00229	117001-32-8	<i>N</i> -(2-Methylphenyl)- <i>N'</i> -(4-chlorophenyl)benzamide, M-00226	119581-94-1	<i>N</i> -(4-Aminophenyl)- <i>N</i> -hydroxy-3-(2-thienyl)-2-propenamide, A-00325
114459-15-3	Bis[(2,3-dihydroxyphenyl)methylene]carbonothioic dihydrazide, B-00308	117106-38-4	1,2-Bis(4-ethoxyphenyl)-1,2-ethanediamine; (<i>RS,SR</i>)- <i>form</i> , <i>in</i> B-00350	119581-95-2	<i>N</i> -(3-Aminophenyl)- <i>N</i> -hydroxy-3-(2-thienyl)-2-propenamide, A-00324
114482-52-9	6-Dodecyl-6-[2-hydroxy-5-(1,8-naphthalenedicarboximido)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01147	117345-79-6	[(4-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00484	119581-96-3	<i>N</i> -Hydroxy- <i>N</i> -(4-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00274
114494-61-0	<i>N</i> -(3,5-Dimethoxybenzoyl)isoleucine; <i>L</i> - <i>form</i> , <i>in</i> D-00767	117345-80-9	[(2,4-Dihydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, D-00713	119581-97-4	<i>N</i> -Hydroxy- <i>N</i> -(3-methoxyphenyl)-3-(2-thienyl)-2-propenamide, <i>in</i> H-00553
114896-72-9	2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatriacyclopentadecane, O-00004	117584-75-5	Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)] gadolinate(III)(1-); Ca salt (2:1), <i>in</i> A-00397	119582-00-2	<i>N</i> -Hydroxy- <i>N</i> -phenyl-3-(2-thienyl)-2-propenamide, H-00505
114932-60-4	1-[1-Oxo-4-(1-pyrenyl)butoxy]-2,5-pyrrolidinedione, O-00073	117584-76-6	Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)] gadolinate(III)(1-); Mg salt (2:1), <i>in</i> A-00397	119582-01-3	<i>N</i> -(4-Chlorophenyl)- <i>N</i> -hydroxy-3-(2-thienyl)-2-propenamide, C-00234
115016-08-5	α -Amino-1-naphthaleneacetic acid, <i>see</i> A-00261	117609-65-1	Di-2-pyridinylmethanone 5-nitro-2-pyridylhydrazone, D-01079	119582-02-4	<i>N</i> -(4-Bromophenyl)- <i>N</i> -hydroxy-3-(2-thienyl)-2-propenamide, B-00552
115355-99-2	Castamollissin, <i>in</i> T-00273	117894-18-5	3,3',4',5,7-Pentahydroxyflavanone, <i>see</i> P-00023	119582-04-6	<i>N</i> -Hydroxy- <i>N</i> -(4-nitrophenyl)-3-(2-thienyl)-2-propenamide, H-00405
115491-93-5	Diallyl dicarbonate, <i>in</i> D-00243			120263-19-6	<i>N,N'</i> -Dimethyl-1,2-bis[3-(trifluoromethyl)phenyl]-1,2-ethanediamine, D-00843
115525-78-5	2,5-Dichloro-4-[[4-(4-dimethylamino)phenyl]azo]benzenesulfonic acid, <i>in</i> A-00311			120367-88-6	6,7,9,10,17,18,19,20,21,22-Decahydro-6 <i>H</i> ,16 <i>H</i> -dibenzo[<i>h,q</i>][1,4,7,10,13,16]trioxatriazacyclooctadecane, D-00015
115525-79-6	2,5-Dichloro-4-[[4-(4-dibutylamino)phenyl]azo]benzenesulfonic acid, <i>in</i> A-00311			120551-15-7	Mag-fura-2, M-00003
115621-29-9	<i>N,N'</i> -Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,13,16,19-hexa-oxa-10,22-diazacyclotetradecane, B-00384				
115621-30-2	<i>N,N'</i> -Bis(2-hydroxy-5-nitrobenzyl)10,13-diaza-1,4,7-trioxacyclopentadecane, B-00383				
115621-31-3	<i>N,N'</i> -Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10-tetra-oxa-13,16-diazacyclooctadecane, B-00386				

120551-16-8	Fura 2, <i>see</i> F-00039	124521-96-6	1-Ethyl-2-(1-ethyl-1,4-dihydro-4-pyridinyl)-6-methylquinolinium(1+), <i>see</i> E-00081	126192-51-6	Bis[4-bromo-2-[(2-(2-methoxyethoxy)ethoxy)carbonyl]phenyl] ethanedioate, B-00268
120889-37-4	6-Amino-4-hydroxy-5-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenesulfonic acid, A-00191	124522-09-4	3-(Bromomethyl)-7-methoxy-2 <i>H</i> -1,4-benzoxazin-2-one, B-00525	126235-52-7	<i>N,O</i> -Bis(allyldimethylsilyl)trifluoroacetamide, B-00241
121108-87-0	17-[(6,7,9,10,18,19-Hexahydro-17 <i>H</i> -dibenzo[<i>b,k</i>][1,4,7,10,13]-pentaoxacyclohexadecin-18-yl)oxy]octadecanoic acid, H-00043	124579-19-7	2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid, <i>see</i> H-00131	126235-53-8	1,1-Dimethyl- <i>N,N</i> -diphenyl-1-(2-propenyl)silanamine, D-00853
121216-83-9	α -Amino-1-naphthaleneacetic acid, <i>see</i> A-00261	124617-93-2	3-[(7,8,16,17-Tetrahydro-6 <i>H</i> ,15 <i>H</i> -dibenzo[<i>b</i> , <i>l</i>][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]propanoic acid, T-00057	126264-67-3	<i>N</i> -(Dimethyl-2-propenylsilyl)-2,2,2-trifluoro- <i>N</i> -methylacetamide, D-00901
121310-47-2	1,2-Diaminocyclohexane- <i>N,N,N',N'</i> -tetraacetic acid, <i>see</i> D-00065	124617-95-4	2-[(7,8,16,17-Tetrahydro-6 <i>H</i> ,15 <i>H</i> -dibenzo[<i>b</i> , <i>l</i>][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]butanoic acid, T-00056	126433-30-5	2-[(5-Bromo-2-pyridinyl)azo]-4,5-dimethylphenol, B-00564
121714-22-5	Fluo 3AM, <i>in</i> F-00009	124617-96-5	4-[(6,7,9,10,18,19-Hexahydro-17 <i>H</i> -dibenzo[<i>b,k</i>][1,4,7,10,13]pentaoxacyclohexadecin-18-yl)oxy]butanoic acid, H-00041	126651-35-2	2-Bromo- <i>N</i> -1-pyrenylacetamide, B-00561
122607-12-9	1-[(Methoxyphenylacetyl)oxy]-2,5-pyrrolidinedione; (<i>S</i>)-form, <i>in</i> M-00105	125202-62-2	1-Ethyl-2-(1-ethyl-1,4-dihydro-4-pyridinyl)-6-methylquinolinium(1+), E-00081	126673-11-8	3,5-Dinitrobenzyl alcohol; 4-Methylbenzenesulfonyl, <i>in</i> D-00950
122607-16-3	3-[(7-Methoxy-2-oxo-2 <i>H</i> -1-benzopyran-3-yl)carbonyl]-2(3 <i>H</i>)-oxazolone, M-00098	125232-90-8	Cationic red violet, <i>see</i> C-00046	126739-36-4	4-Bromo-6-(2-thiazolylazo)-1,3-benzenediol, B-00578
122607-17-4	3-[[7-(Dimethylamino)-2-oxo-2 <i>H</i> -1-benzopyran-3-yl]carbonyl]-2(3 <i>H</i>)-oxazolone, D-00806	125232-91-9	4-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-phenylquinolinium(1+), <i>see</i> D-00810	127171-82-8	3-(1-Cyano-2 <i>H</i> -isoindol-2-yl)benzoyl azide, C-00329
122690-20-4	[1,2-Phenylenebis(methylene)]bis[bis(4-methylphenyl)]phosphine oxide, P-00119	125272-63-1	2-[4-(1-Aminoethyl)-1-naphthyl]-6-methoxy- <i>N</i> -methyl-2 <i>H</i> -benzotriazol-5-amine; (<i>S</i>)-form, B,2HCl, <i>in</i> A-00176	127175-39-7	2-Phthalimidoethyl trifluoromethanesulfonate, P-00224
122762-22-5	[1,4,7,10-Tetraazacyclododecane- <i>N,N',N'',N'''</i> -tetramethylenephosphonato]terbate (<i>III</i>)(5-), T-00009	125552-97-8	Azomethine HR, A-00473	127358-23-0	α -Amino-1-naphthaleneacetic acid, <i>see</i> A-00261
122842-37-9	2-[4-(Aminomethyl)phenyl]- <i>N,N</i> -dimethyl-2 <i>H</i> -benzotriazol-5-amine, A-00249	125670-26-0	4-Benzoyl-2-(2-chlorophenyl)-2,4-dihydro-5-methyl-3 <i>H</i> -pyrazol-3-one, B-00126	127697-01-2	Luminarin 4, L-00013
122855-66-7	1-(4,6-Difluoro-1,3,5-triazin-2-yl)-2-methyl-2 <i>H</i> -isoinsole, D-00362	125670-56-6	2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-methylbenzoyl)-3 <i>H</i> -pyrazol-3-one, C-00210	128032-73-5	4-[2-Cyano-2-(3,4-dimethoxyphenyl)ethenyl]- <i>N,N,N</i> -trimethylbenzenemethanaminium(1+); Methosulfate, <i>in</i> C-00327
122872-14-4	<i>N</i> -(3,5-Dinitrobenzoyl)-1-naphthylglycine, <i>in</i> A-00261	125670-57-7	2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(3-methylbenzoyl)-3 <i>H</i> -pyrazol-3-one, C-00211	128032-75-7	4-[2-Cyano-2-(3,4-dimethoxyphenyl)ethenyl]- <i>N,N,N</i> -trimethylbenzenemethanaminium(1+); Iodide, <i>in</i> C-00327
123035-89-2	2,4-Dihydro-5-methyl-2-(2-methylphenyl)-4-(2-naphthalenylcarbonyl)-3 <i>H</i> -pyrazol-3-one, D-00432	125670-58-8	2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(4-methylbenzoyl)-3 <i>H</i> -pyrazol-3-one, C-00212	128396-15-6	Schumannioside A, <i>in</i> D-00645
123035-90-5	4-[(1,1'-Biphenyl)-4-ylcarbonyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3 <i>H</i> -pyrazol-3-one, B-00213	125670-59-9	2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-naphthalenylcarbonyl)-3 <i>H</i> -pyrazol-3-one, C-00213	128396-16-7	Schumannioside B, <i>in</i> D-00645
123035-91-6	4-[4-(1,1-Dimethylethyl)benzoyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3 <i>H</i> -pyrazol-3-one, D-00859	125730-51-0	1,2,5,8,11,14-Hexathiacyclohexadecane, H-00069	128538-43-2	Benzenebutane(dithioic)acid, B-00013
123035-92-7	2,4-Dihydro-5-methyl-2-(methylphenyl)-4-(3,5,5-trimethyl-1-oxohexyl)-3 <i>H</i> -pyrazol-3-one, D-00434	125788-00-3	<i>N</i> -Hexyl- <i>N'</i> -benzoylthiourea, H-00072	128651-50-3	2-(1,3-Dihydro-1,3-dioxo-2 <i>H</i> -benz[<i>J</i>]isoindol-2-yl)ethyltrifluoromethanesulfonate, D-00397
123132-59-2	2-Benzoyl-4-(2-nitrophenyl)acetohydrazine, B-00141	125942-38-3	<i>O</i> -(1-Anthracenylmethyl)hydroxylamine, A-00384	129164-62-1	3-[(Chlorocarbonyl)oxy]butanoic acid; (<i>S</i>)-form, <i>tert</i> -Butyl ester, <i>in</i> C-00078
123133-07-3	Calcichrome; Tetra-Na salt, <i>in</i> C-00012	125942-39-4	<i>O</i> -(2-Anthracenylmethyl)hydroxylamine, A-00385	129228-92-8	4-(2-Fluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, F-00025
123230-61-5	α -Oxo-9-anthraceneacetic acid; Me ester, <i>in</i> O-00053	125942-40-7	<i>O</i> -(9-Anthracenylmethyl)hydroxylamine, A-00386	129569-92-2	Riboflavine, <i>see</i> R-00008
123334-10-1	Acid fuchsin; Ca salt, <i>in</i> A-00056	125942-41-8	<i>O</i> -(9-Anthracenylmethyl)hydroxylamine; B,HCl, <i>in</i> A-00386	129569-93-3	Riboflavine, <i>see</i> R-00008
123430-91-1	<i>N</i> -Chloro-2 <i>H</i> -phenanthro[9,10- <i>d</i>]imidazol-2-imine, C-00194	125942-43-0	<i>O</i> -(1-Anthracenylmethyl)hydroxylamine; B,HCl, <i>in</i> A-00384	129601-67-8	7-Methoxy-2-oxo-2 <i>H</i> -1-benzopyran-3-carbonyl fluoride, <i>in</i> H-00426
123490-74-4	4-[2 <i>H</i> -[1,3]Dioxolo[4,5- <i>f</i>]benzotriazol-2-yl]benzeneethanamine, D-00992	126077-63-2	3-(Aminocarbonyl)-1,4-dimethylpyridinium(1+), A-00133	129665-92-5	2-Isocyanato-1-[(4-methylphenyl)sulfonyl]pyrrolidine, I-00062
123632-39-3	Fluo 3, F-00009	126165-44-4	4'-Chloro-2,4-dihydroxybenzophenone, C-00095	129738-72-3	5-Amino-4-hydroxy-3-[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, <i>in</i> A-00195
123852-79-9	3,3-Diethyl-1-(9 <i>H</i> -fluoren-2-yl)-1-triazene, D-00347	126165-72-8	7-(Phenylloxy)-4-benzofurazansulfonyl fluoride, P-00153	129762-84-1	3-Benzoyl-2-naphthalenecarboxaldehyde, B-00137
123865-13-4	Cationic violet, C-00047	126192-49-2	Bis[4-fluoro-2-[(2-(2-methoxyethoxy)ethoxy)carbonyl]phenyl]ethanedioate, <i>in</i> B-00268	129770-69-0	5-(4-Pyridinyl)-2-thiophenecarboxaldehyde, P-00409
124491-07-2	3,6,9,12-Tetrathia-1,14-tetradecanedithiol, T-00130			129948-83-0	2-(9-Anthracenyl)ethyl carbonochloride, A-00383
124521-92-2	2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1,3,3-trimethyl-3 <i>H</i> -indolium(1+), <i>see</i> D-00811			130100-20-8	Mag-fura-2; Tetrakis(acetoxymethyl)ester, <i>in</i> M-00003
124521-93-3	2-[2-[(5-Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3 <i>H</i> -indolium(1+), <i>see</i> D-00826			130671-44-2	2-Carboxy-1-pyrrolidinecarbodithioic acid, <i>see</i> C-00044
				130792-64-2	2-Carboxy-1-pyrrolidinecarbodithioic acid, <i>see</i> C-00044
				131221-84-6	<i>N</i> -[2-(Butylthio)phenyl]- <i>N'</i> -phenylthiourea, B-00639

131426-28-3	3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinepropanoic acid; Hydrazide, <i>in</i> D-00380	132520-39-9	<i>N</i> -Hydroxy- <i>N</i> -phenyl-2-propylpentanamide, H-00501	133883-67-7	2,2'-(2,5,8,11-Tetrathiadodecane-1,12-diyl)bis[5-chlorothiophene], T-00127
131467-85-1	7-Hydrazino-4-benzofurazansulfonamide, H-00081	132734-56-6	<i>N,N'</i> -Di-(8-quinoliny)-2,6-pyridinedicarboxamide, D-01104	134116-38-4	Aminobromothymol blue, A-00129
131467-86-2	7-Hydrazino-4-benzofurazansulfonamide; <i>N,N</i> -Di-Me, <i>in</i> H-00081	132788-56-8	3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinepropanoic acid, D-00380	134116-39-5	Sulfonamidebromothymol blue, S-00047
131467-87-3	4-Hydrazino-7-nitrobenzofurazan; Compd. with hydrazine (1:1), <i>in</i> H-00084	132915-88-9	2,4-Dihydro-4-(2-methoxybenzoyl)-5-methyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00426	134141-75-6	Isothiocyanatobromothymol blue, I-00092
131716-71-7	1-[[<i>N</i> -(2-Methyl- <i>N</i> -[(phenylmethoxy)carbonyl]-L-valyl]alanyl]glycyl]oxy]-2,5-pyrrolidinedione, M-00231	132915-89-0	2,4-Dihydro-5-methyl-2-phenyl-4-[2-(trifluoromethyl)benzoyl]-3 <i>H</i> -pyrazol-3-one, D-00450	134907-84-9	Fluo 3; NH ₄ salt, <i>in</i> F-00009
131734-09-3	6-Amino-2-(diethylamino)-5-nitroso-4(1 <i>H</i>)-pyrimidinone, <i>in</i> D-00109	132915-90-3	4-(2,6-Difluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3 <i>H</i> -pyrazol-3-one, D-00359	134919-61-2	5-(2-Furanyl)-2,4-pentadienal, <i>see</i> F-00058
132181-77-2	7-(Dimethylamino)-2-oxo-2 <i>H</i> -1-benzopyran-3-carbonyl fluoride, D-00805	133303-51-2	3-[[5-Nitro-2-pyridinyl]hydrazono]-3-isoquinolinylmethyl]benzenesulfonic acid, N-00150	135406-31-4	4-(Aminosulfonyl)-7-(1-piperazinyl)-2,1,3-benzoxadiazole, A-00351
132299-21-9	Indo 1; Tetra-K salt, <i>in</i> I-00031	133393-21-2	9-Methoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, <i>in</i> M-00088	135406-32-5	7-[(5-Aminopentyl)amino]-4-benzofurazansulfonamide, A-00295
132319-56-3	Indo 1; Penta-K salt, <i>in</i> I-00031	133393-23-4	6,9-Dichloro-2-methoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, <i>in</i> D-00284	135406-33-6	7-[(2-Aminoethyl)amino]-4-benzofurazansulfonamide, A-00174
132412-57-8	8-Amino-7-(phenylazo)-5-quinolinesulfonic acid; Na salt, <i>in</i> A-00316	133393-33-6	2(1 <i>H</i>)-Pyridinone [[[3-methoxyphenyl]azo]phenylmethylene]hydrazone, P-00359	135590-68-0	3-(2-Phthalimidyl)benzoyl azide, P-00225
132499-92-4	<i>N</i> -Hydroxy-3,5,5-trimethyl- <i>N</i> -phenylhexanamide, H-00561	133551-50-5	3,5-Dihydroxybenzoic acid; Ph ester, <i>in</i> D-00534	135590-69-1	4-(2-Phthalimidyl)benzoyl azide, P-00226
132499-93-5	2-Hexyl- <i>N</i> -hydroxy- <i>N</i> -phenyldecanamide, H-00076	133832-09-4	2(1 <i>H</i>)-Pyridinone [[[3-nitrophenyl]azo]phenylmethylene]hydrazone, P-00362	135806-59-6	Trolox C; (<i>S</i>)-form, Me ether, <i>in</i> T-00430
132499-95-7	3-[[5-Nitro-2-pyridinyl]hydrazono]-2-thiazolylmethyl]benzenesulfonic acid, N-00152	133883-66-6	2,2'-(2,5,8,11-Tetrathiadodecane-1,2-diyl)bis[5-methylthiophene], T-00128	135834-37-6	9-Ethoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, <i>in</i> E-00056
132499-96-8	3-[2-Benzothiazolyl]((5-nitro-2-pyridinyl)hydrazono)methyl]benzenesulfonic acid, B-00107			136132-74-6	Methylcalcein; Di-Na salt, <i>in</i> M-00152
132499-97-9	3-[1 <i>H</i> -Benzimidazol-2-yl]((5-nitro-2-pyridinyl)hydrazono)methyl]benzenesulfonic acid, B-00047			137044-02-1	<i>N</i> -Succinimidoyl tetrathiafulvalene-2-carboxylate, S-00035
132520-38-8	<i>N</i> -(4-Butylbenzoyl)- <i>N</i> -phenylhydroxylamine, <i>in</i> B-00618			137476-43-8	2-Carboxy-1-pyrrolidinecarbodithioic acid, <i>see</i> C-00044

Type of Compound Index

This Index classifies virtually all reagents in the Dictionary under three or more headings according to analyte (e.g. copper), compound group (e.g. phenothiazine) and analytical application (e.g. chromatographic derivatisation reagent).

Analyte – Element

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Aluminium	1239	Lead	1260
Antimony	1240	Lithium	1260
Arsenic	1241	Magnesium	1261
Arsenic: arsenite	1241	Manganese	1261
Arsenic: arsenate	1241	Manganese: permanganate/manganate(VII)	1262
Barium	1241	Mercury	1262
Beryllium	1241	Molybdenum	1263
Bismuth	1242	Nickel	1264
Boron	1243	Niobium	1266
Bromine	1243	Nitrogen: ammonia/ammonium	1266
Bromine: bromate	1243	Nitrogen: nitrite (nitrate(III))	1266
Bromine: bromide	1243	Nitrogen: nitrate (nitrate(V))	1266
Cadmium	1243	Nitrogen: nitric oxide	1267
Caesium	1244	Nitrogen: nitrogen dioxide	1267
Calcium	1244	Osmium	1267
Carbon: carbon monoxide	1245	Oxygen	1267
Carbon: cyanide	1245	Oxygen: hydrogen peroxides, peroxocompounds	1267
Carbon: hexacyanoferrate	1245	Oxygen: ozone	1268
Cerium	1245	Palladium	1268
Chlorine	1246	Phosphorus	1270
Chlorine: chlorate	1246	Phosphorus: phosphate	1270
Chlorine: perchlorate	1246	Platinum	1270
Chlorine: chloride	1246	Plutonium	1271
Chromium	1246	Potassium	1271
Chromium: dichromate/chromate	1246	Rare earth elements	1272
Cobalt	1246	Rhenium	1273
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Fluorine: fluoride	1253	Rubidium	1274
Gallium	1253	Ruthenium	1274
Germanium	1254	Scandium	1274
Gold	1254	Selenium	1275
Hafnium	1255	Silicon	1275
Indium	1255	Silver	1275
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Chromatographic derivatisation agents	1325	Microanalysis reference material	1345
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Type of Compound Index

Analyte - Element

Actinides (other than plutonium, uranium and thorium)

- Alamine 336, A-00072
5,6-Bis(diphenylphosphino)bicyclo[2.2.1]hept-2-ene; (1*RS*,5*RS*,6*RS*)-form, *P,P'*-Dioxide, in B-00337
1,2-Bis(diphenylphosphino)ethylene; (*E*)-form, *P,P'*-Dioxide, in B-00339
Bis(diphenylphosphino)methane, B-00340
1,2-Bis(diphenylphosphinyl)ethane, in B-00338
1,2-Ethenediylbis[bis(4-methylphenyl)phosphineoxide], E-00043
▶ Nitromethane, N-00113
▶ Pentetic acid, P-00039
Tetraethyl 1,2-ethanediylbisphosphonate, in E-00026
▶ Tributyl phosphate, T-00211
▶ *N*-Tridecyl-1-tridecanamine, T-00229
4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione, T-00264

Alkali metals

- Bis(benzo-15-crown-5-ylmethyl)succinate, in B-00611
2-Butenedioic acid bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclooctadecin-15-yl)methyl]ester, D-000611
N-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzoheptaaxacyclooctadecin-18-yl)-2-propenamide, D-00007
2,3,5,6,8,9,11,12,14,15-Decahydro-19-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzoheptaaxacyclooctadecin-18-amine, D-00019
2,3,5,6,8,9,11,12,14,15-Decahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzoheptaaxacyclooctadecin-18-amine, D-00021
2-Hexylbutanedioic acid; (\pm)-form, in H-00073
13-Hydroxyethyl-1,4,7,10-tetraoxa-13-azacyclopentadecane, H-00182
7-Hydroxy-4-methyl-8-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2*H*-1-benzopyran-2-one, H-00299
10-(2-Methoxyethyl)-1,4,7-trioxa-10-azacyclododecane, in T-00359
2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13,16-hexaoxacyclooctadecane, M-00103
13-Methyl-1,4,7,10-tetraoxa-13-azacyclopentadecane, in T-00111
10-Methyl-1,4,7-trioxa-10-azacyclodecane, in T-00359
2,3,5,6,8,9,11,12-Octahydro-16-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclooctadecin-15-amine, O-00030
2,3,5,6,8,9,11,12-Octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclooctadecin-15-amine, O-00031
3,3',5,5'-Tetramethyl-2,2',4,4',6,6'-hexanitrodiphenylamine; Na salt, in T-00096
1,4,7,10-Tetraoxa-13-azacyclopentadecane; *N*-(2-Methoxyethyl), in T-00111

Alkaline earth metals

- Arsenazo I; Tri-Na salt, in A-00410
1,5-Bis(aminomethyl)-2,6-naphthalenediol-*N,N,N',N'*-tetraacetic acid, B-00247
N,N'-Bis(2-hydroxy-5-nitrobenzyl)10,13-diaza-1,4,7-trioxacyclopentadecane, B-00383
Carboxyarsenazo, C-00026
Carboxynitrazo, C-00035
2-[[7-[(3-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00036
3-[[7-[4-Chlorophenylazo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]benzoic acid, C-00201
o-Cresolphthalexon, C-00308
N-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzoheptaaxacyclooctadecin-18-yl)-2-propenamide, D-00007
▶ 2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone, D-00262
4,5-Dihydroxy-3,6-bis[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00556
4,5-Dihydroxy-3,6-bis(phenylazo)-2,7-naphthalenedisulfonic acid, D-00559
4,5-Dihydroxy-3,6-bis[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00562
2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, D-00592
2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]-2-hydroxyacetic acid, D-00599
[*o*-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]acetic acid, D-00602
2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenyl]-2-oxoacetic acid, D-00603
2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00609
4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00616
2-[[1,8-Dihydroxy-7-[(4-methoxyphenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00642
4,5-Dihydroxy-3-[(2-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00643
2-[[1,8-Dihydroxy-7-[(3-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00651
2-[[1,8-Dihydroxy-7-[(4-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00652
4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-[(*p*-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00669
▶ 2,5-Dihydroxy-3-undecyl-1,4-benzoquinone, D-00740
1,3-Dimethyl-5-[(tetrahydro-1,3-dimethyl-2,4,6-trioxo-5(2*H*)-pyrimidinylidene)amino]-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetriene, in P-00281
2-Hexylbutanedioic acid; (\pm)-form, in H-00073
13-Hydroxyethyl-1,4,7,10-tetraoxa-13-azacyclopentadecane, H-00182
10-(2-Methoxyethyl)-1,4,7-trioxa-10-azacyclododecane, in T-00359
2-[(*o*-Methylbenzoyl)azo]-1,8-dihydroxynaphthalene-3,6-disulfonic acid, M-00144

- 13-Methyl-1,4,7,10-tetraoxa-13-azacyclopentadecane, in T-00111
10-Methyl-1,4,7-trioxa-10-azacyclodecane, in T-00359
Murexide, in P-00281
Sulfochlorophenol K, S-00041
1,4,7,10-Tetraoxa-13-azacyclopentadecane; *N*-(2-Methoxyethyl), in T-00111

Aluminium

- ▶ Acid chrome violet K; Na salt, in A-00055
Alizarine red S; Na salt, in A-00081
▶ Aluminon, in A-00458
3-Amino-2-hydroxy-5-sulfobenzoic acid, A-00221
Aminooxoacetic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00292
8-Amino-7-(phenylazo)-5-quinolinesulfonic acid; Na salt, in A-00316
7-[[5-(Aminophenyl)-2-hydroxyphenyl]azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, A-00349
Anthrafluorone, A-00387
Benzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00064
3,3-Bis(4-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, B-00380
Bis[(2-hydroxyphenyl)methylene]carbonic dihydrazide, B-00390
Bis[(2-hydroxyphenyl)methylene]carbonimidic dihydrazide, B-00391
1,5-Bis(2-hydroxy-3-sulfo-5-chlorophenyl)-3-cyanofornazan, B-00394
N-[3,5-Bis(trifluoromethyl)phenyl]-*N*-hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465
4-Bromobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00489
3-[[6-Bromo-2-benzothiazolyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00490
N-(5-*tert*-Butyl-2-hydroxybenzylidene)-2-hydroxy-5-methylaniline, B-00632
4-Chloro-2-(2-hydroxybenzylideneamino)phenol, C-00125
5-Chloro-*N*-(2-hydroxy-5-bromobenzylidene)-2-hydroxyaniline, C-00126
4-Chloro-2-hydroxy-*N*-(2-hydroxybenzylidene)aniline, C-00129
5-Chloro-2-hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, C-00130
7-[(5-Chloro-2-hydroxyphenyl)azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, C-00147
3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00158
5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206
Chromazol KS; Tri-Na salt, in C-00276
Chromazulrol S; Tri-Na salt, in C-00277
Chromotrope 2C, C-00291
Chromoxane violet R, in E-00015
▶ 1,3-Diamino-2-propanol-*N,N,N',N'*-tetraacetic acid, D-00116
▶ 4-Diazobenzenesulfonic acid, D-00142
3,6-Dichloro-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00263
[3-(4-Diethylamino-2-hydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00319

- 3-[2-(5-Diethylaminophenyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00330
- 1,2-Dihydro-4-[[2-(2-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00420
- 4,5-Dihydroxy-3-[4-(aminomethyl)phenylazo]-2,7-naphthalenedisulfonic acid *N,N*-diacetic acid, D-00509
- ▶ 1,2-Dihydroxyanthraquinone, D-00510
- 4,5-Dihydroxy-3,6-bis[(3-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, D-00564
- 2,2'-Dihydroxy-4,4'-dimethylazobenzene, D-00574
- 4,5-Dihydroxy-3-[4,5-(dimethyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00579
- 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00581
- 2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfobenzoic acid], D-00590
- 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-pyridinecarboxylic acid, D-00600
- 5,7-Dihydroxyflavone, D-00612
- 3,4-Dihydroxy-10-imino-9(10*H*)-anthracenone, D-00634
- 2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxy-carbonylthiophene, *in* C-00326
- 3-[(2,4-Dihydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00693
- 3-[2,4-Dihydroxyphenylazo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00698
- 2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole, D-00699
- [2-[[[(2,4-Dihydroxyphenyl)methylene]amino]phenyl]arsonic acid, D-00711
- 4,5-Dihydroxy-3-[(4-phenyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00718
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* B-00619
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, *in* B-00619
- N*-[5-(1,1-Dimethylpropyl)-2-hydroxyphenyl]-2-hydroxyaniline, D-00902
- 4-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00953
- 1-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2-naphthol, D-00954
- Di-2-pyridinylmethanone 2-furoylhydrazone, D-01077
- Eriochrome cyanine R; Tri-Na salt, *in* E-00013
- Eriochrome geranol; Di-Na salt, *in* E-00015
- Ethanedioic acid bis[[2,4-dihydroxyphenyl)methylene]hydrazide], E-00025
- 3-[(6-Ethoxy-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, E-00053
- 4-Ethoxy-2-hydroxy-*N*-salicylideneaniline, *in* D-00614
- 4-Ethyl-*N*-hydroxy-*N*-phenylbenzamide, E-00093
- 1-[(Ethylimino)methyl]-2-naphthalenol, E-00096
- Ethyltridodecylammonium(1+); Bromide, *in* E-00120
- ▶ Hexamethylenetetramine, H-00057
- ▶ Hexanedioic acid, H-00062
- 3-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00118
- 4-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00119
- N*-(2-Hydroxy-3-biphenyl)methylene-2-hydroxyaniline, H-00135
- 4-[(2-Hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, H-00160
- 4-Hydroxy-*N*-(2-hydroxybenzylidene)-3-biphenylamine, H-00189
- 2-Hydroxy-*N*-(2-hydroxybenzylidene)-4-methylaniline, H-00190
- 2-Hydroxy-*N*-(2-hydroxybenzylidene)-5-methylaniline, H-00191
- 2-Hydroxy-*N*-(2-hydroxy-5-bromobenzylidene)aniline, H-00193
- 2-Hydroxy-*N*-(2-hydroxy-5-*tert*-butylbenzylidene)aniline, H-00194
- 2-Hydroxy-*N*-(2-hydroxy-5-carbomethoxybenzylidene)aniline, *in* H-00237
- 2-Hydroxy-*N*-(2-hydroxy-3-chlorobenzylidene)aniline, H-00195
- 2-Hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, H-00196
- 3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00198
- 2-Hydroxy-*N*-(2-hydroxy-5-ethylbenzylidene)aniline, H-00201
- 2-Hydroxy-*N*-(2-Hydroxy-5-ethylbenzylidene)-5-methylaniline, H-00202
- 2-Hydroxy-*N*-(2-hydroxy-5-iodobenzylidene)aniline, H-00204
- 2-Hydroxy-*N*-(2-hydroxy-3-isopropyl-6-methylbenzylidene)aniline, H-00205
- 2-Hydroxy-*N*-(2-hydroxy-6-isopropyl-3-methylbenzylidene)aniline, H-00206
- 2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)aniline, H-00210
- 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)aniline, H-00211
- 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)aniline, H-00212
- 2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)-5-methylaniline, H-00213
- 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-4-methylaniline, H-00214
- 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-5-methylaniline, H-00215
- 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-4-methylaniline, H-00216
- 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-5-methylaniline, H-00217
- 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbonic acid dihydrazide, H-00218
- 2-Hydroxy-4-(4-hydroxy-6-methyl-2-oxo-2*H*-pyran-3-yl)-4-oxo-2-butenoic acid; Et ester, *in* H-00221
- 2-Hydroxy-3-[4-hydroxynaphthalenylazo]-5-nitrobenzenesulfonic acid, H-00223
- 2-Hydroxy-*N*-(2-hydroxynaphthylidene)aniline, H-00226
- 8-Hydroxy-7-[(2-hydroxy-4-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00227
- 8-Hydroxy-7-[(2-hydroxy-5-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00228
- 4-Hydroxy-3-[(2-hydroxy-5-nitro-3-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, H-00229
- 5-Hydroxy-6-[(2-hydroxy-5-nitro-3-sulfofenyl)azo]-1-naphthalenesulfonic acid, H-00230
- 5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfofenyl)azo]-2-naphthalenesulfonic acid, H-00232
- 8-Hydroxy-7-[(2-hydroxyphenyl)azo]-1,6-naphthalenedisulfonic acid, H-00233
- 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)aniline, H-00234
- 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)-5-methylaniline, H-00235
- 3-Hydroxy-4-[[2-(2-hydroxyphenyl)methylene]amino]benzoic acid, H-00239
- 4-Hydroxy-3-[[2-(2-hydroxyphenyl)methylene]amino]benzoic acid, H-00240
- N*-(2-Hydroxy-3-methoxybenzylidene)-2-hydroxyaniline, *in* D-00541
- N*-2-Hydroxy-5-methoxybenzylidene-2-hydroxyaniline, *in* D-00543
- N*-Hydroxy-4-methoxy-*N*-phenylbenzamide, *in* D-00704
- 2-Hydroxy-4-methoxy-*N*-salicylideneaniline, *in* D-00614
- ▶ 7-Hydroxy-4-methyl-2*H*-1-benzopyran-2-one, H-00283
- N*-Hydroxy-2-methyl-*N*-phenylbenzamide, H-00306
- N*-Hydroxy-4-methyl-*N*-phenylbenzamide, H-00307
- 1-Hydroxy-2-naphthoic acid, H-00369
- 2-(2-Hydroxy-1-naphthylideneamino)-4-biphenylol, H-00378
- N*-Hydroxy-*N*-nitrosocyclooctylamine, H-00412
- N*-Hydroxy-*N*-nitroso-2-propanamine, H-00418
- N*-2-Hydroxy-5-phenylbenzylidene-2-hydroxy-5-phenylaniline, H-00468
- 2-[[2-(2-Hydroxyphenyl)methylene]amino]-9*H*-fluoren-3-ol, H-00477
- [2-[[2-(2-Hydroxyphenyl)methylene]amino]phenyl]arsonic acid, H-00479
- 2-[[2-(2-Hydroxyphenyl)methylene]amino]-3-pyridinol, H-00480
- N*-Hydroxy-*N*-phenyl-3-(trifluoromethyl)benzamide, H-00511
- ▶ 8-Hydroxyquinoline, H-00525
- 2-Isopropyl-8-quinolinol, I-00078
- 3-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00081
- Naphthochrome green G; Di-Na salt, *in* N-00023
- ▶ Neocupferron; NH₄ salt, *in* N-00061
- Nevazol NS, N-00067
- o*-Nitral green; Chloride, *in* N-00072
- p*-Nitral green; Chloride, *in* N-00073
- OP 7, O-00041
- 4-Pyridinecarboxylic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, P-00345
- Pyridoxal; Salicyloylhydrazone, *in* P-00414
- Quinizarin S; Na salt, *in* Q-00006
- Stilbazo; Di-NH₄ salt, *in* S-00027
- Stilbazogall I, S-00029
- ▶ Succinic acid, S-00034
- Sulfochrome; Di-NH₄ salt, *in* S-00046
- Sulfonitrophenol R, S-00053
- Sulfonitrophenol S, S-00054
- ▶ Tetracycline, T-00039
- ▶ Thionine hydrochloride, *in* L-00003
- 1,1,1-Trifluoro-2,4-pentanedione, T-00257
- 4-[(2,4,6-Trihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, T-00312
- ▶ Tris(2-hydroxyethyl)amine, T-00406

Antimony

- 4-Aminobenzenesulfonic acid; *N*-Ph, Ba salt, *in* A-00100
- 9-(4-Aminophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, A-00328
- Anisylfluorone, A-00372
- ▶ Brilliant green; Hydrogen sulfate, *in* B-00479
- N*-Bromo-4-methylbenzenesulfonamide, *in* M-00130
- Bromopyrogallol red, B-00574
- ▶ C.I. 11050 Basic dye, *in* J-00004
- 9-(2-Chlorophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00240
- Cotarnilfluorone, C-00302
- 2,6-Diacetylpyridine bis(benzoylhydrazone), D-00036
- 2,6-Diacetylpyridine bis(2-hydroxybenzoylhydrazone), D-00038
- ▶ 1,3-Diamino-2-propanol-*N,N,N'*-tetraacetic acid, D-00116
- ▶ 1,3-Dibromo-5,5-dimethyl-2,4-imidazolidinedione, D-00185
- 9-(3,4-Dibromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00198

- ▶ 1,3-Dichloro-5,5-dimethyl-2,4-imidazolidinedione, *in* D-00866
N,N-Dichloro-4-methylbenzenesulfonamide, D-00285
- ▶ *O,O*-Diethyl phosphorodithioate, D-00356
- ▶ 3,4-Dihydroxyazobenzene, D-00515
- ▶ Diisopropyl ether, D-00748
- ▶ 3-[3-(3,3-Dimethyl-1(3*H*)-isobenzofuranilydene)-1-propenyl]-1,1-dimethyl-1*H*-isobenzofurylium(1+); Perchlorate, *in* D-00869
- 4,5-Dimethyl-2-(2-quinolinylazo)phenol, D-00914
- 9-Ethyl-2,6,7-trihydroxy-3*H*-xanthen-3-one, E-00121
- Hexahydro-2*H*-1,3-diazepine-2-thione, H-00037
- N*-Hydroxy-*N*-nitrosocyclooctylamine, H-00412
- N*-Hydroxy-*N*-nitroso-2-propanamine, H-00418
- ▶ 2-Imidazolidinethione; 1,3-Di-Me, *in* I-00003
- Janus green; Chloride, *in* J-00003
- 2-Mercapto-*N*-2-naphthylacetamide, M-00038
- 2-[[[4-Methoxy-2-nitrophenyl]hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* M-00096
- 4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248
- Phenosafrazo blue, P-00071
- ▶ *N*-Phenyl-*N'*-pyridinylthiourea, P-00177
- ▶ Piperazine, P-00237
- 2,2'-[2,6-Pyridinediylbis(methylidenylnitrilo)]bisphenol, P-00354
- ▶ Pyronine G; Chloride, *in* P-00435
- 1-(2-Quinolinylazo)-2-naphthalenol, Q-00029
- Rhodamine B, *in* R-00002
- Rhodamine G; Chloride, *in* R-00005
- Rhodamine S; Chloride, *in* R-00006
- Rhoduline violet; Chloride, *in* R-00007
- Silver diethylthiocarbamate, *in* D-00344
- ▶ Tetrahydro-2(1*H*)-pyrimidinethione, T-00066
- 2',3,5,7-Tetrahydroxyflavone, T-00074
- 2,3,7,8-Tetrahydroxyphenazine, T-00079
- 2,6,7-Trihydroxy-9-(3-hydroxyphenyl)-3*H*-xanthen-3-one, T-00293
- 2,6,7-Trihydroxy-9-(4-hydroxyphenyl)-3*H*-xanthen-3-one, T-00294
- 2,6,7-Trihydroxy-9-(3-nitrophenyl)-3*H*-xanthen-3-one, T-00302
- 2,6,7-Trihydroxy-9-(4-nitrophenyl)-3*H*-xanthen-3-one, T-00303
- 2,6,7-Trihydroxy-9-(2-pyridinyl)-3*H*-xanthen-3-one, T-00317
- 2,6,7-Trihydroxy-9-(4-pyridinyl)-3*H*-xanthen-3-one, T-00319
- Xylenol blue, X-00005

Arsenic

- Azocarmine B; Di-Na salt, *in* A-00470
- Azocarmine G; Na salt, *in* A-00471
- Bis(nitrooxy)diethylstannane, B-00429
- N*-Bromo-4-methylbenzenesulfonamide, *in* M-00130
- ▶ 1,3-Dibromo-5,5-dimethyl-2,4-imidazolidinedione, D-00185
- ▶ 1,3-Dichloro-5,5-dimethyl-2,4-imidazolidinedione, *in* D-00866
- N,N*-Dichloro-4-methylbenzenesulfonamide, D-00285
- ▶ *O,O*-Diethyl phosphorodithioate, D-00356
- ▶ Diisopropyl ether, D-00748
- ▶ 2,3-Dimercapto-1-propanesulfonic acid, D-00761
- 1,2-Di-4-morpholinylethane, D-00928
- Dinonyltin dinitrate, D-00980
- 2-(Diphenylmethyl)pyridine, D-01030
- ▶ Ephedrine, *in* M-00122
- Ethyl violet; Chloride, *in* E-00122
- ▶ Fluphenazine, F-00034
- Neutral red; B,HCl, *in* N-00065
- Neutral violet; B,HCl, *in* N-00066
- ▶ 4-Nitro-1,2-benzenediol, N-00087

- 2-(4-Nitrophenyl)-3,5-diphenyl-2*H*-tetrazolium(1+); Chloride, *in* N-00134
- ▶ Promazine, P-00258
- 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
- ▶ Quinine, Q-00005
- Silver diethylthiocarbamate, *in* D-00344
- Tetraoctylammonium(1+); Chloride, *in* T-00110
- ▶ Tetrazolium blue; Dichloride, *in* T-00132
- Triton X 305, T-00429
- ▶ TTC, *in* T-00379
- Wool fast blue BL; Na salt, *in* W-00002
- Xylenol blue, X-00005

Arsenic: arsenite

- ▶ 2,4-Diamino-4'-ethoxyazobenzene, D-00095
- Phenosafranine; *N,N,N',N'*-Tetra-Et, chloride, *in* P-00070

Arsenic: arsenate

- 4,5-Dihydro-1*H*-pyrazole-3,4-dicarboxylic acid; Diamide, *N*-di-Me, *in* D-00480

Barium

- 7,16-Bis[3-[2-hydroxy-3,5-bis[(4-nitrophenyl)azo]phenyl]-1-oxopropyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane, B-00364
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,13,16,19-hexaoxa-10,22-diazacyclotetracosane, B-00384
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-15,18-diazacycloheneicosane, B-00385
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13,16-diazacyclooctadecane, B-00386
- 3,6-Bis[(5-methyl-2-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00426
- Calcein, C-00010
- Carboxyarsenazo B, C-00027
- 3-[[7-(2-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfobenzene acid, C-00038
- 1,4-Dichloro-5,8-dihydroxyanthraquinone, D-00261
- 4,5-Dihydroxy-3,6-bis[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00558
- 4,5-Dihydroxy-3,6-bis[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00563
- 4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571
- 4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00605
- 4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00607
- o*-[[1,8-Dihydroxy-7-[(2-hydroxy-5-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00630
- 2-[[1,8-Dihydroxy-7-[(2-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00663
- 2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00664
- 4,5-Dihydroxy-3-[(4-nitro-2-sulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00678
- 1,3-Dihydroxyxanthone, D-00741
- N*-(2,6-Dimethoxy-4-pyrimidinyl)-4-[[[2-hydroxyphenyl)methylene]amino]benzenesulfonamide, D-00776
- ▶ Dimethyl sulfate, D-00916
- Dimethylsulfonazo DAL, D-00918
- 4-[[6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecan-18-yl)oxy]butanoic acid, H-00041

- N*-Hydroxy-*N*-(3-methylphenyl)-3-nitrobenzamide, *in* N-00090
- Sudan blue GA, S-00037
- 2-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,j*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]butanoic acid, T-00056
- 3-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,j*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]propanoic acid, T-00057
- ▶ Tetrahydrothiophene-1,1-dioxide, T-00069
- Tetrahydroxy-1,4-benzoquinone, T-00072
- 2,2'-(1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyldi-3,1-propanediyl)bis[4-[(4-nitrophenyl)azo]phenol], T-00117
- N,N'*-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diy]bis(methylene-2,1-phenylene)]bis[2,4,6-trinitrobenzenamine], T-00361
- 2,2'-(1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyldi-3,1-propanediyl)bis[4-[(4-nitrophenyl)azo]phenol], T-00362

Beryllium

- 6-Acetyl-7-hydroxy-4-methyl-2*H*-1-benzopyran-2-one, A-00018
- Alizarine red S; Na salt, *in* A-00081
- 4-Amino-5-hydroxy-6-[[8-hydroxy-3,6-disulfo-1-naphthalenyl]azo]-2,7-naphthalene-2,7-disulfonic acid, A-00188
- 5-Amino-2,4,6-pyrimidinetrione-*N*³,*N*⁵-diacetic acid, A-00338
- 1,4,9,10-Anthracenetetrol, A-00381
- Aspartic acid; (±)-form, *in* A-00447
- ▶ Benzylidimethyldecylammonium(1+); Bromide, *in* B-00179
- Beryllon I, B-00198
- Beryllon II, B-00199
- Beryllon III, *in* A-00211
- Beryllon IV, B-00200
- 4-[[Bis(carboxymethyl)amino]methyl]-3-hydroxy-2-naphthoic acid, B-00277
- ▶ *N,N'*-Bis(2-hydroxybenzylidene)-1,2-ethanediamine, B-00363
- N*-(5-*tert*-Butyl-2-hydroxybenzylidene)-2-hydroxy-5-methylaniline, B-00632
- 5-Chloro-2-hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, C-00130
- Chlorophosphonazo R, C-00245
- Chromazurol S; Tri-Na salt, *in* C-00277
- Chromocitromin BH, C-00285
- 4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, D-00571
- ▶ Dihexylamine, D-00367
- 2,3-Dihydro-5-hydroxy-4*H*-1-benzopyran-4-one, D-00408
- 5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo][1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, *in* D-00596
- 5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, *in* D-00597
- 4,5-Dihydroxy-3-[[2-[hydroxy(2-methylphenyl)phosphinyl]phenyl]azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00619
- 2,4-Dihydroxy-6-methyl-4'-nitroazobenzene, D-00650
- 3,3'-[(3,3'-Dimethoxy-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00769
- 3,3'-[(3,3'-Dimethyl-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00836
- 2-[(5-Dodecyl-2-hydroxyphenyl)azo]benzoic acid, D-01150
- Eriochrome brilliant violet B, E-00012
- Eriochrome cyanine R; Tri-Na salt, *in* E-00013

2-Ethyl-5-hydroxy-7-methoxyisoflavone, *in* E-00070
 Fast sulphon black F; Na salt, *in* F-00002
 Hexafluoroacetylacetone, H-00030
 1,2,3,5,6,7-Hexahydroxyanthraquinone, H-00052
 1-Hydroxyanthraquinone-2-carboxylic acid, H-00099
 2-Hydroxy-*N*-(2-hydroxybenzylidene)-4-methylaniline, H-00190
 2-Hydroxy-*N*-(2-hydroxybenzylidene)-5-methylaniline, H-00191
 2-Hydroxy-*N*-(2-hydroxy-5-*tert*-butylbenzylidene)aniline, H-00194
 2-Hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, H-00196
 6-Hydroxy-5-[(2-hydroxy-3,5-dinitrophenyl)azo]-2-naphthalenesulfonic acid; Na salt, *in* H-00200
 2-Hydroxy-*N*-(2-hydroxy-5-ethylbenzylidene)aniline, H-00201
 2-Hydroxy-*N*-(2-Hydroxy-5-ethylbenzylidene)-5-methylaniline, H-00202
 2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)aniline, H-00210
 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)aniline, H-00211
 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)aniline, H-00212
 2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)-5-methylaniline, H-00213
 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-4-methylaniline, H-00214
 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-5-methylaniline, H-00215
 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-4-methylaniline, H-00216
 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-5-methylaniline, H-00217
 2-Hydroxy-4-(4-hydroxy-6-methyl-2-oxo-2*H*-pyran-3-yl)-4-oxo-2-butenic acid; Et ester, *in* H-00221
 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)aniline, H-00234
 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)-5-methylaniline, H-00235
 8-Hydroxy-2-methylquinoline, H-00326
 3-(2-Hydroxyphenyl)-1-phenyl-2-propen-1-one, H-00496
 2-Hydroxy-4-[(4-sulfophenyl)azo]benzoic acid; Di-Na salt, *in* H-00541
 Naphthochrome green G; Di-Na salt, *in* N-00023
 3,3',3''-[Nitrilotris(4,1-phenyleneazo)]tris[6-hydroxybenzoic acid], N-00075
 OP 7, O-00041
 2-Oxo-*N*-phenylcyclopentanecarboxamide, *in* O-00060
 1,2-Phenylenediamine-*N,N,N',N'*-tetraacetic acid, P-00126
 Polyoxyethylenedecylamine, P-00248
 2-(2-Pyridinyl)phenol, P-00399
 ▶ Pyridoxal phosphate, P-00416
 Quinizarin S; Na salt, *in* Q-00006
 Septonex, *in* E-00061
 Sulfochrome; Di-NH₄ salt, *in* S-00046
 ▶ Tetracycline, T-00039
 ▶ 1,2,5,8-Tetrahydroxy-9,10-anthraquinone, T-00070
 1,1,1-Trifluoro-2,4-pentanedione, T-00257

Bismuth

N-Acetamidoinminodiacetic acid, *in* N-00074
 1-Allyl-2-tetrazoline-5-thione, *in* T-00131
 ▶ 5-Amino-1,2,4-dithiazolidine-3-thione, A-00168

5-Amino-4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00187
 4-[[[4-Amino-2-hydroxyphenyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00209
 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)-6-methylphenol *N,N*-diacetic acid, A-00239
 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)phenol-*N,N*-diacetic acid, A-00240
 4-[[[3-Aminomethyl]-4-hydroxyphenyl]imino]-2,6-dibromo-2,5-cyclohexadien-1-one-*N,N*-diacetic acid, A-00243
 ▶ 5-Amino-1,3,4-thiadiazoline-2(3*H*)-thione, A-00354
 3-[(2-Arsonophenyl)azo]-6-[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00442
 5-(2-Benzothiazolylazo)-4-methyl-2-(methylamino)phenol, *in* A-00115
 3-Benzyl-2,6-dimercapto-4*H*-thiopyran-4-one, B-00178
 3,3'-Bi[2,6-dimercapto-4*H*-thiopyran-4-one], B-00203
 5-Bromo-8-hydroxy-7-[(2-hydroxy-3,5-dinitrophenyl)azo]quinoline, B-00511
 3-(4-Bromophenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, B-00553
 ▶ Bromotetraphenylantimony, B-00577
 2,3-Butanedione bis(phenylthiosemicarbazone), B-00597
 1,4-Butanediybis[triphenylphosphonium] (2+); Dibromide, *in* B-00602
 4-*tert*-Butylinoxime, *in* B-00623
 Cellex P, C-00048
 4-Chloro-*N*-hydroxy-*N*-(3-methylphenyl)benzamide, *in* C-00065
 ▶ Cinchonine, C-00298
 Cupron, *in* B-00068
 1,2-Cyclododecanedione; Dioxime, *in* C-00332
 ▶ Cyclohexanone, C-00347
 1,2-Cyclononanedione; Dioxime, *in* C-00360
 1,2-Cycloundecanedione; Dioxime, *in* C-00369
 4,4'-Diaminostilbene-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00127
 2,5-Dibenzoyl-3,4-dihydroxyselenophene, D-00164
 Dibenzylthiocarbamic acid, *in* D-01124
 9-(3,4-Dibromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00198
 3,5-Dibutyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00230
 5-(Diethylamino)-2-[(4,5-dimethyl-2-thiazolyl)azo]phenol, *in* A-00163
 2-[4-(Diethylamino)-2-hydroxyphenylazo]-4,6-dinitrophenol, D-00318
 ▶ *O,O*-Diethyl phosphorodithioate, D-00356
 1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00414
 4,5-Dihydro-1*H*-pyrazole-1-carbodithioic acid, D-00479
 3,4-Dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00504
 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00618
 [(2,4-Dihydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, D-00713
 2,6-Dimercapto-3,5-dimethyl-4*H*-thiopyran-4-one, D-00754
 2,6-Dimercapto-3,5-diphenyl-4*H*-thiopyran-4-one, D-00755
 2,6-Dimercapto-3,5-dipropyl-4*H*-thiopyran-4-one, D-00756
 2,6-Dimercapto-4-oxo-4*H*-thiopyran-3-carboxylic acid, D-00759
 2,6-Dimercapto-3-pentyl-4*H*-thiopyran-4-one, D-00760

2,6-Dimercapto-3-propyl-4*H*-thiopyran-4-one, D-00764
 (3,5-Dimethylphenyl)diphenylsulfonium(1+); Chloride, *in* D-00888
 1,2-Di-4-morpholinylethane, D-00928
 Diphenyliodonium(1+); Iodide, *in* D-01028
 Dithioantipyrinic acid, D-01116
 ▶ Dithizone, D-01135
 Eriochrome fast grey RAS; Na salt, *in* E-00014
 5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, *in* A-00253
 Gallocyanine; Me ester, chloride, *in* G-00005
 Glycinedithiocarbamic acid, G-00018
 Heptoxime, *in* C-00333
 Hexahydro-2*H*-1,3-diazepine-2-thione, H-00037
 3-Hexyl-2,6-dimercapto-4*H*-thiopyran-4-one, H-00075
 6-Hydroxy-5-[(2-hydroxy-3,5-dinitrophenyl)azo]-2-naphthalenesulfonic acid; Na salt, *in* H-00200
 2-[(2-Hydroxy-5-methyl-3-nitrophenyl)azo]-4,6-dinitrophenol, H-00293
 1-Hydroxy-2-naphthoic acid, H-00369
N-Hydroxy-*N*-nitrosocyclooctylamine, H-00412
N-Hydroxy-*N*-nitroso-2-propanamine, H-00418
 2-[(3-Hydroxy-1-oxo-1*H*-inden-2-yl)imino]-1*H*-indene-1,3(2*H*)-dione, H-00433
 ▶ Hypoxanthine, H-00564
 ▶ 2-Imidazolinedithione, I-00003
 ▶ 2-Imidazolidinedithione; 1,3-Di-Me, *in* I-00003
 ▶ Isooctyl thioglycolate, *in* M-00016
 ▶ 2-Mercaptobenzimidazole, M-00022
 2-Mercapto-*N*-2-naphthylacetamide, M-00038
 5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione; K salt, *in* M-00039
 3-(*p*-Methoxyphenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, M-00111
 4-Methyl-5-(methylamino)-2-(2-pyridinylazo)phenol, *in* A-00253
 3-Methylinoxime, *in* M-00156
 ▶ 4-Methylinoxime, *in* M-00157
N-Methylpiperazinedithiocarbamic acid, *in* P-00238
 4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248
 3-Methyl-5-propyl-2,6-dimercapto-4*H*-thiopyran-4-one, M-00258
 ▶ 2-Methylquinoline, M-00306
 ▶ Monosulfiram, M-00341
 1,2-Naphthoquinone-4-sulfonic acid 2-(phenylthiosemicarbazone); Na salt, *in* N-00037
 (1-Naphthylmethyl)triphenylphosphonium(1+); Chloride, *in* N-00052
 Octoxime, *in* C-00361
 ▶ Phenylarsonic acid, P-00090
 Phthalaxone S, P-00221
 Picriminosulfonoxime, P-00234
 2,2'-[2,6-Pyridinediybis(methylidynenitrilo)]bisphenol, P-00354
 ▶ 2(1*H*)-Pyridinethione, P-00357
 3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, P-00407
 Pyrocatecholsulfonophthalein complexan, P-00432
 Pyrocatechol violet, P-00433
 ▶ Quinine, Q-00005
 Rhodamine G; Chloride, *in* R-00005
 Semimethylxylene blue, S-00012
 Tetrahydro-4-methyl-2(1*H*)-pyrimidinethione, T-00064
 ▶ Tetrahydro-2(1*H*)-pyrimidinethione, T-00066
 1,2,3,4-Tetrahydro-8-quinolinethiol, T-00067
 ▶ Tetramethylammonium(1+); Bromide, *in* T-00092

Tetraphenylarsonium(1+); Bromide, *in* T-00119
 Tetraphenylphosphonium(1+); Bromide, *in* T-00120
 ▶ Tetrazole-5-thione; 1,4-Dihydro-*form*, 1-Ph, *in* T-00131
 ▶ Thiourea, T-00175
 4,4',4''-[1,3,5-Triazine-2,4,6-triyltris(azo)] tris[3-hydroxy-1-naphthalenesulfonic acid], T-00198
 Tributyl(hexadecyl)phosphonium(1+); Chloride, *in* T-00210
 Triethylsulfonium(1+); Iodide, *in* T-00236
 2-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl) benzenesulfonic acid, T-00305
 7,7'-Trimethylenebis[1,3-dimethyl-8-thiouric acid]; Na salt, *in* T-00327
 ▶ Trimethylsulfonium(1+); Iodide, *in* T-00347
 Triphenylselenonium(1+); Chloride, *in* T-00375
 Triphenylsulfonium(1+); Bromide, *in* T-00376
 Triphenyltellurium(1+); Iodide, *in* T-00377
 Xylenol orange, X-00006

Boron

3-(Aminomethyl)-1,2,5,8-tetrahydroxyanthraquinone-*N,N*-diacetic acid, A-00256
 Anisylfluorone, A-00372
 Azomethine H; Na salt, *in* A-00472
 Azomethine HR, A-00473
 Benzoin; (±)-*form*, *in* B-00068
 9-(4-Bromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00558
 C.I. Acid violet 3; Di-Na salt, *in* C-00001
 Carmine red, C-00045
 4'-Chloro-2-hydroxy-4-methoxybenzophenone, *in* C-00095
 Chromopyrazole II, C-00288
 Chromotrope 2B; Di-Na salt, *in* C-00290
 ▶ Cordycepic acid, *in* M-00008
 Curcumin, C-00323
 ▶ 1,5-Diamino-4,8-dihydroxyanthraquinone, D-00074
 ▶ 1,8-Diamino-4,5-dihydroxyanthraquinone, D-00075
 3,5-Di-*tert*-butyl-1,2-benzenediol, D-00227
 4,6-Di-*tert*-butyl-3-methoxy-1,2-benzenediol, *in* D-00228
 ▶ 2',4'-Dihydroxyacetophenone, D-00507
 ▶ 1,2-Dihydroxyanthraquinone, D-00510
 ▶ 1,4-Dihydroxyanthraquinone, D-00511
 ▶ 1,8-Dihydroxyanthraquinone, D-00512
 ▶ 2,4-Dihydroxybenzoic acid, D-00531
 2,6-Dihydroxybenzoic acid, D-00533
 ▶ 2,4-Dihydroxybenzophenone, D-00536
 ▶ 1,8-Dihydroxy-2,4-dinitronaphthalene, D-00582
 4,5-Dihydroxy-1-naphthalenesulfonic acid; Na salt, *in* D-00657
 4,5-Dihydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid; Tri-Na salt, *in* D-00736
 Ethyl violet; Chloride, *in* E-00122
 ▶ Glycerol, G-00015
 ▶ Haematein, H-00001
 ▶ Haematoxylin; (+)-*form*, *in* H-00002
 4-Hydroxy-5-[(2-hydroxy-1-naphthalenyl)methylene]amino]-2,7-naphthalenedisulfonic acid, H-00225
 ▶ 1-Hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione, H-00300
 1,1'-Iminobis[6-chloroanthraquinone], I-00007
 ▶ 1,1'-Iminodianthraquinone, I-00011
 Mandelic acid; (±)-*form*, *in* M-00007
 Meldola's blue; Chloride, *in* M-00011
 ▶ Methylene green; Chloride, *in* M-00177
 2-Methyl-2,4-pentanediol; (±)-*form*, *in* M-00217
 ▶ Methylthionium chloride, *in* M-00175
 ▶ 2,3-Naphthalenediol, N-00010
 Nitron, N-00114
 Phthalein violet, P-00220

▶ D-Sorbitol, *in* G-00010
 2,4,5,7-Tetrabromo-1,8-dihydroxyanthraquinone, T-00015
 ▶ 1,2,5,8-Tetrahydroxy-9,10-anthraquinone, T-00070
 2',3,5,7-Tetrahydroxyflavone, T-00074
 2,4,4'-Trihydroxybenzophenone, T-00279
 2,2,4-Trimethyl-1,3-pentanediol; (±)-*form*, *in* T-00330

Bromine

Chromotrope 2B; Di-Na salt, *in* C-00290
 ▶ 4,4'-Diamino-3,3'-dimethylbiphenyl, D-00083
 ▶ Dibromosulfonephthalein, D-00215
 1,2-Dihydro-4-[(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00419
 ▶ Methyl orange; Na salt, *in* M-00210

Bromine: bromate

▶ 2-Aminophenylarsonic acid, A-00306
 1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, *in* C-00345
 1,3-Cyclopentanedione bis(4-methylthiosemicarbazone); B,HCl, *in* C-00363
 ▶ 2,4-Diamino-4'-ethoxyazobenzene, D-00095
 ▶ 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00392
 5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, *in* D-00847
 Gallamine; B,HCl, *in* G-00002
 ▶ Isoniazid, I-00069
 1,3,4-Trihydroxyanthraquinone-2-carboxylic acid, T-00272

Bromine: bromide

▶ 4,4'-Biphenyldiol, B-00208
 4-Bromo-*N,N'*-bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494
 C.I. Basic blue 20; Dichloride, *in* C-00002
 Chromotrope F4B; Di-Na salt, *in* C-00292
 ▶ 1,2-Diaminobenzene, D-00046
 3-(3,5-Dibromo-2,4-dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00183
 4',5'-Dibromofluorescein; Di-Na salt, *in* D-00188
 3-(2,4-Dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00710
 ▶ *N*-[4-[(4-Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+); Chloride, *in* D-00812
 Diphenylcarbazone, D-01005
 4-Ethoxy-3,6-acridinediamine, *in* H-00094
 ▶ Fluorescein, F-00020
 ▶ Fuchsin, *in* R-00009
 ▶ Merbromin; Di-Na salt, *in* M-00015
 ▶ Phenolsulfonphthalein, P-00064
 ▶ 4-Phenylazo-1-naphthylamine, P-00093
 Phloxin; Di-K salt, *in* P-00212
 4,5,6,7-Tetrachloro-3-(2,4-dihydroxyphenyl)-3-methyl-1(3*H*)-isobenzofuranone, T-00028
 Thioflavine S, T-00162
 Trypan red; Penta-Na salt, *in* T-00434

Cadmium

Alamine 336S, A-00073
 Amberlite LA2, A-00089
 3-Amino-1*H*-isoindole-1-thione, A-00229
 8-(Benzenesulfonylamino)quinoline, B-00028
 ▶ Benzof[*l*]quinoline, B-00073
 2-(2-Benzothiazolylazo)-4,6-dichlorophenol, B-00093
 2-(2-Benzothiazolylazo)-5-(dimethylamino)phenol, B-00094
 2-[(2-Benzothiazolyl)azo]-4,5-dimethylphenol, B-00095
 5-(2-Benzothiazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00100
 5-(2-Benzothiazolyl)-1,3-diphenylformazan, B-00101
 5-(2-Benzothiazolyl)-3-methyl-1-phenylformazan, B-00105
 5-(2-Benzothiazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00106
 ▶ 1*H*-Benzotriazole, B-00110
 5-(2-Benzoxazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00114
 5-(2-Benzoxazolyl)-1,3-diphenylformazan, B-00115
 5-(2-Benzoxazolyl)-3-methyl-1-phenylformazan, B-00116
 5-(2-Benzoxazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00117
 5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00166
 5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1,3-diphenylformazan, B-00167
 5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-(4-nitrophenyl)-3-phenylformazan, B-00173
 ▶ 2,2'-Bipyridine, B-00220
 3,3'-Bis(aminomethyl)-4,4'-dihydroxystilbene-*N,N,N',N'*-tetraacetic acid; (*E*)-*form*, *in* B-00246
N,N'-Bis(butanedisulfonyl)-1,2-benzenediamine, B-00271
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13,16-diazacyclooctadecane, B-00386
O,O-Bis(2-methylpropyl)phosphorodithioate; Na salt, *in* B-00413
 1,2-Bis(octanesulfonamido)benzene, B-00436
 1,8-Bis(octanesulfonamido)naphthalene, B-00437
 2-[(6-Bromo-2-benzothiazolyl)azo]-4-methylphenol, B-00491
 1-[(6-Bromo-2-benzothiazolyl)azo]-2-naphthalenol, B-00492
 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00126
 2-[(5-Bromo-2-pyridinyl)azo]-4,5-dimethylphenol, B-00564
 Cadion, C-00006
 ▶ Cetylclde, *in* E-00071
 3-Chlorobenzoic acid (1*H*-pyrrol-2-ylmethylene)hydrazide, C-00069
 6-Chloro-1-hydroxy-4-nitro-1*H*-benzotriazole, C-00137
 1-(5-Chloro-2-pyridylazo)-2-naphthol, C-00259
 Cyclohexylbenzylidithiocarbamate(1-); Triethylammonium salt, *in* C-00351
 Diantipyrilthiourea, D-00141
O,O-Dibutyl phosphorodithioate; K salt, *in* D-00241
O,O-Dibutyl phosphorothioate, D-00242
 5,7-Dichloro-8-hydroxyquinoline, D-00283
O,O-Dihexyl phosphorodithioate, D-00369
 4,5-Dihydro-1*H*-pyrazole-1-carbodithioic acid, D-00479
 [(2,4-Dihydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, D-00713
 6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid; Na salt, *in* D-00724
O,O-Diisopentyl phosphorodithioate, D-00746
 3,3'-Dimethylidithizone, D-00857
 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, *in* B-00619
 ▶ *O,O*-Dimethyl phosphorodithioate, D-00896
 2-(3,5-Dimethyl-1-pyrazolyl)-8-quinolinol, D-00906
O,O-Dipentyl phosphorodithioate, D-00996
 1,3-Diphenyl-1,3-propanedione, D-01041
O,O-Dipropyl phosphorodithioate, D-01060

Di-2-pyridinylethanedione bis(2-quinolinylhydrazone), D-01067
 Di-2-pyridinylmethanone 2-chlorobenzoylhydrazone, D-01074
 Di-2-pyridinylmethanone 3-chlorobenzoylhydrazone, D-01075
 1,2-Di(2-pyridyl)ethylene, D-01090
 Di-2-quinolinylmethanone 2-quinolinylhydrazone, D-01103
 ▶ Dithizone, D-01135
 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
 4,4'-[1,2-Ethenediylbis[2-(aminomethyl)phenol]]-*N,N,N',N'*-tetraacetic acid; (*E*-form, in E-00042
 5-(Ethylamino)-4-methyl-2-[(4-phenyl-2-thiazolyl)azo]phenol, in A-00250
 4-Ethyl-*N*-hydroxy-*N*-phenylbenzamide, E-00093
 2-Furancarboxaldehyde 3-bromobenzoylhydrazone, F-00045
 2-Furancarboxaldehyde 4-bromobenzoylhydrazone, F-00046
 Glyoxal bis(4-hydroxybenzoylhydrazone), G-00028
 ▶ (2-(2-Hydroxyphenyl)benzoxazole, H-00467
N-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
 8-Hydroxy-2-phenylquinoline, H-00503
 ▶ Lauryltrimethylammonium(1+); Bromide, in L-00002
 ▶ Mercaptobenzimidazole, M-00022
 Methylglyoxal 4-dimethylaminoanil, M-00184
 7-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-8-quinolinol, M-00253
 ▶ Methylpropyl acetate, M-00257
 5-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00280
 1-[(5-Methyl-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, M-00313
 1,2-Naphthoquinone-4-sulfonic acid 2-(phenylthiosemicarbazone); Na salt, in N-00037
 1-Octanesulfonamido-2-naphthol, in A-00273
 2-(1-Oxo-2(1*H*)-naphthalenyldiene)hydrazinecarbothioamide, in N-00031
 2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenol, P-00098
N,N'-1,2-Phenylenebismethanesulfonamide, P-00118
 1,1'-[1,3-Phenylene]bis-2-tetrazoline-5-thione, P-00122
 4-Phenyl-4-thioxo-2-butanone, P-00203
 4,4',4''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakis[1-methylpyridinium]; Tetrakis(*p*-toluenesulfonate), in P-00252
 3-Pyrazinyl-5,6-di-2-pyridyl-1,2,4-triazine, P-00297
 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
 ▶ Pyronine G; Chloride, in P-00435
 Pyruvaldehyde 1-(2-benzothiazolylhydrazone), P-00447
 ▶ 2-Quinolinecarboxylic acid, Q-00017
 2-(2-Quinolinylazo)-1-acenaphthyleneol, Q-00027
 2-Quinolinylphosphonic acid, Q-00036
 Solochrome fast blue B, in A-00225
 ▶ Tetrabutylammonium(1+); Bromide, in T-00023
 ▶ Tetraethylenepentamine, T-00044
 2,2',3,3'-Tetrahydro-2,2'-bibenzothiazole, T-00052
 1,4,8,11-Tetramethyl-1,4,8,11-tetraazacyclotetradecane, T-00104
 2,2'-(1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyl)-3,1-propanediylbis[4-[(4-nitrophenyl)azo]phenol], T-00117
 1-(1*H*-1,2,4-Triazol-3-ylazo)-2-naphthalenol, T-00200
 Tribenzylamine, T-00201

2,2'-(1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyl)-3,1-propanediylbis[4-[(4-nitrophenyl)azo]phenol], T-00362

Caesium

N-(1,4,7,10,13,16,19-Benzoheptaoxacycloheptacosin-21-yl)-2-propenamide, B-00058
N,N'-Bis(2,3,5,6,8,9,11,12,14,15,17,18-dodecahydro-1,4,7,10,13,16,19-benzoheptaoxacycloheptacosin-21-yl)pentanediamide, B-00346
 2,13-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, B-00347
 2,14-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, B-00348
 2,14-Bis(2-ethoxyethoxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, B-00349
 4-*sec*-Butyl-2-(1-phenylethyl)phenol, B-00637
 Cesignost, in C-00330
 4-Chloro-3-methyl-5-nitrobenzenesulfonic acid, C-00179
 16,17-Dihydro-5*H*,15*H*-dibenzo[*b,f*][1,11,4,5,7,8]dioxatetraazacyclotetradecine-7-carbonitrile, D-00375
 16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadecane-1(18),14,16-trien-18-ol, D-00970
 4,7,10,16,19,24,27-Heptaoxa-1,13-diazabicyclo[11.8.8]nonacosane, H-00014
 Tetrakis(4-fluorophenyl)borate(1-); Na salt, in T-00084

Calcium

3-[(3-Acetylphenyl)azo]-6-[(4-chloro-2-phenoxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00030
 ▶ 2-Aminoethanethiol, A-00170
 4-Amino-5-hydroxy-7-[(2-hydroxyphenyl)azo]-1,3-naphthalenedisulfonic acid, A-00193
 5-Amino-4-hydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00194
 3-Amino-4-hydroxy-3'-nitroazobenzene-*N,N*-diacetic acid, A-00206
 8-(Aminomethyl)-6,7-dihydroxy-4-methylcoumarin-*N,N*-diacetic acid, A-00241
 Antipyrilazo III, A-00394
 Azo-azoxy AN, A-00464
 Azo-azoxy BN, A-00465
 4,4'-Azobis[3-hydroxy-2,7-naphthalenedisulfonic acid], A-00469
 2,2'-Bibenzoxazole, B-00202
 1,2-Bis(2-amino-5-bromophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00243
 1,2-Bis(2-aminophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00248
 ▶ 3,12-Bis(carboxymethyl)-6,9-dioxa-3,12-diazatetradecanedioic acid, B-00278
N,N-Bis(2-hydroxy-5-nitrobenzyl)-1,10-diaza-4,7,13-trioxacyclopentadecane, B-00382
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,13,16,19-hexaoxa-10,22-diazacyclotetacosane, B-00384
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-15,18-diazacycloheptacosane, B-00385
 Bis(2-pyridylmethylene)carbonic acid dihydrazide, B-00442
 ▶ 4-Bromobenzoic acid, B-00488
 Calcein, C-00010
 Calconalide I, C-00013
 Calcon-*m*-nitroanilide, C-00014
 1-(3-Carboxy-2-hydroxy-1-naphthylazo)-2-naphthol-3,6-disulfonic acid, C-00030
 3-[[7-[(2-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfobenzoic acid, C-00038
 Chlorindazon C, C-00051
 2-Chloro-5-cyano-3,6-dihydroxybenzoquinone; Di-Na salt, in C-00090
 2-[[7-[(5-Chloro-2-hydroxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00143
 3-[[4-[(5-Chloro-2-hydroxyphenyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, C-00148
 4-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, C-00160
 Chlorophosphonazo III, C-00242
 ▶ Cyclohexanecarboxylic acid, C-00336
 4,4'-Diamino-3,3'-biphenyldicarboxylic acid *N,N,N',N'*-tetraacetic acid; Hexa-Na salt, in D-00054
 Diamond green BW; Di-Na salt, in D-00133
 ▶ 5,7-Dibromo-8-hydroxyquinoline, D-00193
 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00320
 3,4-Dihydro-3-methyl-1-phenyl-4-stearoyl-5-pyrazolone, D-00444
 2,2'-Dihydroxyazobenzene, D-00514
 5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone; Di-K salt, in D-00570
 3,3'-[[1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl]bis(azo)]bisbenzoic acid, D-00593
o-[[1,8-Dihydroxy-7-[(2-hydroxy-5-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00630
 4-[(2,3-Dihydroxy-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00660
 2-[[1,8-Dihydroxy-7-[(2-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00663
 2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00664
 3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl, D-00694
 ▶ 2,3-Dimercapto-1-propanesulfonic acid, D-00761
 ▶ Dimethyl sulfate, D-00916
 Diphenylglyoxal bis(2-hydroxybenzoylhydrazone), D-01017
 Di-2-pyridinylethanedione bis(2-hydroxybenzoylhydrazone), D-01065
 3-[Ethyl[3-hydroxy-4-[(2-hydroxy-5-methylphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00087
 3-[Ethyl[3-hydroxy-4-[(2-hydroxyphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00088
 4-[[4-[Ethyl(3-sulfopropyl)amino]-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, E-00115
 Fluo 3, F-00009
 Fluo 3AM, in F-00009
 Fura 2-AM, in F-00039
 Fura 2; Penta-K salt, in F-00039
 Glyoxal bis(2-hydroxyanil), G-00027
 Glyoxal bis(4-hydroxybenzoylhydrazone), G-00028
 ▶ Glyphosine, G-00040
 ▶ Hexadecanoic acid, H-00026
 4-[[6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecan-18-yl)oxy]butanoic acid, H-00041
 7-Hydroxy-8-(aminomethyl)coumarin-*N*-acetic acid, H-00096
 7-Hydroxy-8-(aminomethyl)coumarin-*N,N*-diacetic acid, H-00097
 2-Hydroxy-1*H*-benz[*de*]isoquinoline-1,3(2*H*)-dione, in B-00051

- ▷ 7-Hydroxy-2*H*-1-benzopyran-2-one, H-00124
 4-[4-Hydroxy-3-biphenylazo]-1,3-benzenediol, H-00133
 1-(4-Hydroxy-3-biphenylazo)-2-naphthol, H-00134
 8-Hydroxy-5,7-dinitroquinoline, H-00165
 2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-(*N,N*-diethylamino)phenol, H-00173
 2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-[*N*-ethyl-*N*-(sulfo)propyl]amino]phenol, H-00174
 3-Hydroxy-4-[[2-hydroxy-3-[[2-methoxyphenyl]amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00207
 3-Hydroxy-4-[[2-hydroxy-3-[[4-methoxyphenyl]amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00208
 4-Hydroxy-3-[[2-hydroxy-3-(phenylcarbamoyl)-1-naphthyl]azo]benzenesulfonic acid, H-00236
 3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid; Na salt, *in* H-00242
 3-Hydroxy-4-[(2-hydroxy-6-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, H-00243
N-[7-Hydroxy-4-methyl-2-oxo-(2*H*)-1-(benzopyran-8-yl)methyl]glycine, H-00297
 1-[[2-[(2-Hydroxy-5-methylphenyl)-*O,N,N*-azoxy]phenyl]azo]-2-naphthalenol, H-00305
 2-[(1-Hydroxy-2-naphthalenyl)azo]-8-quinolinol, H-00356
 Hydroxynaphthol blue; Tri-Na salt, *in* H-00371
 1-[(2-Hydroxy-4-nitrophenyl)azo]-2-naphthalenol, H-00395
N-Hydroxy-*N*-nitrosocyclododecanamine, H-00410
 4-[(2-Hydroxyphenyl)azo]-1,3-benzenediol, H-00449
 1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, H-00455
 2-[(2-Hydroxyphenyl)imino]-1-acenaphthenone, H-00473
 8-Hydroxy-2-quinolinecarboxaldehyde 8-quinolylhydrazone, H-00526
 Indo 1, I-00031
 Indo 1AM, *in* I-00031
 Isocein, I-00058
 ▷ 4-Methyl-2*H*-1-benzopyran-2-one, M-00141
 Methylcalcein blue, M-00153
 Mordant blue 44; Di-Na salt, *in* M-00342
 Mordant green 34; Na salt, *in* M-00343
 Naphthochrome green G; Di-Na salt, *in* N-00023
 ▷ Octadecanoic acid, O-00001
 Palatine fast blue GGNA CF, P-00001
 4,7,13,16,21-Pentaoxa-1,10-diazabicyclo[8.8.5]tricosane, P-00037
 [1,2-Phenylenebis(methylene)]bis[bis(4-methylphenyl)]phosphine oxide, P-00119
 ▷ Picrolonic acid, P-00235
 Quin 2, Q-00002
 Quin 2A, *in* Q-00002
 Stil 1, S-00026
 Sulfochlorophenol R, S-00044
 ▷ Tetracycline, T-00039
 2,2',3,3'-Tetrahydro-2,2'-bibenzoxazole, T-00053
 2-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,h*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]butanoic acid, T-00056
 3-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,h*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]propanoic acid, T-00057
 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyl]bis(methylene)]bis[4-nitrophenol]9CI, T-00115

- 2,3',4'-Trihydroxyacetophenone, T-00268
 1,2,7-Trihydroxyanthraquinone, T-00271
N,N'-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyl]bis(methylene-2,1-phenylene)]bis[2,4,6-trinitrobenzamine], T-00361

Carbon: carbon monoxide

- Cacotheline, C-00005
 Pyrazine; B, MeI, *in* P-00283

Carbon: cyanide

- [4-[1-[2-Amino-3-hydroxy-4-(2-pyridinyl)phenyl]azo]phenyl]arsonic acid, A-00219
 ▷ 1,4-Benzoquinone, B-00076
 1,4-Benzoquinone *O*-(2-chlorobenzyl)oxime, B-00077
 1,4-Benzoquinone *O*-(4-chlorobenzyl)oxime, B-00078
 1,4-Benzoquinone mono[*O*-[(*p*-methylphenyl)sulfonyl]oxime], B-00079
 1,4-Benzoquinone mono[*O*-[(*p*-nitrophenyl)sulfonyl]oxime], B-00080
 1,4-Benzoquinone mono[*O*-phenylsulfonyl]oxime, B-00081
 1,4-Benzoquinone *O*-(*m*-nitrobenzyl)oxime, B-00082
 1,4-Benzoquinone *O*-(*p*-nitrobenzyl)oxime, B-00083
 2,5-Bis(2-hydroxyethylamino)-1,4-benzenedicarboxylic acid, B-00368
O-(*p*-Bromophenylsulfonyl)quinone monoxime, B-00557
 Cadion 2B, C-00007
 ▷ Chloramine T, *in* M-00130
 ▷ 4-(Chloroimino)-2,5-cyclohexadien-1-one, C-00164
 ▷ 1,4-Diaminobenzene, D-00048
 ▷ 4,4'-Diaminobiphenyl, D-00053
 ▷ Dibenzylamine, D-00166
N,N-Dibromobenzenesulfonamide, D-00179
 ▷ 2,6-Dibromo-4-(chloroimino)-2,5-cyclohexadien-1-one, D-00180
 ▷ Dicarboxidine, D-00244
 Dichloramine B, *in* B-00026
 ▷ 2,6-Dichloro-1,4-benzoquinone, D-00251
 ▷ 2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone, D-00262
 ▷ 2,4-Dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00443
 5,5-Dimethyl-1,3-cyclohexanedione, D-00847
 3,3'-Dimethyl-1,1'-diphenyl-[4,4'-bi-2-pyrazoline]-5,5'-dione, D-00851
 1,3-Dimethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione, *in* P-00429
 Diphenylcarbazone, D-01005
 Mercury chloroanilate, *in* D-00262
 ▷ 2-Methoxyaniline, M-00072
O-(*p*-Methoxyphenylsulfonyl)-*o*-methylquinone monoxime, M-00117
O-(*p*-Methoxyphenylsulfonyl)quinone monoxime, M-00118
O-(*p*-Methylphenylsulfonyl)-*o*-methylquinone monoxime, M-00242
 ▷ 4-Methylpyridine, M-00265
 2,3-Naphthalenedicarboxaldehyde, N-00006
 ▷ 1,4-Naphthoquinone, N-00032
 ▷ 4-Nitrobenzaldehyde, N-00082
 ▷ Phenolphthalein, P-00063
 4,4',4''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakis[1-methylpyridinium]; Tetrakis(*p*-toluenesulfonate), *in* P-00252
 Pyrazine; B, MeI, *in* P-00283
 ▷ 2,4,6(1*H*,3*H*,5*H*)-Pyrimidinetrione, P-00429
 Taurin, *in* O-00063
 ▷ Tributyltin hydroxide, T-00217
 ▷ 2,4,6-Trinitrophenol, T-00355

Carbon: hexacyanoferrate (II)/(III) (ferro/ferricyanide)

- ▷ Benzylidimethyldodecylammonium(1+); Bromide, *in* B-00179
 ▷ Bis(4-dimethylaminophenyl)methane, B-00320
 Triphenylpropylphosphonium(1+), T-00372

Cerium

- ▷ 4'-Aminoacetophenone, A-00091
 4-Aminoazobenzene-4'-arsonic acid; *N*-Di-Me, *in* A-00095
 ▷ 4-Aminobenzenesulfonic acid, A-00100
 4-Aminobenzenesulfonic acid; *N*-Ph, Ba salt, *in* A-00100
 ▷ 2-Amino-4,6-dinitrophenol, A-00164
 7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, A-00208
 5-Amino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00236
 7-Amino-1-methyl-3*H*-phenoxazin-3-one, A-00247
 7-Amino-3*H*-phenoxazin-3-one, A-00304
 Arsenazo DBS, A-00408
N-Benzoyl-*N*-phenylhydroxylamine, *in* P-00135
 4-Benzoyl-3-phenyl-5(4*H*)-isoxazolone, B-00143
 4,4'-Bis(dimethylamino)-3,3'-dimethylbiphenyl, *in* D-00083
N,N'-Bis(2-hydroxypropyl)-1,2-benzenediamine, B-00392
 4,4'-Bis(1-phenyl-3-methyl-5-pyrazolone), B-00440
 4-Chloro-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, *in* C-00065
N-(4-Chlorophenyl)-*N*-hydroxy-3-phenyl-2-propenamide, C-00232
 Chlorophosphonazo-*m*-sulfonic acid, C-00246
 Chromotrope 2R; Di-Na salt, *in* C-00293
 4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, D-00073
 ▷ 4,4'-Diamino-3,3'-dimethoxybiphenyl, *in* D-00056
 ▷ 4,4'-Diamino-3,3'-dimethylbiphenyl, D-00083
 3-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfo)phenyl]azo]-2-naphthalenyl]azo]benzoic acid, D-00611
 ▷ 1,2-Dimethoxybenzene, D-00766
 7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, D-00786
 1,12-Dodecanediylbis[octylarsinic acid], D-01139
 Erio green B; Na salt, *in* E-00019
 ▷ Ethyl 4-aminobenzoate, *in* A-00105
 ▷ Fluphenazine, F-00034
 Glutarimide dioxime, *in* G-00014
 5-Hydroxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, H-00280
N-Hydroxy-*N*-(4-methylphenyl)benzamide, *in* H-00109
N-Hydroxy-*N*-(4-methylphenyl)-2-furancarboxamide, *in* F-00064
N-Hydroxy-*N*-(3-methylphenyl)-2-nitrobenzamide, *in* N-00089
 8-Hydroxy-2-methylquinoline, H-00326
 ▷ 8-Hydroxyquinoline, H-00525
 ▷ 4-Methoxyaniline, M-00073
 11-Methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00140
 Methyl red; Na salt, *in* M-00309
 ▷ 3-Nitrobenzoic acid, N-00092
 ▷ Nitroethane, N-00108
 Nitrophosphonazo-*m*A, N-00147
 ▷ Promazine, P-00258
 ▷ Purpurogallin, P-00282
 Quinoline; *N*-CH₃, Ph, nitrate salt, *in* Q-00007
 ▷ Trioctylamine, T-00357

Chlorine

- ▷ 4,4'-Diaminobiphenyl, D-00053
- 4,4'-Diamino-3,3'-dimethyl-[1,1'-binaphthalene]-6,6'-disulfonic acid, D-00081
- ▷ 4,4'-Diamino-3,3'-dimethylbiphenyl, D-00083
- ▷ Dibromosulfonephthalein, D-00215
- ▷ Dicarboxidine, D-00244
- ▷ *N,N*-Diethyl-1,4-phenylenediamine, *in* D-00048
- ▷ Methyl orange; Na salt, *in* M-00210
- Methyl red; Na salt, *in* M-00309
- ▷ 4-Nitroaniline, N-00077
- 2-Phenyl-4*H*-naphtho[1,2-*b*]pyran-4-one, P-00150
- ▷ Rivanol, *in* D-00094
- Tyrosine; (±)-*form*, *in* T-00435

Chlorine: chlorate

- ▷ Brucine, B-00584
- 1,3-Cyclopentanedione bis(4-methylthiosemicarbazone); B, HCl, *in* C-00363
- 5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, *in* D-00847

Chlorine: perchlorate

- Amiloride, A-00090
- 1,1-Bis[4-(dimethylamino)phenyl-3-phenyl-2-propynyl]methyl(1+); Chloride, *in* B-00324
- 2,6-Bis(4-methylphenyl)-4-phenylpyrylium(1+); Chloride, *in* B-00410
- 1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, *in* C-00345
- ▷ 4,4'-Diaminobiphenyl, D-00053
- 6-Methyl-2-pyridinecarboxaldehyde azine, M-00267
- Neutral red; B, HCl, *in* N-00065
- Nitron, N-00114
- ▷ Tetrabutylphosphonium(1+); Chloride, *in* T-00024
- ▷ Tetraphenylarsonium(1+); Chloride, *in* T-00119
- ▷ Trimethylsulfonium(1+); Iodide, *in* T-00347
- 2,4,6-Triphenylpyridine; *N*-Ph, acetate (salt), *in* T-00373
- 2,4,6-Triphenylpyrylium(1+); Chloride, *in* T-00374
- Triphenylselenonium(1+); Chloride, *in* T-00375
- Tris(2,2'-bipyridine-*N,N'*)iron(II)(2+), T-00384
- Tris(1,10-phenanthroline-*N,N'*)iron(II)(2+), T-00412

Chlorine: chloride

- 3-Acetyl-4,5,6,7-tetrachloro-3-(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, A-00049
- 4-Bromo-*N,N'*-bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494
- C.I. Basic blue 20; Dichloride, *in* C-00002
- 4,4'-Diamino-3,3'-dimethoxybiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00078
- 3-(3,5-Dibromo-2,4-dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00183
- 1,2-Dihydroxy-3-[5-(8-hydroxyquinolinyl)azo]anthraquinone, D-00629
- 3-(2,4-Dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00710
- Diphenylcarbazone, D-01005
- 4-Ethoxy-3,6-acridinediamine, *in* H-00094
- ▷ Fluorescein, F-00020
- 3-(4-Hydroxyphenyl)-1-(3*H*)-isobenzofuranone, H-00474

- 3-[2-Hydroxyphenyl]-3-phenylnaphtho[2,1-*b*]furan-1(3*H*)-one, H-00493
- 3-[4-Hydroxyphenyl]-3-phenylnaphtho[2,1-*b*]furan-1(3*H*)-one, H-00494
- 8-[(8-Hydroxy-5-quinolinyl)azo]-1-naphthalenesulfonic acid, H-00532
- Mercury chloroanilate, *in* D-00262
- Neutral red; B, HCl, *in* N-00065
- ▷ Phenolphthalein, P-00063
- ▷ 4-Phenylazo-1-naphthylamine, P-00093
- ▷ 2,4,6(1*H*,3*H*,5*H*)-Pyrimidinetrione, P-00429
- 4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, T-00027
- 4,5,6,7-Tetrachloro-3-(2,4-dihydroxyphenyl)-3-methyl-1(3*H*)-isobenzofuranone, T-00028
- Thioflavine S, T-00162
- Trypan red; Penta-Na salt, *in* T-00434

Chromium

- Aluminophthalexon, A-00085
- Aluminophthalexon A, A-00086
- 2-Aminophenylcarbamodithioic acid; NH₄ salt, *in* A-00320
- Bis(4-dimethylaminobenzylidene)-4,4'-methylenedianiline; B, 4HCl, *in* B-00314
- 4-(1-Butylpentyl)pyridine, B-00635
- 4-Chlorobenzoic acid [(2-bromo-6-hydroxyphenyl)methylene]hydrazide, C-00068
- 2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00059
- 1,2-Diaminocyclohexane-*N,N,N',N'*-tetraacetic acid; (1*RS*,2*RS*)-*form*, *in* D-00065
- 4,4'-[(4,6-Diamino-1,3,5-triazin-2-yl)amino]-2,2'-stilbenedisulfonic acid-*N,N',N'',N'''*-tetraacetic acid; Hexa-Na salt, *in* D-00129
- 4,4-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00245
- 4,4'-Dimethoxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, *in* D-00572
- Diphenylcarbazide, D-01004
- 2,2'-(1,2-Ethenediyl)bis[4-[[4-amino-6-bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]benzenesulfonic acid]; Di-Na salt, *in* E-00041
- ▷ Ethylenediaminetetraacetic acid, E-00078
- Glycinethymol blue, G-00019
- 8-Hydroxy-2-methylquinoline, H-00326
- 1-Hydroxy-2-naphthoic acid, H-00369
- N*-Hydroxy-3-nitrobenzenecarboximidamide, H-00382
- ▷ 3-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one, H-00466
- Lucigenine; Dinitrate, *in* L-00012
- (1-Naphthylmethyl)triphenylphosphonium(1+); Chloride, *in* N-00052
- ▷ Nitrotriacetic acid, N-00074
- 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
- ▷ 3,3',4,4'-Tetraaminobiphenyl, T-00007
- ▷ Tetrabutylammonium(1+); Bromide, *in* T-00023
- Tetraoctylammonium(1+); Chloride, *in* T-00110
- ▷ Trioctylamine, T-00357
- ▷ Tropolone, T-00432
- N,N'*-[Vinylenebis[(3-sulfo-*p*-phenylene)imino(6-hydroxy-*s*-triazine-4,2-diyl)]]diglycine; Tetra-Na salt, *in* V-00006
- [Vinylenebis[[[3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triyl]dinitrilo]octaacetic acid; Hexa-Na salt, *in* V-00007
- N,N',N'',N'''*-[Vinylenebis[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triyl]]tetrasarcosine; Di-Na salt, *in* V-00008
- ▷ Xylometazoline hydrochloride, *in* X-00008

Chromium:**dichromate/chromate**

- 7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, A-00208
- 5-Amino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00236
- 7-Amino-1-methyl-3*H*-phenoxazin-3-one, A-00247
- ▷ 2-Amino-3*H*-phenoxazin-3-one, A-00303
- 7-Amino-3*H*-phenoxazin-3-one, A-00304
- 1,4-Butanediybis(triphenylphosphonium)(2+); Dibromide, *in* B-00602
- 1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, *in* C-00345
- ▷ 4,4'-Diamino-3,3'-dimethoxybiphenyl, *in* D-00056
- 7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, D-00786
- 7-(Dimethylamino)-1-methyl-3*H*-phenoxazin-3-one, D-00792
- 5-Hydroxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, H-00280
- 5-Methoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00089
- 11-Methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00140
- ▷ Trimethylsulfonium(1+); Iodide, *in* T-00347

Cobalt

- Acenaphthenequinone; Dioxime, *in* A-00001
- ▷ Acetaldoxime, *in* A-00002
- 3-(2-Acetophenyl)methyltriazene *N*-oxide, A-00009
- 2-Acetyl-4-ethylpyridine; Oxime (*Z*-), *in* A-00016
- 2-Acetyl-4-methoxypyridine; Oxime (*Z*-), *in* A-00021
- 2-Acetyl-4-methylpyridine; Oxime (*E*-), *in* A-00023
- 2-Acetyl-4-phenylpyridine; Oxime (*E*-), *in* A-00031
- 2-Acetylpyrazine 8-quinolyldiazone, A-00038
- 4-Acetylpyridine 4-ethyl-3-thiosemicarbazone, A-00041
- 2-Acetylpyridine 8-quinolyldiazone, A-00046
- Acid monochrome green S; Na salt, *in* A-00057
- Alamine oxide, A-00071
- Alamine 336S, A-00073
- Aminobenzene AE, A-00098
- 2-Amino-4,6-bis[6-(2-pyridyl)-2-pyridyl]-*s*-triazine, A-00122
- 6-Amino-2-(dimethylamino)-5-nitroso-4(1*H*)-pyrimidinone, A-00161
- 6-Amino-4-hydroxy-5-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenesulfonic acid, A-00191
- 5-Amino-4-hydroxy-3-[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00195
- 5-Amino-4-hydroxy-3-[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* A-00195
- 5-Amino-4-hydroxy-3-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00207
- 5-Amino-4-hydroxy-3-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, A-00220
- 4-[[2-Amino-5-(1-methyl-2-piperidinyl)-3-pyridinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00251
- ▷ 3-Amino-2-naphthoic acid, A-00280
- 6-Amino-5-nitroso-2-[(phenylmethyl)thio]-4(1*H*)-pyrimidinone, A-00286
- 2-Amino-5-nitroso-4,6(1*H*,5*H*)-pyrimidinedione, A-00287
- ▷ 5-Aminoorotic acid, A-00290
- 5-[(4-Aminophenyl)azo]-1*H*-1,2,4-triazole-3-carboxylic acid, A-00317
- 5-Amino-2,4,6-pyrimidinetrione-*N*⁵,*N*⁵-diacetic acid, A-00338

- ▷ 5-Amino-1,3,4-thiadiazoline-2(3*H*)-thione, A-00354
- ▷ Atarax, *in* H-00563
- Azo-azoxy BN, A-00465
- Basic turquoise: Trichlorozincate, *in* B-00001
- Benzaldehyde 2-pyridinylhydrazone, B-00006
- α-Benzaldoxime, *in* B-00004
- Benzenecarboximidic acid *N*-2-pyridinyl-2-pyrazinylhydrazone, B-00015
- ▷ 1,3-Benzenediol, B-00021
- 1*H*-Benzimidazole-2-carboxaldehyde; 1-Benzyl, oxime, *in* B-00039
- 4-(1*H*-Benzimidazol-5-ylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid, B-00042
- 5-(1*H*-Benzimidazol-5-ylazo)-8-quinolinol, B-00043
- 2-Benzothiazolecarboxaldehyde 2-benzothiazolylhydrazone, B-00086
- 2-(Benzothiazolylazo)-5-diethylaminobenzoic acid, *in* A-00114
- 10-(2-Benzothiazolylazo)-9-phenanthrenol, B-00099
- ▷ 1*H*-Benzotriazole, B-00110
- 2-Benzoyl-4-ethylpyridine; Oxime (*E*), *in* B-00132
- 2-Benzoyl-4-methylpyridine; Oxime (*E*), *in* B-00134
- 2-Benzoyl-4-phenylpyridine; Oxime (*E*), *in* B-00144
- 2-Benzoylpyridine 8-quinolylhydrazone, B-00157
- N*-Benzyl-4-(4-diethylaminophenylazo)pyridinium(1+), B-00176
- 1-Benzyl-2-(α-hydroxyimino-4-nitrobenzyl)-1*H*-imidazole, B-00183
- [2,2'-Bipyridine]-6-carboximidic acid hydrazide, B-00223
- 3-[2,2'-Bipyridin-6-yl]-5,6-dimethyl-1,2,4-triazine, B-00226
- 3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine, B-00227
- 3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine, B-00228
- 3-(2,2'-Bipyridin-6-yl)-1,2,4-triazino[5,6-*fj*][4,7]phenanthroline, B-00234
- N,N'*-Bis(*o*-aminobenzylidene)ethylenediamine, B-00242
- N,N'*-Bis(butanefonyl)-1,2-benzenediamine, B-00271
- Bis(4-chlorophenyl)ethanedione; Dioxime, *in* B-00285
- Bis(4-chlorophenyl)iodonium(1+); Chloride, *in* B-00287
- 4,4'-Bis[(1,8-dihydroxy-3,6-disulfo-2-naphthyl)azo]-3,3'-biphenyldicarboxylic acid, B-00301
- Bis(diisobutylthiocarbamoyl) disulfide, *in* T-00166
- Bis(diisopropylthiocarbamoyl) disulfide, *in* T-00166
- Bis(di-2-pyridinylmethylene)carbonothioic dihydrazide, B-00344
- 3,6-Bis(4-ethyl-2-pyridyl)-1,2-dihydro-1,2,4,5-tetrazine, B-00354
- N,N'*-Bis(2-mercaptobenzoyl)-1,2-ethanediamine, B-00397
- 1,2-Bis(2-mercaptobenzylideneamino)ethane, B-00398
- 3,6-Bis(4-methyl-2-pyridyl)-4-phenylpyridazine, B-00419
- 1,2-Bis(octanesulfonamido)benzene, B-00436
- 1,8-Bis(octanesulfonamido)naphthalene, B-00437
- Bis(2-pyridylmethylene)carbonothioic acid dihydrazide, B-00444
- 3,3'-Bis(trifluoromethyl)dithione, B-00463
- Biuret, B-00474
- 4-[(5-Bromo-2-pyridinyl)azo]-1,3-benzenediamine, B-00562
- 2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, *in* B-00563
- 4-[(5-Bromo-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, B-00572
- 1-[(5-Bromo-2-pyridinyl)azo]-2-naphthalenol, B-00573
- ▷ Bromotetraphenylantimony, B-00577
- 2-(5-Bromo-2-thiazolylazo)-5-(diethylamino)benzoic acid, *in* A-00128
- 1-[(5-Bromo-2-thiazolyl)azo]-2-naphthalenol, B-00579
- 2,3-Butanedione mono(2-pyridinylhydrazone), B-00600
- 2,3-Butanedione; Monoxime, (4-nitrophenyl)hydrazone, *in* B-00587
- 2,3-Butanedione; Monoxime, phenylthiosemicarbazone, *in* B-00587
- 2,3-Butanedione; Monoxime, 2-pyridylhydrazone, *in* B-00587
- 2,3-Butanedione oxime 4-nitrophenylhydrazone, B-00601
- 1-Butyl-4-[[4-(diethylamino)phenyl]azo]pyridinium(1+), B-00625
- ▷ *S*-Carbamidothioglycolic anilide, C-00019
- 2-Carboxy-1-pyrrolidinedicarbodithioic acid; (*S*)-form, *in* C-00044
- Chlorindazon DS, C-00052
- 3-Chlorobenzoic acid (1*H*-pyrrol-2-ylmethylene)hydrazone, C-00069
- 4-[[4-Chlorophenyl]azo]-1,3-benzenediamine, C-00199
- 2-[(5-Chloro-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00145
- 4-[(5-Chloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, C-00253
- 2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, C-00254
- 5-Chloro-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, C-00264
- Cuproselect, *in* D-01137
- 4-Cyclohexyl-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, C-00354
- ▷ Cysteine; (±)-form, *in* C-00370
- 2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00059
- 2,4-Diamino-6-(2,2'-bipyridyl)-1,3,5-triazine, D-00062
- 2,6-Diamino-5-nitroso-4(1*H*)-pyrimidinone, D-00109
- 2-[(2,4-Diaminophenyl)azo]-4,6-dinitrophenol, D-00112
- 5,6-Diamino-2,4(1*H,3H*)-pyrimidinedione; 1,3-Di-Me, *in* D-00120
- 4,4'-Diaminostilbene-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00127
- ▷ Dibenzylamine, D-00166
- 5,7-Dibromo-8-hydroxy-2-methylquinoline, D-00190
- 4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediamine, D-00199
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(dimethylamino)benzoic acid, D-00201
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-methoxyphenol, *in* D-00200
- 5-(3,5-Dibromo-2-pyridylazo)-2,4-diaminotoluene, D-00210
- 4,4-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00245
- ▷ (3,4-Dichlorobenzyl)triphenylphosphonium(1+); Chloride, *in* D-00252
- ▷ 5,7-Dichloro-8-hydroxy-2-methylquinoline, D-00280
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-1,3-benzenediamine, D-00299
- 2-[(3,5-Dichloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, D-00300
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, D-00301
- 6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, *in* A-00156
- 2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, *in* A-00214
- 5-[[4-Diethylamino-2-hydroxyphenyl]azo]-1*H*-1,2,4-triazole-3-carboxylic acid, *in* A-00215
- 5-(Diethylamino)-2-nitrosophenol, *in* A-00285
- 4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+); Chloride, *in* D-00329
- 4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Chloride, *in* D-00332
- 2-(Diethylamino)-6-(2-pyridinylazo)phenol, D-00335
- 5-Diethylamino-2-(2-thiazolylazo)benzoic acid, *in* A-00359
- 2,2'-Difluorodithione, D-00360
- 4,4'-Difluorodithione, D-00361
- ▷ Di(2-furyl)ethanedione; Monoxime, *in* D-00364
- 1,2-Dihydro-3,6-bis(4-methyl-2-pyridinyl)-1,2,4,5-tetrazine, D-00373
- 1,4-Dihydro-6-nitro-2,3-quinoxalinedithione, D-00461
- [4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyrazine, D-00484
- Dihydro-2-thioxo-4,5,6(1*H*)-pyrimidinetriene 5-oxime, D-00493
- 5,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00646
- 2-(2,4-Dihydroxyphenylazo)-1,3,4-thiadiazole, D-00703
- 1-(2,4-Dihydroxyphenyl)-1-pentanone, D-00714
- 4,4'-Dimethoxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, *in* D-00572
- 3-Dimethylamino-6-nitroso-1-naphthol, D-00803
- 5-(Dimethylamino)-2-nitrosophenol; B,HCl, *in* D-00804
- (2,5-Dimethylbenzenesulfonylamino)quinoline, D-00833
- 5,5-Dimethyl-1,3-cyclohexanedione; Dioxime, *in* D-00847
- 5,6-Dimethyl-2-nitro-1,3-indanedione; Bis(thiosemicarbazone), *in* D-00873
- (3,5-Dimethylphenyl)diphenylsulfonium(1+); Chloride, *in* D-00888
- 5,6-Dimethyl-3-(3-pyridazinyl)-1,2,4-triazine, D-00907
- N,N*-Dimethyl-4-(2-pyridinylazo)benzenamine, D-00909
- 7,14-Dimethyl-5,7,12,14-tetraethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, D-00919
- 1,2-Di(1-naphthalenyl)-1,2-ethanedione; Monooxime, *in* D-00930
- 5-(2,4-Dinitrophenylazo)-8-hydroxyquinoline, D-00968
- 2,3-Dioxobutanoic acid; 2-(2-Hydroxyphenyl)hydrazone, Et ester, *in* D-00986
- 3,4-Dioxohexanedioic acid bis(thiosemicarbazide); Di-Et ester, *in* D-00990
- Diphenylethanedione mono(pyrazinylhydrazone), D-01013
- Diphenylethanedione monoxime, *in* B-00038
- Diphenyliodonium(1+); Iodide, *in* D-01028
- 1,3-Diphenyl-5-nitrosobarbituric acid, *in* P-00428
- N,N'*-Diphenylpropanedithioamide, *in* P-00262
- 5,6-Diphenyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01047
- Diphenylthiovioluric acid, *in* D-00493
- 1,1-Di-2-pyridinyl-*N,N'*-di-8-quinolinylmethanediamine, D-01062
- Di-2-pyridinylethanedione bis(2-quinolinylhydrazone), D-01067
- Di-2-pyridinylmethanone 2-chlorobenzoylhydrazone, D-01074
- Di-2-pyridinylmethanone 3-chlorobenzoylhydrazone, D-01075
- Di-2-pyridinylmethanone guanylhydrazone, D-01078
- 5,6-Di-2-pyridinyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01086
- Di-2-pyridylglyoxal dithiosemicarbazone, *in* D-01063
- Di-2-pyridylmonoxime, *in* D-01063
- 2,4-Di-2-pyridylpyrimidine, D-01092
- α,α-[(Dithiooxalyldiimino)di-*m*-toluenesulfonic acid, D-01134

- 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
- 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
- ▶ 1,2-Ethanediybis(triphenylphosphonium) (2+); Dibromide, *in* E-00034
- 7-(1-Ethenyl-3,3,5,5-tetramethylhexyl)-8-quinolinol, E-00049
- 1-[(4-Ethoxyphenyl)amino]-2-mercapto-1-propanone, E-00058
- 5-Ethoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- 5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, *in* A-00253
- ▶ Ethylenediaminetetraacetic acid, E-00078
- Ethylrhodamine B, *in* R-00002
- 2-[(5-Ethyl-1,3,4-thiadiazol-2-yl)azo]-4-methoxyphenol, E-00116
- 2-Furancarboxaldehyde 3-bromobenzoylhydrazone, F-00045
- 2-Furancarboxaldehyde 4-bromobenzoylhydrazone, F-00046
- 2-Furancarboxaldehyde 2-pyridinylhydrazone, F-00049
- ▶ Glycerol, G-00015
- N*-Glyoxyloylantranilic acid; Monooxime, *in* G-00039
- 6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedione, H-00006
- 5,7,7,12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, H-00059
- ▶ Hexanoic acid, H-00066
- 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
- ▶ Hydrazinecarboxaldehyde, *in* F-00037
- 4-Hydroxyacridine, H-00092
- 2-Hydroxybenzoic acid [2-pyridinyl(3-sulfophenyl)methylene]hydrazide, H-00122
- [2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]carbamodithioic acid, H-00138
- N*-Hydroxy-2,4-dimethylbenzenecarboximidamide, *in* D-00835
- 2-[[1-(Hydroxyimino)ethyl]azo]-1*H*-benzimidazole, H-00245
- N*-Hydroxy-4-methylbenzenecarboximidamide, *in* M-00138
- α-(Hydroxymethylene)-2-benzoxazoleacetoneitrile, H-00287
- 1-[[2-[(2-Hydroxy-5-methylphenyl)-*O,N*-azoxy]phenyl]azo]-2-naphthalenol, H-00305
- 1-Hydroxy-2-naphthalenecarboximidamide, *in* M-00339
- N*-Hydroxy-1-naphthalenecarboximidamide, *in* N-00005
- 4-[(2-Hydroxy-1-naphthalenyl)azo]benzenesulfonic acid; Na salt, *in* H-00348
- 3-[(2-Hydroxy-1-naphthalenyl)azo]-1*H*-pyrazole-4-carboxylic acid, H-00353
- 5-[(2-Hydroxy-1-naphthalenyl)azo]-1,3,4-thiadiazole-2(3*H*)-thione, H-00357
- N*-Hydroxy-*N'*-2-naphthalenyl-*N*-phenylthiourea, H-00367
- 2-[(2-Hydroxy-5-nitrophenyl)azo]-4,5-diphenylimidazole; Acetate salt, *in* H-00394
- N*-[[1-Hydroxy-4-(4-nitrophenylazo)-2-naphthyl]methyl]glycine, H-00397
- 2-Hydroxy-3-nitrosobenzoic acid, H-00406
- 4-Hydroxy-5-nitroso-2,1,3-benzothiadiazole, H-00408
- 5-Hydroxy-4-nitroso-2,1,3-benzothiadiazole, H-00409
- 3-Hydroxy-4-nitroso-2-naphthalenecarboxylic acid, H-00413
- 4-Hydroxy-3-nitroso-1-naphthalenesulfonic acid, H-00415
- 4-Hydroxy-3-nitroso-2(1*H*)-pyridinone, H-00419
- 6-Hydroxy-5-nitroso-2,4(1*H*,3*H*)-pyrimidinedione, H-00420
- 2-(4-Hydroxyphenylazo)benzaldehyde; Me ether, oxime, *in* H-00448
- N*-Hydroxy-*N'*-phenyl-1*H*-benzimidazole-2-carboximidamide, *in* P-00102
- N*-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
- 8-Hydroxy-2-phenylquinoline, H-00503
- 3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509
- 3-Hydroxy-2-pyridinecarboxaldehyde [(3-hydroxy-2-pyridinyl)methylene]hydrazone, H-00519
- 3-Hydroxy-2-pyridinecarboxaldehyde; Thiosemicarbazone; B,HCl, *in* H-00518
- 3-Hydroxy-4-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, H-00530
- ▶ 1*H*-Imidazole, I-00001
- 1,2,3-Indanetrione; Trioxime, *in* I-00025
- 4-[(5-Iodo-2-pyridinyl)azo]-1,3-benzenediamine, I-00052
- Isatin; 2-Oxime, *in* I-00056
- ▶ Isonitrosoacetophenone, *in* P-00132
- Isonitrosoacetophenone 2,4-dinitrophenylhydrazone, *in* P-00132
- Isonitrosoacetophenone *p*-nitrophenylhydrazone, *in* P-00132
- Isonitrosodimedone, *in* D-00848
- Isonitrosomalonylguanidine, *in* A-00337
- 3-Isoquinolinecarboximidic acid hydrazide, I-00086
- 3-(3-Isoquinoly)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, I-00090
- Mercaptoacetic acid; 2-Ethylhexyl ester, *in* M-00016
- 4-[(Mercaptoacetyl)amino]benzenesulfonic acid; Na salt, *in* M-00017
- ▶ 2-Mercaptobenzoic acid, M-00023
- 2-Mercapto-4*H*-1-benzothiofuran-4-one, M-00025
- 2-Mercapto-2,4,6-cycloheptatrien-1-one, M-00027
- 3-Mercapto-3-phenylpropanoic acid; (+) *form*, *in* M-00048
- 3-Mercapto-*p*-propionophenetidine, M-00054
- 2-(3-Mercapto-2-quinoxalyl)-2-thiopsedourea; B, HCl, *in* M-00058
- S*-(3-Mercapto-2-quinoxalyl)thiuronium(1+); Chloride, *in* M-00059
- 4-Methoxy-2,6-bis(2-pyridyl)pyrimidine, M-00085
- 3-Methoxy-2-methyl-6-(2-pyridinylazo)phenol, *in* M-00278
- 5-Methoxy-2-[(5-methyl-2-pyridinyl)azo]phenol, *in* M-00279
- ▶ 3-Methoxy-4-nitrosophenol, *in* N-00156
- 4'-(4-Methoxyphenyl)-2,2':6',2"-terpyridine, M-00119
- 5-Methoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- 3-Methyl-1,2-indandione; Dioxime, *in* M-00194
- 3-Methyl-6-(1-methylethyl)-2-(2-pyridinylazo)phenol, M-00197
- 4-Methyl-6-[(5-methyl-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, M-00201
- 2-Methyl-4-nitroso-1,3-benzenediol, M-00206
- 5-Methyl-2-nitrosophenol, M-00207
- 7-Methyl-2,4-octanedione, M-00209
- 2-[(1-Methyl-3-oxobutylidene)amino]benzenesulfonic acid, M-00213
- 4-Methyl-6-[[2-(phenylmethoxy)-2-pyridinyl]azo]-1,3-benzenediamine, M-00232
- 3-[(5-(1-Methyl-2-piperidinyl)-2-pyridinyl)azo]-2,6-pyridinediamine, M-00252
- 2-[(3-Methyl-5-propyl-2-pyrrolidinyl)azo]phenol, M-00263
- 4-Methyl-6-(2-pyridinylazo)-1,3-benzenediamine, M-00277
- 5-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00280
- 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazine, M-00292
- 4-Methyl-5-[(sulfomethyl)amino]-2-(2-thiazolylazo)benzoic acid, M-00310
- 2-Methyl-4-(2-thiazolylazo)-1,3-benzenediamine, M-00317
- Methyltriphenylarsonium(1+); Chloride, *in* M-00334
- 1,2-Naphthoquinone; Dioxime (1*Z*,2*E*), *in* N-00031
- Neotetrazolium(2+); Dichloride, *in* N-00063
- Niconoxime, *in* C-00346
- Nicotinamidoxime, *in* P-00341
- ▶ Nitrilotriacetic acid, N-00074
- 5-Nitro-1,2-acenaphthyleneidone; Dioxime, *in* N-00076
- 1-Nitroso-2,7-naphthalenediol, N-00159
- ▶ 1-Nitroso-2-naphthol, N-00160
- ▶ 2-Nitroso-1-naphthol, N-00161
- 5-Nitroso-6-quinolinol, N-00162
- ▶ Nitroso R salt, *in* H-00414
- 1,1,1,5,5,6,6,6-Octafluoro-2,4-hexanedione, O-00003
- 1-Octanesulfonamido-2-naphthol, *in* A-00273
- Oxamidoxime, *in* O-00048
- 1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione, P-00017
- 2,3-Pentanedione; 3-Oxime, 4-nitrophenylhydrazone, *in* P-00029
- (Phenylazo)benzaloxime, P-00091
- 4-Phenyl-3,6-bis(4-phenyl-2-pyridyl)pyridazine, P-00106
- 1-Phenyl-1,3-butanedione 3-[[6-phenyl-4-(phenylmethyl)-3-pyridazinyl]hydrazone], P-00108
- 5-Phenyl-3,6-di-2-pyridyl-1,2,4-triazine, P-00114
- N,N'*-1,2-Phenylenebismethanesulfonamide, P-00118
- Phenylglyoxime, P-00133
- 3-Phenyl-1,2-indanedione; Dioxime, *in* P-00137
- 4-(Phenylmethyl)-6-(2-pyridinylazo)-1,3-benzenediol, P-00149
- Phenyl[5-phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazin-6-yl]methanone, P-00157
- 5-Phenyl-3-(4-phenyl-2-pyridyl)-6-(2-pyridyl)-1,2,4-triazine, P-00160
- 3-(6-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00181
- (Phenylsulfonyl)carbonimidodithioic acid; Di-K salt, *in* P-00195
- ▶ 1-Phenylthiosemicarbazide, P-00199
- 1-Phenyl-3-thioxo-1-butanone, P-00202
- 6-(5-Phenyl-1,2,4-triazin-3-yl)-2,2'-bipyridine, P-00206
- 2-(5-Phenyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, P-00207
- ▶ Protriptyline hydrochloride, *in* P-00280
- ▶ Pyrazinecarboxamide, *in* P-00285
- 3-(Pyrazinyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00301
- 1-(1*H*-Pyrazol-3-ylazo)-2-naphthalenol, P-00303
- 3-(3-Pyridazyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, P-00313
- 3-(3-Pyridazyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00315
- 2-Pyridinecarboxaldehyde phenylthiosemicarbazone, P-00331
- 2(1*H*)-Pyridinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00365
- 4-(2-Pyridinylazo)-1,3-benzenediamine, P-00372
- 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
- N*-2-Pyridinylbenzenecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00384
- 3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Benzoylhydrazone, *in* P-00386
- 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone 2-pyrimidinylhydrazone, P-00406
- 2-Pyridyl-2-thienyl-β-ketoxime, *in* P-00408
- ▶ 2,4,5,6(1*H*,3*H*)-Pyrimidinetetrone 5-oxime, P-00428
- ▶ Quinoline, Q-00007
- 5,8-Quinolinedione; Dioxime, *in* Q-00019
- 1-(2-Quinolinyloxy)-2-phenanthrenol, Q-00031
- ▶ Solochrome red B; Tri-Na salt, *in* S-00021

3,3'-Sulfonylbis[*N*-8-quinolybenzenesulfonamide], S-00055
 Sulf-R-azo, *in* H-00543
O-[(Tetrahydro-2-furanyl)methyl]carbonodithioate; K salt, *in* T-00062
 Tetraphenylarsonium(1+); Bromide, *in* T-00119
 Tetraphenylphosphonium(1+); Bromide, *in* T-00120
 Thioaminazo F, T-00154
 ▶ Thiobenzoic acid, T-00155
 2,2'-Thiobisethanamine; B,2HCl, *in* T-00156
 Trifluoroethylxanthic acid; K salt, *in* T-00247
 1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255
 Triphenylselenonium(1+); Chloride, *in* T-00375
 Triphenylsulfonium(1+); Bromide, *in* T-00376
 Triphenyltellurionium(1+); Iodide, *in* T-00377
 2,4,6-Tri-2-pyridinyl-1,3,5-triazine, T-00381
 Tris(6-methylheptyl)amine; B,HCl, *in* T-00408
 ▶ Triton X 100, T-00428
 ▶ TTC, *in* T-00379

Copper

Acenaphthenequinone; Dioxime, *in* A-00001
 ▶ Acetaldoxime, *in* A-00002
 1-Acetoxy-4-methyl-2(1*H*)-pyridinethione, *in* M-00274
 1-Acetoxy-2(1*H*)-pyridinethione, *in* P-00357
 8-Acetoxyquinoline, *in* H-00326
 3-Acetyl-1,5-bis(1,2-dihydro-1,5-dimethyl-3-oxo-2-phenyl-4-pyrazolyl)formazan, A-00014
 2-Acetyl-4-ethylpyridine; Oxime (*Z*-), *in* A-00016
 2-Acetyl-4-methoxypyridine; Oxime (*Z*-), *in* A-00021
 2-Acetyl-4-methylpyridine; Oxime (*E*-), *in* A-00023
 2-Acetyl-6-methylpyridine; Oxime (*E*-), *in* A-00024
 2-Acetyl-4-phenylpyridine; Oxime (*E*-), *in* A-00031
 2-Acetyl-6-phenylpyridine; Oxime (*E*-), *in* A-00032
 2-Acetylpyrazine 3-quinolyldiazone, A-00037
 2-Acetylpyrazine 8-quinolyldiazone, A-00038
 2-Acetylpyridine 2-quinolyldiazone, A-00045
 2-Acetylpyridine 8-quinolyldiazone, A-00046
 4-Adamantyl-2-(2-hydroxy-1-naphthalenylazo)thiazole, A-00064
 Alamine oxide, A-00071
 ▶ Aminobenzoic acid, A-00105
 2-Amino-4,6-bis(6-(2-pyridyl)-2-pyridyl)-s-triazine, A-00122
 4-[(2-Amino-5-bromo-3-pyridinyl)azo]-1,3-benzenediol, A-00124
 9-Amino-2,3-dihydrobenzo[*f*]phthalazine-1,4-dione, A-00151
 6-Amino-2,3-dihydro-1,4-phthalazinedione, A-00156
 5-Amino-4-hydroxy-3-(2-pyridinylazo)-2,7-naphthalenedisulfonic acid, A-00218
 8-(7-Amino-1-hydroxy-3-sulfophenylazo)-7-hydroxy-1-naphthalenesulfonic acid; Di-Na salt, *in* A-00223
 3-Amino-1*H*-isoindole-1-thione, A-00229
 8-(Aminomethyl)-6,7-dihydroxy-4-methylcoumarin-*N,N*-diacetic acid, A-00241
 3-(Aminomethyl)furan-*N,N*-diacetic acid, A-00242
 2-Amino-*N*-(4-methylphenyl)benzenesulfonamide, A-00248

4-[[2-Amino-5-(1-methyl-2-piperidinyl)-3-pyridinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00251
 4-[[2-Amino-1-methyl-6-(3-pyridinyl)-3-piperidinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00254
 ▶ 3-Amino-2-naphthoic acid, A-00280
 2-Amino-4-[(4-nitrophenyl)azo]-3-pyridinol, A-00283
 ▶ 5-Aminoarotic acid, A-00290
 5-Amino-1,10-phenanthroline, A-00299
N-(2-Aminophenyl)-4-methylbenzenesulfonamide, A-00326
 ▶ 2-Amino-1-propene-1,1,3-tricarbonitrile, A-00330
 ▶ Aminopyrine, A-00339
 ▶ 8-Aminoquinoline, A-00340
 Arsenazo H, A-00409
 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-(8-quinolyldiazol)-2,7-naphthalenedisulfonic acid, A-00439
 Aspartic acid; (±)-*form*, *in* A-00447
 Azo-azoxy AN, A-00464
 Azo-azoxy BN, A-00465
 Bathocuproinedisulfonic acid; Di-Na salt, *in* B-00002
 Benzaldehyde 8-quinolinylhydrazone, B-00007
 α-Benzamido-*o*-chlorocinnamic acid isonicotinylhydrazone, B-00010
 Benzenecarboximidic acid *N*-2-pyridinyl-2-pyrazinylhydrazone, B-00015
 ▶ 1,2,4-Benzenetricarboxylic acid, B-00032
 1,2,3-Benzenetricarboxylic acid; Tri-Na salt, *in* B-00031
 1*H*-Benzimidazole-2-carboxaldehyde; 1-Benzyl, oxime, *in* B-00039
 1*H*-Benzimidazole-2-methanethiol, B-00041
 4-(1*H*-Benzimidazol-5-ylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid, B-00042
 5-(1*H*-Benzimidazol-5-ylazo)-8-quinolinol, B-00043
 1-(1*H*-Benzimidazol-4-yl)-3-methyl-5-phenylformazan, B-00046
 Benzointhiosemicarbazone, *in* B-00068
 Benzophenone; Thiosemicarbazone, *in* B-00069
 2-Benzothiazolecarboxaldehyde 2-benzothiazolylhydrazone, B-00086
 2-Benzothiazolecarboxaldehyde 2-quinolylhydrazone, B-00088
 2-(Benzothiazolylazo)-5-diethylaminobenzoic acid, *in* A-00114
 2-(2-Benzothiazolylazo)-4,6-dimethylphenol, B-00096
 10-(2-Benzothiazolylazo)-9-phenanthrenol, B-00099
 5-(2-Benzothiazolyl)-1,3-diphenylformazan, B-00101
 1-(2-Benzothiazolyl)-3-phenyl-5-(4-sulfophenyl)formazan; Na salt, *in* B-00108
 2-(Benzoylamino)-3-[4-(dimethylamino)phenyl]-2-propenoic acid, B-00120
 2-Benzoyl-4-ethylpyridine; Oxime (*E*-), *in* B-00132
 2-Benzoyl-4-methylpyridine; Oxime (*E*-), *in* B-00134
 2-Benzoyl-6-methylpyridine; Oxime (*E*-), *in* B-00135
 6-Benzoyl-3-(4-methyl-2-pyridyl)-5-methyl-1,2,4-triazine, B-00136
 2-Benzoyl-4-nitro-1*H*-indene-1,3(2*H*)-dione, B-00139
 2-Benzoyl-5-nitro-1*H*-indene-1,3(2*H*)-dione, B-00140
 2-Benzoyl-6-phenylpyridine; Oxime, *in* B-00145
 2-Benzoyl-4-phenylpyridine; Oxime (*E*-), *in* B-00144
 2-Benzoylpyridine; Hydrazone, *in* B-00151
 2-Benzoylpyridine 2-pyrimidinylhydrazone, B-00155
 2-Benzoylpyridine 3-quinolyldiazone, B-00156
 2-Benzoylpyridine 8-quinolyldiazone, B-00157

N-Benzoyl-*N'*-(2-pyridyl)thiourea, B-00159
p-[1-(1-Benzyl-2-benzimidazolyl)-3-methyl-5-formazano]benzenesulfonic acid, B-00170
N-Benzylethylenediaminetriacetic acid, *in* E-00079
 1-Benzyl-2-(α-hydroxyimino-4-nitrobenzyl)-1*H*-imidazole, B-00183
 2,2'-Bipyrazine, B-00218
 3,3'-Bipyridazine, B-00219
 ▶ 2,2'-Bipyridine, B-00220
 ▶ 2,3'-Bipyridine, B-00221
 2-(2,2'-Bipyridin-6-yl)benzimidazole, B-00225
 3-[2,2'-Bipyridin-6-yl]-5,6-dimethyl-1,2,4-triazine, B-00226
 3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine, B-00227
 3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine, B-00228
 2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*c*]pyridine, B-00230
 2-(2,2'-Bipyridin-6-yl)-3*H*-imidazo[4,5-*h*]quinoline, B-00231
 3-(2,2'-Bipyridin-6-yl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, B-00234
 2,2'-Biquinoline, B-00236
 [2,2'-Biquinoline]-4,4'-dicarboxylic acid, B-00237
 4,4'-[(2,2'-Biquinoline]-4,4'-diylidimino)bisbenzoic acid; Di-Et ester, *in* B-00238
 4,4'-Bis(benzylamino)-2,2'-biquinoline, *in* D-00063
 4,4'-Bis(4-biphenylamino)-2,2'-biquinoline, B-00259
N,N'-Bis(butanedisulfonyl)-1,2-benzenediamine, B-00271
 Bis(4-chlorophenyl)ethanedione; Dioxime, *in* B-00285
 Bis(dicyclohexyloxyphosphinothioyl)disulfide, B-00294
 4,4'-Bis(diethylamino)-2,2'-biquinoline, *in* D-00063
 Bis(diisopropoxyphosphinothioyl)disulfide, B-00310
 ▶ Bis(dimethoxyphosphinothioyl)disulfide, B-00312
 Bis[(diphenoxyphosphino)thioyl]disulfide, B-00336
 2,4-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00341
 2,6-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00342
 3,6-Bis(4-ethyl-2-pyridyl)-1,2-dihydro-1,2,4,5-tetrazine, B-00354
 1,2-Bis[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00355
 1,3-Bis[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00356
 1,4-Bis[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00357
 1,2-Bis(hexylthio)ethane, B-00359
 2,3-Bis(2-hydroxybenzylideneamino)benzofuran, B-00361
 Bis(2-hydroxyethyl)carbomodithioic acid; K salt, *in* B-00373
 ▶ *N,N'*-Bis(2-hydroxyethyl)ethanedithioamide, B-00374
 1,5-Bis(2-hydroxy-4-nitrophenyl)-3-acetylformazan, B-00387
 2,3-Bis(6-methyl-2-pyridyl)benzo[*g*]quinoxaline, B-00414
 Bis(6-methyl-2-pyridyl)ethanedione; Dihydrazone, *in* B-00415
 2,3-Bis(6-methyl-2-pyridyl)-10*H*-indeno[1,2-*g*]quinoxaline, B-00416
 2,3-Bis(6-methyl-2-pyridyl)-5-nitroquinoxaline, B-00417
 2,3-Bis(6-methyl-2-pyridyl)-6-nitroquinoxaline, B-00418
 3,6-Bis(4-methyl-2-pyridyl)-4-phenylpyridazine, B-00419
 2,3-Bis(6-methyl-2-pyridyl)pyrazine, B-00420
 2,3-Bis(6-methyl-2-pyridyl)pyrido[2,3-*b*]pyrazine, B-00421
 2,3-Bis(6-methyl-2-pyridyl)quinoxaline, B-00422

- 2,3-Bis(6-methyl-2-pyridyl)-6-quinoxalinecarboxylic acid, B-00423
 Bis(4-nitrophenyl)ethanedione; Dioxime, in B-00432
 1,2-Bis(octanesulfonamido)benzene, B-00436
 1,8-Bis(octanesulfonamido)naphthalene, B-00437
N,N'-Bis(pyridinylmethylene)-1,2-ethanediamine, B-00441
N-[3,5-Bis(trifluoromethyl)phenyl]-*N*-hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465
 Biuret, B-00474
 Bromocresol green, B-00498
 4-Bromo-*N*-hydroxybenzamide, B-00510
 2-Bromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, B-00512
 5-Bromo-1,10-phenanthroline, B-00541
N'-(4-Bromophenyl)-*N*-hydroxy-*N*-phenylthiourea, B-00551
 (4-Bromophenyl)phenylethanedione dioxime, B-00555
 2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, in B-00563
 8-*N*-(5-Bromosalicylidene)aminoquinoline, B-00575
 2-(5-Bromo-2-thiazolylazo)-5-(diethylamino)benzoic acid, in A-00128
 5-Bromo-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, B-00580
 2,3-Butanedione bis(phenylthiosemicarbazone), B-00597
 2,3-Butanedione; Thiosemicarbazone, in B-00587
N-Butylethylenediaminetriacetic acid, in E-00079
N-[2-(Butylthio)phenyl]-*N'*-phenylthiourea, B-00639
 Calcein, C-00010
 ▶ Cetylceide, in E-00071
 3-Chlorobenzoic acid (1*H*-pyrrol-2-ylmethylene)hydrazide, C-00069
 6-Chloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, C-00075
 6-Chloro-1-hydroxy-4-nitro-1*H*-benzotriazole, C-00137
 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00145
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00155
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00159
N'-(4-Chloro-2-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide; B,HCl, in C-00181
 (4-Chlorophenyl)phenylethanedione; Dioxime, in C-00238
 5-Chloro-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, C-00264
 ▶ Colchicine; (*S*)-form, in C-00300
 ▶ Contramine, in D-00344
 ▶ Cuprizone, C-00321
 Cupron, in B-00068
 ▶ Cuprotest, C-00322
 2,2'-(1,4-Cyclohexanediyldiene)bishydrazinocarbothioamide, in C-00339
N-(Cyclohexyl)ethylenediaminetriacetic acid, in E-00079
 9-Cyclohexyl-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00359
 1,3-Cyclopentanedione bis(4-methylthiosemicarbazone); B,HCl, in C-00363
 4-Cyclopentyl-6-(2-pyridinylazo)-1,3-benzenediol, C-00367
 ▶ Cysteine; (\pm)-form, in C-00370
 ▶ Daxime, D-00002
 7,8,9,10,11,12,19,20,21,22-Decahydrodibenzol[e,q][1,4,8,15]tetraazacyclooctadecine, D-00013
 2,6-Diacetylpyridine; Dioxime, in D-00035
 1,6-Diallyl-2,5-dithiobiurea, D-00040
 3,4-Diaminoanthraquinone-1-sulfonic acid, D-00045
 2,2'-Diaminobiphenyl-4,4'-dicarboxylic acid-*N,N,N',N'*-tetraacetic acid; Hexa-Na salt, in D-00055
 2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, in D-00059
 2,4-Diamino-6-(2,2'-bipyridyl)-1,3,5-triazine, D-00062
 4,4'-Diamino-3,3'-diethoxybiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, in D-00070
 2,4-Diamino-6-(3-pyridazinyl)-1,3,5-triazine, D-00117
 2,4-Diamino-6-(2-pyrimidinyl)-1,3,5-triazine, D-00123
 2,4-Diamino-6-(4-pyrimidinyl)-1,3,5-triazine, D-00124
 4,4'-Diaminostilbene-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, in D-00127
 1-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, D-00130
 3-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, D-00131
 4,4'-Dianilino-2,2'-biquinoline, in D-00063
 Diantipyrilthiourea, D-00141
 Dibenzylthiocarbamic acid, in D-01124
 2-[(3,5-Dibromo-2-hydroxyphenyl)methylene]-*N*-phenylhydrazinocarbothioamide, D-00192
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, in A-00149
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-methoxyphenol, in D-00200
 4-(3,5-Dibromo-2-pyridylazo)-*N,N*-diethylamine, D-00211
 4-(3,5-Dibromo-2-pyridylazo)-*N*-ethyl-*N*-(3-sulfopropyl)aniline, D-00212
 4,4-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00245
 4,4'-Di(*p*-chloroanilino)-2,2'-biquinoline, in D-00063
 4,4'-Dichloro-2,2'-biquinoline, D-00254
 6,7-Dichloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, D-00255
 6,7-Dichloro-2,3-di-2-pyridylquinoxaline, D-00269
 4,4'-Di[(*p*-diethylamino)anilino]-2,2'-biquinoline, in D-00063
 6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, in A-00156
 4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Chloride, in D-00332
 4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+); Chloride, in D-00333
 5-Diethylamino-2-(2-thiazolylazo)benzoic acid, in A-00359
 ▶ *O,O*-Diethyl phosphorodithioate, D-00356
O,O-Diethylphosphorosenoic acid; Na salt, in D-00357
 2,2'-Difluorodithione, D-00360
 1,2-Dihydro-3,6-bis(4-methyl-2-pyridinyl)-1,2,4,5-tetrazine, D-00373
 6,7-Dihydro-5,8-diphenyldibenzo[*b,f*][1,10]phenanthroline, D-00398
 1,2-Dihydro-4-[(2-hydroxy-1-naphthalenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00417
 4,5-Dihydro-1*H*-pyrazole-1-carbodithioic acid, D-00479
 5,14-Dihydro-6,8,15,17-tetramethyldibenzo[*b,f*][1,4,8,11]tetraazacyclotetradecine, D-00491
 6,7-Dihydrotribenzo[*e,i,m*][1,4,8,11]dioxadiazacyclotetradecine, D-00497
 2',4'-Dihydroxyacetophenone; Oxime, in D-00507
 2',5'-Dihydroxyacetophenone; Oxime, in D-00508
 2',4'-Dihydroxyacetophenone; Phenylhydrazone, in D-00507
 2',4'-Dihydroxyacetophenone; Semicarbazone, in D-00507
 2,4-Dihydroxybenzaldehyde guanyldiazone, D-00520
 2,5-Dihydroxybenzaldehyde; Oxime, in D-00518
 2,4-Dihydroxybenzaldehyde; Thiosemicarbazone, in D-00517
 2,4-Dihydroxybenzenecarbodithioic acid, D-00522
 2,4-Dihydroxybenzophenone; Semicarbazone, in D-00536
 4,4'-Dihydroxy-2,2'-biquinoline, D-00545
 4,5-Dihydroxy-3,6-bis(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00561
 ▶ 3,4-Dihydroxy-3-cyclobutene-1,2-dione, D-00569
 4,4'-Dihydroxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, in D-00572
 4,5-Dihydroxy-3,6-dinitroso-2,7-naphthalenedisulfonic acid, D-00583
 4,5-Dihydroxy-3-[(2,4-disulfo)phenyl]azo]-6-[(2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00607
 5,7-Dihydroxyflavone, D-00612
 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, in D-00618
 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfo)phenyl]azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00632
 3,4-Dihydroxy-10-imino-9(10*H*)-anthracene, D-00634
 5,6-Dihydroxynaphtho[2,3-*f*]quinoline-7,12-dione, D-00661
 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00668
 4,5-Dihydroxy-3-nitroso-2,7-naphthalenedisulfonic acid, D-00672
 15,16-Dihydroxy-7-phenyl-5*H*-dibenzo[*b,f*][1,11,4,5,7,8]dioxatetraazacyclotridecine, D-00709
 1-(2,4-Dihydroxyphenyl)-1-pentanone; Oxime, in D-00714
 ▶ 2,6-Dihydroxy-4-pyridinecarboxylic acid, D-00721
 4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722
 6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid; Na salt, in D-00724
o-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00726
 8-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]-1,6-naphthalenedisulfonic acid, D-00727
 4,5-Dihydroxy-3-(8-quinolylazo)-6-[(2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00728
 4,5-Dihydroxy-3-(8-quinolylazo)-6-[(3-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00729
 ▶ 2,3-Dimercapto-1-propanol, D-00763
 4,4'-Dimethoxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, in D-00572
 4,7-Dimethoxy-1,10-phenanthroline, in D-00685
 5,6-Dimethoxy-1,10-phenanthroline, in D-00686
 6-(Dimethylamino)-2,3-dihydro-1,4-phthalazinedione, in A-00156
 4-[[5-(*p*-Dimethylamino)phenyl]azo]-5-methylimidazole, D-00809
 (2,5-Dimethylbenzenesulfonylamino)quinoline, D-00833
 6,7-Dimethyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, D-00842
 5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 3-thiosemicarbazone, in D-00848
 2,9-Dimethyl-4,7-dihydroxy-1,10-phenanthroline, D-00850
 2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline, D-00852
 6,7-Dimethyl-2,3-di(2-pyridyl)quinoxaline, D-00855

- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, *in* B-00619
 5,5-Dimethyl-2,4-hexanedione, D-00863
 3,3-Dimethyl-1,2-indanedione; Dioxime, *in* D-00868
 5,6-Dimethyl-3-(4-methyl-2-pyridinyl)-1,2,4-triazine, D-00871
 2,8-Dimethyl-4,6-nonanedione, D-00877
 2,9-Dimethyl-1,10-phenanthroline, D-00880
 2-[5,5-Dimethyl-3-[2-[(phenylamino)thioxomethylhydrazino]-2-cyclohexen-1-ylidene]]-*N*-phenylhydrazinecarbothioamide, *in* D-00847
 5,6-Dimethyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-00895
 3,5-Dimethyl-1-*H*-pyrazole, D-00904
 2-(3,5-Dimethyl-1-pyrazolyl)-8-quinolinol, D-00906
N,N-Dimethyl-4-(2-pyridinylazo)benzenamine, D-00909
 5,6-Dimethyl-3-(2-pyridinyl)-1,2,4-triazine, D-00911
 7,14-Dimethyl-5,7,12,14-tetraethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, D-00919
 2,4-Dimethyl-6-(1-*H*-tetrazol-5-ylazo)phenol, D-00920
 3-[(2,4-Dinitrophenyl)azo]-4,5-dihydroxy-6-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, D-00964
 5-Dioctylaminomethyl-8-quinolinol, *in* A-00244
 3,4-Dioxohexanedioic acid bis(thiosemicarbazide); Di-Et ester, *in* D-00990
 4,4'-Diphenyl-2,2'-bipyrimidine, D-01003
 ▶ 2,2'-Diphenylcarbonothioic dihydrazide, D-01007
 Diphenylethanedione mono(2-quinolinylhydrazone), D-01014
 Diphenylethanedione mono(8-quinolinylhydrazone), D-01015
 Diphenylethanedione monoxime, *in* B-00038
 8-[(4,5-Diphenyl-1-*H*-imidazol-2-yl)azo]quinoline, D-01025
 2,9-Diphenyl-1,10-phenanthroline, D-01032
 5,6-Diphenyl-3-(6-phenyl-2-pyridinyl)-1,2,4-triazine, D-01038
 5,6-Diphenyl-3-(pyrazinyl)-1,2,4-triazine, D-01044
 5,6-Diphenyl-3-(3-pyridazyl)-1,2,4-triazine, D-01045
 4,6-Diphenyl-2-(2-pyridinyl)pyrimidine, D-01046
 5,6-Diphenyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01047
O,O-Di-2-propenyl phosphorodithioate, D-01058
 ▶ *O,O*-Di-2-propynyl phosphorodithioate, D-01061
 Di-2-pyridinylmethanone 2-chlorobenzoylhydrazone, D-01074
 Di-2-pyridinylmethanone 3-chlorobenzoylhydrazone, D-01075
 Di-2-pyridinylmethanone; Hydrazone, *in* D-01071
 5,6-Di-2-pyridinyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01086
 2,3-Di-2-pyridinylquinoxaline, D-01087
 2,3-Di-2-pyridylbenzof[*g*]quinoxaline, D-01088
 1,2-Di-2-pyridyl-1,2-ethanediol, D-01089
 2,3-Di-2-pyridylpyrazine, D-01091
 2,4-Di-2-pyridylpyrimidine, D-01092
 4,6-Di-2-pyridylpyrimidine, D-01093
 Di-2-pyridylquinazoline, D-01094
 2,3-Di-2-pyridyl-6-quinoxalinecarboxylic acid, D-01095
 2-[5,6-Di-(2-pyridyl)-1,2,4-triazin-3-yl]-1,10-phenanthroline, D-01098
N,N'-Di-(8-quinolinyl)-2,6-pyridinedicarboxamide, D-01104
 Di-8-quinolyl disulfide, D-01105
 1,3-Di-2-selenophenyl-1,3-propanedione, D-01106
 ▶ Disulfiram, D-01107
 1,12-Di-2-thienyl-2,5,8,11-tetrathiadodecane, D-01115
N-(Dithiocarboxy)sarcosine, D-01126
 1,1'-(Dithiodicarbonyl)bis[hexahydro-1-*H*-azepine], D-01127
 ▶ 4,4'-(Dithiodicarbonyl)bismorpholine, D-01128
 1,1'-(Dithiodicarbonyl)bis[octahydroazocine], D-01129
 ▶ 1,1'-(Dithiodicarbonyl)bispiperidine, D-01130
 ▶ Dithizone, D-01135
 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
 3-Dodecyl-1,5,10,14-tetraazacyclooctadecane, D-01157
 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
 Ecarazine hydrochloride, *in* T-00188
 ▶ Ethanediamine, E-00024
N,N'-1,2-Ethanediy[bisalanine], E-00029
 [1,2-Ethanediy]bis[imino(2-hydroxyphenyl)methylene]]bisphosphonic acid, E-00030
 [1,2-Ethanediy]bis[imino(phenylmethylene)]bisphosphonic acid, E-00031
 1,2-Ethanediy]bis[phenylcarbamodithioic acid]; Di-NH₂ salt, *in* E-00033
 5,5'-(1,2-Ethanediyldinitrilo)bis[2,2-dimethyl-3-hexanone], E-00036
 5-Ethoxy-2-(2-pyridinylazo)phenol, *in* P-00373
 α-(Ethylamino)-*p*-(dimethylamino)benzylphosphonic acid; Et ester, *in* E-00064
 [(Ethylamino)(2-hydroxyphenyl)methyl]phosphonic acid; Et ester, *in* E-00065
 [Ethylenebis(imino)benzylidene]diphosphonic acid, E-00074
 4-Ethyl-*N*-hydroxy-*N*-phenylbenzamide, E-00093
 4,4'-Ethylidenebis[3-methyl-2-isoxazolin-5-one], E-00094
 5-Ethylidene-2-thioxo-4-imidazolidinone, E-00095
 3-(4-Ethyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, E-00110
 4-Ethyl-*N*-(8-quinolinyl)benzenesulfonamide, E-00112
N-(5-Ethyl-1,3,4-thiadiazol-2-yl)-4-[3-methyl-5-(1-methyl-1-*H*-benzimidazol-2-yl)-1-formazanyl]benzenesulfonamide, E-00117
 Ethyl violet; Chloride, *in* E-00122
 Fast sulphon black F; Na salt, *in* F-00002
 2-Furancarboxaldehyde 2-benzothiazolylhydrazone, F-00044
 2-Furancarboxaldehyde 3-bromobenzoylhydrazone, F-00045
 2-Furancarboxaldehyde 4-bromobenzoylhydrazone, F-00046
 1-(2-Furanyl)-3-(2-selenophenyl)-1,3-propanedione, F-00062
 ▶ Glycine, G-00016
 Glycinesesol red, G-00017
 Glycinedithiocarbamic acid, G-00018
 Glyoxal bis(4-biphenylthiosemicarbazone), G-00021
 Glyoxal bis(4-fluorophenylthiosemicarbazone), G-00026
 Hexabutylphosphorothioic triamide, *in* H-00020
 Hexahydro-1-*H*-azepine-1-carbodithioic acid; K salt, *in* H-00035
 7,8,15,16,17,18-Hexahydrodibenzof[*e,m*][1,4,8,11]-tetraazacyclotetradecane, H-00044
 ▶ Hexamethylenetetramine, H-00057
 5,7,7,12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, H-00059
 5,5,7,12,12,14-Hexamethyl-1,4,8,11-tetraazacyclotetradecane; (7*RS*,14*RS*)-form, *in* H-00060
 1,2,5,8,11,14-Hexathiacyclohexadecane, H-00069
 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
O-Hexylbutylphosphonodithioate, *in* B-00638
 ▶ Hydrazinecarboxaldehyde, *in* F-00037
 4'-Hydroxyacetophenone; Oxime, *in* H-00090
 2'-Hydroxyacetophenone; Thiosemicarbazone, *in* H-00089
 1-Hydroxyacridine, H-00091
 4-Hydroxyacridine, H-00092
 7-Hydroxy-8-(aminomethyl)coumarin-*N*-acetic acid, H-00096
 7-Hydroxy-8-(aminomethyl)coumarin-*N,N*-diacetic acid, H-00097
 2-Hydroxy-5-anisaldoxime, *in* D-00518
 ▶ 2-Hydroxybenzaldehyde, H-00101
 2-Hydroxybenzaldehyde; Phenylhydrazone, *in* H-00101
 ▶ 7-Hydroxy-2-*H*-1-benzopyran-2-one, H-00124
 4-Hydroxybenzothiazole, H-00126
 3-Hydroxy-1,3-bis(4-methylphenyl)triazene, H-00139
N-Hydroxy-*N,N'*-diphenylthiourea, *in* D-01055
 3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00198
 α-(Hydroxyimino)benzenepropanoic acid, *in* O-00068
 2-[[1-(Hydroxyimino)ethyl]azo]-1-*H*-benzimidazole, H-00245
 2-[[1-(Hydroxyimino)-2-methylpropyl]azo]-1-(phenylmethyl)-1-*H*-benzimidazole, H-00246
 α-(Hydroxyimino)-2-pyridineacetonitrile, H-00251
 α-(Hydroxyimino)-2-quinolineacetonitrile, H-00252
N-Hydroxy-4-methoxy-*N*-phenylbenzamide, *in* D-00704
N-[7-Hydroxy-4-methyl-2-oxo-(2*H*)-1-(benzopyran-8-yl)methyl]glycine, H-00297
 [[2-(2-Hydroxy-5-methylphenyl)azo]phenyl]thioacetic acid, H-00303
 1-[[2-(2-Hydroxy-5-methylphenyl)-*O,N,N*-azoxy]phenyl]azo]-2-naphthalenol, H-00305
N-Hydroxy-2-methyl-*N*-phenylbenzamide, H-00306
N-Hydroxy-4-methyl-*N*-phenylbenzamide, H-00307
 1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one; 4-Me ether, oxime, *in* H-00311
N-Hydroxy-*N'*-methyl-*N*-phenylthiourea, *in* T-00175
 8-Hydroxy-2-methylquinoline, H-00326
 6-Hydroxy-3-[(4-methyl-2-thiazolyl)azo]-2(1*H*)-pyridinone, H-00331
 3-Hydroxy-4-[[2-(methylthio)phenyl]azo]-2,7-naphthalenedisulfonic acid, *in* H-00259
 3-[[2-Hydroxy-1-naphthalenyl]azo]-1-*H*-pyrazole-4-carboxylic acid, H-00353
 2-[[[(2-Hydroxy-1-naphthalenyl)methylene]amino]benzoic acid, H-00362
 1-Hydroxy-2-naphthoic acid, H-00369
 Hydroxynaphthol blue; Tri-Na salt, *in* H-00371
 3-[(2-Hydroxy-1-naphthyl)azo]-4-pyrazolecarboxylic acid, H-00376
N-[[1-Hydroxy-4-(4-nitrophenylazo)-2-naphthyl]methyl]glycine, H-00397
 2-[(2-Hydroxy-5-nitrophenyl)methylene]-*N*-phenylhydrazinecarbothioamide, *in* H-00380
 2-Hydroxy-3-nitrosobenzoic acid, H-00406
 2-[(3-Hydroxy-1-oxo-1-*H*-inden-2-yl)imino]-1-*H*-inden-1,3(2*H*)-dione, H-00433
N-Hydroxy-*N'*-phenyl-1-*H*-benzimidazole-2-carboximidamide, *in* P-00102
 ▶ 2-(2-Hydroxyphenyl)benzoxazole, H-00467
N-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
 8-Hydroxy-2-phenylquinoline, H-00503

- 2-(3-Hydroxy-3-phenyl-1-triazenyl) benzothiazole, H-00508
- 3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509
- N*-Hydroxy-*N*-phenyl-3-(trifluoromethyl) benzamide, H-00511
- 1-(8-Hydroxy-2-quinolyl)-2-(8-hydroxy-5-quinolyl)ethylene, B, 2HCl, in H-00534
- 1-(2-Hydroxy-5-sulfophenyl)-3-phenyl-5-(2-carboxyphenyl)formazan, H-00544
- 4-Hydroxy-3-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid; Na salt, in H-00556
- β -Iononethiosemicarbazone, in M-00010
- Isonitrosoacetylacetone, in P-00030
- ▶ Isooctyl thioglycolate, in M-00016
- 2,2'-Isopropylidenebis(4-acetyl-8-hydroxyquinoline), I-00072
- 3-Isoquinolinecarboxaldehyde 3-quinolinylhydrazone, I-00083
- 3-Isoquinolinecarboximide acid hydrazide, I-00086
- 3-(3-Isoquinolyl)-1,2,4-triazino[5,6-*f*][4,7] phenanthroline, I-00090
- Lucigenine; Dinitrate, in L-00012
- Luminol, L-00014
- Macrocyclic formazan I, M-00001
- Macrocyclic formazan II, M-00002
- Mandelic acid; (\pm)-form, in M-00007
- ▶ Mercaptobenzimidazole, M-00022
- Mercaptobutanedioic acid; (\pm)-form, in M-00026
- 2-Mercapto-4-methylphenol, M-00035
- 2-Mercapto-*N*-2-naphthylacetamide, M-00038
- 2-[(3-Mercaptophenyl)azo]-4-methylphenol, M-00041
- 4-Methoxybenzaldehyde phenylthiosemicarbazone, M-00076
- 4-Methoxybenzaldehyde; Thiosemicarbazone, in M-00075
- 6-Methoxy-2,3-bis(6-methyl-2-pyridyl) quinoxaline, in H-00140
- 6-Methoxy-2,3-di-2-pyridinylquinoxaline, in H-00172
- ▶ 2-Methoxyethanol, M-00087
- 3-Methoxy-2-methyl-6-(2-pyridinylazo) phenol, in M-00278
- 5-Methoxy-2-[(5-methyl-2-pyridinyl)azo] phenol, in M-00279
- 4-Methoxy-2-[(4-methyl-2-thiazolyl)azo] phenol, in M-00318
- ▶ 2-Methoxyphenol, M-00102
- 5-Methoxy-2-(2-pyridinylazo)phenol, in P-00373
- ▶ 4-Methyl-2*H*-1-benzopyran-2-one, M-00141
- 6-Methyl-2,3-bis(6-methyl-2-pyridinyl) quinoxaline, M-00146
- Methylcalcein; Di-Na salt, in M-00152
- 2-Methyl-1,3-cyclohexanedione bis(phenylthiosemicarbazone), M-00158
- 2-Methyl-4,6-di-2-pyridinylpyrimidine, M-00167
- 6-Methyl-2,3-di-2-pyridylquinoxaline, M-00168
- 3-Methyl-1,2-indandione; Dioxime, in M-00194
- 4-Methyl-2-[[2-(methylthio)phenyl]azo] phenol, in M-00041
- 2-[(1-Methyl-3-oxobutylidene)amino] benzenesulfonic acid, M-00213
- 2-[(1-Methyl-3-oxobutylidene)amino] benzoic acid, M-00214
- 4-Methyl-2-[[2-[(phenylmethyl)thio]phenyl]azo]phenol, in M-00041
- 2-Methyl-4-phenyl-6-(2-pyridinyl) pyrimidine, M-00241
- N*-Methylpiperazinedithiocarbamic acid, in P-00238
- 4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, M-00249
- 6-Methyl-2-pyridinecarboxamidoxime, in M-00271
- 6-Methyl-2-pyridinecarboximide acid hydrazide, M-00270
- 3-(6-Methyl-2-pyridinyl)-5,6-diphenyl-1,2,4-triazine, M-00286
- 3-(4-Methyl-2-pyridinyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, M-00288
- 5-[(6-Methyl-2-pyridinyl)methylene]-4-imidazolidinone; (*E*)-form, in M-00290
- 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazine, M-00292
- 3-(4-Methyl-2-pyridinyl)-1,2,4-triazine, M-00294
- 3-(4-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00296
- 3-(4-Methyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, M-00298
- 5-Methyl-2-(2-pyridyl)pyrimidine, M-00304
- (4-Methyl-2-pyridyl)-1,2,4-triazino[5,6-*f*][4,7]-phenanthroline, M-00305
- 4-Methylsalicylaldoxime, in H-00276
- N*-Methyl-5,10,15,20-tetrakis(4-sulfophenyl) porphine, in P-00250
- 1-[(4-Methyl-2-thiazolyl)azo]-2-naphthalenol, M-00322
- 5-Methyl-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, M-00326
- 6-Methylthiopicolinamide, in M-00271
- Methyltriphenylarsonium(1+); Chloride, in M-00334
- 2-Naphthalenecarboxaldehyde 2-benzothiazolylhydrazone, N-00004
- Naphthol black 3B; Tetra-Na salt, in N-00028
- 1-Naphthylloxamic acid, N-00053
- ▶ Neocupferron; NH₄ salt, in N-00061
- Neocuprizon, N-00062
- 5-Nitro-1,2-acenaphthylene-dione; Dioxime, in N-00076
- 4-Nitro-*o*-anisaldoxime, in H-00379
- 2-Nitro-*p*-anisaldoxime, in H-00381
- 6-Nitro-2,3-di-2-pyridylquinoxaline, N-00107
- 2-[(4-Nitrophenyl)azo]phenol, N-00128
- (4-Nitrophenyl)diazene-carboxylic acid 2-phenylhydrazone, N-00133
- 1-(4-Nitrophenyl)-5-phenylcarbazone, N-00141
- (4-Nitrophenyl)phenylethanedione; Dioxime, in N-00142
- 2-[(5-Nitro-2-pyridinyl)azo]-1-naphthalenol, N-00148
- 1-(5-Nitro-2-pyridinyl)-3,5-diphenylformazan, N-00149
- 4,6-Nonanedione, N-00168
- 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrahiacyclopentadecin-15-amine, O-00008
- 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrahiacyclopentadecine, O-00009
- 4-[(1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrahiacyclopentadecin-15-yl)azo]phenol, O-00010
- 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,p*][1,4,8,12]dioxadiazacyclopentadecine, O-00013
- 8,9,10,11,18,19,20,21-Octahydro-7*H*-dibenzo[*e,p*][1,4,8,14]tetraazacycloheptadecine, O-00017
- 7,8,9,10,17,18,19,20-Octahydrodibenzo[*e,o*][1,4,8,13]tetraazacyclohexadecine, O-00018
- 1,3,4,7,8,10,11,13-Octahydro-*N*-(2,4,6-trinitrophenyl)-6*H*-2,5,9,12-benzotetrahiacyclopentadecin-15-amine, O-00032
- 1-Octanesulfonamido-2-naphthol, in A-00273
- N*-Octylethylenediaminetriacetic acid, in E-00079
- 5-[(Octyloxy)methyl]-8-quinolinol, O-00039
- ▶ Oxalic acid; Dihydrate, in O-00048
- Oxamidoxime, in O-00048
- 2,4-Pentanedione; *Oxo*-form, Dioxime, in P-00030
- 9,10-Phenanthraquinone; Dioxime, mono-Me ether, in P-00047
- 6-Phenanthridinecarboxaldehyde 2-benzothiazolylhydrazone, P-00049
- 6-Phenanthridinecarboxaldehyde 2-quinolinylhydrazone, P-00051
- ▶ Phenylacetic acid, P-00076
- N*-[(Phenylamino)thioxomethyl] benzenecarbothioamide, P-00088
- 4-Phenyl-3,6-bis(4-phenyl-2-pyridyl) pyridazine, P-00106
- 1-Phenyl-1,3-butanedione 3-[[6-phenyl-4-(phenylmethyl)-3-pyridazinyl]hydrazone], P-00108
- 2-Phenyl-4,6-di-2-pyridinylpyrimidine, P-00113
- 5-Phenyl-3,6-di-2-pyridyl-1,2,4-triazine, P-00114
- 4-Phenyl-3*H*-1,2-dithiole-3-thione, P-00115
- 5-Phenyl-3*H*-1,2-dithiole-3-thione, P-00116
- N,N'*-1,2-Phenylenebismethanesulfonamide, P-00118
- 1,1'-[1,3-Phenylene]bis-2-tetrazoline-5-thione, P-00122
- 3-Phenyl-1,2-indanedione; Dioxime, in P-00137
- 5-Phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, P-00158
- 5-Phenyl-3-(4-phenyl-2-pyridyl)-6-(2-pyridyl)-1,2,4-triazine, P-00160
- 4,4',4''-(20-Phenyl-21*H*,23*H*-porphine-5,10,15-triyl)trisbenzenesulfonic acid, P-00166
- 5-(3-Phenyl-2-propenylidene)-2-thioxo-4-imidazolidinone, P-00170
- 3-Phenyl-1*H*-pyrazole-4,5-dione; 4-Oxime, in P-00173
- N*-Phenyl-2-pyridinecarboximide acid (oxodiphenylethylidene)hydrazide, P-00174
- 3-(4-Phenyl-2-pyridinyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, P-00176
- 3-(4-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00180
- 3-(6-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00181
- 4-Phenyl-2-(2-pyridyl)pyrimidine, P-00186
- 4-Phenyl-6-(2-pyridyl)pyrimidine, P-00187
- 5-Phenyl-2-(2-pyridyl)pyrimidine, P-00188
- 1-Phenyl-3-(selenophen-2-yl)-1,3-propanedione, P-00190
- 2-Phenylsemicarbazide, P-00192
- N*-Phenylthiobenzohydroxamic acid, P-00198
- 6-Phenyl-1,2,4-triazine-3(2*H*)-thione, P-00205
- 6-(5-Phenyl-1,2,4-triazin-3-yl)-2,2'-bipyridine, P-00206
- 2-(5-Phenyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, P-00207
- Phosphoramidothioic acid *O,O*-bis(1-methylethyl)ester, P-00234
- Picriminasulfoxime, P-00234
- ▶ Poly(vinyl alcohol), P-00249
- 4,4',4'',4'''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakis[1-methylpyridinium]; Tetrakis(*p*-toluenesulfonate), in P-00252
- Proline; (*R*)-form, in P-00257
- 2-Propanoyl-1-naphthol; Oxime, in P-00267
- ▶ 2-Propylamine, P-00274
- 5-Propylidene-2-thioxo-4-imidazolidinone, P-00278
- 2(1*H*)-Pyrazinone (phenylpyrazinylmethylene)hydrazone, P-00290
- 3-Pyrazinyl-5,6-di-2-pyridyl-1,2,4-triazine, P-00297
- 3-(Pyrazinyl)-1,2,4-triazino[5,6-*f*][4,7] phenanthroline, P-00301
- 1-(1*H*-Pyrazol-3-ylazo)-2-naphthalenol, P-00303
- 3-(3-Pyridazyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, P-00313
- 3-(3-Pyridazyl)-1,2,4-triazino[5,6-*f*][4,7] phenanthroline, P-00315
- 2-Pyridinecarboxaldehyde diphenylsemicarbazone, P-00323
- 2-Pyridinecarboxaldehyde (1-mercapto-2-naphthalenyl)hydrazone, P-00327
- 2-Pyridinecarboxaldehyde 3-quinolinylhydrazone, P-00338
- 2,6-Pyridinediacetoxime, in P-00352
- 2(1*H*)-Pyridinone [[(3-methoxyphenyl)azo]phenylmethylene]hydrazone, P-00359

2(1*H*)-Pyridinone [[(4-methoxyphenyl)azo]phenylmethylene]hydrazone, P-00360
 2(1*H*)-Pyridinone [[(4-methylphenyl)azo]phenylmethylene]hydrazone, P-00361
 2(1*H*)-Pyridinone [[(3-nitrophenyl)azo]phenylmethylene]hydrazone, P-00362
 2(1*H*)-Pyridinone [[(4-nitrophenyl)azo]phenylmethylene]hydrazone, P-00363
 2(1*H*)-Pyridinone [phenyl(phenylazo)methylene]hydrazone, P-00364
 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
 2-(2-Pyridinylazo)-1-naphthalenol, P-00375
 1-(2-Pyridinylazo)-2-phenanthrenol, P-00377
 7-(2-Pyridinylazo)-8-quinolinol, P-00381
 1-(2-Pyridinyl)-3,5-diphenylformazan, P-00387
N-2-Pyridinyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, P-00400
 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone 2-pyrimidinylhydrazide, P-00406
 3-(2-Pyridinyl)-1,2,4-triazine, P-00411
 Pyridoin phenylhydrazide, P-00413
 1-(2-Pyridyl)-1-hexanone; Oxime, *in* P-00418
 2-(2-Pyridyl)quinazoline, P-00423
 1-(2-Pyridyl)-5-(4-sulfofenyl)-3-phenylformazan, P-00424
 2-Pyridyl-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00425
 2-(2-Pyrimidinylazo)-1-naphthalenol, P-00430
 ▶ 2,5-Pyrrolidinedione, P-00442
 5-(1*H*-Pyrrol-2-ylmethylene)-2-thioxo-4-imidazolidinone, P-00444
 2-Quinolinecarboxaldehyde 2-quinolinylhydrazide, Q-00014
 2-Quinolinecarboxaldehyde 8-quinolinylhydrazide, Q-00015
 ▶ 2-Quinolinecarboxylic acid, Q-00017
 1-(2-Quinolinylazo)-2-phenanthrenol, Q-00031
 α-(2-Quinolinylhydrazono)benzenepropanoic acid, Q-00035
 2-(2-Quinoly)benzimidazole, Q-00037
 3-(2-Quinoly)-5,6-bis(2-pyridyl)-1,2,4-triazine, Q-00038
 3-(2-Quinoly)-5,6-diphenyl-1,2,4-triazine, Q-00039
 Sarcosine cresol red, S-00004
 1-(2-Selenophenyl)-3-(2-thienyl)-1,3-propanedione, S-00008
 Selenoylacetone, S-00010
 Solochrome red B, S-00021
 3,3'-Sulfonylbis[*N*-8-quinoly]benzenesulfonamide, S-00055
 ▶ Tetraethylenepentamine, T-00044
 5,6,7,8-Tetrahydro-2,4-bis(2-pyridyl)quinazoline, T-00054
 1,2,3,4-Tetrahydro-1-hydroxyiminophenazine, *in* D-00466
 6,7,9,10-Tetrahydro-18-phenyl-16*H*-dibenzo[*b,f*][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine, T-00065
 5,6,17,18-Tetrahydrotrabenzob[*f,j,n*]-1,5,9,13-tetraazacyclohexadecine, T-00068
 2,2',3,3'-Tetrakis(6-methyl-2-pyridyl)-6,6'-biquinoxaline, T-00088
 5,5',6,6'-Tetramethyl-3,3-bi(1,2,4-triazine), T-00093
 ▶ Tetramethylthiodicarbonyl diamide, T-00105
 ▶ Tetramethylthiuram disulfide, T-00106
meso-Tetraphenylporphyrin, T-00121
 1,4,8,11-Tetrathiacyclohexadecane, T-00126
 2,2'-(2,5,8,11-Tetrathiadodecane-1,12-diyl)bis[5-chlorothiophene], T-00127
 2,2'-(2,5,8,11-Tetrathiadodecane-1,2-diyl)bis[5-methylthiophene], T-00128
 3,6,10,13-Tetrathiacyclotetradecane, T-00129
 3,6,9,12-Tetrathia-1,14-tetradecanedithiol, T-00130
 5-(2-Thienylmethylene)-2-thioxo-4-imidazolidinone, T-00152
 ▶ Thiobenzoic acid, T-00155

2,2'-Thiobisethanamine; B,2HCl, *in* T-00156
 S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Di-Et, *in* T-00161
 S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Di-Me, *in* T-00161
 S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Dipropyl, *in* T-00161
 2-Thiophenecarboxaldehyde 2-benzothiazolylhydrazide, T-00170
 2-Thiophenecarboxaldehyde; Thiosemicarbazone, *in* T-00169
 Thymol blue, T-00181
 6,8-Tridecanedione, T-00228
 ▶ Triethylenetetramine, T-00232
 Trifluoroethylxanthic acid; K salt, *in* T-00247
 4,4,4-Trifluoro-1,2-furanyl-1,3-butanedione, T-00248
 1,1,1-Trifluoro-2,4-pentanedione, T-00257
 4,4,4-Trifluoro-1-selenophen-2-yl-1,3-butanedione, T-00263
N,N',N''-Trihexylphosphorothioic triamide, T-00267
 ▶ Triphenyl phosphite, T-00371
 3,5,6-Tri-2-pyridinyl-1,2,4-triazine, T-00382
 5,7-Undecanedione, U-00001

Fluorine: fluoride

▶ Alizarine fluorine blue, A-00076
 Alizarine fluorine blue S; K salt, *in* A-00077
 Alizarine red S; Na salt, *in* A-00081
 ▶ Aluminum, *in* A-00458
 ▶ Amaranth, A-00087
 4-Aminoazobenzene-4'-arsonic acid; *N*-Di-Me, *in* A-00095
 3-(Aminomethyl)-1,2,5,8-tetrahydroxyanthraquinone-*N,N*-diacetic acid, A-00256
 C.I. Basic blue 20; Dichloride, *in* C-00002
 Carboxyarsenazo, C-00026
 ▶ Chlorotriphenylstannane, C-00271
 Chromotropic acid, C-00294
 ▶ 2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone, D-00262
 ▶ 2',4'-Dihydroxyacetophenone, D-00507
 ▶ 1,2-Dihydroxyanthraquinone, D-00510
 2-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenoxyacetic acid; Di-Na salt, *in* D-00601
 4,5-Dihydroxy-3-[(4-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid; Tri-Na salt, *in* D-00736
 Eriochrome cyanine R; Tri-Na salt, *in* E-00013
 Glycine-thymol blue, G-00019
 ▶ Haematoxylin; (+)-*form*, *in* H-00002
 ▶ 2-Hydroxybenzoic acid, H-00112
 4-Hydroxy-3-biphenylcarboxylic acid, H-00132
 3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid, H-00242
 ▶ 8-Hydroxy-7-iodo-5-quinolinesulfonic acid, H-00255
p-[[2-Hydroxy-1-naphthyl)azo]benzoic acid, H-00375
 4-(3-Hydroxy-3-phenyl-1-triazenyl)benzenesulfonic acid, H-00506
 ▶ 2-Hydroxy-5-sulfobenzoic acid, H-00538
 Tetraphenylstibonium(1+), T-00122
 Thorium chloroanilate, *in* D-00262
 ▶ Trichloroacetic acid, T-00218
 Trypan blue; Tetra Na salt, *in* T-00433

Gallium

Adogen 364, A-00065
 Alizarine yellow G; Na salt, *in* A-00082
 5-Amino-3-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, A-00137

5-Amino-4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00187
 5-Amino-4-hydroxy-3-[(2-hydroxy-3-nitro-5-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, A-00192
 4-[[[4-Amino-2-hydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00209
 Aminooxoacetic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00292
 5-Amino-2-(2-quinolinylazo)phenol, A-00344
 3-[[3-(Aminosulfonyl)-1-hydroxy-2-naphthalenyl]azo]-2-hydroxy-5-nitrobenzenesulfonic acid, A-00348
 7-[[5-(Aminosulfonyl)-2-hydroxyphenyl]azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, A-00349
 Arsenazo AE, A-00404
 Astrazon blue B; Chloride, *in* A-00452
N-Benzylaniline, B-00165
 2-[Bis(carboxymethyl)amino]benzoic acid, B-00276
 4,4'-Bis(3,4-dihydroxyphenylazo)biphenyl, B-00302
 Bis[(2,3-dihydroxyphenyl)methylene]carbonothioic dihydrazide, B-00308
 Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbonic dihydrazide, B-00375
 1,5-Bis(2-hydroxyphenyl)-3-cyanoformazan, B-00388
 9-(4-Bromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00558
N-(5-*tert*-Butyl-2-hydroxybenzylidene)-2-hydroxy-5-methylaniline, B-00632
 C.I. Mordant blue 18, *in* A-00139
 ▶ (±)-Camphoric acid, *in* T-00325
 ▶ 2-Chlorobenzoic acid, C-00066
 5-Chloro-3-[(5-dodecyl-2,4-dihydroxyphenyl)azo]-2-hydroxybenzenesulfonic acid, C-00113
 5-Chloro-2-hydroxybenzaldehyde; Thiosemicarbazone, *in* C-00122
 4-Chloro-2-hydroxy-*N*-(2-hydroxybenzylidene)aniline, C-00129
 7-[(5-Chloro-2-hydroxyphenyl)azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, C-00147
 5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206
 Chrome dark BLN; Na salt, *in* C-00280
 Chrome dark green BGN; Na salt, *in* C-00281
 Chrome dark green BN; Na salt, *in* C-00282
 Chromoxane violet R, *in* E-00015
 Cotarnilfluorone, C-00302
 ▶ Cyclohexanone, C-00347
 ▶ Dibutyl phosphate, D-00237
 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00320
 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[5-(1,2,3-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00394
 1,2-Dihydro-4-[(2-hydroxy-5-methylphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00410
 1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00414
 1,2-Dihydro-4-[[2-hydroxy-1-naphthalenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00417
 1,2-Dihydro-4-[(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00419
 1,2-Dihydro-4-[[2-hydroxyphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00420
 1,2-Dihydro-4-[[4-hydroxyphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00421

1,2-Dihydro-4-[[[4-methoxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00428
 2,4-Dihydroxybenzaldehyde; Formylhydrazone, *in* D-00517
 2,4-Dihydroxybenzaldehyde; Semicarbazone, *in* D-00517
 6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00576
 7,8-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00577
 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00581
 7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00585
 4-[(1,7-Dihydroxy-2-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00659
 2-[(3,4-Dihydroxyphenyl)azo]benzoic acid, D-00689
 3-[(2,4-Dihydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00693
 2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole, D-00699
 [2-[[[(2,4-Dihydroxyphenyl)methylene]amino]phenyl]arsonic acid, D-00711
 ▶ Diisopropyl ether, D-00748
 4-[[[4-(Dimethylamino)phenyl]methylene]amino]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00818
 4-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00953
 1-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2-naphthol, D-00954
 Di-2-pyridinylmethanone 2-furoylhydrazone, D-01077
 Eriochrome geranol; Di-Na salt, *in* E-00015
 4,4'-[1,2-Ethenediylbis[2-(aminomethyl)phenol]]-*N,N,N',N'*-tetraacetic acid; (*E*)-*form*, *in* E-00042
 4-Ethoxy-2-hydroxy-*N*-salicylideneaniline, *in* D-00614
 4-[[4-(Ethylamino)-6-hydroxy-*m*-tolyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, *in* A-00196
 ▶ Gallocyanine; Chloride, *in* G-00005
 ▶ Haematein, H-00001
 4-[(2-Hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, H-00160
 2-Hydroxy-*N*-(2-hydroxybenzylidene)-4-methylaniline, H-00190
 2-Hydroxy-*N*-(2-hydroxybenzylidene)-5-methylaniline, H-00191
 2-Hydroxy-*N*-(2-hydroxy-5-ethylbenzylidene)aniline, H-00201
 2-Hydroxy-*N*-(2-Hydroxy-5-ethylbenzylidene)-5-methylaniline, H-00202
 2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)aniline, H-00210
 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)aniline, H-00211
 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)aniline, H-00212
 2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)-5-methylaniline, H-00213
 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-4-methylaniline, H-00214
 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-5-methylaniline, H-00215
 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-4-methylaniline, H-00216
 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-5-methylaniline, H-00217
 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-[(2-hydroxyphenyl)methylene]carbonic acid dihydrazide, H-00218

8-Hydroxy-7-[(2-hydroxy-4-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00227
 8-Hydroxy-7-[(2-hydroxy-5-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00228
 5-Hydroxy-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, H-00230
 5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, H-00231
 8-Hydroxy-7-[(2-hydroxyphenyl)azo]-1,6-naphthalenedisulfonic acid, H-00233
 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)aniline, H-00234
 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)-5-methylaniline, H-00235
 3-Hydroxy-4-[[[(2-hydroxyphenyl)methylene]amino]benzoic acid, H-00239
 4-Hydroxy-3-[[[(2-hydroxyphenyl)methylene]amino]benzoic acid, H-00240
 2-Hydroxy-4-methoxy-*N*-salicylideneaniline, *in* D-00614
 2-Hydroxy-5-methylbenzaldehyde; Thiosemicarbazone, *in* H-00277
 2-[(2-Hydroxy-4-methylphenyl)methylene]hydrazinecarboxamide, *in* H-00276
 2-[[[(2-Hydroxyphenyl)methylene]amino]-9*H*-fluoren-3-ol, H-00477
 2-[[[(2-Hydroxyphenyl)methylene]amino]methyl]phenol, H-00478
 [2-[[[(2-Hydroxyphenyl)methylene]amino]phenyl]arsonic acid, H-00479
 ▶ 8-Hydroxyquinoline, H-00525
 Magneson IREA, M-00004
 Meldola's blue; Chloride, *in* M-00011
 2-Methyl-4-[(4-methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00202
 Naphthylazoxine 4,8*S*, N-00044
 Naphthylazoxine 4*S*, N-00043
 Naphthylazoxine 5,7*S*, N-00046
 Naphthylazoxine 5*S*, N-00045
 Nevazol NS, N-00067
 Phenosafrano blue, P-00071
 [1,4-Phenylenebis(methylene)]bis[diocetylphosphine oxide], P-00120
 9,9'-(1,4-Phenylene)bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], P-00125
 2-Pyridinecarboxaldehyde 2-furoylhydrazone, P-00324
 2(1*H*)-Pyridinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00365
 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
 2-(2-Pyridinyl)-1*H*-benzimidazole, P-00385
 Pyrocatechol violet, P-00433
 Rhodamine B, *in* R-00002
 Rhodamine 4*G*, *in* R-00005
 Rhodamine 3*G*0; Chloride, *in* R-00004
 Solochrome red ERS, S-00022
 Sulfochlorophenol R, S-00044
 Sulfonitrophenol R, S-00053
 Tetrabutyl 1,2-ethanediylbisphosphonate, *in* E-00026
 2,3,7,8-Tetrahydroxyphenazine, T-00079
 ▶ Thionine hydrochloride, *in* L-00003
 2,6,7-Trihydroxy-9-pentadecyl-3*H*-xanthen-3-one, T-00307
 4-[(2,4,6-Trihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, T-00312
 Victoria pure blue BO; Chloride, *in* V-00004
 Xylenol orange, X-00006

Germanium

Anisylfluorone, A-00372
 ▶ Brilliant green; Hydrogen sulfate, *in* B-00479
 [5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxyphenyl]arsonic acid, C-00096
 ▶ Cordycepic acid, *in* M-00008
 4,5-Dihydro-1*H*-pyrazole-3,4-dicarboxylic acid; Diamide, *N*-di-Me, *in* D-00480
 ▶ 1,2-Dihydroxyanthraquinone, D-00510

6,7-Dihydroxy-3(2*H*)-benzofuranone, D-00530
 6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00576
 6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00584
 2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxycarbonylthiophene, *in* C-00326
 2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole, D-00699
 9-[4-(Dimethylamino)phenyl]-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00824
 4-(Diphenylmethylene)-2-hydroxy-1(4*H*)-naphthalenone, D-01029
 Gossypol: (±)-*form*, *in* G-00041
 ▶ 1,1'-Iminodianthraquinone, I-00011
 ▶ Purpurogallin, P-00282
 ▶ 1,2,5,8-Tetrahydroxy-9,10-anthraquinone, T-00070
 ▶ 1,2,4-Trihydroxyanthraquinone, T-00270
 2,3,4-Trihydroxybenzoic acid, T-00276
 4-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)-1,3-benzenedisulfonic acid, T-00304
 2,6,7-Trihydroxy-9-phenyl-3*H*-xanthen-3-one, T-00315
 2,6,7-Trihydroxy-9-(2-sulfophenyl)-3*H*-xanthen-3-one, T-00322
 ▶ Trioctylamine, T-00357

Gold

▶ Acetanilide, *in* A-00368
 ▶ Acetic acid 2-phenylhydrazide, *in* P-00134
 ▶ Acet-*o*-toluidide, *in* M-00123
 9-Amino-2,3-dihydrobenzo[*f*]phthalazine-1,4-dione, A-00151
 6-Amino-2,3-dihydro-1,4-phthalazinedione, A-00156
 ▶ 2-Amino-4,6-dinitrophenol, A-00164
 7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, A-00208
 5-Amino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00236
 7-Amino-1-methyl-3*H*-phenoxazin-3-one, A-00247
 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, *in* H-00391
 ▶ 2-Amino-3*H*-phenoxazin-3-one, A-00303
 7-Amino-3*H*-phenoxazin-3-one, A-00304
 Astra violet 3*R*; Chloride, *in* A-00451
 Astrazon pink FG; Chloride, *in* A-00454
 4,4'-Bis(dimethylamino)-3,3'-dimethylbiphenyl, *in* D-00083
N,N'-Bis(1,1-dimethylethyl)thiourea, *in* T-00175
 ▶ Bis(2-ethylhexyl) phosphate, B-00352
 1,2-Bis(hexylthio)ethane, B-00359
 ▶ 2-Butanone, B-00608
 4-(1-Butylpentyl)pyridine, B-00635
 3-(Carboxymethylthio)-1,5-diphenylformazan, C-00034
 4-Chloro-2-[[[(2-hydroxyphenyl)methylene]amino]phenol, C-00150
 ▶ Chlorpromazine, C-00273
 Cupron, *in* B-00068
 1,4-Diaminoanthraquinone-2,3-disulfonic acid; Di-Na salt, *in* D-00044
 ▶ 1,4-Diaminobenzene, D-00048
 ▶ 4,4'-Diaminobiphenyl, D-00053
 4,4'-Diamino-3-methylbiphenyl; B, HCl, *in* D-00102
 6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, *in* A-00156
 5-[[4-(Diethylamino)phenyl]methylene]-2-thioxo-4-thiazolidinone, D-00334
 1,2-Dihydro-4-[(2-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00415
 1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00423
 1,3-Dihydro-2*H*-purine-2-thione, D-00478

- 3,4-Dihydro-4,4,6-trimethyl-1-(2,4,6-trichlorophenyl)-2(1*H*)-pyrimidinethione, D-00505
- ▷ Diisopropyl ether, D-00748
- 6-(Dimethylamino)-2,3-dihydro-1,4-phthalazinedione, in A-00156
- 7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, D-00786
- 7-(Dimethylamino)-1-methyl-3*H*-phenoxazin-3-one, D-00792
- ▷ 2,5-Dimethylaniline; *N*-Ac, in D-00828
- 3,3-Dimethyl-1,2-indanedione; Dioxime, in D-00868
- N,N'*-Diphenylbenzamidine, D-01001
- 2-(Diphenylmethyl)pyridine, D-01030
- 5-(Di-2-pyridinylmethylene)-2-thioxo-4-imidazolidinone, D-01085
- 2,2'-Dipyridyl- α -glyoxime, in D-01063
- 2-[5,6-Di-(2-pyridyl)-1,2,4-triazin-3-yl]-1,10-phenanthroline, D-01098
- Di(2-thenoyl)ketoxime, in D-01113
- 5-(*p*-Ethoxyanilino)-5,6-dihydrouracil, E-00052
- 5-Ethyl-*N*-phenyl-2-pyridinecarbothioamide, in E-00108
- ▷ Formaldehyde, F-00035
- ▷ Formic acid, F-00037
- ▷ Glycine, G-00016
- 4-Heptanone; Oxime, in H-00012
- ▷ Hydrazinecarboxaldehyde, in F-00037
- 4-(4-Hydroxy-3-methoxybenzylidene)-3-methyl-5(4*H*)-isoxazolone, H-00266
- 5-Hydroxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, H-00280
- 2-Hydroxy-5-nitro-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, H-00391
- 2-Hydroxy-5-nitro-3-[(2-thioxo-4-oxopyrrolidinyl)azo]benzenesulfonic acid, H-00423
- 5-[(2-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00460
- 5-[(3-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00461
- 5-[(4-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00462
- ▷ Isooctyl thioglycolate, in M-00016
- Isopropyltriphenylphosphonium(1+); Chloride, in I-00079
- Maxilon blue GRL; Chloride, in M-00009
- ▷ 2-Mercaptobenzimidazole, M-00022
- 5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione, M-00039
- 4-Methoxybenzaldehyde phenylthiosemicarbazone, M-00076
- 5-Methoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00089
- 2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazolo[3,2-*a*]pyridin-4-ium(1+); Chloride, in M-00108
- ▷ 4-Methylaniline; *N*-Ac, in M-00124
- 11-Methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00140
- 3-Methyl-1,2-indanedione; Dioxime, in M-00194
- ▷ Methyl methacrylate, in M-00256
- ▷ 4-Methyl-2-pentanone, M-00218
- 5-[(6-Methyl-2-pyridinyl)methylene]-4-imidazolidinone; (*E*)-form, in M-00290
- Naphthalene green; Chloride, in N-00013
- N*-1-Naphthylacetamide, in N-00041
- 1,5-Naphthyridine, N-00056
- 1,5-Naphthyridine; B.H.₂SO₄, in N-00056
- 5-[(4-Nitrophenyl)azo]-4-thioxo-2-selenazolidinone, N-00131
- 2-Nonylpyridine; *N*-Oxide, in N-00169
- 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrahydropentadecine, O-00009
- 4-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00076
- ▷ Pericyazine, P-00044
- o*-Phenolazothiohydantoin, P-00061
- 9-Phenylbenzo(1,2)quinolizino[3,4,5,6-*def*]phenanthridinium(1+); Perchlorate, in P-00105
- 4-Phenyl-3*H*-1,2-dithiole-3-thione, P-00115
- 5-Phenyl-3*H*-1,2-dithiole-3-thione, P-00116

- 1,1'-[1,3-Phenylene]bis-2-tetrazoline-5-thione, P-00122
- 1,1'-[1,4-Phenylene]bis-2-tetrazoline-5-thione; Di-Na salt, in P-00123
- 2-Phenylethenylphosphonic acid, P-00129
- 3-Phenyl-1,2-indanedione; Dioxime, in P-00137
- 3-[(Phenylmethylene)amino]-2-thioxo-4-thiazolidinone, P-00146
- ▷ Piperazine, P-00237
- ▷ Polyethylene glycol, P-00247
- ▷ Pyridine *N*-oxide, P-00356
- N*-2-Pyridinylbenzamide, in A-00333
- N*-2-Pyridinylbenzenecarbothioamide, P-00383
- ▷ Pyronine G; Chloride, in P-00435
- ▷ Pyrrole, P-00436
- 5-(1*H*-Pyrrol-2-ylmethylene)-2-thioxo-4-imidazolidinone, P-00444
- Rhodamine B, in R-00002
- ▷ Tetrabutylammonium(1+); Bromide, in T-00023
- O*-(2,2,2-Trifluoroethyl)carbonodithioate, T-00246
- Trifluoroethylxanthic acid; K salt, in T-00247
- ▷ Triflupromazine hydrochloride, in F-00010
- 2,4,6-Triphenylpyrylium(1+); Chloride, in T-00374

Hafnium

- ▷ Arsenazo III, A-00412
- ▷ 1,2,4,5-Benzenetetracarboxylic acid, B-00029
- ▷ 1,2,4-Benzenetricarboxylic acid, B-00032
- 1,3,5-Benzenetricarboxylic acid, B-00033
- 4,4'-Bis(3,4-dihydroxyphenylazo)biphenyl, B-00302
- Bis(1-*p*-sulfophenyl)-2,3-dimethylpyrazol-5-on-4-yl)methane, B-00456
- 2-[(6-Bromo-2-benzothiazolyl)azo]-5-(diethylamino)phenol, in A-00123
- Cannabicitrin, in H-00055
- 1,2-Dihydro-4-[[2-(2-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00420
- [2-[[2-(2,4-Dihydroxyphenyl)methylene]amino]phenyl]arsonic acid, D-00711
- ▷ Haematein, H-00001
- 3-Hydroxy-2-naphthalenecarboxylic acid [[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazide, H-00341
- ▷ 3-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one, H-00466
- [2-[[2-(2-Hydroxyphenyl)methylene]amino]phenyl]arsonic acid, H-00479
- 2-Hydroxy-3-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00557
- 2-Hydroxy-4-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00558
- 3-Hydroxy-2-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00559
- Mandelic acid; (\pm)-form, in M-00007
- ▷ 2-Nitrobenzoic acid, N-00091
- ▷ 3-Nitrobenzoic acid, N-00092
- 3,5,7,3',4'-Pentahydroxyflavone-6'-sulfonic acid, P-00027
- Primene JM T, P-00255
- 3-Pyridine-[2-(hydroxyimino)-1-methylpropylidene]carboxylic acid, P-00355
- 4,4,4-Trifluoro-1-selenophen-2-yl-1,3-butanedione, T-00263
- 3-(Aminomethyl)-1,2,5-trihydroxyanthraquinone-*N,N*-diacetic acid, A-00259
- 4-Aminophenyl-4-ethylbenzylaminoantipyrinylcarbinol, A-00322
- 7-[[5-(Aminosulfonyl)-2-hydroxyphenyl]azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, A-00349
- 2-(4-Antipyrilazo)-5-diethylaminophenol, A-00392
- N*-Benzylaniline, B-00165
- 2-[Bis(carboxymethyl)amino]benzoic acid, B-00276
- O,O*-Bis(2-methylpropyl)phosphorodithioate; Na salt, in B-00413
- 2-Bromobutanoic acid; (\pm)-form, in B-00496
- Bromopyrogallol red, B-00574
- ▷ C.1. 51010, in B-00477
- 7-[(5-Chloro-2-hydroxyphenyl)azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, C-00147
- 5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206
- Chromazurol S; Tri-Na salt, in C-00277
- ▷ Cyclohexanone, C-00347
- 4-Cyclopentyl-6-(2-quinolinylazo)-1,3-benzenediol, C-00368
- ▷ 5,7-Dibromo-8-hydroxyquinoline, D-00193
- ▷ Dibutyl phosphate, D-00237
- O,O*-Dibutyl phosphorodithioate; K salt, in D-00241
- O,O*-Dibutyl phosphorothioate, D-00242
- O,O*-Dihexyl phosphorodithioate, D-00369
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[5-(1,2,3-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00394
- 1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00414
- 1,2-Dihydro-4-[(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00419
- 1,2-Dihydro-4-[[2-(2-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00420
- 6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, in D-00576
- 6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, in D-00584
- 2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfobenzoic acid], D-00590
- 4-[(1,7-Dihydroxy-2-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00659
- [2-[[2-(2,4-Dihydroxyphenyl)methylene]amino]phenyl]arsonic acid, D-00711
- [(2,4-Dihydroxyphenyl)methylene]-(2-pyridinylmethylene)carbonothioic dihydrazide, D-00713
- O,O*-Diisopentyl phosphorodithioate, D-00746
- ▷ Diisopropyl ether, D-00748
- ▷ *O,O*-Dimethyl phosphorodithioate, D-00896
- O,O*-Dipentyl phosphorodithioate, D-00996
- O,O*-Dipropyl phosphorodithioate, D-01060
- ▷ Dithizone, D-01135
- Ethanedioic acid bis[[2-(2,4-dihydroxyphenyl)methylene]hydrazide], E-00025
- 2-[(2-Ethoxy-4-ethylamino-5-methylphenyl)azo]pyridine, in A-00253
- 5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, in A-00253
- 8-Hydroxy-7-[(2-hydroxy-5-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00228
- 8-Hydroxy-7-[(2-hydroxyphenyl)azo]-1,6-naphthalenedisulfonic acid, H-00233
- 3-Hydroxy-2-methyl-1-phenyl-4(1*H*)-pyridinone, H-00315

Indium

- 8-Acetoxyquinaldine, in H-00326
- 4-Acetylpyridine 4-ethyl-3-thiosemicarbazone, A-00041
- Adogen 364, A-00065
- 4-[[[(4-Amino-2-hydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00209
- N*-(Aminoiminomethyl)benzamide, A-00226

- 2-[(2-Hydroxy-1-naphthalenyl)azo]-4-thiazolecarboxylic acid, H-00358
 [2-[(2-Hydroxyphenyl)methylene]amino]phenyl]arsonic acid, H-00479
 ▶ 8-Hydroxyquinoline, H-00525
 4-Methyl-5-(methylamino)-2-(2-pyridinylazo)phenol, in A-00253
 7-Methyl-2,4-octanedione, M-00209
 4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248
 1-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenol, M-00250
 Naphthylazoxine 4S, N-00044
 Naphthylazoxine 4S, N-00043
 Naphthylazoxine 5,7S, N-00046
 Naphthylazoxine 5S, N-00045
 Omega chrome blue 35, O-00040
 7-(1-Piperidinylmethyl)-8-quinolinol; B,HCl, in P-00243
 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
 4-(2-Pyridinylazo)-1-naphthalenol, P-00376
 2-(2-Pyridinyl)-1*H*-benzimidazole, P-00385
 Rhodamine 3G0; Chloride, in R-00004
 Tetrachlorogallein, T-00035
 Tetrahexylammonium(1+); Chloride, in T-00049
 4,4',4''-[1,3,5-Triazine-2,4,6-triyltris(azo)]tris[3-hydroxy-1-naphthalenesulfonic acid], T-00198
 ▶ Tributylphosphine, T-00212
 1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255
 1,7,9-Trihydroxy-3*H*-phenoxazin-3-one, T-00308

Iodine

- Amylose, in S-00025
 ▶ Fluorescein, F-00020
 Narceine, N-00059
 2-Phenyl-4*H*-naphtho[1,2-*b*]pyran-4-one, P-00150

Iodine: iodate

- 1-Allyl-2-tetrazoline-5-thione, in T-00131
 ▶ 4-Aminophenol, A-00302
 4-Bromo-*N,N'*-bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494
 4-Chloro-2-[[2-(hydroxyphenyl)methylene]amino]phenol, C-00150
 1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, in C-00345
 1,3-Cyclopentanedione bis(4-methylthiosemicarbazone); B,HCl, in C-00363
 5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, in D-00847
 ▶ Isoniazid, I-00069
 1,3,4-Trihydroxyanthraquinone-2-carboxylic acid, T-00272

Iodine: periodate

- Benzoylhydrazine, in B-00059
 4-Bromo-*N,N'*-bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494
 ▶ 4,4'-Diamino-3,3'-dimethoxybiphenyl, in D-00056
 2-[(3,4-Dihydroxyphenyl)methylene]hydrazinecarboximidamide, D-00712
 5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, in D-00847
 2,2'-(1*H*-Indene-1,3(2*H*)-diylidene)bishydrazinecarbothioamide, in I-00024
 Phthalimide; Dithiosemicarbazone, in P-00223
 ▶ Tetraphenylarsonium(1+); Chloride, in T-00119
 ▶ TTC, in T-00379

Iodine: iodide

- 3-Acetyl-4,5,6,7-tetrachloro-3-(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, A-00049
 1-Allyl-2-tetrazoline-5-thione, in T-00131
 Amylose, in S-00025
 2-Benzothiazolethiol, B-00089
 Bromamine B, in B-00026
 4-Bromo-*N,N'*-bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494
 ▶ *N,N*-Bromosuccinimide, B-00576
 C.I. Basic blue 20; Dichloride, in C-00002
 Chromotrope F4B; Di-Na salt, in C-00292
 3-(3,5-Dibromo-2,4-dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00183
 4',5'-Dibromofluorescein; Di-Na salt, in D-00188
 ▶ Dibromosulfonephthalein, D-00215
N,N-Dichloro-4-methylbenzenesulfonamide, D-00285
 3-(2,4-Dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00710
 ▶ *N*-[4-[[4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+); Chloride, in D-00812
 2,9-Dimethyl-1,10-phenanthroline, D-00880
 Diphenylcarbazone, D-01005
 Erythrosine Y; Di-Na salt, in E-00021
 4-Ethoxy-3,6-acridinediamine, in H-00094
 ▶ Fluorescein, F-00020
 3-(4-Hydroxyphenyl)-1(3*H*)-isobenzofuranone, H-00474
 3-[2-Hydroxyphenyl]-3-phenyl-naphtho[2,1-*b*]furan-1(3*H*)-one, H-00493
 3-[4-Hydroxyphenyl]-3-phenyl-naphtho[2,1-*b*]furan-1(3*H*)-one, H-00494
 ▶ Methyl violet, M-00336
 Neutral red; B,HCl, in N-00065
 Nitron, N-00114
 ▶ 4-Phenylazo-1-naphthylamine, P-00093
 Phloxin; Di-K salt, in P-00212
 4-(2-Quinolinyloxy)phenol, Q-00032
 4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, T-00027
 4,5,6,7-Tetrachloro-3-(2,4-dihydroxyphenyl)-3-methyl-1(3*H*)-isobenzofuranone, T-00028
 Thioflavine S, T-00162
 ▶ Trimethylsulfonium(1+); Iodide, in T-00347
 2,4,6-Triphenylpyrylium(1+); Chloride, in T-00374
 Trypan red; Penta-Na salt, in T-00434

Iridium

- 4-Aminophenylcarbomodithioic acid; NH₄ salt, in A-00321
N-Benzoyl-*N'*-(2-pyridyl)thiourea, B-00159
 Benzyltriphenylphosphonium(1+); Chloride, in B-00196
N,N-Dibutyl-β-oxobenzene-propanethioamide, in O-00056
 Dichloro-1-naphthylphosphine, in N-00055
 2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, in A-00214
 2-(Diethylamino)-6-(2-pyridinylazo)phenol, D-00335
 2-(Diethylamino)-6-(2-thiazolylazo)phenol, in A-00360
 ▶ *N,N*-Dimethyl-4-nitrosoaniline, D-00876
N,N'-Di-2-naphthalenyl-1,4-benzenediamine, D-00929
 1,5-Diphenyl-3-(2-propenylthio)formazan, D-01043
 Dithiobenzoic acid, D-01117
 Hexahydro-1*H*-azepine-1-carbodithioic acid; K salt, in H-00035
 Hexahydro-*N*-(4-methylpentyl)-1*H*-azepine-1-carbothioamide, H-00048
 Hexahydro-*N*-phenyl-1*H*-azepine-1-carbothioamide, H-00049
 ▶ 8-Hydroxyquinoline; *N*-Oxide, in H-00525
 4-Methyl-2-(2-pyridinylazo)phenol, M-00283
 Methyltriphenylphosphonium(1+); Chloride, in M-00335
 2-Octylaminopyridine, in A-00333
 β-Oxo-*N*-phenylbenzenepropanethioamide, in O-00056
 3-Oxo-*N*-phenylbutanethioamide, O-00065
 Perazine; Maleate (1:2), in P-00043
N-(1-Piperidinylthioxomethyl)benzamide, P-00245
 ▶ Rhodamine 590; Chloride, in R-00003
 ▶ Tetrabutylammonium(1+); Bromide, in T-00023
O-[[Tetrahydro-2-furanyl)methyl]carbonodithioate; K salt, in T-00062
 ▶ Thioacetanilide, T-00153
 Tris(2-methylpropyl)amine, T-00409

Iron

- 2-Acetyl-4-ethylpyridine; Oxime (*Z*-), in A-00016
 2-Acetyl-4-methoxypyridine; Oxime (*Z*-), in A-00021
 2-Acetyl-4-methylpyridine; Oxime (*E*-), in A-00023
 2-Acetyl-4-phenylpyridine; Oxime (*E*-), in A-00031
 2-Acetylpyrazine 8-quinolyldrazone, A-00038
 2-Acetylpyridine 2-benzothiazolylhydrazone, A-00040
 2-Acetylpyridine phenylthiosemicarbazone, A-00042
 2-Acetylpyridine 8-quinolyldrazone, A-00046
 Acid chrome violet BR; Na salt, in A-00054
 Adogen 364, A-00065
 Alamine oxide, A-00071
 4-Aminobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00110
 2-Amino-4,6-bis[6-(2-pyridyl)-2-pyridyl]-s-triazine, A-00122
 4-[(2-Amino-5-bromo-3-pyridinyl)azo]-1,3-benzenediol, A-00124
 3-[[3-Amino-4-[(5-bromo-2-pyridinyl)azo]phenyl]propylamino]-1-propanesulfonic acid; Na salt, in A-00127
 6-Amino-2-(diethylamino)-5-nitroso-4(1*H*)-pyrimidinone, in D-00109
 6-Amino-2,3-dihydro-5-nitroso-1-phenyl-2-thioxo-4(1*H*)-pyrimidinone, A-00153
 6-Amino-2-(dimethylamino)-5-nitroso-4(1*H*)-pyrimidinone, A-00161
 ▶ 2-Amino-4,6-dinitrophenol, A-00164
 ▶ 5-Amino-1,2,4-dithiazolidine-3-thione, A-00168
 3-[[2-Aminoethyl]imino]methyl]-2-hydroxybenzoic acid, A-00175
 ▶ 4-Amino-2-hydroxybenzoic acid, A-00184
 3-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00199
 7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, A-00208
 2-Amino-3-hydroxypyridine, A-00216
 5-Amino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00236
 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)-6-methylphenol *N,N*-diacetic acid, A-00239
 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)phenol-*N,N*-diacetic acid, A-00240
 4-[[3-(Aminomethyl)-4-hydroxyphenyl]imino]-2,6-dibromo-2,5-cyclohexadien-1-one-*N,N*-diacetic acid, A-00243
 7-Amino-1-methyl-3*H*-phenoxazin-3-one, A-00247
 ▶ 6-Aminonicotinamide, in A-00334
 6-Amino-5-nitroso-2,4(1*H*,3*H*)-pyrimidinedione, A-00288
 5-Amino-1,10-phenanthroline, A-00299
 ▶ 2-Amino-3*H*-phenoxazin-3-one, A-00303
 7-Amino-3*H*-phenoxazin-3-one, A-00304
 [(4-Aminophenyl)thio]acetic acid, A-00327

- ▷ Aminopyrine, A-00339
- ▷ 5-Amino-1,3,4-thiadiazoline-2(3*H*)-thione, A-00354
- 3-[(Aminothioxomethyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, *in* P-00386
- Bathocuproinedisulfonic acid; Di-Na salt, *in* B-00002
- Bathophenanthrolinedisulfonic acid; Di-Na salt, *in* B-00003
- Benzenecarboximidic acid *N*-2-pyridinyl-2-pyrazinylhydrazone, B-00015
- 2-(2-Benzimidazolyl)-4,7-phenanthroline, B-00048
- Benzohydroxamic acid benzenesulfonamide, *in* P-00194
- 4-(2-Benzothiazolylazo)-1,2-benzenediol, B-00091
- 4-(2-Benzothiazolylazo)-1,3-benzenediol, B-00092
- 2-(2-Benzothiazolylazo)-5-(dimethylamino)phenol, B-00094
- 6-Benzoyl-3-(2,2'-bipyridin-6-yl)-5-phenyl-1,2,4-triazine, B-00123
- 2-Benzoyl-4-ethylpyridine; Oxime (*E*-), *in* B-00132
- 2-Benzoyl-4-methylpyridine; Oxime (*E*-), *in* B-00134
- 6-Benzoyl-3-(4-methyl-2-pyridyl)-5-methyl-1,2,4-triazine, B-00136
- 2-Benzoyl-4-nitro-1*H*-indene-1,3(2*H*)-dione, B-00139
- 2-Benzoyl-5-nitro-1*H*-indene-1,3(2*H*)-dione, B-00140
- 6-Benzoyl-3-(1,10-phenanthrolin-2-yl)-5-phenyl-1,2,4-triazine, B-00142
- 2-Benzoyl-4-phenylpyridine; Oxime (*E*-), *in* B-00144
- 6-Benzoyl-5-phenyl-3-(2-thiazolyl)-1,2,4-triazine, B-00147
- 2-Benzoylpyridine azine, B-00152
- 2-Benzoylpyridine; Hydrazone, *in* B-00151
- 2-Benzoylpyridine phenylthiosemicarbazone, B-00153
- 2-Benzoylpyridine 8-quinolylhydrazone, B-00157
- Benzylidimethyloctadecylammonium(1+); Perchlorate, *in* B-00180
- ▷ Benzylpenicillin, B-00191
- 2,2'-Bi-1*H*-indole, B-00204
- 2,2'-Bipiperidine, B-00217
- 2,2'-Bipyrazine, B-00218
- 3,3'-Bipyridazine, B-00219
- ▷ 2,2'-Bipyridine, B-00220
- [2,2'-Bipyridine]-6-carboximidic acid hydrazide, B-00223
- 2-(2,2'-Bipyridin-6-yl)benzimidazole, B-00225
- 3-[2,2'-Bipyridin-6-yl]-5,6-dimethyl-1,2,4-triazine, B-00226
- 3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine, B-00227
- 3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine, B-00228
- 2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, B-00229
- 2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*c*]pyridine, B-00230
- 2-(2,2'-Bipyridin-6-yl)-3*H*-imidazo[4,5-*h*]quinoline, B-00231
- 3-[2,2'-Bipyridin-6-yl]-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, B-00232
- 2-(2,2'-Bipyridin-6-yl)-5-phenylbenzimidazole, B-00233
- 3-(2,2'-Bipyridin-6-yl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, B-00234
- 2,2'-Bipyrimidine, B-00235
- 2,6-Bis[3-(2,2'-bipyridin-6-yl)-1,2,4-triazolin-5-yl]pyridine, B-00261
- 2,4-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00263
- 2,6-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00264
- N,N'*-Bis[3-carboxysalicylidene]ethylenediamine; Di-Na salt, *in* B-00280
- Bis(4-chlorophenyl) phosphate, B-00289
- ▷ Bis(2,4-dichloro-6-hydroxyphenyl)disulfide, B-00293
- 2,4-Bis(4,5-dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, B-00296
- 2,6-Bis(4,5-dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, B-00297
- 2,4-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00333
- 2,6-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00334
- 2,4-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00341
- 2,6-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00342
- 3,6-Bis(4-ethyl-2-pyridyl)-1,2-dihydro-1,2,4,5-tetrazine, B-00354
- N,N'*-Bis(2-hydroxybenzyl)ethylenediamine-*N,N'*-diacetic acid; B,2HCl, *in* B-00360
- ▷ *N,N'*-Bis(2-hydroxybenzylidene)-1,2-ethanediamine, B-00363
- Bis(3-hydroxy-6-hydroxymethyl-4-oxo-4*H*-pyran-2-yl)methanone, B-00377
- 2-[2,3-Bis(hydroxyimino)-5,5-dimethylcyclohexylidene]hydrazinecarbothioamide, *in* D-00848
- N,N'*-Bis(2-hydroxypropyl)-1,2-benzenediamine, B-00392
- Bis(2-methylpropyl) phenylphosphonate, *in* P-00164
- 3,6-Bis(4-methyl-2-pyridyl)-4-phenylpyridazine, B-00419
- 2,6-Bis[3-(4-methyl-2-pyridyl)-1,2,4-triazolin-5-yl]pyridine, B-00424
- N,N'*-Bis[4-(phenylazo)phenyl]-1,10-phenanthroline-4,7-diamine, B-00438
- N,N'*-Bis(pyridinylmethylene)-1,2-ethanediamine, B-00441
- 2,4-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine, B-00445
- 2,6-Bis[3-(2-pyridyl)-1,2,4-triazolin-5-yl]pyridine, B-00446
- 2,6-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine, B-00447
- N*-[3,5-Bis(trifluoromethyl)phenyl]-*N*-hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465
- 4,4',4'',4'''-[3,3'-Bi-1,2,4-triazine]-5,5',6,6'-tetrayltetrakisbenzenesulfonic acid; Tetra-NH₄ salt, *in* B-00473
- ▷ Bromazepam, B-00481
- Bromazepam; B,2HCl, *in* B-00481
- ▷ 7-Bromo-1-[3-(dimethylamino)propyl]-1,3-dihydro-5-(2-pyridyl)-2*H*-1,4-benzodiazepin-2-one; B,2HCl, *in* B-00506
- N*-Bromo-4-methylbenzenesulfonamide, *in* M-00130
- 5-Bromo-1,10-phenanthroline, B-00541
- (4-Bromophenyl)phenylethanedione dioxime, B-00555
- Cacotheline, C-00005
- 2-Carboxy-5-hydroxy-4-oxo-1(4*H*)-pyridineacetic acid, C-00031
- Cellex P, C-00048
- 5-Chloro-2-hydroxy-2,4,6-cycloheptatrien-1-one, C-00127
- N*-(5-Chloro-2-methoxyphenyl)-4-[(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxamide, C-00168
- 4-Chloro-2-nitroso-1-naphthol, *in* C-00187
- 4-Chloro-2-nitrosophenol, C-00190
- N*-(3-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00215
- N*-(3-Chlorophenyl)-*N'*-(2,5-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00216
- N*-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00218
- N*-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxy-4-methylbenzenecarboximidamide, C-00219
- N*-(2-Chlorophenyl)-*N*-hydroxybenzamide, *in* H-00109
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methoxyphenyl)benzenecarboximidamide, C-00224
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(2-methylphenyl)benzenecarboximidamide, C-00227
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(3-methylphenyl)benzenecarboximidamide, C-00228
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methylphenyl)benzenecarboximidamide, C-00229
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-phenylbenzenecarboximidamide, C-00230
- (4-Chlorophenyl)phenylethanedione; Dioxime, *in* C-00238
- 4-Chloro-6-(2-thiazolylazo)-1,3-benzenediol, C-00263
- Chromazurol S; Tri-Na salt, *in* C-00277
- Chromotropic acid, C-00294
- 1,3-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone, C-00342
- ▷ Desferrioxamine, D-00029
- 2,6-Diacetylpyridine; Dioxime, *in* D-00035
- 6,6'-Diamino-3,3'-bipyridazine, D-00060
- 2,4-Diamino-6-(2,2'-bipyridyl)-1,3,5-triazine, D-00062
- 2,6-Diamino-5-nitroso-4(1*H*)-pyrimidinone, D-00109
- 4,4'-Diaminostilbene-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00127
- ▷ Dibenzylamine, D-00166
- ▷ Dibenzyl sulfoxide, D-00172
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(diethylamino)benzoic acid, *in* A-00148
- 3,6-Dichloro-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00263
- ▷ 1,3-Dichloro-5,5-dimethyl-2,4-imidazolidinedione, *in* D-00866
- N,N*-Dichloro-4-methylbenzenesulfonamide, D-00285
- 1,2-Dihydro-3,6-bis(4-methyl-2-pyridinyl)-1,2,4,5-tetrazine, D-00373
- 2,3-Dihydro-5,6-bis(6-methyl-2-pyridyl)pyrazine, D-00374
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-(2-methoxyphenyl)-2-naphthalenecarboxamide, D-00383
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-2-(methylphenyl)-2-naphthalenecarboxamide, D-00384
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-1-naphthalenyl-2-naphthalenecarboxamide, D-00387
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-phenyl-2-naphthalenecarboxamide, D-00388
- 2,3-Dihydro-5,6-di-(2-pyridyl)pyrazine, D-00404
- 2,3-Dihydro-5-hydroxy-4*H*-1-benzopyran-4-one, D-00408
- 4,5-Dihydro-5-methyl-3,5-di-2-pyridyl-1*H*-1,2,4-triazole, D-00430
- 1,2-Dihydro-6-methyl-2-oxo-3-pyridinecarboxylic acid, D-00441
- 2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-4-methylpyridine, D-00446
- 2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-1,10-phenanthroline, D-00447
- 2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-4-phenylpyridine, D-00448
- 4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-phenyl-1*H*-1,2,4-triazole, D-00452
- 4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-(2-pyridinyl)-1,2,4-triazole, D-00453
- 6-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00454
- 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-4-methylpyridine, D-00455

- 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00456
- 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-4-phenylpyridine, D-00457
- 2-(4,5-Dihydro-5-methyl-1*H*-1,2,4-triazol-3-yl)pyridine, *in* M-00329
- 2,3-Dihydro-5-methyl-2-ureido-3*H*-pyrazol-3-one, D-00460
- Dihydro-5-nitroso-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00462
- 4,5-Dihydro-3-(1,10-phenanthroline-2-yl)-5-(2-pyridinyl)-1,2,4-triazole, D-00465
- 2-[4,5-Dihydro-5-phenyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00470
- 6-(2,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)-2,2'-bipyridine, D-00473
- 2-(4,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyrazine, D-00474
- 3-(4,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridazine, D-00475
- 2-(4,5-Dihydro-4-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, D-00476
- 4-(2,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyrimidine, D-00477
- 1,2-Dihydro-3,6-pyridazinedione; *A*-form, *in* D-00481
- 2,3-Dihydro-5-(2-pyridinyl)-1*H*-imidazole, D-00482
- 6-[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00483
- [4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyrazine, D-00484
- 3-[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyridazine, D-00485
- 4-[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyrimidine, D-00486
- 4,5-Dihydro-5-(2-pyridyl)-3-(2-thiazolyl)-1*H*-1,2,4-triazole, D-00487
- 2-[4,5-Dihydro-3-(2-pyridyl)-1*H*-1,2,4-triazolyl]phenol, D-00488
- Dihydro-2-thioxo-4,5,6(1*H*)-pyrimidinetrione 5-oxime, D-00493
- ▷ 2',4'-Dihydroxyacetophenone, D-00507
- ▷ 2',4'-Dihydroxyacetophenone; Oxime, *in* D-00507
- 2',4'-Dihydroxyacetophenone; Semicarbazone, *in* D-00507
- 2,4-Dihydroxybenzaldehyde, D-00517
- 2,5-Dihydroxybenzaldehyde, D-00518
- α ,*N*-Dihydroxybenzencacetamide; (\pm)-form, *in* D-00521
- 2,4-Dihydroxybenzenecarbothioic acid, D-00522
- 3,4-Dihydroxybenzenesulfonic acid, D-00527
- ▷ 2,4-Dihydroxybenzoic acid, D-00531
- ▷ 3,5-Dihydroxybenzoic acid, D-00534
- ▷ 3,4-Dihydroxy-3-cyclobutene-1,2-dione, D-00569
- 4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571
- 2,6-Dihydroxyimine-3-methylenepiperidine, *in* M-00178
- 5,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00646
- 4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid; Et ester, *in* D-00674
- 2,4-Dihydroxy-3-nitrosoquinoline, D-00675
- 4,7-Dihydroxy-1,10-phenanthroline; B,HCl, *in* D-00685
- 2-(2,4-Dihydroxyphenylazo)-1,3,4-thiadiazole, D-00703
- 1-(2,4-Dihydroxyphenyl)-1-butanone, D-00707
- 1-(2,4-Dihydroxyphenyl)-1-butanone; Oxime, *in* D-00707
- 1-(2,4-Dihydroxyphenyl)-1-pentanone, D-00714
- 1-(2,4-Dihydroxyphenyl)-1-propanone, D-00715
- 1-(2,4-Dihydroxyphenyl)-1-propanone; Oxime, *in* D-00715
- ▷ 3-(3,4-Dihydroxyphenyl)-2-propenoic acid, D-00716
- ▷ 2,6-Dihydroxy-4-pyridinecarboxylic acid, D-00721
- 4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722
- 4,5-Dihydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00733
- ▷ Diisonitrosacetone, *in* O-00070
- ▷ Diisopropyl ether, D-00748
- 6,6'-Dimethoxy-3,3'-bipyridazine, D-00773
- 4,7-Dimethoxy-1,10-phenanthroline, *in* D-00685
- 5,6-Dimethoxy-1,10-phenanthroline, *in* D-00686
- 7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, D-00786
- 7-(Dimethylamino)-1-methyl-3*H*-phenoxazin-3-one, D-00792
- 5-Dimethylamino-2-[(4-methyl-2-thiazolyl)azo]phenol, D-00793
- 2-[[*p*-(Dimethylamino)phenyl]imino]-2'-acetoneaphthone, D-00815
- 5,5'-Dimethyl-3,3'-bipyridazine, D-00838
- 6,6'-Dimethyl-3,3'-bipyridazine, D-00839
- ▷ 3,3-Dimethyl-2-butanone, D-00845
- 5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 3-thiosemicarbazone, *in* D-00848
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* B-00619
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, *in* B-00619
- 5,6-Dimethyl-3-(4-methyl-2-pyridinyl)-1,2,4-triazine, D-00871
- 2,8-Dimethyl-4,6-nonanedione, D-00877
- N*'-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamidine, D-00889
- N*'-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-phenylbenzamidine, D-00890
- 5,6-Dimethyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-00895
- 5,6-Dimethyl-3-pyrazinyl-1,2,4-triazine, D-00903
- 5,6-Dimethyl-3-(3-pyridazinyl)-1,2,4-triazine, D-00907
- N,N'*-Dimethyl-2,6-pyridinedicarbthioamide, D-00908
- 5,6-Dimethyl-3-(2-pyridinyl)-1,2,4-triazine, D-00911
- 5,6-Dimethyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-00912
- 5,6-Dimethyl-3-(2-thiazolyl)-1,2,4-triazine, D-00926
- 2-(5,6-Dimethyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, D-00927
- 2-(1,3-Dioxobutyl)-1*H*-indene-1,3-(2*H*)-dione, D-00987
- 1,3-Dioxo-2-indanecarboxylic acid; Me ester, *in* D-00991
- Diphenylethanedione mono(pyrazinylhydrazone), D-01013
- (*E,E*)-Diphenylglyoxime, *in* B-00038
- 2,9-Diphenyl-1,10-phenanthroline, D-01032
- 4,7-Diphenyl-1,10-phenanthroline, D-01034
- 5,6-Diphenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-01037
- 5,6-Diphenyl-3-(pyrazinyl)-1,2,4-triazine, D-01044
- 5,6-Diphenyl-3-(3-pyridazolyl)-1,2,4-triazine, D-01045
- 5,6-Diphenyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01047
- 3-(5,6-Diphenyl-1,2,4-triazin-3-yl)isoquinoline, D-01056
- O,O*-Di-2-propenyl phosphorodithioate, D-01058
- 1,1-Di-2-pyridinyl-*N,N'*-di-8-quinolinylmethanediamine, D-01062
- Di-2-pyridinylmethanedione; Monophenylhydrazone oxime, *in* D-01063
- Di-2-pyridinylmethanone 2-benzothiazolylhydrazone, D-01072
- Di-2-pyridinylmethanone benzoylhydrazone, D-01073
- Di-2-pyridinylmethanone 2-furoylhydrazone, D-01077
- 5,6-Di-2-pyridinyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01086
- 1,2-Di-2-pyridyl-1,2-ethanediol, D-01089
- Di-2-pyridylglyoxal dithiosemicarbazone, *in* D-01063
- 2,2'-Dipyridyl- α -glyoxime, *in* D-01063
- 2,4-Di-2-pyridylpyrimidine, D-01092
- 4,6-Di-2-pyridylpyrimidine, D-01093
- Di-2-pyridylquinazoline, D-01094
- 5,6-Di-2-pyridyl-3-(2-thiazolyl)-1,2,4-triazine, D-01096
- 3-(5,6-Di-2-pyridyl-1,2,4-triazin-3-yl)isoquinoline, D-01097
- 2-[5,6-Di-(2-pyridyl)-1,2,4-triazin-3-yl]-1,10-phenanthroline, D-01098
- 3,5-Di-2-pyridyl-1,2,4-triazole, D-01099
- 3,5-Di-2-pyridyl-1,2,4-triazoline, *in* D-01099
- Ecarazine hydrochloride, *in* T-00188
- Eriochrome fast grey RAS; Na salt, *in* E-00014
- Eriochrome geranol; Di-Na salt, *in* E-00015
- [1,2-Ethanediybis[imino(phenylmethylene)]] bisphosphonic acid, E-00031
- Ethyl acetoacetate, E-00063
- N,N'*-Ethylenebis[2-(*o*-hydroxyphenyl)glycine], E-00073
- [Ethylenebis(iminobenzylidene)] diphosphonic acid, E-00074
- [Ethylenebis(iminosalicylidene)] diphosphonic acid, E-00075
- 4-Ethyl-*N*-hydroxy-*N*-phenylbenzamide, E-00093
- 3-(4-Ethyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, E-00109
- 3-(4-Ethyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, E-00110
- 2-(4-Ethyl-2-pyridyl)-3*H*-imidazo[4,5-*h*]quinoline, E-00111
- Ethyltridodecylammonium(1+); Bromide, *in* E-00120
- Ferene S, *in* F-00003
- 2-Furancarbothioic acid (di-2-pyridinyl) methylenehydrazide, F-00041
- α -Furoinoxime, *in* F-00065
- Hexafluoroacetylacetone, H-00030
- Hexahydro-1,3,5-trihydroxy-1,3,5-triazine, H-00051
- ▷ Hexamethylenetetramine, H-00057
- 2-Hexylpyridine, H-00077
- ▷ 1-Hydrazinophthalazine, H-00086
- 2'-Hydroxyacetophenone; Oxime, *in* H-00089
- 2-Hydroxybenzaldehyde guanylhydrazone, H-00105
- ▷ 2-Hydroxybenzamide, *in* H-00112
- 2-Hydroxybenzoic acid [(2-hydroxyphenyl) methylene]hydrazone, H-00120
- N*-Hydroxy-*N,N'*-diphenylbenzenecarboximidamide, *in* D-01001
- 4-Hydroxy-2,6-di-2-pyridinylpyrimidine, H-00171
- α -(Hydroxyimino)-1,5-dimethyl-1*H*-benzimidazole-2-acetonitrile, H-00244
- α -(Hydroxyimino)-2-pyridineacetonitrile, H-00251
- α -(Hydroxyimino)-2-quinolineacetonitrile, H-00252
- N*-Hydroxy-4-methoxy-*N*-phenylbenzamide, *in* D-00704
- 2'-Hydroxy-5'-methylacetophenone; Semicarbazone, *in* H-00275
- ▷ 2-Hydroxy-3-methylbenzoic acid, H-00278
- 2-Hydroxy-5-methylbenzoic acid, H-00279
- 5-Hydroxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, H-00280
- α -(Hydroxymethylene)-2-benzoxazoleacetonitrile, H-00287
- 2-(2-Hydroxy-5-methylphenylazo)-4-methylthiazole, H-00301
- N*-Hydroxy-2-methyl-*N*-phenylbenzamide, H-00306
- N*-Hydroxy-4-methyl-*N*-phenylbenzamide, H-00307
- ▷ 3-Hydroxy-3-methyl-1-phenyltriazene, H-00317

- ▷ 3-Hydroxy-2-methyl-4*H*-pyran-4-one, H-00323
- 8-Hydroxy-2-methylquinoline, H-00326
- 2-(3-Hydroxy-3-methyl-1-triazenyl)benzoic acid, H-00332
- ▷ 3-Hydroxy-2,7-naphthalenedisulfonic acid, H-00342
- ▷ 3-Hydroxy-2-naphthoic acid, H-00370
- 2-Hydroxy-5-nitro-2,4,6-cycloheptatrien-1-one, H-00388
- 4-Hydroxy-5-nitroso-2,1,3-benzothiadiazole, H-00408
- 5-Hydroxy-4-nitroso-2,1,3-benzothiadiazole, H-00409
- N*-Hydroxy-*N*-nitrosocyclooctylamine, H-00412
- 4-Hydroxy-3-nitroso-1-naphthalenesulfonic acid, H-00415
- 3-[(3-Hydroxy-4-nitrosophenyl)propylamino]-1-propanesulfonic acid, H-00417
- N*-Hydroxy-*N*-nitroso-2-propanamine, H-00418
- 4-Hydroxy-3-nitroso-2(1*H*)-pyridinone, H-00419
- 4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carbonitrile, *in* H-00428
- 4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-sulfonic acid; NH₄ salt, *in* H-00429
- 3-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic acid, H-00435
- 4-Hydroxy-1,10-phenanthroline, H-00437
- 6-Hydroxy-1,7-phenanthroline, H-00438
- 2-[(Hydroxyphenylamino)carbonyl]benzenesulfonic acid; Na salt, *in* H-00445
- 1-(2-Hydroxyphenyl)-1-butanone; Oxime, *in* H-00469
- 5-Hydroxy-3-phenyl-4-isoxazolecarboxylic acid; Et ester, *in* H-00475
- ▷ *N*-Hydroxy-3-phenylpropenamide, H-00499
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzoic acid, H-00507
- 3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509
- N*-Hydroxy-*N*-phenyl-3-(trifluoromethyl)benzamide, H-00511
- 1-Hydroxy-1-phenylurea, *in* P-00211
- N*-Hydroxy-3-pyridinecarboxamide, *in* P-00341
- 3-Hydroxy-2(1*H*)-pyridinethione, H-00520
- 3-Hydroxy-2(1*H*)-pyridinone, H-00521
- ▷ 2-Hydroxy-2-(2-pyridyl)methanesulfonic acid, H-00524
- ▷ 2-Hydroxy-5-sulfobenzoic acid, H-00538
- 1-Hydroxy-4-sulfo-2-naphthoic acid, H-00540
- 5*H*-Imidazole-4-carboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, I-00002
- 1-(1*H*-Imidazo[4,5-*c*]pyridin-2-yl)isoquinoline, I-00004
- 2-(3*H*-Imidazo[4,5-*h*]quinolin-2-yl)-4,7-phenanthroline, I-00006
- 3-Isoquinolinecarboximidic acid hydrazide, I-00086
- 3-(Isoquinolyl)-5,6-diphenyl-1,2,4-triazine, I-00087
- 3-(Isoquinolyl)-5,6-diphenyl-1,2,4-triazine; Tris-SO₃H deriv., *in* I-00087
- 3-(3-Isoquinolyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, I-00090
- 1-[(2-Mercaptophenyl)azo]-2-naphthalenol, M-00042
- ▷ Metamizole sodium, *in* D-01100
- 4-Methoxyaniline; Thiocyanate salt, *in* M-00073
- 4-Methoxy-2,6-bis(2-pyridyl)pyrimidine, M-00085
- 5-Methoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00089
- 6-Methoxy-3-methyl-2-[[4-(methylphenylamino)phenyl]azo]benzothiazolium(1+); Chloride, *in* M-00091
- ▷ 3-Methoxy-4-nitrosophenol, *in* N-00156
- 4'-(4-Methoxyphenyl)-2,2':6',2''-terpyridine, M-00119
- 5-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00141
- 11-Methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00140
- ▷ 2'-Methyldiphenylamine-2-carboxylic acid, M-00163
- ▷ 3'-Methyldiphenylamine-2-carboxylic acid, M-00164
- ▷ Methyl orange; Na salt, *in* M-00210
- ▷ 4-Methyl-2-pentanone, M-00218
- ▷ 4-Methylpyridine, M-00265
- 2-Methyl-4-pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, M-00272
- 3-Methyl-2-pyridinethiol; *N*-Oxide, *in* M-00273
- 5-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00275
- 6-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00276
- 3-(4-Methyl-2-pyridinyl)-9*H*-indeno[1,2-*c*]-1,2,4-triazin-9-one, M-00288
- 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazine, M-00292
- 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazole, M-00293
- 3-(4-Methyl-2-pyridinyl)-1,2,4-triazine, M-00294
- 2-(4-Methyl-2-pyridyl)benzimidazole, M-00295
- 3-(4-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00296
- 3-(4-Methyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, M-00298
- 2-(4-Methyl-2-pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, M-00299
- 2-(4-Methyl-2-pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, M-00300
- 2-(4-Methyl-2-pyridyl)-2*H*-imidazo[4,5-*h*]quinoline, M-00301
- 2-(4-Methyl-2-pyridyl)-5-phenylbenzimidazole, M-00302
- 5-Methyl-2-(2-pyridyl)pyrimidine, M-00304
- (4-Methyl-2-pyridyl)-1,2,4-triazino[5,6-*f*][4,7]-phenanthroline, M-00305
- 4-[(4-Methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00319
- 2-(5-Methyl-1*H*-1,2,4-triazol-3-yl)pyridine, M-00329
- Methyltriphenylarsonium(1+); Thiocyanate, *in* M-00334
- ▷ Monosulfiram, M-00341
- 1,2-Naphthoquinone; Dioxime (1*Z*,2*E*), *in* N-00031
- ▷ Neocupferron; NH₄ salt, *in* N-00061
- ▷ Nepresol, *in* D-00370
- Nioxime, *in* C-00337
- 5-Nitro-1,2-acenaphthylenedione; Dioxime, *in* N-00076
- 4-Nitrobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, N-00094
- ▷ 2-Nitrodiphenylamine, N-00104
- ▷ 1-Nitroso-2-naphthol, N-00160
- 4,6-Nonanedione, N-00168
- 2,4,5,7-Octanetetrono, O-00035
- Omega chrome blue 35, O-00040
- Oxamide bisphenylhydrazone, O-00050
- ▷ 2-(1-Oxopropyl)-1*H*-indene-1,3(2*H*)-dione, O-00071
- ▷ 1,1'-Oxybis(2-chloroethane), O-00077
- 2,3,4-Pentanettrione; Trioxime, *in* P-00033
- ▷ 1,10-Phenanthroline, P-00052
- 1,10-Phenanthroline-2-carboximidic acid hydrazide, P-00053
- 3-(1,10-Phenanthrolin-2-yl)-9*H*-indeno[1,2-*c*]-1,2,4-triazin-9-one, P-00056
- 3-[(1,10-Phenanthrolin-2-yl)]-5-phenyl-1,2,4-triazoline, P-00057
- 2-(1,10-Phenanthrolyl)amidoxime, P-00058
- Phenosafarine; *N,N,N',N'*-Tetra-Et, chloride, *in* P-00070
- N*-[(Phenylamino)thioxomethyl]benzenecarbothioamide, P-00088
- ▷ *N*-Phenylanthranilic acid, P-00089
- 4-Phenyl-3,6-bis(4-phenyl-2-pyridyl)pyridazine, P-00106
- 5-Phenyl-3,6-di-2-pyridyl-1,2,4-triazine, P-00114
- Phenylglyoxal, P-00132
- Phenyl[5-phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazin-6-yl]methanone, P-00157
- 5-Phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, P-00158
- 5-Phenyl-2-(4-phenyl-2-pyridyl)benzimidazole, P-00159
- 5-Phenyl-3-(4-phenyl-2-pyridyl)-6-(2-pyridyl)-1,2,4-triazine, P-00160
- 5-Phenyl-3-(4-phenyl-2-pyridyl)-1,2,4-triazoline, P-00161
- 4-Phenyl-2-(5-phenyl-1,2,4-triazol-3-yl)pyridine, P-00162
- Phenylphosphinic acid, P-00163
- 3-(4-Phenyl-2-pyridinyl)-9*H*-indeno[1,2-*c*]-1,2,4-triazin-9-one, P-00176
- 2-(4-Phenyl-2-pyridyl)benzimidazole, P-00178
- 5-Phenyl-2-(2-pyridyl)benzimidazole, P-00179
- 3-(4-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00180
- 3-(6-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00181
- 2-(4-Phenyl-2-pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, P-00182
- 2-(4-Phenyl-2-pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, P-00183
- 2-(4-Phenyl-2-pyridyl)-3*H*-imidazo[4,5-*h*]quinoline, P-00184
- 3-(4-Phenyl-2-pyridyl)-5-(2-pyridyl)-1,2,4-triazoline, P-00185
- 4-Phenyl-2-(2-pyridyl)pyrimidine, P-00186
- 4-Phenyl-6-(2-pyridyl)pyrimidine, P-00187
- 5-Phenyl-2-(2-pyridyl)pyrimidine, P-00188
- N*-Phenylbenzohydroxamic acid, P-00198
- 6-(5-Phenyl-1,2,4-triazin-3-yl)-2,2'-bipyridine, P-00206
- 2-(5-Phenyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, P-00207
- 2-(5-Phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, P-00208
- Pyrazinecarboximidic acid hydrazide, P-00284
- 2,3-Pyrazinedicarboxylic acid, P-00286
- 2(1*H*)-Pyrazinone (phenylpyrazinylmethylene)hydrazone, P-00290
- 2-(Pyrazinyl)benzimidazole, P-00296
- 3-Pyrazinyl-5,6-di-2-pyridyl-1,2,4-triazine, P-00297
- 3-(Pyrazinyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00301
- 2-(3-Pyridazinyl)benzimidazole, P-00312
- 3-(3-Pyridazolyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, P-00313
- 3-Pyridazylhydrazidine, P-00314
- 3-(3-Pyridazolyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00315
- ▷ 2-Pyridinecarboxaldehyde; Oxime, *in* P-00318
- 4-Pyridinecarboxylic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, P-00347
- 3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00349
- 2,6-Pyridinediacetoxime, *in* P-00352
- 2,6-Pyridinediamidoxime, *in* P-00353
- 2-Pyridinethiol *N*-oxide, *in* P-00357
- N*-2-Pyridinylbenzenecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00384
- 3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Benzoylhydrazone, *in* P-00386
- 3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Phenylthiosemicarbazone, *in* P-00386
- N*-(2-Pyridinylmethylene)-8-quinolinamine, P-00397
- N*-2-Pyridinyl-2-pyridinecarboximidic acid 2-pyrazinylhydrazide, P-00402
- 3-(2-Pyridinyl)-1,2,4-triazine, P-00411
- 2-(2-Pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, P-00419
- 2-(2-Pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, P-00420

- 2-(2-Pyridyl)-3*H*-imidazo[4,5-*h*]quinoline, P-00421
 2-(2-Pyridyl)quinazoline, P-00423
 2-(2-Pyridyl)-5,6,7,8-tetrahydroquinazoline, in P-00423
 2-Pyridyl-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00425
 2-Pyrimidinecarboximidic acid hydrazide, P-00426
 4-Pyrimidinecarboximidic acid hydrazide, P-00427
 2-(2-Pyrimidinyl)benzimidazole, P-00431
 Quinizarin S; Na salt, in Q-00006
 8-Quinolincarboxylic acid, Q-00018
 2-Quinolincarboxylic acid; *N*-Oxide, in Q-00017
 2-(2-Quinolyl)benzimidazole, Q-00037
 3-(2-Quinolyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, Q-00038
 Resorcyldoxime, in D-00517
 β -Resorcyamide, in D-00531
 Selenazone, S-00005
 ▶ Succinic acid, S-00034
N-(Sulfonyl)benzohydroxamic acid, in H-00109
 5,6,7,8-Tetrahydro-2,4-bis(2-pyridyl)quinazoline, T-00054
 ▶ 3,3',4',5'-Tetrahydro-7-methoxyflavone, T-00078
N,N,N',N'-Tetrakis(phosphonomethyl)-1,2-cyclohexanediamine; Octa-Na salt, in T-00089
 5,5',6,6'-Tetramethyl-3,3-bi(1,2,4-triazine), T-00093
 2,3,5,6-Tetra(2-pyridyl)pyrazine, T-00125
 3-(2-Thiazolyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, T-00147
 3-(2-Thiazolyl)-1,2,4-triazine, T-00148
 1-(2-Thienyl)-1,3-butanedione, T-00150
 ▶ Thiobenzoic acid, T-00155
 1-Thiocarbamido-3-methyl-5-pyrazolone, T-00160
 ▶ Tiron, T-00186
 2,4,6-Tri(2,2'-bipyridin-6-yl)-1,3,5-triazine, T-00202
 6,8-Tridecanedione, T-00228
 1,1,1-Trifluoro-2,4-pentanedione, T-00257
 ▶ 1,2,4-Trihydroxyanthraquinone, T-00270
 4,4',4''-Triphenyl-2,2',2''-terpyridine, T-00378
 2,4,6-Tri-2-pyridinyl-1,3,5-triazine, T-00381
 3,5,6-Tri-2-pyridinyl-1,2,4-triazine, T-00382
 Tris(decyl)ethylammonium(1+); Bromide, in T-00386
 ▶ Tris(2-hydroxyethyl)amine, T-00406
 2,4,6-Tris[4-(4-sulfonylphenyl)-2-pyridyl]-s-triazine, T-00413
 5,7-Undecanedione, U-00001
 Wood's reagent, W-00001
 Wool fast blue BL; Na salt, in W-00002

Lead

- ▶ Acid yellow 2G; Na salt, in A-00059
 5-[[4-(Aminosulfonyl)phenyl]azo]-6-hydroxy-2-naphthalenesulfonic acid, A-00350
 ▶ 5-Amino-1,3,4-thiadiazoline-2(3*H*)-thione, A-00354
 Arsazen, A-00403
 Arsenazo M, A-00414
 3-[(2-Arsonophenyl)azo]-6-[(2-hydroxy-3-nitro-5-sulfonylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00442
 4-[4-(2-Arsonophenyltriazinyl)phenylazo]benzenesulfonic acid, A-00445
 ▶ 1,2-Benzenedicarboxylic acid, B-00018
 5-(1*H*-Benzimidazol-5-yl)-3-phenyl-1-[1-(phenylmethyl)-1*H*-benzimidazol-2-yl]formazan, B-00049
 2-[2-(3*H*,5*H*-Benzo[*f*]quinoliniz-9-yl)ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Iodide, in B-00074
 Benzyldecylmethylammonium(1+); Bromide, in B-00181
N,N'-Bis(butanesulfonyl)-1,2-benzenediamine, B-00271

- O,O*-Bis(2-methylpropyl)phosphorodithioate; Na salt, in B-00413
 1,2-Bis(octanesulfonamido)benzene, B-00436
 Brilliant congo blue BFL; Tri-Na salt, in B-00476
 2-Bromodecanoic acid, B-00500
 ▶ Butylchloromagnesium, B-00622
 7-[α -(Carbomethoxyanilino)benzyl]-8-hydroxyquinoline, C-00022
 Cationic red violet; Chloride, in C-00046
 Cellex P, C-00048
 Chloropropylmagnesium, C-00250
 ▶ 18-Crown-6, C-00315
 Cyclohexylbenzylthiocarbamate(1-); Triethylammonium salt, in C-00351
 ▶ Decanoic acid, D-00025
 1,6-Diallyl-2,5-dithiobiurea, D-00040
 Dibenzylthiocarbamic acid, in D-01124
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, in A-00149
O,O-Dibutyl phosphorodithioate; K salt, in D-00241
 ▶ 2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone, D-00262
O,O-Dihexyl phosphorodithioate, D-00369
 2-(2,3-Dihydro-2-benzothiazolyl)phenol, D-00372
 2-[2-(1,2-Dihydro-1-methyl-6-quinolyl)ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Chloride, in D-00458
 6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid; Na salt, in D-00724
O,O-Diisopentyl phosphorodithioate, D-00746
 4-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-phenylquinolinium(1+); Chloride, in D-00810
 2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Chloride, in D-00811
 2-[2-[5-(Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, in D-00826
 (2,5-Dimethylbenzenesulfonylamino)quinoline, D-00833
 5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, in D-00847
 ▶ *O,O*-Dimethyl phosphorodithioate, D-00896
O,O-Dipentyl phosphorodithioate, D-00996
O,O-Dipropyl phosphorodithioate, D-01060
 Dithioantipyric acid, D-01116
 ▶ Dithizone, D-01135
 1-Ethyl-2-(1-ethyl-1,4-dihydro-4-pyridinyl)-6-methylquinolinium(1+); Iodide, in E-00081
 Ethyl violet; Chloride, in E-00122
 ▶ Glyphosine, G-00040
 Hexaoxacyclozochrome, H-00067
 ▶ 4,7,13,16,21,24-Hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, H-00068
 2-[(3-Hydroxy-1-oxo-1*H*-inden-2-yl)imino]-1*H*-indene-1,3(2*H*)-dione, H-00433
N-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
 8-Hydroxy-2-phenylquinoline, H-00503
 4-Hydroxy-3-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid; Na salt, in H-00556
 ▶ Isonitrosoacetophenone, in P-00132
 Lead blue, L-00004
 ▶ 2-Mercaptobenzimidazole, M-00022
 2-Mercapto-*N*-2-naphthylacetamide, M-00038
 19-Methoxy-3,6,9,12,15-pentaoxa-21-azabicyclo[15.3.1]heneicosa-(21),17,19-triene-2,16-dione, M-00101
 5-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00280
 4-Methyl-2-thiazolidinone; (\pm)-form, in M-00315

- 1,2-Naphthoquinone-4-sulfonic acid 2-(phenylthiosemicarbazone); Na salt, in N-00037
 4-[[4-[3-(4-Nitrophenyl)-2-triazenyl]phenyl]azo]benzenesulfonic acid; Na salt, in N-00146
 6,7,9,10,17,18,21,22-Octahydro-16*H*,20*H*-dibenzo-[*h,q*][1,4,7,13,10,16]tetraoxadiazacyclooctadecane, O-00019
 [2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenyl]arsonic acid, P-00099
N,N'-1,2-Phenylenebismethanesulfonamide, P-00118
 Phloxin; Di-K salt, in P-00212
 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
 Selenazone, S-00005
 Sodium diethylthiocarbamate, in D-00344
 Sodium tetraethylborate, in T-00042
 3,3'-Sulfonylbis[*N*-8-quinolylbenzenesulfonamide], S-00055
 Tetraoctylammonium(1+); Chloride, in T-00110
 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[4-nitrophenol], 9C1, T-00115
 1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane, T-00118
 S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Di-Et, in T-00161
 S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Di-Me, in T-00161
 S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Dipropyl, in T-00161
 1,7,9-Trihydroxy-3*H*-phenoxazin-3-one, T-00308
 1,3,3-Trimethyl-2-[2-(2-methyl-1*H*-indol-3-yl)ethylene]-3*H*-indolium(1+); Chloride, in T-00328

Lithium

- Benzo-14-crown-4, B-00053
 6-Benzyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00182
 6-Benzyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00185
 4-[(1,1'-Biphenyl)-4-ylcarbonyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3*H*-pyrazol-3-one, B-00213
 1,5-Bis[2-(carboxymethoxy)-3,5-dimethylphenyl]-3-phenylformazan, B-00274
 1,5-Bis[2-(carboxymethoxy)phenyl]-3-phenylformazan, B-00275
 3,3-Bis[2-(methoxyphenoxy)methyl]oxetane, B-00400
 3,3-Bis(1-naphthylloxymethyl)oxetane, B-00428
 1,4-Bis(8-quinolyl)butane, B-00449
 1,3-Bis(8-quinolyl)-2,2-diethylpropane, B-00450
 1,1-Bis(8-quinolyl)oxymethylcyclobutane, B-00451
 3,3-Bis(8-quinolyl)oxymethyl)oxetane, B-00452
 1,3-Bis(8-quinolyl)propane, B-00453
 1-(2-Carboxymethoxy-4-nitrophenyl)-3-phenyl-5-(carboxymethoxyphenyl)formazan, C-00033
 5-Decyl-2-(1,4,8,11-tetraoxacyclotetradec-6-yl-methoxy)benzoic acid, D-00027
 5-Decyl-2-(1,4,7,10-tetraoxacyclotridec-5-yl-methoxy)benzoic acid, D-00028
 Di-2-benzothiazolylmethane, D-00163
 6,6-Dibenzyl-1,4,8,11-tetraoxacyclotetradecane, D-00173
 7,18-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo-[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecane, D-00236
 7,18-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecane, D-00352

16,17-Dihydro-5*H*,15*H*-dibenzo[*b*,*f*][1,11,4,5,7,8]dioxatetraazacyclotetradecine-7-carbonitrile, D-00375

2,4-Dihydro-5-methyl-2-(2-methylphenyl)-4-(2-naphthalenylcarbonyl)-3*H*-pyrazol-3-one, D-00432

2,4-Dihydro-5-methyl-2-(4-methylphenyl)-4-(2,2,3,3,3-pentafluoro-1-oxopropyl)-3*H*-pyrazol-3-one, D-00433

2,4-Dihydro-5-methyl-2-(methylphenyl)-4-(3,5,5-trimethyl-1-oxohexyl)-3*H*-pyrazol-3-one, D-00434

2,4-Dihydro-5-methyl-2-phenyl-4-(trifluoroacetyl)-3*H*-pyrazol-3-one, D-00449

1,2-Dihydroxy-3-(1,4,7,10,13-penta-oxa-16-azacyclooctadecylmethyl)-9,10-anthracenedione, D-00682

1,2-Dihydroxy-3-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)-9,10-anthracenedione, D-00737

4-[4-(1,1-Dimethylethyl)benzoyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3*H*-pyrazol-3-one, D-00859

2-[*o*-[(4,5-Dimethylimidazol-2-yl)azo]phenyl]-4,5,7-trimethyl-8-quinazolinol, D-00867

16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-trien-18-ol, D-00970

N-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-3,4,6,7,10,11-hexahydro-2*H*,9*H*-1,5,8,12-benzotetraoxacyclotetradecin-14-amine, D-00976

6-Dodecyl-*N,N*-diethyl-1,4,8,11-tetraoxacyclotetradecane-6-acetamide, D-01143

6-Dodecyl-6-[2-hydroxy-3,5-bis(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01144

6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01145

6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01146

6-Dodecyl-6-[2-hydroxy-5-(1,8-naphthalenedicarboximidoyl)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01147

6-Dodecyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01148

6-Dodecyl-6-[2-hydroxy-3-nitro-5-(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01149

6-Dodecyl-6-methyl-1,4,8,11-tetraoxacyclotetradecane, D-01153

2-[(2-Ethoxyethoxy)ethyl](2-ethoxyethyl)aminomethyl]-4-nitrophenol, E-00055

4-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-2,4-dihydro-5-methyl-2-(4-methylphenyl)-3*H*-pyrazol-3-one, H-00008

1,4,10,13,16,19-Hepta-oxacycloheicosane, H-00013

6-(2-Hydroxy-3,5-dinitrobenzyl)-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00156

6-(2-Hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, H-00157

7-Hydroxy-4-methyl-8-(1,4,7-trioxa-10-azacyclododec-10-ylmethyl)-2*H*-1-benzopyran-2-one, H-00334

2-[(2-Hydroxy-1-naphthalenyl)azo]benzoic acid, H-00349

13-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13-azacyclopentadecane, H-00386

10-(2-Hydroxy-5-nitrobenzyl)-1,4,7-trioxa-10-azacyclododecane, H-00387

6-[2-Hydroxy-3-nitro-5-[(4-nitrophenyl)azo]benzyl]-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00389

3-Hydroxy-4-[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* H-00514

Nitroanthranilazo, N-00079

4-[(4-Nitrophenyl)azo]-2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-yl)phenol, N-00130

6,7,9,10,17,18,20,21-Octahydro-7,18-dimethylidibenzo[*b*,*k*][1,4,7,10,13,16]hexa-oxacyclooctadecane, O-00024

6-[(Phenylmethoxy)methyl]-1,4,8,11-tetraoxacyclotetradecane, P-00142

5-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclotridecane, P-00143

Thorin, T-00177

1,1,1-Trifluoro-5,5-dimethyl-2,4-hexanedione, T-00244

2,4,6-Trinitro-*N*-[2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)phenyl]benzenamine, T-00356

4,10,15-Trioxa-1,7-diazabicyclo[5.5.5]heptadecane, T-00360

Magnesium

► Agar, A-00068

► 2-Aminoethanethiol, A-00170

4-Amino-5-hydroxy-7-[(2-hydroxyphenyl)azo]-1,3-naphthalenedisulfonic acid, A-00193

5-Amino-4-hydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00194

1,4,9,10-Anthracenetetrol, A-00381

4-[4-[(3-Arsono-5-chloro-2-hydroxyphenyl)azo]-4,5-dihydro-3-methyl-5-oxo-1*H*-pyrazol-1-yl]benzenesulfonic acid, A-00419

► Azovan blue, A-00479

Benzo-15-crown-5, B-00054

[2,2'-Biquinoline]-4,4'-dicarboxylic acid, B-00237

2,3-Bis(2-hydroxybenzylideneamino)benzofuran, B-00361

► *N,N'*-Bis(2-hydroxybenzylidene)-1,2-ethanediamine, B-00363

► 2-Butoxyethanol, B-00613

C.I. Acid violet 3; Di-Na salt, *in* C-00001

Calconalide I, C-00013

7-[α -(Carbomethoxyanilino)benzyl]-8-hydroxyquinoline, C-00022

3-[[7-[(2-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfobenzoic acid, C-00038

2-[[7-[(5-Chloro-2-hydroxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00143

3-[[4-[(5-Chloro-2-hydroxyphenyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, C-00148

Chrome black special; Mono-Na salt, *in* C-00278

Chrome bordeaux B; Di-Na salt, *in* C-00279

Chromotrope 2R; Di-Na salt, *in* C-00293

► 4-Diazobenzenesulfonic acid, D-00142

► Dibenzo-18-crown-6, D-00156

► 5,7-Dibromo-8-hydroxyquinoline, D-00193

4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00320

Dihydro-5-[3-(1,2,3,4-tetrahydro-6-hydroxy-4-oxo-5-pyrimidinyl)-2-propenylidene]-4,6(1*H*,5*H*)-pyrimidinedione, D-00490

► 1,8-Dihydroxyanthraquinone, D-00512

2,2'-Dihydroxyazobenzene, D-00514

o-[[1,8-Dihydroxy-7-[(2-hydroxy-5-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00630

4,5-Dihydroxy-3-[[4-nitro-2-phosphonophenyl]azo]-2,7-naphthalenedisulfonic acid, D-00671

3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl, D-00694

► 5,7-Diiodo-8-quinolinol, D-00744

► 2,3-Dimercapto-1-propanesulfonic acid, D-00761

2,4-Dinitro-6-chlorophenylazothymol, D-00951

4-(3,5-Dinitro-2-hydroxyphenylazo)-1-naphthol, D-00955

3-[Ethyl[3-hydroxy-4-[(2-hydroxy-5-methylphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00087

3-[Ethyl[3-hydroxy-4-[(2-hydroxyphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00088

4-[[4-[Ethyl(3-sulfopropyl)amino]-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, E-00115

9*H*-Fluorene-2-carboxaldehyde; 2-Pyridylhydrazone, *in* F-00012

Fura 2; Tetra-K salt, *in* F-00039

► Hexadecanoic acid, H-00026

1-Hydroxyanthraquinone-2-carboxylic acid, H-00099

4-[4-Hydroxy-3-biphenylazo]-1,3-benzenediol, H-00133

1-(4-Hydroxy-3-biphenylazo)-2-naphthol, H-00134

8-Hydroxy-5,7-dinitroquinoline, H-00165

2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-(*N,N*-diethylamino)phenol, H-00173

2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-[*N*-ethyl-*N*-(sulfopropyl)amino]phenol, H-00174

3-Hydroxy-4-[[2-hydroxy-3-[[2-methoxyphenyl]amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00207

2-Hydroxy-1-naphthaldehyde, H-00336

2-Hydroxy-4-(4-nitrophenylazo)benzoic acid, H-00393

3-Hydroxy-1-(4-nitrophenyl)-3-phenyl-1-triazene, H-00404

N-Hydroxy-*N*-nitrosocyclododecanamine, H-00410

4-[(2-Hydroxyphenyl)azo]-1,3-benzenediol, H-00449

1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, H-00455

► 8-Hydroxyquinoline, H-00525

Indo 1; Tetra-K salt, *in* I-00031

Isatin; 3-(4-Nitrophenylhydrazone), *in* I-00056

Lumomagneson, L-00016

Mag-fura-2, M-00003

Mag-fura-2; Tetrakis(acetoxymethyl)ester, *in* M-00003

Magon, M-00005

Mordant blue 44; Di-Na salt, *in* M-00342

Mordant green 34; Na salt, *in* M-00343

Naphthol black 3B; Tetra-Na salt, *in* N-00028

4-*p*-Nitrobenzenazo-1-naphthol, *in* N-00032

4-[(4-Nitrophenyl)azo]-1-naphthalenol, N-00126

4-Nitrophenylstibinic acid, N-00144

► 5,5'-(1,3-Pentadien-1-yl-5-ylidene)di-barbituric acid, P-00009

4,7,13,16,21-Penta-oxa-1,10-diazabicyclo[8.8.5]tricosane, P-00037

Phenazo, P-00059

4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084

5,5'-(1-Propen-1-yl-3-ylidene)bis[2-thiobarbituric acid], P-00273

Pyridoxal nicotinoylhydrazone, P-00415

► Solochrome black 6BN; Na salt, *in* S-00017

Solochrome fast blue B, *in* A-00225

Solochrome fast red; Na salt, *in* S-00020

Titan yellow; Di-Na salt, *in* T-00187

1,2,7-Trihydroxyanthraquinone, T-00271

Xylidine blue II, X-00007

Manganese

► 2-Acetoxybenzoic acid, A-00010

Alamine 336S, A-00073

► 2-Aminoethanethiol, A-00170

N-[3,5-Bis(trifluoromethyl)phenyl]-*N*-hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465

Brilliant yellow; Di-Na salt, *in* B-00480
 Calcein, C-00010
 Cellex P, C-00048
 4-Chlorobenzoic acid [(2-bromo-6-hydroxyphenyl)methylene]hydrazide, C-00068
 2-Chloro-5-[[5-hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-2-methylphenyl]azo] benzenesulfonic acid; Na salt, *in* C-00132
 1,3-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone, C-00342
 Cyclohexylbenzylidithiocarbamate(1-); Triethylammonium salt, *in* C-00351
 2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00059
 4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, D-00073
 ▶ 4,4'-Diamino-3,3'-dimethylbiphenyl, D-00083
 4,4-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00245
 ▶ *N,N*-Diethylamine, D-00337
 4,7-Dihydroxy-1*H*-isoinsole-1,3 (2*H*)-dione; Dithiosemicarbazone, *in* D-00636
 4,4'-Dimethoxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, *in* D-00572
 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* B-00619
 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, *in* B-00619
 Dithiocarbonic acid; *O*-Butyl ester, *in* D-01125
 5,5'-Dithiodisalcylhydroxamic acid, D-01131
 ▶ Dodecylamine, D-01142
 Ecarazine hydrochloride, *in* T-00188
 ▶ Edetol, E-00001
 ▶ 1,2-Ethanediyldis(triphenylphosphonium) (2+); Dibromide, *in* E-00034
 ▶ 4-Ethoxyaniline, E-00051
 Formaldoxime, *in* F-00035
 Gluconic acid; *D*-form, *in* G-00011
 Hexahydro-1,3,5-trihydroxy-1,3,5-triazine, H-00051
 ▶ Hexanoic acid, H-00066
 2-Hexylbutanedioic acid; (±)-form, *in* H-00073
 2-Hydroxybenzaldehyde guanyldiazide, H-00105
 ▶ 2-Hydroxy-2,2-diphenylacetic acid, H-00166
 2-[2-(Hydroxyimino)-1-methylpropylidene]-*N*-phenylhydrazinocarbothioamide, H-00248
N-Hydroxy-4-methoxy-*N*-phenylbenzamide, *in* D-00704
N-Hydroxy-2-methyl-*N*-phenylbenzamide, H-00306
N-Hydroxy-4-methyl-*N*-phenylbenzamide, H-00307
 4-Hydroxy-3-[[5-(1-methyl-2-piperidinyl)2-pyridinyl]azo]-1-naphthalenesulfonic acid; Na salt, *in* H-00319
 8-Hydroxy-2-methylquinoline, H-00326
 2-Hydroxy-1-naphthaldehyde; Thiosemicarbazone, *in* H-00336
 8-Hydroxy-2-phenylquinoline, H-00503
N-Hydroxy-*N*-phenyl-3-(trifluoromethyl) benzamide, H-00511
 3-Hydroxy-2-pyridinecarboxaldehyde [(3-hydroxy-2-pyridinyl)methylene] hydrazone, H-00519
 3-Hydroxy-2-pyridinecarboxaldehyde; Thiosemicarbazone, *in* H-00518
N-Hydroxy-3-pyridinecarboxamide, *in* P-00341
 4-Hydroxy-3-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid; Na salt, *in* H-00556
 Indigo-5-sulfonic acid, I-00027
 ▶ Isonitrosoacetophenone, *in* P-00132
 Isophthaldihydroxamic acid, *in* B-00019
 Lucigenine; Dinitrate, *in* L-00012
 6-Methoxy-2-methylthio-4-pyrimidinecarboxylic acid, *in* H-00261

Methylcalcein; Di-Na salt, *in* M-00152
 Mordant blue 44; Di-Na salt, *in* M-00342
 4,4',4'',4'''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakisbenzoic acid, P-00251
 5-(2-Quinolinyloxy)-1,2,4-benzenetriol, Q-00028
 Selenazone, S-00005
 Solochrome fast blue B, *in* A-00225

Manganese: permanganate/manganate (VII)

2-(Benzylthio)-6-hydroxy-4-pyrimidinecarboxylic acid, *in* H-00261
 2-(Ethylthio)-6-hydroxy-4-pyrimidinecarboxylic acid, *in* H-00261
 2,4,6-Triphenylpyridine; *N*-Ph, acetate (salt), *in* T-00373

Mercury

▶ 2-Aminobenzothiazole, A-00113
 4-Amino-2,4-dihydro-5-propyl-3*H*-1,2,4-triazole-3-thione, A-00157
 1-Amino-8-ethoxyphenothiazine, *in* H-00440
 3-Amino-1*H*-isoinsole-1-thione, A-00229
 ▶ 2-Amino-4-methylthiazole, A-00257
 2-(4-Antipyriloxyl)-5-diethylaminophenol, A-00392
 Astraflaxine FF; Chloride, *in* A-00449
 Azoxin H, A-00480
 5-(2-Benzothiazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00103
 5-Benzothiazolyl-3-(2-methoxyphenyl)-1-phenylformazan, *in* B-00103
 5-(1-Benzyl-2-benzimidazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00169
 5-(1-Benzyl-2-benzimidazolyl)-3-(2-methoxyphenyl)-1-phenylformazan, *in* B-00169
 Bindschelder's green; Chloride, *in* B-00206
N,N'-Bis(butanesulfonyl)-1,2-benzenediamine, B-00271
 4,4'-Bis(dimethylamino)thiobenzophenone, B-00326
 ▶ Bis(2-ethylhexyl) phosphate, B-00352
 1,2-Bis[[2-(ethylthio)ethyl]thio]methyl] benzene, B-00355
 1,3-Bis[[2-(ethylthio)ethyl]thio]methyl] benzene, B-00356
 1,4-Bis[[2-(ethylthio)ethyl]thio]methyl] benzene, B-00357
 2,5-Bis(2-hydroxyethylamino)-1,4-benzenedicarboxylic acid, B-00368
 1,2-Bis(octanesulfonamido)benzene, B-00436
 1,8-Bis(octanesulfonamido)naphthalene, B-00437
 Bis(4-sulfobenzyl)dithiocarbamic acid; Tri-Na salt, *in* B-00454
 Bis[2-((tetrahydro-2*H*-pyran-2-yl)thio)phenyl]diazene, B-00458
 Cadion, C-00006
 2-Carboxy-1-pyrrolidinecarbodithioic acid; (*S*)-form, K salt, *in* C-00044
 1-(*p*-Chlorobenzyl)-4,6-diphenyl-2-pyridinethione, C-00071
 Chromopyrazole II, C-00288
 ▶ Cyclohexanone, C-00347
 Cyclohexylbenzylidithiocarbamate(1-); Triethylammonium salt, *in* C-00351
 4,4'-Diamino-3,3'-diethoxybiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00070
 Dibutyl-(2-hydroxypropyl)thiophosphonic acid, D-00234
O,O-Dibutyl phosphonothioate, D-00240
 2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, *in* A-00214
 2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione, D-00402
 1,2-Dihydro-4-[(2-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00415
 4,5-Dihydro-3-methyl-5-oxo-1*H*-pyrazole-4-carbodithioic acid, D-00440
 4,5-Dihydroxy-3,6-diimino-1,2-benzoquinone, D-00573
 15,16-Dihydroxy-7-phenyl-5*H*-dibenzol[*b,f*] [1,11,4,5,7,8] dioxatetraazacyclotridecine, D-00709
 (2,5-Dimethylbenzenesulfonylamino) quinoline, D-00833
N,N-Dimethyl-4-(2-pyridinylazo) benzenamine, D-00909
 1,2-Di-4-morpholinylethane, D-00928
 Dinaphthizone, D-00931
 8-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo] quinoline, D-01025
 Di-2-pyridinylethanedione; 2-Quinolylhydrazone, *in* D-01063
 1,4-Dithiane, D-01111
 1,12-Di-2-thienyl-2,5,8,11-tetrathiadodecane, D-01115
 ▶ Dithizone, D-01135
 DSS, *in* T-00344
 ▶ Eicosahydrodibenzo[*b,k*] [1,4,7,10,13,16] hexaoxacyclooctadecine, E-00004
 5-Ethyl-*N*-(diisopropylthiophosphoryl) dithiocarbamate, *in* B-00404
 ▶ Formic acid, F-00037
 1-(2-Furanylthio)ethyl-4,6-diphenyl-2(1*H*)-pyridinethione, F-00055
 Glyoxal bis(4-biphenylthiosemicarbazone), G-00021
 Glyoxal bis(4-fluorophenylthiosemicarbazone), G-00026
 Glyoxal bis(2-mercaptoanil), G-00029
 Glyoxal bis(thiosemicarbazone), G-00034
 Hexabutylphosphorothioic triamide, *in* H-00020
 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,n*] [1,4,10,7,13] dioxathiadiazacyclopentadecine, H-00038
 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,k*] [1,7,10,4,13] oxadithiadiazacyclopentadecine, H-00039
 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,n*] [1,4,10,7,13] trioxadiazacyclopentadecine, H-00045
 1,4,7,10,13,16-Hexathiaacyclooctadecane, H-00070
 6-Hydroxy-2-mercapto-4-pyrimidinecarboxylic acid, H-00261
 5-Hydroxy-6-methyl-2-[(4-nitrophenyl)azo]-3,4-pyridinedimethanol, H-00294
 2-[(3-Hydroxy-1-oxo-1*H*-inden-2-yl)imino]-1*H*-indene-1,3(2*H*)-dione, H-00433
 2-(2-Hydroxyphenyl)benzimidazole, H-00465
N-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
 3-(2-Hydroxyphenyl)-1-phenyl-5-(1-phenyl-2-benzimidazolyl)formazan, H-00495
 8-Hydroxy-2-phenylquinoline, H-00503
 3-[(8-Hydroxy-7-quinolinyl)azo]-1,5-naphthalenedisulfonic acid; Di-K salt, *in* H-00531
 ▶ 2-Imidazolidimethione, I-00003
 ▶ Isooctyl thioglycolate, *in* M-00016
 Macrocylic formazan I, M-00001
 Macrocylic formazan II, M-00002
 ▶ 2-Mercaptobenzimidazole, M-00022
 2-Mercapto-*N*-2-naphthylacetamide, M-00038
 ▶ 3-Mercapto-1,2-propanediol, M-00050
 1-(*p*-Methoxybenzyl)-4,6-diphenylpyridine-2-thione, M-00084
 6-Methoxy-3-methyl-2-[[4-(methylphenylamino)phenyl]azo] benzothiazolium(1+); Chloride, *in* M-00091
 3-(2-Methoxyphenyl)-1,5-diphenylformazan, M-00107
 1-(4-Methoxyphenyl)-3-phenyl-5-(1-phthalaziny)formazan, M-00116

Methylglyoxal 4-dimethylaminoanil, M-00184
 7-Methyl-2,4-octanedione, M-00209
 1-[(4-Methylphenyl)methyl]-4,6-diphenyl-2(1*H*)-pyridinethione, M-00233
 1-(4-Methylphenyl)-3-phenyl-5-(1-phthalazinyloxy)formazan, M-00238
 6-Methyl-2-pyridinecarboxaldehyde; Thiosemicarbazone, *in* M-00266
 3-Methyl-2-pyridinethiol; *N*-Oxide, *in* M-00273
 5-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00275
 6-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00276
 4-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, tris Fe(III) complex, *in* M-00274
 5-[(6-Methyl-2-pyridinyl)methylene]-2-thioxo-4-imidazolidinone, M-00291
 ▶ 3-Nitrobenzoic acid, N-00092
 ▶ Nitrofurazone, *in* N-00109
 (4-Nitrophenyl)diazene-carboxylic acid 2-phenylhydrazide, N-00133
N-(3-Nitrophenyl)- β -oxobenzene-propenamide, N-00140
 1-(4-Nitrophenyl)-5-phenylcarbazone, N-00141
 1-(4-Nitrophenyl)-3-phenyl-5-(1-phthalazinyloxy)formazan, N-00143
 4-[3-(4-Nitrophenyl)-1-triazenyl]benzenesulfonic acid; Na salt, *in* N-00145
 4-[[4-[3-(4-Nitrophenyl)-2-triazenyl]phenyl]azo]benzenesulfonic acid; Na salt, *in* N-00146
 Nitrosobenzene, N-00155
 7-Nitroso-8-hydroxyquinoline, N-00158
 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrahydropentadecine-15-amine, O-00008
 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrahydropentadecine, O-00009
 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,m*][1,4,7,13]dioxadiazacyclopentadecine, O-00012
 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,m*][1,4,8,12]dioxadiazacyclopentadecine, O-00013
 5,6,7,8,9,10,16,17-Octahydrodibenzo[*e,m*][1,4,8,11]dioxadiazacyclopentadecine, O-00014
 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,m*][1,4,7,13]dithiadiazacyclopentadecine, O-00015
 6,7,8,9,10,11,17,18-Octahydro-8-[(4-methylphenyl)sulfonyl]-5*H*-dibenzo[*e,m*][1,4,7,10,13]dioxatriaacyclopentadecine, O-00028
 Oxamide bisphenylhydrazone, O-00050
 2-(1-Oxo-2(1*H*)-naphthalenyloxy)hydrazinecarbothioamide, *in* N-00031
 2-Oxo-*N*-phenylcyclopentanecarboxamide, *in* O-00060
 [2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenyl]arsonic acid, P-00099
 4-Phenyl-3*H*-1,2-dithiole-3-thione, P-00115
 5-Phenyl-3*H*-1,2-dithiole-3-thione, P-00116
N,N'-1,2-Phenylenebismethanesulfonamide, P-00118
 Phenylglyoxal, P-00132
 3-Phenyl-1-(1-phthalazinyloxy)-5-(*p*-carboxyphenyl)formazan, P-00165
N-(Phenylsulfonyl)glycine, P-00196
 1-Phenyl-3-thioxo-1-butanone, P-00202
 6-Phenyl-1,2,4-triazine-3(2*H*)-thione, P-00205
 1-(1-Phthalazinyloxy)-3,5-diphenylformazan, P-00219
 ▶ 2-Propen-1-ol, P-00271
 4-Pyridinecarboxylic acid [[4-(diethylamino)phenyl]methylene]hydrazide, P-00344
 4-Pyridinecarboxylic acid [[4-(dimethylamino)phenyl]methylene]hydrazide, P-00346
 2-(2-Quinolinyloxy)-1-acenaphthylenol, Q-00027

1-(2-Quinolinyloxy)-2-phenanthrenol, Q-00031
 ▶ Sodium tetraphenylborate(III), S-00015
 3,3'-Sulfonylbis[*N*-8-quinolylbenzenesulfonamide], S-00055
 ▶ Tetraethylenepentamine, T-00044
 6,7,9,10-Tetrahydro-18-phenyl-16*H*-dibenzo[*b,f*][1,11,14,4,5,7,8]trioxatetraazacyclohexadecine, T-00065
 1,4,8,11-Tetrathiaacyclotetradecane, T-00126
 3,6,9,12-Tetrathia-1,14-tetradecanedithiol, T-00130
 2-(2-Thienyl)benzothiazole, T-00149
 5-(2-Thienylmethylene)-2-thioxo-4-imidazolidinone, T-00152
 2,2'-Thiobisethanamine; B,2HCl, *in* T-00156
 ▶ Thymine, T-00179
 1-(1*H*-1,2,4-Triazol-3-ylazo)-2-naphthalenol, T-00200
O,O,O-Tributyl phosphorothioate, T-00215
 Tridodecylamine, T-00230
 Tridodecylamine; *N*-Oxide, *in* T-00230
 1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255
N,N,N'-Trihexylphosphorothioic triamide, T-00267
 1,7,9-Trihydroxy-3*H*-phenoxazin-3-one, T-00308
 ▶ Trimethylsulfonium(1+); Iodide, *in* T-00347
 Triphenylselenonium(1+); Chloride, *in* T-00375
 Xylenol orange, X-00006

Molybdenum

Acetyl dithiol, *in* M-00129
 2-Acetylpyridine; Thiosemicarbazone, *in* A-00039
 ▶ 2-Aminobenzenethiol, A-00101
 2-Aminobenzophenone; *N*-Me, *in* A-00111
 2-Amino-4-chlorobenzenethiol, A-00135
 9-(4-Aminophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, A-00328
 2'-Benzoylacetylacetanilide, *in* A-00111
N-Benzylaniline, B-00165
 Bis(2-aminoethyl)dithiocarbamic acid, B-00245
N,N-Bis(3-methylbutyl)-1-octanamine, B-00403
 4-[[4-(Bromophenyl)azo]-1,2,3-benzenetriol, B-00545
 Bromopyrogallol red, B-00574
 Butyltriphenylphosphonium(1+), B-00640
 4-Carboxy-6,7-dihydroxy-2-phenyl-1-benzopyrylium(1+); Chloride, *in* C-00029
 2-Chloro-*N,N'*-bis(4-chlorophenyl)benzenecarboximidamide; B,HCl, *in* C-00073
 2-Chloro-*N*-(2-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide; B,HCl, *in* C-00083
 2-Chloro-*N*-(3-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide; B,HCl, *in* C-00084
 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2-methylphenyl)benzenecarboximidamide, *in* C-00082
 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(3-methylphenyl)benzenecarboximidamide, *in* C-00082
 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(4-methylphenyl)benzenecarboximidamide, *in* C-00082
 2-Chloro-*N*-(4-chlorophenyl)-*N'*-phenylbenzenecarboximidamide; B,HCl, *in* C-00089
 4-Chloro-*N*-(2,3-dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, C-00102
 ▶ 5-Chloro-8-hydroxy-7-iodoquinoline, C-00134
 4-[[4-(Chlorophenyl)azo]-1,2,3-benzenetriol, C-00200
N-(4-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)benzenecarboximidamide, C-00214
N-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxy-4-methylbenzenecarboximidamide, C-00219
 2-(4-Chlorophenyl)-2-hydroxyacetic acid; (\pm)-form, *in* C-00222
N-(4-Chlorophenyl)-*N'*-phenylbenzenecarboximidamide, C-00237
 9-(2-Chlorophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00240
 4-Chloro-*N*-(2-pyridinyl)benzamide, C-00256
 Chromotropic acid, C-00294
 Cupron, *in* B-00068
 1,1-Diantipyrilphenylmethane, D-00140
 2,5-Dibromo-3,6-dihydroxy-1,4-benzoquinone, D-00182
 2,7-Dibromogallein, D-00189
 ▶ Dibutyl phosphate, D-00237
N-2,5-Dichlorophenyl-*N'*-phenylbenzamide, D-00296
 ▶ 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00392
 1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00423
 4,5-Dihydro-1*H*-pyrazole-1-carbodithioic acid, D-00479
 3,4-Dihydroxyazobenzene, D-00515
 ▶ 3,4-Dihydroxybenzaldehyde, D-00519
 ▶ 2,5-Dihydroxybenzoic acid, D-00532
 2,2'-Dihydroxybenzophenone; Thiosemicarbazone, *in* D-00535
 6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00576
 6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00584
 7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00585
 3,4-Dihydroxy-10-imino-9(10*H*)-anthracenone, D-00634
 4,7-Dihydroxy-1*H*-isoindeole-1,3(2*H*)-dione; Dithiosemicarbazone, *in* D-00636
 6,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00647
 6,7-Dihydroxy-2-naphthalenesulfonic acid, D-00658
 7,8-Dihydroxy-3-phenyl-2*H*-1-benzopyran-2-one, D-00705
 7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
 6,7-Dihydroxy-4-phenylcoumarin, D-00708
 2,3-Dimercapto-2-butenedinitrile, *in* D-00753
 ▶ 2,3-Dimercapto-1-propanesulfonic acid, D-00761
 2,3-Dimercaptopropanoic acid, D-00762
 4,5-Dimethyl-1,2-benzenedithiol, D-00832
N-(2,6-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00893
 Dinonylamine, D-00979
N,N'-Diphenylbenzamide, D-01001
O,O-Di-2-propenyl phosphorodithioate, D-01058
 ▶ *O,O*-Di-2-propenyl phosphorodithioate, D-01061
 1,1'-(2,2'-Disulfo-4,4'-biphenylene)bis(3-hydroxy-3-phenyltriazene); Di-Na salt, *in* D-01108
 1-[(4-Ethoxyphenyl)amino]-2-mercapto-1-propanone, E-00058
N-(4-Ethylphenyl)-*N'*-phenylbenzenecarboximidamide, E-00104
 9-Ethyl-2,6,7-trihydroxy-3*H*-xanthen-3-one, E-00121
 Etymemazine; (\pm)-form, *in* E-00123
 3-(2-Furanyl)-2-mercapto-2-propenoic acid, F-00054

- 2,3,3',4,4',5'-Hexahydroxybenzophenone, H-00054
 2-Hydroxy-5-anisaldoxime, in D-00518
N-Hydroxy-*N,N'*-diphenylthiourea, in D-01055
N-Hydroxy-2-methyl-*N*-[3-(trifluoromethyl)phenyl]benzamide, H-00333
 5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1*H*,3*H*)-pyrimidinedione; NH₄ salt, in H-00354
 1-[(2-Hydroxy-5-nitrophenyl)azo]-2-naphthalenol, H-00396
N-Hydroxy-3-pyridinecarboxamide, in P-00341
 8-Hydroxy-5-quinolinesulfonic acid, H-00528
 4-[(4-Iodophenyl)azo]-1,2,3-benzenetriol, I-00049
 Isophthaldihydroxamic acid, in B-00019
 Isopropyltriphenylphosphonium(1+); Bromide, in I-00079
 ▶ α -Lobeline, in L-00010
 2-Mercapto-4*H*-1-benzothioipyran-4-one, M-00025
 Mercaptobutanedioic acid; (\pm)-form, in M-00026
 2-Mercaptopropanoic acid; (\pm)-form, in M-00051
 ▶ 4-Methyl-1,2-benzenedithiol, M-00129
 ▶ 2-(1-Methylethylidene)hydrazinecarbothioamide, in A-00007
 ▶ 4-Methyl-2-pentanone, M-00218
N-(4-Methylphenyl)-*N'*-phenylbenzenecarboximidamide, M-00236
 4-Methyl-*N*-2-pyridinylbenzamide, M-00285
 Mono(2-ethylhexyl) phosphate, M-00339
 Neotetrazolium(2+); Dichloride, in N-00063
 2-Nitrobenzohydroxamic acid, N-00089
 4-[(4-Nitrophenyl)azo]-1,2,3-benzenetriol, N-00124
 ▶ 1-Nitroso-2-naphthol, N-00160
 5-[(Octyloxy)methyl]-8-quinolinol, O-00039
 3,3',4',5',7-Pentahydroxyflavanone; (2*R*,3*R*)-form, in P-00023
 ▶ Perazine, P-00043
 4-(Phenylazo)-1,2,3-benzenetriol, P-00092
 Phenylazoxine S, P-00101
 [Phenyl(phenylamino)]methylphosphonic acid; Mono-octyl ester, in P-00155
 ▶ Piperazine, P-00237
 ▶ Purpurogallin, P-00282
 2,3-Pyrazinedicarboxylic acid, P-00286
 4-Pyridinecarboxylic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, P-00347
N-2-Pyridinylbenzamide, in A-00333
N-2-Pyridinyl-2-furancarboxamide, P-00390
 Pyridoindole, P-00412
 ▶ Quinoline, Q-00007
 ▶ Rutin, R-00014
 Sulfonitrophenol S, S-00054
 ▶ Tetrabromo-1,2-benzenediol, T-00012
 5-(1,1,3,3-Tetramethylbutyl)-1,2,3-benzenetriol, T-00094
 Tetraoxacyclozochrome, T-00112
 Tribenzylamine, T-00201
 2,2,2-Trichloroacetohydroxamic acid, T-00219
 Tridodecylamine, T-00230
O,O,S-Triethyl phosphorodithioate, T-00235
 3,4,6-Trihydroxy-5*H*-benzocyclohepten-5-one, T-00275
 2,3,4-Trihydroxybenzophenone, T-00278
 4-[(3,4,5-Trihydroxybenzoyl)amino]benzoic acid, T-00280
 2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, T-00301
 4-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00311
 1-(2,3,4-Trihydroxyphenyl)-1-butanone, T-00314
 2,6,7-Trihydroxy-9-phenyl-3*H*-xanthen-3-one, T-00315
 2,6,7-Trihydroxy-9-propyl-3*H*-xanthen-3-one, T-00316
 Tris(6-methylheptyl)amine; B,HCl, in T-00408
 ▶ Xanthic acid; K salt, in X-00002
- ## Nickel
- Acenaphthenequinone; Dioxime, in A-00001
 ▶ Acetaldoxime, in A-00002
 ▶ Acetamidoxime, A-00004
 2-Acetyl-1-naphthol; Oxime, in A-00026
 4-Acetylpyridine 4-ethyl-3-thiosemicarbazone, A-00041
 2-Amino-1-cyclohexene-1-dithiocarboxylic acid, A-00146
 2-Amino-1-cyclopentene-1-dithiocarboxylic acid, A-00147
 3-Amino-4,5-dihydro-5-oxo-1-phenyl-1*H*-pyrazole-4-carbodithioic acid, A-00155
 8-(7-Amino-1-hydroxy-3-sulfophenylazo)-7-hydroxy-1-naphthalenesulfonic acid; Di-Na salt, in A-00223
 3-[(Aminoiminomethyl)thio]propanoic acid, A-00228
 ▶ 3-Amino-2-naphthoic acid, A-00280
 ▶ 5-Amino-1,3,4-thiadiazoline-2(3*H*)-thione, A-00354
 1-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, A-00358
 α -Benzaldoxime, in B-00004
 4-(1*H*-Benzimidazol-5-ylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid, B-00042
 5-(1*H*-Benzimidazol-5-ylazo)-8-quinolinol, B-00043
 Benzoic acid [1-[2-(4-bromo-2-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00060
 Benzoic acid [1-[2-(2,4-dinitrophenyl)hydrazino]ethylidene]hydrazide, B-00062
 Benzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00065
 Benzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00066
 Benzointhiosemicarbazone, in B-00068
 2-Benzothiazolecarboxaldehyde 2-benzothiazolylhydrazone, B-00086
 2-(Benzothiazolylazo)-5-diethylaminobenzoic acid, in A-00114
 5-(2-Benzothiazolyl)-1,3-diphenylformazan, B-00101
 ▶ 1*H*-Benzotriazole, B-00110
 2-Benzoyl-4-(2-nitrophenyl)acetohydrazine, B-00141
N-Benzyl-4-(4-diethylaminophenylazo)pyridinium(1+), B-00176
 1-Benzyl-2-(α -hydroxyimino-4-nitrobenzyl)-1*H*-imidazole, B-00183
 Benzylmethylglyoxime, in P-00107
N,N'-Bis(*o*-aminobenzylidene)ethylenediamine, B-00242
 1,5-Bis[2-(carboxymethoxy)-3,5-dimethylphenyl]-3-phenylformazan, B-00274
 1,5-Bis[2-(carboxymethoxy)phenyl]-3-phenylformazan, B-00275
 Bis(4-chlorophenyl)ethanedione; Dioxime, in B-00285
 Bis(di-2-pyridinylmethylene)carbonothioic dihydrazide, B-00344
 2,3-Bis(2-hydroxybenzylideneamino)benzofuran, B-00361
N,N'-Bis(2-hydroxybenzylidene)-1,2-benzenediamine, B-00362
 ▶ *N,N'*-Bis(2-hydroxyethyl)ethanedithioamide, B-00374
 Bis(2-hydroxyimino-3-butylidene)-*o*-phenylenediamine, in P-00127
O,O-Bis(2-methylpropyl)phosphorodithioate; Na salt, in B-00413
 Bis(4-nitrophenyl)ethanedione; Dioxime, in B-00432
N,N'-Bis(1*H*-pyrrol-2-ylmethylene)-1,2-ethanediamine, B-00448
 3,3'-Bis(trifluoromethyl)dithizone, B-00463
 Biuret, B-00474
 4-Bromo-*N*-hydroxybenzamide, B-00510
 6-Bromo-1,2-naphthoquinone; Dioxime, in B-00538
 (4-Bromophenyl)phenylethanedione dioxime, B-00555
 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, in A-00126
 2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, in B-00563
 2-(5-Bromo-2-thiazolylazo)-5-(diethylamino)benzoic acid, in A-00128
 5-Bromo-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, B-00580
 2,3-Butanedione bis(phenylthiosemicarbazone), B-00597
 2,3-Butanedione; Thiosemicarbazone, in B-00587
 1-Butyl-4-[[4-(diethylamino)phenyl]azo]pyridinium(1+), B-00625
 4-*tert*-Butylloxime, in B-00623
 Cadion, C-00006
 1-(2-Carboxymethoxy-4-nitrophenyl)-3-phenyl-5-(carboxymethoxyphenyl)formazan, C-00033
 4-Carboxynioxime, in D-00989
 2-Carboxy-1-pyrrolidincarbodithioic acid; (*S*)-form, in C-00044
 ▶ Cetylclide, in E-00071
 2-Chlorobenzoic acid; Hydrazide, in C-00066
 3-Chlorobenzoic acid (1*H*-pyrrol-2-ylmethylene)hydrazide, C-00069
 6-Chloro-3-hydrazinopyridazine, in C-00251
 4-Chloro-2-[[2-(2-hydroxyphenyl)methylene]amino]phenol, C-00150
N'-(4-Chloro-2-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide; B,HCl, in C-00181
 4-Chloro-1,2-naphthoquinone; Dioxime, in C-00187
 6-Chloro-1,2-naphthoquinone; Dioxime, in C-00188
 4-Chloro-2-nitroso-1-naphthol, in C-00187
N'-(4-Chlorophenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, C-00231
 (4-Chlorophenyl)phenylethanedione; Dioxime, in C-00238
 2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, C-00254
 5-Chloro-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, C-00264
 Curcumin, C-00323
 1,2-Cyclododecanedione; Dioxime, in C-00332
 1,3-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone, C-00342
 1,2-Cyclononanedione; Dioxime, in C-00360
 1,2-Cyclopentanedione dioxime, in C-00362
 1,2-Cycloundecanedione; Dioxime, in C-00369
 Decanediperoxoic acid, D-00023
 1,6-Diallyl-2,5-dithiobiurea, D-00040
 2,2'-Diaminobiphenyl-4,4'-dicarboxylic acid-*N,N,N',N'*-tetraacetic acid; Hexa-Na salt, in D-00055
 4,4'-Diaminostilbene-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, in D-00127
 5,7-Dibromo-8-hydroxy-2-methylquinoline, D-00190
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(dimethylamino)benzoic acid, D-00201
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-methoxyphenol, in D-00200
O,O-Dibutyl phosphorodithioate; K salt, in D-00241
O,O-Dibutyl phosphorothioate, D-00242
 ▶ 5,7-Dichloro-8-hydroxy-2-methylquinoline, D-00280
 5,7-Dichloro-8-hydroxyquinoline, D-00283
 4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+); Chloride, in D-00329

- 4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Chloride, *in* D-00332
- 4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+); Chloride, *in* D-00333
- 5-Diethylamino-2-(2-thiazolylazo)benzoic acid, *in* A-00359
- ▶ Diethylenetriamine, D-00345
- ▶ *O,O*-Diethyl phosphorodithioate; NH₄ salt, *in* D-00356
- 2,2'-Difluorodithione, D-00360
- 4,4'-Difluorodithione, D-00361
- O,O*-Dihexyl phosphorodithioate, D-00369
- 5,6-Dihydro-5,6-bis(hydroxyimino)-1-naphthalenesulfonic acid, *in* N-00034
- 5,6-Dihydro-5,6-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00035
- 7,8-Dihydro-7,8-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00036
- 1,4-Dihydro-6-nitro-2,3-quinoxalinedithione, D-00461
- 2',4'-Dihydroxyacetophenone; Oxime, *in* D-00507
- 2',5'-Dihydroxyacetophenone; Oxime, *in* D-00508
- 3,4-Dihydroxybenzaldehyde; 3-Me ether, oxime, *in* D-00519
- 2,5-Dihydroxybenzaldehyde; Oxime, *in* D-00518
- 4,4'-Dihydroxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00572
- 4-[(2,4-Dihydroxyphenyl)azo]benzenesulfonic acid; Na salt, *in* D-00688
- 1-(2,4-Dihydroxyphenyl)-1-pentanone; Oxime, *in* D-00714
- O,O*-Diisopentyl phosphorodithioate, D-00746
- 4,4'-Dimethoxydithione, D-00775
- ▶ Dimethylglyoxime, D-00862
- 3,3-Dimethyl-1,2-indanedione; Dioxime, *in* D-00868
- 4,5-Dimethyl-2-[(5-methyl-1,3,4-thiadiazol-2-yl)azo]phenol, D-00872
- ▶ *O,O*-Dimethyl phosphorodithioate, D-00896
- N,N*-Dimethyl-4-(2-pyridinylazo)benzenamine, D-00909
- 7,14-Dimethyl-5,7,12,14-tetraethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, D-00919
- 2,4-Dimethyl-6-(1*H*-tetrazol-5-ylazo)phenol, D-00920
- O,O*-Dipentyl phosphorodithioate, D-00996
- Diphenylethanedione mono(pyrazinylhydrazone), D-01013
- Diphenylethanedione monoxime, *in* B-00038
- (*E,E*)-Diphenylglyoxime, *in* B-00038
- N,N'*-Diphenylpropanedithioamide, *in* P-00262
- O,O*-Di-2-propenyl phosphorodithioate, D-01058
- Dipropylglyoxime, *in* O-00033
- O,O*-Dipropyl phosphorodithioate, D-01060
- 1,1-Di-2-pyridinyl-*N,N'*-di-8-quinolinylmethanediamine, D-01062
- Di-2-pyridinylethanedione bis(diphenylsemicarbazone), D-01064
- Di-2-pyridinylmethanone 2-chlorobenzoylhydrazone, D-01074
- Di-2-pyridinylmethanone 3-chlorobenzoylhydrazone, D-01075
- Di-2-pyridylglyoxal dithiosemicarbazone, *in* D-01063
- 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
- 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
- Ethanebis(thioic) acid; Di-K salt, *in* E-00023
- [1,2-Ethanediyldis[imino(2-hydroxyphenyl)methylene]]bisphosphonic acid, E-00030
- [1,2-Ethanediyldis[imino(phenylmethylene)]bisphosphonic acid, E-00031
- 3,3'-(1,2-Ethanediyldinitrilo)bis-2-butanone; Dioxime, *in* E-00035
- 5,5'-(1,2-Ethanediyldinitrilo)bis[2,2-dimethyl-3-hexanone], E-00036
- 5-Ethoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- S*-Ethyl-*N*-(diisopropylthiophosphoryl)dithiocarbamate, *in* B-00404
- Ethylenebisdithiocarbamic acid; Di-NH₄ salt, *in* E-00072
- [Ethylenebis(iminobenzylidene)]diphosphinic acid, E-00074
- ▶ Ethylenediaminetetraacetic acid, E-00078
- Ethylmethylglyoxime, *in* P-00029
- N*-(5-Ethyl-1,3,4-thiadiazol-2-yl)-4-[3-methyl-5-(1-methyl-1*H*-benzimidazol-2-yl)-1-formazanyl]benzenesulfonamide, E-00117
- 2-Furancarboxaldehyde 3-bromobenzoylhydrazone, F-00045
- 2-Furancarboxaldehyde 4-bromobenzoylhydrazone, F-00046
- 2-Furancarboxaldehyde phenylthiosemicarbazone, F-00047
- 2-Furancarboxaldehyde 1-phthalazinyldiazole, F-00048
- N*-(2-Furanylmethyl)hydrazinocarbothioamide, F-00057
- ▶ α -Furildioxime, *in* D-00364
- ▶ Glyoxime, G-00037
- Heptoxime, *in* C-00333
- 5,7,7,12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, H-00059
- ▶ Hexanoic acid, H-00066
- 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
- 2'-Hydroxyacetophenone; Hydrazone, *in* H-00089
- 4'-Hydroxyacetophenone; Oxime, *in* H-00090
- 1-Hydroxyacridine, H-00091
- 4-Hydroxyacridine, H-00092
- 2-Hydroxy-5-anisaloxime, *in* D-00518
- ▶ 2-Hydroxybenzaldehyde, H-00101
- 2-Hydroxybenzoic acid [2-pyridinyl(3-sulfophenyl)methylene]hydrazide, H-00122
- 4-Hydroxybenzothiazole, H-00126
- [2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]carbamodithioic acid, H-00138
- N*-Hydroxy-*N,N'*-diphenylbenzenecarboximidamide, *in* D-01001
- N*-Hydroxy-*N,N'*-diphenylthiourea, *in* D-01055
- 2-Hydroxydithiobenzoic acid, H-00175
- 4-Hydroxydithiobenzoic acid, H-00176
- α -(Hydroxymethylene)-2-benzoxazoleacetoneitrile, H-00287
- 2-Hydroxy-3-methyl-1,4-naphthoquinone; Monoxime, *in* H-00292
- [[2-[(2-Hydroxy-5-methylphenyl)azo]phenyl]thio]acetic acid, H-00303
- N*-Hydroxy-*N'*-methyl-*N*-phenylthiourea, *in* T-00175
- 2-Hydroxy-1-naphthaldehyde; Oxime, *in* H-00336
- 1-Hydroxy-2-naphthalenecarbo-dithioic acid, H-00339
- [[2-[(2-Hydroxy-1-naphthalenyl)azo]phenyl]thio]acetic acid, H-00352
- 5-[[2-(2-Hydroxy-1-naphthalenyl)azo]-1,3,4-thiadiazole-2(3*H*)-thione, H-00357
- 1-Hydroxy-2-naphthoic acid, H-00369
- 5-Hydroxy-1,2-naphthoquinone; Dioxime, *in* H-00372
- 7-Hydroxy-1,2-naphthoquinone; Dioxime, *in* H-00373
- N*-[[1-Hydroxy-4-(4-nitrophenylazo)-2-naphthyl]methyl]glycine, H-00397
- 2-Hydroxy-3-nitrosobenzoic acid, H-00406
- 8-Hydroxy-2-phenylquinoline, H-00503
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzothiazole, H-00508
- 3-Hydroxy-2-pyridinecarboxaldehyde [(3-hydroxy-2-pyridinyl)methylene]hydrazone, H-00519
- ▶ Isonitrosoacetophenone, *in* P-00132
- 2,2'-Isopropylidenebis(4-acetyl-8-hydroxyquinoline), I-00072
- 2-Isopropyl-5-methyl-4-[(2-quinolinyl)azo]phenol, I-00076
- 4-Isopropylloxime, *in* I-00071
- ▶ Isoquinoline, I-00080
- 2-Mercapto-4*H*-1-benzopyran-4-thione, M-00024
- 2-Mercapto-2,4,6-cycloheptatrien-1-one, M-00027
- 2-Mercapto-3-(4-methoxyphenyl)-2-propenoic acid, M-00034
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-form, Butyl ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-form, Et ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-form, Me ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-form, 3-Methylbutyl ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-form, 2-Methylpropyl ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-form, Pentyl ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-form, Ph ester, *in* M-00048
- 2-(3-Mercapto-2-quinoxaliny)-2-thiopseudourea; H, HCl, *in* M-00058
- S*-(3-Mercapto-2-quinoxaliny)thiuronium(1+); Chloride, *in* M-00059
- 4-Methoxybenzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, M-00083
- 3-Methoxy-2-methyl-6-(2-pyridinylazo)phenol, *in* M-00278
- 5-Methoxy-2-[(5-methyl-2-pyridinyl)azo]phenol, *in* M-00279
- 5-Methoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- 5-Methyl-2-furancarboxaldehyde 1-phthalazinyldiazole, M-00180
- 3-Methyl-6-(1-methylethyl)-2-(2-pyridinylazo)phenol, M-00197
- 4-Methyl-2-[[2-(methylthio)phenyl]azo]phenol, *in* M-00041
- 3-Methylloxime, *in* M-00156
- ▶ 4-Methylloxime, *in* M-00157
- 2-[[1-Methyl-3-oxobutylidene]amino]benzenesulfonic acid, M-00213
- 4-Methyl-2-[[2-[(phenylmethyl)thio]phenyl]azo]phenol, *in* M-00041
- Methyltriphenylarsonium(1+); Chloride, *in* M-00334
- Mordant blue 44; Di-Na salt, *in* M-00342
- 1,2-Naphthoquinone; Dioxime (1*Z*,2*E*), *in* N-00031
- Niconoxime, *in* C-00346
- Nicotinamidoxime, *in* P-00341
- Nioxime, *in* C-00337
- 4-Nitrobenzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, N-00095
- 5-[(4-Nitrophenyl)azo]-4-thioxo-2-selenazolidinone, N-00131
- (4-Nitrophenyl)phenylethanedione; Dioxime, *in* N-00142
- 2-[(5-Nitro-2-pyridinyl)azo]-1-naphthalenol, N-00148
- 4-[(5-Nitro-2-thiazolyl)azo]-1,3-benzenediol, N-00165
- Octoxime, *in* C-00361
- Oxamidoxime, *in* O-00048
- 1-Phenyl-1,3-butanedione 3-[[6-phenyl-4-(phenylmethyl)-3-pyridazinyl]hydrazone], P-00108
- 3-Phenyl-1,2-indanedione; Dioxime, *in* P-00137
- 1-Phenyl-3-thioxo-1-butanone, P-00202
- Picriminazosulfoxime, P-00234
- 1-(1*H*-Pyrazol-3-ylazo)-2-naphthalenol, P-00303
- 2,6-Pyridinediacetoxime, *in* P-00352
- 2(1*H*)-Pyridinone [[(4-methylphenyl)azo]phenylmethylene]hydrazone, P-00361

2(1*H*)-Pyridinone [[(3-nitrophenyl)azo]phenylmethylene]hydrazone, P-00362
 2(1*H*)-Pyridinone [[(4-nitrophenyl)azo]phenylmethylene]hydrazone, P-00363
 2(1*H*)-Pyridinone [phenyl(phenylazo)methylene]hydrazone, P-00364
 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
N-2-Pyridinylbenzenecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00384
 1-(2-Pyridinyl)-3,5-diphenylformazan, P-00387
 2-[(2-Pyridinylmethylene)amino]phenol, P-00393
N-(2-Pyridinylmethylene)-1-naphthalenamine, P-00395
 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone 2-pyrimidinylhydrazone, P-00406
 2-(2-Pyrimidinylazo)-1-naphthalenol, P-00430
 Solochrome red ERS, S-00022
 4-(5-Sulfothiazolylazo)-2-nitroresorcinol, S-00057
 ▶ Tetraethylenepentamine, T-00044
O-[(Tetrahydro-2-furanyl)methyl]carbonodithioate; K salt, in T-00062
 2-Thiazolecarboxaldehyde 2-quinolinylhydrazone, T-00137
 2,2'-Thiobisethanamine; B,2HCl, in T-00156
 2,2'-Thiobisethanethiol, T-00157
 2-Thio-2,4-pentanedione, T-00165
 2-Thiophenecarboxaldehyde; Thiosemicarbazone, in T-00169
 1,1,1-Trifluoro-4-thioxo-2-pentanone, T-00265

Niobium

2-(Acetyloxy)-*N*-hydroxy-*N*-phenylbenzamide, A-00028
 ▶ Aniline, A-00368
 3-[(4-Arsinophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00436
 ▶ 1,2-Benzenediol, B-00020
 ▶ 1,4-Benzenediol, B-00022
 ▶ Benzenesulfhydroxamic acid, in B-00026
N-Benzoyl-*N*-phenylhydroxylamine, in P-00135
 2-Benzylaminopyridine, B-00164
 Bis(2,3,4-trihydroxybenzyl)methylamine, B-00466
 9-(4-Bromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00558
 Bromopyrogallol red, B-00574
 4-Butoxy-*N*-(4-chlorophenyl)benzohydroxamic acid, B-00612
 4-Butoxy-*N*-hydroxy-*N*-phenylbenzamide, B-00614
 Butylthiocarbamic acid, B-00631
 9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00032
 [5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxyphenyl]arsinic acid, C-00096
 ▶ 5-Chloro-8-hydroxy-7-iodoquinoline, C-00134
 3-[(5-Chloro-2-hydroxyphenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00142
 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00144
 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00146
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00155
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00156
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00157
N-(4-Chlorophenyl)-4-chlorophenoxyisobutyrohydroxamic acid, C-00208
N-(4-Chlorophenyl)-*N*-hydroxybenzamide, in H-00109
N-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamide, C-00235
 3,5-Diacetyl-4-(2-chlorophenyl)-2,6-heptanedione, D-00034
 2,7-Dibromogallein, D-00189
 2,6-Dibromo-3,4,5-trihydroxybenzoic acid, D-00220
 Digallic acid, D-00365
 ▶ 6,7-Dihydroxy-2*H*-1-benzopyran-2-one, D-00538
 7,8-Dihydroxy-2*H*-1-benzopyran-2-one, D-00539
 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00580
 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00615
 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00617
 4,5-Dihydroxy-3-[(2-hydroxy-4-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00620
 4,5-Dihydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00621
 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00623
 4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00626
 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00631
 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00633
 6,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00647
 ▶ 7,8-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00648
 7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
 Di(*m*-octyl)arsinic acid, D-00982
 ▶ Dodecylamine, D-01142
 ▶ 1,2-Ethanediybis(triphenylphosphonium) (2+); Dibromide, in E-00034
 8-Hydroxy-7-[(4-methylphenyl)azo]-5-quinolinesulfonic acid, H-00304
N-Hydroxy-*N*-phenylacetamide, in P-00135
 8-Hydroxy-5-quinolinesulfonic acid, H-00528
 ▶ Lauryltrimethylammonium(1+); Bromide, in L-00002
 3-Methyl-1,2-benzenediol, M-00127
 ▶ 4-Methyl-2-pentanone, M-00218
 ▶ 1,2-Naphthalenediol, N-00007
 ▶ Phenylarsonic acid, P-00090
 2-(3-Phenyl-2-triazenyl)phenol; *N*'-Oxide, in P-00204
 ▶ Propyl gallate, in T-00277
 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
 Sulfochlorophenol M, S-00042
 Sulfochlorophenol S, S-00045
 Sulfonitrophenol S, S-00054
 Tannin, T-00001
 Tetraoctylammonium(1+); Bromide, in T-00110
 Tichromin; Tetra-Na salt; B,HCl, in T-00185
 ▶ Tiron, T-00186
 4,5,6-Tribromo-1,2,3-benzenetriol, T-00204
 2,3,4-Trihydroxybenzenesulfonic acid; Na salt, in T-00274
 2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, T-00301

▶ *N,N,N'*-Triphenylguanidine, T-00366
 ▶ Vitamin C, in A-00446
 Xylenol orange, X-00006

Nitrogen: ammonia/ammonium

(2,1,3-Benzothiadiazole-5')dicarbonylchlororhodium, B-00085
 ▶ Chloramine T, in M-00130
 3-[4-(Dimethylamino)phenyl]-2-propenal; (*E*)-form, in D-00823
 3,3'-Dimethyl-1,1'-diphenyl-[4,4'-bi-2-pyrazoline]-5,5'-dione, D-00851
N-(3,6-Dioxo-1,4-cyclohexadien-1-yl)benzenesulfonamide, D-00988
 ▶ Formaldehyde, F-00035
 1,2,3-Indanetriene, I-00025
 Indophenol, I-00034
 Lithmus, L-00009
 ▶ 2-Methoxyphenol, M-00102
 ▶ Phenol, P-00060
 ▶ Tetrahydro-2,5-dimethoxyfuran, T-00059
 3,3',5,5'-Tetramethyl-2',4,4',6,6'-hexanitrodiphenylamine; Na salt, in T-00096
 ▶ Triphenylphosphine, T-00370

Nitrogen: nitrite (nitrate (III))

2-Aminobenzenesulfonic acid, A-00099
 ▶ 4-Aminobenzenesulfonic acid, A-00100
 ▶ 5-Amino-1,2,4-dithiazolidine-3-thione, A-00168
 8-Amino-2-naphthalenesulfonic acid, A-00270
 ▶ 1-Aminopyrene, A-00331
 2,2'-Azinobis(8-hydroxy-1-methylquinoline), A-00463
 ▶ Azulene, A-00481
 ▶ 1,3-Benzenediol, B-00021
 4,4'-Bis(dimethylamino)thiobenzophenone, B-00326
 ▶ Brucine, B-00584
 5-Chloro-3-hydroxy-2(1*H*)-pyridinone, C-00151
 ▶ 1,3-Diaminobenzene, D-00047
 ▶ 4,4'-Diaminobiphenyl, D-00053
 ▶ 1,2-Diamino-4,5-dimethylbenzene, D-00080
 ▶ 2,7-Diaminofluorene, D-00097
 ▶ 1,2-Diamino-4-methylbenzene, D-00101
 ▶ 1,2-Diaminonaphthalene, D-00105
 4,5-Dihydroxy-2*H*-1-benzopyran-2-one, D-00537
 ▶ *N*-[4-[[4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+); Chloride, in D-00812
 ▶ *N,N*-Dimethylaniline, D-00831
 5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, in D-00847
 ▶ 2,4-Dimethylphenol, D-00884
 ▶ 3,4-Dimethylphenol, D-00886
 ▶ Diphenylamine, D-01000
 ▶ Fluphenazine, F-00034
 ▶ Formaldehyde, F-00035
 Gallamine; B,HCl, in G-00002
 ▶ 1-Hydrazinophthalazine, H-00086
 5-Hydroxy-1*H*-indole-2-carboxylic acid, H-00253
 ▶ Indole, I-00033
 ▶ 1-Naphthylamine, N-00041
 ▶ *N*-(1-Naphthyl)ethylenediamine, N-00050
 1,1'-(Phenylimino)bis-2-propanol, P-00136
 ▶ Promazine, P-00258
 ▶ Strychnine, S-00033
 ▶ Sulfanilamide, in A-00100
 ▶ 3,3',4,4'-Tetraaminobiphenyl, T-00007

Nitrogen: nitrate (nitrate (V))

4-Aminobenzenesulfonic acid; *N*-Ph, Ba salt, in A-00100
N-(2-Aminophenyl)benzenesulfonamide, A-00318
 ▶ 1-Aminopyrene, A-00331

- ▷ 1,3-Benzenediol, B-00021
N-Benzyl-1-naphthalenemethylamine, *in* N-00051
- [9,9-Bianthracene]-10,10-(9*H*,9'*H*)-dione, *in* B-00201
- Bis(1-naphthylmethyl)amine, B-00427
- ▷ Brucine, B-00584
N-(*p*-Chlorobenzyl)-1-naphthalenemethylamine, C-00072
- Chromotropic acid, C-00294
- ▷ 4,4'-Diaminodiphenyl sulfone, D-00090
- ▷ 4,4'-Diaminodiphenyl sulfoxide, D-00091
- ▷ 2,7-Diaminofluorene, D-00097
- ▷ 1,2-Diaminonaphthalene, D-00105
- 2,6-Diaminopyridine; 2,6-*N*-Di-Ac, *in* D-00119
- ▷ 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00392
- 4,5-Dihydroxy-2*H*-1-benzopyran-2-one, D-00537
- 4,8-Dimethyl-7-hydroxy-6-nitro-2*H*-1-benzopyran-2-one, D-00865
- ▷ 2,6-Dimethylphenol, D-00885
- ▷ Diphenylamine, D-01000
- 4-Hydroxy-1,3-benzenedisulfonic acid, H-00111
- 7-Hydroxy-4,8-dimethyl-2*H*-1-benzopyran-2-one, H-00151
- ▷ Indigo carmine, *in* I-00029
N-(4-Methylbenzyl)-1-naphthylmethylamine, M-00145
- Nitron, N-00114
- ▷ Phenol, P-00060
- ▷ Strychnine, S-00033
- ▷ Sulfanilamide, *in* A-00100
- ▷ Tetraphenyl- μ -sulfatodithallium, T-00123

Nitrogen: nitric oxide (nitrogen monoxide)

- ▷ [*N,N'*-Ethylenebis(salicylideneiminato)] cobalt, E-00077

Nitrogen: nitrogen dioxide

- ▷ Brucine, B-00584
- ▷ [*N,N'*-Ethylenebis(salicylideneiminato)] cobalt, E-00077

Osmium

- ▷ Acridine, A-00062
- 2-Aminobenzenesulfonic acid, A-00099
- ▷ 3-Aminobenzoic acid, A-00104
- 2-Amino-1-cyclopentene-1-dithiocarboxylic acid, A-00147
- 1-Amino-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, *in* D-00504
- ▷ 5-Amino-2,4-dihydroxypyrimidine, A-00159
- 3-Amino-4-hydroxybenzenesulfonic acid, A-00183
- 3-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00199
- 2-Amino-3-hydroxypyridine, A-00216
- 5-Amino-1,3,7-naphthalenetrisulfonic acid, A-00271
- 8-Amino-1,3,5-naphthalenetrisulfonic acid, A-00272
- ▷ 5-Aminooroic acid, A-00290
- N*-(*p*-Aminophenyl)glycine, A-00323
- 5'-Amino-2',3',3',4'-tetrahydro-4,4,6-trimethyl-2,2'-dithioxo[1(2*H*),4'-bipyrimidin]-6'(1*H*)-one, A-00352
- ▷ 1,2,4-Benzenetriol, B-00035
- ▷ 2(3*H*)-Benzoxazolethione, B-00113
- 2-[[[(Benzoylamino)thioxomethyl]amino]benzoic acid, B-00121
- N*'-Benzoyl-*N,N'*-bis(2-hydroxyethyl)thiourea, B-00124
- β -Benzoyl- α -(ethanol)thiourea, B-00129
- N*-Benzoyl-*N'*-(2-pyridyl)thiourea, B-00159
- 6-[(Benzylmercapto)methyl]-5-hydroxy-3-mercapto-1,2,4-triazine, B-00187

- 7,8,9,10,17,18,19,20,21,22-Decahydro-8,19-bis[(4-methylphenyl)sulfonyl]-6*H*,16*H*-dibenzo-*[h,q]*[1,7,4,10,13,16]dioxatetraazacyclooctadecine, D-00008
- 7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo-*[b,k]*[1,13,4,10]dioxadiazacyclooctadecine, D-00009
- 7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo-*[h,q]*[1,7,4,10,13,16]dioxatetraazacyclooctadecine, D-00010
- 6,7,8,9,10,11,18,19,20,21-Decahydro-5*H*,17*H*-dibenzo-*[b,k]*[1,13,4,7,10]dioxatriazacyclooctadecine, D-00011
- 7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo-*[h,q]*[1,7,4,10,16]dioxatriazacyclooctadecine, D-00012
- 6,7,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo-*[h,q]*[1,7,4,10,16]trioxadiazacyclooctadecine, D-00014
- 6,7,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo-*[h,q]*[1,4,7,10,13,16]trioxatriazacyclooctadecine, D-00015
- 6,7,8,9,10,11,18,19,20,21-Decahydro-8-[[4-methylphenyl)sulfonyl]-5*H*,17*H*-dibenzo-*[b,k]*[1,13,4,7,10]dioxatriazacyclooctadecine, *in* D-00011
- 7,8,9,10,17,18,19,20,21,22-Decahydro-8-[[4-methylphenyl)sulfonyl]-6*H*,16*H*-dibenzo-*[h,q]*[1,7,4,10,16]dioxatriazacyclooctadecine, *in* D-00012
- 6,7,9,10,17,18,19,20,21,22-Decahydro-19-[[4-methylphenyl)sulfonyl]-16*H*-dibenzo-*[h,q]*[1,4,7,10,13,16]trioxatriazacyclooctadecine, *in* D-00015
- 5,6-Diamino-2-methyl-4(1*H*)-pyrimidinone, D-00104
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione, D-00391
- 2,3-Dihydro-2,2-di-(2-pyridinyl)benzothiazole, D-00403
- 1,6-Dihydro-5-hydroxy-3-mercapto-6,6-dimethyl-1,2,4-triazine, D-00409
- 2,3-Dihydro-5-methyl-2-ureido-3*H*-pyrazol-3-one, D-00460
- 3,4-Dihydro-4,4,6-trimethyl-1-(phenylamino)-2(1*H*)-pyrimidinethione, D-00500
- ▷ 3,4-Dihydro-4,4,6-trimethyl-1-phenyl-2(1*H*)-pyrimidinethione, D-00501
- 3,4-Dihydro-4,4,6-trimethyl-1-(4-phenyl-2-thiazolyl)-2(1*H*)-pyrimidinethione, D-00502
- 3,4-Dihydro-4,4,6-trimethyl-1-propyl-2(1*H*)-pyrimidinethione, *in* D-00504
- 3,5-Dihydroxy-6-mercapto-1,2,4-triazine; Di-Na salt, *in* D-00639
- 4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid; Pentyl ester, *in* D-00674
- 3,3-Dimethyl-1,2-indanedione; Dioxime, *in* D-00868
- 5,6-Dimethyl-2-nitro-1,3-indanedione; Bis(thiosemicarbazone), *in* D-00873
- 2,2'-[(1,3-Dimethyl-1,3-propanediylidene)dinitrilo]bisbenzenethiol, D-00898
- 1-[(2,4-Dinitrophenyl)amino]-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00962
- Diphenylcarbazide, D-01004
- O,O*-Di-2-propenyl phosphorodithioate, D-01058
- 2-Guanidino-1,2-dihydro-5-methyl-3*H*-pyrazol-3-one, G-00045
- 6-Hexyl-4,5-dihydro-5-thioxo-1,2,4-triazin-3(2*H*)-one, H-00074
- 5-Hydroxy-3-mercapto-6-methyl-1,2,4-triazine, H-00258
- α -Hydroxy- α -phenylbenzeneacetic acid 2-[[4-methylphenyl)sulfonyl]hydrazide, H-00464
- 1-Hydroxy-1-phenylurea, *in* P-00211
- 3-Hydroxy-2(1*H*)-pyrimidinethione, H-00520
- 3-Hydroxy-2(1*H*)-pyridinone, H-00521
- 1,2,3-Indanetrione; 2-(Thiosemicarbazone), *in* I-00025
- ▷ Isoniazid, I-00069
- 2-Mercapto-*N*-2-naphthylacetamide, M-00038

- 2-Methoxy-4-[[*N*-(*p*-morpholinophenyl)formimidoyl]phenol, M-00093
- ▷ *N*'-[[2-(Methylphenyl)amino]thioxomethyl]benzamide, M-00223
- 1-Naphthalenethiocarboxylhydrazide, N-00016
- 5-[(4-Nitrophenyl)azo]-4-thioxo-2-selenazolidinone, N-00131
- 6,7,10,11,18,19,20,21-Octahydro-5*H*,9*H*,17*H*-dibenzo-*[b,k]*[1,7,13,4,10]trioxadiazacyclooctadecine, O-00021
- 7,8,9,10,17,18,21,22-Octahydro-6*H*,16*H*,20*H*-dibenzo-*[b,k]*[1,7,13,4,10,16]trioxatriazacyclooctadecine, O-00022
- 7,8,9,10,17,18,21,22-Octahydro-8-[[4-methylphenyl)sulfonyl]-6*H*,16*H*,20*H*-dibenzo-*[b,k]*[1,7,13,4,10,16]trioxatriazacyclooctadecine, *in* O-00022
- ▷ Perphenazine, P-00046
- 9,10-Phenanthraquinone; Dioxime, mono-Me ether, *in* P-00047
- 3-Phenyl-1,2-indanedione; Dioxime, *in* P-00137
- Phthalimide; Dithiosemicarbazone, *in* P-00223
- 4,4'-[(Propylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione)], P-00279
- 2-Pyrroliothiocarboxylhydrazide, *in* P-00437
- 2,3,4(1*H*)-Quinolinetriazone; 3-Oxime, *in* Q-00022
- ▷ Selenourea, S-00009
- Thiobenzoic acid; Hydrazide, *in* T-00155
- 1-Thiocarbamido-3-methyl-5-pyrazolone, T-00160
- α -Thiosemicarbazidoisobutyric acid; Amide, *in* T-00174
- α -Thiosemicarbazidoisobutyric acid; Nitrile, *in* T-00174
- ▷ Trifluoperazine, T-00238

Oxygen

- ▷ Anthraquinone-2-sulfonic acid, A-00388
- 2-Bis[4-(dimethylamino)phenyl]methyl]benzenesulfonic acid, B-00322
- 5-Hydroxy-4-oxo-4*H*-pyran-2-carboxylic acid; Et ester, *in* H-00434
- ▷ Indigo carmine, *in* I-00029
- Tris(4,7-dimethyl-1,10-phenanthroline-*N*',*N*'¹⁰)iron(II)(2+); Sulfate, *in* T-00389

Oxygen: hydrogen peroxides and peroxocompounds

- ▷ 4-Amino-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00152
- 3-[[4'-Amino-3,3',5,5'-tetramethyl[1,1-biphenyl]-4-yl]amino]-1-propanesulfonic acid; Na salt, *in* A-00353
- 2,2'-Azinobis[3-ethyl-2,3-dihydro-6-benzothiazolesulfonic acid], A-00462
- Bis[4-bromo-2[[2-(2-methoxyethoxy)ethoxy]carbonyl]phenyl] ethanedioate, B-00268
- 3,7-Bis(dimethylamino)phenothiazine, B-00316
- Bis(2,4-dinitrophenyl) oxalate, B-00335
- Bis[2-[[2-(2-methoxyethoxy)ethoxy]ethoxy]carbonyl]-4-nitrophenyl] ethanedioate, B-00399
- 4,4'-Bis(1-phenyl-3-methyl-5-pyrazolone), B-00440
- Bis(2,4,6-trichlorophenyl) oxalate, B-00460
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid; Ti complex, *in* B-00569
- 3-(Butylphenylamino)-1-propanesulfonic acid; Na salt, *in* B-00636
- ▷ 4,4'-Diamino-3,3'-dimethoxybiphenyl, *in* D-00056
- ▷ *N,N*-Dimethylaniline, D-00831
- 1,2-Di(2-pyridyl)ethylene, D-01090

- 3-[Ethyl(3-methoxyphenyl)amino]-1-propanesulfonic acid; Na salt, *in* E-00097
- 3-[Ethyl(2-methylphenyl)amino]-1-propanesulfonic acid; Na salt, *in* E-00098
- 3-[Ethyl(3-methylphenyl)amino]-1-propanesulfonic acid; Na salt, *in* E-00099
- 3-[Ethyl(4-methylphenyl)amino]-1-propanesulfonic acid; Na salt, *in* E-00100
- 3-(Ethylphenylamino)-1-propanesulfonic acid; Na salt, *in* E-00102
- 1-Hydroxyanthraquinone-2-carboxylic acid, H-00099
- ▷ MBTH, *in* B-00090
- N*-Methyl-*N*-sulfopropylaniline; Na salt, *in* M-00311
- 4,4',4'',4'''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakisbenzenesulfonic acid, P-00250
- ### Oxygen: ozone
- ▷ Benzaldehyde, B-00004
- Bis(2,2':6',2''-terpyridine-*N,N',N''*)iron(II) (2+), B-00457
- ▷ 1,4-Diaminobenzene; *N,N,N',N''*-Tetra-Me, *in* D-00048
- 4,4'-Dimethoxystilbene, *in* D-00730
- ▷ 1,1-Diphenylethylene, D-01016
- ▷ Indigo carmine, *in* I-00029
- Indigo-5,5',7-trisulfonic acid, I-00030
- ▷ 2-Methoxy-4-(2-propenyl)phenol, M-00120
- Tris(4-aminophenyl)methanol, T-00383
- ### Palladium
- Acetyl dithiol, *in* M-00129
- ▷ 3-Acetyl-4-hydroxy-6-methyl-2*H*-pyran-2-one, A-00019
- ▷ Acid red 26; Di-Na salt, *in* A-00058
- ▷ 4'-Aminoacetophenone, A-00091
- 5-Amino-3-[[4-aminophenyl]azo]-4-hydroxy-2,7-naphthalenedisulfonic acid; *N*⁴-Ac, Di-Na salt, *in* A-00092
- 5-Amino-2-benzimidazolethiol, A-00102
- 2-Aminobenzophenone, A-00111
- ▷ 2-Aminobenzothiazole, A-00113
- 4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,5-naphthalenedisulfonic acid, A-00140
- 4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00141
- 5-Amino-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-1,4-naphthalenedisulfonic acid, A-00142
- 8-Amino-7-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2-naphthalenesulfonic acid, A-00143
- 8-Amino-7-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-3-naphthalenesulfonic acid, A-00144
- 1-Amino-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, *in* D-00504
- 2-[(1-Amino-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, A-00167
- ▷ 2-Aminoethanethiol; *N*-Di-Et, *in* A-00170
- 4-Amino-5-hydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00212
- 4-[[2-Amino-5-(1-methyl-2-piperidinyl)-3-pyridinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00251
- 6-Amino-5-nitroso-2,4(1*H*,3*H*)-pyrimidinedione, A-00288
- 8-Amino-5-(phenylazo)quinoline, A-00315
- ▷ 8-Aminoquinoline, A-00340
- 8-Amino-7-(8-quinolinylazo)-3,6-naphthalenedisulfonic acid, A-00343
- 5-[[4-(Aminosulfonyl)phenyl]azo]-6-hydroxy-2-naphthalenesulfonic acid, A-00350
- 2-[[[Aminothioxomethyl]amino]carbonyl]benzoic acid, *in* B-00018
- 2-[[[Aminothioxomethyl]amino]carbonyl]-6-nitrobenzoic acid, A-00361
- 4-[[[Aminothioxomethyl]amino]-4-oxobutanoic acid, A-00362
- 1-(9-Anthracenyl)-2-[[4-(dimethylamino)phenyl]imino]ethanone, A-00382
- Arsaminazo, A-00402
- Arsazen, A-00403
- 3-[(2-Arsonophenyl)azo]-6-[[5-chloro-2-hydroxy-3-sulfophenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00426
- Azorhodie 2G; Di-Na salt, *in* A-00476
- 1,2-Benzenedicarboxaldehyde bis(thiosemicarbazone), B-00017
- 1*H*-Benzimidazole-2-methanethiol, B-00041
- Benzointhiosemicarbazone, *in* B-00068
- ▷ Benzopurpurine 4B; Di-Na salt, *in* B-00071
- 2,1,3-Benzoselenadiazole-*Se*^{IV}, B-00084
- 2-Benzothiazolecarboxaldehyde 1(2*H*)-phthalazinylidenedehydrazone, B-00087
- 2-Benzothiazolecarboxaldehyde 2-quinolylhydrazone, B-00088
- ▷ 2(3*H*)-Benzoxazolethione, B-00113
- Benzoyl dithiol, *in* M-00129
- N*-Benzoyl-*N'*-(ethoxycarbonylmethyl)selenourea, B-00130
- Benzoylmethylglyoxime, *in* P-00109
- 2-Benzoylpyridine azine, B-00152
- Benzylmethylglyoxime, *in* P-00107
- ▷ 4,4'-Bipyridine, B-00222
- 4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*⁴,*N*^{4'},*N*^{4'}-Tetra-Et, *in* B-00253
- 4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*⁴,*N*^{4'},*N*^{4'}-Tetra-Me, *in* B-00253
- 1,5-Bis(2-chlorophenyl)-*N*-phenyl-3-formazancarboxamide, *in* B-00286
- Bis(dicyclohexyloxyphosphinothioyl)disulfide, B-00294
- Bis(diisopropoxyphosphinothioyl)disulfide, B-00310
- ▷ Bis(dimethoxyphosphinothioyl) disulfide, B-00312
- Bis[[diphenoxyphosphino]thioyl] disulfide, B-00336
- 1,3-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00356
- 1,4-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00357
- Bis(2-hydroxyimino-3-butylidene)-*o*-phenylenediamine, *in* P-00127
- O,O*-Bis[[3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4(5*H*)-ylidene]phenylmethyl]phosphorodithioate; K salt, *in* B-00405
- Bis(6-methyl-2-pyridyl)ethanedione: Dihydrazone, *in* B-00415
- N,N*-Bis(2-sulfoethylidithiooxamide), B-00455
- Bis(2,4,4-trimethylpentyl)phosphinodithioic acid, B-00469
- Brilliant croceine; Di-Na salt, *in* B-00478
- 5-Bromo-2-furancarboxaldehyde: Thiosemicarbazone, *in* B-00507
- 5-[(4-Bromophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, B-00547
- 1-(4-Bromophenyl)-1,3-butanedione; 3-Oxime, *in* B-00548
- 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00126
- 5-(5-Bromo-2-pyridinylazo)-6-hydroxy-2(1*H*)-pyridinone, B-00571
- 1-[(5-Bromo-2-pyridinyl)azo]-2-naphthalenol, B-00573
- 1-[(5-Bromo-2-thiazolyl)azo]-2-naphthalenol, B-00579
- 2,3-Butanedione (2-benzothiazolyl)hydrazone; Oxime, *in* B-00588
- 2,3-Butanedione; Monoxime, 2-pyridylhydrazone, *in* B-00587
- 1-Butyl-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, *in* D-00504
- 4-*tert*-Butylloxime, *in* B-00623
- ▷ *S*-Carbamidothioglycolic anilide, C-00019
- ▷ Carbonodithioic acid *O*-(phenylmethyl)ester; K salt, *in* C-00024
- 5-Chloro-2-furancarboxaldehyde thiosemicarbazone, C-00119
- 3-(5-Chloro-2-furanoyl)-2-propenal; Thiosemicarbazone, *in* C-00120
- 5-Chloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, C-00123
- 2-Chloro-10*H*-phenothiazine, C-00198
- 5-[(4-Chlorophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, C-00204
- 1-[(3-Chlorophenyl)azo]-2-naphthalenol, C-00205
- 1-(4-Chlorophenyl)-1,3-butanedione; 3-Oxime, *in* C-00207
- ▷ 2-Chloropyridine, C-00252
- 2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, C-00254
- 4-[3-Chloro-4-(pyridinylazo)-5-methyl-2-(1-methylethyl)phenol], C-00255
- 3-[[5-Chloro-2-pyridinyl]hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, C-00257
- 4-Chloro-2-[[2-pyridinylmethylene]amino]phenol, C-00258
- 3-Chloro-2-quinoxalinecarboxylic acid, C-00260
- Chromotrope 2R; Di-Na salt, *in* C-00293
- Chrysophenine G; Di-Na salt, *in* C-00297
- Cupron, *in* B-00068
- 1,2-Cyclododecanedione; Dioxime, *in* C-00332
- 1,2-Cyclohexanedione bis(thiosemicarbazone), C-00344
- 1,2-Cyclononanedione: Dioxime, *in* C-00360
- 1,2-Cycloundecanedione; Dioxime, *in* C-00369
- Diaminazo, D-00041
- ▷ 1,4-Diamino-5-nitroanthraquinone, D-00107
- 1,1-Diantipyrilphenylmethane, D-00140
- Dibenzo[*b,c*][1,4]dioxin-2-carboxaldehyde; Oxime, *in* D-00162
- ▷ Dibenzylidithiooxamide, D-00169
- Dibenzyl selenide, D-00170
- Dibenzyl sulfide, D-00171
- 3,5-Dichloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, D-00278
- ▷ *N,N'*-Didodecylethanedithioamide, D-00310
- 5-(Diethylamino)-2-[(5-methyl-2-pyridinyl)azo]phenol, D-00324
- N,N*-Diethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00349
- N,N*-Diethyl-4-nitrosoaniline, D-00350
- O,O*-Diethylphosphorosenoic acid; Na salt, *in* D-00357
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione, D-00391
- 1,3-Dihydro-4,5-diphenyl-2*H*-imidazole-2-thione, D-00399
- 2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione, D-00402
- 2,3-Dihydro-5-hydroxy-4*H*-1-benzopyran-4-one, D-00408
- 1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00423
- ▷ 1,3-Dihydro-2*H*-imidazole-2-thione, D-00424
- 2,3-Dihydro-2-(2-mercaptophenyl)-1,2,3-benzothiadiazole, D-00425
- 2-[4,5-Dihydro-5-(4-methoxyphenyl)-3-isoxazolyl]-4-methylphenol, D-00427
- 3,4-Dihydro-1-(4-methoxyphenyl)-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00429
- 4,5-Dihydro-1*H*-pyrazole-1-carbodithioic acid, D-00479
- ▷ 2,3-Dihydro-2-thioxo-4(1*H*)-pyrimidinone, D-00494
- 1,2-Dihydro-3*H*-1,2,4-triazole-3-thione; K salt, *in* D-00496
- 3,4-Dihydro-4,4,6-trimethyl-1-(4-nitrophenyl)-2(1*H*)-pyrimidinethione, D-00499

- 3,4-Dihydro-4,4,6-trimethyl-1-(phenylamino)-2(1*H*)-pyrimidinethione, D-00500
- ▶ 3,4-Dihydro-4,4,6-trimethyl-1-phenyl-2(1*H*)-pyrimidinethione, D-00501
- 3,4-Dihydro-4,4,6-trimethyl-1-(4-phenyl-2-thiazolyl)-2(1*H*)-pyrimidinethione, D-00502
- 3,4-Dihydro-4,4,6-trimethyl-1-(2-pyridinyl)-2(1*H*)-pyrimidinethione, D-00503
- 3,4-Dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00504
- 2',5'-Dihydroxyacetophenone; Oxime, *in* D-00508
- 3,4-Dihydroxybenzaldehyde; 3-Me ether, oxime, *in* D-00519
- 2,5-Dihydroxybenzaldehyde; Oxime, *in* D-00518
- 2,4-Dihydroxybenzenecarbothioic acid, D-00522
- 3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)bisbenzoic acid, D-00593
- 2,4-Dihydroxy-5-[(5-nitro-2-thiazolyl)azo]benzoic acid, D-00680
- [(2,4-Dihydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, D-00713
- 4,5-Dihydroxy-3-(1*H*-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, D-00738
- 2,3-Dimercaptopropanoic acid, D-00762
- 4-(4'-Dimethylaminophenyl)-1-phenylthiosemicarbazide, D-00822
- 3,3-Dimethyl-1,2-indanedione; Dioxime, *in* D-00868
- N,N*-Dimethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00870
- 5,6-Dimethyl-2-nitro-1,3-indanedione; Bis(thiosemicarbazone), *in* D-00873
- N,N*-Dimethyl-*N'*-[5-nitro-4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00874
- N,N*-Dimethyl-*N'*-[4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00875
- 2,4-Dimethyl-3-pentanone; Oxime, *in* D-00879
- 2,2'-[(1,3-Dimethyl-1,3-propanediylidene)dinitrilo]bisbenzenethiol, D-00898
- 1-[(2,4-Dinitrophenyl)amino]-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00962
- Dioctyl sulfide, D-00983
- N,N*-Diphenyl-*N'*-benzoylthiourea, *in* B-00161
- 3,3-Diphenyl-1,2-indanedione; Dioxime, *in* D-01027
- N,N*-Diphenylmethyl-4-nitrosobenzenamine, *in* N-00154
- O,O*-Diphenyl phosphorodithioate, D-01040
- ▶ Diphenyl sulfide, D-01051
- Dipropylglyoxime, *in* O-00033
- Di-2-pyridinylmethanone benzoylhydrazone, D-01073
- Di-2-pyridinylmethanone guanylylhydrazone, D-01078
- Di-2-pyridinylmethanone 5-nitro-2-pyridylhydrazone, D-01079
- Di-2-quinolinylmethanone 2-pyridinylhydrazone, D-01102
- 1,1'-(2,2'-Disulfo-4,4'-biphenylene)bis(3-hydroxy-3-phenyltriazene); Di-Na salt, *in* D-01108
- Di(2-thenoyl)ketoxime, *in* D-01113
- 3*H*-1,2-Dithiole-3-thione, D-01133
- α,α -[(Dithiooxalyl)diimino]di-*m*-toluenesulfonic acid, D-01134
- ▶ Dithizone, D-01135
- 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
- 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
- Erio green B; Na salt, *in* E-00019
- 3,3'-(1,2-Ethanediyldinitrilo)bis-2-butanone; Dioxime, *in* E-00035
- 5,5'-(1,2-Ethanediyldinitrilo)bis[2,2-dimethyl-3-hexanone], E-00036
- 1-Ethyl-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, E-00069
- N,N'*-Ethylenebis(4-methoxy-1,2-benzoquinone 2-imine); Dioxime, *in* E-00076
- Ethylenedithiodiacetic acid; Di-Na salt, *in* E-00080
- 2-Ethyl-4-(2-furanyl)propenal; Thiosemicarbazone, *in* E-00082
- Ethyl- α -isonitrosoacetoacetate, *in* D-00986
- ▶ 2-Ethyl-4-pyridinecarbothioamide, E-00107
- [[2-(Ethylthio)ethyl]thio]acetic acid, E-00119
- ▶ Fluphenazine, F-00034
- 3-Furancarboxaldehyde; Oxime, *in* F-00043
- 2-Furancarboxaldehyde phenylthiosemicarbazone, F-00047
- (2-Furanyl)-2,3-dihydro-4-phenyl-1*H*-pyrazole-1-carbonodithioic acid, F-00051
- 2-[5-(2-Furanyl)-2,4-pentadienyldene]hydrazinecarbothioamide, *in* F-00058
- 3-(2-Furanyl)-2-propenal; (*E*)-*form*, Thiosemicarbazone, *in* F-00060
- 4-Heptanone; Oxime, *in* H-00012
- Heptoxime, *in* C-00333
- 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
- N*-Hexyl-*N'*-benzoylthiourea, H-00072
- 2-Hydroxy-5-anisalldoxime, *in* D-00518
- 2-Hydroxybenzothiazole, H-00125
- 3-Hydroxy-1,3-bis(4-methylphenyl)triazene, H-00139
- N*-[2-(Hydroxyimino)-1-methylpropylidene]glycine, H-00247
- 6-Hydroxy-5-[(4-iodophenyl)azo]-2-naphthalenesulfonic acid, H-00254
- 6-Hydroxy-8-mercaptourine, H-00260
- 1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one; 4-Me ether, oxime, *in* H-00311
- 4-[(2-Hydroxy-1-naphthalenyl)azo]-1-naphthalenesulfonic acid; Ba salt, *in* H-00350
- 2-[(2-Hydroxy-1-naphthalenyl)methylene]-*N*-phenylhydrazinecarbothioamide, H-00363
- 2-Hydroxy-5-nitro-3-[(2-thioxo-4-oxopyrrolidinyl)azo]benzenesulfonic acid, H-00423
- 3-Hydroxy-4-(phenylazo)-2,7-naphthalenedisulfonic acid; Disodium salt, *in* H-00454
- 2-[(1-Hydroxy-7-(phenylazo)-3-sulfo-2-naphthalenyl)azo]benzoic acid, H-00459
- 5-[(3-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00461
- 5-[(4-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00462
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzothiazole, H-00508
- 3-Hydroxy-2-quinoxalinecarboxylic acid, H-00537
- 2-Hydroxy-5-[(4-sulfophenyl)azo]benzoic acid; Di-Na salt, *in* H-00542
- 3-Hydroxy-4-(1*H*-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, H-00546
- ▶ Hypoxanthine, H-00564
- 1*H*-Indane-1,2(3*H*)-dione-2-oxime, *in* I-00023
- Isonitrosoacetylacetone, *in* P-00030
- Isonitrosodibenzoylmethane, *in* D-01041
- ▶ Mellaryl hydrochloride, *in* T-00173
- ▶ 2-Mercaptobenzoic acid, M-00023
- Mercaptobutanedioic acid; (\pm)-*form*, *in* M-00026
- 5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione; K salt, *in* M-00039
- 2-Mercapto-*N*-phenylpropanamide, *in* M-00051
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-*form*, Butyl ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-*form*, Et ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-*form*, Me ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-*form*, 3-Methylbutyl ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-*form*, Pentyl ester, *in* M-00048
- 3-Mercapto-3-phenylpropanoic acid; (\pm)-*form*, Ph ester, *in* M-00048
- ▶ 3-Mercapto-1,2-propanediol, M-00050
- 2-Mercapto-*N*-2-pyridinylacetamide, M-00055
- 2-Mercaptopyrimidine, M-00056
- 4-Methoxybenzaldehyde; Thiosemicarbazone, *in* M-00075
- 2-(2-Methoxy-4-methylphenylazo)thiazole, *in* M-00324
- ▶ 2-Methyl-1-buten-3-yne, M-00149
- 5-Methyl-2-furancarboxaldehyde thiosemicarbazone, *in* M-00179
- 5-(5-Methyl-2-furanyl)-2,4-pentadienal thiosemicarbazone, M-00181
- 3-(5-Methyl-2-furanyl)-2-propenal; Thiosemicarbazone, *in* M-00182
- 3-Methyl-1,2-indandione; Dioxime, *in* M-00194
- 3-Methyl-6-(1-methylethyl)-2-(2-pyridinylazo)phenol, M-00197
- 5-Methyl-2-(1-methylethyl)-4-(2-pyridinylazo)phenol, M-00198
- N*-Methyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, *in* M-00208
- 3-Methylinoxime, *in* M-00156
- ▶ 4-Methylinoxime, *in* M-00157
- (4-Methyl-5-nitro-2-thiazolyl)thiourea, M-00208
- 4-Methyl-5-phenyl-3*H*-1,2-dithiole-3-thione, M-00227
- P*-Methylphosphonamidithioic acid; *O*-Ph ester, *in* M-00243
- 4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, M-00249
- 1-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenol, M-00250
- 5-[[5-(1-Methyl-2-piperidinyl)-2-pyridyl]azo]-1-naphthalenesulfonic acid, M-00254
- 6-Methyl-2-pyridinecarboxaldehyde 2-quinolinylhydrazone, M-00269
- 3-Methyl-2-pyridinethiol; *N*-Oxide, *in* M-00273
- 5-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00275
- 6-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00276
- 4-Methyl-2-[(2-pyridinylmethylene)amino]phenol, M-00289
- Methyl red; Na salt, *in* M-00309
- 4-Methyl-2(3*H*)-thiazolone, M-00316
- 2-Methyl-4-(2-thiazolylazo)-1,3-benzenediamine, M-00317
- 4-[(5-Methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00320
- 1-Naphthalenecarboxaldehyde; Oxime, *in* N-00003
- 1,8-Naphthalenedithiol, N-00012
- Naphtho[2,3-*c*][1,2,5]selenadiazole, N-00038
- 4-Nitro-*o*-anisaldoxime, *in* H-00379
- 2-Nitro-*p*-anisaldoxime, *in* H-00381
- 3-(5-Nitro-2-furanyl)-2-propenal; Thiosemicarbazone, *in* N-00110
- ▶ Nitrofurazone, *in* N-00109
- 3-[(4-Nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, N-00125
- 5-[(4-Nitrophenyl)azo]-4-thioxo-2-selenazolidinone, N-00131
- ▶ 4-Nitrosodiphenylamine, N-00157
- ▶ 2-Nitroso-1-naphthol, N-00161
- 4-[(5-Nitro-2-thiazolyl)azo]-1,3-benzenediol, N-00165
- 2-[(5-Nitro-2-thiazolyl)azo]phenol, N-00166
- 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrahiacyclopentadecin-15-amine, O-00008
- 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,n*][1,4,8,12]dioxadiazacyclotetradecine, O-00013
- 5,6,7,8,9,10,16,17-Octahydrodibenzo[*e,m*][1,4,8,11]dioxadiazacyclotetradecine, O-00014

Octoxime, *in* C-00361
 ▶ 1,4-Oxathiane, O-00051
 Palladiazole, P-00002
 Pallatriazole, P-00003
 2,3,4-Pentanetrione; 3-Oxime, *in* P-00033
 2,5,8,11,14-Pentaoxapentadecane, *in* T-00043
o-Phenolazothiohydantoin, P-00061
 10*H*-Phoselenazine, P-00072
 ▶ Phenothiazine, P-00073
 2-Phenoxathiincarboxaldehyde; Oxime, *in* P-00074
 ▶ Phenylacetylene, P-00077
 3,3'-[3-[(Phenylamino)carbonyl]-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid]; Di-K salt, *in* P-00080
 3,3'-[3-[(Phenylamino)carbonyl]-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid], P-00080
 ▶ *N*-[(Phenylamino)thioxomethyl]benzamide, *in* P-00201
 (Phenylazo)benzaldoxime, P-00091
 4-Phenyl-3*H*-1,2-dithiole-3-thione, P-00115
 5-Phenyl-3*H*-1,2-dithiole-3-thione, P-00116
 4,4'-[1,3-Phenylenebis(azo)]bis-1,3-benzenediamine; B, 2HCl, *in* P-00117
 3-Phenyl-1,2-indanedione; Dioxime, *in* P-00137
 4-Phenyl-2-mercaptoimidazole, P-00140
N-Phenylmethyl[(4-chlorophenyl)amino]thioxomethyl-*N'*-phenylcarbamimidothioate, P-00145
 ▶ 3-Phenyl-2-propenal; (*E*)-form, Thiosemicarbazone, *in* P-00168
 5-(3-Phenyl-2-propenylidene)-2-thioxo-4-imidazolidinone, P-00170
 ▶ Phenylthiourea, P-00201
 6-Phenyl-1,2,4-triazine-3(2*H*)-thione, P-00205
 1-Piperidincarbodithioic acid, P-00242
 Propanal oxime, *in* P-00259
 Propanedioic acid; Dihydrazide, *in* P-00261
 2-Propanoyl-1-naphthol; Oxime, *in* P-00267
 2-Pyridinecarboxaldehyde 1-phthalazinylhydrazone, P-00332
 2-Pyridinecarboxaldehyde (2-pyridinylmethylene)hydrazone, P-00334
 ▶ 2(1*H*)-Pyridinethione, P-00357
 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
 4-(2-Pyridinylazo)-1-naphthalenol, P-00376
 3-(2-Pyridinylazo)-2,6-pyridinediamine, P-00379
 3-[(2-Pyridinylmethylene)amino]-[1,1'-biphenyl]-4-ol, P-00391
 2-[(2-Pyridinylmethylene)amino]phenol, P-00393
 ▶ 2-(3-Pyridinylmethylene)hydrazinecarbothioamide, *in* P-00319
 3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, P-00407
 5-(1*H*-Pyrrol-2-ylmethylene)-2-thioxo-4-imidazolidinone, P-00444
 2-Quinolinecarboxaldehyde; Oxime, *in* Q-00009
 2-Quinolinecarboxaldehyde 1-phthalazinylhydrazone, Q-00011
 2-Selenophenecarboxaldehyde; Oxime, *in* S-00006
 Septonex, *in* E-00061
 ▶ Tartrazine; Tri-Na salt, *in* T-00003
 3,6,9,12-Tetrathia-1,14-tetradecanedithiol, T-00130
 ▶ Tetrazole-5-thione; 1,4-Dihydro-*form*, 1-Ph, *in* T-00131
 2-Thiazolecarboxaldehyde 2-quinolinylhydrazone, T-00137
 4-(2-Thiazolylazo)-1-naphthalenol, T-00143
 3-(2-Thiazolylazo)-2,6-pyridinediamine, T-00145
 5-(2-Thienylmethylene)-2-thioxo-4-imidazolidinone, T-00152
 Thioaminoazo F, T-00154
 ▶ Thiobenzoic acid, T-00155
 3,3'-Thiobis[6-hydroxybenzoic acid], T-00158

1-Thiocarbamido-3-methyl-5-pyrazolone, T-00160
 2-Thiophenecarboxaldehyde; Oxime, *in* T-00169
 2-Thiophenecarboxaldehyde; Thiosemicarbazone, *in* T-00169
 5-[(1-*p*-Tolylimidazo[4-*yl*)]methylene]rhodanine, T-00191
 ▶ 1,3,5-Triazine-2,4,6-triamine, T-00197
 ▶ 2,4,6-Tribromophenol, T-00205
N,N',N''-Trihexylphosphorothioic triamide, T-00267
 1,3,4-Trihydroxyanthraquinone-2-carboxylic acid, T-00272
 ▶ Triphenylarsine, T-00363
 ▶ Triphenylphosphine, T-00370
 Tris(2-methylpropyl)amine, T-00409

Phosphorus

▶ Acid chrome violet K; Na salt, *in* A-00055
 2-Amino-4-chlorobenzenethiol, A-00135
 ▶ Bis(2-ethylhexyl)amine, B-00351
 Bis(nitrooxy)diocetylstanane, B-00429
 Chromopyrazole, C-00286
 ▶ Edetol, E-00001
 ▶ Ferrocene, F-00004
 ▶ Quinine, Q-00005
 ▶ Quinoline, Q-00007
 ▶ Rivanol, *in* D-00094

Phosphorus: phosphate

▶ Auramine, A-00456
 Bis(4-chlorophenyl)iodonium(1+); Chloride, *in* B-00287
 Chromopyrazole 1, C-00287
 4,5-Dihydro-1*H*-pyrazole-3,4-dicarboxylic acid; Diamide, *N*-di-Me, *in* D-00480
 Gallein, G-00004
 1-(2-Hydroxy-5-methylphenyl)-1-butanone; (*E*)-form, Oxime, *in* H-00309
 5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1*H*,3*H*)-pyrimidinedione; NH₄ salt, *in* H-00354
 4-(3-Hydroxy-3-phenyl-1-triazenyl)benzenesulfonic acid, H-00506
 Lanthanum chloroanilate, *in* D-00262
 ▶ Malachite green; Chloride, *in* M-00006
 ▶ Metol, *in* A-00302
 Rhodamine B, *in* R-00002
 ▶ Strychnine, S-00033
 ▶ Thiamine, T-00135

Platinum (including platinum group and noble metals)

Acenaphthenequinone; Monoxime, *in* A-00001
 ▶ Acetoxime, *in* A-00007
 4-Amino-8-[(2,4-dithioxo-5-thiazolidinyl)azo]-5-hydroxy-1,7-naphthalenedisulfonic acid, A-00169
 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, *in* O-00075
 ▶ Aminopyrine, A-00339
 3-Aminorhodanine, A-00346
 1-(9-Anthracenyl)-2-[[4-(dimethylamino)phenyl]imino]ethanone, A-00382
 5-[(2-Arsenophenyl)azo]-2,4-thiazolidinedithione, A-00443
 5-[(2-Arsenophenyl)azo]-2-thioxo-4-thiazolidinone, A-00444
 Benzoithiosemicarbazone, *in* B-00068
 2-Benzothiazolethiol, B-00089
N-Benzoyl-*N'*-(5-bromo-2-pyridyl)thiourea, B-00125
 9-Benzyl-*s*-triazolo-[4,3-*a*]-benzimidazole-3-thione, B-00195
 ▶ 4,4'-Bipyridine, B-00222
 ▶ Bis(2-aminophenyl) disulfide, B-00251
 4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*⁴,*N*^{4'},*N*^{4'}-Tetra-Et, *in* B-00253

4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*⁴,*N*^{4'},*N*^{4'}-Tetra-Me, *in* B-00253
 Bis[4-(diethylamino)phenyl]methanethione, *in* B-00254
N,N'-Bis(3-dimethylaminopropyl)dithiooxamide, B-00325
 4,4'-Bis(dimethylamino)thiobenzophenone, B-00326
N,N'-Bis(1,1-dimethylethyl)thiourea, *in* T-00175
 ▶ *N,N'*-Bis(2-methylphenyl)thiourea, B-00412
 4-(1-Butylpentyl)pyridine, B-00635
N-Butyl-2-pyridinecarbothioamide, *in* P-00317
 4-Chlorobenzoic acid [(2-bromo-6-hydroxyphenyl)methylene]hydrazide, C-00068
 5-Chloro-3-[(2,4-dithioxo-5-thiazolidinyl)azo]-2-hydroxybenzenesulfonic acid, C-00112
 3-(5-Chloro-2-furanoyl)-2-propenal; Thiosemicarbazone, *in* C-00120
 5-Chloro-2-hydroxy-3-[(3-benzylideneamino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00124
 5-Chloro-2-hydroxy-3-[(3-(2-hydroxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00128
 5-Chloro-2-hydroxy-3-[(3-(2-hydroxy-3-methoxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00131
 5-Chloro-2-hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00133
 5-Chloro-2-hydroxy-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, C-00140
 5-Chloro-2-hydroxy-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00141
 4-Chloro-2-[(2-hydroxyphenyl)methylene]amino]phenol, C-00150
 ▶ 2-Chloropyridine, C-00252
 1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, *in* C-00345
 ▶ 1,2-Diaminobenzene, D-00046
 3,4-Diaminobenzoic acid, D-00050
 ▶ Dibenzylidithiooxamide, D-00169
N-[(Dibutylamino)thioxomethyl]benzamide, D-00225
 5-[[4-(Diethylamino)phenyl)methylene]-2-thioxo-4-thiazolidinone, D-00334
N,N-Diethyl-*N'*-benzoylthiourea, D-00338
N,N-Diethyl-4-nitrosoaniline, D-00350
N,N-Dihexyl-*N'*-benzoylthiourea, *in* B-00161
 1,2-Dihydro-1,5-dimethyl-4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-phenyl-3*H*-pyrazol-3-one, D-00389
 2,4-Dihydro-4-phenyl-3*H*-1,2,4-triazole-3-thione, D-00471
 2,9-Dihydro-9-phenyl-3*H*-1,2,4-triazolo[4,3-*a*]benzimidazole-3-thione, D-00472
 1,2-Dihydro-3*H*-1,2,4-triazole-3-thione; K salt, *in* D-00496
 3,4-Dihydro-4,4,6-trimethyl-1-(4-methyl-2-nitrophenyl)-2(1*H*)-pyrimidinethione, D-00498
 3,4-Dihydro-4,4,6-trimethyl-1-(2-pyridinyl)-2(1*H*)-pyrimidinethione, D-00503
 2,6-Dihydroxy-3-nitrosopyridine, D-00673
 ▶ Diisopropyl ether, D-00748
N,N-Dimethyl-*N'*-benzoylthiourea, *in* T-00175
 ▶ *N,N*-Dimethyl-4-nitrosoaniline, D-00876
 Diphenylcarbazine, D-01004
 Diphenylphosphinodithioic acid; Na salt, *in* D-01039
N,N'-Diphenylthioimidodicarbonic diamide, *in* T-00163
 1,4-Diphenylthiosemicarbazide, D-01053
 ▶ *N,N'*-Diphenylthiourea, D-01055

O,O-Di-2-propenyl phosphorodithioate, D-01058
N-[(Dipropylamino)thioxomethyl]benzamide, D-01059
 ▶ *O,O*-Di-2-propynyl phosphorodithioate, D-01061
 ▶ Dithizone, D-01135
 Ethopropazine hydrochloride, *in* E-00050
 2-Ethyl-4-(2-furanyl)propenal; Thiosemicarbazone, *in* E-00082
 ▶ Formic acid, F-00037
 2-Furanthiocarboxhydrazide, *in* F-00040
 3-(2-Furanyl)-2-propenal; (*E*)-form, Thiosemicarbazone, *in* F-00060
 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2,4-thiazolidinedithione, H-00162
 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2-thioxo-4-thiazolidinone, H-00163
 2-Hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]-5-nitrobenzenesulfonic acid, H-00249
 2-Hydroxy-5-nitro-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, H-00390
 2-Hydroxy-5-nitro-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, H-00391
 4-Hydroxy-3-nitroso-2*H*-1-benzopyran-2-one, H-00407
 2-Hydroxy-5-nitro-3-[(tetrahydro-2,4-dithio-2*H*-1,3-thiazin-5-yl)azo]benzenesulfonic acid, H-00422
 2-Hydroxy-5-nitro-3-[(2-thioxo-4-oxopyrrolidinyl)azo]benzenesulfonic acid, H-00423
 2-Hydroxy-5-[[4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]phenyl]azo]benzenesulfonic acid, H-00436
 5-[(2-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00460
 5-[(3-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00461
 5-[(4-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00462
N-(3-Hydroxyphenyl)-2-mercaptoacetamide, H-00476
 2-Hydroxy-5-sulfo-3-[(tetrahydro-2,4-dithio-2*H*-1,3-thiazin-5-yl)azo]benzoic acid, H-00545
o-Hydroxythiobenzhydrazide, *in* H-00110
 Isopropyltriphenylphosphonium(1+); Chloride, *in* I-00079
 Lucigenine; Dinitrate, *in* L-00012
N-[(2-Mercaptophenyl)imino]methylphenol, M-00045
 2-Mercaptopyrimidine, M-00056
 ▶ 5-Mercapto-1,3,4-thiadiazoline-2-thione, M-00060
 4-Methoxybenzaldehyde phenylthiosemicarbazone, M-00076
N-(2-Methoxyphenyl)-2-pyridinecarbothioamide, *in* H-00502
 4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-thione], M-00169
 3-(5-Methyl-2-furanyl)-2-propenal; Thiosemicarbazone, *in* M-00182
 5-[(6-Methyl-2-pyridinyl)methylene]-4-imidazolidinone; (*E*)-form, *in* M-00290
 1-Naphthalenethiocarboxhydrazide, N-00016
 1,5-Naphthyridine, N-00056
 1,5-Naphthyridine; B₂H₂SO₄, *in* N-00056
 3-(5-Nitro-2-furanyl)-2-propenal; Thiosemicarbazone, *in* N-00110
 5-[(4-Nitrophenyl)azo]-4-thioxo-2-selenazolidinone, N-00131
 4-[(4-Nitrophenyl)methyl]pyridine, N-00139
 ▶ Nitroso R salt, *in* H-00414
N-Octylaniline, O-00038
 2-(2-Oxo-1(2*H*)-acenaphthylidene)hydrazinecarbothioamide, *in* A-00001
 2-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00074
 3-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00075
 4-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00076
 ▶ Perazine, P-00043

9,10-Phenanthraquinone; Monoxime, *in* P-00047
o-Phenolazothiohydantoin, P-00061
N-[(Phenylamino)thioxomethyl]benzenecarbothioamide, P-00088
 3-[(Phenylmethylene)amino]-2-thioxo-4-thiazolidinone, P-00146
N-(Phenylmethyl)-2-pyridinecarbothioamide, *in* P-00317
 ▶ 3-Phenyl-2-propenal; (*E*)-form, Thiosemicarbazone, *in* P-00168
N-Phenyl-2-thiopicolinamide, *in* P-00317
 ▶ Piperidine, P-00241
 1-Piperidinecarbothioic acid, P-00242
 4-Quinolincarbodithioic acid, Q-00008
 5-(8-Quinolinyldithio)-2,4-thiazolidinedithione, Q-00033
 5-(8-Quinolinyldithio)-2-thioxo-4-thiazolidinone, Q-00034
 ▶ Tentone, *in* M-00070
 2-(2,4,5,7-Tetrabromo-6-hydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid ethyl ester, *in* E-00007
 2-[(Tetrahydro-2,4-dithio-2*H*-1,3-thiazin-5-yl)azo]benzoic acid, T-00060
 ▶ Tetrazole-5-thione; 1,4-Dihydro-form, 1-Ph, *in* T-00131
 5-(2-Thiazolylazo)-2-thioxo-4-thiazolidinone, T-00146
 2-Thiophenecarbothioic acid; Hydrate, *in* T-00167
N-*o*-Tolyl-2-thiopicolinamide, *in* P-00317
 ▶ 2,4,6-Tribromophenol, T-00205
 2,4,6-Triphenylpyrylium(1+); Chloride, *in* T-00374
 Tris(2-methylpropyl)amine, T-00409

Plutonium

Alamine oxide, A-00071
 Arsenazo AE, A-00404
 Arsenazo T, A-00418
 3-[(2-Arsonophenyl)azo]-6-[[5-(diethylsulfamoyl)-2-methoxyphenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00428
 3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[[5-chloro-2-hydroxy-3-sulfophenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00138
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[[2,4-dimethylphenyl]azo]-2,7-naphthalenedisulfonic acid, C-00154
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[[2-hydroxyphenyl]azo]-2,7-naphthalenedisulfonic acid, C-00156
 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-chlorosalicylic acid], D-00588

Potassium

4'-Anilino-2,5-dichloroazobenzene-4-sulfonic acid, A-00370
 Benzo-18-crown-6, B-00055
N-(1,4,7,10,13,16,19-Benzoheptaoxacycloheptacosin-21-yl)-2-propenamide, B-00058
 2,2'-Bis[3,4-(15-crown-5)-2-nitrophenylcarbamoxyethyl]tetradecane, B-00290
 3,26-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29-(3,45-trimethoxyphenyl)-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaaxacycloheptacosin, B-00328
 3,26-Bis(1,1-dimethylethyl)-29-(2,5-dimethylphenyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaaxacycloheptacosin, B-00329

2,19-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecaahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, B-00331
ar.ar'-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,18,19,26,27,29,30,32,33,35,36-octadecaahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28,31]undecaaxacyclotriacontin, B-00332
N,N'-Bis(2,3,5,6,8,9,11,12,14,15,17,18-dodecahydro-1,4,7,10,13,16,19-benzoheptaaxacycloheptacosin-21-yl)pentanediamide, B-00346
 Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclopentadecin-15-yl)methyl]heptanedioate, B-00434
 Bromocresol green, B-00498
 16-Bromo-2,3,5,6,8,9,11,12-octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaaxacyclopentadecin-15-amine, B-00540
 2-Butenedioic acid bis[[2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-yl)methyl]ester, B-00610
 Cryptand 2.2.2 BB, C-00318
 ▶ Cysteine; (\pm)-form, *in* C-00370
 8-[[4-[(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-yl)azo]phenyl]amino]-1-naphthalenesulfonic acid, D-00006
 8,9,11,12,14,15,17,18,20,21-Decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaaxacycloheptacosin, D-00016
 2,3,5,6,8,9,11,12,14,15-Decahydronaphtho[2,3-*b*]-1,4,7,10,13,16-hexaaxacyclooctadecin, D-00017
 2,3,5,6,8,9,11,12,14,15-Decahydro-18-nitro-1,4,7,10,13,16-benzohexaaxacyclooctadecin, D-00018
 6,7,9,10,12,13,15,16,18,19-Decahydro-2,4,21-tetramethyl-25-(1-naphthalenyl)-25*H*-dibenzo[*q,r*][1,4,7,10,13,16]hexaaxacycloheptacosin, D-00020
 Dibenzo-16-crown-5, D-00155
 Dibenzo-19-crown-6, D-00157
 Dibenzo-22-crown-7, D-00158
 Dibenzo-30-crown-10, D-00160
 Dibenzo-36-crown-12, D-00161
 2,13-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecin, D-00235
 7,18-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecin, D-00236
 2,5-Dichloro-4-[[4-(4-dibutylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
 2,5-Dichloro-4-[[4-(4-diethylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
 2,5-Dichloro-4-[[4-(4-dimethylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
 29-(2,6-Dichlorophenyl)-3,26-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaaxacycloheptacosin, D-00290
 2,19-Diethyl-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecaahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, D-00348
 2,13-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecin, D-00351
 7,18-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecin, D-00352
 2,13-Diheptyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecin, D-00366

- 2,13-Dihexyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacycloctadecine, D-00368
- 4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571
- Dinaphtho-30-crown-10, D-00932
- 3,5-Dinitro-4-[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecine-15-yl)amino]benzonitrile, D-00956
- 19-[(2,4-Dinitrophenyl)azo]-3,6,9,12,15-pentaobicyclo[15.3.1]heneicosal(21),17,19-trien-21-ol, D-00969
- N*-(2,4-Dinitrophenyl)-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecine-15-amine, D-00973
- N*-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecine-15-amine, D-00977
- N*-[2,6-Dinitro-4-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecine-15-amine, D-00978
- Dipropyldicyclohexyl-18-crown-6, *in* O-00027
- 6,7,9,10,12,13,20,21,23,24,26,27-Dodecahydro-2,16-dimethylidibenzo[*b,n*][1,4,7,10,13,16,19,22]octaoxacyclocotradecine, D-01138
- Dodecylmethylpropanedioate bis(1,4,7,10-tetraoxacyclododec-2-ylmethyl)ester, D-01152
- Eicosahydro-20*H*-dibenzo[*b,n*][1,4,7,10,13,16]hexaoxacyclononadecine, E-00003
- Eicosahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacycloctadecine, E-00004
- Eicosahydro-2,13-dimethylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacycloctadecine, E-00005
- 1,4,10,13,16,19-Heptaaxacycloheneicosane, H-00013
- 4,7,10,16,19,24,27-Heptaaxa-1,13-diazabicyclo[11.8.8]nonacosane, H-00014
- 6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-Hexadecahydro-2,20-dimethylidibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, H-00023
- 6,7,9,10,12,13,15,23,24,26,27,29,30,32,33-Hexadecahydro-2,19-dinitrodibenzo[*b,q*]-[1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, H-00024
- 2,2',4,4',6,6'-Hexanitrodiphenylamine, H-00065
- 2-Hydroxy-3,5-dinitrobenzyl-15-crown-5, H-00155
- 13-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13-azacyclopentadecane, H-00386
- 2-Hydroxy-[5-(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00398
- 2-Hydroxy-5-(4-nitrophenylazo)phenylmethyl-18-crown-6, H-00399
- [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-15-crown-5, H-00400
- [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-18-crown-6, H-00401
- 2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13-pentaoxacyclopentadecane, M-00104
- 2-(2-Methoxyphenyl)-1,4,7,10,13,16-hexaoxacycloctadecane, M-00109
- 2-(2-Methoxyphenyl)-1,4,7,10,13-pentaoxacyclopentadecane, M-00115
- 15-Methyl-1,4,7,10,13-benzopentaoxacyclopentadecine, M-00139
- 19-[(4-Nitrophenyl)azo]-3,6,9,12,15-pentaobicyclo[15.3.1]heneicosal(21),17,19-trien-21-ol, N-00127
- 5-Nitro-2,4,6-(1*H*,3*H*,5*H*)-pyrimidinetrione, N-00153
- 4-[(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecine-15-yl)azo]phenol, O-00006
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dimethylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacycloctadecine, O-00023
- 6,7,9,10,17,18,20,21-Octahydro-7,18-dimethylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacycloctadecine, O-00024
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dioctylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacycloctadecine, O-00025
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dipropylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacycloctadecine, O-00026
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dipropylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacycloctadecine, O-00027
- 2,3,5,6,8,9,11,12-Octahydronaphtho[2,3-*b*]-1,4,7,10,13-pentaoxacyclopentadecine, O-00029
- 6-(Phenylamino)-2-naphthalenesulfonic acid, P-00082
- 4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084
- Propeller crown 7, P-00268
- Sodium tetraphenylborate(III), S-00015
- Tartaric acid, T-00002
- 1,4,7,10-Tetraoxacyclododecane, T-00113
- 2,4,6-Trinitro-1,3-benzenediol, T-00350
- 2,4,6-Trinitro-*N*-[(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)phenyl]benzenamine, T-00356
- 4,10,15-Trioxa-1,7-diazabicyclo[5.5.5]heptadecane, T-00360
- Valinomycin, V-00001

Rare earth elements (lanthanum, yttrium and the lanthanides)

- Acetic acid, A-00006
- p*-Acetylarsenazo, A-00012
- Acid chrome blue K; Tri-Na salt, *in* A-00053
- Alamine, A-00070
- Alizarine red S; Na salt, *in* A-00081
- Aluminon, *in* A-00458
- 2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid; (*S*)-form, *in* A-00158
- 1-Amino-4-hydroxyanthraquinone, A-00182
- Antipyrilazo III, A-00394
- Arsenazo AE, A-00404
- Arsenazo AG, A-00405
- Arsenazo II, A-00411
- Arsenazo III, A-00412
- Arsenazo I; Tri-Na salt, *in* A-00410
- Arsenazo M, A-00414
- Arsenazo SA, A-00415
- Arsenazo 4S3NB, A-00416
- Arsenazo SU, A-00417
- 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00421
- 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00422
- 3-[(2-Arsonophenyl)azo]-6-[(4-arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00423
- 3-[(2-Arsonophenyl)azo]-6-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00424
- 3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00425
- 2-[[7-[(4-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, A-00429
- N*-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]methyl]-*N*-(carboxymethyl)glycine, A-00430
- 3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-4-arsonobenzoic acid, A-00431
- 3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-2-hydroxy-5-sulfobenzoic acid, A-00432
- 2-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-5-sulfobenzoic acid, A-00433
- 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00434
- 3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-methylphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00435
- 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[[4-nitrophenyl]azo]-2,7-naphthalenedisulfonic acid, A-00437
- 3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-(phenylazo)-2,7-naphthalenedisulfonic acid, A-00438
- 3-[(2-Arsonophenyl)azo]-6-[(4-dimethylaminophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00440
- 4-Benzoyl-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00128
- 4-Benzoyl-3-phenyl-5(4*F*)-isoxazolone, B-00143
- 5-(1-Benzyl-2-benzimidazolyl)-1-(2-hydroxyphenyl)-3-phenylformazan, B-00168
- 3,6-Bis[(2-arsono-4-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00256
- 2-[Bis(carboxymethyl)amino]benzoic acid, B-00276
- 4-[[Bis(carboxymethyl)amino]methyl]-3-hydroxy-2-naphthoic acid, B-00277
- Bis(4-chlorophenyl) phosphate, B-00289
- 1,4-Bis[(4-methylphenylamino)-9,10-anthracenedione, B-00406
- Bis(2,4,4-trimethylpentyl)phosphinic acid, B-00468
- 4-(2-Bromobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00493
- 4-Bromo-6-(2-thiazolylazo)-1,3-benzenediol, B-00578
- N*-(4-Butylbenzoyl)-*N*-phenylhydroxylamine, *in* B-00618
- N*-(4-Butylcyclohexanoyl)-*N*-phenylhydroxylamine, B-00624
- Calmagite, C-00015
- Carboxybenzene S, C-00028
- Carboxynitrazo, C-00035
- 2-[[7-[(3-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00036
- 2-[[7-[(4-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00037
- 4-(2-Chlorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, C-00070
- Chlorophosponazo DAL, *in* C-00242
- Chlorophosponazo mN, C-00243
- Chlorophosponazo pN, C-00244
- N*-[4-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoyl]glycine, C-00248
- 3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00249
- Chromotropic acid, C-00294
- 3-Cyano-1,5-bis(2-hydroxy-5-sulfophenyl)formazan; Di-Na salt, *in* C-00325
- 1.1.1.2,2,6,6,7,7-Decafluoro-3,5-heptanedione, D-00003
- 1.1.1.5,5,6,6,7,7,7-Decafluoro-2,4-heptanedione, D-00004
- 2-[(3,5-Dichloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, D-00300
- 4,5-Didodecyl-1-naphthalenesulfonic acid, D-00311
- 4-(2,6-Difluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00359

- 2,4-Dihydro-4-(2-methoxybenzoyl)-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00426
- 2,4-Dihydro-5-methyl-4-(2-methylbenzoyl)-2-phenyl-3*H*-pyrazol-3-one, D-00431
- 2,4-Dihydro-5-methyl-4-(1-oxoocetyl)-2-phenyl-3*H*-pyrazol-3-one, D-00436
- 2,4-Dihydro-5-methyl-2-phenyl-4-[2-(trifluoromethyl)benzoyl]-3*H*-pyrazol-3-one, D-00450
- 4,5-Dihydroxy-3,6-bis[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00552
- 4,5-Dihydroxy-3,6-bis[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00553
- 4,5-Dihydroxy-3,6-bis[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* D-00552
- 4,5-Dihydroxy-3,6-bis[(*o*-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* D-00551
- 4,5-Dihydroxy-3,6-bis[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00557
- 4,5-Dihydroxy-3,6-bis[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00563
- 4,5-Dihydroxy-3,6-bis(*p*-tolylazo)-2,7-naphthalenedisulfonic acid, D-00566
- Dihydroxybutanedioic acid, D-00567
- 3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)bis[2-hydroxy-5-sulfobenzoic acid], D-00589
- 2,2'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)bis[5-sulfobenzoic acid], D-00590
- 3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)bis[4-arsenobenzoic acid], D-00591
- 2,2'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)bisbenzoic acid, D-00592
- 3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)bisbenzoic acid, D-00593
- 2-[[[1,8-Dihydroxy-3,6-disulfo-7-[(4-phenylazo)phenyl]azo]-2-naphthyl]azo]-5-sulfobenzoic acid, D-00606
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00609
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00610
- 3-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00611
- 2-[[1,8-Dihydroxy-7-[(3-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00651
- 2-[[1,8-Dihydroxy-7-[(4-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00652
- 4,5-Dihydroxy-3-(3-methylphenylazo)-6-phenylazo-2,7-naphthalenedisulfonic acid, D-00654
- 2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00664
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-phenylazo-2,7-naphthalenedisulfonic acid, D-00667
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-[(*p*-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00669
- 2,3-Dihydroxy-1*H*-phenalen-1-one, D-00684
- 2-[[1,8-Dihydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00692
- 4,5-Dihydroxy-3-(phenylazo)-6-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, D-00701
- 4,5-Dihydroxy-3-(phenylazo)-6-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00702
- 4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722
- 4,5-Dihydroxy-3-[(3-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00723
- ▶ 3,5-Diiodosalicylic acid, D-00745
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4,6-dinitrophenol, *in* A-00210
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-methylphenol, *in* A-00197
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-nitrophenol, *in* A-00213
- 5-(Dimethylamino)-2-(2-thiazolylazo)phenol, *in* A-00214
- 15-(1,1-Dimethylethyl)tetradecahydro-1,4,7,10,13-benzopentaoxacyclopentadecin, D-00860
- 1,1,1,2,2,6,6,7,7,8,8,8-Dodecafluoro-3,5-octanedione, D-01136
- 1,12-Dodecanediylbis[octylarsinic acid], D-01139
- 1,2-Ethanediphosphonic acid; *P,P'*-Dibutyl ester, *in* E-00026
- 4,4'-[1,2-Ethenediyl]bis(2-(aminomethyl)phenol)]-*N,N,N',N'*-tetraacetic acid; (*E*)-form, *in* E-00042
- 7-(1-Ethenyl-3,3,5,5-tetramethylhexyl)-8-quinolinol, E-00049
- Ethyltridodecylammonium(1+); Bromide, *in* E-00120
- 4-(2-Fluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, F-00025
- Hexabutylphosphoric triamide, *in* H-00020
- Hexafluoroacetylacetone, H-00030
- [[6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecim-18-yl]oxy]acetic acid, H-00040
- 2-[6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13-pentaoxacyclohexadecim-18-yl]oxy]hexanoic acid, H-00042
- 17-[[6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecim-18-yl]oxy]octadecanoic acid, H-00043
- ▶ Hexanoic acid, H-00066
- 2-Hexyl-*N*-hydroxy-*N*-phenyldecanamide, H-00076
- 4-Hydroxybenzoic acid (1,2-dimethyl-1,2-ethanediyldene)dihydrazide, H-00117
- 8-Hydroxy-5,7-dinitroquinoline; *N*-Oxide, *in* H-00165
- 6-Hydroxy-5-[[2-(hydroxy-3,5-dinitrophenyl)azo]-2-naphthalenesulfonic acid; Na salt, *in* H-00200
- 6-Hydroxy-2-methyl-7-oxo-1,3,5-cycloheptatriene-1-carboxylic acid, H-00298
- N*-Hydroxy-*N*-(3-methylphenyl)-2-nitrobenzamide, *in* N-00089
- N*-Hydroxy-*N*-(3-methylphenyl)-3-nitrobenzamide, *in* N-00090
- N*-Hydroxy-3-(3-nitrophenyl)-*N*-phenyl-2-propenamide, H-00402
- N*-Hydroxy-*N*-phenyl-2-propylpentanamide, H-00501
- N*-Hydroxy-3,5,5-trimethyl-*N*-phenylhexanamide, H-00561
- 2,2'-Iminobis-8-quinolinol, I-00010
- 4-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00139
- Methylglyoxal bis(4-hydroxybenzoylhydrazone), M-00183
- 2,2'-(Methylimino)bis-8-quinolinol, M-00193
- Methylphosphonic acid; Bis(3-methylbutyl) ester, *in* M-00244
- Mono(2-ethylhexyl) phosphate, M-00339
- ▶ Neocupferron; NH₄ salt, *in* N-00061
- Orthanil A, O-00046
- ▶ Oxalic acid, O-00048
- ▶ 2-(1-Oxopropyl)-1*H*-indene-1,3(2*H*)-dione, O-00071
- 1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione, P-00017
- ▶ 2',3,4',5,7-Pentahydroxyflavone, P-00024
- ▶ Pentetic acid, P-00039
- 2-Phenoxybenzoic acid, P-00075
- N*-Phenylactanohydroxamic acid, *in* H-00424
- Phenylphosphonic acid, P-00163
- ▶ Phenylphosphonic acid, P-00164
- ▶ 2-Phenyl-4-quinolinecarboxylic acid, P-00189
- Phthalaxen S, P-00221
- Pyrogallol red, P-00434
- Semiphthalaxen S; Di-Na salt, *in* S-00013
- Stilbazokhimdu, S-00031
- Sulfochrome; Di-NH₄ salt, *in* S-00046
- Tetraethylenepentamineheptaacetic acid; Tetra-Na salt, *in* T-00045
- Tetrahydroxybutanedioic acid, T-00073
- ▶ 3,3',4',7-Tetrahydroxyflavone, T-00075
- 2,2,6,6-Tetramethyl-3,5-heptanedione, T-00095
- Thoron II, T-00178
- Tribromoarsenazo, T-00203
- ▶ Tributyl phosphate, T-00211
- 4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione, T-00264
- ▶ 4',5,7-Trihydroxyflavone, T-00285
- 1,7,9-Trihydroxy-3*H*-phenoxazin-3-one, T-00308
- Xylenol orange, X-00006

Rhenium

- Acepox, *in* A-00039
- Acetyl dithiol, *in* M-00129
- ▶ Acridine yellow, *in* D-00079
- Astrafloxine G; Chloride, *in* A-00450
- Astrazon blue B; Chloride, *in* A-00452
- Benzenecarbothioic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, B-00014
- Benzoic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, B-00063
- N*-Benzylamine, B-00165
- 4-[Bis[4-(diethylamino)phenyl]hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, B-00295
- 4-[Bis[*p*-(dimethylamino)phenyl]hydroxymethyl]-4-chloro-3-methyl-1-phenyl-2-pyrazolin-5-one, B-00319
- Bis(1-naphthylmethyl)amine, B-00427
- 4-[3-Bromo-4-(dimethylamino)- α -[*p*-(dimethylamino)phenyl]- α -hydroxybenzyl]antipyrine, B-00505
- ▶ 2,3-Butanedione; Monoxime, *in* B-00587
- ▶ C.I. Basic orange 14, *in* B-00313
- Chromopyrazole II, C-00288
- ▶ 4,4'-Diaminodiphenyl sulfide, D-00089
- 3,6-Diamino-10-methylacridinium chloride, *in* D-00042
- ▶ *O,O*-Diethyl phosphorodithioate, D-00356
- 2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione, D-00402
- 4,5-Dihydro-3-phenyl-1*H*-pyrazole-1-carbodithioic acid, D-00468
- 4,5-Dihydro-1*H*-pyrazole-1-carbodithioic acid, D-00479
- 2-(4,5-Dimethyl-2-thiazolyl)-3,5-diphenyl-2*H*-tetrazolium(1+); Bromide, *in* D-00924
- 2,4-Diphenylthiosemicarbazide, D-01054
- ▶ Fuchsin, *in* R-00009
- 2-Furancarbothioic acid (di-2-pyridinyl)methylenehydrazide, F-00041
- ▶ α -Furildioxime, *in* D-00364
- 2-Mercapto-1,3-benzenediol, M-00020
- ▶ 3-Mercaptopropanoic acid, M-00052
- ▶ 4-Methylbenzenethiol, M-00133
- ▶ 4-Methylinoxime, *in* M-00157
- Nitron, N-00114
- Nitro TB, *in* N-00164
- 1-Phenyl-2,4-dithiobiuret, *in* T-00163
- 3-Phenyl-5-(2-furyl)-1-pyrazolinedithiocarbamic acid; Na salt, *in* P-00131
- ▶ Phenylthiourea, P-00201
- 2-Pyridinylthiourea, P-00410
- 2-Quinolinecarboxaldehyde; Oxime, *in* Q-00009
- Tetraoctylammonium(1+); Chloride, *in* T-00110
- Thiobenzoic acid; Hydrazide, *in* T-00155

- 2-Thiophenecarbothioic acid (di-2-pyridinylmethylene)hydrazide, T-00168
2,4,6-Triphenylpyridine; *N*-Ph, acetate (salt), *in* T-00373

Rhodium

- Allthiox, A-00083
5-Amino-2-benzimidazolethiol, A-00102
7-Amino-2,1,3-benzothiadiazole-4,6-disulfonic acid, A-00112
▷ 2-Aminoethanethiol; *N*-Di-Et, *in* A-00170
3-Amino-1*H*-isoinsole-1-thione, A-00229 [(Aminothioxomethyl)hydrazono]acetic acid, *in* G-00038
4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*^{4'},*N*^{4''},*N*^{4'''}-Tetra-Et, *in* B-00253
4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*^{4'},*N*^{4''},*N*^{4'''}-Tetra-Me, *in* B-00253
▷ Butaperazine maleate, *in* B-00609
Dichloro-1-naphthylphosphine, *in* N-00055
2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, *in* A-00214
2-(Diethylamino)-6-(2-pyridinylazo)phenol, D-00335
2-(Diethylamino)-6-(2-thiazolylazo)phenol, *in* A-00360
3-[(4,5-Dihydro-5-oxo-1*H*-pyrazol-4-yl)azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00464
1,2-Dihydro-3*H*-1,2,4-triazole-3-thione; K salt, *in* D-00496
sym-Diphenylcarbazone, D-01006
1,5-Diphenyl-3-(2-propenylthio)formazan, D-01043
Diphenyl selenoxide, D-01049
Formamidinesulfonic acid, F-00036
▷ Formic acid, F-00037
Mercaptobutanedioic acid; (±)-*form*, *in* M-00026
2-Mercapto-4,5-dimethylthiazole, M-00029
4-Methyl-2-(2-pyridinylazo)phenol, M-00283
4-[(5-Methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00320
▷ 4-Nitrosodiphenylamine, N-00157
2-Octylaminopyridine, *in* A-00333
α-Oxobenzeneacetic acid;
Thiosemicarbazone, *in* O-00055
▷ *N*-Phenyl-*N'*-pyridinylthiourea, P-00177
1-Piperidincarbodithioic acid, P-00242
8-(2-Propenylthio)-5-quinolinesulfonic acid, *in* M-00057
1-(2-Pyridinylazo)-2-naphthalenol, P-00374
Pyraromic acid thiosemicarbazone, *in* P-00448
▷ Thioacetanilide, T-00153
Thiobenzoic acid; Hydrazide, *in* T-00155
▷ Tropolone, T-00432

Rubidium

- N*-(1,4,7,10,13,16,19-Benzoheptaoxacycloheneicosin-21-yl)-2-propenamide, B-00058
3,29-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,21,23,24-dodecahydro-32-(3,4,5-trimethoxyphenyl)-32*H*-dinaphtho[2,1-*r*:1',2'-*w*][1,4,7,10,13,16,19]heptaoxacyclotetracosin, B-00330
N,N'-Bis(2,3,5,6,8,9,11,12,14,15,17,18-dodecahydro-1,4,7,10,13,16,19-benzoheptaoxacycloheneicosin-21-yl)pentanediamide, B-00346
2-Butenedioic acid
bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaaxacyclooctadecan-18-yl)methyl]ester, B-00610
4-*sec*-Butyl-2-(1-phenylethyl)phenol, B-00637

- 32-(2,6-Dichlorophenyl)-3,29-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,23,24-dodecahydro-32*H*-dinaphtho[2,1-*r*:1',2'-*w*][1,4,7,10,13,16,19]heptaoxacyclotetracosin, D-00291
1,2-Dihydroxy-3-(1,4,7,10,13-pentaoxa-16-azacyclooctadecylmethyl)-9,10-anthracenedione, D-00682
16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-trien-18-ol, D-00970
4,7,10,16,19,24,27-Heptaoxa-1,13-diazabicyclo[11.8.8]nonacosane, H-00014
2-Hydroxy-3,5-dinitrobenzyl-15-crown-5, H-00155
Tetrakis(4-fluorophenyl)borate(1-); Na salt, *in* T-00084

Ruthenium

- ▷ 5-Amino-2,4-dihydroxypyrimidine, A-00159
6-Amino-4-hydroxy-2-naphthalenesulfonic acid, A-00203
2-Amino-3-hydroxypyridine, A-00216
5-Amino-1,3,7-naphthalenetrisulfonic acid, A-00271
1-(4-Bromophenyl)-1,3-butanedione; 3-Oxime, *in* B-00548
1-(4-Chlorophenyl)-1,3-butanedione; 3-Oxime, *in* C-00207
3,4-Diaminobenzoic acid, D-00050
4,5-Diamino-6-hydroxypyrimidine; Sulfate, *in* D-00098
▷ 2,3-Diaminopyridine, D-00118
5,7-Dichloro-8-hydroxyquinoline; 1-Oxide, *in* D-00283
▷ Di(2-furyl)ethanedione; Monoxime, *in* D-00364
4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid; Pentyl ester, *in* D-00674
2,4-Diphenylsemicarbazide, D-01050
1,4-Diphenylthiosemicarbazide, D-01053
2,4-Diphenylthiosemicarbazide, D-01054
Diphenylthiovioluric acid, *in* D-00493
O,O-Di-2-propenyl phosphorodithioate, D-01058
N-(Ethylsulfonyl)benzamide; Oxime, *in* E-00113
3-Hydroxy-3-(*p*-dimethylaminophenyl)-1-phenyltriazene, H-00149
8-Hydroxy-5,7-dinitroquinoline; *N*-Oxide, *in* H-00165
1-Hydroxy-2-naphthalencarbodithioic acid, H-00339
▷ 8-Hydroxyquinoline; *N*-Oxide, *in* H-00525
1*H*-Isoindole-1,3(2*H*)-dithione, I-00068
Isonitrosodibenzoylmethane, *in* D-01041
N-Methanesulfonylbenzamidoxime, M-00067
Methyltriphenylphosphonium(1+); Chloride, *in* M-00335
1-Naphthalenethiocarbonylhydrazide, N-00016
5-[(4-Nitrophenyl)azo]-4-thioxo-2-selenazolidinone, N-00131
β-Oxo-*N*-phenylbenzenepropanethioamide, *in* O-00056
▷ Pericyazine, P-00044
1,1'-[1,3-Phenylene]bis-2-tetrazoline-5-thione, P-00122
1,1'-[1,4-Phenylene]bis-2-tetrazoline-5-thione; Di-Na salt, *in* P-00123
N-(1-Piperidinylthioxomethyl)benzamide, P-00245
3-(2-Pyridinyl)-5,6-diphenyl-1,2,4-triazine, P-00388
2-Pyrrololethiocarbonylhydrazide, *in* P-00437
▷ Selenourea, S-00009
▷ *D*-Sorbitol, *in* G-00010
2,2':6',2''-Terpyridine, T-00005
3,3'-Thiobis[6-hydroxybenzoic acid], T-00158
▷ Thiourea, T-00175
2,4,6-Tri-2-pyridinyl-1,3,5-triazine, T-00381
▷ Tropolone, T-00432

Scandium

- 3-Acetyl-1,5-bis[bis(3,5,6-trichloro-2-hydroxyphenyl)]formazan, A-00013
Alizarine red S; Na salt, *in* A-00081
2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)-6-methylphenol *N,N*-diacetic acid, A-00239
▷ Arsenazo III, A-00412
Arsenazo M, A-00414
3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-2-hydroxy-5-sulfobenzoic acid, A-00432
Azonol A1, A-00474
Azophosphon, A-00475
Benzeneseleninic acid; NH₄ salt, *in* B-00024
5-(1-Benzyl-2-benzimidazolyl)-1-(2-hydroxyphenyl)-3-phenylformazan, B-00168
▷ 2,3'-Bipyridine, B-00221
2-[Bis(carboxymethyl)amino]benzoic acid, B-00276
5-Bromo-2-hydroxybenzaldehyde; Semicarbazone, *in* B-00509
Cannabiscitrin, *in* H-00055
4-Chloro-2-hydroxybenzaldehyde; Semicarbazone, *in* C-00121
5-Chloro-2-hydroxybenzaldehyde; Semicarbazone, *in* C-00122
N-(4-Chlorophenyl)-3-(2-furyl)-*N*-hydroxy-2-propenamide, *in* F-00053
Chlorophosphonazo-*m*-sulfonic acid, C-00246
Chromazurol S; Tri-Na salt, *in* C-00277
1,5-Diantipyrinyl-3-formazancarboxylic acid, D-00134
1,5-Dihydroxyanthraquinone-2,6-disulfonic acid, D-00513
2,4-Dihydroxybenzaldehyde; Formylhydrazone, *in* D-00517
2,4-Dihydroxybenzaldehyde; Semicarbazone, *in* D-00517
2,5-Dihydroxybenzaldehyde; Semicarbazone, *in* D-00518
2,5-Dihydroxy-1,4-benzoquinone, D-00540
7-(5,8-Disulfo-2-naphthylazo)-8-hydroxy-5-quinolinesulfonic acid, D-01110
Eriochrome azurol G; Di-Na salt, *in* E-00009
Eriochrome brilliant violet B, E-00012
Ethyltridodecylammonium(1+); Bromide, *in* E-00120
1,2,4,5,6,8-Hexahydroxyanthraquinone, H-00053
▷ 3,3',4',5,5',7-Hexahydroxyflavone, H-00055
▷ 2-Hydroxy-2,2-diphenylacetic acid, H-00166
2-Hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, H-00196
2-Hydroxy-5-methylbenzaldehyde; Semicarbazone, *in* H-00277
2-[(2-Hydroxy-4-methylphenyl)methylene]hydrazinecarboxamide, *in* H-00276
2-Hydroxy-1-naphthaldehyde; Semicarbazone, *in* H-00336
1-(Hydroxyphenylamino)-5-phenyl-1,4-pentadien-3-one, H-00446
Lumomagneson, L-00016
2-Mercapto-*N*-(4-methylphenyl)acetamide, M-00036
4-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00082
7-Methyl-2,4-octanedione, M-00209
Naphthylazoxine 4,8*S*, N-00044
Naphthylazoxine 5*S*, N-00045
Nitrobromoarsenazo; Di-Na salt, *in* N-00101
▷ 2-Phenyl-4-quinolinecarboxylic acid, P-00189
2-[(2-Pyridinylmethylene)amino]phenol, P-00393
N-(2-Pyridinylmethylene)-2-pyridinamine, P-00396
Stilbazochrome, S-00028
Stilbazokhimdu, S-00031
Sulfonazo, S-00048

1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255
 2,6,7-Trihydroxy-9-propyl-3*H*-xanthen-3-one, T-00316
 2,4,6-Trimethylpyridine, T-00337
 Xylenol orange, X-00006

Selenium

▷ Acetophenone, A-00008
 Acetyl dithiol, *in* M-00129
 Alizarine maroon, A-00079
 2-Aminodiphenylamine, A-00165
 1-[(2-Aminophenyl)amino]-2-propanol, A-00305
 Benzenesulfonic acid: 2-Phenylhydrazide, *in* B-00026
 3-Benzyl-2,6-dimercapto-4*H*-thiopyran-4-one, B-00178
 2-Benzylpyridine, B-00192
N,N'-Bis(4-benzoylthio)-1,2-benzenediamine, B-00257
 Bismuthiol II sulfonic acid, *in* M-00060
 ▷ 1,2-Diaminobenzene, D-00046
 1,2-Diamino-4-chlorobenzene; B,2HCl, *in* D-00064
 1,2-Diamino-3,5-dibromobenzene, D-00067
 1,2-Diamino-4,5-dichlorobenzene, D-00069
 ▷ 1,8-Diamino-4,5-dihydroxyanthraquinone, D-00075
 ▷ 1,2-Diamino-4-methylbenzene, D-00101
 2,3-Diaminonaphthalene, D-00106
 ▷ 1,2-Diamino-4-nitrobenzene, D-00108
 5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedithione, D-00121
 5,6-Diamino-4(1*H*)-pyrimidinethione, D-00122
 4-Dimethylamino-1,2-phenylenediamine, *in* T-00192
 Dinonyltin dinitrate, D-00980
 1,1-Diphenylhydrazine, D-01020
 ▷ Disulfiram, D-01107
 ▷ 4-Hydrazinobenzenesulfonic acid, H-00080
 ▷ 1,1'-Iminodianthraquinone, I-00011
 2,2'-Iminodianthraquinone, I-00012
 ▷ 2-Mercaptobenzimidazole, M-00022
 ▷ 2-Mercaptoethanol, M-00031
 2-Mercapto-*N*-(4-methoxyphenyl)acetamide, M-00033
 ▷ Methyl methacrylate, *in* M-00256
 4-(Methylthio)-1,2-benzenediamine, M-00325
 Orhanil B, O-00047
 3-Oxo-*N*-phenylbutanethioamide, O-00065
 ▷ 4-Phenylthiosemicarbazide, P-00200
 3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, P-00407
 ▷ Pyrrole, P-00436
 SKF 6270, *in* M-00069
 ▷ 3,3',4,4'-Tetraaminobiphenyl, T-00007
 ▷ Tetramethylthiocarbamic diamide, T-00105
 1,2,3-Trimethyl-3-pyrazoline-5-thione, *in* D-00451

Silicon

▷ Acid chrome violet K; Na salt, *in* A-00055
 ▷ Agar, A-00068
 2-Amino-4-chlorobenzenethiol, A-00135
 4-Amino-3-hydroxy-1-naphthalenesulfonic acid, A-00202
 ▷ Azure B, *in* L-00003
 Chromopyrazole, C-00286
 4,5-Dihydro-1*H*-pyrazole-3,4-dicarboxylic acid; Diamide, *N*-di-Me, *in* D-00480
 1,2-Di-4-morpholinylethane, D-00928
 ▷ Methylene green; Chloride, *in* M-00177

Silver

▷ Acridine yellow, *in* D-00079
 9-Amino-2,3-dihydrobenzo[*f*]phthalazine-1,4-dione, A-00151
 6-Amino-2,3-dihydro-1,4-phthalazinedione, A-00156

2-Amino-6-(methylthio)-4-pyrimidincarboxylic acid, *in* A-00231
 2-Amino-4-[(4-nitrophenyl)azo]-3-pyridinol, A-00283
 ▷ 5-Amino-1,3,4-thiadiazoline-2(3*H*)-thione, A-00354
 1*H*-Benzimidazole-2-methanethiol, B-00041
 1,5-Bis(2-bromophenyl)-*N*-phenyl-3-formazancarboxamide, B-00270
 1,5-Bis(2-chlorophenyl)-3-formazancarboxamide, B-00286
 1,5-Bis(2-chlorophenyl)-3-nitroformazan, B-00288
 1,5-Bis(2-chlorophenyl)-*N*-phenyl-3-formazancarboxamide, *in* B-00286
N,N'-Bis(2,3,5,6,9,10,12,13,15,16-decahydro-8*H*-1,7,4,7,11,14-benzodioxatetrathiacyclononadecin-19-yl)pentanediamide, B-00291
N,N'-Bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)pentanediamide, B-00292
 1,2-Bis[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00355
 1,3-Bis[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00356
 1,4-Bis[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00357
 1,5-Bis(2-fluorophenyl)-*N*-phenyl-3-formazancarboxamide, B-00358
 1,2-Bis(hexylthio)ethane, B-00359
 1,5-Bis(2-iodophenyl)-*N*-phenyl-3-formazancarboxamide, B-00396
 1,5-Bis(2-methylphenyl)-*N*-phenyl-3-formazancarboxamide, B-00409
N,N'-Bis(2,3,5,6,8,9,11,12-octahydro-1,13,4,7,10-benzodioxatrichiacyclopentadecin-15-yl)pentanediamide, B-00433
N,N'-Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)pentanediamide, B-00435
 Bromocresol purple, B-00499
 Bromothymol blue, B-00581
 2'-Chlorofluorescein, C-00116
 4'-Chlorofluorescein, C-00117
 5-Chloro-2-hydroxy-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzenesulfonic acid, C-00163
 4-Chloro-2-[(1,3,4,7,8,10,11,13-octahydro-6*H*-2,5,9,12-benzotetrathiacyclopentadecin-15-yl)azo]phenol, C-00191
 2-Cyano-3-iminodithiobutyric acid; NH₄ salt, *in* C-00328
N-(2,3,5,6,9,10,12,13,15,16-Decahydro-8*H*-1,17,4,7,11,14-benzodioxatetrathiacyclononadecin-19-yl)-2-propenamide, D-00005
N-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)-2-propenamide, D-00007
 1,3-Diamino-8-methoxyphenothiazine, D-00100
 4,4'-Diamino-3-methylbiphenyl; B, HCl, *in* D-00102
 1,1-Diantipyrilheptane, D-00137
 4-(3,5-Dibromo-2-pyridylazo)-*N,N'*-diethylaniline, D-00211
 4-(3,5-Dibromo-2-pyridylazo)-*N*-ethyl-*N*-(3-sulfopropyl)aniline, D-00212
 2',4'-Dichlorofluorescein, D-00273
 2',5'-Dichlorofluorescein, D-00274
 2',7'-Dichlorofluorescein, D-00275
 4',5'-Dichlorofluorescein; Di-Na salt, *in* D-00276
 6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, *in* A-00156
N,N-Diethyl-4-(2-thiazolylazo)benzenamine, *in* T-00138
 2,6-Dimercapto-3,5-dimethyl-4*H*-thiopyran-4-one, D-00754
 2,6-Dimercapto-3,5-dipropyl-4*H*-thiopyran-4-one, D-00756

2,6-Dimercapto-3-methyl-5-phenyl-4*H*-thiopyran-4-one, D-00757
 2,6-Dimercapto-4-oxo-4*H*-thiopyran-3-carboxylic acid, D-00759
 6-(Dimethylamino)-2,3-dihydro-1,4-phthalazinedione, *in* A-00156
 (2,5-Dimethylbenzenesulfonylamino)quinoline, D-00833
 Dinaphthizone, D-00931
 1,5-Di-(β-naphthyl)thiocarbazono, D-00933
 5-(Di-2-pyridinylmethylene)-2-thioxo-4-imidazolidinone, D-01085
 1,12-Di-2-thienyl-2,5,8,11-tetrathiadodecane, D-01115
 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
 ▷ Eicosahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, E-00004
 ▷ Eosine; Di-Na salt, *in* E-00007
 S-Ethyl-*N*-(diisopropylthiophosphoryl)dithiocarbamate, *in* B-00404
 3-[Ethyl[4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, E-00118
 ▷ Formaldehyde, F-00035
 Glyoxal bis(thiosemicarbazone), G-00034
 4-Heptanone; Oxime, *in* B-00012
 4,4'-Heptylidenebis[1,2-dihydro-3*H*-pyrazol-3-one], H-00018
 Hexabutylphosphorothioic triamide, *in* H-00020
 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,k*][1,7,10,4,13]oxadithiadiazacyclopentadecine, H-00039
 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,n*][1,4,10,7,13]trithiadiazacyclopentadecine, H-00046
 1,2,5,8,11,14-Hexathiacyclohexadecane, H-00069
 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
 5-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2-thioxo-4-thiazolidinone, H-00220
 2-Hydroxy-5-nitro-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, H-00391
 5-[(2-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00460
 ▷ Hypoxanthine, H-00564
 ▷ Isooctyl thioglycolate, *in* M-00016
O-Isopropyl-*N*-ethylthiocarbamate, *in* T-00159
 Isopropyl *N*-methylthiocarbamate, *in* M-00154
 2-Mercapto-*N*-2-naphthylacetamide, M-00038
 3-Mercapto-1-phenyl-2-buten-1-one, M-00044
 2-Mercapto-*N*-2-pyridinylacetamide, M-00055
 ▷ 2-Methoxyethanol, M-00087
 7-Methyl-2,4-octanedione, M-00209
 ▷ Metol, *in* A-00302
 1*H*-Naphtho[2,3-*d*]triazole, N-00039
 4-Nitro-*o*-anisaldoxime, *in* H-00379
 2-Nitro-*p*-anisaldoxime, *in* H-00381
 ▷ 4-Nitroso-1,3-benzenediol, N-00156
 2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatrichiacyclopentadecine, O-00004
N-(2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatrichiacyclopentadecin-15-yl)-2-propenamide, O-00005
N-(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)-2-propenamide, O-00007
 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrathiacyclopentadecin-15-amine, O-00008
 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrathiacyclopentadecine, O-00009
 4-[[1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrathiacyclopentadecin-15-yl)azo]phenol, O-00010

7,8,9,10,18,19,20,21-Octahydro-6*H*-dibenzo[*b,f*][1,4,5,10]dioxadiazacyclonadecane, O-00011
 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,m*][1,4,8,12]dioxadiazacyclotetradecane, O-00013
 5,6,7,8,9,10,16,17-Octahydrodibenzo[*e,m*][1,4,8,11]dioxadiazacyclotetradecane, O-00014
 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,m*][1,4,7,13]dithiadiazacyclotetradecane, O-00015
 6,7,9,10,18,19,20,21-Octahydrodibenzo[*h,r*][1,4,7,11,16]trioxadiazacyclonadecane, O-00020
 1,3,4,7,8,10,11,13-Octahydro-*N*-(2,4,6-trinitrophenyl)-6*H*-2,5,9,12-benzotetrahiacyclopentadecan-15-amine, O-00032
 3,3'-[3-[(Phenylamino)carbonyl]-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid], P-00080
 4-Phenyl-3*H*-1,2-dithiole-3-thione, P-00115
 5-Phenyl-3*H*-1,2-dithiole-3-thione, P-00116
 1,1'-[1,3-Phenylene]bis-2-tetrazoline-5-thione, P-00122
 1,1'-[1,4-Phenylene]bis-2-tetrazoline-5-thione; Di-Na salt, *in* P-00123
 2-Phenylethenylphosphonic acid, P-00129
N-Phenylmethyl[(4-chlorophenylamino)thioxomethyl]-*N*-phenylcarbamiimidothioate, P-00145
 3-[(Phenylmethyleneamino)-2-thioxo-4-thiazolidinone], P-00146
 5-(3-Phenyl-2-propenylidene)-2-thioxo-4-imidazolidinone, P-00170
 Phloxin; Di-K salt, *in* P-00212
 ▶ Riboflavine, R-00008
 ▶ Saccharin, S-00001
 Selenazone, S-00005
 3,3'-Sulfonylbis[*N*-8-quinolylbenzenesulfonamide], S-00055
 ▶ Sulphathiazole, S-00059
 2,2':6',2''-Terpyridine, T-00005
 8,9,17,18-Tetrahydro-7*H*-dibenzo[*e,m*][1,4,8,12]dioxadiazacyclotetradecane, T-00055
 Tetrakis(4-fluorophenyl)borate(1-); Na salt, *in* T-00084
 1,4,8,11-Tetrahiacyclopentadecane, T-00126
 3,6,10,13-Tetrahiacyclopentadecane, T-00129
 5-(2-Thienylmethylene)-2-thioxo-4-imidazolidinone, T-00152
O,O,O-Tributyl phosphorothioate, T-00215
 2',4',5'-Trichlorofluorescein, T-00224
 2',4',7'-Trichlorofluorescein, T-00225
 1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255
N,N',N''-Trihexylphosphorothioic triamide, T-00267
 ▶ Triphenylphosphine, T-00370

Sodium

4-(2-Arsono-4-nitrophenylazo)-4,5-dihydro-3-methyl-1-phenyl-1*H*-pyrazol-5-one, A-00420
 Benzo-12-crown-4, B-00052
 Benzo-15-crown-5, B-00054
 Benzo-18-crown-6, B-00055
 4-[(1,1'-Biphenyl)-4-ylcarbonyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3*H*-pyrazol-3-one, B-00213
 1,5-Bis(5-chloro-2-hydroxyphenyl)-3-cyanoformazan, B-00283
 Bis[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclotetradecan-15-yl)methyl]heptanedioate, B-00434
 2-Butenedioic acid bis[(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaoxacyclotetradecan-18-yl)methyl]ester, B-00610
 5-Chloro-2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]benzoic acid, C-00094
 (3-Chlorophenyl)methoxyacetic acid, *in* C-00221

▶ 15-Crown-5, C-00314
 Cryptand 2.2.2 B, C-00317
 ▶ Dibenzo-18-crown-6, D-00156
 7,18-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo-*[b,k]*[1,4,7,10,13,16]hexaoxacyclotetradecan, D-00236
 7,18-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo-*[b,k]*[1,4,7,10,13,16]hexaoxacyclotetradecan, D-00352
N-(9,10-Dihydro-9,10-dioxo-2-sulfoanthracenyl)benzenecarboxamide, *in* A-00093
 2,4-Dihydro-5-methyl-2-(2-methylphenyl)-4-(2-naphthalenylcarbonyl)-3*H*-pyrazol-3-one, D-00432
 2,4-Dihydro-5-methyl-2-(4-methylphenyl)-4-(2,2,3,3,3-pentafluoro-1-oxopropyl)-3*H*-pyrazol-3-one, D-00433
 2,4-Dihydro-5-methyl-2-(methylphenyl)-4-(3,5,5-trimethyl-1-oxohexyl)-3*H*-pyrazol-3-one, D-00434
 2-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]-5-nitrobenzenesulfonic acid; K salt, *in* D-00438
 2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid; Amide, *in* D-00463
 4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571
 1,2-Dihydroxy-3-(1,4,7,10-tetraoxa-13-azacyclotetradec-13-ylmethyl)-9,10-anthracenedione, D-00737
 4-[4-(1,1-Dimethylethyl)benzoyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3*H*-pyrazol-3-one, D-00859
 Dodecylmethylpropanedioate bis(1,4,7,10-tetraoxacyclododec-2-ylmethyl)ester, D-01152
 2-[(Dodecyloxy)methyl]-1,4,7,10-tetraoxacyclododecane, D-01154
 4-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-2,4-dihydro-5-methyl-2-(4-methylphenyl)-3*H*-pyrazol-3-one, H-00008
 1,4,10,13,16,19-Heptaoxacyclonadecane, H-00013
 2-Hydroxy-3,5-bis[(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00141
 2-Hydroxy-3,5-dinitrobenzyl-15-crown-5, H-00155
 (2-Hydroxy-3,5-dinitrophenoxymethyl)-15-crown-5, H-00159
 2-[[2-Hydroxy-4-methyl-5-(1-methylethyl)phenyl]azo]-5-nitrobenzenesulfonic acid; K salt, *in* H-00288
 2-[(2-Hydroxy-5-methylphenyl)azo]-5-nitrobenzenesulfonic acid; K salt, *in* H-00302
 2-[[5-Hydroxy-3-methyl-1-(phenylmethyl)-1*H*-pyrazol-4-yl]azo]-5-nitrobenzenesulfonic acid, H-00312
 2-[(2-Hydroxy-1-naphthalenyl)azo]-5-nitrobenzenesulfonic acid, H-00351
 13-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13-azacyclotetradecane, H-00386
 2-Hydroxy-[5-(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00398
 [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-15-crown-5, H-00400
 [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-18-crown-6, H-00401
 Mandelic acid; (±)-*form*, Me ether, *in* M-00007
 α-Methoxy-2-naphthaleneacetic acid, *in* H-00338
 2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13-pentaoxacyclotetradecane, M-00104
 1-[(3-Methyl-5-oxo-1-phenyl-2-pyrazolin-4-yl)azo]anthraquinone, M-00215
 2-[(3-Methyl-1-phenyl-4-pyrazolyl)azo]-4-nitrobenzenesulfonic acid, M-00240
 Nitroanthranilazo, N-00079
 4-[(4-Nitrophenyl)azo]-2-(1,4,7,10-tetraoxa-13-azacyclotetradec-13-yl)phenol, N-00130

6,7,9,10,17,18,20,21-Octahydro-7,18-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclotetradecane, O-00024
 4,7,13,16,21-Pentaoxa-1,10-diazabicyclo[8.8.5]tricosane, P-00037
 2-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclododecane, P-00141
 Tetrahydroxybutanedioic acid, T-00073
 2,3,14,15-Tetrakis(2-methoxyphenyl)-1,4,7,10,13,16,19,22-octaaxacyclotetradeca-2,14-diene, T-00087
 ▶ 1,4,7,10-Tetraoxacyclododecane, T-00113
 4,7,13,18-Tetraoxa-1,10-diazabicyclo[8.5.5]eicosane, T-00114
 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclotetradecane-7,16-diylbis(methylene)]bis[*N*-(2,4,6-trinitrophenyl)]benzenamine, T-00116
 2,4,6-Trinitro-*N*-[2-(1,4,7,10-tetraoxa-13-azacyclotetradec-13-ylmethyl)phenyl]benzenamine, T-00356
 4,10,15-Trioxa-1,7-diazabicyclo[5.5.5]heptadecane, T-00360

Strontium

Azo-azoxy AN, A-00464
 Azo-azoxy PMP, A-00466
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,13,16,19-hexaoxa-10,22-diazacyclotetradecane, B-00384
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-15,18-diazacyclonadecane, B-00385
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13,16-diazacyclotetradecane, B-00386
 3,6-Bis[(5-methyl-2-sulfo)phenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00426
 ▶ 4-Bromobenzoic acid, B-00488
 Calcein, C-00010
 Diamond green BW; Di-Na salt, *in* D-00133
 3,4-Dihydro-3-methyl-1-phenyl-4-stearoyl-5-pyrazolone, D-00444
 4,5-Dihydroxy-3,6-bis[(4-methyl-2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid; Tetra-Na salt, *in* D-00554
 4,5-Dihydroxy-3,6-bis[(4-nitro-2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00558
 5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone; Di-K salt, *in* D-00570
 4,5-Dihydroxy-3-[(2,4-disulfo)phenyl]azo]-6-[(4-nitro-2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00605
 4,5-Dihydroxy-3-[(2,4-disulfo)phenyl]azo]-6-[(2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00607
 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(2-sulfo)phenyl]azo]-2-naphthalenyl]azo]benzoic acid, D-00608
 4,5-Dihydroxy-3-[(4-nitro-2-sulfo)phenyl]azo]-6-[(2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00678
 ▶ Dimethyl sulfate, D-00916
 Dimethylsulfonazo DAL, D-00918
 4-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecan-18-yl)oxy]butanoic acid, H-00041
 1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, H-00455
 ▶ 5-Nitro-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione, N-00153
 ▶ Tetracycline, T-00039
 2-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,f*][1,4,8,11]tetraoxacyclotetradecan-7-yl)oxy]butanoic acid, T-00056
 3-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,f*][1,4,8,11]tetraoxacyclotetradecan-7-yl)oxy]propanoic acid, T-00057

- 2,2'-(1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyl)di-3,1-propanediyl]bis[4-[(4-nitrophenyl)azo]phenol], T-00117
- N,N'*-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyl]bis(methylene-2,1-phenylene)]bis[2,4,6-trinitrobenzenamine], T-00361
- 2,2'-(1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyl)di-3,1-propanediyl]bis[4-[(4-nitrophenyl)azo]phenol], T-00362

Sulfur

- ▷ 4-Aminoazobenzene, A-00094
Benzoin; (±)-*form*, in B-00068
N-[Bis(4-methoxyphenyl)methylene]benzenemethanamine, B-00402
- 1,4-Butanediyldis(triphenylphosphonium)(2+); Dibromide, in B-00602
- ▷ 1,2-Diamino-4-nitrobenzene, D-00108
4,5-Dihydroxy-3,6-bis[(4-nitro-2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00558
N-(4'-Dimethylaminophenyl)-1,4-naphthoquinone imine, D-00820
Ferrozine, F-00006
- ▷ 4-Nitroaniline, N-00077
[29*H*,31*H*]-[Phthalocyaninato(2-)]-*N*²⁹,*N*³⁰,*N*³¹,*N*³²]copper(II), P-00230
- ▷ Thionine hydrochloride, in L-00003

Sulfur: sulfide

- ▷ Amaranth, A-00087
- ▷ *N,N*-Diethyl-1,4-phenylenediamine, in D-00048
3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2-(3-nitrophenyl)-5-phenyl-2*H*-tetrazolium](2+); Dichloride, in D-00771
- ▷ *N,N*-Dimethylaniline, D-00831
2,9-Dimethyl-1,10-phenanthroline, D-00880
- ▷ *N,N*-Dimethyl-1,4-phenylenediamine, in D-00048
- ▷ 2,2'-Dithiobispyridine, D-01122
4,4'-Dithiobispyridine, D-01123
INT, in I-00048
N-*o*-Tolyl-2-thiopicolinamide, in P-00317

Sulfur: sulfite (sulfate (IV))

- ▷ 4-Aminoazobenzene, A-00094
▷ 1,2-Dinitrobenzene, D-00935
▷ 1,4-Dinitrobenzene, D-00937
3,3'-Dithiobis[6-nitrobenzoic acid], D-01120
Mercury chloroanilate, in D-00262
- ▷ 2,4,6-Trinitrobenzoic acid, T-00352
2,4,6-Tri-2-pyridinyl-1,3,5-triazine, T-00381
Tris(4-aminophenyl)methanol, T-00383

Sulfur: sulfate

- 6-(4-Acetylphenylazo)-2-aminoperimidine, A-00029
- ▷ 4-Aminobiphenyl, A-00117
4-Amino-4'-chlorobiphenyl, A-00136
- ▷ 2-Aminoperimidine, A-00297
Barium chloroanilate, in D-00262
Bis(4-aminophenyl)acetylene, B-00249
3,6-Bis[(5-methyl-2-sulfo)phenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00426
3-[[7-[4-Chlorophenylazo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]benzoic acid, C-00201
Cresol red, C-00310
- ▷ 4,4'-Diaminobiphenyl, D-00053
4-[(9,10-Dihydro-9,10-dioxo-1-anthracenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid; Ba salt, in D-00396
- ▷ 1,2-Dihydroxyanthraquinone, D-00510

- 4,5-Dihydroxy-3,6-bis[(4-methyl-2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid; Tetra-Na salt, in D-00554
- 4,5-Dihydroxy-3,6-bis[(2-sulfo)phenyl]azo]-2,7-naphthalenedisulfonic acid, D-00563
- 5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone; Di-K salt, in D-00570
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(2-sulfo)phenyl]azo]-2-naphthalenyl]azo]benzoic acid, D-00608
- 2-[[1,8-Dihydroxy-7-[(4-methoxyphenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00642
- 2-[[1,8-Dihydroxy-7-[(3-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00651
- 2-[[1,8-Dihydroxy-7-[(4-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00652
- 2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00664
- 2-[[1,8-Dihydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00692
- ▷ *N,N*-Dimethyl-1,4-phenylenediamine, in D-00048
- ▷ 2,4-Dinitrophenol, D-00958
Mercury chloroanilate, in D-00262
Methylthymol blue, M-00327
Orthanil B, O-00047
3-Pyridine-[2-(hydroxyimino)-1-methylpropylidene]carboxylic acid, P-00355
- ▷ Sorbitan monolaurate, in A-00367
Sudan blue GA, S-00037
Tetrahydroxy-1,4-benzoquinone, T-00072

Sulfur: thiocyanate

- Bromamine B, in B-00026
- ▷ Chloramine T, in M-00130
N,N-Dibromobenzene sulfonamide, D-00179
3-(3,5-Dibromo-2,4-dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00183
- ▷ Dibromosulfonephthalein, D-00215
Dichloramine B, in B-00026
- ▷ 2,4-Dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00443
3-(2,4-Dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00710
Dithiofluorescein, D-01132
4-Ethoxy-3,6-acridinediamine, in H-00094
4-[(2-Ethylphenyl)azo]-1-naphthalenamine, E-00103
- ▷ Fluorescein, F-00020
Neutral red; B,HCl, in N-00065
- ▷ 4-Phenylazo-1-naphthylamine, P-00093
N-(2-Pyridinylmethylene)benzenamine, P-00394
4,5,6,7-Tetrachloro-3-(2,4-dihydroxyphenyl)-3-methyl-1(3*H*)-isobenzofuranone, T-00028
Tris(4-aminophenyl)methanol, T-00383
Tris(1,10-phenanthroline-*N*¹,*N*¹⁰)iron(II)(2+), T-00412
Trypan red; Penta-Na salt, in T-00434

Sulfur: thiosulfate

- 2-Iodosylbenzoic acid, I-00053

Tantalum

- ▷ Aniline, A-00368
▷ 1,4-Benzenediol, B-00022
4-[Bis[4-(diethylamino)phenyl]hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, B-00295
4-Butoxy-*N*-(4-chlorophenyl)benzohydroxamic acid, B-00612

- 4-Butoxy-*N*-hydroxy-*N*-phenylbenzamide, B-00614
- ▷ C.I. Basic orange 14, in B-00313
9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00032
- ▷ 5-Chloro-8-hydroxy-7-iodoquinoline, C-00134
N-(4-Chlorophenyl)-4-chlorophenoxyisobutyrohydroxamic acid, C-00208
N-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamide, C-00235
2,7-Dibromogallein, D-00189
2,6-Dibromo-3,4,5-trihydroxybenzoic acid, D-00220
Digallic acid, D-00365
7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
Di(*n*-octyl)arsinic acid, D-00982
Ethylrhodamine B, in R-00002
2-Hydroxy-5-nitrobenzoic acid, H-00383
- ▷ 4-Hydroxy-3-nitrophenylarsonic acid, H-00392
3-Hydroxy-3',4',5,7-tetramethoxyflavone, in P-00025
Meldola's blue; Chloride, in M-00011
- ▷ Methylene green; Chloride, in M-00177
- ▷ Methyl violet, M-00336
Nitrochromopyrazole, N-00103
- ▷ Phenylarsonic acid, P-00090
Tannin, T-00001
Tetraoctylammonium(1+); Bromide, in T-00110
2,3,4-Trihydroxybenzenesulfonic acid; Na salt, in T-00274
2,6,7-Trihydroxy-9-phenyl-3*H*-xanthen-3-one, T-00315
- ▷ *N,N'*,*N''*-Triphenylguanidine, T-00366

Technetium

- 2-Acetylpyridine; Hydrazone, in A-00039
2,3-Butanedione dihydrazone, in B-00587
4-(1-Butylpentyl)pyridine, B-00635
Di-2-pyridinylethanedione; Dihydrazone, in D-01063
Di-2-pyridinylmethanone; Hydrazone, in D-01071
Di-2-pyridinylmethanone; Phenylhydrazone, in D-01071
Tetrapropylammonium(1+); Hydroxide, in T-00124

Tellurium

- Acetyl dithiol, in M-00129
Amberlite LA2, A-00089
Anthrafluorone, A-00387
1-Benzyl-5-bromo-1,3-dihydro-2*H*-benzimidazole-2-thione, B-00175
3-Benzyl-2,6-dimercapto-4*H*-thiopyran-4-one, B-00178
1-Benzyl-5-methoxy-1,3-dihydro-2*H*-benzimidazole-2-thione, B-00188
1-Benzyl-5-methyl-2,3-dihydro-2*H*-benzimidazole-2-thione, B-00189
4-[Bis[*p*-(dimethylamino)phenyl]hydroxymethyl]-4-chloro-3-methyl-1-phenyl-2-pyrazolin-5-one, B-00319
3-(4-Bromophenyl)-5-mercaptop-1,3,4-thiadiazole-2-thione, B-00553
1,2-Dihydro-4-[(2-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00415
3,4-Dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00504
2,6-Dimercapto-3,5-diphenyl-4*H*-thiopyran-4-one, D-00755
- ▷ 1,3-Di-1-naphthyl-2-thiourea, D-00934
Diocetyl sulfoxide, D-00984
- ▷ 2,2'-Diphenylcarbonothioic dihydrazone, D-01007
- ▷ 1,1'-Iminodianthraquinone, I-00011
5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione, M-00039

- 5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione; K salt, *in* M-00039
- ▷ 5-Mercapto-1,3,4-thiadiazoline-2-thione, M-00060
- 3-(*p*-Methoxyphenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, M-00111
- ▷ 2-Methylbenzenethiol, M-00131
- 3-Methylbenzenethiol, M-00132
- ▷ 4-Methylbenzenethiol, M-00133
- 4,4'-(3-Methylbutylidene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], M-00150
- 9,9'-[Methylenebis(6-hydroxy-3,1-phenylene)]bis-[2,6,7-trihydroxy-3*H*-xanthen-3-one], M-00172
- N*-Methylpiperazinedithiocarbamic acid, *in* P-00238
- Orthanil B, O-00047
- ▷ Papaverine, P-00005
- 9,9'-(1,3-Phenylene)bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], P-00124
- ▷ 4-Phenylthiosemicarbazide, P-00200
- 3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, P-00407
- Rhodamine 4G, *in* R-00005
- Rhodamine 3G0; Chloride, *in* R-00004
- Sodium diethylthiocarbamate, *in* D-00344
- ▷ Tetramethylthiodicarbamic diamide, T-00105
- O-(2,2,2-Trifluoroethyl)carbonodithioate, T-00246
- 2,4,4'-Trihydroxybenzophenone, T-00279
- 2,6,7-Trihydroxy-9-pentadecyl-3*H*-xanthen-3-one, T-00307
- 2,6,7-Trihydroxy-9-(2-quinolinyl)-3*H*-xanthen-3-one, T-00320

Thallium

- ▷ Acridine yellow, *in* D-00079
- 4-Amino-2,4-dihydro-5-propyl-3*H*-1,2,4-triazole-3-thione, A-00157
- o*-Anize green; Chloride, *in* A-00373
- p*-Anize green; Chloride, *in* A-00374
- Anthrazo; B,HCl, *in* A-00389
- Arsenazo DAL, A-00407
- Arsenazo II, A-00411
- Astrafloxine G; Chloride, *in* A-00450
- Astrazon red 6B; Chloride, *in* A-00455
- Benzenebutane(dithioic)acid, B-00013
- 2-(2-Benzothiazolylazo)-4-methylphenol, B-00097
- N*-Benzylaniline, B-00165
- 1-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-5-(4-nitrophenyl)formazan, B-00171
- 5-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-1-(4-nitrophenyl)formazan, B-00172
- 1,5-Bis(7-benzyl-2-benzimidazolyl)-3-methylformazan, B-00258
- N,N'*-Bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)pentanediamide, B-00292
- N,N'*-Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)pentanediamide, B-00435
- ▷ Brilliant green; Hydrogen sulfate, *in* B-00479
- 2-[(6-Bromo-2-benzothiazolyl)azo]-4-methylphenol, B-00491
- 2-[(5-Bromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00125
- 3-(Carboxymethylthio)-1,5-diphenylformazan, C-00034
- Cationic red violet; Chloride, *in* C-00046
- Cationic violet; Chloride, *in* C-00047
- 5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206
- Cyclohexylbenzylthiocarbamate(1-); Triethylammonium salt, *in* C-00351

- N*-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)-2-propenamide, D-00007
- 6,7,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,4,7,10,13,16]trioxatriazacyclooctadecine, D-00015
- 6,7,9,10,17,18,19,20,21,22-Decahydro-19-[(4-methylphenyl)sulfonyl]-16*H*-dibenzo[*h,q*][1,4,7,10,13,16]trioxatriazacyclooctadecine, *in* D-00015
- ▷ 4,4'-Diaminobiphenyl, D-00053
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00149
- O,O*-Dibutyl phosphorodithioate; K salt, *in* D-00241
- O,O*-Dibutyl phosphorothioate, D-00242
- N,N*-Dichloro-4-methylbenzenesulfonamide, D-00285
- 5-(Diethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
- O,O*-Dihexyl phosphorodithioate, D-00369
- 4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00635
- 5,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00646
- O,O*-Diisopentyl phosphorodithioate, D-00746
- ▷ Diisopropyl ether, D-00748
- 4,4'-[*p*-(Dimethylamino)- α -hydroxybenzylidene]diantipyrine, D-00785
- 2-[2-[(5-Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* D-00826
- ▷ *O,O*-Dimethyl phosphorodithioate, D-00896
- 4,5-Dimethyl-2-(2-quinolinylazo)phenol, D-00914
- 7-(4,5-Dimethyl-2-thiazolyl)azo-8-hydroxy-5-quinolinesulfonic acid, D-00922
- O,O*-Dipentyl phosphorodithioate, D-00996
- O,O*-Dipropyl phosphorodithioate, D-01060
- ▷ *O,O*-Di-2-propynyl phosphorodithioate, D-01061
- Dithioantipyrine acid, D-01116
- ▷ Dithione, D-01135
- 5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, *in* A-00253
- Furfurol green; Chloride, *in* F-00063
- ▷ 2,2',4,4',6,6'-Hexanitrodiphenylamine, H-00065
- 3-Hydroxy-1,3-diphenyl-1-triazene, H-00170
- Lucigenine; Dinitrate, *in* L-00012
- Meldola's blue; Chloride, *in* M-00011
- 2-Mercapto-*N*-2-naphthylacetamide, M-00038
- 2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazol[3,2-*a*]pyridin-4-ium(1+); Chloride, *in* M-00108
- 2-[[2-(Methoxyphenyl)hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolinium(1+); Perchlorate, *in* M-00110
- ▷ 4-Methylaniline, M-00124
- 4,4'-Methylenebis[3-methyl-1-(2-pyridyl)-5-pyrazol-ol], M-00173
- ▷ Methylene green; Chloride, *in* M-00177
- 4-Methyl-5-(methylamino)-2-(2-pyridinylazo)phenol, *in* A-00253
- 7-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-8-quinolinol, M-00253
- 1-Naphthalenecarbo(dithio)ic acid; Me₃N salt, *in* N-00002
- ▷ 1-Naphthol, N-00025
- Naphthylazoxine 5,7S, N-00046
- N*-(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)-2-propenamide, O-00007
- 6,7,9,10,17,18,21,22-Octahydro-16*H*,20*H*-dibenzo[*h,q*][1,4,7,13,10,16]tetraoxadiazacyclooctadecine, O-00019

- 7,8,9,10,17,18,21,22-Octahydro-6*H*,16*H*,20*H*-dibenzo[*b,k*][1,7,13,4,10,16]trioxatriazacyclooctadecine, O-00022
- 7,8,9,10,17,18,21,22-Octahydro-8-[(4-methylphenyl)sulfonyl]-6*H*,16*H*,20*H*-dibenzo[*b,k*][1,7,13,4,10,16]trioxatriazacyclooctadecine, *in* O-00022
- Panacryl brilliant red; Chloride, *in* P-00004
- 9-Phenylbenzo(1,2)quinolinzo[3,4,5,6-*def*]phenanthridinium(1+); Perchlorate, *in* P-00105
- 6-Phenyl-1,2,4-triazine-3(2*H*)-thione, P-00205
- 7-(2-Pyridinylazo)-8-quinolinol, P-00381
- Rhodamine B, *in* R-00002
- ▷ Saccharin, S-00001
- Tetrakis(4-fluorophenyl)borate(1-); Na salt, *in* T-00084
- 2,4,6-Triphenylpyridine; *N*-Ph, acetate (salt), *in* T-00373
- Tris(2,2'-bipyridine-*N,N'*)iron(II)(2+), T-00384
- Victoria pure blue BO; Chloride, *in* V-00004

Thorium

- 8-Acetoxyquinaldine, *in* H-00326
- Alamine, A-00070
- 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)-6-methylphenol *N,N*-diacetic acid, A-00239
- 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)phenol-*N,N*-diacetic acid, A-00240
- 4-[[3-(Aminomethyl)-4-hydroxyphenyl]imino]-2,6-dibromo-2,5-cyclohexadien-1-one-*N,N*-diacetic acid, A-00243
- ▷ Arsenazo III, A-00412
- Arsenazo IV, A-00413
- 3-[(2-Arsenophenyl)azo]-6-[(2-*o*-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00421
- 3-[(2-Arsenophenyl)azo]-6-[(2-*o*-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00422
- 3-[(2-Arsenophenyl)azo]-6-[(4-*o*-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00423
- 3-[(2-Arsenophenyl)azo]-6-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00424
- 3-[(2-Arsenophenyl)azo]-6-[(5-chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00425
- 3-[(2-Arsenophenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00427
- 3-[[7-[(2-Arsenophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-4-*o*-arsenobenzoic acid, A-00431
- 3-[[7-[(2-Arsenophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-2-hydroxy-5-sulfobenzoic acid, A-00432
- 3-[(4-Arsenophenyl)azo]-4,5-dihydroxy-6-[(4-methylphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00435
- 3-[(4-Arsenophenyl)azo]-4,5-dihydroxy-6-(phenylazo)-2,7-naphthalenedisulfonic acid, A-00438
- 3-[(2-Arsenophenyl)azo]-6-[(4-dimethylaminophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00440
- Aspartic acid; (\pm)-*form*, *in* A-00447
- Astrazon pink FG; Chloride, *in* A-00454
- Azomethine H; Na salt, *in* A-00472
- ▷ Benzenesulfonic acid, B-00025
- ▷ 1,2,4,5-Benzenetetracarboxylic acid, B-00029
- ▷ 1,2,4-Benzenetricarboxylic acid, B-00032
- 1,3,5-Benzenetricarboxylic acid, B-00033
- 4-Benzoyl-3-phenyl-5(4*H*)-isoxazolone, B-00143
- N*-Benzylaniline, B-00165
- 2,2'-Biphenyldicarboxylic acid, B-00207

- 3,6-Bis[(2-*arsono*-4-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00256
- ▷ Bis(2-ethylhexyl) phosphate, B-00352
- Bis(2-methylpropyl) phenylphosphonate, *in* P-00164
- 3-[(6-Bromo-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00490
- 3-[(4-Bromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00546
- ▷ Butanoic acid, B-00604
- ▷ *N*-Butylaniline, B-00617
- Chlorophosphonazo-*m*-sulfonic acid, C-00246
- 3-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00247
- Chrome red brown 5RD; Di-Na salt, *in* C-00284
- Chromotrope 2B; Di-Na salt, *in* C-00290
- Chromotrope 2C, C-00291
- ▷ Decanedioic acid, D-00022
- Dibromoarsenazo II, D-00177
- 3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00289
- Diethylphosphoramidic acid; Diheptyl ester, *in* D-00353
- 9,10-Dihydro-1,4-dihydroxy-9,10-dioxo-3-(4-sulfophenoxy)-2-anthracenesulfonic acid, D-00377
- 2,5-Dihydroxy-1,4-benzoquinone, D-00540
- 4,5-Dihydroxy-3,6-bis[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00562
- 4,5-Dihydroxy-3-[4,5-(dimethyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00579
- 4,5-Dihydroxy-3,6-dinitroso-2,7-naphthalenedisulfonic acid, D-00583
- 3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)bis[2-hydroxy-5-sulfobenzoic acid], D-00589
- 2,2'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)bis[5-sulfobenzoic acid], D-00590
- 3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)bis[4-*arsono*benzoic acid], D-00591
- 3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)bisbenzoic acid, D-00593
- 4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-hydroxybenzoic acid, D-00598
- 2-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenoxyacetic acid; Di-Na salt, *in* D-00601
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(2-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00608
- 5,7-Dihydroxyflavone, D-00612
- 4,5-Dihydroxy-3-(3-methylphenylazo)-6-phenylazo-2,7-naphthalenedisulfonic acid, D-00654
- 4,5-Dihydroxy-3-[(2-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00665
- 4,5-Dihydroxy-3-[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00666
- 4,5-Dihydroxy-3-nitroso-6-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00676
- 4,5-Dihydroxy-3-[(4-phenyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00718
- 4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722
- 4,5-Dihydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00733
- 4,5-Dihydroxy-3-[(5-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00734
- 4,5-Dihydroxy-3-[(6-sulfo-2-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00735
- Eliamina blue FFL; Tetra-Na salt, *in* E-00006
- Eriochrome fast grey RAS; Na salt, *in* E-00014
- 3-[(6-Ethoxy-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, E-00053
- ▷ Fumaric acid, F-00038
- ▷ Gallocyanine; Chloride, *in* G-00005
- ▷ Hexamethylenetetramine, H-00057
- ▷ (1-Hydroxyethylidene)bisphosphonic acid, H-00178
- ▷ 2-Hydroxy-3-methylbenzoic acid, H-00278
- 2-Hydroxy-5-methylbenzoic acid, H-00279
- 1-Hydroxy-2-naphthoic acid, H-00369
- N*-Hydroxy-*N*-nitrosocyclooctylamine, H-00412
- N*-Hydroxy-*N*-nitroso-2-propanamine, H-00418
- 4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-sulfonic acid; NH₄ salt, *in* H-00429
- 5-[(8-Hydroxy-5-quinolyl)imino-8(5*H*)-quinolone], H-00535
- 1*H*-Inden-2-ylphosphonic acid, I-00026
- 7-Methyl-2,4-octanedione, M-00209
- ▷ (1-Naphthyl)acetic acid, N-00040
- ▷ 3-Nitrobenzoic acid, N-00092
- ▷ Phenylarsonic acid, P-00090
- Phthalaxon S, P-00221
- ▷ Purpurogallin, P-00282
- Quinizarin S; Na salt, *in* Q-00006
- Quinoline; *N*-CH₃Ph, nitrate salt, *in* Q-00007
- 1-(2-Selenophenyl)-2-propanone, S-00007
- ▷ Solochrome black 6BN; Na salt, *in* S-00017
- Solochrome fast red; Na salt, *in* S-00020
- Tetrachlorogallein, T-00035
- 2',3,5,7-Tetrahydroxyflavone, T-00074
- ▷ 3,3',4',5'-Tetrahydroxy-7-methoxyflavone, T-00078
- Thorin, T-00177
- 1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255
- 3,4,6-Trihydroxy-5*H*-benzocyclohepten-5-one, T-00275
- 3,4',7-Trihydroxyflavone, T-00283
- ▷ 3,5,7-Trihydroxyflavone, T-00284
- 5,7,8-Trihydroxyflavone, T-00286
- 2,5,8-Trihydroxy-1,4-naphthoquinone, T-00300
- 2-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzenesulfonic acid, T-00305
- Triphenylarsine oxide, T-00364
- Xylenol orange, X-00006
- Tin**
- ▷ Agar, A-00068
- Alizarine orange, A-00080
- Amberlite LA2, A-00089
- Anisylfluorone, A-00372
- Astrazon orange R; Chloride, *in* A-00453
- 3-Benzyl-2,6-dimercapto-4*H*-thiopyran-4-one, B-00178
- 3,3'-Bi[2,6-dimercapto-4*H*-thiopyran-4-one], B-00203
- 4-[Bis[4-(diethylamino)phenyl]hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, B-00295
- 9-(5-Bromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00513
- Cacotheline, C-00005
- [5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxyphenyl]arsonic acid, C-00096
- N*-(3-Chlorophenyl)-*N*-hydroxybenzamide, *in* H-00109
- N*-(4-Chlorophenyl)-*N*-hydroxybenzamide, *in* H-00109
- N*-(3-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, *in* F-00064
- N*-(4-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, *in* F-00064
- Cotarnilfluorone, C-00302
- ▷ 1,3-Dibromo-5,5-dimethyl-2,4-imidazolidinedione, D-00185
- 9-(3,4-Dibromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00198
- 3,5-Dibutyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00230
- ▷ 1,3-Dichloro-5,5-dimethyl-2,4-imidazolidinedione, *in* D-00866
- N,N*-Dichloro-4-methylbenzenesulfonamide, D-00285
- 2-(2,3-Dihydro-2-benzothiazolyl)phenol, D-00372
- 2,6-Dimercapto-3,5-dimethyl-4*H*-thiopyran-4-one, D-00754
- 2,6-Dimercapto-3,5-diphenyl-4*H*-thiopyran-4-one, D-00755
- 2,6-Dimercapto-3,5-dipropyl-4*H*-thiopyran-4-one, D-00756
- 2,6-Dimercapto-3-pentyl-4*H*-thiopyran-4-one, D-00760
- 2,6-Dimercapto-3-propyl-4*H*-thiopyran-4-one, D-00764
- 4,5-Dimethyl-2-(2-quinolinylazo)phenol, D-00914
- 1-(Ethylimino)methyl-2-naphthalenol, E-00096
- Gallein, G-00004
- Gossypol; (±)-*form*, *in* G-00041
- ▷ Haematoxylin; (+)-*form*, *in* H-00002
- Hexahydro-2*H*-1,3-diazepine-2-thione, H-00037
- 3-Hexyl-2,6-dimercapto-4*H*-thiopyran-4-one, H-00075
- N*-Hydroxy-2-thiophenecarboxamide; *N*-(3-Chlorophenyl), *in* H-00054
- N*-Hydroxy-2-thiophenecarboxamide; *N*-(4-Chlorophenyl), *in* H-00554
- ▷ 4-Methyl-1,2-benzenedithiol, M-00129
- 3-Methyl-5-propyl-2,6-dimercapto-4*H*-thiopyran-4-one, M-00258
- Pentylmagnesium bromide, P-00041
- ▷ Phenylarsonic acid, P-00090
- 4-Phenyl-3*H*-1,2-dithiole-3-thione, P-00115
- 5-Phenyl-3*H*-1,2-dithiole-3-thione, P-00116
- ▷ Piperazine, P-00237
- ▷ Propanedioic acid, P-00261
- Pyrocatechol violet, P-00433
- Sodium tetraethylborate, *in* T-00042
- 2,6,7-Trihydroxy-9-(3-nitrophenyl)-3*H*-xanthen-3-one, T-00302
- 2,6,7-Trihydroxy-9-(4-nitrophenyl)-3*H*-xanthen-3-one, T-00303
- 2,6,7-Trihydroxy-9-phenyl-3*H*-xanthen-3-one, T-00315
- 2,6,7-Trihydroxy-9-propyl-3*H*-xanthen-3-one, T-00316
- 2,6,7-Trihydroxy-9-(3-pyridinyl)-3*H*-xanthen-3-one, T-00318
- 1,3,3-Trimethyl-2-[2-(2-methyl-1*H*-indol-3-yl)ethylene]-3*H*-indolium(1+); Chloride, *in* T-00328
- Tris(2-ethylhexyl)phosphine oxide, T-00390
- Titanium**
- 3-Acetyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00644
- 2-(Acetyloxy)-*N*-hydroxy-*N*-phenylbenzamide, A-00028
- ▷ Adrenaline, A-00066
- 2-Aminobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, A-00108
- 4-Aminobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00110
- 7-Amino-2-ethylphenothiazine, A-00177
- Anabasin; *N*-Ac, *in* P-00244
- 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* B-00056
- 6-(Benzoylacetyl)-1,4-benzodioxan, B-00119
- 3-Benzyl-4,5-dihydroxycoumarin, B-00177
- ▷ Bis(2-ethylhexyl) phosphate, B-00352
- 4-Butoxy-*N*-(4-chlorophenyl)benzohydroxamic acid, B-00612
- 4-Butoxy-*N*-hydroxy-*N*-phenylbenzamide, B-00614
- 9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00032

- 4-(Chloromethyl)-2-[(3,4-dihydroxyphenyl)azo]-5-thiazolecarboxylic acid; Me ester, *in* C-00176
- N*-(4-Chlorophenyl)-4-chlorophenoxyisobutyrohydroxamic acid, C-00208
- 3-(4-Chlorophenyl)-3-hydroxy-1-phenyltriazene, C-00233
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamide, C-00235
- Chromotropic acid, C-00294
- 1,2-Cyclohexanedione bisbenzoylhydrazone, C-00340
- 4-Cyclohexyl-6-(2-pyridinylazo)-1,3-benzenediol, C-00358
- 1,1-Diantipryl-2-hydroxyphenylmethane, D-00138
- 1,1-Diantiprylmethane, D-00139
- 1,1-Diantiprylphenylmethane, D-00140
- Dibromotrichromin, D-00219
- ▷ Dibutyl phosphate, D-00237
- 2,3-Dihydro-8-hydroxy-9-phenyl-7*H*-pyrano[2,3-*f*]-1,4-benzodioxin-7-one, D-00422
- 3,4-Dihydroxyazobenzene, D-00515
- 4,5-Dihydroxy-3-[*N,N*-bis(carboxymethyl)aminomethyl]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00547
- N,N'*-Dihydroxy-*N,N'*-diphenylheptanediamide, D-00587
- 3,4-Dihydroxy-10-imino-9(10*H*)-anthracenone, D-00634
- 6,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00647
- 7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
- 6,7-Dihydroxy-4-phenylcoumarin, D-00708
- 9-(3,4-Dihydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00719
- 4,5-Dihydroxy-3-(5-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00734
- ▷ Diphenhydramine hydrochloride, *in* D-00998
- Diphenylglyoxal bis(2-hydroxybenzoylhydrazone), D-01017
- 2-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00084
- 3-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00085
- 3-Ethyl-5-hydroxy-2,7-dimethyl-4*H*-1-benzopyran-4-one, E-00086
- 2-Ethyl-5-hydroxy-3-methyl-4*H*-1-benzopyran-4-one, E-00090
- 3-Ethyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, E-00091
- 3-(2-Furanyl)-*N*-hydroxy-*N*-(4-methylphenyl)-2-propenamide, *in* F-00053
- 3-(2-Furanyl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* F-00053
- 3-(2-Furanyl)-2-mercapto-2-propenoic acid, F-00054
- ▷ Haematoxylin; (+)-*form*, *in* H-00002
- Heptylarsonic acid, H-00015
- Hydrazo II, H-00087
- 2-Hydroxybenzaldehyde *N*-(4-aminobenzoyl)hydrazone, H-00103
- 2-Hydroxybenzaldehyde 6-methyl-2-nicotinoylhydrazone, H-00106
- 2-Hydroxybenzoic acid 2-acetylhydrazide, H-00114
- 2-Hydroxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, H-00116
- 2-Hydroxybenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, H-00120
- 5-Hydroxy-2,3-dimethyl-4*H*-1-benzopyran-4-one, H-00150
- N*-Hydroxy-*N*,5-diphenyl-2,4-pentadienamide, H-00169
- 5-Hydroxy-7-methoxy-2,6-dimethyl-4*H*-1-benzopyran-4-one, *in* D-00575
- 5-Hydroxy-7-methoxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00645
- 5-Hydroxy-2-methyl-4*H*-1-benzopyran-4-one, H-00281
- 5-Hydroxy-3-methyl-4*H*-1-benzopyran-4-one, H-00282
- 3-Hydroxy-2-methyl-1-(4-methylphenyl)-4(1*H*)-pyridinone, H-00289
- N*-Hydroxy-*N*-(4-methylphenyl)benzamide, *in* H-00109
- 3-Hydroxy-2-naphthalenecarboxylic acid [[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazide, H-00341
- N*-Hydroxy-4-(octyloxy)-*N*-phenylbenzamide, H-00425
- N*-Hydroxy-*N*-phenylbenzeneacetamide, H-00463
- N*-Hydroxy-*N*-phenyldodecanamide, *in* L-00001
- N*-Hydroxy-*N*-phenyl-2-furancarboxamide, H-00472
- N*-Hydroxy-*N*-phenyl-2,4-hexadienamide, *in* H-00185
- 1-(2-Hydroxyphenyl)-1-propanone; Oxime, *in* H-00498
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzoic acid, H-00507
- (Hydroxy-3-pyridinylmethyl)phosphoric acid, H-00523
- 2-Hydroxy-3-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00557
- 2-Hydroxy-4-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00558
- 3-Hydroxy-2-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00559
- 5*H*-Imidazole-4-carboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, I-00002
- 1-Isopropyl-2-methoxy-4-methylbenzene, *in* I-00075
- ▷ 2-Isopropyl-5-methylphenol, I-00075
- 2-Mercapto-3-phenyl-2-butenic acid, M-00043
- p*-Methoxy-*N*-phenylcinnamohydroxamic acid, *in* H-00241
- 2-Methyl-4-pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, M-00272
- 1,8-Naphthalenediol, N-00009
- 4-Nitrobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, N-00094
- N*-(3-Nitrophenyl)- β -oxobenzenepropenamide, N-00140
- ▷ Pachycarpine, *in* S-00023
- 1-Phenyl-1,3-butanedione, P-00107
- [Phenyl(phenylamino)]methylphosphonic acid; Mono-octyl ester, *in* P-00155
- 2-Phenyl-1-(2,4,6-trihydroxyphenyl)ethanone, P-00209
- Phthalocyaninetetrasulfonic acid; Tetra-Na salt, *in* P-00231
- 2-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00348
- 3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00349
- 3-Pyridinecarboxylic acid (2-pyridinylmethylene)hydrazide, P-00351
- 3-Pyridine-[2-(hydroxyimino)-1-methylpropylidene]carboxylic acid, P-00355
- 2-(2-Pyridinylazo)-1-naphthalenol, P-00375
- Pyridoxal; Salicyloylhydrazone, *in* P-00414
- Salicylamidoxime, *in* H-00112
- Salicylhydroxamic acid, *in* H-00112
- Tannin, T-00001
- ▷ Tetrabromo-1,2-benzenediol, T-00012
- 2,3,7,8-Tetrahydroxyphenazine, T-00079
- Tetraoctylammonium(1+); Bromide, *in* T-00110
- Tetraphenylphosphonium(1+); Bromide, *in* T-00120
- 3,3'-Thiobis[6-hydroxybenzoic acid], T-00158
- Tichromin; Tetra-Na salt; B.HCl, *in* T-00185
- ▷ Tiron, T-00186
- N*-*o*-Tolylcinnamohydroxamic acid, *in* H-00499
- ▷ Tributylphosphine oxide, T-00213
- ▷ Triethylamine, T-00231
- 2,3,4-Trihydroxybenzenesulfonic acid; Na salt, *in* T-00274
- 2,3,4-Trihydroxybenzoic acid, T-00276
- 4-[(3,4,5-Trihydroxybenzoyl)amino]benzoic acid, T-00280
- 4-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)-1,3-benzenedisulfonic acid, T-00304
- 2-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzenesulfonic acid, T-00305
- 2-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00310
- 2,6,7-Trihydroxy-9-propyl-3*H*-xanthen-3-one, T-00316
- 2,6,7-Trihydroxy-9-(2-pyridinyl)-3*H*-xanthen-3-one, T-00317
- 2,6,7-Trihydroxy-9-(2-sulfonylphenyl)-3*H*-xanthen-3-one, T-00322
- ▷ Vitamin C, *in* A-00446

Tungsten

- ▷ Acet-*o*-toluide, *in* M-00123
- Acetyl dithiol, *in* M-00129
- ▷ 1,4-Benzenediol, B-00022
- 9-(4-Bromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00558
- o*-Chloroacetanilide, *in* C-00058
- ▷ *p*-Chloroacetanilide, *in* C-00060
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2,3-dimethylphenyl)benzenecarboximidamide, C-00085
- 2-Chloro-*N*-(2-chlorophenyl)-*N'*-phenylbenzenecarboximidamide, C-00088
- 4-(Chloromethyl)-2-[(3,4-dihydroxyphenyl)azo]-5-thiazolecarboxylic acid; Me ester, *in* C-00176
- ▷ *N*-(3-Chloro-4-methylphenyl)acetamide, *in* C-00171
- 2-Chloro-*N*-(2-methylphenyl)-*N'*-phenylbenzenecarboximidamide, C-00184
- N*-(2-Chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide, C-00209
- N*-(4-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)benzenecarboximidamide, C-00214
- ▷ Cinchonine, C-00298
- Cupron, *in* B-00068
- 4,5-Dibromo-9-(3,5-dibromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00181
- 2,5-Dibromo-3,6-dihydroxy-1,4-benzoquinone, D-00182
- 2,7-Dibromogallein, D-00189
- Digallic acid, D-00365
- 6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00584
- 6,7-Dihydroxy-9-(2-hydroxyphenyl)-3*H*-xanthen-3-one, D-00628
- 2-[(3,4-Dihydroxyphenyl)azo]-4-(4-carboxyphenyl)-5-thiazolecarboxylic acid; 4'-Me ester, 5-Et ester, *in* D-00690
- 2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid; Me ester, *in* D-00696
- 2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole, D-00699
- 4-[2-[(3,4-Dihydroxyphenyl)azo]-5-phenyl-4-thiazolyl]benzoic acid; Me ester, *in* D-00700
- 2,3-Dimercapto-2-butenedinitrile, *in* D-00753
- ▷ 2,3-Dimethylaniline; *N*-Ac, *in* D-00827
- ▷ 2,5-Dimethylaniline; *N*-Ac, *in* D-00828
- ▷ 2,6-Dimethylaniline; *N*-Ac, *in* D-00829
- ▷ 3,4-Dimethylaniline; *N*-Ac, *in* D-00830
- 4,5-Dimethyl-1,2-benzenedithiol, D-00832
- N*-(2,3-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00892
- Gossypol bis(4-hydroxyphenyl)imine, G-00043
- 4-[4-(Hydroxymethyl)-2-thiazolyl]azo]-1,2-benzenediol, H-00328

N-Hydroxy-2-methyl-*N*-[3-(trifluoromethyl)phenyl]benzamide, H-00333
 5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1*H*,3*H*)-pyrimidinedione; NH₄ salt, in H-00354
 1-Isopropyl-2-methoxy-4-methylbenzene, in I-00075
 ▶ 2-Isopropyl-5-methylphenol, I-00075
 ▶ 4-Methylaniline; *N*-Ac, in M-00124
 ▶ 4-Methyl-2-pentanone, M-00218
N-(2-Methylphenyl)-*N'*-(4-chlorophenyl)benzamide, M-00226
 ▶ Piperazine, P-00237
 Pyridoin, P-00412
 Pyrocatechol violet, P-00433
 ▶ Quinine, Q-00005
 ▶ Rutin, R-00014
 Stilbazogall I, S-00029
 Tannin, T-00001
 ▶ Tetraphenylarsonium(1+); Chloride, in T-00119
 Tridodecylamine, T-00230
 2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, T-00301
 2,4,6-Triphenylpyridine; *N*-Ph, acetate (salt), in T-00373

Uranium

p-Acetylsarsenazo, A-00012
 4-Acetyl-2,4-dihydro-2,5-dimethyl-3*H*-pyrazol-3-one, A-00015
 ▶ Acid yellow 2G; Na salt, in A-00059
 Alamine oxide, A-00071
 ▶ Arsenazo III, A-00412
 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00421
 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00422
 3-[(2-Arsonophenyl)azo]-6-[(4-arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00423
 3-[(2-Arsonophenyl)azo]-6-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00424
 3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00425
 3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-4-arsonobenzoic acid, A-00431
 3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-2-hydroxy-5-sulfobenzoic acid, A-00432
 3-[(2-Arsonophenyl)azo]-6-[(4-dimethylaminophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00440
 Benzfuroin oxime, in F-00052
 ▶ Benzoic acid, B-00059
 2-Benzoyl-4-nitro-1*H*-indene-1,3(2*H*)-dione, B-00139
 2-Benzoyl-5-nitro-1*H*-indene-1,3(2*H*)-dione, B-00140
N-Benzylaniline, B-00165
 3-Benzyl-4,5-dihydroxycoumarin, B-00177
 3,6-Bis[(2-arsono-4-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00256
 ▶ Bis(2-ethylhexyl) phosphate, B-00352
 ▶ 1,4-Bis[(4-methylphenylamino)]-9,10-anthracenedione, B-00406
 Bis(2-methylpropyl) phenylphosphonate, in P-00164
 4-Bromo-*N*-hydroxybenzamide, B-00510
 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, in A-00126
 ▶ *N*-Butylaniline, B-00617
 ▶ 2-Chlorobenzoic acid, C-00066
 7-Chloro-8-hydroxy-5-quinolinesulfonic acid, C-00152
 Chlorophosphonazo III, C-00242
 Chlorophosphonazo-*m*-sulfonic acid, C-00246
 Chromotrope 2C, C-00291

N-Cinnamoylphenylhydroxylamine, in H-00499
 2,6-Diacetylpyridine bis(benzoylhydrazone), D-00036
 2,6-Diacetylpyridine bis(2-furoylhydrazone), D-00037
 2,6-Diacetylpyridine bis(2-pyridylhydrazone), D-00039
 1,1-Diantipyrilheptane, D-00137
 2-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]ethanesulfonic acid, in A-00149
 3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, in A-00149
 ▶ Dibutylarsinic acid, D-00226
 ▶ 2,4-Dichlorobenzoic acid, D-00249
 2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, in A-00214
 5-(Diethylamino)-2-(2-pyridinylazo)phenol, in A-00336
 2,2'-Dihydroxyazobenzene, D-00514
 ▶ 6,7-Dihydroxy-2*H*-1-benzopyran-2-one, D-00538
 7,8-Dihydroxy-2*H*-1-benzopyran-2-one, D-00539
 4,5-Dihydroxy-3,6-bis[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00560
 Dihydroxybutenedioic acid, D-00567
 ▶ 3,4-Dihydroxy-3-cyclobutene-1,2-dione, D-00569
 3,3'-(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bis[4-arsonobenzoic acid], D-00591
 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00594
 4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00595
 ▶ 7,8-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00648
 7,8-Dihydroxy-3-phenyl-2*H*-1-benzopyran-2-one, D-00705
 1-(2,4-Dihydroxyphenyl)-1-pentanone, D-00714
 2-[(4,5-Dimethyl-2-thiazolyl)azo]-4,6-dimethylphenol, D-00921
 2,4-Dimethyl-6-(2-thiazolylazo)phenol, D-00923
 ▶ 2,4-Dinitro-1,3-benzenediol, D-00940
 4-(1,3-Dioxo-3-phenylpropyl)benzenesulfonic acid, D-00994
 ▶ Diphenylacetic acid, D-00999
 1,3-Diphenyl-1,3-propanedione, D-01041
 Dodecyl gallate, in T-00277
 ▶ Ethyl acetate, E-00062
 4-Ethyl-*N*-hydroxy-*N*-phenylbenzamide, E-00093
 Glycinethymol blue, G-00019
 2-Guanidino-1,2-dihydro-5-methyl-3*H*-pyrazol-3-one, G-00045
 ▶ Hexamethylenetetramine, H-00057
 ▶ Hexanedioic acid, H-00062
 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-[[2-hydroxyphenyl]methylene]carbonic acid dihydrazide, H-00218
 ▶ 5-Hydroxy-2-(hydroxymethyl)-4*H*-pyran-4-one, H-00222
 3-Hydroxy-4-[[2-hydroxy-4-sulfo-1-naphthalenyl]azo]-2-naphthalenecarboxylic acid; Na salt, in H-00242
 5-Hydroxy-7-methoxyflavone, in D-00612
N-Hydroxy-2-methoxy-*N*-(4-methylphenyl)benzamide, in H-00263
N-Hydroxy-*N*-(3-methylphenyl)-3-nitrobenzamide, in N-00090
 2-Hydroxy-1-naphthaldehyde; Oxime, in H-00336
 4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-sulfonic acid; NH₄ salt, in H-00429
 2-Hydroxy-*N*-phenylbenzamide, in H-00112
N-Hydroxy-*N*-phenyl-2-naphthalenecarboxamide, in N-00024
 1-Hydroxy-1-phenylurea, in P-00211
 ▶ 2-Hydroxy-5-sulfobenzoic acid, H-00538

2-Hydroxy-5-[[4-sulfophenyl]azo]benzoic acid; Di-Na salt, in H-00542
N-Hydroxy-2-thiophenecarboxamide; *N*-(3-Chlorophenyl), in H-00554
 5-Methoxy-2-(2-thiazolylazo)phenol, in T-00141
 1-[(5-Methyl-2-pyridinyl)azo]-2-naphthalenol, M-00281
 Mono(2-ethylhexyl) phosphate, M-00339
 Moonion A-9Q-08, in B-00181
 ▶ 1-Nitroso-2-naphthol, N-00160
 2-Oxo-*N*-phenylcyclopentanecarboxamide, in O-00060
 ▶ Phenylacetic acid, P-00076
 ▶ 3-Phenyl-2-propenoic acid, P-00169
 Primene JM T, P-00255
 ▶ Propanedioic acid, P-00261
 ▶ 3-Pyridinecarboxylic acid, P-00343
 2,2'-[2,6-Pyridinediylbis(methylidynenitrilo)]bisphenol, P-00354
 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
 Septonex, in E-00061
 ▶ Solochrome black 6BN; Na salt, in S-00017
 Solochrome fast red; Na salt, in S-00020
 Tannin, T-00001
 ▶ 3,3',4',5'-Tetrahydroxy-7-methoxyflavone, T-00078
 Tetrapropylammonium(1+); Hydroxide, in T-00124
 1-Thiocarbamido-3-methyl-5-pyrazolone, T-00160
 4,4,4-Trifluoro-1-phenyl-1,3-butanedione, T-00260
 1,1,1-Trifluoro-4-phenyl-4-thioxo-2-butanone, T-00262
 ▶ 2',3',4'-Trihydroxyacetophenone, T-00269
 3,4,6-Trihydroxy-5*H*-benzocyclohepten-5-one, T-00275
 5,7,8-Trihydroxyflavone; (*S*)-form, 7-*O*-Glucuronopyranoside, in T-00282
 ▶ 3,5,7-Trihydroxyflavone, T-00284
 5,7,8-Trihydroxyflavone, T-00286
 Triphenylarsine oxide, T-00364
 Tris(6-methylheptyl)amine; B,HCl, in T-00408

Vanadium

2-Acetylpyridine; Thiosemicarbazone, in A-00039
 2-Aminobenzoic acid 2-benzoylhydrazide, A-00106
 2-Aminobenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, A-00107
 4-Aminobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00110
 2-Aminobenzoic acid (1-methylthylidene)hydrazide, A-00109
 ▶ 2-Amino-4,6-dinitrophenol, A-00164
 2-Amino-*N*-hydroxybenzamide, in A-00103
 5-Amino-4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, in A-00187
 3-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00199
 7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, A-00208
 4-[(2-Amino-3-hydroxy-4-pyridinyl)azo]benzenesulfonic acid, A-00217
 5-Amino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00236
 7-Amino-1-methyl-3*H*-phenoxazin-3-one, A-00247
 ▶ 2-Amino-3*H*-phenoxazin-3-one, A-00303
 7-Amino-3*H*-phenoxazin-3-one, A-00304
N-(3-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, A-00324
N-(4-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, A-00325
 5-Amino-2-(2-quinolinylazo)phenol, A-00344
 ▶ Aniline, A-00368
 Azomethine H; Na salt, in A-00472
 ▶ 1,2,4-Benzenetricarboxylic acid, B-00032

- 1,2,3-Benzenetricarboxylic acid; Tri-Na salt, *in* B-00031
- 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(3-methylphenyl)-2-propenamide, *in* B-00056
- 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(4-methylphenyl)-2-propenamide, *in* B-00056
- 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* B-00056
- Benzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, B-00061
- Benzoylhydrazine, *in* B-00059
- N*-Benzoyl-*N*-phenylhydroxylamine, *in* P-00135
- ▶ Benzylidimethyldodecylammonium(1+); Bromide, *in* B-00179
- N*-Benzyl-2-naphthohydroxamic acid, *in* N-00024
- 2,2'-[1,1'-Biphenyl]-4,4'-diyl(dimino)bisbenzoic acid, B-00209
- Bis(4-dimethylaminobenzylidene)-4,4'-methylenedianiline; B, 4HCl, *in* B-00314
- N,N*-Bis(2-hydroxypropyl)ethanolamine, B-00393
- N*-[3,5-Bis(trifluoromethyl)phenyl]-*N*-hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465
- 5-Bromo-*N*,2-dihydroxybenzamide, B-00503
- 9-(5-Bromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00513
- N*-(4-Bromophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, B-00552
- 1-[(5-Bromo-2-pyridinyl)azo]-2-naphthalenol, B-00573
- Cacotheline, C-00005
- 9-(2-Carboxy-4-pyridyl)fluorone, C-00043
- 4-Chlorobenzohydroxamic acid, C-00065
- 2-Chloro-*N,N'*-bis(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, C-00074
- 2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, C-00086
- 2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, C-00087
- 5-Chloro-2-hydroxy-4-methylacetophenone; Oxime, *in* C-00135
- 2-Chloro-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* C-00064
- 2-Chloro-*N*-hydroxy-*N*-(3-methylphenyl)benzamide, *in* C-00064
- 4-Chloro-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-1-naphthalenylbenzamide, C-00136
- 3-[(5-Chloro-2-hydroxy-3-sulfoxyphenyl)azo]-6-[(3-chloro-5-sulfoxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00153
- N'*-(4-Chloro-2-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, C-00181
- N'*-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, C-00182
- N'*-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-phenylbenzamide, C-00183
- ▶ 4-Chlorophenol, C-00196
- N*-(3-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00215
- N*-(3-Chlorophenyl)-*N'*-(2,5-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00216
- N*-(3-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00217
- N*-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00218
- N*-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxy-4-methylbenzenecarboximidamide, C-00219
- N*-(4-Chlorophenyl)-3-(2-furanyl)-*N*-hydroxy-2-propenamide, C-00220
- N*-(4-Chlorophenyl)-*N*-hydroxy-2-butenamide, C-00223
- N*-(4-Chlorophenyl)-*N*-hydroxy-2,4-hexadienamide, *in* H-00185
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methoxyphenyl)benzenecarboximidamide, C-00224
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(4-methoxyphenyl)-2-propenamide, C-00225
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4-methylenedioxyphenyl)-2-propenamide, C-00226
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(3-methylphenyl)benzenecarboximidamide, C-00228
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methylphenyl)benzenecarboximidamide, C-00229
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-phenylbenzenecarboximidamide, C-00230
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-phenyl-2-propenamide, C-00232
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, C-00234
- 3-[(5-Chloro-3-sulfoxyphenyl)azo]-4,5-dihydroxy-6-[(3-sulfoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00262
- N*-Cinnamoylphenylhydroxylamine, *in* H-00499
- Cupron, *in* B-00068
- Cyclohexanoylphenylhydroxylamine, *in* H-00145
- ▶ Desferrioxamine, D-00029
- ▶ 1,2-Diaminobenzene, D-00046
- ▶ 4,4'-Diamino-3,3'-dimethoxybiphenyl, *in* D-00056
- 4,4'-Diamino-3,3'-dimethyl-[1,1'-binaphthalen]-6,6'-disulfonic acid, D-00081
- ▶ 1,3-Diamino-2-propanol-*N,N,N',N'*-tetraacetic acid, D-00116
- 4,4'-Dianilinobiphenyl, *in* D-00053
- 1,1-Diantipyrilphenylmethane, D-00140
- 2-[(3,5-Dibromo-4-methyl-2-pyridinyl)azo]-5-(diethylamino)phenol, D-00196
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(dimethylamino)benzoic acid, D-00201
- 2-(2,4-Dichlorophenoxy)-*N*-(4-methylphenyl)acetohydroxamic acid, *in* D-00288
- 2-(2,4-Dichlorophenoxy)-*N*-phenylacetohydroxamic acid, *in* D-00288
- N*-[2-(Diethylamino)ethyl]-4-[(8-hydroxy-5-quinolinyl)azo]benzamide, D-00317
- 4,5-Dihydro-3,5-diphenylisoxazole; (\pm)-form, *in* D-00400
- 4,5-Dihydro-1,5-diphenyl-3-(2-phenylethenyl)-1*H*-pyrazole, D-00401
- 2,4-Dihydro-5-methyl-4-(1-oxodecyl)-2-phenyl-3*H*-pyrazol-3-one, D-00435
- 4,5-Dihydro-5-phenyl-3-(2-phenylethenyl)isoxazole, D-00467
- 4,5-Dihydro-1,3,5-triphenyl-1*H*-pyrazole, D-00506
- 4,5-Dihydroxy-3,6-bis[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00549
- 2-[[1,8-Dihydroxy-7-[(5-chloro-3-sulfoxyphenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00568
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-nitro-5-sulfoxyphenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00604
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfoxyphenyl)azo]-6-[(3-nitro-5-sulfoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00622
- 3,4-Dihydroxy-10-imino-9(10*H*)-anthracenone, D-00634
- ▶ 7,8-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00648
- 4,5-Dihydroxy-3-[(5-nitro-3-sulfoxyphenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00677
- 4,5-Dihydroxy-3-[(5-nitro-3-sulfoxyphenyl)azo]-6-[(3-sulfoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00679
- ▶ 2,6-Dihydroxy-4-pyridinecarboxylic acid, D-00721
- 1,4-Dihydroxy-2-(2-pyridylmethyl)anthraquinone, D-00725
- ▶ 5,7-Diiodo-8-quinolinol, D-00744
- 2,3-Dimercapto-2-butenedinitrile, *in* D-00753
- ▶ 1,2-Dimethoxybenzene, D-00766
- 2,2'-[(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, D-00772
- 5-(Dimethylamino)-2-nitrosophenol; B,HCl, *in* D-00804
- N*-[4-(Dimethylamino)phenyl]-*N*-hydroxy-3-methoxy-2-naphthalenecarboxamide, D-00814
- 2,2'-[(3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, D-00837
- N,N'*-Dimethyldiphenylbenzidine, *in* D-00053
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* B-00619
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, *in* B-00619
- ▶ *N,N*-Dimethyl-1,4-phenylenediamine, *in* D-00048
- N'*-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, D-00889
- N'*-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-phenylbenzamide, D-00890
- N*-(2,3-Dimethylphenyl)-*N*-hydroxy-3-phenylpropanamide, D-00891
- 3,4-Dinitro-1,2-benzenediol, D-00941
- Eriochrome green B, E-00016
- 2-(Ethylamino)-4-methyl-5-(8-quinolinylazo)phenol, *in* A-00255
- 4-Ethyl-*N*-hydroxy-*N*-phenylbenzamide, E-00093
- 1-[(Ethylimino)methyl]-2-naphthalenol, E-00096
- ▶ *N*-Fluoren-1-ylbenzohydroxamic acid, F-00016
- 3-(2-Furanyl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* F-00053
- Gossypol bis[*N*-(2-hydroxy)ethyleneimine], G-00042
- 3,3a,4,5,6,7-Hexahydro-2,3-diphenyl-2*H*-indazole, H-00047
- 3,3a,4,5,6,7-Hexahydro-3-phenyl-2,1-benzisoxazole, H-00050
- 2'-Hydroxyacetophenone; Oxime, *in* H-00089
- 2-Hydroxybenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, H-00120
- 2-Hydroxybenzoic acid [2-(2-pyridinyl)ethylidene]hydrazide, H-00121
- 2-Hydroxybenzoic acid [2-pyridinyl(3-sulfoxyphenyl)methylene]hydrazide, H-00122
- N*-Hydroxy-*N,N'*-bis(4-methylphenyl)benzenecarboximidamide, *in* H-00308
- N*-Hydroxybutanamide, H-00142
- N*-Hydroxy-*N,N'*-diphenylbenzenecarboximidamide, *in* D-0106[†]
- N*-Hydroxy-4-(diphenylmethyl)benzamide, H-00168
- N*-Hydroxy-*N*,5-diphenyl-2,4-pentadienamide, H-00169
- ▶ (1-Hydroxyethylidene)bisphosphonic acid, H-00178
- N*-Hydroxy-2,4-hexadienamide, H-00185
- N*-Hydroxyhexanamide, H-00186
- 4-Hydroxy-3-[(5-hydroxybenzo[*q*]phenazin-6-yl)azo]benzenesulfonic acid, H-00187
- 4-Hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-1-naphthalenesulfonic acid, H-00199
- ▶ 5-Hydroxy-2-(hydroxymethyl)-4*H*-pyran-4-one, H-00222
- ▶ Hydroxylamine, H-00257

- N*-Hydroxy-4-methoxybenzamide, H-00264
N-Hydroxy-2-methoxy-*N*-(2-methylphenyl)benzamide, *in* H-00263
N-Hydroxy-2-methoxy-*N*-(3-methylphenyl)benzamide, *in* H-00263
N-Hydroxy-2-methoxy-*N*-1-naphthalenylbenzamide, H-00267
N-Hydroxy-4-methoxy-*N*-1-naphthalenylbenzamide, H-00268
N-Hydroxy-2-methoxy-*N*-phenylbenzamide, *in* H-00263
N-Hydroxy-4-methoxy-*N*-phenylbenzamide, *in* D-00704
N-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-(4-methylphenyl)benzenecarboximidamide, *in* H-00270
N-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-phenylbenzenecarboximidamide, *in* H-00270
N-Hydroxy-3-(4-methoxyphenyl)-2-propenamide; *N*-(3-Methylphenyl), *in* H-00272
N-Hydroxy-3-(4-methoxyphenyl)-2-propenamide; *N*-(4-Methylphenyl), *in* H-00272
N-Hydroxy-*N*-(3-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00273
N-Hydroxy-*N*-(4-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00274
N-Hydroxy-2-methyl-*N*-(2-methylphenyl)benzamide, *in* M-00135
N-Hydroxy-2-methyl-*N*-(3-methylphenyl)benzamide, *in* M-00135
N-Hydroxy-4-methyl-*N*-(3-methylphenyl)benzamide, *in* M-00136
N-Hydroxy-4-methyl-*N*-(4-methylphenyl)benzamide, *in* M-00136
N-Hydroxy-2-methyl-*N*-1-naphthalenylbenzamide, H-00290
N-Hydroxy-4-methyl-*N*-1-naphthalenylbenzamide, H-00291
N-Hydroxy-2-methyl-*N*-phenylbenzamide, H-00306
N-Hydroxy-4-methyl-*N*-phenylbenzamide, H-00307
N-Hydroxy-*N*-(4-methylphenyl)-2-butenamide, *in* H-00143
N-Hydroxy-*N*-(3-methylphenyl)decanamide, *in* H-00147
N-Hydroxy-*N*-(4-methylphenyl)decanamide, *in* H-00147
N-Hydroxy-*N*-(4-methylphenyl)-2-furancarboxamide, *in* F-00064
N-Hydroxy-*N*-(3-methylphenyl)-2,4-hexadienamide, *in* H-00185
N-Hydroxy-*N*-(4-methylphenyl)hexanamide, *in* H-00186
1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one; 4-Me ether, oxime, *in* H-00311
N-Hydroxy-*N*-(4-methylphenyl)-3-nitrobenzamide, *in* N-00090
N-Hydroxy-*N'*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, *in* H-00308
N-Hydroxy-*N*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, H-00313
3-Hydroxy-2-methyl-1-phenyl-4(1*H*)-pyridinone, H-00315
N-Hydroxy-*N*-(4-methylphenyl)tetradecanamide, H-00316
N-Hydroxy-*N*-(3-methylphenyl)-3-(2-thienyl)-2-propenamide, *in* H-00553
N-Hydroxy-*N*-(4-methylphenyl)-3-(2-thienyl)-2-propenamide, *in* H-00553
2-Hydroxy-1-naphthaldehyde; Oxime, *in* H-00336
▷ *N*-Hydroxy-2-naphthalenecarboxamide, H-00340
N-Hydroxy-*N*-1-naphthalenyldecanamide, H-00359
N-Hydroxy-*N*-1-naphthalenyl-dodecanamide, H-00360
N-Hydroxy-*N*-1-naphthalenylhexanamide, H-00361
N-Hydroxy-*N*-1-naphthalenyl-4-nitrobenzamide, H-00365
N-Hydroxy-*N*-1-naphthalenylpentanamide, H-00366
N-Hydroxy-*N*-1-naphthalenyltetradecanamide, H-00368
3-Hydroxy-2-naphthohydroxamic acid, *in* H-00370
1-[(2-Hydroxy-5-nitrophenyl)azo]-2-naphthalenol, H-00396
N-Hydroxy-3-nitro-*N*-phenylbenzamide, *in* N-00090
N-Hydroxy-*N*-(4-nitrophenyl)-3-(2-thienyl)-2-propenamide, H-00405
N-Hydroxyoctanamide, H-00424
N-Hydroxy-4-(octyloxy)-*N*-phenylbenzamide, H-00425
6-Hydroxy-5-oxo-5*H*-dibenzo[*a*,*f*]phenoxazine-8,11-disulfonic acid, H-00432
6-Hydroxy-1,7-phenanthroline, H-00438
N-Hydroxy-*N*-phenyl-2-chlorobenzamide, H-00470
N-Hydroxy-*N*-phenyldecanamide, *in* H-00147
N-Hydroxy-*N*-phenyl-2-furancarboxamide, H-00472
N-Hydroxy-*N*-phenyl-2,4-hexadienamide, *in* H-00185
N-Hydroxy-*N*-phenyl-2-naphthalenecarboxamide, *in* N-00024
N-Hydroxy-*N*-phenylpentanamide, H-00492
N-Hydroxy-*N*-phenyltetradecanamide, H-00504
N-Hydroxy-*N*-phenyl-3-(2-thienyl)-2-propenamide, H-00505
2-(3-Hydroxy-3-phenyl-1-triazenyl)benzoic acid, H-00507
N-Hydroxy-*N*-phenyl-3-(trifluoromethyl)benzamide, H-00511
N-Hydroxy-3-pyridinecarboxamide, *in* P-00341
▷ 8-Hydroxyquinoline, H-00525
8-Hydroxy-5-quinolinesulfonic acid, H-00528
N-Hydroxy-2-thiophenecarboxamide; *N*-(4-Chlorophenyl), *in* H-00554
N-Hydroxy-2-thiophenecarboxamide; *N*-(4-Methylphenyl), *in* H-00554
N-Hydroxy-2-thiophenecarboxamide; *N*-Ph, *in* H-00554
5*H*-Imidazole-4-carboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, I-00002
▷ 2,2'-Iminodibenzoic acid, I-00013
2,3'-Iminodibenzoic acid, I-00014
2,4'-Iminodibenzoic acid, I-00015
Isophthalaldihydroxamic acid, *in* B-00019
Isopropylidenedehydrazide, *in* A-00007
3-Isopropyl-6-methyl-2-[[5-(1-methylpiperidinyl)-2-pyridinyl]azo]phenol, I-00074
Laurohydroxamic acid, L-00001
▷ Lauryltrimethylammonium (1+); Bromide, *in* L-00002
4-Methoxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, M-00080
▷ 2'-Methoxydiphenylamine-2-carboxylic acid, *in* H-00167

p-Methoxy-*N*-phenylcinnamohydroxamic acid, *in* H-00241
3-Methyl-1,2-benzenediol, M-00127
11-Methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00140
N-Methyldiphenylamine-4-sulfonic acid, M-00166
3,3'-Methylenebis[*N*,6-dihydroxybenzamide], M-00170
5-Methyl-2-(1-methylethyl)-4-(2-pyridinylazo)phenol, M-00198
4-Methyl-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, M-00200
2-Methyl-4-[(4-methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00202
N-(4-Methylphenyl)-2-phenoxacetylhydroxamic acid, M-00235
2-Methyl-4-pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, M-00272
1-[(6-Methyl-2-pyridinyl)azo]-2-naphthalenol; *N*-Oxide, *in* M-00282
2-Methyl-4-(1*H*-1,2,4-triazol-3-ylazo)-1,3-benzenediol, M-00328
N-1-Naphthylphenylacetohydroxamic acid, N-00054
Nevazol NS, N-00067

p-Nitrobenzohydroxamic acid, *in* N-00093
4-Nitrobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, N-00094
▷ 2'-Nitrodiphenylamine-2-carboxylic acid, N-00106
N-(3-Nitrophenyl)- β -oxobenzeneopropenamide, N-00140
N'-(3-Chloro-4-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, N-00170
2-Oxo-*N*-phenylcyclopentanecarboxamide, *in* O-00060
▷ Pericyazine, P-00044
Phenosafranine; *N,N,N',N'*-Tetra-Et, chloride, *in* P-00070
1-Phenylazo-2-hydroxy-3-naphthylhydroxamic acid, *in* H-00452
Phenylazoxine S, P-00101
N-Phenylcrotonohydroxamic acid, *in* H-00143
N-Phenyl-4-(phenylazo)benzohydroxamic acid, P-00156
Phthalocyaninetetrasulfonic acid; Tetra-Na salt, *in* P-00231
▷ Piperazine, P-00237
▷ Prochlorperazine, P-00256
3-Pyridinecarboxaldehyde; Hydrazide, *in* P-00319
▷ 2-Pyridinecarboxylic acid, P-00342
2-Pyridinecarboxylic acid; Hydrazide, *in* P-00342
3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00349
4-Pyridinecarboxylic acid [(4-hydroxyphenyl)methylene]hydrazide, P-00350
2-Pyridinethiol *N*-oxide, *in* P-00357
4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
2-Quinolincarboxamide, *in* Q-00017
Salicylhydroxamic acid, *in* H-00112
▷ Salicyloyl hydrazide, *in* H-00112
Solochrome red ERS, S-00022
Sulfochlorophenol N, S-00043
N-(4-Sulfophenyl)-2-aminobenzoic acid, S-00056
Tetraoctylammonium (1+); Chloride, *in* T-00110
Thymolphthalexon, T-00183
▷ Tiron, T-00186
N-*m*-Tolylcinnamohydroxamic acid, *in* H-00499
N-*o*-Tolylcinnamohydroxamic acid, *in* H-00499
N-*p*-Tolylcinnamohydroxamic acid, *in* H-00499
N-*m*-Tolyl-*o*-iodobenzohydroxamic acid, *in* I-00040
N-*o*-Tolyl-*o*-iodobenzohydroxamic acid, *in* I-00040
N-*p*-Tolyl-octanohydroxamic acid, *in* H-00424
Tribenzylamine, T-00201
1,1,1,-Trifluoro-5,5-dimethyl-2,4-hexanedione, T-00244
2,6,7-Trihydroxy-9-(2-hydroxy-5-nitrophenyl)-3*H*-xanthen-3-one, T-00291
2,6,7-Trihydroxy-9-(8-hydroxy-2-quinolinyl)-3*H*-xanthen-3-one, T-00295
2,6,7-Trihydroxy-9-pentadecyl-3*H*-xanthen-3-one, T-00307
2,6,7-Trihydroxy-9-(2-quinoxaliny)-3*H*-xanthen-3-one, T-00321
Wool fast blue BL; Na salt, *in* W-00002

Zinc

- 8-Acetoxyquinoline, *in* H-00326
 4-Acetylpyridine 4-ethyl-3-thiosemicarbazone, A-00041
 4-Adamantyl-2-(2-hydroxy-1-naphthalenylazo)thiazole, A-00064
 4-[(2-Amino-5-bromo-3-pyridinyl)azo]-1,3-benzenediol, A-00124
 ▶ 5-Amino-1,3,4-thiadiazoline-2(3*H*)-thione, A-00354
 Azo-azoxy BN, A-00465
 ▶ 1,3-Benzenediol, B-00021
 8-(Benzenesulfonylamino)quinoline, B-00028
 1*H*-Benzimidazole-2-carboxaldehyde 2-quinolinylhydrazone, B-00040
 5-(1*H*-Benzimidazol-5-yl)-3-phenyl-1-[1-(phenylmethyl)-1*H*-benzimidazol-2-yl]formazan, B-00049
 1-(2-Benzothiazolylazo)-2-naphthalenol, B-00098
 10-(2-Benzothiazolylazo)-9-phenanthrenol, B-00099
 2-[(4-Benzothiazolylimino)methyl]phenol, B-00104
 ▶ 1*H*-Benzotriazole, B-00110
 4-Benzoyl-2-(2-chlorophenyl)-2,4-dihydro-5-methyl-3*H*-pyrazol-3-one, B-00126
 4-Benzoyl-2-(4-chlorophenyl)-2,4-dihydro-5-methyl-3*H*-pyrazol-3-one, B-00127
 ▶ 2,2'-Bipyridine, B-00220
N,N'-Bis(butanedisulfonyl)-1,2-benzenediamine, B-00271
 Bis(carboxymethyl)dithiocarbamic acid, B-00279
 Bis[(2,3-dihydroxyphenyl)methylene]carbonothioic dihydrazide, B-00308
O,O-Bis(2-methylpropyl)phosphorodithioate; Na salt, *in* B-00413
 1,2-Bis(octanesulfonamido)benzene, B-00436
 1,8-Bis(octanesulfonamido)naphthalene, B-00437
 3,3'-Bis(trifluoromethyl)dithizone, B-00463
 4-Bromo-1,3-benzenediol, B-00486
 3-[[4-[(6-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00570
 Butanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, B-00605
 ▶ Cetylclide, *in* E-00071
 ▶ 4-Chloro-1,3-benzenediol, C-00061
 3-Chlorobenzoic acid (1*H*-pyrrol-2-ylmethylene)hydrazide, C-00069
 2-Chloro-5-[[5-hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-2-methylphenyl]azo]benzenesulfonic acid; Na salt, *in* C-00132
 6-Chloro-1-hydroxy-4-nitro-1*H*-benzotriazole, C-00137
 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-methylbenzoyl)-3*H*-pyrazol-3-one, C-00210
 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(3-methylbenzoyl)-3*H*-pyrazol-3-one, C-00211
 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(4-methylbenzoyl)-3*H*-pyrazol-3-one, C-00212
 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-naphthalenylcarbonyl)-3*H*-pyrazol-3-one, C-00213
 Chrome bordeaux B; Di-Na salt, *in* C-00279
 Chromopyrazole, C-00286
 Deuteroporphyrin IX, D-00030
 1,6-Diallyl-2,5-dithiobiurea, D-00040
 2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00059
 4,4'-Diamino-3,3'-dimethyl-1,1'-binaphthyl, D-00082
 Di-2-benzothiazolylmethane, D-00163
O,O-Dibutyl phosphorodithioate; K salt, *in* D-00241
O,O-Dibutyl phosphorothioate, D-00242
 4,4-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00245
 ▶ *N,N*-Diethylaniline, D-00337
 2,2'-Difluorodithizone, D-00360
 4,4'-Difluorodithizone, D-00361
O,O-Dihexyl phosphorodithioate, D-00369
 5-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-2,4-dihydroxybenzoic acid, D-00381
 3-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00382
 3-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]-2-hydroxy-5-methylbenzenesulfonic acid; Na salt, *in* D-00437
 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00581
 6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid; Na salt, *in* D-00724
O,O-Diisopentyl phosphorodithioate, D-00746
 4,4'-Dimethoxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, *in* D-00572
 4,4'-Dimethoxydithizone, D-00775
 5-(Dimethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
 (2,5-Dimethylbenzenesulfonylamino)quinoline, D-00833
 5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, *in* D-00847
 ▶ *O,O*-Dimethyl phosphorodithioate, D-00896
 1,2-Di-4-morpholinylethane, D-00928
 Dinaphthizone, D-00931
 4-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00953
 1-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2-naphthol, D-00954
 Dioctylamine; *N*-Methyl, *in* D-00981
O,O-Dipentyl phosphorodithioate, D-00996
O,O-Dipropyl phosphorodithioate, D-01060
 Di-2-pyridinylethanedione bis(2-quinolinylhydrazone), D-01067
 Di-2-pyridinylmethanone 2-chlorobenzoylhydrazone, D-01074
 Di-2-pyridinylmethanone 3-chlorobenzoylhydrazone, D-01075
 ▶ Dithizone, D-01135
 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
 Eriochrome fast grey RAS; Na salt, *in* E-00014
 [1,2-Ethanediy]bis[imino(phenylmethylene)]bisphosphonic acid, E-00031
 [Ethylenebis(iminobenzylidene)]diphosphonic acid, E-00074
 2-Furancarboxaldehyde 3-bromobenzoylhydrazone, F-00045
 2-Furancarboxaldehyde 4-bromobenzoylhydrazone, F-00046
 3-(2-Furanyl)-*N*-hydroxy-*N*-(4-methylphenyl)-2-propenamide, *in* F-00053
 Glyoxal bis(4-biphenylthiosemicarbazone), G-00021
 Glyoxal bis(4-fluorophenylthiosemicarbazone), G-00026
 6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedione, H-00006
 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
 2-Hexylbutanedioic acid; (±)-*form*, *in* H-00073
 1-Hydroxyacridine, H-00091
 4-Hydroxyacridine, H-00092
 2-Hydroxybenzaldehyde guanylhydrazone, H-00105
 2-Hydroxybenzoic acid [(2,3-dihydroxyphenyl)methylene]hydrazide, H-00115
 4-Hydroxybenzothiazole, H-00126
 4-[(2-Hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, H-00160
 2-[(2-Hydroxyethyl)imino]methylphenol, H-00179
 1-[(2-Hydroxy-4-nitrophenyl)azo]-2-naphthalenol, H-00395
 3-Hydroxy-1-(2-nitrophenyl)-3-phenyl-1-triazene, H-00403
 ▶ 8-Hydroxy-5-nitrosoquinoline, *in* Q-00019
 2-[[[(2-Hydroxyphenyl)methylene]amino]methyl]phenol, H-00478
 [(2-Hydroxyphenyl)methylene]carbonothioic acid (di-2-pyridinylmethylene) dihydrazide, H-00481
N-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
 8-Hydroxy-2-phenylquinoline, H-00503
 5-[(8-Hydroxy-5-quinolyl)imino-8(5*H*)-quinolone], H-00535
 1-(2-Hydroxy-5-sulfonylphenyl)-3-phenyl-5-(2-carboxyphenyl)formazan, H-00544
 8-Hydroxy-7-(2-thiazolylazo)-5-quinolinesulfonic acid, H-00552
 2,2'-Isopropylidenebis(4-acetyl-8-hydroxyquinoline), I-00072
N-[[[(2-Mercaptophenyl)imino]methyl]phenol, M-00045
 Mesoporphyrin IX, M-00061
 Mesotetraethylporphine, M-00062
 Mesotetraisobutylporphine, M-00063
 Mesotetraoctylporphine, M-00064
 Mesotetrapropylporphine, M-00065
 ▶ 2-Methoxyethanol, M-00087
 6-Methoxy-3-methyl-2-[[4-(methylphenylamino)phenyl]azo]benzothiazolium(1+); Chloride, *in* M-00091
 4-Methoxy-2-[[4-methyl-2-thiazolyl]azo]phenol, *in* M-00318
 1,1'-Methylenebis[4-ethyl-3,5-dipropyl-1*H*-pyrazole], M-00171
 2,2'-(1-Methyl-1,2-ethanediyldiene)bis[*N*-phenylhydrazinecarbothioamide], *in* P-00446
 Methylglyoxal 4-dimethylaminoanil, M-00184
 4-Methyl-5-(methylamino)-2-(2-pyridinylazo)phenol, *in* A-00253
 7-Methyl-2,4-octanedione, M-00209
 ▶ 2-Methylpropyl acetate, M-00257
 6-Methyl-2-pyridinecarboxaldehyde 2-pyridinylhydrazone, M-00268
N-Methyl-5,10,15,20-tetrakis(4-sulfonyl)porphine, *in* P-00250
 1-[(5-Methyl-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, M-00313
 1-[(4-Methyl-2-thiazolyl)azo]-2-naphthalenol, M-00322
 1,2-Naphthoquinone-4-sulfonic acid 2-(phenylthiosemicarbazone); Na salt, *in* N-00037
 1-(4-Nitro-2-hydroxybenzenazo)-2-(β-acetylhydrazino)naphthalene, N-00111
 1-(5-Nitro-2-pyridinyl)-3,5-diphenylformazan, N-00149
 Octaethylporphyrin, O-00002
 1,1,1,5,5,6,6,6-Octafluoro-2,4-hexanedione, O-00003
 ▶ Orotic acid, O-00045
 2-(1-Oxo-2(1*H*)-naphthalenylidene)hydrazinecarbothioamide, *in* N-00031
 1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione, P-00017
 4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084
 ▶ Phenylarsonic acid, P-00090
N,N'-1,2-Phenylenebismethanesulfonamide, P-00118
 Phenylglyoxal; Mono(2-pyridyl)hydrazone, *in* P-00132

Propanoic acid 2-[1-(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, P-00264
 2(1*H*)-Pyridinone [(3-methoxyphenyl)azo]phenylmethylene]hydrazone, P-00359
 2(1*H*)-Pyridinone [(4-methoxyphenyl)azo]phenylmethylene]hydrazone, P-00360
 2(1*H*)-Pyridinone [(4-methylphenyl)azo]phenylmethylene]hydrazone, P-00361
 2(1*H*)-Pyridinone [(3-nitrophenyl)azo]phenylmethylene]hydrazone, P-00362
 2(1*H*)-Pyridinone [(4-nitrophenyl)azo]phenylmethylene]hydrazone, P-00363
 2(1*H*)-Pyridinone [phenyl(phenylazo)methylene]hydrazone, P-00364
 2(1*H*)-Pyridinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00365
 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
 2-(2-Pyridinyl)-1*H*-benzimidazole, P-00385
 1-[(2-Pyridinylmethylene)amino]-2-naphthalenol, P-00392
 2-[(2-Pyridinylmethylene)amino]phenol, P-00393
 2-(2-Pyrimidinylazo)-1-naphthalenol, P-00430
 2-Quinolinecarboxaldehyde 2-pyridylhydrazone, Q-00012
 ▶ 2-Quinolinecarboxylic acid, Q-00017
 2(1*H*)-Quinolinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, Q-00023
 2-(2-Quinolinylazo)-1-acenaphthyleneol, Q-00027
 Selenazone, S-00005
 Solochrome fast blue B, *in A*-00225
 3,3'-Sulfonylbis[*N*-8-quinolylbenzenesulfonamide], S-00055
 ▶ Tetraethylenepentamine, T-00044
 meso-Tetraphenylporphyrin, T-00121
 2-[(2-Thienylmethylene)amino]benzenethiol, T-00151
 2,2'-Thiobisethanamine; B₂HCl, *in T*-00156
 2-Thiophenecarboxaldehyde 2-quinolinylhydrazone, T-00172
 1,1,1,-Trifluoro-5,5-dimethyl-2,4-hexanedione, T-00244
 1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255
 4-[(2,4,6-Trihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, T-00312
 Trilaurylammonium chloride, *in T*-00230
 Xylenol orange, X-00006

Zirconium

Alizarine orange, A-00080
 Alizarine red S; Na salt, *in A*-00081
 4-Aminoazobenzene-4'-arsonic acid; *N*-Di-Me, *in A*-00095
 4-[(4'-Amino-(1,1'-biphenyl)-4-yl)azo]-1,2-benzenediol, A-00118
 ▶ 4-Aminophenylarsonic acid, A-00307
 Arsenazo II, A-00411
 ▶ Arsenazo III, A-00412
 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00421
 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00422
 3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-4-arsonobenzoic acid, A-00431
 3-[(2-Arsonophenyl)azo]-6-[(2-hydroxy-3-nitro-5-sulfofenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00442
 Benzeneseleninic acid; NH₄ salt, *in B*-00024
 ▶ Benzenesulfonic acid, B-00025
 ▶ 1,2,4,5-Benzenetetracarboxylic acid, B-00029
 ▶ 1,2,4-Benzenetricarboxylic acid, B-00032
 1,3,5-Benzenetricarboxylic acid, B-00033
 ▶ Benzoic acid, B-00059
 4,4'-Bis(3,4-dihydroxyphenylazo)biphenyl, B-00302
 4,4'-Bis(3',4'-dihydroxyphenylazo)-3,3'-dimethoxybiphenyl, B-00303

Bis(1-*p*-sulfophenyl)-2,3-dimethylpyrazol-5-on-4-yl)methane, B-00456
 2-[(6-Bromo-2-benzothiazolyl)azo]-5-(diethylamino)phenol, *in A*-00123
 3-[(6-Bromo-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00490
 2-(4-Bromophenyl)-2-hydroxyacetic acid; (±)-form, Na salt, *in B*-00550
 4-Catecholylazo-4'-acetylaminobiphenyl, *in A*-00118
 3-[(5-Chloro-2-hydroxyphenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfofenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00142
 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00144
 3-[(5-Chloro-2-hydroxy-3-sulfofenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00155
 3-[(5-Chloro-2-hydroxy-3-sulfofenyl)azo]-4,5-dihydroxy-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00156
 3-[(5-Chloro-2-hydroxy-3-sulfofenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, C-00157
 3-[(3-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in C*-00202
 3-[(4-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in C*-00203
 2-(4-Chlorophenyl)-2-hydroxyacetic acid; (±)-form, *in C*-00222
 Chromotrope 2B; Di-Na salt, *in C*-00290
O,O-Dibutyl phosphorodithioate; K salt, *in D*-00241
 2-[4-(Diethylamino)-2-hydroxyphenylazo]-4,6-dinitrophenol, D-00318
 Diethyl diethylphosphoramidate, D-00340
 Diethylphosphoramidic acid cyclic 1-methyltrimethylene ester, D-00354
 Diethylphosphoramidic acid; Diheptyl ester, *in D*-00353
O,O-Dihexyl phosphorodithioate, D-00369
 2,3-Dihydro-3-hydroxy-4*H*-1-benzopyran-4-one, D-00407
 1,2-Dihydro-4-[[2-hydroxyphenyl)methylene]amino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00420
 [4-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]phenyl]arsonic acid, D-00439
 3,4-Dihydroxyazobenzene, D-00515
 2,4-Dihydroxybenzaldehyde; Semicarbazone, *in D*-00517
 2,5-Dihydroxy-1,4-benzoquinone, D-00540
 4,5-Dihydroxy-3,6-bis[(2-hydroxy-3-nitro-5-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, D-00550
 4,5-Dihydroxy-3-[4,5-(dimethyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00579
 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00580
 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[2-hydroxy-5-sulfofenyl]azo], D-00589
 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bis[4-arsonobenzoic acid], D-00591
 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00615
 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, D-00617
 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfofenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00623

4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00635
 ▶ 5,7-Dihydroxy-4'-methoxyflavone, D-00641
 2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxycarbonylthiophene, *in C*-00326
 3-[(2,4-Dihydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00693
 4-(3,4-Dihydroxyphenylazo)-4'-hydroxybiphenyl, D-00695
 2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid; Me ester, *in D*-00696
 7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
 6,7-Dihydroxy-4-phenylcoumarin, D-00708
 [2-[(2,4-Dihydroxyphenyl)methylene]amino]phenyl]arsonic acid, D-00711
 2-(3,4-Dihydroxyphenyl)-3,5,6,7-tetrahydro-4*H*-1-benzopyran-4-one, D-00717
 4,5-Dihydroxy-3-[(4-phenyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00718
 4,5-Dihydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00733
 ▶ 2,3-Dinitrophenol, D-00957
 ▶ 2,4-Dinitrophenol, D-00958
 ▶ 2,5-Dinitrophenol, D-00959
 ▶ 2,6-Dinitrophenol, D-00960
 ▶ 3,4-Dinitrophenol, D-00961
 4-[(2,4-Dinitrophenyl)azo]-1,2-benzenediol, D-00963
 [2-[(5-Dodecyl-2-hydroxyphenyl)azo]phenyl]arsonic acid, D-01151
 3-[(6-Ethoxy-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, E-00053
 Ethylrhodamine B, *in R*-00002
 Flavazine L; Na salt, *in F*-00007
 Gallocyanine MS, G-00006
 Heptylarsonic acid, H-00015
 Heptyl tetraethylphosphorodiamidate, *in T*-00046
 ▶ Hexanedioic acid, H-00062
 ▶ 1-Hydroxycyclohexanecarboxylic acid, H-00146
 8-Hydroxy-5,7-dinitro-2-naphthalenesulfonic acid; Di-Na salt, *in H*-00158
 3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00198
 ▶ 4-Hydroxy-3-methoxybenzaldehyde, *in D*-00519
 ▶ 2-Hydroxy-3-methylbenzoic acid, H-00278
 2-Hydroxy-5-methylbenzoic acid, H-00279
 [4-[[5-Hydroxy-3-methyl-1-phenyl]-1*H*-pyrazol-4-yl]azo]phenyl]arsonic acid, H-00314
 3-Hydroxy-2-naphthalenecarboxylic acid [[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazide, H-00341
 1-Hydroxy-2-naphthoic acid, H-00369
 ▶ 4-Hydroxy-3-nitrophenylarsonic acid, H-00392
N-Hydroxy-*N*-nitrosocyclooctylamine, H-00412
N-Hydroxy-*N*-nitroso-2-propanamine, H-00418
 ▶ 3-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one, H-00466
 [2-[[2-Hydroxyphenyl)methylene]amino]phenyl]arsonic acid, H-00479
 2-Hydroxy-3-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00557
 2-Hydroxy-4-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00558
 3-Hydroxy-2-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00559
 1*H*-Inden-2-ylphosphonic acid, I-00026
 Mandelic acid; (±)-form, *in M*-00007
 4-[(2-Mercaptophenyl)amino]-2-butenonic acid; (*Z*)-form, *in M*-00040
 ▶ 3-Methyl-1-butanol, M-00147

- 2-Naphthaleneselenic acid; NH_4 salt, *in* N-00014
- ▷ (1-Naphthyl)acetic acid, N-00040
- ▷ 3-Nitro-1,2-benzenedicarboxylic acid, N-00085
- ▷ 2-Nitrobenzoic acid, N-00091
- ▷ 3-Nitrobenzoic acid, N-00092
- 3-(2-Nitroso-4-sulfo-1-naphthalenylazo)-4,5-dihydroxynaphthalene-2,7-disulfonic acid, N-00163
- ▷ Papaverine, P-00005
- ▷ 2',3',4',5',7-Pentahydroxyflavone, P-00024
- ▷ 3,3',4',5',7-Pentahydroxyflavone, P-00026
- 3,5,7,3',4'-Pentahydroxyflavone-6'-sulfonic acid, P-00027
- ▷ 1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol, P-00095
- 2-(3-Phenyl-2-triazenyl)phenol; *N'*-Oxide, *in* P-00204
- Phthalaxen S, P-00221
- Primene JM T, P-00255
- ▷ Purpurogallin, P-00282
- 3-Pyridine-[2-(hydroxyimino)-1-methylpropylidene]carboxylic acid, P-00355
- Pyridoxal; Salicyloylhydrazone, *in* P-00414
- Pyrocatechol violet, P-00433
- Quercimeritrin, Q-00001
- Semixylenol orange, S-00014
- Stilbazogall I, S-00029
- Stilbazogall II, S-00030
- 3,4,5,8-Tetrahydroxyanthraquinone-2-sulfonic acid, T-00071
- 2',3,5,7-Tetrahydroxyflavone, T-00074
- 2,3,7,8-Tetrahydroxyphenazine, T-00079
- Thorin, T-00177
- Tributylacetohydroxamic acid, T-00207
- 4,4,4-Trifluoro-1-selenophen-2-yl-1,3-butanedione, T-00263
- 3,4,6-Trihydroxy-5*H*-benzocyclohepten-5-one, T-00275
- ▷ 3,5,7-Trihydroxyflavone, T-00284
- 2,6,7-Trihydroxy-9-(3-nitrophenyl)-3*H*-xanthen-3-one, T-00302
- 2,6,7-Trihydroxy-9-(2-quinolinyl)-3*H*-xanthen-3-one, T-00320
- 2,6,7-Trihydroxy-9-(2-sulfofenyl)-3*H*-xanthen-3-one, T-00322
- 2,4,6-Trimethylpyridine, T-00337
- Xylenol orange, X-00006

Non-specific metallochromic reagents

- 4-Acetamidophenylfluorone, *in* A-00328
- ▷ Acetic acid, A-00006
- 3-Acetyl-4-hydroxy-2*H*-1-benzopyran-2-one, A-00017
- 3-Acetyl-2-methylindole *p*-tolylthiosemicarbazone, A-00022
- 2-Acetylpyrazine pyrazinylhydrazone, A-00034
- 2-Acetylpyrazine 2-pyrimidinylhydrazone, A-00035
- 2-Acetylpyrazine 2-quinolylhydrazone, A-00036
- 2-Acetylpyrazine; 2-Thiazolylhydrazone, *in* A-00033
- 2-Acetylpyridine 2-pyrazinylhydrazone, A-00043
- 2-Acetylpyridine 2-pyrimidinylhydrazone, A-00044
- 2-Acetylpyridine 2-thiazolylhydrazone, A-00047
- Acid chrome blue K; Tri-Na salt, *in* A-00053
- ▷ Alizarine fluorine blue, A-00076
- Alizarine green; Na salt, *in* A-00078
- ▷ Aluminon, *in* A-00458
- ▷ 2-Aminobenzoic acid, A-00103
- 6-Amino-2,3-dihydro-5-nitroso-2-thioxo-4(1*H*)-pyrimidinone, A-00154
- ▷ 1-Amino-4-hydroxyanthraquinone, A-00182
- 5-Amino-4-hydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00190
- Aminomethylazo III, A-00235
- 2-(Aminomethyl)-6-hydroxy-9*H*-xanthen-9-one-*N,N*-diacetic acid, A-00245
- 5-Amino-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, A-00252
- 3-(Aminomethyl)-1,2,7-trihydroxyanthraquinone-*N,N*-diacetic acid, A-00260
- 4-[(4-Amino-1-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00275
- ▷ 2-Aminophenylarsonic acid, A-00306
- 4-[(6-Amino-3-pyridinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00335
- 4-[(2-Amino-7-quinolinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00342
- 2-Amino-3-quinoxalinetioliol, A-00345
- 4-Amino-5-thioxo-1,2,4-triazolidin-3-one di-(2-pyridinylmethylene)hydrazone, A-00363
- Ammonium pyrrolidine dithiocarbamate, *in* P-00441
- 7-(4-Antipyrilazo)-8-hydroxyquinoline, A-00393
- 5-(4-Antipyrilazo)-2-monoethylamino-*p*-cresol, A-00395
- Arsenazo B; Di-Na salt, *in* A-00406
- ▷ Arsenazo III, A-00412
- Arsenazo I; Tri-Na salt, *in* A-00410
- 2-[[7-[(4-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, A-00429
- N*-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]methyl]-*N*-(carboxymethyl)glycine, A-00430
- 2-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-5-sulfobenzoic acid, A-00433
- 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfofenyl)azo]-2,7-naphthalenedisulfonic acid, A-00434
- 3-[(2-Arsonophenyl)azo]-6-[[3,5-dinitro-2-hydroxyphenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00441
- ▷ Azorubine; Di Na salt, *in* A-00477
- Azothiopyrine, A-00478
- ▷ 1,2-Benzenediol, B-00020
- ▷ 1,2,3-Benzenetriol, B-00034
- 3-[1*H*-Benzimidazol-2-yl][(5-nitro-2-pyridinyl)hydrazone]methyl]benzenesulfonic acid, B-00047
- 3-[(2-Benzothiazolylhydrazone)-2-pyridinylmethyl]benzenesulfonic acid, B-00102
- 3-[2-Benzothiazolyl[(5-nitro-2-pyridinyl)hydrazone]methyl]benzenesulfonic acid, B-00107
- 1-Benzo[*b*]thien-2-yl-4,4,4-trifluoro-1,3-butanedione, B-00109
- 2-Benzoylacetanilide, *in* O-00069
- 4-Benzoyl-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00128
- 4-(Benzoylhydroxyamino)benzoic acid; Me ester, *in* B-00133
- N*-Benzoyl-*N*-(1-naphthyl)hydroxylamine, B-00138
- N*-Benzoyl-*N*-phenylhydroxylamine, *in* P-00135
- Benzoylpyrazine; 2-Pyrimidinylhydrazone, *in* B-00148
- 2-Benzoylpyrazine 2-quinolylhydrazone, B-00149
- 2-Benzoylpyrazine 2-thiazolylhydrazone, B-00150
- 2-Benzoylpyridine; (*Z*)-Oxime, *in* B-00151
- 2-Benzoylpyridine 2-pyridylhydrazone, B-00154
- 2-Benzoylpyridine 2-thiazolylhydrazone, B-00158
- 5-Benzyl-2-thioxo-4-imidazolidinone, B-00194
- 2,2'-Biquinoxaline, B-00239

- N,N'*-Bis(*o*-amino- α -phenylbenzylidene)ethylenediamine, B-00250
- N,N'*-Bis[1-(2-aminophenyl)ethylidene]-1,2-ethanediamine, B-00252
- 3,6-Bis[(2-arsono-4,6-dibromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00255
- 3,6-Bis[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00282
- 5-[2,2-Bis(4-dimethylaminophenyl)ethylene]rhodanine, B-00318
- Bis(di-2-pyridinylmethylene)carbonimidic dihydrazide, B-00343
- 1,3-Bis[di(2-pyridyl)methyleneamino]urea, B-00345
- ▷ *O,O*-Bis(2-ethylhexyl) phosphorodithioate, B-00353
- Bis(2-hydroxyethyl)carbomodithioic acid; Zn salt (2:1), *in* B-00373
- Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbothioic dihydrazide, B-00376
- 5-Bis(2-hydroxy-3-sulfofenyl)amino]-2-[(3,5-dibromo-2-pyridinyl)azo]-4-methylbenzoic acid; Tri-Na salt, *in* B-00395
- Bismuthiol II, *in* M-00060
- Bis(2-pyridylmethylene)carbonimidic acid dihydrazide, B-00443
- Bis(1*H*-tetrazol-5-ylazo)acetic acid; Et ester, di-Na salt, *in* B-00459
- ▷ Brilliant green; Hydrogen sulfate, *in* B-00479
- 4-[(2-Bromo-4,5-dihydroxyphenyl)azo]benzenesulfonic acid, B-00504
- 4-Bromo-2-methylphenyldiazene-carbothioic acid 2-(4-bromo-2-methylphenyl)hydrazide, B-00534
- Bromophenol blue, B-00542
- Bromophthalaxen S, B-00559
- 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00126
- 2-[(5-Bromo-2-pyridinyl)azo]-5-(dimethylamino)phenol, *in* A-00126
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid, B-00565
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, B-00566
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, B-00567
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-2-hydroxy-1-propanesulfonic acid; Di-Na salt, *in* B-00568
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00569
- Bromopyrogallol red, B-00574
- 1,4-Butanediamine-*N,N,N,N'*-tetrakis(methylphosphonic acid), B-00585
- 2,3-Butanedione bis[4-(4-chloro-3-(trifluoromethyl)phenyl)thiosemicarbazone], B-00591
- 2,3-Butanedione bis[(2-fluorophenyl)thiosemicarbazone], B-00593
- 2,3-Butanedione bis[(4-fluorophenyl)thiosemicarbazone], B-00594
- 2,3-Butanedione bis[(4-nitrophenyl)thiosemicarbazone], B-00596
- 2,3-Butanedione; Bis(2-pyridylhydrazone), *in* B-00587
- 2,3-Butanedione bis[(thiobenzoyl)hydrazone], B-00598
- 2,3-Butanedione bis(2-trifluoromethylphenyl)thiosemicarbazone, B-00599
- 2,3-Butanedione; Monoxime, semicarbazone, *in* B-00587
- 2,3-Butanedione; Monoxime, thiosemicarbazone, *in* B-00587
- Butylrhodamine B, *in* R-00002
- C.I. Mordant black 38, *in* A-00205
- Cadion 2B, C-00007

- Cadion IREA; Di-Na salt, *in* C-00008
 Calcein blue, C-00011
 Calcichrome; Tetra-Na salt, *in* C-00012
 Calmagite, C-00015
- ▷ Capri blue; Chloride, *in* C-00017
 Carboxybenzene S, C-00028
 1-(2-Carboxyphenyl)-5-[1-(2-methoxy-5-sulfophenyl)]-3-phenylformazan, C-00042
- ▷ Ceplac, *in* E-00020
 4-[(5-Chloro-1,2-dihydro-3-hydroxy-2-oxo-4-pyridinyl)azo]benzenesulfonic acid, C-00093
 5-Chloro-2-hydroxybenzaldehyde; Oxime, *in* C-00122
 3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00139
 6-(5-Chloro-2-hydroxy-4-sulfophenylazo)-5-hydroxy-1-naphthalenesulfonic acid; Di-Na salt, *in* C-00161
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-6-phenylazo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00162
N-(4-Chlorophenyl)-*N*-hydroxy-3,5-dinitrobenzamide, *in* D-00946
 Chlorophosphonazo I, C-00241
 Chlorophosphonazo III, C-00242
 2-[(5-Chloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, *in* A-00145
 3-[(5-Chloro-2-pyridinyl)hydrazono]-2-pyridinylmethylbenzenesulfonic acid, C-00257
 Chromal blue G; Di-Na salt, *in* C-00275
 Chromazurol S; Tri-Na salt, *in* C-00277
 Chrome black special; Mono-Na salt, *in* C-00278
 Chromoxan violet 5B, C-00295
- ▷ Crystal violet; Chloride, *in* C-00320
- ▷ Cupferron, *in* H-00471
- ▷ 3-Cyano-1,5-bis(2-hydroxy-5-sulfophenyl)formazan; Di-Na salt, *in* C-00325
 1,2-Cyclodecanedione; Dioxime, *in* C-00331
 1,2-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone, C-00341
 1,2-Cyclohexanedione bis(2-pyridylhydrazone), C-00343
 1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, *in* C-00345
 5-(Cyclopentylmethylene)-2-thioxo-4-thiazolidinone, C-00366
- ▷ 1,2-Diaminoanthraquinone, D-00043
 4,4'-Diamino-2,2'-bipyridine, D-00061
 4,4'-Diamino-3,3'-dimethoxybiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00078
- ▷ 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+); Chloride, *in* D-00084
- ▷ 1,2-Diaminopropane-*N,N,N',N'*-tetraacetic acid, D-00115
 4,4'-Diamino-2,2'-stilbenedisulfonic acid *N,N,N',N'*-tetraacetic acid, D-00126
 1,1-Diantipyrilthane, D-00136
 1,1-Diantipyrilmethane, D-00139
 Di-4-biphenylthiocarbazono, D-00175
o,o'-Dibromo-*p,p'*-dimethyldithizone, D-00184
 2,2'-Dibromodithizone, D-00186
 4,4'-Dibromodithizone, D-00187
 5,7-Dibromo-8-hydroxyquinoline; *N*-Oxide, *in* D-00193
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(2-hydroxy-3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00202
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00203
 3-[4-[(3,5-Dibromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid; Di-Na salt, *in* D-00204
 3-[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-2-hydroxy-1-propanesulfonic acid; Di-Na salt, *in* D-00205
- 3-[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid; Di-Na salt, *in* D-00206
 3-[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid; Di-Na salt, *in* D-00207
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(2-hydroxy-3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00208
 2-[(3,5-Dibromo-2-pyridinyl)azo]-4-methyl-5-[(3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00209
 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(3-sulfopropyl)amino]benzoic acid, *in* A-00148
 2-[(3,5-Dibromo-2-pyridyl)azo]-5-(diethylamino)phenol, *in* A-00150
 2-(3,5-Dibromo-2-pyridylazo)-4-methyl-5-(*N*-propyl-*N*-sulfopropylamino)aniline; Na salt, *in* D-00213
 2-(3,5-Dibromo-2-pyridylazo)-5-(*N*-propyl-*N*-sulfopropylamino)aniline; Na salt, *in* D-00214
 Dibutyldiselenocarbamic acid; Na salt, *in* D-00231
 4,4'-Dibutyldithizone, D-00233
 α-(Dibutylphosphinyl)-α-hydroxybenzeneacetic acid, D-00238
 2-(Dibutylphosphinyl)-2-hydroxypropanoic acid, D-00239
 3,3'-Dichloro-2,2'-dimethyldithizone, D-00264
 4,4'-Dichloro-2,2'-dimethyldithizone, D-00265
 5,5'-Dichloro-2,2'-dimethyldithizone, D-00266
 2,2'-Dichlorodithizone, D-00270
 4,4'-Dichlorodithizone, D-00271
 3',5'-Dichloro-2'-hydroxyacetophenone; Oxime, *in* D-00277
 2,4-Dichloro-*N*-hydroxy-*N*-phenylbenzamide, D-00281
- ▷ Diethazine; B,HCl, *in* D-00312
 3-[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1*H*-1,2,4-triazolium(1+); Chloride, *in* D-00328
 4-Diethylaminophenylfluorone, *in* A-00328
 5-[4-(Diethylamino)phenyl]methylene]-2-thioxo-4-thiazolidinone, D-00334
 Diethylammonium diethyldithiocarbamate, *in* D-00344
 3,5-Diethyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00342
 Diethyldiselenocarbamic acid; K salt, *in* D-00343
 9,10-Dihydro-3,4-dihydroxy-10-imino-9-oxo-2-anthracenesulfonic acid, D-00378
 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, D-00385
 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(2,4,6-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00393
 1,4-Dihydro-5-hydroxy-1-(4-methylphenyl)-4-oxo-2-pyridinecarboxylic acid; Et ester, *in* D-00411
 Dihydro-4-hydroxy-2-(1-methyl-1-piperidinoethyl)-3(2*H*)-furanone, D-00412
 1,2-Dihydro-4-[(4-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00416
 2,4-Dihydro-5-methyl-2-phenyl-4-(phenylthioxomethyl)-3*H*-pyrazol-3-one, D-00442
- ▷ 2,4-Dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00443
 4-[(4,5-Dihydro-3-methyl-1-phenyl-5-thioxo-1*H*-pyrazol-4-yl)azo]benzenesulfonic acid; Na salt, *in* D-00445
 4-[4,5-Dihydro-3-methyl-4-[(4-sulfophenyl)azo]-5-thioxo-1*H*-pyrazol-1-yl]benzenesulfonic acid; Di-Na salt, *in* D-00459
- ▷ 1,4-Dihydro-2,3-quinoxalinedithione, D-00489
 ▷ Dihydro-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00492
 2',4'-Dihydroxyacetophenone; Thiosemicarbazone, *in* D-00507
 3,3'-Dihydroxybenzidine-*N,N,N',N'*-tetraacetic acid, D-00528
 8,8'-Dihydroxy-5,5'-biquinoline, D-00546
 4,5-Dihydroxy-3,6-bis(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00548
 4,5-Dihydroxy-3,6-bis(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00552
 4,5-Dihydroxy-3,6-bis(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00553
 4,5-Dihydroxy-3,6-bis(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00557
 4,5-Dihydroxy-3,6-bis(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00565
 4,5-Dihydroxy-3,6-bis(*p*-tolylazo)-2,7-naphthalenedisulfonic acid, D-00566
 2-[[[1,8-Dihydroxy-3,6-disulfo-7-[(4-phenylazo)phenyl]azo]-2-naphthyl]azo]-5-sulfobenzoic acid, D-00606
 2',7'-Dihydroxyfluorescein, D-00613
 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00616
 4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00624
 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00667
 4-[(2,4-Dihydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00691
 2-[[1,8-Dihydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00692
 4-[(2,4-Dihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00697
 4,5-Dihydroxy-3-(phenylazo)-6-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, D-00701
 4,5-Dihydroxy-3-(phenylazo)-6-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00702
 2-[(3,4-Dihydroxyphenyl)methylene]hydrazinecarboximidamide, D-00712
 4,5-Dihydroxy-3-[(3-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00723
 4,5-Dihydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid; Tri-Na salt, *in* D-00736
 4,5-Dihydroxy-3-[(2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00739
- ▷ 2,5-Dihydroxy-3-undecyl-1,4-benzoquinone, D-00740
 4,4'-Diiododithizone, D-00743
O,O-Diisopropyl phosphorodithioate, D-00750
 2,6-Dimercapto-3-methyl-4*H*-thiopyran-4-one, D-00758
 4-Dimethylamino-2,2'-dihydroxyazobenzene, D-00783
 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4,6-dinitrophenol, *in* A-00210
 3-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-hydroxybenzenesulfonic acid, D-00787
 4-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00788
 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-methylphenol, *in* A-00197
 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-nitrophenol, *in* A-00213
 5-(Dimethylamino)-2-[(5-methylimidazol-4-yl)azo]phenol, D-00789
 5-(Dimethylamino)-2-[(5-nitro-2-thiazolyl)azo]phenol, *in* A-00289

- ▷ *N*-[4-[[4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+); Chloride, *in* D-00812
- ▷ 5-[[4-(Dimethylamino)phenyl]ethylene]-2-thioxo-4-thiazolidinone, D-00813
- 5-(Dimethylamino)-2-(8-quinolinylazo)phenol, D-00825
- 5-(Dimethylamino)-2-(2-thiazolylazo)phenol, *in* A-00214
- 4,4'-Dimethyl-2,2'-bipyridine, D-00840
- Dimethylcarbambodiselenoic acid; Na salt, *in* D-00846
- 5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 1,3-bisthiosemicarbazone, *in* D-00848
- 4,4'-Dimethyl-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00849
- 2,2'-Dimethyldithizone, D-00856
- 4,4'-Dimethyldithizone, D-00858
- ▷ Dimethylglyoxime, D-00862
- 3,8-Dimethyl-1,10-phenanthroline, D-00881
- 4,7-Dimethyl-1,10-phenanthroline, D-00882
- 5,6-Dimethyl-1,10-phenanthroline, D-00883
- 1,3-Dimethyl-4-(phenylazo)-1*H*-pyrazole-5-thiol, D-00887
- 4,5-Dimethyl-2-(2-pyridinylazo)phenol, D-00910
- 4-[(3,5-Dinitrobenzoyl)hydroxyamino]benzoic acid methyl ester, *in* D-00946
- 9-(2,4-Dinitrophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00975
- Diphenylcarbazine, D-01004
- Diphenylcarbazono, D-01005
- 2,2'-Diphenyldithizone, D-01009
- Diphenylethanedione bis(2-pyridinylhydrazone), D-01012
- ▷ 1,3-Diphenylguanidine, D-01018
- 2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]benzoic acid, D-01022
- 2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]thiazole, D-01026
- 4,5-Diphenyl-2-(phenylazo)-1*H*-imidazole, D-01035
- Di-2-pyridinylethanedione bis(phenylthiosemicarbazone), *in* D-01063
- Di-2-pyridinylethanedione bis(2-pyridinylhydrazone), D-01066
- Di-2-pyridinylethanedione mono(2-pyridinylhydrazone), D-01068
- Di-2-pyridinylethanedione mono(2-pyrimidinylhydrazone), D-01069
- 1,2-Di-2-pyridinylethanedione 2-pyrimidinylhydrazone, D-01070
- Di-2-pyridinylmethanone di-2-pyridinylmethylenehydrazone, D-01076
- Di-2-pyridinylmethanone 2-pyridinylhydrazone, D-01080
- Di-2-pyridinylmethanone 2-pyrimidinylhydrazone, D-01081
- Di-2-pyridinylmethanone 2-quinolinylhydrazone, D-01082
- Di-2-pyridinylmethanone 2-thiazolylhydrazone, D-01083
- Di-2-pyridinylmethanone thiosemicarbazone, D-01084
- 4,4'-Disulfodithizone; Di-Na salt, *in* D-01109
- 1-(1,5-Di-2-thiazolylformazanylethano), D-01112
- ▷ Dithizone, D-01135
- ▷ Eosine; Di-Na salt, *in* E-00007
- ▷ Eriochrome blue black; Na salt, *in* E-00010
- Eriochrome blue SE; Di-Na salt, *in* E-00011
- Eriochrome cyanine R; Tri-Na salt, *in* E-00013
- Eriochrome red B; Na salt, *in* E-00017
- ▷ Ethanedithioamide, E-00027
- [1,2-Ethanedylbis[nitrilobis[methylene]]tetrakisphosphonic acid, E-00032
- 4,4'-(1,2-Ethanedyl)bis[(2-pentanone)], E-00037
- N*-(*o*-Ethoxybenzoyl)phenylhydroxylamine, *in* H-00112
- 5-Ethoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, E-00057
- 2-(Ethylamino)-4-methyl-2-(2-thiazolylazo)phenol, E-00066
- 3-[Ethyl[5-hydroxy-2-methyl-4-[(4-methyl-2-thiazolylazo)]]-1-propanesulfonic acid, E-00092
- Ferrozine, F-00006
- Formaldoxime, *in* F-00035
- 2-Furancarboxaldehyde thiosemicarbazone, *in* F-00042
- 5-(2-Furanyl(methylene)-2-thioxo-4-thiazolidinone, F-00056
- 5-[5-(2-Furanyl)-2,4-pentadienyldene]-2-thioxo-4-thiazolidinone, F-00059
- 5-[3-(2-Furanyl)-2-propenyldene]-2-thioxo-4-thiazolidinone, F-00061
- ▷ α -Furildioxime, *in* D-00364
- ▷ Galactaric acid, G-00001
- Gallein, G-00004
- Glyoxal bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone], G-00022
- Glyoxal bis(4-cyclohexylthiosemicarbazone), G-00023
- Glyoxal bis(3,4-dichlorophenylthiosemicarbazone), G-00024
- Glyoxal bis(2-fluorophenylthiosemicarbazone), G-00025
- Glyoxal bis(2-hydroxyanil), G-00027
- Glyoxal bis[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone, G-00030
- Glyoxal bis(1-naphthylthiosemicarbazone), G-00031
- Glyoxal bis(4-nitrophenylthiosemicarbazone), G-00032
- Glyoxal bis(phenylthiosemicarbazone), G-00033
- Glyoxal bis[4-(3-trifluoromethyl)-4-chlorophenyl]thiosemicarbazone, G-00035
- Glyoxal bis[4-(2-trifluoromethyl)phenyl]thiosemicarbazone, G-00036
- 4,4'-Heptylidenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], H-00017
- 6,7,13,14,15,16,17,18,24,25,31,32,33,34,35,36-Hexadecahydrotetraabenz[*e,m,s,a*,] [1,4,15,18,8,11,22,25] tetraoxatetraazacyclooctacosine, H-00025
- ▷ Hexadecyltrimethylammonium(1+), H-00029
- Hexahydro-2*H*-azepine-2-thione, H-00036
- ▷ Hexamethylphosphoric triamide, H-00058
- 2-Hydroxy-1-acetonaphthonoxime, *in* A-00025
- 2-Hydroxybenzaldehyde *N*-benzoylhydrazone, H-00104
- 2-Hydroxybenzaldehyde phenylthiosemicarbazone, H-00107
- 2-Hydroxybenzaldehyde 1-phthalazinylhydrazone, H-00108
- 2-Hydroxybenzaldehyde; Semicarbazone, *in* H-00101
- ▷ *N*-Hydroxybenzamide, H-00109
- 4-Hydroxybenzoic acid, 1,2-dimethyl-1,2-ethanedylidene)dihydrazide, H-00117
- 2-(2-Hydroxybenzylideneamino)phenol, H-00129
- 3-(2-Hydroxybenzylideneamino)propanoic acid, H-00130
- 2-[(2-Hydroxy-3,5-dimethylphenyl)azo]-5-sulfobenzoic acid, H-00152
- 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-8-quinolinol 1-oxide, H-00161
- 4-Hydroxy-3-[(2-hydroxybenzoyl)azo]-1-naphthalenesulfonic acid, H-00188
- 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbothioic acid dihydrazide, H-00219
- 3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, H-00224
- 4-Hydroxy-3-[(2-hydroxyphenyl)methylene]aminobenzenesulfonic acid, H-00238
- 2-[[[(Hydroxyimino)phenylmethyl]azo]-1*H*-benzimidazole, H-00250
- 2-[[[(Hydroxyimino)phenylmethyl]azo]-1-(phenylmethyl)-1*H*-benzimidazole, *in* H-00250
- ▷ 8-Hydroxy-7-iodo-5-quinolinesulfonic acid, H-00255
- 2-Hydroxy-3-isopropyl-2,4,6-cycloheptatrien-1-one, H-00256
- N*-Hydroxy-4-methoxybenzenecarbothioamide, H-00265
- ▷ 2-[(4-Hydroxy-3-methoxyphenyl)methylene]hydrazinocarbothioamide, H-00271
- 2-Hydroxy-3-methyl-2,4,6-cycloheptatrien-1-one, H-00285
- α -(Hydroxymethylene)-2-benzoxazoleacetaldehyde, H-00286
- 6-Hydroxy-2-methyl-7-oxo-1,3,5-cycloheptatriene-1-carboxylic acid, H-00298
- N*-Hydroxy-*N*-(2-methylphenyl)benzamide, *in* H-00109
- N*-Hydroxy-*N*-(3-methylphenyl)benzamide, *in* H-00109
- N*-Hydroxy-*N*-(4-methylphenyl)-3,5-dinitrobenzamide, *in* D-00946
- 5-Hydroxy-[6-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, H-00320
- 1-Hydroxy-4-methyl-2(1*H*)-pyridinethione, *in* M-00274
- 3-Hydroxy-4-[(6-methyl-2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid *N*-oxide; Di-Na salt, *in* H-00324
- 2-[[3-Hydroxy-4-[methyl-2-thiazolylazo]phenyl]amino]ethanesulfonic acid, H-00329
- 3-[[3-Hydroxy-4-[(4-methyl-2-thiazolyl)azo]phenyl]amino]-1-propanesulfonic acid, H-00330
- N*-Hydroxy-1-naphthaleneacetamide, H-00337
- 8-Hydroxy-7-(1-naphthalenylazo)-5-quinolinesulfonic acid, H-00355
- 5-[(2-Hydroxy-1-naphthalenyl)methylene]-2-thioxo-4-thiazolidinone, H-00364
- 2-(2-Hydroxy-3-naphthoylazo)-1-hydroxy-4-naphthalenesulfonic acid, H-00374
- 2-Hydroxy-5-nitrobenzaldehyde; Oxime, *in* H-00380
- N*-Hydroxy-*N*-nitrosocyclohexanamine; NH₄ salt, *in* H-00411
- 1-Hydroxy-2-nitroso-3*H*-naphtho[2,1-*b*]pyran-3-one, H-00416
- 8-Hydroxy-7-nitroso-5-quinolinesulfonic acid; Na salt, *in* H-00421
- 2-(3-Hydroxy-4-oxo-4*H*-1-benzopyran-2-yl)benzenesulfonic acid, H-00427
- 2-[(2-Hydroxyphenyl)azo]-4,5-diphenylimidazole, H-00450
- 2-[(2-Hydroxyphenyl)azo]-1,5-naphthalenediol, H-00453
- N*-(3-Hydroxyphenyl)-2-mercaptoacetamide, H-00476
- [(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonic dihydrazide, H-00482
- [(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00483
- [(4-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00484
- 5-[(2-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00486
- 5-[(3-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00487
- N*-Hydroxy-*N*-phenyl-1-naphthalenecarboxamide, H-00489
- 4-(3-Hydroxy-3-phenyl-1-triazenyl)benzenesulfonic acid, H-00506
- 4-Hydroxy-3-(2-pyridinylazo)-1-naphthalenesulfonic acid, H-00522
- ▷ 8-Hydroxyquinoline, H-00525
- N*-Hydroxysuccinamic acid, *in* S-00034

- 8-Hydroxy-7-[(4-sulfo-1-naphthalenyl)azo]-5-quinolinesulfonic acid; Di-Na salt, *in* H-00539
- 3-Hydroxy-4-(2-thiazolylazo)-2,7-naphthalenedisulfonic acid, H-00548
- 6-Hydroxy-5-(2-thiazolylazo)-2-naphthalenesulfonic acid, H-00549
- 2-[[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]ethanesulfonic acid, H-00550
- 3-[[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, H-00551
- 1-Hydroxyxanthone, H-00562
- ▶ 1-Imino-1*H*-isoindol-3-amine, I-00022
- ▶ Indigo carmine, *in* I-00029
- ▶ Indoferron, I-00032
- N*-(*o*-Iodobenzoyl)phenylhydroxylamine, *in* I-00040
- 5-(4-Isopropylbenzyl)-2-thioxo-4-thiazolidinone, I-00070
- 3-Isoquinolinecarboxaldehyde 2-pyrimidinylhydrazone, I-00081
- 3-Isoquinolinecarboxaldehyde 2-quinolinylhydrazone, I-00082
- 3-Isoquinolinecarboxaldehyde 8-quinolinylhydrazone, I-00084
- 3-Isoquinolinecarboxaldehyde 2-thiazolylhydrazone, I-00085
- ▶ Janus blue; Chloride, *in* J-00002
- ▶ Lumogallion, L-00015
- ▶ Malachite green; Chloride, *in* M-00006
- ▶ Merbromin; Di-Na salt, *in* M-00015
- ▶ Mercaptoacetic acid, M-00016
- ▶ 1-Mercaptoanthraquinone, M-00018
- α -Mercaptobenzeneacetic acid; (\pm)-*form*, *in* M-00019
- 4-Mercapto-1,3-benzenediol, M-00021
- 3-Mercapto-1,3-diphenyl-2-propen-1-one, M-00030
- 2-Mercapto-3-(1-naphthalenyl)-2-propenoic acid, M-00037
- 2-Mercapto-5-phenyl-2,4-pentadienoic acid, M-00046
- 2-Mercapto-3-phenylpropanoic acid; (\pm)-*form*, *in* M-00047
- 2-Mercapto-3-phenyl-2-propenoic acid, M-00049
- ▶ 5-Mercapto-1,3,4-thiadiazoline-2-thione, M-00060
- 4-Methoxy-2-[(5-methylimidazol-4-yl)azo]phenol, *in* M-00191
- 2-Methoxy-6-[[5-(1-methyl)-2-piperidinyl-2-pyridyl]azo]phenol, M-00092
- N*-(4-Methoxyphenyl)-1,4-benzenediamine, *in* A-00185
- ▶ 5-[(4-Methoxyphenyl)methylene]-2-thioxo-4-thiazolidinone, M-00113
- 4-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00139
- ▶ 4-Methyl-1,2-benzenedithiol, M-00129
- 2,2'-(3-Methyl-1,2-cyclopentanediyliene)bishydrazinocarbothioamide, *in* M-00159
- 1-Methyl-2,4-dithiobiuret, *in* T-00163
- 4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-thione], M-00169
- 5,5'-Methylenebis[8-quinolinol], M-00174
- Methylglyoxal bis(4-hydroxybenzoylhydrazone), M-00183
- Methylglyoxime, *in* P-00446
- Methyl green; Bromide chloride, *in* M-00185
- 1-[(5-Methylimidazol-4-yl)azo]-2-naphthol, M-00192
- 1-(2-Methylindol-3-ylacetyl)-4-(*p*-methoxyphenyl)thiosemicarbazide, M-00195
- ▶ 4-Methyl-2-pentanone, M-00218
- ▶ 4-Methyl-3-penten-2-one, M-00219
- 5-[(4-Methylphenyl)azo]-8-quinolinol; 1-Oxide, *in* M-00224
- Methylphenylpyrazolone oxime, *in* M-00239
- 2-[[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenol, M-00251
- 5-Methyl-2-(2-pyridinylazo)phenol, M-00284
- 3-[[[5-Methyl-2-pyridinyl]hydrazone]-2-pyridinylmethyl]benzenesulfonic acid, M-00287
- 2-Methyl-8-quinolinethiol, M-00307
- 2-[[[4-Methyl-2-quinolinyl]azo]-1-acenaphthylenol, M-00308
- 4-Methyl-2-(1,3,4-thiadiazol-2-ylazo)phenol, M-00314
- 5-Methyl-4-(2-thiazolylazo)-1,3-benzenediol, M-00321
- 2-(4-Methyl-2-thiazolylazo)-5-diethylaminobenzoic acid, *in* A-00258
- 4-Methyl-2-(2-thiazolylazo)phenol, M-00323
- ▶ Methylthionium chloride, *in* M-00175
- Methylthymol blue, M-00327
- ▶ Methyl violet, M-00336
- Methyl xylene blue; Na salt, *in* M-00337
- ▶ 4-Morpholinocarboxithioic acid, M-00345
- 4-(*N*-Morpholinophenyl)fluorone, M-00349
- Murexide, *in* P-00281
- ▶ 2,3-Naphthalenediol, N-00010
- 5-(1-Naphthalenylazo)-8-quinolinol; *N*¹-Oxide, *in* N-00017
- Naphthol violet, N-00030
- 1,2-Naphthoquinone-4-sulfonic acid; Dioxime, *in* N-00033
- 1,2-Naphthoquinone-4-sulfonic acid; 2-Semicarbazone, *in* N-00033
- 1,2-Naphthoquinone-4-sulfonic acid; 2-(Thiosemicarbazone), *in* N-00033
- Naphthylazoxine 6*S*, N-00047
- Nile blue A; Chloride, *in* N-00069
- Nitron, N-00114
- 4-[[4-Nitrophenyl]azo]-1,2-benzenediol, N-00122
- 5-[(4-Nitrophenyl)azo]-8-quinolinol; 1-Oxide, *in* N-00129
- 5-[(4-Nitrophenyl)azo]-2-thioxo-4-thiazolidinone, N-00132
- 3-[[[5-Nitro-2-pyridinyl]hydrazone]-3-isoquinolinylmethyl]benzenesulfonic acid, N-00150
- 3-[[[5-Nitro-2-pyridinyl]hydrazone]-2-pyridinylmethyl]benzenesulfonic acid, N-00151
- 3-[[[5-Nitro-2-pyridinyl]hydrazone]-2-thiazolylmethyl]benzenesulfonic acid, N-00152
- ▶ 2-Nitroso-1-naphthol, N-00161
- Nitroxaminazo, N-00167
- ▶ Octanoic acid, O-00036
- Orthanil A, O-00046
- ▶ Oxalic acid, O-00048
- Oxine blue†, O-00052
- ▶ 2',3,4',5,7-Pentahydroxyflavone, P-00024
- ▶ 3,3',4',5,7-Pentahydroxyflavone, P-00025
- ▶ 2,4-Pentanedione, N-00030
- 2,3-Pentanedione bis[*p*-methoxy(thiobenzoyl)hydrazone], P-00031
- ▶ Pentetic acid, P-00039
- 9,10-Phenanthraquinone; Dioxime, *in* P-00047
- 9,10-Phenanthraquinone; Monothiosemicarbazone, *in* P-00047
- 6-Phenanthridinecarboxaldehyde 2-pyridylhydrazone, P-00050
- ▶ 5-(Phenylamino)-1,3,4-thiadiazole-2(3*H*)-thione, P-00087
- 5-[[[4-(Phenylazo)phenyl]azo]-2-thioxo-4-thiazolidinone, P-00096
- 5-Phenylazo-8-quinolinol; *N*-Oxide, *in* P-00100
- 1-Phenyl-1,2-ethanedione 2-(2-pyrazinyl)hydrazone, P-00128
- ▶ Phenylhydrazine, P-00134
- 4,4'-(Phenylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], P-00147
- 5-Phenylmethylene-2-thioxo-4-thiazolidinone, P-00148
- N*-Phenylctanohydroxamic acid, *in* H-00424
- 5-(3-Phenyl-2-propenylidene)-2-thioxo-4-thiazolidinone, P-00171
- N*-Phenyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00175
- Phthalimide; Monoxime, *in* P-00223
- Picramine K, P-00232
- Picramine M, P-00233
- 1,4-Piperazinedicarboxithioic acid, P-00239
- 4,4',4''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakisbenzenesulfonic acid, P-00250
- 2(1*H*)-Pyrazinone (1,2-dipyrazinylethylidene)hydrazone, P-00287
- 2(1*H*)-Pyrazinone (1,2-di-2-pyridinylethylidene)hydrazone, P-00288
- 2(1*H*)-Pyrazinone (di-2-pyridinylmethylene)hydrazone, P-00289
- 2(1*H*)-Pyrazinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, P-00291
- 2(1*H*)-Pyrazinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00292
- 2(1*H*)-Pyrazinone [1-(3-pyridazinyl)ethylidene]hydrazone, P-00293
- 2(1*H*)-Pyrazinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, P-00294
- 2(1*H*)-Pyrazinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, P-00295
- Pyrazinyl-2-pyridinylethanedione 2-(2-pyridinylhydrazone) 1-oxime, P-00298
- 2-Pyrazinyl-1-(2-pyridinyl)ethanone 2-pyrimidinylhydrazone, P-00300
- 2-Pyrazinyl-1-(2-pyridinyl)ethanone; 2-Thiazolylhydrazone, *in* P-00299
- 2-Pyridinecarboxaldehyde 2-benzothiazolylhydrazone; (*Z*)-*form*, *in* P-00321
- 2-Pyridinecarboxaldehyde (5-chloro-2-pyridinyl)hydrazone, P-00322
- 2-Pyridinecarboxaldehyde guanylylhydrazone, P-00325
- 2-Pyridinecarboxaldehyde (2-hydroxybenzoyl)hydrazone, P-00326
- 2-Pyridinecarboxaldehyde (5-methyl-2-pyridinyl)hydrazone, P-00328
- 2-Pyridinecarboxaldehyde (5-nitro-2-pyridinyl)hydrazone, P-00330
- 2-Pyridinecarboxaldehyde 2-pyrazinylhydrazone, P-00333
- 2-Pyridinecarboxaldehyde 2-pyridylhydrazone; (*E*)-*form*, *in* P-00335
- 2-Pyridinecarboxaldehyde 2-quinolinylhydrazone, P-00337
- 2-Pyridinecarboxaldehyde 8-quinolinylhydrazone, P-00339
- 2-Pyridinecarboxaldehyde; Selenosemicarbazone, *in* P-00318
- 2-Pyridinecarboxaldehyde 2-thiazolylhydrazone, P-00340
- 2,6-Pyridinedicarboxylic acid, P-00353
- 2(1*H*)-Pyridinone (1,2-dipyrazinylethylidene)hydrazone, P-00358
- 2(1*H*)-Pyridinone (1-pyrazinylethylidene)hydrazone, P-00366
- 2(1*H*)-Pyridinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, P-00367
- 2(1*H*)-Pyridinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00368
- 2(1*H*)-Pyridinone [1-(3-pyridazinyl)ethylidene]hydrazone, P-00369
- 2(1*H*)-Pyridinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, P-00370
- 2(1*H*)-Pyridinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, P-00371
- 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
- 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
- 10-(2-Pyridinylazo)-9-phenanthrenol, P-00378
- 3-(2-Pyridinylcarbonyl)benzenesulfonic acid; 2-Pyridylhydrazone, *in* P-00386
- 5-[1-(2-Pyridinyl)ethylidene]-2-thioxo-4-imidazolidinone; (*E*)-*form*, *in* P-00389
- 5-(2-Pyridinylmethylene)-2-thioxo-4-imidazolidinone; (*E*)-*form*, *in* P-00398

- N*-2-Pyridinyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00401
- 1-(2-Pyridinyl)-2-(3-pyridinyl)ethanone 2-thiazolylhydrazone, P-00403
- 2-Pyridinyl-4-pyrimidinylethanedione 1-(2-pyridinylhydrazone); 2-Oxime, *in* P-00404
- 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone; 2-Thiazolylhydrazone, *in* P-00405
- Pyrocatechol violet, P-00433
- 1*H*-Pyrrole-2-carboxaldehyde 8-quinolinylhydrazone, P-00438
- 5-(1*H*-Pyrrol-2-ylmethylene)-2-thioxo-4-thiazolidinone, P-00445
- 2-Quinolinecarboxaldehyde 2-pyrimidinylhydrazone, Q-00013
- 8-Quinolinethiol, Q-00021
- 2(1*H*)-Quinolinone (phenyl-2-pyridinylmethylene)hydrazone, Q-00024
- 2(1*H*)-Quinolinone [1-(2-pyridinyl)ethylidene]hydrazone, Q-00025
- 2(1*H*)-Quinolinone [1-(2-quinolinyl)ethylidene]hydrazone, Q-00026
- 2-(2-Quinolinylazo)-1-naphthalenol, Q-00030
- 4-(2-Quinolinylazo)phenol, Q-00032
- H*-Resorcine, R-00001
- Rhodamine B, *in* R-00002
- ▷ Rhodamine 590; Chloride, *in* R-00003
- Rose bengal A; Di-Na salt, *in* R-00011
- ▷ Rose Bengal B, *in* R-00010
- Salicylaldehyde benzoylhydrazone, *in* H-00101
- ▷ Salicylaldoxime, *in* H-00101
- 5-Salicylidene-1-acetyl-2-thioimidazole, *in* H-00485
- Salinazid, S-00003
- Semimethyl thymol blue, S-00011
- Sodium diethyldithiocarbamate, *in* D-00344
- Solochrome azurine BS, S-00016
- Solochrome black PV; Na salt, *in* S-00018
- Solochrome fast grey RA, S-00019
- Sulfarsazen; Na salt, *in* S-00038
- Sulfochlorophenol S, S-00045
- Sulfonitrazo, S-00050
- Sulfonitrophenol K, S-00051
- Sulfonitrophenol M, S-00052
- 2,2',3,3'-Tetrachlorodithizone, T-00029
- 2,2',4,4'-Tetrachlorodithizone, T-00030
- 2,2',5,5'-Tetrachlorodithizone, T-00031
- 2,2',6,6'-Tetrachlorodithizone, T-00032
- 3,3',4,4'-Tetrachlorodithizone, T-00033
- 3,3',5,5'-Tetrachlorodithizone, T-00034
- ▷ 3,3',4',7'-Tetrahydroxyflavone, T-00075
- ▷ Tetraphenylarsonium(1+); Chloride, *in* T-00119
- 1-(1,3,4-Thiadiazol-2-ylazo)-2-naphthalenol, T-00134
- 4-(2-Thiazolylazo)-1,2-benzenediol, T-00140
- 1-(2-Thiazolylazo)-2-naphthalenol, T-00142
- ▷ Thiourea, T-00175
- Thoron II, T-00178
- 2,4,6-Triamino-5-nitrosopyrimidine, T-00193
- 1,1,1-Trifluoro-4-mercapto-4-(2-thienyl)-3-buten-2-one, T-00249
- 4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione, T-00264
- ▷ 3,4,5-Trihydroxybenzoic acid, T-00277
- 4',5,7-Trihydroxyflavanone; (*S*)-form, *in* T-00281
- ▷ 4',5,7-Trihydroxyflavone, T-00285
- 2,6,7-Trihydroxy-9-(4-hydroxy-5-methoxy-2-nitrophenyl)-3*H*-xanthen-3-one, T-00287
- 2,6,7-Trihydroxy-9-(4-hydroxy-3-methoxyphenyl)-3*H*-xanthen-3-one, T-00288
- 2,6,7-Trihydroxy-9-(2-hydroxy-1-naphthalenyl)-3*H*-xanthen-3-one, T-00289
- 2,6,7-Trihydroxy-9-(2-hydroxy-3-nitrophenyl)-3*H*-xanthen-3-one, T-00290
- 2,6,7-Trihydroxy-9-(2-hydroxyphenyl)-3*H*-xanthen-3-one, T-00292
- 2,6,7-Trihydroxy-9-[4-(1-methylethyl)phenyl]-3*H*-xanthen-3-one, T-00298
- 2,6,7-Trihydroxy-9-methyl-3*H*-xanthen-3-one, T-00299
- 4-[(2,3,4-Trihydroxyphenyl)azo]benzenesulfonic acid, T-00309
- 2,6,7-Trihydroxy-9-phenyl-3*H*-xanthen-3-one, T-00315
- 2,6,7-Trihydroxy-9-(trichloromethyl)-3*H*-xanthen-3-one, T-00323
- Trilaurylammonium bromide, *in* T-00230
- ▷ 2,4,6-Trinitrophenol, T-00355
- Tris(1,10-phenanthroline-*N*¹,*N*¹⁰)iron(II) (2+), T-00412
- Victoria blue B; Chloride, *in* V-00002
- Victoria blue 4R; Chloride, *in* V-00003
- Xylenol orange, X-00006

Analyte - Organic molecule

Alcohol (not phenol)

- ▶ Acetone, A-00007
 Acetyl methanesulfonate, A-00020
 9-Anthracenecarbonyl chloride, *in* A-00378
 (Azidocarbonyl)ferrocene, A-00459
 (3-Azido-3-oxopropyl)ferrocene, A-00461
 Azobenzene-4-carboxylic acid; Chloride, *in* A-00467
 ▶ 1*H*,3*H*-Benzo[1,2-*c*:4,5-*c'*]difuran-1,3,5,7-tetrone, *in* B-00029
 1-Bromomethyl-2,4-dinitrobenzene, B-00522
N-(*tert*-Butyldimethylsilyl)-*N*-methylacetamide, B-00629
 2,3-Butylene chlorophosphate, *in* C-00099
 Camphor-10-sulfonic acid; (+)-*form*, Chloride, *in* C-00016
 2-(4-Carboxyphenyl)-5,6-dimethylbenzimidazole, C-00040
 7-(Chlorocarbonylmethoxy)-4-methylcoumarin, C-00077
 Chlorodimethyl(pentafluorophenyl)silane, C-00100
 ▶ 2-Chloro-1,3,2-dioxaphosphorinane, C-00110
 ▶ Chlorotriphenylmethane, C-00269
 Chrysanthemic acid; (1*R*,3*R*)-*form*, Chloride, *in* C-00296
 3-(1-Cyano-2*H*-isoindol-2-yl)benzoyl azide, C-00329
 Diacetoxydimethylsilane, D-00031
 4-(Diazomethyl)-7-methoxy-2*H*-1-benzopyran-2-one, D-00150
 ▶ 2,4'-Dibromoacetophenone, D-00176
 (3,5-Dichlorophenyl)dihydroxyborane, D-00295
 (Diethylamino)dimethyl(pentafluorophenyl)silane, D-00316
 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl azide, *in* D-00379
 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl chloride, *in* D-00379
 4'-Dimethylaminoazobenzene-4-sulfonyl chloride, *in* M-00210
 2-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]ethyl carbonochloridate, D-00800
 4-(Dimethylamino)- α -oxo-1-naphthaleneacetonitrile, D-00807
 1,1-Dimethyl-1-(pentafluorophenyl)silanamine, D-00878
 ▶ 2,4-Dinitrobenzenesulfonyl chloride, D-00943
 3,5-Dinitrobenzoic acid, D-00948
 3,5-Dinitrobenzoic acid; Anhydride, *in* D-00948
 ▶ 3,5-Dinitrobenzoic acid; Chloride, *in* D-00948
 Drimanoyl chloride, *in* D-01159
 Fluorescin; Di-Ac, *in* F-00022
 ▶ 4-Fluorobenzoic acid; Chloride, *in* F-00024
 Heptafluorobutanoic acid; Anhydride, *in* H-00004
 ▶ 1,1,1,3,3,3-Hexafluoro-2-propanone, H-00033
 3-Hydroxyandrost-5-ene-17-carboxylic acid; (3 β ,17 β)-*form*, Ac, chloride, *in* H-00098
 2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid; (*S*)-*form*, Me ether, chloride, *in* H-00131
 7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid; Me ether, chloride, *in* H-00426
 2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (*S*)-*form*, Me ether, *in* H-00512
 2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (*R*)-*form*, Me ether, chloride, *in* H-00512
 ▶ 2-Hydroxypropanoic acid, H-00516
 2-Isocyanatoanthracene, I-00059
 4-Isocyanato-1,1'-biphenyl, I-00060
 2-Isocyanato-9*H*-fluorene, I-00061
 2-Isocyanato-1-[(4-methylphenyl)sulfonyl]pyrrolidine, I-00062
 ▶ 1-Isocyanatonaphthalene, I-00064
 2-(4-Isocyanatophenyl)-6-methylbenzothiazole, I-00065
 (1-Isocyanatoethyl)benzene; (*R*)-*form*, *in* I-00067
 ▶ Isopropenyl acetate, *in* P-00270
 Luminarin 4, L-00013
 3-Menthoxyacetic acid; (–)-*form*, *in* M-00013
 3-Menthoxyacetic acid; (–)-*form*, Chloride, *in* M-00013
 7-Methoxycoumarin-3-carboxylic acid, *in* H-00426
 7-Methoxy-2-oxo-2*H*-1-benzopyran-3-carbonyl azide, *in* H-00426
 7-Methoxy-2-oxo-2*H*-1-benzopyran-4-carbonyl azide, M-00097
 α -Methoxy- α -(trifluoromethyl)benzeneacetic acid, *in* H-00512
 1-[4-(6-Methyl-2-benzothiazolyl)phenyl]-1*H*-pyrrole-2,5-dione, M-00143
 2'-Methyl- α -oxo-[1,1'-binaphthalene]-2-acetonitrile, M-00212
 ▶ *N*-Methyl-*N*-(trimethylsilyl)trifluoroacetamide, M-00332
 4'-Nitro-4-azobenzencarboxylic acid; Chloride, *in* N-00080
 ▶ 4-Nitrobenzoic acid; Chloride, *in* N-00093
 4-Nitro-1,3-isobenzofurandione, *in* N-00085
 Octadecanoic acid; Anhydride, *in* O-00001
 1-(1-Oxo-2-phenylbutyl)-1*H*-imidazole; (+)-*form*, *in* O-00066
 1-Phenylethylamine; (*R*)-*form*, *in* P-00130
 ▶ Phenyl isocyanate, P-00138
 2-Phenylpropanoic acid; (\pm)-*form*, Chloride, *in* P-00167
 2-(Phenylseleno)propanoic acid, P-00191
N-Phenyl-*N*-(trimethylsilyl)acetamide, P-00210
 ▶ Phthalic anhydride, P-00222
 3-(2-Phthalimidyl)benzoyl azide, P-00225
 4-(2-Phthalimidyl)benzoyl azide, P-00226
 3-(2-Phthalimidyl)benzoyl chloride, P-00227
 4-(2-Phthalimidyl)benzoyl chloride, P-00228
 3-(2-Phthalimidyl)-4-methoxybenzoyl chloride, P-00229
 2-Propylcyclohexanone; (*S*)-*form*, *in* P-00275
 ▶ 2-Pyrrolidinone, P-00443
 γ -Saccharin chloride, *in* C-00062
 ▶ Trichloroacetyl isocyanate, T-00220
 [(Trifluoroacetyl)amino]acetyl chloride, *in* T-00240
 2,2,2-Trifluoro-1-phenylethylamine; (*S*)-*form*, *in* T-00261
 4-(Triphenylmethyl)phenyl isocyanate, T-00369
 Trolox C; (*S*)-*form*, Me ether, *in* T-00430
- O*-(2-Anthracenylmethyl)hydroxylamine, A-00385
O-(9-Anthracenylmethyl)hydroxylamine, A-00386
 ▶ 1,3,5-Benzenetriol, B-00036
O-Benzylhydroxylamine, B-00184
 ▶ 2-Biphenylol, B-00210
 ▶ 4-Biphenylol, B-00211
 2,3-Butanediol; (2*R*,3*R*)-*form*, *in* B-00586
 ▶ 1,3-Cyclohexanedione, C-00338
 Dabsyl hydrazine, *in* M-00210
 Dansylhydrazine, *in* A-00265
 ▶ 1,2-Diaminonaphthalene, D-00105
 2-(Diethylamino)benzoic acid hydrazide, D-00315
 6-(Diethylamino)-2-naphthalenesulfonic acid hydrazide, D-00325
 7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-carboxylic acid hydrazide, D-00326
 2,3-Dihydro-1,4-benzodioxin-6,7-diamine, D-00371
 4-(4,5-Dihydro-3-phenyl-1*H*-pyrazol-1-yl)benzenesulfonic acid hydrazide, D-00469
N,N'-Dihydroxy-2,3-dimethyl-2,3-butanediolamine, D-00578
 2-(Diisopropylamino)benzoic acid hydrazide, D-00747
 4,5-Dimethoxy-1,2-benzenediamine, *in* D-00049
 2-(Dimethylamino)benzoic acid hydrazide, D-00780
N,N'-Dimethyl-1,2-bis[3-(trifluoromethyl)phenyl]-1,2-ethanediamine; (*R,R*)-*form*, *in* D-00843
 ▶ 1,1-Dimethylhydrazine, D-00864
 ▶ (2,4-Dinitrophenyl)hydrazine, D-00972
 Diphenadione; 1-Hydrazone, *in* D-00997
 ▶ *N,N'*-Diphenyl-1,2-ethanediamine, D-01011
 2,2'-Dithiobis[1-naphthaleneamine], D-01118
 ▶ Dodecylamine, D-01142
 ▶ Ephedrine, *in* M-00122
 ▶ 1,2-Ethanedithiol, E-00028
 ▶ 1,6-Hexanediamine, H-00061
 7-Hydrazino-4-benzofuransulfonamide, H-00081
 7-Hydrazino-4-benzofuransulfonamide; *N,N*-Di-Me, *in* H-00081
 4-Hydrazinobenzoic acid, H-00082
 4-Hydrazino-7-nitrobenzofurazan, H-00084
 2-Hydroxycarbazole, H-00144
 Mansylhydrazine, *in* M-00222
 ▶ MBTH, *in* B-00090
 ▶ 2-Methylamino-1-phenyl-1-propanol; (1*S*,2*R*)-*form*, *in* M-00122
 ▶ 5-Methyl-1,3-benzenediol, M-00128
 [[4-(5-Methyl-2-benzothiazolyl)phenyl]amino]acetylhydrazide, M-00142
 ▶ 2-Methyl-2,4-pentanediol, M-00217
 ▶ 1,3-Naphthalenediol, N-00008
O-(*p*-Nitrobenzyl)hydroxylamine, N-00099
 ▶ (4-Nitrophenyl)hydrazine, N-00138
O-(Pentafluorobenzyl)hydroxylamine; B, HCl, *in* P-00016
 ▶ (Pentafluorophenyl)hydrazine, P-00020
 2-[(4-Phenylazo)phenyl]hydrazinesulfonic acid, P-00097
 ▶ Phenylhydrazine, P-00134
 2-[(Phenylmethyl)amino]ethanol, P-00144
 4-Phenylsemicarbazide, P-00193
 2-Picoline methiodide, *in* M-00264
 Propanal (3-phenyl-2-quinoxaliny)hydrazone, P-00260
O-Propylhydroxylamine, P-00277
 2,2,5,5-Tetrakis(carboxymethylthio)-*p*-dithiane, T-00082
- Aldehyde**
 2-Aminobenzaldehyde, A-00096
 ▶ 2-Aminobiphenyl, A-00116
 3-(Aminocarbonyl)-1,4-dimethylpyridinium(1+); Chloride, *in* A-00133
 4-Amino-3-hydrazino-5-mercapto-1,2,4-triazole, A-00181
 ▶ 7-Amino-4-hydroxy-2-naphthalenesulfonic acid, A-00204
 ▶ Aminoacetic acid hydrazide, A-00291
 4-Amino-3-penten-2-one, A-00294
 1-Anthracenecarboxylic acid; Hydrazide, *in* A-00376
 2-Anthracenecarboxylic acid; Hydrazide, *in* A-00377
O-(1-Anthracenylmethyl)hydroxylamine, A-00384
- Alkene**
 ▶ 3-Chloroperbenzoic acid, C-00193
 ▶ 1,3-Dibromo-5,5-dimethyl-2,4-imidazolidinedione, D-00185
 ▶ Dimethylamine, D-00777

- 5-(Dimethylamino)-1-naphthalenesulfonyl azide, D-00795
 2,4-Dinitrobenzenediazonium(1+); Tetrafluoroborate(1-), in D-00938
 ▶ 1-Dodecanethiol, D-01140
 ▶ Morpholine, M-00344
 Peroxydodecanoic acid, P-00045
 2,2',4,4'-Tetranitrobiphenyl, T-00107
 ▶ Tetranitromethane, T-00108

Amine

- ▶ Acetone, A-00007
 8-(Acetyloxy)-1,3,6-pyrenetrisulfonyl trichloride, in H-00517
 Aconitic acid; (E)-form, in A-00061
 ▶ 4-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00200
 2,3-Anthracenedicarboxaldehyde, A-00379
 2-(9-Anthracenyl)ethyl carbonochloridate, A-00383
 Azobenzene-4-carboxylic acid; Chloride, in A-00467
 ▶ 1*H*,3*H*-Benzo[1,2-*c*:4,5-*c'*]difuran-1,3,5,7-tetrone, in B-00029
 ▶ 4*H*-1-Benzopyran-4-one, B-00072
 ▶ 1,4-Benzoquinone, B-00076
 (2,1,3-Benzothiadiazole-5²) dicarbonylchlororhodium, B-00085
 3-Benzoyl-2-quinolinecarboxaldehyde, B-00160
 ▶ Bindone, B-00205
 1,2-Bis(3,4-dimethoxyphenyl)-1,2-ethanediamine; (R*S*,S*R*)-form, in B-00311
 1,2-Bis(4-ethoxyphenyl)-1,2-ethanediamine; (R*S*,S*R*)-form, in B-00350
 [Bis(trifluoroacetoxy)i]do]benzene, B-00462
 9-(Bromomethyl)acridine, B-00516
 4-Bromo-1-naphthalenediazonium(1+); Chloride, in B-00536
 3-Bromo-2-nitroso-1-naphthalenol, in B-00537
 ▶ 2-Bromopropane, B-00560
 Camphor-10-sulfonic acid; (+)-form, Chloride, in C-00016
 ▶ Carbon disulfide, C-00023
 9-Chloroacridine, C-00057
 ▶ 1-Chloro-4-(chloromethyl)benzene, C-00080
 5-Chloro-2-[7-(diethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]-6-benzoxazolesulfonic acid, C-00091
 Chlorodimethyl(pentafluorophenyl)silane, C-00100
 ▶ 1-Chloro-2,4-dinitrobenzene, C-00106
 2-Chloro-3,5-dinitropyridine, C-00107
 ▶ 2-Chloro-1,3-dinitro-5-(trifluoromethyl)benzene, C-00108
 9-Chloro-10-methylacridinium(1+); Trifluoromethanesulfonate, in C-00170
 ▶ 4-Chloro-7-nitrobenzofuran, C-00189
 ▶ 2-Chloro-1,3,5-trinitrobenzene, C-00268
 Chrysanthemic acid; (1*R*,3*R*)-form, Chloride, in C-00296
 Cinnamamide; Anhydride, in P-00169
 ▶ Cycloheptanone, C-00334
 ▶ Cyclopentanone, C-00364
 Dansylproline; (S)-form, in D-00001
 1,2-Diacetylbenzene, D-00032
 ▶ 2,6-Diaminopyridine, D-00119
 ▶ Dibenzoyl peroxide, D-00165
 5-(Dibutylamino)-1-naphthalenesulfonyl chloride, D-00224
 ▶ 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone, D-00260
 6,9-Dichloro-2-methoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, in D-00284
 ▶ 2,3-Dichloro-1,4-naphthoquinone, D-00286
 (3,5-Dichlorophenyl)dihydroxyborane, D-00295
 5-[[4,6-Dichloro-1,3,5-triazin-2-yl]amino]-3',6'-dihydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, D-00304
 (Diethylamino)dimethyl(pentafluorophenyl)silane, D-00316
 ▶ Diethyl dicarbonate, in D-00243

- 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl chloride, in D-00379
 2,3-Dihydro-2-hydroxy-4*H*-1-benzopyran-4-one, D-00406
 9,10-Dimethoxy-2-anthracenesulfonic acid, D-00765
 1,1-Dimethoxy-*N,N*-dimethylmethylamine, D-00774
 4'-Dimethylaminoazobenzene-4-sulfonyl chloride, in M-00210
 ▶ 4-(Dimethylamino)benzaldehyde, D-00779
 5-(Dimethylamino)-1-naphthalenesulfonic acid, D-00794
 7-(Dimethylamino)-2-oxo-2*H*-1-benzopyran-3-carbonyl fluoride, D-00805
 3-[[7-(Dimethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]carbonyl]-2(3*H*)-oxazolone, D-00806
 5-[[4-(Dimethylamino)phenyl]-2,4-pentadienyl]; (E,E)-form, in D-00821
 1,1-Dimethyl-1-(pentafluorophenyl)silanamine, D-00878
 ▶ *N,N*-Dimethyl-1,4-phenylenediamine, in D-00048
 2,2-Dimethylpropanal, D-00897
 ▶ 2,4-Dinitrobenzenesulfonyl chloride, D-00943
 ▶ 2,4-Dinitrobenzenesulfonic acid, D-00944
 ▶ 3,5-Dinitrobenzoic acid; Chloride, in D-00948
 1,2-Dinitro-1,2-diphenylethylene, D-00952
 [3-[(2,5-Dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]ferrocene, D-00995
 1,2-Diphenyl-1,2-ethanediamine; (1*R*S,2*R*S)-form, in D-01010
 2,3-Diphenylquinolinizinium(1+); Bromide, in D-01048
 ▶ 2,2-Diphenyl-1-(2,4,6-trinitrophenyl)hydrazyl, D-01057
 3-(2-Dodecenyldihydro-2,5-furandione, D-01141
 Drimanoyl chloride, in D-01159
 ▶ Ethanethiol, E-00039
 9-Ethoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, in E-00056
 ▶ Ethyl chloroformate, E-00068
 Ethyl oxanilate, in O-00048
 Flunoxapfen; (±)-form, Chloride, in F-00008
 ▶ 9*H*-Fluorene-2-carboxaldehyde, F-00012
 1-(9*H*-Fluoren-9-yl)ethyl carbonochloridate; (+)-form, in F-00017
 Fluorescamine, F-00019
 Fluorescein; Di-Ac, in F-00022
 ▶ 4-Fluorobenzoic acid; Chloride, in F-00024
 ▶ 1-Fluoro-2,4-dinitrobenzene, F-00027
 4-Fluoro-7-nitrobenzofuran, F-00030
 1-Fluoro-2-nitro-4-(trifluoromethyl)benzene, F-00032
 ▶ 2-Furancarboxaldehyde, F-00042
 Glycylproline; (S)-form, *N*-Benzyloxycarbonyl, in G-00020
 Heptafluorobutanoic acid; Anhydride, in H-00004
 1-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-1*H*-imidazole, H-00009
 ▶ 2,5-Hexanedione, H-00063
 (2-Hydroxybenzaldehydato-*O,O'*) diphenylboron, H-00100
 2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid; (S)-form, Me ether, chloride, in H-00131
 ▶ 4-Hydroxy-3,5-dimethoxybenzaldehyde, in T-00273
 4-Hydroxydinaphtho[2,1-*d*:1',2'-*f*][1,3,2]dioxaphoshepin 4-oxide, H-00153
 ▶ 4-Hydroxy-3-methoxybenzaldehyde, in D-00519
 1-[[4-(4-Hydroxy-3-methoxyphenyl)acetyl]oxy]-2,5-pyrrolidinedione, H-00269
 7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, H-00426
 1-[3-(4-Hydroxyphenyl)-1-oxopropoxy]-2,5-pyrrolidinedione, H-00491

- 2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (S)-form, Me ether, in H-00512
 2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (R)-form, Me ether, chloride, in H-00512
 4-Iodobenzenesulfonyl chloride, in I-00039
 2-Isocyanato-1-[(4-methylphenyl)sulfonyl]pyrrolidine, I-00062
 ▶ 2-Isocyanato-2-methylpropane, I-00063
 ▶ 1-Isocyanatonaphthalene, I-00064
 2-(4-Isocyanatophenyl)-6-methylbenzothiazole, I-00065
 ▶ 1-Isocyanato-3-(trifluoromethyl)benzene, I-00066
 (1-Isocyanatoethyl)benzene; (R)-form, in I-00067
 9-Isothiocyanatoacridine, I-00091
 1-(Isothiocyanatomethyl)-1*H*-indole-2,3-dione, I-00096
 1-Isothiocyanatopyrene, I-00100
 Leucylalanine; (S,S)-form, in L-00005
 ▶ 2-Mercaptoethanol, M-00031
 3-Mercapto-1-propanol, M-00053
 ▶ 4-Methoxybenzaldehyde, M-00075
 α-Methoxybenzeneacetyl chloride, in M-00007
 7-Methoxycoumarin-3-carboxylic acid, in H-00426
 2-Methoxy-2,4-diphenyl-3(2*H*)-furanone, M-00086
 9-Methoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, in M-00088
 7-Methoxy-2-oxo-2*H*-1-benzopyran-3-carbonyl fluoride, in H-00426
 3-[(7-Methoxy-2-oxo-2*H*-1-benzopyran-3-yl)carbonyl]-2(3*H*)-oxazolone, M-00098
 1-[(Methoxyphenylacetyl)oxy]-2,5-pyrrolidinedione; (S)-form, in M-00105
 8-Methoxy-5-quinolinesulfonyl chloride, M-00121
 α-Methoxy-α-(trifluoromethyl)benzeneacetic acid, in H-00512
 3-Methylbenzoic acid; Chloride, in M-00137
 ▶ 3-Methyl-1-butyl nitrite, M-00151
 ▶ Methylphosphonothioic dichloride, M-00246
 ▶ *N*-Methyl-*N*-(trimethylsilyl)trifluoroacetamide, M-00332
 2-Naphthalenesulfonic acid; Chloride, in N-00015
 1-[[[1-(1-Naphthalenyl)ethyl]amino]carbonyl]oxy]-2,5-pyrrolidinedione, N-00019
 ▶ 1,2-Naphthoquinone-4-sulfonic acid, N-00033
 2-Naphthyl chloroformate, N-00048
 1-[[[1-(Naphthalenylamino)carbonyl]oxy]-2,5-pyrrolidinedione, N-00058
 4'-Nitro-4-azobenzeneacetic acid; Chloride, in N-00080
 4-Nitrobenzenediazonium(1+); Tetrafluoroborate, in N-00084
 ▶ 2-Nitrobenzenesulfonyl chloride, N-00088
 2-Nitro-1,3-indanedione, N-00112
 2-Oxo-2*H*-1-benzopyran-6-sulfonyl chloride, in O-00057
 2-Oxo-3-butynoic acid; Et ester, in O-00058
 2-Oxo-3-butynoic acid; Isopropyl ester, in O-00058
 1-(1-Oxo-2-phenylbutyl)-1*H*-imidazole; (+)-form, in O-00066
 1-(1-Oxopropoxy)-2,5-pyrrolidinedione, in P-00442
 Pentadecafluorooctanal, P-00007
 Pentafluorobenzaldehyde, P-00010
 1-[[1-(Pentafluorobenzoyl)-2-pyrrolidinyl]carbonyl]-1*H*-imidazole; (S)-form, in P-00013
 Pentafluorobenzyl chloroformate, P-00015
 2,3,4,5,6-Pentafluoro-α-methoxy-α-methylbenzeneacetic acid; (S)-form, in P-00019
 2-Pentenedial, P-00038
 1-[[[Phenylamino]carbonyl]oxy]-2,5-pyrrolidinedione, P-00081

- 5-[[4-(Phenylamino)phenyl]imino]-2(5H)-furanone, P-00085
- Phenyl isocyanate, P-00138
- 7-(Phenylloxy)-4-benzofurazansulfonyl fluoride, P-00153
- 3-(2-Phthalimidyl)benzoyl chloride, P-00227
- 4-(2-Phthalimidyl)benzoyl chloride, P-00228
- 3-(2-Phthalimidyl)-4-methoxybenzoyl chloride, P-00229
- Polygodial, in D-01160
- 1H-Pyrazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, P-00302
- 1-Pyrenecarboxaldehyde, P-00306
- 1-Pyrenecarboxylic acid, P-00307
- 1-Pyrenesulfonic acid; Chloride, in P-00309
- 5-(4-Pyridinyl)-2-thiophenecarboxaldehyde, P-00409
- N-Succinimidoyl tetrathiafulvalene-2-carboxylate, S-00035
- Tetrachloro-1,4-benzoquinone, T-00025
- Tetracyanoethylene, T-00037
- Tetracyanoquinodimethane, T-00038
- 1,2,3,4-Tetrahydrobenzo[h]quinolin-3-ol, T-00051
- Texas red, T-00133
- 2-Thiophenecarboxaldehyde, T-00169
- 2,4,6-Triaminopyrimidine, T-00194
- 2,4,6-Tribromophenyl chloroformate, T-00206
- Trichloroacetic acid; Chloride, in T-00218
- 2,2,2-Trichloro-*tert*-butyloxycarbonyl chloride, T-00221
- 2,2,2-Trichloroethyl chloroformate, T-00223
- Trifluoroacetic acid, T-00239
- Trifluoroacetic acid; Anhydride, in T-00239
- 3-(Trifluoroacetyl)-4-thiazolidinecarboxylic acid; (S)-form, Chloride, in T-00243
- 4-(Trifluoromethyl)benzoic acid; Chloride, in T-00253
- 2,4,6-Trinitrobenzenesulfonic acid, T-00351
- 4,5,7-Trinitro-9-oxo-9H-fluorene-2-carboxylic acid; Chloride, in T-00354
- Vinyl chloroformate, V-00005

Amino acid

- 3(5)-Amino-1,2,4-triazole, A-00364
- Arabinopyranosyl isothiocyanate; α -D-form, 2,3,4-Tri-Ac, in A-00399
- 1,2-Benedicicarboxaldehyde, B-00016
- Benzoic ethylcarbonic anhydride, B-00067
- 1,4-Benzoquinone, B-00076
- 3-Benzoyl-2-naphthalenecarboxaldehyde, B-00137
- 3-Benzoyl-2-quinolinecarboxaldehyde, B-00160
- N,N'-Bis(1-phenylethyl)carbodiimide; (S,S)-form, in B-00439
- 2-(Bromomethyl)-4-nitrophenol, B-00531
- 2-Bromopropane, B-00560
- 1-Butanol, B-00606
- 2-Butanol, B-00607
- N-(*tert*-Butyldimethylsilyl)-N-methylacetamide, B-00629
- N-(*tert*-Butyldimethylsilyl)-N-methyltrifluoroacetamide, B-00630
- Camphor-10-sulfonic acid; (+)-form, Chloride, in C-00016
- N-Chloro-5-(dimethylamino)-1-naphthalenesulfonamide, C-00098
- 1-Chloro-2,4-dinitrobenzene, C-00106
- N-Chloroformylcarbazole, in C-00020
- 1,2-Diacetylbenzene, D-00032
- 1-Diazobutane, D-00143
- 1-Diazopropane, D-00154
- 1,1-Dibutoxytrimethylamine, D-00221
- 1,1-Di-*tert*-butoxytrimethylamine, D-00222
- Dicarboxidine; B₂HCl₂, in D-00244
- 1,3-Dichloro-1,1,3,3-tetrafluoro-2-propanone, D-00303
- (Diethoxymethyl)dimethylamine, D-00313
- (Diethylamino)trimethylsilane, D-00336
- Dihydro-2,5-furandione, D-00405
- 2,2-Dihydroxy-1H-benzofurindene-1,3(2H)dione, D-00529

- 3',6'-Dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, D-00638
- 1,1-Dimethoxy-N,N-dimethylmethanamine, D-00774
- 4'-Dimethylaminoazobenzene-4-sulfonyl chloride, in M-00210
- 5-(Dimethylamino)-1-naphthalenesulfonyl chloride, D-00796
- 5-[[4-(Dimethylamino)phenyl]azo]-1-naphthalenesulfonyl chloride, in A-00314
- 4-(Dimethylamino)phenyl isothiocyanate, D-00817
- 3,3-Dimethyl-2-butanol; (S)-form, in D-00844
- Dimethyl(dipropoxymethyl)amine, D-00854
- 1,2-Dinitro-1,2-diphenylethylene, D-00952
- 2,5-Dioxo-4-oxazolidinepropanoic acid; (S)-form, in D-00993
- 6,6'-Dithiobis[2-naphthalenol], D-01119
- N-Ethylmaleimide, in P-00439
- FDNDEA, in F-00026
- 1-(9H-Fluoren-9-yl)ethyl carbonochloridate; (+)-form, in F-00017
- 9-Fluorenyl methyl chloroformate, F-00018
- Fluorescamine, F-00019
- 5-Fluoro-2,4-dinitroaniline, F-00026
- 1-Fluoro-2,4-dinitrobenzene, F-00027
- 4-Fluoro-7-nitrobenzofurazan, F-00030
- Glycylproline; (S)-form, N-Benzoyloxycarbonyl, in G-00020
- Heptadecanoic acid, H-00003
- Heptafluorobutanoic acid; Anhydride, in H-00004
- N-Heptylhydroxyproline; (2S,4R)-form, in H-00016
- N-Hexadecylhydroxyproline; (2S,4R)-form, in H-00027
- 1,1,1,3,3,3-Hexafluoro-2-propanone, H-00033
- Hydrindantin, H-00088
- 4-Hydroxydinaphtho[2,1-d':1',2'-f][1,3,2]dioxaphosphepin 4-oxide, H-00153
- 6-Hydroxy-2-naphthalenesulfonic acid, H-00347
- (2-Hydroxy-5-nitrobenzyl) dimethylsulfonium(1+); Bromide, in H-00384
- Isobutyl chloroformate, I-00057
- Isopropenyl acetate, in P-00270
- 9-Isothiocyanatoacridine, I-00091
- 7-Isothiocyanato-1,7-dimethylbicyclo[2.2.1]heptane; (-)-form, in I-00093
- 4-[[4-Isothiocyanatophenyl]azo]-N,N-dimethylbenzenamine, I-00098
- Marfey's reagent, in F-00028
- (-)-Menthol, in M-00012
- 2-Methoxy-2,4-diphenyl-3(2H)-furanone, M-00086
- 2-Methoxy-2-(1-naphthyl)propanoic acid; (-)-form, in M-00095
- N-[[4-Methoxyphenyl]methyl]-7-nitro-4-benzofurazanamine, M-00114
- 8-Methoxy-5-quinolinesulfonyl chloride, M-00121
- 3-Methyl-1-butanol, M-00147
- 3-Methyl-2-butanol; (S)-form, in M-00148
- Methyl isothiocyanate, M-00196
- 1-[[N-[2-Methyl-N-[(phenylmethoxy)carbonyl]-L-valyl]alanyl]glycyl]oxy]-2,5-pyrrolidinedione, M-00231
- 2-Methyl-1-propanol, M-00255
- 4-(2-Methylpropyl)-2,5-oxazolidinedione; (S)-form, in M-00261
- 2-Naphthalenesulfonic acid, N-00015
- 1-[(2-Naphthalenylcarbonyl)oxy]-2,5-pyrrolidinedione, N-00018
- 1-[[[2-Naphthalenyl]oxy]acetyl]oxy]-2,5-pyrrolidinedione, N-00020
- Naproxen; (S)-form, in N-00057
- 1-[[[1-(Naphthalenylamino)carbonyl]oxy]-2,5-pyrrolidinedione, N-00058
- Neomenthyl isothiocyanate, in I-00095
- Ninhydrin, N-00071
- O-(4-Nitrobenzyl)tyrosine; (R)-form, Me ester, in N-00100
- 7-Nitro-N-(phenylmethyl)-4-benzofurazanamine, in A-00282
- Octadecanoic acid, O-00001
- 2-Octanol, O-00037
- 4-[1-Oxo-3-phenyl-1H-inden-2-yl]benzenesulfonyl chloride, O-00067
- Pentafluoroisothiocyanatobenzene, P-00018
- 1-Pentanol, P-00034
- 9,10-Phenanthraquinone, P-00047
- Phenyl isothiocyanate, P-00139
- Pivaloyl chloride, in D-00899
- 1-Propanol, P-00265
- Pyridoxal, P-00414
- TAGIT, in G-00012
- Teresantalol; 8-Carboxylic acid, chloride, in T-00004
- Tetrachloro-1,4-benzoquinone, T-00025
- 1,1,3,3-Tetraethoxypropane, T-00040
- 1,2,3,4-Tetrahydro-3-isooquinolinecarboxylic acid; (S)-form, in T-00063
- Trifluoroacetic acid, T-00239
- N-(Trifluoroacetyl)-L-prolyl chloride, in T-00242
- 3-(Trifluoroacetyl)-4-thiazolidinecarboxylic acid; (S)-form, Chloride, in T-00243
- 2,2,2-Trifluoro-N-(trimethylsilyl)ethanimidic acid trimethylsilyl ester, T-00266
- Trimethyl(dimethylamino)silane, T-00326
- 2,4,6-Trinitrobenzenesulfonic acid, T-00351
- 4,5,7-Trinitro-9-oxo-9H-fluorene-2-carboxylic acid; Chloride, in T-00354
- 4-Vinylpyridine, V-00009

Carbohydrate

- 4-Amino-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, A-00152
- 2-Aminoethanol, A-00171
- (2-Aminoethoxy)diphenoxyborane, A-00172
- Aminoguanidine, A-00179
- 7-Amino-4-methyl-2H-1-benzopyran-2-one, A-00237
- Anthrone, A-00390
- Arginine; (S)-form, in A-00400
- Benzaldehyde, B-00004
- Benzoyl chloride, in B-00059
- 1,2-Bis(4-methoxyphenyl)-1,2-ethanediamine; (1R,2SR)-form, in B-00401
- Chlorodimethylphenylsilane, C-00103
- Cyanoacetamide, in C-00324
- 1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, in C-00345
- Dabsyl hydrazine, in M-00210
- Dansylhydrazine, in A-00265
- 3,4-Dihydro-5-hydroxy-1(2H)-naphthalenone, D-00413
- 3,6-Dinitro-1,2-benedicicarboxylic acid; Monopyridinium salt, in D-00939
- 3,4-Dinitrobenzoic acid, D-00947
- 2,5-Diphenyl-3-[4-(2-phenylethenyl)phenyl]-2H-tetrazolium(1+); Chloride, in D-01036
- (Ethenyloxy)cyclohexane, E-00047
- 2-Furoylhydrazine, in F-00050
- 2-Hydrazinobenzothiazole, H-00083
- 4-Hydroxybenzoic acid; Hydrazide, in H-00113
- 2-Hydroxy-3,5-dinitrobenzoic acid, H-00154
- 4-Methoxybenzamide, M-00077
- 2-Methylaniline, M-00123
- 5-Methyl-1,3-benzenediol, M-00128
- 1,3-Naphthalenediol, N-00008
- 4-Nitrobenzoic acid; Chloride, in N-00093
- O-(*p*-Nitrobenzyl)hydroxylamine, N-00099
- 2,2,5,5-Tetrakis(carboxymethylthio)-*p*-dithiane, T-00082
- Tetrazolium blue; Dichloride, in T-00132
- TTC, in T-00379

Carboxylic acid

- 7-Acetoxy-4-(bromomethyl)coumarin, *in* B-00524
- ▷ Acridine yellow, *in* D-00079
- 7-[(2-Aminoethyl)amino]-4-benzofurazansulfonamide, A-00174
- 2-[4-(1-Aminoethyl)-1-naphthyl]-6-methoxy-*N*-methyl-2*H*-benzotriazol-5-amine; (*S*)-*form*, B,2HCl, *in* A-00176
- 2-[4-(Aminomethyl)phenyl]-*N,N*-dimethyl-2*H*-benzotriazol-5-amine, A-00249
- 2-Amino-*N*-2-naphthalenylpropanamide; (*S*)-*form*, *in* A-00278
- 7-[(5-Aminopentyl)amino]-4-benzofurazansulfonamide, A-00295
- ▷ 9-Aminophenanthrene, A-00298
- 4-(Aminosulfonyl)-7-(1-piperazinyl)-2,1,3-benzoxadiazole, A-00351
- 9-Anthracenemethanol, A-00380
- ▷ Benzyl iodide, B-00186
- 5-Benzylthiuronium chloride, *in* B-00193
- ▷ 2-Bromoacetophenone, B-00483
- 2-Bromo-2',4'-dihydroxyacetophenone, B-00501
- 2-Bromo-2',5'-dihydroxyacetophenone, B-00502
- ▷ 2-Bromo-4'-hydroxyacetophenone, B-00508
- 1-Bromo-4-(iodomethyl)benzene, B-00514
- 9-(Bromomethyl)acridine, B-00516
- 1-(Bromomethyl)anthracene, B-00517
- ▷ 9-(Bromomethyl)anthracene, B-00518
- 4-(Bromomethyl)-6,7-dimethoxy-2*H*-1-benzopyran-2-one, B-00519
- 3-(Bromomethyl)-6,7-dimethoxy-1-methyl-2(1*H*)-quinoxalinone, B-00520
- 8-(Bromomethyl)-6*H*-1,3-dioxolo[4,5-*g*][1]benzopyran-6-one, B-00523
- 3-(Bromomethyl)-7-methoxy-2*H*-1,4-benzoxazin-2-one, B-00525
- 4-(Bromomethyl)-7-methoxy-6-nitro-2*H*-benzopyran-2-one, B-00526
- ▷ 1-(Bromomethyl)-4-methylbenzene, B-00527
- 3-(Bromomethyl)-6,7-(methylenedioxy)-1-methyl-2(1*H*)-quinoxalinone, B-00528
- 1-(Bromomethyl)-4-nitrobenzene, B-00530
- ▷ (Bromomethyl)pentafluorobenzene, B-00532
- 2-Bromo-4'-phenylacetophenone, B-00544
- 2-Bromo-*N*-1-pyrenylacetamide, B-00561
- ▷ 1-Butanol, B-00606
- ▷ 2-Butoxyethanol, B-00613
- Chloramphenicol base, *in* A-00284
- ▷ 2-Chloroethanol, C-00114
- [(Chloromethoxy)methyl]benzene, C-00167
- ▷ 9-(Chloromethyl)anthracene, C-00172
- 1-Chloromethylbenz[*cd*]indol-2(1*H*)-one, *in* B-00050
- 1-(Chloromethyl)-1*H*-indole-2,3-dione, C-00177
- ▷ 1-Chloromethyl-4-nitrobenzene, C-00178
- 2-(Chloromethyl)-5-nitro-1*H*-isoindole-1,3(2*H*)-dione, C-00180
- 1-Chloro-1,1,3,3,3-pentafluoro-2-propanol, C-00192
- 4-[2-Cyano-2-(3,4-dimethoxyphenyl)ethenyl]-*N,N,N*-trimethylbenzenemethanaminium(1+); Methosulfate, *in* C-00327
- Cyclohexyl(2-morpholinoethyl)carbodiimide; Metho-*p*-toluenesulfonate, *in* C-00356
- ▷ Diazoethane, D-00144
- 1-(1-Diazoethyl)naphthalene, D-00145
- 1-(1-Diazoethyl)pentafluorobenzene, D-00147
- 9-(Diazomethyl)anthracene, D-00148
- (Diazomethyl)cyclohexane, D-00149
- 4-(Diazomethyl)-7-methoxy-2*H*-1-benzopyran-2-one, D-00150
- ▷ 1-(Diazomethyl)naphthalene, D-00151
- (Diazomethyl)pentafluorobenzene, D-00152
- 1-(Diazomethyl)pyrene, D-00153
- ▷ 2,4'-Dibromoacetophenone, D-00176
- 2,4-Dichlorobenzaldehyde, D-00247
- (3,5-Dichlorophenyl)dihydroxyborane, D-00295
- ▷ Dicyclohexylcarbodiimide, D-00309
- N*-[4-[7-(Diethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]phenyl]-2-iodoacetamide, D-00321
- ▷ Diethyl sulfate, D-00358
- 2,3-Dihydro-1,4-benzodioxin-6,7-diamine, D-00371
- 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinepropanoic acid; Hydrazide, *in* D-00380
- 2-(1,3-Dihydro-1,3-dioxo-2*H*-benz[*f*]isoindol-2-yl)ethyltrifluoromethanesulfonate, D-00397
- N,N'*-Diisopropyl-*O-p*-nitrobenzylisourea, D-00749
- 1,1-Dimethoxy-*N,N*-dimethylmethanamine, D-00774
- 4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine, D-00790
- 1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]piperazine, D-00801
- Dimethyl (hydroxymethyl)phosphonate, *in* H-00318
- 3,5-Dinitrobenzyl alcohol; 4-Methylbenzenesulfonate, *in* D-00950
- 4-[2*H*-[1,3]Dioxolo[4,5-*f*]benzotriazol-2-yl]benzeneethanamine, D-00992
- ▷ Ethanol, E-00040
- Ethyl acetoacetate, E-00063
- ▷ 1-Ethylpiperidine, E-00106
- ▷ 4-Fluorobenzoic acid; Chloride, *in* F-00024
- ▷ 1,1,1,3,3,3-Hexafluoro-2-propanol, H-00032
- 4-(Hydroxymethyl)-7-methoxy-2*H*-1-benzopyran-2-one, *in* H-00209
- 1-(Iodomethyl)-4-methylbenzene, I-00046
- 1-Iodomethyl-4-nitrobenzene, I-00047
- ▷ Methoxybenzene, M-00078
- (7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)methyl-*N,N'*-bis(1-methylethyl)carbamiidate, M-00099
- (7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)methyl *N,N'*-dicyclohexylcarbamiidate, M-00100
- α -Methyl-1-anthracenemethanamine, M-00125
- α -Methyl-2-anthracenemethanamine, M-00126
- ▷ 2-Methyl-1-propanol, M-00255
- ▷ 2-Naphthol, N-00026
- 1-(1-Naphthyl)ethylamine; (*R*)-*form*, *in* N-00049
- 4-Nitrobenzyl alcohol; 4-Methylbenzenesulfonyl, *in* N-00097
- 1-(4-Nitrophenyl)ethylamine; (*R*)-*form*, *in* N-00135
- ▷ (2-Nitrophenyl)hydrazine, N-00137
- 1-(1-Oxo-2-phenylbutyl)-1*H*-imidazole; (+)-*form*, *in* O-00066
- Pentafluorobenzyl *p*-toluenesulfonate, *in* P-00014
- ▷ 2,2,3,3,3-Pentafluoro-1-propanol, P-00022
- Phenylalanine α -naphthylamide; (*S*)-*form*, *in* P-00078
- Phenylalanine β -naphthylamide; (*S*)-*form*, *in* P-00079
- 4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084
- Phenyldiazomethane, P-00111
- 2-Phenylpropanoic acid; (\pm)-*form*, Chloride, *in* P-00167
- 2-Phthalimidoethyl trifluoromethanesulfonate, P-00224
- ▷ 2-Propanol, P-00266
- Pyridoxamine, P-00417
- ▷ Quinine, Q-00005
- ▷ Tetrachloro-1,4-benzoquinone, T-00025
- ▷ Tetramethylammonium(1+); Hydroxide, *in* T-00092
- ▷ 2-Thioxo-4-thiazolidinone, T-00176
- ▷ 2,2,2-Trifluoroethanol, T-00245
- ▷ Trimethylanilinium hydroxide, *in* T-00336
- Triocetylphosphine oxide, *in* T-00358

Ester

- Dibutyl carbonate, D-00229
- ▷ 4-Morpholinethanamine, M-00347
- ▷ Peracetic acid, P-00042

Formate

- ▷ Methoxybenzene, M-00078

Hormones

- Pivalic anhydride, *in* D-00899

Hydrazine

- [Bis(trifluoroacetoxy)iodo]benzene, B-00462
- 3-Bromo-2-nitroso-1-naphthalenol, *in* B-00537
- ▷ 2-Chloro-1,3,5-trinitrobenzene, C-00268
- N,N*-Dichloro-4-methylbenzenesulfonamide, D-00285
- 2,2-Dihydroxy-1*H*-phenalene-1,3(2*H*)-dione, D-00683
- ▷ 4-(Dimethylamino)benzaldehyde, D-00779
- 2-Hydroxy-3,5-dinitrobenzoic acid, H-00154
- 4-Hydroxy-1-naphthalenesulfonic acid, H-00345
- 2-Hydroxy-5-nitrobenzaldehyde, H-00380
- 2-Pentenedial, P-00038
- ▷ Phenolphthalein, P-00063
- Pyridylpyridinium(1+); Chloride, *in* P-00422
- ▷ 2,4,6-Trinitrobenzenesulfonic acid, T-00351

Hydroxylamine

- ▷ 2,3-Butanedione, B-00587
- 9-Chloroacridine, C-00057
- Isophthalaldihydroxamic acid, *in* B-00019

Ketone

- ▷ 2-Aminobiphenyl, A-00116
- ▷ Aminooxoaetic acid hydrazide, A-00291
- ▷ 1-Aminopiperidine, A-00329
- 1-Anthracenecarboxylic acid; Hydrazide, *in* A-00376
- 2-Anthracenecarboxylic acid; Hydrazide, *in* A-00377
- O*-(1-Anthracenylmethyl)hydroxylamine, A-00384
- O*-(2-Anthracenylmethyl)hydroxylamine, A-00385
- O*-(9-Anthracenylmethyl)hydroxylamine, A-00386
- O*-Benzylhydroxylamine, B-00184
- 2,3-Butanediol; (2*R*,3*R*)-*form*, *in* B-00586
- Dansylhydrazine, *in* A-00265
- 2,5-Diaminophenol; 5-*N*-Di-Me, *in* D-00111
- 2-(Diethylamino)benzoic acid hydrazide, D-00315
- 6-(Diethylamino)-2-naphthalenesulfonic acid hydrazide, D-00325
- 7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-carboxylic acid hydrazide, D-00326
- 4-(4,5-Dihydro-3-phenyl-1*H*-pyrazol-1-yl)benzenesulfonic acid hydrazide, D-00469
- N,N'*-Dihydroxy-2,3-dimethyl-2,3-butanediamine, D-00578
- 2-(Diisopropylamino)benzoic acid hydrazide, D-00747
- 2-(Dimethylamino)benzoic acid hydrazide, D-00780
- ▷ 1,1-Dimethylhydrazine, D-00864
- ▷ (2,4-Dinitrophenyl)hydrazine, D-00972
- Diphenadione; 1-Hydrazone, *in* D-00997
- ▷ Ephedrine, *in* M-00122
- ▷ 1,2-Ethanedithiol, E-00028
- 3-Ethyl-2-thioxo-4-thiazolidinone, *in* T-00176
- ▷ Hexahydro-1*H*-azepin-1-amine, H-00034
- ▷ 1,6-Hexanediamine, H-00061
- ▷ 4-Hydrazinobenzenesulfonic acid, H-00080
- 7-Hydrazino-4-benzofurazansulfonamide, H-00081
- 7-Hydrazino-4-benzofurazansulfonamide; *N,N*-Di-Me, *in* H-00081
- 4-Hydrazinobenzoic acid, H-00082

- 4-Hydrazino-7-nitrobenzofurazan, H-00084
Mansylhydrazine, *in* M-00222
(7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)
methyl-*N,N'*-bis(1-methylethyl)
carbamimidate, M-00099
- ▷ 2-Methylamino-1-phenyl-1-propanol;
(1*S*,2*R*)-*form*, *in* M-00122
[[4-(5-Methyl-2-benzothiazolyl)phenyl]
amino]acetohydrazide, M-00142
- ▷ *O*-Methylhydroxylamine, M-00187
▷ 2-Nitrobenzaldehyde, N-00081
O-(*p*-Nitrobenzyl)hydroxylamine, N-00099
- ▷ (4-Nitrophenyl)hydrazine, N-00138
O-(Pentafluorobenzyl)hydroxylamine; B,
HCl, *in* P-00016
- ▷ (Pentafluorophenyl)hydrazine, P-00020
2-[(4-Phenylazo)phenyl]hydrazinesulfonic
acid, P-00097
- ▷ Phenylhydrazine, P-00134
4-Phenylsemicarbazide, P-00193
O-Propylhydroxylamine, P-00277

Lipid

- 12-(9-Anthroxly)stearic acid; (±)-*form*,
in A-00391
- 2-(Bromoacetyl)naphthalene, B-00484
4-(Bromomethyl)-7-methoxy-2*H*-1-
benzopyran-2-one, *in* B-00524
C.1. Basic violet 2; B, HCl, *in* C-00003
- ▷ 1-Decanol, D-00026
9,10-Diaminophenanthrene, D-00110
2-(1-Diazoethyl)naphthalene, D-00146
1,1-Dibutoxytrimethylamine, D-00221
1,1-Di-*tert*-butoxytrimethylamine, D-00222
2',7'-Dichlorofluorescein, D-00275
N,N'-Dicyclohexyl-*O*-benzylisourea,
D-00308
(Diethoxymethyl)dimethylamine, D-00313
Dimethyl(dipropoxymethyl)amine,
D-00854
1,6-Diphenyl-1,3,5-hexatriene, D-01019
Mesityl chloride, *in* M-00066
1-(4-Methylphenyl)-3-(phenylmethyl)-1-
triazene, M-00237
- ▷ 1-Naphthylamine, N-00041
Nile red, N-00070
- ▷ 1-Propanol, P-00265
1-Pyrenedodecanoic acid, P-00308
(3-Trifluoromethylphenyl)
trimethylammonium(1+); Hydroxide, *in*
T-00256

Nitro compound

- ▷ Benzeneacetonitrile, *in* P-00076
▷ 2-Chloroacetophenone, C-00055
▷ 3,3'-Diaminodipropylamine, D-00092
▷ Tetraethylenepentamine, T-00044

Nucleic acids and their components

- ▷ 2-[4-(Aminoiminomethyl)phenyl]-1*H*-
indole-6-carboximidamide, A-00227
N-(*tert*-Butyldimethylsilyl)imidazole,
B-00628
- ▷ Chloroacetaldehyde, C-00053
▷ Chlorotriphenylsilane, C-00270
▷ 3,5-Diaminobenzoic acid, D-00051
▷ Homidium bromide, *in* D-00096

Oxalate

- 4-(3-Hydroxy-3-phenyl-1-triazenyl)
benzenesulfonic acid, H-00506

Peptides

- ▷ 1-Bromo-4-isothiocyanatobenzene, B-00515
Dicarboxidine; B,2HCl, *in* D-00244
4-(Dimethylamino)-1-
naphthalenecarboxaldehyde, *in* A-00262
6,6'-Dithiobis[2-naphthalenol], D-01119

- 1-[(Ethoxycarbonyloxy]-2,5-
pyrrolidinedione, E-00054
Fluorescamine, F-00019
- ▷ 1-Fluoro-2,4-dinitrobenzene, F-00027
1-Heptanesulfonic acid; Na salt, *in*
H-00011
1-Hexanesulfonic acid; Na salt, *in* H-00064
1-[(3-Hydroxy-1-oxodecyl)oxy]-2,5-
pyrrolidinedione, H-00431
4-Isothiocyano-*N,N*-dimethyl-1-
naphthalenamine, I-00094
N-[(4-Methoxyphenyl)methyl]-7-nitro-4-
benzofurazanamine, M-00114
7-Nitro-*N*-(phenylmethyl)-4-
benzofurazanamine, *in* A-00282
1-[(1-Oxodecyl)oxy]-2,5-pyrrolidinedione,
O-00061
1-Pentanesulfonic acid; Na salt, *in* P-00032
▷ 1,1,3,3-Tetraethoxypropane, T-00040

Pesticides

- 4-Bromobenzenesulfonic acid; Chloride, *in*
B-00487
(Bromomethyl)dimethylchlorosilane,
B-00521
C.1. Basic violet 2; B, HCl, *in* C-00003
2,5-Dichlorobenzenesulfonic acid;
Chloride, *in* D-00248
5-(Dimethylamino)-1-naphthalenesulfonyl
fluoride, D-00797
4-[(4-Nitrophenyl)methyl]pyridine, N-00139
Pentadecafluorooctanoic acid; Anhydride,
in P-00008
Pentafluorobenzenesulfonyl chloride,
P-00011

Phenol

- ▷ 4-Aminoazobenzene, A-00094
▷ 4-Amino-1,2-dihydro-1,5-dimethyl-2-
phenyl-3*H*-pyrazol-3-one, A-00152
(2-Aminoethoxy)diphenylborane, A-00173
- ▷ Aminopyrine, A-00339
Azobenzene-4-carboxylic acid; Chloride, *in*
A-00467
Chloroacetic acid; Anhydride, *in* C-00054
▷ Chloroacetyl chloride, C-00056
▷ 2-Chloro-1,3-dinitro-5-(trifluoromethyl)
benzene, C-00108
▷ Chloroform, C-00118
N-Chloro-2*H*-phenanthro[9,10-*d*]imidazol-
2-imine, C-00194
9-[4-(Chlorosulfonyl)-2-sulfofenyl]-3,6-
bis(diethylamino)xanthylum, C-00261
- ▷ 2,6-Dibromo-4-(chloroimino)-2,5-
cyclohexadien-1-one, D-00180
▷ 2,6-Dichloro-4-(chloroimino)-2,5-
cyclohexadien-1-one, D-00257
3,3-Diethyl-1-(9*H*-fluoren-2-yl)-1-triazene,
D-00347
- ▷ Diethyl phosphorochloridate, D-00355
▷ Diethyl sulfate, D-00358
▷ *N,N*-Dimethyl-1,4-phenylenediamine, *in*
D-00048
3,5-Dinitrobenzoic acid; Anhydride, *in*
D-00948
9*H*-Fluorene-2-sulfonyl chloride, *in*
F-00014
- ▷ 4-Fluorobenzoic acid; Chloride, *in* F-00024
▷ 1-Fluoro-2,4-dinitrobenzene, F-00027
Heptafluorobutanoic acid; Anhydride, *in*
H-00004
4-Isocyanato-1,1'-biphenyl, I-00060
4-Nitrobenzenediazonium(1+);
Tetrafluoroborate, *in* N-00084
Octadecanoic acid; Anhydride, *in* O-00001
2-Oxo-2*H*-1-benzopyran-6-sulfonyl
chloride, *in* O-00057
N-(4-Oxo-2,5-cyclohexadien-1-ylidene)
benzenesulfonamide, O-00059
Pentafluorobenzyl *p*-toluenesulfonate, *in*
P-00014
N-Phenyl-*N*-(trimethylsilyl)acetamide,
P-00210

Prostaglandin

- N,O*-Bis(allyldimethylsilyl)
trifluoroacetamide, B-00241
4-(Bromoacetyl)phenyl 9-
anthracenecarboxylate, B-00485
4-(Bromomethyl)-2*H*-naphtho[1,2-*b*]pyran-
2-one, B-00529
2-Bromo-4'-nitroacetophenone, B-00539
1,1-Dimethyl-*N,N*-diphenyl-1-(2-propenyl)
silanamine, D-00853
N-(Dimethyl-2-propenylsilyl)-2,2,2-
trifluoro-*N*-methylacetamide, D-00901
- ▷ *O*-Methylhydroxylamine, M-00187
O-(*p*-Nitrobenzyl)hydroxylamine, N-00099
3-Oxo-3*H*-naphtho[2,1-*b*]pyran-2-
carboxylic acid; Chloride, *in* O-00064

Protein

- 4-Acetamido-4'-isothiocyantostilbene-2,2'-
disulfonic acid, *in* A-00230
N-Acetylaniline 1-naphthyl ester; (*S*)-*form*,
in A-00011
7-Amino-4-methyl-2*H*-1-benzopyran-2-one,
A-00237
7-Amino-4-(trifluoromethyl)-2*H*-1-
benzopyran-2-one, A-00365
7-Arginylamino-4-methylcoumarin; (*S*)-
form, *in* A-00401
N-Benzoyltyrosine 4-nitroanilide; (±)-
form, *in* B-00162
[2,2'-Biquinoline]-4,4'-dicarboxylic acid,
B-00237
2-(Bromoacetamido)-4-nitrophenol,
B-00482
N-Chloro-5-(dimethylamino)-1-
naphthalenesulfonamide, C-00098
3',6'-Dihydroxy-5-
isothiocyantostilbene-2,2'-disulfonic acid;
1-(3*H*),9'-[9*H*]xanthen]-3-one, D-00638
4-(Dimethylamino)-1-
naphthalenecarboxaldehyde, *in* A-00262
5-(Dimethylamino)-1-naphthalenesulfonyl
fluoride, D-00797
1-[[5-(Dimethylamino)-1-naphthalenyl]
sulfonyl]aziridine, D-00799
6,6'-Dithiobis[2-naphthalenol], D-01119
Fluorescamine, F-00019
- ▷ Fluorescein sodium, *in* F-00020
4-Fluoro-7-nitrobenzofurazan, F-00030
- ▷ 2-Fluoro-3-nitropyridine, F-00031
1-Heptanesulfonic acid; Na salt, *in*
H-00011
1-Hexanesulfonic acid; Na salt, *in* H-00064
1-[[7-(Hydroxy-4-methyl-2-oxo-2*H*-
benzopyran-3-yl)acetyl]oxy]-2,5-
pyrrolidinedione, H-00296
1-[(3-Hydroxy-1-oxodecyl)oxy]-2,5-
pyrrolidinedione, H-00431
1-[3-(4-Hydroxyphenyl)-1-oxopropoxy]-2,5-
pyrrolidinedione, H-00491
- ▷ 1-Isocyanatonaphthalene, I-00064
▷ (4-Isothiocyantophenyl)phenyldiazene,
I-00099
2,6-Mansyl chloride, *in* M-00222
N-[(4-Methoxyphenyl)methyl]-7-nitro-4-
benzofurazanamine, M-00114
MNB sulfonium bromide, *in* H-00384
MUGB, *in* M-00211
Nile red, N-00070
7-Nitro-*N*-(phenylmethyl)-4-
benzofurazanamine, *in* A-00282
2-Oxo-2*H*-1-benzopyran-6-sulfonyl
chloride, *in* O-00057
1-[(1-Oxodecyl)oxy]-2,5-pyrrolidinedione,
O-00061
1-Pentanesulfonic acid; Na salt, *in* P-00032
Phenoltetrabromosulfonephthalein,
P-00065
1-[4-(Phenylamino)-1-naphthalenyl]-1*H*-
pyrrole-2,5-dione, P-00083
1-Pyrenylmethyl iodoacetate, P-00310
2',3',4',7'-Tetrabromo-3',6'-dihydroxy-5-
isothiocyantostilbene-2,2'-disulfonic acid;
1-(3*H*),9'[9*H*]xanthen]-3-one, T-00016

Tetrabromophenoltetrabromosulfonephthalin, T-00020
Triton X 100; Hexahydro, in T-00428

Steroid

6-[(4-Aminobutyl)methylamino]-2,3-dihydro-1,4-phthalazinedione, A-00131
6-[(6-Aminoethyl)ethylamino]-2,3-dihydro-1,4-phthalazinedione, A-00180
Azobenzene-4-sulfonic acid; Chloride, in A-00468
▷ Benzoyl chloride, in B-00059
N,O-Bis(allyldimethylsilyl)trifluoroacetamide, B-00241
▷ Bis[(chloromethyl)dimethylsilyl]amine, B-00284
tert-Butylboronic acid, B-00620
N-(tert-Butyldimethylsilyl)imidazole, B-00628
Chloroacetic acid; Anhydride, in C-00054
1-Chloro-1-tert-butylsilylacyclopentane, C-00076
Chloro(chloromethyl)dimethylsilane, C-00081
Chlorodimethoxymethylsilane, C-00097
Chlorodimethyl-2-propenylsilane, C-00104
Chloro(iodomethyl)dimethylsilane, C-00165
Chloromethoxydimethylsilane, C-00166
3-(1-Cyano-2H-isoindol-2-yl)benzoyl azide, C-00329
▷ 1,2-Diamino-4,5-dimethylbenzene, D-00080
2,4-Dichloro-6-(4-ethoxy-1-naphthalenyl)-1,3,5-triazine, D-00272
▷ (Diethylamino)trimethylsilane, D-00336
1-(4,6-Difluoro-1,3,5-triazin-2-yl)-2-methyl-2H-isoindole, D-00362
▷ Digitonin, in S-00024
[3-[[[5-(Dimethylamino)-1-naphthalenyl]sulfonylamino]phenyl]boronic acid, D-00798
1,1-Dimethyl-N,N-diphenyl-1-(2-propenyl)silanamine, D-00853
1-(Dimethyl-2-propenylsilyl)-1H-imidazole, D-00900
N-(Dimethyl-2-propenylsilyl)-2,2,2-trifluoro-N-methylacetamide, D-00901
N-(Dimethylsilyl)-1,1-dimethylsilanamine, D-00915
2,5-Diphenyl-3-[4-(2-phenylethenyl)phenyl]-2H-tetrazolium(1+); Chloride, in D-01036
2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-Eicosafuoroundecanoic acid; Chloride, in E-00002
9H-Fluoren-9-one; Hydrazone, in F-00015
Girard's reagent T, G-00009
2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Chloride, in H-00022
▷ 2-Hydrazinobenzothiazole, H-00083
▷ 8-Hydroxy-1,3,6-pyrenetrisulfonic acid, H-00517
Isatin hydrazone, in I-00056
▷ O-Methylhydroxylamine, M-00187
O-(1-Methylpropyl)hydroxylamine, M-00259
O-(2-Methylpropyl)hydroxylamine, M-00260
α-Oxo-1-anthraceneacetonitrile, O-00054
α-Oxo-9-anthraceneacetonitrile, in O-00053
Pentadecafluorooctanoic acid; Chloride, in P-00008
Pentafluorobenzoic acid; Anhydride, in P-00012
O-Pentylhydroxylamine, P-00040
Pipsan, in I-00039
▷ Sulfoacetic acid, S-00039
▷ Tetraheptylammonium(1+); Bromide, in T-00048
Tetramethylphosphinous amide, T-00102
2,2',4,4'-Tetranitrobiphenyl, T-00107
▷ Tetrazolium blue; Dichloride, in T-00132
▷ Thiacetazone, in A-00097

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-O,O')europium(III), T-00416
▷ TTC, in T-00379

Sulfonamides

9-Chloroacridine, C-00057
4-Chloro-3-methyl-5-nitrobenzenesulfonic acid, C-00179
2-Pentenedial, P-00038

Thiol/disulfide

1-(9-Acridinyl)-1H-pyrrole-2,5-dione, A-00063
1-[4-(2-Benzoxazolyl)phenyl]-1H-pyrrole-2,5-dione, B-00118
1-(4-Benzoylphenyl)-1H-pyrrole-2,5-dione, B-00146
3,5-Bis(bromomethyl)-2,6-dimethyl-1H,7H-pyrazolo[1,2-a]pyrazole-1,7-dione, B-00269
▷ Bis(4-dimethylaminophenyl)methanol, B-00321
▷ Bis(4-nitrophenyl) disulfide, B-00431
▷ 2-(Bromomethyl)-1-methoxy-4-nitrobenzene, in B-00531
5-(Bromomethyl)-N,N,N,-2,6-pentamethyl-1,7-dioxo-1H,7H-pyrazolo[1,2-a]pyrazole-3-methanaminium(1+); Bromide, in B-00533
3-(Bromomethyl)-2,5,6-trimethyl-1H,7H-pyrazolo[1,2-a]pyrazole-1,7-dione, B-00535
▷ Carbon disulfide, C-00023
▷ (4-Carboxyphenyl)chloromercury, C-00039
▷ (2-Carboxyphenyl)hydroxymercury, C-00041
7-Chloro-4-benzofurazansulfonic acid; NH₄ salt, in C-00063
▷ 1-Chloro-2,4-dinitrobenzene, C-00106
2-Chloro-1-methylpyridinium(1+); Iodide, in C-00185
4,5-Dichloro-6-oxo-1(6H)-pyridazinepropanoic acid, D-00287
1-[4-[7-(Diethylamino)-4-methyl-2-oxo-2H-1-benzopyran-3-yl]phenyl]-1H-pyrrole-2,5-dione, D-00322
N-(3',6'-Dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'[9H]xanthen]-5-yl)-2-iodoacetamide, D-00681
1-[7-(Dimethylamino)-4-methyl-2-oxo-2H-1-benzopyran-3-yl]-1H-pyrrole-2,5-dione, D-00791
1-[5-(Dimethylamino)-1-naphthalenyl]sulfonylaziridine, D-00799
(5-Dimethylamino-1-naphthyl) vinyl sulfone, D-00802
N,N-Dimethyl-4-(2-pyridinylazo)benzenamine, D-00909
▷ 2,4-Dinitrobenzenesulfonyl chloride, D-00943
1,2-Dinitro-1,2-diphenylethylene, D-00952
▷ 2,2-Diphenyl-1-(2,4,6-trinitrophenyl)hydrazyl, D-01057
6,6'-Dithiobis[2-naphthalenol], D-01119
3,3'-Dithiobis[6-nitrobenzoic acid], D-01120
▷ 2,2'-Dithiobis[5-nitropyridine], D-01121
▷ Ethacrynic acid, E-00022
2-(Ethenylsulfonyl)ethanol, E-00048
N-Ethylmaleimide, in P-00439
(Ethylsulfonyl)ethene, E-00114
1-(3-Fluoranthenyl)-1H-pyrrole-2,5-dione, F-00011
Fluorescein-5-maleimide, F-00021
7-Fluoro-4-benzofurazansulfonamide, in F-00023
7-Fluoro-4-benzofurazansulfonic acid; NH₄ salt, in F-00023
▷ 4-Fluorobenzoic acid; Chloride, in F-00024
▷ 2-Fluoro-3-nitropyridine, F-00031
▷ Iodoacetic acid, I-00036
5-[[2-[(Iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, I-00037

8-[[2-[(Iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, I-00038
2-Iodo-N-1-pyrenylacetamide, I-00051
2-Iodo-N-(2',4',5',7'-tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'[9H]xanthen]-5-yl)acetamide, I-00054
2-(4-Isocyanatophenyl)-6-methylbenzothiazole, I-00065
▷ Isopropenyl acetate, in P-00270
▷ Merbromin; Di-Na salt, in M-00015
1-[4-(6-Methyl-2-benzothiazolyl)phenyl]-1H-pyrrole-2,5-dione, M-00143
4-(6-Methyl-2-naphthalenyl)-4-oxo-2-butenic acid, M-00204
▷ Methylphosphonic dichloride, M-00245
Pentafluorobenzyl p-toluenesulfonate, in P-00014
1-[4-(Phenylamino)-1-naphthalenyl]-1H-pyrrole-2,5-dione, P-00083
1-[4-(Phenylamino)phenyl]-1H-pyrrole-2,5-dione, P-00086
7-(Phenyloxy)-4-benzofurazansulfonyl fluoride, P-00153
1-(1-Pyrenyl)-1H-pyrrole-2,5-dione, P-00311
1-[2',3',4',7'-Tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'[9H]xanthen]-5-yl]-1H-pyrrole-2,5-dione, T-00017
▷ Tetranitromethane, T-00108
▷ Trichloroacetyl isocyanate, T-00220
1,2,4-Trinitrobenzene, T-00348

Water (in organic solvents)

▷ Acetic acid, A-00006
▷ Acetyl chloride, in A-00006
Carboxybenzene S, C-00028
4,5-Dihydroxy-3,6-bis[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00552
4,5-Dihydroxy-3,6-bis[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, in D-00552
4,5-Dihydroxy-3,6-bis[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00557
4,5-Dihydroxy-3,6-bis[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00565
4,5-Dihydroxy-3,6-bis(p-tolylazo)-2,7-naphthalenedisulfonic acid, D-00566
4,5-Dihydroxy-3-[(4-hydroxyphenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00625
1-(4-Hydroxyphenyl)-2,4,6-triphenylpyridinium hydroxide inner salt, H-00513
1-Hydroxyquinolinizinium betaine, H-00533
5-Isothiocyanato-2-(4-methylphenyl)-1H-benz[de]isoquinoline-1,3(2H)-dione, I-00097
2-Methyl-5-hydroxyisoquinolinium betaine, M-00186
1-Methyl-6-hydroxyquinolinium betaine, M-00188
1-Methyl-8-hydroxyquinolinium betaine, M-00189
▷ 4-Nitrobenzoic acid; Chloride, in N-00093
2,4,6-Triphenyl-N-(3,5-diphenyl-4-oxidophenyl)pyridinium betaine, T-00365

Compound group

Amides

- N*-(Aminomethyl)benzamide, A-00226
- 5-Amino-2-naphthalenesulfonamide, in A-00266
- 6-Amino-2-naphthalenesulfonamide, in A-00268
- 7-Amino-1-naphthalenesulfonamide, in A-00269
- 4-Amino-1-naphthalenesulfonic acid; Amide, in A-00264
- 5-Amino-1-naphthalenesulfonic acid; Amide, in A-00265
- 8-Amino-2-naphthalenesulfonic acid; Amide, in A-00270
- 2-Amino-*N*-2-naphthalenylpropanamide; (*S*)-form, in A-00278
- ▶ 6-Aminonicotinamide, in A-00334
- Benzylauramine G, B-00122
- Benzylethylauramine, B-00131
- N,O*-Bis(allyldimethylsilyl)trifluoroacetamide, B-00241
- N,N'*-Bis(butanesulfonyl)-1,2-benzenediamine, B-00271
- N,N'*-Bis(3-dimethylaminopropyl)dithioamide, B-00325
- ▶ *N,N'*-Bis(2-hydroxyethyl)ethanedithioamide, B-00374
- N,N'*-Bis(2-mercaptobenzoyl)-1,2-ethanediamine, B-00397
- N,N'*-Bis(2-sulfoethyl)dithioamide, B-00455
- Bis(trifluoroacetamide), B-00461
- Biuret, B-00474
- 2-(Bromoacetamido)-4-nitrophenol, B-00482
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2,3-dimethylphenyl)benzenecarboximidamide, C-00085
- N*-(4-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)benzenecarboximidamide, C-00214
- N*-(3-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00215
- N*-(3-Chlorophenyl)-*N'*-(2,5-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00216
- N*-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxy-4-methylbenzenecarboximidamide, C-00219
- 4-Chloro-*N*-(2-pyridinyl)benzamide, C-00256
- ▶ Cyanoacetamide, in C-00324
- 4,4'-Diaminodiphenylsulfonamide, D-00088
- ▶ Dibenzylidithioamide, D-00169
- 4,4'-Dichlorodiphenylsulfonamide, D-00268
- ▶ *N,N'*-Didodecylethanedithioamide, D-00310
- N*-[4-[7-(Diethylamino)-4-methyl-2-oxo-2H-1-benzopyran-3-yl]phenyl]-2-iodoacetamide, D-00321
- 2,3-Dihydro-3-oxo-5,6-diphenyl-4-pyridazinecarboxylic acid; Amide, in D-00463
- N*-(2,3-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00892
- N*-(2,6-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00893
- N,N'*-Dimethyl-2,6-pyridinedicarbothioamide, D-00908
- Diphenylsulfonamide, D-01008
- N,N'*-Di-(8-quinolinyl)-2,6-pyridinedicarboxamide, D-01104
- α,α -[(Dithiooxalyl)diimino]di-*m*-toluenesulfonic acid, D-01134
- ▶ Ethanedithioamide, E-00027
- N*-(2-Furanyl)methylhydrazinecarbothioamide, F-00057
- 2,2,3,3,4,4,4-Heptafluoro-*N*-methyl-*N*-(trimethylsilyl)butanamide, H-00007
- ▶ 2-Hydroxybenzamide, in H-00112
- N*-Hydroxy-4-methoxy-*N*-phenylbenzamide, in D-00704
- N*-Hydroxy-3-nitrobenzenecarboximidamide, H-00382
- N*-(3-Hydroxyphenyl)-2-mercaptoacetamide, H-00476
- N*-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
- Marfey's reagent, in F-00028
- 2-Mercapto-*N*-(4-methylphenyl)acetamide, M-00036
- 2-Mercapto-*N*-2-pyridinylacetamide, M-00055
- ▶ 4-Methylaniline; *N*-Ac, in M-00124
- N*-Methylbis(trifluoroacetamide), in B-00461
- N*-(2-Methylphenyl)-*N'*-(4-chlorophenyl)benzamide, M-00226
- N*-(4-Methylphenyl)-*N'*-phenylbenzenecarboximidamide, M-00236
- N*-Methyl-*N*-(trimethylsilyl)formamide, M-00331
- ▶ Nicotinamide methochloride, in A-00134
- N*-(3-Nitrophenyl)- β -oxobenzenepropenamide, N-00140
- N'*-(3-Chloro-4-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, N-00170
- Oxamide bisphenylhydrazine, O-00050
- 3-Oxo-*N*-phenylbutanethioamide, O-00065
- 2-Oxo-*N*-phenylcyclopentanecarboxamide, in O-00060
- Phenylalanine β -naphthylamide; (*S*)-form, in P-00079
- N*-[(Phenylamino)thioxomethyl]benzenecarbothioamide, P-00088
- N*-2-Propenyl-1,2-hydrazinedicarbothioamide, P-00272
- ▶ Pyrazinecarboxamide, in P-00285
- N*-2-Pyridinylbenzenecarbothioamide, P-00383
- 2-Quinolinecarboxamide, in Q-00017
- ▶ Thioacetamide, in E-00038
- α -Thiosemicarbazidoisobutyric acid; Amide, in T-00174

Aminobiphenyl compounds

- ▶ 2-Aminobiphenyl, A-00116
- ▶ 4-Aminobiphenyl, A-00117
- 4-[(4'-Amino-(1,1'-biphenyl)-4-yl)azo]-1,2-benzenediol, A-00118
- 4-(4-Amino-4-biphenylazo)-3,5-dibromobenzenesulfonic acid, A-00119
- 4-Amino-4'-chlorobiphenyl, A-00136
- 3-[[4'-Amino-3,3',5,5'-tetramethyl[1,1'-biphenyl]-4-yl]amino]-1-propanesulfonic acid; Na salt, in A-00353
- Bis(4-aminophenyl)acetylene, B-00249
- 4-Catecholazo-4'-acetylamino-biphenyl, in A-00118
- ▶ 4,4'-Diaminobiphenyl, D-00053
- 2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, in D-00059
- 4,4'-Diamino-3,3'-dibromobiphenyl, D-00068
- 4,4'-Diamino-2,2'-diethylbiphenyl, D-00072
- 4,4'-Diamino-3,3'-dimethoxy-1,1'-binaphthyl, D-00077
- 4,4'-Diamino-3,3'-diphenyl-1,1'-binaphthyl, D-00087
- 4,4'-Diamino-3,3'-dipropyl-1,1'-binaphthyl, D-00093
- 4,4'-Diamino-3-ethoxybiphenyl, in D-00057
- ▶ 4,4'-Diamino-3,3',5,5'-tetramethylbiphenyl, D-00128
- ▶ Dicarboxidine, D-00244
- 4,4'-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00245

- 4,4'-Dimethoxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, in D-00572
- 4,4'-Dimethyl-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, in D-00849
- Dimethylsulfonazo DAL, D-00918
- 3-Methoxybenzidine, in D-00057
- N,N,N',N'*-Tetramethylbenzidine-3-sulfonic acid, in D-00058

Anabasin derivatives

- 5-Amino-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, A-00252
- 6'-[[5-Cyclohexyl-2,4-dihydroxyphenyl]azo]-1-methylanabasin, C-00353
- 3-Diethylamino-4-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]phenol, D-00323
- 2-[(3,5-Dihydroxy-2-methylphenyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00653
- 4,5-Dihydroxy-3-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, in D-00655
- 2-[(2,7-Dihydroxy-1-naphthyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00662
- 5-Hydroxy-6-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, H-00320
- 6-Hydroxy-5-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenesulfonic acid, H-00321
- 4-Hydroxy-3-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid; Na salt, in H-00319
- 8-Hydroxy-7-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-5-quinolinesulfonic acid; Na salt, in H-00322
- 3-Hydroxy-4-[[5-(1-methyl-2-pyrrolidinyl)-2-pyridinyl]azo]-2-naphthalenecarboxylic acid, H-00325
- 3-Isopropyl-6-methyl-2-[[5-(1-methylpiperidinyl)-2-pyridinyl]azo]phenol, I-00074
- 2-Methoxy-6-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, M-00092
- 4-Methyl-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, M-00200
- 2-[[5-(1-Methyl-1-piperidinyl)-2-pyridinyl]azo]-1,4-benzenediol, M-00247
- 4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248
- 4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, M-00249
- 1-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenol, M-00250
- 2-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenol, M-00251
- 3-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2,6-pyridinediamine, M-00252
- 7-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-8-quinolinol, M-00253
- 5-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, M-00254

Anthraquinones

- ▶ Alizarine fluorine blue, A-00076
- Alizarine fluorine blue S; K salt, in A-00077
- Alizarine maroon, A-00079
- Alizarine orange, A-00080
- Alizarine red S; Na salt, in A-00081
- ▶ 1-Amino-4-hydroxyanthraquinone, A-00182
- 3-(Aminomethyl)-1,2,5,8-tetrahydroxyanthraquinone-*N,N*-diacetic acid, A-00256
- 3-(Aminomethyl)-1,2,7-trihydroxyanthraquinone-*N,N*-diacetic acid, A-00260

- ▶ Anthraquinone-2-sulfonic acid, A-00388
- Anthrazo; B, HCl, *in* A-00389
- ▶ 1,4-Bis[(4-methylphenylamino)]-9,10-anthracenedione, B-00406
- Carmine red, C-00045
- ▶ 1,2-Diaminoanthraquinone, D-00043
- 1,4-Diaminoanthraquinone-2,3-disulfonic acid; Di-Na salt, *in* D-00044
- 3,4-Diaminoanthraquinone-1-sulfonic acid, D-00045
- 4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, D-00073
- ▶ 1,5-Diamino-4,8-dihydroxyanthraquinone, D-00074
- ▶ 1,8-Diamino-4,5-dihydroxyanthraquinone, D-00075
- ▶ 1,4-Diamino-5-nitroanthraquinone, D-00107
- 1,4-Dichloro-5,8-dihydroxyanthraquinone, D-00261
- 9,10-Dihydro-1,4-dihydroxy-9,10-dioxo-3-(4-sulfophenoxy)-2-anthracenesulfonic acid, D-00377
- 4-[(9,10-Dihydro-9,10-dioxo-1-anthracenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid; Ba salt, *in* D-00396
- N*-(9,10-Dihydro-9,10-dioxo-2-sulfoanthracenyl)benzenecarboxamide, *in* A-00093
- ▶ 1,2-Dihydroxyanthraquinone, D-00510
- ▶ 1,4-Dihydroxyanthraquinone, D-00511
- ▶ 1,8-Dihydroxyanthraquinone, D-00512
- 1,5-Dihydroxyanthraquinone-2,6-disulfonic acid, D-00513
- 1,2-Dihydroxy-3-[5-(8-hydroxyquinolinyl)azo]anthraquinone, D-00629
- 3,4-Dihydroxy-10-imino-9(10*H*)-anthracenone, D-00634
- 5,6-Dihydroxynaphtho[2,3-*f*]quinoline-7,12-dione, D-00661
- 1,2-Dihydroxy-3-(1,4,7,10,13-pentaoxa-16-azacyclooctadecylmethyl)-9,10-anthracenedione, D-00682
- 1,4-Dihydroxy-2-(2-pyridylmethyl)anthraquinone, D-00725
- 1,2-Dihydroxy-3-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)-9,10-anthracenedione, D-00737
- 1,2,3,5,6,7-Hexahydroxyanthraquinone, H-00052
- 1,2,4,5,6,8-Hexahydroxyanthraquinone, H-00053
- 1-Hydroxyanthraquinone-2-carboxylic acid, H-00099
- ▶ 1-Hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione, H-00300
- 1,1'-Iminobis[6-chloroanthraquinone], I-00007
- ▶ 1,1'-Iminodianthraquinone, I-00011
- 2,2'-Iminodianthraquinone, I-00012
- Lead blue, L-00004
- ▶ 1-Mercaptoanthraquinone, M-00018
- 1-[(3-Methyl-5-oxo-1-phenyl-2-pyrazolin-4-yl)azo]anthraquinone, M-00215
- Quinizarin S; Na salt, *in* Q-00006
- Sudan blue GA, S-00037
- 2,4,5,7-Tetrabromo-1,8-dihydroxyanthraquinone, T-00015
- ▶ 1,2,5,8-Tetrahydroxy-9,10-anthraquinone, T-00070
- 3,4,5,8-Tetrahydroxyanthraquinone-2-sulfonic acid, T-00071
- ▶ 1,2,4-Trihydroxyanthraquinone, T-00270
- 1,2,7-Trihydroxyanthraquinone, T-00271
- 1,3,4-Trihydroxyanthraquinone-2-carboxylic acid, T-00272

Antipyrene derivatives

- 3-Acetyl-1,5-bis(1,2-dihydro-1,5-dimethyl-3-oxo-2-phenyl-4-pyrazolyl)formazan, A-00014
- ▶ 4-Amino-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00152

- 4-[[[4-(4-Amino-2-hydroxyphenyl)]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00209
- 4-[[2-Amino-5-(1-methyl-2-piperidinyl)-3-pyridinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00251
- 4-[[2-Amino-1-methyl-6-(3-pyridinyl)-3-piperidinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00254
- 4-[(4-Amino-1-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00275
- 4-[(4-Aminophenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00312
- 4-Aminophenyl-4-ethylbenzylaminoantipyrinylcarbinol, A-00322
- 4-[(6-Amino-3-pyridinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00335
- ▶ Aminopyrene, A-00339
- 4-[(2-Amino-7-quinolinyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00342
- 2-(4-Antipyrilazo)-5-diethylaminophenol, A-00392
- 7-(4-Antipyrilazo)-8-hydroxyquinoline, A-00393
- Antipyrilazo III, A-00394
- 5-(4-Antipyrilazo)-2-monoethylamino-*p*-cresol, A-00395
- Azonol A1, A-00474
- 4-Bis[4-(diethylamino)phenyl]hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, B-00295
- 4-Bis[*p*-(dimethylamino)phenyl]hydroxymethyl]-4-chloro-3-methyl-1-phenyl-2-pyrazolin-5-one, B-00319
- Bis(1-*p*-sulfophenyl)-2,3-dimethylpyrazol-5-on-4-yl)methane, B-00456
- 4-(2-Bromobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00493
- 4-[3-Bromo-4-(dimethylamino)- α -*p*-(dimethylamino)phenyl]- α -hydroxybenzyl]antipyrine, B-00505
- N*-(5-Chloro-2-methoxyphenyl)-4-[(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxamide, C-00168
- Chromopyrazole, C-00286
- Chromopyrazole I, C-00287
- Chromopyrazole II, C-00288
- 4,4'-Diamino-3,3'-dimethoxybiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00078
- 1,5-Diantipyrinyl-3-formazanecarbonitrile, D-00134
- 1,1-Diantipyrilbutane, D-00135
- 1,1-Diantipyrilhexane, D-00136
- 1,1-Diantipyrilheptane, D-00137
- 1,1-Diantipyril-2-hydroxyphenylmethane, D-00138
- 1,1-Diantipyrilmethane, D-00139
- 1,1-Diantipyrilphenylmethane, D-00140
- Diantipyrilthiourea, D-00141
- 5-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-2,4-dihydroxybenzoic acid, D-00381
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-(2-methoxyphenyl)-2-naphthalenecarboxamide, D-00383
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-2-(methylphenyl)-2-naphthalenecarboxamide, D-00384
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, D-00385
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-1-naphthalenyl-2-naphthalenecarboxamide, D-00387

- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-phenyl-2-naphthalenecarboxamide, D-00388
- 1,2-Dihydro-1,5-dimethyl-4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-phenyl-3*H*-pyrazol-3-one, D-00389
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione, D-00391
- ▶ 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00392
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(2,4,6-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00393
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[5-(1,2,3-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00394
- 1,2-Dihydro-4-[(2-hydroxy-5-methylphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00410
- 1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00414
- 1,2-Dihydro-4-[(2-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00415
- 1,2-Dihydro-4-[(4-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00416
- 1,2-Dihydro-4-[[[(2-hydroxy-1-naphthalenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00417
- 1,2-Dihydro-4-[(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00419
- 1,2-Dihydro-4-[[[(2-hydroxyphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00420
- 1,2-Dihydro-4-[[[(4-hydroxyphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00421
- 1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00423
- 1,2-Dihydro-4-[[[(4-methoxyphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00428
- 3-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]-2-hydroxy-5-methylbenzenesulfonic acid; Na salt, *in* D-00437
- 2-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]-5-nitrobenzenesulfonic acid; K salt, *in* D-00438
- 4-[(1,7-Dihydroxy-2-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00659
- 4-[(2,4-Dihydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00691
- 4,4'-[*p*-(Dimethylamino)- α -hydroxybenzylidene]diantipyrine, D-00785
- 4-[[[4-(Dimethylamino)phenyl]methyleneamino]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00818
- 3,3'-Dimethyl-1,1'-diphenyl-[4,4'-bi-2-pyrazolinyl]-5,5'-dione, D-00851
- Dithioantipyrinic acid, D-01116
- 4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-thione], M-00169
- 1-[(3-Methyl-5-oxo-1-phenyl-2-pyrazolin-4-yl)azo]anthraquinone, M-00215
- Nitrochromopyrazole, N-00103
- 4,4'-(Phenylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], P-00147
- 4,4'-(Propylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], P-00279
- Solochrome fast red; Na salt, *in* S-00020
- Solochrome red ERS, S-00022

Azo compounds - chromotropic acid derivatives

- p*-Acetylarsenazo, A-00012
 3-[(3-Acetylphenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00030
 Acid blue 89, A-00052
 Acid chrome blue K; Tri-Na salt, *in* A-00053
 Acid monochrome green S; Na salt, *in* A-00057
 ▶ Acid red 26; Di-Na salt, *in* A-00058
 Alpha blue; Di-Na salt, *in* A-00084
 5-Amino-3-[[4-aminophenyl]azo]-4-hydroxy-2,7-naphthalenedisulfonic acid; *N*⁴-Ac, Di-Na salt, *in* A-00092
 Aminobenzene AE, A-00098
 5-Amino-3-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, A-00137
 4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,5-naphthalenedisulfonic acid, A-00140
 4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00141
 5-Amino-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-1,4-naphthalenedisulfonic acid, A-00142
 4-Amino-8-[(2,4-dithioxo-5-thiazolidinyl)azo]-5-hydroxy-1,7-naphthalenedisulfonic acid, A-00169
 4-Amino-5-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00186
 5-Amino-4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00187
 4-Amino-5-hydroxy-6-[(8-hydroxy-3,6-disulfo-1-naphthalenyl)azo]-2,7-naphthalene-2,7-disulfonic acid, A-00188
 5-Amino-4-hydroxy-3-[(2-hydroxy-3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00189
 5-Amino-4-hydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00190
 5-Amino-4-hydroxy-3-[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00192
 5-Amino-4-hydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00194
 5-Amino-4-hydroxy-3-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00207
 4-Amino-5-hydroxy-3-(phenylazo)-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00212
 5-Amino-4-hydroxy-3-(2-pyridinylazo)-2,7-naphthalenedisulfonic acid, A-00218
 5-Amino-4-hydroxy-3-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, A-00220
 8-(7-Amino-1-hydroxy-3-sulfophenylazo)-7-hydroxy-1-naphthalenesulfonic acid; Di-Na salt, *in* A-00223
 5-Amino-4-hydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00224
 Aminomethylazo III, A-00235
 4-[(4-Amino-1-naphthalenyl)azo]-5-hydroxy-2,7-naphthalenedisulfonic acid; *N*-Et, di-Na salt, *in* A-00276
 5-[[4-(Aminosulfonyl)phenyl]azo]-6-hydroxy-2-naphthalenesulfonic acid, A-00350
 ▶ Anazolene sodium, *in* A-00366
 Antipyrilazo III, A-00394
 Arsamino, A-00402
 Arsenazo AE, A-00404
 Arsenazo AG, A-00405
 Arsenazo B; Di-Na salt, *in* A-00406
 Arsenazo DAL, A-00407
 Arsenazo DBS, A-00408
 Arsenazo H, A-00409
 Arsenazo II, A-00411
 ▶ Arsenazo III, A-00412
 Arsenazo I; Tri-Na salt, *in* A-00410
 Arsenazo IV, A-00413
 Arsenazo M, A-00414
 Arsenazo SA, A-00415
 Arsenazo 4S3NB, A-00416
 Arsenazo SU, A-00417
 Arsenazo T, A-00418
 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00421
 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00422
 3-[(2-Arsonophenyl)azo]-6-[(4-arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00423
 3-[(2-Arsonophenyl)azo]-6-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00424
 3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00425
 3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00426
 3-[(2-Arsonophenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00427
 3-[(2-Arsonophenyl)azo]-6-[[5-(diethylsulfamoyl)-2-methoxyphenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00428
 2-[[7-[(4-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, A-00429
N-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]methyl]-*N*-(carboxymethyl)glycine, A-00430
 3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-4-arsonobenzoic acid, A-00431
 3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-2-hydroxy-5-sulfobenzoic acid, A-00432
 2-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]-5-sulfobenzoic acid, A-00433
 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00434
 3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-methylphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00435
 3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00436
 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00437
 3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-6-(phenylazo)-2,7-naphthalenedisulfonic acid, A-00438
 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, A-00439
 3-[(2-Arsonophenyl)azo]-6-[(4-dimethylaminophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00440
 3-[(2-Arsonophenyl)azo]-6-[(3,5-dinitro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00441
 3-[(2-Arsonophenyl)azo]-6-[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00442
 Azorhodine 2G; Di-Na salt, *in* A-00476
 ▶ Azorubine; Di Na salt, *in* A-00477
 ▶ Azovan blue, A-00479
 4-(1-*H*-Benzimidazol-5-ylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid, B-00042
 ▶ Benzopurpurine 4B; Di-Na salt, *in* B-00071
 Beryllon I, B-00198
 Beryllon II, B-00199
 Beryllon III, *in* A-00211
 3,6-Bis[(2-arsono-4,6-dibromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00255
 3,6-Bis[(2-arsono-4-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00256
 3,6-Bis[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00282
 4,4'-Bis[(1,8-dihydroxy-3,6-disulfo-2-naphthyl)azo]-3,3'-biphenyldicarboxylic acid, B-00301
 3,6-Bis[(5-methyl-2-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00426
 Brilliant croceine; Di-Na salt, *in* B-00478
 3-[[6-Bromo-2-benzothiazolyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00490
 3-[(4-Bromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00546
 C.I. Acid violet 3; Di-Na salt, *in* C-00001
 C.I. Mordant blue 18, *in* A-00139
 Calcichrome; Tetra-Na salt, *in* C-00012
 Calconalide I, C-00013
 Calcon-*m*-nitroanilide, C-00014
 Carboxyarsenazo, C-00026
 Carboxyarsenazo B, C-00027
 Carboxybenzene S, C-00028
 1-(3-Carboxy-2-hydroxy-1-naphthylazo)-2-naphthol-3,6-disulfonic acid, C-00030
 Carboxynitrazo, C-00035
 2-[[7-[(3-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00036
 2-[[7-[(4-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00037
 3-[[7-[(2-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfobenzoic acid, C-00038
 Chlorindazon C, C-00051
 Chlorindazon DS, C-00052
 3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00138
 3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00139
 3-[(5-Chloro-2-hydroxyphenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00142
 2-[[7-[(5-Chloro-2-hydroxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00143
 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00144
 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00145
 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00146
 7-[(5-Chloro-2-hydroxyphenyl)azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, C-00147
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-6-[(3-chloro-5-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00153
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2,4-dimethylphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00154
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00155
 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00156

- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00157
- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00158
- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-(8-quinolyazo)-2,7-naphthalenedisulfonic acid, C-00159
- 6-(5-Chloro-2-hydroxy-4-sulfophenylazo)-5-hydroxy-1-naphthalenesulfonic acid; Di-Na salt, *in* C-00161
- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-6-phenylazo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00162
- 3-[[7-[4-Chlorophenylazo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]benzoic acid, C-00201
- 3-[(3-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* C-00202
- 3-[(4-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* C-00203
- Chlorophosponazo I, C-00241
- Chlorophosponazo III, C-00242
- Chlorophosponazo mN, C-00243
- Chlorophosponazo pN, C-00244
- Chlorophosponazo R, C-00245
- Chlorophosponazo-*m*-sulfonic acid, C-00246
- 3-[[7-[4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00247
- N*-[4-[[7-[4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoyl]glycine, C-00248
- 3-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00249
- 3-[(5-Chloro-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00262
- Chromazol KS; Tri-Na salt, *in* C-00276
- Chromotrope 2B; Di-Na salt, *in* C-00290
- Chromotrope 2C, C-00291
- Chromotrope 2R; Di-Na salt, *in* C-00293
- Diamond green BW; Di-Na salt, *in* D-00133
- Dibromoarsenazo II, D-00177
- Dibromoarsenazo III, D-00178
- Dibromotrichromin, D-00219
- 3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00289
- 3-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00382
- 4-[(9,10-Dihydro-9,10-dioxo-1-anthracenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid; Ba salt, *in* D-00396
- 3-[(4,5-Dihydro-5-oxo-1*H*-pyrazol-4-yl)azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00464
- 4,5-Dihydroxy-3-[4-(aminomethyl)phenylazo]-2,7-naphthalenedisulfonic acid *N,N*-diacetic acid, D-00509
- 4,5-Dihydroxy-3,6-bis[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00548
- 4,5-Dihydroxy-3,6-bis[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00549
- 4,5-Dihydroxy-3,6-bis[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00550
- 4,5-Dihydroxy-3,6-bis[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00552
- 4,5-Dihydroxy-3,6-bis[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00553
- 4,5-Dihydroxy-3,6-bis[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* D-00552
- 4,5-Dihydroxy-3,6-bis[(*o*-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* D-00551
- 4,5-Dihydroxy-3,6-bis[(4-methyl-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid; Tetra-Na salt, *in* D-00554
- 4,5-Dihydroxy-3,6-bis[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00556
- 4,5-Dihydroxy-3,6-bis[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00557
- 4,5-Dihydroxy-3,6-bis[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00558
- 4,5-Dihydroxy-3,6-bis(phenylazo)-2,7-naphthalenedisulfonic acid, D-00559
- 4,5-Dihydroxy-3,6-bis[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00560
- 4,5-Dihydroxy-3,6-bis(8-quinolyazo)-2,7-naphthalenedisulfonic acid, D-00561
- 4,5-Dihydroxy-3,6-bis[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00562
- 4,5-Dihydroxy-3,6-bis[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00563
- 4,5-Dihydroxy-3,6-bis[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00564
- 4,5-Dihydroxy-3,6-bis[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00565
- 4,5-Dihydroxy-3,6-bis(*p*-tolylazo)-2,7-naphthalenedisulfonic acid, D-00566
- 2-[[1,8-Dihydroxy-7-[(5-chloro-3-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00568
- 4,4'-Dihydroxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00572
- 4,5-Dihydroxy-3-[4,5-(dimethyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00579
- 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00580
- 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00581
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-chlorosalicylic acid], D-00588
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[2-hydroxy-5-sulfobenzoic acid], D-00589
- 2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfobenzoic acid], D-00590
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bis[4-arsonobenzoic acid], D-00591
- 2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, D-00592
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, D-00593
- 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00594
- 4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00595
- 5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo][1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, *in* D-00596
- 5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, *in* D-00597
- 4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-hydroxybenzoic acid, D-00598
- [2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]phenyl]-2-hydroxyacetic acid, D-00599
- 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-pyridinecarboxylic acid, D-00600
- 2-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenoxyacetic acid; Di-Na salt, *in* D-00601
- [*o*-[(1,8-Dihydroxy-3,6-disulfo-2-naphthyl)azo]phenyl]acetic acid, D-00602
- 2-[(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenyl]-2-oxoacetic acid, D-00603
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-nitro-5-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00604
- 4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00605
- 2-[[[1,8-Dihydroxy-3,6-disulfo-7-[(4-phenylazo)phenyl]azo]-2-naphthyl]azo]-5-sulfobenzoic acid, D-00606
- 4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00607
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(2-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00608
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00609
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00610
- 3-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00611
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00615
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00616
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00617
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00618
- 4,5-Dihydroxy-3-[[2-[hydroxy(2-methylphenyl)phosphinyl]phenyl]azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00619
- 4,5-Dihydroxy-3-[(2-hydroxy-4-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00620
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00621
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-[(3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00622
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00623
- 4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00624
- 4,5-Dihydroxy-3-[(4-hydroxyphenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00625
- 4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00626
- o*-[[1,8-Dihydroxy-7-[(2-hydroxy-5-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00630
- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00631
- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(8-quinolyazo)-2,7-naphthalenedisulfonic acid, D-00632

- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00633
- 4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00635
- 2-[[1,8-Dihydroxy-7-[(4-methoxyphenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00642
- 4,5-Dihydroxy-3-[(2-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00643
- 2-[[1,8-Dihydroxy-7-[(3-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00651
- 2-[[1,8-Dihydroxy-7-[(4-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00652
- 4,5-Dihydroxy-3-(3-methylphenylazo)-6-phenylazo-2,7-naphthalenedisulfonic acid, D-00654
- 4,5-Dihydroxy-3-[(5-(1-methyl-2-piperidinyloxy)-2-pyridyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00655
- 2-[[1,8-Dihydroxy-7-[(2-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00663
- 2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00664
- 4,5-Dihydroxy-3-[(2-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00665
- 4,5-Dihydroxy-3-[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00666
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00667
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00668
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-[(*p*-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00669
- 4,5-Dihydroxy-3-[(4-nitro-2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00671
- 4,5-Dihydroxy-3-nitroso-6-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00676
- 4,5-Dihydroxy-3-[(5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00677
- 4,5-Dihydroxy-3-[(4-nitro-2-sulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00678
- 4,5-Dihydroxy-3-[(5-nitro-3-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00679
- 2-[[1,8-Dihydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00692
- 4-[(2,4-Dihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00697
- 4,5-Dihydroxy-3-(phenylazo)-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00701
- 4,5-Dihydroxy-3-(phenylazo)-6-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00702
- 4,5-Dihydroxy-3-[(4-phenyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00718
- 4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722
- 4,5-Dihydroxy-3-[(3-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00723
- o*-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00726
- 8-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]-1,6-naphthalenedisulfonic acid, D-00727
- 4,5-Dihydroxy-3-(8-quinolylazo)-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00728
- 4,5-Dihydroxy-3-(8-quinolylazo)-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00729
- 4,5-Dihydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00733
- 4,5-Dihydroxy-3-[(5-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00734
- 4,5-Dihydroxy-3-[(6-sulfo-2-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00735
- 4,5-Dihydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid; Tri-Na salt, *in* D-00736
- 4,5-Dihydroxy-3-(1*H*-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, D-00738
- 4,5-Dihydroxy-3-[(2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00739
- Dimethylsulfonazo DAL, D-00918
- 4-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00953
- 3-[(2,4-Dinitrophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00964
- 3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00965
- 3-[(3,5-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid; Na salt, *in* D-00967
- Eliamina blue FFL; Tetra-Na salt, *in* E-00006
- Epsilon blue; Di-Na salt, *in* E-00008
- ▶ Eriochrome blue black; Na salt, *in* E-00010
- Eriochrome blue SE; Di-Na salt, *in* E-00011
- Eriochrome green B, E-00016
- Eriochrome red B; Na salt, *in* E-00017
- 3-[(6-Ethoxy-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, E-00053
- Fast sulphon black F; Na salt, *in* F-00002
- Hexaoxacycloazochrome, H-00067
- 2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-(*N,N*-diethylamino)phenol, H-00173
- 3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00198
- 4-Hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-1-naphthalenesulfonic acid, H-00199
- 6-Hydroxy-5-[(2-hydroxy-3,5-dinitrophenyl)azo]-2-naphthalenesulfonic acid; Na salt, *in* H-00200
- 3-Hydroxy-4-[[2-hydroxy-3-[[[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00207
- 3-Hydroxy-4-[[2-hydroxy-3-[[[(4-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00208
- 8-Hydroxy-7-[(2-hydroxy-4-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00227
- 8-Hydroxy-7-[(2-hydroxy-5-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00228
- 4-Hydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00229
- 5-Hydroxy-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, H-00230
- 5-Hydroxy-8-[[2-hydroxy-5-nitro-3-sulfophenyl]azo]-2-naphthalenesulfonic acid, H-00232
- 8-Hydroxy-7-[(2-hydroxyphenyl)azo]-1,6-naphthalenedisulfonic acid, H-00233
- 3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid; Na salt, *in* H-00242
- 3-Hydroxy-4-[(2-hydroxy-6-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, H-00243
- 3-Hydroxy-4-[[2-(methylthio)phenyl]azo]-2,7-naphthalenedisulfonic acid, *in* H-00259
- Hydroxynaphthol blue; Tri-Na salt, *in* H-00371
- 3-Hydroxy-4-(phenylazo)-2,7-naphthalenedisulfonic acid; Disodium salt, *in* H-00454
- 2-[(1-Hydroxy-7-(phenylazo)-3-sulfo-2-naphthalenyl)azo]benzoic acid, H-00459
- 3-Hydroxy-4-[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* H-00514
- 4-Hydroxy-3-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid; Na salt, *in* H-00556
- [2-(*o*-Methylbenzoyl)azo]-1,8-dihydroxynaphthalene-3,6-disulfonic acid, M-00144
- Mordant blue 44; Di-Na salt, *in* M-00342
- Mordant green 34; Na salt, *in* M-00343
- Naphthol black 3B; Tetra-Na salt, *in* N-00028
- Nitrobromoarsenazo; Di-Na salt, *in* N-00101
- Nitrophosphonazo-mA, N-00147
- 3-(2-Nitroso-4-sulfo-1-naphthalenylazo)-4,5-dihydroxynaphthalene-2,7-disulfonic acid, N-00163
- Omega chrome blue 35, O-00040
- Orthanil A, O-00046
- Orthanil B, O-00047
- Palatine fast blue GGNA CF, P-00001
- Palladiazole, P-00002
- Picramine K, P-00232
- Picramine M, P-00233
- H*-Resorcine, R-00001
- Solochrome red B, S-00021
- Stilbazochrome, S-00028
- Stilbazokhimdu, S-00031
- Sulfochlorophenol K, S-00041
- Sulfochlorophenol M, S-00042
- Sulfochlorophenol R, S-00044
- Sulfonazo, S-00048
- Sulfonitrazole, S-00050
- Sulfonitrophenol K, S-00051
- Sulfonitrophenol M, S-00052
- Sulfonitrophenol R, S-00053
- Sulfonitrophenol S, S-00054
- Sulf-R-azo, *in* H-00543
- Tetraoxacycloazochrome, T-00112
- Thorin, T-00177
- 4,4',4''-[1,3,5-Triazine-2,4,6-triyltris(azo)]tris[3-hydroxy-1-naphthalenesulfonic acid], T-00198
- Tribromoarsenazo, T-00203
- 4-[(2,4,6-Trihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, T-00312
- Trypan blue; Tetra Na salt, *in* T-00433
- Trypan red; Penta-Na salt, *in* T-00434

Azo compounds - pyridylazo derivatives

- 3-[[3-Amino-4-[(5-bromo-2-pyridinyl)azo]phenyl]propylamino]-1-propanesulfonic acid; Na salt, *in* A-00127
- 4-[(2-Amino-3-hydroxy-4-pyridinyl)azo]benzenesulfonic acid, A-00217
- 5-Amino-4-methyl-2-(2-pyridinylazo)phenol, A-00253
- 2-Amino-4-[(4-nitrophenyl)azo]-3-pyridinol, A-00283
- N*-Benzyl-4-(4-diethylaminophenylazo)pyridinium(1+), B-00176
- 5-[Bis(2-hydroxy-3-sulfopropyl)amino]-2-[(3,5-dibromo-2-pyridinyl)azo]-4-methylbenzoic acid; Tri-Na salt, *in* B-00395
- 4-[(5-Bromo-2-pyridinyl)azo]-1,3-benzenediamine, B-00562
- 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00126

- 2-[(5-Bromo-2-pyridinyl)azo]-5-(dimethylamino)phenol, *in* A-00126
- 2-[(5-Bromo-2-pyridinyl)azo]-4,5-dimethylphenol, B-00564
- 2-[(5-Bromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00125
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid, B-00565
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, B-00566
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, B-00567
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-2-hydroxy-1-propanesulfonic acid; Di-Na salt, *in* B-00568
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00569
- 3-[[4-[(6-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00570
- 5-(5-Bromo-2-pyridinylazo)-6-hydroxy-2(1*H*)-pyridinone, B-00571
- 2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, *in* B-00563
- 4-[(5-Bromo-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, B-00572
- 1-[(5-Bromo-2-pyridinyl)azo]-2-naphthalenol, B-00573
- 4-[(5-Chloro-1,2-dihydro-3-hydroxy-2-oxo-4-pyridinyl)azo]benzenesulfonic acid, C-00093
- 2-[(5-Chloro-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00145
- 2-[(5-Chloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, *in* A-00145
- 4-[(5-Chloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, C-00253
- 2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, C-00254
- 4-[3-Chloro-4-(pyridinylazo)-5-methyl-2-(1-methylethyl)]phenol, C-00255
- 1-(5-Chloro-2-pyridylazo)-2-naphthol, C-00259
- 4-Cyclohexyl-6-(2-pyridinylazo)-1,3-benzenediol, C-00358
- 4-Cyclopentyl-6-(2-pyridinylazo)-1,3-benzenediol, C-00367
- 2-[(3,5-Dibromo-4-methyl-2-pyridinyl)azo]-5-(diethylamino)phenol, D-00196
- 4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediamine, D-00199
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(diethylamino)benzoic acid, *in* A-00148
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(dimethylamino)benzoic acid, D-00201
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00149
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(2-hydroxy-3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00202
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00203
- 3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid; Di-Na salt, *in* D-00204
- 3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-2-hydroxy-1-propanesulfonic acid; Di-Na salt, *in* D-00205
- 3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid; Di-Na salt, *in* D-00206
- 3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid; Di-Na salt, *in* D-00207
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(2-hydroxy-3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00208
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-methoxyphenol, *in* D-00200
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-4-methyl-5-[(3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00209
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(3-sulfopropyl)amino]benzoic acid, *in* A-00148
- 5-(3,5-Dibromo-2-pyridylazo)-2,4-diaminoluene, D-00210
- 2-[(3,5-Dibromo-2-pyridyl)azo]-5-(diethylamino)phenol, *in* A-00150
- 4-(3,5-Dibromo-2-pyridylazo)-*N,N*-diethylaniline, D-00211
- 4-(3,5-Dibromo-2-pyridylazo)-*N*-ethyl-*N*-(3-sulfopropyl)aniline, D-00212
- 2-(3,5-Dibromo-2-pyridylazo)-4-methyl-5-(*N*-propyl-*N*-sulfopropylamino)aniline; Na salt, *in* D-00213
- 2-(3,5-Dibromo-2-pyridylazo)-5-(*N*-propyl-*N*-sulfopropylamino)aniline; Na salt, *in* D-00214
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-1,3-benzenediamine, D-00299
- 2-[(3,5-Dichloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, D-00300
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, D-00301
- 3-Diethylamino-4-[5-(1-methyl-2-piperidinyl)-2-pyridyl]phenol, D-00323
- 5-(Diethylamino)-2-[(5-methyl-2-pyridinyl)azo]phenol, D-00324
- 4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+); Chloride, *in* D-00333
- 2-(Diethylamino)-6-(2-pyridinylazo)phenol, D-00335
- 5-(Diethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
- 2-[(3,5-Dihydroxy-2-methylphenyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00653
- 2-[(2,7-Dihydroxy-1-naphthyl)azo]-5-(1-methyl-2-piperidinyl)pyridine, D-00662
- 6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid; Na salt, *in* D-00724
- 5-(Dimethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
- N,N*-Dimethyl-4-(2-pyridinylazo)benzenamine, D-00909
- 4,5-Dimethyl-2-(2-pyridinylazo)phenol, D-00910
- 2-[[4,5-Diphenyl-1*H*-imidazol-2-yl]azo]pyridine, D-01024
- 5-Ethoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- 5-Hydroxy-6-methyl-2-[(4-nitrophenyl)azo]-3,4-pyridinedimethanol, H-00294
- 6-Hydroxy-5-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenesulfonic acid, H-00321
- 4-Hydroxy-3-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid; Na salt, *in* H-00319
- 3-Hydroxy-4-[[6-methyl-2-pyridinyl]azo]-2,7-naphthalenedisulfonic acid *N*-oxide; Di-Na salt, *in* H-00324
- 3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509
- 4-Hydroxy-3-(2-pyridinylazo)-1-naphthalenesulfonic acid, H-00522
- 4-[(5-Iodo-2-pyridinyl)azo]-1,3-benzenediamine, I-00052
- 3-Isopropyl-6-methyl-2-[[5-(1-methylpiperidinyl)-2-pyridinyl]azo]phenol, I-00074
- 3-Methoxy-2-methyl-6-(2-pyridinylazo)phenol, *in* M-00278
- 5-Methoxy-2-[(5-methyl-2-pyridinyl)azo]phenol, *in* M-00279
- 5-Methoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- 3-Methyl-6-(1-methylethyl)-2-(2-pyridinylazo)phenol, M-00197
- 5-Methyl-2-(1-methylethyl)-4-(2-pyridinylazo)phenol, M-00198
- 4-Methyl-6-[(5-methyl-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, M-00201
- 4-Methyl-6-[[2-(phenylmethoxy)-2-pyridinyl]azo]-1,3-benzenediamine, M-00232
- 2-[[5-(1-Methyl-1-piperidinyl)-2-pyridinyl]azo]-1,4-benzenediol, M-00247
- 4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248
- 4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, M-00249
- 1-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenol, M-00250
- 3-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2,6-pyridinediamine, M-00252
- 7-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-8-quinolinol, M-00253
- 5-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, M-00254
- 4-Methyl-6-(2-pyridinylazo)-1,3-benzenediamine, M-00277
- 1-[(5-Methyl-2-piperidinyl)azo]-2-naphthalenol, M-00281
- 1-[[6-Methyl-2-pyridinyl]azo]-2-naphthalenol; *N*-Oxide, *in* M-00282
- 4-Methyl-2-(2-pyridinylazo)phenol, M-00283
- 5-Methyl-2-(2-pyridinylazo)phenol, M-00284
- 2-[(5-Nitro-2-pyridinyl)azo]-1-naphthalenol, N-00148
- 4-(Phenylmethyl)-6-(2-pyridinylazo)-1,3-benzenediol, P-00149
- 4-(2-Pyridinylazo)-1,3-benzenediamine, P-00372
- 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
- 2-(2-Pyridinylazo)-1-naphthalenol, P-00375
- 4-(2-Pyridinylazo)-1-naphthalenol, P-00376
- 1-(2-Pyridinylazo)-2-phenanthrenol, P-00377
- 10-(2-Pyridinylazo)-9-phenanthrenol, P-00378
- 3-(2-Pyridinylazo)-2,6-pyridinediamine, P-00379
- 5-(4-Pyridinylazo)-8-quinolinol; *N*⁴-Oxide, *in* P-00380
- 7-(4-Pyridinylazo)-8-quinolinol; *N*⁴-Oxide, *in* P-00382
- 2-(2-Pyrimidinylazo)-1-naphthalenol, P-00430

Azo compounds - thiazolylazo derivatives

- 4-Adamantyl-2-(2-hydroxy-1-naphthalenylazo)thiazole, A-00064
- 3-(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, *in* O-00075
- 4-(2-Benzothiazolylazo)-1,2-benzenediol, B-00091
- 4-(2-Benzothiazolylazo)-1,3-benzenediol, B-00092
- 2-(2-Benzothiazolylazo)-4,6-dichlorophenol, B-00093
- 2-(Benzothiazolylazo)-5-diethylaminobenzoic acid, *in* A-00114
- 2-(2-Benzothiazolylazo)-5-(dimethylamino)phenol, B-00094
- 2-(2-Benzothiazolylazo)-4,5-dimethylphenol, B-00095
- 2-(2-Benzothiazolylazo)-4,6-dimethylphenol, B-00096
- 5-(2-Benzothiazolylazo)-4-methyl-2-(methylamino)phenol, *in* A-00115
- 2-(2-Benzothiazolylazo)-4-methylphenol, B-00097
- 1-(2-Benzothiazolylazo)-2-naphthalenol, B-00098
- 10-(2-Benzothiazolylazo)-9-phenanthrenol, B-00099
- 2-[[6-Bromo-2-benzothiazolyl]azo]-5-(diethylamino)phenol, *in* A-00123
- 2-[[6-Bromo-2-benzothiazolyl]azo]-4-methylphenol, B-00491

1-[(6-Bromo-2-benzothiazolyl)azo]-2-naphthalenol, B-00492
 4-Bromo-6-(2-thiazolylazo)-1,3-benzenediol, B-00578
 2-(5-Bromo-2-thiazolylazo)-5-(diethylamino)benzoic acid, *in* A-00128
 1-[(5-Bromo-2-thiazolyl)azo]-2-naphthalenol, B-00579
 4-(Chloromethyl)-2-[(3,4-dihydroxyphenyl)azo]-5-thiazolecarboxylic acid; Me ester, *in* C-00176
 4-Chloro-6-(2-thiazolylazo)-1,3-benzenediol, C-00263
 5-(Diethylamino)-2-[(4,5-dimethyl-2-thiazolyl)azo]phenol, *in* A-00163
 2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, *in* A-00214
 5-Diethylamino-2-(2-thiazolylazo)benzoic acid, *in* A-00359
 2-(Diethylamino)-6-(2-thiazolylazo)phenol, *in* A-00360
N,N-Diethyl-4-(2-thiazolylazo)benzenamine, *in* T-00138
 5-[(4,5-Dihydro-5-thioxo-1,3,4-thiadiazol-2-yl)azo]-6-hydroxy-2-naphthalenesulfonic acid; Na salt, *in* D-00495
 2,4-Dihydroxy-5-[(5-nitro-2-thiazolyl)azo]benzoic acid, D-00680
 2-[(3,4-Dihydroxyphenyl)azo]-4-(4-carboxyphenyl)-5-thiazolecarboxylic acid; 4'-Me ester, 5-Et ester, *in* D-00690
 2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid; Me ester, *in* D-00696
 2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole, D-00699
 4-[2-[(3,4-Dihydroxyphenyl)azo]-5-phenyl-4-thiazolyl]benzoic acid; Me ester, *in* D-00700
 2-(2,4-Dihydroxyphenylazo)-1,3,4-thiadiazole, D-00703
 5-Dimethylamino-2-[(4-methyl-2-thiazolyl)azo]phenol, D-00793
 5-(Dimethylamino)-2-(2-thiazolylazo)phenol, *in* A-00214
 4,5-Dimethyl-2-[(5-methyl-1,3,4-thiadiazol-2-yl)azo]phenol, D-00872
 2-[(4,5-Dimethyl-2-thiazolyl)azo]-4,6-dimethylphenol, D-00921
 7-(4,5-Dimethyl-2-thiazolyl)azo-8-hydroxy-5-quinolinesulfonic acid, D-00922
 2,4-Dimethyl-6-(2-thiazolylazo)phenol, D-00923
 2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]thiazole, D-01026
 5-(Ethylamino)-4-methyl-2-[(4-phenyl-2-thiazolyl)azo]phenol, *in* A-00250
 2-(Ethylamino)-4-methyl-2-(2-thiazolylazo)phenol, E-00066
 3-[Ethyl[5-hydroxy-2-methyl-4-[(4-methyl-2-thiazolyl)azo]]-1-propanesulfonic acid, E-00092
 2-[(5-Ethyl-1,3,4-thiadiazol-2-yl)azo]-4-methoxyphenol, E-00116
 3-[Ethyl[4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, E-00118
 2-(2-Hydroxy-5-methylphenylazo)-4-methylthiazole, H-00301
 4-[[4-(Hydroxymethyl)-2-thiazolyl]azo]-1,2-benzenediol, H-00328
 2-[[3-Hydroxy-4-[(methyl-2-thiazolylazo)phenyl]amino]ethanesulfonic acid, H-00329
 3-[[3-Hydroxy-4-[(4-methyl-2-thiazolyl)azo]phenyl]amino]-1-propanesulfonic acid, H-00330
 6-Hydroxy-3-[(4-methyl-2-thiazolyl)azo]-2(1*H*)-pyridinone, H-00331
 5-[(2-Hydroxy-1-naphthalenyl)azo]-1,3,4-thiadiazole-2(3*H*)-thione, H-00357
 2-[(2-Hydroxy-1-naphthalenyl)azo]-4-thiazolecarboxylic acid, H-00358
 3-Hydroxy-4-(2-thiazolylazo)-2,7-naphthalenedisulfonic acid, H-00548
 6-Hydroxy-5-(2-thiazolylazo)-2-naphthalenesulfonic acid, H-00549
 2-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]ethanesulfonic acid, H-00550

3-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, H-00551
 8-Hydroxy-7-(2-thiazolylazo)-5-quinolinesulfonic acid, H-00552
 2-Mercapto-5-(2,4-dihydroxyphenylazo)-1,3,4-thiadiazole, M-00028
 2-Mercapto-5-(2-hydroxy-5-methylphenylazo)-1,3,4-thiadiazole; Na salt, *in* M-00032
 2-(2-Methoxy-4-methylphenylazo)thiazole, *in* M-00324
 4-Methoxy-2-[(4-methyl-2-thiazolyl)azo]phenol, *in* M-00318
 4-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00139
 5-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00141
 2-Methyl-4-[(4-methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00202
 4-Methyl-5-[(sulfomethyl)amino]-2-(2-thiazolylazo)benzoic acid, M-00310
 1-[(5-Methyl-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, M-00313
 4-Methyl-2-(1,3,4-thiadiazol-2-ylazo)phenol, M-00314
 2-Methyl-4-(2-thiazolylazo)-1,3-benzenediamine, M-00317
 4-[(4-Methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00319
 4-[(5-Methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00320
 5-Methyl-4-(2-thiazolylazo)-1,3-benzenediol, M-00321
 2-(4-Methyl-2-thiazolylazo)-5-diethylaminobenzoic acid, *in* A-00258
 1-[(4-Methyl-2-thiazolyl)azo]-2-naphthalenol, M-00322
 4-Methyl-2-(2-thiazolylazo)phenol, M-00323
 4-[(5-Nitro-2-thiazolyl)azo]-1,3-benzenediol, N-00165
 2-[(5-Nitro-2-thiazolyl)azo]phenol, N-00166
 3-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00075
 4-(5-Sulfothiazolylazo)-2-nitroresorcinol, S-00057
 1-(1,3,4-Thiadiazol-2-ylazo)-2-naphthalenol, T-00134
 4-(2-Thiazolylazo)-1,2-benzenediol, T-00140
 4-(2-Thiazolylazo)-1,3-benzenediol, T-00141
 1-(2-Thiazolylazo)-2-naphthalenol, T-00142
 4-(2-Thiazolylazo)-1-naphthalenol, T-00143
 3-(2-Thiazolylazo)-2,4-pentanedione, T-00144
 3-(2-Thiazolylazo)-2,6-pyridinediamine, T-00145
 5-(2-Thiazolylazo)-2-thioxo-4-thiazolidinone, T-00146
 Thioaminazo F, T-00154

Azo compounds - quinolyazo derivatives

5-Amino-4-hydroxy-3-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, A-00220
 8-Amino-5-(phenylazo)quinoline, A-00315
 8-Amino-7-(phenylazo)-5-quinolinesulfonic acid; Na salt, *in* A-00316
 8-Amino-7-(8-quinolylazo)-3,6-naphthalenedisulfonic acid, A-00343
 5-Amino-2-(2-quinolylazo)phenol, A-00344
 1-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, A-00358
 Azoxin H, A-00480
 5-(1*H*-Benzimidazol-5-ylazo)-8-quinolinol, B-00043
 5-Bromo-8-hydroxy-7-[(2-hydroxy-3,5-dinitrophenyl)azo]quinoline, B-00511
 5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206
 4-Cyclopentyl-6-(2-quinolylazo)-1,3-benzenediol, C-00368

1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00423
 1,2-Dihydroxy-3-[5-(8-hydroxyquinolinyl)azo]anthraquinone, D-00629
 5-(Dimethylamino)-2-(8-quinolylazo)phenol, D-00825
 2-(3,5-Dimethyl-1-pyrazolyl)-8-quinolinol, D-00906
 4,5-Dimethyl-2-(2-quinolylazo)phenol, D-00914
 8-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]quinoline, D-01025
 2-(Ethylamino)-4-methyl-5-(8-quinolylazo)phenol, *in* A-00255
 8-Hydroxy-7-[(4-methylphenyl)azo]-5-quinolinesulfonic acid, H-00304
 8-Hydroxy-7-(1-naphthalenylazo)-5-quinolinesulfonic acid, H-00355
 2-[(1-Hydroxy-2-naphthalenyl)azo]-8-quinolinol, H-00356
 8-Hydroxy-7-(2-naphthylazo)quinoline, H-00377
 5-(3-Hydroxyphenylazo)-8-quinolinol, H-00457
 3-Hydroxy-4-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, H-00530
 3-[(8-Hydroxy-7-quinolyl)azo]-1,5-naphthalenedisulfonic acid; Di-K salt, *in* H-00531
 8-[(8-Hydroxy-5-quinolyl)azo]-1-naphthalenesulfonic acid, H-00532
 8-Hydroxy-7-[(4-sulfo-1-naphthalenyl)azo]-5-quinolinesulfonic acid; Di-Na salt, *in* H-00539
 2-Isopropyl-5-methyl-4-[(2-quinolyl)azo]phenol, I-00076
 5-[(4-Methylphenyl)azo]-8-quinolinol; 1-Oxide, *in* M-00224
 2-[(4-Methyl-2-quinolyl)azo]-1-acenaphthylene, M-00308
 Naphthylazoxine 4,8*S*, N-00044
 Naphthylazoxine 5,7*S*, N-00046
 5-[(4-Nitrophenyl)azo]-8-quinolinol; 1-Oxide, *in* N-00129
 5-Phenylazo-8-quinolinol; *N*-Oxide, *in* P-00100
 Phenylazoxine *S*, P-00101
 Picriminazosulfoxine, P-00234
 2-(2-Quinolylazo)-1-acenaphthylene, Q-00027
 5-(2-Quinolylazo)-1,2,4-benzenetriol, Q-00028
 1-(2-Quinolylazo)-2-naphthalenol, Q-00029
 2-(2-Quinolylazo)-1-naphthalenol, Q-00030
 1-(2-Quinolylazo)-2-phenanthrenol, Q-00031
 4-(2-Quinolylazo)phenol, Q-00032
 5-(8-Quinolylazo)-2,4-thiazolidinedithione, Q-00033
 5-(8-Quinolylazo)-2-thioxo-4-thiazolidinone, Q-00034

Azo compounds - phenylazo derivatives

6-(4-Acetylphenylazo)-2-aminoperimidine, A-00029
 Acid alizarin black SE, A-00050
 Acid alizarin black SN, A-00051
 Acid chrome violet BR; Na salt, *in* A-00054
 ▶ Acid chrome violet K; Na salt, *in* A-00055
 ▶ Acid yellow 2G; Na salt, *in* A-00059
 Alizarine chrome orange G; Na salt, *in* A-00075
 Alizarine yellow G; Na salt, *in* A-00082
 ▶ Amaranth, A-00087
 ▶ 4-Aminoazobenzene, A-00094
 ▶ 4-Aminoazobenzene-4'-arsonic acid; *N*-Di-Me, *in* A-00095
 4-(4-Amino-4-biphenylazo)-3,5-dibromobenzenesulfonic acid, A-00119

- 4-[[4'-Amino-4-biphenyl]azo]-2,5-dichlorobenzenesulfonic acid; Na salt, *in* A-00120
- 4-[(2-Amino-5-bromo-3-pyridinyl)azo]-1,3-benzenediol, A-00124
- 2-[(1-Amino-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, A-00167
- 6-Amino-4-hydroxy-5-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenesulfonic acid, A-00191
- 4-Amino-5-hydroxy-7-[(2-hydroxyphenyl)azo]-1,3-naphthalenedisulfonic acid, A-00193
- 5-Amino-4-hydroxy-3-[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00195
- 3-Amino-4-hydroxy-3'-nitroazobenzene-*N,N*-diacetic acid, A-00206
- 4-[[4-Amino-2-hydroxyphenyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00209
- [4-[1-(2-Amino-3-hydroxy-4-(2-pyridinyl)phenyl)azo]phenyl]arsonic acid, A-00219
- 4-Amino-4'-nitroazobenzene, A-00281
- 4-(4-Aminophenylazo)-3-bromobenzenesulfonic acid; *N*-Di-Me, Na salt, *in* A-00308
- 4-(4-Aminophenylazo)-3-chlorobenzenesulfonic acid; *N*-Di-Me, Na salt, *in* A-00309
- 4-(4-Aminophenylazo)-3,5-dibromobenzenesulfonic acid; *N*-Di-Me, Na salt, *in* A-00310
- 4-[(4-Aminophenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00312
- 5-[(4-Aminophenyl)azo]-1*H*-1,2,4-triazole-3-carboxylic acid, A-00317
- 3-[[3-(Aminosulfonyl)-1-hydroxy-2-naphthalenyl]azo]-2-hydroxy-5-nitrobenzenesulfonic acid, A-00348
- 7-[[5-(Aminosulfonyl)-2-hydroxyphenyl]azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, A-00349
- 4-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-1,3-benzenediol, A-00355
- 4-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-4-methylphenol, A-00357
- 4'-Anilino-2,5-dichloroazobenzene-4-sulfonic acid, A-00370
- Anthrazo; B,HCl, *in* A-00389
- Arsazen, A-00403
- 4-[4-(3-Arso-5-chloro-2-hydroxyphenyl)azo]-4,5-dihydro-3-methyl-5-oxo-1*H*-pyrazol-1-yl]benzenesulfonic acid, A-00419
- 4-(2-Arso-4-nitrophenylazo)-4,5-dihydro-3-methyl-1-phenyl-1*H*-pyrazol-5-one, A-00420
- 4-[4-(2-Arsonophenyltriazinyl)phenylazo]benzenesulfonic acid, A-00445
- Azo-azoxy PMP, A-00466
- Azobenzene-4-carboxylic acid; Chloride, *in* A-00467
- Azobenzene-4-sulfonic acid; Chloride, *in* A-00468
- Azophospon, A-00475
- Azothiopyrine, A-00478
- Benzyl orange; Na salt, *in* B-00190
- Beryllon IV, B-00200
- 4,4'-Bis(3,4-dihydroxyphenylazo)biphenyl, B-00302
- 4,4'-Bis(3',4'-dihydroxyphenylazo)-3,3'-dimethoxybiphenyl, B-00303
- 4,4'-Bis(*p*-dimethylaminophenylazo)stilbene-2,2'-disulfonic acid, B-00317
- 7,16-Bis[3-[2-hydroxy-3,5-bis[(4-nitrophenyl)azo]phenyl]-1-oxopropyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane, B-00364
- Bis[2-[(tetrahydro-2*H*-pyran-2-yl)thio]phenyl]diazene, B-00458
- Brilliant yellow; Di-Na salt, *in* B-00480
- 4-[(2-Bromo-4,5-dihydroxyphenyl)azo]benzenesulfonic acid, B-00504
- 4-[(4-Bromophenyl)azo]-1,2,3-benzenetriol, B-00545
- 5-[(4-Bromophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, B-00547
- 2,3-Butanedione oxime 4-nitrophenylhydrazone, B-00601
- 1-Butyl-4-[[4-(diethylamino)phenyl]azo]pyridinium(1+), B-00625
- ▷ C.I. Acid orange 20, *in* O-00043
- ▷ C.I. 11050 Basic dye, *in* J-00004
- C.I. Direct blue 72, C-00004
- Carbazol yellow B, C-00021
- [5-Chloro-3-[(2,4-dihydroxyphenyl)azo]-2-hydroxyphenyl]arsonic acid, C-00096
- 5-Chloro-3-[[5-dodecyl-2,4-dihydroxyphenyl]azo]-2-hydroxybenzenesulfonic acid, C-00113
- 3-[[4-[(5-Chloro-2-hydroxyphenyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, C-00148
- 4-[(5-Chloro-2-hydroxy-3-sulfo)phenyl]azo]-3-hydroxy-2-naphthalenecarboxylic acid, C-00160
- 4-Chloro-2-[(1,3,4,7,8,10,11,13-octahydro-6*H*-2,5,9,12-benzotetrahiaacyclopentadecin-15-yl)azo]phenol, C-00191
- 3-Chloro-4-[(4-phenylamino)phenylazo]benzenesulfonic acid, *in* A-00309
- 4-[(4-Chlorophenyl)azo]-1,3-benzenediamine, C-00199
- 4-[(4-Chlorophenyl)azo]-1,2,3-benzenetriol, C-00200
- Chrome black special; Mono-Na salt, *in* C-00278
- Chrome bordeaux B; Di-Na salt, *in* C-00279
- Chrome dark BLN; Na salt, *in* C-00280
- Chrome dark green BGN; Na salt, *in* C-00281
- Chrome dark green BN; Na salt, *in* C-00282
- Chrome red brown 5RD; Di-Na salt, *in* C-00284
- Chromocitromin BH, C-00285
- Chromorange GR; Di-Na salt, *in* C-00289
- Chrysophenine G; Di-Na salt, *in* C-00297
- ▷ Congo red, C-00301
- 4-Cyclohexyl-6-[[2-hydroxy-3,5-dinitrophenyl]azo]-1,3-benzenediol, C-00354
- 8-[[4-[(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-yl)azo]phenyl]amino]-1-naphthalenesulfonic acid, D-00006
- Diaminazo, D-00041
- ▷ 2,4-Diamino-4'-ethoxyazobenzene, D-00095
- 2,4-Diamino-4'-methoxy-5-methylazobenzene, D-00099
- 2-[(2,4-Diaminophenyl)azo]-4,6-dinitrophenol, D-00112
- 4-[(2,4-Diaminophenyl)azo]-2-methylphenol, D-00113
- 4-[(2,4-Diaminophenyl)azo]phenol, D-00114
- 2,5-Dichloro-4-[[4-(4-dimethylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
- N*-[2-(Diethylamino)ethyl]-4-[(8-hydroxy-5-quinolyl)azo]benzamide, D-00317
- 2-[4-(Diethylamino)-2-hydroxyphenylazo]-4,6-dinitrophenol, D-00318
- [3-(4-Diethylamino-2-hydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00319
- 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00320
- 5-[[4-Diethylamino-2-hydroxyphenyl]azo]-1*H*-1,2,4-triazole-3-carboxylic acid, *in* A-00215
- 3-[[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1*H*-1,2,4-triazolium(1+); Chloride, *in* D-00328
- 4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+); Chloride, *in* D-00329
- 3-[2-(5-Diethylaminophenyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00330
- 4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Chloride, *in* D-00332
- 4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Iodide, *in* D-00332
- 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl azide, *in* D-00379
- 5-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-2,4-dihydroxybenzoic acid, D-00381
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(2,4,6-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00393
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[5-(1,2,3-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00394
- 1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00414
- 1,2-Dihydro-4-[(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00419
- [4-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]phenyl]arsonic acid, D-00439
- 4-[(4,5-Dihydro-3-methyl-1-phenyl-5-thioxo-1*H*-pyrazol-4-yl)azo]benzenesulfonic acid; Na salt, *in* D-00445
- 4-[4,5-Dihydro-3-methyl-4-[(4-sulfo)phenyl]azo]-5-thioxo-1*H*-pyrazol-1-yl]benzenesulfonic acid; Di-Na salt, *in* D-00459
- 2,2'-Dihydroxyazobenzene, D-00514
- 3,4-Dihydroxyazobenzene, D-00515
- 2,4-Dihydroxy-3,5-bis[(4-nitrophenyl)azo]benzenesulfonic acid, D-00555
- 2,2'-Dihydroxy-4,4'-dimethylazobenzene, D-00574
- 2,4-Dihydroxy-6-methyl-4'-nitroazobenzene, D-00650
- 4-[(2,4-Dihydroxyphenyl)azo]benzenesulfonic acid; Na salt, *in* D-00688
- 2-[(3,4-Dihydroxyphenyl)azo]benzoic acid, D-00689
- 2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxycarbonylthiophene, *in* C-00326
- 3-[(2,4-Dihydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00693
- 3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl, D-00694
- 4-(3,4-Dihydroxyphenylazo)-4'-hydroxybiphenyl, D-00695
- 3-[2,4-Dihydroxyphenylazo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00698
- 3,3'-[[3,3'-Dimethoxy-1,1'-biphenyl]-4,4'-diyl]bis(azo)bis[6-hydroxybenzoic acid], D-00769
- ▷ 4-Dimethylaminoazobenzene, D-00778
- 4'-Dimethylaminoazobenzene-4-sulfonyl chloride, *in* M-00210
- 4-Dimethylamino-2,2'-dihydroxyazobenzene, D-00783
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4,6-dinitrophenol, *in* A-00210
- 3-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-hydroxybenzenesulfonic acid, D-00787
- 4-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00788
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-methylphenol, *in* A-00197
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-nitrophenol, *in* A-00213
- 5-(Dimethylamino)-2-[(5-nitro-2-thiazolyl)azo]phenol, *in* A-00289
- 4-[[4-(Dimethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, D-00808
- 4-[[5-(*p*-Dimethylamino)phenyl]azo]-5-methylimidazole, D-00809
- 5-[[4-(Dimethylamino)phenyl]azo]-1-naphthalenesulfonyl chloride, *in* A-00314

- 3,3'-[(3,3'-Dimethyl-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00836
- 2-[o-[(4,5-Dimethylimidazol-2-yl)azo]phenyl]-4,5,7-trimethyl-8-quinazolinol, D-00867
- 1,3-Dimethyl-4-(phenylazo)-1H-pyrazole-5-thiol, D-00887
- 2,4-Dimethyl-6-(1H-tetrazol-5-ylazo)phenol, D-00920
- 2,4-Dinitro-6-chlorophenylazothymol, D-00951
- 1-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2-naphthol, D-00954
- 4-[(2,4-Dinitrophenyl)azo]-1,2-benzenediol, D-00963
- 16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadecan-1(18),14,16-trien-18-ol, D-00970
- sym*-Diphenylcarbazone, D-01006
- 2-[(4,5-Diphenyl-1H-imidazol-2-yl)azo]benzenesulfonic acid, D-01021
- 2-[(4,5-Diphenyl-1H-imidazol-2-yl)azo]benzoic acid, D-01022
- 2-[(4,5-Diphenyl-1H-imidazol-2-yl)azo]phenylarsonic acid, D-01023
- 4,5-Diphenyl-2-(phenylazo)-1H-imidazole, D-01035
- 6-Dodecyl-6-[2-hydroxy-3,5-bis(4-nitrophenyl)azo]benzyl-1,4,8,11-tetraoxacyclotetradecane, D-01144
- 6-Dodecyl-6-[2-hydroxy-3-nitro-5-(4-nitrophenyl)azo]benzyl-1,4,8,11-tetraoxacyclotetradecane, D-01149
- 2-[(5-Dodecyl-2-hydroxyphenyl)azo]benzoic acid, D-01150
- 2-[(5-Dodecyl-2-hydroxyphenyl)azo]phenylarsonic acid, D-01151
- Eriochrome fast grey RAS; Na salt, *in* E-00014
- 4'-Ethoxy-4-hydroxyazobenzene, *in* D-00516
- 4-[(4-Ethoxyphenyl)azo]-6-methyl-1,3-benzenediamine, *in* H-00451
- 4-[(4-Ethoxyphenyl)azo]-1-naphthalenamine, *in* A-00277
- 4-[(4-Ethylamino)-6-hydroxy-*m*-tolyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, *in* A-00196
- 3-[Ethyl[3-hydroxy-4-[(2-hydroxy-5-methylphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00087
- 3-[Ethyl[3-hydroxy-4-[(2-hydroxyphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00088
- 4-[(2-Ethylphenyl)azo]-1-naphthalenamine, E-00103
- 4-[[4-[Ethyl(3-sulfopropyl)amino]-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, E-00115
- Flavazine L; Na salt, *in* F-00007
- 4-[4-Hydroxy-3-biphenylazo]-1,3-benzenediol, H-00133
- 1-(4-Hydroxy-3-biphenylazo)-2-naphthol, H-00134
- 2-[(2-Hydroxy-3,5-dimethylphenyl)azo]-5-sulfobenzoic acid, H-00152
- 4-[(2-Hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, H-00160
- 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-8-quinolinol 1-oxide, H-00161
- 2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-[*N*-ethyl-*N*-(sulfopropyl)amino]phenol, H-00174
- 4-Hydroxy-3-[(5-hydroxybenzo[*a*]phenazin-6-yl)azo]benzenesulfonic acid, H-00187
- 4-Hydroxy-3-[(2-hydroxybenzoyl)azo]-1-naphthalenesulfonic acid, H-00188
- 5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, H-00231
- 4-Hydroxy-3-[[2-hydroxy-3-(phenylcarbonyl)-1-naphthyl]azo]benzenesulfonic acid, H-00236
- 6-Hydroxy-5-[(4-iodophenyl)azo]-2-naphthalenesulfonic acid, H-00254
- 2-[[2-Hydroxy-4-methyl-5-(1-methylethyl)phenyl]azo]-5-nitrobenzenesulfonic acid; K salt, *in* H-00288
- 2-[(2-Hydroxy-5-methyl-3-nitrophenyl)azo]-4,6-dinitrophenol, H-00293
- 2-[(2-Hydroxy-5-methylphenyl)azo]-5-nitrobenzenesulfonic acid; K salt, *in* H-00302
- [[2-[(2-Hydroxy-5-methylphenyl)azo]phenyl]thio]acetic acid, H-00303
- 2-[[5-Hydroxy-3-methyl-1-(phenylmethyl)-1H-pyrazol-4-yl]azo]-5-nitrobenzenesulfonic acid, H-00312
- 4-[3-Hydroxy-6-methyl-4-(4-sulfophenylazo)phenylazo]benzenesulfonic acid, H-00327
- 4-[(2-Hydroxy-1-naphthalenyl)azo]benzenesulfonic acid; Na salt, *in* H-00348
- 2-[(2-Hydroxy-1-naphthalenyl)azo]benzoic acid, H-00349
- 2-[(2-Hydroxy-1-naphthalenyl)azo]-5-nitrobenzenesulfonic acid, H-00351
- [[2-[(2-Hydroxy-1-naphthalenyl)azo]phenyl]thio]acetic acid, H-00352
- 6-[2-Hydroxy-3-nitro-5-[(4-nitrophenyl)azo]benzyl]-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00389
- 2-Hydroxy-4-(4-nitrophenylazo)benzoic acid, H-00393
- 2-[(2-Hydroxy-5-nitrophenyl)azo]-4,5-diphenylimidazole; Acetate salt, *in* H-00394
- 1-[(2-Hydroxy-4-nitrophenyl)azo]-2-naphthalenol, H-00395
- 1-[(2-Hydroxy-5-nitrophenyl)azo]-2-naphthalenol, H-00396
- 2-Hydroxy-5-(4-nitrophenylazo)phenylmethyl-18-crown-6, H-00399
- [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-15-crown-5, H-00400
- [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-18-crown-6, H-00401
- 2-Hydroxy-5-nitro-3-[(tetrahydro-2,4-dithio-2*H*-1,3-thiazin-5-yl)azo]benzenesulfonic acid, H-00422
- 2-(4-Hydroxyphenylazo)benzaldehyde; Me ether, oxime, *in* H-00448
- 4-[(2-Hydroxyphenyl)azo]-1,3-benzenediol, H-00449
- 2-[(2-Hydroxyphenyl)azo]-4,5-diphenylimidazole, H-00450
- 1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, H-00455
- 4-[(8-Hydroxy-7-quinolinyl)azo]benzenesulfonic acid, H-00529
- 2-Hydroxy-4-[(4-sulfophenyl)azo]benzoic acid; Di-Na salt, *in* H-00541
- 2-Hydroxy-5-[(4-sulfophenyl)azo]benzoic acid; Di-Na salt, *in* H-00542
- 2-Hydroxy-5-sulfo-3-[(tetrahydro-2,4-dithio-2*H*-1,3-thiazin-5-yl)azo]benzoic acid, H-00545
- 4-[(4-Iodophenyl)azo]-1,2,3-benzenetriol, I-00049
- 4-[(4-Isothiocyanatophenyl)azo]-*N,N*-dimethylbenzenamine, I-00098
- ▷ (4-Isothiocyanatophenyl)phenyldiazene, I-00099
- Janus black; Chloride, *in* J-00001
- ▷ Janus blue; Chloride, *in* J-00002
- ▷ Lumogallion, L-00015
- Lumomagneson, L-00016
- Magneson IREA, M-00004
- Magon, M-00005
- Maxilon blue GRL; Chloride, *in* M-00009
- 2-[(3-Mercaptophenyl)azo]-4-methylphenol, M-00041
- 1-[(2-Mercaptophenyl)azo]-2-naphthalenol, M-00042
- 4-Methoxy-2-[(5-methylimidazol-4-yl)azo]phenol, *in* M-00191
- 6-Methoxy-3-methyl-2-[[4-(methylphenylamino)phenyl]azo]benzothiazolium(1+); Chloride, *in* M-00091
- 4-[(4-Methoxyphenyl)azo]-1,3-benzenediamine, M-00106
- 4-Methyl-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, M-00200
- 4-Methyl-2-[[2-(methylthio)phenyl]azo]phenol, *in* M-00041
- ▷ Methyl orange; Na salt, *in* M-00210
- 4-Methyl-2-[[2-[(phenylmethyl)thio]phenyl]azo]phenol, *in* M-00041
- 2-[(3-Methyl-1-phenyl-4-pyrazolyl)azo]-4-nitrobenzenesulfonic acid, M-00240
- 2-[(3-Methyl-5-propyl-2-pyrrolidinyl)azo]phenol, M-00263
- Methyl red; Na salt, *in* M-00309
- 2-Methyl-4-(1*H*-1,2,4-triazol-3-ylazo)-1,3-benzenediol, M-00328
- 5-(1-Naphthalenylazo)-8-quinolinol; *N*¹-Oxide, *in* N-00017
- Nevezol NS, N-00067
- 3,3',3''-[Nitrioltris(4,1-phenyleneazo)]tris[6-hydroxybenzoic acid], N-00075
- Nitroanisole blue, N-00078
- Nitroanthranilazo, N-00079
- 4'-Nitro-4-azobenzencarboxylic acid; Chloride, *in* N-00080
- 4-[(4-Nitrophenyl)azo]-1,2-benzenediol, N-00122
- 4-[(4-Nitrophenyl)azo]-1,3-benzenediol, N-00123
- 4-[(4-Nitrophenyl)azo]-1,2,3-benzenetriol, N-00124
- 3-[(4-Nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, N-00125
- 4-[(4-Nitrophenyl)azo]-1-naphthalenol, N-00126
- 19-[(4-Nitrophenyl)azo]-3,6,9,12,15-pentaoxabicyclo[5.3.1]heneicosan-1(21),17,19-trien-21-ol, N-00127
- 2-[(4-Nitrophenyl)azo]phenol, N-00128
- 4-[(4-Nitrophenyl)azo]-2-(1,4,7,10-tetraoxa-13-azacyclotetradec-13-yl)phenol, N-00130
- (4-Nitrophenyl)diazencarboxylic acid 2-phenylhydrazide, N-00133
- 4-[[4-[3-(4-Nitrophenyl)-2-triazenyl]phenyl]azo]benzenesulfonic acid; Na salt, *in* N-00146
- Nitroxaminazo, N-00167
- 4-[(1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetracyclotetradecan-15-yl)azo]phenol, O-00010
- Pallatriazo, P-00003
- Phenazo, P-00059
- o*-Phenolazothiohydantoin, P-00061
- 4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084
- 4-[(4-Phenylaminophenyl)azo]-3-bromobenzenesulfonic acid, *in* A-00308
- 4-(Phenylazo)-1,2,3-benzenetriol, P-00092
- ▷ 4-Phenylazo-1-naphthylamine, P-00093
- ▷ 1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol, P-00095
- 5-[[4-(Phenylazo)phenyl]azo]-2-thioxo-4-thiazolidinone, P-00096
- 2-[(4-Phenylazo)phenyl]hydrazinesulfonic acid, P-00097
- 4,4'-[1,3-Phenylenebis(azo)]bis-1,3-benzenediamine; B₂HCl, *in* P-00117
- 1-(1*H*-Pyrazol-3-ylazo)-2-naphthalenol, P-00303
- Solochrome black PV; Na salt, *in* S-00018
- Solochrome fast grey RA, S-00019
- Solochrome fast red; Na salt, *in* S-00020
- Stilbazol; Di-NH₄ salt, *in* S-00027
- Stilbazogall I, S-00029
- Stilbazogall II, S-00030
- Sulfarsazen; Na salt, *in* S-00038
- ▷ Tartrazine; Tri-Na salt, *in* T-00003
- 2-[(Tetrahydro-2,4-dithio-2*H*-1,3-thiazin-5-yl)azo]benzoic acid, T-00060
- 2,2'-(1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyl)di-1,3-propanediyl]bis[4-[(4-nitrophenyl)azo]phenol], T-00117
- Thoron II, T-00178
- 4-[(2,3,4-Trihydroxyphenyl)azo]benzenesulfonic acid, T-00309
- 2-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00310

4-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00311
 2,2'-(1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyl-di-3,1-propanediyl)bis[4-[(4-nitrophenyl)azo]phenol], T-00362
 Xylidine blue II, X-00007

Azo compounds - naphthylazo derivatives

8-Amino-7-[(5-chloro-2-hydroxy-3-sulphophenyl)azo]-2-naphthalenesulfonic acid, A-00143
 8-Amino-7-[(5-chloro-2-hydroxy-3-sulphophenyl)azo]-3-naphthalenesulfonic acid, A-00144
 5-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-6-hydroxy-2-naphthalenesulfonic acid, A-00356
 Azo-azoxy BN, A-00465
 Brilliant congo blue BFL; Tri-Na salt, in B-00476
 Calmagite, C-00015
 2-Chloro-5-[[5-hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-2-methylphenyl]azo]benzenesulfonic acid; Na salt, in C-00132
 5-[(4-Chlorophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, C-00204
 1-[(3-Chlorophenyl)azo]-2-naphthalenol, C-00205
 ▶ 2,3-Dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]-1*H*-perimidine, D-00390
 4-[(2,3-Dihydroxy-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00660
 4-[(2,3-Dihydroxy-6-sulfo-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00732
 4-(3,5-Dinitro-2-hydroxyphenylazo)-1-naphthol, D-00955
 3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid; Na salt, in D-00966
 2-Hydroxy-3-[4-hydroxynaphthalenylazo]-5-nitrobenzenesulfonic acid, H-00223
 3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, H-00224
 1-[[2-[(2-Hydroxy-5-methylphenyl)-*O,N,N*-azoxy]phenyl]azo]-2-naphthalenol, H-00305
 3-[(2-Hydroxy-1-naphthalenyl)azo]-1*H*-pyrazole-4-carboxylic acid, H-00353
 5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1*H*,3*H*)-pyrimidinedione; NH₄ salt, in H-00354
 2-[(2-Hydroxy-1-naphthalenyl)azo]-4-thiazolecarboxylic acid, H-00358
 2-(2-Hydroxy-3-naphthylazo)-1-hydroxy-4-naphthalenesulfonic acid, H-00374
p-[(2-Hydroxy-1-naphthyl)azo]benzoic acid, H-00375
 3-[(2-Hydroxy-1-naphthyl)azo]-4-pyrazolecarboxylic acid, H-00376
 2-[[1-Hydroxy-7-(phenylamino)-3-sulfo-2-naphthalenyl]azo]benzoic acid, in A-00222
 2-[(2-Hydroxyphenyl)azo]-1,5-naphthalenediol, H-00453
 1-[(5-Methylimidazol-4-yl)azo]-2-naphthol, M-00192
 Naphthol violet, N-00030
 1-(4-Nitro-2-hydroxybenzenazo)-2-(β-acetylhydrazino)naphthalene, N-00111
 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
 ▶ Solochrome black 6BN; Na salt, in S-00017
 Solochrome fast blue B, in A-00225
 1-(1*H*-1,2,4-Triazol-3-ylazo)-2-naphthalenol, T-00200

Benzopyran derivatives

3-Acetyl-4-hydroxy-2*H*-1-benzopyran-2-one, A-00017
 3-Acetyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, in D-00644
 6-Acetyl-7-hydroxy-4-methyl-2*H*-1-benzopyran-2-one, A-00018
 7-Amino-4-methyl-2*H*-1-benzopyran-2-one, A-00237
 8-(Aminomethyl)-6,7-dihydroxy-4-methylcoumarin-*N,N*-diacetic acid, A-00241
 ▶ 4*H*-1-Benzopyran-4-one, B-00072
 3-Benzyl-4,5-dihydroxycoumarin, B-00177
 4-(Bromomethyl)-6,7-dimethoxy-2*H*-1-benzopyran-2-one, B-00519
 8-(Bromomethyl)-6*H*-1,3-dioxolol[4,5-*g*][1]benzopyran-6-one, B-00523
 4-(Bromomethyl)-7-methoxy-2*H*-1-benzopyran-2-one, in B-00524
 4-(Bromomethyl)-7-methoxy-6-nitro-2*H*-benzopyran-2-one, B-00526
 4-(Bromomethyl)-2*H*-naphtho[1,2-*b*]pyran-2-one, B-00529
 7-(Chlorocarbonylmethoxy)-4-methylcoumarin, C-00077
 5-Chloro-2-[7-(diethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]-6-benzoxazolesulfonic acid, C-00091
 4-(Diazomethyl)-7-methoxy-2*H*-1-benzopyran-2-one, D-00150
N-[4-[7-(Diethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]phenyl]-2-iodoacetamide, D-00321
 7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-carboxylic acid hydrazide, D-00326
 2-[7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]-5-methyl-6-benzoxazolesulfonic acid, D-00327
 2,3-Dihydro-2-hydroxy-4*H*-1-benzopyran-4-one, D-00406
 2,3-Dihydro-3-hydroxy-4*H*-1-benzopyran-4-one, D-00407
 2,3-Dihydro-5-hydroxy-4*H*-1-benzopyran-4-one, D-00408
 2,3-Dihydro-8-hydroxy-9-phenyl-7*H*-pyrano[2,3-*f*]-1,4-benzodioxin-7-one, D-00422
 ▶ 6,7-Dihydroxy-2*H*-1-benzopyran-2-one, D-00538
 7,8-Dihydroxy-2*H*-1-benzopyran-2-one, D-00539
 6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, in D-00576
 7,8-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, in D-00577
 6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, in D-00584
 7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, in D-00585
 5,7-Dihydroxyflavone, D-00612
 4',5-Dihydroxy-7-methoxyflavone, D-00640
 ▶ 5,7-Dihydroxy-4'-methoxyflavone, D-00641
 ▶ 7,8-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00648
 7,8-Dihydroxy-3-phenyl-2*H*-1-benzopyran-2-one, D-00705
 7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
 6,7-Dihydroxy-4-phenylcoumarin, D-00708
 2-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00084
 3-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00085
 3-Ethyl-5-hydroxy-2,7-dimethyl-4*H*-1-benzopyran-4-one, E-00086
 2-Ethyl-5-hydroxy-7-methoxyisoflavone, in E-00070
 2-Ethyl-5-hydroxy-3-methyl-4*H*-1-benzopyran-4-one, E-00090
 3-Ethyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, E-00091
 3-(2-Ethyl-3-oxo-1-phenylbutyl)-4-hydroxy-4*H*-1-benzopyran-4-one, E-00101
 ▶ 3,3',4',5',5',7-Hexahydroxyflavone, H-00055
 5-Hydroxy-2,3-dimethyl-4*H*-1-benzopyran-4-one, H-00150
 5-Hydroxy-7-methoxy-2,6-dimethyl-4*H*-1-benzopyran-4-one, in D-00575
 5-Hydroxy-7-methoxy-2-methyl-4*H*-1-benzopyran-4-one, in D-00645
 5-Hydroxy-3-methyl-4*H*-1-benzopyran-4-one, H-00282
 4-(Hydroxymethyl)-7-methoxy-2*H*-1-benzopyran-2-one, in H-00209
 7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid, H-00295
 4-Hydroxy-3-nitroso-2*H*-1-benzopyran-2-one, H-00407
 1-Hydroxy-2-nitroso-3*H*-naphtho[2,1-*b*]pyran-3-one, H-00416
 7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, H-00426
 2-(3-Hydroxy-4-oxo-4*H*-1-benzopyran-2-yl)benzenesulfonic acid, H-00427
 ▶ 3-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one, H-00466
 2-Mercapto-4*H*-1-benzopyran-4-thione, M-00024
 7-Methoxy-2-oxo-2*H*-1-benzopyran-4-carbonyl azide, M-00097
 7-Methoxy-2-oxo-2*H*-1-benzopyran-3-carbonyl fluoride, in H-00426
 3-[(7-Methoxy-2-oxo-2*H*-1-benzopyran-3-yl)carbonyl]-2(3*H*)-oxazolone, M-00098
 (7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)methyl *N,N*-dicyclohexylcarbamimidate, M-00100
 ▶ 4-Methyl-2*H*-1-benzopyran-2-one, M-00141
 2-Oxo-2*H*-1-benzopyran-6-sulfonyl chloride, in O-00057
 3,3',4',5',7-Pentahydroxyflavanone; (2*R*,3*R*)-form, in P-00023
 ▶ 2',3',4',5',7-Pentahydroxyflavone, P-00024
 ▶ 3,3',4',5',7-Pentahydroxyflavone, P-00025
 ▶ 3,3',4',5',7-Pentahydroxyflavone, P-00026
 3,5,7,3',4'-Pentahydroxyflavone-6'-sulfonic acid, P-00027
 ▶ Rutin, R-00014
 2',3,5,7-Tetrahydroxyflavone, T-00074
 ▶ 3,3',4',7-Tetrahydroxyflavone, T-00075
 3',4',5',7-Tetrahydroxyflavone, T-00077
 ▶ 3,3',4',5'-Tetrahydroxy-7-methoxyflavone, T-00078
 4',5,7-Trihydroxyflavanone; (*S*)-form, in T-00281
 5,7,8-Trihydroxyflavanone; (*S*)-form, 7-*O*-Glucuronopyranoside, in T-00282
 3,4',7-Trihydroxyflavone, T-00283
 ▶ 3,5,7-Trihydroxyflavone, T-00284
 5,7,8-Trihydroxyflavone, T-00286
 3',5,7-Trihydroxy-4'-methoxyflavone, T-00297
 4,5,7-Trihydroxy-3-phenyl-2*H*-1-benzopyran-2-one, T-00313

2,2'-Bipyridyl compounds (1,10-phenanthroline-type compounds)

2-Amino-4,6-bis[6-(2-pyridyl)-2-pyridyl]-s-triazine, A-00122
 5-Amino-1,10-phenanthroline, A-00299
 Bathocuproinedisulfonic acid; Di-Na salt, in B-00002
 Bathophenanthrolinedisulfonic acid; Di-Na salt, in B-00003
 6-Benzoyl-3-(2,2'-bipyridin-6-yl)-5-phenyl-1,2,4-triazine, B-00123
 6-Benzoyl-3-(1,10-phenanthrolin-2-yl)-5-phenyl-1,2,4-triazine, B-00142
 ▶ 2,2'-Bipyridine, B-00220
 [2,2'-Bipyridine]-6-carboximide acid hydrazide, B-00223
 [2,2'-Bipyridine]-4,4'-dicarboxylic acid, B-00224
 2-(2,2'-Bipyridin-6-yl)benzimidazole, B-00225

3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine, B-00227
 3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine, B-00228
 2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*f*] [4,7]phenanthroline, B-00229
 2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*c*]pyridine, B-00230
 2-(2,2'-Bipyridin-6-yl)-3*H*-imidazo[4,5-*h*]quinoline, B-00231
 2-(2,2'-Bipyridin-6-yl)-5-phenylbenzimidazole, B-00233
 3-(2,2'-Bipyridin-6-yl)-1,2,4-triazino[5,6-*f*] [4,7]phenanthroline, B-00234
 2,2'-Biquinoline, B-00236
 4,4'-[(2,2'-Biquinoline)-4,4'-diyl]diimino)bisbenzoic acid; Di-Et ester, *in* B-00238
 4,4'-Bis(4-biphenylamino)-2,2'-biquinoline, B-00259
 Bis(2,2':6',2"-terpyridine-*N,N,N''*)iron(II) (2+), B-00457
 5-Bromo-1,10-phenanthroline, B-00541
 5-Chloro-1,10-phenanthroline, C-00195
 ▶ Cuprotest, C-00322
 3,4-Cyclopenteno-1,10-phenanthroline, C-00365
 4,4'-Diamino-2,2'-bipyridine, D-00061
 4,4'-Dichloro-2,2'-bipyridine, D-00253
 4,4'-Dichloro-2,2'-biquinoline, D-00254
 6,7-Dihydro-5,8-diphenyldibenzo[*b,f*] [1,10]phenanthroline, D-00398
 2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-1,10-phenanthroline, D-00447
 6-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00454
 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00456
 4,5-Dihydro-3-(1,10-phenanthroline-2-yl)-5-(2-pyridinyl)-1,2,4-triazole, D-00465
 4,4'-Dihydroxy-2,2'-biquinoline, D-00545
 4,7-Dihydroxy-1,10-phenanthroline; B,HCl, *in* D-00685
 4,7-Dimethoxy-1,10-phenanthroline, *in* D-00685
 5,6-Dimethoxy-1,10-phenanthroline, *in* D-00686
 4,4'-Dimethyl-2,2'-bipyridine, D-00840
 2,9-Dimethyl-4,7-dihydroxy-1,10-phenanthroline, D-00850
 2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline, D-00852
 3,8-Dimethyl-1,10-phenanthroline, D-00881
 4,7-Dimethyl-1,10-phenanthroline, D-00882
 5,6-Dimethyl-1,10-phenanthroline, D-00883
 2-(5,6-Dimethyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, D-00927
 4,4'-Diphenyl-2,2'-bipyridine, D-01002
 2,9-Diphenyl-1,10-phenanthroline, D-01032
 3,8-Diphenyl-1,10-phenanthroline, D-01033
 4,7-Diphenyl-1,10-phenanthroline, D-01034
 4-Hydroxy-1,10-phenanthroline, H-00437
 2-Methyl-1,10-phenanthroline, M-00220
 5-Methyl-1,10-phenanthroline, M-00221
 5-Nitro-1,10-phenanthroline; B,HCl, *in* N-00116
 1,2,3,4,9,10,11,12-Octahydrodibenzo[*c,i*] [1,10]phenanthroline, O-00016
 ▶ 1,10-Phenanthroline, P-00052
 1,10-Phenanthroline-2-carboximidic acid hydrazide, P-00053
 1,10-Phenanthroline-3-sulfonic acid, P-00054
 1,10-Phenanthroline-5-sulfonic acid, P-00055
 3-(1,10-Phenanthroline-2-yl)-9*H*-indeno[1,2-*e*] -1,2,4-triazin-9-one, P-00056
 3-[(1,10-Phenanthroline-2-yl)-5-phenyl]-1,2,4-triazole, P-00057
 2-(1,10-Phenanthrolyl)amidoxime, P-00058
 5-Phenyl-1,10-phenanthroline; B,HCl, *in* P-00154
 2-(5-Phenyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, P-00207

2-(2-Pyridyl)-1*H*-imidazo[4,5-*f*] [4,7]phenanthroline, P-00419
 2,2':6',2"-Terpyridine, T-00005
 7,8,9,10-Tetrahydrobenzo[*c*] [1,10]phenanthroline, T-00050
 2,4,7,9-Tetramethyl-1,10-phenanthroline, T-00097
 3,4,6,7-Tetramethyl-1,10-phenanthroline, T-00098
 3,4,6,8-Tetramethyl-1,10-phenanthroline, T-00099
 3,4,7,8-Tetramethyl-1,10-phenanthroline, T-00100
 3,5,6,8-Tetramethyl-1,10-phenanthroline, T-00101
 3,4,6-Trimethyl-1,10-phenanthroline, T-00331
 3,4,7-Trimethyl-1,10-phenanthroline, T-00332
 3,5,6-Trimethyl-1,10-phenanthroline, T-00333
 3,5,7-Trimethyl-1,10-phenanthroline, T-00334
 3,5,8-Trimethyl-1,10-phenanthroline, T-00335
 4,4',4"-Triphenyl-2,2':6',2"-terpyridine, T-00378
 Tris(2,2'-bipyridine-*N,N'*)iron(II) (2+), T-00384
 Tris(4,7-dimethyl-1,10-phenanthroline-*N',N''*)iron(II) (2+); Sulfate, *in* T-00389
 Tris(1,10-phenanthroline-*N',N''*)iron(II) (2+), T-00412

Crown ethers

Benzo-12-crown-4, B-00052
 Benzo-14-crown-4, B-00053
 Benzo-15-crown-5, B-00054
 Benzo-18-crown-6, B-00055
N-(1,4,7,10,13,16,19-Benzoheptaoxacycloheptacosin-21-yl)-2-propenamide, B-00058
 6-Benzyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00182
 6-Benzyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00185
 Bis(benzo-15-crown-5-ylmethyl)succinate, *in* B-00611
 2,2'-Bis[3,4-(15-crown-5)-2-nitrophenylcarbamoxy]methyl]tetradecane, B-00290
N,N-Bis(2,3,5,6,9,10,12,13,15,16-decahydro-8*H*-1,7,4,7,11,14-benzodioxatetrathiacyclononadecin-19-yl)pentanediamide, B-00291
N,N'-Bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-yl)pentanediamide, B-00292
 3,26-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29-(3,4,5-trimethoxyphenyl)-29*H*-dinaphtho[2,1-*q*:1',2'-*t*] [1,4,7,10,13,16]hexaaxacycloheptacosin, B-00328
 3,26-Bis(1,1-dimethylethyl)-29-(2,5-dimethylphenyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*t*] [1,4,7,10,13,16]hexaaxacycloheptacosin, B-00329
 3,29-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,23,24-dodecahydro-32-(3,4,5-trimethoxyphenyl)-32*H*-dinaphtho[2,1-*r*:1',2'-*w*] [1,4,7,10,13,16,19]heptaaxacyclotetradecan, B-00330
 2,19-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzo[*b,q*] [1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontine, B-00331
ar,ar'-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,18,19,26,27,29,30,32,33,35,36-octadecahydrodibenzo[*b,q*] [1,4,7,10,13,16,19,22,25,28,31]undecaaxacyclotriacontine, B-00332
N,N'-Bis(2,3,5,6,8,9,11,12,14,15,17,18-dodecahydro-1,4,7,10,13,16,19-benzoheptaaxacycloheptacosin-21-yl)pentanediamide, B-00346
 2,13-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*] [1,4,7,10,13,16]hexaaxacyclooctadecine, B-00347
 2,14-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*] [1,4,7,10,13,16]hexaaxacyclooctadecine, B-00348
 2,14-Bis(2-ethoxyethoxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*] [1,4,7,10,13,16]hexaaxacyclooctadecine, B-00349
 Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclopentadecin-15-yl)methyl]heptanedioate, B-00434
N,N'-Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclopentadecin-15-yl)pentanediamide, B-00435
 16-Bromo-2,3,5,6,8,9,11,12-octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaaxacyclopentadecin-15-amine, B-00540
 2-Butenedioic acid bis[(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-yl)methyl]ester, B-00610
 2-Butenedioic acid bis[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclopentadecin-15-yl)methyl]ester, B-00611
 ▶ 15-Crown-5, C-00314
 ▶ 18-Crown-6, C-00315
N-(2,3,5,6,9,10,12,13,15,16-Decahydro-8*H*-1,17,4,7,11,14-benzodioxatetrathiacyclononadecin-19-yl)-2-propenamide, D-00005
 8-[[4-[(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-yl)azo]phenyl]amino]-1-naphthalenesulfonic acid, D-00006
N-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-yl)-2-propenamide, D-00007
 8,9,11,12,14,15,17,18,20,21-Decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*t*] [1,4,7,10,13,16]hexaaxacycloheptacosin, D-00016
 2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-hexaaxacyclooctadecin-18-yl)-2,3,5,6,8,9,11,12,14,15-Decahydro-18-nitro-1,4,7,10,13,16-benzohexaaxacyclooctadecin, D-00018
 2,3,5,6,8,9,11,12,14,15-Decahydro-19-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-amine, D-00019
 6,7,9,10,12,13,15,16,18,19-Decahydro-2,4,21,23-tetramethyl-25-(1-naphthalenyl)-25*H*-dibenzo[*q,r*] [1,4,7,10,13,16]hexaaxacycloheptacosin, D-00020
 2,3,5,6,8,9,11,12,14,15-Decahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-amine, D-00021
 5-Decyl-2-(1,4,8,11-tetraoxacyclotetradec-6-yl-methoxy)benzoic acid, D-00027
 5-Decyl-2-(1,4,7,10-tetraoxacyclotridec-5-yl-methoxy)benzoic acid, D-00028
 Dibenzo-16-crown-5, D-00155
 ▶ Dibenzo-18-crown-6, D-00156
 Dibenzo-19-crown-6, D-00157
 Dibenzo-22-crown-7, D-00158
 Dibenzo-24-crown-8, D-00159
 Dibenzo-30-crown-10, D-00160
 Dibenzo-36-crown-12, D-00161

- 6,6-Dibenzyl-1,4,8,11-tetraoxacyclotetradecane, D-00173
- 2,13-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, D-00235
- 7,18-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo-[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, D-00236
- 29-(2,6-Dichlorophenyl)-3,26-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaaxacycloheneicosin, D-00290
- 32-(2,6-Dichlorophenyl)-3,29-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,23,24-dodecahydro-32*H*-dinaphtho[2,1-*r*:1',2'-*w*][1,4,7,10,13,16,19]-heptaaxacyclotetracosin, D-00291
- 2,19-Diethyl-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, D-00348
- 2,13-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, D-00351
- 7,18-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, D-00352
- 2,13-Diheptyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, D-00366
- 2,13-Dihexyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, D-00368
- 6,7-Dihydrotribenzo[*e,i,m*][1,4,8,11]dioxadiazacyclotetradecine, D-00497
- 1,2-Dihydroxy-3-(1,4,7,10,13-pentaoxa-16-azacyclooctadecylmethyl)-9,10-anthracenedione, D-00682
- 1,2-Dihydroxy-3-(1,4,7,10-tetraoxa-13-azacyclooctadec-13-ylmethyl)-9,10-anthracenedione, D-00737
- 15-(1,1-Dimethylethyl)tetradecahydro-1,4,7,10,13-benzopentaaxacyclooctadecine, D-00860
- Dinaphtho-30-crown-10, D-00932
- 3,5-Dinitro-4-[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclooctadecine-15-yl)amino]benzotrifluoromethylphenyl, D-00956
- 19-[(2,4-Dinitrophenyl)azo]-3,6,9,12,15-pentaoxabicyclo[15.3.1]heneicosal(21),17,19-trien-21-ol, D-00969
- 16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadecal(18),14,16-trien-18-ol, D-00970
- N*-(2,4-Dinitrophenyl)-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclooctadecine-15-amine, D-00973
- N*-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-3,4,6,7,10,11-hexahydro-2*H*,9*H*-1,5,8,12-benzotetraoxacyclotetradecine-14-amine, D-00976
- N*-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclooctadecine-15-amine, D-00977
- N*-[2,6-Dinitro-4-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclooctadecine-15-amine, D-00978
- Dipropylidicyclohexyl-18-crown-6, *in* O-00027
- 6,7,9,10,12,13,20,21,23,24,26,27-Dodecahydro-2,16-dimethyldibenzo[*b,n*][1,4,7,10,13,16,19,22]octaaxacyclotetradecine, D-01138
- 6-Dodecyl-*N,N*-diethyl-1,4,8,11-tetraoxacyclotetradecane-6-acetamide, D-01143
- 6-Dodecyl-6-[2-hydroxy-3,5-bis(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01144
- 6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01145
- 6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01146
- 6-Dodecyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01148
- 6-Dodecyl-6-[2-hydroxy-3-nitro-5-(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01149
- Dodecylmethylpropanedioate bis(1,4,7,10-tetraoxacyclododec-2-ylmethyl)ester, D-01152
- 6-Dodecyl-6-methyl-1,4,8,11-tetraoxacyclotetradecane, D-01153
- 2-[(Dodecyl)oxymethyl]-1,4,7,10-tetraoxacyclododecane, D-01154
- Eicosahydro-20*H*-dibenzo[*b,m*][1,4,7,10,13,16]hexaaxacyclonadecane, E-00003
- ▷ Eicosahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclododecane, E-00004
- Eicosahydro-2,13-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclododecane, E-00005
- 1,4,10,13,16-Heptaaxacycloheneicosane, H-00013
- 6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-Hexadecahydro-2,20-dimethyldibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, H-00023
- 6,7,9,10,12,13,15,23,24,26,27,29,30,32,33-Hexadecahydro-2,19-dinitrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, H-00024
- 6,7,13,14,15,16,17,18,24,25,31,32,33,34,35,36-Hexadecahydro-2,19-dinitrodibenzo[*e,m,s,a*][1,4,15,18,8,11,22,25]tetraoxatetraazacyclooctacosine, H-00025
- [(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaaxacyclohexadecine-18-yl)oxy]acetic acid, H-00040
- 4-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaaxacyclohexadecine-18-yl)oxy]butanoic acid, H-00041
- 2-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaaxacyclohexadecine-18-yl)oxy]hexanoic acid, H-00042
- 17-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaaxacyclohexadecine-18-yl)oxy]octadecanoic acid, H-00043
- 7,8,15,16,17,18-Hexahydrodibenzo[*e,m*][1,4,8,11]tetraazacyclotetradecine, H-00044
- 5,7,7,12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, H-00059
- Hexaaxacycloazochromene, H-00067
- 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
- 2-Hydroxy-3,5-bis(4-nitrophenylazo)phenylmethyl-15-crown-5, H-00141
- 2-Hydroxy-3,5-dinitrobenzyl-15-crown-5, H-00155
- 6-(2-Hydroxy-3,5-dinitrobenzyl)-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00156
- 6-(2-Hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, H-00157
- (2-Hydroxy-3,5-dinitrophenoxymethyl)-15-crown-5, H-00159
- (2-Hydroxy-3,5-dinitrophenyl)oxymethyl-18-crown-6, H-00164
- 13-Hydroxyethyl-1,4,7,10-tetraoxa-13-azacyclooctadecane, H-00182
- 7-Hydroxy-4-methyl-8-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2*H*-1-benzopyran-2-one, H-00299
- 7-Hydroxy-4-methyl-8-(1,4,7-trioxa-10-azacyclododec-10-ylmethyl)-2*H*-1-benzopyran-2-one, H-00334
- 16-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-16-azacyclooctadecane, H-00385
- 13-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13-azacyclooctadecane, H-00386
- 10-(2-Hydroxy-5-nitrobenzyl)-1,4,7-trioxa-10-azacyclododecane, H-00387
- 6-[2-Hydroxy-3-nitro-5-(4-nitrophenyl)azobenzyl]-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00389
- 2-Hydroxy-[5-(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00398
- 2-Hydroxy-5-(4-nitrophenylazo)phenylmethyl-18-crown-6, H-00399
- [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-15-crown-5, H-00400
- [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-18-crown-6, H-00401
- (2-Hydroxyphenoxymethyl)-12-crown-4, H-00444
- Macrocyclic formazan II, M-00002
- 10-(2-Methoxyethyl)-1,4,7-trioxa-10-azacyclododecane, *in* T-00359
- 19-Methoxy-3,6,9,12,15-pentaoxa-21-azabicyclo[15.3.1]heneicosal(21),17,19-triene-2,16-dione, M-00101
- 2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13,16-hexaaxacyclooctadecane, M-00103
- 2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13-pentaoxacyclooctadecane, M-00104
- 2-(2-Methoxyphenyl)-1,4,7,10,13,16-hexaaxacyclooctadecane, M-00109
- 2-(2-Methoxyphenyl)-1,4,7,10,13-pentaoxacyclooctadecane, M-00115
- 15-Methyl-1,4,7,10,13-benzopentaaxacyclooctadecine, M-00139
- 13-Methyl-1,4,7,10-tetraoxa-13-azacyclooctadecane, *in* T-00111
- 10-Methyl-1,4,7-trioxa-10-azacyclododecane, *in* T-00359
- 19-[(4-Nitrophenyl)azo]-3,6,9,12,15-pentaoxabicyclo[15.3.1]heneicosal(21),17,19-trien-21-ol, N-00127
- 4-[(4-Nitrophenyl)azo]-2-(1,4,7,10-tetraoxa-13-azacyclooctadec-13-yl)phenol, N-00130
- N*-(2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatritriacyclooctadecine-15-yl)-2-propenamide, O-00005
- 4-[(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaaxacyclooctadecine-15-yl)azo]phenol, O-00006
- N*-(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaaxacyclooctadecine-15-yl)-2-propenamide, O-00007
- 1,3,4,7,8,10,11,13-Octahydro-6*H*,2,5,9,12-benzotetrahiacyclooctadecine, O-00009
- 4-[(1,3,4,7,8,10,11,13-Octahydro-6*H*,2,5,9,12-benzotetrahiacyclooctadecine-15-yl)azo]phenol, O-00010
- 6,7,9,10,17,18,21,22-Octahydro-16*H*,20*H*-dibenzo-*[h,q]*[1,4,7,13,10,16]tetraoxadiazacyclooctadecine, O-00019
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, O-00023
- 6,7,9,10,17,18,20,21-Octahydro-7,18-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, O-00024
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dioctyldibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, O-00025
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dipentylidibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, O-00026
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dipropylidibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecine, O-00027
- 2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-pentaoxacyclooctadecine, O-00029

- 2,3,5,6,8,9,11,12-Octahydro-16-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, O-00030
- 2,3,5,6,8,9,11,12-Octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, O-00031
- 2-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclododecane, P-00141
- 6-[(Phenylmethoxy)methyl]-1,4,8,11-tetraoxacyclotetradecane, P-00142
- 5-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclotridecane, P-00143
- Propeller crown 7, P-00268
- ▶ Tetracosahydrodibenzo[*b,n*][1,4,7,10,13,16,19,22]octaoxacyclotetradecane, T-00036
- 2-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,n*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]butanoic acid, T-00056
- 3-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,n*][1,4,8,11]tetraoxacyclotetradecin-7-yl)oxy]propanoic acid, T-00057
- 2,3,14,15-Tetrakis(2-methoxyphenyl)-1,4,7,10,13,16,19,22-octaoxacyclotetradeca-2,14-diene, T-00087
- ▶ 1,4,7,10-Tetraoxacyclododecane, T-00113
- 1,4,10,13-Trioxa-7,16-dithiacyclooctadecane, T-00118
- 1,4,8,11-Tetrathiacyclooctadecane, T-00126
- 2,4,6-Trinitro-*N*-[2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)phenyl]benzenamine, T-00356
- 6,7,8,9,10,11,18,19,20,21-Decahydro-8-[(4-methylphenyl)sulfonyl]-5*H*,17*H*-dibenzo[*b,k*][1,13,4,7,10]dioxatriazacyclooctadecane, *in* D-00011
- 7,8,9,10,17,18,19,20,21,22-Decahydro-8-[(4-methylphenyl)sulfonyl]-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,16]dioxatriazacyclooctadecane, *in* D-00012
- 6,7,9,10,17,18,19,20,21,22-Decahydro-19-[(4-methylphenyl)sulfonyl]-16*H*-dibenzo[*h,q*][1,4,7,10,13,16]trioxatriazacyclooctadecane, *in* D-00015
- 5,14-Dihydro-6,8,15,17-tetramethyldibenzo[*b,n*][1,4,8,11]tetraazacyclotetradecane, D-00491
- 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
- 3-Dodecyl-1,5,10,14-tetraazacyclooctadecane, D-01157
- 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
- 4,7,10,16,19,24,27-Heptaoxa-1,13-diazabicyclo[11.8.8]nonacosane, H-00014
- ▶ 1,4,7,10,13,16-Hexaazacyclooctadecane, H-00019
- 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,k*][1,7,10,4,13]oxadithiadiazacyclooctadecane, H-00039
- 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,n*][1,4,10,7,13]trioxadiazacyclooctadecane, H-00045
- 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,n*][1,4,10,7,13]trithiadiazacyclooctadecane, H-00046
- 5,5,7,12,12,14-Hexamethyl-1,4,8,11-tetraazacyclotetradecane; (7*RS*,14*RS*)-*form*, *in* H-00060
- ▶ 4,7,13,16,21,24-Hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, H-00068
- Macrocyclic formazan I, M-00001
- 7,8,9,10,18,19,20,21-Octahydro-6*H*-dibenzo[*b,n*][1,14,5,10]dioxadiazacyclononadecane, O-00011
- 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,n*][1,4,7,13]dioxadiazacyclooctadecane, O-00012
- 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,n*][1,4,8,12]dioxadiazacyclooctadecane, O-00013
- 5,6,7,8,9,10,16,17-Octahydrodibenzo[*e,m*][1,4,8,11]dioxadiazacyclotetradecane, O-00014
- 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,n*][1,4,7,13]dithiadiazacyclooctadecane, O-00015
- 8,9,10,11,18,19,20,21-Octahydro-7*H*-dibenzo[*e,p*][1,4,8,14]tetraazacycloheptadecane, O-00017
- 7,8,9,10,17,18,19,20-Octahydrodibenzo[*e,o*][1,4,8,13]tetraazacyclohexadecane, O-00018
- 6,7,9,10,18,19,20,21-Octahydrodibenzo[*h,r*][1,4,7,11,16]trioxadiazacyclononadecane, O-00020
- 6,7,8,9,10,11,17,18-Octahydro-8-[(4-methylphenyl)sulfonyl]-5*H*-dibenzo[*e,n*][1,4,7,10,13]dioxatriazacyclooctadecane, O-00028
- 4,7,13,16,21-Pentaoxa-1,10-diazabicyclo[8.8.5]tricosane, P-00037
- 8,9,17,18-Tetrahydro-7*H*-dibenzo[*e,n*][1,4,8,12]dioxadiazacyclooctadecane, T-00055
- 1,4,8,11-Tetramethyl-1,4,8,11-tetraazacyclotetradecane, T-00104
- 4,7,13,18-Tetraoxa-1,10-diazabicyclo[8.5.5]eicosane, T-00114
- 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[4-nitrophenol], 9CI, T-00115
- 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[*N*-(2,4,6-trinitrophenyl)benzenamine, T-00116

- 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[4-[(4-nitrophenyl)azo]phenol], T-00117
- 4,10,15-Trioxa-1,7-diazabicyclo[5.5.5]heptadecane, T-00360
- N,N'*-[1,4,10-Trioxa-7,13-diazacyclooctadecane-7,13-diylbis(methylene-2,1-phenylene)]bis[2,4,6-trinitrobenzenamine], T-00361
- 2,2'-[1,4,10-Trioxa-7,13-diazacyclooctadecane-7,13-diylbis(methylene-2,1-phenylene)]bis[4-[(4-nitrophenyl)azo]phenol], T-00362

Dansyl compounds

- N*-(5-Aminopentyl)-5-(dimethylamino)-1-naphthalenesulfonamide, A-00296
- N*-Chloro-5-(dimethylamino)-1-naphthalenesulfonamide, C-00098
- Dansylproline; (*S*)-*form*, *in* D-00001
- 5-(Dibutylamino)-1-naphthalenesulfonyl chloride, D-00224
- 5-(Dimethylamino)-1-naphthalenesulfinic acid, D-00794
- 5-(Dimethylamino)-1-naphthalenesulfonyl azide, D-00795
- ▶ 5-(Dimethylamino)-1-naphthalenesulfonyl chloride, D-00796
- 5-(Dimethylamino)-1-naphthalenesulfonyl fluoride, D-00797
- [3-[[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]amino]phenyl]boronic acid, D-00798
- 1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]aziridine, D-00799
- 2-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]ethyl carbonochloridate, D-00800
- 1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]piperazine, D-00801

Diazo compounds

- 4,4'-Azobis[3-hydroxy-2,7-naphthalenedisulfonic acid], A-00469
- ▶ 4-Diazobenzene sulfonic acid, D-00142
- 1-Diazobutane, D-00143
- ▶ Diazoethane, D-00144
- 1-(1-Diazoethyl)naphthalene, D-00145
- 2-(1-Diazoethyl)naphthalene, D-00146
- (1-Diazoethyl)pentaffluorobenzene, D-00147
- (Diazomethyl)cyclohexane, D-00149
- 4-(Diazomethyl)-7-methoxy-2*H*-1-benzopyran-2-one, D-00150
- ▶ 1-(Diazomethyl)naphthalene, D-00151
- (Diazomethyl)pentaffluorobenzene, D-00152
- 1-(Diazomethyl)pyrene, D-00153
- 1-Diazopropane, D-00154
- 2,4-Dinitrobenzenediazonium(1+); Tetrafluoroborate(1-), *in* D-00938
- 3-Hydroxy-4-(1*H*-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, H-00546

β -Diones (acetylacetonate derivatives)

- 5-[(1-Acetyl-2-oxopropyl)azo]-2,3-dihydro-1,4-phthalazinedione, A-00027
- Azonal A1, A-00474
- 4-Benzoyl-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00128
- 2-Benzoyl-4-nitro-1*H*-indene-1,3(2*H*)-dione, B-00139
- Curcumin, C-00323
- ▶ 1,3-Cyclohexanedione, C-00338
- 1,1,1,2,2,6,6,7,7-Decafluoro-3,5-heptanedione, D-00003
- 3,5-Diacetyl-4-(2-chlorophenyl)-2,6-heptanedione, D-00034
- 4-[[4-(Dimethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, D-00808
- 5,5-Dimethyl-1,3-cyclohexanedione, D-00847
- 5,5-Dimethyl-2,4-hexanedione, D-00863

- 1,3-Di-2-selenophenyl-1,3-propanedione, D-01106
 1,1,1,2,2,6,6,7,7,8,8-Dodecafluoro-3,5-octanedione, D-01136
 1-(2-Furanyl)-3-(2-selenophenyl)-1,3-propanedione, F-00062
 (6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)silver, H-00005
 6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedione, H-00006
 Hexafluoroacetylacetone, H-00030
 1,1,1,5,5,6,6,6-Octafluoro-2,4-hexanedione, O-00003
 1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione, P-00017
 ▶ 2,4-Pentanedione, P-00030
 Selenoylacetone, S-00010
 2,2,6,6-Tetramethyl-3,5-heptanedione, T-00095
 3-(2-Thiazolylazo)-2,4-pentanedione, T-00144
 1-(2-Thienyl)-1,3-butanedione, T-00150
 2-Thio-2,4-pentanedione, T-00165
 1,1,1,-Trifluoro-5,5-dimethyl-2,4-hexanedione, T-00244
 4,4,4-Trifluoro-1,2-furanyl-1,3-butanedione, T-00248
 1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255
 1,1,1-Trifluoro-2,4-pentanedione, T-00257
 4,4,4-Trifluoro-1-phenyl-1,3-butanedione, T-00260
 1,1,1-Trifluoro-4-thioxo-2-pentanone, T-00265
 Tris(1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato-*O,O'*)europium(III), T-00385
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)europium(III), T-00394
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)lanthanum(III), T-00398
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)terbium(III), T-00401
 Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)yttrium(III), T-00403
 ▶ Tris(2,4-pentanedionato-*O,O'*)chromium(III), T-00410
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)dysprosium(III), T-00415
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)europium(III), T-00416
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)holmium(III), T-00418
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)praseodymium(III), T-00420
 Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)ytterbium(III), T-00421
 Tris(3-trifluoroacetyl-*d*-camphorato)europium(III), T-00423
 Tris(3-trifluoroacetyl-*d*-camphorato)praseodymium(III), T-00424
 5,7-Undecanedione, U-00001
- Bis(2-hydroxyethyl)carbamidithioic acid; Zn salt (2:1), in B-00373
 Bis(4-sulfobenzyl)dithiocarbamic acid; Tri-Na salt, in B-00454
 Butyldithiocarbamic acid, B-00631
 2-Carboxy-1-pyrrolidinedicarbodithioic acid; (*S*)-form, in C-00044
 ▶ Contramine, in D-00344
 Cyclohexylbenzylthiocarbamate(1-); Triethylammonium salt, in C-00351
 Cyclohexyl(phenylmethyl)carbamidithioic acid; Et₃N salt, in C-00357
 Dibenzylthiocarbamic acid, in D-01124
N-Dibutylthiocarbamic acid, D-00232
 Diethylammonium diethylthiocarbamate, in D-00344
 4,5-Dihydro-3-phenyl-1*H*-pyrazole-1-carbodithioic acid, D-00468
 4,5-Dihydro-1*H*-pyrazole-1-carbodithioic acid, D-00479
N-(Dithiocarboxy)sarcosine, D-01126
 ▶ 1,1'-(Dithiodicarbonyl)bis(2-piperidine), D-01130
 1,2-Ethanediybis[phenylcarbamidithioic acid]; Di-NH₄ salt, in E-00033
 Ethylenebisdithiocarbamic acid; Di-NH₄ salt, in E-00072
 (2-Furanyl)-2,3-dihydro-4-phenyl-1*H*-pyrazole-1-carbonodithioic acid, F-00051
 Glycinedithiocarbamic acid, G-00018
 Hexahydro-1*H*-azepine-1-carbodithioic acid; K salt, in H-00035
 [2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]carbamidithioic acid, H-00138
N-Methylpiperazinedithiocarbamic acid, in P-00238
 ▶ 4-Morpholinecarbodithioic acid, M-00345
 4-Morpholinecarbodithioic acid; Compd. with morpholine, in M-00345
 1-Naphthalenecarbodithioic acid; Me₂N salt, in N-00002
 3-Phenyl-5-(2-furyl)-1-pyrazolinedithiocarbamic acid; Na salt, in P-00131
 (Phenylsulfonyl)carbonimidodithioic acid; Di-K salt, in P-00195
 ▶ 4-Phenylthiosemicarbazide, P-00200
 1,4-Piperazinedicarbodithioic acid, P-00239
 1-Piperidinedicarbodithioic acid, P-00242
 Silver diethylthiocarbamate, in D-00344
 Sodium diethylthiocarbamate, in D-00344

Dithiols

- Acetyl dithiol, in M-00129
 Benzoyl dithiol, in M-00129
 1,4-Dihydro-6-nitro-2,3-quinoxalinedithione, D-00461
 2,6-Dimercapto-3,5-dimethyl-4*H*-thiopyran-4-one, D-00754
 2,6-Dimercapto-4-oxo-4*H*-thiopyran-3-carboxylic acid, D-00759
 4,5-Dimethyl-1,2-benzenedithiol, D-00832
 3-Hexyl-2,6-dimercapto-4*H*-thiopyran-4-one, H-00075
 ▶ 4-Methyl-1,2-benzenedithiol, M-00129

Dithione derivatives

- 3,3'-Bis(trifluoromethyl)dithione, B-00463
 4-Bromo-2-methylphenyldiazene-carbothioic acid 2-(4-bromo-2-methylphenyl)hydrazide, B-00534
 Di-4-biphenylthiocarbazono, D-00175
o,o'-Dibromo-*p,p'*-dimethyldithione, D-00184
 2,2'-Dibromodithione, D-00186
 4,4'-Dibromodithione, D-00187
 4,4'-Dibutylthione, D-00233
 3,3'-Dichloro-2,2'-dimethyldithione, D-00264
 4,4'-Dichloro-2,2'-dimethyldithione, D-00265
 5,5'-Dichloro-2,2'-dimethyldithione, D-00266

- 2,2'-Dichlorodithione, D-00270
 4,4'-Dichlorodithione, D-00271
 2,2'-Difluorodithione, D-00360
 4,4'-Difluorodithione, D-00361
 4,4'-Diiododithione, D-00743
 4,4'-Dimethoxydithione, D-00775
 2,2'-Dimethyldithione, D-00856
 3,3'-Dimethyldithione, D-00857
 4,4'-Dimethyldithione, D-00858
 Dinaphthyl, D-00931
 1,5-Di-(β -naphthyl)thiocarbazono, D-00933
 2,2'-Diphenyldithione, D-01009
 1,5-Diphenyl-3-(2-propenylthio)formazan, D-01043
 4,4'-Disulfodithione; Di-Na salt, in D-01109
 Selenazone, S-00005
 2,2',3,3'-Tetrachlorodithione, T-00029
 2,2',4,4'-Tetrachlorodithione, T-00030
 2,2',5,5'-Tetrachlorodithione, T-00031
 2,2',6,6'-Tetrachlorodithione, T-00032
 3,3',4,4'-Tetrachlorodithione, T-00033
 3,3',5,5'-Tetrachlorodithione, T-00034

EDTA-type compounds (N—CH₂COOH)

- N*-Acetamidoinodiacetic acid, in N-00074
 3-Amino-4-hydroxy-3'-nitroazobenzene-*N,N*-diacetic acid, A-00206
 Aminomethylazo III, A-00235
 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)-6-methylphenol *N,N*-diacetic acid, A-00239
 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)phenol-*N,N*-diacetic acid, A-00240
 8-(Aminomethyl)-6,7-dihydroxy-4-methylcoumarin-*N,N*-diacetic acid, A-00241
 3-(Aminomethyl)furan-*N,N*-diacetic acid, A-00242
 2-(Aminomethyl)-6-hydroxy-9*H*-xanthen-9-one-*N,N*-diacetic acid, A-00245
 3-(Aminomethyl)-1,2,5,8-tetrahydroxyanthraquinone-*N,N*-diacetic acid, A-00256
 3-(Aminomethyl)-1,2,5-trihydroxyanthraquinone-*N,N*-diacetic acid, A-00259
 3-(Aminomethyl)-1,2,7-trihydroxyanthraquinone-*N,N*-diacetic acid, A-00260
 5-Amino-2,4,6-pyrimidinetrione-*N*⁵,*N*⁵-diacetic acid, A-00338
 2-(2-Aminostyryl)-6-methoxy-8-aminoquinoline-*N,N,N',N'*-tetraacetic acid; (*E*)-form, in A-00347
N-[[7-(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]methyl]-*N*-(carboxymethyl)glycine, A-00430
N-Benzylethylenediaminetriacetic acid, in E-00079
 1,2-Bis(2-amino-5-bromophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00243
 3,3'-Bis(aminomethyl)-4,4'-dihydroxystilbene-*N,N,N',N'*-tetraacetic acid; (*E*)-form, in B-00246
 1,5-Bis(aminomethyl)-2,6-naphthalenediol-*N,N,N',N'*-tetraacetic acid, B-00247
 1,2-Bis(2-aminophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00248
 2-[Bis(carboxymethyl)amino]benzoic acid, B-00276
 4-[[Bis(carboxymethyl)amino]methyl]-3-hydroxy-2-naphthoic acid, B-00277
 3,12-Bis(carboxymethyl)-6,9-dioxo-3,12-diazatetradecanedioic acid; Na salt, in B-00278
N,N'-Bis(2-hydroxybenzyl)ethylenediamine-*N,N'*-diacetic acid; B,2HCl, in B-00360
 ▶ [Bis(2-hydroxyethyl)amino]acetic acid, B-00367
 Bromophthalexon S, B-00559
N-Butylethylenediaminetriacetic acid, in E-00079

Dithiocarbamates

- 3-Amino-4,5-dihydro-5-oxo-1-phenyl-1*H*-pyrazole-4-carbodithioic acid, A-00155
 2-Aminophenylcarbamidithioic acid; NH₄ salt, in A-00320
 4-Aminophenylcarbamidithioic acid; NH₄ salt, in A-00321
 Ammonium pyrrolidine dithiocarbamate, in P-00441
 Bis(2-aminoethyl)dithiocarbamic acid, B-00245
 Bis(carboxymethyl)dithiocarbamic acid, B-00279
 Bis(2-hydroxyethyl)carbamidithioic acid; K salt, in B-00373

- Calcein, C-00010
Calcein blue, C-00011
2-Carboxy-5-hydroxy-4-oxo-1(4*H*)-pyridineacetic acid, C-00031
o-Cresolphthalaxone, C-00308
N-(Cyclohexyl)ethylenediaminetriacetic acid, *in* E-00079
4,4'-Diamino-3,3'-biphenyldicarboxylic acid *N,N,N',N'*-tetraacetic acid; Hexa-Na salt, *in* D-00054
2,2'-Diaminobiphenyl-4,4'-dicarboxylic acid-*N,N,N',N'*-tetraacetic acid; Hexa-Na salt, *in* D-00055
2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00059
1,2-Diaminocyclohexane-*N,N,N',N'*-tetraacetic acid; (1*RS,2RS*)-form, *in* D-00065
4,4'-Diamino-3,3'-diethoxybiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00070
- ▶ 1,2-Diaminopropane-*N,N,N',N'*-tetraacetic acid, D-00115
▶ 1,3-Diamino-2-propanol-*N,N,N',N'*-tetraacetic acid, D-00116
4,4'-Diamino-2,2'-stilbenedisulfonic acid *N,N,N',N'*-tetraacetic acid, D-00126
4,4'-Diaminostilbene-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00127
4,4'-[(4,6-Diamino-1,3,5-triazin-2-yl)amino]-2,2'-stilbenedisulfonic acid-*N,N',N'',N'''*-tetraacetic acid; Hexa-Na salt, *in* D-00129
4,4-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00245
4,5-Dihydroxy-3-[4-(aminomethyl)phenylazo]-2,7-naphthalenedisulfonic acid *N,N*-diacetic acid, D-00509
3,3'-Dihydroxybenzidine-*N,N,N',N'*-tetraacetic acid, D-00528
4,5-Dihydroxy-3-[*N,N*-bis(carboxymethyl)aminomethyl]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00547
4,4'-Dihydroxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00572
4,4'-Dimethoxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, *in* D-00572
4,4'-Dimethyl-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00849
N,N-1,2-Ethanediylobisalanine, E-00029
4,4'-[1,2-Ethenediylobis[2-(aminomethyl)phenyl]-*N,N,N',N'*-tetraacetic acid; (*E*)-form, *in* E-00042
- ▶ Ethylenediaminetetraacetic acid, E-00078
Fura 2-AM, *in* F-00039
Fura 2; Penta-K salt, *in* F-00039
Glycinecresol red, G-00017
7-Hydroxy-8-(aminomethyl)coumarin-*N*-acetic acid, H-00096
7-Hydroxy-8-(aminomethyl)coumarin-*N,N*-diacetic acid, H-00097
- ▶ *N*-(2-Hydroxyethyl)ethylenediaminetriacetic acid, H-00177
N-[[1-Hydroxy-4-(4-nitrophenylazo)-2-naphthyl]methyl]glycine, H-00397
6-Hydroxy-1,3,5-triazine-2,4-diyldinitrilotetraacetic acid, H-00555
- ▶ Indoferron, I-00032
Isocein, I-00058
Mag-fura-2, M-00003
Mag-fura-2; Tetrakis(acetoxymethyl)ester, *in* M-00003
Methylthymol blue, M-00327
Naphthol violet, N-00030
- ▶ Nitrioltriacetic acid, N-00074
N-Octylethylenediaminetriacetic acid, *in* E-00079
- ▶ Pentetic acid, P-00039
1,2-Phenylenediamine-*N,N,N',N'*-tetraacetic acid, P-00126
Phthalaxone S, P-00221
Pyrocatecholsulfonephthalein complexan, P-00432
Semimethyl thymol blue, S-00011
Semimethylxylene blue, S-00012
Semiphthalaxone S; Di-Na salt, *in* S-00013
- Semixylenol orange, S-00014
Stilbexon, S-00032
Tetraethylenepentamineheptaacetic acid; Tetra-Na salt, *in* T-00045
Thymolphthalaxone, T-00183
2,4,6-Triamino-1,3,5-triazine-*N,N,N',N',N'',N'''*-hexaacetic acid, T-00195
Triethylenetetramine-*N,N,N',N'',N''',N''''*-hexaacetic acid, T-00233
[Tris[(hydroxymethyl)methyl]amino]acetic acid, T-00407
[Vinylenebis[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triyl]dinitrilo]octaacetic acid; Hexa-Na salt, *in* V-00007
N,N',N'',N'''-[Vinylenebis[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triyl]] tetrasarcosine; Di-Na salt, *in* V-00008
Xylenol orange, X-00006

Formazans

- 3-Acetyl-1,5-bis[bis(3,5,6-trichloro-2-hydroxyphenyl)]formazan, A-00013
3-Acetyl-1,5-bis(1,2-dihydro-1,5-dimethyl-3-oxo-2-phenyl-4-pyrazolyl)formazan, A-00014
1-(1*H*-Benzimidazol-4-yl)-3-methyl-5-phenylformazan, B-00046
5-(1*H*-Benzimidazol-5-yl)-3-phenyl-1-[1-(phenylmethyl)-1*H*-benzimidazol-2-yl]formazan, B-00049
5-(2-Benzothiazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00100
5-(2-Benzothiazolyl)-1,3-diphenylformazan, B-00101
5-(2-Benzothiazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00103
5-Benzothiazolyl-3-(2-methoxyphenyl)-1-phenylformazan, *in* B-00103
5-(2-Benzothiazolyl)-3-methyl-1-phenylformazan, B-00105
5-(2-Benzothiazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00106
1-(2-Benzothiazolyl)-3-phenyl-5-(4-sulfophenyl)formazan; Na salt, *in* B-00108
5-(2-Benzoxazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00114
5-(2-Benzoxazolyl)-1,3-diphenylformazan, B-00115
5-(2-Benzoxazolyl)-3-methyl-1-phenylformazan, B-00116
5-(2-Benzoxazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00117
5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00166
5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1,3-diphenylformazan, B-00167
5-(1-Benzyl-2-benzimidazolyl)-1-(2-hydroxyphenyl)-3-phenylformazan, B-00168
5-(1-Benzyl-2-benzimidazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00169
5-(1-Benzyl-2-benzimidazolyl)-3-(2-methoxyphenyl)-1-phenylformazan, *in* B-00169
p-[1-(1-Benzyl-2-benzimidazolyl)-3-methyl-5-formazano]benzenesulfonic acid, B-00170
1-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-5-(4-nitrophenyl)formazan, B-00171
5-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-1-(4-nitrophenyl)formazan, B-00172
5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-(4-nitrophenyl)-3-phenylformazan, B-00173
1,5-Bis(7-benzyl-2-benzimidazolyl)-3-methylformazan, B-00258
1,5-Bis(2-bromophenyl)-*N*-phenyl-3-formazancarboxamide, B-00270
1,5-Bis[2-(carboxymethoxy)-3,5-dimethylphenyl]-3-phenylformazan, B-00274
1,5-Bis[2-(carboxymethoxy)phenyl]-3-phenylformazan, B-00275
1,5-Bis(5-chloro-2-hydroxyphenyl)-3-cyanoformazan, B-00283
1,5-Bis(2-chlorophenyl)-3-formazancarboxamide, B-00286
1,5-Bis(2-chlorophenyl)-3-nitroformazan, B-00288
1,5-Bis(2-chlorophenyl)-*N*-phenyl-3-formazancarboxamide, *in* B-00286
1,5-Bis(2-fluorophenyl)-*N*-phenyl-3-formazancarboxamide, B-00358
1,5-Bis(2-hydroxy-4-nitrophenyl)-3-acetylformazan, B-00387
1,5-Bis(2-hydroxyphenyl)-3-cyanoformazan, B-00388
1,5-Bis(2-hydroxy-3-sulfo-5-chlorophenyl)-3-cyanoformazan, B-00394
1,5-Bis(2-iodophenyl)-*N*-phenyl-3-formazancarboxamide, B-00396
1,5-Bis(2-methylphenyl)-*N*-phenyl-3-formazancarboxamide, B-00409
1-(2-Carboxymethoxy-4-nitrophenyl)-3-phenyl-5-(carboxymethoxyphenyl)formazan, C-00033
3-(Carboxymethylthio)-1,5-diphenylformazan, C-00034
1-(2-Carboxyphenyl)-5-[1-(2-methoxy-5-sulfophenyl)-3-phenyl]formazan, C-00042
3-Cyano-1,5-bis(2-hydroxy-5-sulfophenyl)formazan; Di-Na salt, *in* C-00325
1,5-Diantipyrinyl-3-formazancarboxamide, D-00134
1,5-Diphenyl-3-(2-propenylthio)formazan, D-01043
1-(1,5-Di-2-thiazolylformazanylethyl)ethanone, D-01112
N-(5-Ethyl-1,3,4-thiadiazol-2-yl)-4-[3-methyl-5-(1-methyl-1*H*-benzimidazol-2-yl)-1-formazanyl]benzenesulfonamide, E-00117
3-(2-Hydroxyphenyl)-1-phenyl-5-(1-phenyl-2-benzimidazolyl)formazan, H-00495
1-(2-Hydroxy-5-sulfophenyl)-3-phenyl-5-(2-carboxyphenyl)formazan, H-00544
Macrocyclic formazan I, M-00001
Macrocyclic formazan II, M-00002
4-Methoxybenzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, M-00083
3-(2-Methoxyphenyl)-1,5-diphenylformazan, M-00107
1-(4-Methoxyphenyl)-3-phenyl-5-(1-phthalazinylo)formazan, M-00116
1-(4-Methylphenyl)-3-phenyl-5-(1-phthalazinylo)formazan, M-00238
4-Nitrobenzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, N-00095
1-(4-Nitrophenyl)-3-phenyl-5-(1-phthalazinylo)formazan, N-00143
1-(5-Nitro-2-pyridinyl)-3,5-diphenylformazan, N-00149
3,3'-[3-((Phenylamino)carbonyl)-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid]; Di-K salt, *in* P-00080
3,3'-[3-((Phenylamino)carbonyl)-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid], P-00080
3-Phenyl-1-(1-phthalazinylo)-5-(*p*-carboxyphenyl)formazan, P-00165
1-(1-Phthalazinylo)-3,5-diphenylformazan, P-00219
2(1*H*)-Pyridinone [[(3-methoxyphenyl)azo]phenylmethylene]hydrazone, P-00359
2(1*H*)-Pyridinone [[(4-methoxyphenyl)azo]phenylmethylene]hydrazone, P-00360
2(1*H*)-Pyridinone [[(4-methylphenyl)azo]phenylmethylene]hydrazone, P-00361
2(1*H*)-Pyridinone [[(3-nitrophenyl)azo]phenylmethylene]hydrazone, P-00362
2(1*H*)-Pyridinone [[(4-nitrophenyl)azo]phenylmethylene]hydrazone, P-00363
2(1*H*)-Pyridinone [phenyl(phenylazo)methylene]hydrazone, P-00364

- 1-(2-Pyridinyl)-3,5-diphenylformazan, P-00387
 1-(2-Pyridyl)-5-(4-sulfophenyl)-3-phenylformazan, P-00424

Hydrazides

- ▷ Acetic acid 2-phenylhydrazide, *in* P-00134
 3-Acetyl-2-methylindole *p*-tolylthiosemicarbazone, A-00022
 2-Aminobenzoic acid 2-benzoylhydrazide, A-00106
 2-Aminobenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, A-00107
 2-Aminobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, A-00108
 4-Aminobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00110
 2-Aminobenzoic acid (1-methylethylidene)hydrazide, A-00109
 ▷ Aminoacetic acid hydrazide, A-00291
 Aminoacetic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00292
 9-Anthracenecarbonyl chloride, *in* A-00378
 1-Anthracenecarboxylic acid; Hydrazide, *in* A-00376
 2-Anthracenecarboxylic acid; Hydrazide, *in* A-00377
 1-[α -Benzamido-*p*-(dimethylamino)cinnamoyl]-2-isonicotinoylhydrazide, B-00011
 Benzenesulfonic acid; 2-Phenylhydrazide, *in* B-00026
 Benzoic acid [1-[2-(4-bromo-2-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00060
 Benzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, B-00061
 Benzoic acid [1-[2-(2,4-dinitrophenyl)hydrazino]ethylidene]hydrazide, B-00062
 Benzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00064
 Benzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00065
 Benzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00066
 Benzoylhydrazine, *in* B-00059
 2-Benzoyl-4-(2-nitrophenyl)acetohydrazine, B-00141
 [2,2'-Bipyridine]-6-carboximidic acid hydrazide, B-00223
 Bis(di-2-pyridinylmethylene)carbonothioic dihydrazide, B-00344
 1,3-Bis[di(2-pyridyl)methyleneamino]urea, B-00345
 Bis[(2-hydroxyphenyl)methylene]carbonic dihydrazide, B-00390
 Bis[(2-hydroxyphenyl)methylene]carbonimidic dihydrazide, B-00391
 1,5-Bis(6-methyl-4-pyrimidyl)carbazone, B-00425
 Bis(2-pyridylmethylene)carbonic acid dihydrazide, B-00442
 Bis(2-pyridylmethylene)carbonimidic acid dihydrazide, B-00443
 Bis(2-pyridylmethylene)carbonothioic acid dihydrazide, B-00444
 4-Bromobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00489
 Butanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, B-00605
 4-Chlorobenzoic acid [(2-bromo-6-hydroxyphenyl)methylene]hydrazide, C-00068
 2-Chlorobenzoic acid; Hydrazide, *in* C-00066
 Dabsyl hydrazine, *in* M-00210
 2,6-Diacetylpyridine bis(benzoylhydrazone), D-00036
 2,6-Diacetylpyridine bis(2-furoylhydrazone), D-00037
 2,6-Diacetylpyridine bis(2-hydroxybenzoylhydrazone), D-00038
 2,6-Diacetylpyridine bis(2-pyridylhydrazone), D-00039
 6-(Diethylamino)-2-naphthalenesulfonic acid hydrazide, D-00325
 7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-carboxylic acid hydrazide, D-00326
 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinepropanoic acid; Hydrazide, *in* D-00380
 4-(4,5-Dihydro-3-phenyl-1*H*-pyrazol-1-yl)benzenesulfonic acid hydrazide, D-00469
 2-(Diisopropylamino)benzoic acid hydrazide, D-00747
 2-(Dimethylamino)benzoic acid hydrazide, D-00780
 ▷ 2,2'-Diphenylcarbonothioic dihydrazide, D-01007
 Diphenylglyoxal bis(2-hydroxybenzoylhydrazone), D-01017
 Di-2-pyridinylethanedione bis(2-hydroxybenzoylhydrazone), D-01065
 Ethanedioic acid bis[(2,4-dihydroxyphenyl)methylene]hydrazide], E-00025
 2-Furancarbothioic acid (di-2-pyridinyl)methylenehydrazide, F-00041
 2-Furanthiocarboxylhydrazide, *in* F-00040
 ▷ 2-Furoylhydrazine, *in* F-00050
 ▷ 4-Hydrazinobenzenesulfonic acid, H-00080
 ▷ 1-Hydrazinophthalazine, H-00086
 Hydrazo II, H-00087
 2-Hydroxybenzoic acid 2-acetylhydrazide, H-00114
 2-Hydroxybenzoic acid [(2,3-dihydroxyphenyl)methylene]hydrazide, H-00115
 2-Hydroxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, H-00116
 4-Hydroxybenzoic acid (1,2-dimethyl-1,2-ethanediylidene)dihydrazide, H-00117
 4-Hydroxybenzoic acid; Hydrazide, *in* H-00113
 3-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00118
 4-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00119
 2-Hydroxybenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, H-00120
 2-Hydroxybenzoic acid [2-(2-pyridinyl)ethylidene]hydrazide, H-00121
 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbonic acid dihydrazide, H-00218
 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-(2-hydroxyphenyl)methylene]carbonothioic acid dihydrazide, H-00219
 3-Hydroxy-2-naphthalenecarboxylic acid [[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazide, H-00341
 α -Hydroxy- α -phenylbenzeneacetic acid 2-[(4-methylphenyl)sulfonyl]hydrazide, H-00464
 [(2-Hydroxyphenyl)methylene]carbonothioic acid (di-2-pyridinylmethylene) dihydrazide, H-00481
 [(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonic dihydrazide, H-00482
 [(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00483
o-Hydroxythiobenzhydrazide, *in* H-00110
 5*H*-Imidazole-4-carboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, I-00002
 ▷ Isoniazid, I-00069
 3-Isoquinolinecarboximidic acid hydrazide, I-00086
 4-Methoxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, M-00080
 3-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00081
 4-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00082
 1-(2-Methylindol-3-ylacetyl)-4-(*p*-methoxyphenyl)thiosemicarbazide, M-00195
 6-Methyl-2-pyridinecarboximidic acid hydrazide, M-00270
 2-Methyl-4-pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, M-00272
 1-Naphthalenethiocarboxylhydrazide, N-00016
p-Nitrobenzhydrazide, *in* N-00093
 4-Nitrobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, N-00094
 1-(4-Nitro-2-hydroxybenzenazo)-2-(β -acetylhydrazino)naphthalene, N-00111
 1-(4-Nitrophenyl)-5-phenylcarbazone, N-00141
 ▷ Oxalic acid; Dihydrazide, *in* O-00048
 1,10-Phenanthroline-2-carboximidic acid hydrazide, P-00053
N-Phenyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, P-00174
N-Phenyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00175
 Propanedioic acid; Dihydrazide, *in* P-00261
 Propanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, P-00264
 Pyrazinecarboximidic acid hydrazide, P-00284
 1-Pyrenebutanoic acid hydrazide, P-00305
 3-Pyridazylhydrazidine, P-00314
 3-Pyridinecarboxaldehyde; Hydrazide, *in* P-00319
 2-Pyridinecarboxylic acid; Hydrazide, *in* P-00342
 2-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00348
 3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00349
 4-Pyridinecarboxylic acid [(4-hydroxyphenyl)methylene]hydrazide, P-00350
 3-Pyridinecarboxylic acid (2-pyridinylmethylene)hydrazide, P-00351
N-2-Pyridinylbenzenecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00384
N-2-Pyridinyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, P-00400
N-2-Pyridinyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00401
 2-Pyrimidinecarboximidic acid hydrazide, P-00426
 4-Pyrimidinecarboximidic acid hydrazide, P-00427
 2-Pyrroliothiocarboxylhydrazide, *in* P-00437
 ▷ Salicyloyl hydrazide, *in* H-00112
 Salinazid, S-00003
 Thiobenzoic acid; Hydrazide, *in* T-00155
 2-Thiophenecarbothioic acid; Hydrazide, *in* T-00167

Hydrazones

- Acetone; 2,4-Dinitrophenylhydrazone, *in* A-00007
 2-Acetylpyrazine pyrazinylhydrazone, A-00034
 2-Acetylpyrazine 2-pyrimidinylhydrazone, A-00035
 2-Acetylpyrazine 2-quinolylhydrazone, A-00036
 2-Acetylpyrazine 3-quinolylhydrazone, A-00037

- 2-Acetylpyrazine 8-quinolyldiazide, A-00038
- 2-Acetylpyrazine; 2-Thiazolyldiazide, *in* A-00033
- 2-Acetylpyridine 2-benzothiazolyldiazide, A-00040
- 2-Acetylpyridine; Hydrazone, *in* A-00039
- 2-Acetylpyridine 2-pyrazinyldiazide, A-00043
- 2-Acetylpyridine 2-pyrimidinyldiazide, A-00044
- 2-Acetylpyridine 2-quinolyldiazide, A-00045
- 2-Acetylpyridine 8-quinolyldiazide, A-00046
- 2-Acetylpyridine 2-thiazolyldiazide, A-00047
- 4-Amino-5-thioxo-1,2,4-triazolidin-3-one di-(2-pyridinylmethylene)diazide, A-00363
- Benzaldehyde (4-nitrophenyl)diazide, B-00005
- Benzaldehyde 2-pyridinyldiazide, B-00006
- Benzaldehyde 8-quinolinyldiazide, B-00007
- Benzenecarbothioic acid 2-hydroxy(di-2-pyridinylmethylene)diazide, B-00014
- Benzenecarboximidic acid *N*-2-pyridinyl-2-pyrazinyldiazide, B-00015
- 1*H*-Benzimidazole-2-carboxaldehyde 2-quinolinyldiazide, B-00040
- 3-[1*H*-Benzimidazol-2-yl]-(5-nitro-2-pyridinyl)diazide, *in* B-00047
- Benzoic acid 2-hydroxy(di-2-pyridinylmethylene)diazide, B-00063
- 2-Benzothiazolecarboxaldehyde 2-benzothiazolyldiazide, B-00086
- 2-Benzothiazolecarboxaldehyde 1(2*H*)-phthalazinyldiazide, B-00087
- 2-Benzothiazolecarboxaldehyde 2-quinolyldiazide, B-00088
- 3-[(2-Benzothiazolyldiazido)-2-pyridinylmethyl]benzenesulfonic acid, B-00102
- 3-[2-Benzothiazolyl]-(5-nitro-2-pyridinyl)diazide, *in* B-00107
- Benzoylpyrazine; 2-Pyrimidinyldiazide, *in* B-00148
- 2-Benzoylpyrazine 2-quinolyldiazide, B-00149
- 2-Benzoylpyrazine 2-thiazolyldiazide, B-00150
- 2-Benzoylpyridine azine, B-00152
- 2-Benzoylpyridine; Hydrazone, *in* B-00151
- 2-Benzoylpyridine 2-pyridylidiazide, B-00154
- 2-Benzoylpyridine 2-pyrimidinyldiazide, B-00155
- 2-Benzoylpyridine 3-quinolyldiazide, B-00156
- 2-Benzoylpyridine 8-quinolyldiazide, B-00157
- 2-Benzoylpyridine 2-thiazolyldiazide, B-00158
- Bis[(2,3-dihydroxyphenyl)methylene] carbonothioic dihydrazide, B-00308
- Bis(di-2-pyridinylmethylene)carbonimidic dihydrazide, B-00343
- Bis(6-methyl-2-pyridyl)ethanedione; Dihydrazide, *in* B-00415
- 5-Bromo-2-thiophenecarboxaldehyde 2-benzothiazolyldiazide, B-00580
- 2,3-Butanedione; Bis(2-pyridylidiazide), *in* B-00587
- 2,3-Butanedione bis[(thiobenzoyl)hydrazide], B-00598
- 2,3-Butanedione dihydrazide, *in* B-00587
- 2,3-Butanedione mono(2-pyridinylidiazide), B-00600
- 2,3-Butanedione; Monoxime, 2-pyridylidiazide, *in* B-00587
- 2,3-Butanedione; Thiosemicarbazone, (2-pyridyl)hydrazide, *in* B-00587
- 3-Chlorobenzoic acid (1*H*-pyrrol-2-ylmethylene)diazide, C-00069
- 6-Chloro-3-hydrazinopyridazine, *in* C-00251
- 3-[[[(5-Chloro-2-pyridinyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, C-00257
- 5-Chloro-2-thiophenecarboxaldehyde 2-benzothiazolyldiazide, C-00264
- ▶ Cuprizon, C-00321
- 1,2-Cyclohexanedione bisbenzoyldiazide, C-00340
- 1,2-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazide, C-00341
- 1,3-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazide, C-00342
- 1,2-Cyclohexanedione bis(2-pyridylidiazide), C-00343
- 2',4'-Dihydroxyacetophenone; Phenylhydrazide, *in* D-00507
- 2,4-Dihydroxybenzaldehyde; Formylhydrazide, *in* D-00517
- 2-[(3,4-Dihydroxyphenyl)methylene]hydrazinecarboximidamide, D-00712
- Diphenadione; 1-Hydrazide, *in* D-00997
- Diphenylethanedione bis(2-pyridinylidiazide), D-01012
- Diphenylethanedione mono(pyrazinylidiazide), D-01013
- Diphenylethanedione mono(2-quinolinyldiazide), D-01014
- Diphenylethanedione mono(8-quinolinyldiazide), D-01015
- Di-2-pyridinylethanedione; Bis(pyrazinylidiazide), *in* D-01063
- Di-2-pyridinylethanedione bis(2-pyridinylidiazide), D-01066
- Di-2-pyridinylethanedione bis(2-quinolinyldiazide), D-01067
- Di-2-pyridinylethanedione; Dihydrazide, *in* D-01063
- Di-2-pyridinylethanedione; Mono(pyrazinylidiazide), *in* D-01063
- Di-2-pyridinylethanedione mono(2-pyridinylidiazide), D-01068
- Di-2-pyridinylethanedione mono(2-pyrimidinylidiazide), D-01069
- Di-2-pyridinylethanedione; Mono(2-thiazolyldiazide), *in* D-01063
- Di-2-pyridinylethanedione; 2-Quinolyldiazide, *in* D-01063
- 1,2-Di-2-pyridinylethano 2-pyrimidinylidiazide, D-01070
- Di-2-pyridinylmethano 2-benzothiazolyldiazide, D-01072
- Di-2-pyridinylmethano benzoyldiazide, D-01073
- Di-2-pyridinylmethano 2-chlorobenzoyldiazide, D-01074
- Di-2-pyridinylmethano 3-chlorobenzoyldiazide, D-01075
- Di-2-pyridinylmethano di-2-pyridinylmethylenehydrazide, D-01076
- Di-2-pyridinylmethano 2-furoylidiazide, D-01077
- Di-2-pyridinylmethano guanylhydrazide, D-01078
- Di-2-pyridinylmethano; Hydrazone, *in* D-01071
- Di-2-pyridinylmethano 5-nitro-2-pyridylidiazide, D-01079
- Di-2-pyridinylmethano 2-pyridinylidiazide, D-01080
- Di-2-pyridinylmethano 2-pyrimidinylidiazide, D-01081
- Di-2-pyridinylmethano 2-quinolinyldiazide, D-01082
- Di-2-pyridinylmethano 2-thiazolyldiazide, D-01083
- Di-2-quinolinyldiazide 2-pyridinylidiazide, D-01102
- Di-2-quinolinyldiazide 2-quinolinyldiazide, D-01103
- 9*H*-Fluorene-2-carboxaldehyde; 2-Pyridylidiazide, *in* F-00012
- 9*H*-Fluorene-9-one; Hydrazone, *in* F-00015
- 2-Furancarboxaldehyde 2-benzothiazolyldiazide, F-00044
- 2-Furancarboxaldehyde 3-bromobenzoyldiazide, F-00045
- 2-Furancarboxaldehyde 4-bromobenzoyldiazide, F-00046
- 2-Furancarboxaldehyde 1-phthalazinyldiazide, F-00048
- 2-Furancarboxaldehyde 2-pyridinylidiazide, F-00049
- Glyoxal bis(4-hydroxybenzoyldiazide), G-00028
- 2'-Hydroxyacetophenone; Hydrazone, *in* H-00089
- 2-Hydroxybenzaldehyde *N*-(4-aminobenzoyl)hydrazide, H-00103
- 2-Hydroxybenzaldehyde *N*-benzoyldiazide, H-00104
- 2-Hydroxybenzaldehyde guanylhydrazide, H-00105
- 2-Hydroxybenzaldehyde 6-methyl-2-nicotinoyldiazide, H-00106
- 2-Hydroxybenzaldehyde; Phenylhydrazide, *in* H-00101
- 2-Hydroxybenzaldehyde 1-phthalazinyldiazide, H-00108
- 2-Hydroxybenzaldehyde; Semicarbazone, *in* H-00101
- 2-Hydroxybenzoic acid [2-pyridinyl(3-sulfophenyl)methylene]diazide, H-00122
- 8-Hydroxy-2-quinolinecarboxaldehyde 8-quinolinyldiazide, H-00526
- Isatin hydrazide, *in* I-00056
- Isatin; 3-(4-Nitrophenylidiazide), *in* I-00056
- Isonitrosoacetophenone 2,4-dinitrophenylidiazide, *in* P-00132
- Isonitrosoacetophenone *p*-nitrophenylidiazide, *in* P-00132
- Isopropylidenediazide, *in* A-00007
- 3-Isoquinolinecarboxaldehyde 2-pyrimidinylidiazide, I-00081
- 3-Isoquinolinecarboxaldehyde 2-quinolinyldiazide, I-00082
- 3-Isoquinolinecarboxaldehyde 3-quinolinyldiazide, I-00083
- 3-Isoquinolinecarboxaldehyde 8-quinolinyldiazide, I-00084
- 3-Isoquinolinecarboxaldehyde 2-thiazolyldiazide, I-00085
- ▶ MBTH, *in* B-00090
- 2-[[[(4-Methoxy-2-nitrophenyl)hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* M-00096
- 5-Methyl-2-furancarboxaldehyde 1-phthalazinyldiazide, M-00180
- Methylglyoxal bis(4-hydroxybenzoyldiazide), M-00183
- 6-Methyl-2-pyridinecarboxaldehyde 2-pyridinylidiazide, M-00268
- 6-Methyl-2-pyridinecarboxaldehyde 2-quinolinyldiazide, M-00269
- 3-[[[(5-Methyl-2-pyridinyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, M-00287
- 5-Methyl-2-thiophenecarboxaldehyde 2-benzothiazolyldiazide, M-00326
- 2-Naphthalenecarboxaldehyde 2-benzothiazolyldiazide, N-00004
- Neocuprizon, N-00062
- ▶ Nepresol, *in* D-00370
- 4-*p*-Nitrobenzenecarboxaldehyde 1-naphthol, *in* N-00032
- 3-[[[(5-Nitro-2-pyridinyl)hydrazono]-3-isoquinolinyldiazide]benzenesulfonic acid, N-00150
- 3-[[[(5-Nitro-2-pyridinyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, N-00151
- 3-[[[(5-Nitro-2-pyridinyl)hydrazono]-2-thiazolyldiazide]benzenesulfonic acid, N-00152
- 2,3-Pentanedione bis[*p*-methoxy(thiobenzoyl)hydrazide], P-00031
- 2,3-Pentanedione; 3-Oxime, 4-nitrophenylidiazide, *in* P-00029
- 6-Phenanthridinecarboxaldehyde 2-benzothiazolyldiazide, P-00049
- 6-Phenanthridinecarboxaldehyde 2-pyridylidiazide, P-00050

- 6-Phenanthridinecarboxaldehyde 2-quinolinylhydrazone, P-00051
- 1-Phenyl-1,3-butanedione 3-[[6-phenyl-4-(phenylmethyl)-3-pyridazinyl]hydrazone], P-00108
- 1-Phenyl-1,2-ethanedione 2-(2-pyrazinyl)hydrazone, P-00128
- Phenylglyoxal; Mono(2-pyridyl)hydrazone, *in* P-00132
- Propanal (3-phenyl-2-quinoxalyl)hydrazone, P-00260
- 2(1*H*)-Pyrazinone [1,2-dipyrazinylethylidene]hydrazone, P-00287
- 2(1*H*)-Pyrazinone [1,2-di-2-pyridinylethylidene]hydrazone, P-00288
- 2(1*H*)-Pyrazinone (di-2-pyridinylmethylene)hydrazone, P-00289
- 2(1*H*)-Pyrazinone (phenylpyrazinylmethylene)hydrazone, P-00290
- 2(1*H*)-Pyrazinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, P-00291
- 2(1*H*)-Pyrazinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00292
- 2(1*H*)-Pyrazinone [1-(3-pyridazinyl)ethylidene]hydrazone, P-00293
- 2(1*H*)-Pyrazinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, P-00294
- 2(1*H*)-Pyrazinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, P-00295
- Pyrazinyl-2-pyridinylethanedione 2-(2-pyridinyl)hydrazone 1-oxime, P-00298
- 2-Pyrazinyl-1-(2-pyridinyl)ethanone 2-pyrimidinylhydrazone, P-00300
- 2-Pyrazinyl-1-(2-pyridinyl)ethanone; 2-Thiazolylhydrazone, *in* P-00299
- 2-Pyridinecarboxaldehyde 2-benzothiazolylhydrazone; (*Z*)-form, *in* P-00321
- 2-Pyridinecarboxaldehyde (5-chloro-2-pyridinyl)hydrazone, P-00322
- 2-Pyridinecarboxaldehyde 2-furoylhydrazone, P-00324
- 2-Pyridinecarboxaldehyde guanlylhydrazone, P-00325
- 2-Pyridinecarboxaldehyde (2-hydroxybenzoyl)hydrazone, P-00326
- 2-Pyridinecarboxaldehyde (1-mercapto-2-naphthalenyl)hydrazone, P-00327
- 2-Pyridinecarboxaldehyde (5-methyl-2-pyridinyl)hydrazone, P-00328
- 2-Pyridinecarboxaldehyde 4-nitrophenylhydrazone; (*E*)-form, *in* P-00329
- 2-Pyridinecarboxaldehyde (5-nitro-2-pyridinyl)hydrazone, P-00330
- 2-Pyridinecarboxaldehyde; Phenylhydrazone, *in* P-00318
- 4-Pyridinecarboxaldehyde; Phenylhydrazone, *in* P-00320
- 2-Pyridinecarboxaldehyde 1-phthalazinylhydrazone, P-00332
- 2-Pyridinecarboxaldehyde 2-pyrazinylhydrazone, P-00333
- 2-Pyridinecarboxaldehyde (2-pyridinylmethylene)hydrazone, P-00334
- 2-Pyridinecarboxaldehyde 2-pyridylhydrazone; (*E*)-form, *in* P-00335
- 2-Pyridinecarboxaldehyde 2-quinolinylhydrazone, P-00337
- 2-Pyridinecarboxaldehyde 3-quinolinylhydrazone, P-00338
- 2-Pyridinecarboxaldehyde 8-quinolinylhydrazone, P-00339
- 2-Pyridinecarboxaldehyde 2-thiazolylhydrazone, P-00340
- 4-Pyridinecarboxylic acid [[4-(diethylamino)phenyl]methylene]hydrazide, P-00344
- 4-Pyridinecarboxylic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, P-00345
- 4-Pyridinecarboxylic acid [[4-(dimethylamino)phenyl]methylene]hydrazide, P-00346
- 4-Pyridinecarboxylic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, P-00347
- 2(1*H*)-Pyridinone (1,2-dipyrazinylethylidene)hydrazone, P-00358
- 2(1*H*)-Pyridinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00365
- 2(1*H*)-Pyridinone (1-pyrazinylethylidene)hydrazone, P-00366
- 2(1*H*)-Pyridinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, P-00367
- 2(1*H*)-Pyridinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00368
- 2(1*H*)-Pyridinone [1-(3-pyridazinyl)ethylidene]hydrazone, P-00369
- 2(1*H*)-Pyridinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, P-00370
- 2(1*H*)-Pyridinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, P-00371
- 3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Benzoylhydrazone, *in* P-00386
- 3-(2-Pyridinylcarbonyl)benzenesulfonic acid; 2-Pyridylhydrazone, *in* P-00386
- N*-2-Pyridinyl-2-pyridinecarboximidic acid 2-pyrazinylhydrazone, P-00402
- 1-(2-Pyridinyl)-2-(3-pyridinyl)ethanone 2-thiazolylhydrazone, P-00403
- 2-Pyridinyl-4-pyrimidinylethanedione 1-(2-pyridinyl)hydrazone; 2-Oxime, *in* P-00404
- 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone 2-pyrimidinylhydrazone, P-00406
- 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone; 2-Thiazolylhydrazone, *in* P-00405
- Pyridoin phenylhydrazone, P-00413
- Pyridoxal; Nicotinoylhydrazone, P-00415
- Pyridoxal; Salicyloylhydrazone, *in* P-00414
- 1*H*-Pyrrole-2-carboxaldehyde 8-quinolinylhydrazone, P-00438
- Pyrvaldehyde 1-(2-benzothiazolyl)hydrazone, P-00447
- Pyruvic acid; 2,4-Dinitrophenylhydrazone, *in* P-00448
- 2-Quinolinecarboxaldehyde 2-benzothiazolylhydrazone, Q-00010
- 2-Quinolinecarboxaldehyde 1-phthalazinylhydrazone, Q-00011
- 2-Quinolinecarboxaldehyde 2-pyridylhydrazone, Q-00012
- 2-Quinolinecarboxaldehyde 2-pyrimidinylhydrazone, Q-00013
- 2-Quinolinecarboxaldehyde 2-quinolinylhydrazone, Q-00014
- 2-Quinolinecarboxaldehyde 8-quinolinylhydrazone, Q-00015
- 2-Quinolinecarboxaldehyde 2-thiazolylhydrazone, Q-00016
- 2(1*H*)-Quinolinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, Q-00023
- 2(1*H*)-Quinolinone (phenyl-2-pyridinylmethylene)hydrazone, Q-00024
- 2(1*H*)-Quinolinone [1-(2-pyridinyl)ethylidene]hydrazone, Q-00025
- 2(1*H*)-Quinolinone [1-(2-quinolinyl)ethylidene]hydrazone, Q-00026
- α -(2-Quinolinyl)hydrazone) benzenepropanoic acid, Q-00035
- 2-Thiazolecarboxaldehyde 2-quinolinylhydrazone, T-00137
- 2-Thiophenecarboxylic acid (di-2-pyridinylmethylene)hydrazide, T-00168
- 2-Thiophenecarboxaldehyde 2-benzothiazolylhydrazone, T-00170
- 2-Thiophenecarboxaldehyde 3-bromobenzoylhydrazone, T-00171
- 2-Thiophenecarboxaldehyde 2-quinolinylhydrazone, T-00172
- N*-(3-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, A-00324
- N*-(4-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, A-00325
- O*-(1-Anthracenylmethyl)hydroxylamine, A-00384
- O*-(2-Anthracenylmethyl)hydroxylamine, A-00385
- O*-(9-Anthracenylmethyl)hydroxylamine, A-00386
- 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(3-methylphenyl)-2-propenamide, *in* B-00056
- 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(4-methylphenyl)-2-propenamide, *in* B-00056
- 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* B-00056
- 4-(Benzoylhydroxyamino)benzoic acid; Me ester, *in* B-00133
- N*-Benzoyl-*N*-(1-naphthyl)hydroxylamine, B-00138
- N*-Benzoyl-*N*-phenylhydroxylamine, *in* P-00135
- O*-Benzylhydroxylamine, B-00184
- N*-Benzyl-2-naphthohydroxamic acid, *in* N-00024
- N*-[3,5-Bis(trifluoromethyl)phenyl]-*N*-hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465
- 5-Bromo-*N*-2-dihydroxybenzamide, B-00503
- 4-Bromo-*N*-hydroxybenzamide, B-00510
- N'*-(4-Bromophenyl)-*N*-hydroxy-*N*-phenylthiourea, B-00551
- N*-(4-Bromophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, B-00552
- 4-Butoxy-*N*-(4-chlorophenyl)benzohydroxamic acid, B-00612
- 4-Butoxy-*N*-hydroxy-*N*-phenylbenzamide, B-00614
- N*-(4-Butylbenzoyl)-*N*-phenylhydroxylamine, *in* B-00618
- N*-(4-Butylcyclohexanoyl)-*N*-phenylhydroxylamine, B-00624
- 2-Chlorobenzohydroxamic acid, C-00065
- 2-Chloro-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* C-00064
- 2-Chloro-*N*-hydroxy-*N*-(3-methylphenyl)benzamide, *in* C-00064
- 4-Chloro-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-(3-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-1-naphthalenylbenzamide, C-00136
- N*-(4-Chlorophenyl)-4-chlorophenoxyisobutylhydroxamic acid, C-00208
- N*-(4-Chlorophenyl)-3-(2-furanyl)-*N*-hydroxy-2-propenamide, C-00220
- N*-(3-Chlorophenyl)-*N*-hydroxybenzamide, *in* H-00109
- N*-(4-Chlorophenyl)-*N*-hydroxybenzamide, *in* H-00109
- N*-(4-Chlorophenyl)-*N*-hydroxy-2-butenamide, C-00223
- N*-(3-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, *in* F-00064
- N*-(4-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, *in* F-00064
- N*-(4-Chlorophenyl)-*N*-hydroxy-2,4-hexadienamide, *in* H-00185
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(4-methoxyphenyl)-2-propenamide, C-00225
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4-methylenedioxyphenyl)-2-propenamide, C-00226
- N'*-(4-Chlorophenyl)-*N*-hydroxy-*N*-phenylbenzencarboximidamide, C-00231
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-phenyl-2-propenamide, C-00232
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, C-00234

Hydroxylamine derivatives (including hydroxamic acids)

- 2-(Acetyloxy)-*N*-hydroxy-*N*-phenylbenzamide, A-00028

- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamide, C-00235
- N*-Cinnamoylphenylhydroxylamine, in H-00499
- Cyclohexanoylphenylhydroxylamine, in H-00145
- 2,4-Dichloro-*N*-hydroxy-*N*-phenylbenzamide, D-00281
- 2-(2,4-Dichlorophenoxy)-*N*-(4-methylphenyl)acetohydroxamic acid, in D-00288
- 2-(2,4-Dichlorophenoxy)-*N*-phenylacetohydroxamic acid, in D-00288
- α ,*N*-Dihydroxybenzeneacetamide; (\pm)-form, in D-00521
- N,N'*-Dihydroxy-*N,N'*-diphenylheptanediamide, D-00587
- N*-[4-(Dimethylamino)phenyl]-*N*-hydroxy-3-methoxy-2-naphthalenecarboxamide, D-00814
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, in B-00619
- 4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, in B-00619
- N*-(2,3-Dimethylphenyl)-*N*-hydroxy-3-phenylpropanamide, D-00891
- 3,5-Dinitrobenzohydroxamic acid, D-00946
- 5,5'-Dithiodisacylhydroxamic acid, D-01131
- N*-(*o*-Ethoxybenzoyl)phenylhydroxylamine, in H-00112
- O*-Ethylhydroxylamine, E-00089
- 4-Ethyl-*N*-hydroxy-*N*-phenylbenzamide, E-00093
- ▷ *N*-Fluoren-1-ylbenzohydroxamic acid, F-00016
- N*-(2-Fluorenyl)-*N*-nitrosohydroxylamine, in A-00178
- 3-(2-Furanyl)-*N*-hydroxy-*N*-(4-methylphenyl)-2-propenamide, in F-00053
- 3-(2-Furanyl)-*N*-hydroxy-*N*-phenyl-2-propenamide, in F-00053
- 2-Hexyl-*N*-hydroxy-*N*-phenyldecanamide, H-00076
- 2-Hydroxy-1-*H*-benz[de]isoquinoline-1,3(2*H*)-dione, in B-00051
- N*-Hydroxybutanamide, H-00142
- N*-Hydroxy-2,4-dimethylbenzenecarboximidamide, in D-00835
- N*-Hydroxy-4-(diphenylmethyl)benzamide, H-00168
- N*-Hydroxy-*N*,5-diphenyl-2,4-pentadienamide, H-00169
- N*-Hydroxy-*N,N'*-diphenylthiourea, in D-01055
- N*-Hydroxy-2,4-hexadienamide, H-00185
- N*-Hydroxyhexanamide, H-00186
- ▷ Hydroxylamine, H-00257
- N*-Hydroxy-4-methoxybenzamide, H-00264
- N*-Hydroxy-4-methoxybenzenecarbothioamide, H-00265
- N*-Hydroxy-2-methoxy-*N*-(2-methylphenyl)benzamide, in H-00263
- N*-Hydroxy-2-methoxy-*N*-(3-methylphenyl)benzamide, in H-00263
- N*-Hydroxy-2-methoxy-*N*-(4-methylphenyl)benzamide, in H-00263
- N*-Hydroxy-2-methoxy-*N*-1-naphthalenylbenzamide, H-00267
- N*-Hydroxy-4-methoxy-*N*-1-naphthalenylbenzamide, H-00268
- N*-Hydroxy-2-methoxy-*N*-phenylbenzamide, in H-00263
- N*-Hydroxy-3-(4-methoxyphenyl)-2-propenamide; *N*-(3-Methylphenyl), in H-00272
- N*-Hydroxy-3-(4-methoxyphenyl)-2-propenamide; *N*-(4-Methylphenyl), in H-00272
- N*-Hydroxy-*N*-(3-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00273
- N*-Hydroxy-*N*-(4-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00274
- N*-Hydroxy-2-methyl-*N*-(2-methylphenyl)benzamide, in M-00135
- N*-Hydroxy-2-methyl-*N*-(3-methylphenyl)benzamide, in M-00135
- N*-Hydroxy-4-methyl-*N*-(3-methylphenyl)benzamide, in M-00136
- N*-Hydroxy-2-methyl-*N*-1-naphthalenylbenzamide, H-00290
- N*-Hydroxy-4-methyl-*N*-1-naphthalenylbenzamide, H-00291
- N*-Hydroxy-*N*-(2-methylphenyl)benzamide, in H-00109
- N*-Hydroxy-2-methyl-*N*-phenylbenzamide, H-00306
- N*-Hydroxy-*N*-(3-methylphenyl)benzamide, in H-00109
- N*-Hydroxy-*N*-(4-methylphenyl)benzamide, in H-00109
- N*-Hydroxy-4-methyl-*N*-phenylbenzamide, H-00307
- N*-Hydroxy-*N*-(4-methylphenyl)-2-butenamide, in H-00143
- N*-Hydroxy-*N*-(3-methylphenyl)decanamide, in H-00147
- N*-Hydroxy-*N*-(4-methylphenyl)decanamide, in H-00147
- N*-Hydroxy-*N*-(4-methylphenyl)-2-furancarboxamide, in F-00064
- N*-Hydroxy-*N*-(3-methylphenyl)-2,4-hexadienamide, in H-00185
- N*-Hydroxy-*N*-(3-methylphenyl)-2-nitrobenzamide, in N-00089
- N*-Hydroxy-*N*-(3-methylphenyl)-3-nitrobenzamide, in N-00090
- N*-Hydroxy-*N*-(4-methylphenyl)-3-nitrobenzamide, in N-00090
- N*-Hydroxy-*N*-(4-methylphenyl)tetradecanamide, H-00316
- N*-Hydroxy-*N*-(3-methylphenyl)-3-(2-thienyl)-2-propenamide, in H-00553
- N*-Hydroxy-*N*-(4-methylphenyl)-3-(2-thienyl)-2-propenamide, in H-00553
- N*-Hydroxy-*N'*-methyl-*N*-phenylthiourea, in T-00175
- N*-Hydroxy-2-methyl-*N*-[3-(trifluoromethyl)phenyl]benzamide, H-00333
- N*-Hydroxy-1-naphthalenecetamide, H-00337
- ▷ *N*-Hydroxy-2-naphthalenecarboxamide, H-00340
- N*-Hydroxy-*N*-1-naphthalenyldecanamide, H-00359
- N*-Hydroxy-*N*-1-naphthalenyldecanamide, H-00360
- N*-Hydroxy-*N*-1-naphthalenylhexanamide, H-00361
- N*-Hydroxy-*N*-1-naphthalenyl-4-nitrobenzamide, H-00365
- N*-Hydroxy-*N*-1-naphthalenylpentanamide, H-00366
- N*-Hydroxy-*N*-1-naphthalenyltetradecanamide, H-00368
- 3-Hydroxy-2-naphthohydroxamic acid, in H-00370
- N*-Hydroxy-3-(3-nitrophenyl)-*N*-phenyl-2-propenamide, H-00402
- N*-Hydroxy-*N*-(4-nitrophenyl)-3-(2-thienyl)-2-propenamide, H-00405
- N*-Hydroxy-*N*-nitrosocyclododecanamide, H-00410
- N*-Hydroxy-*N*-nitrosocyclohexanamine; NH₄ salt, in H-00411
- N*-Hydroxy-*N*-nitroso-2-propanamide, H-00418
- N*-Hydroxy-4-(octyloxy)-*N*-phenylbenzamide, H-00425
- 2-[(Hydroxyphenylamino)carbonyl]benzenesulfonic acid; Na salt, in H-00445
- 1-(Hydroxyphenylamino)-5-phenyl-1,4-pentadien-3-one, H-00446
- N*-Hydroxy-*N*-phenylbenzeneacetamide, H-00463
- N*-Hydroxy-*N*-phenyl-2-chlorobenzamide, H-00470
- N*-Hydroxy-*N*-phenyldecanamide, in H-00147
- N*-Hydroxy-*N*-phenyldecanamide, in L-00001
- N*-Hydroxy-*N*-phenyl-2-furancarboxamide, H-00472
- N*-Hydroxy-*N*-phenyl-2,4-hexadienamide, in H-00185
- N*-Hydroxy-*N*-phenyl-1-naphthalenecarboxamide, H-00489
- N*-Hydroxy-*N*-phenyl-2-naphthalenecarboxamide, in N-00024
- N*-Hydroxy-*N*-phenylpentanamide, H-00492
- ▷ *N*-Hydroxy-3-phenylpropanamide, H-00499
- N*-Hydroxy-*N*-phenyl-2-propylpentanamide, H-00501
- N*-Hydroxy-*N*-phenyltetradecanamide, H-00504
- N*-Hydroxy-*N*-phenyl-3-(2-thienyl)-2-propenamide, H-00505
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzothiazole, H-00508
- N*-Hydroxy-*N*-phenyl-3-(trifluoromethyl)benzamide, H-00511
- 1-Hydroxy-1-phenylurea, in P-00211
- N*-Hydroxy-3-pyridinecarboxamide, in P-00341
- N*-Hydroxysuccinamic acid, in S-00034
- N*-Hydroxy-2-thiophenecarboxamide; *N*-(3-Chlorophenyl), in H-00554
- N*-Hydroxy-2-thiophenecarboxamide; *N*-(4-Methylphenyl), in H-00554
- N*-Hydroxy-2-thiophenecarboxamide; *N*-Ph, in H-00554
- N*-Hydroxy-3,5,5-trimethyl-*N*-phenylhexanamide, H-00561
- N*-(*o*-Iodobenzoyl)phenylhydroxylamine, in I-00040
- Laurohydroxamic acid, L-00001
- p*-Methoxy-*N*-phenylcinnamohydroxamic acid, in H-00241
- 3,3'-Methylenebis[*N*,6-dihydroxybenzamide], M-00170
- ▷ *O*-Methylhydroxylamine, M-00187
- N*-(4-Methylphenyl)-2-phenoxyacetohydroxamic acid, M-00235
- O*-(1-Methylpropyl)hydroxylamine, M-00259
- O*-(2-Methylpropyl)hydroxylamine, M-00260
- N*-1-Naphthylphenylacetohydroxamic acid, N-00054
- 2-Nitrobenzohydroxamic acid, N-00089
- p*-Nitrobenzohydroxamic acid, in N-00093
- O*-(*p*-Nitrobenzyl)hydroxylamine, N-00099
- O*-(Pentafluorobenzyl)hydroxylamine; B, HCl, in P-00016
- O*-Pentylhydroxylamine, P-00040
- 1-Phenylazo-2-hydroxy-3-naphthylhydroxamic acid, in H-00452
- N*-Phenylcrotonohydroxamic acid, in H-00143
- N*-Phenylcyclohexanohydroxamic acid, in H-00424
- N*-Phenyl-4-(phenylazo)benzohydroxamic acid, P-00156
- N*-Phenylthiobenzenohydroxamic acid, P-00198
- O*-Propylhydroxylamine, P-00277
- Salicylhydroxamic acid, in H-00112
- N*-(Sulfophenyl)benzohydroxamic acid, in H-00109
- N*-*m*-Tolylcinnamohydroxamic acid, in H-00499
- N*-*o*-Tolylcinnamohydroxamic acid, in H-00499
- N*-*p*-Tolylcinnamohydroxamic acid, in H-00499
- N*-*m*-Tolyl-*o*-iodobenzohydroxamic acid, in I-00040
- N*-*o*-Tolyl-*o*-iodobenzohydroxamic acid, in I-00040
- N*-*p*-Tolylcinnamohydroxamic acid, in H-00424
- Tributylacetohydroxamic acid, T-00207
- 2,2,2-Trichloroacetohydroxamic acid, T-00219
- Trimethylacetohydroxamic acid, T-00324

Imides

- ▷ Auramine, A-00456
- Bis(4-methylphenyl)sulfur diimide, B-00411
- 2-Bromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, B-00512
- 2-(Chloromethyl)-5-nitro-1*H*-isoindeole-1,3(2*H*)-dione, C-00180
- 3,4-Dihydroxy-10-imino-9(10*H*)-anthracenone, D-00634
- 4,7-Dihydroxy-1*H*-isoindeole-1,3(2*H*)-dione, D-00636
- N*-(4'-Dimethylaminophenyl)-1,4-naphthoquinone imine, D-00820
- N*-Ethylmaleimide, in P-00439
- 4-Methoxybenzamidine, M-00077
- ▷ 5-Nitro-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione, N-00153

Indophenol derivatives

- 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)-6-methylphenol *N,N*-diacetic acid, A-00239
- 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)phenol-*N,N*-diacetic acid, A-00240
- 4-[(3-Aminomethyl)-4-hydroxyphenyl]imino]-2,6-dibromo-2,5-cyclohexadien-1-one-*N,N*-diacetic acid, A-00243
- 2-Bromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, B-00512
- 4-[(3-Chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, C-00149
- 2,6-Dibromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00191
- 2,6-Dibromo-4-[(4-hydroxy-2-sulfonyl)imino]-2,5-cyclohexadien-1-one; Na salt, in D-00194
- 5-[(3,5-Dibromo-4-oxo-2,5-cyclohexylidene)amino]-2-hydroxybenzenesulfonic acid, D-00197
- 2,6-Dichloro-4-[(3-chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00256
- 2,6-Dichloro-4-[(2-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00258
- 2,6-Dichloro-4-[(3-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00259
- 2,6-Dichloro-4-[(4-hydroxy-3-methylphenyl)imino]-2,5-cyclohexadien-1-one, D-00279
- 2,6-Dichloro-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00282
- Indophenol, I-00034

Isothiocyanates

- 4-Acetamido-4'-isothiocyanatostilbene-2,2'-disulfonic acid, in A-00230
- Arabinopyranosyl isothiocyanate; α -*D*-form, 2,3,4-Tri-Ac, in A-00399
- ▷ 1-Bromo-4-isothiocyanatobenzene, B-00515
- 3,3'-Dihydroxybenzidine-*N,N,N',N'*-tetraacetic acid, D-00528
- 3',6'-Dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, D-00638
- ▷ 4-(Dimethylamino)phenyl isothiocyanate, D-00817
- 2,2'-(1,2-Ethenediyl)bis[5-isothiocyanatobenzenesulfonic acid], E-00046
- 9-Isothiocyanatoacridine, I-00091
- 7-Isothiocyanato-1,7-dimethylbicyclo[2.2.1]heptane; (–)-form, in I-00093
- 4-Isothiocyanato-*N,N*-dimethyl-1-naphthalenamine, I-00094
- 1-(Isothiocyanatomethyl)-1*H*-indole-2,3-dione, I-00096
- 5-Isothiocyanato-2-(4-methylphenyl)-1*H*-benz[*de*]isoquinoline-1,3(2*H*)-dione, I-00097
- 4-[(4-Isothiocyanatophenyl)azo]-*N,N*-dimethylbenzenamine, I-00098

- ▷ (4-Isothiocyanatophenyl)phenyldiazene, I-00099
- 1-Isothiocyanatopyrene, I-00100
- ▷ Methyl isothiocyanate, M-00196
- Neomenthyl isothiocyanate, in I-00095
- Pentafluoroisothiocyanatobenzene, P-00018
- ▷ Phenyl isothiocyanate, P-00139
- TAGIT, in G-00012
- 2',3',4',7'-Tetrabromo-3',6'-dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3*H*),9'[9*H*]xanthen]-3-one, T-00016

Organophosphorus compounds

- Benzyltriphenylphosphonium(1+); Chloride, in B-00196
- ▷ Bis(2-chloroethyl) phosphorochloridate, in B-00281
- Bis(4-chlorophenyl) phosphate, B-00289
- Bis(dicyclohexyloxyphosphinothioyl) disulfide, B-00294
- Bis(diisopropoxyphosphinothioyl) disulfide, B-00310
- ▷ Bis(dimethoxyphosphinothioyl) disulfide, B-00312
- Bis[(diphenoxyphosphino)thioyl] disulfide, B-00336
- 5,6-Bis(diphenylphosphino)bicyclo[2.2.1]hept-2-ene; (1*RS*,5*RS*,6*RS*)-form, *P,P'*-Dioxide, in B-00337
- 1,2-Bis(diphenylphosphino)ethylene; (*E*)-form, *P,P'*-Dioxide, in B-00339
- Bis(diphenylphosphino)methane, B-00340
- 1,2-Bis(diphenylphosphino)ethane, in B-00338
- ▷ Bis(2-ethylhexyl) phosphate, B-00352
- ▷ *O,O*-Bis(2-ethylhexyl) phosphorodithioate, B-00353
- O,O*-Bis[(3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4(5*H*)-ylidene)phenylmethyl] phosphorodithioate; K salt, in B-00405
- O,O*-Bis(2-methylpropyl) phosphorodithioate; Na salt, in B-00413
- Bis(2,4,4-trimethylpentyl)phosphinic acid, B-00468
- Bis(2,4,4-trimethylpentyl)phosphinodithioic acid, B-00469
- 1,4-Butanediamine-*N,N,N,N'*-tetrakis(methylphosphonic acid), B-00585
- 1,4-Butanediybis[triphenylphosphonium](2+); Dibromide, in B-00602
- 2,3-Butylene chlorophosphate, in C-00099
- Butyltriphenylphosphonium(1+), B-00640
- 2-Chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidine; (2*S*,4*S*,5*R*)-form, 2-Sulfide, in C-00101
- Chlorophosphonazo DAL, in C-00242
- Chlorophosphonazo I, C-00241
- Chlorophosphonazo III, C-00242
- Dibutyl-(2-hydroxypropyl)thiophosphonic acid, D-00234
- ▷ Dibutyl phosphate, D-00237
- α -(Dibutylphosphinyl)- α -hydroxybenzeneacetic acid, D-00238
- 2-(Dibutylphosphinyl)-2-hydroxypropanoic acid, D-00239
- O,O*-Dibutyl phosphonothioate, D-00240
- O,O*-Dibutyl phosphorodithioate; K salt, in D-00241
- O,O*-Dibutyl phosphorothioate, D-00242
- ▷ (3,4-Dichlorobenzyl)triphenylphosphonium(1+); Chloride, in D-00252
- Dichloro-1-naphthylphosphine, in N-00055
- Diethyl diethylphosphoramidate, D-00340
- Diethylphosphoramidic acid cyclic 1-methyltrimethylene ester, D-00354
- Diethylphosphoramidic acid; Diheptyl ester, in D-00353
- ▷ Diethyl phosphorochloridate, D-00355
- ▷ *O,O*-Diethyl phosphorodithioate, D-00356
- O,O*-Diethylphosphoroselenoic acid; Na salt, in D-00357
- O,O*-Diethyl phosphorodithioate, D-00369
- 4,5-Dihydroxy-3,6-bis[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00560
- 4,5-Dihydroxy-3-[(4-nitro-2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00671
- O,O*-Diisopentyl phosphorodithioate, D-00746
- O,O*-Diisopropyl phosphorodithioate, D-00750
- Dimethyl (hydroxymethyl)phosphonate, in H-00318
- N*-(2,4-Dimethylphenyl)-3-(phosphonoxy)-2-naphthalenecarboxamide, D-00894
- ▷ *O,O*-Dimethyl phosphorodithioate, D-00896
- O,O*-Dipentyl phosphorodithioate, D-00996
- O,O*-Diphenyl phosphorodithioate, D-01040
- O,O*-Di-2-propenyl phosphorodithioate, D-01058
- O,O*-Dipropyl phosphorodithioate, D-01060
- ▷ *O,O*-Di-2-propynyl phosphorodithioate, D-01061
- [1,2-Ethanediylbis[imino[(2-hydroxyphenyl)methylene]]bisphosphonic acid, E-00030
- [1,2-Ethanediylbis[imino(phenylmethylene)]]bisphosphonic acid, E-00031
- [1,2-Ethanediylbis[nitriolobis[methylene]]]tetrakisphosphonic acid, E-00032
- ▷ 1,2-Ethanediylbis[triphenylphosphonium](2+); Dibromide, in E-00034
- 1,2-Ethanediylbis[bis(4-methylphenyl)phosphineoxide], E-00043
- α -(Ethylamino)-*p*-(dimethylamino)benzylphosphonic acid; Et ester, in E-00064
- [(Ethylamino)(2-hydroxyphenyl)methyl]phosphonic acid; Et ester, in E-00065
- 5-Ethyl-*N*-(diisopropylthiophosphoryl)dithiocarbamate, in B-00404
- [Ethylenebis(bisobenzylidene)]diphosphonic acid, E-00074
- [Ethylenebis(aminosalicylidene)]diphosphonic acid, E-00075
- Ethylphosphonothioic dichloride, E-00105
- ▷ Glyphosine, G-00040
- Heptyl tetraethylphosphorodiamidate, in T-00046
- Hexabutylphosphoric triamide, in H-00020
- Hexabutylphosphorothioic triamide, in H-00020
- ▷ Hexamethylphosphoric triamide, H-00058
- O*-Hexylbutylphosphonodithioate, in B-00638
- 4-Hydroxydinaphtho[2,1-*d'*:2'-*f'*][1,3,2]dioxaphosphepin 4-oxide, H-00153
- ▷ (1-Hydroxyethylidene)bisphosphonic acid, H-00178
- 3-Hydroxy-4-[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, in H-00514
- (Hydroxy-3-pyridinylmethyl)phosphoric acid, H-00523
- 1*H*-Inden-2-ylphosphonic acid, I-00026
- Isopropyltriphenylphosphonium(1+); Bromide, in I-00079
- P*-Methylphosphonamidothioic acid; *O*-Ph ester, in M-00243
- Methylphosphonic acid; Bis(3-methylbutyl) ester, in M-00244
- Methyltriphenylphosphonium(1+); Chloride, in M-00335
- Mono(2-ethylhexyl) phosphate, M-00339
- Mono(4-nitrophenyl) phosphate, M-00340
- (1-Naphthylmethyl)triphenylphosphonium(1+); Chloride, in N-00052
- [1,2-Phenylenebis(methylene)]bis[bis(4-methylphenyl)]phosphine oxide, P-00119
- 2-Phenylethenylphosphonic acid, P-00129
- Phenylphosphonic acid, P-00163
- ▷ Phenylphosphonic acid, P-00164
- N*-Phosphocreatine; Di-Na salt, in P-00214
- Phosphoramidothioic acid *O,O*-bis(1-methylethyl)ester, P-00215
- Phosphorodithioic acid *O,O*-bis(2-methylallyl) ester, P-00216

Phosphorotrithioic acid *O*-[2-(diethylamino)ethyl] ester, P-00217
 Phosphorotrithioic acid *O*-[2-(dimethylamino)ethyl]ester, P-00218
 2-Quinolinyolphosphonic acid, Q-00036
 Tetraethyl 1,2-ethanedilylbisphosphonate, in E-00026
N,N,N',N'-Tetrakis(phosphonomethyl)-1,2-cyclohexanediamine; Octa-Na salt, in T-00089
 Tetramethylphosphinous amide, T-00102
 Tetraphenylphosphonium(1+); Chloride, in T-00120
S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Di-Et, in T-00161
S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Di-Me, in T-00161
S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Dipropyl, in T-00161
 ▶ Tributyl phosphate, T-00211
 ▶ Tributylphosphine oxide, T-00213
 ▶ Tributylphosphine sulfide, T-00214
O,O,O'-Tributyl phosphorothioate, T-00215
O,O,S-Triethyl phosphorodithioate, T-00235
N,N,N',N'-Trihexylphosphorothioic triamide, T-00267
 Trioctylphosphine, T-00358
 Trioctylphosphine oxide, in T-00358
 ▶ Triphenyl phosphite, T-00371
 Triphenylpropylphosphonium(1+), T-00372
 Tris(2-ethylhexyl)phosphine oxide, T-00390
 Tris(tetraphenylimidodiphosphinato)praseodymium, T-00422

Oxime - dioximes

Acenaphthenequinone; Dioxime, in A-00001
 Benzoylmethylglyoxime, in P-00109
 Benzylmethylglyoxime, in P-00107
 Bis(4-chlorophenyl)ethanedione; Dioxime, in B-00285
 Bis(2-hydroxyimino-3-butyldiene)-*o*-phenylenediimine, in P-00127
 Bis(4-nitrophenyl)ethanedione; Dioxime, in B-00432
 6-Bromo-1,2-naphthoquinone; Dioxime, in B-00538
 (4-Bromophenyl)phenylethanedione dioxime, B-00555
 4-*tert*-Butylnoxime, in B-00623
 4-Carboxynioxime, in D-00989
 4-Chloro-1,2-naphthoquinone; Dioxime, in C-00187
 (4-Chlorophenyl)phenylethanedione; Dioxime, in C-00238
 1,2-Cyclodecanedione; Dioxime, in C-00331
 1,2-Cyclododecanedione; Dioxime, in C-00332
 1,2-Cyclononanedione; Dioxime, in C-00360
 1,2-Cyclopentanedione dioxime, in C-00362
 1,2-Cycloundecanedione; Dioxime, in C-00369
 2,6-Diacetylpyridine; Dioxime, in D-00035
 5,6-Dihydro-5,6-bis(hydroxyimino)-1-naphthalenesulfonic acid, in N-00034
 5,6-Dihydro-5,6-bis(hydroxyimino)-2-naphthalenesulfonic acid, in N-00035
 7,8-Dihydro-7,8-bis(hydroxyimino)-2-naphthalenesulfonic acid, in N-00036
 4,5-Dihydroxy-3,6-dinitroso-2,7-naphthalenedisulfonic acid, D-00583
 2,6-Dihydroxyimino-3-methylenepiperidine, in M-00178
 5,5-Dimethyl-1,3-cyclohexanedione; Dioxime, in D-00847
 ▶ Dimethylglyoxime, D-00862
 3,3-Dimethyl-1,2-indanedione; Dioxime, in D-00868
 (*E,E*)-Diphenylglyoxime, in B-00038
 3,3-Diphenyl-1,2-indanedione; Dioxime, in D-01027
 Dipropylglyoxime, in O-00033

2,2'-Dipyridyl- α -glyoxime, in D-01063
 3,3'-(1,2-Ethanedilyldinitrilo)bis-2-butanone; Dioxime, in E-00035
N,N'-Ethylenebis(4-methoxy-1,2-benzoquinone 2-imine); Dioxime, in E-00076
 Ethylmethylglyoxime, in P-00029
 ▶ α -Furildioxime, in D-00364
 Glutarimide dioxime, in G-00014
 Heptoxime, in C-00333
 5-Hydroxy-1,2-naphthoquinone; Dioxime, in H-00372
 7-Hydroxy-1,2-naphthoquinone; Dioxime, in H-00373
 1,2,3-Indanetrioxime; Trioxime, in I-00025
 Isonitrosodibenzoylmethane, in D-01041
 4-Isopropylnoxime, in I-00071
 Methylglyoxime, in P-00446
 3-Methyl-1,2-indanedione; Dioxime, in M-00194
 3-Methylnoxime, in M-00156
 1,2-Naphthoquinone; Dioxime (1*Z*,2*E*), in N-00031
 1,2-Naphthoquinone-4-sulfonic acid; Dioxime, in N-00033
 Niconoxime, in C-00346
 Nioxime, in C-00337
 5-Nitro-1,2-acenaphthylenedione; Dioxime, in N-00076
 Octoxime, in C-00361
 2,4-Pentanedione; *Oxo-form*, Dioxime, in P-00030
 2,3,4-Pentantetrione; Trioxime, in P-00033
 9,10-Phenanthraquinone; Dioxime, in P-00047
 Phenylglyoxime, P-00133
 3-Phenyl-1,2-indanedione; Dioxime, in P-00137
 2,6-Pyridinediamidoxime, in P-00353
 5,8-Quinolinedione; Dioxime, in Q-00019

Oxime - ketomonoximes

Acenaphthenequinone; Monoxime, in A-00001
 Acepox, in A-00039
 ▶ Acetaldoxime, in A-00002
 ▶ Acetamidoxime, A-00004
 ▶ Acetoxime, in A-00007
 2-Acetyl-4-ethylpyridine; Oxime (*Z*-), in A-00016
 2-Acetyl-4-methoxypyridine; Oxime (*Z*-), in A-00021
 2-Acetyl-4-methylpyridine; Oxime (*E*-), in A-00023
 2-Acetyl-6-methylpyridine; Oxime (*E*-), in A-00024
 2-Acetyl-1-naphthol; Oxime, in A-00026
 2-Acetyl-4-phenylpyridine; Oxime (*E*-), in A-00031
 2-Acetyl-6-phenylpyridine; Oxime (*E*-), in A-00032
 α -Benzaloxime, in B-00004
 Benzfuroin oxime, in F-00052
 1*H*-Benzimidazole-2-carboxaldehyde; 1-Benzyl, oxime, in B-00039
 Benzohydroxamic acid benzenesulfonamide, in P-00194
 1,4-Benzoquinone *O*-(2-chlorobenzyl) oxime, B-00077
 1,4-Benzoquinone *O*-(4-chlorobenzyl) oxime, B-00078
 1,4-Benzoquinone mono[*O*-(*p*-methylphenyl)sulfonyl]oxime, B-00079
 1,4-Benzoquinone mono[*O*-phenylsulfonyl] oxime, B-00081
 2-Benzoyl-4-ethylpyridine; Oxime (*E*-), in B-00132
 2-Benzoyl-4-methylpyridine; Oxime (*E*-), in B-00134
 2-Benzoyl-6-methylpyridine; Oxime (*E*-), in B-00135
 2-Benzoyl-6-phenylpyridine; Oxime, in B-00145
 2-Benzoyl-4-phenylpyridine; Oxime (*E*-), in B-00144
 2-Benzoylpyridine; (*Z*)-Oxime, in B-00151
 1-Benzyl-2-(α -hydroxyimino-4-nitrobenzyl)-1*H*-imidazole, B-00183
 3-Bromo-2-nitroso-1-naphthalenol, in B-00537
 1-(4-Bromophenyl)-1,3-butanedione; 3-Oxime, in B-00548
O-(*p*-Bromophenylsulfonyl)quinone monoxime, B-00557
 2,3-Butanedione (2-benzothiazolyl) hydrazone; Oxime, in B-00588
 ▶ 2,3-Butanedione; Monoxime, in B-00587
 2,3-Butanedione; Monoxime, (4-nitrophenyl)hydrazone, in B-00587
 2,3-Butanedione; Monoxime, phenylthiosemicarbazone, in B-00587
 2,3-Butanedione; Monoxime, 2-pyridylhydrazone, in B-00587
 2,3-Butanedione; Monoxime, semicarbazone, in B-00587
 5-Chloro-2-hydroxybenzaldehyde; Oxime, in C-00122
 5-Chloro-2-hydroxy-4-methylacetophenone; Oxime, in C-00135
 4-Chloro-2-nitroso-1-naphthol, in C-00187
 1-(4-Chlorophenyl)-1,3-butanedione; 3-Oxime, in C-00207
 Dibenzo[*b,e*]1,4)dioxin-2-carboxaldehyde; Oxime, in D-00162
 ▶ 2,6-Dibromo-4-(chloroimino)-2,5-cyclohexadien-1-one, D-00180
 3',5'-Dichloro-2'-hydroxyacetophenone; Oxime, in D-00277
 2-[[4-(Diethylamino)phenyl]azo]-1,3-indanedione; Monoxime, in D-00331
 ▶ Di(2-furyl)ethanedione; Monoxime, in D-00364
 Dihydro-2-thioxo-4,5,6(1*H*)-pyrimidinetrione 5-oxime, D-00493
 2',5'-Dihydroxyacetophenone; Oxime, in D-00508
 2,5-Dihydroxybenzaldehyde; Oxime, in D-00518
 1-(2,4-Dihydroxyphenyl)-1-butanone; Oxime, in D-00707
 1-(2,4-Dihydroxyphenyl)-1-pentanone; Oxime, in D-00714
 1-(2,4-Dihydroxyphenyl)-1-propanone; Oxime, in D-00715
 ▶ Diisonitrosacetone, in O-00070
 2,4-Dimethyl-3-pentanone; Oxime, in D-00879
 1,2-Di(1-naphthalenyl)-1,2-ethanedione; Monoxime, in D-00930
 Diphenylethanedione monoxime, in B-00038
 Diphenylthiovioluric acid, in D-00493
 Di-2-pyridinylethanedione mono(2-pyridinylhydrazone); Oxime, in D-01068
 Di-2-pyridinylmethanone; Oxime, in D-01071
 Di-2-pyridylmonoxime, in D-01063
 Di(2-thenoyl)ketoxime, in D-01113
 Ethyl- α -isonitrosoacetoacetate, in D-00986
N-(Ethylsulfonyl)benzamide; Oxime, in E-00113
 3-Furancarboxaldehyde; Oxime, in F-00043
 α -Furoinoxime, in F-00065
N-Glyoxyloylantranilic acid; Monoxime, in G-00039
 4-Heptanone; Oxime, in H-00012
 2-Hydroxy-1-acetonaphthonoxime, in A-00025
 2'-Hydroxyacetophenone; Oxime, in H-00089
 4'-Hydroxyacetophenone; Oxime, in H-00090
 2-Hydroxy-5-anisaloxime, in D-00518
N-Hydroxy-2,4-dimethylbenzenecarboximidamide, in D-00835
 α -(Hydroxyimino)benzenepropanoic acid, in O-00068
 α -(Hydroxyimino)-1,5-dimethyl-1*H*-benzimidazole-2-acetonitrile, H-00244
 2-[[1-(Hydroxyimino)ethyl]azo]-1*H*-benzimidazole, H-00245

- 2-[[1-(Hydroxyimino)-2-methylpropyl]azo]-1-(phenylmethyl)-1*H*-benzimidazole, H-00246
N-[2-(Hydroxyimino)-1-methylpropylidene]glycine, H-00247
 2-[2-(Hydroxyimino)-1-methylpropylidene]-*N*-phenylhydrazinecarbothioamide, H-00248
 2-[[1-(Hydroxyimino)phenylmethyl]azo]-1*H*-benzimidazole, H-00250
 2-[[1-(Hydroxyimino)phenylmethyl]azo]-1-(phenylmethyl)-1*H*-benzimidazole, *in* H-00250
 α-(Hydroxyimino)-2-pyridineacetonitrile, H-00251
N-Hydroxy-4-methylbenzenecarboximidamide, *in* M-00138
 2-Hydroxy-3-methyl-1,4-naphthoquinone; Monoxime, *in* H-00292
 1-(2-Hydroxy-5-methylphenyl)-1-butanone; (*E*)-form, Oxime, *in* H-00309
 1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one; 4-Me ether, oxime, *in* H-00311
 2-Hydroxy-1-naphthaldehyde; Oxime, *in* H-00336
N-Hydroxy-1-naphthalenecarboximidamide, *in* N-00005
 2-Hydroxy-5-nitrobenzaldehyde; Oxime, *in* H-00380
N-Hydroxy-3-nitrobenzenecarboximidamide, H-00382
 8-Hydroxy-5-nitrosoquinoline, *in* Q-00019
 2-(4-Hydroxyphenylazo)benzaldehyde; Me ether, oxime, *in* H-00448
N-Hydroxy-*N*'-phenyl-1*H*-benzimidazole-2-carboximidamide, *in* P-00102
 1-(2-Hydroxyphenyl)-1-butanone; Oxime, *in* H-00469
 1-(2-Hydroxyphenyl)-1-propanone; Oxime, *in* H-00498
 1*H*-Indane-1,2(3*H*)-dione-2-oxime, *in* I-00023
 Isatin; 2-Oxime, *in* I-00056
 Isatin; 3-Oxime, *in* I-00056
 Isonitrosoacetophenone, *in* P-00132
 Isonitrosoacetylacetone, *in* P-00030
 Isonitrosodimedone, *in* D-00848
 Isonitrosomalonylguanidine, *in* A-00337
N-Methanesulfonylbenzamidoxime, M-00067
O-(*p*-Methoxyphenylsulfonyl)-*o*-methylquinone monoxime, M-00117
O-(*p*-Methoxyphenylsulfonyl)quinone monoxime, M-00118
 Methylphenylpyrazolone oxime, *in* M-00239
O-(*p*-Methylphenylsulfonyl)-*o*-methylquinone monoxime, M-00242
 6-Methyl-2-pyridinecarboxamidoxime, *in* M-00271
 4-Methylsalicylaldoxime, *in* H-00276
 1-Naphthalenecarboxaldehyde; Oxime, *in* N-00003
 Nicotinamidoxime, *in* P-00341
 4-Nitro-*o*-anisaldoxime, *in* H-00379
 2-Nitro-*p*-anisaldoxime, *in* H-00381
 1-Nitroso-2-naphthol, N-00160
 2-Nitroso-1-naphthol, N-00161
 2-Nitrosophenol, *in* B-00075
 2,3,4-Pentanetrione; 3-Oxime, *in* P-00033
 9,10-Phenanthraquinone; Monoxime, *in* P-00047
 2-(1,10-Phenanthrolyl)amidoxime, P-00058
 2-Phenoxathiincarboxaldehyde; Oxime, *in* P-00074
 (Phenylazo)benzaldoxime, P-00091
 3-Phenyl-1*H*-pyrazole-4,5-dione; 4-Oxime, *in* P-00173
 Phthalimide; Monoxime, *in* P-00223
 Propanal oxime, *in* P-00259
 2-Propanoyl-1-naphthol; Oxime, *in* P-00267
 Pyrazinyl-2-pyridinylethanedione 2-(2-pyridinylhydrazine) 1-oxime, P-00298
- ▷ 2-Pyridinecarboxaldehyde; Oxime, *in* P-00318
 3-Pyridine-[2-(hydroxyimino)-1-methylpropylidene]carboxylic acid, P-00355
 1-(2-Pyridyl)-1-hexanone; Oxime, *in* P-00418
 2-Pyridyl-2-thienyl-β-ketoxime, *in* P-00408
 2-Quinolinecarboxaldehyde; Oxime, *in* Q-00009
 2,3,4(1*H*)-Quinolinetrione; 3-Oxime, *in* Q-00022
 Resorcyllaldoxime, *in* D-00517
 2-Selenophenecarboxaldehyde; Oxime, *in* S-00006
 1,2,3,4-Tetrahydro-1-hydroxyiminophenazine, *in* D-00466

Phenazines

- 3-Amino-7-(dimethylamino)-5-phenylphenazinium(1+); Chloride, *in* A-00162
 Azocarmine B; Di-Na salt, *in* A-00470
 Azocarmine G; Na salt, *in* A-00471
 3,7-Bis(dimethylamino)-5-phenylphenazinium(1+); Iodide, *in* B-00323
 ▷ C.I. 11050 Basic dye, *in* J-00004
 ▷ 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+); Chloride, *in* D-00084
 4-Hydroxy-3-[[5-hydroxybenzo[*a*]phenazin-6-yl]azo]benzenesulfonic acid, H-00187
 Induline scarlet; Chloride, *in* I-00035
 Janus black; Chloride, *in* J-00001
 Janus blue; Chloride, *in* J-00002
 Janus green; Chloride, *in* J-00003
 Lissamine blue BF; Di-Na salt, *in* L-00007
 10-Methyl-2(10*H*)-phenazinone, *in* H-00439
 Neutral red; B,HCl, *in* N-00065
 Neutral violet; B,HCl, *in* N-00066
 Phenosafranin; Chloride, *in* P-00070
 Phenosafranin; *N,N,N',N'*-Tetra-Et, chloride, *in* P-00070
 Rhoduline violet; Chloride, *in* R-00007
 Rosinduline 2G; Na salt, *in* R-00012
 1,2,3,4-Tetrahydro-1-hydroxyiminophenazine, *in* D-00466
 2,3,7,8-Tetrahydrophenazine, T-00079
 Wool fast blue BL; Na salt, *in* W-00002

Phenothiazine derivatives

- 1-Amino-8-ethoxyphenothiazine, *in* H-00440
 7-Amino-2-ethylphenothiazine, A-00177
 ▷ Azure A, *in* L-00003
 ▷ Azure B, *in* L-00003
 ▷ Azure C, *in* L-00003
 3,7-Bis(dimethylamino)phenothiazine, B-00316
 ▷ Butaperazine maleate, *in* B-00609
 2-Chloro-10*H*-phenothiazine, C-00198
 ▷ Chlorpromazine, C-00273
 1,3-Diamino-8-methoxyphenothiazine, D-00100
 ▷ Diethazine; B,HCl, *in* D-00312
 Ethopropazine hydrochloride, *in* E-00050
 Etymemazine; (±)-form, *in* E-00123
 7-Hydroxy-3*H*-phenothiazin-3-one, H-00441
 ▷ Methylene green; Chloride, *in* M-00177
 ▷ Methylthionium chloride, *in* M-00175
 ▷ Perazine, P-00043
 ▷ Pericyazine, P-00044
 ▷ Perphenazine, P-00046
 10*H*-Phenoselenazine, P-00072
 ▷ Phenothiazine, P-00073
 ▷ Prochlorperazine, P-00256
 ▷ Promazine, P-00258
 SKF 6270, *in* M-00069
 ▷ Tentone, *in* M-00070
 Thiazine blue; Chloride, *in* T-00136
 ▷ Thionine hydrochloride, *in* L-00003

- ▷ Tolonium chloride, *in* T-00189
 ▷ Trifluoperazine, T-00238
 ▷ Triflupromazine hydrochloride, *in* F-00010

Phenoxazine derivatives

- o*-Acetoresorufin, *in* H-00443
 Alizarine green; Na salt, *in* A-00078
 7-Amino-2-chloro-1-hydroxy-3*H*-phenoxazin-3-one, A-00138
 7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, A-00208
 5-Amino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00236
 7-Amino-1-methyl-3*H*-phenoxazin-3-one, A-00247
 ▷ 2-Amino-3*H*-phenoxazin-3-one, A-00303
 7-Amino-3*H*-phenoxazin-3-one, A-00304
 5-Anilino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00371
 9-Benzo[*a*]phenoxazin-9-one, B-00070
 ▷ C.I. 51010, *in* B-00477
 ▷ Capri blue; Chloride, *in* C-00017
 Capri blue GN; Chloride, *in* C-00018
 9-(Dimethylamino)benzo[*a*]phenoxazin-7-ium-2,5-disulfonic acid(1+), D-00781
 9-(Dimethylamino)-5*H*-benzo[*a*]phenoxazin-5-one, D-00782
 9-(Dimethylamino)-5-[[4-(dimethylamino)phenylamino]benzo[*a*]phenoxazin-7-ium(1+); Chloride, *in* D-00784
 7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, D-00786
 7-(Dimethylamino)-1-methyl-3*H*-phenoxazin-3-one, D-00792
 5-Ethoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, E-00057
 Ethyl capri blue; Chloride, *in* E-00067
 Gallamine blue; Chloride, *in* G-00003
 Gallocyanine; Chloride, *in* G-00005
 Gallocyanine MS, G-00006
 Gallophenine, G-00007
 9-Hydroxy-5*H*-benzo[*a*]phenoxazin-5-one, H-00123
 5-Hydroxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, H-00280
 6-Hydroxy-5-oxo-5*H*-dibenzo[*a,f*]phenoxazine-8,11-disulfonic acid, H-00432
 2-Hydroxy-3*H*-phenoxazin-3-one, H-00442
 7-Hydroxy-3*H*-phenoxazin-3-one; Me ether, *in* H-00443
 7-Hydroxy-3*H*-phenoxazin-3-one; Me ether, 10-oxide, *in* H-00443
 Meldola's blue; Chloride, *in* M-00011
 5-Methoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00089
 11-Methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00140
 Muscarine†; Chloride, *in* M-00350
 New methylene blue NCG; Chloride, *in* N-00068
 Nile blue A; 5-*N*-Benzyl, chloride, *in* N-00069
 Nile blue A; Chloride, *in* N-00069
 ▷ Resazurin, *in* H-00443
 1,7,9-Trihydroxy-3*H*-phenoxazin-3-one, T-00308

Phenylfluorones

- 4-Acetamidophenylfluorone, *in* A-00328
 9-(4-Aminophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, A-00328
 Anisylfluorone, A-00372
 Anthrafluorone, A-00387
 2',7'-Bis(carboxyethyl)carboxyfluorescein, B-00273
 9-(5-Bromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00513
 9-(4-Bromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00558
 9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00032
 9-(2-Carboxy-4-pyridyl)fluorone, C-00043
 9-(2-Chlorophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00240

Cotarnilfluorone, C-00302
 9-Cyclohexyl-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00359
 4,5-Dibromo-9-(3,5-dibromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00181
 2,7-Dibromogallein, D-00189
 9-(3,4-Dibromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00198
 4-Diethylaminophenylfluorone, *in* A-00328
 2',7'-Dihydroxyfluorescein, D-00613
 6,7-Dihydroxy-9-(2-hydroxyphenyl)-3*H*-xanthen-3-one, D-00628
 9-(3,4-Dihydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00719
 9-[4-(Dimethylamino)phenyl]-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00824
 9-(2,4-Dinitrophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00975
 ▶ Fluorescein, F-00020
 Fluorescein; Di-Ac, *in* F-00022
 Gallein, G-00004
 2-Hydroxy-3-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00557
 2-Hydroxy-4-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00558
 3-Hydroxy-2-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00559
 ▶ Merbromin; Di-Na salt, *in* M-00015
p-Methoxycarbonylphenylfluorone, *in* T-00306
 9,9'-[Methylenebis(6-hydroxy-3,1-phenylene)]bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], M-00172
 4-(*N*-Morpholinophenyl)fluorone, M-00349
 9,9'-(1,3-Phenylene)bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], P-00124
 9,9'-(1,4-Phenylene)bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], P-00125
 Pyrogallol red, P-00434
 Rhodamine B, *in* R-00002
 Rhodamine 4G, *in* R-00005
 Rhodamine 3G0; Chloride, *in* R-00004
 Rhodamine G; Chloride, *in* R-00005
 Rose bengal A; Di-Na salt, *in* R-00011
 2-(2,4,5,7-Tetrabromo-6-hydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid ethyl ester, *in* E-00007
 Tetrachlorogallein, T-00035
 2,6,7-Trihydroxy-9-(4-hydroxy-5-methoxy-2-nitrophenyl)-3*H*-xanthen-3-one, T-00287
 2,6,7-Trihydroxy-9-(4-hydroxy-3-methoxyphenyl)-3*H*-xanthen-3-one, T-00288
 2,6,7-Trihydroxy-9-(2-hydroxy-1-naphthalenyl)-3*H*-xanthen-3-one, T-00289
 2,6,7-Trihydroxy-9-(2-hydroxy-3-nitrophenyl)-3*H*-xanthen-3-one, T-00290
 2,6,7-Trihydroxy-9-(2-hydroxy-5-nitrophenyl)-3*H*-xanthen-3-one, T-00291
 2,6,7-Trihydroxy-9-(2-hydroxyphenyl)-3*H*-xanthen-3-one, T-00292
 2,6,7-Trihydroxy-9-(3-hydroxyphenyl)-3*H*-xanthen-3-one, T-00293
 2,6,7-Trihydroxy-9-(4-hydroxyphenyl)-3*H*-xanthen-3-one, T-00294
 2,6,7-Trihydroxy-9-(8-hydroxy-2-quinolinyl)-3*H*-xanthen-3-one, T-00295
 2,6,7-Trihydroxy-9-[4-(1-methylethyl)phenyl]-3*H*-xanthen-3-one, T-00298
 2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, T-00301
 2,6,7-Trihydroxy-9-(3-nitrophenyl)-3*H*-xanthen-3-one, T-00302
 2,6,7-Trihydroxy-9-(4-nitrophenyl)-3*H*-xanthen-3-one, T-00303
 4-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)-1,3-benzenedisulfonic acid, T-00304
 2-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzenesulfonic acid, T-00305
 2,6,7-Trihydroxy-9-phenyl-3*H*-xanthen-3-one, T-00315
 2,6,7-Trihydroxy-9-(2-pyridinyl)-3*H*-xanthen-3-one, T-00317
 2,6,7-Trihydroxy-9-(3-pyridinyl)-3*H*-xanthen-3-one, T-00318

2,6,7-Trihydroxy-9-(4-pyridinyl)-3*H*-xanthen-3-one, T-00319
 2,6,7-Trihydroxy-9-(2-quinolinyl)-3*H*-xanthen-3-one, T-00320
 2,6,7-Trihydroxy-9-(2-quinoxalyl)-3*H*-xanthen-3-one, T-00321
 2,6,7-Trihydroxy-9-(2-sulfophenyl)-3*H*-xanthen-3-one, T-00322

Porphines

Deuteroporphyrin IX, D-00030
 Mesoporphyrin IX, M-00061
 Mesotetraethylporphine, M-00062
 Mesotetraisobutylporphine, M-00063
 Mesotetraoctylporphine, M-00064
 Mesotetrapropylporphine, M-00065
N-Methyl-5,10,15,20-tetrakis(4-sulfophenyl)porphine, *in* P-00250
 Octaethylporphyrin, O-00002
 4,4',4''-(20-Phenyl-21*H*,23*H*-porphine-5,10,15-triyl)trisbenzenesulfonic acid, P-00166
 Phthalocyaninetetrasulfonic acid; Tetra-Na salt, *in* P-00231
 4,4',4''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakisbenzenesulfonic acid, P-00250
 4,4',4''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakisbenzoic acid, P-00251
 4,4',4''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakis[1-methylpyridinium]; Tetrakis(*p*-toluenesulfonate), *in* P-00252
meso-Tetraphenylporphyrin, T-00121

8-Quinolinol derivatives

8-Acetoxyquinaldine, *in* H-00326
 2,2'-Azinobis(8-hydroxy-1-methylquinoline), A-00463
 Azoxin H, A-00480
 5-(1*H*-Benzimidazol-5-ylazo)-8-quinolinol, B-00043
 1,4-Bis(8-quinolyloxy)butane, B-00449
 1,3-Bis(8-quinolyloxy)-2,2-diethylpropane, B-00450
 1,1-Bis(8-quinolyloxymethyl)cyclobutane, B-00451
 3,3-Bis(8-quinolyloxymethyl)oxetane, B-00452
 1,3-Bis(8-quinolyloxy)propane, B-00453
 5-Bromo-8-hydroxy-7-[(2-hydroxy-3,5-dinitrophenyl)azo]quinoline, B-00511
 7-[α -(Carbomethoxyanilino)benzyl]-8-hydroxyquinoline, C-00022
 ▶ 5-Chloro-8-hydroxy-7-iodoquinoline, C-00134
 7-Chloro-8-hydroxy-5-quinolinesulfonic acid, C-00152
 5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206
 Cryptand 5, C-00316
 5,7-Dibromo-8-hydroxy-2-methylquinoline, D-00190
 ▶ 5,7-Dibromo-8-hydroxyquinoline, D-00193
 5,7-Dibromo-8-hydroxyquinoline; *N*-Oxide, *in* D-00193
 ▶ 5,7-Dichloro-8-hydroxy-2-methylquinoline, D-00280
 5,7-Dichloro-8-hydroxyquinoline; 1-Oxide, *in* D-00283
N-[2-(Diethylamino)ethyl]-4-[(8-hydroxy-5-quinolinyl)azo]benzamide, D-00317
 8,8'-Dihydroxy-5,5'-biquinoline, D-00546
 ▶ 5,7-Diiodo-8-quinolinol, D-00744
 5-(2,4-Dinitrophenylazo)-8-hydroxyquinoline, D-00968
 5-Diethylaminomethyl-8-quinolinol, *in* A-00244
 7-(5,8-Disulfo-2-naphthylazo)-8-hydroxy-5-quinolinesulfonic acid, D-01110
 7-(1-Ethenyl-3,3,5,5-tetramethylhexyl)-8-quinolinol, E-00049
 5-Fluoro-8-hydroxyquinoline, F-00029
 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-8-quinolinol 1-oxide, H-00161
 8-Hydroxy-5,7-dinitroquinoline, H-00165
 8-Hydroxy-5,7-dinitroquinoline; *N*-Oxide, *in* H-00165
 ▶ 8-Hydroxy-7-iodo-5-quinolinesulfonic acid, H-00255
 8-Hydroxy-7-[(4-methylphenyl)azo]-5-quinolinesulfonic acid, H-00304
 8-Hydroxy-7-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-5-quinolinesulfonic acid; Na salt, *in* H-00322
 8-Hydroxy-2-methylquinoline, H-00326
 ▶ 8-Hydroxy-5-nitrosoquinoline, *in* Q-00019
 8-Hydroxy-7-nitroso-5-quinolinesulfonic acid; Na salt, *in* H-00421
 5-(2-Hydroxyphenylazo)-8-quinolinol, H-00456
 5-(4-Hydroxyphenylazo)-8-quinolinol, H-00458
 8-Hydroxy-2-phenylquinoline, H-00503
 ▶ 8-Hydroxyquinoline, H-00525
 8-Hydroxy-2-quinolinecarboxaldehyde 8-quinolylhydrazone, H-00526
 8-Hydroxy-5-quinolinesulfonic acid, H-00528
 3-[(8-Hydroxy-7-quinolinyl)azo]-1,5-naphthalenedisulfonic acid; Di-K salt, *in* H-00531
 8-[(8-Hydroxy-5-quinolinyl)azo]-1-naphthalenesulfonic acid, H-00532
 1-(8-Hydroxy-2-quinolyl)-2-(8-hydroxy-5-quinolyl)ethylene; B, 2HCl, *in* H-00534
 8-Hydroxy-7-[(4-sulfo-1-naphthalenyl)azo]-5-quinolinesulfonic acid; Di-Na salt, *in* H-00539
 2,2'-Iminobis-8-quinolinol, I-00010
 2,2'-Isopropylidenebis(4-acetyl-8-hydroxyquinoline), I-00072
 2-Isopropyl-8-quinolinol, I-00078
 8-Methoxy-5-quinolinesulfonyl chloride, M-00121
 5,5'-Methylenebis[8-quinolinol], M-00174
 2,2'-(Methylimino)bis-8-quinolinol, M-00193
 5-[(4-Methylphenyl)azo]-8-quinolinol; 1-Oxide, *in* M-00224
 7-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-8-quinolinol, M-00253
 2-Methyl-8-quinolinethiol, M-00307
 5-(1-Naphthalenylazo)-8-quinolinol; *N*'-Oxide, *in* N-00017
 Naphthylazoxine 4,8S, N-00044
 Naphthylazoxine 4S, N-00043
 Naphthylazoxine 5,7S, N-00046
 Naphthylazoxine 5S, N-00045
 Naphthylazoxine 6S, N-00047
 5-[(4-Nitrophenyl)azo]-8-quinolinol; 1-Oxide, *in* N-00129
 7-Nitroso-8-hydroxyquinoline, N-00158
 5-Nitroso-6-quinolinol, N-00162
 5-[(Octyloxy)methyl]-8-quinolinol, O-00039
 5-Phenylazo-8-quinolinol; *N*-Oxide, *in* P-00100
 Phenylazoxine S, P-00101
 Picriminazosulfone, P-00234
 7-(1-Piperidinylmethyl)-8-quinolinol; B,HCl, *in* P-00243
 7-(2-Pyridinylazo)-8-quinolinol, P-00381
 5-(4-Pyridinylazo)-8-quinolinol; *N*⁴-Oxide, *in* P-00380
 7-(4-Pyridinylazo)-8-quinolinol; *N*⁴-Oxide, *in* P-00382
 1,2,3,4-Tetrahydro-8-quinolinethiol, T-00067

Quaternary ammonium salts

▶ Benzyltrimethyldecylammonium(1+); Bromide, *in* B-00179
 Benzyltrimethyldecylammonium(1+); Perchlorate, *in* B-00180
 ▶ Cetyl chloride, *in* E-00071
 Ethyltridodecylammonium(1+); Bromide, *in* E-00120
 Girard's reagent T, G-00009
 ▶ Hexadecyltrimethylammonium(1+), H-00029
 2-Hydroxy-*N,N,N*-trimethyl-1-dodecanaminium(1+); Bromide, *in* H-00560

- ▷ Lauryltrimethylammonium(1+); Bromide, *in* L-00002
- Moonion A-9Q-08, *in* B-00181
- Septonex, *in* E-00061
- ▷ Tetrabutylammonium(1+); Bromide, *in* T-00023
- ▷ Tetraethylammonium(1+); Hydroxide, *in* T-00041
- Tetraheptylammonium(1+), T-00048
- Tetrahexylammonium(1+), T-00049
- ▷ Tetramethylammonium(1+); Bromide, *in* T-00092
- ▷ Tetramethylammonium(1+); Hydroxide, *in* T-00092
- Tetraoctylammonium(1+); Bromide, *in* T-00110
- Tetraoctylammonium(1+); Chloride, *in* T-00110
- Tetrapropylammonium(1+); Hydroxide, *in* T-00124
- Tridodecylamine; *N*-Oxide, *in* T-00230
- Triethylphenylammonium(1+); Hydroxide, *in* T-00234
- Trilaurylammonium chloride, *in* T-00230
- ▷ Trimethylaminium hydroxide, *in* T-00336
- Tris(decyl)ethylammonium(1+); Bromide, *in* T-00386
- Zephiramine; Chloride, *in* Z-00001

Rhodanines

- 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, *in* O-00075
- 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]-5-chloro-2-hydroxy-benzenesulfonic acid, *in* C-00141
- 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, *in* H-00391
- 3-Aminorhodanine, A-00346
- 5-[(2-Arsonophenyl)azo]-2,4-thiazolidinedithione, A-00443
- 5-[(2-Arsonophenyl)azo]-2-thioxo-4-thiazolidinone, A-00444
- 5-[2,2-Bis(4-dimethylaminophenyl)ethylene]rhodanine, B-00318
- 5-Chloro-3-[(2,4-dithioxo-5-thiazolidinyl)azo]-2-hydroxybenzenesulfonic acid, C-00112
- 5-Chloro-2-hydroxy-3-[(3-benzylideneamino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00124
- 5-Chloro-2-hydroxy-3-[(3-(2-hydroxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00128
- 5-Chloro-2-hydroxy-3-[(3-(2-hydroxy-3-methoxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00131
- 5-Chloro-2-hydroxy-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, C-00140
- 5-Chloro-2-hydroxy-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00141
- 5-Chloro-2-hydroxy-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzenesulfonic acid, C-00163
- 5-(Cyclopentylmethylene)-2-thioxo-4-thiazolidinone, C-00366
- 5-[[4-(Diethylamino)phenyl]methylene]-2-thioxo-4-thiazolidinone, D-00334
- ▷ 5-[[4-(Dimethylamino)phenyl]ethylene]-2-thioxo-4-thiazolidinone, D-00813
- 3-Ethyl-2-thioxo-4-thiazolidinone, *in* T-00176
- 5-(2-Furanylmethylene)-2-thioxo-4-thiazolidinone, F-00056
- 5-[5-(2-Furanyl)-2,4-pentadienylidene]-2-thioxo-4-thiazolidinone, F-00059
- 5-[3-(2-Furanyl)-2-propenylidene]-2-thioxo-4-thiazolidinone, F-00061
- 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2,4-thiazolidinedithione, H-00162
- 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2-thioxo-4-thiazolidinone, H-00163

- 5-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2-thioxo-4-thiazolidinone, H-00220
- 5-[(2-Hydroxy-1-naphthalenyl)methylene]-2-thioxo-4-thiazolidinone, H-00364
- 2-Hydroxy-5-nitro-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, H-00390
- 2-Hydroxy-5-nitro-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, H-00391
- 2-Hydroxy-5-[[4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]phenyl]azo]benzenesulfonic acid, H-00436
- 5-[(3-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00461
- 5-[[4-Hydroxyphenyl]azo]-2-thioxo-4-thiazolidinone, H-00462
- 5-[(2-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00486
- 5-[(3-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00487
- 2-Hydroxy-5-sulfo-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzoic acid, H-00545
- 5-(4-Isopropylbenzyl)-2-thioxo-4-thiazolidinone, I-00070
- ▷ 5-[(4-Methoxyphenyl)methylene]-2-thioxo-4-thiazolidinone, M-00113
- 5-[(4-Nitrophenyl)azo]-2-thioxo-4-thiazolidinone, N-00132
- 2-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00074
- 3-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00075
- 4-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00076
- 5-[[4-(Phenylazo)phenyl]azo]-2-thioxo-4-thiazolidinone, P-00096
- 3-[(Phenylmethylene)amino]-2-thioxo-4-thiazolidinone, P-00146
- 5-Phenylmethylene-2-thioxo-4-thiazolidinone, P-00148
- 5-(3-Phenyl-2-propenylidene)-2-thioxo-4-thiazolidinone, P-00171
- 5-(1*H*-Pyrrol-2-ylmethylene)-2-thioxo-4-thiazolidinone, P-00445
- 5-(8-Quinolinyloxy)-2,4-thiazolidinedithione, Q-00033
- 5-(8-Quinolinyloxy)-2-thioxo-4-thiazolidinone, Q-00034
- ▷ 2-Thioxo-4-thiazolidinone, T-00176
- 5-[(1-*p*-Tolylimidazol-4-yl)methylene]rhodanine, T-00191

Semicarbazones (or thiosemicarbazones)

- 4-Acetylpyridine 4-ethyl-3-thiosemicarbazone, A-00041
- 2-Acetylpyridine phenylthiosemicarbazone, A-00042
- 2-Acetylpyridine; Thiosemicarbazone, *in* A-00039
- [(Aminothioxomethyl)hydrazono]acetic acid, *in* G-00038
- 3-[[[(Aminothioxomethyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, *in* P-00386
- 1,2-Benzenedicarboxaldehyde bis(thiosemicarbazone), B-00017
- Benzoithiosemicarbazone, *in* B-00068
- Benzophenone; Thiosemicarbazone, *in* B-00069
- 2-Benzoylpyridine phenylthiosemicarbazone, B-00153
- 2-[2,3-Bis(hydroxyimino)-5,5-dimethylcyclohexylidene]hydrazinecarbothioamide, *in* D-00848
- 5-Bromo-2-furancarboxaldehyde; Thiosemicarbazone, *in* B-00507
- 2,3-Butanedione bis(4-biphenyl)thiosemicarbazone, B-00589
- 2,3-Butanedione bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone], B-00590
- 2,3-Butanedione bis[4-(4-chloro-3-(trifluoromethyl)phenyl)thiosemicarbazone], B-00591
- 2,3-Butanedione bis[4-(3,4-dichlorophenyl)thiosemicarbazone], B-00592
- 2,3-Butanedione bis(2-fluorophenyl)thiosemicarbazone, B-00593
- 2,3-Butanedione bis(4-fluorophenyl)thiosemicarbazone, B-00594
- 2,3-Butanedione bis[[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone], B-00595
- 2,3-Butanedione bis[4-(nitrophenyl)thiosemicarbazone], B-00596
- 2,3-Butanedione bis(phenylthiosemicarbazone), B-00597
- 2,3-Butanedione; Bis(2-pyridylhydrazone), *in* B-00587
- 2,3-Butanedione bis(2-trifluoromethylphenyl)thiosemicarbazone, B-00599
- 2,3-Butanedione; Monoxime, semicarbazone, *in* B-00587
- 2,3-Butanedione; Monoxime, thiosemicarbazone, *in* B-00587
- 2,3-Butanedione; Thiosemicarbazone, *in* B-00587
- 2,3-Butanedione; Thiosemicarbazone, (2-pyridyl)hydrazone, *in* B-00587
- 3-(5-Chloro-2-furanoyl)-2-propenal; Thiosemicarbazone, *in* C-00120
- 5-Chloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, C-00123
- 5-Chloro-2-hydroxybenzaldehyde; Semicarbazone, *in* C-00122
- 5-Chloro-2-hydroxybenzaldehyde; Thiosemicarbazone, *in* C-00122
- 1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, *in* C-00345
- 2,2'-(1,4-Cyclohexanediyldiene)bishydrazinecarbothioamide, *in* C-00339
- 1,3-Cyclopentanedione bis(4-methylthiosemicarbazone); B, HCl, *in* C-00363
- 2,2'-Diacetyl-4,4'-bithiazolebis(thiosemicarbazone), D-00033
- 2-[(3,5-Dibromo-2-hydroxyphenyl)methylene]-*N*-phenylhydrazinecarbothioamide, D-00192
- 3,5-Dichloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, D-00278
- 2',4'-Dihydroxyacetophenone; Semicarbazone, *in* D-00507
- 2',4'-Dihydroxyacetophenone; Thiosemicarbazone, *in* D-00507
- 2,4-Dihydroxybenzaldehyde; Semicarbazone, *in* D-00517
- 2,5-Dihydroxybenzaldehyde; Semicarbazone, *in* D-00518
- 2,4-Dihydroxybenzaldehyde; Thiosemicarbazone, *in* D-00517
- 2,4-Dihydroxybenzophenone; Semicarbazone, *in* D-00536
- 2,2'-Dihydroxybenzophenone; Thiosemicarbazone, *in* D-00535
- 4,7-Dihydroxy-1*H*-isoindole-1,3 (2*H*)-dione; Dithiosemicarbazone, *in* D-00636
- 5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, *in* D-00847
- 5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 1,3-bisthiosemicarbazone, *in* D-00848
- 5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 3-thiosemicarbazone, *in* D-00848
- 5,6-Dimethyl-2-nitro-1,3-indanedione; Bis(thiosemicarbazone), *in* D-00873
- 2-[5,5-Dimethyl-3-[[2-[(phenylamino)thioxomethyl]hydrazino]-2-cyclohexen-1-ylidene]]-*N*-phenylhydrazinecarbothioamide, *in* D-00847
- 3,4-Dioxohexanedioic acid bis(thiosemicarbazide); Di-Et ester, *in* D-00990

- Diphenylcarbazon, D-01005
 1,4-Diphenylthiosemicarbazide, D-01053
 2,4-Diphenylthiosemicarbazide, D-01054
 Di-2-pyridinylethanedione bis(diphenylthiosemicarbazone), D-01064
 Di-2-pyridinylethanedione bis(phenylthiosemicarbazone), *in* D-01063
 Di-2-pyridinylmethanone thiosemicarbazone, D-01084
 Di-2-pyridylglyoxal dithiosemicarbazone, *in* D-01063
 2-Ethyl-4-(2-furanyl)propenal; Thiosemicarbazone, *in* E-00082
 2-Furancarboxaldehyde phenylthiosemicarbazone, F-00047
 2-[5-(2-Furanyl)-2,4-pentadienylidene]hydrazinecarbothioamide, *in* F-00058
 3-(2-Furanyl)-2-propenal; (*E*)-form, Thiosemicarbazone, *in* F-00060
 Glyoxal bis(4-biphenylthiosemicarbazone), G-00021
 Glyoxal bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone], G-00022
 Glyoxal bis(4-cyclohexylthiosemicarbazone), G-00023
 Glyoxal bis(3,4-dichlorophenylthiosemicarbazone), G-00024
 Glyoxal bis(2-fluorophenylthiosemicarbazone), G-00025
 Glyoxal bis(4-fluorophenylthiosemicarbazone), G-00026
 Glyoxal bis[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone, G-00030
 Glyoxal bis(1-naphthylthiosemicarbazone), G-00031
 Glyoxal bis(4-nitrophenylthiosemicarbazone), G-00032
 Glyoxal bis(phenylthiosemicarbazone), G-00033
 Glyoxal bis(thiosemicarbazone), G-00034
 Glyoxal bis[4-(3-trifluoromethyl)-4-chlorophenyl]thiosemicarbazone, G-00035
 Glyoxal bis[4-(2-trifluoromethyl)phenyl]thiosemicarbazone, G-00036
 2'-Hydroxyacetophenone; Thiosemicarbazone, *in* H-00089
 2-Hydroxybenzaldehyde phenylthiosemicarbazone, H-00107
 2-Hydroxybenzaldehyde; Semicarbazone, *in* H-00101
 ▶ 2-Hydroxybenzaldehyde; Thiosemicarbazone, *in* H-00101
 2-[2-(Hydroxyimino)-1-methylpropylidene]-*N*-phenylhydrazinecarbothioamide, H-00248
 ▶ 2-[(4-Hydroxy-3-methoxyphenyl)methylene]hydrazinecarbothioamide, H-00271
 2'-Hydroxy-5'-methylacetophenone; Semicarbazone, *in* H-00275
 2-Hydroxy-5-methylbenzaldehyde; Semicarbazone, *in* H-00277
 2-Hydroxy-5-methylbenzaldehyde; Thiosemicarbazone, *in* H-00277
 2-[(2-Hydroxy-4-methylphenyl)methylene]hydrazinecarboxamide, *in* H-00276
 2-Hydroxy-1-naphthaldehyde; Semicarbazone, *in* H-00336
 2-Hydroxy-1-naphthaldehyde; Thiosemicarbazone, *in* H-00336
 2-[(2-Hydroxy-1-naphthalenyl)methylene]-*N*-phenylhydrazinecarbothioamide, H-00363
 2-[(2-Hydroxy-5-nitrophenyl)methylene]-*N*-phenylhydrazinecarbothioamide, *in* H-00380
 3-Hydroxy-2-pyridinecarboxaldehyde; Thiosemicarbazone, *in* H-00518
 3-Hydroxy-2-pyridinecarboxaldehyde; Thiosemicarbazone; B,HCl, *in* H-00518
 1,2,3-Indanetrione; 2-(Thiosemicarbazone), *in* I-00025
 2,2'-(1*H*-Indene-1,3(2*H*)-diylidene)bishydrazinecarbothioamide, *in* I-00024
 β-Iononethiosemicarbazone, *in* M-00010
 4-Methoxybenzaldehyde phenylthiosemicarbazone, M-00076
 4-Methoxybenzaldehyde; Thiosemicarbazone, *in* M-00075
 2-Methyl-1,3-cyclohexanedione bis(phenylthiosemicarbazone), M-00158
 2,2'-(3-Methyl-1,2-cyclopentenediylidene)bishydrazinecarbothioamide, *in* M-00159
 2,2'-(1-Methyl-1,2-ethanediylidene)bis[*N*-phenylhydrazinecarbothioamide], *in* P-00446
 ▶ 2-(1-Methylethylidene)hydrazinecarbothioamide, *in* A-00007
 5-Methyl-2-furancarboxaldehyde thiosemicarbazone, *in* M-00179
 5-(5-Methyl-2-furanyl)-2,4-pentadienyl thiosemicarbazone, M-00181
 3-(5-Methyl-2-furanyl)-2-propenal; Thiosemicarbazone, *in* M-00182
 6-Methyl-2-pyridinecarboxaldehyde; Thiosemicarbazone, *in* M-00266
 1,2-Naphthoquinone-4-sulfonic acid 2-(phenylthiosemicarbazone); Na salt, *in* N-00037
 1,2-Naphthoquinone-4-sulfonic acid; 2-Semicarbazone, *in* N-00033
 1,2-Naphthoquinone-4-sulfonic acid; 2-(Thiosemicarbazone), *in* N-00033
 3-(5-Nitro-2-furanyl)-2-propenal; Thiosemicarbazone, *in* N-00110
 ▶ Nitrofurazone, *in* N-00109
 2-(2-Oxo-1(2*H*)-acenaphthylidene)hydrazinecarbothioamide, *in* A-00001
 α-Oxobenzeneacetic acid; Thiosemicarbazone, *in* O-00055
 2-(1-Oxo-2(1*H*)-naphthalenylidene)hydrazinecarbothioamide, *in* N-00031
 9,10-Phenanthraquinone; Dioxime, mono-Me ether, *in* P-00047
 9,10-Phenanthraquinone; Monothiosemicarbazone, *in* P-00047
 ▶ 3-Phenyl-2-propenal; (*E*)-form, Thiosemicarbazone, *in* P-00168
 4-Phenylsemicarbazide, P-00193
 ▶ 1-Phenylthiosemicarbazide, P-00199
 Phthalimide; Dithiosemicarbazone, *in* P-00223
 2-Pyridinecarboxaldehyde diphenylsemicarbazone, P-00323
 2-Pyridinecarboxaldehyde phenylthiosemicarbazone, P-00331
 2-Pyridinecarboxaldehyde; Seleno-semicarbazone, *in* P-00318
 3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Phenylthiosemicarbazone, *in* P-00386
 ▶ 2-(3-Pyridinylmethylene)hydrazinecarbothioamide, *in* P-00319
 Pyrrolic acid thiosemicarbazone, *in* P-00448
 ▶ Thiacetazone, *in* A-00097

Silyl compounds (or silanes)

- N,O*-Bis(allyldimethylsilyl)trifluoroacetamide, B-00241
 ▶ Bis[(chloromethyl)dimethylsilyl]amine, B-00284
 ▶ *N,O*-Bis(trimethylsilyl)acetamide, B-00470
 ▶ Bis(trimethylsilyl)amine, B-00471
N,N'-Bis(trimethylsilyl)urea, B-00472
 (Bromomethyl)dimethylchlorosilane, B-00521
 Bromotrimethylsilane, B-00582
N-(*tert*-Butyldimethylsilyl)imidazole, B-00628
N-(*tert*-Butyldimethylsilyl)-*N*-methylacetamide, B-00629
N-(*tert*-Butyldimethylsilyl)-*N*-methyltrifluoroacetamide, B-00630
 1-Chloro-1-*tert*-butylsilylcyclopentane, C-00076
 Chloro(chloromethyl)dimethylsilane, C-00081
 Chlorodimethoxymethylsilane, C-00097

- Chlorodimethyl(pentafluorophenyl)silane, C-00100
 Chlorodimethylphenylsilane, C-00103
 Chlorodimethyl-2-propenylsilane, C-00104
 Chlorodimethylsilane, C-00105
 Chloro(iodo-methyl)dimethylsilane, C-00165
 Chloromethoxydimethylsilane, C-00166
 Chlorotriethylsilane, C-00265
 Chlorotrihexylsilane, C-00266
 ▶ Chlorotrimethylsilane, C-00267
 ▶ Chlorotriphenylsilane, C-00270
 Chlorotripropylsilane, C-00272
 Diacetoxymethylsilane, D-00031
 ▶ Dichlorodimethylsilane, D-00267
 (Diethylamino)dimethyl(pentafluorophenyl)silane, D-00316
 ▶ (Diethylamino)trimethylsilane, D-00336
 1,1-Dimethyl-*N,N*-diphenyl-1-(2-propenyl)silanamine, D-00853
 1,1-Dimethyl-1-(pentafluorophenyl)silanamine, D-00878
 1-(Dimethyl-2-propenylsilyl)-1*H*-imidazole, D-00900
N-(Dimethyl-2-propenylsilyl)-2,2,2-trifluoro-*N*-methylacetamide, D-00901
N-(Dimethylsilyl)-1,1-dimethylsilanamine, D-00915
 DSS, *in* T-00344
N-(4-Ethoxyphenyl)-*N*-(trimethylsilyl)acetamide, E-00060
 Ethyl trimethylsilylacetate, *in* T-00339
 2,2,3,3,4,4,4-Heptafluoro-*N*-methyl-*N*-(trimethylsilyl)butanamide, H-00007
N-Methyl-*N*-(trimethylsilyl)acetamide, M-00330
N-Methyl-*N*-(trimethylsilyl)formamide, M-00331
 ▶ *N*-Methyl-*N*-(trimethylsilyl)trifluoroacetamide, M-00332
N-Phenyl-*N*-(trimethylsilyl)acetamide, P-00210
N,N,N',N'-Tetrakis(trimethylsilyl)-1,2-ethanediamine, T-00091
 ▶ Tetramethylsilane, T-00103
 Tributylchlorosilane, T-00209
 2,2,2-Trifluoro-*N*-(trimethylsilyl)ethanimidic acid trimethylsilyl ester, T-00266
 ▶ Trimethyl(dimethylamino)silane, T-00326
 ▶ *N*-(Trimethylsilyl)acetamide, T-00338
 ▶ 1-(Trimethylsilyl)-1*H*-imidazole, T-00341
 4-(Trimethylsilyl)morpholine, T-00342
 1-(Trimethylsilyl)piperidine, T-00343
 1-(Trimethylsilyl)pyrrolidine, T-00346
 TSP, *in* T-00345

Thiazoles

- 2-Acetylpyrazine; 2-Thiazolylhydrazone, *in* A-00033
 ▶ 2-Aminobenzothiazole, A-00113
 ▶ 2-Amino-4-methylthiazole, A-00257
 ▶ 5-Amino-1,3,4-thiadiazoline-2(3*H*)-thione, A-00354
 2,2'-Azinobis[3-ethyl-2,3-dihydro-6-benzothiazolesulfonic acid], A-00462
 2-Benzothiazolecarboxaldehyde 2-benzothiazolylhydrazone, B-00086
 2-Benzothiazolecarboxaldehyde 1(2*H*)-phthalazinyldienehydrazone, B-00087
 2-Benzothiazolecarboxaldehyde 2-quinolylhydrazone, B-00088
 2-Benzothiazolethiol, B-00089
 2-[(4-Benzothiazolylimino)methyl]phenol, B-00104
 6-Benzoyl-5-phenyl-3-(2-thiazolyl)-1,2,4-triazine, B-00147
 2-Benzoylpyrazine 2-thiazolylhydrazone, B-00150
 2-Benzoylpyridine 2-thiazolylhydrazone, B-00158
 Bismuthiol II, *in* M-00060
 Bismuthiol II sulfonic acid, *in* M-00060
 2,2'-Diacyl-4,4'-bithiazolebis(thiosemicarbazone), D-00033
 Di-2-benzothiazolylmethane, D-00163

- N,N*-Diethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00349
 2,3-Dihydro-2,2-di-(2-pyridinyl)benzothiazole, D-00403
 4,5-Dihydro-5-(2-pyridyl)-3-(2-thiazolyl)-1*H*-1,2,4-triazole, D-00487
 3,4-Dihydro-4,4,6-trimethyl-1-(4-phenyl-2-thiazolyl)-2(1*H*)-pyrimidinethione, D-00502
 2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxycarbonylthiophene, *in* C-00326
 5-(Dimethylamino)-2-[(5-nitro-2-thiazolyl)azo]phenol, *in* A-00289
N,N-Dimethyl-*N'*-[5-nitro-4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00874
 7-(4,5-Dimethyl-2-thiazolyl)azo-8-hydroxy-5-quinolinesulfonic acid, D-00922
 2-(4,5-Dimethyl-2-thiazolyl)-3,5-diphenyl-2*H*-tetrazolium(1+); Bromide, *in* D-00924
 3-(4,5-Dimethyl-2-thiazolyl)-2,5-diphenyl-2*H*-tetrazolium(1+); Chloride, *in* D-00925
 5,6-Dimethyl-3-(2-thiazolyl)-1,2,4-triazine, D-00926
 Di-2-pyridinylmethanone 2-thiazolylhydrazone, D-01083
 5,6-Di-2-pyridyl-3-(2-thiazolyl)-1,2,4-triazine, D-01096
 1-(1,5-Di-2-thiazolylformazanylethanone, D-01112
 ▶ 2-Hydrazinobenzothiazole, H-00083
 2-Hydroxybenzothiazole, H-00125
 4-Hydroxybenzothiazole, H-00126
 6-Hydroxybenzothiazole, H-00127
 5-[(2-Hydroxyphenyl)azo]-2-thioxo-4-thiazolidinone, H-00460
 2-(4-Isocyanatophenyl)-6-methylbenzothiazole, I-00065
 5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione, M-00039
 ▶ 5-Mercapto-1,3,4-thiadiazoline-2-thione, M-00060
 2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazolo[3,2-*c*]pyridin-4-ium(1+); Chloride, *in* M-00108
 [[4-(5-Methyl-2-benzothiazolyl)phenyl]amino]acetohydrazide, M-00142
 1-[4-(6-Methyl-2-benzothiazolyl)phenyl]-1*H*-pyrrole-2,5-dione, M-00143
N-Methyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, *in* M-00208
 (4-Methyl-5-nitro-2-thiazolyl)thiourea, M-00208
 4-Methyl-2-thiazolidinone; (±)-*form*, *in* M-00315
 4-Methyl-2(3*H*)-thiazolone, M-00316
 5-Methyl-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, M-00326
 ▶ 6-Nitro-2(3*H*)-benzothiazolethione, N-00096
 4-[(5-Nitro-2-thiazolyl)azo]-1,3-benzenediol, N-00165
 2-Pyrazinyl-1-(2-pyridinyl)ethanone; 2-Thiazolylhydrazone, *in* P-00299
 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone; 2-Thiazolylhydrazone, *in* P-00405
 3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, P-00407
 Pyruvaldehyde 1-(2-benzothiazolylhydrazone), P-00447
 γ-Saccharin chloride, *in* C-00062
 2,2',3,3'-Tetrahydro-2,2'-bibenzothiazole, T-00052
 ▶ Thiamine, T-00135
 2-Thiazolecarboxaldehyde 2-quinolinylhydrazone, T-00137
 3-(2-Thiazolyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, T-00147
 3-(2-Thiazolyl)-1,2,4-triazine, T-00148
 2-(2-Thienyl)benzothiazole, T-00149
N'-Benzoyl-*N,N*-[bis(2-hydroxyethyl)]thiourea, B-00124
N-Benzoyl-*N'*-(5-bromo-2-pyridyl)thiourea, B-00125
 β-Benzoyl-α-(ethanol)thiourea, B-00129
N-Benzoyl-*N'*-(2-pyridyl)thiourea, B-00159
S-Benzylthiuronium chloride, *in* B-00193
N,N'-Bis(1,1-dimethylethyl)thiourea, *in* T-00175
 Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbothioic dihydrazide, B-00376
 ▶ *N,N'*-Bis(2-methylphenyl)thiourea, B-00412
 Bis(2-pyridylmethylene)carbothioic acid dihydrazide, B-00444
N'-(4-Bromophenyl)-*N*-hydroxy-*N*-phenylthiourea, B-00551
N-[2-(Butylthio)phenyl]-*N'*-phenylthiourea, B-00639
 ▶ 1-Chloro-2-(chloromethyl)benzene, C-00079
 Diantipyrilthiourea, D-00141
N-[(Dibutylamino)thioxomethyl]benzamide, D-00225
N,N-Diethyl-*N'*-benzoylthiourea, D-00338
N,N-Diethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00349
N,N-Dihexyl-*N'*-benzoylthiourea, *in* B-00161
 [(2,4-Dihydroxyphenyl)methylene](2-pyridinylmethylene)carbothioic dihydrazide, D-00713
N,N-Dimethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00870
N,N-Dimethyl-*N'*-[5-nitro-4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00874
N,N-Dimethyl-*N'*-[4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00875
 ▶ 1,3-Di-1-naphthyl-2-thiourea, D-00934
N,N-Diphenyl-*N'*-benzoylthiourea, *in* B-00161
 ▶ *N,N'*-Diphenylthiourea, D-01055
N-[(Dipropylamino)thioxomethyl]benzamide, D-01059
 Hexahydro-2*H*-1,3-diazepine-2-thione, H-00037
 Hexahydro-*N*-(4-methylpentyl)-1*H*-azepine-1-carbothioamide, H-00048
 Hexahydro-*N*-phenyl-1*H*-azepine-1-carbothioamide, H-00049
N-Hexyl-*N'*-benzoylthiourea, H-00072
N-Hydroxy-*N,N'*-diphenylthiourea, *in* D-01055
N-Hydroxy-*N'*-2-naphthalenyl-*N*-phenylthiourea, H-00367
 [(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbothioic dihydrazide, H-00483
 [(4-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbothioic dihydrazide, H-00484
 ▶ 2-Imidazolidinedithione, I-00003
 ▶ 2-Imidazolidinedithione; 1,3-Di-Me, *in* I-00003
 2-(3-Mercapto-2-quinoxalyl)-2-thiopsedourea; B, HCl, *in* M-00058
N-Methyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, *in* M-00208
 (4-Methyl-5-nitro-2-thiazolyl)thiourea, M-00208
 ▶ *N*-[[[(2-Methylphenyl)amino]thioxomethyl]benzamide, M-00223
 ▶ *N*-[(Phenylamino)thioxomethyl]benzamide, *in* P-00201
N-Phenylmethyl[[[(4-chlorophenyl)amino]thioxomethyl]-*N'*phenylcarbamimidothioate, P-00145
 ▶ *N*-Phenyl-*N'*-pyridinylthiourea, P-00177
 ▶ Phenylthiourea, P-00201
N-(1-Piperidinylthioxomethyl)benzamide, P-00245
 2-Pyridinylthiourea, P-00410
 ▶ Selenourea, S-00009
 ▶ Thiourea, T-00175

Triazenes

- 3-(2-Acetophenyl)methyltriazene *N*-oxide, A-00009
 Arsazen, A-00403
 4-[4-(2-Arsanophenyltriazenyl)phenylazo]benzenesulfonic acid, A-00445
 Cadion, C-00006
 Cadion 2B, C-00007
 Cadion IREA; Di-Na salt, *in* C-00008
 3-(4-Chlorophenyl)-3-hydroxy-1-phenyltriazene, C-00233
 3,3-Diethyl-1-(9*H*-fluoren-2-yl)-1-triazene, D-00347
 1,1'-(2,2'-Disulfo-4,4'-biphenylene)bis(3-hydroxy-3-phenyltriazene); Di-Na salt, *in* D-01108
 3-Hydroxy-1,3-bis(4-methylphenyl)triazene, H-00139
 3-Hydroxy-3-(*p*-dimethylaminophenyl)-1-phenyltriazene, H-00149
 3-Hydroxy-1,3-diphenyl-1-triazene, H-00170
 ▶ 3-Hydroxy-3-methyl-1-phenyltriazene, H-00317
 2-(3-Hydroxy-3-methyl-1-triazenyl)benzoic acid, H-00332
 3-Hydroxy-1-(2-nitrophenyl)-3-phenyl-1-triazene, H-00403
 3-Hydroxy-1-(4-nitrophenyl)-3-phenyl-1-triazene, H-00404
 4-(3-Hydroxy-3-phenyl-1-triazenyl)benzenesulfonic acid, H-00506
 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzoic acid, H-00507
 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzothiazole, H-00508
 3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509
 2-(3-Hydroxy-3-phenyl-1-triazenyl)-5-sulfobenzoic acid, H-00510
 1-(4-Methylphenyl)-3-[(4-nitrophenyl)methyl]-1-triazene, M-00234
 1-(4-Methylphenyl)-3-(phenylmethyl)-1-triazene, M-00237
 4-[3-(4-Nitrophenyl)-1-triazenyl]benzenesulfonic acid; Na salt, *in* N-00145
 4-[[[3-(4-Nitrophenyl)-2-triazenyl]phenyl]azo]benzenesulfonic acid; Na salt, *in* N-00146
 2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenol, P-00098
 [2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenyl]arsonic acid, P-00099
 2-(3-Phenyl-2-triazenyl)phenol; *N'*-Oxide, *in* P-00204
 Sulfarsazen; Na salt, *in* S-00038
 Titan yellow; Di-Na salt, *in* T-00187

Triazine derivatives

- 2-Amino-4,6-bis(1-isoquinolyl)-1,3,5-triazine, A-00121
 6-Benzoyl-3-(2,2'-bipyridin-6-yl)-5-phenyl-1,2,4-triazine, B-00123
 6-Benzoyl-3-(4-methyl-2-pyridyl)-5-methyl-1,2,4-triazine, B-00136
 6-Benzoyl-3-(1,10-phenanthroline-2-yl)-5-phenyl-1,2,4-triazine, B-00142
 6-Benzoyl-5-phenyl-3-(2-thiazolyl)-1,2,4-triazine, B-00147
 3-[2,2'-Bipyridin-6-yl]-5,6-dimethyl-1,2,4-triazine, B-00226
 3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine, B-00227
 3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine, B-00228
 3-[2,2'-Bipyridin-6-yl]-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, B-00232
 2,4-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00263
 2,6-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00264
 2,4-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00333
 2,6-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00334

Thiourea derivatives

- 2-[[[(Benzoylamino)thioxomethyl]amino]benzoic acid, B-00121

- 2,4-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00341
- 2,6-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00342
- 4,4',4''-[3,3'-Bi-(1,2,4-triazine)-5,5',6',6'-tetrayltetrakisbenzenesulfonic acid; Tetra-NH₄ salt, in B-00473
- 2,4-Diamino-6-(2,2'-bipyridyl)-1,3,5-triazine, D-00062
- 2,4-Diamino-6-(3-pyridazinyl)-1,3,5-triazine, D-00117
- 2,4-Diamino-6-(2-pyrimidinyl)-1,3,5-triazine, D-00123
- 2,4-Diamino-6-(4-pyrimidinyl)-1,3,5-triazine, D-00124
- 1-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, D-00130
- 3-(4,6-Diamino-1,3,5-triazin-2-yl)isoquinoline, D-00131
- 2,4-Dichloro-6-(4-ethoxy-1-naphthalenyl)-1,3,5-triazine, D-00272
- 5-[(4,6-Dichloro-1,3,5-triazin-2-yl)amino]-3',6'-dihydroxy-2-pyridylisobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, D-00304
- 1-(4,6-Difluoro-1,3,5-triazin-2-yl)-2-methyl-2*H*-isindole, D-00362
- 2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione, D-00402
- 1,6-Dihydro-5-hydroxy-3-mercapto-6,6-dimethyl-1,2,4-triazine, D-00409
- 3,5-Dihydroxy-6-mercapto-1,2,4-triazine, D-00639
- 5,6-Dimethyl-3-(4-methyl-2-pyridinyl)-1,2,4-triazine, D-00871
- 5,6-Dimethyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-00895
- 5,6-Dimethyl-3-pyrazinyl-1,2,4-triazine, D-00903
- 5,6-Dimethyl-3-(3-pyridazinyl)-1,2,4-triazine, D-00907
- 5,6-Dimethyl-3-(2-pyridinyl)-1,2,4-triazine, D-00911
- 5,6-Dimethyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-00912
- 5,6-Dimethyl-3-(2-thiazolyl)-1,2,4-triazine, D-00926
- 2-(5,6-Dimethyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, D-00927
- 5,6-Diphenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-01037
- 5,6-Diphenyl-3-(6-phenyl-2-pyridinyl)-1,2,4-triazine, D-01038
- 5,6-Diphenyl-3-(pyrazinyl)-1,2,4-triazine, D-01044
- 5,6-Diphenyl-3-(3-pyridazinyl)-1,2,4-triazine, D-01045
- 5,6-Diphenyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01047
- 3-(5,6-Diphenyl-1,2,4-triazin-3-yl)isoquinoline, D-01056
- 5,6-Di-2-pyridinyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01086
- 5,6-Di-2-pyridyl-3-(2-thiazolyl)-1,2,4-triazine, D-01096
- 3-(5,6-Di-2-pyridyl-1,2,4-triazin-3-yl)isoquinoline, D-01097
- 2-[5,6-Di-(2-pyridyl)-1,2,4-triazin-3-yl]-1,10-phenanthroline, D-01098
- 2,2'-(1,2-Ethenediyl)bis[4-[[4-amino-6-bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]benzenesulfonic acid; Di-Na salt, in E-00041
- 2,2'-(1,2-Ethenediyl)bis[5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], E-00044
- 2,2'-(1,2-Ethenediyl)bis[5-[(4-hydroxy-6-chloro-1,3,5-triazin-2-yl)amino]benzenesulfonic acid], E-00045
- 3-(4-Ethyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, E-00109
- 3-(4-Ethyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, E-00110
- Ferrene S, in F-00003
- Ferrozine, F-00006
- Hexahydro-1,3,5-trihydroxy-1,3,5-triazine, H-00051
- 6-Hexyl-4,5-dihydro-5-thioxo-1,2,4-triazin-3(2*H*)-one, H-00074
- 5-Hydroxy-3-mercapto-6-methyl-1,2,4-triazine, H-00258
- 6-Hydroxy-1,3,5-triazine-2,4-diyldinitrotetraacetic acid, H-00555
- 3-(Isoquinolyl)-5,6-diphenyl-1,2,4-triazine, I-00087
- 3-(3-Isoquinolyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, I-00090
- 3-(6-Methyl-2-pyridinyl)-5,6-diphenyl-1,2,4-triazine, M-00286
- 3-(4-Methyl-2-pyridinyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, M-00288
- 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazine, M-00292
- 3-(4-Methyl-2-pyridinyl)-1,2,4-triazine, M-00294
- 3-(4-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00296
- 3-(6-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00297
- 3-(4-Methyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, M-00298
- 3-(4-Methyl-2-pyridyl)-5-phenyl-6-(2-pyridyl)-1,2,4-triazine, M-00303
- (4-Methyl-2-pyridyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, M-00305
- 3-(1,10-Phenanthroline-2-yl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, P-00056
- 5-Phenyl-3,6-di-2-pyridyl-1,2,4-triazine, P-00114
- Phenyl[5-phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazin-6-yl]methanone, P-00157
- 5-Phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, P-00158
- 3-(4-Phenyl-2-pyridinyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, P-00176
- 3-(4-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00180
- 3-(6-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00181
- 6-(5-Phenyl-1,2,4-triazin-3-yl)-2,2'-bipyridine, P-00206
- 2-(5-Phenyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, P-00207
- 3-Pyrazinyl-5,6-di-2-pyridyl-1,2,4-triazine, P-00297
- 3-(Pyrazinyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00301
- 3-(3-Pyridazinyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, P-00313
- 3-(3-Pyridazinyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00315
- 3-(2-Pyridinyl)-5,6-diphenyl-1,2,4-triazine, P-00388
- 3-(2-Pyridinyl)-1,2,4-triazine, P-00411
- 2-Pyridyl-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00425
- 3-(2-Quinolyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, Q-00038
- 3-(2-Quinolyl)-5,6-diphenyl-1,2,4-triazine, Q-00039
- 5,5',6,6'-Tetramethyl-3,3-bi(1,2,4-triazine), T-00093
- 3-(2-Thiazolyl)-1,2,4-triazine, T-00148
- 2,4,6-Triamino-1,3,5-triazine-*N,N,N',N',N'',N''*-hexaacetic acid, T-00195
- ▷ 1,3,5-Triazine-2,4,6-triamine, T-00197
- 4,4',4''-[1,3,5-Triazine-2,4,6-triyltris(azo)]tris[3-hydroxy-1-naphthalenesulfonic acid], T-00198
- 2,4,6-Tri(2,2'-bipyridin-6-yl)-1,3,5-triazine, T-00202
- 2,4,6-Tri-2-pyridinyl-1,3,5-triazine, T-00381
- 3,5,6-Tri-2-pyridinyl-1,2,4-triazine, T-00382
- 2,4,6-Tris[4-(4-sulfophenyl)-2-pyridyl]-s-triazine, T-00413
- N,N'*-[Vinylenebis[(3-sulfo-*p*-phenylene)imino(6-hydroxy-*s*-triazine-4,2-diy)]diglycine; Tetra-Na salt, in V-00006
- [Vinylenebis[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triyl]dinitro]octaacetic acid; Hexa-Na salt, in V-00007
- N,N',N'',N'''*-[Vinylenebis[(3-sulfo-*p*-phenylene)imino-*s*-triazine-6,2,4-triyl]]tetrasarcosine; Di-Na salt, in V-00008

Triphenylmethane dyes (phthaleins etc)

- Acilan fast green; Na salt, in A-00060
- ▷ Aluminon, in A-00458
- Aminobromothymol blue, A-00129
- Anilinesulfonephthalein, A-00369
- o*-Anize green; Chloride, in A-00373
- p*-Anize green; Chloride, in A-00374
- Astracyanine B; Chloride, in A-00448
- Astrazon blue B; Chloride, in A-00452
- Basic turquoise; Trichlorozincate, in B-00001
- 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2-iodophenol] *S,S*-dioxide, B-00111
- 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[3-nitrophenol] *S,S*-dioxide, B-00112
- 3',6'-Bis(acetyloxy)-5-azidospiro[isobenzofuran-1(3*H*), 9'-[9*H*]xanthen]-3-one, in A-00460
- 2-[Bis[4-(dimethylamino)phenyl]methyl]benzenesulfonic acid, B-00322
- 3,3-Bis(4-hydroxy-2,5-dimethylphenyl)-1(3*H*)-isobenzofuranone, B-00365
- 3,3-Bis(4-hydroxy-3,5-dimethylphenyl)-1(3*H*)-isobenzofuranone, B-00366
- 3,3-Bis(4-hydroxy-2-isopropyl-5-methylphenyl)-1(3*H*)-isobenzofuranone, B-00378
- 3,3-Bis(4-hydroxy-3-methoxyphenyl)-1(3*H*)-isobenzofuranone, B-00379
- 3,3-Bis(5-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, B-00381
- ▷ Brilliant green; Hydrogen sulfate, in B-00479
- 2-Bromo-4-[[3-bromo-4-hydroxy-5-methylphenyl]phenylmethylene]-6-methyl-2,5-cyclohexadien-1-one, B-00495
- Bromochlorophenol blue, B-00497
- Bromocresol green, B-00498
- Bromocresol purple, B-00499
- Bromophenol blue, B-00542
- Bromophenol red, B-00543
- Bromophthalexon S, B-00559
- Bromopyrogallol red, B-00574
- Bromothymol blue, B-00581
- Bromoxyleneol blue, B-00583
- Butylrhodamine B, in R-00002
- C.I. Basic blue 20; Dichloride, in C-00002
- C.I. Basic violet 2; B, HCl, in C-00003
- ▷ Ceplac, in E-00020
- 2'-Chlorofluorescein, C-00116
- 4'-Chlorofluorescein, C-00117
- Chlorophenol red, C-00197
- Chromal blue G; Di-Na salt, in C-00275
- Chromazurol S; Tri-Na salt, in C-00277
- Chrome green G, C-00283
- Chromoxane violet R, in E-00015
- Chromoxan violet 5B, C-00295
- o*-Cresolbenzein, C-00305
- m*-Cresolphthalein, C-00306
- ▷ *o*-Cresolphthalein, C-00307
- o*-Cresolphthalexon, C-00308
- m*-Cresol purple, C-00309
- Cresol red, C-00310
- o*-Cresoltetrabromosulfonephthalein, C-00311
- o*-Cresoltetrachlorosulfonephthalein, C-00312
- o*-Cresoltetraiodosulfonephthalein, C-00313
- ▷ Crystal violet; Chloride, in C-00320
- 4',5'-Dibromofluorescein; Di-Na salt, in D-00188
- ▷ Dibromosulfonephthalein, D-00215
- 3,3'-Dibromothymolbenzein, D-00217
- 3,3'-Dibromothymoltetrachlorophthalein, D-00218
- 2',4'-Dichlorofluorescein, D-00273
- 2',5'-Dichlorofluorescein, D-00274
- 2',7'-Dichlorofluorescein, D-00275
- 4',5'-Dichlorofluorescein; Di-Na salt, in D-00276
- 2',7'-Dihydroxyfluorescein, D-00613
- 2-(2,4-Dihydroxyphenylazo)-1,3,4-thiadiazole, D-00703

- ▷ *N*-[4-[[4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+); Chloride, *in* D-00812
- Dithiofluorescein, D-01132
- Eriochrome azurol G; Di-Na salt, *in* E-00009
- Eriochrome brilliant violet B, E-00012
- Eriochrome cyanine R; Tri-Na salt, *in* E-00013
- Eriochrome geranol; Di-Na salt, *in* E-00015
- Erio green B; Na salt, *in* E-00019
- Ethyl violet; Chloride, *in* E-00122
- Fast green FCF; Di-Na salt, *in* F-00001
- ▷ Fluorescein sodium, *in* F-00020
- ▷ Fuchsine, *in* R-00009
- Glycinecresol red, G-00017
- Glycinethymol blue, G-00019
- Heptamethoxy red, H-00010
- Hexamethoxy red, H-00056
- 3-(4-Hydroxy-2-methylphenyl)-3-(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, H-00310
- Isothiocyanatobromothymol blue, I-00092
- Lissamine violet 10B, L-00008
- Methyl green; Bromide chloride, *in* M-00185
- Methylthymol blue, M-00327
- ▷ Methyl violet, M-00336
- Methyl xlenol blue; Na salt, *in* M-00337
- Naphthalene green; Chloride, *in* N-00013
- α-Naphtholsulfonephthalein, N-00029
- o-Nitral green; Chloride, *in* N-00072
- p-Nitral green; Chloride, *in* N-00073
- Nitrobromothymol blue, N-00102
- Orcinsulfonephthalein, O-00044
- ▷ Phenolphthalein, P-00063
- ▷ Phenolsulfonephthalein, P-00064
- Phenoltetrabromosulfonephthalein, P-00065

- Phenoltetrachlorosulfonephthalein, P-00066
- Phenoltetraiodophthalein, P-00067
- Phenoltetraiodosulfonephthalein, P-00068
- Phthalein violet, P-00220
- Phthalexon S, P-00221
- Poirrier blue C4B; Di-Na salt, *in* P-00246
- Pyrocatecholsulfonephthalein complexan, P-00432
- Rhodamine B, *in* R-00002
- Rubrophen, R-00013
- Salicyl red, S-00002
- Sarcosine cresol red, S-00004
- Semimethyl thymol blue, S-00011
- Semimethylxlenol blue, S-00012
- Semiphthalexon S; Di-Na salt, *in* S-00013
- Semixylenol orange, S-00014
- Solochrome azurine BS, S-00016
- Sulfochrome; Di-NH₄ salt, *in* S-00046
- Sulfonamidebromothymol blue, S-00047
- Sulfonefluorescein, S-00049
- ▷ Sulphan blue, S-00058
- Tetrabromoanilinesulfonephthalein, T-00011
- 4,4'-(4,5,6,7-Tetrabromo-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] *S,S*-dioxide, T-00013
- 4,4'-(4,5,6,7-Tetrabromo-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromophenol] *S,S*-dioxide, T-00014
- Tetrabromo-*N*-ethylanilinesulfonephthalein, T-00018
- Tetrabromophenolphthalein, T-00019
- Tetrabromophenoltetrabromosulfonephthalein, T-00020
- Tetrabromophenoltetrachlorosulfonephthalein, T-00021
- Tetrabromophenoltetraiodophthalein, T-00022
- 4,4'-(4,5,6,7-Tetrachloro-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] *S,S*-dioxide, T-00026

- 4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, T-00027
- Tetraiodophenoltetraiodophthalein, T-00081
- 3,3',5,5'-Tetranitrophenolsulfonephthalein, T-00109
- Thymolbenzein, T-00180
- Thymol blue, T-00181
- Thymolphthalein, T-00182
- Thymolphthalexon, T-00183
- Thymoltrichlorophthalein, T-00184
- 2',4',5'-Trichlorofluorescein, T-00224
- 2',4',7'-Trichlorofluorescein, T-00225
- Tris(4-aminophenyl)methanol, T-00383
- Tris(2,4-dihydroxyphenyl)methane, T-00388
- Victoria blue B; Chloride, *in* V-00002
- Victoria blue 4R; Chloride, *in* V-00003
- Victoria pure blue BO; Chloride, *in* V-00004
- Xylene brilliant blue FBR; Na salt, *in* X-00003
- Xylene cyanole FF; Na salt, *in* X-00004
- Xylenol blue, X-00005
- Xylenol orange, X-00006

Xanthates

- Benzenebutane(dithioic)acid, B-00013
- ▷ Carbonodithioic acid *O*-(phenylmethyl) ester; K salt, *in* C-00024
- Dithiocarbonic acid; *O*-Butyl ester, *in* D-01125
- O*-[(Tetrahydro-2-furanyl)methyl] carbonodithioate; K salt, *in* T-00062
- O*-(2,2,2-Trifluoroethyl)carbonodithioate, T-00246
- Trifluoroethylxanthic acid; K salt, *in* T-00247
- ▷ Xanthic acid; K salt, *in* X-00002

Use

Amperometric reagent

- 1*H*-Benzimidazole-2-methanethiol, B-00041
 2,2'-Biquinoxaline, B-00239
 4,4'-Bis(1-phenyl-3-methyl-5-pyrazolone), B-00440
N-(4-Chlorophenyl)-3-(2-furanyl)-*N*-hydroxy-2-propenamide, in F-00053
 3,5-Diethyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00342
 [4-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]phenyl]arsonic acid, D-00439
 2',4'-Dihydroxyacetophenone; Oxime, in D-00507
 2',5'-Dihydroxyacetophenone; Oxime, in D-00508
 2',4'-Dihydroxyacetophenone; Phenylhydrazone, in D-00507
 2,6-Dimercapto-3,5-dimethyl-4*H*-thiopyran-4-one, D-00754
 2,6-Dimercapto-3,5-dipropyl-4*H*-thiopyran-4-one, D-00756
 2,6-Dimercapto-3-methyl-4*H*-thiopyran-4-one, D-00758
 2,6-Dimercapto-4-oxo-4*H*-thiopyran-3-carboxylic acid, D-00759
 1,2-Di-4-morpholinylethane, D-00928
 [2-Hydroxy-1,1-bis(hydroxymethyl)ethyl] carbamodithioic acid, H-00138
N-Hydroxy-3-(3-nitrophenyl)-*N*-phenyl-2-propenamide, H-00402
N-Hydroxy-*N*-nitrosocyclohexanamine; NH₄ salt, in H-00411
 1-(Hydroxyphenylamino)-5-phenyl-1,4-pentadien-3-one, H-00446
 4-(3-Hydroxy-3-phenyl-1-triazenyl) benzenesulfonic acid, H-00506
 5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione, M-00039
 1-Methyl-2,4-dithiobiuret, in T-00163
 2-Selenophenecarboxaldehyde; Oxime, in S-00006
 ▶ Sulphathiazole, S-00059
 S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Di-Et, in T-00161
 S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Di-Me, in T-00161
 S-(Thiocarbamoyl)dithiophosphoric acid; *O,O'*-Dipropyl, in T-00161
 ▶ Trimethylsulfonium(1+); Iodide, in T-00347
 Triphenylselenium(1+); Chloride, in T-00375

Biological stain

- Acid fuchsin; Di-Na salt, in A-00056
 ▶ Aurantia, in H-00065
 ▶ Azure A, in L-00003
 ▶ Azure B, in L-00003
 ▶ Azure C, in L-00003
 Berberine; Chloride, in B-00197
 ▶ 3,6-Bis(dimethylamino)acridine, B-00313
 ▶ Brilliant green; Hydrogen sulfate, in B-00479
 ▶ C.I. 11050 Basic dye, in J-00004
 ▶ Ceplac, in E-00020
 ▶ Congo red, C-00301
 ▶ Crystal violet; Chloride, in C-00320
 ▶ 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+); Chloride, in D-00084
 ▶ 2,3-Dihydro-2,2-dimethyl-6-[[4-(phenylazo)-1-naphthalenyl]azo]-1*H*-perimidine, D-00390
 ▶ Eosine; Di-Na salt, in E-00007
 ▶ Erioglaucine A; Di-Na salt, in E-00018
 Fast green FCF; Di-Na salt, in F-00001
 ▶ Fuchsine, in R-00009
 Gallein, G-00004
 ▶ Haematein, H-00001
 ▶ Haematoxylin; (+)-form, in H-00002
 ▶ Homidium bromide, in D-00096

- 4-[(2-Hydroxy-1-naphthalenyl)azo] benzenesulfonic acid; Na salt, in H-00348
 ▶ Indigo carmine, in I-00029
 Lucifer yellow CH, in L-00011
 ▶ Malachite green; Chloride, in M-00006
 Methyl green; Bromide chloride, in M-00185
 ▶ Methyl orange; Na salt, in M-00210
 ▶ Methylthionium chloride, in M-00175
 Neutral red; B.HCl, in N-00065
 ▶ Nile blue A; Sulfate (2:1), in N-00069
 Orange G; Di-Na salt, in O-00042
 Phenosafranin; Chloride, in P-00070
 ▶ 1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol, P-00095
 4,4'-[1,3-Phenylenebis(azo)]bis-1,3-benzenediamine; B,2HCl, in P-00117
 ▶ Phloxine B; Di-Na salt, in P-00213
 ▶ Rhodamine 590; Chloride, in R-00003
 ▶ Rose Bengal B, in R-00010
 Rose bengal sodium, in R-00010
 ▶ Tetrazolium blue; Dichloride, in T-00132
 ▶ Thionine hydrochloride, in L-00003
 ▶ Tolonium chloride, in T-00189
 Toluylene blue; Chloride, in T-00190
 Trypan red; Penta-Na salt, in T-00434

Buffer

- N*-Acetamidimidodiacetic acid, in N-00074
 ▶ 2-Amino-2-hydroxymethyl-1,3-propanediol, A-00198
 2-[(2-Amino-2-oxoethyl)amino] ethanesulfonic acid, A-00293
 1,2-Bis(2-amino-5-bromophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00243
 1,2-Bis(2-aminophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00248
 ▶ [Bis(2-hydroxyethyl)amino]acetic acid, B-00367
 2-[Bis(2-hydroxyethyl)amino]ethanesulfonic acid, B-00369
 2-[Bis(2-hydroxyethyl)amino]-2-(hydroxymethyl)-1,3-propanediol, B-00370
 3-[Bis(2-hydroxyethyl)amino]-2-hydroxy-1-propanesulfonic acid, B-00371
 2-[Bis(2-hydroxyethyl)amino]-2-methyl-1-propanol, B-00372
 ▶ Citric acid, C-00299
 2-(Cyclohexylamino)ethanesulfonic acid, C-00348
 3-(Cyclohexylamino)-2-hydroxy-1-propanesulfonic acid, C-00349
 3-(Cyclohexylamino)-1-propanesulfonic acid, C-00350
 β,β'-Dihydroxy-1,4-piperazinedipropanesulfonic acid, D-00720
 2-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl] amino]ethanesulfonic acid, H-00136
 3-[[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl] amino]-1-propanesulfonic acid, H-00137
 4-(2-Hydroxyethyl)-1-piperazineethanesulfonic acid, H-00180
 4-(2-Hydroxyethyl)-1-piperazinepropanesulfonic acid, H-00181
 2-Hydroxy-3-[[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]amino]-1-propanesulfonic acid, H-00192
 2-Hydroxy-3-[[2-hydroxy-1,1-dimethylethyl]amino]-1-propanesulfonic acid, H-00197
 β-Hydroxy-4-(2-hydroxyethyl)-1-piperazinepropanesulfonic acid, H-00203
 β-Hydroxy-4-morpholinepropanesulfonic acid, H-00335
 4-Morpholinepropanesulfonic acid, M-00346

- 2-(*N*-Morpholino)ethanesulfonic acid, M-00348
 1,4-Piperazinedithanesulfonic acid, P-00240
 2,2'-(1,3-Propanedioldiimino)bis[2-(hydroxymethyl)-1,3-propanediol], P-00263
 [Tris[(hydroxymethyl)methyl]amino]acetic acid, T-00407

Chemiluminescence generation reagents

- 6-[(4-Aminobutyl)ethylamino]-2,3-dihydro-1,4-phthalazinedione, A-00130
 6-[(4-Aminobutyl)methylamino]-2,3-dihydro-1,4-phthalazinedione, A-00131
 6-Amino-2,3-dihydro-1,4-phthalazinedione, A-00156
 6-[(6-Aminoethyl)ethylamino]-2,3-dihydro-1,4-phthalazinedione, A-00180
 Bis[4-bromo-2-[[2-(2-methoxyethoxy)ethoxy]carbonyl]phenyl] ethanedioate, B-00268
 Bis(2,4-dinitrophenyl) oxalate, B-00335
 Bis[2-[[[2-(2-methoxyethoxy)ethoxy] ethoxy]carbonyl]-4-nitrophenyl] ethanedioate, B-00399
 Bis(2,4,6-trichlorophenyl) oxalate, B-00460
 4-Chlorobenzoic acid [(2-bromo-6-hydroxyphenyl)methylene]hydrazide, C-00068
 9-[4-(Chlorosulfonyl)-2-sulfo]phenyl]-3,6-bis(diethylamino)xanthylum, C-00261
 6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, in A-00156
N-[4-[7-(Diethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]phenyl]-2-iodoacetamide, D-00321
 6-(Dimethylamino)-2,3-dihydro-1,4-phthalazinedione, in A-00156
 6-Hydroxybenzothiazole, H-00127
 Lucigenine; Dinitrate, in L-00012

Chromatographic derivatisation agents

- ▶ Acetone, A-00007
 Acetyl methanesulfonate, A-00020
 2-[4-(1-Aminoethyl)-1-naphthyl]-6-methoxy-*N*-methyl-2*H*-benzotriazol-5-amine; (*S*)-form, B,2HCl, in A-00176
 8-Amino-2-naphthalenol; Na salt, in A-00274
 2-Amino-*N*-2-naphthalenylpropanamide; (*S*)-form, in A-00278
N-(5-Aminopentyl)-5-(dimethylamino)-1-naphthalenesulfonamide, A-00296
 ▶ 9-Aminophenanthrene, A-00298
 ▶ 1-Aminopiperidine, A-00329
 ▶ Anisoyl chloride, in M-00079
 2-(9-Anthracenyl)ethyl carbonochloridate, A-00383
 (Azidocarbonyl)ferrocene, A-00459
 (3-Azido-3-oxopropyl)ferrocene, A-00461
 Azobenzene-4-sulfonic acid; Chloride, in A-00468
 ▶ Benzenethiol, B-00030
 ▶ Benzoic anhydride, in B-00059
 ▶ Benzoyl chloride, in B-00059
O-Benzylhydroxylamine, B-00184
 ▶ Benzyl iodide, B-00186
 ▶ Bis(2-chloroethyl) phosphorochloridate, in B-00281
 ▶ Bis[(chloromethyl)dimethylsilyl]amine, B-00284
N,N'-Bis(1-phenylethyl)carbodiimide; (*S,S*)-form, in B-00439
 Bis(trifluoroacetamide), B-00461
 ▶ 2-Bromoacetophenone, B-00483
 2-(Bromoacetyl)naphthalene, B-00484

- 4-(Bromoacetyl)phenyl 9-anthracenecarboxylate, B-00485
- 4-Bromobenzenesulfonic acid; Chloride, *in* B-00487
- 4-Bromobenzoic acid; Bromide, *in* B-00488
- 4-Bromobenzoic acid; Chloride, *in* B-00488
- 2-Bromo-2',4'-dihydroxyacetophenone, B-00501
- 2-Bromo-2',5'-dihydroxyacetophenone, B-00502
- ▶ 2-Bromo-4'-hydroxyacetophenone, B-00508
- 3-(Bromomethyl)-6,7-dimethoxy-1-methyl-2(1*H*)-quinoxalinone, B-00520
- (Bromomethyl)dimethylchlorosilane, B-00521
- ▶ 1-(Bromomethyl)-4-methylbenzene, B-00527
- 3-(Bromomethyl)-6,7-(methylenedioxy)-1-methyl-2(1*H*)-quinoxalinone, B-00528
- 1-(Bromomethyl)-4-nitrobenzene, B-00530
- ▶ (Bromomethyl)pentafluorobenzene, B-00532
- 5-(Bromomethyl)-*N,N,N*,-2,6-pentamethyl-1,7-dioxo-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-3-methanaminium(1+); Bromide, *in* B-00533
- 2-Bromo-4'-nitroacetophenone, B-00539
- ▶ (4-Bromophenyl)dihydroxyborane, B-00549
- ▶ 2-Bromopropane, B-00560
- 2-Bromo-*N*-1-pyrenylacetamide, B-00561
- Bromotrimethylsilane, B-00582
- ▶ 1-Butanol, B-00606
- ▶ 2-Butoxyethanol, B-00613
- tert*-Butylboronic acid, B-00620
- ▶ *tert*-Butylchlorodimethylsilane, B-00621
- ▶ Butylchloromagnesium, B-00622
- N*-(*tert*-Butyldimethylsilyl)imidazole, B-00628
- N*-(*tert*-Butyldimethylsilyl)-*N*-methyltrifluoroacetamide, B-00630
- ▶ Carbon disulfide, C-00023
- 2-(4-Carboxyphenyl)-5,6-dimethylbenzimidazole, C-00040
- ▶ Chloroacetaldehyde, C-00053
- Chloroacetic acid; Anhydride, *in* C-00054
- ▶ Chloroacetyl chloride, C-00056
- 1-Chloro-1-*tert*-butylsilylacyclopentane, C-00076
- 7-(Chlorocarbonylmethoxy)-4-methylcoumarin, C-00077
- ▶ 1-Chloro-2-(chloromethyl)benzene, C-00079
- Chloro(chloromethyl)dimethylsilane, C-00081
- Chlorodifluoroacetic acid; Anhydride, *in* C-00092
- Chlorodimethoxymethylsilane, C-00097
- Chlorodimethyl(pentafluorophenyl)silane, C-00100
- Chlorodimethylphenylsilane, C-00103
- Chlorodimethyl-2-propenylsilane, C-00104
- 2-Chloro-3,5-dinitropyridine, C-00107
- 2-Chloro-1,3,2-dioxaphospholane, C-00109
- ▶ 2-Chloro-1,3,2-dioxaphosphorinane, C-00110
- ▶ 2-Chloroethanol, C-00114
- Chloroethylmagnesium, C-00115
- Chloro(iodomethyl)dimethylsilane, C-00165
- Chloromethoxydimethylsilane, C-00166
- 9-Chloro-10-methylacridinium(1+); Trifluoromethanesulfonate, *in* C-00170
- 1-Chloromethylbenz[*cd*]indol-2(1*H*)-one, *in* B-00050
- 2-Chloro-3-methylbutanoic acid; (*S*)-form, Chloride, *in* C-00174
- 1-(Chloromethyl)-1*H*-indole-2,3-dione, C-00177
- 2-(Chloromethyl)-5-nitro-1*H*-isoindole-1,3(2*H*)-dione, C-00180
- 1-(Chloromethyl)-3-(trifluoromethyl)benzene, C-00186
- 1-Chloro-1,1,3,3,3-pentafluoro-2-propanol, C-00192
- Chloropropylmagnesium, C-00250
- Chlorotriethylsilane, C-00265
- ▶ Chlorotrimethylsilane, C-00267
- ▶ Chlorotriphenylmethane, C-00269
- Chlorotripropylsilane, C-00272
- ▶ Cycloheptanone, C-00334
- ▶ 1,3-Cyclohexanedione, C-00338
- ▶ Cyclohexylboronic acid, C-00352
- ▶ Cyclopentanone, C-00364
- 1,1,1,2,2,6,6,7,7,7-Decafluoro-3,5-heptanedione, D-00003
- 1-Decanesulfonic acid, D-00024
- ▶ 1-Decanol, D-00026
- 9,10-Diaminophenanthrene, D-00110
- 1-Diazobutane, D-00143
- ▶ Diazoethane, D-00144
- 1-(1-Diazoethyl)naphthalene, D-00145
- 2-(1-Diazoethyl)naphthalene, D-00146
- (1-Diazoethyl)pentafluorobenzene, D-00147
- (Diazomethyl)cyclohexane, D-00149
- ▶ 1-(Diazomethyl)naphthalene, D-00151
- (Diazomethyl)pentafluorobenzene, D-00152
- 1-Diazopropane, D-00154
- ▶ 2,4'-Dibromoacetophenone, D-00176
- 1,1-Dibutoxytrimethylamine, D-00221
- 1,1-Di-*tert*-butoxytrimethylamine, D-00222
- 5-(Dibutylamino)-1-naphthalenesulfonyl chloride, D-00224
- Dibutyl carbonate, D-00229
- Dicarboxidine; B₂HCl, *in* D-00244
- ▶ Dichloroacetic acid; Chloride, *in* D-00246
- 2,5-Dichlorobenzenesulfonic acid; Chloride, *in* D-00248
- ▶ Dichlorodimethylsilane, D-00267
- 6,9-Dichloro-2-methoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, *in* D-00284
- (2,4-Dichlorophenyl)dihydroxyborane, D-00293
- (2,6-Dichlorophenyl)dihydroxyborane, D-00294
- (3,5-Dichlorophenyl)dihydroxyborane, D-00295
- ▶ 1,3-Dichloro-1,1,3,3-tetrafluoro-2-propanone, D-00303
- 5-[(4,6-Dichloro-1,3,5-triazin-2-yl)amino]-3',6'-dihydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, D-00304
- 9-Dichloromethylene-2,4,7-trinitrofluorene, D-00306
- N,N'*-Dicyclohexyl-*O*-benzylisourea, D-00308
- (Diethoxymethyl)dimethylamine, D-00313
- (Diethylamino)dimethyl(pentafluorophenyl)silane, D-00316
- N*-[4-[7-(Diethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]phenyl]-2-iodoacetamide, D-00321
- ▶ (Diethylamino)trimethylsilane, D-00336
- ▶ Diethyl dicarbonate, *in* D-00243
- ▶ Diethyl phosphorochloridate, D-00355
- ▶ Diethyl sulfate, D-00358
- 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl azide, *in* D-00379
- 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl chloride, *in* D-00379
- ▶ Dihydro-2,5-furandione, D-00405
- N,N'*-Diisopropyl-*O*-*p*-nitrobenzylisourea, D-00749
- 1,1-Dimethoxy-*N,N*-dimethylmethylamine, D-00774
- 4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine, D-00790
- 5-(Dimethylamino)-1-naphthalenesulfonic acid, D-00794
- [3-[[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]amino]phenyl]boronic acid, D-00798
- 1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]piperazine, D-00801
- 7-(Dimethylamino)-2-oxo-2*H*-1-benzopyran-3-carbonyl fluoride, D-00805
- 4-(Dimethylamino)- α -oxo-1-naphthaleneacetonitrile, D-00807
- Dimethyl(dipropoxymethyl)amine, D-00854
- Dimethyl (hydroxymethyl)phosphonate, *in* H-00318
- 1,1-Dimethyl-1-(pentafluorophenyl)silanamine, D-00878
- 2,2-Dimethylpropanal, D-00897
- 1-(Dimethyl-2-propenylsilyl)-1*H*-imidazole, D-00900
- N*-(Dimethylsilyl)-1,1-dimethylsilanamine, D-00915
- ▶ Dimethyl sulfite, D-00917
- 2,4-Dinitrobenzenediazonium(1+); Tetrafluoroborate(1-), *in* D-00938
- [3-[(2,5-Dioxo-1-pyrrolidino)oxy]-3-oxopropyl]ferrocene, D-00995
- 2,5-Diphenyl-3-[4-(2-phenylethenyl)phenyl]-2*H*-tetrazolium(1+); Chloride, *in* D-01036
- 1,1,1,2,2,6,6,7,7,8,8,8-Dodecafluoro-3,5-octanedione, D-01136
- 3-(2-Dodecenyldihydro-2,5-furandione, D-01141
- Drimanoyl chloride, *in* D-01159
- 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-Eicosafuoroundecanoic acid; Chloride, *in* E-00002
- ▶ 1,2-Ethanedithiol, E-00028
- 5,5'-(1,2-Ethanediyldinitrilo)bis[2,2-dimethyl-3-hexanone], E-00036
- ▶ Ethanethiol, E-00039
- ▶ Ethanol, E-00040
- (Ethenyloxy)cyclohexane, E-00047
- 9-Ethoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, *in* E-00056
- N*-(4-Ethoxyphenyl)-*N*-(trimethylsilyl)acetamide, E-00060
- O*-Ethylhydroxylamine, E-00089
- Ferrocenyldihydroxyborane, F-00005
- 9-Fluorenyl methyl chloroformate, F-00018
- 1-Fluoro-2-nitro-4-(trifluoromethyl)benzene, F-00032
- Heptafluorobutanoic acid; Anhydride, *in* H-00004
- 6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedione, H-00006
- 2,2,3,3,4,4,4-Heptafluoro-*N*-methyl-*N*-(trimethylsilyl)butanamide, H-00007
- 1-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-1*H*-imidazole, H-00009
- 1-Heptanesulfonic acid; Na salt, *in* H-00011
- 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluorononanoic acid; Chloride, *in* H-00022
- ▶ 1,1,1,3,3,3-Hexafluoro-2-propanol, H-00032
- ▶ Hexahydro-1*H*-azepin-1-amine, H-00034
- 1-Hexanesulfonic acid; Na salt, *in* H-00064
- 3-Hydroxyandrost-5-ene-17-carboxylic acid; (3 β ,17 β)-form, Ac, chloride, *in* H-00098
- 2'-Hydroxy-[1,1'-binaphthalene]-2-carboxylic acid; (*S*)-form, Me ether, chloride, *in* H-00131
- 2-Hydroxy-3,5-dinitrobenzoic acid, H-00154
- 1-[[[4-Hydroxy-3-methoxyphenyl]acetyl]oxy]-2,5-pyrrolidinedione, H-00269
- 2-Hydroxy-5-nitrobenzaldehyde, H-00380
- 1-[3-(4-Hydroxyphenyl)-1-oxopropoxy]-2,5-pyrrolidinedione, H-00491
- ▶ Iodoacetic acid, I-00036
- ▶ 1-Iodobutane, I-00042
- ▶ Iodoethane, I-00043
- 1-(Iodomethyl)-4-methylbenzene, I-00046
- 1-Iodomethyl-4-nitrobenzene, I-00047
- ▶ 1-Iodopropane, I-00050
- Isobutyl chloroformate, I-00057
- 2-Isocyanato-1-[(4-methylphenyl)sulfonyl]pyrrolidine, I-00062
- 2-(4-Isocyanatophenyl)-6-methylbenzothiazole, I-00065
- ▶ 1-Isocyanato-3-(trifluoromethyl)benzene, I-00066
- Luminarin 4, L-00013
- Marfey's reagent, *in* F-00028
- Menthyl chloroformate; (-)-form, *in* M-00014
- 3-Mercapto-1-propanol, M-00053
- 2-Methoxy-2,4-diphenyl-3(2*H*)-furanone, M-00086
- 9-Methoxy-10-methylacridinium(1+); Trifluoromethanesulfonate, *in* M-00088

1-[2-Methoxy-2-(1-naphthalenyl)-1-oxopropoxy]-2,5-pyrrolidinedione; (+)-*form*, in M-00094
 2-Methoxy-2-(1-naphthyl)propanoic acid; (-)-*form*, in M-00095
N-Methylbis(trifluoroacetamide), in B-00461
 ▶ 3-Methyl-1-butanol, M-00147
 ▶ Methyl chloroformate, M-00155
 ▶ 1-Methylimidazole, M-00190
 1-Methyl-4-(methylthio)benzene, M-00203
 2'-Methyl- α -oxo-[1,1'-binaphthalene]-2-acetonitrile, M-00212
 1-[[*N*-[2-Methyl-*N*-[*N*-[(phenylmethoxy)carbonyl]-L-valyl]alanyl]glycyl]oxy]-2,5-pyrrolidinedione, M-00231
 1-(4-Methylphenyl)-3-[(4-nitrophenyl)methyl]-1-triazene, M-00234
 1-(4-Methylphenyl)-3-(phenylmethyl)-1-triazene, M-00237
 ▶ 2-Methyl-1-propanol, M-00255
O-(1-Methylpropyl)hydroxylamine, M-00259
O-(2-Methylpropyl)hydroxylamine, M-00260
N-Methyl-*N*-(trimethylsilyl)acetamide, M-00330
N-Methyl-*N*-(trimethylsilyl)formamide, M-00331
 ▶ *N*-Methyl-*N*-(trimethylsilyl)trifluoroacetamide, M-00332
 2-Naphthalenesulfonic acid; Chloride, in N-00015
 ▶ 1-Naphthylamine, N-00041
 ▶ Naproxen; (*S*)-*form*, in N-00057
 Neomenthyl isothiocyanate, in I-00095
 ▶ 4-Nitrobenzoic acid; Chloride, in N-00093
O-(*p*-Nitrobenzyl)hydroxylamine, N-00099
O-(4-Nitrobenzyl)tyrosine; (*R*)-*form*, Me ester, in N-00100
 1-Octanesulfonic acid, O-00034
 ▶ 2-Octanol, O-00037
 α -Oxo-1-anthraceneacetonitrile, O-00054
 α -Oxo-9-anthraceneacetonitrile, in O-00053
 1-(1-Oxopropoxy)-2,5-pyrrolidinedione, in P-00442
 Pentadecafluorooctanal, P-00007
 Pentadecafluorooctanoic acid; Anhydride, in P-00008
 Pentadecafluorooctanoic acid; Chloride, in P-00008
 Pentafluorobenzenesulfonyl chloride, P-00011
 Pentafluorobenzoic acid; Anhydride, in P-00012
 1-[[1-(Pentafluorobenzoyl)-2-pyrrolidinyl]carbonyl]-1*H*-imidazole; (*S*)-*form*, in P-00013
 Pentafluorobenzyl chloroformate, P-00015
O-(Pentafluorobenzyl)hydroxylamine; B, HCl, in P-00016
 ▶ (Pentafluorophenyl)hydrazine, P-00020
 Pentafluoropropanoic acid; Anhydride, in P-00021
 ▶ 2,2,3,3-Pentafluoro-1-propanol, P-00022
 ▶ 1-Pentanol, P-00034
 ▶ 2-Pentanone, P-00036
O-Pentylhydroxylamine, P-00040
 Pentylmagnesium bromide, P-00041
 ▶ 9,10-Phenanthraquinone, P-00047
 Phenylalanine α -naphthylamide; (*S*)-*form*, in P-00078
 Phenylalanine β -naphthylamide; (*S*)-*form*, in P-00079
 1-[[[Phenylamino]carbonyl]oxy]-2,5-pyrrolidinedione, P-00081
 5-[[[4-(Phenylamino)phenyl]imino]-2(5*H*)-furanone, P-00085
 1-[4-(Phenylamino)phenyl]-1*H*-pyrrole-2,5-dione, P-00086
 Phenyl diazomethane, P-00111
 ▶ Phenyl dihydroxyborane, P-00112
 ▶ Phenyl isothiocyanate, P-00139
 2-[(Phenylmethyl)amino]ethanol, P-00144
N-Phenyl-*N*-(trimethylsilyl)acetamide, P-00210
 ▶ Phthalic anhydride, P-00222
 Phthalimide; *N*-Chloromethyl, in P-00223

Phthalimide; *N*-(4-Methylbenzenesulfonyl), in P-00223
 3-(2-Phthalimidyl)benzoyl azide, P-00225
 4-(2-Phthalimidyl)benzoyl azide, P-00226
 Pivalic anhydride, in D-00899
 ▶ 1-Propanol, P-00265
 ▶ 2-Propanol, P-00266
O-Propylhydroxylamine, P-00277
 ▶ Sodium tetraphenylborate(III), S-00015
N-Succinimidoyl tetrathiafulvalene-2-carboxylate, S-00035
 TAGIT, in G-00012
 ▶ Tetraethylammonium(1+); Hydroxide, in T-00041
 Tetraheptylammonium(1+); Hydroxide, in T-00048
 Tetrahexylammonium(1+); Hydroxide, in T-00049
N,N,N',N'-Tetrakis(trimethylsilyl)-1,2-ethanediamine, T-00091
 ▶ Tetramethylammonium(1+); Hydroxide, in T-00092
 Tetramethylphosphinous amide, T-00102
 2-Thio-2,4-pentanedione, T-00165
 ▶ 2-Thiophenecarboxaldehyde, T-00169
 2,4,6-Tribromophenyl chloroformate, T-00206
 Tributylchlorosilane, T-00209
 ▶ Trichloroacetic acid; Chloride, in T-00218
 2,2,2-Trichloro-*tert*-butyloxycarbonyl chloride, T-00221
 ▶ 2,2,2-Trichloroethanol, T-00222
 ▶ Trifluoroacetic acid, T-00239
 ▶ Trifluoroacetic acid; Anhydride, in T-00239
 [(Trifluoroacetyl)amino]acetyl chloride, in T-00240
 1-(Trifluoroacetyl)-1*H*-imidazole, T-00241
 ▶ 2,2,2-Trifluoroethanol, T-00245
 ▶ 3-(Trifluoromethyl)benzenesulfonic acid; Chloride, in T-00251
 4-(Trifluoromethyl)benzoic acid; Chloride, in T-00253
 [α -(Trifluoromethyl)benzyl]hydrazine; (+)-*form*, in T-00254
 (3-Trifluoromethylphenyl)trimethylammonium(1+); Hydroxide, in T-00256
 ▶ Trifluoroacetic acid, T-00258
 2,2,2-Trifluoro-1-phenylethylamine; (*S*)-*form*, in T-00261
 2,2,2-Trifluoro-*N*-(trimethylsilyl)ethanimidic acid trimethylsilyl ester, T-00266
 ▶ Trimethylanilinium hydroxide, in T-00336
 ▶ Trimethyl(dimethylamino)silane, T-00326
 Trimethyloxonium tetrafluoroborate, in T-00329
 ▶ *N*-(Trimethylsilyl)acetamide, T-00338
 (Trimethylsilyl)ethenone, T-00340
 ▶ 1-(Trimethylsilyl)-1*H*-imidazole, T-00341
 4-(Trimethylsilyl)morpholine, T-00342
 1-(Trimethylsilyl)piperidine, T-00343
 1-(Trimethylsilyl)pyrrolidine, T-00346
 4,5,7-Trinitro-9-oxo-9*H*-fluorene-2-carboxylic acid; Chloride, in T-00354
 Trolox C; (*S*)-*form*, Me ether, in T-00430
 Vinyl chloroformate, V-00005

Enzyme substrate/cofactor

N-Acetylalanine 1-naphthyl ester; (*S*)-*form*, in A-00011
N-Benzoyltyrosine 4-nitroanilide; (\pm)-*form*, in B-00162
 Dicarboxidine; B, 2HCl, in D-00244
N-(2,4-Dimethylphenyl)-3-(phosphonoxy)-2-naphthalenedicarboxamide, D-00894
 Fluorescein; Lactone-*form*, Di-Ac, in F-00020
 Fluorescein; Lactone-*form*, Mono- β -D-galactopyranoside, in F-00020
 7-Hydroxy-4-methyl-2*H*-1-benzopyran-2-one; Dihydrogen phosphate, in H-00283
 7-Hydroxy-3*H*-phenoxazin-3-one; Et ether, in H-00443
 3-(4-Hydroxyphenyl)propanoic acid, H-00497
 Leucyl-*p*-nitroanilide; *S*-*form*, in L-00006

Mono(4-nitrophenyl) phosphate, M-00340
 Mono(4-nitrophenyl) phosphate; Di-Na salt, in M-00340
 MUGB, in M-00211
N-(4-Nitrophenyl)glutamine; (*S*)-*form*, in N-00136
N-Phosphocreatine; Di-Na salt, in P-00214
 ▶ 3-Pyridinecarboxamide, P-00341
 Quinizarin S; Na salt, in Q-00006

Extractant

Acenaphthenequinone; Dioxime, in A-00001
 ▶ Acetanilide, in A-00368
 ▶ Acetophenone, A-00008
 ▶ Acet-*o*-toluidide, in M-00123
 2-Acetyl-4-ethylpyridine; Oxime (*Z*-), in A-00016
 3-Acetyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, in D-00644
 6-Acetyl-7-hydroxy-4-methyl-2*H*-1-benzopyran-2-one, A-00018
 2-Acetyl-4-methoxypyridine; Oxime (*Z*-), in A-00021
 2-Acetyl-4-methylpyridine; Oxime (*E*-), in A-00023
 2-Acetyl-4-phenylpyridine; Oxime (*E*-), in A-00031
 2-Acetylpyridine 2-benzothiazolylhydrazone, A-00040
 2-Acetylpyridine phenylthiosemicarbazone, A-00042
 ▶ Acridine yellow, in D-00079
 4-Adamantyl-2-(2-hydroxy-1-naphthalenylazo)thiazole, A-00064
 Adogen 364, A-00065
 Alamine 336, A-00072
 Alamine, A-00070
 Alamine oxide, A-00071
 Alamine 336S, A-00073
 Aliquat 336, in M-00333
 Amberlite LA1, A-00088
 Amberlite LA2, A-00089
 Amiloride, A-00090
 ▶ 2-Aminobenzenethiol, A-00101
 4-Aminobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00110
 2-Aminobenzophenone, A-00111
 3-Amino-4,5-dihydro-5-oxo-1-phenyl-1*H*-pyrazole-4-carbodithioic acid, A-00155
 2-Aminodiphenylamine, A-00165
 ▶ 2-Amino-4-methylthiazole, A-00257
 6-Amino-5-nitroso-2-[(phenylmethyl)thio]-4(1*H*)-pyrimidinone, A-00286
 8-Amino-5-(phenylazo)quinoline, A-00315
N-(3-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, A-00324
N-(4-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, A-00325
 8-Aminoquinoline; 8-*N*-Octanesulfonyl, in A-00340
 1-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, A-00358
 2-[[[Aminothioxomethyl]amino]carbonyl]-6-nitrobenzoic acid, A-00361
 Ammonium pyrrolidine dithiocarbamate, in P-00441
 ▶ Aniline, A-00368
 4'-Anilino-2,5-dichloroazobenzene-4-sulfonic acid, A-00370
o-Anize green; Chloride, in A-00373
p-Anize green; Chloride, in A-00374
 3-[(2-Arsenophenyl)azo]-6-[[[5-(diethylsulfamoyl)-2-methoxyphenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00428
 3-[(2-Arsenophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, A-00439
 Astraflaxine FF; Chloride, in A-00449
 Astraflaxine G; Chloride, in A-00450
 Astrazon blue B; Chloride, in A-00452
 Astrazon orange R; Chloride, in A-00453
 Astraflaxine pink FG; Chloride, in A-00454
 Astraflaxine red 6B; Chloride, in A-00455
 Azo-azoxy BN, A-00465
 Azo-azoxy PMP, A-00466

- Azothiopyrine, A-00478
 Basic turquoise; Trichlorozincate, *in* B-00001
 Benzenebutane(dithioic)acid, B-00013
 Benzenecarbothioic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, B-00014
 ▶ Benzenesulfhydroxamic acid, *in* B-00026
 8-(Benzenesulfonylamino)quinoline, B-00028
 1*H*-Benzimidazole-2-carboxaldehyde; 1-Benzyl, oxime, *in* B-00039
 Benzo-12-crown-4, B-00052
 Benzo-14-crown-4, B-00053
 Benzo-15-crown-5, B-00054
 Benzo-18-crown-6, B-00055
 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(3-methylphenyl)-2-propenamide, *in* B-00056
 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(4-methylphenyl)-2-propenamide, *in* B-00056
N-(1,4,7,10,13,16,19-Benzoheptaoxacycloheneicosin-21-yl)-2-propenamide, B-00058
 Benzohydroxamic acid benzenesulfonamide, *in* P-00194
 Benzoic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, B-00063
 2-Benzothiazolecarboxaldehyde 1(2*H*)-phthalazinylidenehydrazone, B-00087
 2-Benzothiazolecarboxaldehyde 2-quinolylhydrazone, B-00088
 2-(2-Benzothiazolylazo)-5-(dimethylamino)phenol, B-00094
 1-Benzothien-2-yl-4,4,4-trifluoro-1,3-butanedione, B-00109
 2'-Benzoylacetyl, *in* A-00111
N-Benzoyl-*N'*-(5-bromo-2-pyridyl)thiourea, B-00125
 4-Benzoyl-2-(2-chlorophenyl)-2,4-dihydro-5-methyl-3*H*-pyrazol-3-one, B-00126
 4-Benzoyl-2-(4-chlorophenyl)-2,4-dihydro-5-methyl-3*H*-pyrazol-3-one, B-00127
 4-Benzoyl-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00128
 2-Benzoyl-4-ethylpyridine; Oxime (*E*-), *in* B-00132
 4-(Benzoylhydroxyamino)benzoic acid; Me ester, *in* B-00133
 2-Benzoyl-4-methylpyridine; Oxime (*E*-), *in* B-00134
 2-Benzoyl-4-nitro-1*H*-indene-1,3(2*H*)-dione, B-00139
 2-Benzoyl-5-nitro-1*H*-indene-1,3(2*H*)-dione, B-00140
N-Benzoyl-*N*-phenylhydroxylamine, *in* P-00135
 4-Benzoyl-3-phenyl-5(4*H*)-isoxazolone, B-00143
 2-Benzoyl-4-phenylpyridine; Oxime (*E*-), *in* B-00144
 2-Benzoylpyridine phenylthiosemicarbazone, B-00153
N-Benzoyl-*N'*-(2-pyridyl)thiourea, B-00159
N-Benzylaniline, B-00165
 1-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-5-(4-nitrophenyl)formazan, B-00171
N-Benzyl-4-(4-diethylaminophenylazo)pyridinium(1+), B-00176
 Benzyltrimethyloctadecylammonium(1+); Perchlorate, *in* B-00180
 6-Benzyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00182
 6-Benzyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, B-00185
 2-Benzylpyridine, B-00192
 9-Benzyl-*s*-triazolo-[4,3-*a*]-benzimidazole-3-thione, B-00195
 Bindschedler's green; Chloride, *in* B-00206
 4-([1,1'-Biphenyl]-4-ylcarbonyl)-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3*H*-pyrazol-3-one, B-00213
 ▶ 2,3'-Bipyridine, B-00221
 4,4'-(2,2'-Biquinoline)-4,4'-diylidimino)bisbenzoic acid; Di-Et ester, *in* B-00238
N,N'-Bis(*o*-amino- α -phenylbenzylidene)ethylenediamine, B-00250
N,N'-Bis[1-(2-aminophenyl)ethylidene]-1,2-ethanediamine, B-00252
 Bis(benzo-15-crown-5-ylmethyl)succinate, *in* B-00611
 1,5-Bis(7-benzyl-2-benzimidazolyl)-3-methylformazan, B-00258
 1,5-Bis(2-bromophenyl)-*N*-phenyl-3-formazancarboxamide, B-00270
N,N'-Bis(butanefulfonyl)-1,2-benzenediamine, B-00271
 Bis(4-chlorophenyl)ethanedione; Dioxime, *in* B-00285
 1,5-Bis(2-chlorophenyl)-3-formazancarboxamide, B-00286
 Bis(4-chlorophenyl)iodonium(1+); Chloride, *in* B-00287
 1,5-Bis(2-chlorophenyl)-3-nitroformazan, B-00288
 Bis(4-chlorophenyl) phosphate, B-00289
N,N'-Bis(2,3,5,6,9,10,12,13,15,16-decahydro-8*H*-1,7,4,7,11,14-benzodioxatetrathiacyclononadecin-19-yl)pentanediamide, B-00291
N,N'-Bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzoheptaoxacyclooctadecin-18-yl)pentanediamide, B-00292
 Bis(dicyclohexyloxyphosphinothioyl)disulfide, B-00294
 4-[Bis(4-diethylamino)phenyl]hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, B-00295
 Bis(diospropoxyphosphinothioyl)disulfide, B-00310
 ▶ Bis(dimethoxyphosphinothioyl) disulfide, B-00312
 4-[Bis(*p*-(dimethylamino)phenyl]hydroxymethyl]-4-chloro-3-methyl-1-phenyl-2-pyrazolin-5-one, B-00319
 1,1-Bis[4-(dimethylamino)phenyl]-3-phenyl-2-propynyl(1+); Chloride, *in* B-00324
N,N'-Bis(1,1-dimethylethyl)thiourea, *in* T-00175
 Bis[(diphenoxyphosphino)thioyl] disulfide, B-00336
 5,6-Bis(diphenylphosphino)bicyclo[2.2.1]hept-2-ene; (1*RS*,5*RS*,6*RS*)-form, *P,P'*-Dioxide, *in* B-00337
 1,2-Bis(diphenylphosphino)ethylene; (*E*-form, *P,P'*-Dioxide, *in* B-00339
 Bis(diphenylphosphino)methane, B-00340
 1,2-Bis(diphenylphosphinyl)ethane, *in* B-00338
 2,4-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00341
 2,6-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00342
N,N'-Bis(2,3,5,6,8,9,11,12,14,15,17,18-dodecahydro-1,4,7,10,13,16,19-benzoheptaoxacycloheneicosin-21-yl)pentanediamide, B-00346
 ▶ Bis(2-ethylhexyl) phosphate, B-00352
 ▶ *O,O*-Bis(2-ethylhexyl) phosphorodithioate, B-00353
 1,2-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00355
 1,3-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00356
 1,4-Bis[[[2-(ethylthio)ethyl]thio]methyl]benzene, B-00357
 1,5-Bis(2-fluorophenyl)-*N*-phenyl-3-formazancarboxamide, B-00358
 1,2-Bis(hexylthio)ethane, B-00359
 2,3-Bis(2-hydroxybenzylideneamino)benzofuran, B-00361
 7,16-Bis[3-[2-hydroxy-3,5-bis[(4-nitrophenyl)azo]phenyl]-1-oxopropyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane, B-00364
 Bis(2-hydroxyethyl)carbomethiodithioic acid; Zn salt (2:1), *in* B-00373
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,10-diaza-4,7,13-trioxacyclotetradecane, B-00382
N,N'-Bis(2-hydroxy-5-nitrobenzyl)10,13-diaza-1,4,7-trioxacyclotetradecane, B-00383
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,13,16,19-hexaoxa-10,22-diazacyclotetracosane, B-00384
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10,13-pentaoxa-15,18-diazacycloheicosane, B-00385
N,N'-Bis(2-hydroxy-5-nitrobenzyl)-1,4,7,10-tetraoxa-13,16-diazacyclooctadecane, B-00386
 1,5-Bis(2-iodophenyl)-*N*-phenyl-3-formazancarboxamide, B-00396
 1,2-Bis(2-mercaptobenzylideneamino)ethane, B-00398
O,O-Bis[3(methyl-5-oxo-1-phenyl-1*H*-pyrazol-4(5*H*)-ylidene)phenylmethyl]phosphorodithioate; K salt, *in* B-00405
 1,5-Bis(2-methylphenyl)-*N*-phenyl-3-formazancarboxamide, B-00409
 2,6-Bis(4-methylphenyl)-4-phenylpyrylium(1+); Chloride, *in* B-00410
 ▶ *N,N'*-Bis(2-methylphenyl)thiourea, B-00412
 Bis(2-methylpropyl) phenylphosphonate, *in* P-00164
O,O-Bis(2-methylpropyl) phosphorodithioate; Na salt, *in* B-00413
 2,3-Bis(6-methyl-2-pyridyl)benzo[*g*]quinoxaline, B-00414
 2,3-Bis(6-methyl-2-pyridyl)-10*H*-indeno[1,2-*g*]quinoxaline, B-00416
 2,3-Bis(6-methyl-2-pyridyl)-5-nitroquinoxaline, B-00417
 2,3-Bis(6-methyl-2-pyridyl)-6-nitroquinoxaline, B-00418
 2,3-Bis(6-methyl-2-pyridyl)pyrido[2,3-*b*]pyrazine, B-00421
 2,3-Bis(6-methyl-2-pyridyl)-6-quinoxalinecarboxylic acid, B-00423
 Bis(nitrooxy)diocetylstannane, B-00429
 Bis(4-nitrophenyl)ethanedione; Dioxime, *in* B-00432
N,N'-Bis(2,3,5,6,8,9,11,12-octahydro-1,13,4,7,10-benzodioxatrichiacyclotetradecin-15-yl)pentanediamide, B-00433
N,N'-Bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclotetradecin-15-yl)pentanediamide, B-00435
 1,2-Bis(octanesulfonamido)benzene, B-00436
 1,8-Bis(octanesulfonamido)naphthalene, B-00437
 4,4'-Bis(1-phenyl-3-methyl-5-pyrazolone), B-00440
N,N'-Bis(1*H*-pyrrol-2-ylmethylene)-1,2-ethanediamine, B-00448
 Bis(2,2':6',2''-terpyridine-*N,N',N''*)iron(II) (2+), B-00457
 Bis[2-[(tetrahydro-2*H*-pyran-2-yl)thio]phenyl]diazene, B-00458
 3,3'-Bis(trifluoromethyl)dithizone, B-00463
N-[3,5-Bis(trifluoromethyl)phenyl]-*N*-hydroxy-3,5-bis(trifluoromethyl)benzamide, B-00465
 Bis(2,4,4-trimethylpentyl)phosphinic acid, B-00468
 Bis(2,4,4-trimethylpentyl)phosphinodithioic acid, B-00469
 ▶ Brilliant green; Hydrogen sulfate, *in* B-00479
 2-[(6-Bromo-2-benzothiazolyl)azo]-4-methylphenol, B-00491
 1-[(6-Bromo-2-benzothiazolyl)azo]-2-naphthalenol, B-00492
 4-(2-Bromobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00493
 2-Bromobutanoic acid; (\pm)-form, *in* B-00496
 2-Bromodecanoic acid, B-00500
 5-Bromo-*N*,2-dihydroxybenzamide, B-00503
 9-(5-Bromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00513

- 4-Bromo-2-methylphenyldiazene-carbothioic acid 2-(4-bromo-2-methylphenyl)hydrazide, B-00534
- 6-Bromo-1,2-naphthoquinone; Dioxime, *in* B-00538
- 16-Bromo-2,3,5,6,8,9,11,12-octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, B-00540
- Bromophenol blue, B-00542
- 1-(4-Bromophenyl)-1,3-butanedione; 3-Oxime, *in* B-00548
- N'*-(4-Bromophenyl)-*N*-hydroxy-*N*-phenylthiourea, B-00551
- N*-(4-Bromophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, B-00552
- 3-(4-Bromophenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, B-00553
- (4-Bromophenyl)phenylethanedione dioxime, B-00555
- 2-[(5-Bromo-2-pyridinyl)azo]-4,5-dimethylphenol, B-00564
- 2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, *in* B-00563
- 4-[(5-Bromo-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, B-00572
- 1-[(5-Bromo-2-thiazolyl)azo]-2-naphthalenol, B-00579
- 2,3-Butanedione (2-benzothiazolyl)hydrazone; Oxime, *in* B-00588
- 2,3-Butanedione bis[(thiobenzoyl)hydrazone], B-00598
- 1,4-Butanediylbis[triphenylphosphonium] (2+); Dibromide, *in* B-00602
- ▶ Butanoic acid, B-00604
- 2-Butenedioic acid bis(2,3,5,6,8,9,11,12,14,15-decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)methyl]ester, B-00610
- 2-Butenedioic acid bis(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)methyl]ester, B-00611
- 4-Butoxy-*N*-(4-chlorophenyl)benzohydroxamic acid, B-00612
- ▶ 2-Butoxyethanol, B-00613
- 4-Butoxy-*N*-hydroxy-*N*-phenylbenzamide, B-00614
- ▶ Butyl acetate, B-00615
- ▶ Butylamine, B-00616
- ▶ *N*-Butylaniline, B-00617
- N*-(4-Butylbenzoyl)-*N*-phenylhydroxylamine, *in* B-00618
- N*-(4-Butylcyclohexanoyl)-*N*-phenylhydroxylamine, B-00624
- 1-Butyl-4-[[4-(diethylamino)phenyl]azo]pyridinium(1+), B-00625
- 1-Butyl-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, *in* D-00504
- Butyldithiocarbamic acid, B-00631
- 4-(1-Butylpentyl)pyridine, B-00635
- 4-*sec*-Butyl-2-(1-phenylethyl)phenol, B-00637
- N*-Butyl-2-pyridinecarbothioamide, *in* P-00317
- Butylrhodamine B, *in* R-00002
- N*-[2-(Butylthio)phenyl]-*N'*-phenylthiourea, B-00639
- Butyltriphenylphosphonium(1+), B-00640
- ▶ C.I. 51010, *in* B-00477
- ▶ C.I. 11050 Basic dye, *in* J-00004
- ▶ C.I. Basic orange 14, *in* B-00313
- Cation 2B, C-00007
- ▶ Capri blue; Chloride, *in* C-00017
- ▶ Carbonodithioic acid *O*-(phenylmethyl)ester; K salt, *in* C-00024
- 4-Carboxynioxime, *in* D-00989
- Cationic red violet; Chloride, *in* C-00046
- Cationic violet; Chloride, *in* C-00047
- ▶ Ceplac, *in* E-00020
- o*-Chloroacetanilide, *in* C-00058
- ▶ *p*-Chloroacetanilide, *in* C-00060
- ▶ 2-Chlorobenzoic acid, C-00066
- 2-Chlorobenzoic acid; Hydrazide, *in* C-00066
- 3-Chlorobenzoic acid (1*H*-pyrrol-2-ylmethylene)hydrazide, C-00069
- 4-(2-Chlorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, C-00070
- 2-Chloro-*N,N'*-bis(4-chlorophenyl)benzenecarboximidamide; B,HCl, *in* C-00073
- 6-Chloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, C-00075
- 2-Chloro-*N*-(2-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide; B,HCl, *in* C-00083
- 2-Chloro-*N*-(3-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide; B,HCl, *in* C-00084
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2,3-dimethylphenyl)benzenecarboximidamide, C-00085
- 2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, C-00086
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2-methylphenyl)benzenecarboximidamide, *in* C-00082
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(3-methylphenyl)benzenecarboximidamide, *in* C-00082
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(4-methylphenyl)benzenecarboximidamide, *in* C-00082
- 2-Chloro-*N*-(2-chlorophenyl)-*N'*-phenylbenzenecarboximidamide, C-00088
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-phenylbenzenecarboximidamide; B,HCl, *in* C-00089
- 4-Chloro-*N*-(2,3-dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, C-00102
- 6-Chloro-3-hydrizinopyridazine, *in* C-00251
- 5-Chloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, C-00123
- 5-Chloro-2-hydroxy-2,4,6-cycloheptatrien-1-one, C-00127
- 5-Chloro-2-hydroxy-4-methylacetophenone; Oxime, *in* C-00135
- 2-Chloro-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* C-00064
- 2-Chloro-*N*-hydroxy-*N*-(3-methylphenyl)benzamide, *in* C-00064
- 4-Chloro-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-1-naphthalenylbenzamide, C-00136
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00145
- 3-[(5-Chloro-2-hydroxy-3-sulfo)phenyl]azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, C-00159
- ▶ *N*-(3-Chloro-4-methylphenyl)acetamide, *in* C-00171
- N'*-(4-Chloro-2-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, C-00181
- N'*-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, C-00182
- N'*-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-phenylbenzamide, C-00183
- 2-Chloro-*N*-(2-methylphenyl)-*N'*-phenylbenzenecarboximidamide, C-00184
- 4-Chloro-1,2-naphthoquinone; Dioxime, *in* C-00187
- 6-Chloro-1,2-naphthoquinone; Dioxime, *in* C-00188
- 4-Chloro-2-nitroso-1-naphthol, *in* C-00187
- 4-Chloro-2-nitrosophenol, C-00190
- 4-Chloro-2-[(1,3,4,7,8,10,11,13-octahydro-6*H*-2,5,9,12-benzotetrahydropentadecin-15-yl)azo]phenol, C-00191
- 1-(4-Chlorophenyl)-1,3-butanedione; 3-Oxime, *in* C-00207
- N*-(4-Chlorophenyl)-4-chlorophenoxyisobutyrohydroxamic acid, C-00208
- N*-(2-Chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide, C-00209
- 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-methylbenzoyl)-3*H*-pyrazol-3-one, C-00210
- 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(3-methylbenzoyl)-3*H*-pyrazol-3-one, C-00211
- 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(4-methylbenzoyl)-3*H*-pyrazol-3-one, C-00212
- 2-(2-Chlorophenyl)-2,4-dihydro-5-methyl-4-(2-naphthalenylcarbonyl)-3*H*-pyrazol-3-one, C-00213
- N*-(4-Chlorophenyl)-*N'*-(2,6-dimethylphenyl)benzenecarboximidamide, C-00214
- N*-(3-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00215
- N*-(3-Chlorophenyl)-*N'*-(2,5-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00216
- N*-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00218
- N*-(4-Chlorophenyl)-*N'*-(2,3-dimethylphenyl)-*N*-hydroxy-4-methylbenzenecarboximidamide, C-00219
- N*-(4-Chlorophenyl)-3-(2-furanyl)-*N*-hydroxy-2-propenamide, C-00220
- N*-(4-Chlorophenyl)-*N*-hydroxy-2-butenamide, C-00223
- N*-(4-Chlorophenyl)-*N*-hydroxy-3,5-dinitrobenzamide, *in* D-00946
- N*-(3-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, *in* F-00064
- N*-(4-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, *in* F-00064
- N*-(4-Chlorophenyl)-*N*-hydroxy-2,4-hexadienamide, *in* H-00185
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methoxyphenyl)benzenecarboximidamide, C-00224
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(4-methoxyphenyl)-2-propenamide, C-00225
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4-methylenedioxyphenyl)-2-propenamide, C-00226
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(2-methylphenyl)benzenecarboximidamide, C-00227
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(3-methylphenyl)benzenecarboximidamide, C-00228
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-(4-methylphenyl)benzenecarboximidamide, C-00229
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N'*-phenylbenzenecarboximidamide, C-00230
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-phenyl-2-propenamide, C-00232
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, C-00234
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamide, C-00235
- N*-(4-Chlorophenyl)-*N'*-phenylbenzenecarboximidamide, C-00237
- (4-Chlorophenyl)phenylethanedione; Dioxime, *in* C-00238
- ▶ 2-Chloropyridine, C-00252
- 4-[(5-Chloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, C-00253
- 2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, C-00254

- 4-[3-Chloro-4-(pyridinylazo)-5-methyl-2-(1-methylethyl)phenol, C-00255
- 4-Chloro-2-[(2-pyridinylmethylene)amino]phenol, C-00258
- 5-Chloro-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazine, C-00264
- Chromopyrazole II, C-00288
- N*-Cinnamoylphenylhydroxylamine, in H-00499
- ▷ 15-Crown-5, C-00314
- ▷ 18-Crown-6, C-00315
- Cryptand 5, C-00316
- Cryptand 2.2.2 B, C-00317
- Cryptand 2.2.2 D, C-00319
- ▷ Cupferron, in H-00471
- Cupron, in B-00068
- ▷ Cuprotest, C-00322
- 1,2-Cyclodecanedione; Dioxime, in C-00331
- ▷ Cyclohexanecarboxylic acid, C-00336
- 1,2-Cyclohexanedione bis(thiosemicarbazone), C-00344
- ▷ Cyclohexanone, C-00347
- Cyclohexylbenzylidithiocarbamate(1-); Triethylammonium salt, in C-00351
- 4-Cyclohexyl-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, C-00354
- Cyclohexyl(phenylmethyl)carbamodithioic acid; Et₃N salt, in C-00357
- 4-Cyclohexyl-6-(2-pyridinylazo)-1,3-benzenediol, C-00358
- 1,1,1,5,5,6,6,7,7,7-Decafluoro-2,4-heptanedione, D-00004
- N*-(2,3,5,6,9,10,12,13,15,16-Decahydro-8*H*-1,17,4,7,11,14-benzodioxatetrathiacyclononadecin-19-yl)-2-propenamide, D-00005
- 8-[[4-[(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)azo]phenyl]amino]-1-naphthalenesulfonic acid, D-00006
- N*-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-18-yl)-2-propenamide, D-00007
- 7,8,9,10,17,18,19,20,21,22-Decahydro-8,19-bis(4-methylphenylsulfonyl)-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,13,16]dioxatetraazacyclooctadecine, D-00008
- 7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*b,k*][1,13,4,10]dioxadiazacyclooctadecine, D-00009
- 7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,13,16]dioxatetraazacyclooctadecine, D-00010
- 6,7,8,9,10,11,18,19,20,21-Decahydro-5*H*,17*H*-dibenzo[*b,k*][1,13,4,7,10]dioxatriazacyclooctadecine, D-00011
- 7,8,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,16]dioxatriazacyclooctadecine, D-00012
- 7,8,9,10,11,12,19,20,21,22-Decahydrodibenzo[*e,q*][1,4,8,15]tetraazacyclooctadecine, D-00013
- 6,7,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,4,7,10,16]trioxadiazacyclooctadecine, D-00014
- 6,7,9,10,17,18,19,20,21,22-Decahydro-6*H*,16*H*-dibenzo[*h,q*][1,4,7,10,13,16]trioxatriazacyclooctadecine, D-00015
- 8,9,11,12,14,15,17,18,20,21-Decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*l*][1,4,7,10,13,16]hexaaxacycloheneicosin, D-00016
- 6,7,8,9,10,11,18,19,20,21-Decahydro-8-[(4-methylphenyl)sulfonyl]-5*H*,17*H*-dibenzo[*b,k*][1,13,4,7,10]dioxatriazacyclooctadecine, in D-00011
- 7,8,9,10,17,18,19,20,21,22-Decahydro-8-[(4-methylphenyl)sulfonyl]-6*H*,16*H*-dibenzo[*h,q*][1,7,4,10,16]dioxatriazacyclooctadecine, in D-00012
- 6,7,9,10,17,18,19,20,21,22-Decahydro-19-[(4-methylphenyl)sulfonyl]-16*H*-dibenzo[*h,q*][1,4,7,10,13,16]trioxatriazacyclooctadecine, in D-00015
- 2,3,5,6,8,9,11,12,14,15-Decahydro-19-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-amine, D-00019
- 6,7,9,10,12,13,15,16,18,19-Decahydro-2,4,21,23-tetramethyl-25-(1-naphthalenyl)-25*H*-dibenzo[*q,l*][1,4,7,10,13,16]hexaaxacycloheneicosin, D-00020
- 2,3,5,6,8,9,11,12,14,15-Decahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzohexaaxacyclooctadecin-18-amine, D-00021
- ▷ Decanoic acid, D-00025
- 2,6-Diacetylpyridine bis(benzoylhydrazine), D-00036
- 2,6-Diacetylpyridine bis(2-hydroxybenzoylhydrazine), D-00038
- 1,2-Diamino-4-chlorobenzene; B,2HCl, in D-00064
- 1,2-Diaminocyclohexane-*N,N,N',N'*-tetraacetic acid; (1*RS*,2*RS*)-form, in D-00065
- ▷ 1,2-Diamino-4,5-dimethylbenzene, D-00080
- ▷ 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+); Chloride, in D-00084
- 1,3-Diamino-8-methoxyphenothiazine, D-00100
- 3,6-Diamino-10-methylacridinium chloride, in D-00042
- ▷ 1,2-Diamino-4-methylbenzene, D-00101
- ▷ 1,2-Diamino-4-nitrobenzene, D-00108
- 1,1-Diantipyrilbutane, D-00135
- 1,1-Diantipyrilthane, D-00136
- 1,1-Diantipyrilheptane, D-00137
- 1,1-Diantipyril-2-hydroxyphenylmethane, D-00138
- 1,1-Diantipyrilmethane, D-00139
- 1,1-Diantipyrilphenylmethane, D-00140
- Diantipyrilthiourea, D-00141
- ▷ Dibenzo-18-crown-6, D-00156
- Dibenzo-24-crown-8, D-00159
- Dibenzo[*h,e*][1,4]dioxin-2-carboxaldehyde; Oxime, in D-00162
- Dibenzylidithiocarbamic acid, in D-01124
- ▷ Dibenzylidithioamide, D-00169
- Dibenzyl sulfide, D-00171
- ▷ Dibenzyl sulfoxide, D-00172
- Di-4-biphenylthiocarbazono, D-00175
- o,o'*-Dibromo-*p,p'*-dimethylidithione, D-00184
- 2,2'-Dibromodithione, D-00186
- 2-[(3,5-Dibromo-2-hydroxyphenyl)methylene]-*N*-phenylhydrazinecarbothioamide, D-00192
- 2-[(3,5-Dibromo-4-methyl-2-pyridinyl)azo]-5-(diethylamino)phenol, D-00196
- 4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediamine, D-00199
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(diethylamino)benzoic acid, in A-00148
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-methoxyphenol, in D-00200
- 5-(3,5-Dibromo-2-pyridylazo)-2,4-diaminotoluene, D-00210
- 2-[(3,5-Dibromo-2-pyridyl)azo]-5-(diethylamino)phenol, in A-00150
- N*-[(Dibutylamino)thioxomethyl]benzamide, D-00225
- ▷ Dibutylarsinic acid, D-00226
- 3,5-Di-*tert*-butyl-1,2-benzenediol, D-00227
- Dibutylselenocarbamic acid; Na salt, in D-00231
- N*-Dibutylidithiocarbamic acid, D-00232
- 4,4'-Dibutylidithione, D-00233
- Dibutyl-(2-hydroxypropyl)thiophosphonic acid, D-00234
- 4,6-Di-*tert*-butyl-3-methoxy-1,2-benzenediol, in D-00228
- N,N*-Dibutyl-β-oxobenzenepropanethioamide, in O-00056
- ▷ Dibutyl phosphate, D-00237
- α-(Dibutylphosphinyl)-α-hydroxybenzeneacetic acid, D-00238
- 2-(Dibutylphosphinyl)-2-hydroxypropanoic acid, D-00239
- O,O*-Dibutyl phosphonothioate, D-00240
- O,O*-Dibutyl phosphorodithioate; K salt, in D-00241
- O,O*-Dibutyl phosphorothioate, D-00242
- ▷ (3,4-Dichlorobenzyl)triphenylphosphonium(1+); Chloride, in D-00252
- 6,7-Dichloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, D-00255
- 2,5-Dichloro-4-[[4-(4-dimethylamino)phenyl]azo]benzenesulfonic acid, in A-00311
- 3,3'-Dichloro-2,2'-dimethyldithione, D-00264
- 4,4'-Dichloro-2,2'-dimethyldithione, D-00265
- 5,5'-Dichloro-2,2'-dimethyldithione, D-00266
- 6,7-Dichloro-2,3-di-2-pyridylquinoxaline, D-00269
- 2,2'-Dichlorodithione, D-00270
- 4,4'-Dichlorodithione, D-00271
- 3,5-Dichloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, D-00278
- ▷ 5,7-Dichloro-8-hydroxy-2-methylquinoline, D-00280
- 5,7-Dichloro-8-hydroxyquinoline, D-00283
- 2-(2,4-Dichlorophenoxy)-*N*-(4-methylphenyl)acetohydroxamic acid, in D-00288
- 2-(2,4-Dichlorophenoxy)-*N*-phenylacetohydroxamic acid, in D-00288
- N*-2,5-Dichlorophenyl-*N'*-phenylbenzamide, D-00296
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-1,3-benzenediamine, D-00299
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, D-00301
- ▷ *N,N'*-Didodecylthanedithioamide, D-00310
- 4,5-Didodecyl-1-naphthalenesulfonic acid, D-00311
- ▷ Diethazine; B,HCl, in D-00312
- N*-[2-(Diethylamino)ethyl]-4-[(8-hydroxy-5-quinolinyl)azo]benzamide, D-00317
- 2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, in A-00214
- 5-(Diethylamino)-2-[[5-methyl-2-pyridinyl)azo]phenol, D-00324
- 3-[[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1*H*-1,2,4-triazolium(1+); Chloride, in D-00328
- 4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+); Chloride, in D-00329
- 4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Chloride, in D-00332
- 4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+); Chloride, in D-00333
- 5-(Diethylamino)-2-(2-pyridinylazo)phenol, in A-00336
- Diethylammonium diethylidithiocarbamate, in D-00344
- N,N*-Diethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00349
- 7,18-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaaxacyclooctadecin, D-00352
- Diethylphosphoramidic acid cyclic 1-methyltrimethylene ester, D-00354
- Diethylphosphoramidic acid; Diheptyl ester, in D-00353
- ▷ *O,O*-Diethyl phosphorodithioate, D-00356
- O,O*-Diethylphosphoroselenoic acid; Na salt, in D-00357
- 4-(2,6-Difluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00359
- 2,2'-Difluorodithione, D-00360

- 4,4'-Difluorodithione, D-00361
N,N-Dihexyl-*N'*-benzoylthiourea, *in* B-00161
O,O-Dihexyl phosphorodithioate, D-00369
5,6-Dihydro-5,6-bis(hydroxyimino)-1-naphthalenesulfonic acid, *in* N-00034
5,6-Dihydro-5,6-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00035
7,8-Dihydro-7,8-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00036
4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, D-00385
1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione, D-00391
▶ 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00392
1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(2,4,6-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00393
1,3-Dihydro-4,5-diphenyl-2*H*-imidazole-2-thione, D-00399
2,3-Dihydro-5-hydroxy-4*H*-1-benzopyran-4-one, D-00408
1,4-Dihydro-5-hydroxy-1-(4-methylphenyl)-4-oxo-2-pyridinecarboxylic acid; Et ester, *in* D-00411
1,2-Dihydro-4-[(2-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00415
1,2-Dihydro-4-[(4-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00416
1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00423
2,3-Dihydro-2-(2-mercaptophenyl)-1,2,3-benzothiadiazole, D-00425
2,4-Dihydro-4-(2-methoxybenzoyl)-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00426
2-[4,5-Dihydro-5-(4-methoxyphenyl)-3-isoxazolyl]-4-methylphenol, D-00427
3,4-Dihydro-1-(4-methoxyphenyl)-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00429
2,4-Dihydro-5-methyl-4-(2-methylbenzoyl)-2-phenyl-3*H*-pyrazol-3-one, D-00431
2,4-Dihydro-5-methyl-2-(2-methylphenyl)-4-(2-naphthalenylcarbonyl)-3*H*-pyrazol-3-one, D-00432
2,4-Dihydro-5-methyl-2-(4-methylphenyl)-4-(2,2,3,3,3-pentafluoro-1-oxopropyl)-3*H*-pyrazol-3-one, D-00433
2,4-Dihydro-5-methyl-2-(methylphenyl)-4-(3,5,5-trimethyl-1-oxohexyl)-3*H*-pyrazol-3-one, D-00434
2,4-Dihydro-5-methyl-4-(1-oxodecyl)-2-phenyl-3*H*-pyrazol-3-one, D-00435
2,4-Dihydro-5-methyl-4-(1-oxooctyl)-2-phenyl-3*H*-pyrazol-3-one, D-00436
3,4-Dihydro-3-methyl-1-phenyl-4-stearoyl-5-pyrazolone, D-00444
2,4-Dihydro-5-methyl-2-phenyl-4-(trifluoroacetyl)-3*H*-pyrazol-3-one, D-00449
2,4-Dihydro-5-methyl-2-phenyl-4-[2-(trifluoromethyl)benzoyl]-3*H*-pyrazol-3-one, D-00450
2,4-Dihydro-4-phenyl-3*H*-1,2,4-triazole-3-thione, D-00471
2,9-Dihydro-9-phenyl-3*H*-1,2,4-triazolo[4,3-*a*]benzimidazole-3-thione, D-00472
4,5-Dihydro-1*H*-pyrazole-1-carbodithioic acid, D-00479
6,7-Dihydrotribenzol[e,*i,m*][1,4,8,11]dioxadiazacyclotetradecine, D-00497
3,4-Dihydro-4,4,6-trimethyl-1-(4-methyl-2-nitrophenyl)-2(1*H*)-pyrimidinethione, D-00498
3,4-Dihydro-4,4,6-trimethyl-1-(4-nitrophenyl)-2(1*H*)-pyrimidinethione, D-00499
3,4-Dihydro-4,4,6-trimethyl-1-(phenylamino)-2(1*H*)-pyrimidinethione, D-00500
3,4-Dihydro-4,4,6-trimethyl-1-(4-phenyl-2-thiazolyl)-2(1*H*)-pyrimidinethione, D-00502
3,4-Dihydro-4,4,6-trimethyl-1-propyl-2(1*H*)-pyrimidinethione, *in* D-00504
3,4-Dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00504
3,4-Dihydro-4,4,6-trimethyl-1-(2,4,6-trichlorophenyl)-2(1*H*)-pyrimidinethione, D-00505
2',4'-Dihydroxyacetophenone; Thiosemicarbazone, *in* D-00507
2,4-Dihydroxybenzenecarboxylic acid, D-00522
3,4-Dihydroxybenzenesulfonic acid, D-00527
8,8'-Dihydroxy-5,5'-biquinoline, D-00546
4,5-Dihydroxy-3,6-bis(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00561
4,5-Dihydroxy-3,6-bis[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00562
6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00576
7,8-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00577
▶ 1,8-Dihydroxy-2,4-dinitronaphthalene, D-00582
6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00584
7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00585
N,N'-Dihydroxy-*N,N'*-diphenylheptanediamide, D-00587
4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00632
4,7-Dihydroxy-1*H*-isoindole-1,3(2*H*)-dione; Dithiosemicarbazone, *in* D-00636
4,5-Dihydroxy-1-naphthalenesulfonic acid; Na salt, *in* D-00657
4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00668
1,2-Dihydroxy-3-(1,4,7,10,13-pentaoxa-16-azacyclooctadecylmethyl)-9,10-anthracenedione, D-00682
4-[(2,4-Dihydroxyphenyl)azo]benzenesulfonic acid; Na salt, *in* D-00688
4-[(2,4-Dihydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00691
15,16-Dihydroxy-7-phenyl-5*H*-dibenzol[*b,j*][1,11,4,5,7,8]dioxatetraazacyclotridecine, D-00709
1-(2,4-Dihydroxyphenyl)-1-pentanone, D-00714
o-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00726
8-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]-1,6-naphthalenedisulfonic acid, D-00727
4,5-Dihydroxy-3-(8-quinolylazo)-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00728
1,2-Dihydroxy-3-(1,4,7,10-tetraoxa-13-azacyclononadec-13-ylmethyl)-9,10-anthracenedione, D-00737
4,4'-Diiododithione, D-00743
O,O-Diisopentyl phosphorodithioate, D-00746
▶ Diisopropyl ether, D-00748
▶ 2,3-Dimercapto-1-propanesulfonic acid, D-00761
4,4'-Dimethoxydithione, D-00775
4,4'-[*p*-(Dimethylamino)- α -hydroxybenzylidene]diantipyrine, D-00785
2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4,6-dinitrophenol, *in* A-00210
4-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00788
2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-methylphenol, *in* A-00197
2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-nitrophenol, *in* A-00213
5-(Dimethylamino)-2-nitrosophenol; B,HCl, *in* D-00804
5-(Dimethylamino)-2-[(5-nitro-2-thiazolyl)azo]phenol, *in* A-00289
▶ *N*-[4-[[4-(Dimethylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+); Chloride, *in* D-00812
N-[4-(Dimethylamino)phenyl]-*N*-hydroxy-3-methoxy-2-naphthalenecarboxamide, D-00814
2-[2-[(5-Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* D-00826
▶ 2,3-Dimethylaniline; *N*-Ac, *in* D-00827
▶ 2,5-Dimethylaniline; *N*-Ac, *in* D-00828
▶ 2,6-Dimethylaniline; *N*-Ac, *in* D-00829
▶ 3,4-Dimethylaniline; *N*-Ac, *in* D-00830
4,5-Dimethyl-1,2-benzenedithiol, D-00832
N,N-Dimethyl-*N'*-benzoylthiourea, *in* T-00175
6,7-Dimethyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, D-00842
▶ 3,3-Dimethyl-2-butanone, D-00845
Dimethylcarbamodiselenic acid; Na salt, *in* D-00846
6,7-Dimethyl-2,3-di(2-pyridyl)quinoxaline, D-00855
2,2'-Dimethyldithione, D-00856
3,3'-Dimethyldithione, D-00857
4,4'-Dimethyldithione, D-00858
4-[4-(1,1-Dimethylethyl)benzoyl]-2,4-dihydro-5-methyl-2-(2-methylphenyl)-3*H*-pyrazol-3-one, D-00859
4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* B-00619
4-(1,1-Dimethylethyl)-*N*-hydroxy-*N*-phenylbenzamide, *in* B-00619
15-(1,1-Dimethylethyl)tetradecahydro-1,4,7,10,13-benzopentaoxacyclononadecine, D-00860
▶ Dimethylglyoxime, D-00862
5,5-Dimethyl-2,4-hexanedione, D-00863
3-[3-(3,3-Dimethyl-1(3*H*)-isobenzofuranylidene)-1-propenyl]-1,1-dimethyl-1*H*-isobenzofurylium(1+); Perchlorate, *in* D-00869
N,N-Dimethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00870
N,N-Dimethyl-*N'*-[5-nitro-4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00874
N,N-Dimethyl-*N'*-[4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00875
2,8-Dimethyl-4,6-nonanedione, D-00877
2,9-Dimethyl-1,10-phenanthroline, D-00880
▶ 2,6-Dimethylphenol, D-00885
1,3-Dimethyl-4-(phenylazo)-1*H*-pyrazole-5-thiol, D-00887
N'-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamidide, D-00889
N'-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-phenylbenzamidide, D-00890
N-(2,3-Dimethylphenyl)-*N*-hydroxy-3-phenylpropanamide, D-00891
N-(2,3-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00892
N-(2,6-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00893
▶ *O,O*-Dimethyl phosphorodithioate, D-00896
4,5-Dimethyl-2-(2-quinolylazo)phenol, D-00914
Dimethylsulfonazo DAL, D-00918
7,14-Dimethyl-5,7,12,14-tetraethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, D-00919

- 2-[(4,5-Dimethyl-2-thiazolyl)azo]-4,6-dimethylphenol, D-00921
- 2,4-Dimethyl-6-(2-thiazolylazo)phenol, D-00923
- 2-(4,5-Dimethyl-2-thiazolyl)-3,5-diphenyl-2*H*-tetrazolium(1+); Bromide, *in* D-00924
- N,N'*-Di-2-naphthalenyl-1,4-benzenediamine, D-00929
- 1,2-Di(1-naphthalenyl)-1,2-ethanedione; Monooxime, *in* D-00930
- 1,5-Di-(β -naphthyl)thiocarbazono, D-00933
- 4-[(3,5-Dinitrobenzoyl)hydroxyamino]benzoic acid methyl ester, *in* D-00946
- 3,5-Dinitro-4-[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)amino]benzoxazole, D-00956
- 1-[(2,4-Dinitrophenyl)amino]-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00962
- 3-[(2,4-Dinitrophenyl)azo]-4,5-dihydroxy-6-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, D-00964
- 5-(2,4-Dinitrophenylazo)-8-hydroxyquinoline, D-00968
- 16-[(2,4-Dinitrophenylazo)-3,6,9,12-tetraoxabicyclo[12.3.1]octadecan-1(18),14,16-trien-18-ol, D-00970
- N*-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-3,4,6,7,10,11-hexahydro-2*H*,9*H*-1,5,8,12-benzotetraoxacyclotetradecan-14-amine, D-00976
- N*-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecan-15-amine, D-00977
- N*-[2,6-Dinitro-4-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecan-15-amine, D-00978
- Dinonylamine, D-00979
- Dinonyltin dinitrate, D-00980
- ▶ Dioctylamine, D-00981
- Dioctylamine; *N*-Methyl, *in* D-00981
- 5-Dioctylaminomethyl-8-quinolinol, *in* A-00244
- Di(*n*-octyl)arsinic acid, D-00982
- Diocetyl sulfide, D-00983
- Diocetyl sulfoxide, D-00984
- 2-(1,3-Dioxobutyl)-1*H*-indene-1,3-(2*H*)-dione, D-00987
- 1,3-Dioxo-2-indanecarboxylic acid; Me ester, *in* D-00991
- O,O*-Dipentyl phosphorodithioate, D-00996
- ▶ Diphenylacetic acid, D-00999
- N,N'*-Diphenylbenzamidine, D-01001
- N,N'*-Diphenyl-*N'*-benzoylthiourea, *in* B-00161
- N,N'*-Diphenylcarbamidothioic acid decyl ester, *in* D-01055
- 2,2'-Diphenyldithione, D-01009
- Diphenylethanedione mono(2-quinolinylhydrazono), D-01014
- (*E,E*)-Diphenylglyoxime, *in* B-00038
- ▶ 1,3-Diphenylguanidine, D-01018
- 8-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]quinoline, D-01025
- N,N'*-Diphenylmethyl-4-nitrosobenzenamine, *in* N-00154
- 2-(Diphenylmethyl)pyridine, D-01030
- Diphenylphosphinodithioic acid; Na salt, *in* D-01039
- O,O*-Diphenyl phosphorodithioate, D-01040
- 1,3-Diphenyl-1,3-propanedione, D-01041
- Diphenyl selenoxide, D-01049
- N,N'*-Diphenylthioimidodicarbonic diamide, *in* T-00163
- ▶ *N,N'*-Diphenylthiourea, D-01055
- Diphenylthioviouric acid, *in* D-00493
- O,O*-Di-2-propenyl phosphorodithioate, D-01058
- N*-[(Dipropylamino)thioxomethyl]benzamide, D-01059
- O,O*-Dipropyl phosphorodithioate, D-01060
- ▶ *O,O*-Di-2-propenyl phosphorodithioate, D-01061
- 1,1-Di-2-pyridinyl-*N,N'*-di-8-quinolinylmethanediamine, D-01062
- Di-2-pyridinylethanedione bis(diphenylsemicarbazone), D-01064
- Di-2-pyridinylmethanone benzoylhydrazono, D-01073
- Di-2-pyridinylmethanone 2-chlorobenzoylhydrazono, D-01074
- Di-2-pyridinylmethanone 3-chlorobenzoylhydrazono, D-01075
- Di-2-pyridinylmethanone 5-nitro-2-pyridylhydrazono, D-01079
- Di-2-pyridinylmethanone 2-pyridinylhydrazono, D-01080
- Di-2-pyridinylmethanone 2-quinolinylhydrazono, D-01082
- 2,3-Di-2-pyridinylquinoxaline, D-01087
- 2,3-Di-2-pyridylbenzo[*g*]quinoxaline, D-01088
- 2,2'-Dipyridyl- α -glyoxime, *in* D-01063
- 2,3-Di-2-pyridyl-6-quinoxalinecarboxylic acid, D-01095
- Di-2-quinolinylmethanone 2-pyridinylhydrazono, D-01102
- Di-2-quinolinylmethanone 2-quinolinylhydrazono, D-01103
- N,N'*-Di-(8-quinolinyl)-2,6-pyridinedicarbonyl, D-01104
- 1,3-Di-2-selenophenyl-1,3-propanedione, D-01106
- 4,4'-Disulfodithione; Di-Na salt, *in* D-01109
- 1,12-Di-2-thienyl-2,5,8,11-tetrathiadodecane, D-01115
- Dithioantipyrinic acid, D-01116
- 5,5'-Dithiodisallylhydroxamic acid, D-01131
- 1,1,1,2,2,6,6,7,7,8,8,8-Dodecafluoro-3,5-octanedione, D-01136
- 1,12-Dodecanediylbis[octylarsinic acid], D-01139
- ▶ Dodecylamine, D-01142
- 6-Dodecyl-6-[2-hydroxy-3,5-bis(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01144
- 6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01145
- 6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01146
- 6-Dodecyl-6-[2-hydroxy-5-(1,8-naphthalenedicarboximido)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01147
- 6-Dodecyl-6-(2-hydroxy-5-nitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01148
- 6-Dodecyl-6-[2-hydroxy-3-nitro-5-(4-nitrophenylazo)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01149
- 2-[(5-Dodecyl-2-hydroxyphenyl)azo]benzoic acid, D-01150
- [2-[(5-Dodecyl-2-hydroxyphenyl)azo]phenyl]arsonic acid, D-01151
- 2-[(Dodecyl)oxy]methyl-1,4,7,10-tetraoxacyclododecane, D-01154
- 3-Dodecyl-1,5,9,13-tetraazacyclohexadecane, D-01156
- 3-Dodecyl-1,5,10,14-tetraazacyclooctadecane, D-01157
- 6-Dodecyl-1,4,8,11-tetraazacyclotetradecane, D-01158
- ▶ Eicosahydrodibenzof[*b,k*]1,4,7,10,13,16]hexaazacyclooctadecane, E-00004
- ▶ Eriochrome blue black; Na salt, *in* E-00010
- Ethanebis(thioic) acid; Di-K salt, *in* E-00023
- 1,2-Ethanediphosphonic acid; *P,P'*-Dibutyl ester, *in* E-00026
- 1,2-Ethanediybis[phenylcarbomodithioic acid]; Di-NH₄ salt, *in* E-00033
- ▶ 1,2-Ethanediybis[triphenylphosphonium] (2+); Dibromide, *in* E-00034
- 5,5'-(1,2-Ethanediyldinitrilo)bis[2,2-dimethyl-3-hexanone], E-00036
- 1,2-Ethenediybis[bis(4-methylphenyl)phosphineoxide], E-00043
- 5-(*p*-Ethoxyanilino)-5,6-dihydrouracil, E-00052
- 2-[[2-(2-Ethoxyethoxy)ethyl](2-ethoxyethyl)aminomethyl]-4-nitrophenol, E-00055
- 1-[(4-Ethoxyphenyl)amino]-2-mercapto-1-propanone, E-00058
- 5-Ethoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- ▶ Ethyl acetate, E-00062
- 5-(Ethylamino)-4-methyl-2-[[4-phenyl-2-thiazolyl]azo]phenol, *in* A-00250
- 2-(Ethylamino)-4-methyl-2-(2-thiazolylazo)phenol, E-00066
- 1-Ethyl-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, E-00069
- 5-Ethyl-*N*-(diisopropylthiophosphoryl) dithiocarbamate, *in* B-00404
- N,N'*-Ethylenebis(4-methoxy-1,2-benzoquinone 2-imine); Dioxime, *in* E-00076
- ▶ 2-Ethyl-1-hexanol; (\pm)-form, *in* E-00083
- 2-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00084
- 3-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00085
- 3-Ethyl-5-hydroxy-2,7-dimethyl-4*H*-1-benzopyran-4-one, E-00086
- 2-Ethyl-5-hydroxy-7-methoxyisoflavone, *in* E-00070
- 2-Ethyl-5-hydroxy-3-methyl-4*H*-1-benzopyran-4-one, E-00090
- 3-Ethyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, E-00091
- 4-Ethyl-*N*-hydroxy-*N*-phenylbenzamide, E-00093
- Ethyl- α -isonitrosoacetate, *in* D-00986
- Ethylmethylglyoxime, *in* P-00029
- N*-(4-Ethylphenyl)-*N'*-phenylbenzenecarboximidamide, E-00104
- 5-Ethyl-*N*-phenyl-2-pyridinecarbothioamide, *in* E-00108
- 4-Ethyl-*N*-(8-quinolinol)benzenesulfonamide, E-00112
- N*-(Ethylsulfonyl)benzamide; Oxime, *in* E-00113
- N*-(5-Ethyl-1,3,4-thiadiazol-2-yl)-4-[3-methyl-5-(1-methyl-1*H*-benzimidazol-2-yl)-1-formazan]benzenesulfonamide, E-00117
- Ethyltridodecylammonium(1+); Bromide, *in* E-00120
- Ethyl violet; Chloride, *in* E-00122
- Etymemazine; (\pm)-form, *in* E-00123
- 4-(2-Fluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, F-00025
- ▶ Fuchsine, *in* R-00009
- 2-Furancarboxaldehyde 2-benzothiazolylhydrazono, F-00044
- 2-Furancarboxaldehyde 3-bromobenzoylhydrazono, F-00045
- 2-Furancarboxaldehyde 4-bromobenzoylhydrazono, F-00046
- 3-Furancarboxaldehyde; Oxime, *in* F-00043
- 2-Furanthiocarboxhydrazide, *in* F-00040
- (2-Furanyl)-2,3-dihydro-4-phenyl-1*H*-pyrazole-1-carbonodithioic acid, F-00051
- 3-(2-Furanyl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* F-00053
- 1-(2-Furanyl)-3-(2-selenophenyl)-1,3-propanedione, F-00062
- Furfural green; Chloride, *in* F-00063
- ▶ α -Furildioxime, *in* D-00364
- Glyoxal bis(4-biphenylthiosemicarbazono), G-00021
- Glyoxal bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazono], G-00022
- Glyoxal bis(4-cyclohexylthiosemicarbazono), G-00023
- Glyoxal bis(4-fluorophenylthiosemicarbazono), G-00026

- Glyoxal bis(1-naphthylthiosemicarbazone), G-00031
- Glyoxal bis[4-(3-trifluoromethyl)-4-chlorophenyl]thiosemicarbazone, G-00035
- Gossypol bis[N-(2-hydroxy)ethyleneimine], G-00042
- Gossypol bis(4-hydroxyphenyl)imine, G-00043
- ▷ Guanidine, G-00044
- 6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedione, H-00006
- 4-(2,2,3,3,4,4,4-Heptafluoro-1-oxobutyl)-2,4-dihydro-5-methyl-2-(4-methylphenyl)-3*H*-pyrazol-3-one, H-00008
- 1,4,10,13,16,19-Heptaoxacycloheicosane, H-00013
- 4,7,10,16,19,24,27-Heptaoxa-1,13-diazabicyclo[11.8.8]nonacosane, H-00014
- Heptylarsonic acid, H-00015
- 4,4'-Heptylidenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], H-00017
- 4,4'-Heptylidenebis[1,2-dihydro-3*H*-pyrazol-3-one], H-00018
- Heptyl tetraethylphosphorodiamidate, *in* T-00046
- ▷ 1,4,7,10,13,16-Hexaazacyclooctadecane, H-00019
- Hexabutylphosphoric triamide, *in* H-00020
- Hexabutylphosphorothioic triamide, *in* H-00020
- 6,7,13,14,15,16,17,18,24,25,31,32,33,34,35,36-Hexadecahydrotrabenzol[*e,m,s,a*][1,4,15,18,8,11,22,25] tetraoxatetraazacyclooctacosine, H-00025
- Hexafluoroacetylacetone, H-00030
- Hexahydro-1*H*-azepine-1-carbothioic acid; K salt, *in* H-00035
- Hexahydro-2*H*-azepine-2-thione, H-00036
- Hexahydro-2*H*-1,3-diazepine-2-thione, H-00037
- 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,m*][1,4,10,7,13]dioxathiadiazacyclopentadecine, H-00038
- 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,k*][1,7,10,4,13]oxadithiadiazacyclopentadecine, H-00039
- [(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecin-18-yl)oxy]acetic acid, H-00040
- 4-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecin-18-yl)oxy]butanoic acid, H-00041
- 2-[6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecin-18-yl]oxy]hexanoic acid, H-00042
- 17-[(6,7,9,10,18,19-Hexahydro-17*H*-dibenzo[*b,k*][1,4,7,10,13]pentaoxacyclohexadecin-18-yl)oxy]octadecanoic acid, H-00043
- 7,8,15,16,17,18-Hexahydrodibenzo[*e,m*][1,4,8,11]-tetraazacyclotetradecine, H-00044
- 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,n*][1,4,10,7,13]trioxadiazacyclopentadecine, H-00045
- 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,n*][1,4,10,7,13]trithiadiazacyclopentadecine, H-00046
- Hexahydro-*N*-(4-methylpentyl)-1*H*-azepine-1-carbothioamide, H-00048
- Hexahydro-*N*-phenyl-1*H*-azepine-1-carbothioamide, H-00049
- ▷ Hexamethylphosphoric triamide, H-00058
- 5,7,7,12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, H-00059
- ▷ Hexanoic acid, H-00066
- 1,2,5,8,11,14-Hexathiacyclohexadecane, H-00069
- 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
- N*-Hexyl-*N'*-benzoylthiourea, H-00072
- 2-Hexylbutanedioic acid; (±)-*form*, *in* H-00073
- O*-Hexylbutylphosphonodithioate, *in* B-00638
- 2-Hexyl-*N*-hydroxy-*N*-phenyldecanamide, H-00076
- 2-Hexylpyridine, H-00077
- 4'-Hydroxyacetophenone; Oxime, *in* H-00090
- 1-Hydroxyacridine, H-00091
- 4-Hydroxyacridine, H-00092
- 2-Hydroxybenzaldehyde phenylthiosemicarbazone, H-00107
- ▷ *N*-Hydroxybenzamide, H-00109
- ▷ 2-Hydroxybenzoic acid, H-00112
- 2-Hydroxybenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, H-00120
- 2-Hydroxybenzoic acid [2-(2-pyridinyl)ethylidene]hydrazide, H-00121
- 2-(2-Hydroxybenzylideneamino)phenol, H-00129
- N*-Hydroxy-*N,N'*-bis(4-methylphenyl)benzenecarboximidamide, *in* H-00308
- 2-Hydroxy-3,5-bis[(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00141
- 5-Hydroxy-2,3-dimethyl-4*H*-1-benzopyran-4-one, H-00150
- 2-Hydroxy-3,5-dinitrobenzyl-15-crown-5, H-00155
- 6-(2-Hydroxy-3,5-dinitrobenzyl)-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00156
- 6-(2-Hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, H-00157
- (2-Hydroxy-3,5-dinitrophenoxymethyl)-15-crown-5, H-00159
- 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-8-quinolinol 1-oxide, H-00161
- (2-Hydroxy-3,5-dinitrophenyl)oxymethyl-18-crown-6, H-00164
- 8-Hydroxy-5,7-dinitroquinoline, H-00165
- N*-Hydroxy-*N,N'*-diphenylbenzenecarboximidamide, *in* D-01001
- N*-Hydroxy-*N*,5-diphenyl-2,4-pentadienamide, H-00169
- N*-Hydroxy-*N,N'*-diphenylthiourea, *in* D-01055
- 2-Hydroxydithiobenzoic acid, H-00175
- 4-Hydroxydithiobenzoic acid, H-00176
- 13-Hydroxyethyl-1,4,7,10-tetraoxa-13-azacyclopentadecane, H-00182
- α-(Hydroxyimino)-1,5-dimethyl-1*H*-benzimidazole-2-acetonitrile, H-00244
- N*-[2-(Hydroxyimino)-1-methylpropylidene]glycine, H-00247
- α-(Hydroxyimino)-2-pyridineacetonitrile, H-00251
- α-(Hydroxyimino)-2-quinolineacetonitrile, H-00252
- 2-Hydroxy-3-isopropyl-2,4,6-cycloheptatrien-1-one, H-00256
- N*-Hydroxy-4-methoxybenzamide, H-00264
- N*-Hydroxy-4-methoxybenzenecarbothioamide, H-00265
- 5-Hydroxy-7-methoxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00645
- N*-Hydroxy-2-methoxy-*N*-(4-methylphenyl)benzamide, *in* H-00263
- N*-Hydroxy-2-methoxy-*N*-1-naphthalenylbenzamide, H-00267
- N*-Hydroxy-4-methoxy-*N*-1-naphthalenylbenzamide, H-00268
- N*-Hydroxy-4-methoxy-*N*-phenylbenzamide, *in* D-00704
- N*-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-(4-methylphenyl)benzenecarboximidamide, *in* H-00270
- N*-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-phenylbenzenecarboximidamide, *in* H-00270
- N*-Hydroxy-3-(4-methoxyphenyl)-2-propenamide; *N*-(3-Methylphenyl), *in* H-00272
- N*-Hydroxy-3-(4-methoxyphenyl)-2-propenamide; *N*-(4-Methylphenyl), *in* H-00272
- N*-Hydroxy-*N*-(3-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00273
- N*-Hydroxy-*N*-(4-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00274
- 5-Hydroxy-2-methyl-4*H*-1-benzopyran-4-one, H-00281
- 5-Hydroxy-3-methyl-4*H*-1-benzopyran-4-one, H-00282
- α-(Hydroxymethylene)-2-benzoxazoleacetaldehyde, H-00286
- α-(Hydroxymethylene)-2-benzoxazoleacetonitrile, H-00287
- N*-Hydroxy-2-methyl-*N*-(2-methylphenyl)benzamide, *in* M-00135
- N*-Hydroxy-2-methyl-*N*-(3-methylphenyl)benzamide, *in* M-00135
- N*-Hydroxy-4-methyl-*N*-(3-methylphenyl)benzamide, *in* M-00136
- 3-Hydroxy-2-methyl-1-(4-methylphenyl)-4(1*H*)-pyridinone, H-00289
- N*-Hydroxy-2-methyl-*N*-1-naphthalenylbenzamide, H-00290
- N*-Hydroxy-4-methyl-*N*-1-naphthalenylbenzamide, H-00291
- 7-Hydroxy-4-methyl-8-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2*H*-1-benzopyran-2-one, H-00299
- N*-Hydroxy-*N*-(2-methylphenyl)benzamide, *in* H-00109
- N*-Hydroxy-2-methyl-*N*-phenylbenzamide, H-00306
- N*-Hydroxy-*N*-(4-methylphenyl)-2-butenamide, *in* H-00143
- N*-Hydroxy-*N*-(3-methylphenyl)decanamide, *in* H-00147
- N*-Hydroxy-*N*-(4-methylphenyl)decanamide, *in* H-00147
- N*-Hydroxy-*N*-(4-methylphenyl)-3,5-dinitrobenzamide, *in* D-00946
- N*-Hydroxy-*N*-(4-methylphenyl)-2-furancarboxamide, *in* F-00064
- 1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one; 4-Me ether, oxime, *in* H-00311
- N*-Hydroxy-*N*-(3-methylphenyl)-3-nitrobenzamide, *in* N-00090
- N*-Hydroxy-*N'*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, *in* H-00308
- N*-Hydroxy-*N*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, H-00313
- 3-Hydroxy-2-methyl-1-phenyl-4(1*H*)-pyridinone, H-00315
- N*-Hydroxy-*N*-(4-methylphenyl)tetradecanamide, H-00316
- N*-Hydroxy-*N*-(3-methylphenyl)-3-(2-thienyl)-2-propenamide, *in* H-00553
- N*-Hydroxy-*N*-(4-methylphenyl)-3-(2-thienyl)-2-propenamide, *in* H-00553
- 8-Hydroxy-2-methylquinoline, H-00326
- 2-(3-Hydroxy-3-methyl-1-triazenyl)benzoic acid, H-00332
- N*-Hydroxy-2-methyl-*N*-[3-(trifluoromethyl)phenyl]benzamide, H-00333
- 7-Hydroxy-4-methyl-8-(1,4,7-trioxa-10-azacyclododec-10-ylmethyl)-2*H*-1-benzopyran-2-one, H-00334
- 2-Hydroxy-1-naphthaldehyde; Oxime, *in* H-00336
- N*-Hydroxy-1-naphthalenecarboximidamide, *in* N-00005
- N*-Hydroxy-*N*-1-naphthalenyldecanamide, H-00359
- N*-Hydroxy-*N*-1-naphthalenyl-dodecanamide, H-00360
- N*-Hydroxy-*N*-1-naphthalenylhexanamide, H-00361

- 2-[(2-Hydroxy-1-naphthalenyl)methylene]-*N*-phenylhydrazinecarbothioamide, H-00363
N-Hydroxy-*N*-1-naphthalenyl-4-nitrobenzamide, H-00365
N-Hydroxy-*N*-1-naphthalenylpentanamide, H-00366
N-Hydroxy-*N*-1-naphthalenyltetradecanamide, H-00368
5-Hydroxy-1,2-naphthoquinone; Dioxime, *in* H-00372
7-Hydroxy-1,2-naphthoquinone; Dioxime, *in* H-00373
16-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10,13-penta-oxa-16-azacyclooctadecane, H-00385
13-(2-Hydroxy-5-nitrobenzyl)-1,4,7,10-tetra-oxa-13-azacyclopentadecane, H-00386
10-(2-Hydroxy-5-nitrobenzyl)-1,4,7-trioxa-10-azacyclododecane, H-00387
6-[2-Hydroxy-3-nitro-5-[(4-nitrophenyl)azobenzyl]-6-methyl-1,4,8,11-tetraoxacyclotetradecane, H-00389
2-Hydroxy-[5-(4-nitrophenylazo)phenyl]methyl-15-crown-5, H-00398
2-Hydroxy-5-(4-nitrophenylazo)phenylmethyl-18-crown-6, H-00399
[2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-15-crown-5, H-00400
[2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-18-crown-6, H-00401
2-[(2-Hydroxy-5-nitrophenyl)methylene]-*N*-phenylhydrazinecarbothioamide, *in* H-00380
N-Hydroxy-*N*-(4-nitrophenyl)-3-(2-thienyl)-2-propenamide, H-00405
2-Hydroxy-3-nitrosobenzoic acid, H-00406
4-Hydroxy-5-nitroso-2,1,3-benzothiadiazole, H-00408
5-Hydroxy-4-nitroso-2,1,3-benzothiadiazole, H-00409
N-Hydroxy-*N*-nitrosocyclohexanamine; NH₄ salt, *in* H-00411
N-Hydroxy-*N*-nitrosocyclooctylamine, H-00412
3-Hydroxy-4-nitroso-2-naphthalenecarboxylic acid, H-00413
1-Hydroxy-2-nitroso-3*H*-naphtho[2,1-*b*]pyran-3-one, H-00416
N-Hydroxy-*N*-nitroso-2-propanamine, H-00418
N-Hydroxy-4-(octyloxy)-*N*-phenylbenzamide, H-00425
4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-carbonitrile, *in* H-00428
4-Hydroxy-5-oxo-1,3,6-cycloheptatriene-1-sulfonic acid; NH₄ salt, *in* H-00429
(2-Hydroxyphenoxy-methyl)-12-crown-4, H-00444
 α -Hydroxy- α -phenylbenzeneacetic acid 2-[(4-methylphenyl)sulfonyl]hydrazide, H-00464
N-Hydroxy-*N'*-phenyl-1*H*-benzimidazole-2-carboximidamide, *in* P-00102
▶ 2-(2-Hydroxyphenyl)benzoxazole, H-00467
1-(2-Hydroxyphenyl)-1-butanone; Oxime, *in* H-00469
N-Hydroxy-*N*-phenyldecanamide, *in* H-00147
N-Hydroxy-*N*-phenyl-dodecanamide, *in* L-00001
N-Hydroxy-*N*-phenyl-2-furancarboxamide, H-00472
N-Hydroxy-*N*-phenyl-2,4-hexadienamide, *in* H-00185
N-Hydroxy-*N*-phenylhexanamide, *in* H-00186
2-[(2-Hydroxyphenyl)imino]-1-acenaphthenone, H-00473
N-(2-Hydroxyphenyl)methanesulfonamide, *in* A-00300
N-Hydroxy-*N*-phenyl-2-naphthalenecarboxamide, *in* N-00024
N-(2-Hydroxyphenyl)-1-octanesulfonamide, H-00490
N-Hydroxy-*N*-phenylpentanamide, H-00492
N-Hydroxy-*N*-phenyl-2-propylpentanamide, H-00501
N-Hydroxy-*N*-phenyltetradecanamide, H-00504
N-Hydroxy-*N*-phenyl-3-(2-thienyl)-2-propenamide, H-00505
2-(3-Hydroxy-3-phenyl-1-triazenyl)benzoic acid, H-00507
3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509
N-Hydroxy-*N*-phenyl-3-(trifluoromethyl)benzamide, H-00511
N-Hydroxy-3-pyridinecarboxamide, *in* P-00341
▶ 8-Hydroxyquinoline, H-00525
1-(8-Hydroxy-2-quinolyl)-2-(8-hydroxy-5-quinolyl)ethylene; B, 2HCl, *in* H-00534
N-Hydroxy-2-thiophenecarboxamide; *N*-(3-Chlorophenyl), *in* H-00554
N-Hydroxy-2-thiophenecarboxamide; *N*-(4-Chlorophenyl), *in* H-00554
N-Hydroxy-3,5,5-trimethyl-*N*-phenylhexanamide, H-00561
5*H*-Imidazole-4-carboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, I-00002
▶ 2-Imidazolidinethione, I-00003
▶ 2-Imidazolidinethione; 1,3-Di-Me, *in* I-00003
▶ Indoferron, I-00032
4-[(5-Iodo-2-pyridinyl)azo]-1,3-benzenediamine, I-00052
 β -Iononethiosemicarbazone, *in* M-00010
1*H*-Isoindole-1,3(2*H*)-dithione, I-00068
Isonitrosodibenzoylmethane, *in* D-01041
Isonitrosodimedone, *in* D-00848
▶ Isooctyl thioglycolate, *in* M-00016
Isophthaldihydroxamic acid, *in* B-00019
O-Isopropyl-*N*-ethylthiocarbamate, *in* T-00159
3-Isopropyl-6-methyl-2-[[5-(1-methylpiperidinyl)-2-pyridinyl]azo]phenol, I-00074
2-Isopropyl-5-methyl-4-[(2-quinolyl)azo]phenol, I-00076
Isopropyl *N*-methylthiocarbamate, *in* M-00154
4-Isopropylinoxime, *in* I-00071
2-Isopropyl-8-quinolinol, I-00078
Isopropyltriphenylphosphonium(1+); Bromide, *in* I-00079
Isopropyltriphenylphosphonium(1+); Chloride, *in* I-00079
▶ Janus blue; Chloride, *in* J-00002
▶ Lauryltrimethylammonium(1+); Bromide, *in* L-00002
Macrocyclic formazan I, M-00001
Macrocyclic formazan II, M-00002
Magneson IREA, M-00004
Meldola's blue; Chloride, *in* M-00011
Mercaptoacetic acid; 2-Ethylhexyl ester, *in* M-00016
2-Mercapto-1,3-benzenediol, M-00020
▶ 2-Mercaptobenzoic acid, M-00023
2-Mercapto-4*H*-1-benzothiopyran-4-one, M-00025
3-Mercapto-1,3-diphenyl-2-propen-1-one, M-00030
2-Mercapto-3-(4-methoxyphenyl)-2-propenoic acid, M-00034
2-Mercapto-4-methylphenol, M-00035
5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione, M-00039
5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione; K salt, *in* M-00039
2-[(3-Mercaptophenyl)azo]-4-methylphenol, M-00041
2-Mercapto-3-phenyl-2-butenic acid, M-00043
3-Mercapto-1-phenyl-2-buten-1-one, M-00044
N-[[2-Mercaptophenyl]imino]methylphenol, M-00045
3-Mercapto-*p*-propionophenetidine, M-00054
2-Mercapto-*N*-2-pyridinylacetamide, M-00055
N-Methanesulfonylbenzamidoxime, M-00067
4-Methoxybenzaldehyde phenylthiosemicarbazone, M-00076
6-Methoxy-2,3-bis(6-methyl-2-pyridyl)quinoxaline, *in* H-00140
6-Methoxy-2,3-di-2-pyridinylquinoxaline, *in* H-00172
10-(2-Methoxyethyl)-1,4,7-trioxa-10-azacyclododecane, *in* T-00359
6-Methoxy-3-methyl-2-[[4-(methylphenylamino)phenyl]azo]benzothiazolium(1+); Chloride, *in* M-00091
3-Methoxy-2-methyl-6-(2-pyridinylazo)phenol, *in* M-00278
5-Methoxy-2-[(5-methyl-2-pyridinyl)azo]phenol, *in* M-00279
2-[[4-Methoxy-2-nitrophenyl]hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* M-00096
2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13,16-hexaoxacyclooctadecane, M-00103
2-[(2-Methoxyphenoxy)methyl]-1,4,7,10,13-pentaoxacyclopentadecane, M-00104

p-Methoxy-*N*-phenylcinnamohydroxamic acid, *in* H-00241
2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazolo[3,2-*a*]pyridin-4-ium(1+); Chloride, *in* M-00108
2-(2-Methoxyphenyl)-1,4,7,10,13,16-hexaoxacyclooctadecane, M-00109
2-[[2-(2-Methoxyphenyl)hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolinium(1+); Perchlorate, *in* M-00110
3-(*p*-Methoxyphenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, M-00111
2-(2-Methoxyphenyl)-1,4,7,10,13-pentaoxacyclopentadecane, M-00115
1-(4-Methoxyphenyl)-3-phenyl-5-(1-phthalazinyl)formazan, M-00116
N-(2-Methoxyphenoxy)-2-pyridinecarbothioamide, *in* H-00502
5-Methoxy-2-(2-pyridinylazo)phenol, *in* P-00373
4-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00139
▶ 4-Methylaniline; *N*-Ac, *in* M-00124
3-Methyl-1,2-benzenediol, M-00127
▶ 4-Methyl-1,2-benzenedithiol, M-00129
6-Methyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, M-00146
▶ 3-Methyl-1-butanol, M-00147
▶ 2-Methyl-1-buten-3-yne, M-00149
6-Methyl-2,3-di-2-pyridylquinoxaline, M-00168
4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-thione], M-00169
1,1'-Methylenebis[4-ethyl-3,5-dipropyl-1*H*-pyrazole], M-00171
5,5'-Methylenebis[8-quinolinol], M-00174
▶ Methylene green; Chloride, *in* M-00177
▶ 2-(1-Methylethylidene)hydrazinecarbothioamide, *in* A-00007
Methyl green; Bromide chloride, *in* M-00185
3-Methyl-6-(1-methylethyl)-2-(2-pyridinylazo)phenol, M-00197
5-Methyl-2-(1-methylethyl)-4-(2-pyridinylazo)phenol, M-00198
N-Methyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, *in* M-00208
4-Methyl-6-[(5-methyl-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, M-00201
3-Methylinoxime, *in* M-00156
2-Methyl-4-nitroso-1,3-benzenediol, M-00206
5-Methyl-2-nitrosophenol, M-00207
(4-Methyl-5-nitro-2-thiazolyl)thiourea, M-00208
7-Methyl-2,4-octanedione, M-00209
▶ Methyl orange; Na salt, *in* M-00210
2-Methyl-2,4-pentanediol; (\pm)-form, *in* M-00217
▶ 4-Methyl-2-pentanone, M-00218
▶ 4-Methyl-3-penten-2-one, M-00219

- N*-(2-Methylphenyl)-*N'*-(4-chlorophenyl) benzamidine, M-00226
- 4-Methyl-5-phenyl-3*H*-1,2-dithiole-3-thione, M-00227
- 4-Methyl-6-[[2-(phenylmethoxy)-2-pyridinyl]azo]-1,3-benzenediamine, M-00232
- N*-(4-Methylphenyl)-2-phenoxyacetohydroxamic acid, M-00235
- N*-(4-Methylphenyl)-*N'*-phenylbenzenecarboximidamide, M-00236
- 1-(4-Methylphenyl)-3-phenyl-5-(1-phthalazinyl)formazan, M-00238
- P*-Methylphosphonamidothioic acid; *O*-Ph ester, *in* M-00243
- Methylphosphonic acid; Bis(3-methylbutyl) ester, *in* M-00244
- 1-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenol, M-00250
- ▷ 2-Methylpropyl acetate, M-00257
- ▷ 4-Methylpyridine, M-00265
- 6-Methyl-2-pyridinecarboxaldehyde azine, M-00267
- 2-Methyl-4-pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, M-00272
- 1-[(6-Methyl-2-pyridinyl)azo]-2-naphthalenol; *N*-Oxide, *in* M-00282
- 5-Methyl-2-(2-pyridinylazo)phenol, M-00284
- 4-Methyl-*N*-2-pyridinylbenzamide, M-00285
- 4-Methyl-2-[(2-pyridinylmethylene)amino]phenol, M-00289
- 2-[(4-Methyl-2-quinolinyl)azo]-1-acenaphthylene, M-00308
- 13-Methyl-1,4,7,10-tetraoxa-13-azacyclopentadecane, *in* T-00111
- 1-[[5-Methyl-1,3,4-thiadiazol-2-yl]azo]-2-naphthalenol, M-00313
- 1-[(4-Methyl-2-thiazolyl)azo]-2-naphthalenol, M-00322
- ▷ Methylthionium chloride, *in* M-00175
- 5-Methyl-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, M-00326
- 6-Methylthiopicolinamide, *in* M-00271
- 10-Methyl-1,4,7-trioxa-10-azacyclodecane, *in* T-00359
- Methyltriphenylarsonium(1+); Chloride, *in* M-00334
- Methyltriphenylarsonium(1+); Thiocyanate, *in* M-00334
- Methyltriphenylphosphonium(1+); Chloride, *in* M-00335
- ▷ Methyl violet, M-00336
- Methyl xylenol blue; Na salt, *in* M-00337
- Mono(2-ethylhexyl) phosphate, M-00339
- Moonion A-9Q-08, *in* B-00181
- ▷ 4-Morpholinecarboxylic acid, M-00345
- 1-Naphthalenecarboxylic acid; Me₂N salt, *in* N-00002
- 2-Naphthalenecarboxaldehyde 2-benzothiazolylhydrazone, N-00004
- ▷ 2,3-Naphthalenediol, N-00010
- Naphthalene green; Chloride, *in* N-00013
- 1-Naphthalenethiocarboxylhydrazide, N-00016
- 1,2-Naphthoquinone-4-sulfonic acid; Dioxime, *in* N-00033
- N*-1-Naphthylacetamide, *in* N-00041
- ▷ *N*-(1-Naphthyl)ethylenediamine, N-00050
- (1-Naphthylmethyl)triphenylphosphonium(1+); Chloride, *in* N-00052
- N*-1-Naphthylphenylacetohydroxamic acid, N-00054
- Neotetrazolium(2+); Dichloride, *in* N-00063
- Nile blue A; Chloride, *in* N-00069
- o*-Nitral green; Chloride, *in* N-00072
- p*-Nitral green; Chloride, *in* N-00073
- ▷ Nitrotriacetic acid, N-00074
- 5-Nitro-1,2-acenaphthylenedione; Dioxime, *in* N-00076
- ▷ 4-Nitro-1,2-benzenediol, N-00087
- 4-Nitrobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, N-00094
- Nitrochromopyrazole, N-00103
- 6-Nitro-2,3-di-2-pyridylquinoxaline, N-00107
- ▷ Nitroethane, N-00108
- ▷ Nitromethane, N-00113
- Nitron, N-00114
- ▷ 2-Nitrophenylarsonic acid, N-00121
- 4-[[4-Nitrophenyl]azo]-1,2-benzenediol, N-00122
- 19-[(4-Nitrophenyl)azo]-3,6,9,12,15-pentaaxabicyclo[15.3.1]heneicosa-1(21),17,19-trien-21-ol, N-00127
- 4-[[4-Nitrophenyl]azo]-2-(1,4,7,10-tetraoxa-13-azacyclopentadec-1-yl)phenol, N-00130
- (4-Nitrophenyl)phenylethaneone; Dioxime, *in* N-00142
- 1-(4-Nitrophenyl)-3-phenyl-5-(1-phthalazinyl)formazan, N-00143
- ▷ 4-Nitrosodiphenylamine, N-00157
- ▷ 1-Nitroso-2-naphthol, N-00160
- ▷ 2-Nitroso-1-naphthol, N-00161
- Nitro TB, *in* N-00164
- 4,6-Nonanedione, N-00168
- 2-Nonylpyridine; *N*-Oxide, *in* N-00169
- N'*-(3-Chloro-4-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, N-00170
- 2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatriacyclopentadecine, O-00004
- N*-(2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatriacyclopentadec-15-yl)-2-propenamide, O-00005
- 4-[(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadec-15-yl)azo]phenol, O-00006
- N*-(2,3,5,6,8,9,11,12-Octahydro-1,4,7,10,13-benzopentaoxacyclopentadec-15-yl)-2-propenamide, O-00007
- 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrathiacyclopentadec-15-amine, O-00008
- 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrathiacyclopentadecine, O-00009
- 4-[(1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrathiacyclopentadec-15-yl)azo]phenol, O-00010
- 7,8,9,10,18,19,20,21-Octahydro-6*H*-dibenzo[*b,k*][1,14,5,10]dioxadiazacyclononadecine, O-00011
- 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,m*][1,4,7,13]dioxadiazacyclopentadecine, O-00012
- 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,m*][1,4,8,12]dioxadiazacyclopentadecine, O-00013
- 5,6,7,8,9,10,16,17-Octahydrodibenzo[*e,m*][1,4,8,11]dioxadiazacyclotetradecine, O-00014
- 6,7,8,9,10,11,17,18-Octahydro-5*H*-dibenzo[*e,m*][1,4,7,13]dithiadiazacyclopentadecine, O-00015
- 8,9,10,11,18,19,20,21-Octahydro-7*H*-dibenzo[*e,p*][1,4,8,14]tetraazacycloheptadecine, O-00017
- 7,8,9,10,17,18,19,20-Octahydrodibenzo[*e,o*][1,4,8,13]tetraazacyclohexadecine, O-00018
- 6,7,9,10,18,19,20,21-Octahydrodibenzo[*h,r*][1,4,7,11,16]trioxadiazacyclononadecine, O-00020
- 6,7,10,11,18,19,20,21-Octahydro-5*H*,9*H*,17*H*-dibenzo[*b,k*][1,7,13,4,10]trioxadiazacyclooctadecine, O-00021
- 7,8,9,10,17,18,21,22-Octahydro-6*H*,16*H*,20*H*-dibenzo[*b,k*][1,7,13,4,10,16]trioxatriazacyclooctadecine, O-00022
- 6,7,9,10,17,18,20,21-Octahydro-7,18-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00024
- 6,7,8,9,10,11,17,18-Octahydro-8-[(4-methylphenyl)sulfonyl]-5*H*-dibenzo[*e,m*][1,4,7,10,13]dioxatriacyclopentadecine, O-00028
- 7,8,9,10,17,18,21,22-Octahydro-8-[(4-methylphenyl)sulfonyl]-6*H*,16*H*,20*H*-dibenzo[*b,k*][1,7,13,4,10,16]trioxatriazacyclooctadecine, *in* O-00022
- 2,3,5,6,8,9,11,12-Octahydro-16-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadec-15-amine, O-00030
- 2,3,5,6,8,9,11,12-Octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadec-15-amine, O-00031
- 1,3,4,7,8,10,11,13-Octahydro-*N*-(2,4,6-trinitrophenyl)-6*H*-2,5,9,12-benzotetrathiacyclopentadec-15-amine, O-00032
- 1-Octanesulfonamido-2-naphthol, *in* A-00273
- 2,4,5,7-Octanetetron, O-00035
- ▷ Octanoic acid, O-00036
- 2-Octylaminopyridine, *in* A-00333
- N*-Octylaniline, O-00038
- 5-[(Octyloxy)methyl]-8-quinolinol, O-00039
- Oxamide bisphenylhydrazone, O-00050
- Oxamidoxime, *in* O-00048
- 2-(1-Oxo-2(1*H*)-naphthalenyldiene)hydrazinecarbothioamide, *in* N-00031
- β-Oxo-*N*-phenylbenzopropanethioamide, *in* O-00056
- 3-Oxo-*N*-phenylbutanethioamide, O-00065
- ▷ 2-(1-Oxopropyl)-1*H*-indene-1,3(2*H*)-dione, O-00071
- ▷ 1,1'-Oxybis(2-chloroethane), O-00077
- Panacryl brilliant red; Chloride, *in* P-00004
- 1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione, P-00017
- ▷ 2,4-Pentanedione, P-00030
- 2,3-Pentanedione bis[*p*-methoxy(thiobenzoyl)hydrazone], P-00031
- 2,3,4-Pentanetrione; 3-Oxime, *in* P-00033
- ▷ 2-Pentanol; (±)-form, Ac, *in* P-00035
- 2,5,8,11,14-Pentaoxapentadecane, *in* T-00043
- 6-Phenanthridinecarboxaldehyde 2-pyridylhydrazone, P-00050
- Phenosafrazo blue, P-00071
- 10*H*-Phenothiazine, P-00072
- 2-Phenoxathiincarboxaldehyde; Oxime, *in* P-00074
- ▷ Phenylacetic acid, P-00076
- ▷ Phenylacetylene, P-00077
- 3,3'-[3-((Phenylamino)carbonyl)-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid], P-00080
- 4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084
- ▷ *N*-[(Phenylamino)thioxomethyl]benzamide, *in* P-00201
- N*-[(Phenylamino)thioxomethyl]benzenecarbothioamide, P-00088
- 1-Phenylazo-2-hydroxy-3-naphthylhydroxamic acid, *in* H-00452
- 5-Phenylazo-8-quinolinol; *N*-Oxide, *in* P-00100
- 9-Phenylbenzo(1,2)quinolizino[3,4,5,6-*def*]phenanthridinium(1+); Perchlorate, *in* P-00105
- N*-Phenylcrotonohydroxamic acid, *in* H-00143
- N,N'*-1,2-Phenylenebismethanesulfonamide, P-00118
- [1,4-Phenylenebis(methylene)]bis[diocetylphosphine oxide], P-00120
- 3-Phenyl-5-(2-furyl)-1-pyrazolinedithiocarbamic acid; Na salt, *in* P-00131
- 4-Phenyl-2-mercaptoimidazole, P-00140
- 2-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclododecane, P-00141
- N*-Phenylmethyl[[4-(chlorophenyl)amino]thioxomethyl]-*N'*-phenylcarbamimidothioate, P-00145
- 4,4'-(Phenylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], P-00147

- N*-(Phenylmethyl)-2-pyridinecarbothioamide, *in* P-00317
 4-(Phenylmethyl)-6-(2-pyridinylazo)-1,3-benzenediol, P-00149
N-Phenyl-octanohydroxamic acid, *in* H-00424
 3-Phenyl-1-(1-phthalaziny)-5-(*p*-carboxyphenyl)formazan, P-00165
 ▶ 2-Phenyl-4-quinolinecarboxylic acid, P-00189
 1-Phenyl-3-(selenophen-2-yl)-1,3-propanedione, P-00190
N-Phenyl-2-thiopicolinamide, *in* P-00317
 ▶ Piperithiourea, P-00201
 1-Phenyl-3-thioxo-1-butanone, P-00202
 4-Phenyl-4-thioxo-2-butanone, P-00203
 6-Phenyl-1,2,4-triazine-3(2*H*)-thione, P-00205
 Phosphorodithioic acid *O,O*-bis(2-methylallyl) ester, P-00216
 Phosphorotrithioic acid *O*-[2-(diethylamino)ethyl] ester, P-00217
 Phosphorotrithioic acid *O*-[2-(dimethylamino)ethyl]ester, P-00218
 1-(1-Phthalaziny)-3,5-diphenylformazan, P-00219
 Picramine M, P-00233
 1-Piperidinecarbodithioic acid, P-00242
 7-(1-Piperidinylmethyl)-8-quinolinol; B,HCl, *in* P-00243
N-(1-Piperidinylthioxomethyl)benzamide, P-00245
 ▶ Polyethylene glycol, P-00247
 Primene JM T, P-00255
 ▶ Propanedioic acid, P-00261
 1-(1*H*-Pyrazol-3-ylazo)-2-naphthalenol, P-00303
 2-Pyridinecarboxaldehyde 1-phthalazinylhydrazone, P-00332
 2-Pyridinecarboxaldehyde 2-pyridylhydrazone; (*E*)-form, *in* P-00335
 ▶ 2-Pyridinecarboxylic acid, P-00342
 ▶ 3-Pyridinecarboxylic acid, P-00343
 3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00349
 ▶ Pyridine *N*-oxide, P-00356
 2-Pyridinethiol *N*-oxide, *in* P-00357
 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
 2-(2-Pyridinylazo)-1-naphthalenol, P-00375
 4-(2-Pyridinylazo)-1-naphthalenol, P-00376
 10-(2-Pyridinylazo)-9-phenanthrenol, P-00378
N-2-Pyridinylbenzenecarbothioamide, P-00383
 3-[(2-Pyridinylmethylene)amino]-[1,1'-biphenyl]-4-ol, P-00391
 1-[(2-Pyridinylmethylene)amino]-2-naphthalenol, P-00392
 2-[(2-Pyridinylmethylene)amino]phenol, P-00393
N-(2-Pyridinylmethylene)benzenamine, P-00394
N-(2-Pyridinylmethylene)-8-quinolinamine, P-00397
 3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, P-00407
 1-(2-Pyridyl)-1-hexanone; Oxime, *in* P-00418
 2-Pyrroliothiocarboxylhydrazide, *in* P-00437
 ▶ Quinoline, Q-00007
 4-Quinolinecarbodithioic acid, Q-00008
 2-Quinolinecarboxaldehyde 1-phthalazinylhydrazone, Q-00011
 2-Quinolinecarboxamide, *in* Q-00017
 8-Quinolinecarboxylic acid, Q-00018
 5,8-Quinolinedione; Dioxime, *in* Q-00019
 8-Quinolineselenol, Q-00020
 8-Quinolinetriol, Q-00021
 2-(2-Quinolylazo)-1-acenaphthyleneol, Q-00027
 1-(2-Quinolylazo)-2-naphthalenol, Q-00029
 2-(2-Quinolylazo)-1-naphthalenol, Q-00030
 1-(2-Quinolylazo)-2-phenanthrenol, Q-00031
N-8-Quinoliny-1-butanesulfonamide, *in* A-00340
N-8-Quinolinyethanesulfonamide, *in* A-00340
N-8-Quinolinylmethanesulfonamide, *in* A-00340
 Rhodamine B, *in* R-00002
 ▶ Rhodamine 590; Chloride, *in* R-00003
 Rhodamine 3G0; Chloride, *in* R-00004
 Rhodamine G; Chloride, *in* R-00005
 Rhoduline violet; Chloride, *in* R-00007
 Rose bengal A; Di-Na salt, *in* R-00011
 ▶ Saccharin, S-00001
 Salicylaldehyde benzoylhydrazone, *in* H-00101
 Salicylhydroxamic acid, *in* H-00112
 Salinazid, S-00003
 Selenazone, S-00005
 1-(2-Selenophenyl)-2-propanone, S-00007
 1-(2-Selenophenyl)-3-(2-thienyl)-1,3-propanedione, S-00008
 Selenoylacetone, S-00010
 Sodium diethyldithiocarbamate, *in* D-00344
 ▶ Sorbitan monolaurate, *in* A-00367
 Sulfonitrophenol M, S-00052
 4-(5-Sulfothiazolylazo)-2-nitroresorcinol, S-00057
 ▶ Tentone, *in* M-00070
 ▶ Tetrabromo-1,2-benzenediol, T-00012
 ▶ Tetrabutylammonium(1+); Bromide, *in* T-00023
 ▶ Tetrabutylphosphonium(1+); Chloride, *in* T-00024
 2,2',3,3'-Tetrachlorodithizone, T-00029
 2,2',4,4'-Tetrachlorodithizone, T-00030
 2,2',5,5'-Tetrachlorodithizone, T-00031
 2,2',6,6'-Tetrachlorodithizone, T-00032
 3,3',4,4'-Tetrachlorodithizone, T-00033
 3,3',5,5'-Tetrachlorodithizone, T-00034
 Tetrachlorogallein, T-00035
 Tetraethyl 1,2-ethanediyldisphosphonate, *in* E-00026
 Tetrahexylammonium(1+); Chloride, *in* T-00049
 Tetrahexylammonium(1+); Iodide, *in* T-00049
 8,9,17,18-Tetrahydro-7*H*-dibenzo[*e,n*][1,4,8,12]-dioxadiazacyclodecane, T-00055
 2-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,f*][1,4,8,11]tetraoxacyclotetradecan-7-yl)oxy]butanoic acid, T-00056
 3-[(7,8,16,17-Tetrahydro-6*H*,15*H*-dibenzo[*b,f*][1,4,8,11]tetraoxacyclotetradecan-7-yl)oxy]propanoic acid, T-00057
 Tetrahydro-4-methyl-2(1*H*)-pyrimidinethione, T-00064
 6,7,9,10-Tetrahydro-18-phenyl-16*H*-dibenzo[*b,f*][1,11,14,4,5,7,8]trioxatetraazacyclohexadecane, T-00065
 ▶ Tetrahydro-2(1*H*)-pyrimidinethione, T-00066
 1,2,3,4-Tetrahydro-8-quinolinethiol, T-00067
 5,6,17,18-Tetrahydro-2,4,6,7-tetraazacyclohexadecane, T-00068
 ▶ Tetrahydrothiophene-1,1-dioxide, T-00069
 2,2',3,3'-Tetrakis(6-methyl-2-pyridyl)-6,6'-biquinoxaline, T-00088
 5-(1,1,3,3-Tetramethylbutyl)-1,2,3-benzenetriol, T-00094
 2,2,6,6-Tetramethyl-3,5-heptanedione, T-00095
 1,4,8,11-Tetramethyl-1,4,8,11-tetrazacyclotetradecane, T-00104
 ▶ Tetramethylthiocarbonyl diamide, T-00105
 ▶ Tetramethylthiuram disulfide, T-00106
 Tetraoctylammonium(1+); Bromide, *in* T-00110
 Tetraoctylammonium(1+); Chloride, *in* T-00110
 ▶ 1,4,7,10-Tetraoxacyclododecane, T-00113
 4,7,13,18-Tetraoxa-1,10-diazabicyclo[8.5.5]eicosane, T-00114
 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyldis(methylene)]bis[4-nitrophenol], 9CI, T-00115
 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyldis(methylene)]bis[*N*-(2,4,6-trinitrophenyl)benzenamine], T-00116
 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyldi-3,1-propanediyl]bis[4-[(4-nitrophenyl)azo]phenol], T-00117
 Tetraphenylarsonium(1+); Bromide, *in* T-00119
 ▶ Tetraphenylarsonium(1+); Chloride, *in* T-00119
 Tetraphenylphosphonium(1+); Bromide, *in* T-00120
 Tetraphenylphosphonium(1+); Chloride, *in* T-00120
 Tetraphenylstibonium(1+), T-00122
 Tetrapropylammonium(1+); Hydroxide, *in* T-00124
 2,3,5,6-Tetra(2-pyridyl)pyrazine, T-00125
 1,4,8,11-Tetrathiacyclotetradecane, T-00126
 2,2'-(2,5,8,11-Tetrathiadodecane-1,12-diyldi)bis[5-chlorothiophene], T-00127
 2,2'-(2,5,8,11-Tetrathiadodecane-1,2-diyldi)bis[5-methylthiophene], T-00128
 3,6,10,13-Tetrathiapentadecane, T-00129
 ▶ Tetrazole-5-thione; 1,4-Dihydro-*form*, 1-Ph, *in* T-00131
 2-Thiazolecarboxaldehyde 2-quinolinylhydrazone, T-00137
 1-(2-Thiazolylazo)-2-naphthalenol, T-00142
 4-(2-Thiazolylazo)-1-naphthalenol, T-00143
 2-(2-Thienyl)benzothiazole, T-00149
 ▶ Thiobenzoic acid, T-00155
 Thiobenzoic acid; Hydrazide, *in* T-00155
S-(Thiocarbonyl)dithiophosphoric acid; *O,O'*-Di-Et, *in* T-00161
S-(Thiocarbonyl)dithiophosphoric acid; *O,O'*-Di-Me, *in* T-00161
S-(Thiocarbonyl)dithiophosphoric acid; *O,O'*-Dipropyl, *in* T-00161
 2-Thiophenecarbothioic acid (di-2-pyridinylmethylene)hydrazide, T-00168
 2-Thiophenecarboxaldehyde 3-bromobenzoylhydrazone, T-00171
N-m-Tolylcinnamohydroxamic acid, *in* H-00499
N-o-Tolylcinnamohydroxamic acid, *in* H-00499
N-p-Tolylcinnamohydroxamic acid, *in* H-00499
N-o-Tolyl-2-thiopicolinamide, *in* P-00317
 2,4,6-Triamino-1,3,5-triazine-*N,N,N',N',N'',N''*-hexaacetic acid, T-00195
 Tribenzylamine, T-00201
 Tributylacetohydroxamic acid, T-00207
 ▶ Tributylamine, T-00208
 Tributyl(hexadecyl)phosphonium(1+); Chloride, *in* T-00210
 ▶ Tributyl phosphate, T-00211
 ▶ Tributyl phosphine, T-00212
 ▶ Tributyl phosphine oxide, T-00213
 ▶ Tributyl phosphine sulfide, T-00214
O,O,O-Tributyl phosphorothioate, T-00215
 ▶ Tributyltin hydroxide, T-00217
 2,2,2-Trichloroacetohydroxamic acid, T-00219
 6,8-Tridecanedione, T-00228
 ▶ *N*-Tridecyl-1-tridecanamine, T-00229
 Tridodecylamine, T-00230
 Tridodecylamine; *N*-Oxide, *in* T-00230
 ▶ Triethylamine, T-00231
 Triethyltellurium; Bromide, *in* T-00237
 1,1,1-Trifluoro-5,5-dimethyl-2,4-hexanedione, T-00244
 4,4,4-Trifluoro-1,2-furanyl-1,3-butanedione, T-00248
 1,1,1-Trifluoro-4-mercapto-4-(2-thienyl)-3-buten-2-one, T-00249
 1,1,1-Trifluoro-7-methyl-2,4-octanedione, T-00255

- 1,1,1-Trifluoro-2,4-pentanedione, T-00257
 4,4,4-Trifluoro-1-phenyl-1,3-butanedione, T-00260
 1,1,1-Trifluoro-4-phenyl-4-thioxo-2-butanone, T-00262
 4,4,4-Trifluoro-1-selenophen-2-yl-1,3-butanedione, T-00263
 4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione, T-00264
 1,1,1-Trifluoro-4-thioxo-2-pentanone, T-00265
N,N,N'-Trihexylphosphorothioic triamide, T-00267
 ▶ 1,2,4-Trihydroxyanthraquinone, T-00270
 2,3,4-Trihydroxybenzoic acid, T-00276
 2,6,7-Trihydroxy-9-(2-hydroxyphenyl)-3*H*-xanthen-3-one, T-00292
 2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, T-00301
 Trilaurylammonium bromide, *in* T-00230
 Trilaurylammonium chloride, *in* T-00230
 7,7'-Trimethylenebis[1,3-dimethyl-8-thiouric acid]; Na salt, *in* T-00327
 1,3,3-Trimethyl-2-[2-(2-methyl-1*H*-indol-3-yl)ethylene]-3*H*-indolium(1+); Chloride, *in* T-00328
 2,2,4-Trimethyl-1,3-pentane-diol: (±)-*form*, *in* T-00330
 2,4,6-Trimethylpyridine, T-00337
 ▶ Trimethylsulfonium(1+); Iodide, *in* T-00347
 ▶ 2,4,6-Trinitrophenol, T-00355
 2,4,6-Trinitro-*N*-[2-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)phenyl]benzenamine, T-00356
 ▶ Trioctylamine, T-00357
 Trioctylphosphine, T-00358
 Trioctylphosphine oxide, *in* T-00358
 Trioctylphosphine; Sulfide, *in* T-00358
 4,10,15-Trioxa-1,7-diazabicyclo[5.5.5]heptadecane, T-00360
N,N'-[1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diy]bis[methylene-2,1-phenylene]bis[2,4,6-trinitrobenzenamine], T-00361
 2,2'-(1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diy)di-3,1-propanediyl]bis[4-[(4-nitrophenyl)azo]phenol], T-00362
 ▶ Triphenylarsine, T-00363
 Triphenylarsine oxide, T-00364
 ▶ *N,N,N'*-Triphenylguanidine, T-00366
 ▶ Triphenylphosphine, T-00370
 ▶ Triphenyl phosphite, T-00371
 Triphenylpropylphosphonium(1+), T-00372
 2,4,6-Triphenylpyridine; *N*-Ph, acetate (salt), *in* T-00373
 2,4,6-Triphenylpyrylium(1+); Chloride, *in* T-00374
 Triphenylselenium(1+); Chloride, *in* T-00375
 Tris(2,2'-bipyridine-*N,N'*)iron(II)(2+), T-00384
 Tris(decyl)ethylammonium(1+); Bromide, *in* T-00386
 Tris(2-ethylhexyl)phosphine oxide, T-00390
 Tris(6-methylheptyl)amine; B,HCl, *in* T-00408
 Tris(2-methylpropyl)amine, T-00409
 Tris(1,10-phenanthroline-*N',N''*)iron(II)(2+), T-00412
 5,7-Undecanedione, U-00001
 Victoria blue B; Chloride, *in* V-00002
 Victoria blue 4R; Chloride, *in* V-00003
 Victoria pure blue BO; Chloride, *in* V-00004
 ▶ Xanthic acid; K salt, *in* X-00002
 ▶ Xylometazoline hydrochloride, *in* X-00008
- 1-(9-Acridinyl)-1*H*-pyrrole-2,5-dione, A-00063
 ▶ 2-[4-(Aminoiminomethyl)phenyl]-1*H*-indole-6-carboximidamide, A-00227
 7-Amino-4-methyl-2*H*-1-benzopyran-2-one, A-00237
 2-[4-(Aminomethyl)phenyl]-*N,N*-dimethyl-2*H*-benzotriazol-5-amine, A-00249
 8-Amino-1,3,6-pyrenetrisulfonic acid, A-00332
 ▶ 2-Aminopyridine, A-00333
 7-Amino-4-(trifluoromethyl)-2*H*-1-benzopyran-2-one, A-00365
 9-Anthracenecarbonyl chloride, *in* A-00378
 1-Anthracenecarboxylic acid; Hydrazide, *in* A-00376
 2-Anthracenecarboxylic acid; Hydrazide, *in* A-00377
O-(1-Anthracenylmethyl)hydroxylamine, A-00384
O-(2-Anthracenylmethyl)hydroxylamine, A-00385
O-(9-Anthracenylmethyl)hydroxylamine, A-00386
 12-(9-Anthroxly)stearic acid; (±)-*form*, *in* A-00391
 7-Arginylamino-4-methylcoumarin; (*S*)-*form*, *in* A-00401
 1-[4-(2-Benzoxazolyl)phenyl]-1*H*-pyrrole-2,5-dione, B-00118
 3',6'-Bis(acetyloxy)-5-azidospiro[isobenzofuran-1(3*H*), 9'-[9*H*]xanthen]-3-one, *in* A-00460
 3,5-Bis(bromomethyl)-2,6-dimethyl-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-1,7-dione, B-00269
 1,2-Bis(3,4-dimethoxyphenyl)-1,2-ethanediamine; (*R,S,SR*)-*form*, *in* B-00311
 1,2-Bis(4-ethoxyphenyl)-1,2-ethanediamine; (*R,S,SR*)-*form*, *in* B-00350
 1-(Bromomethyl)anthracene, B-00517
 ▶ 9-(Bromomethyl)anthracene, B-00518
 4-(Bromomethyl)-6,7-dimethoxy-2*H*-1-benzopyran-2-one, B-00519
 3-(Bromomethyl)-6,7-dimethoxy-1-methyl-2(1*H*)-quinoxalinone, B-00520
 8-(Bromomethyl)-6*H*-1,3-dioxolo[4,5-*g*][1]benzopyran-6-one, B-00523
 3-(Bromomethyl)-7-methoxy-2*H*-1,4-benzoxazin-2-one, B-00525
 5-(Bromomethyl)-*N,N,N'*-2,6-pentamethyl-1,7-dioxo-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-3-methanaminium(1+); Bromide, *in* B-00533
 3-(Bromomethyl)-2,5,6-trimethyl-1*H*,7*H*-pyrazolo[1,2-*a*]pyrazole-1,7-dione, B-00535
 7-Chloro-4-benzofurazansulfonic acid; NH₄ salt, *in* C-00063
 7-(Chlorocarbonylmethoxy)-4-methylcoumarin, C-00077
N-Chloro-5-(dimethylamino)-1-naphthalenesulfonamide, C-00098
N-Chloroformylcarbazole, *in* C-00020
 3-(1-Cyano-2*H*-isindol-2-yl)benzoyl azide, C-00329
 Dansylproline; (*S*)-*form*, *in* D-00001
 9-(Diazomethyl)anthracene, D-00148
 4-(Diazomethyl)-7-methoxy-2*H*-1-benzopyran-2-one, D-00150
 1-(Diazomethyl)pyrene, D-00153
 5-(Dibutylamino)-1-naphthalenesulfonyl chloride, D-00224
 5-[(4,6-Dichloro-1,3,5-triazin-2-yl)amino]-3',6'-dihydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, D-00304
 2-(Diethylamino)benzoic acid hydrazide, D-00315
 1-[4-[7-(Diethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]phenyl]-1*H*-pyrrole-2,5-dione, D-00322
 7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-carboxylic acid hydrazide, D-00326
 1-(4,6-Difluoro-1,3,5-triazin-2-yl)-2-methyl-2*H*-isindole, D-00362
 2,3-Dihydro-1,4-benzodioxin-6,7-diamine, D-00371
 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinepropanoic acid; Hydrazide, *in* D-00380
 2-(1,3-Dihydro-1,3-dioxo-2*H*-benz[*f*]isindol-2-yl)ethyltrifluoromethanesulfonate, D-00397
 3',6'-Dihydroxy-5-isothiocyanatospiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, D-00638
N-(3',6'-Dihydroxy-3-oxospiro[isobenzofuran-1(3*H*),9'[9*H*]xanthen]-5-yl)-2-iodoacetamide, D-00681
 2-(Diisopropylamino)benzoic acid hydrazide, D-00747
 4'-Dimethylaminoazobenzene-4-sulfonyl chloride, *in* M-00210
 1-[7-(Dimethylamino)-4-methyl-2-oxo-2*H*-1-benzopyran-3-yl]-1*H*-pyrrole-2,5-dione, D-00791
 5-(Dimethylamino)-1-naphthalenesulfonyl azide, D-00795
 ▶ 5-(Dimethylamino)-1-naphthalenesulfonyl chloride, D-00796
 5-(Dimethylamino)-1-naphthalenesulfonyl fluoride, D-00797
 1-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]aziridine, D-00799
 2-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]ethyl carbonochloridate, D-00800
 3-[[7-(Dimethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]carbonyl]-2(3*H*)-oxazolone, D-00806
 4-[2*H*-[1,3]Dioxolo[4,5-*f*]benzotriazol-2-yl]benzeneethanamine, D-00992
 1,2-Diphenyl-1,2-ethanediamine; (1*R,S*,2*R,S*)-*form*, *in* D-01010
 1,6-Diphenyl-1,3,5-hexatriene, D-01019
 6,6'-Dithio[2-naphthalenol], D-01119
 10-Dodecylacridine orange, *in* B-00315
 2,2'-(1,2-Ethenediyl)bis[5-isothiocyanatobenzenesulfonic acid], E-00046
 Fluo 3, F-00009
 Fluo 3AM, *in* F-00009
 1-(3-Fluoranthenyl)-1*H*-pyrrole-2,5-dione, F-00011
 ▶ 9*H*-Fluorene-2-carboxaldehyde, F-00012
 9*H*-Fluorene-2-sulfonyl chloride, *in* F-00014
 Fluorescein-5-maleimide, F-00021
 ▶ Fluorescein sodium, *in* F-00020
 7-Fluoro-4-benzofurazansulfonamide, *in* F-00023
 7-Fluoro-4-benzofurazansulfonic acid; NH₄ salt, *in* F-00023
 Fura 2-AM, *in* F-00039
 Fura 2; Penta-K salt, *in* F-00039
 Fura 2; Tetra-K salt, *in* F-00039
 7-Hydrazino-4-benzofurazansulfonamide, H-00081
 7-Hydrazino-4-benzofurazansulfonamide; *N,N*-Di-Me, *in* H-00081
 4-Hydrazino-7-nitrobenzofurazan, H-00084
 4-(Hydroxymethyl)-7-methoxy-2*H*-1-benzopyran-2-one, *in* H-00209
 7-Hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-3-acetic acid, H-00295
 1-[[7-(Hydroxy-4-methyl-2-oxo-2*H*-benzopyran-3-yl)acetyl]oxy]-2,5-pyrrolidinedione, H-00296
 7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid; Me ether, chloride, *in* H-00426
 ▶ 2'-(4-Hydroxyphenyl)-5-(4-methyl-1-piperazinyl)-2,5'-bi-1*H*-benzimidazole, H-00488
 Indo 1, I-00031
 Indo 1AM, *in* I-00031
 5-[[2-[(Iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, I-00037
 8-[[2-[(Iodoacetyl)amino]ethyl]amino]-1-naphthalenesulfonic acid, I-00038
 4-Iodobenzenesulfonyl chloride, *in* I-00039
 2-Iodo-*N*-1-pyrenylacetamide, I-00051

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- 4-Acetamido-4'-isothiocyanatostilbene-2,2'-disulfonic acid, *in* A-00230
 7-Acetoxy-4-(bromomethyl)coumarin, *in* B-00524
 8-(Acetyloxy)-1,3,6-pyrenetrisulfonyl trichloride, *in* H-00517

- 2-Iodo-*N*-(2',4',5',7'-tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3*H*),9[9*H*]xanthen]-5-yl)acetamide, I-00054
- 2-Isocyanatoanthracene, I-00059
- 2-(4-Isocyanatophenyl)-6-methylbenzothiazole, I-00065
- 9-Isothiocyanoacridine, I-00091
- 1-Isothiocyanoacridine, I-00100
- Mag-fura-2, M-00003
- Mag-fura-2; Tetrakis(acetoxymethyl)ester, in M-00003
- 2,6-Mansyl chloride, in M-00222
- 4-Methoxybenzamidine, M-00077
- 7-Methoxycoumarin-3-carboxylic acid, in H-00426
- 7-Methoxy-2-oxo-2*H*-1-benzopyran-3-carbonyl azide, in H-00426
- 7-Methoxy-2-oxo-2*H*-1-benzopyran-4-carbonyl azide, M-00097
- 7-Methoxy-2-oxo-2*H*-1-benzopyran-3-carbonyl fluoride, in H-00426
- 3-[(7-Methoxy-2-oxo-2*H*-1-benzopyran-3-yl)carbonyl]-2(3*H*)-oxazolone, M-00098
- (7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)methyl *N,N'*-dicyclohexylcarbamidate, M-00100
- N*-[(4-Methoxyphenyl)methyl]-7-nitro-4-benzofurazanamine, M-00114
- [[4-(5-Methyl-2-benzothiazolyl)phenyl]amino]acetohydrazide, M-00142
- 1-[4-(6-Methyl-2-benzothiazolyl)phenyl]-1*H*-pyrrole-2,5-dione, M-00143
- 1-Naphthylmethylamine; *N*-Methyl, in N-00051
- 7-Nitro-*N*-(phenylmethyl)-4-benzofurazanamine, in A-00282
- α -Oxo-1-anthraceneacetone nitrile, O-00054
- 2-Oxo-2*H*-1-benzopyran-6-sulfonyl chloride, in O-00057
- 4-[1-Oxo-3-phenyl-1*H*-inden-2-yl]benzenesulfonyl chloride, O-00067
- r*-Oxo-1-pyrenedecanoic acid, O-00072
- 1-[1-Oxo-4-(1-pyrenyl)butoxy]-2,5-pyrrolidinedione, O-00073
- 1-[4-(Phenylamino)-1-naphthalenyl]-1*H*-pyrrole-2,5-dione, P-00083
- 3-Phenyl-2,7-naphthyridin-1(2*H*)-one, P-00152
- 3-(2-Phthalimidyl)benzoyl chloride, P-00227
- 4-(2-Phthalimidyl)benzoyl chloride, P-00228
- 3-(2-Phthalimidyl)-4-methoxybenzoyl chloride, P-00229
- 1-Pyrenebutanoic acid hydrazide, P-00305
- 1-Pyrenecarboxylic acid, P-00307
- 1-Pyrenedecanoic acid, P-00308
- 1-Pyrenesulfonic acid; Chloride, in P-00309
- 1-Pyrenylmethyl iodoacetate, P-00310
- 1-(1-Pyrenyl)-1*H*-pyrrole-2,5-dione, P-00311
- 5-(4-Pyridinyl)-2-thiophenecarboxaldehyde, P-00409
- Quin 2, Q-00002
- Quin 2A, in Q-00002
- Stil 1, S-00026
- 2',3',4',7'-Tetrabromo-3',6'-dihydroxy-5-isothiocyanoatospiro[isobenzofuran-1(3*H*),9[9*H*]xanthen]-3-one, T-00016
- 1-[2',3',4',7'-Tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3*H*),9[9*H*]xanthen]-5-yl]-1*H*-pyrrole-2,5-dione, T-00017
- Texas red, T-00133
- ▷ 2-Aminobenzoic acid, A-00103
- ▷ 4-Aminobenzoic acid, A-00105
- ▷ 2-Aminobenzothiazole, A-00113
- 3-Amino-1*H*-isindole-1-thione, A-00229
- 2-Amino-*N*-(4-methylphenyl)benzenesulfonamide, A-00248
- ▷ 2-Amino-4-methylthiazole, A-00257
- ▷ 6-Aminonicotinamide, in A-00334
- ▷ 2-Aminoperimidine, A-00297
- N*-(2-Aminophenyl)benzenesulfonamide, A-00318
- 4-Aminophenylcarbamodithioic acid; NH₄ salt, in A-00321
- N*-(2-Aminophenyl)-4-methylbenzenesulfonamide, A-00326
- ▷ 8-Aminoquinoline, A-00340
- ▷ 5-Amino-1,3,4-thiadiazole-2(3*H*)-thione, A-00354
- 1-(9-Anthracenyl)-2-[[4-(dimethylamino)phenyl]imino]ethanone, A-00382
- ▷ 1,2-Benzenedicarboxylic acid, B-00018
- Benzeneseleninic acid; NH₄ salt, in B-00024
- ▷ Benzenesulfonic acid, B-00025
- Benzenesulfonic acid; 2-Phenylhydrazide, in B-00026
- ▷ 1,2,4,5-Benzenetetracarboxylic acid, B-00029
- ▷ 1,2,4-Benzenetricarboxylic acid, B-00032
- 1,3,5-Benzenetricarboxylic acid, B-00033
- ▷ 1,2,3-Benzenetriol, B-00034
- ▷ 1*H*-Benzotriazole, B-00110
- 2-Benzoylacetonilide, in O-00069
- Benzoylmethylglyoxime, in P-00109
- N*-Benzoyl-*N'*-(2-pyridyl)thiourea, B-00159
- ▷ Benzylpenicillin, B-00191
- Benzyltriphenylphosphonium(1+); Chloride, in B-00196
- 2,2'-Biphenyldicarboxylic acid, B-00207
- Bis(4-aminophenyl)acetylene, B-00249
- 4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*⁴,*N*⁴,*N*⁴-Tetra-Et, in B-00253
- 4-[Bis(4-aminophenyl)hydroxymethyl]-4-chloro-2,4-dihydro-2,5-diphenyl-3*H*-pyrazol-3-one; *N*⁴,*N*⁴,*N*⁴,*N*⁴-Tetra-Me, in B-00253
- Bis(4-chlorophenyl)iodonium(1+); Chloride, in B-00287
- Bis(4-chlorophenyl) phosphate, B-00289
- Bis(diisobutylthiocarbonyl) disulfide, in T-00166
- Bis(diisopropylthiocarbonyl) disulfide, in T-00166
- Bis(2-hydroxyimino-3-butylidene)-*o*-phenylenediimine, in P-00127
- Bis(1-naphthylmethyl)amine, B-00427
- Brilliant yellow; Di-Na salt, in B-00480
- 2-(4-Bromophenyl)-2-hydroxyacetic acid; (±)-form, Na salt, in B-00550
- 1,4-Butanediylbis[triphenylphosphonium] (2+); Dibromide, in B-00602
- 4-*tert*-Butylmioxime, in B-00623
- ▷ (±)-Camphoric acid, in T-00325
- ▷ 5-Carbamidothioglycolic anilide, C-00019
- Cesignost, in C-00330
- ▷ 2-Chlorobenzoic acid, C-00066
- N*-(*p*-Chlorobenzyl)-1-naphthalenemethylamine, C-00072
- 5-Chloro-2-hydroxy-4-methylacetophenone; Oxime, in C-00135
- 6-Chloro-1-hydroxy-4-nitro-1*H*-benzotriazole, C-00137
- N'*-(4-Chloro-2-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide; B,HCl, in C-00181
- N*-(2-Chlorophenyl)-*N*-hydroxybenzamide, in H-00109
- N'*-(4-Chlorophenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, C-00231
- 3-(4-Chlorophenyl)-3-hydroxy-1-phenyltriazene, C-00233
- (3-Chlorophenyl)methoxyacetic acid, in C-00221
- 3-Chloro-2-quinoxalinecarboxylic acid, C-00260
- ▷ Chlorotriphenylstannane, C-00271
- N*-Cinnamoylphenylhydroxylamine, in H-00499
- ▷ Cupferron, in H-00471
- 1,2-Cyclodecanedione; Dioxime, in C-00331
- 1,2-Cyclododecanedione; Dioxime, in C-00332
- 1,2-Cyclononanedione; Dioxime, in C-00360
- 1,2-Cyclopentanedione dioxime, in C-00362
- 1,2-Cycloundecanedione; Dioxime, in C-00369
- 1,6-Diallyl-2,5-dithiobiurea, D-00040
- 5,7-Dibromo-8-hydroxyquinoline; *N*-Oxide, in D-00193
- 3',5'-Dichloro-2'-hydroxyacetophenone; Oxime, in D-00277
- 2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione, D-00402
- 2',4'-Dihydroxyacetophenone; Phenylhydrazone, in D-00507
- 3,4-Dihydroxybenzaldehyde; 3-Me ether, oxime, in D-00519
- 2,5-Dihydroxybenzaldehyde; Oxime, in D-00518
- Dihydroxybutenedioic acid, D-00567
- 4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571
- 5,6-Dihydroxynaphtho[2,3-*f*]quinoline-7,12-dione, D-00661
- 2,3-Dihydroxy-1*H*-phenalen-1-one, D-00684
- 7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
- 6,7-Dihydroxy-4-phenylcoumarin, D-00708
- 1-(2,4-Dihydroxyphenyl)-1-pentanone; Oxime, in D-00714
- N*-(2,6-Dimethoxy-4-pyrimidinyl)-4-[[2-(hydroxyphenyl)methylene]amino]benzenesulfonamide, D-00776
- (2,5-Dimethylbenzenesulfonylamino)quinoline, D-00833
- 3,3-Dimethyl-1,2-indanedione; Dioxime, in D-00868
- ▷ Dimethyl sulfate, D-00916
- 1,2-Di-(4-morpholinylethane), D-00928
- ▷ 2,3-Dinitrophenol, D-00957
- ▷ 2,4-Dinitrophenol, D-00958
- ▷ 2,5-Dinitrophenol, D-00959
- ▷ 2,6-Dinitrophenol, D-00960
- ▷ 3,4-Dinitrophenol, D-00961
- N,N'*-Diphenylpropanedithioamide, in P-00262
- 1,2-Di-(2-pyridyl)ethylene, D-01090
- ▷ Disulfiram, D-01107
- Di(2-thenyl)ketoxime, in D-01113
- Dodecyl gallate, in T-00277
- ▷ Edetol, E-00001
- 3,3'-(1,2-Ethanediyl)bis(2-nitro)bis-2-butanone; Dioxime, in E-00035
- N*-(*o*-Ethoxybenzoyl)phenylhydroxylamine, in H-00112
- 1-[(Ethylimino)methyl]-2-naphthalenol, E-00096
- Flavazine L; Na salt, in F-00007
- N*-(2-Fluorenyl)-*N*-nitrosohydroxylamine, in A-00178
- Formamidinesulfonic acid, F-00036
- ▷ Formic acid, F-00037
- 2-Furancarboxaldehyde thiosemicarbazone, F-00047
- 2-Furancarboxaldehyde thiosemicarbazone, in F-00042
- Heptoxime, in C-00333
- Heptylarsonic acid, H-00015
- Hexahydro-2*H*-azepine-2-thione, H-00036
- ▷ Hexamethylenetetramine, H-00057
- ▷ 4,7,13,16,21,24-Hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane, H-00068
- 2-Hydroxy-1-acetonaphthonoxime, in A-00025
- 2-Hydroxy-5-anisaldoxime, in D-00518
- ▷ 2-Hydroxybenzaldehyde, H-00101

Gravimetric reagent

- 1-Acetoxy-4-methyl-2(1*H*)-pyridinethione, in M-00274
- 3-Acetyl-4-hydroxy-2*H*-1-benzopyran-2-one, A-00017
- ▷ 3-Acetyl-4-hydroxy-6-methyl-2*H*-pyran-2-one, A-00019
- 3-Acetyl-2-methylindole *p*-tolylthiosemicarbazone, A-00022
- 2-Acetyl-1-naphthol; Oxime, in A-00026
- ▷ Acridine, A-00062

- 2-Hydroxybenzaldehyde; Phenylhydrazone, *in* H-00101
- 2-Hydroxybenzoic acid 2-acetylhydrazide, H-00114
- 4-Hydroxybenzothiazole, H-00126
- ▶ 1-Hydroxycyclohexanecarboxylic acid, H-00146
- 8-Hydroxy-5,7-dinitro-2-naphthalenesulfonic acid; Di-Na salt, *in* H-00158
- ▶ 2-Hydroxy-2,2-diphenylacetic acid, H-00166
- N*-Hydroxy-*N,N'*-diphenylbenzencarboximidamide, *in* D-01001
- 2-Hydroxydithiobenzoic acid, H-00175
- α-(Hydroxyimino)benzenepropanoic acid, *in* O-00068
- N*-[2-(Hydroxyimino)-1-methylpropylidene]glycine, H-00247
- 6-Hydroxy-2-mercapto-4-pyrimidinedicarboxylic acid, H-00261
- ▶ 4-Hydroxy-3-methoxybenzaldehyde, *in* D-00519
- N*-Hydroxy-*N*-(2-methylphenyl)benzamide, *in* H-00109
- 1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one; 4-Me ether, oxime, *in* H-00311
- N*-Hydroxy-*N*-(3-methylphenyl)-2-nitrobenzamide, *in* N-00089
- N*-Hydroxy-*N*-(3-methylphenyl)-3-nitrobenzamide, *in* N-00090
- [4-[[[5-Hydroxy-3-methyl-1-phenyl]-1*H*-pyrazol-4-yl]azo]phenyl]arsonic acid, H-00314
- N*-Hydroxy-*N'*-methyl-*N*-phenylthiourea, *in* T-00175
- 1-Hydroxy-4-methyl-2(1*H*)-pyridinethione, *in* M-00274
- 8-Hydroxy-2-methylquinoline, H-00326
- 2-Hydroxy-1-naphthaldehyde, H-00336
- 2-Hydroxy-1-naphthaldehyde; Oxime, *in* H-00336
- 2-[[[2-Hydroxy-1-naphthalenyl)methylene]amino]benzoic acid, H-00362
- 2-Hydroxy-5-nitrobenzaldehyde; Oxime, *in* H-00380
- ▶ 4-Hydroxy-3-nitrophenylarsonic acid, H-00392
- 4-Hydroxy-3-nitroso-2*H*-1-benzopyran-2-one, H-00407
- N*-Hydroxy-*N*-nitrosocyclododecanamine, H-00410
- N*-Hydroxy-*N*-phenylacetamide, *in* P-00135
- N*-(3-Hydroxyphenyl)-2-mercaptoacetamide, H-00476
- 3-(2-Hydroxyphenyl)-1-phenyl-2-propen-1-one, H-00496
- 1-(2-Hydroxyphenyl)-1-propanone; Oxime, *in* H-00498
- ▶ *N*-Hydroxy-3-phenylpropenamide, H-00499
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzothiazole, H-00508
- ▶ 8-Hydroxyquinoline, H-00525
- 3-Hydroxy-2-quinoxalinecarboxylic acid, H-00537
- 1*H*-Inden-2-ylphosphonic acid, I-00026
- Isonitrosodimedone, *in* D-00848
- Mandelic acid; (±)-*form*, *in* M-00007
- ▶ 2-Mercaptobenzimidazole, M-00022
- 2-Mercapto-*N*-2-naphthylacetamide, M-00038
- 4-[(2-Mercaptophenyl)amino]-2-butenioic acid; (*Z*)-*form*, *in* M-00040
- ▶ 5-Mercapto-1,3,4-thiadiazoline-2-thione, M-00060
- α-Methoxy-2-naphthaleneacetic acid, *in* H-00338
- N*-(4-Methylbenzyl)-1-naphthylmethylamine, M-00145
- 1-(2-Methylindol-3-ylacetyl)-4-(*p*-methoxyphenyl)thiosemicarbazide, M-00195
- ▶ 4-Methylloxime, *in* M-00157
- 2-[(1-Methyl-3-oxobutylidene)amino]benzenesulfonic acid, M-00213
- 2-[(1-Methyl-3-oxobutylidene)amino]benzoic acid, M-00214
- 3-Methyl-3-phenyl-1,2-indanedione; (±)-*form*, Dioxime, *in* M-00230
- Methylphenylpyrazolone oxime, *in* M-00239
- ▶ 2-Methylquinoline, M-00306
- 4-Methylsalicylaldoxime, *in* H-00276
- 1-Naphthalenecarboxaldehyde; Oxime, *in* N-00003
- 2-Naphthaleneselenic acid; NH₄ salt, *in* N-00014
- Naphtho[2,3-*c*][1,2,5]selenadiazole, N-00038
- 1*H*-Naphtho[2,3-*d*]triazole, N-00039
- ▶ (1-Naphthyl)acetic acid, N-00040
- 1-Naphthylloxamic acid, N-00053
- ▶ Neocupferron; NH₄ salt, *in* N-00061
- 4-Nitro-*o*-anisaldoxime, *in* H-00379
- 2-Nitro-*p*-anisaldoxime, *in* H-00381
- ▶ 3-Nitro-1,2-benzenedicarboxylic acid, N-00085
- ▶ 2-Nitrobenzoic acid, N-00091
- Nitron, N-00114
- N*-(3-Nitrophenyl)-β-oxobenzenepropenamide, N-00140
- ▶ 5-Nitro-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione, N-00153
- ▶ 1-Nitroso-2-naphthol, N-00160
- 5-Nitroso-6-quinolinol, N-00162
- Octoxime, *in* C-00361
- ▶ Oxalic acid, O-00048
- Oxamidoxime, *in* O-00048
- 2-Oxo-*N*-phenylcyclopentanecarboxamide, *in* O-00060
- 4,7,13,16,21-Pentaoxa-1,10-diazabicyclo[8.8.5]tricosane, P-00037
- ▶ Phenylarsonic acid, P-00090
- 4-Phenyl-3*H*-1,2-dithiole-3-thione, P-00115
- 5-Phenyl-3*H*-1,2-dithiole-3-thione, P-00116
- 1,1'-[1,3-Phenylene]bis-2-tetrazoline-5-thione, P-00122
- 1,1'-[1,4-Phenylene]bis-2-tetrazoline-5-thione; Di-Na salt, *in* P-00123
- 3-Phenyl-1,2-indanedione; Dioxime, *in* P-00137
- Phenylphosphinic acid, P-00163
- 3-Phenyl-1*H*-pyrazole-4,5-dione; 4-Oxime, *in* P-00173
- Phenyltellurous acid, P-00197
- N*-Phenylthiobenzohydroxamic acid, P-00198
- 6-Phenyl-1,2,4-triazine-3(2*H*)-thione, P-00205
- 2-Propanoyl-1-naphthol; Oxime, *in* P-00267
- ▶ Purpurogallin, P-00282
- 2,6-Pyridinedicarboxylic acid, P-00353
- Pyridoin, P-00412
- ▶ Quinoline, Q-00007
- Quinoline; *N*-CH₂Ph, nitrate salt, *in* Q-00007
- 2-Quinolinylphosphonic acid, Q-00036
- ▶ Salicylaldoxime, *in* H-00101
- 2-Selenophenecarboxaldehyde; Oxime, *in* S-00006
- ▶ Sodium tetraphenylborate(III), S-00015
- 3,3'-Sulfonylbis[*N*-8-quinolybenzenesulfonamide], S-00055
- Tannin, T-00001
- Tartaric acid, T-00002
- Tetrahydroxybutanedioic acid, T-00073
- Tetrakis(4-fluorophenyl)borate(1-); Na salt, *in* T-00084
- 3,3',5,5'-Tetramethyl-2,2',4,4',6,6'-hexanitrodiphenylamine; Na salt, *in* T-00096
- ▶ Tetramethylthiocarbonyl diamide, T-00105
- ▶ Tetraphenylarsonium(1+); Chloride, *in* T-00119
- 1-Thiocarbamido-3-methyl-5-pyrazolone, T-00160
- 2-Thiophenecarboxaldehyde; Oxime, *in* T-00169
- 2-Thiophenecarboxaldehyde; Thiosemicarbazone, *in* T-00169
- Thiosalicylamide, *in* M-00023
- ▶ 2,4,6-Tribromophenol, T-00205
- Triethyltelluronium, T-00237
- Triethyltelluronium; Bromide, *in* T-00237
- 1,1,1-Trifluoro-4-mercapto-4-(2-thienyl)-3-buten-2-one, T-00249
- 2,3,4-Trihydroxybenzoic acid, T-00276
- 1,2,3-Trimethyl-3-pyrazoline-5-thione, *in* D-00451
- 2,4,6-Triphenylpyridine; *N*-Ph, acetate (salt), *in* T-00373
- 2,4,6-Triphenylpyrylium(1+); Chloride, *in* T-00374
- Indicator**
- Acid fuchsin; Di-Na salt, *in* A-00056
- Alizarine orange, A-00080
- ▶ Aluminon, *in* A-00458
- 4-Aminobenzenesulfonic acid; *N*-Ph, Na salt, *in* A-00100
- 5-Amino-4-hydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00190
- 5-Amino-4-hydroxy-3-(2-pyridinylazo)-2,7-naphthalenedisulfonic acid, A-00218
- 8-(Aminomethyl)-6,7-dihydroxy-4-methylcoumarin-*N,N*-diacetic acid, A-00241
- 2-(Aminomethyl)-6-hydroxy-9*H*-xanthen-9-one-*N,N*-diacetic acid, A-00245
- Amylose, *in* S-00025
- Arsenazo I; Tri-Na salt, *in* A-00410
- 4,4'-Azobis[3-hydroxy-2,7-naphthalenedisulfonic acid], A-00469
- Azocarmine B; Di-Na salt, *in* A-00470
- Azocarmine G; Na salt, *in* A-00471
- ▶ Azure A, *in* L-00003
- ▶ Azure C, *in* L-00003
- ▶ 2,2'-Bipyridine, B-00220
- 1,2-Bis(2-amino-5-bromophenoxy)ethane-*N,N,N',N'*-tetraacetic acid, B-00243
- 3,3'-Bis(aminomethyl)-4,4'-dihydroxystilbene-*N,N,N',N'*-tetraacetic acid; (*E*)-*form*, *in* B-00246
- Brilliant congo blue BFL; Tri-Na salt, *in* B-00476
- Cacotheline, C-00005
- Calmagite, C-00015
- ▶ Ceplac, *in* E-00020
- Chrome black special; Mono-Na salt, *in* C-00278
- Chromotrope F4B; Di-Na salt, *in* C-00292
- Chromoxan violet 5B, C-00295
- ▶ Colehiceine; (*S*)-*form*, *in* C-00300
- o*-Cresolphthalein, C-00308
- o*-Cresoltetraiodosulfonophthalein, C-00313
- 4,4'-Diamino-3,3'-biphenyldicarboxylic acid *N,N,N',N'*-tetraacetic acid; Hexa-Na salt, *in* D-00054
- 2,2'-Diaminobiphenyl-4,4'-dicarboxylic acid-*N,N,N',N'*-tetraacetic acid; Hexa-Na salt, *in* D-00055
- 2,2'-Diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00059
- 4,4'-Diamino-3,3'-dimethoxybiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00078
- 4,4'-Diamino-2,2'-stilbenedisulfonic acid *N,N,N',N'*-tetraacetic acid, D-00126
- 4,4'-Diaminostilbene-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, *in* D-00127
- 4',5'-Dibromofluorescein; Di-Na salt, *in* D-00188
- ▶ Dibromosulfonophthalein, D-00215
- 4,4-Dicarboxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, D-00245
- 4',5'-Dichlorofluorescein; Di-Na salt, *in* D-00276
- 2,5-Dihydroxybenzaldehyde, D-00518
- 4,5-Dihydroxy-3,6-bis(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00558
- 4,7-Dihydroxy-1*H*-isoindole-1,3(2*H*)-dione; Dithiosemicarbazone, *in* D-00636

3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl, D-00694
 4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722
 4,5-Dihydroxy-3-[(2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00739
 4,4'-Dimethoxy-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid, in D-00572
 6,7-Dimethoxy-1-isoquinolinecarboxylic acid, in D-00637
 5-(Dimethylamino)-2-(2-thiazolylazo)phenol, in A-00214
 2,4-Dimethyl-1*H*-1,5-benzodiazepine, D-00834
 4,4'-Dimethyl-2,2'-diaminobiphenyl-*N,N,N',N'*-tetraacetic acid; Tetra-Na salt, in D-00849
 ▶ *N,N*-Dimethyl-1,4-phenylenediamine, in D-00048
 Eliamina blue FFL; Tetra-Na salt, in E-00006
 Eriochrome blue SE; Di-Na salt, in E-00011
 ▶ Erioglaucine A; Di-Na salt, in E-00018
 Erythrosine Y; Di-Na salt, in E-00021
 4-Ethoxy-3,6-acridinediamine, in H-00094
 4-Ethoxyacridone, in H-00095
 5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, in A-00253
 9-Ethyl-9*H*-carbazol-3-amine, in A-00132
 Fluo 3, F-00009
 Fluo 3AM, in F-00009
 ▶ Fluorescein, F-00020
 Gallein, G-00004
 ▶ Gallocyanine; Chloride, in G-00005
 4-Hydroxy-3-[(2-hydroxybenzoyl)azo]-1-naphthalenesulfonic acid, H-00188
 6-Hydroxy-5-[(2-hydroxy-3,5-dinitrophenyl)azo]-2-naphthalenesulfonic acid; Na salt, in H-00200
 3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, H-00224
 ▶ 4-(Hydroxymethyl)biphenyl, H-00284
N-[7-Hydroxy-4-methyl-2-oxo-(2*H*)-1-(benzopyran-8-yl)methyl]glycine, H-00297
 2-[(1-Hydroxy-2-naphthalenyl)azo]-8-quinolinol, H-00356
 2-(2-Hydroxy-3-naphthoylazo)-1-hydroxy-4-naphthalenesulfonic acid, H-00374
 8-Hydroxy-7-(2-naphthylazo)quinoline, H-00377
 ▶ 8-Hydroxy-1,3,6-pyrenetrisulfonic acid, H-00517
 4-[(8-Hydroxy-7-quinolinyl)azo]benzenesulfonic acid, H-00529
 6-Hydroxy-5-(2-thiazolylazo)-2-naphthalenesulfonic acid, H-00549
 Indo 1, I-00031
 Indo 1AM, in I-00031
 Magneson IREA, M-00004
 2-Methoxy-6-[[5-(1-methyl)-2-piperidinyl-2-pyridyl]azo]phenol, M-00092
 4-Methoxy-2-(2-thiazolylazo)phenol, in T-00139
 ▶ 4-Methyl-2*H*-1-benzopyran-2-one, M-00141
 Methylcalcein blue, M-00153
 Methylcalcein; Di-Na salt, in M-00152
 4-Methyl-5-(methylamino)-2-(2-pyridinylazo)phenol, in A-00253
 ▶ 1-Methyl-1-phenylethyl hydroperoxide, M-00228
 5-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00280
 Neutral red; B,HCl, in N-00065
 Neutral violet; B,HCl, in N-00066
 2-Phenyl-4*H*-naphtho[1,2-*b*]pyran-4-one, P-00150
 ▶ *N*-Phenyl-1-naphthylamine, P-00151
 Phloxin; Di-K salt, in P-00212
 Picriminazosulfoxine, P-00234
 1-Pyreneacetic acid, P-00304
 7-(2-Pyridinylazo)-8-quinolinol, P-00381
 Quin 2, Q-00002
 Stil 1, S-00026
 Stilbexon, S-00032
 Tetrahydroxy-1,4-benzoquinone, T-00072

1-(2-Thiazolylazo)-2-naphthalenol, T-00142
 Thioflavine S, T-00162
 Triethylsulfonium(1+); Iodide, in T-00236
 Triphenyltelluronium(1+); Iodide, in T-00377
 ▶ Vinyl cyanide, in P-00269
 Wool fast blue BL; Na salt, in W-00002
 Xylenol orange, X-00006

Indicator: acid base

Acetone; 2,4-Dinitrophenylhydrazone, in A-00007
 5-[(1-Acetyl-2-oxopropyl)azo]-2,3-dihydro-1,4-phthalazinedione, A-00027
 Acid blue 89, A-00052
 Alizarine chrome orange G; Na salt, in A-00075
 Alizarine red S; Na salt, in A-00081
 Alizarine yellow G; Na salt, in A-00082
 Alpha blue; Di-Na salt, in A-00084
 ▶ 4-Aminoazobenzene, A-00094
 4-(4-Amino-4-biphenylazo)-3,5-dibromobenzenesulfonic acid, A-00119
 4-[(4'-Amino-4-biphenylazo)-2,5-dichlorobenzenesulfonic acid; Na salt, in A-00120
 Aminobromothymol blue, A-00129
 7-Amino-2-chloro-1-hydroxy-3*H*-phenoxazin-3-one, A-00138
 5-Amino-4-hydroxy-1,3-naphthalenedisulfonic acid, A-00201
 7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, A-00208
 5-Amino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00236
 ▶ 7-Amino-1,3-naphthalenedisulfonic acid, A-00263
 5-Amino-2-naphthalenesulfonamide, in A-00266
 6-Amino-2-naphthalenesulfonamide, in A-00268
 7-Amino-1-naphthalenesulfonamide, in A-00269
 4-Amino-1-naphthalenesulfonic acid; Amide, in A-00264
 5-Amino-1-naphthalenesulfonic acid; Amide, in A-00265
 6-Amino-1-naphthalenesulfonic acid; Amide, in A-00267
 8-Amino-2-naphthalenesulfonic acid; Amide, in A-00270
 4-Amino-1-naphthalenesulfonic acid; Na salt, in A-00264
 6-Amino-1-naphthalenesulfonic acid; Na salt, in A-00267
 4-[(4-Amino-1-naphthalenyl)azo]-5-hydroxy-2,7-naphthalenedisulfonic acid; *N*-Et, di-Na salt, in A-00276
 3-Amino-1-naphthoic acid, A-00279
 4-Amino-4-nitroazobenzene, A-00281
 4-(4-Aminophenylazo)-3-bromobenzenesulfonic acid; *N*-Di-Me, Na salt, in A-00308
 4-(4-Aminophenylazo)-3-chlorobenzenesulfonic acid; *N*-Di-Me, Na salt, in A-00309
 4-(4-Aminophenylazo)-3,5-dibromobenzenesulfonic acid; *N*-Di-Me, Na salt, in A-00310
 4-Aminophenylbenzenesulfonamide, in A-00319
 2-(2-Aminostyryl)-6-methoxy-8-aminoquinoline-*N,N,N',N'*-tetraacetic acid; (*E*)-form, in A-00347
 ▶ Anazoline sodium, in A-00366
 Anilinesulfonephthalein, A-00369
 5-Anilino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00371
 Astrazon orange R; Chloride, in A-00453
 Aurin, A-00457
 Benzaldehyde (4-nitrophenyl)hydrazone, B-00005
 1-[α -Benzamido-*p*-(dimethylamino)cinnamoyl]-2-isonicotinoylhydrazide, B-00011
 Benzaurin, B-00012
 Benzoflavine, B-00057

9-Benzo[*a*]phenoxazin-9-one, B-00070
 5-(2-Benzothiazolyl)-1,3-diphenylformazan, B-00101
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[2-iodophenol] *S,S*-dioxide, B-00111
 4,4'-(3*H*-2,1-Benzoxathiol-3-ylidene)bis[3-nitrophenol] *S,S*-dioxide, B-00112
 Benzoylauramine G, B-00122
 Benzoylethylauramine, B-00131
 Benzyl orange; Na salt, in B-00190
 3',6'-Bis(acetyloxy)-5-azidospiro[isobenzofuran-1(3*H*), 9'-[9*H*]xanthen]-3-one, in A-00460
N,N'-Bis(9-acridinyl)hydrazine, B-00240
 2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)cyclohexanone, B-00265
 2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)-3-methyl-1-cyclohexanone, B-00266
 2,6-Bis(3-bromo-4-hydroxy-5-methoxybenzylidene)-4-methyl-1-cyclohexanone, B-00267
 2',7'-Bis(carboxyethyl)carboxyfluorescein, B-00273
 2,6-Bis(3,4-dihydroxybenzylidene)cyclohexanone, B-00298
 2,6-Bis(3,4-dihydroxybenzylidene)-3-methyl-1-cyclohexanone, B-00299
 2,6-Bis(3,4-dihydroxybenzylidene)-4-methyl-1-cyclohexanone, B-00300
 1,10-Bis(2,4-dihydroxyphenyl)-1,10-decanedione, B-00304
 5,5-[Bis(2,4-dihydroxyphenyl)]-2(5*H*)-furanone, B-00305
 1,7-Bis(2,4-dihydroxyphenyl)-1,7-heptanedione, B-00306
 1,6-Bis(2,4-dihydroxyphenyl)-1,6-hexanedione, B-00307
 1,9-Bis(2,4-dihydroxyphenyl)-1,9-nonanedione, B-00309
 4,4'-Bis(*p*-dimethylaminophenylazo)stilbene-2,2'-disulfonic acid, B-00317
 3,6-Bis(dimethylamino)-9*H*-xanthen-9-one, in D-00132
 2,6-Bis(3-ethoxy-4-hydroxybenzylidene)cyclohexanone, in B-00298
 2,6-Bis(3-ethoxy-4-hydroxybenzylidene)-3-methyl-1-cyclohexanone, in B-00299
 2,6-Bis(3-ethoxy-4-hydroxybenzylidene)-4-methyl-1-cyclohexanone, in B-00300
 3,3-Bis(4-hydroxy-2,5-dimethylphenyl)-1(3*H*)-isobenzofuranone, B-00365
 3,3-Bis(4-hydroxy-3,5-dimethylphenyl)-1(3*H*)-isobenzofuranone, B-00366
 3,3-Bis(4-hydroxy-2-isopropyl-5-methylphenyl)-1(3*H*)-isobenzofuranone, B-00378
 3,3-Bis(4-hydroxy-3-methoxyphenyl)-1(3*H*)-isobenzofuranone, B-00379
 3,3-Bis(5-hydroxy-1-naphthalenyl)-1(3*H*)-isobenzofuranone, B-00381
 5,5-Bis(4-hydroxyphenyl)-2(5*H*)-furanone, B-00389
 [[Bis(4-nitrophenyl)amino]methylene]propanedinitrile, B-00430
 1,6-Bis(2,4,6-trihydroxyphenyl)-1,6-hexanedione, B-00467
 ▶ Brazilin; (+)-form, in B-00475
 2-Bromo-4-[(3-bromo-4-hydroxy-5-methylphenyl)phenylmethylene]-6-methyl-2,5-cyclohexadien-1-one, B-00495
 Bromochlorophenol blue, B-00497
 Bromocresol green, B-00498
 Bromocresol purple, B-00499
 Bromophenol blue, B-00542
 Bromophenol red, B-00543
 3-[(4-Bromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00546
 2-(4-Bromophenyl)-4-methyl-1*H*-1,5-benzodiazepine, B-00554
 6-(4-Bromophenyl)-5*H*-2-pyridine-5,7(6*H*)-dione, B-00556
 Bromothymol blue, B-00581
 Bromoxylenol blue, B-00583
 ▶ C.I. Acid orange 20, in O-00043
 C.I. Direct blue 72, C-00004

- Carbazol yellow B, C-00021
 4-[[3-Chloro-4-hydroxyphenyl]imino]-2,5-cyclohexadien-1-one, C-00149
 Chlorophenol red, C-00197
 3-Chloro-4-[(4-phenylamino)phenylazo]benzenesulfonic acid, *in* A-00309
 2-(4-Chlorophenyl)-4-methyl-1*H*-1,5-benzodiazepine, C-00236
 6-(4-Chlorophenyl)-5*H*-2-pyridine-5,7(6*H*)-dione, C-00239
 Chromorange GR; Di-Na salt, *in* C-00289
 ▶ Congo red, C-00301
 o-Cresolbenzein, C-00305
 m-Cresolphthalein, C-00306
 ▶ *o*-Cresolphthalein, C-00307
 m-Cresol purple, C-00309
 Cresol red, C-00310
 o-Cresoltetrabromosulfonephthalein, C-00311
 o-Cresoltetrachlorosulfonephthalein, C-00312
 ▶ 1-(Cyanomethyl)-4-nitrobenzene, *in* N-00120
 ▶ 2,4-Diamino-4'-ethoxyazobenzene, D-00095
 2,4-Diamino-4'-methoxy-5-methylazobenzene, D-00099
 4-[(2,4-Diaminophenyl)azo]-2-methylphenol, D-00113
 4-[(2,4-Diaminophenyl)azo]phenol, D-00114
 4,4'-(4,6-Diamino-1,3,5-triazin-2-yl)amino]-2,2'-stilbenedisulfonic acid-*N,N',N'',N'''*-tetraacetic acid; Hexa-Na salt, *in* D-00129
 2,6-Dibromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00191
 5-[(3,5-Dibromo-4-oxo-2,5-cyclohexylidene)amino]-2-hydroxybenzenesulfonic acid, D-00197
 3,3'-Dibromothymolbenzein, D-00217
 3,3'-Dibromothymolotetrachlorophthalein, D-00218
 2,6-Dichloro-4-[(2-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00258
 2,6-Dichloro-4-[(3-chloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]phenol, D-00259
 2,5-Dichloro-4-[[4-(4-dimethylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
 2,6-Dichloro-4-[(4-hydroxy-3-methylphenyl)imino]-2,5-cyclohexadien-1-one, D-00279
 3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00289
 ▶ Dicoumarol, D-00305
 2,3-Dicyano-1,4-benzenediol, *in* D-00525
 4-[[4-(Diethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, *in* A-00313
 2-[[4-(Diethylamino)phenyl]azo]-1,3-indanedione; Monooxime, *in* D-00331
 1,5-Di-2-furanyl-1,4-pentadien-3-one, D-00363
 3,7-Dihydro-8-[[4-(4-hydroxyphenyl)amino]methyl]-1,3,7-trimethyl-1*H*-purine-2,6-dione, D-00418
 ▶ 1,2-Dihydroxyanthraquinone, D-00510
 2,4-Dihydroxybenzenecarbothioic acid; *S*-Propyl ester, *in* D-00523
 2,5-Dihydroxy-1,4-benzenedisulfonic acid, D-00526
 2,4-Dihydroxy-3,5-bis[(4-nitrophenyl)azo]benzenesulfonic acid, D-00555
 3,4-Dihydroxy-10-imino-9(10*H*)-anthracenone, D-00634
 4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00635
 4,7-Dihydroxy-1*H*-isoindole-1,3(2*H*)-dione, D-00636
 5,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00646
 4-[(2,4-Dihydroxyphenyl)azo]benzenesulfonic acid; Na salt, *in* D-00688
 2,4-Dihydroxy-5-sulfobenzoic acid, D-00731
 3,6-Dihydroxyxanthone, D-00742
 ▶ 4-Dimethylaminoazobenzene, D-00778
 9-(Dimethylamino)-5*H*-benzo[*a*]phenoxazin-5-one, D-00782
 7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, D-00786
 7-(Dimethylamino)-1-methyl-3*H*-phenoxazin-3-one, D-00792
 4-[[4-(Dimethylamino)phenyl]azo]-5,5-dimethyl-1,3-cyclohexanedione, D-00808
 2,4-Dinitro-6-chlorophenylazothymol, D-00951
 ▶ 2,3-Dinitrophenol, D-00957
 ▶ 2,4-Dinitrophenol, D-00958
 ▶ 2,5-Dinitrophenol, D-00959
 ▶ 2,6-Dinitrophenol, D-00960
 ▶ 3,4-Dinitrophenol, D-00961
 3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00965
 3-[(2,4-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid; Na salt, *in* D-00966
 ▶ (2,4-Dinitrophenyl)hydrazine, D-00972
 2-(2,4-Dinitrophenyl)pyridinium(1+); Chloride, *in* D-00974
 1,5-Di-2-thienyl-1,4-pentadien-3-one, D-01114
 Epsilon blue; Di-Na salt, *in* E-00008
 ▶ Eriochrome blue black; Na salt, *in* E-00010
 2,2'-(1,2-Ethenediyl)bis[4-[[4-amino-6-[[bis(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]benzenesulfonic acid]; Di-Na salt, *in* E-00041
 2,2'-(1,2-Ethenediyl)bis[5-[[4,6-dichloro-1,3,5-triazin-2-yl]amino]benzenesulfonic acid], E-00044
 2,2'-(1,2-Ethenediyl)bis[5-[[4-hydroxy-6-chloro-1,3,5-triazin-2-yl]amino]benzenesulfonic acid], E-00045
 4'-Ethoxy-4-hydroxyazobenzene, *in* D-00516
 4-[(4-Ethoxyphenyl)azo]-6-methyl-1,3-benzenediamine, *in* H-00451
 4-[(4-Ethoxyphenyl)azo]-1-naphthalenamine, *in* A-00277
 1-(4-Ethoxyphenyl)-4-(4-hydroxybenzylidene)-2,3-pyrrolidinedione, E-00059
 Ethylbis(2,4-dinitrophenyl) acetate, *in* D-00971
 4-(4-*N*-Ethyl-*N*-hydroxyaminophenylazo)-5,5-dimethyl-1,3-cyclohexanedione, *in* A-00313
 3-(2-Ethyl-3-oxo-1-phenylbutyl)-4-hydroxy-4*H*-1-benzopyran-4-one, E-00101
 4-[(2-Ethylphenyl)azo]-1-naphthalenamine, E-00103
 6-(4-Fluorophenyl)-5*H*-2-pyridine-5,7(6*H*)-dione, F-00033
 Gallamine blue; Chloride, *in* G-00003
 ▶ Haematein, H-00001
 Heptamethoxy red, H-00010
 Hexamethoxy red, H-00056
 2-Hydroxybenzaldehyde; Semicarbazone, *in* H-00101
 9-Hydroxy-5*H*-benzo[*a*]phenoxazin-5-one, H-00123
 ▶ 7-Hydroxy-2*H*-1-benzopyran-2-one, H-00124
 1-Hydroxy-4-[(3,5-dichloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid, H-00148
 5-Hydroxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, H-00280
 ▶ 7-Hydroxy-4-methyl-2*H*-1-benzopyran-2-one, H-00283
 3-(4-Hydroxy-2-methylphenyl)-3-(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, H-00310
 ▶ 3-Hydroxy-2,7-naphthalenedisulfonic acid, H-00342
 7-Hydroxy-1,3-naphthalenedisulfonic acid, H-00343
 1-Hydroxy-2-naphthalenesulfonic acid, H-00344
 4-Hydroxy-1-naphthalenesulfonic acid, H-00345
 5-Hydroxy-1-naphthalenesulfonic acid, H-00346
 ▶ 6-Hydroxy-2-naphthalenesulfonic acid, H-00347
 4-[(2-Hydroxy-1-naphthalenyl)azo]benzenesulfonic acid; Na salt, *in* H-00348
 1-Hydroxy-4-[[4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid, H-00430
 2-(2-Hydroxyphenyl)benzimidazole, H-00465
 3-(2-Hydroxyphenyl)-2-propenoic acid, H-00500
 ▶ 2-Hydroxy-3-prenyl-naphthoquinone, H-00515
 3,3'-Iminobis[1-(4-methylphenyl)-2-propen-1-one], I-00008
 3,3'-Iminobis[1-phenyl-2-propen-1-one], I-00009
 2,2'-(Iminodimethylidene)bis(cyclohexanone), I-00016
 2,2'-(Iminodimethylidene)bis(cyclohexanone), I-00017
 2,2'-(Iminodimethylidene)bis[3,4-dihydro-5,7-dimethyl-1(2*H*)-naphthalenone], I-00018
 2,2'-(Iminodimethylidene)bis[3,4-dihydro-1(2*H*)-naphthalenone], I-00019
 1,1'-(Iminodimethylidene)bis-2(1*H*)-naphthalenone, I-00020
 6,6'-(Iminodimethylidene)bis[6,7,8,9-tetrahydro-5*H*-benzocyclohepten-5-one], I-00021
 ▶ 6-Isopropyl-3-methyl-2,4-dinitrophenol, I-00073
 Isothiocyanatobromothymol blue, I-00092
 Lithmus, L-00009
 Lucigenine; Dinitrate, *in* L-00012
 ▶ Malachite green; Chloride, *in* M-00006
 ▶ 2-Methoxybenzaldehyde, M-00074
 ▶ 7-Methoxy-1-methyl-β-carboline, M-00090
 4-[(4-Methoxyphenyl)azo]-1,3-benzenediamine, M-00106
 2-(4-Methoxyphenyl)-4-methyl-1*H*-1,5-benzodiazepine, M-00112
 6-Methoxy-4-quinolinecarboxylic acid, *in* H-00527
 4-Methyl-2-(4-methylphenyl)-1*H*-1,5-benzodiazepine, M-00199
 4-Methyl-2-(3-nitrophenyl)-1*H*-1,5-benzodiazepine, M-00205
 ▶ Methyl orange; Na salt, *in* M-00210
 4-Methyl-2-phenyl-1*H*-1,5-benzodiazepine, M-00225
 Methyl red; Na salt, *in* M-00309
 ▶ *N*-Methyl-*N*,2,4,6-tetranitroaniline, M-00312
 ▶ 1-Naphthalenecarboxylic acid, N-00005
 ▶ 2-Naphthol, N-00026
 Naphthol AS, *in* H-00370
 α-Naphtholbenzein, N-00027
 α-Naphtholsulfonephthalein, N-00029
 ▶ 2-Naphthylamine, N-00042
 Neutral red; B,HCl, *in* N-00065
 Nitroanisole blue, N-00078
p-Nitrobenzhydrazide, *in* N-00093
 Nitrochromothymol blue, N-00102
 ▶ 2-Nitrophenol, N-00117
 ▶ 3-Nitrophenol, N-00118
 ▶ 4-Nitrophenol, N-00119
 4-[(4-Nitrophenyl)azo]-1,2-benzenediol, N-00122
 4-[(4-Nitrophenyl)azo]-1,3-benzenediol, N-00123
 ▶ (4-Nitrophenyl)hydrazine, N-00138
 1-(5-Nitro-2-pyridinyl)-β,β,5-diphenylformazan, N-00149
 ▶ 2-Nitrosophenol, *in* B-00075
 Orcinsulfonephthalein, O-00044
 8-Oxo-5-(*p*-diethylaminophenylimino)-5,8-dihydroquinoline, O-00062
 Pentamethoxy red, P-00028
 ▶ Phenolphthalein, P-00063
 ▶ Phenolsulfonephthalein, P-00064

Phenoltetrabromosulfonephthalein, P-00065
 Phenoltetrachlorosulfonephthalein, P-00066
 Phenoltetraiodophthalein, P-00067
 Phenoltetraiodosulfonephthalein, P-00068
 4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084
 4-[(4-Phenylaminophenyl)azo]-3-bromobenzenesulfonic acid, *in* A-00308
 ▶ 4-Phenylazo-1-naphthylamine, P-00093
 α-(Phenylazo)-4-nitrobenzenecetonitrile, P-00094
 ▶ Phloxine B; Di-Na salt, *in* P-00213
 Pinachrome; Iodide, *in* P-00236
 Poirrier blue C4B; Di-Na salt, *in* P-00246
 S-Propyl 2,4-dihydroxydithiobenzoate, P-00276
 2-Pyridinecarboxaldehyde 4-nitrophenylhydrazone; (*E*)-form, *in* P-00329
 2-Pyridinecarboxaldehyde; Phenylhydrazone, *in* P-00318
 4-Pyridinecarboxaldehyde; Phenylhydrazone, *in* P-00320
 5-(4-Pyridinylazo)-8-quinolinol; *N*⁴-Oxide, *in* P-00380
 7-(4-Pyridinylazo)-8-quinolinol; *N*⁴-Oxide, *in* P-00382
 1-(2-Pyridinyl)-3,5-diphenylformazan, P-00387
 Pyrocatechol violet, P-00433
 Pyruvic acid; 2,4-Dinitrophenylhydrazone, *in* P-00448
 Quinaldine red; Iodide, *in* Q-00004
 Rubrophen, R-00013
 Salicyl red, S-00002
 Sinalbine, *in* H-00128
 Sulfonamidebromothymol blue, S-00047
 Sulfonefluorescein, S-00049
 ▶ Sulphan blue, S-00058
 Tetrabromoanilinesulfonephthalein, T-00011
 4,4'-(4,5,6,7-Tetrabromo-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] *S,S*-dioxide, T-00013
 4,4'-(4,5,6,7-Tetrabromo-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromophenol] *S,S*-dioxide, T-00014
 Tetrabromo-*N*-ethylanilinesulfonephthalein, T-00018
 Tetrabromophenolphthalein, T-00019
 Tetrabromophenoltetrabromosulfonephthalein, T-00020
 Tetrabromophenoltetrachlorosulfonephthalein, T-00021
 Tetrabromophenoltetraiodophthalein, T-00022
 4,4'-(4,5,6,7-Tetrachloro-3*H*-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methylphenol] *S,S*-dioxide, T-00026
 Tetraiodophenoltetraiodophthalein, T-00081
 3,3',5,5'-Tetranitrophenolsulfonephthalein, T-00109
 Thymolbenzein, T-00180
 Thymol blue, T-00181
 Thymolphthalein, T-00182
 Thymoltetrachlorophthalein, T-00184
 1,3,3-Trimethyl-2-[2-(2-methyl-1*H*-indol-3-yl)ethylene]-3*H*-indolium(1+); Chloride, *in* T-00328
 ▶ 1,3,5-Trinitrobenzene, T-00349
 ▶ 2,4,5-Triphenylimidazole, T-00367
 Triphenylmethanol, T-00368
 Tris(2,4-dihydroxyphenyl)methane, T-00388
 [Vinylenebis[[3-sulfo-*p*-phenylene]imino-*s*-triazine-6,2,4-triyl]dinitrilo]octaacetic acid; Hexa-Na salt, *in* V-00007
N,N,N',N''-[Vinylenebis[[3-sulfo-*p*-phenylene]imino-*s*-triazine-6,2,4-triyl]] tetrasarcosine; Di-Na salt, *in* V-00008
 Xylenol blue, X-00005

Indicator: argentimetric

3-Acetyl-4,5,6,7-tetrachloro-3-(2-hydroxyphenyl)-1(3*H*)-isobenzofuranone, A-00048
 3-Acetyl-4,5,6,7-tetrachloro-3-(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, A-00049
 4-Bromo-*N,N'*-bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494
 ▶ 2,4-Diamino-4'-ethoxyazobenzene, D-00095
 3-(3,5-Dibromo-2,4-dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00183
 3-(2,4-Dihydroxyphenyl)-4,5-dimethoxy-1(3*H*)-isobenzofuranone, D-00710
 3-[(3,5-Dinitrophenyl)azo]-4-hydroxy-1-naphthalenesulfonic acid; Na salt, *in* D-00967
 3-(4-Hydroxyphenyl)-1(3*H*)-isobenzofuranone, H-00474
 3-[2-Hydroxyphenyl]-3-phenylinaphtho[2,1-*b*]furan-1(3*H*)-one, H-00493
 3-[4-Hydroxyphenyl]-3-phenylinaphtho[2,1-*b*]furan-1(3*H*)-one, H-00494
 ▶ 4-Phenylazo-1-naphthylamine, P-00093
 4,5,6,7-Tetrachloro-3,3-bis(4-hydroxyphenyl)-1(3*H*)-isobenzofuranone, T-00027
 4,5,6,7-Tetrachloro-3-(2,4-dihydroxyphenyl)-3-methyl-1(3*H*)-isobenzofuranone, T-00028

Indicator: compleximetric

Acid alizarin black SE, A-00050
 Acid alizarin black SN, A-00051
 Acid chrome blue K; Tri-Na salt, *in* A-00053
 Acid chrome violet BR; Na salt, *in* A-00054
 ▶ Acid chrome violet K; Na salt, *in* A-00055
 Alizarine green; Na salt, *in* A-00078
 5-Amino-3-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, A-00137
 3-[(2-Aminoethyl)imino]methyl]-2-hydroxybenzoic acid, A-00175
 5-Amino-4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00187
 5-Amino-4-hydroxy-3-[(2-hydroxy-3-nitro-5-sulphophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00192
 3-Amino-4-hydroxy-3'-nitroazobenzene-*N,N*-diacetic acid, A-00206
 8-(7-Amino-1-hydroxy-3-sulphophenylazo)-7-hydroxy-1-naphthalenesulfonic acid; Di-Na salt, *in* A-00223
 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)-6-methylphenol *N,N*-diacetic acid, A-00239
 2-(Aminomethyl)-4-(3,5-dichloro-4-oxo-2,5-cyclohexylideneamino)phenol-*N,N*-diacetic acid, A-00240
 4-[[[(3-Aminomethyl)-4-hydroxyphenyl]imino]-2,6-dibromo-2,5-cyclohexadien-1-one-*N,N*-diacetic acid, A-00243
 5-Amino-2-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, A-00252
 3-(Aminomethyl)-1,2,5-trihydroxyanthraquinone-*N,N*-diacetic acid, A-00259
 Aspartic acid; (±)-form, *in* A-00447
 5-(2-Benzothiazolyl)-1,3-diphenylformazan, B-00101
 1-(2-Benzothiazolyl)-3-phenyl-5-(4-sulphophenyl)formazan; Na salt, *in* B-00108
 2,2'-Bibenzoxazole, B-00202
N,N'-Bis[3-carboxysalicylidene]ethylenediamine; Di-Na salt, *in* B-00280
 2,5-Bis(2-hydroxyethylamino)-1,4-benzenedicarboxylic acid, B-00368
 ▶ *N,N'*-Bis(2-hydroxyethyl)ethanedithioamide, B-00374
 5-Bromo-8-hydroxy-7-[(2-hydroxy-3,5-dinitrophenyl)azo]quinoline, B-00511
 3-[(4-Bromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00546
 2-[(5-Bromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00125
 Bromopyrogallol red, B-00574
 Butanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, B-00605
 C.I. Mordant black 38, *in* A-00205
 Calcein blue, C-00011
 Calconalide I, C-00013
 Calcon-*m*-nitroanilide, C-00014
 Carboxyarsenazo, C-00026
 1-(3-Carboxy-2-hydroxy-1-naphthylazo)-2-naphthol-3,6-disulfonic acid, C-00030
 2-Carboxy-1-pyrrolidinecarbodithioic acid; (*S*)-form, K salt, *in* C-00044
 2-Chloro-5-[[5-hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-2-methylphenyl]azo]benzenesulfonic acid; Na salt, *in* C-00132
 4-[(5-Chloro-2-hydroxy-3-sulphophenyl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, C-00160
 6-(5-Chloro-2-hydroxy-4-sulphophenylazo)-5-hydroxy-1-naphthalenesulfonic acid; Di-Na salt, *in* C-00161
 3-[(3-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* C-00202
 3-[(4-Chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* C-00203
 Chromazurol S; Tri-Na salt, *in* C-00277
 Chrome bordeaux B; Di-Na salt, *in* C-00279
 Chrome green G, C-00283
 Chrome red brown 5RD; Di-Na salt, *in* C-00284
 4,4'-Diamino-3,3'-diethoxybiphenyl-*N,N,N',N''*-tetraacetic acid; Tetra-Na salt, *in* D-00070
 ▶ 1,4-Diamino-5-nitroanthraquinone, D-00107
 ▶ 1,2-Diaminopropane-*N,N,N',N''*-tetraacetic acid, D-00115
 Diamond green BW; Di-Na salt, *in* D-00133
 3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00289
 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00320
 9,10-Dihydro-1,4-dihydroxy-9,10-dioxo-3-(4-sulphophenoxy)-2-anthracenesulfonic acid, D-00377
 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[5-(1,2,3-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00394
 3-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]-2-hydroxy-5-methylbenzenesulfonic acid; Na salt, *in* D-00437
 ▶ 2',4'-Dihydroxyacetophenone, D-00507
 2',4'-Dihydroxyacetophenone; Oxime, *in* D-00507
 ▶ 3,5-Dihydroxybenzoic acid, D-00534
 4,5-Dihydroxy-3,6-bis[[4-sulfo-1-naphthalenyl]azo]-2,7-naphthalenedisulfonic acid, D-00562
 4,4'-Dihydroxy-2,2'-diaminobiphenyl-*N,N,N',N''*-tetraacetic acid; Tetra-Na salt, *in* D-00572
 4,5-Dihydroxy-3,6-dinitroso-2,7-naphthalenedisulfonic acid, D-00583
 4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-hydroxybenzoic acid, D-00598
 2',7'-Dihydroxyfluorescein, D-00613
 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00618

- 4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00624
- 4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00635
- ▷ 7,8-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00648
- 4-[(2,3-Dihydroxy-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00660
- 4,5-Dihydroxy-3-nitroso-2,7-naphthalenedisulfonic acid, D-00672
- 4,5-Dihydroxy-3-nitroso-6-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00676
- 4-[(2,4-Dihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00697
- 1-(2,4-Dihydroxyphenyl)-1-butanone; Oxime, *in* D-00707
- 1-(2,4-Dihydroxyphenyl)-1-pentanone, D-00714
- 1-(2,4-Dihydroxyphenyl)-1-propanone, D-00715
- 1-(2,4-Dihydroxyphenyl)-1-propanone; Oxime, *in* D-00715
- 6,7-Dihydroxy-5-(2-pyridinylazo)-2-naphthalenesulfonic acid; Na salt, *in* D-00724
- 4-[(2,3-Dihydroxy-6-sulfo-1-naphthalenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid, D-00732
- 4,5-Dihydroxy-3-[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00733
- 4,5-Dihydroxy-3-[(5-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00734
- 4,5-Dihydroxy-3-[(6-sulfo-2-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00735
- 5-(Dimethylamino)-2-[(5-methylimidazol-4-yl)azo]phenol, D-00789
- N,N*-Dimethyl-4-(2-pyridinylazo)benzenamine, D-00909
- Diphenylcarbazine, D-01004
- Eriochrome fast grey RAS; Na salt, *in* E-00014
- Eriochrome geranol; Di-Na salt, *in* E-00015
- Eriochrome red B; Na salt, *in* E-00017
- Ethyl acetoacetate, E-00063
- 4-[[4-(Ethylamino)-6-hydroxy-*m*-tolyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, *in* A-00196
- Fast sulphon black F; Na salt, *in* F-00002
- Glycinecresol red, G-00017
- 2-Hydroxyacetophenone; Oxime, *in* H-00089
- 7-Hydroxy-8-(aminomethyl)coumarin-*N*-acetic acid, H-00096
- 7-Hydroxy-8-(aminomethyl)coumarin-*N,N*-diacetic acid, H-00097
- ▷ 2-Hydroxybenzamide, *in* H-00112
- 4-[4-Hydroxy-3-biphenylazo]-1,3-benzenediol, H-00133
- 3-Hydroxy-4-[[2-hydroxy-3-[[[2-methoxyphenyl]amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00207
- 3-Hydroxy-4-[[2-hydroxy-3-[[[4-methoxyphenyl]amino]carbonyl]-1-naphthalenyl]azo]-1-naphthalenesulfonic acid, H-00208
- 4-Hydroxy-3-[[2-hydroxy-3-(phenylcarbonyl)-1-naphthyl]azo]benzenesulfonic acid, H-00236
- 3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid; Na salt, *in* H-00242
- 3-Hydroxy-4-[(2-hydroxy-6-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, H-00243
- 2'-Hydroxy-5'-methylacetophenone; Semicarbazone, *in* H-00275
- ▷ 2-Hydroxy-3-methylbenzoic acid, H-00278
- 2-Hydroxy-5-methylbenzoic acid, H-00279
- 2-[(2-Hydroxy-5-methyl-3-nitrophenyl)azo]-4,6-dinitrophenol, H-00293
- ▷ 3-Hydroxy-2-methyl-4*H*-pyran-4-one, H-00323
- 6-Hydroxy-3-[(4-methyl-2-thiazolyl)azo]-2(1*H*)-pyridinone, H-00331
- 5-[(2-Hydroxy-1-naphthalenyl)azo]-2,4-(1*H,3H*)-pyrimidinedione; NH₄ salt, *in* H-00354
- 8-Hydroxy-7-(1-naphthalenylazo)-5-quinolinesulfonic acid, H-00355
- Hydroxynaphthol blue; Tri-Na salt, *in* H-00371
- 1-[(2-Hydroxy-4-nitrophenyl)azo]-2-naphthalenol, H-00395
- N*-[[1-Hydroxy-4-(4-nitrophenylazo)-2-naphthyl]methyl]glycine, H-00397
- 2-Hydroxy-3-nitrosobenzoic acid, H-00406
- 2-[(3-Hydroxy-1-oxo-1*H*-inden-2-yl)imino]-1*H*-indene-1,3(2*H*)-dione, H-00433
- 2-[(2-Hydroxyphenyl)azo]-1,5-naphthalenediol, H-00453
- 1-[(2-Hydroxyphenyl)azo]-2-naphthalenol, H-00455
- ▷ *N*-Hydroxy-3-phenylpropenamide, H-00499
- 4-(3-Hydroxy-3-phenyl-1-triazenyl)benzenesulfonic acid, H-00506
- 4-Hydroxy-3-(2-pyridinylazo)-1-naphthalenesulfonic acid, H-00522
- 8-Hydroxy-7-[(4-sulfo-1-naphthalenyl)azo]-5-quinolinesulfonic acid; Di-Na salt, *in* H-00539
- 1-(2-Hydroxy-5-sulfo-1-phenyl-5-(2-carboxyphenyl)formazan, H-00544
- 3-Hydroxy-4-(2-thiazolylazo)-2,7-naphthalenedisulfonic acid, H-00548
- 4-Hydroxy-3-[(2,3,5-trichloro-6-hydroxyphenyl)azo]-1-naphthalenesulfonic acid; Na salt, *in* H-00556
- ▷ Indoferron, I-00032
- Lead blue, L-00004
- ▷ Lumogallion, L-00015
- Mercaptobutanedioic acid; (±)-form, *in* M-00026
- 4-Methoxyaniline; Thiocyanate salt, *in* M-00073
- 4-Methoxy-2-[(5-methylimidazol-4-yl)azo]phenol, *in* M-00191
- 4-Methoxy-2-[(4-methyl-2-thiazolyl)azo]phenol, *in* M-00318
- N*-(4-Methoxyphenyl)-1,4-benzenediamine, *in* A-00185
- 1-[(5-Methylimidazol-4-yl)azo]-2-naphthol, M-00192
- 4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248
- 4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, M-00249
- 2-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenol, M-00251
- 5-Methyl-4-(2-thiazolylazo)-1,3-benzenediol, M-00321
- 4-Methyl-2-(2-thiazolylazo)phenol, M-00323
- Mordant blue 44; Di-Na salt, *in* M-00342
- Mordant green 34; Na salt, *in* M-00343
- Murexide, *in* P-00281
- Naphthol black 3B; Tetra-Na salt, *in* N-00028
- Naphthol violet, N-00030
- 1,2-Naphthoquinone-4-sulfonic acid 2-(phenylthiosemicarbazone); Na salt, *in* N-00037
- 1,2-Naphthoquinone-4-sulfonic acid; 2-(Thiosemicarbazone), *in* N-00033
- Naphthylazoxine 4,8S, N-00044
- Naphthylazoxine 4S, N-00043
- Naphthylazoxine 5,7S, N-00046
- Naphthylazoxine 5S, N-00045
- Naphthylazoxine 6S, N-00047
- 4-[(4-Nitrophenyl)azo]-1,2-benzenediol, N-00122
- 1-(5-Nitro-2-pyridinyl)-3,5-diphenylformazan, N-00149
- ▷ 2-Nitrosophenol, *in* B-00075
- 3-(2-Nitroso-4-sulfo-1-naphthalenylazo)-4,5-dihydroxynaphthalene-2,7-disulfonic acid, N-00163
- Palatine fast blue GGNA CF, P-00001
- 9,10-Phenanthraquinone; Dioxime, mono-Me ether, *in* P-00047
- 6-Phenanthridinecarboxaldehyde 2-benzothiazolylhydrazone, P-00049
- 6-Phenanthridinecarboxaldehyde 2-quinolinylhydrazone, P-00051
- Phenylazoxine S, P-00101
- 2-Pyridinecarboxaldehyde 2-benzothiazolylhydrazone; (*Z*)-form, *in* P-00321
- 2-Pyridinecarboxaldehyde 2-quinolinylhydrazone, P-00337
- 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
- 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
- 1-(2-Pyridinyl)-3,5-diphenylformazan, P-00387
- 1-(2-Pyridyl)-5-(4-sulfo-1-phenyl)-3-phenylformazan, P-00424
- 2-Quinolonecarboxaldehyde 2-benzothiazolylhydrazone, Q-00010
- 1-(2-Quinolylazo)-2-phenanthrenol, Q-00031
- Resorcyldoxime, *in* D-00517
- β-Resorcyldamide, *in* D-00531
- Solochrome azurine BS, S-00016
- Solochrome black PV; Na salt, *in* S-00018
- Solochrome fast red; Na salt, *in* S-00020
- Solochrome red B, S-00021
- Sudan blue GA, S-00037
- Sulfarsazen; Na salt, *in* S-00038
- Sulfochlorophenol R, S-00044
- 4-(2-Thiazolylazo)-1,3-benzenediol, T-00141
- Thymolphthalexon, T-00183
- ▷ Tiron, T-00186
- 2,5,8-Trihydroxy-1,4-naphthoquinone, T-00300
- 2-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzenesulfonic acid, T-00305

Indicator: redox

- o*-Acetoresorufin, *in* H-00443
- 4-(Acetylamino)diphenylamine, *in* A-00166
- Acilan fast green; Na salt, *in* A-00060
- 4-Aminobenzenesulfonic acid; *N*-Ph, Ba salt, *in* A-00100
- ▷ 2-Aminobenzenethiol, A-00101
- 7-Amino-2-chloro-1-hydroxy-3*H*-phenoxazin-3-one, A-00138
- 4-Amino-2,4'-dimethoxydiphenylamine, A-00160
- 3-Amino-7-(dimethylamino)-5-phenylphenazinium(1+); Chloride, *in* A-00162
- ▷ 4-Aminodiphenylamine, A-00166
- 7-Amino-1-hydroxy-3*H*-phenoxazin-3-one, A-00208
- 5-Amino-2-[(4-methoxyphenyl)amino]benzenesulfonic acid, A-00232
- 5-Amino-2-[(4-methoxyphenyl)amino]benzenesulfonic acid; Me ester, *in* A-00232
- 5-Amino-2-[(4-methoxyphenyl)amino]-*N*-phenylbenzamide, A-00233
- 5-Amino-*N*-(2-methoxyphenyl)-2-[(4-methoxyphenyl)amino]benzenesulfonamide, A-00234
- 5-Amino-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, A-00236
- 4-Amino-2-methyl-4'-methoxydiphenylamine, A-00246
- 7-Amino-1-methyl-3*H*-phenoxazin-3-one, A-00247
- 5-Amino-1,10-phenanthroline, A-00299
- ▷ 2-Amino-3*H*-phenoxazin-3-one, A-00303
- 7-Amino-3*H*-phenoxazin-3-one, A-00304
- Astracyanine B; Chloride, *in* A-00448
- Azocarmine G; Na salt, *in* A-00471
- 9-Benzo[*a*]phenoxazin-9-one, B-00070
- 2,2'-([1,1'-Biphenyl]-4,4'-diyl)diimino)bisbenzoic acid, B-00209
- [2,2'-Bipyridine]-4,4'-dicarboxylic acid, B-00224

- 4,4'-Bis(dimethylamino)-3,3'-dimethylbiphenyl, *in* D-00083
- 3,7-Bis(dimethylamino)-5-phenylphenazinium(1+); Iodide, *in* B-00323
- Bis(2,2':6',2''-terpyridine-*N,N',N''*)iron(II) (2+), B-00457
- 2-Bromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, B-00512
- 5-Bromo-1,10-phenanthroline, B-00541
- ▶ C.I. 51010, *in* B-00477
- C.I. Azoic diazo compound 35, *in* A-00185
- Capri blue GN†, *in* C-00017
- Capri blue GN; Chloride, *in* C-00018
- 4-[(3-Chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, C-00149
- 7-Chloro-8-hydroxy-5-quinolinesulfonic acid, C-00152
- 5-Chloro-1,10-phenanthroline, C-00195
- 3,4-Cyclopenteno-1,10-phenanthroline, C-00365
- 4,4'-Diamino-1,1'-binaphthalene-3,3'-disulfonic acid, D-00052
- 4,4'-Diamino-3,3'-dibromobiphenyl, D-00068
- 4,4'-Diamino-3,3'-diethoxybiphenyl, *in* D-00056
- 4,4'-Diamino-3,3'-diethyl-1,1'-binaphthyl, D-00071
- 4,4'-Diamino-2,2'-diethylbiphenyl, D-00072
- 4,4'-Diamino-3,3'-diisopropyl-1,1'-binaphthyl, D-00076
- 4,4'-Diamino-3,3'-dimethoxy-1,1'-binaphthyl, D-00077
- ▶ 4,4'-Diamino-3,3'-dimethoxybiphenyl, *in* D-00056
- 4,4'-Diamino-3,3'-dimethyl-[1,1'-binaphthalene]-6,6'-disulfonic acid, D-00081
- 4,4'-Diamino-3,3'-dimethyl-1,1'-binaphthyl, D-00082
- ▶ 2,4-Diaminodiphenylamine, D-00085
- 4,4'-Diaminodiphenylamine, D-00086
- 4,4'-Diamino-3,3'-diphenyl-1,1'-binaphthyl, D-00087
- 4,4'-Diamino-3,3'-dipropyl-1,1'-binaphthyl, D-00093
- ▶ 2,4-Diamino-4'-ethoxyazobenzene, D-00095
- 4,4'-Diamino-3-ethoxybiphenyl, *in* D-00057
- 3,6-Diamino-10-methylacridinium chloride, *in* D-00042
- 4,4'-Diamino-3-methylbiphenyl; B, HCl, *in* D-00102
- 4,4'-Dianilinobiphenyl, *in* D-00053
- ▶ 1,1'-Dibenzyl-4,4'-bipyridinium(2+); Dichloride, *in* D-00167
- 2,6-Dibromo-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00191
- 2,6-Dibromo-4-[(4-hydroxy-2-sulfophenyl)imino]-2,5-cyclohexadien-1-one; Na salt, *in* D-00194
- 5-[(3,5-Dibromo-4-oxo-2,5-cyclohexylidene)amino]-2-hydroxybenzenesulfonic acid, D-00197
- 4,4'-Dichloro-2,2'-bipyridine, D-00253
- 2,6-Dichloro-4-[(3-chloro-4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00256
- 2,6-Dichloro-4-[(4-hydroxyphenyl)imino]-2,5-cyclohexadien-1-one, D-00282
- ▶ Diethazine; B,HCl, *in* D-00312
- N,N'*-Diethylbenzidine, *in* D-00053
- 1,1'-Diethyl-4,4'-bipyridinium(2+); Dichloride, *in* D-00339
- 6,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00647
- 3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2,5-bis(4-nitrophenyl)-2*H*-tetrazolium](2+) 9Cl; Dichloride, *in* D-00770
- 2,2'-[(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, D-00772
- 9-(Dimethylamino)benzo[*a*]phenoxazin-7-ium-2,5-disulfonic acid(1+), D-00781
- 9-(Dimethylamino)-5-[[4-(dimethylamino)phenyl]amino]benzo[*a*]phenoxazin-7-ium(1+); Chloride, *in* D-00784
- 7-(Dimethylamino)-1-hydroxy-3*H*-phenoxazin-3-one, D-00786
- 7-(Dimethylamino)-1-methyl-3*H*-phenoxazin-3-one, D-00792
- N,N'*-Dimethylbenzidine, *in* D-00053
- 2,2'-[(3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, D-00837
- N,N'*-Dimethylidiphenylbenzidine, *in* D-00053
- 4,4'-Diphenyl-2,2'-bipyridine, D-01002
- 3,8-Diphenyl-1,10-phenanthroline, D-01033
- ▶ Erioglaucine A; Di-NH₄ salt, *in* E-00018
- Erio green B; Na salt, *in* E-00019
- 5-Ethoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, E-00057
- N*-Ethylbenzidine, *in* D-00053
- Ethyl capri blue; Chloride, *in* E-00067
- Fast green FCF; Di-Na salt, *in* F-00001
- 5-Fluoro-8-hydroxyquinoline, F-00029
- Gallophenine, G-00007
- 1-Hydroxy-4-[(3,5-dichloro-4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid, H-00148
- 5-Hydroxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, H-00280
- 1-Hydroxy-4-[(4-oxo-2,5-cyclohexadien-1-ylidene)amino]-2-naphthalenesulfonic acid, H-00430
- 7-Hydroxy-3*H*-phenothiazin-3-one, H-00441
- 2-Hydroxy-3*H*-phenoxazin-3-one, H-00442
- 7-Hydroxy-3*H*-phenoxazin-3-one; Et ether, *in* H-00443
- 7-Hydroxy-3*H*-phenoxazin-3-one; Et-ether, 10-oxide, *in* H-00443
- 7-Hydroxy-3*H*-phenoxazin-3-one; Me ether, *in* H-00443
- 7-Hydroxy-3*H*-phenoxazin-3-one; Me ether, 10-oxide, *in* H-00443
- ▶ 2,2'-Iminodibenzoic acid, I-00013
- 2,3'-Iminodibenzoic acid, I-00014
- 2,4'-Iminodibenzoic acid, I-00015
- Indigo-5-sulfonic acid, I-00027
- Indigo-5,5',7,7'-tetrasulfonic acid, I-00028
- Indigo-5,5',7-trisulfonic acid, I-00030
- Induline scarlet; Chloride, *in* I-00035
- Lissamine blue BF; Di-Na salt, *in* L-00007
- Lissamine violet 10B, L-00008
- 3-Methoxy-4-aminodiphenylamine, M-00071
- 3-Methoxybenzidine, *in* D-00057
- ▶ 2'-Methoxydiphenylamine-2-carboxylic acid, *in* H-00167
- 5-Methoxy-11-methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00089
- N*-(4-Methoxyphenyl)-1,4-benzenediamine, *in* A-00185
- 11-Methyl-9*H*-benzo[*a*]phenoxazin-9-one, M-00140
- 3-Methyldiphenylamine, M-00161
- 4-Methyldiphenylamine, M-00162
- ▶ 2'-Methyldiphenylamine-2-carboxylic acid, M-00163
- ▶ 3'-Methyldiphenylamine-2-carboxylic acid, M-00164
- 2-Methyldiphenylamine-4-sulfonic acid, M-00165
- N*-Methyldiphenylamine-4-sulfonic acid, M-00166
- 2-Methyl-1,10-phenanthroline, M-00220
- 5-Methyl-1,10-phenanthroline, M-00221
- 10-Methyl-2(10*H*)-phenazinone, *in* H-00439
- ▶ Methylthionium chloride, *in* M-00175
- Muscarine†; Chloride, *in* M-00350
- Neutral blue; Chloride, *in* N-00064
- New methylene blue NCG; Chloride, *in* N-00068
- Nile blue A; 5-*N*-Benzyl, chloride, *in* N-00069
- ▶ 2-Nitrodiphenylamine, N-00104
- ▶ 4-Nitrodiphenylamine, N-00105
- ▶ 2'-Nitrodiphenylamine-2-carboxylic acid, N-00106
- 5-Nitro-1,10-phenanthroline; B,HCl, *in* N-00116
- 1,2,3,4,9,10,11,12-Octahydrodibenzo[*c*,*j*][1,10]phenanthroline, O-00016
- N*-(3-Oxo-3*H*-phenoxazin-2-yl)acetamide, *in* A-00303
- ▶ Paraquat dichloride, *in* D-00841
- 1,10-Phenanthroline-3-sulfonic acid, P-00054
- 1,10-Phenanthroline-5-sulfonic acid, P-00055
- ▶ Phenol blue, P-00062
- Phenonaphthoxazine G acid; Chloride, di-K salt, *in* P-00069
- Phenosafraanine; *N,N,N',N'*-Tetra-Et, chloride, *in* P-00070
- 4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084
- ▶ *N*-Phenylanthranilic acid, P-00089
- N*-Phenyl-2-(4-methoxyphenylamino)-5-aminobenzenesulfonamide, *in* A-00232
- 5-Phenyl-1,10-phenanthroline; B,HCl, *in* P-00154
- ▶ Resazurin, *in* H-00443
- Rhodamine B, *in* R-00002
- Rosinduline 2G; Na salt, *in* R-00012
- 3,3',4,4'-Tetraamino-1,1'-binaphthyl, T-00006
- N,N,N',N'*-Tetraethylbenzidine, *in* D-00053
- 7,8,9,10-Tetrahydrobenzo[*c*][1,10]phenanthroline, T-00050
- N,N,N',N'*-Tetramethylbenzidine, *in* D-00053
- N,N,N',N'*-Tetramethylbenzidine-3-sulfonic acid, *in* D-00058
- 5,5',6,6'-Tetramethyl-3,3-bi(1,2,4-triazine), T-00093
- 2,4,7,9-Tetramethyl-1,10-phenanthroline, T-00097
- 3,4,6,7-Tetramethyl-1,10-phenanthroline, T-00098
- 3,4,6,8-Tetramethyl-1,10-phenanthroline, T-00099
- 3,4,7,8-Tetramethyl-1,10-phenanthroline, T-00100
- 3,5,6,8-Tetramethyl-1,10-phenanthroline, T-00101
- Thiazine blue; Chloride, *in* T-00136
- Thioindigo 5,5'-disulfonic acid, T-00164
- ▶ Tolonium chloride, *in* T-00189
- Tolylene blue; Chloride, *in* T-00190
- 3,4,6-Trimethyl-1,10-phenanthroline, T-00331
- 3,4,7-Trimethyl-1,10-phenanthroline, T-00332
- 3,5,6-Trimethyl-1,10-phenanthroline, T-00333
- 3,5,7-Trimethyl-1,10-phenanthroline, T-00334
- 3,5,8-Trimethyl-1,10-phenanthroline, T-00335
- Tris(2,2'-bipyridine-*N,N'*)iron(II)(2+), T-00384
- Tris(1,10-phenanthroline-*N',N''*)iron(II)(2+), T-00412
- Trypan red; Pentam-Na salt, *in* T-00434
- Xylene brilliant blue FBR; Na salt, *in* X-00003
- Xylene cyanole FF; Na salt, *in* X-00004

Masking agent (by complexation)

- ▶ Acetic acid, A-00006
- ▶ 2-Aminoethanethiol, A-00170
- 3-(Benzenesulfonylamino)propanoic acid, B-00027
- ▶ 2,2'-Bipyridine, B-00220
- 3,12-Bis(carboxymethyl)-6,9-dioxo-3,12-diazatetradecanedioic acid; Na salt, *in* B-00278
- Bis(carboxymethyl)dithiocarbamic acid, B-00279
- ▶ [Bis(2-hydroxyethyl)amino]acetic acid, B-00367
- ▶ Citric acid, C-00299
- ▶ Cordycepic acid, *in* M-00008

- 1,2-Diaminocyclohexane-*N,N,N',N'*-tetraacetic acid; (1*RS*,2*RS*)-form, in D-00065
- ▶ 1,2-Diaminopropane-*N,N,N',N'*-tetraacetic acid, D-00115
- ▶ 2,3-Dimercaptobutanedioic acid, D-00751
- ▶ 2,3-Dimercapto-1-propanesulfonic acid, D-00761
- ▶ 2,3-Dimercapto-1-propanol, D-00763
- N*-(Dithiocarboxy)sarcosine, D-01126
- ▶ Ethylenediaminetetraacetic acid, E-00078
- ▶ *N*-(2-Hydroxyethyl)ethylenediaminetriacetic acid, H-00177
- 3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, H-00224
- ▶ Nitritotriacetic acid, N-00074
- ▶ Oxalic acid, O-00048
- ▶ Pentetic acid, P-00039
- ▶ Tetraethylenepentamine, T-00044
- 2,2'-Thiobisethanamine; B.2HCl, in T-00156
- ▶ Tris(2-hydroxyethyl)amine, T-00406
- ▶ Vitamin C, in A-00446

Membrane ionophore (used in ion-selective electrodes)

- 2,2'-Bis[3,4-(15-crown-5)-2-nitrophenylcarbamoxymethyl]tetradecane, B-00290
- 3,26-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29-(3,4,5-trimethoxyphenyl)-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaoxacycloheneicosin, B-00328
- 3,26-Bis(1,1-dimethylethyl)-29-(2,5-dimethylphenyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaoxacycloheneicosin, B-00329
- 3,29-Bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,23,24-dodecahydro-32-(3,4,5-trimethoxyphenyl)-32*H*-dinaphtho[2,1-*t*:1',2'-*w*][1,4,7,10,13,16,19]heptaaxacyclotetracosin, B-00330
- 2,19-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, B-00331
- ar,ar*-Bis(1,1-dimethylethyl)-6,7,9,10,12,13,15,16,18,19,26,27,29,30,32,33,35,36-octadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28,31]undecaaxacyclotriacontin, B-00332
- 2,13-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, B-00347
- 2,14-Bis(dodecyloxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, B-00348
- 2,14-Bis(2-ethoxyethoxy)-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, B-00349
- Bis[(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclopentadecine-15-yl)methyl]heptanedioate, B-00434
- Cryptand 2.2.2 BB, C-00318
- 8,9,11,12,14,15,17,18,20,21-Decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaoxacycloheneicosin, D-00016
- 2,3,5,6,8,9,11,12,14,15-Decahydro-18-nitro-1,4,7,10,13,16-benzoheptaaxacyclooctadecine, D-00018
- 6,7,9,10,12,13,15,16,18,19-Decahydro-2,4,21,23-tetramethyl-25-(1-naphthalenyl)-25*H*-dibenzo[*q,r*][1,4,7,10,13,16]hexaoxacycloheneicosin, D-00020
- 5-Decyl-2-(1,4,8,11-tetraoxacyclotetradec-6-yl-methoxy)benzoic acid, D-00027
- 5-Decyl-2-(1,4,7,10-tetraoxacyclotridec-5-yl-methoxy)benzoic acid, D-00028
- Dibenzo-16-crown-5, D-00155
- Dibenzo-19-crown-6, D-00157
- Dibenzo-22-crown-7, D-00158
- Dibenzo-30-crown-10, D-00160
- Dibenzo-36-crown-12, D-00161
- 6,6-Dibenzyl-1,4,8,11-tetraoxacyclotetradecane, D-00173
- 2,13-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, D-00235
- 7,18-Dibutyl-6,7,9,10,17,18,20,21-octahydrodibenzo-*[b,k]*[1,4,7,10,13,16]hexaoxacyclooctadecine, D-00236
- 29-(2,6-Dichlorophenyl)-3,26-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21-decahydro-29*H*-dinaphtho[2,1-*q*:1',2'-*r*][1,4,7,10,13,16]hexaoxacycloheneicosin, D-00290
- 32-(2,6-Dichlorophenyl)-3,29-bis(1,1-dimethylethyl)-8,9,11,12,14,15,17,18,20,21,23,24-dodecahydro-32*H*-dinaphtho[2,1-*t*:1',2'-*w*][1,4,7,10,13,16,19]heptaaxacyclotetracosin, D-00291
- 2,19-Diethyl-6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-hexadecahydrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, D-00348
- 2,13-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, D-00351
- 2,13-Diethyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, D-00366
- 2,13-Dihexyl-6,7,9,10,17,18,20,21-octahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, D-00368
- 16,17-Dihydro-5*H*,15*H*-dibenzo[*b,r*][1,11,4,5,7,8]dioxatetraazacyclotetradecine-7-carbonitrile, D-00375
- Dinaphtho-30-crown-10, D-00932
- N*-(2,4-Dinitrophenyl)-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaaxacyclopentadecine-15-amine, D-00973
- Dipropyldicyclohexyl-18-crown-6, in O-00027
- 6,7,9,10,12,13,20,21,23,24,26,27-Dodecahydro-2,16-dimethyldibenzo[*b,n*][1,4,7,10,13,16,19,22]octaaxacyclotetracosin, D-01138
- 6-Dodecyl-*N,N*-diethyl-1,4,8,11-tetraoxacyclotetradecane-6-acetamide, D-01143
- Dodecylmethylpropanedioate bis(1,4,7,10-tetraoxacyclododec-2-ylmethyl)ester, D-01152
- 6-Dodecyl-6-methyl-1,4,8,11-tetraoxacyclotetradecane, D-01153
- Eicosahydro-20*H*-dibenzo[*b,n*][1,4,7,10,13,16]hexaoxacyclononadecine, E-00003
- ▶ Eicosahydrodibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, E-00004
- Eicosahydro-2,13-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, E-00005
- 6,7,9,10,12,13,15,16,23,24,26,27,29,30,32,33-Hexadecahydro-2,20-dimethyldibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, H-00023
- 6,7,9,10,12,13,15,23,24,26,27,29,30,32,33-Hexadecahydro-2,19-dinitrodibenzo[*b,q*][1,4,7,10,13,16,19,22,25,28]decaoxacyclotriacontin, H-00024
- 19-Methoxy-3,6,9,12,15-pentaaxa-21-azabicyclo[15.3.1]heneicosa-1(21),17,19-triene-2,16-dione, M-00101

- 15-Methyl-1,4,7,10,13-benzopentaaxacyclopentadecine, M-00139
- 6,7,9,10,17,18,21,22-Octahydro-16*H*,20*H*-dibenzo-*[h,q]*[1,4,7,13,10,16]tetraoxadiazacyclooctadecine, O-00019
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dimethyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00023
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dioctyldibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00025
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dipentylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00026
- 6,7,9,10,17,18,20,21-Octahydro-2,13-dipropylidibenzo[*b,k*][1,4,7,10,13,16]hexaoxacyclooctadecine, O-00027
- 2,3,5,6,8,9,11,12-Octahydro-naphtho[2,3-*b*]-1,4,7,10,13-pentaaxacyclopentadecine, O-00029
- 6-[(Phenylmethoxy)methyl]-1,4,8,11-tetraoxacyclotetradecane, P-00142
- 5-[(Phenylmethoxy)methyl]-1,4,7,10-tetraoxacyclotridecane, P-00143
- Propeller crown 7, P-00268
- Tetrakis(4-chlorophenyl)borate(1-); K salt, in T-00083
- 2,3,14,15-Tetrakis(2-methoxyphenyl)-1,4,7,10,13,16,19,22-octaaxacyclotetracosina-2,14-diene, T-00087
- 1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane, T-00118

Microanalysis reference material

- ▶ Acetanilide, in A-00368
- ▶ (Acetato-*O*)phenylmercury, A-00005
- Alanine; (±)-form, in A-00074
- ▶ 2-Aminophenylarsonic acid, A-00306
- ▶ Anthracene, A-00375
- ▶ Atropine, in T-00431
- ▶ Benzoic acid, B-00059
- 5-Benzylthiuronium chloride, in B-00193
- ▶ 4-Bromobenzoic acid, B-00488
- ▶ Carbon tetrachloride, C-00025
- ▶ 4-Chlorobenzoic acid, C-00067
- ▶ 1-Chloro-2,4-dinitrobenzene, C-00106
- ▶ Dibenzyl disulfide, D-00168
- ▶ 1,3-Dinitrobenzene, D-00936
- ▶ Diphenyl sulfone, D-01052
- ▶ *N*-(4-Ethoxyphenyl)acetamide, in E-00051
- 4-Fluorobenzoic acid, F-00024
- ▶ Hexachlorobenzene, H-00021
- ▶ Hippuric acid, H-00078
- ▶ 4-Hydroxy-3-methoxybenzaldehyde, in D-00519
- ▶ 8-Hydroxyquinoline, H-00525
- 4-Iodobenzoic acid, I-00041
- Mannitol, M-00008
- ▶ 2-Methylbenzimidazole, M-00134
- ▶ Naphthalene, N-00001
- ▶ Narcotine; (1*R*,9*S*)-form, in N-00060
- ▶ 4-Nitroaniline, N-00077
- ▶ Nitrobenzene, N-00083
- 1,2,3,4,6-Penta-*O*-acetylglucopyranose, P-00006
- ▶ 3-Phenyl-2-propenoic acid, P-00169
- ▶ Sucrose, S-00036
- ▶ 1,3,5-Triazine-2,4,6-triamine, T-00197
- 3-(Trifluoromethyl)benzoic acid, T-00252
- 2,2,2-Trifluoro-*N*-phenylacetamide, T-00259
- ▶ Triphenylphosphine, T-00370
- Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)praseodymium(III), T-00400

NMR reagent

- (2-Aminoethoxy)diphenoxyborane, A-00172

Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]europate(III) (1-), A-00396

Aqua[1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetato(4-)]gadolinolate(III) (1-), A-00397

Bis[bis(3-methyl-2-pyridylimino)isoidolinato-*N,N',N''*]manganese(II), B-00262

2,3-Butylene chlorophosphate, in C-00099

Caesium tetraphenylborate(1-), C-00009 (Cyano-*C*)triphenylborate(1-); Cs salt, in C-00330

1,1,1,5,5,6,6,7,7-Decafluoro-2,4-heptanedione, D-00004

1,4-Dibromo-2,3,5,6-tetrafluorobenzene, D-00216

Dichloro[29H,31H-phthalocyaninato(2-)]silicon, D-00297

N,N'-Dimethyl-1,2-bis[3-(trifluoromethyl)phenyl]-1,2-ethanediamine; (*R,R*)-form, in D-00843

N-(3,5-Dinitrobenzoyl)- α -phenylethylamine; (*R*)-form, in D-00949

DSS, in T-00344

(6,6,7,7,8,8,8-Heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)silver, H-00005

▶ Hexafluorobenzene, H-00031

▶ 1,1,1,3,3,3-Hexafluoro-2-propanone, H-00033

α -Methoxy- α -(trifluoromethyl)benzeneacetic acid, in H-00512

(1,4,7,10-Tetraazacyclododecane-*N,N',N'',N'''*-tetramethylenephosphonato)dysprosate(5-), T-00008

[1,4,7,10-Tetraazacyclododecane-*N,N',N'',N'''*-tetramethylenephosphonato]terbate(III) (5-), T-00009

[1,4,7,10-Tetraazacyclododecane-*N,N',N'',N'''*-tetramethylenephosphonato]thulate(III) (5-), T-00010

Tetrakis(4,4,4-trifluoro-1-phenyl-1,3-butanedionato-*O,O'*)uranium, T-00090

▶ Tetramethylsilane, T-00103

Triqua[[*N,N'*-(1-methyl-1,2-ethanediyl)bis(*N*-carboxymethyl)glycinate]](4-)-*N,N'-O,O',O''*,*O'''*]europate(1-); Na salt, in T-00196

α -(Trifluoromethyl)-9-anthracenemethanol; (*R*)-form, in T-00250

Tris(1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato-*O,O'*)europium(III), T-00385

Tris(2,6-di-*tert*-butylphenoxy)cerium(III), T-00387

Tris(3-heptafluorobutyl-*d*-camphorato)europium(III), T-00391

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)europium(III), T-00394

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)gadolinium(III), T-00395

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)holmium(III), T-00396

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)lanthanum(III), T-00398

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)neodymium(III), T-00399

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)praseodymium(III), T-00400

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)terbium(III), T-00401

Tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-*O,O'*)yttrium(III), T-00403

Tris[3-(heptafluoropropylhydroxymethylene)-*d*-camphorato]praseodymium(III), T-00404

Tris(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-*O,O'*)chromium(III), T-00405

▶ Tris(2,4-pentanedionato-*O,O'*)chromium(III), T-00410

▶ Tris(2,4-pentanedionato-*O,O'*)iron(III), T-00411

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)chromium(III), T-00414

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)dysprosium(III), T-00415

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)europium(III), T-00416

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)holmium(III), T-00418

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)praseodymium(III), T-00420

Tris(2,2,6,6-tetramethyl-3,5-heptanedionato-*O,O'*)ytterbium(III), T-00421

Tris(tetraphenylimidodiphosphinato)praseodymium, T-00422

Tris(3-trifluoroacetyl-*d*-camphorato)europium(III), T-00423

Tris(3-trifluoroacetyl-*d*-camphorato)praseodymium(III), T-00424

Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-*O,O'*]praseodymium(III), T-00425

Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-*O,O'*]ytterbium(III), T-00426

TSP, in T-00345

Resolving agent

Arabinopyranosyl isothiocyanate; α -D-form, 2,3,4-Tri-Ac, in A-00399

2,3-Butanediol; (2*R*,3*R*)-form, in B-00586

▶ 2-Butanol, B-00607

Camphor-10-sulfonic acid; (+)-form, Chloride, in C-00016

Chloramphenicol base, in A-00284

3-[(Chlorocarbonyl)oxy]butanoic acid; (*S*)-form, *tert*-Butyl ester, in C-00078

Chrysanthemic acid; (1*R*,3*R*)-form, Chloride, in C-00296

▶ Cinchonine, C-00298

Dansylproline; (*S*)-form, in D-00001

▶ Dexamphetamine, in P-00172

N-(3,5-Dimethoxybenzoyl)isoleucine; L-form, in D-00767

4-(Dimethylamino)- α -methyl-1-naphthalenemethanamine, D-00790

3,3-Dimethyl-2-butanol; (*S*)-form, in D-00844

N-(3,5-Dinitrobenzoyl)-1-naphthylglycine, in A-00261

Di-*p*-toluoyl tartrate, in T-00002

Drimanoyl chloride, in D-01159

▶ Ephedrine, in M-00122

Flunoxaprofen; (\pm)-form, Chloride, in F-00008

1-(9*H*-Fluorene-9-yl)ethyl carbonochloridate; (+)-form, in F-00017

Glycylproline; (*S*)-form, *N*-Benzoyloxycarbonyl, in G-00020

N-Heptylhydroxyproline; (2*S*,4*R*)-form, in H-00016

N-Hexadecylhydroxyproline; (2*S*,4*R*)-form, in H-00027

3-Hydroxyandrost-5-ene-17-carboxylic acid; (3 β ,17 β)-form, Ac, chloride, in H-00098

4-Hydroxydinaphtho[2,1-*d*:1',2'-*f*][1,3,2]dioxaphospepin 4-oxide, H-00153

▶ 6-Hydroxy-2-naphthalenesulfonic acid, H-00347

2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (*S*)-form, Me ether, in H-00512

2-Hydroxy-2-phenyl-3,3,3-trifluoropropanoic acid; (*R*)-form, Me ether, chloride, in H-00512

▶ 2-Hydroxypropanoic acid, H-00516 (1-Isocynoethyl)benzene; (*R*)-form, in I-00067

7-Isothiocyanato-1,7-dimethylbicyclo[2.2.1]heptane; (-)-form, in I-00093

Levamphetamine, in P-00172

Marfey's reagent, in F-00028

▶ (-)-Menthol, in M-00012

3-Menthoxycetic acid; (-)-form, in M-00013

3-Menthoxycetic acid; (-)-form, Chloride, in M-00013

Menthyl chloroformate; (-)-form, in M-00014

α -Methoxybenzeneacetyl chloride, in M-00007

1-[2-Methoxy-2-(1-naphthalenyl)-1-oxopropoxy]-2,5-pyrrolidinedione; (+)-form, in M-00094

2-Methoxy-2-(1-naphthyl)propanoic acid; (-)-form, in M-00095

1-[(Methoxyphenylacetyl)oxy]-2,5-pyrrolidinedione; (*S*)-form, in M-00105

α -Methoxy- α -(trifluoromethyl)benzeneacetic acid, in H-00512

▶ 2-Methylamino-1-phenyl-1-propanol; (1*S*,2*R*)-form, in M-00122

α -Methyl-1-anthracenemethanamine, M-00125

α -Methyl-2-anthracenemethanamine, M-00126

2'-Methyl- α -oxo-[1,1'-binaphthalene]-2-acetonitrile, M-00212

1-[[[1-(1-Naphthalenyl)ethyl]amino]carbonyl]oxy]-2,5-pyrrolidinedione, N-00019

1-(2-Naphthalenylsulfonyl)-2-pyrrolidinedicarbonyl chloride; (*S*)-form, in N-00022

2-Naphthyl chloroformate, N-00048

1-(1-Naphthyl)ethylamine; (*R*)-form, in N-00049

Neomethyl isothiocyanate, in I-00095

1-(4-Nitrophenyl)ethylamine; (*R*)-form, in N-00135

1-(1-Oxo-2-phenylbutyl)-1*H*-imidazole; (+)-form, in O-00066

Phenylalanine α -naphthylamide; (*S*)-form, in P-00078

Phenylalanine β -naphthylamide; (*S*)-form, in P-00079

1-Phenylethylamine; (*R*)-form, in P-00130

2-(Phenylseleno)propanoic acid, P-00191

▶ Quinine, Q-00005

TAGIT, in G-00012

Teresantol; 8-Carboxylic acid, chloride, in T-00004

1,2,3,4-Tetrahydro-3-isoquinolinecarboxylic acid; (*S*)-form, in T-00063

▶ L-Threonic acid, in T-00002

[(Trifluoroacetyl)amino]acetyl chloride, in T-00240

N-(Trifluoroacetyl)-L-prolyl chloride, in T-00242

[α -(Trifluoromethyl)benzyl]hydrazine; (+)-form, in T-00254

2,2,2-Trifluoro-1-phenylethylamine; (*S*)-form, in T-00261

4,5,7-Trinitro-9-oxo-9*H*-fluorene-2-carboxylic acid; Chloride, in T-00354

Tris(1,10-phenanthroline-*N*¹,*N*¹⁰)iron(II) (2+); Λ -form, (2*R*,3*R*)-Antimonytartrate salt, in T-00412

Trolox C; (*S*)-form, Me ether, in T-00430

Tyrosine; (*S*)-form, Hydrazide, in T-00435

Scintillator

2-(4-Biphenyl)-5-(4-*tert*-butylphenyl)-1,3,4-oxadiazole, B-00212

2-[1,1'-Biphenyl]-4-yl-5-phenoxazole, B-00214

2-(4-Biphenyl)-6-phenylbenzoxazole, B-00215

2-[1,1'-Biphenyl]-4-yl-5-phenyl-1,3,4-oxadiazole, B-00216
 2,5-Bis[1,1'-biphenyl]-4-yl)oxazole, B-00260
 2,5-Bis[5-*tert*-butyl-2-benzoxazolyl]thiophene, B-00272
 1,4-Bis[2-(2-methylphenyl)ethenyl]benzene, B-00407
 1,4-Bis(4-methyl-5-phenyl-2-oxazolyl)benzene, B-00408
 1,6-Diphenyl-1,3,5-hexatriene, D-01019
 ▶ 2,5-Diphenyloxazole, D-01031
 DPS, *in* D-00174
 2-(1-Naphthalenyl)-5-phenyloxazole, N-00021
 2,2'-(1,4-Phenylene)bis[5-phenyloxazole], P-00121

Spectrofluorimetric reagent

3-Acetyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00644
 6-Acetyl-7-hydroxy-4-methyl-2*H*-1-benzopyran-2-one, A-00018
 2-Acetylpyridine; Hydrazone, *in* A-00039
 Acid chrome blue K; Tri-Na salt, *in* A-00053
 Aconitic acid; (*E*)-*form*, *in* A-00061
 3-(Aminocarbonyl)-1,4-dimethylpyridinium(1+); Chloride, *in* A-00133
 2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid; (*S*)-*form*, *in* A-00158
 ▶ 2-Aminoethanol, A-00171
 ▶ 1-Amino-4-hydroxyanthraquinone, A-00182
 3-Amino-2-hydroxy-5-sulfobenzoic acid, A-00221
 ▶ 2-[4-(Aminoinomethyl)phenyl]-1*H*-indole-6-carboximidamide, A-00227
 Aminooxoacetic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00292
 8-Amino-7-(phenylazo)-5-quinolinesulfonic acid; Na salt, *in* A-00316
 ▶ 2-Amino-1-propene-1,1,3-tricarbonitrile, A-00330
 3-Amino-2(1*H*)-quinolinethione, A-00341
 9-Anthracenemethanol, A-00380
 1,4,9,10-Anthracenetetrol, A-00381
 Arginine; (*S*)-*form*, *in* A-00400
 4-[4-[(3-Arsono-5-chloro-2-hydroxyphenyl)azo]-4,5-dihydro-3-methyl-5-oxo-1*H*-pyrazol-1-yl]benzenesulfonic acid, A-00419
 8-(Benzenesulfonylamino)quinoline, B-00028
 1*H*-Benzimidazole-2-carboxaldehyde-2-quinolinylhydrazine, B-00040
 Benzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00064
 ▶ 1,4-Benzoquinone, B-00076
 1,4-Benzoquinone *O*-(2-chlorobenzyl)oxime, B-00077
 1,4-Benzoquinone *O*-(4-chlorobenzyl)oxime, B-00078
 1,4-Benzoquinone mono[*O*-(*p*-methylphenyl)sulfonyl]oxime, B-00079
 1,4-Benzoquinone mono[*O*-(*p*-nitrophenyl)sulfonyl]oxime], B-00080
 1,4-Benzoquinone mono[*O*-(*p*-phenylsulfonyl)oxime], B-00081
 1,4-Benzoquinone *O*-(*m*-nitrobenzyl)oxime, B-00082
 1,4-Benzoquinone *O*-(*p*-nitrobenzyl)oxime, B-00083
 2-[(4-Benzothiazolylimino)methyl]phenol, B-00104
 2-(Benzoylamino)-3-[4-(dimethylamino)phenyl]-2-propenoic acid, B-00120
 2-Benzoylpyridine; Hydrazone, *in* B-00151
 3-Benzoyl-2-quinolinecarboxaldehyde, B-00160
 1,5-Bis(aminomethyl)-2,6-naphthalenediol-*N,N,N',N'*-tetraacetic acid, B-00247
 4[[Bis(carboxymethyl)amino]methyl]-3-hydroxy-2-naphthoic acid, B-00277
 Bis[(2,3-dihydroxyphenyl)methylene]carbonothioic dihydrazide, B-00308

▶ *N,N'*-Bis(2-hydroxybenzylidene)-1,2-ethanediamine, B-00363
 Bis[(2-hydroxyphenyl)methylene]carbonic dihydrazide, B-00390
 Bis[(2-hydroxyphenyl)methylene]carbonimidic dihydrazide, B-00391
 3,3-Bis[(2-methoxyphenoxy)methyl]oxetane, B-00400
 2,6-Bis(4-methylphenyl)-4-phenylpyrylium(1+); Chloride, *in* B-00410
 3,3-Bis(1-naphthylloxymethyl)oxetane, B-00428
 1,4-Bis(8-quinolyloxy)butane, B-00449
 1,3-Bis(8-quinolyloxy)-2,2-diethylpropane, B-00450
 1,1-Bis(8-quinolyloxymethyl)cyclobutane, B-00451
 3,3-Bis(8-quinolyloxymethyl)oxetane, B-00452
 1,3-Bis(8-quinolyloxy)propane, B-00453
 4-Bromobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, B-00489
 5-Bromo-2-hydroxybenzaldehyde; Semicarbazone, *in* B-00509
 9-(Bromomethyl)acridine, B-00516
 4-(Bromomethyl)-7-methoxy-2*H*-1-benzopyran-2-one, *in* B-00524
 4-(Bromomethyl)-2*H*-naphtho[1,2-*b*]pyran-2-one, B-00529
O-(*p*-Bromophenylsulfonyl)quinone monoxime, B-00557
 2,3-Butanedione dihydrazide, *in* B-00587
N-(5-*tert*-Butyl-2-hydroxybenzylidene)-2-hydroxy-5-methylaniline, B-00632
 Cannabicitrin, *in* H-00055
 Carmine red, C-00045
 5-Chloro-2-[7-(diethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]-6-benzoxazolesulfonic acid, C-00091
 5-Chloro-3-[(5-dodecyl-2,4-dihydroxyphenyl)azo]-2-hydroxybenzenesulfonic acid, C-00113
 2'-Chlorofluorescein, C-00116
 4'-Chlorofluorescein, C-00117
 4-Chloro-2-hydroxybenzaldehyde; Semicarbazone, *in* C-00121
 5-Chloro-2-hydroxybenzaldehyde; Semicarbazone, *in* C-00122
 5-Chloro-2-hydroxybenzaldehyde; Thiosemicarbazone, *in* C-00122
 4-Chloro-2-(2-hydroxybenzylideneamino)phenol, C-00125
 5-Chloro-*N*-(2-hydroxy-5-bromobenzylidene)-2-hydroxyaniline, C-00126
 4-Chloro-2-hydroxy-*N*-(2-hydroxybenzylidene)aniline, C-00129
 5-Chloro-2-hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, C-00130
 4'-Chloro-2-hydroxy-4-methoxybenzophenone, *in* C-00095
 3-[(5-Chloro-2-hydroxy-3-sulfo)phenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00158
 ▶ 4-(Chloroimino)-2,5-cyclohexadien-1-one, C-00164
 1-Chloromethylbenz[*cd*]indol-2(1*H*)-one, *in* B-00050
 ▶ 4-Chloro-7-nitrobenzofurazan, C-00189
 Dansylhydrazine, *in* A-00265
 Deuteroporphyrin IX, D-00030
 ▶ 3,5-Diaminobenzoic acid, D-00051
 4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, D-00073
 1,2-Diamino-4,5-methylenedioxybenzene, D-00103
 ▶ 1,2-Diaminonaphthalene, D-00105
 2,3-Diaminonaphthalene, D-00106
 ▶ 2,6-Diaminopyridine, D-00119
 Di-2-benzothiazolylmethane, D-00163
 Dibenzyl selenide, D-00170
 ▶ 2,6-Dibromo-4-(chloroimino)-2,5-cyclohexadien-1-one, D-00180

▶ (3,4-Dichlorobenzyl)triphenylphosphonium(1+); Chloride, *in* D-00252
 1,4-Dichloro-5,8-dihydroxyanthraquinone, D-00261
 2,4-Dichloro-6-(4-ethoxy-1-naphthalenyl)-1,3,5-triazine, D-00272
 2',4'-Dichlorofluorescein, D-00273
 2',5'-Dichlorofluorescein, D-00274
 2',7'-Dichlorofluorescein, D-00275
 4',5'-Dichlorofluorescein; Di-Na salt, *in* D-00276
 6-(Diethylamino)-2,3-dihydro-1,4-phthalazinedione, *in* A-00156
 6-(Diethylamino)-2-naphthalenesulfonic acid hydrazide, D-00325
 2-[7-(Diethylamino)-2-oxo-2*H*-1-benzopyran-3-yl]-5-methyl-6-benzoxazolesulfonic acid, D-00327
 4,5-Dihydro-3,5-diphenylisoxazole; (\pm)-*form*, *in* D-00400
 4,5-Dihydro-1,5-diphenyl-3-(2-phenylethenyl)-1*H*-pyrazole, D-00401
 2,3-Dihydro-3-hydroxy-4*H*-1-benzopyran-4-one, D-00407
 1,2-Dihydro-4-[(2-hydroxy-5-methylphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00410
 3,4-Dihydro-5-hydroxy-1(2*H*)-naphthalenone, D-00413
 1,2-Dihydro-4-[(2-hydroxy-1-naphthalenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00417
 1,2-Dihydro-4-[(4-hydroxyphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00421
 1,2-Dihydro-4-[(4-methoxyphenyl)methyleneamino]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00428
 4-[4,5-Dihydro-3-methyl-4-[(4-sulfo)phenyl]azo]-5-thioxo-1*H*-pyrazol-1-yl]benzenesulfonic acid; Di-Na salt, *in* D-00459
 4,5-Dihydro-5-phenyl-3-(2-phenylethenyl)isoxazole, D-00467
 4-(4,5-Dihydro-3-phenyl-1*H*-pyrazol-1-yl)benzenesulfonic acid hydrazide, D-00469
 4,5-Dihydro-1,3,5-triphenyl-1*H*-pyrazole, D-00506
 ▶ 2',4'-Dihydroxyacetophenone, D-00507
 ▶ 1,4-Dihydroxyanthraquinone, D-00511
 ▶ 1,8-Dihydroxyanthraquinone, D-00512
 2,4-Dihydroxybenzaldehyde; Formylhydrazine, *in* D-00517
 2,4-Dihydroxybenzaldehyde; Semicarbazone, *in* D-00517
 2,5-Dihydroxybenzaldehyde; Semicarbazone, *in* D-00518
 ▶ 2,4-Dihydroxybenzophenone, D-00536
 2,2'-Dihydroxy-4,4'-dimethylazobenzene, D-00574
 3-[(2,4-Dihydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00693
 3-(2,4-Dihydroxyphenylazo)-4-hydroxybiphenyl, D-00694
 4-[(2,4-Dihydroxyphenyl)azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00697
 2-(Diisopropylamino)benzoic acid hydrazide, D-00747
 9,10-Dimethoxy-2-anthracenesulfonic acid, D-00765
 4,5-Dimethoxy-1,2-benzenediamine, *in* D-00049
 2-(Dimethylamino)benzoic acid hydrazide, D-00780
 4-[[[4-(Dimethylamino)phenyl]methylene]amino]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00818
N-(4'-Dimethylaminophenyl)-1,4-naphthoquinone imine, D-00820
N-[5-(1,1-Dimethylpropyl)-2-hydroxyphenyl]-2-hydroxyaniline, D-00902
 2-(3,5-Dimethyl-1-pyrazolyl)-8-quinolinol, D-00906
 Di-2-pyridinylethanedione bis(2-quinolinylhydrazine), D-01067

- Di-2-pyridinylethanedione; Dihydrazone, *in* D-01063
- Di-2-pyridinylmethanone di-2-pyridinylmethylenedihydrazone, D-01076
- Di-2-pyridinylmethanone 2-furoylhydrazone, D-01077
- Di-2-pyridinylmethanone; Hydrazone, *in* D-01071
- Di-2-pyridinylmethanone; Phenylhydrazone, *in* D-01071
- 2,2'-Dithiobis[1-naphthaleneamine], D-01118
- ▶ Eosine; Di-Na salt, *in* E-00007
- Ethanedioic acid bis[[2,4-dihydroxyphenyl)methylene]hydrazide], E-00025
- 4,4'-[1,2-Ethenediylbis[2-(aminomethyl)phenol]]-*N,N,N',N'*-tetraacetic acid; (*E*)-*form*, *in* E-00042
- 4-Ethoxy-2-hydroxy-*N*-salicylideneaniline, *in* D-00614
- 3-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00085
- 3-Ethyl-5-hydroxy-2,7-dimethyl-4*H*-1-benzopyran-4-one, E-00086
- 2-Ethyl-5-hydroxy-3-methyl-4*H*-1-benzopyran-4-one, E-00090
- 3-Ethyl-5-hydroxy-2-methyl-4*H*-1-benzopyran-4-one, E-00091
- FDNDEA, *in* F-00026
- 9*H*-Fluorene-2-carboxaldehyde; 2-Pyridylhydrazone, *in* F-00012
- Fluorescamine, F-00019
- 5-Fluoro-2,4-dinitroaniline, F-00026
- 4-Fluoro-7-nitrobenzofurazan, F-00030
- Hexafluoroacetone, H-00030
- 3,3a,4,5,6,7-Hexahydro-2,3-diphenyl-2*H*-indazole, H-00047
- 3,3a,4,5,6,7-Hexahydro-3-phenyl-2,1-benzisoxazole, H-00050
- ▶ 3,3',4',5,5',7'-Hexahydroxyflavone, H-00055
- ▶ Homidium bromide, *in* D-00096
- 2-[2-(4-Hydrazinophenyl)ethenyl]pyridine, H-00085
- 1-Hydroxyanthraquinone-2-carboxylic acid, H-00099
- (2-Hydroxybenzaldehydato-*O,O'*)diphenylboron, H-00100
- 2-Hydroxybenzaldehyde; Semicarbazone, *in* H-00101
- ▶ 2-Hydroxybenzaldehyde; Thiosemicarbazone, *in* H-00101
- 2-Hydroxybenzoic acid [(2,3-dihydroxyphenyl)methylene]hydrazide, H-00115
- 3-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00118
- 4-Hydroxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, H-00119
- 2-(2-Hydroxybenzylideneamino)phenol, H-00129
- N*-(2-Hydroxy-3-biphenyl)methylene-2-hydroxyaniline, H-00135
- 5-Hydroxy-2,3-dimethyl-4*H*-1-benzopyran-4-one, H-00150
- 2-[(2-Hydroxyethyl)imino]methylphenol, H-00179
- 4-Hydroxy-*N*-(2-hydroxybenzylidene)-3-biphenylamine, H-00189
- 2-Hydroxy-*N*-(2-hydroxybenzylidene)-4-methylaniline, H-00190
- 2-Hydroxy-*N*-(2-hydroxybenzylidene)-5-methylaniline, H-00191
- 2-Hydroxy-*N*-(2-hydroxy-5-bromobenzylidene)aniline, H-00193
- 2-Hydroxy-*N*-(2-hydroxy-5-*tert*-butylbenzylidene)aniline, H-00194
- 2-Hydroxy-*N*-(2-hydroxy-5-carbomethoxybenzylidene)aniline, *in* H-00237
- 2-Hydroxy-*N*-(2-hydroxy-3-chlorobenzylidene)aniline, H-00195
- 2-Hydroxy-*N*-(2-hydroxy-5-chlorobenzylidene)aniline, H-00196
- 3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00198
- 2-Hydroxy-*N*-(2-hydroxy-5-ethylbenzylidene)aniline, H-00201
- 2-Hydroxy-*N*-(2-Hydroxy-5-ethylbenzylidene)-5-methylaniline, H-00202
- 2-Hydroxy-*N*-(2-hydroxy-5-iodobenzylidene)aniline, H-00204
- 2-Hydroxy-*N*-(2-hydroxy-3-isopropyl-6-methylbenzylidene)aniline, H-00205
- 2-Hydroxy-*N*-(2-hydroxy-6-isopropyl-3-methylbenzylidene)aniline, H-00206
- 2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)aniline, H-00210
- 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)aniline, H-00211
- 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)aniline, H-00212
- 2-Hydroxy-*N*-(2-hydroxy-3-methylbenzylidene)-5-methylaniline, H-00213
- 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-4-methylaniline, H-00214
- 2-Hydroxy-*N*-(2-hydroxy-4-methylbenzylidene)-5-methylaniline, H-00215
- 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-4-methylaniline, H-00216
- 2-Hydroxy-*N*-(2-hydroxy-5-methylbenzylidene)-5-methylaniline, H-00217
- 2-Hydroxy-4-(4-hydroxy-6-methyl-2-oxo-2*H*-pyran-3-yl)-4-oxo-2-butenic acid; Et ester, *in* H-00221
- 2-Hydroxy-*N*-(2-hydroxynaphthylidene)aniline, H-00226
- 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)aniline, H-00234
- 2-Hydroxy-*N*-(2-hydroxy-5-phenylbenzylidene)-5-methylaniline, H-00235
- 4-Hydroxy-3-[[[(2-hydroxyphenyl)methylene]amino]benzenesulfonic acid], H-00238
- 3-Hydroxy-4-[[[(2-hydroxyphenyl)methylene]amino]benzoic acid], H-00239
- 4-Hydroxy-3-[[[(2-hydroxyphenyl)methylene]amino]benzoic acid], H-00240
- N*-(2-Hydroxy-3-methoxybenzylidene)-2-hydroxyaniline, *in* D-00541
- N*-2-Hydroxy-5-methoxybenzylidene-2-hydroxyaniline, *in* D-00543
- 5-Hydroxy-7-methoxy-2-methyl-4*H*-1-benzopyran-4-one, *in* D-00645
- 4-Hydroxy-3-methoxyphenylacetic acid, *in* D-00687
- 2-Hydroxy-4-methoxy-*N*-salicylideneaniline, *in* D-00614
- 2-Hydroxy-5-methylbenzaldehyde; Semicarbazone, *in* H-00277
- 2-Hydroxy-5-methylbenzaldehyde; Thiosemicarbazone, *in* H-00277
- 5-Hydroxy-2-methyl-4*H*-1-benzopyran-4-one, H-00281
- 5-Hydroxy-3-methyl-4*H*-1-benzopyran-4-one, H-00282
- 2-[(2-Hydroxy-4-methylphenyl)methylene]hydrazinocarboxamide, *in* H-00276
- 2-Hydroxy-1-naphthaldehyde; Semicarbazone, *in* H-00336
- 2-(2-Hydroxy-1-naphthylideneamino)-4-biphenylol, H-00378
- 7-Hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxylic acid, H-00426
- ▶ 3-Hydroxy-2-phenyl-4*H*-1-benzopyran-4-one, H-00466
- N*-2-Hydroxy-5-phenylbenzylidene-2-hydroxy-5-phenylaniline, H-00468
- 2-[[[(2-Hydroxyphenyl)methylene]amino]-9*H*-fluoren-3-ol], H-00477
- 2-[[[(2-Hydroxyphenyl)methylene]amino]methyl]phenol, H-00478
- 2-[[[(2-Hydroxyphenyl)methylene]amino]-3-pyridinol], H-00480
- 3-Hydroxy-2-pyridinecarboxaldehyde [(3-hydroxy-2-pyridinyl)methylene]hydrazide, H-00519
- 3-Hydroxy-2-pyridinecarboxaldehyde; Thiosemicarbazone, *in* H-00518
- 8-Hydroxy-2-quinolinecarboxaldehyde 8-quinolylhydrazone, H-00526
- 1-Hydroxyxanthone, H-00562
- 2,2'-Iminobis-8-quinolinol, I-00010
- Isocein, I-00058
- Leucylalanine; (*S,S*)-*form*, *in* L-00005
- Lumomagneson, L-00016
- Mansylhydrazine, *in* M-00222
- Mesoporphyrin IX, M-00061
- Mesotetraethylporphine, M-00062
- Mesotetraisobutylporphine, M-00063
- Mesotetraoctylporphine, M-00064
- Mesotetrapropylporphine, M-00065
- 3-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00081
- 4-Methoxybenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, M-00082
- 2-Methoxy-2,4-diphenyl-3(2*H*)-furanone, M-00086
- (7-Methoxy-2-oxo-2*H*-1-benzopyran-4-yl)methyl-*N,N'*-bis(1-methylethyl)carbamide, M-00099
- O*-(*p*-Methoxyphenylsulfonyl)-*o*-methylquinone monoxime, M-00117
- O*-(*p*-Methoxyphenylsulfonyl)quinone monoxime, M-00118
- 8-Methoxy-5-quinolinesulfonyl chloride, M-00121
- 4,4'-Methylenebis[3-methyl-1-(2-pyridyl)-5-pyrazol-ol], M-00173
- 2,2'-(Methylimino)bis-8-quinolinol, M-00193
- 4-(6-Methyl-2-naphthalenyl)-4-oxo-2-butenic acid, M-00204
- O*-(*p*-Methylphenylsulfonyl)-*o*-methylquinone monoxime, M-00242
- 2,3-Naphthalenedicarboxaldehyde, N-00006
- 1-[(2-Naphthalenylcarbonyl)oxy]-2,5-pyrrolidinedione, N-00018
- 1-[(2-Naphthalenyloxy)acetyl]oxy]-2,5-pyrrolidinedione, N-00020
- ▶ 1,4-Naphthoquinone, N-00032
- 1*H*-Naphtho[2,3-*d*]triazole, N-00039
- 1-[[[(1-Naphthalenylamino)carbonyl]oxy]-2,5-pyrrolidinedione], N-00058
- Octaethylporphyrin, O-00002
- 2,3,5,6,8,9,11,12-Octahydro-1,13,4,7,10-benzodioxatritriacyclopentadecine, O-00004
- 6,7,9,10,17,18,21,22-Octahydro-16*H*,20*H*-dibenzo-*[h,q]*[1,4,7,13,10,16]tetraoxadiazacyclooctadecine, O-00019
- 7,8,9,10,17,18,21,22-Octahydro-6*H*,16*H*,20*H*-dibenzo-*[b,k]*[1,7,13,4,10,16]trioxatriazacyclooctadecine, O-00022
- 7,8,9,10,17,18,21,22-Octahydro-8-[(4-methylphenyl)sulfonyl]-6*H*,16*H*,20*H*-dibenzo-*[b,k]*[1,7,13,4,10,16]trioxatriazacyclooctadecine, *in* O-00022
- 3-Oxo-3*H*-naphtho[2,1-*b*]pyran-2-carboxylic acid; Chloride, *in* O-00064
- 1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione, P-00017
- ▶ 3,3',4',5,7-Pentahydroxyflavone, P-00025
- 3,5,7,3',4'-Pentahydroxyflavone-6'-sulfonic acid, P-00027
- 2-Phenoxybenzoic acid, P-00075
- 6-(Phenylamino)-2-naphthalenesulfonic acid, P-00082
- 2-(3-Phenyl-2-triazenyl)phenol; *N*¹-Oxide, *in* P-00204
- Phloxin; Di-K salt, *in* P-00212
- ▶ Protriptyline hydrochloride, *in* P-00280
- 2-Pyridinecarboxaldehyde 2-furoylhydrazone, P-00324
- 2-Pyridinecarboxaldehyde (2-hydroxybenzoyl)hydrazone, P-00326
- 2-Pyridinecarboxaldehyde 2-pyridylhydrazone; (*E*)-*form*, *in* P-00335
- 4-Pyridinecarboxylic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, P-00345

- 3-Pyridinecarboxylic acid (2-pyridinylmethylene)hydrazide, P-00351
 3-Pyridine-[2-(hydroxymino)-1-methylpropylidene]carboxylic acid, P-00355
 2(1*H*)-Pyridinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00365
 2-(2-Pyridinyl)-1*H*-benzimidazole, P-00385
 2-(2-Pyridinyl)phenol, P-00399
 Pyridoxal, P-00414
 Pyridoxal nicotinoylhydrazone, P-00415
 ▶ Pyridoxal phosphate, P-00416
 Pyridoxamine, P-00417
 2-Quinolinecarboxaldehyde 2-pyridylhydrazone, Q-00012
 2(1*H*)-Quinolinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, Q-00023
 Rhodamine 4G, *in* R-00005
 Rhodamine 3G0; Chloride, *in* R-00004
 5-Salicylidene-1-acetyl-2-thioimidazole, *in* H-00485
 Solochrome red ERS, S-00022
 Sulfonitrophenol R, S-00053
 Taurin, *in* O-00063
 ▶ Tetracycline, T-00039
 2',3,5,7-Tetrahydroxyflavone, T-00074
 ▶ Thiamine, T-00135
 2-Thiophenecarboxaldehyde 2-quinolinylhydrazone, T-00172
 2',4',5'-Trichlorofluorescein, T-00224
 2',4',7'-Trichlorofluorescein, T-00225
 1,3,4-Trihydroxyanthraquinone-2-carboxylic acid, T-00272
 2,4,4'-Trihydroxybenzophenone, T-00279
 3,4',7-Trihydroxyflavone, T-00283
 3',5,7-Trihydroxy-4'-methoxyflavanone; (*S*)-form, *in* T-00296
- ### Spectrophotometric reagent
- Acenaphthenequinone; Dioxime, *in* A-00001
 Acenaphthenequinone; Monoxime, *in* A-00001
 Acepox, *in* A-00039
N-Acetamidoinminodiacetic acid, *in* N-00074
 4-Acetamidophenylfluorone, *in* A-00328
 ▶ Acetamidoxime, A-00004
 ▶ Acetanilide, *in* A-00368
 ▶ Acetic acid, A-00006
 3-(2-Acetophenyl)methyltriazene *N*-oxide, A-00009
 ▶ Acetoxime, *in* A-00007
 ▶ 2-Acetoxybenzoic acid, A-00010
 1-Acetoxy-2(1*H*)-pyridinethione, *in* P-00357
 ▶ Acet-*o*-toluidide, *in* M-00123
p-Acetylarsenazo, A-00012
 3-Acetyl-1,5-bis[bis(3,5,6-trichloro-2-hydroxyphenyl)]formazan, A-00013
 3-Acetyl-1,5-bis(1,2-dihydro-1,5-dimethyl-3-oxo-2-phenyl-4-pyrazolyl)formazan, A-00014
 2-Acetyl-4-ethylpyridine; Oxime (*Z*-), *in* A-00016
 3-Acetyl-4-hydroxy-2*H*-1-benzopyran-2-one, A-00017
 2-Acetyl-4-methoxypyridine; Oxime (*Z*-), *in* A-00021
 3-Acetyl-2-methylindole *p*-tolylthiosemicarbazone, A-00022
 2-Acetyl-4-methylpyridine; Oxime (*E*-), *in* A-00023
 2-Acetyl-6-methylpyridine; Oxime (*E*-), *in* A-00024
 2-(Acetyloxy)-*N*-hydroxy-*N*-phenylbenzamide, A-00028
 6-(4-Acetylphenylazo)-2-aminoperimidine, A-00029
 3-[(3-Acetylphenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00030
 2-Acetyl-4-phenylpyridine; Oxime (*E*-), *in* A-00031
 2-Acetyl-6-phenylpyridine; Oxime (*E*-), *in* A-00032
 2-Acetylpyrazine pyrazinylhydrazone, A-00034
 2-Acetylpyrazine 2-pyrimidinylhydrazone, A-00035
 2-Acetylpyrazine 3-quinolylhydrazone, A-00037
 2-Acetylpyrazine 8-quinolylhydrazone, A-00038
 2-Acetylpyrazine; 2-Thiazolylhydrazone, *in* A-00033
 2-Acetylpyridine 2-benzothiazolylhydrazone, A-00040
 2-Acetylpyridine phenylthiosemicarbazone, A-00042
 2-Acetylpyridine 2-pyrazinylhydrazone, A-00043
 2-Acetylpyridine 2-pyrimidinylhydrazone, A-00044
 2-Acetylpyridine 2-quinolylhydrazone, A-00045
 2-Acetylpyridine 8-quinolylhydrazone, A-00046
 2-Acetylpyridine 2-thiazolylhydrazone, A-00047
 2-Acetylpyridine; Thiosemicarbazone, *in* A-00039
 Acid chrome blue K; Tri-Na salt, *in* A-00053
 ▶ Acid chrome violet K; Na salt, *in* A-00055
 Acid monochrome green S; Na salt, *in* A-00057
 ▶ Acid red 26; Di-Na salt, *in* A-00058
 ▶ Acid yellow 2G; Na salt, *in* A-00059
 ▶ Acridine yellow, *in* D-00079
 4-Adamantyl-2-(2-hydroxy-1-naphthalenylazo)thiazole, A-00064
 ▶ Adrenaline, A-00066
 ▶ Agar, A-00068
 ▶ Alizarine fluorine blue, A-00076
 Alizarine fluorine blue S; K salt, *in* A-00077
 Alizarine maroon, A-00079
 Alizarine orange, A-00080
 Alizarine red S; Na salt, *in* A-00081
 Allthiox, A-00083
 ▶ Aluminon, *in* A-00458
 Aluminophthaloxon, A-00085
 Aluminophthaloxon A, A-00086
 ▶ Amaranth, A-00087
 Amiloride, A-00090
 ▶ 4'-Aminoacetophenone, A-00091
 ▶ 4-Aminoazobenzene, A-00094
 4-Aminoazobenzene-4'-arsonic acid; *N*-Di-Me, *in* A-00095
 2-Aminobenzaldehyde, A-00096
 Aminobenzene AE, A-00098
 2-Aminobenzenesulfonic acid, A-00099
 ▶ 4-Aminobenzenesulfonic acid, A-00100
 ▶ 2-Aminobenzenethiol, A-00101
 5-Amino-2-benzimidazolethiol, A-00102
 ▶ 3-Aminobenzoic acid, A-00104
 2-Aminobenzoic acid 2-benzoylhydrazide, A-00106
 2-Aminobenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, A-00107
 2-Aminobenzoic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, A-00108
 4-Aminobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, A-00110
 2-Aminobenzoic acid (1-methylethylidene)hydrazide, A-00109
 2-Aminobenzophenone, A-00111
 7-Amino-2,1,3-benzothiadiazole-4,6-disulfonic acid, A-00112
 ▶ 2-Aminobenzothiazole, A-00113
 4-[(4'-Amino-(1,1'-biphenyl)-4-yl)azo]-1,2-benzenediol, A-00118
 2-Amino-4,6-bis[6-(2-pyridyl)-2-pyridyl]-s-triazine, A-00122
 3-[[3-Amino-4-[(5-bromo-2-pyridinyl)azo]phenyl]propylamino]-1-propanesulfonic acid; Na salt, *in* A-00127
 2-Amino-4-chlorobenzeneethiol, A-00135
 5-Amino-3-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4-hydroxy-2,7-naphthalenedisulfonic acid, A-00137
 4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,5-naphthalenedisulfonic acid, A-00140
 4-Amino-3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00141
 5-Amino-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-1,4-naphthalenedisulfonic acid, A-00142
 8-Amino-7-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-2-naphthalenesulfonic acid, A-00143
 8-Amino-7-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-3-naphthalenesulfonic acid, A-00144
 2-Amino-1-cyclohexene-1-dithiocarboxylic acid, A-00146
 2-Amino-1-cyclopentene-1-dithiocarboxylic acid, A-00147
 6-Amino-2-(diethylamino)-5-nitroso-4(1*H*)-pyrimidinone, *in* D-00109
 ▶ 4-Amino-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00152
 6-Amino-2,3-dihydro-5-nitroso-1-phenyl-2-thioxo-4(1*H*)-pyrimidinone, A-00153
 6-Amino-2,3-dihydro-5-nitroso-2-thioxo-4(1*H*)-pyrimidinone, A-00154
 3-Amino-4,5-dihydro-5-oxo-1-phenyl-1*H*-pyrazole-4-carbodithioic acid, A-00155
 ▶ 5-Amino-2,4-dihydroxypyrimidine, A-00159
 6-Amino-2-(dimethylamino)-5-nitroso-4(1*H*)-pyrimidinone, A-00161
 ▶ 2-Amino-4,6-dinitrophenol, A-00164
 2-Aminodiphenylamine, A-00165
 2-[(1-Amino-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, A-00167
 4-Amino-8-[(2,4-dithioxo-5-thiazolidinyl)azo]-5-hydroxy-1,7-naphthalenedisulfonic acid, A-00169
 ▶ 2-Aminoethanethiol; *N*-Di-Et, *in* A-00170
 1-Amino-8-ethoxyphenothiazine, *in* H-00440
 7-Amino-2-ethylphenothiazine, A-00177
 2-Amino-*N*-hydroxybenzamide, *in* A-00103
 3-Amino-4-hydroxybenzenesulfonic acid, A-00183
 ▶ 4-Amino-2-hydroxybenzoic acid, A-00184
 5-Amino-4-hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00187
 4-Amino-5-hydroxy-6-[(8-hydroxy-3,6-disulfo-1-naphthalenyl)azo]-2,7-naphthalene-2,7-disulfonic acid, A-00188
 5-Amino-4-hydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* A-00190
 6-Amino-4-hydroxy-5-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenesulfonic acid, A-00191
 5-Amino-4-hydroxy-3-[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, A-00195
 5-Amino-4-hydroxy-3-[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* A-00195
 3-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00199
 ▶ 4-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid, A-00200
 4-Amino-3-hydroxy-1-naphthalenesulfonic acid, A-00202
 6-Amino-4-hydroxy-2-naphthalenesulfonic acid, A-00203
 ▶ 7-Amino-4-hydroxy-2-naphthalenesulfonic acid, A-00204
 5-Amino-4-hydroxy-3-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00207
 4-[(4-Amino-2-hydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00209
 2-Amino-3-hydroxypyridine, A-00216
 4-[(2-Amino-3-hydroxy-4-pyridinyl)azo]benzenesulfonic acid, A-00217
 [4-[1-[2-Amino-3-hydroxy-4-(2-pyridinyl)phenyl]azo]phenyl]arsonic acid, A-00219

- 5-Amino-4-hydroxy-3-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, A-00220
- 5-Amino-4-hydroxy-3-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00224
- N*-(Aminoiminomethyl)benzamide, A-00226
- 3-[(Aminoiminomethyl)thio]propanoic acid, A-00228
- Aminomethylazo III, A-00235
- 3-(Aminomethyl)furan-*N,N*-diacetic acid, A-00242
- 2-Amino-*N*-(4-methylphenyl)benzenesulfonamide, A-00248
- 4-[[2-Amino-5-(1-methyl-2-piperidinyl)-3-pyridinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00251
- 5-Amino-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, A-00252
- 4-[[2-Amino-1-methyl-6-(3-pyridinyl)-3-piperidinyl]azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00254
- 3-(Aminomethyl)-1,2,5,8-tetrahydroxanthraquinone-*N,N*-diacetic acid, A-00256
- ▶ 2-Amino-4-methylthiazole, A-00257
- 2-Amino-6-(methylthio)-4-pyrimidinedicarboxylic acid, *in* A-00231
- 5-Amino-1,3,7-naphthalenetrisulfonic acid, A-00271
- 8-Amino-1,3,5-naphthalenetrisulfonic acid, A-00272
- 4-[(4-Amino-1-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, A-00275
- 2-Amino-4-[(4-nitrophenyl)azo]-3-pyridinol, A-00283
- 6-Amino-5-nitroso-2-[(phenylmethyl)thio]-4(1*H*)-pyrimidinone, A-00286
- 2-Amino-5-nitroso-4,6(1*H*,5*H*)-pyrimidinedione, A-00287
- 6-Amino-5-nitroso-2,4(1*H*,3*H*)-pyrimidinedione, A-00288
- ▶ 5-Aminoarotic acid, A-00290
- 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, *in* O-00075
- 3-[(3-Amino-4-oxo-2-thioxo-5-thiazolidinyl)azo]-5-chloro-2-hydroxy-benzenesulfonic acid, *in* C-00141
- ▶ 2-Aminoperimidine, A-00297
- ▶ 4-Aminophenol, A-00302
- 1-[(2-Aminophenyl)amino]-2-propanol, A-00305
- ▶ 2-Aminophenylarsonic acid, A-00306
- ▶ 4-Aminophenylarsonic acid, A-00307
- 8-Amino-5-(phenylazo)quinoline, A-00315
- 5-[[4-Aminophenyl]azo]-1*H*-1,2,4-triazole-3-carboxylic acid, A-00317
- 2-Aminophenylcarbamodithioic acid; *NH*₄ salt, *in* A-00320
- 4-Aminophenyl-4-ethylbenzylaminoantipyrinylcarbinol, A-00322
- N*-(3-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamido, A-00324
- N*-(4-Aminophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamido, A-00325
- N*-(2-Aminophenyl)-4-methylbenzenesulfonamide, A-00326
- [(4-Aminophenyl)thio]acetic acid, A-00327
- 9-(4-Aminophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, A-00328
- ▶ 1-Aminopyrene, A-00331
- ▶ Aminopyrene, A-00339
- ▶ 8-Aminoquinoline, A-00340
- 8-Amino-7-(8-quinolinylazo)-3,6-naphthalenedisulfonic acid, A-00343
- 5-Amino-2-(2-quinolinylazo)phenol, A-00344
- 2-Amino-3-quinoxalinethiol, A-00345
- 3-Aminorhodanine, A-00346
- 3-[[3-(Aminosulfonyl)-1-hydroxy-2-naphthalenyl]azo]-2-hydroxy-5-nitrobenzenesulfonic acid, A-00348
- 7-[[5-(Aminosulfonyl)-2-hydroxyphenyl]azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, A-00349
- 5-[[4-(Aminosulfonyl)phenyl]azo]-6-hydroxy-2-naphthalenesulfonic acid, A-00350
- 5'-Amino-2',3,3',4-tetrahydro-4,4,6-trimethyl-2,2'-dithioxo[1(2*H*),4'-bipyrimidin]-6(1'*H*)-one, A-00352
- 1-[(5-Amino-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, A-00358
- 2-[[[(Aminothioxomethyl)amino]carbonyl]benzoic acid, *in* B-00018
- 2-[[[(Aminothioxomethyl)amino]carbonyl]-6-nitrobenzoic acid, A-00361
- 4-[(Aminothioxomethyl)amino]-4-oxobutanoic acid, A-00362
- 3-[[[(Aminothioxomethyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, *in* P-00386
- 4-Amino-5-thioxo-1,2,4-triazolidin-3-one di-(2-pyridinylmethylene)hydrazone, A-00363
- Ammonium pyrrolidine dithiocarbamate, *in* P-00441
- Amylose, *in* S-00025
- Anabesine; *N*-Ac, *in* P-00244
- 4'-Anilino-2,5-dichloroazobenzene-4-sulfonic acid, A-00370
- Anisylfluorone, A-00372
- o*-Anize green; Chloride, *in* A-00373
- p*-Anize green; Chloride, *in* A-00374
- 1,4,9,10-Anthracenetetrol, A-00381
- Anthrafluorone, A-00387
- ▶ Anthraquinone-2-sulfonic acid, A-00388
- Anthrazo; B,HCl, *in* A-00389
- 2-(4-Antipyrilazo)-5-diethylaminophenol, A-00392
- 7-(4-Antipyrilazo)-8-hydroxyquinoline, A-00393
- Antipyrilazo III, A-00394
- 5-(4-Antipyrilazo)-2-monoethylamino-*p*-cresol, A-00395
- Arsaminazo, A-00402
- Arsazen, A-00403
- Arsenazo AE, A-00404
- Arsenazo B; Di-Na salt, *in* A-00406
- Arsenazo DAL, A-00407
- Arsenazo DBS, A-00408
- Arsenazo H, A-00409
- Arsenazo II, A-00411
- ▶ Arsenazo III, A-00412
- Arsenazo I; Tri-Na salt, *in* A-00410
- Arsenazo IV, A-00413
- Arsenazo M, A-00414
- Arsenazo T, A-00418
- 4-(2-Arsono-4-nitrophenylazo)-4,5-dihydro-3-methyl-1-phenyl-1*H*-pyrazol-5-one, A-00420
- 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-chlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00421
- 3-[(2-Arsonophenyl)azo]-6-[(2-arsono-5-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00422
- 3-[(2-Arsonophenyl)azo]-6-[(4-arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00423
- 3-[(2-Arsonophenyl)azo]-6-[(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00424
- 3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00425
- 3-[(2-Arsonophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00426
- 3-[(2-Arsonophenyl)azo]-6-[(4-chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00427
- 3-[(2-Arsonophenyl)azo]-6-[[5-(diethylsulfamoyl)-2-methoxyphenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00428
- 2-[[7-(4-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, A-00429
- N*-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]methyl]-*N*-(carboxymethyl)glycine, A-00430
- 3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-4-arsonobenzoic acid, A-00431
- 3-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfobenzoic acid, A-00432
- 2-[[7-[(2-Arsonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-5-sulfobenzoic acid, A-00433
- 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00434
- 3-[(4-Arsonophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00436
- 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, A-00437
- 3-[(2-Arsonophenyl)azo]-4,5-dihydroxy-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, A-00439
- 3-[(2-Arsonophenyl)azo]-6-[[4-dimethylaminophenyl]azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00440
- 3-[(2-Arsonophenyl)azo]-6-[(3,5-dinitro-2-hydroxyphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00441
- 3-[(2-Arsonophenyl)azo]-6-[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, A-00442
- 5-[(2-Arsonophenyl)azo]-2,4-thiazolidinedithione, A-00443
- 5-[(2-Arsonophenyl)azo]-2-thioxo-4-thiazolidinone, A-00444
- 4-[4-(2-Arsonophenyltriazinyl)phenylazo]benzenesulfonic acid, A-00445
- Astrafloxine FF; Chloride, *in* A-00449
- Astrafloxine G; Chloride, *in* A-00450
- Astra violet 3R; Chloride, *in* A-00451
- Astrazon blue B; Chloride, *in* A-00452
- Astrazon orange R; Chloride, *in* A-00453
- Astrazon pink FG; Chloride, *in* A-00454
- Astrazon red 6B; Chloride, *in* A-00455
- ▶ Atarax, *in* H-00563
- ▶ Auramine, A-00456
- 2,2'-Azinobis[3-ethyl-2,3-dihydro-6-benzothiazolesulfonic acid], A-00462
- 2,2'-Azinobis(8-hydroxy-1-methylquinoline), A-00463
- Azo-azoxy AN, A-00464
- Azo-azoxy BN, A-00465
- Azomethine H; Na salt, *in* A-00472
- Azomethine HR, A-00473
- Azonol A1, A-00474
- Azophosphon, A-00475
- Azorhodine 2G; Di-Na salt, *in* A-00476
- ▶ Azorubine; Di Na salt, *in* A-00477
- Azothiopyrine, A-00478
- ▶ Azovan blue, A-00479
- Azoxin H, A-00480
- ▶ Azulene, A-00481
- ▶ Azure B, *in* L-00003
- Basic turquoise; Trichlorozincate, *in* B-00001
- Bathocuproinedisulfonic acid; Di-Na salt, *in* B-00002
- Bathophenanthrolinedisulfonic acid; Di-Na salt, *in* B-00003
- Benzaldehyde 2-pyridinylhydrazone, B-00006
- α -Benzamido-*o*-chlorocinnamic acid isonicotinylhydrazone, B-00010
- Benzenecarbothioic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazone, B-00014
- Benzenecarboximidic acid *N*-2-pyridinyl-2-pyrazinylhydrazone, B-00015
- 1,2-Benzenedicarboxaldehyde bis(thiosemicarbazone), B-00017
- ▶ 1,2-Benzenediol, B-00020
- ▶ 1,3-Benzenediol, B-00021
- ▶ 1,4-Benzenediol, B-00022
- Benzenethane(dithioic) acid; Et₄N salt, *in* B-00023
- ▶ Benzenesulfonic acid, B-00025
- ▶ Benzenesulfohydroxamic acid, *in* B-00026

- 3-(Benzenesulfonylamino)propanoic acid, B-00027
- ▶ 1,2,3-Benzenetriol, B-00034
- ▶ 1,2,4-Benzenetriol, B-00035
- Benzofuroin oxime, *in* F-00052
- 1*H*-Benzimidazole-2-carboxaldehyde; 1-Benzyl, oxime, *in* B-00039
- 4-(1*H*-Benzimidazol-5-ylazo)-3-hydroxy-2,7-naphthalenedisulfonic acid, B-00042
- 5-(1*H*-Benzimidazol-5-ylazo)-8-quinolinol, B-00043
- 1-(1*H*-Benzimidazol-4-yl)-3-methyl-5-phenylformazan, B-00046
- 3-[1*H*-Benzimidazol-2-yl]-(5-nitro-2-pyridinyl)hydrazono[methyl]benzenesulfonic acid, B-00047
- 2-(2-Benzimidazolyl)-4,7-phenanthroline, B-00048
- 5-(1*H*-Benzimidazol-5-yl)-3-phenyl-1-[1-(phenylmethyl)-1*H*-benzimidazol-2-yl]formazan, B-00049
- Benzo-12-crown-4, B-00052
- Benzo-14-crown-4, B-00053
- Benzo-18-crown-6, B-00055
- 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(3-methylphenyl)-2-propenamide, *in* B-00056
- 3-(1,3-Benzodioxol-5-yl)-*N*-hydroxy-*N*-(4-methylphenyl)-2-propenamide, *in* B-00056
- Benzohydroxamic acid benzenesulfonamide, *in* P-00194
- ▶ Benzoic acid, B-00059
- Benzoic acid [1-[2-(4-bromo-2-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00060
- Benzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, B-00061
- Benzoic acid [1-[2-(2,4-dinitrophenyl)hydrazino]ethylidene]hydrazide, B-00062
- Benzoic acid 2-hydroxy(di-2-pyridinylmethylene)hydrazide, B-00063
- Benzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00065
- Benzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, B-00066
- Benzoophenone; Thiosemicarbazone, *in* B-00069
- ▶ Benzopurpurine 4B; Di-Na salt, *in* B-00071
- 2-[2-(3*H*,5*H*-Benzo[*f*,*l*]quinolizin-9-yl)ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Iodide, *in* B-00074
- ▶ 1,4-Benzoquinone, B-00076
- 2,1,3-Benzoselenadiazole-*Se*^{IV}, B-00084
- 2-Benzothiazolecarboxaldehyde 2-benzothiazolylhydrazone, B-00086
- 2-Benzothiazolecarboxaldehyde 1(2*H*)-phthalazinylidenehydrazone, B-00087
- 2-Benzothiazolecarboxaldehyde 2-quinolylhydrazone, B-00088
- 2-Benzothiazolethiol, B-00089
- 4-(2-Benzothiazolylazo)-1,2-benzenediol, B-00091
- 4-(2-Benzothiazolylazo)-1,3-benzenediol, B-00092
- 2-(2-Benzothiazolylazo)-4,6-dichlorophenol, B-00093
- 2-(Benzothiazolylazo)-5-diethylaminobenzoic acid, *in* A-00114
- 2-(2-Benzothiazolylazo)-5-(dimethylamino)phenol, B-00094
- 2-[(2-Benzothiazolyl)azo]-4,5-dimethylphenol, B-00095
- 2-(2-Benzothiazolylazo)-4,6-dimethylphenol, B-00096
- 5-(2-Benzothiazolylazo)-4-methyl-2-(methylamino)phenol, *in* A-00115
- 2-(2-Benzothiazolylazo)-4-methylphenol, B-00097
- 1-(2-Benzothiazolylazo)-2-naphthalenol, B-00098
- 10-(2-Benzothiazolylazo)-9-phenanthrenol, B-00099
- 5-(2-Benzothiazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00100
- 3-[(2-Benzothiazolyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, B-00102
- 5-(2-Benzothiazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00103
- 5-Benzothiazolyl-3-(2-methoxyphenyl)-1-phenylformazan, *in* B-00103
- 5-(2-Benzothiazolyl)-3-methyl-1-phenylformazan, B-00105
- 5-(2-Benzothiazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00106
- 3-[2-Benzothiazolyl]-(5-nitro-2-pyridinyl)hydrazono[methyl]benzenesulfonic acid, B-00107
- 1-Benzol[*b*]thien-2-yl-4,4,4-trifluoro-1,3-butanedione, B-00109
- ▶ 2(3*H*)-Benzoxazolethione, B-00113
- 5-(2-Benzoxazolyl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00114
- 5-(2-Benzoxazolyl)-1,3-diphenylformazan, B-00115
- 5-(2-Benzoxazolyl)-3-methyl-1-phenylformazan, B-00116
- 5-(2-Benzoxazolyl)-1-(4-nitrophenyl)-3-phenylformazan, B-00117
- 2-Benzoylacetyl, *in* O-00069
- 2'-Benzoylacetyl, *in* A-00111
- 6-(Benzoylacetyl)-1,4-benzodioxan, B-00119
- 2-[(Benzoylamino)thioxomethyl]amino]benzoic acid, B-00121
- 6-Benzoyl-3-(2,2'-bipyridin-6-yl)-5-phenyl-1,2,4-triazine, B-00123
- N*'-Benzoyl-*N,N*-[bis(2-hydroxyethyl)]thiourea, B-00124
- N*-Benzoyl-*N*'-(5-bromo-2-pyridyl)thiourea, B-00125
- 4-Benzoyl-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, B-00128
- Benzoyl dithiol, *in* M-00129
- β -Benzoyl- α -(ethanol)thiourea, B-00129
- N*-Benzoyl-*N*'-(ethoxycarbonylmethyl)selenourea, B-00130
- 2-Benzoyl-4-ethylpyridine; Oxime (*E*), *in* B-00132
- Benzoylhydrazine, *in* B-00059
- 4-(Benzoylhydroxyamino)benzoic acid; Me ester, *in* B-00133
- 2-Benzoyl-4-methylpyridine; Oxime (*E*), *in* B-00134
- 2-Benzoyl-6-methylpyridine; Oxime (*E*), *in* B-00135
- 6-Benzoyl-3-(4-methyl-2-pyridyl)-5-methyl-1,2,4-triazine, B-00136
- 2-Benzoyl-4-nitro-1*H*-indene-1,3(2*H*)-dione, B-00139
- 2-Benzoyl-5-nitro-1*H*-indene-1,3(2*H*)-dione, B-00140
- 2-Benzoyl-4-(2-nitrophenyl)acetohydrazine, B-00141
- 6-Benzoyl-3-(1,10-phenanthrolin-2-yl)-5-phenyl-1,2,4-triazine, B-00142
- N*-Benzoyl-*N*-phenylhydroxylamine, *in* P-00135
- 2-Benzoyl-6-phenylpyridine; Oxime, *in* B-00145
- 2-Benzoyl-4-phenylpyridine; Oxime (*E*), *in* B-00144
- 6-Benzoyl-5-phenyl-3-(2-thiazolyl)-1,2,4-triazine, B-00147
- Benzoylpyrazine; 2-Pyrimidinylhydrazone, *in* B-00148
- 2-Benzoylpyrazine 2-thiazolylhydrazone, B-00150
- 2-Benzoylpyridine azine, B-00152
- 2-Benzoylpyridine; Hydrazone, *in* B-00151
- 2-Benzoylpyridine; (*Z*)-Oxime, *in* B-00151
- 2-Benzoylpyridine phenylthiosemicarbazone, B-00153
- 2-Benzoylpyridine 2-pyridylhydrazone, B-00154
- 2-Benzoylpyridine 2-pyrimidinylhydrazone, B-00155
- 2-Benzoylpyridine 3-quinolylhydrazone, B-00156
- 2-Benzoylpyridine 8-quinolylhydrazone, B-00157
- N*-Benzoyl-*N*'-(2-pyridyl)thiourea, B-00159
- 2-Benzylaminopyridine, B-00164
- 5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-[4-(dimethylamino)phenyl]-3-phenylformazan, B-00166
- 5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1,3-diphenylformazan, B-00167
- 5-(1-Benzyl-2-benzimidazolyl)-1-(2-hydroxyphenyl)-3-phenylformazan, B-00168
- 5-(1-Benzyl-2-benzimidazolyl)-3-(2-hydroxyphenyl)-1-phenylformazan, B-00169
- 5-(1-Benzyl-2-benzimidazolyl)-3-(2-methoxyphenyl)-1-phenylformazan, *in* B-00169
- p*-[1-(1-Benzyl-2-benzimidazolyl)-3-methyl-5-formazano]benzenesulfonic acid, B-00170
- 1-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-5-(4-nitrophenyl)formazan, B-00171
- 5-(1-Benzyl-1*H*-benzimidazol-2-yl)-3-methyl-1-(4-nitrophenyl)formazan, B-00172
- 5-(1-Benzyl-1*H*-benzimidazol-2-yl)-1-(4-nitrophenyl)-3-phenylformazan, B-00173
- 1-Benzyl-5-bromo-1,3-dihydro-2*H*-benzimidazole-2-thione, B-00175
- N*-Benzyl-4-(4-diethylaminophenylazo)pyridinium(1+), B-00176
- 3-Benzyl-4,5-dihydroxycoumarin, B-00177
- 3-Benzyl-2,6-dimercapto-4*H*-thiopyran-4-one, B-00178
- ▶ Benzyl-dimethyldodecylammonium(1+); Bromide, *in* B-00179
- Benzyl-dimethyloctadecylammonium(1+); Perchlorate, *in* B-00180
- 1-Benzyl-2-(α -hydroxyimino-4-nitrobenzyl)-1*H*-imidazole, B-00183
- 6-[(Benzylmercapto)methyl]-5-hydroxy-3-mercapto-1,2,4-triazine, B-00187
- 1-Benzyl-5-methoxy-1,3-dihydro-2*H*-benzimidazole-2-thione, B-00188
- 1-Benzyl-5-methyl-2,3-dihydro-2*H*-benzimidazole-2-thione, B-00189
- 5-Benzyl-2-thioxo-4-imidazolidinone, B-00194
- 9-Benzyl-*s*-triazolo-[4,3-*a*]-benzimidazole-3-thione, B-00195
- Beryllon I, B-00198
- Beryllon II, B-00199
- Beryllon III, *in* A-00211
- Beryllon IV, B-00200
- [9,9-Bianthracene]-10,10'(9*H*,9'*H*)-dione, *in* B-00201
- 3,3'-Bi[2,6-dimercapto-4*H*-thiopyran-4-one], B-00203
- Bindschelder's green; Chloride, *in* B-00206
- 2,2'-[1,1'-Biphenyl]-4,4'-diyl-diimino]bisbenzoic acid, B-00209
- 2,2'-Bipyrazine, B-00218
- 3,3'-Bipyridazine, B-00219
- ▶ 2,2'-Bipyridine, B-00220
- ▶ 2,3'-Bipyridine, B-00221
- [2,2'-Bipyridine]-6-carboximidic acid hydrazide, B-00223
- 2-(2,2'-Bipyridin-6-yl)benzimidazole, B-00225
- 3-[2,2'-Bipyridin-6-yl]-5,6-dimethyl-1,2,4-triazine, B-00226
- 3-(2,2'-Bipyridin-6-yl)-5,6-diphenyl-1,2,4-triazine, B-00227
- 3-(2,2'-Bipyridin-6-yl)-5,6-di-2-pyridyl-1,2,4-triazine, B-00228
- 2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, B-00229
- 2-(2,2'-Bipyridin-6-yl)-1*H*-imidazo[4,5-*c*]pyridine, B-00230
- 2-(2,2'-Bipyridin-6-yl)-3*H*-imidazo[4,5-*h*]quinoline, B-00231
- 3-[2,2'-Bipyridin-6-yl]-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, B-00232
- 2-(2,2'-Bipyridin-6-yl)-5-phenylbenzimidazole, B-00233
- 3-(2,2'-Bipyridin-6-yl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, B-00234
- 2,2'-Bipyrimidine, B-00235
- 2,2'-Biquinoline, B-00236

- [2,2'-Biquinoline]-4,4'-dicarboxylic acid, B-00237
- 4,4'-[(2,2'-Biquinoline)-4,4'-diyldiimino]bisbenzoic acid; Di-Et ester, *in* B-00238
- 2,2'-Biquinoxaline, B-00239
- N,N'*-Bis(*o*-aminobenzylidene)ethylenediamine, B-00242
- Bis(2-aminoethyl)dithiocarbamic acid, B-00245
- N,N'*-Bis(*o*-amino- α -phenylbenzylidene)ethylenediamine, B-00250
- Bis(2-aminophenyl) disulfide, B-00251
- N,N'*-Bis[1-(2-aminophenyl)ethylidene]-1,2-ethanediamine, B-00252
- 3,6-Bis[(2-arsono-4,6-dibromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00255
- 3,6-Bis[(2-arsono-4-methylphenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00256
- N,N'*-Bis(4-benzoylethyl)-1,2-benzenediamine, B-00257
- 1,5-Bis(7-benzyl-2-benzimidazolyl)-3-methylformazan, B-00258
- 4,4'-Bis(4-biphenylamino)-2,2'-biquinoline, B-00259
- 2,6-Bis[3-(2,2'-bipyridin-6-yl)-1,2,4-triazolin-5-yl]pyridine, B-00261
- 2,4-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00263
- 2,6-Bis[5,6-bis(2-pyridyl)-1,2,4-triazin-3-yl]pyridine, B-00264
- 1,5-Bis[2-(carboxymethoxy)-3,5-dimethylphenyl]-3-phenylformazan, B-00274
- 1,5-Bis[2-(carboxymethoxy)phenyl]-3-phenylformazan, B-00275
- 2-[Bis(carboxymethyl)amino]benzoic acid, B-00276
- 3,6-[Bis(3-chloro-2-hydroxy-5-nitrophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00282
- 1,5-Bis(5-chloro-2-hydroxyphenyl)-3-cyanofornazan, B-00283
- Bis(4-chlorophenyl)ethanedione; Dioxime, *in* B-00285
- Bis(4-chlorophenyl)iodonium(1+); Chloride, *in* B-00287
- Bis(2,4-dichloro-6-hydroxyphenyl)disulfide, B-00293
- Bis(dicyclohexyloxyphosphinothioyl)disulfide, B-00294
- 4,4'-Bis(diethylamino)-2,2'-biquinoline, *in* D-00063
- 4-[Bis(4-(diethylamino)phenyl)hydroxymethyl]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, B-00295
- Bis[4-(diethylamino)phenyl]methanethione, *in* B-00254
- 2,4-Bis(4,5-dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, B-00296
- 2,6-Bis(4,5-dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, B-00297
- 4,4'-Bis[(1,8-dihydroxy-3,6-disulfo-2-naphthyl)azo]-3,3'-biphenyldicarboxylic acid, B-00301
- 4,4'-Bis(3,4-dihydroxyphenylazo)biphenyl, B-00302
- 4,4'-Bis(3',4'-dihydroxyphenylazo)-3,3'-dimethoxybiphenyl, B-00303
- Bis(diisopropoxyphosphinothioyl)disulfide, B-00310
- Bis(dimethoxyphosphinothioyl)disulfide, B-00312
- 4,4'-Bis(dimethylamino)-3,3'-dimethylbiphenyl, *in* D-00083
- 3,7-Bis(dimethylamino)phenothiazine, B-00316
- 5-[2,2-Bis(4-dimethylaminophenyl)ethylene]rhodanine, B-00318
- 4-[Bis(*p*-(dimethylamino)phenyl)hydroxymethyl]-4-chloro-3-methyl-1-phenyl-2-pyrazolin-5-one, B-00319
- 2-[Bis[4-(dimethylamino)phenyl]methyl]benzenesulfonic acid, B-00322
- 1,1-Bis[4-(dimethylamino)phenyl]-3-phenyl-2-propynyl(1+); Chloride, *in* B-00324
- N,N'*-Bis(3-dimethylaminopropyl)dithiooxamide, B-00325
- 4,4'-Bis(dimethylamino)thiobenzophenone, B-00326
- 2,4-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00333
- 2,6-Bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, B-00334
- Bis[(diphenoxyphosphino)thioyl]disulfide, B-00336
- 2,4-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00341
- 2,6-Bis(5,6-diphenyl-1,2,4-triazin-3-yl)pyridine, B-00342
- Bis(di-2-pyridinylmethylene)carbonimidic dihydrazide, B-00343
- Bis(di-2-pyridinylmethylene)carbonothioic dihydrazide, B-00344
- 1,3-Bis[di(2-pyridyl)methyleneamino]urea, B-00345
- Bis(2-ethylhexyl)amine, B-00351
- 1,2-Bis(hexylthio)ethane, B-00359
- 2,3-Bis(2-hydroxybenzylideneamino)benzofuran, B-00361
- N,N'*-Bis(2-hydroxybenzylidene)-1,2-benzenediamine, B-00362
- 7,16-Bis[3-[2-hydroxy-3,5-bis[(4-nitrophenyl)azo]phenyl]-1-oxopropyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane, B-00364
- [Bis(2-hydroxyethyl)amino]acetic acid, B-00367
- Bis(2-hydroxyethyl)carbomodithioic acid; K salt, *in* B-00373
- Bis(2-hydroxyethyl)carbomodithioic acid; Zn salt (2:1), *in* B-00373
- Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbonic dihydrazide, B-00375
- Bis[[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]carbothioic dihydrazide, B-00376
- Bis(3-hydroxy-6-hydroxymethyl-4-oxo-4*H*-pyran-2-yl)methanone, B-00377
- N,N'*-Bis(2-hydroxy-5-nitrobenzyl)-1,10-diaza-4,7,13-trioxacyclotetradecane, B-00382
- 1,5-Bis(2-hydroxy-4-nitrophenyl)-3-acetylformazan, B-00387
- 1,5-Bis(2-hydroxyphenyl)-3-cyanofornazan, B-00388
- N,N'*-Bis(2-hydroxypropyl)-1,2-benzenediamine, B-00392
- N,N'*-Bis(2-hydroxypropyl)ethanolamine, B-00393
- 1,5-Bis(2-hydroxy-3-sulfo-5-chlorophenyl)-3-cyanofornazan, B-00394
- 5-[Bis(2-hydroxy-3-sulfo-3-propyl)amino]-2-[(3,5-dibromo-2-pyridinyl)azo]-4-methylbenzoic acid; Tri-Na salt, *in* B-00395
- N,N'*-Bis(2-mercaptobenzoyl)-1,2-ethanediamine, B-00397
- 1,2-Bis(2-mercaptobenzylideneamino)ethane, B-00398
- N*-[Bis(4-methoxyphenyl)methylene]benzenemethanamine, B-00402
- O,O*-Bis[(3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4(5*H*)-ylidene)phenylmethyl]phosphorodithioate; K salt, *in* B-00405
- 1,4-Bis[(4-methylphenylamino)]-9,10-anthracenedione, B-00406
- *N,N'*-Bis(2-methylphenyl)thiourea, B-00412
- 2,3-Bis(6-methyl-2-pyridyl)benzo[g]quinoxaline, B-00414
- Bis(6-methyl-2-pyridyl)ethanedione; Dihydrazone, *in* B-00415
- 2,3-Bis(6-methyl-2-pyridyl)-10*H*-indeno[1,2-*g*]quinoxaline, B-00416
- 2,3-Bis(6-methyl-2-pyridyl)-5-nitroquinoxaline, B-00417
- 2,3-Bis(6-methyl-2-pyridyl)-6-nitroquinoxaline, B-00418
- 3,6-Bis(4-methyl-2-pyridyl)-4-phenylpyridazine, B-00419
- 2,3-Bis(6-methyl-2-pyridyl)pyrido[2,3-*b*]pyrazine, B-00421
- 2,3-Bis(6-methyl-2-pyridyl)quinoxaline, B-00422
- 2,3-Bis(6-methyl-2-pyridyl)-6-quinoxalinecarboxylic acid, B-00423
- 2,6-Bis[3-(4-methyl-2-pyridyl)-1,2,4-triazolin-5-yl]pyridine, B-00424
- 1,5-Bis(6-methyl-4-pyrimidyl)carbazone, B-00425
- 3,6-Bis[(5-methyl-2-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00426
- Bismuthiol II sulfonic acid, *in* M-00060
- Bis(4-nitrophenyl)ethanedione; Dioxime, *in* B-00432
- N,N'*-Bis[4-(phenylazo)phenyl]-1,10-phenanthroline-4,7-diamine, B-00438
- 4,4'-Bis(1-phenyl-3-methyl-5-pyrazolone), B-00440
- N,N'*-Bis(pyridinylmethylene)-1,2-ethanediamine, B-00441
- Bis(2-pyridylmethylene)carbonic acid dihydrazide, B-00442
- Bis(2-pyridylmethylene)carbonimidic acid dihydrazide, B-00443
- Bis(2-pyridylmethylene)carbonothioic acid dihydrazide, B-00444
- 2,4-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine, B-00445
- 2,6-Bis[3-(2-pyridyl)-1,2,4-triazolin-5-yl]pyridine, B-00446
- 2,6-Bis[5-(2-pyridyl)-1,2,4-triazolin-3-yl]pyridine, B-00447
- N,N'*-Bis(1*H*-pyrrol-2-ylmethylene)-1,2-ethanediamine, B-00448
- Bis(4-sulfo-benzyl)dithiocarbamic acid; Tri-Na salt, *in* B-00454
- N,N'*-Bis(2-sulfoethylidithiooxamide), B-00455
- Bis(1-*p*-sulfophenyl-2,3-dimethylpyrazol-5-on-4-yl)methane, B-00456
- Bis(2,2':6',2''-terpyridine-*N,N',N''*)iron(II) (2+), B-00457
- Bis[2-[(tetrahydro-2*H*-pyran-2-yl)thio]phenyl]diazene, B-00458
- Bis(1*H*-tetrazol-5-ylazo)acetic acid; Et ester, di-Na salt, *in* B-00459
- [Bis(trifluoroacetoxy)iodo]benzene, B-00462
- 3,3'-Bis(trifluoromethyl)dithione, B-00463
- Bis(2,3,4-trihydroxybenzyl)methylamine, B-00466
- 4,4',4'',4'''-[3,3'-Bi-1,2,4-triazine]-5,5',6,6'-tetrayltetrakisbenzenesulfonic acid; Tetra-NH₄ salt, *in* B-00473
- Brilliant croceine; Di-Na salt, *in* B-00478
- Brilliant green; Hydrogen sulfate, *in* B-00479
- Bromazepam, B-00481
- Bromazepam; B,2HCl, *in* B-00481
- 4-Bromo-1,3-benzenediol, B-00486
- 2-[(6-Bromo-2-benzothiazolyl)azo]-5-(diethylamino)phenol, *in* A-00123
- 3-[(6-Bromo-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00490
- 2-[(6-Bromo-2-benzothiazolyl)azo]-4-methylphenol, B-00491
- 1-[(6-Bromo-2-benzothiazolyl)azo]-2-naphthalenol, B-00492
- 4-Bromo-*N,N'*-bis(2-hydroxypropyl)-1,2-benzenediamine, B-00494
- 2-Bromobutanonic acid; (±)-form, *in* B-00496
- Bromocresol green, B-00498
- Bromocresol purple, B-00499
- 5-Bromo-*N,N'*-2-dihydroxybenzamide, B-00503
- 4-[(2-Bromo-4,5-dihydroxyphenyl)azo]benzenesulfonic acid, B-00504
- 4-[3-Bromo-4-(dimethylamino)- α -[*p*-(dimethylamino)phenyl]- α -hydroxybenzyl]antipyrine, B-00505
- 7-Bromo-1-[3-(dimethylamino)propyl]-1,3-dihydro-5-(2-pyridyl)-2*H*-1,4-benzodiazepin-2-one; B,2HCl, *in* B-00506

- 9-(5-Bromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00513
- 4-Bromo-2-methylphenyldiazene-carbothioic acid 2-(4-bromo-2-methylphenyl)hydrazide, B-00534
- 6-Bromo-1,2-naphthoquinone; Dioxime, *in* B-00538
- 16-Bromo-2,3,5,6,8,9,11,12-octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, B-00540
- Bromophenol blue, B-00542
- 4-[(4-Bromophenyl)azo]-1,2,3-benzenetriol, B-00545
- 3-[(4-Bromophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, B-00546
- 5-[(4-Bromophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, B-00547
- 1-(4-Bromophenyl)-1,3-butanedione; 3-Oxime, *in* B-00548
- N'*-(4-Bromophenyl)-*N*-hydroxy-*N*-phenylthiourea, B-00551
- N*-(4-Bromophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, B-00552
- 3-(4-Bromophenyl)-5-mercapto-1,3,4-thiadiazole-2-thione, B-00553
- (4-Bromophenyl)phenylethanedione dioxime, B-00555
- 9-(4-Bromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, B-00558
- Bromophthalexon S, B-00559
- 4-[(5-Bromo-2-pyridinyl)azo]-1,3-benzenediamine, B-00562
- 2-[(5-Bromo-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00126
- 2-[(5-Bromo-2-pyridinyl)azo]-4,5-dimethylphenol, B-00564
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid, B-00565
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-1-propanesulfonic acid, B-00566
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, B-00567
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-2-hydroxy-1-propanesulfonic acid; Di-Na salt, *in* B-00568
- 3-[[4-[(5-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00569
- 3-[[4-[(6-Bromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid, B-00570
- 5-(5-Bromo-2-pyridinylazo)-6-hydroxy-2(1*H*)-pyridinone, B-00571
- 2-[(5-Bromo-2-pyridinyl)azo]-5-methoxyphenol, *in* B-00563
- 4-[(5-Bromo-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, B-00572
- 1-[(5-Bromo-2-pyridinyl)azo]-2-naphthalenol, B-00573
- Bromopyrogallol red, B-00574
- 8-*N*-(5-Bromosalicylidene)aminoquinoline, B-00575
- 4-Bromo-6-(2-thiazolylazo)-1,3-benzenediol, B-00578
- 2-(5-Bromo-2-thiazolylazo)-5-(diethylamino)benzoic acid, *in* A-00128
- 1-[(5-Bromo-2-thiazolyl)azo]-2-naphthalenol, B-00579
- 5-Bromo-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, B-00580
- Bromothymol blue, B-00581
- Brucine, B-00584
- 1,4-Butanediamine-*N,N,N,N'*-tetrakis(methylphosphonic acid), B-00585
- 2,3-Butanedione, B-00587
- 2,3-Butanedione (2-benzothiazolyl)hydrazone; Oxime, *in* B-00588
- 2,3-Butanedione bis(4-biphenyl)thiosemicarbazone, B-00589
- 2,3-Butanedione bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone], B-00590
- 2,3-Butanedione bis[4-(4-chloro-3-(trifluoromethyl)phenyl)thiosemicarbazone], B-00591
- 2,3-Butanedione bis[4-(3,4-dichlorophenyl)thiosemicarbazone], B-00592
- 2,3-Butanedione bis[(2-fluorophenyl)thiosemicarbazone], B-00593
- 2,3-Butanedione bis[(4-fluorophenyl)thiosemicarbazone], B-00594
- 2,3-Butanedione bis[4-(6-methyl-2-benzothiazolyl)phenyl]thiosemicarbazone], B-00595
- 2,3-Butanedione bis[(4-nitrophenyl)thiosemicarbazone], B-00596
- 2,3-Butanedione bis(phenylthiosemicarbazone), B-00597
- 2,3-Butanedione bis[(thiobenzoyl)hydrazone], B-00598
- 2,3-Butanedione mono(2-pyridinylhydrazone), B-00600
- 2,3-Butanedione; Monoxime, *in* B-00587
- 2,3-Butanedione; Monoxime, (4-nitrophenyl)hydrazone, *in* B-00587
- 2,3-Butanedione; Monoxime, phenylthiosemicarbazone, *in* B-00587
- 2,3-Butanedione; Monoxime, 2-pyridylhydrazone, *in* B-00587
- 2,3-Butanedione oxime 4-nitrophenylhydrazone, B-00601
- 2,3-Butanedione; Thiosemicarbazone, *in* B-00587
- 1,4-Butanediybis[triphenylphosphonium] (2+); Dibromide, *in* B-00602
- Butanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazone, B-00605
- Butaperazine maleate, *in* B-00609
- 4-Butoxy-*N*-(4-chlorophenyl)benzohydroxamic acid, B-00612
- 2-Butoxyethanol, B-00613
- 4-Butoxy-*N*-hydroxy-*N*-phenylbenzamide, B-00614
- 1-Butyl-4-[[4-(diethylamino)phenyl]azo]pyridinium(1+), B-00625
- 1-Butyl-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, *in* D-00504
- Butylthio-carbamic acid, B-00631
- 3-(Butylphenylamino)-1-propanesulfonic acid; Na salt, *in* B-00636
- Butylrhodamine B, *in* R-00002
- Butyltriphenylphosphonium(1+), B-00640
- C.I. 51010, *in* B-00477
- C.I. Acid violet 3; Di-Na salt, *in* C-00001
- C.I. 11050 Basic dye, *in* J-00004
- C.I. Basic orange 14, *in* B-00313
- C.I. Mordant blue 18, *in* A-00139
- Cacotheline, C-00005
- Cadion, C-00006
- Cadion 2B, C-00007
- Cadion IREA; Di-Na salt, *in* C-00008
- Calcein, C-00010
- Calcichrome; Tetra-Na salt, *in* C-00012
- Calmagite, C-00015
- Capri blue; Chloride, *in* C-00017
- 7-[α -(Carbomethoxyanilino)benzyl]-8-hydroxyquinoline, C-00022
- Carbonodithioic acid *O*-(phenylmethyl)ester; K salt, *in* C-00024
- Carboxyarsenazo, C-00026
- Carboxyarsenazo B, C-00027
- Carboxybenzene S, C-00028
- 4-Carboxy-6,7-dihydroxy-2-phenyl-1-benzopyrylium(1+); Chloride, *in* C-00029
- 2-Carboxy-5-hydroxy-4-oxo-1(4*H*)-pyridineacetic acid, C-00031
- 9-(5-Carboxy-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00032
- 1-(2-Carboxymethoxy-4-nitrophenyl)-3-phenyl-5-(carboxymethoxyphenyl)formazan, C-00033
- Carboxymethyl cellulose, *in* C-00049
- 3-(Carboxymethylthio)-1,5-diphenylformazan, C-00034
- 4-Carboxynioxime, *in* D-00989
- Carboxynitrazo, C-00035
- 2-[[7-[(3-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00036
- 2-[[7-[(4-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00037
- 3-[[7-[(2-Carboxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]-2-hydroxy-5-sulfobenzoic acid, C-00038
- 1-(2-Carboxyphenyl)-5-[1-(2-methoxy-5-sulfophenyl)]-3-phenylformazan, C-00042
- 9-(2-Carboxy-4-pyridyl)fluorone, C-00043
- 2-Carboxy-1-pyrrolidinecarbodithioic acid; (*S*)-form, *in* C-00044
- Carmine red, C-00045
- 4-Catecholylazo-4'-acetylaminobiphenyl, *in* A-00118
- Cationic red violet; Chloride, *in* C-00046
- Cationic violet; Chloride, *in* C-00047
- Ceplac, *in* E-00020
- Chloramine T, *in* M-00130
- Chlorindazon, C-00051
- Chlorindazon DS, C-00052
- o*-Chloroacetanilide, *in* C-00058
- *p*-Chloroacetanilide, *in* C-00060
- 4-Chloro-1,3-benzenediol, C-00061
- 2-Chlorobenzoic acid, C-00066
- 2-Chlorobenzoic acid; Hydrazone, *in* C-00066
- 1-(*p*-Chlorobenzyl)-4,6-diphenyl-2-pyridinethione, C-00071
- 2-Chloro-*N,N'*-bis(4-chlorophenyl)benzenecarboximidamide; B,HCl, *in* C-00073
- 2-Chloro-*N,N'*-bis(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, C-00074
- 6-Chloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, C-00075
- 1-Chloro-4-(chloromethyl)benzene, C-00080
- 2-Chloro-*N*-(2-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide; B,HCl, *in* C-00083
- 2-Chloro-*N*-(3-chlorophenyl)-*N'*-(4-chlorophenyl)benzenecarboximidamide; B,HCl, *in* C-00084
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2,3-dimethylphenyl)benzenecarboximidamide, C-00085
- 2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, C-00086
- 2-Chloro-*N'*-(4-chlorophenyl)-*N*-hydroxy-*N*-phenylbenzenecarboximidamide, C-00087
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(2-methylphenyl)benzenecarboximidamide, *in* C-00082
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(3-methylphenyl)benzenecarboximidamide, *in* C-00082
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-(4-methylphenyl)benzenecarboximidamide, *in* C-00082
- 2-Chloro-*N*-(2-chlorophenyl)-*N'*-phenylbenzenecarboximidamide, C-00088
- 2-Chloro-*N*-(4-chlorophenyl)-*N'*-phenylbenzenecarboximidamide; B,HCl, *in* C-00089
- 2-Chloro-5-cyano-3,6-dihydroxybenzoquinone; Di-Na salt, *in* C-00090
- 4-[(5-Chloro-1,2-dihydro-3-hydroxy-2-oxo-4-pyridinyl)azo]benzenesulfonic acid, C-00093
- 5-Chloro-2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]benzoic acid, C-00094
- [5-Chloro-3-(2,4-dihydroxyphenyl)azo]-2-hydroxyphenyl]arsonic acid, C-00096
- 4-Chloro-*N*-(2,3-dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, C-00102

- 5-Chloro-3-[(2,4-dithioxo-5-thiazolidinyl)azo]-2-hydroxybenzenesulfonic acid, C-00112
- 2'-Chlorofluorescein, C-00116
- 4'-Chlorofluorescein, C-00117
- 3-(5-Chloro-2-furanoyl)-2-propenal; Thiosemicarbazone, *in* C-00120
- 6-Chloro-3-hydrazinopyridazine, *in* C-00251
- 5-Chloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, C-00123
- 5-Chloro-2-hydroxy-3-[(3-benzylideneamino-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00124
- 5-Chloro-2-hydroxy-3-[(3-(2-hydroxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00128
- 5-Chloro-2-hydroxy-3-[(3-(2-hydroxy-3-methoxybenzylideneamino)-4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00131
- 5-Chloro-2-hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00133
- ▶ 5-Chloro-8-hydroxy-7-iodoquinoline, C-00134
- 5-Chloro-2-hydroxy-4-methylacetophenone; Oxime, *in* C-00135
- 2-Chloro-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* C-00064
- 2-Chloro-*N*-hydroxy-*N*-(3-methylphenyl)benzamide, *in* C-00064
- 4-Chloro-*N*-hydroxy-*N*-(2-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-(3-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, *in* C-00065
- 4-Chloro-*N*-hydroxy-*N*-1-naphthalenylbenzamide, C-00136
- 3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00138
- 3-[(3-Chloro-2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00139
- 5-Chloro-2-hydroxy-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, C-00140
- 5-Chloro-2-hydroxy-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, C-00141
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-6-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00142
- 2-[[7-[(5-Chloro-2-hydroxyphenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00143
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00144
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-(8-quinolyazo)-2,7-naphthalenedisulfonic acid, C-00145
- 3-[(5-Chloro-2-hydroxyphenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00146
- 7-[(5-Chloro-2-hydroxyphenyl)azo]-8-hydroxy-1,6-naphthalenedisulfonic acid, C-00147
- 3-[[4-[(5-Chloro-2-hydroxyphenyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid, C-00148
- 4-Chloro-2-[[2-hydroxyphenyl)methylene]amino]phenol, C-00150
- 7-Chloro-8-hydroxy-5-quinolinesulfonic acid, C-00152
- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-6-[(3-chloro-5-sulfophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00153
- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2,4-dimethylphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00154
- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, C-00156
- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00157
- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-(8-quinolyazo)-2,7-naphthalenedisulfonic acid, C-00159
- 3-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-6-phenylazo-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, C-00162
- 5-Chloro-2-hydroxy-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzenesulfonic acid, C-00163
- ▶ 4-(Chloroimino)-2,5-cyclohexadien-1-one, C-00164
- N*-(5-Chloro-2-methoxyphenyl)-4-[(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxamide, C-00168
- 4-(Chloromethyl)-2-[(3,4-dihydroxyphenyl)azo]-5-thiazolecarboxylic acid; Me ester, *in* C-00176
- ▶ *N*-(3-Chloro-4-methylphenyl)acetamide, *in* C-00171
- N*'-(4-Chloro-2-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, C-00181
- N*'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamide, C-00182
- N*'-(3-Chloro-4-methylphenyl)-*N*-hydroxy-*N*-phenylbenzamide, C-00183
- 2-Chloro-*N*-(2-methylphenyl)-*N*'-phenylbenzenecarboximidamide, C-00184
- 4-Chloro-1,2-naphthoquinone; Dioxime, *in* C-00187
- 6-Chloro-1,2-naphthoquinone; Dioxime, *in* C-00188
- 4-Chloro-2-nitroso-1-naphthol, *in* C-00187
- 4-Chloro-2-nitrosophenol, C-00190
- 4-Chloro-2-[[1,3,4,7,8,10,11,13-octahydro-6*H*-2,5,9,12-benzotetrahiacyclopentadecin-15-yl)azo]phenol, C-00191
- ▶ 4-Chlorophenol, C-00196
- 2-Chloro-10*H*-phenothiazine, C-00198
- 4-[(4-Chlorophenyl)azo]-1,3-benzenediamine, C-00199
- 4-[(4-Chlorophenyl)azo]-1,2,3-benzenetriol, C-00200
- 3-[[7-[(4-Chlorophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthyl]azo]benzoic acid, C-00201
- 5-[(4-Chlorophenyl)azo]-6-hydroxy-2-naphthalenesulfonic acid, C-00204
- 1-[(3-Chlorophenyl)azo]-2-naphthalenol, C-00205
- 5-[(4-Chlorophenyl)azo]-8-quinolinol, C-00206
- 1-(4-Chlorophenyl)-1,3-butanedione; 3-Oxime, *in* C-00207
- N*-(4-Chlorophenyl)-4-chlorophenoxyisobutyrohydroxamic acid, C-00208
- N*-(2-Chlorophenyl)-*N*'-(4-chlorophenyl)benzenecarboximidamide, C-00209
- N*-(4-Chlorophenyl)-*N*'-(2,6-dimethylphenyl)benzenecarboximidamide, C-00214
- N*-(3-Chlorophenyl)-*N*'-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00215
- N*-(3-Chlorophenyl)-*N*'-(2,5-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00216
- N*-(3-Chlorophenyl)-*N*'-(2,6-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00217
- N*-(4-Chlorophenyl)-*N*'-(2,3-dimethylphenyl)-*N*-hydroxybenzenecarboximidamide, C-00218
- N*-(4-Chlorophenyl)-*N*'-(2,3-dimethylphenyl)-*N*-hydroxy-4-methylbenzenecarboximidamide, C-00219
- N*-(4-Chlorophenyl)-3-(2-furanyl)-*N*-hydroxy-2-propenamide, C-00220
- 2-(4-Chlorophenyl)-2-hydroxyacetic acid; (±)-form, *in* C-00222
- N*-(4-Chlorophenyl)-*N*-hydroxy-2-butenamide, C-00223
- N*-(4-Chlorophenyl)-*N*-hydroxy-3,5-dinitrobenzamide, *in* D-00946
- N*-(3-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, *in* F-00064
- N*-(4-Chlorophenyl)-*N*-hydroxy-2-furancarboxamide, *in* F-00064
- N*-(4-Chlorophenyl)-*N*-hydroxy-2,4-hexadienamide, *in* H-00185
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N*'-(4-methoxyphenyl)benzenecarboximidamide, C-00224
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(4-methoxyphenyl)-2-propenamide, C-00225
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4-methylenedioxyphenyl)-2-propenamide, C-00226
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N*'-(2-methylphenyl)benzenecarboximidamide, C-00227
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N*'-(3-methylphenyl)benzenecarboximidamide, C-00228
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N*'-(4-methylphenyl)benzenecarboximidamide, C-00229
- N*-(3-Chlorophenyl)-*N*-hydroxy-*N*'-phenylbenzenecarboximidamide, C-00230
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-phenyl-2-propenamide, C-00232
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(2-thienyl)-2-propenamide, C-00234
- N*-(4-Chlorophenyl)-*N*-hydroxy-3-(3,4,5-trimethoxyphenyl)-2-propenamide, C-00235
- N*-(4-Chlorophenyl)-*N*'-phenylbenzenecarboximidamide, C-00237
- (4-Chlorophenyl)phenylethanedione; Dioxime, *in* C-00238
- 9-(2-Chlorophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00240
- Chlorophosphonazo I, C-00241
- Chlorophosphonazo III, C-00242
- Chlorophosphonazo mN, C-00243
- Chlorophosphonazo pN, C-00244
- Chlorophosphonazo R, C-00245
- Chlorophosphonazo-*m*-sulfonic acid, C-00246
- 3-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, C-00247
- N*-[4-[[7-[(4-Chloro-2-phosphonophenyl)azo]-1,8-dihydroxy-3,6-disulfo-2-naphthalenyl]azo]benzoyl]glycine, C-00248
- 3-[[4-[(4-Chloro-2-phosphonophenyl)azo]-4,5-dihydroxy-6-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00249
- ▶ 2-Chloropyridine, C-00252
- 2-[(5-Chloro-2-pyridinyl)azo]-5-(diethylamino)phenol, *in* A-00145
- 2-[(5-Chloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, *in* A-00145
- 4-[(5-Chloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, C-00253
- 2-[(5-Chloro-2-pyridinyl)azo]-3-methyl-6-(1-methylethyl)phenol, C-00254

- 4-[3-Chloro-4-(pyridinylazo)-5-methyl-2-(1-methylethyl)]phenol, C-00255
- 4-Chloro-*N*-(2-pyridinyl)benzamide, C-00256
- 3-[(5-Chloro-2-pyridinyl)hydrazone]-2-pyridinylmethylbenzenesulfonic acid, C-00257
- 4-Chloro-2-[(2-pyridinylmethylene)amino]phenol, C-00258
- 1-(5-Chloro-2-pyridylazo)-2-naphthol, C-00259
- 3-[(5-Chloro-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, C-00262
- 4-Chloro-6-(2-thiazolylazo)-1,3-benzenediol, C-00263
- 5-Chloro-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, C-00264
- ▶ 2-Chloro-1,3,5-trinitrobenzene, C-00268
- ▶ Chlorpromazine, C-00273
- Chromal blue G; Di-Na salt, *in* C-00275
- Chromazol KS; Tri-Na salt, *in* C-00276
- Chromazurol S; Tri-Na salt, *in* C-00277
- Chrome black special; Mono-Na salt, *in* C-00278
- Chrome dark BLN; Na salt, *in* C-00280
- Chrome dark green BGN; Na salt, *in* C-00281
- Chrome dark green BN; Na salt, *in* C-00282
- Chromocitromin BH, C-00285
- Chromopyrazole, C-00286
- Chromopyrazole I, C-00287
- Chromopyrazole II, C-00288
- Chromotrope 2B; Di-Na salt, *in* C-00290
- Chromotrope 2C, C-00291
- Chromotrope 2R; Di-Na salt, *in* C-00293
- Chromotropic acid, C-00294
- Chromoxane violet R, *in* E-00015
- Chrysophenine G; Di-Na salt, *in* C-00297
- Cinnamide; Anhydride, *in* P-00169
- N*-Cinnamoylphenylhydroxylamine, *in* H-00499
- Cotarnilfluorone, C-00302
- o*-Cresolphthalexon, C-00308
- Cresol red, C-00310
- ▶ 18-Crown-6, C-00315
- Cryptand 2.2.2 B, C-00317
- ▶ Crystal violet; Chloride, *in* C-00320
- ▶ Cupferron, *in* H-00471
- ▶ Cuprizone, C-00321
- Cuproselect, *in* D-01137
- ▶ Cuprotest, C-00322
- Curcumin, C-00323
- 3-Cyano-1,5-bis(2-hydroxy-5-sulfophenyl)formazan; Di-Na salt, *in* C-00325
- 2-Cyano-3-iminodithiobutyric acid; NH₄ salt, *in* C-00328
- 1,2-Cyclodecanedione; Dioxime, *in* C-00331
- 1,2-Cyclohexanedione bisbenzoylhydrazone, C-00340
- 1,2-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone, C-00341
- 1,3-Cyclohexanedione bis(2-hydroxybenzoyl)hydrazone, C-00342
- 1,2-Cyclohexanedione bis(2-pyridylhydrazone), C-00343
- 1,2-Cyclohexanedione bis(thiosemicarbazone), C-00344
- 1,3-Cyclohexanedione bis(thiosemicarbazone); B, HCl, *in* C-00345
- 2,2'-(1,4-Cyclohexanediyldiene)bishydrazinecarbothioamide, *in* C-00339
- ▶ Cyclohexanone, C-00347
- Cyclohexylbenzylidithiocarbamate(1-); Triethylammonium salt, *in* C-00351
- 4-Cyclohexyl-6-[(2-hydroxy-3,5-dinitrophenyl)azo]-1,3-benzenediol, C-00354
- Cyclohexyl(2-morpholinoethyl)carbodiimide; Metho-*p*-toluenesulfonate, *in* C-00356
- 9-Cyclohexyl-2,6,7-trihydroxy-3*H*-xanthen-3-one, C-00359
- 1,3-Cyclopentanedione bis(4-methylthiosemicarbazone); B, HCl, *in* C-00363
- 5-(Cyclopentylmethylene)-2-thioxo-4-thiazolidinone, C-00366
- 4-Cyclopentyl-6-(2-pyridinylazo)-1,3-benzenediol, C-00367
- 4-Cyclopentyl-6-(2-quinolinylazo)-1,3-benzenediol, C-00368
- ▶ Cysteine; (±)-form, *in* C-00370
- ▶ Daxime, D-00002
- 8-[[4-[(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzoheptaacyclocloctadecin-18-yl)azo]phenyl]amino]-1-naphthalenesulfonic acid, D-00006
- 2,3,5,6,8,9,11,12,14,15-Decahydro-19-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzoheptaacyclocloctadecin-18-amine, D-00019
- 2,3,5,6,8,9,11,12,14,15-Decahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13,16-benzoheptaacyclocloctadecin-18-amine, D-00021
- Decanediperoxoic acid, D-00023
- ▶ Desferrioxamine, D-00029
- 3,5-Diacetyl-4-(2-chlorophenyl)-2,6-heptanedione, D-00034
- 2,6-Diacetylpyridine bis(benzoylhydrazone), D-00036
- 2,6-Diacetylpyridine bis(2-furoylhydrazone), D-00037
- 2,6-Diacetylpyridine bis(2-hydroxybenzoylhydrazone), D-00038
- 2,6-Diacetylpyridine bis(2-pyridylhydrazone), D-00039
- 2,6-Diacetylpyridine; Dioxime, *in* D-00035
- Diaminazo, D-00041
- 1,4-Diaminoanthraquinone-2,3-disulfonic acid; Di-Na salt, *in* D-00044
- 3,4-Diaminoanthraquinone-1-sulfonic acid, D-00045
- ▶ 1,2-Diaminobenzene, D-00046
- ▶ 1,3-Diaminobenzene, D-00047
- ▶ 1,4-Diaminobenzene, D-00048
- 3,4-Diaminobenzoic acid, D-00050
- ▶ 4,4'-Diaminobiphenyl, D-00053
- 6,6'-Diamino-3,3'-bipyridazine, D-00060
- 4,4'-Diamino-2,2'-bipyridine, D-00061
- 2,4-Diamino-6-(2,2'-bipyridyl)-1,3,5-triazine, D-00062
- 1,2-Diamino-4,5-dichlorobenzene, D-00069
- 4,8-Diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo-2,6-anthracenedisulfonic acid, D-00073
- ▶ 1,5-Diamino-4,8-dihydroxyanthraquinone, D-00074
- ▶ 1,8-Diamino-4,5-dihydroxyanthraquinone, D-00075
- ▶ 4,4'-Diamino-3,3'-dimethoxybiphenyl, *in* D-00056
- ▶ 1,2-Diamino-4,5-dimethylbenzene, D-00080
- 4,4'-Diamino-3,3'-dimethyl-[1,1'-binaphthalene]-6,6'-disulfonic acid, D-00081
- ▶ 4,4'-Diamino-3,3'-dimethylbiphenyl, D-00083
- ▶ 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium(1+); Chloride, *in* D-00084
- ▶ 4,4'-Diaminodiphenyl sulfide, D-00089
- ▶ 4,4'-Diaminodiphenyl sulfone, D-00090
- ▶ 4,4'-Diaminodiphenyl sulfoxide, D-00091
- ▶ 2,7-Diaminofluorene, D-00097
- 4,5-Diamino-6-hydroxypyrimidine; Sulfate, *in* D-00098
- 1,3-Diamino-8-methoxyphenothiazine, D-00100
- 3,6-Diamino-10-methylacridinium chloride, *in* D-00042
- ▶ 1,2-Diamino-4-methylbenzene, D-00101
- 5,6-Diamino-2-methyl-4(1*H*)-pyrimidinone, D-00104
- 2,3-Diaminonaphthalene, D-00106
- ▶ 1,4-Diamino-5-nitroanthraquinone, D-00107
- ▶ 1,2-Diamino-4-nitrobenzene, D-00108
- 2,6-Diamino-5-nitroso-4(1*H*)-pyrimidinone, D-00109
- 2-[(2,4-Diaminophenyl)azo]-4,6-dinitrophenol, D-00112
- ▶ 1,2-Diaminopropane-*N,N,N',N'*-tetraacetic acid, D-00115
- 2,4-Diamino-6-(3-pyridazinyl)-1,3,5-triazine, D-00117
- ▶ 2,3-Diaminopyridine, D-00118
- 5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedione; 1,3-Di-Me, *in* D-00120
- 5,6-Diamino-2,4(1*H*,3*H*)-pyrimidinedithione, D-00121
- 5,6-Diamino-4(1*H*)-pyrimidinethione, D-00122
- 2,4-Diamino-6-(2-pyrimidinyl)-1,3,5-triazine, D-00123
- 2,4-Diamino-6-(4-pyrimidinyl)-1,3,5-triazine, D-00124
- 4,4'-Dianilinobiphenyl, *in* D-00053
- 1,5-Diantipyrinyl-3-formazancarbonitrile, D-00134
- 1,1-Diantipyrinyl-2-hydroxyphenylmethane, D-00138
- 1,1-Diantipyrinylmethane, D-00139
- Diantipyrinylthiourea, D-00141
- ▶ 4-Diazobenzenesulfonic acid, D-00142
- 2-Diazoniumbenzenesulfonate, *in* S-00040
- Dibenzo[*b,e*][1,4]dioxin-2-carboxaldehyde; Oxime, *in* D-00162
- 2,5-Dibenzoyl-3,4-dihydroxyselenophene, D-00164
- ▶ Dibenzyldithiooxamide, D-00169
- Dibenzyl selenide, D-00170
- Dibenzyl sulfide, D-00171
- Di-4-biphenylthiocarbazono, D-00175
- Dibromoarsenazo II, D-00177
- Dibromoarsenazo III, D-00178
- 4,5-Dibromo-9-(3,5-dibromo-2-hydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00181
- 2,5-Dibromo-3,6-dihydroxy-1,4-benzoquinone, D-00182
- o,o'*-Dibromo-*p,p'*-dimethyldithizone, D-00184
- 2,2'-Dibromodithizone, D-00186
- 2,7-Dibromogallein, D-00189
- 2-[(3,5-Dibromo-2-hydroxyphenyl)methylene]-*N*-phenylhydrazinecarbothioamide, D-00192
- ▶ 5,7-Dibromo-8-hydroxyquinoline, D-00193
- 5,7-Dibromo-8-hydroxyquinoline; *N*-Oxide, *in* D-00193
- 2-[(3,5-Dibromo-4-methyl-2-pyridinyl)azo]-5-(diethylamino)phenol, D-00196
- 9-(3,4-Dibromophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00198
- 4-[(3,5-Dibromo-2-pyridinyl)azo]-1,3-benzenediamine, D-00199
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(diethylamino)benzoic acid, *in* A-00148
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(dimethylamino)benzoic acid, D-00201
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00149
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(2-hydroxy-3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00202
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[ethyl(3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00203
- 3-[[4-(3,5-Dibromo-2-pyridinyl)azo]-5-hydroxy-2-methylphenyl]ethylamino]-1-propanesulfonic acid; Di-Na salt, *in* D-00204
- 3-[[4-(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]amino]-2-hydroxy-1-propanesulfonic acid; Di-Na salt, *in* D-00205
- 3-[[4-(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]ethylamino]-1-propanesulfonic acid; Di-Na salt, *in* D-00206

- 3-[[4-[(3,5-Dibromo-2-pyridinyl)azo]-3-hydroxyphenyl]propylamino]-1-propanesulfonic acid; Di-Na salt, *in* D-00207
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(2-hydroxy-3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00208
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-methoxyphenol, *in* D-00200
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-4-methyl-5-[(3-sulfopropyl)amino]benzoic acid; Di-Na salt, *in* D-00209
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-[(3-sulfopropyl)amino]benzoic acid, *in* A-00148
- 5-(3,5-Dibromo-2-pyridylazo)-2,4-diaminotoluene, D-00210
- 2-[(3,5-Dibromo-2-pyridyl)azo]-5-(diethylamino)phenol, *in* A-00150
- 4-(3,5-Dibromo-2-pyridylazo)-*N,N*-diethylaniline, D-00211
- 4-(3,5-Dibromo-2-pyridylazo)-*N*-ethyl-*N*-(3-sulfopropyl)aniline, D-00212
- 2-(3,5-Dibromo-2-pyridylazo)-4-methyl-5-(*N*-propyl-*N*-sulfopropylamino)aniline; Na salt, *in* D-00213
- 2-(3,5-Dibromo-2-pyridylazo)-5-(*N*-propyl-*N*-sulfopropylamino)aniline; Na salt, *in* D-00214
- Dibromotichromin, D-00219
- 2,6-Dibromo-3,4,5-trihydroxybenzoic acid, D-00220
- 3,5-Di-*tert*-butyl-1,2-benzenediol, D-00227
- 3,5-Dibutyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00230
- Dibutyldiselenocarbamic acid; Na salt, *in* D-00231
- 4,4'-Dibutylidithione, D-00233
- 4,6-Di-*tert*-butyl-3-methoxy-1,2-benzenediol, *in* D-00228
- 2-(Dibutylphosphinyl)-2-hydroxypropanoic acid, D-00239
- ▷ Dicarboxidine, D-00244
- 2,5-Dichloro-1,4-benzoquinone, D-00250
- ▷ 2,6-Dichloro-1,4-benzoquinone, D-00251
- ▷ (3,4-Dichlorobenzyl) triphenylphosphonium(1+); Chloride, *in* D-00252
- 4,4'-Dichloro-2,2'-biquinoline, D-00254
- 6,7-Dichloro-2,3-bis(6-methyl-2-pyridyl)quinoxaline, D-00255
- ▷ 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone, D-00260
- ▷ 2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone, D-00262
- 3,6-Dichloro-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00263
- 2,5-Dichloro-4-[[4-(4-dimethylamino)phenyl]azo]benzenesulfonic acid, *in* A-00311
- 3,3'-Dichloro-2,2'-dimethyldithione, D-00264
- 4,4'-Dichloro-2,2'-dimethyldithione, D-00265
- 5,5'-Dichloro-2,2'-dimethyldithione, D-00266
- 6,7-Dichloro-2,3-di-2-pyridylquinoxaline, D-00269
- 2,2'-Dichlorodithione, D-00270
- 4,4'-Dichlorodithione, D-00271
- 2',4'-Dichlorofluorescein, D-00273
- 2',5'-Dichlorofluorescein, D-00274
- 2',7'-Dichlorofluorescein, D-00275
- 4',5'-Dichlorofluorescein; Di-Na salt, *in* D-00276
- 3',5'-Dichloro-2'-hydroxyacetophenone; Oxime, *in* D-00277
- 3,5-Dichloro-2-hydroxybenzaldehyde phenylthiosemicarbazone, D-00278
- 5,7-Dichloro-8-hydroxyquinoline, D-00283
- 5,7-Dichloro-8-hydroxyquinoline; 1-Oxide, *in* D-00283
- 2-(2,4-Dichlorophenoxy)-*N*-(4-methylphenyl)acetohydroxamic acid, *in* D-00288
- 2-(2,4-Dichlorophenoxy)-*N*-phenylacetohydroxamic acid, *in* D-00288
- 3-[(2,4-Dichlorophenyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00289
- N*-2,5-Dichlorophenyl-*N'*-phenylbenzamidine, D-00296
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-1,3-benzenediamine, D-00299
- 2-[(3,5-Dichloro-2-pyridinyl)azo]-5-(dimethylamino)phenol, D-00300
- 4-[(3,5-Dichloro-2-pyridinyl)azo]-6-methyl-1,3-benzenediamine, D-00301
- 6,7-Dichloro-5,8-quinolinedione, D-00302
- ▷ Dicyclohexylcarbodiimide, D-00309
- ▷ *N,N'*-Didodecylethanedithioamide, D-00310
- ▷ Diethazine; B,HCl, *in* D-00312
- ▷ Diethylamine, D-00314
- 5-(Diethylamino)-2-[[4,5-dimethyl-2-thiazolyl]azo]phenol, *in* A-00163
- N*-[2-(Diethylamino)ethyl]-4-[[8-hydroxy-5-quinolyl]azo]benzamide, D-00317
- 2-[4-(Diethylamino)-2-hydroxyphenylazo]-4,6-dinitrophenol, D-00318
- [3-(4-Diethylamino-2-hydroxyphenyl)azo]-4-hydroxybenzenesulfonic acid, D-00319
- 4-[[4-(Diethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00320
- 2-(4-Diethylamino-2-hydroxyphenylazo)thiazole, *in* A-00214
- 5-[[4-Diethylamino-2-hydroxyphenyl]azo]-1*H*-1,2,4-triazole-3-carboxylic acid, *in* A-00215
- 5-(Diethylamino)-2-[[5-methyl-2-pyridinyl]azo]phenol, D-00324
- 5-(Diethylamino)-2-nitrosophenol, *in* A-00285
- 3-[[4-(Diethylamino)phenyl]azo]-1,4-dimethyl-1*H*-1,2,4-triazolium(1+); Chloride, *in* D-00328
- 4-[[4-(Diethylamino)phenyl]azo]-1-ethylpyridinium(1+); Chloride, *in* D-00329
- 3-[2-(5-Diethylaminophenyl)azo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00330
- 4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Chloride, *in* D-00332
- 4-[[4-(Diethylamino)phenyl]azo]-1-methylpyridinium(1+); Iodide, *in* D-00332
- 4-[[4-(Diethylamino)phenyl]azo]-1-propylpyridinium(1+); Chloride, *in* D-00333
- 4-Diethylaminophenylfluorone, *in* A-00328
- 5-[[4-(Diethylamino)phenyl]methylene]-2-thioxo-4-thiazolidinone, D-00334
- 2-(Diethylamino)-6-(2-pyridinylazo)phenol, D-00335
- 5-(Diethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
- 5-Diethylamino-2-(2-thiazolylazo)benzoic acid, *in* A-00359
- 2-(Diethylamino)-6-(2-thiazolylazo)phenol, *in* A-00360
- 3,5-Diethyl-2,6-dimercapto-4*H*-thiopyran-4-one, D-00342
- Diethyldiselenocarbamic acid; K salt, *in* D-00343
- ▷ Diethylenetriamine, D-00345
- 3,3-Diethyl-1-(9*H*-fluoren-2-yl)-1-triazene, D-00347
- N,N*-Diethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00349
- N,N*-Diethyl-4-nitrosoaniline, D-00350
- ▷ *N,N*-Diethyl-1,4-phenylenediamine, *in* D-00048
- ▷ *O,O*-Diethyl phosphorodithioate, D-00356
- N,N*-Diethyl-4-(2-thiazolylazo)benzenamine, *in* T-00138
- 4,4'-Difluorodithione, D-00361
- ▷ Di(2-furyl)ethanedione; Monoxime, *in* D-00364
- 2-(2,3-Dihydro-2-benzothiazolyl)phenol, D-00372
- 5,6-Dihydro-5,6-bis(hydroxyimino)-1-naphthalenesulfonic acid, *in* N-00034
- 5,6-Dihydro-5,6-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00035
- 7,8-Dihydro-7,8-bis(hydroxyimino)-2-naphthalenesulfonic acid, *in* N-00036
- 16,17-Dihydro-5*H*,15*H*-dibenz[*b,j*]1,11,4,5,7,8]dioxatetraazacyclotetradecine-7-carbonitrile, D-00375
- 3,4-Dihydro-6,7-dimethoxy-4-methyl-3-oxo-2-quinoxalinecarbonyl azide, *in* D-00379
- 5-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-2,4-dihydroxybenzoic acid, D-00381
- 3-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, D-00382
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-(2-methoxyphenyl)-2-naphthalenecarboxamide, D-00383
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-2-(methylphenyl)-2-naphthalenecarboxamide, D-00384
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, D-00385
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-1-naphthalenyl-2-naphthalenecarboxamide, D-00387
- 4-[(2,3-Dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)azo]-3-hydroxy-*N*-phenyl-2-naphthalenecarboxamide, D-00388
- 1,2-Dihydro-1,5-dimethyl-4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]-2-phenyl-3*H*-pyrazol-3-one, D-00389
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione, D-00391
- ▷ 1,2-Dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00392
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[(2,4,6-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00393
- 1,2-Dihydro-1,5-dimethyl-2-phenyl-4-[5-(1,2,3-trihydroxyphenyl)azo]-3*H*-pyrazol-3-one, D-00394
- 2-(2,3-Dihydro-2,2-dinitro-3-oxo-1*H*-inden-1-ylidene)-1*H*-indene-1,3(2*H*)-dione, D-00395
- 4-[(9,10-Dihydro-9,10-dioxo-1-anthracenyl)azo]-3-hydroxy-2,7-naphthalenedisulfonic acid; Ba salt, *in* D-00396
- N*-(9,10-Dihydro-9,10-dioxo-2-sulfoanthracenyl)benzenecarboxamide, *in* A-00093
- 6,7-Dihydro-5,8-diphenyldibenzo[*b,j*]1,10]phenanthroline, D-00398
- 1,3-Dihydro-4,5-diphenyl-2*H*-imidazole-2-thione, D-00399
- 2,3-Dihydro-5,6-diphenyl-1,2,4-triazine-3-thione, D-00402
- 2,3-Dihydro-2,2-di-(2-pyridinyl)benzothiazole, D-00403
- 2,3-Dihydro-2-hydroxy-4*H*-1-benzopyran-4-one, D-00406
- 2,3-Dihydro-5-hydroxy-4*H*-1-benzopyran-4-one, D-00408
- 1,6-Dihydro-5-hydroxy-3-mercapto-6,6-dimethyl-1,2,4-triazene, D-00409
- 1,4-Dihydro-5-hydroxy-1-(4-methylphenyl)-4-oxo-2-pyridinecarboxylic acid; Et ester, *in* D-00411
- Dihydro-4-hydroxy-2-(1-methyl-1-piperidinoethyl)-3(2*H*)-furanone, D-00412
- 1,2-Dihydro-4-[(1-hydroxy-2-naphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00414
- 1,2-Dihydro-4-[(2-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00415
- 1,2-Dihydro-4-[(4-hydroxynaphthalenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00416

- 1,2-Dihydro-4-[(4-hydroxyphenyl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00419
- 2,3-Dihydro-8-hydroxy-9-phenyl-7*H*-pyrano[2,3-*f*]-1,4-benzodioxin-7-one, D-00422
- 1,2-Dihydro-4-[(4-hydroxyquinolin-8-yl)azo]-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00423
- ▶ 1,3-Dihydro-2*H*-imidazole-2-thione, D-00424
- 2,3-Dihydro-2-(2-mercaptophenyl)-1,2,3-benzothiadiazole, D-00425
- 2-[4,5-Dihydro-5-(4-methoxyphenyl)-3-isoxazolyl]-4-methylphenol, D-00427
- 3,4-Dihydro-1-(4-methoxyphenyl)-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00429
- 4,5-Dihydro-5-methyl-3,5-di-2-pyridyl-1*H*-1,2,4-triazole, D-00430
- 2,4-Dihydro-5-methyl-4-(1-oxodecyl)-2-phenyl-3*H*-pyrazol-3-one, D-00435
- 2-[(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1*H*-pyrazol-4-yl)azo]-5-nitrobenzenesulfonic acid; K salt, *in* D-00438
- 4,5-Dihydro-3-methyl-5-oxo-1*H*-pyrazole-4-carbodithioic acid, D-00440
- 2,4-Dihydro-5-methyl-2-phenyl-4-(phenylthioxomethyl)-3*H*-pyrazol-3-one, D-00442
- ▶ 2,4-Dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, D-00443
- 4-[(4,5-Dihydro-3-methyl-1-phenyl-5-thioxo-1*H*-pyrazol-4-yl)azo]benzenesulfonic acid; Na salt, *in* D-00445
- 2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-4-methylpyridine, D-00446
- 2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-1,10-phenanthroline, D-00447
- 2-(4,5-Dihydro-5-methyl-5-phenyl-1*H*-1,2,4-triazol-3-yl)-4-phenylpyridine, D-00448
- 4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-phenyl-1*H*-1,2,4-triazole, D-00452
- 4,5-Dihydro-3-(4-methyl-2-pyridinyl)-5-(2-pyridinyl)-1,2,4-triazole, D-00453
- 6-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00454
- 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-4-methylpyridine, D-00455
- 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00456
- 2-[4,5-Dihydro-5-methyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-4-phenylpyridine, D-00457
- 2-[2-(1,2-Dihydro-1-methyl-6-quinolinyl)ethenyl]-1,3,3-trimethyl-3*H*-indolinium(1+); Chloride, *in* D-00458
- 4-[4,5-Dihydro-3-methyl-4-(4-sulfophenyl)azo]-5-thioxo-1*H*-pyrazol-1-yl]benzenesulfonic acid; Di-Na salt, *in* D-00459
- 2-(4,5-Dihydro-5-methyl-1*H*-1,2,4-triazol-3-yl)pyridine, *in* M-00329
- 2,3-Dihydro-5-methyl-2-ureido-3*H*-pyrazol-3-one, D-00460
- 1,4-Dihydro-6-nitro-2,3-quinoxalinedithione, D-00461
- Dihydro-5-nitroso-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00462
- 3-[(4,5-Dihydro-5-oxo-1*H*-pyrazol-4-yl)azo]-4-hydroxy-1-naphthalenesulfonic acid, D-00464
- 4,5-Dihydro-3-(1,10-phenanthrolin-2-yl)-5-(2-pyridinyl)-1,2,4-triazole, D-00465
- 4,5-Dihydro-3-phenyl-1*H*-pyrazole-1-carbodithioic acid, D-00468
- 2-[4,5-Dihydro-5-phenyl-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-1,10-phenanthroline, D-00470
- 2,4-Dihydro-4-phenyl-3*H*-1,2,4-triazole-3-thione, D-00471
- 2,9-Dihydro-9-phenyl-3*H*-1,2,4-triazolo[4,3-*a*]benzimidazole-3-thione, D-00472
- 6-(2,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)-2,2'-bipyridine, D-00473
- 2-(4,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyrazine, D-00474
- 3-(4,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyridazine, D-00475
- 2-(4,5-Dihydro-4-phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, D-00476
- 4-(2,5-Dihydro-5-phenyl-1*H*-1,2,4-triazol-3-yl)pyrimidine, D-00477
- 1,3-Dihydro-2*H*-purine-2-thione, D-00478
- 4,5-Dihydro-1*H*-pyrazole-3,4-dicarboxylic acid; Diamide, *N*-di-Me, *in* D-00480
- 1,2-Dihydro-3,6-pyridazinedione; *A*-form, *in* D-00481
- 2,3-Dihydro-5-(2-pyridinyl)-1*H*-imidazole, D-00482
- 6-[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]-2,2'-bipyridine, D-00483
- [4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyrazine, D-00484
- 3-[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyridazine, D-00485
- 4-[4,5-Dihydro-5-(2-pyridinyl)-1*H*-1,2,4-triazol-3-yl]pyrimidine, D-00486
- 4,5-Dihydro-5-(2-pyridyl)-3-(2-thiazolyl)-1*H*-1,2,4-triazole, D-00487
- 2-[4,5-Dihydro-3-(2-pyridyl)-1*H*-1,2,4-triazolyl]phenol, D-00488
- ▶ 1,4-Dihydro-2,3-quinoxalinedithione, D-00489
- Dihydro-5-[3-(1,2,3,4-tetrahydro-6-hydroxy-4-oxo-5-pyrimidinyl)-2-propenylidene]-4,6(1*H*,5*H*)-pyrimidinedione, D-00490
- 5,14-Dihydro-6,8,15,17-tetramethyldibenzol[*b*,*j*][1,4,8,11]tetraazacyclotetradecine, D-00491
- ▶ Dihydro-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione, D-00492
- Dihydro-2-thioxo-4,5,6(1*H*)-pyrimidinetriene 5-oxime, D-00493
- ▶ 2,3-Dihydro-2-thioxo-4(1*H*)-pyrimidinone, D-00494
- 5-[(4,5-Dihydro-5-thioxo-1,3,4-thiadiazol-2-yl)azo]-6-hydroxy-2-naphthalenesulfonic acid; Na salt, *in* D-00495
- 1,2-Dihydro-3*H*-1,2,4-triazole-3-thione; K salt, *in* D-00496
- 3,4-Dihydro-4,4,6-trimethyl-1-(4-methyl-2-nitrophenyl)-2(1*H*)-pyrimidinethione, D-00498
- 3,4-Dihydro-4,4,6-trimethyl-1-(4-nitrophenyl)-2(1*H*)-pyrimidinethione, D-00499
- 3,4-Dihydro-4,4,6-trimethyl-1-(phenylamino)-2(1*H*)-pyrimidinethione, D-00500
- ▶ 3,4-Dihydro-4,4,6-trimethyl-1-phenyl-2(1*H*)-pyrimidinethione, D-00501
- 3,4-Dihydro-4,4,6-trimethyl-1-(4-phenyl-2-thiazolyl)-2(1*H*)-pyrimidinethione, D-00502
- 3,4-Dihydro-4,4,6-trimethyl-1-propyl-2(1*H*)-pyrimidinethione, *in* D-00504
- 3,4-Dihydro-4,4,6-trimethyl-1-(2-pyridinyl)-2(1*H*)-pyrimidinethione, D-00503
- 3,4-Dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00504
- 3,4-Dihydro-4,4,6-trimethyl-1-(2,4,6-trichlorophenyl)-2(1*H*)-pyrimidinethione, D-00505
- ▶ 2',4'-Dihydroxyacetophenone, D-00507
- 2',4'-Dihydroxyacetophenone; Semicarbazone, *in* D-00507
- 2',4'-Dihydroxyacetophenone; Thiosemicarbazone, *in* D-00507
- 4,5-Dihydroxy-3-[4-(aminomethyl)phenylazo]-2,7-naphthalenedisulfonic acid *N,N*-diacetic acid, D-00509
- ▶ 1,2-Dihydroxyanthraquinone, D-00510
- ▶ 1,8-Dihydroxyanthraquinone, D-00512
- 1,5-Dihydroxyanthraquinone-2,6-disulfonic acid, D-00513
- 2,2'-Dihydroxyazobenzene, D-00514
- 3,4-Dihydroxyazobenzene, D-00515
- 2,4-Dihydroxybenzaldehyde, D-00517
- ▶ 3,4-Dihydroxybenzaldehyde, D-00519
- 2,4-Dihydroxybenzaldehyde guanyldiazone, D-00520
- 2,4-Dihydroxybenzaldehyde; Thiosemicarbazone, *in* D-00517
- α,N -Dihydroxybenzeneacetamide; (\pm)-form, *in* D-00521
- 2,4-Dihydroxybenzenecarbodithioic acid, D-00522
- 3,4-Dihydroxybenzenesulfonic acid, D-00527
- 6,7-Dihydroxy-3(2*H*)-benzofuranone, D-00530
- ▶ 2,5-Dihydroxybenzoic acid, D-00532
- 2,6-Dihydroxybenzoic acid, D-00533
- 2,4-Dihydroxybenzophenone; Semicarbazone, *in* D-00536
- 2,2'-Dihydroxybenzophenone; Thiosemicarbazone, *in* D-00535
- 4,5-Dihydroxy-2*H*-1-benzopyran-2-one, D-00537
- ▶ 6,7-Dihydroxy-2*H*-1-benzopyran-2-one, D-00538
- 2,5-Dihydroxy-1,4-benzoquinone, D-00540
- 4,4'-Dihydroxy-2,2'-biquinoline, D-00545
- 8,8'-Dihydroxy-5,5'-biquinoline, D-00546
- 4,5-Dihydroxy-3-[*N,N*-bis(carboxymethyl)aminomethyl]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00547
- 4,5-Dihydroxy-3,6-bis[5-chloro-2-hydroxy-3-sulfophenyl]azo]-2,7-naphthalenedisulfonic acid, D-00548
- 4,5-Dihydroxy-3,6-bis[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00549
- 4,5-Dihydroxy-3,6-bis[(2-hydroxy-3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00550
- 4,5-Dihydroxy-3,6-bis[(4-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00552
- 4,5-Dihydroxy-3,6-bis[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00553
- 4,5-Dihydroxy-3,6-bis[(4-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* D-00552
- 4,5-Dihydroxy-3,6-bis[(*o*-methoxyphenyl)azo]-2,7-naphthalenedisulfonic acid, *in* D-00551
- 4,5-Dihydroxy-3,6-bis[(4-methyl-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid; Tetra-Na salt, *in* D-00554
- 4,5-Dihydroxy-3,6-bis[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00556
- 4,5-Dihydroxy-3,6-bis[(4-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00557
- 4,5-Dihydroxy-3,6-bis(phenylazo)-2,7-naphthalenedisulfonic acid, D-00559
- 4,5-Dihydroxy-3,6-bis[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00560
- 4,5-Dihydroxy-3,6-bis(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00561
- 4,5-Dihydroxy-3,6-bis[(4-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00562
- 4,5-Dihydroxy-3,6-bis[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00563
- 4,5-Dihydroxy-3,6-bis[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00564
- 4,5-Dihydroxy-3,6-bis[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00565
- 4,5-Dihydroxy-3,6-bis(*p*-tolylazo)-2,7-naphthalenedisulfonic acid, D-00566
- Dihydroxybutenedioic acid, D-00567
- 2-[[1,8-Dihydroxy-7-[(5-chloro-3-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00568
- ▶ 3,4-Dihydroxy-3-cyclobuten-1,2-dione, D-00569
- 5,6-Dihydroxy-5-cyclohexene-1,2,3,4-tetrone; Di-K salt, *in* D-00570
- 4,5-Dihydroxy-4-cyclopentene-1,2,3-trione, D-00571

- 6,7-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00576
- 7,8-Dihydroxy-2,4-dimethyl-1-benzopyrylium(1+); Chloride, *in* D-00577
- N,N'*-Dihydroxy-2,3-dimethyl-2,3-butanediamine, D-00578
- 4,5-Dihydroxy-3-[4,5-(dimethyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00579
- 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00580
- 4,5-Dihydroxy-3-[(3,5-dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00581
- ▶ 1,8-Dihydroxy-2,4-dimironaphthalene, D-00582
- 6,7-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00584
- 7,8-Dihydroxy-2,4-diphenyl-1-benzopyrylium(1+); Chloride, *in* D-00585
- N,N'*-Dihydroxy-*N,N'*-diphenylheptanediamide, D-00587
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-chlorosalicylic acid], D-00588
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[2-hydroxy-5-sulfobenzoic acid], D-00589
- 2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalene)bis(azo)]bis[5-sulfobenzoic acid], D-00590
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bis[4-arsenobenzoic acid], D-00591
- 2,2'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, D-00592
- 3,3'-[(1,8-Dihydroxy-3,6-disulfo-2,7-naphthalenediyl)bis(azo)]bisbenzoic acid, D-00593
- 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00594
- 4-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]benzoic acid, D-00595
- 5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo][1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, *in* D-00596
- 5-[[4'-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]azo]-2-hydroxybenzoic acid; Tri-Na salt, *in* D-00597
- 3-[(1,8-Dihydroxy-3,6-disulfo-2-naphthalenyl)azo]-2-pyridinecarboxylic acid, D-00600
- 2-(1,8-Dihydroxy-3,6-disulfo-2-naphthylazo)phenoxyacetic acid; Di-Na salt, *in* D-00601
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-nitro-5-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00604
- 4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(4-nitro-2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00605
- 2-[[[1,8-Dihydroxy-3,6-disulfo-7-[(4-phenylazo)phenyl]azo]-2-naphthyl]azo]-5-sulfobenzoic acid, D-00606
- 4,5-Dihydroxy-3-[(2,4-disulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00607
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(3-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00609
- 2-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00610
- 3-[[1,8-Dihydroxy-3,6-disulfo-7-[(4-sulfophenyl)azo]-2-naphthalenyl]azo]benzoic acid, D-00611
- 5,7-Dihydroxyflavone, D-00612
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00615
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00616
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-6-[(2-hydroxy-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00617
- 4,5-Dihydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00618
- 4,5-Dihydroxy-3-[[2-[hydroxy(2-methylphenyl)phosphinyl]phenyl]azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00619
- 4,5-Dihydroxy-3-[(2-hydroxy-4-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00620
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitrophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00621
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-[(3-nitro-5-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00622
- 4,5-Dihydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00623
- 4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, *in* D-00624
- 4,5-Dihydroxy-3-[(4-hydroxyphenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00625
- 4,5-Dihydroxy-3-[(2-hydroxyphenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00626
- 6,7-Dihydroxy-2-(3-hydroxyphenyl)-4-methyl-1-benzopyrylium(1+); Chloride, *in* D-00627
- 6,7-Dihydroxy-2-(2-hydroxyphenyl)-3*H*-xanthen-3-one, D-00628
- 1,2-Dihydroxy-3-[5-(8-hydroxyquinolinyl)azo]anthraquinone, D-00629
- o*-[[1,8-Dihydroxy-7-[(2-hydroxy-5-sulfophenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00630
- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00631
- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00632
- 4,5-Dihydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00633
- 2,6-Dihydroxyimino-3-methylene-piperidine, *in* M-00178
- 4,5-Dihydroxy-3-[(4-iodophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00635
- 4,7-Dihydroxy-1*H*-isoindole-1,3 (2*H*)-dione; Dithiosemicarbazono, *in* D-00636
- 3,5-Dihydroxy-6-mercapto-1,2,4-triazine; Di-Na salt, *in* D-00639
- ▶ 5,7-Dihydroxy-4'-methoxyflavone, D-00641
- 2-[[1,8-Dihydroxy-7-[(4-methoxyphenyl)azo]-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00642
- 5,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00646
- 6,7-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00647
- ▶ 7,8-Dihydroxy-4-methyl-2*H*-1-benzopyran-2-one, D-00648
- 2,4-Dihydroxy-6-methyl-4'-nitroazobenzene, D-00650
- 2-[[1,8-Dihydroxy-7-[(3-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00651
- 2-[[1,8-Dihydroxy-7-[(4-methylphenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00652
- 6,7-Dihydroxy-4-methyl-2-(3-sulfophenyl)-1-benzopyrylium(1+); Chloride, *in* D-00656
- 6,7-Dihydroxy-2-naphthalenesulfonic acid, D-00658
- 4,5-Dihydroxy-1-naphthalenesulfonic acid; Na salt, *in* D-00657
- 4-[(1,7-Dihydroxy-2-naphthalenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00659
- 2-[[1,8-Dihydroxy-7-[(2-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00663
- 2-[[1,8-Dihydroxy-7-[(3-nitrophenyl)azo]-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00664
- 4,5-Dihydroxy-3-[(2-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00665
- 4,5-Dihydroxy-3-[(3-nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00666
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00667
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00668
- 4,5-Dihydroxy-3-[(*p*-nitrophenyl)azo]-6-[(*p*-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00669
- 4,5-Dihydroxy-3-[(4-nitro-2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00671
- 2,6-Dihydroxy-3-nitrosopyridine, D-00673
- 4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid; Et ester, *in* D-00674
- 4,6-Dihydroxy-5-nitroso-3-pyridinecarboxylic acid; Pentyl ester, *in* D-00674
- 2,4-Dihydroxy-3-nitrosoquinoline, D-00675
- 4,5-Dihydroxy-3-[(5-nitro-3-sulfophenyl)azo]-6-(phenylazo)-2,7-naphthalenedisulfonic acid, D-00677
- 4,5-Dihydroxy-3-[(4-nitro-2-sulfophenyl)azo]-6-[(2-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00678
- 4,5-Dihydroxy-5-[(5-nitro-3-sulfophenyl)azo]-6-[(3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00679
- 2,4-Dihydroxy-5-[(5-nitro-2-thiazolyl)azo]benzoic acid, D-00680
- 2,2-Dihydroxy-1*H*-phenalene-1,3(2*H*)-dione, D-00683
- 2,3-Dihydroxy-1*H*-phenalene-1-one, D-00684
- 4,7-Dihydroxy-1,10-phenanthroline; B,HCl, *in* D-00685
- 2-[(3,4-Dihydroxyphenyl)azo]benzoic acid, D-00689
- 2-[(3,4-Dihydroxyphenyl)azo]-4-(4-carboxyphenyl)-5-thiazolecarboxylic acid; 4'-Me ester, 5-Et ester, *in* D-00690
- 2-(3',4'-Dihydroxyphenyl)azo-3-cyano-4-methyl-5-ethoxycarbonylthiophene, *in* C-00326
- 4-[(2,4-Dihydroxyphenyl)azo]-1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-one, D-00691
- 2-[[1,8-Dihydroxy-7-(phenylazo)-3,6-disulfo-2-naphthalenyl]azo]benzoic acid, D-00692
- 4-(3,4-Dihydroxyphenylazo)-4'-hydroxybiphenyl, D-00695
- 2-[(3,4-Dihydroxyphenyl)azo]-4-(hydroxymethyl)-5-thiazolecarboxylic acid; Me ester, *in* D-00696
- 3-[2,4-Dihydroxyphenylazo]-2-hydroxy-5-nitrobenzenesulfonic acid, D-00698
- 2-(3,4-Dihydroxyphenylazo)-4-phenyl-5-benzoylthiazole, D-00699
- 4-[2-[(3,4-Dihydroxyphenyl)azo]-5-phenyl-4-thiazolyl]benzoic acid; Me ester, *in* D-00700
- 4,5-Dihydroxy-3-(phenylazo)-6-(8-quinolylazo)-2,7-naphthalenedisulfonic acid, D-00701

- 4,5-Dihydroxy-3-(phenylazo)-6-[[4-sulphophenyl]azo]-2,7-naphthalenedisulfonic acid, D-00702
- 7,8-Dihydroxy-3-phenyl-2*H*-1-benzopyran-2-one, D-00705
- 7,8-Dihydroxy-4-phenyl-2*H*-1-benzopyran-2-one, D-00706
- 1-(2,4-Dihydroxyphenyl)-1-butanone; Oxime, *in* D-00707
- 6,7-Dihydroxy-4-phenylcoumarin, D-00708
- 2-[[3,4-Dihydroxyphenyl]methylene]hydrazinecarboximidamide, D-00712
- [[2,4-Dihydroxyphenyl]methylene](2-pyridinylmethylene)carbonothioic dihydrazide, D-00713
- 1-(2,4-Dihydroxyphenyl)-1-pentanone, D-00714
- 1-(2,4-Dihydroxyphenyl)-1-propanone; Oxime, *in* D-00715
- 2-(3,4-Dihydroxyphenyl)-3,5,6,7-tetrahydroxy-4*H*-1-benzopyran-4-one, D-00717
- 4,5-Dihydroxy-3-[(4-phenyl-2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00718
- 9-(3,4-Dihydroxyphenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00719
- ▷ 2,6-Dihydroxy-4-pyridinecarboxylic acid, D-00721
- 4,5-Dihydroxy-3-[(2-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00722
- 4,5-Dihydroxy-3-[(3-pyridinyl)azo]-2,7-naphthalenedisulfonic acid, D-00723
- 1,4-Dihydroxy-2-(2-pyridylmethyl)anthraquinone, D-00725
- o*-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]benzoic acid, D-00726
- 8-[[1,8-Dihydroxy-7-(8-quinolylazo)-3,6-disulfo-2-naphthyl]azo]-1,6-naphthalenedisulfonic acid, D-00727
- 4,5-Dihydroxy-3-(8-quinolylazo)-6-[(2-sulphophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00728
- 4,5-Dihydroxy-3-(8-quinolylazo)-6-[(3-sulphophenyl)azo]-2,7-naphthalenedisulfonic acid, D-00729
- 2,4-Dihydroxy-5-sulfobenzoic acid, D-00731
- 4,5-Dihydroxy-3-[(5-sulfo-1-naphthalenyl)azo]-2,7-naphthalenedisulfonic acid, D-00734
- 4,5-Dihydroxy-3-[(4-sulphophenyl)azo]-2,7-naphthalenedisulfonic acid; Tri-Na salt, *in* D-00736
- 4,5-Dihydroxy-3-(1*H*-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, D-00738
- 4,5-Dihydroxy-3-[(2-thiazolyl)azo]-2,7-naphthalenedisulfonic acid, D-00739
- ▷ 2,5-Dihydroxy-3-undecyl-1,4-benzoquinone, D-00740
- 4,4'-Diiododithizone, D-00743
- ▷ 5,7-Diiodo-8-quinolinol, D-00744
- ▷ 3,5-Diiodosalicylic acid, D-00745
- 2,3-Dimercapto-2-butenedinitrile, *in* D-00753
- 2,6-Dimercapto-3,5-dimethyl-4*H*-thiopyran-4-one, D-00754
- 2,6-Dimercapto-3,5-diphenyl-4*H*-thiopyran-4-one, D-00755
- 2,6-Dimercapto-3,5-dipropyl-4*H*-thiopyran-4-one, D-00756
- 2,6-Dimercapto-3-methyl-5-phenyl-4*H*-thiopyran-4-one, D-00757
- 2,6-Dimercapto-3-methyl-4*H*-thiopyran-4-one, D-00758
- 2,6-Dimercapto-4-oxo-4*H*-thiopyran-3-carboxylic acid, D-00759
- 2,6-Dimercapto-3-pentyl-4*H*-thiopyran-4-one, D-00760
- ▷ 2,3-Dimercapto-1-propanesulfonic acid, D-00761
- 2,3-Dimercaptopropanoic acid, D-00762
- ▷ 2,3-Dimercapto-1-propanol, D-00763
- 2,6-Dimercapto-3-propyl-4*H*-thiopyran-4-one, D-00764
- ▷ 1,2-Dimethoxybenzene, D-00766
- 3,3'-[(3,3'-Dimethoxy-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00769
- 3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2,5-bis(4-nitrophenyl)-2*H*-tetrazolium](2+) 9Cl; Dichloride, *in* D-00770
- 3,3'-(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis[2-(3-nitrophenyl)-5-phenyl-2*H*-tetrazolium](2+); Dichloride, *in* D-00771
- 2,2'-[(3,3'-Dimethoxy[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, D-00772
- 6,6'-Dimethoxy-3,3'-bipyridazine, D-00773
- 4,4'-Dimethoxydithizone, D-00775
- 4,7-Dimethoxy-1,10-phenanthroline, *in* D-00685
- 5,6-Dimethoxy-1,10-phenanthroline, *in* D-00686
- 4,4'-Dimethoxystilbene, *in* D-00730
- ▷ 4-(Dimethylamino)benzaldehyde, D-00779
- 4-Dimethylamino-2,2'-dihydroxyazobenzene, D-00783
- 4,4'-[*p*-(Dimethylamino)- α -hydroxybenzylidene]diantipyrine, D-00785
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4,6-dinitrophenol, *in* A-00210
- 3-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-hydroxybenzenesulfonic acid, D-00787
- 4-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, D-00788
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-methylphenol, *in* A-00197
- 2-[[4-(Dimethylamino)-2-hydroxyphenyl]azo]-4-nitrophenol, *in* A-00213
- 5-Dimethylamino-2-[(4-methyl-2-thiazolyl)azo]phenol, D-00793
- 3-Dimethylamino-6-nitroso-1-naphthol, D-00803
- 5-(Dimethylamino)-2-nitrosophenol; B,HCl, *in* D-00804
- 5-(Dimethylamino)-2-[(5-nitro-2-thiazolyl)azo]phenol, *in* A-00289
- 4-Dimethylamino-1,2-phenylenediamine, *in* T-00192
- 4-[2-[4-(Dimethylamino)phenyl]ethenyl]-1-phenylquinolinium(1+); Chloride, *in* D-00810
- 2-[2-[4-(Dimethylamino)phenyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Chloride, *in* D-00811
- ▷ *N*-[4-[[4-(Dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-*N*-methylmethanaminium(1+); Chloride, *in* D-00812
- ▷ 5-[[4-(Dimethylamino)phenyl]ethylene]-2-thioxo-4-thiazolidinone, D-00813
- N*-[4-(Dimethylamino)phenyl]-*N*-hydroxy-3-methoxy-2-naphthalenecarboxamide, D-00814
- 2-[[*p*-(Dimethylamino)phenyl]imino]-2'-acetonephthone, D-00815
- 4-(4-Dimethylaminophenyl)-1-phenylthiosemicarbazide, D-00822
- 3-[4-(Dimethylamino)phenyl]-2-propenal; (*E*)-form, *in* D-00823
- 9-[4-(Dimethylamino)phenyl]-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00824
- 5-(Dimethylamino)-2-(2-pyridinylazo)phenol, *in* A-00336
- 5-(Dimethylamino)-2-(8-quinolylazo)phenol, D-00825
- 5-(Dimethylamino)-2-(2-thiazolylazo)phenol, *in* A-00214
- 2-[2-[(5-Dimethylamino)-2-thienyl]ethenyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* D-00826
- ▷ 2,3-Dimethylaniline; *N*-Ac, *in* D-00827
- ▷ 2,5-Dimethylaniline; *N*-Ac, *in* D-00828
- ▷ 2,6-Dimethylaniline; *N*-Ac, *in* D-00829
- ▷ 3,4-Dimethylaniline; *N*-Ac, *in* D-00830
- 4,5-Dimethyl-1,2-benzenedithiol, D-00832
- 3,3'-[(3,3'-Dimethyl-[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[6-hydroxybenzoic acid], D-00836
- 2,2'-[(3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diyl)diimino]bisbenzoic acid, D-00837
- 5,5'-Dimethyl-3,3'-bipyridazine, D-00838
- 6,6'-Dimethyl-3,3'-bipyridazine, D-00839
- 4,4'-Dimethyl-2,2'-bipyridine, D-00840
- 6,7-Dimethyl-2,3-bis(6-methyl-2-pyridinyl)quinoxaline, D-00842
- ▷ 3,3-Dimethyl-2-butanone, D-00845
- Dimethylcarbamodiselenoic acid; Na salt, *in* D-00846
- 5,5-Dimethyl-1,3-cyclohexanedione, D-00847
- 5,5-Dimethyl-1,3-cyclohexanedione; Bisthiosemicarbazone, *in* D-00847
- 5,5-Dimethyl-1,3-cyclohexanedione; Dioxime, *in* D-00847
- 5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 1,3-bisthiosemicarbazone, *in* D-00848
- 5,5-Dimethyl-1,2,3-cyclohexanetrione; 2-Oxime, 3-thiosemicarbazone, *in* D-00848
- 2,9-Dimethyl-4,7-dihydroxy-1,10-phenanthroline, D-00850
- N,N'*-Dimethyl-diphenylbenzidine, *in* D-00053
- 3,3'-Dimethyl-1,1'-diphenyl-[4,4'-bi-2-pyrazolone]-5,5'-dione, D-00851
- 2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline, D-00852
- 6,7-Dimethyl-2,3-di(2-pyridyl)quinoxaline, D-00855
- 2,2'-Dimethyldithizone, D-00856
- 3,3'-Dimethyldithizone, D-00857
- 4,4'-Dimethyldithizone, D-00858
- ▷ Dimethylglyoxime, D-00862
- 5,5-Dimethyl-2,4-hexanedione, D-00863
- 2-[*o*-[(4,5-Dimethylimidazol-2-yl)azo]phenyl]-4,5,7-trimethyl-8-quinazolinol, D-00867
- N,N*-Dimethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, D-00870
- 5,6-Dimethyl-3-(4-methyl-2-pyridinyl)-1,2,4-triazine, D-00871
- 4,5-Dimethyl-2-[(5-methyl-1,3,4-thiadiazol-2-yl)azo]phenol, D-00872
- 5,6-Dimethyl-2-nitro-1,3-indanedione; Bis(thiosemicarbazone), *in* D-00873
- N,N*-Dimethyl-*N'*-[5-nitro-4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00874
- N,N*-Dimethyl-*N'*-[4-(4-nitrophenyl)-2-thiazolyl]thiourea, D-00875
- ▷ *N,N*-Dimethyl-4-nitrosoaniline, D-00876
- 2,9-Dimethyl-1,10-phenanthroline, D-00880
- 3,8-Dimethyl-1,10-phenanthroline, D-00881
- 4,7-Dimethyl-1,10-phenanthroline, D-00882
- 5,6-Dimethyl-1,10-phenanthroline, D-00883
- ▷ 2,4-Dimethylphenol, D-00884
- ▷ 2,6-Dimethylphenol, D-00885
- ▷ 3,4-Dimethylphenol, D-00886
- 2-[5,5-Dimethyl-3-[2-[(phenylamino)thioxomethylhydrazino]-2-cyclohexen-1-ylidene]-*N*-phenylhydrazinecarbothioamide, *in* D-00847
- 1,3-Dimethyl-4-(phenylazo)-1*H*-pyrazole-5-thiol, D-00887
- ▷ *N,N*-Dimethyl-1,4-phenylenediamine, *in* D-00048
- N'*-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-(4-methylphenyl)benzamidine, D-00889
- N'*-(2,3-Dimethylphenyl)-*N*-hydroxy-*N*-phenylbenzamidine, D-00890
- N*-(2,3-Dimethylphenyl)-*N*-hydroxy-3-phenylpropanamide, D-00891
- N*-(2,3-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00892
- N*-(2,6-Dimethylphenyl)-*N'*-phenylbenzenecarboximidamide, D-00893
- 5,6-Dimethyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-00895

- 2,2'-(1,3-Dimethyl-1,3-propanediylidene)dinitrilo]bisbenzenethiol, D-00898
- 5,6-Dimethyl-3-pyrazinyl-1,2,4-triazine, D-00903
- 3,5-Dimethyl-1*H*-pyrazole, D-00904
- 5,6-Dimethyl-3-(3-pyridazinyl)-1,2,4-triazine, D-00907
- N,N'*-Dimethyl-2,6-pyridinedicarbothioamide, D-00908
- 4,5-Dimethyl-2-(2-pyridinylazo)phenol, D-00910
- 5,6-Dimethyl-3-(2-pyridinyl)-1,2,4-triazine, D-00911
- 1,3-Dimethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetriene, *in* P-00429
- 5,6-Dimethyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-00912
- 4,5-Dimethyl-2-(2-quinolinylazo)phenol, D-00914
- Dimethylsulfonazo DAL, D-00918
- 7,14-Dimethyl-5,7,12,14-tetraethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, D-00919
- 1,3-Dimethyl-5-[(tetrahydro-1,3-dimethyl-2,4,6-trioxo-5(2*H*)-pyrimidinylidene)amino]-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetriene, *in* P-00281
- 2,4-Dimethyl-6-(1*H*-tetrazol-5-ylazo)phenol, D-00920
- 2-[(4,5-Dimethyl-2-thiazolyl)azo]-4,6-dimethylphenol, D-00921
- 7-(4,5-Dimethyl-2-thiazolyl)azo-8-hydroxy-5-quinolinesulfonyl acid, D-00922
- 2,4-Dimethyl-6-(2-thiazolylazo)phenol, D-00923
- 2-(4,5-Dimethyl-2-thiazolyl)-3,5-diphenyl-2*H*-tetrazolium(1+); Bromide, *in* D-00924
- 3-(4,5-Dimethyl-2-thiazolyl)-2,5-diphenyl-2*H*-tetrazolium(1+); Chloride, *in* D-00925
- 5,6-Dimethyl-3-(2-thiazolyl)-1,2,4-triazine, D-00926
- 2-(5,6-Dimethyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, D-00927
- N,N'*-Di-2-naphthalenyl-1,4-benzenediamine, D-00929
- 1,2-Di(1-naphthalenyl)-1,2-ethanedione; Monooxime, *in* D-00930
- Dinaphthizone, D-00931
- 1,5-Di-(β -naphthyl)thiocarbazono, D-00933
- ▶ 1,3-Di-1-naphthyl-2-thiourea, D-00934
- ▶ 2,4-Dinitro-1,3-benzenediol, D-00940
- 3,4-Dinitro-1,2-benzenediol, D-00941
- 4-[(3,5-Dinitrobenzoyl)hydroxyamino]benzoic acid methyl ester, *in* D-00946
- 4-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2,7-naphthalenedisulfonic acid, D-00953
- 1-[(3,5-Dinitro-2-hydroxyphenyl)azo]-2-naphthol, D-00954
- 4-(3,5-Dinitro-2-hydroxyphenylazo)-1-naphthol, D-00955
- ▶ 2,4-Dinitrophenol, D-00958
- 1-[(2,4-Dinitrophenyl)amino]-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, D-00962
- 4-[(2,4-Dinitrophenyl)azo]-1,2-benzenediol, D-00963
- 3-[(2,4-Dinitrophenyl)azo]-4,5-dihydroxy-6-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, D-00964
- 5-(2,4-Dinitrophenylazo)-8-hydroxyquinoline, D-00968
- 19-[(2,4-Dinitrophenyl)azo]-3,6,9,12,15-pentaobicyclo[15.3.1]heneicosal(21),17,19-trien-21-ol, D-00969
- 16-[(2,4-Dinitrophenyl)azo]-3,6,9,12-tetraoxabicyclo[12.3.1]octadecal(18),14,16-trien-18-ol, D-00970
- 9-(2,4-Dinitrophenyl)-2,6,7-trihydroxy-3*H*-xanthen-3-one, D-00975
- N*-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-3,4,6,7,10,11-hexahydro-2*H*,9*H*-1,5,8,12-benzotetraoxacyclotetradecin-14-amine, D-00976
- N*-[2,4-Dinitro-6-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclotetradecin-15-amine, D-00977
- N*-[2,6-Dinitro-4-(trifluoromethyl)phenyl]-2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclotetradecin-15-amine, D-00978
- Diocetylamine; *N*-Methyl, *in* D-00981
- 5-Diocyloaminomethyl-8-quinolinol, *in* A-00244
- Di(*n*-octyl)arsinic acid, D-00982
- 2,3-Dioxobutanoic acid; 2-(2-Hydroxyphenyl)hydrazone, Et ester, *in* D-00986
- 2-(1,3-Dioxobutyl)-1*H*-indene-1,3-(2*H*)-dione, D-00987
- N*-(3,6-Dioxo-1,4-cyclohexadien-1-yl)benzenesulfonamide, D-00988
- 3,4-Dioxohexanedioic acid bis(thiosemicarbazide); Di-Et ester, *in* D-00990
- 1,3-Dioxo-2-indanecarboxylic acid; Me ester, *in* D-00991
- 4-(1,3-Dioxo-3-phenylpropyl)benzenesulfonic acid, D-00994
- ▶ Diphenylhydramine hydrochloride, *in* D-00998
- ▶ Diphenylamine, D-01000
- N,N'*-Diphenylbenzamide, D-01001
- 4,4'-Diphenyl-2,2'-bipyrimidine, D-01003
- Diphenylcarbazine, D-01004
- Diphenylcarbazone, D-01005
- sym*-Diphenylcarbazone, D-01006
- ▶ 2,2'-Diphenylcarbonothioic dihydrazide, D-01007
- 2,2'-Diphenyldithizone, D-01009
- Diphenylethanedione bis(2-pyridinylhydrazone), D-01012
- Diphenylethanedione mono(2-quinolinylhydrazone), D-01014
- Diphenylethanedione monooxime, *in* B-00038
- ▶ 1,1-Diphenylethylene, D-01016
- Diphenylglyoxal bis(2-hydroxybenzoylhydrazone), D-01017
- (*E,E*)-Diphenylglyoxime, *in* B-00038
- ▶ 1,3-Diphenylguanidine, D-01018
- 2-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]benzoic acid, D-01022
- 8-[(4,5-Diphenyl-1*H*-imidazol-2-yl)azo]quinoline, D-01025
- 4-(Diphenylmethylene)-2-hydroxy-1(4*H*)-naphthalenone, D-01029
- N,N'*-Diphenylmethyl-4-nitrosobenzeneamine, *in* N-00154
- 1,3-Diphenyl-5-nitrosobarbituric acid, *in* P-00428
- 2,9-Diphenyl-1,10-phenanthroline, D-01032
- 4,7-Diphenyl-1,10-phenanthroline, D-01034
- 4,5-Diphenyl-2-(phenylazo)-1*H*-imidazole, D-01035
- 5,6-Diphenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, D-01037
- O,O*-Diphenyl phosphorodithioate, D-01040
- 1,3-Diphenyl-1,3-propanedione, D-01041
- 1,5-Diphenyl-3-(2-propenylthio)formazan, D-01043
- 5,6-Diphenyl-3-(pyrazinyl)-1,2,4-triazine, D-01044
- 5,6-Diphenyl-3-(3-pyridazolyl)-1,2,4-triazine, D-01045
- 4,6-Diphenyl-2-(2-pyridinyl)pyrimidine, D-01046
- 5,6-Diphenyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01047
- Diphenyl selenoxide, D-01049
- 2,4-Diphenylthiosemicarbazide, D-01050
- N,N'*-Diphenylthioimidodicarbonic diamide, *in* T-00163
- 1,4-Diphenylthiosemicarbazide, D-01053
- 2,4-Diphenylthiosemicarbazide, D-01054
- ▶ *N,N'*-Diphenylthiourea, D-01055
- 3-(5,6-Diphenyl-1,2,4-triazin-3-yl)isoquinoline, D-01056
- ▶ 2,2-Diphenyl-1-(2,4,6-trinitrophenyl)hydrazyl, D-01057
- 1,1-Di-2-pyridinyl-*N,N'*-di-8-quinolinylmethanediamine, D-01062
- Di-2-pyridinylethanedione bis(diphenylsemicarbazone), D-01064
- Di-2-pyridinylethanedione bis(2-hydroxybenzoylhydrazone), D-01065
- Di-2-pyridinylethanedione bis(2-pyridinylhydrazone), D-01066
- Di-2-pyridinylethanedione bis(2-quinolinylhydrazone), D-01067
- Di-2-pyridinylethanedione mono(2-pyridinylhydrazone), D-01068
- Di-2-pyridinylethanedione mono(2-pyrimidinylhydrazone), D-01069
- Di-2-pyridinylethanedione; 2-Quinolylhydrazone, *in* D-01063
- 1,2-Di-2-pyridinylethanedione 2-pyrimidinylhydrazone, D-01070
- Di-2-pyridinylmethanone 2-benzothiazolylhydrazone, D-01072
- Di-2-pyridinylmethanone benzoylhydrazone, D-01073
- Di-2-pyridinylmethanone di-2-pyridinylmethylenehydrazone, D-01076
- Di-2-pyridinylmethanone 5-nitro-2-pyridylhydrazone, D-01079
- Di-2-pyridinylmethanone 2-pyridinylhydrazone, D-01080
- Di-2-pyridinylmethanone 2-pyrimidinylhydrazone, D-01081
- Di-2-pyridinylmethanone 2-quinolinylhydrazone, D-01082
- Di-2-pyridinylmethanone 2-thiazolylhydrazone, D-01083
- Di-2-pyridinylmethanone thiosemicarbazone, D-01084
- 5-(Di-2-pyridinylmethylene)-2-thioxo-4-imidazolidinone, D-01085
- 5,6-Di-2-pyridinyl-3-(4-pyrimidinyl)-1,2,4-triazine, D-01086
- 2,3-Di-2-pyridinylquinoxaline, D-01087
- 2,3-Di-2-pyridylbenzo[*g*]quinoxaline, D-01088
- 1,2-Di-2-pyridyl-1,2-ethanediol, D-01089
- 1,2-Di(2-pyridyl)ethylene, D-01090
- 2,2'-Dipyridyl- α -glyoxime, *in* D-01063
- 2,4-Di-2-pyridylpyrimidine, D-01092
- 4,6-Di-2-pyridylpyrimidine, D-01093
- Di-2-pyridylquinazoline, D-01094
- 2,3-Di-2-pyridyl-6-quinoxalinecarboxylic acid, D-01095
- 5,6-Di-2-pyridyl-3-(2-thiazolyl)-1,2,4-triazine, D-01096
- 3-(5,6-Di-2-pyridyl-1,2,4-triazin-3-yl)isoquinoline, D-01097
- 2-[5,6-Di(2-pyridyl)-1,2,4-triazin-3-yl]-1,10-phenanthroline, D-01098
- 3,5-Di-2-pyridyl-1,2,4-triazole, D-01099
- 3,5-Di-2-pyridyl-1,2,4-triazoline, *in* D-01099
- Di-2-quinolinylmethanone 2-pyridinylhydrazone, D-01102
- Di-2-quinolinylmethanone 2-quinolinylhydrazone, D-01103
- 1,3-Di-2-selenophenyl-1,3-propanedione, D-01106
- ▶ Disulfiram, D-01107
- 1,1'-(2,2'-Disulfo-4,4'-biphenylene)bis(3-hydroxy-3-phenyltriazene); Di-Na salt, *in* D-01108
- 4,4'-Disulfodithizone; Di-Na salt, *in* D-01109
- 7-(5,8-Disulfo-2-naphthylazo)-8-hydroxy-5-quinolinesulfonic acid, D-01110
- Dithioantipyrinic acid, D-01116
- Dithiobenzoic acid, D-01117
- 3,3'-Dithiobis[6-nitrobenzoic acid], D-01120
- ▶ 2,2'-Dithiobispyridine, D-01122
- 4,4'-Dithiobispyridine, D-01123
- N*-(Dithiocarboxyl)sarcosine, D-01126
- 1,1'-(Dithiodicarbothioyl)bis[hexahydro-1*H*-azepine], D-01127
- ▶ 4,4'-(Dithiodicarbothioyl)bismorpholine, D-01128
- 1,1'-(Dithiodicarbothioyl)bis[octahydroazocine], D-01129

- ▶ 1,1'-(Dithiocarbonothioyl)bispiperidine, D-01130
5,5'-Dithiodisallylhydroxamic acid, D-01131
Dithiofluorescein, D-01132
3*H*-1,2-Dithiole-3-thione, D-01133
 α,α -[(Dithiooxaly)diimino]di-*m*-toluenesulfonic acid, D-01134
- ▶ Dodecylamine, D-01142
6-Dodecyl-6-(2-hydroxy-3,5-dinitrobenzyl)-1,4,8,11-tetraoxacyclotetradecane, D-01146
6-Dodecyl-6-[2-hydroxy-5-(1,8-naphthalenedicarbonylimido)benzyl]-1,4,8,11-tetraoxacyclotetradecane, D-01147
- ▶ 1-Dodecyl sulfate, D-01155
Ecarazine hydrochloride, *in* T-00188
- ▶ Edetol, E-00001
- ▶ Eosine; Di-Na salt, *in* E-00007
- ▶ Ephedrine, *in* M-00122
- ▶ Eriochrome azuroil G; Di-Na salt, *in* E-00009
- ▶ Eriochrome blue black; Na salt, *in* E-00010
Eriochrome blue SE; Di-Na salt, *in* E-00011
Eriochrome brilliant violet B, E-00012
Eriochrome cyanine R; Tri-Na salt, *in* E-00013
Eriochrome geranol; Di-Na salt, *in* E-00015
Eriochrome green B, E-00016
Ethanebis(thioic) acid; Di-K salt, *in* E-00023
- ▶ Ethanedithioamide, E-00027
N,N'-1,2-Ethanediylbisanaline, E-00029
[1,2-Ethanediylbis[nitriolobis[methylene]] tetrakisphosphonic acid, E-00032
1,2-Ethanediylbis[phenylcarbamodithioic acid]; Di-NH₄ salt, *in* E-00033
- ▶ 1,2-Ethanediylbis[triphenylphosphonium] (2+); Dibromide, *in* E-00034
4,4'-(1,2-Ethanediylidinitrilo)bis(2-pentanone), E-00037
7-(1-Ethenyl-3,3,5,5-tetramethylhexyl)-8-quinolinol, E-00049
- Ethopropazine hydrochloride, *in* E-00050
5-(*p*-Ethoxyanilino)-5,6-dihydrouracil, E-00052
- 3-[(6-Ethoxy-2-benzothiazolyl)azo]-4,5-dihydroxy-2,7-naphthalenedisulfonic acid, E-00053
- 1-[(4-Ethoxyphenyl)amino]-2-mercapto-1-propanone, E-00058
- 5-Ethoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- α -(Ethylamino)-*p*-(dimethylamino)benzylphosphonic acid; Et ester, *in* E-00064
- [(Ethylamino)(2-hydroxyphenyl)methyl]phosphonic acid; Et ester, *in* E-00065
- 4-[[4-(Ethylamino)-6-hydroxy-*m*-tolyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, *in* A-00196
- 5-(Ethylamino)-4-methyl-2-[(4-phenyl-2-thiazolyl)azo]phenol, *in* A-00250
- 5-(Ethylamino)-4-methyl-2-(2-pyridinylazo)phenol, *in* A-00253
- 2-(Ethylamino)-4-methyl-5-(8-quinolinylazo)phenol, *in* A-00255
- 2-(Ethylamino)-4-methyl-2-(2-thiazolylazo)phenol, E-00066
- 1-Ethyl-3,4-dihydro-4,4,6-trimethyl-2(1*H*)-pyrimidinethione, E-00069
- [Ethylenebis(iminosalicylidene)]diphosphonic acid, E-00075
- N,N'*-Ethylenebis(4-methoxy-1,2-benzoquinone 2-imine); Dioxime, *in* E-00076
- ▶ Ethylenediaminetetraacetic acid, E-00078
Ethylenedithioacetic acid; Di-Na salt, *in* E-00080
1-Ethyl-2-(1-ethyl-1,4-dihydro-4-pyridinyl)-6-methylquinolinium(1+); Iodide, *in* E-00081
2-Ethyl-4-(2-furanyl)propenal; Thiosemicarbazone, *in* E-00082
- 2-Ethyl-5-hydroxy-4*H*-1-benzopyran-4-one, E-00084
- 3-[Ethyl[3-hydroxy-4-[(2-hydroxy-5-methylphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00087
- 3-[Ethyl[3-hydroxy-4-[(2-hydroxyphenyl)azo]phenyl]amino]-1-propanesulfonic acid, E-00088
- 2-Ethyl-5-hydroxy-7-methoxyisoflavone, *in* E-00070
- 3-[Ethyl[5-hydroxy-2-methyl-4-[(4-methyl-2-thiazolyl)azo]]-1-propanesulfonic acid, E-00092
- 4,4'-Ethylidenebis[3-methyl-2-isoxazolin-5-one], E-00094
- Ethyl- α -isotonitrosoacetate, *in* D-00986
- 3-[Ethyl(3-methoxyphenyl)amino]-1-propanesulfonic acid; Na salt, *in* E-00097
- Ethylmethylglyoxime, *in* P-00029
- 3-[Ethyl-(2-methylphenyl)amino]-1-propanesulfonic acid; Na salt, *in* E-00098
- 3-[Ethyl-(3-methylphenyl)amino]-1-propanesulfonic acid; Na salt, *in* E-00099
- 3-[Ethyl-(4-methylphenyl)amino]-1-propanesulfonic acid; Na salt, *in* E-00100
- 3-(Ethylphenylamino)-1-propanesulfonic acid; Na salt, *in* E-00102
- N*-(4-Ethylphenyl)-*N'*-phenylbenzenecarboximidamide, E-00104
- 5-Ethyl-*N*-phenyl-2-pyridinecarbothioamide, *in* E-00108
- ▶ 2-Ethyl-4-pyridinecarbothioamide, E-00107
3-(4-Ethyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, E-00109
3-(4-Ethyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, E-00110
2-(4-Ethyl-2-pyridyl)-3*H*-imidazo[4,5-*h*]quinoline, E-00111
4-Ethyl-*N*-(8-quinolyl)benzenesulfonamide, E-00112
N-(Ethylsulfonyl)benzamide; Oxime, *in* E-00113
4-[[4-[Ethyl(3-sulfopropyl)amino]-2-hydroxyphenyl]azo]-3-hydroxy-1-naphthalenesulfonic acid, E-00115
2-[(5-Ethyl-1,3,4-thiadiazol-2-yl)azo]-4-methoxyphenol, E-00116
N-(5-Ethyl-1,3,4-thiadiazol-2-yl)-4-[3-methyl-5-(1-methyl-1*H*-benzimidazol-2-yl)-1-formazanyl]benzenesulfonamide, E-00117
[[2-(Ethylthio)ethyl]thio]acetic acid, E-00119
3-Ethyl-2-thioxo-4-thiazolidinone, *in* T-00176
Ethyltridodecylammonium(1+); Bromide, *in* E-00120
9-Ethyl-2,6,7-trihydroxy-3*H*-xanthen-3-one, E-00121
Ethyl violet; Chloride, *in* E-00122
Etylmemazine; (\pm)-*form*, *in* E-00123
Fast sulphon black F; Na salt, *in* F-00002
Ferene S, *in* F-00003
- ▶ Ferrocene, F-00004
Ferrocene, F-00006
9*H*-Fluoren-9-one; Hydrazone, *in* F-00015
- ▶ *N*-Fluoren-1-ylbenzohydroxamic acid, F-00016
- ▶ Fluorescein, F-00020
4-(2-Fluorobenzoyl)-2,4-dihydro-5-methyl-2-phenyl-3*H*-pyrazol-3-one, F-00025
- ▶ Fluphenazine, F-00034
Formaloxime, *in* F-00035
Formamidinesulfonic acid, F-00036
- ▶ Fuchsine, *in* R-00009
2-Furancarbothioic acid (di-2-pyridinyl)methylenehydrazone, F-00041
2-Furancarboxaldehyde 2-benzothiazolylhydrazone, F-00044
3-Furancarboxaldehyde; Oxime, *in* F-00043
2-Furancarboxaldehyde 1-phthalazinylhydrazone, F-00048
- 2-Furancarboxaldehyde 2-pyridinylhydrazone, F-00049
2-Furanthiocarboxhydrazone, *in* F-00040
(2-Furanyl)-2,3-dihydro-4-phenyl-1*H*-pyrazole-1-carbonodithioic acid, F-00051
3-(2-Furanyl)-*N*-hydroxy-*N*-phenyl-2-propenamide, *in* F-00053
3-(2-Furanyl)-2-mercapto-2-propenoic acid, F-00054
1-(2-Furanylmethyl)-4,6-diphenyl-2(1*H*)-pyridinethione, F-00055
5-(2-Furanylmethylene)-2-thioxo-4-thiazolidinone, F-00056
N-(2-Furanylmethyl)hydrazinecarbothioamide, F-00057
2-[5-(2-Furanyl)-2,4-pentadienylidene]hydrazinecarbothioamide, *in* F-00058
5-[5-(2-Furanyl)-2,4-pentadienylidene]-2-thioxo-4-thiazolidinone, F-00059
3-(2-Furanyl)-2-propenal; (*E*)-*form*, Thiosemicarbazone, *in* F-00060
5-[3-(2-Furanyl)-2-propenylidene]-2-thioxo-4-thiazolidinone, F-00061
1-(2-Furanyl)-3-(2-selenophenyl)-1,3-propanedione, F-00062
Furfural green; Chloride, *in* F-00063
- ▶ α -Furildioxime, *in* D-00364
 α -Furoinoxime, *in* F-00065
Gallamine; B,HCl, *in* G-00002
Gallein, G-00004
Gallocyanine MS, G-00006
Gluconic acid; *D*-*form*, *in* G-00011
Glutarimide dioxime, *in* G-00014
- ▶ Glycerol, G-00015
Glycinedithiocarbamic acid, G-00018
Glycinethymol blue, G-00019
Glyoxal bis(4-biphenyllythiosemicarbazone), G-00021
Glyoxal bis[3,5-bis(trifluoromethyl)phenylthiosemicarbazone], G-00022
Glyoxal bis(4-cyclohexylthiosemicarbazone), G-00023
Glyoxal bis(4-fluorophenylthiosemicarbazone), G-00026
Glyoxal bis(2-hydroxyanil), G-00027
Glyoxal bis(4-hydroxybenzoylhydrazone), G-00028
Glyoxal bis(2-mercaptoanil), G-00029
Glyoxal bis(1-naphthylthiosemicarbazone), G-00031
Glyoxal bis(phenylthiosemicarbazone), G-00033
Glyoxal bis(thiosemicarbazone), G-00034
Glyoxal bis[4-(3-trifluoromethyl)-4-chlorophenyl]thiosemicarbazone, G-00035
N-Glyoxyloylantranilic acid; Monooxime, *in* G-00039
- ▶ Glyphosine, G-00040
Gossypol; (\pm)-*form*, *in* G-00041
Gossypol bis[*N*-(2-hydroxy)ethyleneimine], G-00042
Gossypol bis(4-hydroxyphenyl)imine, G-00043
2-Guanidino-1,2-dihydro-5-methyl-3*H*-pyrazol-3-one, G-00045
Gum arabic, *in* A-00398
- ▶ Haematein, H-00001
- ▶ Haematoxilin; (+)-*form*, *in* H-00002
4-Heptanone; Oxime, *in* H-00012
Heptyl 4-aminobenzoate, *in* A-00105
4,4'-Heptylidenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], H-00017
- ▶ 1-Hexadecylpyridinium(1+), H-00028
- ▶ Hexadecyltrimethylammonium(1+), H-00029
Hexahydro-1*H*-azepine-1-carbodithioic acid; K salt, *in* H-00035
Hexahydro-2*H*-azepine-2-thione, H-00036
Hexahydro-2*H*-1,3-diazepine-2-thione, H-00037
6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenz[*e,n*][1,4,10,7,13]dioxathiadiazacyclopentadecine, H-00038

- 6,7,10,11,17,18-Hexahydro-5*H*,9*H*-dibenzo[*e,n*][1,4,10,7,13]trithiadiazacyclopentadecine, H-00046
- Hexahydro-1,3,5-trihydroxy-1,3,5-triazine, H-00051
- 1,2,3,5,6,7-Hexahydroxyanthraquinone, H-00052
- 2,3,3',4,4',5'-Hexahydroxybenzophenone, H-00054
- ▶ Hexamethylphosphoric triamide, H-00058
- 5,7,7,12,14,14-Hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene, H-00059
- 5,5,7,12,12,14-Hexamethyl-1,4,8,11-tetraazacyclotetradecane; (*7RS*,14*RS*)-*form*, in H-00060
- ▶ 2,2',4,4',6,6'-Hexanitrodiphenylamine, H-00065
- Hexaoxacycloazochrome, H-00067
- 1,4,7,10,13,16-Hexathiacyclooctadecane, H-00070
- O*-Hexylbutylphosphonodithioate, in B-00638
- 6-Hexyl-4,5-dihydro-5-thioxo-1,2,4-triazin-3(*2H*)-one, H-00074
- 3-Hexyl-2,6-dimercapto-4*H*-thiopyran-4-one, H-00075
- ▶ Hydrazinecarboxaldehyde, in F-00037
- ▶ 4-Hydrazinobenzenesulfonic acid, H-00080
- ▶ 1-Hydrazinophthalazine, H-00086
- Hydrazo II, H-00087
- 4'-Hydroxyacetophenone; Oxime, in H-00090
- 2-Hydroxy-5-anisaldoxime, in D-00518
- 2-Hydroxybenzaldehyde *N*-(4-aminobenzoyl)hydrazone, H-00103
- 2-Hydroxybenzaldehyde *N*-benzoylhydrazone, H-00104
- 2-Hydroxybenzaldehyde guanylhyazone, H-00105
- 2-Hydroxybenzaldehyde 6-methyl-2-nicotinoylhydrazone, H-00106
- 2-Hydroxybenzaldehyde phenylthiosemicarbazone, H-00107
- 2-Hydroxybenzaldehyde 1-phthalazinylhydrazone, H-00108
- 2-Hydroxybenzaldehyde; Semicarbazone, in H-00101
- ▶ 2-Hydroxybenzaldehyde; Thiosemicarbazone, in H-00101
- ▶ *N*-Hydroxybenzamide, H-00109
- 4-Hydroxy-1,3-benzenedisulfonic acid, H-00111
- 2-Hydroxy-1*H*-benz[*de*]isoquinoline-1,3(*2H*)-dione, in B-00051
- ▶ 2-Hydroxybenzoic acid, H-00112
- 2-Hydroxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, H-00116
- 4-Hydroxybenzoic acid (1,2-dimethyl-1,2-ethanediylidene)dihydrazide, H-00117
- 2-Hydroxybenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, H-00120
- 2-Hydroxybenzoic acid [2-(2-pyridinyl)ethylidene]hydrazide, H-00121
- 2-Hydroxybenzoic acid [2-pyridinyl(3-sulfophenyl)methylene]hydrazide, H-00122
- 2-(2-Hydroxybenzylideneamino)phenol, H-00129
- 4-Hydroxy-3-biphenylcarboxylic acid, H-00132
- N*-Hydroxy-*N,N'*-bis(4-methylphenyl)benzenecarboximidamide, in H-00308
- 3-Hydroxy-1,3-bis(4-methylphenyl)triazene, H-00139
- N*-Hydroxybutanamide, H-00142
- ▶ 4-Hydroxy-3,5-dimethoxybenzaldehyde, in T-00273
- 3-Hydroxy-3-(*p*-dimethylaminophenyl)-1-phenyltriazene, H-00149
- N*-Hydroxy-2,4-dimethylbenzenecarboximidamide, in D-00835
- 2-[(2-Hydroxy-3,5-dimethylphenyl)azo]-5-sulfobenzoic acid, H-00152
- 2-Hydroxy-3,5-dinitrobenzoic acid, H-00154
- (2-Hydroxy-3,5-dinitrophenoxymethyl)-15-crown-5, H-00159
- 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-8-quinolinol 1-oxide, H-00161
- 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2,4-thiazolidinedithione, H-00162
- 5-[(2-Hydroxy-3,5-dinitrophenyl)azo]-2-thioxo-4-thiazolidinone, H-00163
- 8-Hydroxy-5,7-dinitroquinoline, H-00165
- 8-Hydroxy-5,7-dinitroquinoline; *N*-Oxide, in H-00165
- N*-Hydroxy-*N,N'*-diphenylbenzenecarboximidamide, in D-01001
- N*-Hydroxy-4-(diphenylmethyl)benzamide, H-00168
- N*-Hydroxy-*N*,5-diphenyl-2,4-pentadienamide, H-00169
- N*-Hydroxy-*N,N'*-diphenylthiourea, in D-01055
- 3-Hydroxy-1,3-diphenyl-1-triazene, H-00170
- 4-Hydroxy-2,6-di-2-pyridinylpyrimidine, H-00171
- 2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-(*N,N*-diethylamino)phenol, H-00173
- 2-(2-Hydroxy-3,6-disulfo-1-naphthalenylazo)-5-[*N*-ethyl-*N*-(sulfopropyl)amino]phenol, H-00174
- 2-Hydroxydithiobenzoic acid, H-00175
- 4-Hydroxydithiobenzoic acid, H-00176
- ▶ (1-Hydroxyethylidene)bisphosphonic acid, H-00178
- 3'-Hydroxyflavone, H-00183
- N*-Hydroxyhexanamide, H-00186
- 4-Hydroxy-3-[(5-hydroxybenzo[*a*]phenazin-6-yl)azo]benzenesulfonic acid, H-00187
- 4-Hydroxy-3-[(2-hydroxybenzoyl)azo]-1-naphthalenesulfonic acid, H-00188
- 3-Hydroxy-4-[(2-hydroxy-3,5-dinitrophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00198
- 4-Hydroxy-3-[(2-hydroxy-3,5-dinitrophenyl)azo]-1-naphthalenesulfonic acid, H-00199
- 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-[(2-hydroxyphenyl)methylene]carbonic acid dihydrazide, H-00218
- 2-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2'-[(2-hydroxyphenyl)methylene]carbothioic acid dihydrazide, H-00219
- 5-[[3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]-2-thioxo-4-thiazolidinone, H-00220
- ▶ 5-Hydroxy-2-(hydroxymethyl)-4*H*-pyran-4-one, H-00222
- 2-Hydroxy-3-[4-hydroxynaphthalenylazo]-5-nitrobenzenesulfonic acid, H-00223
- 3-Hydroxy-4-[(2-hydroxy-1-naphthalenyl)azo]-7-nitro-1-naphthalenesulfonic acid, H-00224
- 4-Hydroxy-5-[[[(2-hydroxy-1-naphthalenyl)methylene]amino]-2,7-naphthalenedisulfonic acid, H-00225
- 8-Hydroxy-7-[(2-hydroxy-4-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00227
- 8-Hydroxy-7-[(2-hydroxy-5-nitrophenyl)azo]-1,6-naphthalenedisulfonic acid, H-00228
- 4-Hydroxy-3-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid, H-00229
- 5-Hydroxy-6-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, H-00230
- 5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-1-naphthalenesulfonic acid, H-00231
- 5-Hydroxy-8-[(2-hydroxy-5-nitro-3-sulfophenyl)azo]-2-naphthalenesulfonic acid, H-00232
- 8-Hydroxy-7-[(2-hydroxyphenyl)azo]-1,6-naphthalenedisulfonic acid, H-00233
- 3-Hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-2-naphthalenecarboxylic acid; Na salt, in H-00242
- 2-[[1-(Hydroxyimino)ethyl]azo]-1*H*-benzimidazole, H-00245
- 2-[[1-(Hydroxyimino)-2-methylpropyl]azo]-1-(phenylmethyl)-1*H*-benzimidazole, H-00246
- N*-[2-(Hydroxyimino)-1-methylpropylidene]glycine, H-00247
- 2-[2-(Hydroxyimino)-1-methylpropylidene]-*N*-phenylhydrazinocarbothioamide, H-00248
- 2-Hydroxy-3-[(2-imino-4-oxo-5-thiazolidinyl)azo]-5-nitrobenzenesulfonic acid, H-00249
- 2-[[Hydroxyimino]phenylmethyl]azo]-1*H*-benzimidazole, H-00250
- α -(Hydroxyimino)-2-pyridineacetonitrile, H-00251
- α -(Hydroxyimino)-2-quinolineacetonitrile, H-00252
- 5-Hydroxy-1*H*-indole-2-carboxylic acid, H-00253
- 6-Hydroxy-5-[(4-iodophenyl)azo]-2-naphthalenesulfonic acid, H-00254
- ▶ 8-Hydroxy-7-iodo-5-quinolinesulfonic acid, H-00255
- 2-Hydroxy-3-isopropyl-2,4,6-cycloheptatrien-1-one, H-00256
- ▶ Hydroxylamine, H-00257
- 5-Hydroxy-3-mercaptop-6-methyl-1,2,4-triazine, H-00258
- 6-Hydroxy-8-mercaptopurine, H-00260
- N*-Hydroxy-4-methoxybenzamide, H-00264
- N*-Hydroxy-4-methoxybenzenecarbothioamide, H-00265
- 4-(4-Hydroxy-3-methoxybenzylidene)-3-methyl-5(4*H*)-isoxazolone, H-00266
- 5-Hydroxy-7-methoxyflavone, in D-00612
- N*-Hydroxy-2-methoxy-*N*-(4-methylphenyl)benzamide, in H-00263
- N*-Hydroxy-2-methoxy-*N*-1-naphthalenylbenzamide, H-00267
- N*-Hydroxy-4-methoxy-*N*-1-naphthalenylbenzamide, H-00268
- ▶ 2-[(4-Hydroxy-3-methoxyphenyl)methylene]hydrazinocarbothioamide, H-00271
- N*-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-(4-methylphenyl)benzenecarboximidamide, in H-00270
- N*-Hydroxy-*N'*-(4-methoxyphenyl)-*N*-phenylbenzenecarboximidamide, in H-00270
- N*-Hydroxy-3-(4-methoxyphenyl)-2-propenamide; *N*-(3-Methylphenyl), in H-00272
- N*-Hydroxy-3-(4-methoxyphenyl)-2-propenamide; *N*-(4-Methylphenyl), in H-00272
- N*-Hydroxy-*N*-(3-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00273
- N*-Hydroxy-*N*-(4-methoxyphenyl)-3-(2-thienyl)-2-propenamide, H-00274
- 2-[[2-Hydroxy-4-methyl-5-(1-methylethyl)phenyl]azo]-5-nitrobenzenesulfonic acid; K salt, in H-00288
- N*-Hydroxy-2-methyl-*N*-(2-methylphenyl)benzamide, in M-00135
- N*-Hydroxy-2-methyl-*N*-(3-methylphenyl)benzamide, in M-00135
- N*-Hydroxy-4-methyl-*N*-(3-methylphenyl)benzamide, in M-00136
- 3-Hydroxy-2-methyl-1-(4-methylphenyl)-4(1*H*)-pyridinone, H-00289
- N*-Hydroxy-2-methyl-*N*-1-naphthalenylbenzamide, H-00290
- N*-Hydroxy-4-methyl-*N*-1-naphthalenylbenzamide, H-00291
- 2-Hydroxy-3-methyl-1,4-naphthoquinone; Monoxime, in H-00292
- 5-Hydroxy-6-methyl-2-[(4-nitrophenyl)azo]-3,4-pyridinedimethanol, H-00294
- 6-Hydroxy-2-methyl-7-oxo-1,3,5-cycloheptatriene-1-carboxylic acid, H-00298

- ▶ 1-Hydroxy-4-[(4-methylphenyl)amino]-9,10-anthracenedione, H-00300
 2-(2-Hydroxy-5-methylphenylazo)-4-methylthiazole, H-00301
 2-[(2-Hydroxy-5-methylphenyl)azo]-5-nitrobenzenesulfonic acid; K salt, *in* H-00302
 [[2-[(2-Hydroxy-5-methylphenyl)azo]phenyl]thio]acetic acid, H-00303
 8-Hydroxy-7-[(4-methylphenyl)azo]-5-quinolinesulfonic acid, H-00304
N-Hydroxy-*N*-(2-methylphenyl)benzamide, *in* H-00109
 1-(2-Hydroxy-5-methylphenyl)-1-butanone; (*E*)-form, Oxime, *in* H-00309
N-Hydroxy-*N*-(4-methylphenyl)-2-butanamide, *in* H-00143
N-Hydroxy-*N*-(4-methylphenyl)-3,5-dinitrobenzamide, *in* D-00946
N-Hydroxy-*N*-(4-methylphenyl)-2-furancarboxamide, *in* F-00064
 1-(2-Hydroxy-5-methylphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one; 4-Me ether, oxime, *in* H-00311
 2-[[5-Hydroxy-3-methyl-1-(phenylmethyl)-1*H*-pyrazol-4-yl]azo]-5-nitrobenzenesulfonic acid, H-00312
N-Hydroxy-*N'*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, *in* H-00308
N-Hydroxy-*N*-(4-methylphenyl)-*N*-phenylbenzenecarboximidamide, H-00313
 3-Hydroxy-2-methyl-1-phenyl-4(1*H*)-pyridinone, H-00315
N-Hydroxy-*N*-(4-methylphenyl)tetradecanamide, H-00316
N-Hydroxy-*N*-(3-methylphenyl)-3-(2-thienyl)-2-propenamide, *in* H-00553
N-Hydroxy-*N*-(4-methylphenyl)-3-(2-thienyl)-2-propenamide, *in* H-00553
N-Hydroxy-*N'*-methyl-*N*-phenylthiourea, *in* T-00175
 ▶ 3-Hydroxy-3-methyl-1-phenyltriazene, H-00317
 5-Hydroxy-[6-[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenesulfonic acid, H-00320
 1-Hydroxy-4-methyl-2(1*H*)-pyridinethione, *in* M-00274
 3-Hydroxy-4-[[6-methyl-2-pyridinyl]azo]-2,7-naphthalenedisulfonic acid *N*-oxide; Di-Na salt, *in* H-00324
 8-Hydroxy-2-methylquinoline, H-00326
 4-[[4-(Hydroxymethyl)-2-thiazolyl]azo]-1,2-benzenediol, H-00328
 2-[[3-Hydroxy-4-[methyl-2-thiazolyl]azo]phenyl]amino]ethanesulfonic acid, H-00329
 3-[[3-Hydroxy-4-(4-methyl-2-thiazolyl)azo]phenyl]amino]-1-propanesulfonic acid, H-00330
 6-Hydroxy-3-[[4-methyl-2-thiazolyl]azo]-2(1*H*)-pyridinone, H-00331
 3-Hydroxy-4-[[2-(methylthio)phenyl]azo]-2,7-naphthalenedisulfonic acid, *in* H-00259
 2-(3-Hydroxy-3-methyl-1-triazenyl)benzoic acid, H-00332
 2-Hydroxy-1-naphthaldehyde; Oxime, *in* H-00336
 2-Hydroxy-1-naphthaldehyde; Thiosemicarbazone, *in* H-00336
 1-Hydroxy-2-naphthalenecarbodithioic acid, H-00339
 ▶ *N*-Hydroxy-2-naphthalenecarboxamide, H-00340
N-Hydroxy-1-naphthalenecarboximidamide, *in* N-00005
 3-Hydroxy-2-naphthalenecarboxylic acid [[3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl]methylene]hydrazide, H-00341
 ▶ 3-Hydroxy-2,7-naphthalenedisulfonic acid, H-00342
 4-[(2-Hydroxy-1-naphthalenyl)azo]benzenesulfonic acid; Na salt, *in* H-00348
 2-[(2-Hydroxy-1-naphthalenyl)azo]benzoic acid, H-00349
 4-[(2-Hydroxy-1-naphthalenyl)azo]-1-naphthalenesulfonic acid; Ba salt, *in* H-00350
 2-[(2-Hydroxy-1-naphthalenyl)azo]-5-nitrobenzenesulfonic acid, H-00351
 [[2-[(2-Hydroxy-1-naphthalenyl)azo]phenyl]thio]acetic acid, H-00352
 3-[(2-Hydroxy-1-naphthalenyl)azo]-1*H*-pyrazole-4-carboxylic acid, H-00353
 2-[(1-Hydroxy-2-naphthalenyl)azo]-8-quinolinol, H-00356
 5-[(2-Hydroxy-1-naphthalenyl)azo]-1,3,4-thiadiazole-2(3*H*)-thione, H-00357
 2-[(2-Hydroxy-1-naphthalenyl)azo]-4-thiazolecarboxylic acid, H-00358
N-Hydroxy-*N*-1-naphthalenyldecanamide, H-00359
N-Hydroxy-*N*-1-naphthalenyl-dodecanamide, H-00360
N-Hydroxy-*N*-1-naphthalenylhexanamide, H-00361
 2-[(2-Hydroxy-1-naphthalenyl)methylene]-*N*-phenylhydrazinecarbothioamide, H-00363
 5-[(2-Hydroxy-1-naphthalenyl)methylene]-2-thioxo-4-thiazolidinone, H-00364
N-Hydroxy-*N*-1-naphthalenyl-4-nitrobenzamide, H-00365
N-Hydroxy-*N*-1-naphthalenylpentanamide, H-00366
N-Hydroxy-*N'*-2-naphthalenyl-*N*-phenylthiourea, H-00367
N-Hydroxy-*N*-1-naphthalenyltetradecanamide, H-00368
 3-Hydroxy-2-naphthohydroxamic acid, *in* H-00370
 ▶ 3-Hydroxy-2-naphthoic acid, H-00370
 Hydroxynaphthol blue; Tri-Na salt, *in* H-00371
 5-Hydroxy-1,2-naphthoquinone; Dioxime, *in* H-00372
 7-Hydroxy-1,2-naphthoquinone; Dioxime, *in* H-00373
 2-(2-Hydroxy-3-naphthoylazo)-1-hydroxy-4-naphthalenesulfonic acid, H-00374
p-[(2-Hydroxy-1-naphthyl)azo]benzoic acid, H-00375
 3-[(2-Hydroxy-1-naphthyl)azo]-4-pyrazolecarboxylic acid, H-00376
N-Hydroxy-3-nitrobenzenecarboximidamide, H-00382
 2-Hydroxy-5-nitrobenzoic acid, H-00383
 10-(2-Hydroxy-5-nitrobenzyl)-1,4,7-trioxo-10-azacyclododecane, H-00387
 2-Hydroxy-5-nitro-3-[(2-oxo-4-thioxo-5-selenazolidinyl)azo]benzenesulfonic acid, H-00390
 2-Hydroxy-5-nitro-3-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, H-00391
 2-Hydroxy-4-(4-nitrophenylazo)benzoic acid, H-00393
 2-[(2-Hydroxy-5-nitrophenyl)azo]-4,5-diphenylimidazole; Acetate salt, *in* H-00394
 1-[(2-Hydroxy-5-nitrophenyl)azo]-2-naphthalenol, H-00396
 [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-15-crown-5, H-00400
 [2-Hydroxy-5-(4-nitrophenylazo)phenyl]oxymethyl-18-crown-6, H-00401
 2-[(2-Hydroxy-5-nitrophenyl)methylene]-*N*-phenylhydrazinecarbothioamide, *in* H-00380
 3-Hydroxy-1-(2-nitrophenyl)-3-phenyl-1-triazene, H-00403
 3-Hydroxy-1-(4-nitrophenyl)-3-phenyl-1-triazene, H-00404
N-Hydroxy-*N*-(4-nitrophenyl)-3-(2-thienyl)-2-propenamide, H-00405
 2-Hydroxy-3-nitrosobenzoic acid, H-00406
 4-Hydroxy-3-nitroso-2*H*-1-benzopyran-2-one, H-00407
 4-Hydroxy-5-nitroso-2,1,3-benzothiadiazole, H-00408
 5-Hydroxy-4-nitroso-2,1,3-benzothiadiazole, H-00409
N-Hydroxy-*N*-nitrosocyclododecanamine, H-00410
N-Hydroxy-*N*-nitrosocyclohexanamine; NH₄ salt, *in* H-00411
N-Hydroxy-*N*-nitrosocyclooctylamine, H-00412
 3-Hydroxy-4-nitroso-2-naphthalenecarboxylic acid, H-00413
 4-Hydroxy-3-nitroso-1-naphthalenesulfonic acid, H-00415
 1-Hydroxy-2-nitroso-3*H*-naphtho[2,1-*b*]pyran-3-one, H-00416
 3-[[3-Hydroxy-4-nitrosophenyl]propylamino]-1-propanesulfonic acid, H-00417
N-Hydroxy-*N*-nitroso-2-propanamine, H-00418
 4-Hydroxy-3-nitroso-2(1*H*)-pyridinone, H-00419
 6-Hydroxy-5-nitroso-2,4(1*H*,3*H*)-pyrimidinedione, H-00420
 ▶ 8-Hydroxy-5-nitrosoquinoline, *in* Q-00019
 8-Hydroxy-7-nitroso-5-quinolinesulfonic acid; Na salt, *in* H-00421
 2-Hydroxy-5-nitro-3-[[tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl]azo]benzenesulfonic acid, H-00422
 2-Hydroxy-5-nitro-3-[(2-thioxo-4-oxopyrrolidinyl)azo]benzenesulfonic acid, H-00423
N-Hydroxy-4(octyloxy)-*N*-phenylbenzamide, H-00425
 2-(3-Hydroxy-4-oxo-4*H*-1-benzopyran-2-yl)benzenesulfonic acid, H-00427
 6-Hydroxy-5-oxo-5*H*-dibenzo[*a,j*]phenoxazine-8,11-disulfonic acid, H-00432
 2-[[3-Hydroxy-1-oxo-1*H*-inden-2-yl]imino]-1*H*-indene-1,3(2*H*)-dione, H-00433
 5-Hydroxy-4-oxo-4*H*-pyran-2-carboxylic acid; Et ester, *in* H-00434
 2-Hydroxy-5-[[4-[(4-oxo-2-thioxo-5-thiazolidinyl)azo]phenyl]azo]benzenesulfonic acid, H-00436
 4-Hydroxy-1,10-phenanthroline, H-00437
 2-[(Hydroxyphenylamino)carbonyl]benzenesulfonic acid; Na salt, *in* H-00445
 2-(4-Hydroxyphenylazo)benzaldehyde; Me ether, oxime, *in* H-00448
 3-Hydroxy-4-(phenylazo)-2,7-naphthalenedisulfonic acid; Disodium salt, *in* H-00454
 5-[[2-Hydroxyphenyl]azo]-2-thioxo-4-thiazolidinone, H-00460
 5-[[3-Hydroxyphenyl]azo]-2-thioxo-4-thiazolidinone, H-00461
 5-[[4-Hydroxyphenyl]azo]-2-thioxo-4-thiazolidinone, H-00462
 2-Hydroxy-*N*-phenylbenzamide, *in* H-00112
 α-Hydroxy-α-phenylbenzeneacetic acid 2-[(4-methylphenyl)sulfonyl]hydrazide, H-00464
 2-(2-Hydroxyphenyl)benzimidazole, H-00465
 1-(2-Hydroxyphenyl)-1-butanone; Oxime, *in* H-00469
N-Hydroxy-*N*-phenyl-2-chlorobenzamide, H-00470
N-Hydroxy-*N*-phenyl-dodecanamide, *in* L-00001
N-Hydroxy-*N*-phenyl-2-furancarboxamide, H-00472
N-Hydroxy-*N*-phenyl-2,4-hexadienamide, *in* H-00185
 2-[(2-Hydroxyphenyl)imino]-1-acenaphthenone, H-00473
 5-Hydroxy-3-phenyl-4-isoxazolecarboxylic acid; Et ester, *in* H-00475
 [[2-Hydroxyphenyl)methylene]carbonothioic acid (di-2-pyridinylmethylene) dihydrazide, H-00481

- [(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonic dihydrazide, H-00482
- [(2-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00483
- [(4-Hydroxyphenyl)methylene](2-pyridinylmethylene)carbonothioic dihydrazide, H-00484
- 5-[(2-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00486
- 5-[(3-Hydroxyphenyl)methylene]-2-thioxo-4-thiazolidinone, H-00487
- N*-Hydroxy-*N*-phenyl-2-naphthalenecarboxamide, in N-00024
- N*-Hydroxy-*N*-phenylpentanamide, H-00492
- 3-(2-Hydroxyphenyl)-1-phenyl-5-(1-phenyl-2-benzimidazolyl)formazan, H-00495
- N*-Hydroxy-*N*-phenyltetradecanamide, H-00504
- N*-Hydroxy-*N*-phenyl-3-(2-thienyl)-2-propenamide, H-00505
- 4-(3-Hydroxy-3-phenyl-1-triazenyl)benzenesulfonic acid, H-00506
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)benzoic acid, H-00507
- 3-(3-Hydroxy-3-phenyl-1-triazenyl)pyridine, H-00509
- 2-(3-Hydroxy-3-phenyl-1-triazenyl)-5-sulfobenzoic acid, H-00510
- 1-(4-Hydroxyphenyl)-2,4,6-triphenylpyridinium hydroxide inner salt, H-00513
- 3-Hydroxy-4-[(2-phosphonophenyl)azo]-2,7-naphthalenedisulfonic acid; Di-Na salt, in H-00514
- 3-Hydroxy-2-pyridinecarboxaldehyde [(3-hydroxy-2-pyridinyl)methylene]hydrazone, H-00519
- 3-Hydroxy-2-pyridinecarboxaldehyde; Thiosemicarbazone; B, HCl, in H-00518
- N*-Hydroxy-3-pyridinecarboxamide, in P-00341
- 3-Hydroxy-2(1*H*)-pyridinethione, H-00520
- 3-Hydroxy-2(1*H*)-pyridinone, H-00521
- 4-Hydroxy-3-(2-pyridinylazo)-1-naphthalenesulfonic acid, H-00522
- (Hydroxy-3-pyridinylmethyl)phosphoric acid, H-00523
- ▶ 2-Hydroxy-2-(2-pyridyl)methanesulfonic acid, H-00524
- ▶ 8-Hydroxyquinoline, H-00525
- 8-Hydroxy-5-quinolinesulfonic acid, H-00528
- 3-Hydroxy-4-(8-quinolinylazo)-2,7-naphthalenedisulfonic acid, H-00530
- 3-[(8-Hydroxy-7-quinolinyl)azo]-1,5-naphthalenedisulfonic acid; Di-K salt, in H-00531
- 8-[(8-Hydroxy-5-quinolinyl)azo]-1-naphthalenesulfonic acid, H-00532
- 1-Hydroxyquinolinium betaine, H-00533
- 1-(8-Hydroxy-2-quinolyl)-2-(8-hydroxy-5-quinolyl)ethylene; B, 2HCl, in H-00534
- 5-[(8-Hydroxy-5-quinolyl)imino-8(5*H*)-quinolone], H-00535
- N*-Hydroxysuccinamic acid, in S-00034
- ▶ 2-Hydroxy-5-sulfobenzoic acid, H-00538
- 1-Hydroxy-4-sulfo-2-naphthoic acid, H-00540
- 2-Hydroxy-4-[(4-sulfophenyl)azo]benzoic acid; Di-Na salt, in H-00541
- 2-Hydroxy-5-[(4-sulfophenyl)azo]benzoic acid; Di-Na salt, in H-00542
- 2-Hydroxy-5-sulfo-3-[(tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzoic acid, H-00545
- 3-Hydroxy-3',4',5,7-tetramethoxyflavone, in P-00025
- 3-Hydroxy-4-(1*H*-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid, H-00546
- 3-Hydroxy-4-(2-thiazolylazo)-2,7-naphthalenedisulfonic acid, H-00548
- 2-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]ethanesulfonic acid, H-00550
- 3-[[3-Hydroxy-4-(2-thiazolylazo)phenyl]amino]-1-propanesulfonic acid, H-00551
- 8-Hydroxy-7-(2-thiazolylazo)-5-quinolinesulfonic acid, H-00552
- o*-Hydroxythiobenzhydrazide, in H-00110
- N*-Hydroxy-2-thiophenecarboxamide; *N*-(3-Chlorophenyl), in H-00554
- N*-Hydroxy-2-thiophenecarboxamide; *N*-(4-Chlorophenyl), in H-00554
- 2-Hydroxy-3-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00557
- 2-Hydroxy-4-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00558
- 3-Hydroxy-2-(2,6,7-trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid, H-00559
- 1-Hydroxyxanthone, H-00562
- ▶ 1*H*-Imidazole, I-00001
- 5*H*-Imidazole-4-carboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, I-00002
- ▶ 2-Imidazolidinethione, I-00003
- ▶ 2-Imidazolidinethione; 1,3-Di-Me, in I-00003
- 1-(1*H*-Imidazo[4,5-*c*]pyridin-2-yl)isoquinoline, I-00004
- 2-(3*H*-Imidazo[4,5-*h*]quinolin-2-yl)-4,7-phenanthroline, I-00006
- 1,1'-Iminobis[6-chloroanthraquinone], I-00007
- ▶ 1,1'-Iminodianthraquinone, I-00011
- 2,2'-Iminodianthraquinone, I-00012
- ▶ 2,2'-Iminodibenzoic acid, I-00013
- 2,3'-Iminodibenzoic acid, I-00014
- 2,4'-Iminodibenzoic acid, I-00015
- 1,2,3-Indanetrione, I-00025
- 1,2,3-Indanetrione; 2-(Thiosemicarbazone), in I-00025
- 1,2,3-Indanetrione; Trioxime, in I-00025
- 2,2'-(1*H*-Indene-1,3(2*H*)-diylidene)bishydrazinecarbothioamide, in I-00024
- ▶ Indigo carmine, in I-00029
- ▶ Indoferron, I-00032
- ▶ Indole, I-00033
- Indophenol, I-00034
- INT, in I-00048
- 4-[(4-Iodophenyl)azo]-1,2,3-benzenetriol, I-00049
- 4-[(5-Iodo-2-pyridinyl)azo]-1,3-benzenediamine, I-00052
- 2-Iodosylbenzoic acid, I-00053
- β-Iononethiosemicarbazone, in M-00010
- Isatin hydrazone, in I-00056
- Isatin; 2-Oxime, in I-00056
- ▶ Isatin; 3-Oxime, in I-00056
- 1*H*-Isoindole-1,3(2*H*)-dithione, I-00068
- ▶ Isoniazid, I-00069
- Isonitrosodibenzoylmethane, in D-01041
- Isonitrosodimedone, in D-00848
- Isonitrosomalonylguanidine, in A-00337
- Isophthalaldihydroxamic acid, in B-00019
- 5-(4-Isopropylbenzyl)-2-thioxo-4-thiazolidinone, I-00070
- Isopropylidenehydrazide, in A-00007
- 3-Isopropyl-6-methyl-2-[[5-(1-methylpiperidinyl)-2-pyridinyl]azo]phenol, I-00074
- 2-Isopropyl-5-methyl-4-[(2-quinolinyl)azo]phenol, I-00076
- 4-Isopropylinoxime, in I-00071
- Isopropyltriphenylphosphonium(1+); Bromide, in I-00079
- ▶ Isoquinoline, I-00080
- 3-Isoquinolinecarboxaldehyde 2-pyrimidinylhydrazone, I-00081
- 3-Isoquinolinecarboxaldehyde 2-quinolinylhydrazone, I-00082
- 3-Isoquinolinecarboxaldehyde 3-quinolinylhydrazone, I-00083
- 3-Isoquinolinecarboxaldehyde 8-quinolinylhydrazone, I-00084
- 3-Isoquinolinecarboxaldehyde 2-thiazolylhydrazone, I-00085
- 3-(3-Isoquinolyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, I-00090
- 5-Isothiocyanato-2-(4-methylphenyl)-1*H*-benz[*de*]isoquinoline-1,3(2*H*)-dione, I-00097
- Janus black; Chloride, in J-00001
- ▶ Janus blue; Chloride, in J-00002
- Janus green; Chloride, in J-00003
- Laurohydroxamic acid, L-00001
- ▶ Lauryltrimethylammonium(1+); Bromide, in L-00002
- ▶ α-Lobeline, in L-00010
- ▶ Lumogallion, L-00015
- Lumomagneson, L-00016
- Macrocyclic formazan I, M-00001
- Magneson IREA, M-00004
- Magon, M-00005
- ▶ Malachite green; Chloride, in M-00006
- Mandelic acid; (±)-form, in M-00007
- Maxilon blue GRL; Chloride, in M-00009
- ▶ MBTH, in B-00090
- Meldola's blue; Chloride, in M-00011
- ▶ Mellaril hydrochloride, in T-00173
- ▶ Mercaptoacetic acid, M-00016
- 4-[(Mercaptoacetyl)amino]benzenesulfonic acid; Na salt, in M-00017
- 2-Mercapto-1,3-benzenediol, M-00020
- ▶ 2-Mercaptobenzimidazole, M-00022
- ▶ 2-Mercaptobenzoic acid, M-00023
- 2-Mercapto-4*H*-1-benzopyran-4-thione, M-00024
- Mercaptobutanedioic acid; (±)-form, in M-00026
- 2-Mercapto-2,4,6-cycloheptatrien-1-one, M-00027
- 2-Mercapto-5-(2,4-dihydroxyphenylazo)-1,3,4-thiadiazole, M-00028
- 3-Mercapto-1,3-diphenyl-2-propen-1-one, M-00030
- ▶ 2-Mercaptoethanol, M-00031
- 2-Mercapto-5-(2-hydroxy-5-methylphenylazo)-1,3,4-thiadiazole; Na salt, in M-00032
- 2-Mercapto-*N*-(4-methoxyphenyl)acetamide, M-00033
- 2-Mercapto-3-(4-methoxyphenyl)-2-propenone acid, M-00034
- 2-Mercapto-4-methylphenol, M-00035
- 2-Mercapto-*N*-(4-methylphenyl)acetamide, M-00036
- 5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione, M-00039
- 5-Mercapto-3-(2-naphthyl)-1,3,4-thiazole-2-thione; K salt, in M-00039
- 2-[(3-Mercaptophenyl)azo]-4-methylphenol, M-00041
- 1-[(2-Mercaptophenyl)azo]-2-naphthalenol, M-00042
- 2-Mercapto-3-phenyl-2-butenic acid, M-00043
- 3-Mercapto-1-phenyl-2-buten-1-one, M-00044
- N*-[[[(2-Mercaptophenyl)imino]methyl]phenol, M-00045
- 3-Mercapto-3-phenylpropanoic acid; (±)-form, in M-00048
- ▶ 3-Mercapto-1,2-propanediol, M-00050
- ▶ 3-Mercaptopropanoic acid, M-00052
- 2-Mercaptopropanoic acid; (±)-form, in M-00051
- 3-Mercapto-*p*-propionophenetidine, M-00054
- 2-Mercapto-*N*-2-pyridinylacetamide, M-00055
- 2-(3-Mercapto-2-quinoxalyl)-2-thiopseudourea; B, HCl, in M-00058
- S-(3-Mercapto-2-quinoxalyl)thiuronium(1+); Chloride, in M-00059
- ▶ 5-Mercapto-1,3,4-thiadiazoline-2-thione, M-00060
- ▶ Metamizole sodium, in D-01100
- N*-Methanesulfonylbenzimidoxime, M-00067
- ▶ 4-Methoxyaniline, M-00073
- 4-Methoxybenzaldehyde phenylthiosemicarbazone, M-00076
- ▶ Methoxybenzene, M-00078
- 4-Methoxybenzoic acid [(2,4-dihydroxyphenyl)methylene]hydrazide, M-00080
- 4-Methoxybenzoic acid [1-[2-(2-nitrophenyl)hydrazino]ethylidene]hydrazide, M-00083
- 1-(*p*-Methoxybenzyl)-4,6-diphenylpyridine-2-thione, M-00084

- 6-Methoxy-2,3-bis(6-methyl-2-pyridyl) quinoxaline, *in* H-00140
- ▷ 2'-Methoxydiphenylamine-2-carboxylic acid, *in* H-00167
- 6-Methoxy-2,3-di-2-pyridinylquinoxaline, *in* H-00172
- 2-(2-Methoxy-4-methylphenylazo)thiazole, *in* M-00324
- 2-Methoxy-6-[[5-(1-methyl)-2-piperidinyl-2-pyridyl]azo]phenol, M-00092
- 3-Methoxy-2-methyl-6-(2-pyridinylazo) phenol, *in* M-00278
- 5-Methoxy-2-[(5-methyl-2-pyridinyl)azo] phenol, *in* M-00279
- 2-Methoxy-4-[*N*-(*p*-morpholinophenyl)formimidoyl]phenol, M-00093
- 2-[[4-Methoxy-2-nitrophenyl]hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolium(1+); Perchlorate, *in* M-00096
- ▷ 3-Methoxy-4-nitrosophenol, *in* N-00156
- ▷ 2-Methoxyphenol, M-00102
- p*-Methoxy-*N*-phenylcinnamohydroxamic acid, *in* H-00241
- 3-(2-Methoxyphenyl)-1,5-diphenylformazan, M-00107
- 2-(4-Methoxyphenyl)-5,7-diphenyl-1,3,4-thiadiazolo[3,2-*a*]pyridin-4-ium(1+); Chloride, *in* M-00108
- 2-[[2-(2-Methoxyphenyl)hydrazono]methyl]-1,3,3-trimethyl-3*H*-indolinium(1+); Perchlorate, *in* M-00110
- 3-(*p*-Methoxyphenyl)-5-mercaptopent-1,3,4-thiadiazole-2-thione, M-00111
- ▷ 5-[(4-Methoxyphenyl)methylene]-2-thioxo-4-thiazolidinone, M-00113
- 1-(4-Methoxyphenyl)-3-phenyl-5-(1-phthalazinyl)formazan, M-00116
- 4'-(4-Methoxyphenyl)-2,2':6',2''-terpyridine, M-00119
- ▷ 2-Methoxy-4-(2-propenyl)phenol, M-00120
- 5-Methoxy-2-(2-pyridinylazo)phenol, *in* P-00373
- 4-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00139
- 5-Methoxy-2-(2-thiazolylazo)phenol, *in* T-00141
- ▷ 4-Methylaniline, M-00124
- ▷ 4-Methylaniline; *N*-Ac, *in* M-00124
- 3-Methyl-1,2-benzenediol, M-00127
- ▷ 4-Methyl-1,2-benzenediol, M-00129
- ▷ 2-Methylbenzenethiol, M-00131
- 3-Methylbenzenethiol, M-00132
- ▷ 4-Methylbenzenethiol, M-00133
- 6-Methyl-2,3-bis(6-methyl-2-pyridinyl) quinoxaline, M-00146
- ▷ 3-Methyl-1-butanol, M-00147
- ▷ 2-Methyl-1-buten-3-yne, M-00149
- 4,4'-(3-Methylbutylidene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], M-00150
- 2-Methyl-1,3-cyclohexanedione bis(phenylthiosemicarbazone), M-00158
- 2,2'-(3-Methyl-1,2-cyclopentanediyldene)bishydrazinocarbothioamide, *in* M-00159
- N*-Methyldiphenylamine-4-sulfonic acid, M-00166
- 2-Methyl-4,6-di-2-pyridinylpyrimidine, M-00167
- 6-Methyl-2,3-di-2-pyridylquinoxaline, M-00168
- 4,4'-Methylenebis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazol-3-thione], M-00169
- 3,3'-Methylenebis[*N*,6-dihydroxybenzamide], M-00170
- 9,9'-[Methylenebis(6-hydroxy-3,1-phenylene)]bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], M-00172
- 5,5'-Methylenebis[8-quinolinol], M-00174
- ▷ Methylene green; Chloride, *in* M-00177
- 2,2'-(1-Methyl-1,2-ethanedithiolene)bis[*N*-phenylhydrazinocarbothioamide], *in* P-00446
- ▷ 2-(1-Methylethylidene)hydrazinocarbothioamide, *in* A-00007
- 5-Methyl-2-furanicarboxaldehyde 1-phthalazinylhydrazone, M-00180
- 5-(5-Methyl-2-furanyl)-2,4-pentadienal thiosemicarbazone, M-00181
- 3-(5-Methyl-2-furanyl)-2-propenal; Thiosemicarbazone, *in* M-00182
- Methylglyoxal bis(4-hydroxybenzoylhydrazone), M-00183
- Methylglyoxime, *in* P-00446
- Methyl green; Bromide chloride, *in* M-00185
- 2-Methyl-5-hydroxyisoquinolinium betaine, M-00186
- 1-Methyl-6-hydroxyquinolinium betaine, M-00188
- 1-Methyl-8-hydroxyquinolinium betaine, M-00189
- 1-(2-Methylindol-3-ylacetyl)-4-(*p*-methoxyphenyl)thiosemicarbazide, M-00195
- 3-Methyl-6-(1-methylethyl)-2-(2-pyridinylazo)phenol, M-00197
- 5-Methyl-2-(1-methylethyl)-4-(2-pyridinylazo)phenol, M-00198
- N*-Methyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea, *in* M-00208
- 4-Methyl-2-[[5-(1-methyl-2-piperidinyl)-2-pyridinyl]azo]phenol, M-00200
- 4-Methyl-6-[[5-methyl-2-pyridinyl]azo]-6-methyl-1,3-benzenediamine, M-00201
- 2-Methyl-4-[[4-methyl-2-thiazolyl]azo]-1,3-benzenediol, M-00202
- 4-Methyl-2-[[2-(methylthio)phenyl]azo] phenol, *in* M-00041
- 4-(6-Methyl-2-naphthalenyl)-4-oxo-2-butenone acid, M-00204
- 3-Methyl-2-nitrosophenol, M-00156
- ▷ 4-Methyl-2-nitrosophenol, M-00157
- 2-Methyl-4-nitroso-1,3-benzenediol, M-00206
- 5-Methyl-2-nitrosophenol, M-00207
- (4-Methyl-5-nitro-2-thiazolyl)thiourea, M-00208
- ▷ Methyl orange; Na salt, *in* M-00210
- 1-[(3-Methyl-5-oxo-1-phenyl-2-pyrazolin-4-yl)azo]anthraquinone, M-00215
- ▷ 4-Methyl-2-pentanone, M-00218
- ▷ *N*-[[2-(2-Methylphenyl)amino]thioxomethyl]benzamide, M-00223
- 5-[[4-Methylphenyl]azo]-8-quinolinol; 1-Oxide, *in* M-00224
- N*-(2-Methylphenyl)-*N'*-(4-chlorophenyl)benzamide, M-00226
- 4-Methyl-5-phenyl-3*H*-1,2-dithiole-3-thione, M-00227
- 4-Methyl-6-[[2-(phenylmethoxy)-2-pyridinyl]azo]-1,3-benzenediamine, M-00232
- 1-[(4-Methylphenyl)methyl]-4,6-diphenyl-2(1*H*)-pyridinethione, M-00233
- 4-Methyl-2-[[2-(phenylmethyl)thio]phenyl]azo]phenol, *in* M-00041
- N*-(4-Methylphenyl)-2-phenoxyacetohydroxamic acid, M-00235
- N*-(4-Methylphenyl)-*N'*-phenylbenzenecarboximidamide, M-00236
- 1-(4-Methylphenyl)-3-phenyl-5-(1-phthalazinyl)formazan, M-00238
- 2-[(3-Methyl-1-phenyl-4-pyrazolyl)azo]-4-nitrobenzenesulfonic acid, M-00240
- 2-Methyl-4-phenyl-6-(2-pyridinyl)pyrimidine, M-00241
- P*-Methylphosphonamidothioic acid; *O*-Ph ester, *in* M-00243
- N*-Methylpiperazinedithiocarbamic acid, *in* P-00238
- 4-[[3-(1-Methyl-2-piperidinyl)-4-pyridinyl]azo]-1,3-benzenediol, M-00248
- 4-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1,3-benzenediol, M-00249
- 1-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-2-naphthalenol, M-00250
- 2-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-1-naphthalenol, M-00251
- 3-[(5-(1-Methyl-2-piperidinyl)-2-pyridinyl)azo]-2,6-pyridinediamine, M-00252
- 7-[[5-(1-Methyl-2-piperidinyl)-2-pyridinyl]azo]-8-quinolinol, M-00253
- 5-[[5-(1-Methyl-2-piperidinyl)-2-pyridyl]azo]-1-naphthalenesulfonic acid, M-00254
- 3-Methyl-5-propyl-2,6-dimercapto-4*H*-thiopyran-4-one, M-00258
- 2-[(3-Methyl-5-propyl-2-pyrrolidinyl)azo]phenol, M-00263
- ▷ 4-Methylpyridine, M-00265
- 6-Methyl-2-pyridinecarboxaldehyde 2-quinolinylhydrazone, M-00269
- 6-Methyl-2-pyridinecarboxaldehyde; Thiosemicarbazone, *in* M-00266
- 6-Methyl-2-pyridinecarboximidoxime, *in* M-00271
- 6-Methyl-2-pyridinecarboximide acid hydrazide, M-00270
- 2-Methyl-4-pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, M-00272
- 3-Methyl-2-pyridinethiol; *N*-Oxide, *in* M-00273
- 5-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00275
- 6-Methyl-2(1*H*)-pyridinethione; *N*-Oxide, *in* M-00276
- 4-Methyl-6-(2-pyridinylazo)-1,3-benzenediamine, M-00277
- 5-Methyl-4-(2-pyridinylazo)-1,3-benzenediol, M-00280
- 1-[(5-Methyl-2-pyridinyl)azo]-2-naphthalenol, M-00281
- 1-[(6-Methyl-2-pyridinyl)azo]-2-naphthalenol; *N*-Oxide, *in* M-00282
- 4-Methyl-2-(2-pyridinylazo)phenol, M-00283
- 5-Methyl-2-(2-pyridinylazo)phenol, M-00284
- 4-Methyl-*N*-2-pyridinylbenzamide, M-00285
- 3-(6-Methyl-2-pyridinyl)-5,6-diphenyl-1,2,4-triazine, M-00286
- 3-[[5-(5-Methyl-2-pyridinyl)hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, M-00287
- 3-(4-Methyl-2-pyridinyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, M-00288
- 4-Methyl-2-[[2-(pyridinylmethyl)amino]phenol, M-00289
- 5-[[6-Methyl-2-pyridinyl)methylene]-4-imidazolidinone; (*E*)-*form*, *in* M-00290
- 5-[[6-Methyl-2-pyridinyl)methylene]-2-thioxo-4-imidazolidinone, M-00291
- 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazine, M-00292
- 3-(4-Methyl-2-pyridinyl)-5-phenyl-1,2,4-triazole, M-00293
- 3-(4-Methyl-2-pyridinyl)-1,2,4-triazine, M-00294
- 2-(4-Methyl-2-pyridyl)benzimidazole, M-00295
- 3-(4-Methyl-2-pyridyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, M-00296
- 3-(4-Methyl-2-pyridyl)-5,6-diphenyl-1,2,4-triazine, M-00298
- 2-(4-Methyl-2-pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, M-00299
- 2-(4-Methyl-2-pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, M-00300
- 2-(4-Methyl-2-pyridyl)-2*H*-imidazo[4,5-*h*]quinoline, M-00301
- 2-(4-Methyl-2-pyridyl)-5-phenylbenzimidazole, M-00302
- 3-(4-Methyl-2-pyridyl)-5-phenyl-6-(2-pyridyl)-1,2,4-triazine, M-00303
- 5-Methyl-2-(2-pyridyl)pyrimidine, M-00304
- (4-Methyl-2-pyridyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, M-00305
- Methyl red; Na salt, *in* M-00309
- 4-Methyl-5-[(sulfomethyl)amino]-2-(2-thiazolylazo)benzoic acid, M-00310
- N*-Methyl-*N*-sulfopropylaniline; Na salt, *in* M-00311
- N*-Methyl-5,10,15,20-tetrakis(4-sulfophenyl)porphine, *in* P-00250
- 1-[(5-Methyl-1,3,4-thiadiazol-2-yl)azo]-2-naphthalenol, M-00313
- 4-Methyl-2-thiazolidinone; (±)-*form*, *in* M-00315

- 4-Methyl-2(3*H*)-thiazolone, M-00316
 2-Methyl-4-(2-thiazolylazo)-1,3-benzenediamine, M-00317
 4-[(4-Methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00319
 4-[(5-Methyl-2-thiazolyl)azo]-1,3-benzenediol, M-00320
 2-(4-Methyl-2-thiazolylazo)-5-diethylaminobenzoic acid, *in* A-00258
 1-[(4-Methyl-2-thiazolyl)azo]-2-naphthalenol, M-00322
 4-Methyl-2-(2-thiazolylazo)phenol, M-00323
 4-(Methylthio)-1,2-benzenediamine, M-00325
 ▶ Methylthionium chloride, *in* M-00175
 5-Methyl-2-thiophenecarboxaldehyde 2-benzothiazolylhydrazone, M-00326
 6-Methylthiopicolinamide, *in* M-00271
 Methylthymol blue, M-00327
 2-Methyl-4-(1*H*-1,2,4-triazol-3-ylazo)-1,3-benzenediol, M-00328
 2-(5-Methyl-1*H*-1,2,4-triazol-3-yl)pyridine, M-00329
 Methyltriphenylarsonium(1+); Chloride, *in* M-00334
 Methyltriphenylarsonium(1+); Thiocyanate, *in* M-00334
 ▶ Methyl violet, M-00336
 Methyl xylenol blue; Na salt, *in* M-00337
 ▶ Metol, *in* A-00302
 Moonion A-9Q-08, *in* B-00181
 ▶ 4-Morpholinecarbodithioic acid, M-00345
 4-(*N*-Morpholinophenyl)fluorone, M-00349
 Murexide, *in* P-00281
 1-Naphthalenecarboxodithioic acid; Me₄N salt, *in* N-00002
 2-Naphthalenecarboxaldehyde 2-benzothiazolylhydrazone, N-00004
 1,8-Naphthalenediol, N-00009
 ▶ 2,3-Naphthalenediol, N-00010
 1,8-Naphthalenedithiol, N-00012
 Naphthalene green; Chloride, *in* N-00013
 1-Naphthalenethiocarboxylhydrazone, N-00016
 5-(1-Naphthalenylazo)-8-quinolinol; *N*¹-Oxide, *in* N-00017
 Naphthochrome green G; Di-Na salt, *in* N-00023
 ▶ 1-Naphthol, N-00025
 ▶ 2-Naphthol, N-00026
 Naphthol black 3B; Tetra-Na salt, *in* N-00028
 1,2-Naphthoquinone-4-sulfonic acid; Dioxime, *in* N-00033
 Naphtho[2,3-*c*][1,2,5]selenadiazole, N-00038
 1*H*-Naphtho[2,3-*d*]triazole, N-00039
N-1-Naphthylacetamide, *in* N-00041
 ▶ 1-Naphthylamine, N-00041
 Naphthylazoxine 4,8*S*, N-00044
 Naphthylazoxine 5*S*, N-00045
 ▶ *N*-(1-Naphthyl)ethylenediamine, N-00050
 (1-Naphthylmethyl)triphenylphosphonium(1+); Chloride, *in* N-00052
N-1-Naphthylphenylacetohydroxamic acid, N-00054
 Neocuprizone, N-00062
 Neotetrazolium(2+); Dichloride, *in* N-00063
 ▶ Nepresol, *in* D-00370
 Nevazol NS, N-00067
 Niconoxime, *in* C-00346
 Nile blue A; Chloride, *in* N-00069
 Nioxime, *in* C-00337
o-Nitral green; Chloride, *in* N-00072
 ▶ Nitrotriacetic acid, N-00074
 3,3',3''-[Nitrotris(4,1-phenyleneazo)]tris[6-hydroxybenzoic acid], N-00075
 5-Nitro-1,2-acenaphthylene-dione; Dioxime, *in* N-00076
 ▶ 4-Nitroaniline, N-00077
 Nitroanthranilazo, N-00079
 4-Nitrobenzenediazonium(1+); Tetrafluoroborate, *in* N-00084
 ▶ 4-Nitro-1,2-benzenediol, N-00087
p-Nitrobenzohydroxamic acid, *in* N-00093
 4-Nitrobenzoic acid [(2-hydroxyphenyl)methylene]hydrazide, N-00094
 4-Nitrobenzoic acid [1-[2-(4-nitrophenyl)hydrazino]ethylidene]hydrazide, N-00095
 Nitroarsenazo; Di-Na salt, *in* N-00101
 Nitrochromopyrazole, N-00103
 ▶ 2'-Nitrodiphenylamine-2-carboxylic acid, N-00106
 6-Nitro-2,3-di-2-pyridylquinoxaline, N-00107
 3-(5-Nitro-2-furanyl)-2-propenal; Thiosemicarbazone, *in* N-00110
 ▶ Nitrofurazone, *in* N-00109
 1-(4-Nitro-2-hydroxybenzenazo)-2-(β -acetylhydrazino)naphthalene, N-00111
 2-Nitro-1,3-indanedione, N-00112
 Nitron, N-00114
 4-[(4-Nitrophenyl)azo]-1,2-benzenediol, N-00122
 4-[(4-Nitrophenyl)azo]-1,2,3-benzenetriol, N-00124
 3-[(4-Nitrophenyl)azo]-2,7-naphthalenedisulfonic acid, N-00125
 19-[(4-Nitrophenyl)azo]-3,6,9,12,15-pentaaxabicyclo[15.3.1]heneicosa-(21),17,19-trien-21-ol, N-00127
 5-[(4-Nitrophenyl)azo]-8-quinolinol; 1-Oxide, *in* N-00129
 5-[(4-Nitrophenyl)azo]-4-thioxo-2-selenazolidinone, N-00131
 5-[(4-Nitrophenyl)azo]-2-thioxo-4-thiazolidinone, N-00132
 (4-Nitrophenyl)diazene-carboxylic acid 2-phenylhydrazide, N-00133
 2-(4-Nitrophenyl)-3,5-diphenyl-2*H*-tetrazolium(1+); Chloride, *in* N-00134
 4-[(4-Nitrophenyl)methyl]pyridine, N-00139
 1-(4-Nitrophenyl)-5-phenylcarbazone, N-00141
 (4-Nitrophenyl)phenylethanedione; Dioxime, *in* N-00142
 1-(4-Nitrophenyl)-3-phenyl-5-(1-phthalaziny)formazan, N-00143
 4-[3-(4-Nitrophenyl)-1-triazenyl]benzenesulfonic acid; Na salt, *in* N-00145
 4-[[4-[3-(4-Nitrophenyl)-2-triazenyl]phenyl]azo]benzenesulfonic acid; Na salt, *in* N-00146
 Nitrophenazono-*mA*, N-00147
 2-[(5-Nitro-2-pyridinyl)azo]-1-naphthalenol, N-00148
 1-(5-Nitro-2-pyridinyl)-3,5-diphenylformazan, N-00149
 3-[[5-Nitro-2-pyridinyl]hydrazono]-3-isoquinolinylmethyl]benzenesulfonic acid, N-00150
 3-[[5-Nitro-2-pyridinyl]hydrazono]-2-pyridinylmethyl]benzenesulfonic acid, N-00151
 3-[[5-Nitro-2-pyridinyl]hydrazono]-2-thiazolylmethyl]benzenesulfonic acid, N-00152
 ▶ 5-Nitro-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione, N-00153
 ▶ 4-Nitroso-1,3-benzenediol, N-00156
 ▶ 4-Nitrosodiphenylamine, N-00157
 7-Nitroso-8-hydroxyquinoline, N-00158
 1-Nitroso-2,7-naphthalenediol, N-00159
 ▶ 1-Nitroso-2-naphthol, N-00160
 ▶ 2-Nitroso-1-naphthol, N-00161
 ▶ Nitroso R salt, *in* H-00414
 Nitro TB, *in* N-00164
 4-[(5-Nitro-2-thiazolyl)azo]-1,3-benzenediol, N-00165
 2-[(5-Nitro-2-thiazolyl)azo]phenol, N-00166
 Nitroxaminazo, N-00167
N'-(3-Chloro-4-methylphenyl)-*N*-(4-chlorophenyl)-*N*-hydroxybenzenecarboximidamide, N-00170
 1,3,4,7,8,10,11,13-Octahydro-6*H*-2,5,9,12-benzotetrathiacyclopentadecine, O-00009
 7,8,9,10,17,18,19,20-Octahydrodibenz[*e,o*][1,4,8,13]tetraazacyclohexadecine, O-00018
 2,3,5,6,8,9,11,12-Octahydro-16-nitro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, O-00030
 2,3,5,6,8,9,11,12-Octahydro-*N*-(2,4,6-trinitrophenyl)-1,4,7,10,13-benzopentaoxacyclopentadecin-15-amine, O-00031
 1,3,4,7,8,10,11,13-Octahydro-*N*-(2,4,6-trinitrophenyl)-6*H*-2,5,9,12-benzotetrathiacyclopentadecin-15-amine, O-00032
 2,4,5,7-Octanetetrono, O-00035
 OP 7, O-00041
 ▶ Orotic acid, O-00045
 Orthanil A, O-00046
 Orthanil B, O-00047
 ▶ Oxalic acid, O-00048
 Oxamide bisphenylhydrazone, O-00050
 Oxamidoxime, *in* O-00048
 ▶ 1,4-Oxathiane, O-00051
 2-(2-Oxo-1(2*H*)-acenaphthylidene)hydrazinecarbothioamide, *in* A-00001
 3-Oxo-*N*-phenylbutanethioamide, O-00065
 ▶ 2-(1-Oxopropyl)-1*H*-indene-1,3(2*H*)-dione, O-00071
 3-[(4-Oxo-2-thioxo-5-thiazolidinyl)azo]benzenesulfonic acid, O-00075
 ▶ Pachycarpine, *in* S-00023
 Palladiazol, P-00002
 Pallatriazo, P-00003
 Panacryl brilliant red; Chloride, *in* P-00004
 ▶ Papaverine, P-00005
 ▶ 5,5'-(1,3-Pentadien-1-yl-5-ylidene)dibarbituric acid, P-00009
 3,3',4',5',7-Pentahydroxyflavanone; (2*R*,3*R*)-*form*, *in* P-00023
 ▶ 2',3,4',5',7-Pentahydroxyflavone, P-00024
 ▶ 3,3',4',5',7-Pentahydroxyflavone, P-00026
 2,3-Pentanedione bis[*p*-methoxy(thiobenzoyl)hydrazone], P-00031
 2,4-Pentanedione; *Oxo-form*, Dioxime, *in* P-00030
 2,3,4-Pentanedione; 3-Oxime, *in* P-00033
 2,3,4-Pentanedione; Trioxime, *in* P-00033
 4,7,13,16,21-Pentaoxa-1,10-diazabicyclo[8.8.5]tricosane, P-00037
 2,5,8,11,14-Pentaoxapentadecane, *in* T-00043
 ▶ Pentetic acid, P-00039
 ▶ Perazine, P-00043
 Perazine; Maleate (1:2), *in* P-00043
 ▶ Pericyazine, P-00044
 ▶ Perphenazine, P-00046
 9,10-Phenanthraquinone; Dioxime, mono-Me ether, *in* P-00047
 9,10-Phenanthraquinone; Monothiosemicarbazone, *in* P-00047
 9,10-Phenanthraquinone; Monoxime, *in* P-00047
 6-Phenanthridinecarboxaldehyde 2-pyridylhydrazone, P-00050
 ▶ 1,10-Phenanthroline, P-00052
 1,10-Phenanthroline-2-carboximidic acid hydrazide, P-00053
 3-(1,10-Phenanthrolin-2-yl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, P-00056
 3-[(1,10-Phenanthrolin-2-yl)]-5-phenyl-1,2,4-triazoline, P-00057
 2-(1,10-Phenanthrolyl)amidoxime, P-00058
 Phenazo, P-00059
 ▶ Phenol, P-00060
o-Phenolazothiohydantoin, P-00061
 ▶ Phenolphthalein, P-00063
 Phenoltetrabromosulfonephthalein, P-00065
 Phenosafrazo blue, P-00071
 10*H*-Phenoselenazine, P-00072
 ▶ Phenothiazine, P-00073
 2-Phenoxathiincarboxaldehyde; Oxime, *in* P-00074

- 3,3'-[3-[(Phenylamino)carbonyl]-1,5-formazandiyl]bis[4-chlorobenzenesulfonic acid]; Di-K salt, *in* P-00080
- 1-[[[(Phenylamino)carbonyl]oxy]-2,5-pyrrolidinedione, P-00081
- 4-[[4-(Phenylamino)phenyl]azo]benzenesulfonic acid; Na salt, *in* P-00084
- ▷ 5-(Phenylamino)-1,3,4-thiadiazole-2(3*H*)-thione, P-00087
- N*-[(Phenylamino)thioxomethyl]benzenecarbothioamide, P-00088
- (Phenylazo)benzaldoxime, P-00091
- 4-(Phenylazo)-1,2,3-benzenetriol, P-00092
- 1-Phenylazo-2-hydroxy-3-naphthylhydroxamic acid, *in* H-00452
- ▷ 1-[[4-(Phenylazo)phenyl]azo]-2-naphthalenol, P-00095
- 5-[[4-(Phenylazo)phenyl]azo]-2-thioxo-4-thiazolidinone, P-00096
- 2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenol, P-00098
- [2-[3-[4-(Phenylazo)phenyl]-1-triazenyl]phenyl]arsonic acid, P-00099
- 5-Phenylazo-8-quinolinol; *N*-Oxide, *in* P-00100
- Phenylazoxine S, P-00101
- 9-Phenylbenzo(1,2)quinolizino[3,4,5,6-*def*]phenanthridinium(1+); Perchlorate, *in* P-00105
- 4-Phenyl-3,6-bis(4-phenyl-2-pyridyl)pyridazine, P-00106
- 1-Phenyl-1,3-butanedione 3-[[6-phenyl-4-(phenylmethyl)-3-pyridazinyl]hydrazone], P-00108
- 1-Phenyl-1,2,3-butanetrioxone; 2-Oxime, *in* P-00109
- N*-Phenylcrotonohydroxamic acid, *in* H-00143
- 2-Phenyl-4,6-di-2-pyridinylpyrimidine, P-00113
- 5-Phenyl-3,6-di-2-pyridyl-1,2,4-triazine, P-00114
- 1-Phenyl-2,4-dithiobiuret, *in* T-00163
- 9,9'-(1,3-Phenylene)bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], P-00124
- 9,9'-(1,4-Phenylene)bis[2,6,7-trihydroxy-3*H*-xanthen-3-one], P-00125
- 1-Phenyl-1,2-ethanedione 2-(2-pyrazinyl)hydrazone, P-00128
- 3-Phenyl-5-(2-furyl)-1-pyrazolinedithiocarbamic acid; Na salt, *in* P-00131
- Phenylglyoxal, P-00132
- Phenylglyoxal; Mono(2-pyridyl)hydrazone, *in* P-00132
- Phenylglyoxime, P-00133
- ▷ Phenylhydrazine, P-00134
- 1,1'-(Phenylimino)bis-2-propanol, P-00136
- 4-Phenyl-2-mercaptoimidazole, P-00140
- N*-Phenylmethyl[[4-(chlorophenyl)amino]thioxomethyl]-*N*-phenylcarbamimidothioate, P-00145
- 3-[(Phenylmethylene)amino]-2-thioxo-4-thiazolidinone, P-00146
- 4,4'-(Phenylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], P-00147
- 5-Phenylmethylene-2-thioxo-4-thiazolidinone, P-00148
- 4-(Phenylmethyl)-6-(2-pyridinylazo)-1,3-benzenediol, P-00149
- 2-Phenyl-4*H*-naphtho[1,2-*b*]pyran-4-one, P-00150
- [Phenyl(phenylamino)]methylphosphonic acid; Mono-octyl ester, *in* P-00155
- N*-Phenyl-4-(phenylazo)benzohydroxamic acid, P-00156
- Phenyl[5-phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazin-6-yl]methanone, P-00157
- 5-Phenyl-3-(4-phenyl-2-pyridinyl)-1,2,4-triazine, P-00158
- 5-Phenyl-2-(4-phenyl-2-pyridyl)benzimidazole, P-00159
- 5-Phenyl-3-(4-phenyl-2-pyridyl)-6-(2-pyridyl)-1,2,4-triazine, P-00160
- 5-Phenyl-3-(4-phenyl-2-pyridyl)-1,2,4-triazoline, P-00161
- 4-Phenyl-2-(5-phenyl-1,2,4-triazol-3-yl)pyridine, P-00162
- 3-Phenyl-1-(1-phthalazanyl)-5-(*p*-carboxyphenyl)formazan, P-00165
- 4,4',4''-(20-Phenyl-21*H*,23*H*-porphine-5,10,15-triyl)trisbenzenesulfonic acid, P-00166
- ▷ 3-Phenyl-2-propenal; (*E*)-form, Thiosemicarbazone, *in* P-00168
- ▷ 3-Phenyl-2-propenoic acid, P-00169
- 5-(3-Phenyl-2-propenylidene)-2-thioxo-4-thiazolidinone, P-00171
- N*-Phenyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, P-00174
- N*-Phenyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00175
- 3-(4-Phenyl-2-pyridinyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, P-00176
- ▷ *N*-Phenyl-*N*'-pyridinylthiourea, P-00177
- 2-(4-Phenyl-2-pyridyl)benzimidazole, P-00178
- 5-Phenyl-2-(2-pyridyl)benzimidazole, P-00179
- 3-(4-Phenyl-2-pyridyl)-5,6-di-2-pyridyl-1,2,4-triazine, P-00180
- 2-(4-Phenyl-2-pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, P-00182
- 2-(4-Phenyl-2-pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, P-00183
- 2-(4-Phenyl-2-pyridyl)-3*H*-imidazo[4,5-*h*]quinoline, P-00184
- 3-(4-Phenyl-2-pyridyl)-5-(2-pyridyl)-1,2,4-triazoline, P-00185
- 4-Phenyl-2-(2-pyridyl)pyrimidine, P-00186
- 4-Phenyl-6-(2-pyridyl)pyrimidine, P-00187
- 5-Phenyl-2-(2-pyridyl)pyrimidine, P-00188
- ▷ 2-Phenyl-4-quinolinecarboxylic acid, P-00189
- 1-Phenyl-3-(selenophen-2-yl)-1,3-propanedione, P-00190
- (Phenylsulfonyl)carbonimidodithioic acid; Di-K salt, *in* P-00195
- ▷ 1-Phenylthiosemicarbazide, P-00199
- ▷ 4-Phenylthiosemicarbazide, P-00200
- ▷ Phenylthiourea, P-00201
- 1-Phenyl-3-thioxo-1-butanone, P-00202
- 4-Phenyl-4-thioxo-2-butanone, P-00203
- 6-Phenyl-1,2,4-triazine-3(2*H*)-thione, P-00205
- 6-(5-Phenyl-1,2,4-triazin-3-yl)-2,2'-bipyridine, P-00206
- 2-(5-Phenyl-1,2,4-triazin-3-yl)-1,10-phenanthroline, P-00207
- 2-(5-Phenyl-1*H*-1,2,4-triazol-3-yl)pyridine, P-00208
- 2-Phenyl-1-(2,4,6-trihydroxyphenyl)ethanone, P-00209
- 1-(1-Phthalazanyl)-3,5-diphenylformazan, P-00219
- Phthalein violet, P-00220
- Phthalaxon S, P-00221
- Phthalimide; Dithiosemicarbazone, *in* P-00223
- Phthalocyaninetetrasulfonic acid; Tetra-Na salt, *in* P-00231
- Picramine K, P-00232
- Picramine M, P-00233
- Picriminazosulfone, P-00234
- ▷ Picrolonic acid, P-00235
- 1,4-Piperazinedicarboxidithioic acid, P-00239
- 7-(1-Piperidinylmethyl)-8-quinolinol; B,HCl, *in* P-00243
- ▷ Polyethylene glycol, P-00247
- Polyoxyethylenedecylamine, P-00248
- 4,4',4'',4'''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakisbenzenesulfonic acid, P-00250
- 4,4',4'',4'''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakisbenzoic acid, P-00251
- 4,4',4'',4'''-(21*H*,23*H*-Porphine-5,10,15,20-tetrayl)tetrakis[1-methylpyridinium]; Tetrakis(*p*-toluenesulfonate), *in* P-00252
- ▷ Prochlorperazine, P-00256
- ▷ Promazine, P-00258
- Propanedioic acid; Dihydrazide, *in* P-00261
- Propanoic acid 2-[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphthalenyl]hydrazide, P-00264
- 8-(2-Propenylthio)-5-quinolinesulfonic acid, *in* M-00057
- 5,5'-(1-Propen-1-yl-3-ylidene)bis[2-thiobarbituric acid], P-00273
- ▷ 2-Propylamine, P-00274
- ▷ Propyl gallate, *in* T-00277
- 4,4'-(Propylmethylene)bis[1,2-dihydro-1,5-dimethyl-2-phenyl-3*H*-pyrazole-3-thione], P-00279
- ▷ Protriptyline hydrochloride, *in* P-00280
- ▷ Purpurogallin, P-00282
- Pyrazine; B, MeI, *in* P-00283
- ▷ Pyrazinecarboxamide, *in* P-00285
- Pyrazinecarboximidic acid hydrazide, P-00284
- 2,3-Pyrazinedicarboxylic acid, P-00286
- 2(1*H*)-Pyrazinone (1,2-dipyrzinylythylidene)hydrazone, P-00287
- 2(1*H*)-Pyrazinone (1,2-di-2-pyridinylethylidene)hydrazone, P-00288
- 2(1*H*)-Pyrazinone (di-2-pyridinylmethylene)hydrazone, P-00289
- 2(1*H*)-Pyrazinone (phenylpyrazinylmethylene)hydrazone, P-00290
- 2(1*H*)-Pyrazinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, P-00291
- 2(1*H*)-Pyrazinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00292
- 2(1*H*)-Pyrazinone [1-(3-pyridazinyl)ethylidene]hydrazone, P-00293
- 2(1*H*)-Pyrazinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, P-00294
- 2(1*H*)-Pyrazinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, P-00295
- 2-(Pyrazinyl)benzimidazole, P-00296
- 3-Pyrazinyl-5,6-di-2-pyridyl-1,2,4-triazine, P-00297
- Pyrazinyl-2-pyridinylethanedione 2-(2-pyridinyl)hydrazone) 1-oxime, P-00298
- 2-Pyrazinyl-1-(2-pyridinyl)ethanone 2-pyrimidinylhydrazone, P-00300
- 2-Pyrazinyl-1-(2-pyridinyl)ethanone: 2-Thiazolylhydrazone, *in* P-00299
- 3-(Pyrazinyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00301
- 1*H*-Pyrazolo[3,4-*d*]pyrimidine-4,6(5*H*,7*H*)-dione, P-00302
- 1-(1*H*-Pyrazol-3-ylazo)-2-naphthalenol, P-00303
- 2-(3-Pyridazinyl)benzimidazole, P-00312
- 3-(3-Pyridazyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, P-00313
- 3-Pyridazylhydrazide, P-00314
- 3-(3-Pyridazyl)-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00315
- 2-Pyridinecarboxaldehyde (5-chloro-2-pyridinyl)hydrazone, P-00322
- 2-Pyridinecarboxaldehyde diphenylsemicarbazone, P-00323
- 2-Pyridinecarboxaldehyde guanyldihydrazone, P-00325
- 3-Pyridinecarboxaldehyde; Hydrazide, *in* P-00319
- 2-Pyridinecarboxaldehyde (1-mercapto-2-naphthalenyl)hydrazone, P-00327
- 2-Pyridinecarboxaldehyde (5-methyl-2-pyridinyl)hydrazone, P-00328
- 2-Pyridinecarboxaldehyde (5-nitro-2-pyridinyl)hydrazone, P-00330
- 2-Pyridinecarboxaldehyde phenylthiosemicarbazone, P-00331
- 2-Pyridinecarboxaldehyde 1-phthalazanylhydrazone, P-00332
- 2-Pyridinecarboxaldehyde 2-pyrazinylhydrazone, P-00333
- 2-Pyridinecarboxaldehyde (2-pyridinylmethylene)hydrazone, P-00334
- 2-Pyridinecarboxaldehyde 2-pyridylhydrazone; (*E*)-form, *in* P-00335

- 2-Pyridinecarboxaldehyde 2-quinolinylhydrazone, P-00337
 2-Pyridinecarboxaldehyde 3-quinolinylhydrazone, P-00338
 2-Pyridinecarboxaldehyde 8-quinolinylhydrazone, P-00339
 2-Pyridinecarboxaldehyde; Selenosemicarbazone, *in* P-00318
 2-Pyridinecarboxaldehyde 2-thiazolylhydrazone, P-00340
 ▶ 2-Pyridinecarboxylic acid, P-00343
 2-Pyridinecarboxylic acid; Hydrazide, *in* P-00342
 4-Pyridinecarboxylic acid [(2-hydroxy-1-naphthalenyl)methylene]hydrazide, P-00347
 2-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00348
 3-Pyridinecarboxylic acid [(2-hydroxyphenyl)methylene]hydrazide, P-00349
 4-Pyridinecarboxylic acid [(4-hydroxyphenyl)methylene]hydrazide, P-00350
 2,6-Pyridinediacetoxime, *in* P-00352
 2,6-Pyridinediamidoxime, *in* P-00353
 2,6-Pyridinedicarboxylic acid, P-00353
 ▶ Pyridine *N*-oxide, P-00356
 ▶ 2(1*H*)-Pyridinethione, P-00357
 2(1*H*)-Pyridinone (1,2-dipyrazinylethylidene)hydrazone, P-00358
 2(1*H*)-Pyridinone [2-phenyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00365
 2(1*H*)-Pyridinone (1-pyrazinylethylidene)hydrazone, P-00366
 2(1*H*)-Pyridinone [1-pyrazinyl-2-(2-pyridinyl)ethylidene]hydrazone, P-00367
 2(1*H*)-Pyridinone [2-pyrazinyl-1-(2-pyridinyl)ethylidene]hydrazone, P-00368
 2(1*H*)-Pyridinone [1-(3-pyridazinyl)ethylidene]hydrazone, P-00369
 2(1*H*)-Pyridinone [1-(2-pyridinyl)-2-(4-pyrimidinyl)ethylidene]hydrazone, P-00370
 2(1*H*)-Pyridinone [2-(2-pyridinyl)-1-(4-pyrimidinyl)ethylidene]hydrazone, P-00371
 4-(2-Pyridinylazo)-1,3-benzenediamine, P-00372
 4-(2-Pyridinylazo)-1,3-benzenediol, P-00373
 1-(2-Pyridinylazo)-2-naphthalenol, P-00374
 2-(2-Pyridinylazo)-1-naphthalenol, P-00375
 4-(2-Pyridinylazo)-1-naphthalenol, P-00376
 1-(2-Pyridinylazo)-2-phenanthrenol, P-00377
 10-(2-Pyridinylazo)-9-phenanthrenol, P-00378
 3-(2-Pyridinylazo)-2,6-pyridinediamine, P-00379
N-2-Pyridinylbenzenecarbothioamide, P-00383
N-2-Pyridinylbenzenecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00384
 3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Benzoylhydrazone, *in* P-00386
 3-(2-Pyridinylcarbonyl)benzenesulfonic acid; Phenylthiosemicarbazone, *in* P-00386
 3-(2-Pyridinyl)-5,6-diphenyl-1,2,4-triazine, P-00388
 5-[1-(2-Pyridinyl)ethylidene]-2-thioxo-4-imidazolidinone; (*E*)-form, *in* P-00389
N-2-Pyridinyl-2-furancarboxamide, P-00390
 3-[(2-Pyridinylmethylene)amino]-[1,1'-biphenyl]-4-ol, P-00391
 1-[(2-Pyridinylmethylene)amino]-2-naphthalenol, P-00392
 2-[(2-Pyridinylmethylene)amino]phenol, P-00393
N-(2-Pyridinylmethylene)benzenamine, P-00394
 ▶ 2-(3-Pyridinylmethylene)hydrazinecarbothioamide, *in* P-00319
N-(2-Pyridinylmethylene)-1-naphthalenamine, P-00395
N-(2-Pyridinylmethylene)-2-pyridinamine, P-00396
N-(2-Pyridinylmethylene)-8-quinolinamine, P-00397
 5-(2-Pyridinylmethylene)-2-thioxo-4-imidazolidinone; (*E*)-form, *in* P-00398
N-2-Pyridinyl-2-pyridinecarboximidic acid (oxodiphenylethylidene)hydrazide, P-00400
N-2-Pyridinyl-2-pyridinecarboximidic acid (oxodi-2-pyridinylethylidene)hydrazide, P-00401
N-2-Pyridinyl-2-pyridinecarboximidic acid 2-pyrazinylhydrazide, P-00402
 1-(2-Pyridinyl)-2-(3-pyridinyl)ethanone 2-thiazolylhydrazone, P-00403
 2-Pyridinyl-4-pyrimidinylethanedione 1-(2-pyridinyl)hydrazone; 2-Oxime, *in* P-00404
 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone 2-pyrimidinylhydrazone, P-00406
 1-(2-Pyridinyl)-2-(2-pyrimidinyl)ethanone; 2-Thiazolylhydrazone, *in* P-00405
 3-(2-Pyridinyl)-1,3,4-thiazolidine-2,5-dithione, P-00407
 2-Pyridinylthiourea, P-00410
 3-(2-Pyridinyl)-1,2,4-triazine, P-00411
 Pyridoin phenylhydrazone, P-00413
 Pyridoxal; Salicyloylhydrazone, *in* P-00414
 1-(2-Pyridyl)-1-hexanone; Oxime, *in* P-00418
 2-(2-Pyridyl)-1*H*-imidazo[4,5-*f*][4,7]phenanthroline, P-00419
 2-(2-Pyridyl)-1*H*-imidazo[4,5-*c*]pyridine, P-00420
 2-(2-Pyridyl)-3*H*-imidazo[4,5-*h*]quinoline, P-00421
 Pyridylpyridinium(1+); Chloride, *in* P-00422
 2-(2-Pyridyl)quinazoline, P-00423
 2-(2-Pyridyl)-5,6,7,8-tetrahydroquinazoline, *in* P-00423
 2-Pyridyl-2-thienyl- β -ketoxime, *in* P-00408
 2-Pyridyl-1,2,4-triazino[5,6-*f*][4,7]phenanthroline, P-00425
 2-Pyrimidinecarboximidic acid hydrazide, P-00426
 4-Pyrimidinecarboximidic acid hydrazide, P-00427
 ▶ 2,4,5,6(1*H*,3*H*)-Pyrimidinetetrone 5-oxime, P-00428
 ▶ 2,4,6(1*H*,3*H*,5*H*)-Pyrimidinetrioxime, P-00429
 2-(2-Pyrimidinylazo)-1-naphthalenol, P-00430
 2-(2-Pyrimidinyl)benzimidazole, P-00431
 Pyrocatecholsulfonophthalein complexan, P-00432
 Pyrocatechol violet, P-00433
 Pyrogallol red, P-00434
 ▶ Pyronine G; Chloride, *in* P-00435
 ▶ Pyrrole, P-00436
 1*H*-Pyrrole-2-carboxaldehyde 8-quinolinylhydrazone, P-00438
 2-Pyrrolethiocarboxylhydrazide, *in* P-00437
 ▶ 2,5-Pyrrolidinedione, P-00442
 5-(1*H*-Pyrrol-2-ylmethylene)-2-thioxo-4-thiazolidinone, P-00445
 Pyruvaldehyde 1-(2-benzothiazolylhydrazone), P-00447
 ▶ Quinine, Q-00005
 ▶ Quinoline, Q-00007
 4-Quinolinecarboximidic acid, Q-00008
 2-Quinolinecarboxaldehyde; Oxime, *in* Q-00009
 2-Quinolinecarboxaldehyde 1-phthalazinylhydrazone, Q-00011
 2-Quinolinecarboxaldehyde 2-quinolinylhydrazone, Q-00014
 2-Quinolinecarboxaldehyde 8-quinolinylhydrazone, Q-00015
 2-Quinolinecarboxaldehyde 2-thiazolylhydrazone, Q-00016
 2-Quinolinecarboxamide, *in* Q-00017
 8-Quinolinecarboxylic acid, Q-00018
 2-Quinolinecarboxylic acid; *N*-Oxide, *in* Q-00017
 5,8-Quinolinedione; Dioxime, *in* Q-00019
 8-Quinolinetriol, Q-00021
 2,3,4(1*H*)-Quinolinetrioxime; 3-Oxime, *in* Q-00022
 2(1*H*)-Quinolone (phenyl-2-pyridinylmethylene)hydrazone, Q-00024
 2(1*H*)-Quinolone [1-(2-pyridinyl)ethylidene]hydrazone, Q-00025
 2-(2-Quinolinyloxy)-1-acenaphthylene, Q-00027
 5-(2-Quinolinyloxy)-1,2,4-benzenetriol, Q-00028
 1-(2-Quinolinyloxy)-2-naphthalenol, Q-00029
 2-(2-Quinolinyloxy)-1-naphthalenol, Q-00030
 1-(2-Quinolinyloxy)-2-phenanthrenol, Q-00031
 4-(2-Quinolinyloxy)phenol, Q-00032
 5-(8-Quinolinyloxy)-2,4-thiazolidinedithione, Q-00033
 5-(8-Quinolinyloxy)-2-thioxo-4-thiazolidinone, Q-00034
 α -(2-Quinolinyloxy)benzenepropanoic acid, Q-00035
 2-(2-Quinolyl)benzimidazole, Q-00037
 3-(2-Quinolyl)-5,6-bis(2-pyridyl)-1,2,4-triazine, Q-00038
 3-(2-Quinolyl)-5,6-diphenyl-1,2,4-triazine, Q-00039
H-Resorcinol, R-00001
 Rhodamine B, *in* R-00002
 ▶ Rhodamine 590; Chloride, *in* R-00003
 Rhodamine 4G, *in* R-00005
 Rhodamine G; Chloride, *in* R-00005
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 ▶ Rivanol, *in* D-00094
 Rose bengal A; Di-Na salt, *in* R-00011
 ▶ Rutin, R-00014
 Salicylaldehyde benzoylhydrazone, *in* H-00101
 Salicylamidoxime, *in* H-00112
 Salicylhydroxamic acid, *in* H-00112
 5-Salicylidene-1-acetyl-2-thioimidazole, *in* H-00485
 ▶ Salicyloyl hydrazide, *in* H-00112
 Salinazid, S-00003
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 ▶ Selenourea, S-00009
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 Semimethylxylenol blue, S-00012
 Semiphalexon S; Di-Na salt, *in* S-00013
 Semixylenol orange, S-00014
 Septonex, *in* E-00061
 SKF 6270, *in* M-00069
 Sodium diethylthiocarbamate, *in* D-00344
 Solochrome azurine BS, S-00016
 ▶ Solochrome black 6BN; Na salt, *in* S-00017
 Solochrome black PV; Na salt, *in* S-00018
 Solochrome fast grey RA, S-00019
 Solochrome fast red; Na salt, *in* S-00020
 ▶ Solochrome red B; Tri-Na salt, *in* S-00021
 Solochrome red ERS, S-00022
 ▶ *D*-Sorbitol, *in* G-00010
 Stilbazochrome, S-00028
 Stilbazol; Di-NH₄ salt, *in* S-00027
 Stilbazogall I, S-00029
 Stilbazogall II, S-00030
 Stilbazokhimdu, S-00031
 ▶ Strychnine, S-00033
 ▶ Sulfanilamide, *in* A-00100
 Sulfarsazen; Na salt, *in* S-00038
 Sulfochlorophenol K, S-00041
 Sulfochlorophenol M, S-00042
 Sulfochlorophenol N, S-00043
 Sulfochlorophenol R, S-00044
 Sulfochlorophenol S, S-00045
 Sulfochrome; Di-NH₄ salt, *in* S-00046
 Sulfonazo, S-00048
 Sulfonitrazo, S-00050
 Sulfonitrophenol K, S-00051
 Sulfonitrophenol M, S-00052
 Sulfonitrophenol R, S-00053

- Sulfonitrophenol S, S-00054
N-(4-Sulfofenyl)-2-aminobenzoic acid, S-00056
 Sulf-R-azo, in H-00543
- ▷ Tentone, in M-00070
 2,2',6',2''-Terpyridine, T-00005
 ▷ 3,3',4,4'-Tetraaminobiphenyl, T-00007
 ▷ Tetrabromo-1,2-benzenediol, T-00012
 2,4,5,7-Tetrabromo-1,8-dihydroxyanthraquinone, T-00015
 2-(2,4,5,7-Tetrabromo-6-hydroxy-3-oxo-3*H*-xanthen-9-yl)benzoic acid ethyl ester, in E-00007
- ▷ Tetrachloro-1,4-benzoquinone, T-00025
 2,2',3,3'-Tetrachlorodithizone, T-00029
 2,2',4,4'-Tetrachlorodithizone, T-00030
 2,2',5,5'-Tetrachlorodithizone, T-00031
 2,2',6,6'-Tetrachlorodithizone, T-00032
 3,3',4,4'-Tetrachlorodithizone, T-00033
 3,3',5,5'-Tetrachlorodithizone, T-00034
 Tetrachlorogallein, T-00035
- ▷ Tetracyanoquinodimethane, T-00038
 Tetraethylenepentamineheptaacetic acid; Tetra-Na salt, in T-00045
 1,2,3,4-Tetrahydrobenzo[*h*]quinolin-3-ol, T-00051
 2,2',3,3'-Tetrahydro-2,2'-bibenzothiazole, T-00052
 5,6,7,8-Tetrahydro-2,4-bis(2-pyridyl)quinazoline, T-00054
 8,9,17,18-Tetrahydro-7*H*-dibenzo[*e,n*][1,4,8,12]-dioxadiazacycllopentadecine, T-00055
- ▷ Tetrahydro-2,5-dimethoxyfuran, T-00059
 2-[(Tetrahydro-2,4-dithioxo-2*H*-1,3-thiazin-5-yl)azo]benzoic acid, T-00060
O-[(Tetrahydro-2-furanyl)methyl]carbonodithioate; K salt, in T-00062
 1,2,3,4-Tetrahydro-1-hydroxyiminophenazine, in D-00466
 Tetrahydro-4-methyl-2(1*H*)-pyrimidinethione, T-00064
 1,2,3,4-Tetrahydro-8-quinolinethiol, T-00067
- ▷ 1,2,5,8-Tetrahydroxy-9,10-anthraquinone, T-00070
 3,4,5,8-Tetrahydroxyanthraquinone-2-sulfonic acid, T-00071
 2',3,5,7-Tetrahydroxyflavone, T-00074
 ▷ 3,3',4',7'-Tetrahydroxyflavone, T-00075
 ▷ 3,3',4',5'-Tetrahydroxy-7-methoxyflavone, T-00078
 2,3,7,8-Tetrahydroxyphenazine, T-00079
 2,2',3,3'-Tetrakis(6-methyl-2-pyridyl)-6,6'-biquinoxaline, T-00088
 5,5',6,6'-Tetramethyl-3,3-bi(1,2,4-triazine), T-00093
 5-(1,1,3,3-Tetramethylbutyl)-1,2,3-benzenetriol, T-00094
 1,4,8,11-Tetramethyl-1,4,8,11-tetrazacyclotetradecane, T-00104
- ▷ Tetramethylthiodicarbonyl diamide, T-00105
 ▷ Tetramethylthiuram disulfide, T-00106
 Tetraoxacycloazochrome, T-00112
 4,7,13,18-Tetraoxa-1,10-diazabicyclo[8.5.5]icosane, T-00114
 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[4-nitrophenol], 9Cl, T-00115
- ▷ Tetraphenylarsonium(1+); Chloride, in T-00119
 Tetraphenylphosphonium(1+); Bromide, in T-00120
meso-Tetraphenylporphyrin, T-00121
 Tetrapropylammonium(1+); Hydroxide, in T-00124
 2,3,5,6-Tetra(2-pyridyl)pyrazine, T-00125
 1,4,8,11-Tetrathiacyclotetradecane, T-00126
- ▷ Tetrazole-5-thione; 1,4-Dihydro-*form*, 1-Ph, in T-00131
 ▷ Tetrazolium blue; Dichloride, in T-00132
 ▷ Thiacetazone, in A-00097
 2-Thiazolecarboxaldehyde 2-quinolinylhydrazone, T-00137
 4-(2-Thiazolylazo)-1,2-benzenediol, T-00140
 4-(2-Thiazolylazo)-1,3-benzenediol, T-00141
 1-(2-Thiazolylazo)-2-naphthalenol, T-00142
 4-(2-Thiazolylazo)-1-naphthalenol, T-00143
 3-(2-Thiazolylazo)-2,6-pyridinediamine, T-00145
 5-(2-Thiazolylazo)-2-thioxo-4-thiazolidinone, T-00146
 3-(2-Thiazolyl)-9*H*-indeno[1,2-*e*]-1,2,4-triazin-9-one, T-00147
 3-(2-Thiazolyl)-1,2,4-triazine, T-00148
 2-(2-Thienyl)benzothiazole, T-00149
 1-(2-Thienyl)-1,3-butanedione, T-00150
 Thioaminazo F, T-00154
 2,2'-Thiobisethanethiol, T-00157
 3,3'-Thiobis[6-hydroxybenzoic acid], T-00158
 1-Thiocarbamido-3-methyl-5-pyrazolone, T-00160
- ▷ Thionine hydrochloride, in L-00003
 2-Thiophenecarbothioic acid (di-2-pyridinylmethylene)hydrazide, T-00168
 2-Thiophenecarboxaldehyde 2-benzothiazolylhydrazone, T-00170
 α-Thiosemicarbazidoisobutyric acid; Amide, in T-00174
 α-Thiosemicarbazidoisobutyric acid; Nitrile, in T-00174
- ▷ Thiourea, T-00175
 ▷ 2-Thioxo-4-thiazolidinone, T-00176
 Thorin, T-00177
 Thoron II, T-00178
 Thymolphthalexon, T-00183
- ▷ Tiron, T-00186
 Titan yellow; Di-Na salt, in T-00187
N-m-Tolylcinnamohydroxamic acid, in H-00499
N-o-Tolylcinnamohydroxamic acid, in H-00499
N-p-Tolylcinnamohydroxamic acid, in H-00499
 5-[(1-*p*-Tolylimidazol-4-yl)methylene]rhodanine, T-00191
N-m-Tolyl-*o*-iodobenzohydroxamic acid, in I-00040
N-o-Tolyl-*o*-iodobenzohydroxamic acid, in I-00040
 2,4,6-Triamino-5-nitrosopyrimidine, T-00193
 ▷ 1,3,5-Triazine-2,4,6-triamine, T-00197
 4,4',4''-[1,3,5-Triazine-2,4,6-triyltris(azo)]tris[3-hydroxy-1-naphthalenesulfonic acid], T-00198
 1-(1*H*-1,2,4-Triazol-3-ylazo)-2-naphthalenol, T-00200
 2,4,6-Tri(2,2'-bipyridin-6-yl)-1,3,5-triazine, T-00202
 Tribromoarsenazo, T-00203
 4,5,6-Tribromo-1,2,3-benzenetriol, T-00204
 Tributyl(hexadecyl)phosphonium(1+); Chloride, in T-00210
 2,2,2-Trichloroacetylhydroxamic acid, T-00219
 2',4',5'-Trichlorofluorescein, T-00224
 2',4',7'-Trichlorofluorescein, T-00225
- ▷ Triethylamine, T-00231
 ▷ Triethylenetetramine, T-00232
O,O,S-Triethyl phosphorodithioate, T-00235
 ▷ Trifluoperazine, T-00238
O-(2,2,2-Trifluoroethyl)carbonodithioate, T-00246
 4,4,4-Trifluoro-1,2-furanyl-1,3-butanedione, T-00248
 1,1,1-Trifluoro-4-mercapto-4-(2-thienyl)-3-buten-2-one, T-00249
 4,4,4-Trifluoro-1-phenyl-1,3-butanedione, T-00260
 1,1,1-Trifluoro-4-phenyl-4-thioxo-2-butanone, T-00262
 4,4,4-Trifluoro-1-selenophen-2-yl-1,3-butanedione, T-00263
 4,4,4-Trifluoro-1-(2-thienyl)-1,3-butanedione, T-00264
 1,1,1-Trifluoro-4-thioxo-2-pentanone, T-00265
- ▷ Trifluoperazine hydrochloride, in F-00010
 ▷ 2',3',4'-Trihydroxyacetophenone, T-00269
 ▷ 1,2,4-Trihydroxyanthraquinone, T-00270
 1,2,7-Trihydroxyanthraquinone, T-00271
 1,3,4-Trihydroxyanthraquinone-2-carboxylic acid, T-00272
 2,3,4-Trihydroxybenzenesulfonic acid; Na salt, in T-00274
 3,4,6-Trihydroxy-5*H*-benzocyclohepten-5-one, T-00275
 2,3,4-Trihydroxybenzoic acid, T-00276
 ▷ 3,4,5-Trihydroxybenzoic acid, T-00277
 2,3,4-Trihydroxybenzophenone, T-00278
 4-[(3,4,5-Trihydroxybenzoyl)amino]benzoic acid, T-00280
 5,7,8-Trihydroxyflavanone; (*S*)-*form*, 7-*O*-Glucuronopyranoside, in T-00282
 ▷ 3,5,7-Trihydroxyflavone, T-00284
 ▷ 4',5,7-Trihydroxyflavone, T-00285
 5,7,8-Trihydroxyflavone, T-00286
 2,6,7-Trihydroxy-9-(4-hydroxy-5-methoxy-2-nitrophenyl)-3*H*-xanthen-3-one, T-00287
 2,6,7-Trihydroxy-9-(4-hydroxy-3-methoxyphenyl)-3*H*-xanthen-3-one, T-00288
 2,6,7-Trihydroxy-9-(2-hydroxy-1-naphthalenyl)-3*H*-xanthen-3-one, T-00289
 2,6,7-Trihydroxy-9-(2-hydroxy-3-nitrophenyl)-3*H*-xanthen-3-one, T-00290
 2,6,7-Trihydroxy-9-(2-hydroxy-5-nitrophenyl)-3*H*-xanthen-3-one, T-00291
 2,6,7-Trihydroxy-9-(2-hydroxyphenyl)-3*H*-xanthen-3-one, T-00292
 2,6,7-Trihydroxy-9-(8-hydroxy-2-quinolinyl)-3*H*-xanthen-3-one, T-00295
 3',5,7-Trihydroxy-4'-methoxyflavanone; (*S*)-*form*, in T-00296
 2,6,7-Trihydroxy-9-[4-(1-methylethyl)phenyl]-3*H*-xanthen-3-one, T-00298
 2,6,7-Trihydroxy-9-methyl-3*H*-xanthen-3-one, T-00299
 2,6,7-Trihydroxy-9-(2-nitrophenyl)-3*H*-xanthen-3-one, T-00301
 2,6,7-Trihydroxy-9-(3-nitrophenyl)-3*H*-xanthen-3-one, T-00302
 2,6,7-Trihydroxy-9-(4-nitrophenyl)-3*H*-xanthen-3-one, T-00303
 4-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)-1,3-benzenedisulfonic acid, T-00304
 2-(2,6,7-Trihydroxy-3-oxo-3*H*-xanthen-9-yl)benzenesulfonic acid, T-00305
 2,6,7-Trihydroxy-9-pentadecyl-3*H*-xanthen-3-one, T-00307
 4-[(2,3,4-Trihydroxyphenyl)azo]benzenesulfonic acid, T-00309
 2-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00310
 4-[(2,3,4-Trihydroxyphenyl)azo]benzoic acid, T-00311
 1-(2,3,4-Trihydroxyphenyl)-1-butanone, T-00314
 2,6,7-Trihydroxy-9-phenyl-3*H*-xanthen-3-one, T-00315
 2,6,7-Trihydroxy-9-propyl-3*H*-xanthen-3-one, T-00316
 2,6,7-Trihydroxy-9-(2-pyridinyl)-3*H*-xanthen-3-one, T-00317
 2,6,7-Trihydroxy-9-(3-pyridinyl)-3*H*-xanthen-3-one, T-00318
 2,6,7-Trihydroxy-9-(4-pyridinyl)-3*H*-xanthen-3-one, T-00319
 2,6,7-Trihydroxy-9-(2-quinolinyl)-3*H*-xanthen-3-one, T-00320
 2,6,7-Trihydroxy-9-(2-quinoxalyl)-3*H*-xanthen-3-one, T-00321
 2,6,7-Trihydroxy-9-(2-sulfofenyl)-3*H*-xanthen-3-one, T-00322
 2,6,7-Trihydroxy-9-(trichloromethyl)-3*H*-xanthen-3-one, T-00323
 Trilaurylammonium bromide, in T-00230
 7,7'-Trimethylenebis[1,3-dimethyl-8-thiouric acid]; Na salt, in T-00327
 1,3,3-Trimethyl-2-[2-(2-methyl-1*H*-indol-3-yl)ethylene]-3*H*-indolium(1+); Chloride, in T-00328
 1,2,4-Trinitrobenzene, T-00348
 ▷ 2,4,6-Trinitrobenzoic acid, T-00352
 ▷ 2,4,6-Trinitrophenol, T-00355

- ▷ Triphenylarsine, T-00363
- 2,4,6-Triphenyl-*N*-(3,5-diphenyl-4-oxidophenyl)pyridinium betaine, T-00365
- ▷ *N,N,N'*-Triphenylguanidine, T-00366
- ▷ Triphenylphosphine, T-00370
- 2,4,6-Triphenylpyridine; *N*-Ph, acetate (salt), *in* T-00373
- 2,4,6-Triphenylpyrylium(1+); Chloride, *in* T-00374
- Triphenylselenonium(1+); Chloride, *in* T-00375
- 4,4',4''-Triphenyl-2,2':6',2''-terpyridine, T-00378
- 2,4,6-Tri-2-pyridinyl-1,3,5-triazine, T-00381
- 3,5,6-Tri-2-pyridinyl-1,2,4-triazine, T-00382
- Tris(4-aminophenyl)methanol, T-00383
- Tris(2,2'-bipyridine-*N,N'*)iron(II)(2+), T-00384
- Tris(decyl)ethylammonium(1+); Bromide, *in* T-00386
- Tris(4,7-dimethyl-1,10-phenanthroline-*N¹,N¹⁰*)iron(II)(2+); Sulfate, *in* T-00389
- ▷ Tris(2-hydroxyethyl)amine, T-00406
- Tris(1,10-phenanthroline-*N¹,N¹⁰*)iron(II)(2+), T-00412
- 2,4,6-Tris[4-(4-sulfophenyl)-2-pyridyl]-*s*-triazine, T-00413
- ▷ Triton X 100, T-00428
- ▷ Triton X 305, T-00429
- ▷ Tropolone, T-00432
- Trypan blue; Tetra Na salt, *in* T-00433
- ▷ TTC, *in* T-00379
- Tyrosine; (±)-*form*, *in* T-00435
- 5,7-Undecanedione, U-00001
- Victoria blue B; Chloride, *in* V-00002

- Victoria blue 4R; Chloride, *in* V-00003
- Victoria pure blue BO; Chloride, *in* V-00004
- ▷ Vitamin C, *in* A-00446
- Wood's reagent, W-00001
- ▷ Xanthic acid; K salt, *in* X-00002
- Xylenol orange, X-00006
- Xylidine blue II, X-00007
- ▷ Xylometazoline hydrochloride, *in* X-00008
- Zephiramine; Chloride, *in* Z-00001

Surfactant

- Carboxymethyl cellulose, *in* C-00049
- ▷ 3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate, C-00274
- ▷ 1-Dodecyl sulfate, D-01155
- ▷ Gelatin, G-00008
- ▷ 1-Hexadecylpyridinium(1+), H-00028
- ▷ Hexadecyltrimethylammonium(1+), H-00029
- OP 7, O-00041
- ▷ Sorbitan monolaurate, *in* A-00367
- ▷ Triton X 100, T-00428
- ▷ Triton X 305, T-00429
- ▷ Triton X 100; Hexahydro, *in* T-00428

Titrant

- ▷ Benzenesulfonic acid; Amide, *N*-Chloro, Na salt, *in* B-00026
- 3,12-Bis(carboxymethyl)-6,9-dioxa-3,12-diazatetradecanedioic acid; Na salt, *in* B-00278

- 2,5-Bis(2-hydroxyethylamino)-1,4-benzenedicarboxylic acid, B-00368
- Bis(4-sulfobenzyl)dithiocarbamic acid; Tri-Na salt, *in* B-00454
- 4-Bromo-1-naphthalenediazonium(1+); Chloride, *in* B-00536
- ▷ *N*-Bromosuccinimide, B-00576
- N*-Chlorobenzamide, *in* B-00008
- 1,2-Diaminocyclohexane-*N,N,N',N'*-tetraacetic acid; (1*RS*,2*RS*)-*form*, *in* D-00065
- 2-[(3,5-Dibromo-2-pyridinyl)azo]-5-(ethylamino)-4-methylphenol, *in* A-00149
- ▷ Dicyclohexylamine, D-00307
- 1,3-Diphenyl-2-propanone; Tosylhydrazone, *in* D-01042
- ▷ 1-Ethylpiperidine, E-00106
- ▷ *N*-(2-Hydroxyethyl)ethylenediaminetriacetic acid, H-00177
- ▷ (1-Hydroxyethylidene)bisphosphonic acid, H-00178
- ▷ 2-Iodylbenzoic acid, I-00055
- ▷ Pentetic acid, P-00039
- 5,5',6,6'-Tetramethyl-3,3-bi(1,2,4-triazine), T-00093
- ▷ Tripropylamine, T-00380

Turbidimetric/nephelometric reagent

- 4-Amino-4'-chlorobiphenyl, A-00136
- ▷ 2-Aminoperimidine, A-00297
- Gum arabic, *in* A-00398
- ▷ Octadecanoic acid, O-00001