Dictionary of Organic Compounds

SIXTH EDITION

VOLUME FOUR

F–Mer

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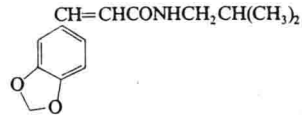
F

Fagaramide F-0-00001

3-(1,3-Benzodioxol-5-yl)-N-(2-methylpropyl)-2-propenamide, 9CI. N-*Isobutyl-3,4-methylenedioxycinnamamide*



$C_{14}H_{17}NO_3$ M 247.2

(*E*)-*form* [495-86-3]

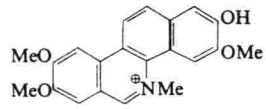
Alkaloid from the bark of *Zanthoxylum macrophyllum* and *Anthocleista vogelii*, the root of *Fagara tessmannii*, the root bark of *F. xanthoxyloides* and the wood of *Piper novae-hollandiae* (Rutaceae, Piperaceae). Plates (EtOAc). Mp 119.5° (softens at 105°).

Thoms, H. *et al*, *Ber.*, 1911, **44**, 3717 (*isol, struct, synth*)
Goodson, J.A., *Biochem. J.*, 1921, **15**, 123 (*isol, struct*)
Loder, J.W. *et al*, *Aust. J. Chem.*, 1969, **22**, 1531 (*isol, uv, ms*)
Okorie, D.A., *Phytochemistry*, 1976, **15**, 1799 (*isol, ir, pmr, ms*)
Nagao, Y. *et al*, *Tet. Lett.*, 1980, **21**, 841 (*synth*)

Fagaronine F-0-00002

2-Hydroxy-3,8,9-trimethoxy-5-methylbenzo[c]*phenanthridinium(1+), 9CI*

[52259-65-1]



$C_{21}H_{20}NO_4^{\oplus}$ M 350.3 (ion)

Alkaloid from the roots of *Fagara xanthoxyloides* (Rutaceae). Active as a tumour inhibitor; very active antileukaemic agent. Inhibitor of RNA reverse transcriptase activity in oncogenic viruses; shows anti-HIV activity. An intercalating agent. Bactericidal.

▶ DI9861000.

Chloride:

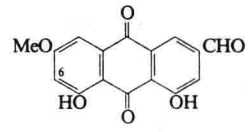
$C_{21}H_{20}ClNO_4$ M 385.8 Yellow needles (EtOAc/MeOH). Mp 202° (198-200°), Mp 260-261° (double Mp).

Messmer, W.M. *et al*, *J. Pharm. Sci.*, 1972, **61**, 1858 (*ir, uv, ms, pmr, isol struct*)
Gillespie, J.P. *et al*, *J.O.C.*, 1974, **39**, 3239 (*synth*)
Tin-Wa, M. *et al*, *J. Pharm. Sci.*, 1974, **63**, 1476 (*struct*)
Sethi, V.S. *et al*, *Biochem. Biophys. Res. Commun.*, 1975, **63**, 1070 (*pharmacol*)
Phillips, S.D. *et al*, *J. Het. Chem.*, 1981, **18**, 223 (*rev*)
Ishii, H. *et al*, *Chem. Pharm. Bull.*, 1983, **31**, 2963 (*synth*)
Hanaoka, M. *et al*, *Chem. Pharm. Bull.*, 1987, **35**, 2348 (*synth, uv, ir, pmr, ms*)
Ishii, H. *et al*, *J.C.S. Perkin 1*, 1987, 671 (*synth, ir, pmr*)
Šmidrkal, J., *Coll. Czech. Chem. Comm.*, 1988, **53**, 3184 (*synth, uv, pmr*)
Tan, G.T., *J. Nat. Prod.*, 1991, **54**, 143 (*anti-HIV activity*)

Fallacinal F-0-00003

9,10-Dihydro-4,5-dihydroxy-7-methoxy-9,10-dioxo-2-anthracenecarboxaldehyde, 9CI. 4,5-Dihydroxy-7-methoxyanthraquinone-2-carboxaldehyde. 3-Formyl-1,8-dihydroxy-6-methoxyanthraquinone. Phallacinal

[4517-57-1]



$C_{16}H_{10}O_6$ M 298.2

Pigment of lichens e.g. *Anthracothecium ochraceoflavum*, *Caloplaca* spp., *Cetraria cucullata*, *Fulgensia fulgens* and *Xanthoria* spp. Orange-yellow needles (C_6H_6 or Me_2CO). Mp 259.5-260.5° (251°).

6-Chloro: [41680-24-4]. ***Chlorofallacinal.*** *6-Chloro-4,5-dihydroxy-7-methoxyanthraquinone-2-carboxaldehyde. 2-Chloro-6-formyl-1,8-dihydroxy-3-methoxyanthraquinone*

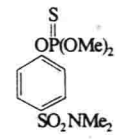
$C_{16}H_9ClO_6$ M 332.6 Isol. from the thalli an unidentified *C.* sp. Posn. of Cl suggested on biogenetic grounds.

Murakami, T., *Chem. Pharm. Bull.*, 1956, **4**, 298.
Keogh, M.F. *et al*, *Phytochemistry*, 1972, **11**, 1495.
Nakano, H. *et al*, *Phytochemistry*, 1972, **11**, 3505 (*Chlorofallacinal*)
Gonzalez, G.A. *et al*, *An. Quim.*, 1973, **69**, 805; *CA*, **79**, 104996 (*ir, ms, nmr*)
Yosioka, I. *et al*, *Chem. Pharm. Bull.*, 1973, **21**, 1547.
Renner, B. *et al*, *Naturwissenschaften*, 1978, **65**, 439.
Hirose, Y. *et al*, *Chem. Pharm. Bull.*, 1982, **30**, 4186 (*synth*)

Famphur F-0-00004

O-[*4-(Dimethylamino)sulfonyl*]*phenyl* O,O-*dimethyl phosphorothioate, 9CI.* O,O-*Dimethyl phosphorothioate,* O-*ester with* p-*hydroxy-*N,N-*dimethylbenzenesulfonamide, 8CI. Varbex. Famophos. CL 38023. ENT 25644. Warbex. Bo-Ana. Warbexol*

[52-85-7]



$C_{10}H_{16}NO_5PS_2$ M 325.3

Insecticide and acaricide, cholinesterase inhibitor. Cryst. (toluene/cyclohexane). Spar. sol. H_2O, aliphatic hydrocarbons. Mp 52.5-53.5°.

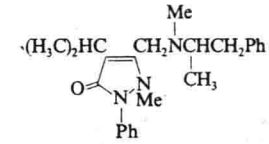
▶ Nausea and headache result from occup. exposure. Skin irritant. LD_{50} (rat, orl) 28 mg/kg. LD_{50} (rbt, skn) 1460 mg/kg. TF7650000.

Turner, E.C. *et al*, *J. Am. Vet. Med. Assoc.*, 1962, **141**, 360 (*pharmacol*)
O'Brien, R.D. *et al*, *J. Agric. Food Chem.*, 1965, **13**, 366 (*metab, tox*)
U.S. Pat., 3 179 560, (1965); *CA*, **63**, 1738 (*synth*)
Gatterdam, P.E. *et al*, *J. Agric. Food Chem.*, 1967, **15**, 845 (*metab*)
Black, W.D. *et al*, *Toxicol. Appl. Pharmacol.*, 1979, **50**, 167 (*tox*)
Ding, X.D. *et al*, *J. Agric. Food Chem.*, 1984, **32**, 622 (*hplc*)
Dangerous Prop. Ind. Mater. Rep., 1987, **7**, 91 (*rev, tox*)
Pesticide Manual, 9th edn., 1991, No. 5995.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, FAB600.
Handbook of Pesticide Toxicology, (eds. Hayes, W.J. *et al*), Academic Press, 1991, 1039.

Famprofazone, BAN, INN F-0-00005

4-Isopropyl-2-methyl-3-[[*methyl*(α-*methylphenethyl*)*amino*]*methyl*]-*1-phenyl-3-pyrazolin-5-one, 8CI. 5-*[N,α-*Dimethyl*(*phenethylamino*)*methyl*]-*4-isopropylnorantipyrine*

[22881-35-2]



$C_{24}H_{31}N_3O$ M 377.5

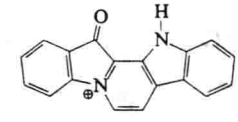
Analgesic, antipyretic. Powder (EtOH). Mp 132-133°.

▶ UQ9451000.

Swiss Pat., 275 620, (1951); *CA*, **47**, 1745f.
Martindale, The Extra Pharmacopoeia, 28th/29th edn., Pharmaceutical Press, London, 1982/1989, 2645.
Mrongovius, R. *et al*, *Eur. J. Med. Chem. (Chim. Ther.)*, 1984, **19**, 161 (*synth, pharmacol, metab*)

Fascaplysin F-0-00006

12,13-Dihydro-13-oxopyrido[*1,2-a:3,4-b'*]*diindol-5-ium(1+), 9CI*



$C_{18}H_{11}N_2O^{\oplus}$ M 271.2 (ion)

Pigment from the marine sponge *Fascaplysinopsis* sp. Exhibits antimicrobial and cytotoxic props.

Chloride: [114719-57-2].

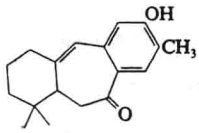
$C_{18}H_{11}ClN_2O$ M 306.7 Red cryst. (MeOH or $CHCl_3$). Mp 232-235° dec.

Roll, D.M. *et al*, *J.O.C.*, 1988, **53**, 3276 (*isol, uv, ir, pmr, cmr, ms, cryst struct*)

Faveline F-0-00007

1,2,3,4,11,11a-Hexahydro-7-hydroxy-1,1,8-trimethyl-10H-dibenzo[a,d]cyclohepten-10-one, 9CI

[136624-32-3]



$C_{18}H_{22}O_2$ M 270.3

Isol. from the bark of *Cnidoscolus phyllacanthus*. Cytotoxic. Cryst. ($CHCl_3$/hexane). Mp 192-194°. $[\alpha]_D$ −303.9 (c, 0.73 in $CHCl_3$).

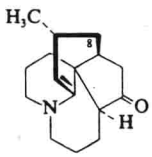
Me ether: [136624-31-2].
$C_{19}H_{24}O_2$ M 284.3 Constit. of *C. phyllacanthus*. Cytotoxic. Cryst. (hexane). Mp 135-136°. $[\alpha]_D$ −344.2 (c, 0.91 in $CHCl_3$).

Deoxo: [136624-33-4]. ***Deoxofaveline***
$C_{18}H_{24}O$ M 256.3 Constit. of *C. phyllacanthus*. Cytotoxic. Cryst. (hexane). Mp 149-151°. $[\alpha]_D$ +242.1 (c, 0.6 in $CHCl_3$).

Endo, Y. *et al*, *Tet. Lett.*, 1991, **32**, 3083 (*isol, pmr, cmr*)
Ghosh, A.K. *et al*, *J.C.S. Perkin 1*, 1994, 327 (*synth*)

Fawcettidine F-0-00008

[14912-31-3]



$C_{16}H_{23}NO$ M 245.3

Alkaloid from *Lycopodium fawcettii, L. alopecuroides* and *L. phlegmaria* (Lycopodiaceae). Liq. $Bp_{0.1}$ 125°.

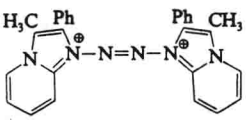
Picrate: Mp 222-223°.
Methiodide: Mp 224-226°.
8S-Hydroxy: [62023-85-2].
Anhydroaposerratinine
$C_{16}H_{23}NO_2$ M 261.3 Alkaloid from *L. verticillatum* (Lycopodiaceae). Mp 151°. $[\alpha]_D$ +211 ($CHCl_3$).
8S-Hydroxy, Ac: Mp 144°.

Burnell, R.H., *J.C.S.*, 1959, 3091 (*isol*)
Ishii, H. *et al*, *Tet. Lett.*, 1966, 6215 (*struct, ir*)
Ishii, H. *et al*, *Chem. Pharm. Bull.*, 1970, **18**, 1880 (*struct*)
Nyembo, L. *et al*, *Bull. Soc. Chim. Belg.*, 1976, **85**, 595; *CA*, **86**, 90108u (*Anhydroaposerratinine*)

Fazadinium(2+) F-0-00009

1,1'-Azobis[3-methyl-2-phenylimidazo[1,2-a] pyridinium], 9CI. Phenazidinium

[36653-54-0]



$C_{28}H_{24}N_6^{2\oplus}$ M 444.5 (ion)

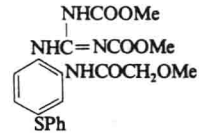
Dibromide: [49564-56-9]. ***Fazadinium bromide, BAN, INN. Fazadon. AH 8165. Fazadan***
$C_{28}H_{24}Br_2N_6$ M 604.3 Neuromuscular blocking agent. Yellow cryst. + $2H_2O$ (H_2O). Mp 215-219° (softens at 196°).
▶ LD_{50} (rat, ivn) 0.91 mg/kg. NJ5830100.

Glover, E.E. *et al*, *J.C.S.(C)*, 1971, 3280 (*synth*)
Bolger, L. *et al*, *Nature (London)*, 1972, **238**, 354 (*pharmacol*)
Playle, A.C., *Drugs of Today (Barcelona)*, 1977, **13**, 95 (*rev, pharmacol*)
Bell, J.A. *et al*, *Br. J. Pharmacol.*, 1979, **66**, 433P (*metab*)
Kienlen, J. *et al*, *Ann. Anesthesiol. Fr.*, 1981, **22**, 631 (*rev, pharmacol*)
d'Hollander, A. *et al*, *Eur. J. Clin. Pharmacol.*, 1983, **24**, 407 (*pharmacol*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1204.

Febantel, BAN, USAN, INN F-0-00010

[[2-[(Methoxyacetyl)amino]-4-(phenylthio) phenyl]carbonimidoyl]biscarbamic acid dimethyl ester, 9CI. Amatron. Bayverm. Rintal. Bay Vh 5757

[58306-30-2]



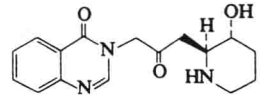
$C_{20}H_{22}N_4O_6S$ M 446.4

Veterinary anthelmintic. Mp 129-130°.
▶ LD_{50} (rat, orl) 10605 mg/kg. FB3955000.

Ger. Pat., 2 423 679, (1975); *CA*, **84**, 73949k (*synth, pharmacol*)
Wollweber, H. *et al*, *Arzneim.-Forsch.*, 1978, **28**, 2193; 1984, **34**, 531 (*pharmacol, synth, props*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 43.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, BKN250.

Febrifugine† F-0-00011

3-[3-(3-Hydroxy-2-piperidinyl)-2-oxopropyl]-4(3H)-quinazolinone, 9CI. Dichroine B. β-Dichroine. γ-Dichroine



Absolute configuration

$C_{16}H_{19}N_3O_3$ M 301.3

(+)-***form*** [24159-07-7]
Alkaloid from the roots and leaves of the Chinese drug Ch'ang Shan (*Dichroa febrifuga*) and from *Hydrangea* spp. (Hydrangeaceae). Shows high degree of antimalarial activity (ca. 100 times as active as Quinine) but use limited by toxicity. Also shows antipyretic and emetic activities; an effective coccidiostat. Various synthetic analogues show similar activities and much lower toxicity. Antineoplastic agent. Needles (EtOH). Mp 139-140° or 154-156° (dimorph). $[\alpha]_D^{25}$ +6 (c, 0.5 in $CHCl_3$); +28 (c, 0.5 in EtOH).

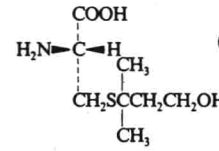
Hydrochloride (1:2): Mp 220-222° dec.
Bis(benzenesulfonyl): Mp 148-148.5°.
Semicarbazone: Mp 187-188° dec.
Oxime: Mp 224-225° dec.
N-Nitroso: Mp 171.5-172.5°.

(±)-***form*** [39037-90-6]
Synthetic. Mp 178.5-180.5°.
Hydrobromide: Cryst. (EtOH). Mp 229-231°.

Koepfli, J.B. *et al*, *J.A.C.S.*, 1947, **69**, 1837; 1949, **71**, 1048 (*isol, uv*)
Kuehl, F.A. *et al*, *J.A.C.S.*, 1948, **70**, 2091 (*isol*)
Ablondi, F. *et al*, *J.O.C.*, 1952, **17**, 14 (*isol*)
Baker, B.R. *et al*, *J.O.C.*, 1955, **20**, 136 (*synth*)
Barringer, D.F. *et al*, *J.O.C.*, 1973, **38**, 1933, 1937 (*pmr, abs config*)
Johne, S., *Alkaloids (N.Y.)*, 1986, **29**, 129 (*rev, pharmacol*)

Felinine F-0-00012

S-(3-Hydroxy-1,1-dimethylpropyl)cysteine, 9CI. 3-[(3-Hydroxy-1,1-dimethylpropyl)thio] alanine, 8CI



(*R*)-*form*

$C_8H_{17}NO_3S$ M 207.2

(***R***)-***form*** [471-09-0]
L-form
Occurs in the urine of cats. Amorph. ppt. (Me_2CO aq.). Mp 185° (177°). $[\alpha]_D^{22}$ −12.5 (c, 2 in H_2O), $[\alpha]_D$ +9.0 (c, 2 in 1*M* HCl).

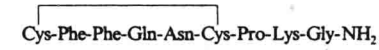
(±)-***form***
Cryst. (EtOH aq.). Mp 181° dec.
N-2,4-Dinitrophenyl: Cryst. (EtOH aq.). Mp 120-122°.

Schoeberl, A. *et al*, *Chem. Ber.*, 1968, **101**, 373 (*synth*)

Felypressin, BAN, INN, USAN F-0-00013

2-L-Phenylalanine-8-L-lysinevasopressin, 9CI. Collupressine. Octapressin. Octopressin. Phelypressin. PLV 2

[56-59-7]



$C_{46}H_{65}N_{13}O_{11}S_2$ M 1040.2

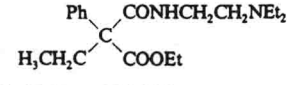
Synthetic deriv. of vasopressin. Vasoconstrictor. No phys. props. reported. Component of numerous preparations.

Boissonnas, R.A. *et al*, *Helv. Chim. Acta*, 1960, **43**, 190 (*synth*)
Meienhofer, J. *et al*, *J.A.C.S.*, 1960, **82**, 6336 (*synth*)
Schmidt, L. *et al*, *Arzneim.-Forsch.*, 1962, **12**, 1019 (*pharmacol*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 953.

Fenalamide, USAN, INN F-0-00014

α-[[2-(Diethylamino)ethylamino]carbonyl]-α-ethylbenzeneacetic acid ethyl ester, 9CI. Ethyl N-[2-(diethylamino)ethyl]-2-ethyl-2-phenylmalonamate, 8CI. Phemamide. Spasmamide. Sch 5706. SH 30858. Femamide

[4551-59-1]



$C_{19}H_{30}N_2O_3$ M 334.4

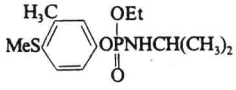
▶ LD_{50} (rat, orl) 610 mg/kg. ON9110800.

(±)-*form*
Smooth muscle relaxant. Oil. Bp_3 182-188°.
Hydrochloride: [15734-93-7]. Mp 74-80°.
Hydrobromide: [5957-23-3]. Mp 71-74°.
U.K. Pat., 870 887, (1959); *CA*, **56**, 550c (*synth*)
Carminati, G.M., *Arch. Int. Pharmacodyn. Ther.*, 1965, **153**, 312 (*pharmacol*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1369.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, FAJ150.

Fenamiphos, BSI F-0-00015

Ethyl 3-methyl-4-(methylthio)phenyl 1-methylethylphosphoramidate, 9CI. Ethyl 4-methylthio-m-tolyl isopropylphosphoramidate, 8CI. Nemacur. Phenamiphos

[22224-92-6]

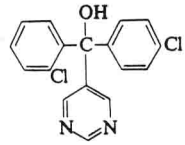


$C_{13}H_{22}NO_3PS$ M 303.3
Systemic agricultural nematocide. Cholinesterase inhibitor. Solid. Spar. sol. H_2O. Mp 49°.
▶ LD_{50} (rat, orl) 8 mg/kg. LD_{50} (rbt, skn) 178 mg/kg. ACGIH TLV 0.1 mg m^{-3} (Sk). TB3675000.
S-*Oxide:* [31972-43-7]. $C_{13}H_{22}NO_4PS$ M 319.3 n_D^{19} 1.5274.
S,S-*Dioxide:* [31972-44-8]. $C_{13}H_{22}NO_5PS$ M 335.3 Mp 77°.
Ger. Pat., 1 934 001, (1971); *CA*, **74**, 141266f (*oxides*)
Waggoner, T.B. *et al*, *J. Agric. Food Chem.*, 1972, **20**, 157 (*metab*)
Waggoner, T.B. *et al*, *Residue Rev.*, 1974, **53**, 79 (*rev, pharmacol*)
Ripley, B.D. *et al*, *J. Assoc. Off. Anal. Chem.*, 1983, **66**, 1084 (*glc*)
Bowman, B.T. *et al*, *J. Environ. Sci. Health, Part B*, 1983, **18**, 221 (*props*)
Pesticide Manual, 9th edn., 1991, No. 6010.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, FAK000.

Fenarimol, BSI, ISO, ANSI F-0-00016

α-(*2-Chlorophenyl*)-α-(*4-chlorophenyl*)-*5-pyrimidinemethanol, 9CI. 2,4'-Dichloro-α-(5-pyrimidinyl)benzhydryl alcohol. Bloc. Rimidin. Rubigan*

[60168-88-9]

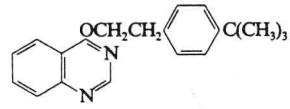


$C_{17}H_{12}Cl_2N_2O$ M 331.2
▶ UV9279400.
(±)-*form*
Agricultural and horticultural fungicide. Cryst. Mp 117-119°.
▶ LD_{50} (rat, orl) 2500 mg/kg. Exp. reprod. effects.
U.K. Pat., 1 218 623, (1967); *CA*, **72**, 100745b.
Dáy, E.W. *et al*, *Anal. Methods Pestic. Plant Growth Regul.*, 1984, **13**, 173 (*detn*)
Sisler, H.D. *et al*, *Pestic. Sci.*, 1984, **15**, 167 (*rev, activity*)
Taylor, H.M. *et al*, *J. Med. Chem.*, 1987, **30**, 1359 (*synth*)
Albinati, A. *et al*, *Acta Cryst. C*, 1988, **44**, 1782 (*cryst struct*)
Pesticide Manual, 9th edn., 1991, No. 6030.
Gardyan, C. *et al*, *Z. Lebensm.-Unters. -Forsch.*, 1991, **192**, 40 (*hplc*)
Agrochemicals Handbook, 3rd edn., Royal Society of Chemistry, 1992, A193.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, FAK100.

Fenazaquin, BSI F-0-00017

4-[2-[4-(1,1-Dimethylethyl)phenyl]ethoxy] quinazoline, 9CI. 4-tert-Butylphenethyl 4-quinazolinyl ether. Magister. EL-436

[120928-09-8]

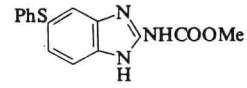


$C_{20}H_{22}N_2O$ M 306.4
Acaricide. Cryst. Mp 70-71°.
▶ LD_{50} (rat, orl) 50-500 mg/kg. VA1382000.
Eur. Pat., 326 329, (1989); *CA*, **112**, 35882x (*synth, activity*)
Eur. Pat., 380 264, (1990); *CA*, **114**, 6539b (*synth*)
Pesticide Manual, 9th edn., 1991, No. 6055.

Fenbendazole, BAN, USAN, INN F-0-00018

Methyl 5-phenylthio-1H-benzimidazol-2-yl carbamate. Axilur. Panacur. Pancacur. Safe-Guard. Worm-A-Rest. Hoe 881

[43210-67-9]

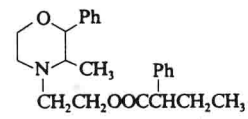


$C_{15}H_{13}N_3O_2S$ M 299.3
Veterinary anthelmintic. Powder. Mp 233° dec.
▶ Mutagenic props. DD6520500.
Baeder, C. *et al*, *Experientia*, 1974, **30**, 753.
Ger. Pat., 2 332 486, (1974); *CA*, **83**, 43324q.
Averkin, E.A. *et al*, *J. Med. Chem.*, 1975, **18**, 1164 (*synth, pharmacol*)
Duewel, D., *Pestic. Sci.*, 1977, **8**, 550 (*props*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 43.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, FAL100.

Fenbutrazate, INN F-0-00019

α-*Ethylbenzeneacetic acid 2-(3-methyl-2-phenyl-4-morpholinyl)ethyl ester, 9CI. 2-Phenylbutyric acid 2-(3-methyl-2-phenylmorpholino)ethyl ester, 8CI.* ***Phenbutrazate, BAN***

[4378-36-3]

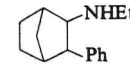


$C_{23}H_{29}NO_3$ M 367.4
Anorexic drug. Central stimulant. Honey-coloured, viscous oil. Sol. MeOH. $Bp_{0.05}$ 235-240°.
▶ ET5979000.
Hydrochloride: [6474-85-7]. *R 381* Insol. Et_2O, C_6H_6, sol. EtOH, Me_2CO. Mp 154°.
▶ LD_{50} (mus, orl) 3200 mg/kg. ET5980000.
Hengen, O., *Arzneim.-Forsch.*, 1955, **5**, 526; 1957, **7**, 524 (*pharmacol*)
U.S. Pat., 3 018 222, (1962); *CA*, **58**, 6840e (*synth*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1230.

Fencamfamin, BAN, INN F-0-00020

N-*Ethyl-3-phenylbicyclo[2.2.1]heptan-2-amine, 9CI. N-Ethyl-3-phenyl-2-norbornanamine, 8CI. 2-Ethylamino-3-phenylbicyclo[2.2.1]heptane. Euvitol. Glucoenergan. W 1206*

[1209-98-9]



$C_{15}H_{21}N$ M 215.3
Used as CNS stimulant and appetite suppressant. Liq. $Bp_{0.1}$ 128-130°.
▶ RB6650000.
Hydrochloride: [2240-14-4]. *Norcamphane. H 610*
Principal ingredient of Reactivan. Cryst. (Me_2CO). Mp 192°. Reactivan also contains vitamins B_1, B_6, B_{12}, C.
▶ LD_{50} (rat, orl) 83 mg/kg. RB6825000.
Hotovy, R. *et al*, *Arzneim.-Forsch.*, 1961, **11**, 20, 24 (*pharmacol*)
Ger. Pat., 1 110 159, (1961); *CA*, **56**, 2352 (*synth*)
Ger. Pat., 1 219 478, (1966); *CA*, **65**, 12136 (*synth*)
Valzelli, L. *et al*, *Psychopharmacologia*, 1971, **20**, 91 (*pharmacol*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1226.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, EOM000.

Fencarbamide, INN F-0-00021

Phencarbamide, USAN. S-[*2-(Diethylamino)ethyl] diphenylcarbamothioate, 9CI.* S-[*2-(Diethylamino)ethyl] diphenylthiocarbamate, 8CI. Diphencarbamide. Escorpal. Rispasulf. Bayer 1355. Wh 3363*

[3735-90-8]

$Ph_2NCOSCH_2CH_2NEt_2$

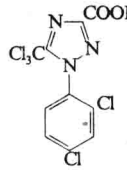
$C_{19}H_{24}N_2OS$ M 328.4
Antispasmodic and anticholinergic drug used during parturition. Cryst. Sol. MeOH, Et_2O, $CHCl_3$, petrol; prac. insol. H_2O.
▶ LD_{50} (rat, orl) 370 mg/kg. FA4439000.
Hydrochloride: [58-13-9]. Cryst. (MeCOEt). Sol. H_2O. Mp 180-182°.
▶ LD_{50} (rat, orl) 410 mg/kg. FA4440000.
Anon, *Angew. Chem., Int. Ed.*, 1964, **3**, 68 (*rev*)
Wirth, W. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1964, **151**, 515 (*pharmacol*)
Risse, K.H. *et al*, *CA*, 1964, **60**, 7939 (*synth*)

Madan, B.R. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1970, **185**, 53 (*pharmacol*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 430.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, PDC850, PDC875.

Fenchlorazole, BSI F-0-00022

1-(2,4-Dichlorophenyl)-5-(trichloromethyl)-1H-1,2,4-triazole-3-carboxylic acid, 9CI

[103112-36-3]



$C_{10}H_4Cl_5N_3O_2$ M 375.4
Mp 108-112°. Inactive compared to ethyl ester.

▶ LD_{50} (rat, orl) >5000 mg/kg. XZ4195000.

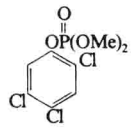
Et ester: [103112-35-2]. *Fenchlorazole-ethyl. HOE 070 542*
$C_{12}H_8Cl_5N_3O_2$ M 403.4 Herbicide safener.

Ger. Pat., 3 525 205, (1986); *CA*, **105**, 37496d (*synth, activity*)
Bieringer, H. *et al*, *Proc. Br. Crop Prot. Conf. Weeds*, 1989, **77**, 495 (*activity*)
Pesticide Manual, 9th edn., 1991, No. 6065.

Fenchlorphos-oxon F-0-00023

Dimethyl 2,4,5-trichlorophenylphosphate, 9CI. Ronnel oxon

[3983-45-7]



$C_8H_8Cl_3O_4P$ M 305.4
Insecticide. d^{32} 1.44. $Bp_{0.4}$ 151-154°. n_D^{35} 1.5335.

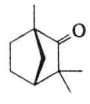
▶ TC5425000.

U.S. Pat., 2 599 515, (1952); *CA*, **46**, 8322a (*synth*)
Baughmann, R.G. *et al*, *J. Agric. Food Chem.*, 1978, **26**, 403 (*cryst struct*)
Sanchez-Baeza, F. *et al*, *Tet. Lett.*, 1990, **31**, 3359 (*synth, pmr, cmr*)
Durand, G. *et al*, *Biol. Mass. Spectrom.*, 1991, **20**, 3 (*ms*)

Fenchone F-0-00024

1,3,3-Trimethylbicyclo[2.2.1]heptan-2-one, 9CI. Fenchol (obsol.)

[1195-79-5]



(+)-*form*

$C_{10}H_{16}O$ M 152.2
Fp 5-6°.

▶ Skin irritant. LD_{50} (rat, orl) 4400 mg/kg. Fl. p. 65°. RB7875000.

(+)-***form*** [7787-20-4]
Widespread in plants, e.g. found in fennel oil (*Foeniculum vulgare*), *Blumea lacera*, *Prunella vulgaris*. Can be used as H acceptor in dehydrogenations. Oil with camphoraceous odour. Prac. insol. H_2O, v. sol. EtOH. Mp 3-5°, Fp 5-6°. Bp 193.5°. $[\alpha]_D^{29}$ +63.

E-*Oxime:* [25072-90-6].
$C_{10}H_{17}NO$ M 167.2 Mp 132°.

Z-*Oxime:* [25072-89-3].
$C_{10}H_{17}NO$ M 167.2 Mp 164-165°. $[\alpha]_D$ +65.2 (c, 5.8 in MeOH).

(−)-***form*** [4695-62-9]
Isol. from various essential oils e.g. *Thuja occidentalis* and *Artemisia frigida*. $[\alpha]_D$ −67.

▶ RB7875200.

(±)-***form*** [18492-37-0]
Bp 192-194°.

Oxime: [2157-47-3].
Mp 158-159°.

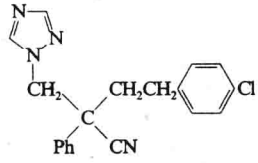
[74163-80-7]

Aldrich Library of FT-IR Spectra: Vapor Phase, **3**, 527C (*ir*)
Aldrich Library of ^{13}C and ^1H FT NMR Spectra, **1**, 678B (*nmr*)
Aldrich Library of FT-IR Spectra, 1st edn., **1**, 442B (*ir*)
Komppa, G. *et al*, *Ber.*, 1935, **68**, 2001 (*synth*)
Bays, D.E. *et al*, *J.C.S.(B)*, 1966, 885 (*cd*)
Thomas, A.F. *et al*, *Helv. Chim. Acta*, 1967, **50**, 826 (*ms*)
Baker, K.M. *et al*, *Tetrahedron*, 1968, **24**, 1663 (*pmr*)
Lipman, E. *et al*, *Org. Magn. Reson.*, 1970, **2**, 581 (*cmr*)
Boyle, P.H. *et al*, *J.C.S.(C)*, 1971, 2136 (*synth*)
Opdyke, D.L.J., *Food Cosmet. Toxicol.*, 1976, **14**, 769 (*rev, tox*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 228.
Buchbauer, G. *et al*, *Annalen*, 1981, 2093 (*synth*)
Wijekoon, W.M.D. *et al*, *J. Phys. Chem.*, 1983, **87**, 3034 (*pmr, cmr, uv, cd*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, TLW250.

Fencobuconazole, BSI F-0-00025

α-[2-(4-Chlorophenyl)ethyl]-α-phenyl-1H-1,2,4-triazole-1-propanenitrile, 9CI. 4-(4-Chlorophenyl)-2-phenyl-2-(1H-1,2,4-triazol-1-ylmethyl)butyronitrile. RH 7592

[114369-43-6]



$C_{19}H_{17}ClN_4$ M 336.8

▶ XZ5257500.

(±)-***form*** [119611-00-6]
Fungicide. Steroid demethylation inhibitor. Cryst. Mp 124-126°.

▶ LD_{50} (rat, orl) >2000 mg/kg. XZ5258000.

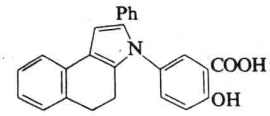
[119611-00-6]

Ger. Pat., 3 721 786, (1988); *CA*, **108**, 200219p (*synth, activity*)
Pesticide Manual, 9th edn., 1991, 157.
Jeffers, S.N., *Plant Dis.*, 1991, **75**, 502 (*activity*)

Fendosal, BAN, INN, USAN F-0-00026

5-(4,5-Dihydro-2-phenyl-3H-benz[e]indol-3-yl)-2-hydroxybenzoic acid, 9CI. Alnovin. HP 129. P 710129

[53597-27-6]



$C_{25}H_{19}NO_3$ M 381.4
Analgesic, antiinflammatory and antipyretic agent. Cryst. (AcOH). Mp 223-225° dec.

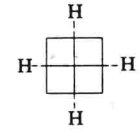
▶ LD_{50} (rat, orl) 450 mg/kg. DG8576200.

Anderson, V.B. *et al*, *J. Med. Chem.*, 1976, **19**, 318 (*synth, pharmacol*)
Lassman, H.B. *et al*, *Agents Actions*, 1978, **8**, 209 (*pharmacol*)
Warrander, A. *et al*, *Drug Metab. Dispos.*, 1981, **9**, 161 (*metab*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 14.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, FAO100.

[4.4.4.4]Fenestrane F-0-00027

Tetracyclo[3.3.1.0^{3,9}.0^{7,9}]nonane, 9CI. Tetracyclo[5.1.1.0^{3,8}.0^{5,8}]nonane. Windowpane

[40220-30-2]



cis-form

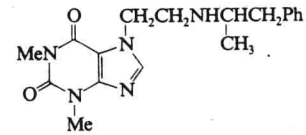
C_9H_{12} M 120.1
A molecule of considerable interest from point of view of obt. planar tetracoordinate carbon but may be too strained for its synth. to be achieved.

Georgian, V. *et al*, *Tet. Lett.*, 1972, 4315.
Wiberg, K.B. *et al*, *J.A.C.S.*, 1976, **98**, 1212.
Minkin, V.I. *et al*, *Zh. Org. Khim.*, 1978, **14**, 3.
Hoeve, W.T. *et al*, *J.O.C.*, 1980, **45**, 2925, 2980.
Würthein, E.-U. *et al*, *Tet. Lett.*, 1981, 843.
Krohn, K., *Org. Synth. Highlights*, 1991, 371 (*rev*)

Fenetylline, INN F-0-00028

*3,7-Dihydro-1,3-dimethyl-7-[2-(1-methyl-2-phenylethyl)aminoethyl]-1H-purine-2,6-dione, 9CI. 7-[2-[(α-Methylphenethylamino)]ethyl] theophylline. Amphetaminotheophylline. Amfetyline. **Fenethylline, BAN.** Biocapton*

[3736-08-1]



$C_{18}H_{23}N_5O_2$ M 341.4

▶ XH6110000.

(±)-***form***
Central stimulant, antidepressant. Metabolites in man incl. amphetamine.

Hydrochloride: [1892-80-4]. ***Fenethylline hydrochloride, USAN.*** *Captagon. H 814*
Mp 227-229°, Mp 237-239°.

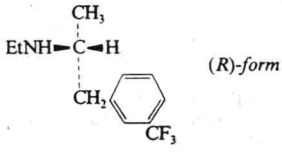
▶ LD_{50} (rat, orl) 100 mg/kg. XH6125000.

Wagemann, U. *et al*, *Arzneim.-Forsch.*, 1959, **9**, 311 (*pharmacol*)
Ger. Pat., 1 123 329, (1962); *CA*, **57**, 5933 (*synth*)
Ellison, T. *et al*, *Eur. J. Pharmacol.*, 1974, **13**, 123 (*metab*)
Gagauzov, I. *et al*, *CA*, 1984, **101**, 130491 (*synth*)
Nickel, B. *et al*, *Drug Alcohol Depend.*, 1986, 235 (*pharmacol, metab*)
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th edn., Akademie-Verlag, Berlin, 1987, 4919 (*synonyms*)
Yoshimura, H. *et al*, *Xenobiotica*, 1988, **18**, 929 (*metab*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1226.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, CBF825.

Fenfluramine, BAN F-0-00029

N-*Ethyl-α-methyl-3-(trifluoromethyl)benzeneethanamine*, *9CI.* N-*Ethyl-α-methyl*-m-*(trifluoromethyl)phenethylamine*, *8CI. 2-Ethylamino-1-(3-trifluoromethylphenyl)propane. Many other names*

[458-24-2]



(*R*)-*form*

$C_{12}H_{16}F_3N$ M 231.2

▶ SH6820000.

(***R*)-*form*** [37577-24-5] ***Levofenfluramine***
$[\alpha]_D^{25}$ −9.5 (c, 8.0 in EtOH).

▶ SH6824000.

(***S*)-*form*** [3239-44-9] ***Dexfenfluramine, INN. Adifax. S5614***
Appetite suppressant. $[\alpha]_D^{25}$ +9.5 (c, 8.0 in EtOH).

▶ SH6822000.

Hydrochloride: [3239-45-0].
Cryst. (EtOAc). Mp 160-161°.

(±)-*form* [5220-89-3]
Anorexic agent. Bp_{12} 108-112°.

▶ SH6821000.

Hydrochloride: [404-82-0]. ***Fenfluramine hydrochloride, USAN. Ponderax. Pondimin***
Anorexic. Mp 166°.

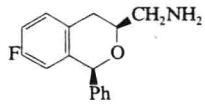
▶ Common adverse effects are drowsiness, diarrhoea, dizziness and lethargy. Psychotomimetic agent if abused. LD_{50} (rat, orl) 69 mg/kg. SH6825000.

Belg. Pat., 609 630, (1964); *CA*, **60**, 1647 (*synth*)
U.S. Pat., 3 198 834, (1965); *CA*, **63**, 11425 (*synth*)
Beckett, A.H. *et al*, *Tetrahedron*, 1968, **24**, 1283 (*abs config*)
Beckett, A. *et al*, *J. Chromatogr.*, 1972, **69**, 285 (*glc*)
Morgan, C.D. *et al*, *J. Pharmacol. Exp. Ther.*, 1972, **180**, 127 (*metab*)
Smith, H.E. *et al*, *J.O.C.*, 1975, **40**, 1562 (*cd, conformn*)
Caccia, S. *et al*, *Arch. Int. Pharmacodyn. Ther.*, 1982, **258**, 15 (*metab*)
Caccia, S. *et al*, *Eur. J. Clin. Pharmacol.*, 1985, **29**, 221 (*pharmacol*)
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th Ed., Akademie-Verlag, Berlin, 1987, 2410.
McTavish, D. *et al*, *Drugs*, 1992, **43**, 713 (*rev*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1226.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, ENJ000, PDM250.

Fenisorex, BAN, USAN, INN F-0-00030

7-Fluoro-3,4-dihydro-1-phenyl-1H-2-benzopyran-3-methanamine, *9CI. R 800*

[34887-52-0]



$C_{16}H_{16}FNO$ M 257.3

▶ DJ2548200.

(***1RS,3RS*)-*form***
cis-*form*
Anorexic agent.

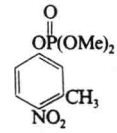
Hydrochloride: Cryst. (EtOH/Et_2O). Mp 227.5-228°.

U.S. Pat., 3 743 659, (1973); *CA*, **79**, 78614d (*synth*)
U.S. Pat., 3 851 062, (1974); *CA*, **82**, 133170v (*pharmacol*)

Fenitrooxon F-0-00031

Dimethyl 3-methyl-4-nitrophenyl phosphate, *9CI, 8CI. Dimethyl 4-nitro*-m-*tolyl phosphate. Sumioxon*

[2255-17-6]



$C_9H_{12}NO_6P$ M 261.1

Liq. Product of photodegradation and metab. of Fenitrothion, F-0-00032. $Bp_{0.07}$ 134-136°. n_D^{20} 1.5165.

▶ LD_{50} (rat, orl) 24 mg/kg, LD_{50} (rat, skn) 1300 mg/kg. TC5260000.

Miyamoto, J. *et al*, *Agric. Biol. Chem.*, 1963, **27**, 669 (*synth*)
Ohkawa, H. *et al*, *Agric. Biol. Chem.*, 1974, **38**, 2247 (*tlc*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, PHD750.

Fenitrothion, BAN, BSI F-0-00032

O,O-*Dimethyl* O-*(3-methyl-4-nitrophenyl) phosphorothioate*, *9CI.* O,O-*Dimethyl* O-*4-nitro*-m-*tolyl phosphorothioate*, *8CI.* O,O-*Dimethyl* O-*(3-methyl-4-nitrophenyl) thiophosphate. Accothion. Cyfen. Folithion. Metathion. Methylnitrophos. Phenitrothion. Sumithion. Arbogal*

[122-14-5]

$C_9H_{12}NO_5PS$ M 277.2

Contact insecticide. Cholinesterase inhibitor. Yellow oil. Insol. H_2O, spar. sol. petrol. d_4^{25} 1.323. $Bp_{0.1}$ 140-145°, $Bp_{0.05}$ 118°. n_D^{25} 1.5528. Stable to acidic but not basic hydrol. *S*-Me isomer is formed at high temp. Component of Nuvantop and Zeprox.

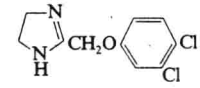
▶ Symptoms from occupational exposure incl. malaise, headache, anorexia. LD_{50} (rat, orl) 250 mg/kg; LD_{50} (rat, skn) 750 mg/kg. TG0350000.

Schrader, G., *Angew. Chem.*, 1961, **73**, 331 (*synth, props*)
Nishizawa, Y. *et al*, *Residue Rev.*, 1970, **60** (*bibl, rev*)
Stan, H.-J. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **287**, 271 (*glc, ms*)
Volpé, G. *et al*, *Chromatographia*, 1981, **14**, 333 (*hplc*)
Stan, H.-J. *et al*, *Biomed. Mass Spectrom.*, 1982, **9**, 483 (*ms*)
Agrochemicals Handbook, The Royal Society of Chemistry, 1983, A199.
Wang, Y., *CA*, 1986, **104**, 129985 (*synth*)
Pesticide Manual, 9th edn., 1991, No. 6120.
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1127.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DSQ000.
Handbook of Pesticide Toxicology, (Eds. Hayes, W.J. *et al*), Academic Press, 1991, 1020.

Fenmetozole, INN F-0-00033

2-[(3,4-Dichlorophenoxy)methyl]-4,5-dihydro-1H-imidazole, *9CI. 2-[(3,4-Dichlorophenoxy) methyl]-2-imidazoline*, *8CI*

[41473-09-0]



$C_{10}H_{10}Cl_2N_2O$ M 245.1

Antidepressant, narcotic antagonist.

Hydrochloride: [23712-05-2]. ***Fenmetozole hydrochloride, USAN. DH 524***
Mp 244-245°.

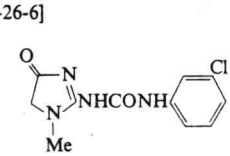
▶ LD_{50} (rat, orl) 100 mg/kg. NJ2625000.

U.S. Pat., 3 449 355, (1969); *CA*, **71**, 81365p (*synth, pharmacol*)
Reitz, R. *et al*, *Proc. Soc. Exp. Biol. Med.*, 1973, **144**, 391 (*props*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 254.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DGA800.

Fenobam, USAN, INN F-0-00034

N-*(3-Chlorophenyl)*-N′-*(4,5-dihydro-1-methyl-4-oxo-1H-imidazol-2-yl)urea*, *9CI. McN 3377*

[57653-26-6]



$C_{11}H_{11}ClN_4O_2$ M 266.6

Tranquilliser, muscle relaxant. Cryst. (Me_2CO/Et_2O). Mp 180-180.5°.

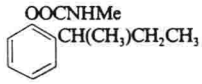
U.S. Pat., 3 983 135, (1976); *CA*, **86**, 55441 (*synth, pharmacol*)

Martindale, The Extra Pharmacopoeia, 28th/29th edn., Pharmaceutical Press, London, 1982/1989, 12740.
Pellizer, G. *et al, J. Pharm. Sci.*, 1983, **72**, 189 (*pmr, cmr*)

Fenobucarb, BSI F-0-00035

2-(1-Methylpropyl)phenyl methylcarbamate. Osbac. Bassa. Baycarb. 2-sec-Butylphenyl N-methylcarbamate. BPMC, JMAF

[3766-81-2]



$C_{12}H_{17}NO_2$ M 207.2
Insecticide against rice hoppers. Mp 32°.
▶ LD_{50} (rat, orl) 410 mg/kg. FB5425000.

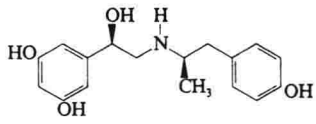
[75863-93-3]

Fraser, J. *et al, J. Sci. Food Agric.*, Suppl. 8, 1968 (*synth, use*)
Grou, E. *et al, J. Chromatogr.*, 1983, **260**, 502 (*hplc*)
Pesticide Manual, 9th edn., 1991, No. 6130.
Kulkarni, G.H. *et al, Tetrahedron*, 1991, **47**, 1249 (*synth, pmr*)
Agrochemicals Handbook, 3rd edn., Royal Society of Chemistry, 1992, A958.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, MOV000.

Fenoterol, BAN, USAN F-0-00036

5-[1-Hydroxy-2-[[2-(4-hydroxyphenyl)-1-methylethyl]amino]ethyl]-1,3-benzenediol, 9CI. 3,5-Dihydroxy-α-[[(p-hydroxy-α-methylphenethyl)amino]methyl]benzyl alcohol, 8CI. Airum. Dosberotec. Partusisten. Respilac. Segamol

[13392-18-2]



$C_{17}H_{21}NO_4$ M 303.3
▶ DO1490000.

(R,R)-form
Bronchodilator.
▶ DO1490000.

Hydrochloride: [1944-10-1].
Mp 183°.
Hydrobromide: [1944-12-3]. *Berotec. Th 1165a*
Cryst. (MeOH/Et_2O). Mp 222-223°.
▶ Human reprod. effects reported. LD_{50} (rat, orl) 1600 mg/kg. Exp. reprod. effects. DO1500000.

U.S. Pat., 3 135 797, (1964); *CA*, **61**, 3022 (*synth*)
Beale, J.P., *Cryst. Struct. Commun.*, 1972, **1**, 67, 223 (*cryst struct*)
Beale, J.P. *et al, J. Pharm. Pharmacol.*, 1972, **24**, 277 (*cryst struct*)
Ger. Pat., 2 413 102, (1975); *CA*, **84**, 30653s (*synth*)
Heel, R.C. *et al, Drugs*, 1978, **15**, 3 (*rev*)
Kojima, S. *et al, Arzneim.-Forsch.*, 1980, **30**, 959 (*metab*)
Kelly, H.W., *Clin. Pharm.*, 1985, **4**, 393 (*rev*)
Svedmyr, N., *Pharmacotherapy (Carlisle, Mass.)*, 1985, **5**, 109 (*rev*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1245.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, FAQ100.

Fenothiocarb, BSI, ISO, JMAF F-0-00037

S-(4-Phenoxybutyl) dimethylcarbamothioate, 9CI. Phenothiocarb. Panocon. KCO-3001

[62850-32-2]

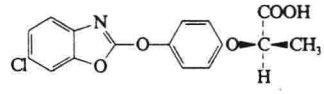
$C_{13}H_{19}NO_2S$ M 253.3
Acaricide. Cryst. Mp 40-41°. $Bp_{0.02}$ 155°.
▶ LD_{50} (rat, orl) 1150 mg/kg. FD3825000.

Ger. Pat., 2 636 620, (1977); *CA*, **87**, 1196b (*synth, activity*)
Ogawa, H., *Jpn. Pestic. Inf.*, 1985, **46**, 11 (*props*)
Unai, T. *et al, Appl. Entomol. Zool.*, 1986, **21**, 283 (*metab*)
Pesticide Manual, 10th edn., 1994, No. 298.

Fenoxaprop, BSI, ISO, ANSI F-0-00038

2-[4-[(6-Chloro-2-benzoxazolyl)oxy]phenoxy] propanoic acid, 9CI

[73519-55-8]



(R)-form

$C_{16}H_{12}ClNO_5$ M 333.7

(R)-form [113158-40-0]
Fenoxaprop-P
▶ UA2452300.

Et ester: [71283-80-2]. *Fenoxaprop-P-ethyl. Hoe 046360*
$C_{18}H_{16}ClNO_5$ M 361.7 Post-emergent herbicide. More active isomer. Phys. and chem. props. reported to be the same as racemate.
▶ LD_{50} (rat, orl) 3040 mg/kg.

(±)-form [95617-09-7]
Herbicide. Fatty acid synth. inhibitor.
▶ LD_{50} (rat, orl) 2357 mg/kg. UA2452500.

Et ester: [82110-72-3].
Herbicide. Solid. Mp 84-85°.

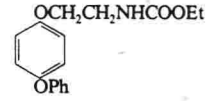
[66441-23-4, 113776-20-8, 113776-21-9, 116573-18-3]

Eur. Pat., 62 905, (1982); *CA*, **98**, 107282u (*synth, activity*)
Wink, O. *et al, Pestic. Sci.*, 1988, **22**, 31 (*activity*)
Kobek, K. *et al, Z. Naturforsch., C*, 1988, **43**, 47 (*activity*)
Lefsrud, C. *et al, Pestic. Biochem. Physiol.*, 1989, **34**, 218 (*activity, metab*)
Pesticide Manual, 9th edn., 1991, No. 6160.

Fenoxycarb, BSI, ISO, ANSI F-0-00039

Ethyl [2-(4-phenoxyphenoxy)ethyl]carbamate, 9CI. Logic. Torus. Ro 13-5223

[72490-01-8]



$C_{17}H_{19}NO_4$ M 301.3
Insecticide. Shows strong juvenile hormone activity. Disrupts development of pests. Cryst. Mp 49-54°.
▶ LD_{50} (rat, orl) > 10000 mg/kg. FD0423000.

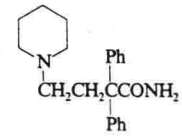
[79127-80-3]

Eur. Pat., 4 334, (1979); *CA*, **92**, 58473x (*synth, activity*)
Dorn, S. *et al, Z. Pflanzenkrankh. Pflanzenschutz.*, 1981, **88**, 269 (*activity*)
Haenni, R.P. *et al, Anal. Methods Pestic. Plant Growth Regul.*, 1988, **16**, 21 (*props, tox activity*)
Pesticide Manual, 9th edn., 1991, No. 6170.

Fenpipramide, BAN, INN F-0-00040

α,α-Diphenyl-1-piperidinebutanamide, 9CI. 2,2-Diphenyl-4-piperidinobutyramide. Hoe 9980. R 14. U 0229

[77-01-0]



$C_{21}H_{26}N_2O$ M 322.4
Antispasmodic. Leaflets (EtOH). Mp 188°. Constit. of Efosin.
▶ LD_{50} (mus, ivn) 30 mg/kg. TM5073300.

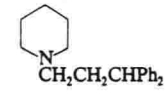
Hydrochloride: [14007-53-5].
Deliquescent solid. Mp 220°.
Methobromide: [125-60-0]. *1-(4-Amino-4-oxo-3,3-diphenylbutyl)-1-methylpiperidinium bromide, 9CI.* ***Fenpiverinium bromide, INN.*** *Fenpipramide methylbromide. Resantin. Hoe 12494*
$C_{22}H_{29}BrN_2O$ M 417.3 Dimorphic cryst. (2-propanol/EtOAc). Mp 177.5-178.5°, Mp 216-216.5°.
▶ LD_{50} (mus, orl) 800 mg/kg. TN4694150.

Walton, E. *et al, J.C.S.*, 1949, 648 (*synth, pharmacol*)
Janssen, P.A.J. *et al, J.A.C.S.*, 1955, **77**, 4423 (*synth, uv*)
Moffett, R.B. *et al, J.A.C.S.*, 1957, **79**, 4451 (*synth*)
Janssen, P.A.J. *et al, J. Med. Chem.*, 1959, **1**, 187 (*pharmacol, props*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1370.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, RDA375.

Fenpiprane, BAN, INN F-0-00041

1-(3,3-Diphenylpropyl)piperidine, 8CI. 1,1-Diphenyl-3-piperidinopropane

[3540-95-2]



$C_{20}H_{25}N$ M 279.4
Spasmolytic and antiallergic drug. Cryst. Mp 41-42.5°. Bp_8 210-220°, Bp_1 183-184°.

Hydrochloride: [3329-14-4]. *Hoe 10116*
Cryst. Mp 216-217°. Constit. of Aspason and Efosin.
▶ LD_{50} (mus, ivn) 25 mg/kg. TM7861000.

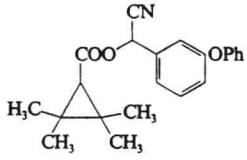
Bockmühl, M. *et al, Annalen*, 1948, **561**, 52 (*synth*)
Ruddy, A.W. *et al, J.A.C.S.*, 1950, **72**, 718 (*synth*)
White, A.C. *et al, Br. J. Pharmacol.*, 1951, **6**, 560 (*pharmacol*)
Klosa, J., *J. Prakt. Chem.*, 1966, **34**, 312 (*synth*)
Maisey, R.F. *et al, J. Med. Chem.*, 1971, **14**, 161 (*pharmacol*)

Martindale, The Extra Pharmacopoeia, 28th/29th edn., Pharmaceutical Press, London, 1982/1989, 12743.

Fenpropathrin, BSI, ISO F-0-00042

Cyano(3-phenoxyphenyl)methyl 2,2,3,3-tetramethylcyclopropanecarboxylate, 9CI. α-Cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate. Meothrin. Danitol. Rody. Herald

[39515-41-8]



$C_{22}H_{23}NO_3$ M 349.4

Pyrethroid insecticide.

▶ Occup. exposure causes transient facial tingling. LD_{50} (rat, orl) 18 mg/kg. LD_{50} (rat, skn) 870 mg/kg. GZ2090000.

(±)-form

Mp 49-50°. Mixt. of diastereoisomers. (1*R*)-Form also known.

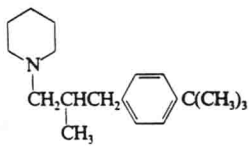
[64257-84-7, 67890-38-4, 67890-41-9]

Janes, N.F. *et al, J.C.S. Perkin 1*, 1977, 1878 (*cmr*)
Elliott, M. *et al, Pestic. Sci.*, 1978, **9**, 105 (*activity*)
Japan. Pat., 79 130 536, (1979); *CA*, **92**, 71076q (*synth*)
Grueter, H. *et al, Pestic. Sci.*, 1980, **11**, 148 (*synth*)
Matsuo, T. *et al, Pestic. Sci.*, 1980, **11**, 202 (*abs config, activity*)
Fujita, Y., *Jpn. Pestic. Inf.*, 1981, **38**, 21 (*activity, use, tox*)
Roberts, T.R., *Prog. Pestic. Biochem.*, 1981, **1**, 115 (*rev, metab*)
Horiba, M. *et al, Agric. Biol. Chem.*, 1982, **46**, 3041 (*abs config*)
Mikami, N. *et al, J. Agric. Food Chem.*, 1985, **33**, 980 (*metab*)
Pesticide Manual, 9th edn., 1991, No. 6200.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, DAB825.
Handbook of Pesticide Toxicology, (Eds. Hayes, W.J. *et al*), Academic Press, 1991, 596.

Fenpropidin, BSI, ISO F-0-00043

1-[3-[4-(1,1-Dimethylethyl)phenyl]-2-methylpropyl]piperidine, 9CI. 1-[3-(4-tert-Butylphenyl)-2-methylpropyl]piperidine. Patrol. Tern

[67306-00-7]



$C_{19}H_{31}N$ M 273.4

▶ LD_{50} (rat, orl) 1447 mg/kg. TM7292000.

(±)-form

Fungicide. Steroid redn. inhibitor. Pale yellow liq. $Bp_{0.004}$ 100°. pK_a 10.5.

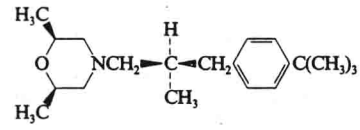
[69739-82-8]

Ger. Pat., 2 727 482, (1979); *CA*, **90**, 152004a (*synth, activity*)
Baloch, R.I. *et al, Phytochemistry*, 1984, **23**, 2219 (*activity*)
Bohnen, K. *et al, Br. Crop Prot. Conf. - Pests Dis., Proc.*, 1986, 27 (*props*)
Pesticide Manual, 9th edn., 1991, No. 6210.

Fenpropimorph, BSI, ISO F-0-00044

4-[3-(4-tert-Butylphenyl)-2-methylpropyl]-2,6-dimethylmorpholine. Corbel

[67306-03-0]



(R)-form

$C_{20}H_{33}NO$ M 303.4

Agricultural fungicide used against powdery mildews.

▶ QE2060000.

(R)-form [67564-91-4]

Shows mod. activity against wheat mildew and is prac. inactive against brown rust disease.

▶ QE1940000.

(S)-form

Very active against both wheat mildew and brown rust disease.

(±)-form

Oil. $Bp_{0.05}$ 120°. pK_a 7.02 (basic).

▶ LD_{50} (rat, orl) 3000 mg/kg.

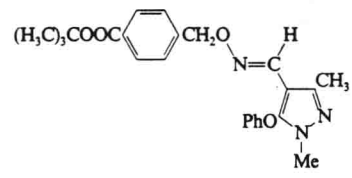
[67564-92-5, 67564-93-6, 76492-89-2, 76492-90-5, 76492-92-7, 127738-75-4, 128141-83-3, 130462-20-3]

Bohnen, K. *et al, Meded. Fac. Landbouwwet., Rijksuniv. Gent*, 1979, **44**, 487, 499 (*rev, props, tox, use*)
Himmele, W. *et al, Angew. Chem., Int. Ed.*, 1980, **19**, 184.
Ger. Pat., 2 907 614, (1980); *CA*, **94**, 65703s (*synth, resoln*)
Polak, A., *Ann. N.Y. Acad. Sci.*, 1988, **544**, 221 (*rev*)
Jensen, J.S. *et al, Acta Cryst. C*, 1990, **46**, 779 (*cryst struct*)
Pesticide Manual, 9th edn., 1991, No. 6220.
Basarab, G.S. *et al, ACS Symp. Ser.*, 1992, **504**, 414 (*synth, activity*)
Agrochemicals Handbook, 3rd edn., Royal Society of Chemistry, 1992, A201.
Sandholm Jensen, J. *et al, Pestic. Sci.*, 1992, **36**, 309 (*conformn*)

Fenpyroximate, BSI F-0-00045

1,1-Dimethylethyl 4-[[[[(1,3-dimethyl-5-phenoxy-1H-pyrazol-4-yl)methylene]amino]oxy]methyl]benzoate, 9CI. Danitron. Ortus. NN 1850

[134098-61-6]



$C_{24}H_{27}N_3O_4$ M 421.4

Strictly, the name Fenpyroximate applies only to the coml. available (*E*)-form. Acaricide. Cryst. (MeOH). Mp 101-102°.

▶ LD_{50} (rat, orl) 245 mg/kg. DG9081200.

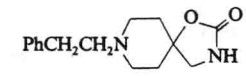
[111812-58-9]

Eur. Pat., 234 045, (1987); *CA*, **108**, 21882c (*synth*)
Konno, T. *et al, Br. Crop Prot. Conf. - Pests Dis., Proc.*, 1990, 71.
Pesticide Manual, 10th edn., 1994, No. 306.

Fenspiride, INN F-0-00046

8-(2-Phenylethyl)-1-oxa-3,8-diazaspiro[4.5]decan-2-one, 9CI. Many other names

[5053-06-5]



$C_{15}H_{20}N_2O_2$ M 260.3

Bronchodilator, antiadrenergic drug. Mp 156°.

▶ RO0373000.

Hydrochloride: [5053-08-7]. ***Fenspiride hydrochloride, USAN.*** *Decaspiride. Espiran. Respiride*

Mp 232-233° dec.

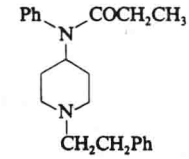
▶ LD_{50} (rat, orl) 437 mg/kg. RO0375000.

LeDouarec, J.C. *et al, Arzneim.-Forsch.*, 1969, **19**, 1263 (*pharmacol*)
Ranier, G. *et al, Eur. J. Med. Chem.* (*Chim. Ther.*), 1969, **4**, 185 (*synth, pharmacol*)
Beiler, J.M. *et al, Arch. Int. Pharmacodyn. Ther.*, 1971, **193**, 111; 1973, **201**, 90 (*pharmacol, metab*)
Hajdukovic, G. *et al, C. R. Hebd. Seances Acad. Sci. Ser. C*, 1971, **272**, 330 (*pmr, conformn*)
Duhault, J. *et al, Arzneim.-Forsch.*, 1972, **22**, 1947 (*pharmacol*)
Sardi, B. *et al, Boll. Chim. Farm.*, 1978, **117**, 343 (*tox*)
Evrard, Y. *et al, Sem. Hop.*, 1986, **62**, 1375 (*rev, pharmacol*)
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th edn., Akademie-Verlag, Berlin, 1987, 3638 (*synonyms*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1370.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DAI200.

Fentanyl, BAN F-0-00047

N-Phenyl-N-[1-(2-phenylethyl)-4-piperidinyl] propanamide, 9CI. N-(1-Phenethyl-4-piperidyl) propionanilide, 8CI. Phentanyl. Sublimaze. Many other names

[437-38-7]



$C_{22}H_{28}N_2O$ M 336.4

Narcotic analgesic. Cryst. Mp 83-84°. Component of Thalamonal.

▶ Adverse effects incl. somnolence and respiratory depression when used therapeutically. LD_{50} (mus, ipr) 76 mg/kg. LD_{50} (rat, orl) 18 mg/kg. UE5550000.

Citrate (1:1): [990-73-8]. *Fentanyl citrate, USAN. Hypnorm*

Cryst. Slightly sol. H_2O. Mp 149-151°. Component of Innovar.

▶ LD_{50} (rat, orl) 18 mg/kg. UE5600000.

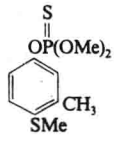
Gardocki, J.F. *et al, Toxicol. Appl. Pharmacol.*, 1964, **6**, 48 (*pharmacol*)
U.S. Pat., 3 141 823, (1964); *CA*, **61**, 10689 (*synth*)

Jonczyk, A. *et al*, *Przem. Chem.*, 1978, **57**, 131 (*synth*)
Zee, S.-H. *et al*, *J. Chin. Chem. Soc.* (*Taipei*), 1980, **27**, 147; *CA*, **94**, 174821 (*synth*)
Peeters, O.M. *et al*, *J. Cryst. Mol. Struct.*, 1980, **27**, 147 (*cryst struct*)
Andrews, C.J.H. *et al*, *Clin. Anaesthesiol.*, 1983, **1**, 97 (*rev, pharmacol*)
Mather, L.E., *Clin. Pharmacokinet.*, 1983, **8**, 422 (*rev*)
Casy, A.F. *et al*, *Eur. J. Med. Chem.* (*Chim. Ther.*), 1983, **18**, 56 (*cmr*)
Goromaru, T. *et al*, *Chem. Pharm. Bull.*, 1985, **33**, 3922 (*metab*)
Tollenaere, J.P. *et al*, *Prog. Drug Res.*, 1986, **30**, 91 (*rev, conformn*)
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th edn., Akademie-Verlag, Berlin, 1987, 6613 (*synonyms*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1076.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, PDW500, PDW750.

Fenthion, BSI, BAN F-0-00048

O,O-*Dimethyl* O-[(*3-methyl-4-methylthio*) *phenyl*] *phosphorothioate, 9CI.* O,O-*Dimethyl*-O-(*4-methylthio*-m-*tolyl*) *phosphorothioate, 8CI. 4-Methylmercapto-3-methylphenyl dimethyl thiophosphate. Mercaptophos. Baytex. Lebaycid. Queletox. Spotton. Talodex. Bayer 29493. ENT 25540. S 1752*

[55-38-9]



$C_{10}H_{15}O_3PS_2$ M 278.3

Insecticide with low mammalian toxicity. Used against mosquito larvae in tropical fresh waters. Cholinesterase inhibitor. Liq. with slight garlic odour. V. spar. sol. H_2O. d_4^{20} 1.25. $Bp_{0.01}$ 87°. n_D^{20} 1.5698. Thermally stable to 210°, alkali-resistant to pH 9. Metab.*via* sulfoxide and sulfone. Component of Tiguvon.

▶ LD_{50} (rat, orl) 180 mg/kg; LD_{50} (rat, skn) 330 mg/kg. Can cause delayed neurotoxic symptoms and retinal changes. Occup. exposure can cause numbness, tingling of extremities and muscle weakness. ACGIH TLV: long-term 0.2 mg m^{-3} (sk). TF9625000.

S-*Oxide:* [3761-41-9]. O,O-*Dimethyl* O-[(*3-methyl-4-methylsulfinyl*)*phenyl*] *phosphorothioate. Fenthion sulfoxide*
$C_{10}H_{15}O_4PS_2$ M 294.3 Metab. of Fenthion. Stereochem. not detd.
▶ TF9400000.

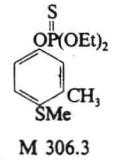
S,S-*Dioxide:* [3761-42-0]. O,O-*Dimethyl* O-[(*3-methyl-4-methylsulfonyl*)*phenyl*] *phosphorothioate. Fenthion sulfone*
$C_{10}H_{15}O_5PS_2$ M 310.3 Metab. of Fenthion.
▶ TF9420000.

Ger. Pat., 1 116 656, (1961); *CA*, **56**, 14170 (*synth, props*)
Ibrahim, F.B. *et al*, *J. Agric. Food Chem.*, 1966, **14**, 369 (*uv*)
Keith, L.H. *et al*, *J. Assoc. Off. Anal. Chem.*, 1968, **51**, 1063 (*pmr*)
Getz, M.E. *et al*, *J. Assoc. Off. Anal. Chem.*, 1968, **51**, 1101 (*tlc*)
Ross, R.T. *et al*, *Anal. Chim. Acta*, 1970, **52**, 139 (*P nmr*)
Stan, H.-J. *et al*, *Fresenius' Z. Anal. Chem.*, 1977, **287**, 271; *Biomed. Mass Spectrom.*, 1982, **9**, 483 (*glc, ms*)
Rainsford, K.D., *Pestic. Biochem. Physiol.*, 1978, **8**, 302 (*tox, metab*)
Agrochemicals Handbook, The Royal Society of Chemistry, 1983, A203.
Ripley, B.D., *J. Assoc. Off. Anal. Chem.*, 1983, **66**, 1084 (*derivs, glc*)
Stan, H.-J. *et al*, *J. Chromatogr.*, 1983, **279**, 173 (*glc*)
Pesticide Manual, 9th edn., 1991, No. 6280.
Ballantyne, B. *et al*, *Clinical and Experimental Toxicology of Organophosphates and Carbamates*, Butterworth-Heineman, Oxford, 1992.
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 1127.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DSS400, DSS800, FAQ900.
Handbook of Pesticide Toxicology, (Eds. Hayes, W.J. *et al*), Academic Press, 1991, 1023.
Chemical Hazards of the Workplace, (Eds. Proctor, N.H. *et al*), 3rd edn., VNR, 1991, 301.

Fenthion-ethyl F-0-00049

O,O-*Diethyl* O-[*3-methyl-4-(methylthio) phenyl*]*phosphorothioate, 9CI.* O,O-*Diethyl* O-[*4-(methylthio)*-m-*tolyl*]*phosphorothioate, 8CI*

[1716-09-2]



$C_{12}H_{19}O_3PS_2$ M 306.3

Insecticide. $Bp_{0.01}$ 104°.

▶ TF4100000.

4-S-Oxide: [6587-44-6]. O,O-*Diethyl* O-[*3-methyl-4-(methylsulfinyl)phenyl*] *phosphorothioate, 9CI*
$C_{12}H_{19}O_4PS_2$ M 322.3 d_4^{20} 1.23. n_D^{20} 1.5471.

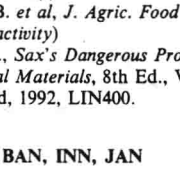
[24505-67-7]

Ger. Pat., 1 116 656, (1961); *CA*, **56**, 14170i (*synth, activity*)
Neely, W.B. *et al*, *J. Agric. Food Chem.*, 1970, **18**, 45 (*activity*)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th Ed., Van Nostrand-Reinhold, 1992, LIN400.

Fentiazac, BAN, INN, JAN F-0-00050

4-(4-Chlorophenyl)-2-phenyl-5-thiazoleacetic acid, 9CI. 8CI. Donorest. Flogene. Norvedan. Many other names

[18046-21-4]



$C_{17}H_{12}ClNO_2S$ M 329.8

Antipyretic, antiinflammatory drug. Needles (C_6H_6). Mp 161-162°.

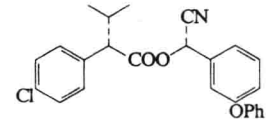
▶ LD_{50} (rat, orl) 409 mg/kg. Exp. reprod. and teratogenic effects. XJ1890000.

Brown, K. *et al*, *J. Med. Chem.*, 1974, **17**, 1177 (*synth, pharmacol*)
Destro, R., *Acta Cryst. B*, 1978, **34**, 959 (*cryst struct*)
Marmo, E., *Curr. Med. Res. Opin.*, 1979, **6**, 53 (*rev, pharmacol, tox*)
Anon., *Drugs of Today* (*Barcelona*), 1979, **15**, 323 (*rev*)
Fumero, S. *et al*, *Arzneim.-Forsch.*, 1980, **30**, 1253 (*metab*)
Franklin, R.A. *et al*, *Xenobiotica*, 1984, **14**, 955 (*metab*)
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 6th edn., Akademie-Verlag, Berlin, 1987, 4231 (*synonyms*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 15.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, CKI750.

Fenvalerate, BAN, BSI, ISO F-0-00051

Cyano(3-phenoxyphenyl)methyl 4-chloro-α-(1-methylethyl)benzeneacetate, 9CI. α-*Cyano-3-phenoxybenzyl 2-(4-chlorophenyl)-3-methylbutyrate. Belmark. Pydrin. Sumicidin*

[51630-58-1]



(*S,S*)-*form*

$C_{25}H_{22}ClNO_3$ M 419.9

Agricultural, public health and animal husbandry insecticide. Viscous yellow liq. d_{25}^{25} 1.175. Bp_{37} 300°.

▶ LD_{50} (rat, orl) 451 mg/kg. CY1576350.

(***S,S*-form** [66230-04-4] ***Esfenvalerate, BSI, ISO. Sumi-alpha. Asana. Fenvalerate α***
Insecticide. Has greater insecticidal activity than racemate. Cryst. d_4^{26} 1.26. Mp 59-60°. $[\alpha]_D^{25}$ −15.0 (c, 2.0 in MeOH).

▶ CY1576367.

[66267-77-4, 67614-32-8, 67614-33-9, 67890-39-5, 67890-40-8, 73367-17-6, 73367-18-7]

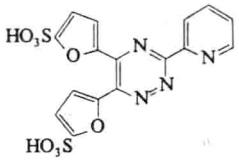
U.K. Pat., 1 439 615, (1972); *CA*, **80**, 120746w.
Hattori, J., *Jpn. Pestic. Inf.*, 1977, **33**, 13 (*rev, props*)
Aketa, K. *et al*, *Agric. Biol. Chem.*, 1978, **42**, 895 (*synth, pmr, activity*)
Ger. Pat., 2 737 297, (1978); *CA*, **88**, 152268y (*esfenvalerate*)
Yoshioka, H., *Rev. Plant. Prot. Res.*, 1978, **11**, 39 (*rev, synth, tox*)
Horiba, M. *et al*, *Agric. Biol. Chem.*, 1982, **46**, 3041 (*abs config, bibl*)
Papadopoulou-Mourkidou, E., *Residue Rev.*, 1983, **89**, 179 (*rev, detn*)
Wheeler, T.N. *et al*, *J. Agric. Food Chem.*, 1984, **32**, 1125 (*synth, activity*)
U.S. Pat., 4 432 908, (1984); *CA*, **100**, 209428y (*cryst struct*)
Oo'uchi, H., *Jpn. Pestic. Inf.*, 1985, **46**, 21 (*esfenvalerate*)
Mikami, N. *et al*, *Pestic. Sci.*, 1985, **16**, 46 (*metab*)
Miyamoto, J. *et al*, *ACS Symp. Ser.*, 1986, **299**, 268 (*rev, tox*)
Lidgard, R.O. *et al*, *Biomed. Environ. Mass Spectrom.*, 1986, **13**, 677 (*ms*)
Papadopoulou-Mourkidou, E., *Anal. Methods Pestic. Plant Growth Regul.*, 1988, **16**, 31 (*hplc*)
IARC Monog., 1991, **53**, 309 (*rev, tox*)
Pesticide Manual, 9th edn., 1991, No. 5630, 6340.

Agrochemicals Handbook, 3rd edn., Royal Society of Chemistry, 1992, A990, A207.
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, FAR100.

Ferene F-0-00052

5,5'-[3-(2-Pyridinyl)-1,2,4-triazine-5,6-diyl]bis-2-furansulfonic acid, 9CI

[90691-98-8]



$C_{16}H_{10}N_4O_8S_2$ M 450.4

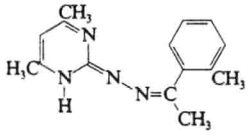
Di-Na salt: [79551-14-7]. *Ferene S* Used as 0.18m*M* aq. soln. for photometric detn. of Fe(*II*) (λ_{max} 593 nm, ε 34500). Yellow cryst. + $1H_2O$ (EtOH).

[90358-66-0]

Aldrich Library of ^{13}C and ^1H FT NMR Spectra, 3, 414C (*nmr*)
Higgins, T., *CA*, 1981, **95**, 183278.
Hennessy, D.J. *et al*, *Can. J. Chem.*, 1984, **62**, 721 (*synth, detn, Fe*)

Ferimzone, BSI F-0-00053

4,6-Dimethyl-2(1H)-pyrimidinone [1-(2-methylphenyl)ethylidene]hydrazone, 9CI



(*Z*)-*form*

$C_{15}H_{18}N_4$ M 254.3

(*E*)-*form* [77359-18-3]
Needles (hexane). Mp 110-111°.

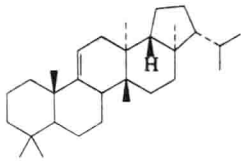
(*Z*)-*form* [89269-64-7]
TF 164
Fungicide. Prisms (hexane). Mp 178-180°.
▶ LD_{50} (rat, orl) 725 mg/kg. UW7430000.

Konishi, K. *et al*, *Agric. Biol. Chem.*, 1986, **50**, 2427 (*synth, ir, uv, pmr*)
Okuno, T. *et al*, *Phytochemistry*, 1989, **79**, 827 (*activity*)
Pesticide Manual, 10th edn., 1994, No. 312.

9(11)-Fernene F-0-00054

Davallene. *Fernene*

[1615-99-2]



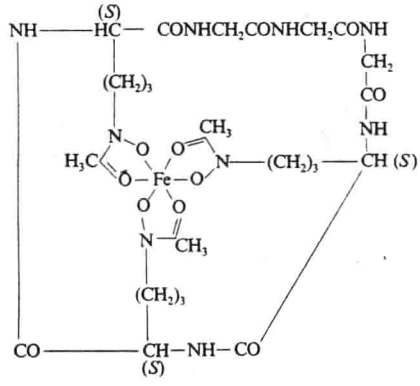
$C_{30}H_{50}$ M 410.7
Constit. of *Dryopteris crenata, D. crassirhizoma* and of *Adiantum pedatum*. Fairly widely distributed in ferns. Cryst. Mp 175-177°. $[\alpha]_D$ −26.4 ($CHCl_3$).

21αH-form [29428-21-5]
21-Epifern-9(11)-ene
Present in the epicuticular layer of ferns. Mp 151-153.5°. $[\alpha]_D$ −15.3.

Ageta, H. *et al*, *Tet. Lett.*, 1963, 1447; 1966, 6069 (*isol, struct, pmr*)
Ghisalberti, E.L. *et al*, *Phytochemistry*, 1970, **9**, 1817 (*biosynth*)
Barton, D.H.R. *et al*, *J.C.S.(C)*, 1971, 110 (*biosynth*)
Wollenweber, E. *et al*, *Z. Naturforsch., C*, 1981, **36**, 896 (*isol*)
Sengupta, P. *et al*, *Indian J. Chem., Sect. B*, 1983, **22**, 882 (*cryst struct*)
Murakami, T. *et al*, *Prog. Chem. Org. Nat. Prod.*, 1988, **54**, 1 (*occur*)
Masuda, K. *et al*, *Chem. Pharm. Bull.*, 1989, **37**, 1673 (*pmr, cmr*)
Wilkins, A.L. *et al*, *Chem. Pharm. Bull.*, 1989, **37**, 1673 (*cmr*)
Ageta, H. *et al*, *Chem. Pharm. Bull.*, 1994, **42**, 39 (*pmr, cmr*)

Ferrichrome, 9CI F-0-00055

[15630-64-5]



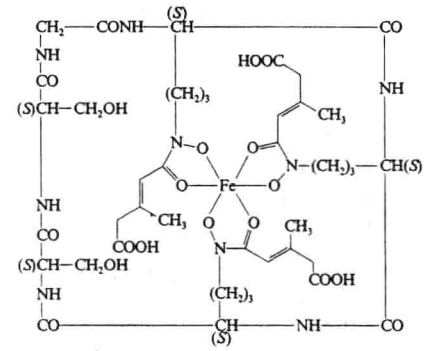
$C_{27}H_{42}FeN_9O_{12}$ M 740.5
Metab. of *Ustilago sphaerogena* grown under special conditions. Growth promotor. Yellow needles (MeOH). Sol. H_2O, MeOH, spar. sol. Me_2CO, $CHCl_3$. Mp 248-251° dec. $[\alpha]_D^{20}$ +304 (c, 0.425 in H_2O).

[34787-28-5]

Neilands, J.B., *J.A.C.S.*, 1952, **74**, 4846 (*isol*)
Emery, T. *et al*, *J.A.C.S.*, 1960, **82**, 3658; 1961, **83**, 1626 (*struct*)
Llinas, M. *et al*, *J. Mol. Biol.*, 1972, **68**, 265 (*pmr, conformn*)
Isowa, Y. *et al*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 215 (*ir, synth*)
Llinas, M. *et al*, *J. Mol. Biol.*, 1976, **104**, 853 (*cmr, struct*)
Naegli, H.-U. *et al*, *Helv. Chim. Acta*, 1978, **61**, 2088 (*synth, ir, uv*)
Van der Helm, D. *et al*, *J.A.C.S.*, 1980, **102**, 4224 (*cryst struct*)
Dell, A. *et al*, *Biomed. Mass Spectrom.*, 1982, **9**, 158 (*ms*)

Ferrichrome A F-0-00056

[15258-80-7]



$C_{41}H_{58}FeN_9O_{20}$ M 1052.8
Metab. product of *Ustilago sphaerogena*. Iron transport compound, growth factor. Hygroscopic, amber cryst. + $4H_2O$ (H_2O). Sol. EtOH; insol. Me_2CO, $CHCl_3$.

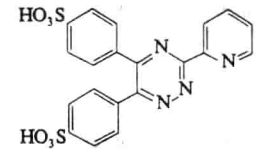
[25312-33-8]

Garibaldi, J.A. *et al*, *J.A.C.S.*, 1955, **77**, 2429 (*isol, ir*)
Emery, T. *et al*, *J.A.C.S.*, 1960, **82**, 3658; 1961, **83**, 1626 (*struct*)
Keller-Schierlein, W., *Helv. Chim. Acta*, 1963, 1920 (*ir, struct*)
Zalkin, A. *et al*, *J.A.C.S.*, 1966, **88**, 1810 (*cryst struct, abs config*)
Llinas, M. *et al*, *J. Mol. Biol.*, 1972, **68**, 265 (*pmr, conformn*)
Van der Helm, D. *et al*, *Acta Cryst. B*, 1981, **37**, 323 (*cryst struct*)
Dell, A. *et al*, *Biomed. Mass Spectrom.*, 1982, **9**, 158 (*ms*)

Ferrozine F-0-00057

4,4'-[3-(2-Pyridinyl)-1,2,4-triazine-5,6-diyl] bisbenzenesulfonic acid, 9CI. 3-(2-Pyridyl)-5,6-bis(4-sulfophenyl)-1,2,4-triazine

[32796-55-7]



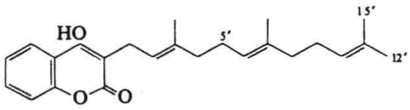
$C_{20}H_{14}N_4O_6S_2$ M 470.4
Used for photometric detn. of Fe(*II*) (λ_{max} 560 nm, ε 28000), Co, Cr and indirectly As, Mo, SO_2.

Di-Na salt: [28048-33-1].
Cryst. (H_2O). Mp >350°.
▶ DB7345000.

Stookey, L.L., *Anal. Chem.*, 1970, **42**, 779 (*synth, detn, Fe*)
Attari, A. *et al*, *Anal. Chem.*, 1972, **44**, 151 (*detn, SO_2*)
Kundra, S.K. *et al*, *Anal. Chem.*, 1974, **46**, 1605 (*detn, Co*)
Kellen, G.J. *et al*, *Anal. Chem.*, 1976, **48**, 1538 (*detn, As*)
Simonzadeh, N. *et al*, *Talanta*, 1979, **26**, 935 (*detn, Mo*)
Thompsen, J.C. *et al*, *Anal. Chem.*, 1984, **56**, 755 (*detn, Fe*)
Onishi, H., *Photometric Determination of Traces of Metals, Part IIa: Individual Metals. Aluminium to Lithium*, John Wiley, New York, 4th Ed., 1986, 730.

Ferulenol F-0-00058

4-Hydroxy-3-[(3,7,11-trimethyl-2,6,10-dodecatrienyl)]-2H-1-benzopyran-2-one, 9CI.
3-(1-Farnesyl)-4-hydroxycoumarin
[6805-34-1]



$C_{24}H_{30}O_3$ M 366.4
Constit. of the latex of *Ferula communis*. Shows haemorrhagic action. Mp 64-65°.

12'-Hydroxy: [106909-08-4]. **(E)-ω-Hydroxyferulenol**
$C_{24}H_{30}O_4$ M 382.4 Constit. of *F. communis*. Shows haemorrhagic action. Yellow oil.

15'-Hydroxy: [110107-13-6]. **(Z)-ω-Hydroxyferulenol**
$C_{24}H_{30}O_4$ M 382.4 Constit. of *F. communis* and *F. communis* var. *genuina*. Yellow oil.

12'-Acetoxy: [119234-02-5]. **(E)-ω-Acetoxyferulenol**
$C_{26}H_{32}O_5$ M 424.5 Constit. of *F. communis*. Oil.

15'-Acetoxy: [119259-89-1]. **(Z)-ω-Acetoxyferulenol**
$C_{26}H_{32}O_5$ M 424.5 Constit. of *F. communis*. Oil.

12'-Oxo: [106894-38-6]. **(E)-ω-Oxoferulenol**
$C_{24}H_{28}O_4$ M 380.4 Constit. of *F. communis*. Oil.

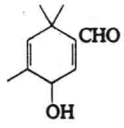
5'-Hydroxy: **ε-Hydroxyferulenol**
$C_{24}H_{30}O_4$ M 382.4 Isol. from *F. communis* var. *genuina*.

Carboni, S. *et al*, *Tet. Lett.*, 1964, 2783 (*struct, pmr*)
Valle, M.G. *et al*, *Phytochemistry*, 1987, **26**, 253 (*isol*)
Lamnaouer, D. *et al*, *Phytochemistry*, 1987, **26**, 1613; 1991, **30**, 2383 (*isol, pmr, cmr, deriv*)
Appendino, G. *et al*, *Phytochemistry*, 1988, **27**, 3619 (*derivs*)

Ferulol F-0-00059

For a fuller version of this Entry see *Dictionary of Natural Products*, F-00145

3-Hydroxy-4,6,6-trimethyl-1,4-cyclohexadiene-1-carboxaldehyde
[55568-77-9]



$C_{10}H_{14}O_2$ M 166.2
Derivs. are known with both positive and negative specific rotations and may belong to opposite enantiomeric series. Constit. of the roots of *Selinum carvifolium*. Derivs. of Ferulol reported from *Astrantia, Cenolophium, Eryngium, Ferula, Hacquetia, Hladnikia, Ligusticum, Peucedanum, Selinum* and *Silaum* spp. Oil. $[\alpha]_D^{20}$ +15 (c, 1 in $CHCl_3$).

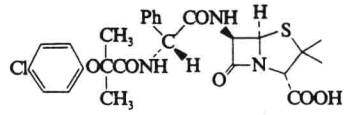
Angeloyl: [28333-43-9].
$C_{15}H_{20}O_3$ M 248.3 Constit. of *Ferula hispanica*. Oil. $Bp_{0.1}$ 130°. $[\alpha]_D^{20}$ −52 (c, 4.5 in Et_2O).

O-*(3-Methyl-2-butenoyl):* [33530-15-3].
$C_{15}H_{20}O_3$ M 248.3 Constit. of *L. seguieri*. Oil. $[\alpha]_D^{20}$ +15 (c, 1 in $CHCl_3$).
[41628-55-1]

Bohlmann, F. *et al*, *Chem. Ber.*, 1969, **102**, 2211; 1971, **104**, 1957; 1974, **107**, 1769.
Lemmich, J. *et al*, *Acta Chem. Scand.*, 1971, **25**, 995.

Fibracillin, INN F-0-00060

α-(p-*Chlorophenoxy)isobutyrylampicillin.*
Alongapen. Fibrapen. Mitibron. AL 70-35
[51154-48-4]

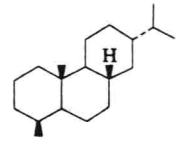


$C_{26}H_{28}ClN_3O_6S$ M 546.0
Semisynthetic. Antibacterial agent.
[51154-50-8]

Ger. Pat., 2 207 723, (1972); *CA*, **77**, 152167 (*synth*)
Ger. Pat., 2 327 558, (1974); *CA*, **80**, 120916 (*synth*)
Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, London, 1993, 166.

Fichtelite F-0-00061

18-Norabietane
[2221-95-6]

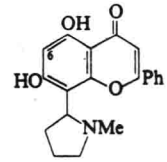


$C_{19}H_{34}$ M 262.4
Constit. of *Pinus pumila*; found in peat and other fossil substances of plant origin. Cryst. (MeOH). Mp 46.5°. Bp_{719} 355°, Bp_{43} 235-236°.

Ruzicka, L. *et al*, *Helv. Chim. Acta*, 1923, **6**, 692 (*bibl*)
Burgstahler, A.W. *et al*, *J.O.C.*, 1969, **34**, 1562 (*bibl*)
Taber, D.F. *et al*, *J.A.C.S.*, 1980, **102**, 5085 (*synth*)

Ficine F-0-00062

[2520-36-7]

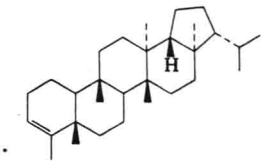


$C_{20}H_{19}NO_4$ M 337.3
Alkaloid from *Ficus pantoniana* (Moraceae). Mp 235°.

Johns, S.R. *et al*, *Tet. Lett.*, 1965, 1987 (*uv, ir, pmr, ms, struct*)

3-Filicene F-0-00063

Filicene
[2472-29-9]

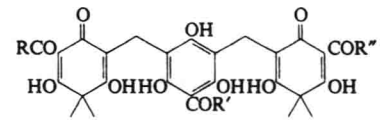


$C_{30}H_{50}$ M 410.7
Constit. of *Adiantum monochlamys* and *A. pedatum* and other ferns. Cryst. Mp 242-243° (228.5-229.5°). $[\alpha]_D$ +50 ($CHCl_3$).

3α,4α-Epoxide: [23983-65-5]. *3α,4α-Epoxyfilicane.* ***Adiantoxide***
Isol. from *Adiantum capillus-veneris*. Cryst. Mp 229-231°. $[\alpha]_D^{30}$ +46.8.

Ageta, H. *et al*, *Tet. Lett.*, 1964, 3413; 1966, 6069 (*Filicene*)
Berti, G. *et al*, *Tetrahedron*, 1969, **25**, 2939 (*Adiantoxide*)
Shiojima, K. *et al*, *Chem. Pharm. Bull.*, 1993, **41**, 262 (*Filicene, pmr, cmr*)
Ageta, H. *et al*, *Chem. Pharm. Bull.*, 1994, **42**, 39 (*pmr, cmr*)

Filixic acids F-0-00064



Filixic acid
ABA, R = R″ = CH_3, R′ = $CH_2CH_2CH_3$
ABP, R = CH_3, R′ = $CH_2CH_2CH_3$, R″ = CH_2CH_3
ABB, R = CH_3, R′ = R″ = $CH_2CH_2CH_3$
PBP, R = R″ = CH_2CH_3, R′ = $CH_2CH_2CH_3$
PBB, R = CH_2CH_3, R′ = R″ = $CH_2CH_2CH_3$
BBB, R = R′ = R″ = $CH_2CH_2CH_3$

The alphabetical suffixes refer to the acyl sustituents (A = acetyl, P = propionyl, B = butyryl). Isol. from ferns *Dryopteris* and *Aspidium* spp.

Filixic acid ABA [38226-84-5]
$C_{32}H_{36}O_{12}$ M 612.6
From *D. dickinsii*. Yellow needles (Me_2CO). Mp 163-166°.

Filixic acid ABP [57765-54-5]
$C_{33}H_{38}O_{12}$ M 626.6

Filixic acid ABB [37318-24-4]
$C_{34}H_{40}O_{12}$ M 640.6

Filixic acid PBP [51005-85-7]
$C_{34}H_{40}O_{12}$ M 640.6
Light yellow needles (Me_2CO). Mp 192-194°. MF incorr. given as C_{30} by Hisada *et al.*

Filixic acid PBB [49582-09-4]
$C_{35}H_{42}O_{12}$ M 654.7
Mp 184-186°.

Filixic acid BBB [4482-83-1]
Filixic acid. Filicin. Trisalbaspidin BBB
$C_{36}H_{44}O_{12}$ M 668.7
Cryst. (Me_2CO), light yellow tablets (EtOAc). Mp 184-185° (168-170°).
▶ LK4250000.

Penttila, A. *et al*, *Acta Chem. Scand.*, 1963, **17**, 191 (*isol, struct*)
Hisada, S. *et al*, *Phytochemistry*, 1972, **11**, 1850, 2881; 1973, **12**, 1493 (*isol*)