Profile
Fenvalerate is a pyrethroid insecticide (see Pyrethrum Flower, p.2049) used as a topical ectoparasiticide in veterinary practice. It has also been used as an insecticide in agriculture and horticulture.

Esfenvalerate, one of the stereoisomers of fenvalerate, is also used as an agricultural insecticide.

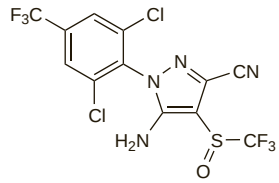
◊ References.

1. WHO. Fenvalerate health and safety guide. *IPCS Health and Safety Guide 34*. Geneva: WHO, 1989. Available at: http://www.inchem.org/documents/hsg/hsg/hsg034.htm (accessed 26/04/04)
2. WHO. Fenvalerate. *Environmental Health Criteria 95*. Geneva: WHO, 1990. Available at: http://www.inchem.org/documents/ehc/ehc/ehc95.htm (accessed 26/04/04)

Fipronil *(BAN)*

Fiproniili; Fipronilo; MB-46030; RM-1601. (*RS*)-5-Amino-1-(2,6-dichloro-4-trifluoromethylphenyl)-4-(trifluoromethylsulfinyl)pyrazole-3-carbonitrile.

$C_{12}H_4Cl_2F_6N_4OS$ = 437.1.
CAS — 120068-37-3.
ATC Vet — QP53AX15.

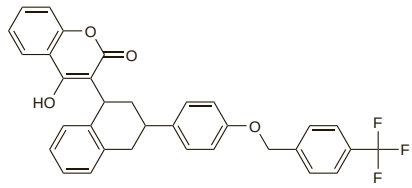


Profile
Fipronil is used as a topical ectoparasiticide in veterinary practice. It has also been investigated for the treatment of head lice.

Flocoumafen

Flocoumafene; Flocumafeno; OMS-3047. 4-Hydroxy-3-[1,2,3,4-tetrahydro-3-[4-(4-trifluoromethylbenzyloxy)phenyl]-1-naphthyl]coumarin.

$C_{33}H_{25}F_3O_4$ = 542.5.
CAS — 90035-08-8.



Profile
Flocoumafen is a coumarin derivative used as an anticoagulant rodenticide. It is said to be effective in rodents resistant to other anticoagulant rodenticides.

◊ References.

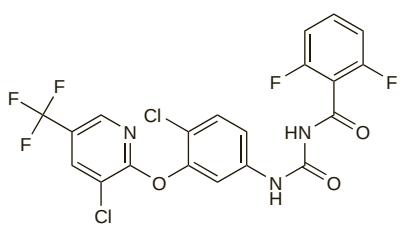
1. WHO. Anticoagulant rodenticides. *Environmental Health Criteria 175*. Geneva: WHO, 1995. Available at: http://www.inchem.org/documents/ehc/ehc/ehc175.htm (accessed 26/04/04)

Fluazuron *(rINN)*

CGA-157419; Fluazurón; Fluazuronum. 1-(4-Chloro-3-{[3-chloro-5-(trifluoromethyl)-2-pyridyl]oxy}phenyl)-3-(2,6-difluorobenzoyl)urea.

Флуазурон

$C_{20}H_{10}Cl_2F_5N_3O_3$ = 506.2.
CAS — 86811-58-7.

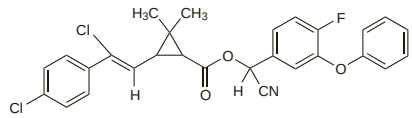


Profile
Fluazuron is used as a topical ectoparasiticide in veterinary practice.

Flumethrin *(BAN)*

Flumethrinum; Flumetriini; Flumetrin; Flumetrina. α-Cyano-4-fluoro-3-phenoxybenzyl 3-(β,4-dichlorostyryl)-2,2-dimethylcyclopropanecarboxylate.

$C_{28}H_{22}Cl_2FNO_3$ = 510.4.
CAS — 69770-45-2.
ATC Vet — QP53AC05.



Profile
Flumethrin is a pyrethroid insecticide (see Pyrethrum Flower, p.2049) used as a topical ectoparasiticide in veterinary practice.

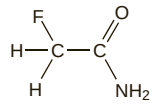
◊ Reports of poisoning with flumethrin.

1. Box SA, Lee MR. A systemic reaction following exposure to a pyrethroid insecticide. *Hum Exp Toxicol* 1996; **15:** 389–90.

Fluoroacetamide

Compound 1081; Fluoroacetamida.

$FCH_2.CONH_2$ = 77.06.
CAS — 640-19-7.

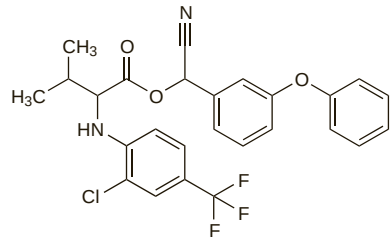


Profile
Fluoroacetamide is a rodenticide and produces adverse effects similar to those of sodium fluoroacetate (p.2050).

Fluvalinate

Fluvalinato; ZR-3210. Cyano(3-phenoxyphenyl)methyl ester of *N*-[2-chloro-4-(trifluoromethyl)phenyl]-DL-valine.

$C_{26}H_{22}ClF_3N_2O_3$ = 502.9.
CAS — 69409-94-5.
ATC Vet — QP53AC10.

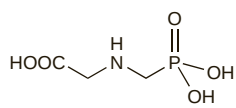


Profile
Fluvalinate is a pesticide used in beekeeping.

Glyphosate

Glifosato. *N*-(Phosphonomethyl)glycine.

$C_3H_8NO_5P$ = 169.1.
CAS — 1071-83-6.



Profile
Glyphosate is used as a herbicide.

◊ References.

1. WHO. Glyphosate. *Environmental Health Criteria 159*. Geneva: WHO, 1994. Available at: http://www.inchem.org/documents/ehc/ehc/ehc159.htm (accessed 26/04/04)

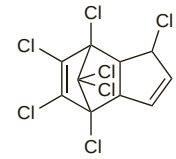
Toxicity. Reports[1-3] and reviews[4] of poisoning with glyphosate products, prognostic factors,[5] guidelines for treatment[6] have been published. The toxicity has been believed to be largely due to the inclusion of surfactants, particularly polyoxyethyleneamine, in the herbicide (Roundup) formulation but products vary considerably as to the surfactant contained and the concentration and salt of glyphosate used, and the evidence that surfactants potentiate glyphosate toxicity is unclear.[6]

1. Sawada Y, *et al.* Probable toxicity of surface-active agent in commercial herbicide containing glyphosate. *Lancet* 1988; **i:** 299.
2. Talbot AR, *et al.* Acute poisoning with a glyphosate-surfactant herbicide ('Roundup'): a review of 93 cases. *Hum Exp Toxicol* 1991; **10:** 1–8.
3. Menkes DB, *et al.* Intentional self-poisoning with glyphosate-containing herbicides. *Hum Exp Toxicol* 1991; **10:** 103–7.
4. Bradberry SM, *et al.* Glyphosate poisoning. *Toxicol Rev* 2004; **23:** 159–67.
5. Lee CH, *et al.* The early prognostic factors of glyphosate-surfactant intoxication. *Am J Emerg Med* 2008; **26:** 275–81.
6. Proudfoot A, ed. *Pesticide poisoning: notes for the guidance of medical practitioners*. 2nd ed. London: DoH, The Stationery Office, 1996.

Heptachlor

Heptacloro. 1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene.

$C_{10}H_5Cl_7$ = 373.3.
CAS — 76-44-8.



Profile
Heptachlor is a chlorinated insecticide (p.2037), but its use was prohibited, at least in some countries, because of its persistent nature.

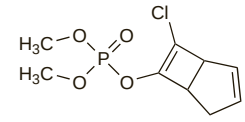
◊ References.

1. WHO. Heptachlor. *Environmental Health Criteria 38*. Geneva: WHO, 1984. Available at: http://www.inchem.org/documents/ehc/ehc/ehc38.htm (accessed 26/04/04)
2. WHO. Heptachlor health and safety guide. *IPCS Health and Safety Guide 14*. Geneva: WHO, 1988. Available at: http://www.inchem.org/documents/hsg/hsg/hsg014.htm (accessed 26/04/04)

Heptenophos

Heptenofós; Hoe-02982. 7-Chlorobicyclo[3.2.0]hepta-2,6-dien-6-yl dimethyl phosphate.

$C_9H_{12}ClO_4P$ = 250.6.
CAS — 23560-59-0.

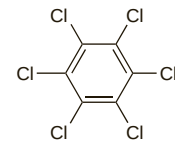


Profile
Heptenophos is an organophosphorus insecticide (p.2047) that has been used in veterinary practice for the control of ectoparasites. It is also used in agriculture.

Hexachlorobenzene

HCB; Heksachlorobenzen; Hexaclorobenceno.

C_6Cl_6 = 284.8.
CAS — 118-74-1.



NOTE. Hexachlorobenzene should not be confused with gamma benzene hexachloride (lindane).

Profile
Hexachlorobenzene has been used as an agricultural fungicide. It is not biodegradable to any significant extent and hexachlorobenzene residues in food have arisen as a result of its occur-