Topical or systemic antimicrobials should be given as necessary for secondary infections.

1. Burgess IF. Human lice and their management. *Adv Parasitol* 1995; **36:** 271–342.
2. Chosidow O. Scabies and pediculosis. *Lancet* 2000; **355:** 819–26.
3. Roos TC, *et al.* Pharmacotherapy of ectoparasitic infections. *Drugs* 2001; **61:** 1067–88.
4. Burkhart CG. Relationship of treatment-resistant head lice to the safety and efficacy of pediculicides. *Mayo Clin Proc* 2004; **79:** 661–6.
5. Elston DM. Drugs used in the treatment of pediculosis. *J Drugs Dermatol* 2005; **4:** 207–11.
6. Chuard C. Les pédiculoses. *Rev Med Suisse* 2007; **3:** 2266–72.
7. Leone PA. Scabies and pediculosis pubis: an update of treatment regimens and general review. *Clin Infect Dis* 2007; **44** (suppl 3): S153–S159.
8. Pearlman DL. A simple treatment for head lice: dry-on, suffocation-based pediculicide. *Pediatrics* 2004; **114:** e275–e279.
9. Burgess IF, *et al.* Treatment of head louse infestation with 4% dimeticone lotion: randomised controlled equivalence trial. *BMJ* 2005; **330:** 1423–5.
10. Hill N, *et al.* Single blind, randomised, comparative study of the Bug Buster kit and over the counter pediculicide treatments against head lice in the United Kingdom. *BMJ* 2005; **331:** 384–6.
11. Pearlman D. Cetaphil cleanser (Nuvo lotion) cures head lice. *Pediatrics* 2005; **116:** 1612.
12. Roberts RJ, Burgess IF. New head-lice treatments: hope or hype? *Lancet* 2005; **365:** 8–10.

Scabies

Scabies is a parasitic infection of the skin by the mite *Sarcoptes scabiei*. The main symptom is pruritus, which is caused by an allergic reaction to the parasite and may not occur until several weeks after infection for the first time. Subsequent infections usually result in pruritus after a few days. Pruritus may persist for some months after effective treatment with an acaricide, but is not necessarily an indication for further acaricidal treatment; rather, antipruritics should be used. A severe crusted form (Norwegian scabies) may occur rarely, particularly in immunocompromised or incapacitated patients.

Treatment is with the acaricides permethrin or malathion applied, preferably as aqueous lotions, to clean, cool, dry skin over the entire body and left on for 8 to 24 hours, depending upon the preparation. The preparation should be reapplied to the hands whenever they are washed during this period. In adults, it is not usually necessary to treat the face and scalp, but these areas should be treated in young children or patients with atypical or crusted scabies. A single treatment may be effective, but treatment is usually repeated after 7 to 10 days if necessary. Other drugs used topically in the treatment of scabies include benzyl benzoate, crotamiton, lindane, and sulfur; sulfiram is used with benzyl benzoate. A single oral dose of ivermectin may be effective. Close family and personal contacts should be treated at the same time and all clothes, towels, and bedding used by the infected person 2 days before treatment should be washed in hot water and dried in a hot dryer.

In addition to treatment with an acaricide, symptomatic treatment of the itching with crotamiton, calamine lotion, or systemic antihistamines or corticosteroids may be required.

References.

1. Elgart ML. A risk-benefit assessment of agents used in the treatment of scabies. *Drug Safety* 1996; **14:** 386–93.
2. Chosidow O. Scabies and pediculosis. *Lancet* 2000; **355:** 819–26.
3. Roos TC, *et al.* Pharmacotherapy of ectoparasitic infections. *Drugs* 2001; **61:** 1067–88.
4. Chosidow O. Scabies. *N Engl J Med* 2006; **354:** 1718–27.
5. Heukelbach J, Feldmeier H. Scabies. *Lancet* 2006; **367:** 1767–74.
6. Strong M, Johnstone PW. Interventions for treating scabies. Available in The Cochrane Database of Systematic Reviews; Issue 3. Chichester: John Wiley; 2007 (accessed 27/09/07).

Vector control

Many pests are involved in the transmission of communicable diseases, and vector control[1,2] is an important part of the fight against such diseases. Insecticides are used in the control of filariasis (p.137) (*Aedes*, *Anopheles*, *Culex*, and *Mansonia* mosquitoes);[3] leishmaniasis (p.824) (*Phlebotomus* or *Lutzomyia* sandflies);[4] malaria (p.594) (*Anopheles* mosquitoes);[5-8] dengue fever (see Haemorrhagic Fevers, p.850) (*Aedes* mosquitoes);[9,10] onchocerciasis (p.137) (*Simulium* blackflies);[11] African trypanosomiasis (p.827) (*Glossina* tsetse flies);[12] and American trypanosomiasis (p.827) (*Triatoma* bugs).[13] The insecticide temefos is useful in dracunculiasis (p.136) (crustacean host to the guinea worm larvae). In some cases, as in filariasis or onchocerciasis, the insecticides used act mainly against the larval stage of the insect vector, whereas in other situations, as in malaria, activity is against the adult insect; in trypanosomiasis, activity is directed against both adult and immature stages. The majority of the experience gained in insecticidal vector control has probably been in malaria, and, for instance, a positive effect seen in the control of leishmaniasis has been considered to be mainly a byproduct of the concomitant malaria control programmes.

Insect repellents can provide personal protection against many insect vectors. For example, in malaria, insect repellents as well as the use of insecticides are important in preventing mosquito bites.

Molluscicides are used in the control of schistosomiasis (p.138) (*Bulinus* snails).[14]

Rodenticides are also extremely valuable in the vector control of some diseases such as leptospirosis (p.177), plague (p.186), rat-bite fever (p.164), and some haemorrhagic fevers (p.850).

1. Chavasse DC, Yap HH, eds. *Chemical methods for the control of vectors and pests of public health importance*. Geneva: WHO, 1997.
2. Rozendaal JA. *Vector control: methods for use by individuals and communities*. Geneva: WHO, 1997.
3. WHO. Lymphatic filariasis: the disease and its control. *WHO Tech Rep Ser 821* 1992. Available at: http://libdoc.who.int/trs/WHO_TRS_821.pdf (accessed 21/07/08)
4. WHO. Control of the leishmaniases. *WHO Tech Rep Ser 793* 1990. Available at: http://libdoc.who.int/trs/WHO_TRS_793.pdf (accessed 21/07/08)
5. WHO. Vector control for malaria and other mosquito-borne diseases. *WHO Tech Rep Ser 857* 1995. Available at: http://libdoc.who.int/trs/WHO_TRS_857.pdf (accessed 21/07/08)
6. WHO. *Malaria vector control: insecticides for indoor residual spraying*. Geneva: WHO, 2001.
7. WHO. *International travel and health*. 2008 ed. Available at: http://www.who.int/ith/ (accessed 17/04/08)
8. Lengeler C. Insecticide-treated bednets and curtains for preventing malaria. Available in The Cochrane Database of Systematic Reviews; Issue 2. Chichester: John Wiley; 2004 (accessed 18/08/05).
9. WHO. *Prevention and control of dengue and dengue haemorrhagic fever: comprehensive guidelines*. New Delhi: WHO, 1999. Also available at: http://www.searo.who.int/LinkFiles/Regional_Guidelines_on_Dengue_DHF_prevention_&_control_searo-29.pdf (accessed 10/10/05)
10. Lloyd LS. *Best practices for dengue prevention and control in the Americas*. Washington DC: Environmental Health Project, 2003. Also available at: http://www.ehproject.org/PDF/Strategic_papers/SR7-BestPractice.pdf (accessed 10/10/05)
11. WHO. Report of a WHO expert committee on onchocerciasis control. *WHO Tech Rep Ser 852* 1995. Available at: http://libdoc.who.int/trs/WHO_TRS_852.pdf (accessed 21/07/08)
12. WHO. Control and surveillance of African trypanosomiasis: report of a WHO expert committee. *WHO Tech Rep Ser 881* 1998. Available at: http://libdoc.who.int/trs/WHO_TRS_881.pdf (accessed 21/07/08)
13. WHO. Control of Chagas disease: second report of the WHO expert committee. *WHO Tech Rep Ser 905* 2002. Available at: http://libdoc.who.int/trs/WHO_TRS_905.pdf (accessed 21/07/08)
14. WHO. The control of schistosomiasis: second report of the WHO expert committee. *WHO Tech Rep Ser 830* 1993. Available at: http://libdoc.who.int/trs/WHO_TRS_830.pdf (accessed 21/07/08)

Aluminium Phosphide

Aluminum Phosphide; Fosfuro de aluminio.

AlP = 57.96.

CAS — 20859-73-8 (aluminium phosphide); 7803-51-2 (phosphine); 1314-84-7 (zinc phosphide).

Profile

Aluminium phosphide is used for the fumigation of grain and as a rodenticide. It releases phosphine (PH_3) in the presence of moisture and this accounts for its pesticidal activity. Phosphine gas has a garlic-like odour repulsive to man and domestic animals but apparently not to *rats*. Zinc phosphide is used similarly.

◊ References to poisoning associated with aluminium phosphide.

1. Wilson R, *et al.* Acute phosphine poisoning aboard a grain freighter. *JAMA* 1980; **244:** 148–50.
2. Singh S, *et al.* Aluminium phosphide ingestion. *BMJ* 1985; **290:** 1110–11.
3. Anger F, *et al.* Fatal aluminium phosphide poisoning. *J Anal Toxicol* 2000; **24:** 90–2.
4. Nocera A, *et al.* Dangerous bodies: a case of fatal aluminium phosphide poisoning. *Med J Aust* 2000; **173:** 133–5.
5. Popp W, *et al.* Phosphine poisoning in a German office. *Lancet* 2002; **359:** 1574.
6. Bogle RG, *et al.* Aluminium phosphide poisoning. *Emerg Med J* 2006; **23:** e3.
7. Memiş D, *et al.* Fatal aluminium phosphide poisoning. *Eur J Anaesthesiol* 2007; **24:** 292–3.
8. Shadnia S, *et al.* Unintentional poisoning by phosphine released from aluminum phosphide. *Hum Exp Toxicol* 2008; **27:** 87–9.

Amitraz *(BAN, USAN, pINN)*

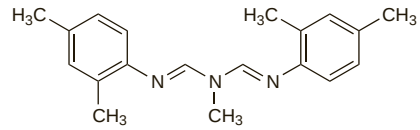
Amitratsi; Amitrazum; U-36059. *N,N′*-[(Methylimino)dimethylidyne]di-2,4-xylidine.

Амитраз

$C_{19}H_{23}N_3$ = 293.4.

CAS — 33089-61-1.

ATC Vet — QP53AD01.



Pharmacopoeias. In *BP(Vet)*. Also in *US* for veterinary use only.

BP(Vet) 2008 (Amitraz). A white to buff powder. Practically insoluble in water; decomposes slowly in alcohol; freely soluble in acetone.

Profile

Amitraz is used as a topical ectoparasiticide in veterinary practice. It is effective against various lice, mites, and ticks.

◊ References to poisoning with amitraz.

1. Jorens PG, *et al.* An unusual poisoning with the unusual pesticide amitraz. *Hum Exp Toxicol* 1997; **16:** 600–1.
2. Aydin K, *et al.* Amitraz poisoning in children: clinical and laboratory findings of eight cases. *Hum Exp Toxicol* 1997; **16:** 680–2.
3. Leung VK, *et al.* Amitraz poisoning in humans. *J Toxicol Clin Toxicol* 1999; **37:** 513–14.
4. Yaramis A, *et al.* Amitraz poisoning in children. *Hum Exp Toxicol* 2000; **19:** 431–3.
5. Yilmaz HL, Yildizdas DR. Amitraz poisoning, an emerging problem: epidemiology, clinical features, management, and preventive strategies. *Arch Dis Child* 2003; **88:** 130–4.
6. Proudfoot AT. Poisoning with amitraz. *Toxicol Rev* 2003; **22:** 71–4.
7. Gursoy S, *et al.* Intravenous amitraz poisoning. *Clin Toxicol* 2005; **43:** 113–16.
8. Elinav E, *et al.* Near-fatal amitraz intoxication: the overlooked pesticide. *Basic Clin Pharmacol Toxicol* 2005; **97:** 185–7.
9. Avsarogullari L, *et al.* Acute amitraz poisoning in adults: clinical features, laboratory findings, and management. *Clin Toxicol* 2006; **44:** 19–23.
10. Demirel Y, *et al.* Acute amitraz intoxication: retrospective analysis of 45 cases. *Hum Exp Toxicol* 2006; **25:** 613–17.

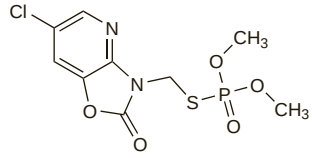
Azamethiphos *(BAN)*

Azametifós; CGA-18809; OMS-1825. *S*-[(6-Chloro-2,3-dihydro-2-oxo-1,3-oxazolo[4,5-*b*]pyridin-3-yl)methyl] *O,O*-dimethyl phosphorothioate.

$C_9H_{10}ClN_2O_5PS$ = 324.7.

CAS — 35575-96-3.

ATC Vet — QP53AF17.



Profile

Azamethiphos is an organophosphorus insecticide (p.2047) used in veterinary practice for the control of sea-lice infestation in salmon and for the control of ectoparasites in the environment.

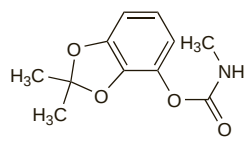
Bendiocarb

2,3-Isopropylidenedioxyphenyl methylcarbamate.

$C_{11}H_{13}NO_4$ = 223.2.

CAS — 22781-23-3.

ATC Vet — QP53AE03.



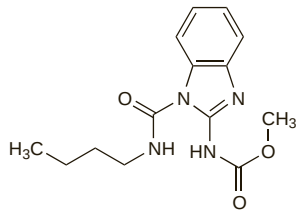
Profile

Bendiocarb is a carbamate insecticide (p.2037) for agricultural and household use.

Benomyl

Benomilo. Methyl 1-(butylcarbamoyl)benzimidazol-2-ylcarbamate.

$C_{14}H_{18}N_4O_3$ = 290.3.
CAS — 17804-35-2.



Profile

Benomyl is a fungicide used for the treatment and control of fungal plant diseases.

◊ References.

1. WHO. Benomyl. *Environmental Health Criteria 148*. Geneva: WHO, 1993. Available at: http://www.inchem.org/documents/ehc/ehc/ehc148.htm (accessed 23/04/04)
2. WHO. Benomyl health and safety guide. *IPCS Health and Safety Guide 81*. Geneva: WHO, 1993. Available at: http://www.inchem.org/documents/hsg/hsg/hsg81_e.htm (accessed 23/04/04)

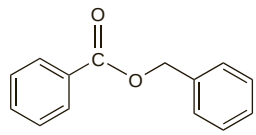
Toxicity. Although experimental evidence in *animals* has suggested a possible link between benomyl and congenital eye defects (anophthalmia) the association could not be confirmed in humans.[1-4]

1. Gilbert R. "Clusters" of anophthalmia in Britain. *BMJ* 1993; **307:** 340–1.
2. Bianchi F, *et al.* Clusters of anophthalmia. *BMJ* 1994; **308:** 205.
3. Kristensen P, Irgens LM. Clusters of anophthalmia. *BMJ* 1994; **308:** 205–6.
4. Castilla EE. Clusters of anophthalmia. *BMJ* 1994; **308:** 206.

Benzyl Benzoate

Bencilo, benzoato de; Bensylbensoat; Bentsyylibentsoaatti; Benzil Benzoat; Benzil-benzoát; Benzilbenzoatas; Benzoato de bencilo; Benzoato de Benzilo; Benzoesäurebenzylester; Benzyl Benz.; Benzyl-benzoát; Benzyle, benzoate de; Benzylis benzoas; Benzylu benzoesan.

$C_6H_5.CO.O.CH_2.C_6H_5$ = 212.2.
CAS — 120-51-4.
ATC — P03AX01.
ATC Vet — QP53AX11.



Pharmacopoeias. In *Eur.* (see p.vii), *Int.*, *Jpn*, and *US*.

Ph. Eur. 6.2 (Benzyl Benzoate). Colourless or almost colourless crystals, or a colourless or almost colourless oily liquid. F.p. is not below 17°. Practically insoluble in water; miscible with alcohol, with dichloromethane, and with fatty and essential oils. Store in well-filled airtight containers. Protect from light.

USP 31 (Benzyl Benzoate). A clear, colourless, oily liquid with a slight aromatic odour. Practically insoluble in water and in glycerol; miscible with alcohol, with chloroform, and with ether. Store at a temperature not exceeding 40° in well-filled airtight containers. Protect from light.

Adverse Effects and Treatment

Benzyl benzoate is irritant to the eyes and mucous membranes and it may be irritant to the skin. Hypersensitivity reactions have been reported. If ingested, benzyl benzoate may cause stimulation of the CNS and convulsions. Systemic symptoms have been reported on excessive topical use. For poisoning associated with topical use the skin should be washed. Appropriate symptomatic measures should also be instituted.

Uses and Administration

Benzyl benzoate is an acaricide used in the treatment of scabies (p.2035) although other treatments are generally preferred. A 25% emulsion is applied to the whole body, usually from the neck down (although the *BNF* considers that application should be extended to the scalp, neck, face, and ears). If the application is thorough, one treatment may suffice, although the possibility of failure is lessened by a second application within 5 days. Alternatively, three applications at 12-hour intervals, without bathing, may be made, followed by bathing 12 hours after the last application. The *BNF* recommends one application to the whole body, repeated, without bathing, on the next day, and washed off 24 hours later; a third application may sometimes be necessary. Benzyl benzoate is not generally recommended for infants and children, but if used the application should be diluted to minimise the risk of irritation, although this also reduces efficacy.

Benzyl benzoate has also been used as a pediculicide.

Benzyl benzoate is also used as a solubilising agent.

Preparations

BP 2008: Benzyl Benzoate Application;
USP 31: Benzyl Benzoate Lotion.

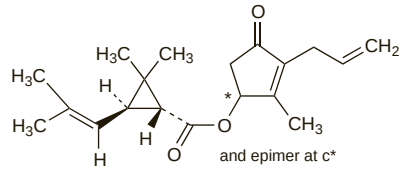
Proprietary Preparations (details are given in Part 3)
Austral.: Ascabiol; Benzemul; ***Braz.:*** Acarsan; Bencocan; Benzibel†; Benzin†; Benzoax; Benzoben†; Benzocan†; Benzolato†; Benzolina†; Benzolom†; Benzotisan; Miticocan; Parasimed; Pruridol; Sanasar; Sarnaton†; Sarnezan†; Sarnilab; Sarnodex; Scabenzil; Scabioid; Zilaben; ***Ger.:*** Acaril†; Acarosan†; Antiscabiosum; ***Gr.:*** Benzogal; ***Irl.:*** Ascabiol†; ***Israel:*** Scabiex; ***Ital.:*** Mom Lozione Preventiva; ***Mex.:*** Ansar; Hastilan; ***Pol.:*** Novoscabin; ***Port.:*** Acarilbial; Neo-Acarina†; Piozil; ***S.Afr.:*** Ascabiol; ***UK:*** Ascabiol; ***Venez.:*** Benzalcor; Benzo-Bencil; Benzodit†; Niostal†.

Multi-ingredient: ***Arg.:*** Anusol Duo S; Anusol-A; Arnecrem†; Bencil Scab; Detebencil; Hexabencil; Perbel; Permecil; Sapucai†; Scabioderm; ***Austral.:*** Anusol; ***Belg.:*** Pulmex; Pulmex Baby; ***Braz.:*** Anusol-HC; ***Fr.:*** Allerbiocid S†; Ascabiol; Sanytol†; ***Hong Kong:*** Anusol-HC†; ***Hung.:*** Novascabin; ***Irl.:*** Anugesic-HC; Anusol-HC; ***Ital.:*** Antiscabbia Candioli al DDT Terapeutico; Antiscabbia CM; Dekar 2; Prurex; Skab 2; ***Malaysia:*** Anucare; Anusol; ***NZ:*** Anusol; ***Pol.:*** Cetriscabin; ***S.Afr.:*** Anugesic; ***Singapore:*** Anusol; ***Spain:*** Tulgrasum Cicatrizante; Yacutin; ***Swed.:*** Tenutex; ***Thai.:*** Anusol; ***UK:*** Anugesic-HC; Anusol-HC, Plus HC; Sudocrem; ***USA:*** Anumed; Anumed HC; Hemril; ***Venez.:*** Kertyol.

Bioallethrin *(BAN)*

Allethrin I; Bioaletrina; Depallethrin. (*RS*)-3-Allyl-2-methyl-4-oxocyclopent-2-enyl (1*R*,3*R*)-2,2-dimethyl-3-(2-methylprop-1-enyl)-cyclopropanecarboxylate.

$C_{19}H_{26}O_3$ = 302.4.
CAS — 584-79-2.
ATC — P03AC02.
ATC Vet — QP53AC02.



Profile

Bioallethrin is a pyrethroid insecticide (see Pyrethrum Flower, p.2049). It is used topically, with the synergist piperonyl butoxide (p.2049), in the treatment of pediculosis (p.2034). It is also used in anti-mosquito devices and for the control of household insect pests.

◊ References.

1. WHO. Allethrins. *Environmental Health Criteria 87*. Geneva: WHO, 1989. Available at: http://www.inchem.org/documents/ehc/ehc/ehc87.htm (accessed 23/04/04)
2. WHO. Allethrins health and safety guide. *IPCS Health and Safety Guide 24*. Geneva: WHO, 1989. Available at: http://www.inchem.org/documents/hsg/hsg/hsg024.htm (accessed 23/04/04)

Preparations

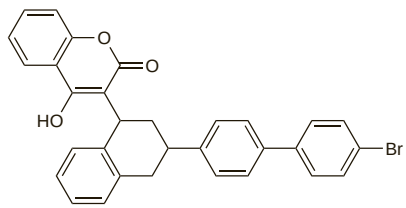
Proprietary Preparations (details are given in Part 3)
UK: Actomite.

Multi-ingredient: ***Arg.:*** Limpacid; Para Piojicida; Scabioderm; ***Austral.:*** Paralice†; ***Belg.:*** Para; ***Braz.:*** Sarnapen†; ***Canad.:*** Para†; ***Fr.:*** Para Special Poux; ***Ger.:*** Jacutin N; Spregal; ***Israel:*** Monocide; ***Ital.:*** Cruzzy; ***Neth.:*** Para-Speciaal.

Brodifacoum

Brodifacum; WBA-8119. 3-[3-(4′-Bromobiphenyl-4-yl)-1,2,3,4-tetrahydro-1-naphthyl]-4-hydroxycoumarin.

$C_{31}H_{23}BrO_3$ = 523.4.
CAS — 56073-10-0.



Profile

Brodifacoum is an anticoagulant rodenticide. It is reported to be effective in warfarin-resistant strains of rodents.

◊ References.

1. WHO. Anticoagulant rodenticides. *Environmental Health Criteria 175*. Geneva: WHO, 1995. Available at: http://www.inchem.org/documents/ehc/ehc/ehc175.htm (accessed 23/04/04)
2. WHO. Brodifacoum health and safety guide. *IPCS Health and Safety Guide 93*. Geneva: WHO, 1995. Available at: http://www.inchem.org/documents/hsg/hsg/hsg093.htm (accessed 23/04/04)

Toxicity. Brodifacoum, a second-generation anticoagulant rodenticide, inhibits prothrombin synthesis to cause bleeding that may be occult.[1] It is absorbed from the gastrointestinal tract; dermal absorption is possible. Poisons containing 100 mg in each kg of bait are not hazardous to man; more concentrated forms are particularly hazardous and their availability should be restricted. Baits, which should be prepared only by trained personnel, should contain a suitable marker-dye.

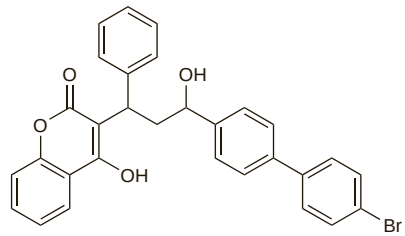
There have been reports of poisoning with brodifacoum.[2-10]

1. WHO. Safe use of pesticides: ninth report of the WHO expert committee on vector biology and control. *WHO Tech Rep Ser 720* 1985. Available at: http://libdoc.who.int/trs/WHO_TRS_720.pdf (accessed 21/07/08)
2. Watts RG, *et al.* Accidental poisoning with a superwarfarin compound (brodifacoum) in a child. *Pediatrics* 1990; **86:** 883–7.
3. Ross GS, *et al.* An acquired hemorrhagic disorder from long-acting rodenticide ingestion. *Arch Intern Med* 1992; **152:** 410–12.
4. Kruse JA, Carlson RW. Fatal rodenticide poisoning with brodifacoum. *Ann Emerg Med* 1992; **21:** 331–6.
5. Tecimer C, Yam LT. Surreptitious superwarfarin poisoning with brodifacoum. *South Med J* 1997; **90:** 1053–5.
6. Corke PJ. Superwarfarin (brodifacoum) poisoning. *Anaesth Intensive Care* 1997; **25:** 707–9.
7. La Rosa FG, *et al.* Brodifacoum intoxication with marijuana smoking. *Arch Pathol Lab Med* 1997; **121:** 67–9.
8. Miller MA, *et al.* Rapid identification of surreptitious brodifacoum poisoning by analysis of vitamin K-dependent factor activity. *Am J Emerg Med* 2006; **24:** 383.
9. Olmos V, López CM. Brodifacoum poisoning with toxicokinetic data. *Clin Toxicol* 2007; **45:** 487–9.
10. Kapadia P, Bona R. Acquired deficiency of vitamin K-dependent clotting factors due to brodifacoum ingestion. *Conn Med* 2008; **72:** 207–9.

Bromadiolone

Bromadiolona. 3-[3-(4′-Bromobiphenyl-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxycoumarin.

$C_{30}H_{23}BrO_4$ = 527.4.
CAS — 28772-56-7.



Profile

Bromadiolone is an anticoagulant rodenticide.

◊ References.

1. WHO. Anticoagulant rodenticides. *Environmental Health Criteria 175*. Geneva: WHO, 1995. Available at: http://www.inchem.org/documents/ehc/ehc/ehc175.htm (accessed 23/04/04)
2. WHO. Bromadiolone health and safety guide. *IPCS Health and Safety Guide 94*. Geneva: WHO, 1995. Available at: http://www.inchem.org/documents/hsg/hsg/hsg094.htm (accessed 23/04/04)

Toxicity. Bromadiolone, a second-generation anticoagulant rodenticide, inhibits prothrombin synthesis to cause bleeding that may be occult.[1] It is absorbed from the gastrointestinal tract; dermal absorption is possible. Poisons containing 100 mg in each kg of bait are not hazardous to man; more concentrated forms are particularly hazardous and their availability should be restricted. Baits, which should be prepared only by trained personnel, should contain a suitable marker-dye.

There have been reports of poisoning with bromadiolone.[2-5]

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4. Grobosch T, *et al.* Acute bromadiolone intoxication. *J Anal Toxicol* 2006; **30:** 281–6.
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