

142 Anthelmintics

Antimony sodium tartrate was formerly used as an emetic. The sodium tartrate and potassium tartrate have also been used as expectorants.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Thai:** Brown Mixture.

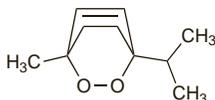
Ascaridole

Ascaridol. 1-Isopropyl-4-methyl-2,3-dioxabicyclo[2.2.2]oct-5-ene.

Аскаридол

$C_{10}H_{16}O_2 = 168.2$.

CAS — 512-85-6.



Profile

Ascaridole is the active principle of chenopodium oil (p.142) and has the same actions.

Handling. Ascaridole is an unstable liquid which is liable to explode when heated or when treated with organic acids.

Bephenium Hydroxynaphthoate (BAN, rINN)

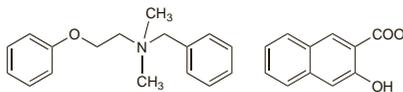
Bephenii Hydroxynaphthoas; Béphenium, Hydroxynaphthoate de; Hidroxinaftoato de befenio; Naphthammonum. Benzyl-dimethyl(2-phenoxyethyl)ammonium 3-hydroxy-2-naphthoate.

Бефения Гидроксинафтаат

$C_{28}H_{29}NO_4 = 443.5$.

CAS — 7181-73-9 (bephenium); 3818-50-6 (bephenium hydroxynaphthoate).

ATC — P02CX02.



Pharmacopoeias. In *Int.*

Profile

Bephenium hydroxynaphthoate is an anthelmintic formerly used in the treatment of hookworm infections, ascariasis, and trichostrongyliasis.

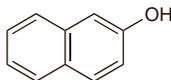
Betanaphthol

β-Naftol; 2-Naftol; Naphthol. Naphth-2-ol.

Бета-нафтол

$C_{10}H_8O = 144.2$.

CAS — 135-19-3.



Pharmacopoeias. In *Pol.* and *Swiss.*

Profile

Betanaphthol was formerly used as an anthelmintic in hookworm and tapeworm infections, but it has been superseded by less toxic and more efficient drugs.

Betanaphthol has a potent parasitocidal effect and has been used topically in the treatment of scabies, ringworm, and other skin diseases.

Betanaphthyl benzoate has been used in preparations for the treatment of gastrointestinal disorders.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Arg.:** Hekabetol; **Austria:** Salvyl.

Bithionol (BAN, rINN)

Bithionololum; Bithionolum; Bitionol; Bitionolol; Bitionololi. 2,2'-Thiobis(4,6-dichlorophenol).

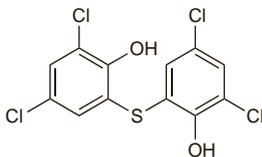
БИТИОНОЛ

$C_{12}H_6Cl_4O_2S = 356.1$.

CAS — 97-18-7.

ATC — D10AB01; P02BX01.

ATC Vet — QD10AB01; QP52AG07.



Pharmacopoeias. *Fr.* includes bithionol oxide for veterinary use.

Adverse Effects

Adverse effects in patients taking bithionol by mouth include anorexia, nausea, vomiting, abdominal discomfort, diarrhoea, salivation, dizziness, headache, and skin rashes.

Photosensitivity reactions have occurred in persons using soap containing bithionol. Cross-sensitisation with other halogenated disinfectants has also occurred.

Uses and Administration

Bithionol is a chlorinated bis-phenol with bactericidal and anthelmintic properties. It is active against most trematodes (flukes). Bithionol is used in preference to praziquantel in fascioliasis (see Liver Fluke Infections, p.137) and is also used in paragonimiasis (see Lung Fluke Infections, p.137) as an alternative to praziquantel. It may be given in an oral dose of 30 to 50 mg/kg on alternate days for 10 to 15 doses. Alternatively, for fascioliasis, WHO recommends a regimen of 30 mg/kg daily for 5 days.

Bithionol was formerly used topically as a bactericide but this use has declined because of photosensitivity reactions.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Arg.:** Fonergine.

Bromofenfos (rINN)

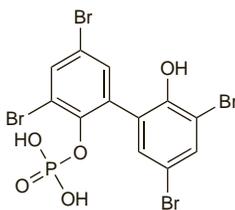
Bromfenofos; Bromofénofos; Bromofenofós; Bromofenofosum; Bromophenophos; Bromphenphos. 3,3',5,5'-Tetrabromo-2,2'-biphenyldiolmono(dihydrogen phosphate).

Бромфенофос

$C_{12}H_7Br_4O_5P = 581.8$.

CAS — 21466-07-9.

ATC Vet — QP52AB02.



Profile

Bromofenfos is an organophosphorus compound (see Organophosphorus Insecticides, p.2047) used as an anthelmintic in veterinary medicine for the treatment of fluke infections.

Cambendazole (BAN, USAN, rINN)

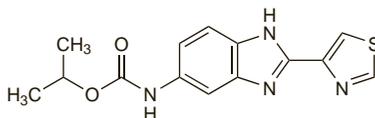
Cambendazol; Cambendazolium; MK-905. Isopropyl 2-(thiazol-4-yl)-1H-benzimidazol-5-ylcarbamate.

Камбендазол

$C_{14}H_{14}N_4O_2S = 302.4$.

CAS — 26097-80-3.

ATC Vet — QP52AC08.



Profile

Cambendazole is a benzimidazole carbamate anthelmintic structurally related to tiabendazole (p.156). It is used in the treatment of strongyloidiasis.

Preparations

Proprietary Preparations (details are given in Part 3)

Braz.: Cambemf.

Multi-ingredient: **Braz.:** Exelminf.

Chenopodium Oil

Aceite de quenopodio; Aetheroleum Chenopodii; Esencia de Quenopodio Vermifuga; Oil of American Wormseed; Wurmsamenöl.

Амброзиевое Масло; Маревоє Масло

CAS — 8006-99-3.

Profile

Chenopodium oil is distilled with steam from the fresh flowering and fruiting plants, excluding roots, of *Chenopodium ambrosioides* var. *anthelminticum*. It contains ascaridole. It was formerly used as an anthelmintic for the expulsion of roundworms (*Ascaris*) and hookworms. It is toxic and has caused numerous fatalities.

Handling. Chenopodium oil may explode when heated.

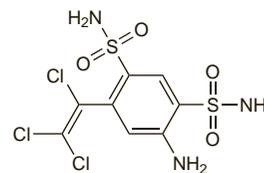
Clorsulon (BAN, USAN, rINN)

Clorsulón; Clorsulone; Clorsulonum; MK-401. 4-Amino-6-(trichlorovinyl)benzene-1,3-disulphonamide.

Клорсулон

$C_8H_8Cl_3N_3O_4S_2 = 380.7$.

CAS — 60200-06-8.



Pharmacopoeias. In *US* for veterinary use only.

USP 31 (Clorsulon). A white to off-white powder. Slightly soluble in water; freely soluble in acetonitrile and in methyl alcohol; very slightly soluble in dichloromethane.

Profile

Clorsulon is an anthelmintic used in veterinary medicine for the treatment of liver fluke infections.

Closantel (BAN, USAN, rINN)

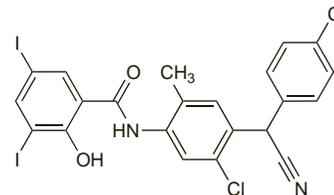
Closantelum; R-31520. 5'-Chloro-4'-(4-chloro-α-cyanobenzyl)-3,5-di-iodosalicyl-o-toluidide.

Клозантел

$C_{22}H_{14}Cl_2I_2N_2O_2 = 663.1$.

CAS — 57808-65-8.

ATC Vet — QP52AG09.



Closantel Sodium (BANM, rINNM)

Closantel sódíco; Closantel sodique; Closantelum natricum; Klosanteelnatrium; Klosantel sodná sůl; Klosantelnatrium; Natrii Closantelum; R-34828.

Натрий Клозантел

$C_{22}H_{14}Cl_2I_2N_2O_2Na = 686.1$.

Pharmacopoeias. In *Eur.* (see p.vii) as the dihydrate for veterinary use.

Ph. Eur. 6.2 (Closantel Sodium Dihydrate for Veterinary Use; Closantel Sodium Dihydrate BP(Vet) 2008). A yellow, slightly hygroscopic, powder. It exhibits polymorphism. Very slightly soluble in water; freely soluble in alcohol; soluble in methyl alcohol. Store in airtight containers. Protect from light.