

## Preparations

### Proprietary Preparations (details are given in Part 3)

**Chile:** Venoserin; **Ger.:** Duoform Novo†; Fagorutin Ruscus; Phlebodril mono; Rhenus med†; Venelbin ruscus†; Venobiase mono†.

**Multi-ingredient:** **Arg.:** Celu-Atlas; CVP Flebo; Cyclo 3; Fiblast; Venart; Venidium; **Austral.:** Bioglan Cirlo†; Extralife Leg-Care; Proflor†; **Austria:** Phlebodril; **Cz.:** Cyclo 3 Fort; **Fr.:** Avene Antirougeurs; Bicirkan; Cirkan; Climaxol; Creme au Meillot Composee; Cyclo 3; Cyclo 3 Fort; Evarose; Venobiase; Veny†; **Ger.:** Phlebodril; Phlebodril N; Venobiase†; **Gr.:** Cyclo 3 Fort; **Indon.:** Venos; **Ital.:** Altadrine; Angiorex Complex; Capill Venogel; Dermoprol†; Fibeloider; **Mex.:** Fabroven; **Pol.:** Cyclo 3 Fort; **Port.:** Creme Laser Hidrante; Cyclo 3; **Rus.:** Cyclo 3 (Цикло 3); Cyclo 3 Fort (Цикло-3 Форт); **Singapore:** Cyclo 3; Cyclo 3 Fort; **Spain:** Fabroven; Rus-cimel†; Venofit; **Switz.:** Phlebodril; Phlebodril N; Veino-Gouttes-N†; **Thai:** Cyclo 3 Fort.

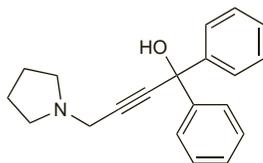
## Butinoline Phosphate (iNMM)

Butinoline, Phosphate de; Butinolini Fosphas; Fosfato de butinolina. 1,1-Diphenyl-4-pyrrolidino-1'-yl but-2-yn-1-ol phosphate.

Бутинолино Фосфат

$C_{20}H_{21}NO_4H_3PO_4 = 389.4$ .

CAS — 968-63-8 (butinoline); 54118-66-0 (butinoline phosphate).



(butinoline)

## Profile

Butinoline phosphate is used as an antispasmodic in preparations for gastrointestinal disorders.

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**Multi-ingredient:** **Austria:** Spasmo-Solugastril; **Ger.:** Spasmo-Nervogastrol†; Spasmo-Solugastril†.

## Butterbur

### Profile

The leaves and roots of butterbur, *Petasites hybridus* (*P. officinalis*) (Asteraceae), have antispasmodic and anti-inflammatory properties and have been used in herbal preparations for a variety of disorders, including gastrointestinal and respiratory-tract disorders, and migraine.

### References

- Schapoval A. Randomised controlled trial of butterbur and cetirizine for treating seasonal allergic rhinitis. *BMJ* 2002; **324**: 144–6.
- Lee DK, et al. Butterbur, a herbal remedy, attenuates adenosine monophosphate induced nasal responsiveness in seasonal allergic rhinitis. *Clin Exp Allergy* 2003; **33**: 882–6.
- Diener HC, et al. The first placebo-controlled trial of a special butterbur root extract for the prevention of migraine: reanalysis of efficacy criteria. *Eur Neurol* 2004; **51**: 89–97.
- Jackson CM, et al. The effects of butterbur on the histamine and allergen cutaneous response. *Ann Allergy Asthma Immunol* 2004; **92**: 250–4.
- Lipton RB, et al. *Petasites hybridus* root (butterbur) is an effective preventive treatment for migraine. *Neurology* 2004; **63**: 2240–4.
- Pothmann R, Danesch U. Migraine prevention in children and adolescents: results of an open study with a special butterbur root extract. *Headache* 2005; **45**: 196–203.

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**Ger.:** Petadolex; Petaforce V; **Switz.:** DoloMed†; Petadolol†; Pollivita; Tsalin.

**Multi-ingredient:** **Switz.:** Dragees aux figues avec du sene; Dragees pour la detente nerveuse; Relaxane; Valverde Constipation dragees; Valverde Detente dragees; Wala Pulmonium suc contre la toux.

## Butyl Nitrite

Nitrito de butilo.

$C_4H_9NO_2 = 103.1$ .

NOTE. The following terms have been used as 'street names' (see p.vi) or slang names for various forms of butyl nitrite: Bolt; Climax; Locker room; Poppers; Rush; Snappers; Video head cleaner.

## Profile

Butyl nitrite is not used medicinally but, as with other volatile nitrates, is abused for its vasodilating and related effects following inhalation (see Abuse, under Amyl Nitrite, p.1437).

## Cadmium

Cadmio; Kadm; Kadmium.

Cd = 112.411.

CAS — 7440-43-9.

## Cadmium Sulfate

Cadmii sulfas; Cadmium, sulfate de; Kadmiumsulfatti; Kadmium-sulfat; Kadmu siarczan.

$CdSO_4 = 208.5$ .

CAS — 10124-36-4.

**Pharmacopoeias.** *Eur.* (see p.vii) includes a form for homeopathic preparations.

**Ph. Eur. 6.2** (Cadmium Sulphate Hydrate for Homeopathic Preparations; Cadmii Sulfas Hydricus ad Praeparationes Homeopathicas). A white or almost white, crystalline powder. Freely soluble in water; practically insoluble in alcohol.

## Profile

Cadmium is used in a wide range of manufacturing processes and cadmium poisoning presents a recognised industrial hazard. Inhalation of cadmium fumes during welding procedures may not produce symptoms until 12 to 36 hours have passed and these symptoms include respiratory distress leading to pulmonary oedema; kidney toxicity is also a feature of acute cadmium poisoning. Ingestion of cadmium or its salts has the additional hazard of severe gastrointestinal effects. Cadmium has a long biological half-life and accumulates in body tissues, particularly the liver and kidneys. Chelation therapy is not generally recommended for cadmium poisoning, although sodium calcium edetate has been used after acute ingestion. However, chelators do not increase cadmium elimination in chronic poisoning and use of dimercaprol may increase cadmium toxicity and should be avoided. Chronic exposure to cadmium results in progressive renal impairment and other effects (see below).

Cadmium sulfide has been used topically in some countries for the treatment of skin and scalp conditions. Cadmium sulfate has been included in some preparations for the treatment of eye irritation.

**Homeopathy.** Cadmium has been used in homeopathic medicines under the following names: Cadmium metallicum; Cad. met.

Cadmium sulfide has been used in homeopathic medicines under the following names: Cadmium sulfuricum; Cadmium sulphuricum; Cad. sul.

Cadmium sulphide has been used in homeopathic medicines under the following names: Cadmium sulphuratum; Cad. sulph.

**Adverse effects.** The toxicity of cadmium has been reviewed.<sup>1</sup> Environmental or occupational exposure to cadmium has been associated with renal dysfunction,<sup>2-5</sup> although this may be reversible if exposure is reduced.<sup>6</sup> A reduction in bone density may also occur.<sup>7</sup> Fatalities due to industrial exposure or self-poisoning have also been reported.<sup>8,9</sup> No effect on testicular endocrine function was observed in 77 industrial workers exposed to cadmium.<sup>3</sup>

An increased incidence of cancer of the prostate has been reported in subjects exposed to high levels of cadmium but the evidence is not conclusive.<sup>10</sup> There may be an association between cadmium exposure and lung cancer, although observations on this type of cancer are difficult to interpret because of exposure to other hazards such as smoking.

- Fielder RJ, Dale EA. Cadmium and its compounds. *Toxicity Review* 7. London: HMSO, 1983.
- Buchet JP, et al. Renal effects of cadmium body burden of the general population. *Lancet* 1990; **336**: 699–702. Correction. *ibid.* 1991; **337**: 1554.
- Mason HJ. Occupational cadmium exposure and testicular endocrine function. *Hum Exp Toxicol* 1990; **9**: 91–4.
- Cai S, et al. Renal dysfunction from cadmium contamination of irrigation water: dose-response analysis in a Chinese population. *Bull WHO* 1998; **76**: 153–9.
- Satarug S, et al. Safe levels of cadmium intake to prevent renal toxicity in human subjects. *Br J Nutr* 2000; **84**: 791–802.
- Hotz P, et al. Renal effects of low-level environmental cadmium exposure: 5-year follow-up of a subcohort from the Cadmibel study. *Lancet* 1999; **354**: 1508–13.
- Staessen JA, et al. Environmental exposure to cadmium, forearm bone density, and risk of fractures: prospective population study. *Lancet* 1999; **353**: 1140–44.
- Taylor A, et al. Poisoning with cadmium fumes after smelting lead. *BMJ* 1984; **288**: 1270–1.
- Buckler HM, et al. Self poisoning with oral cadmium chloride. *BMJ* 1986; **292**: 1559–60. Correction. *ibid.*; **293**: 236.
- Bell GM. Carcinogenicity of cadmium and its compounds. *Toxicity Review* 24. London: HMSO, 1991.

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**Spain:** Biocadmio.

## Cajuput Oil

Cajeput Oil; Cajuput Essence; Cayeput, aceite esencial de; Oleum Cajuputi.

## Profile

Cajuput oil is a volatile oil obtained by distillation from the fresh leaves and twigs of *Melaleuca cajuputi* (*M. leucadendron*) (Myrtaceae). It contains cineole. Cajuput oil has been applied

externally as a stimulant and mild rubefacient in rheumatism. It is also used with other volatile agents in preparations for the relief of respiratory-tract disorders and nasal congestion. It is also used in aromatherapy.

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**Multi-ingredient:** **Austral.:** Goanna Heat Cream; Methyl Salicylate Ointment Compound†; Tiger Balm Red; Tiger Balm White; **Austria:** Tiger Balsam Rot; **Belg.:** Olbas; **Canad.:** Tiger Balm Red; Tiger Balm Ultra; Tiger Balm White; Youngflex Massage 168; **Cz.:** Tiger Balm Rot†; Phyltothe†; Vegebom; **Ger.:** Linplant; Nasenbalsam; Olbas; Palatol†; **Gr.:** Tiger Balm; **Hong Kong:** Vida Salirub; **India:** Flexi-muv; **Indon.:** Balsam Sakti; Minyak Telon; Minyak Telon Cap Tiga Anak; **Israel:** Tiger Balm Red; Tiger Balm White; **Ital.:** Otosan Natural Ear Drops†; **Philipp.:** Begecic; **Pol.:** Argol Rheuma; Olbas; **S.Afr.:** Muscle Rub; **Singapore:** Begecic; **Switz.:** Frigoplasma†; Novital; Olbas; Wala Baume nasal; **Thai:** Dexalin; Hot Ice; Olympic Balm†; **UK:** Bells Muscle Rub; Olbas; Olbas for Children; Soothol; Tiger Balm; Vadarex.

## Calamus

Acore Vrai; Cálamo aromático; Calamus Rhizome; Kalmus; Sweet Flag Root.

CAS — 8015-79-0 (calamus oil).

**Pharmacopoeias.** In *Chin.* and *Swiss.*

## Profile

Calamus, the dried rhizome of the sweet flag, *Acorus calamus* (Acoraceae), has been used as a bitter and carminative; it is also used as a source of calamus oil, which is employed in perfumery. The FDA in the USA has prohibited marketing calamus as a food or food additive; the oil (Jammu variety) is reported to be a carcinogen.

**Homeopathy.** Calamus has been used in homeopathic medicines under the following names: Calamus aromaticus; Acorus calamus.

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**Cz.:** Koren Puskvorce.

**Multi-ingredient:** **Austria:** Abdomilon N; **Cz.:** Abdomilon†; Dr Theiss Schwedenbitter; Eugastrin†; Original Schwedenbitter; Stomaran; **Fr.:** Jouvence de l'Abbe Soury; **Ger.:** Abdomilon N; Gastrol S†; Majocarm mite†; Presselin Blahungs K 4 N†; Stomasa Med†; Stovalid N†; ventri-loges N; **Israel:** Rektiv; **Ital.:** Frenichs Maldifass†; **Pol.:** Dentosept A; Gastro; Krople Zoladkow; Seboren; **Port.:** Chologutt†; **Rus.:** Original Grosser Bittner Balsam (Оригинальный Большой Бальзам Битнера); **Switz.:** Kernosan Elixir; Tisane pour l'estomac; Urinex; **UK:** Pegina.

## Calcium Carbimide (iNMM)

Calcii Carbimidum; Calcium Cyanamide; Carbimida cálcica; Carbimide Calcique; Cyanamide.

Кальция Карбимид

$CCaN_2 = 80.1$ .

CAS — 156-62-7 (calcium carbimide); 8013-88-5 (citrat-ed calcium carbimide).

ATC — N07BB02.

ATC Vet — QN07BB02; QV03AA02.



NOTE. The name cyanamide is also used to designate carbimide, which is used in veterinary medicine.

## Adverse Effects and Precautions

Calcium carbimide may cause drowsiness, dizziness, fatigue, skin rash, tinnitus, depression, impotence, and urinary frequency. There may be a reversible increase in the white cell count. It should be used with caution in patients with asthma, coronary artery disease, or myocardial disease. Calcium carbimide causes a reaction in patients who have consumed alcohol similar to that seen with disulfiram (see p.2296).

**Effects on the heart.** Hypotension and tachycardia were reported during the carbimide-alcohol reaction.<sup>1</sup>

- Peachey JE, et al. Cardiovascular changes during the calcium carbimide-ethanol interaction. *Clin Pharmacol Ther* 1981; **29**: 40–6.

**Effects on the liver.** Reports<sup>1,2</sup> of hepatic lesions in patients receiving calcium carbimide.

- Vázquez JJ, Cervera S. Cyanamide-induced liver injury in alcoholics. *Lancet* 1980; **i**: 361–2.
- Moreno A, et al. Structural hepatic changes associated with cyanamide treatment: cholangiolar proliferation, fibrosis and cirrhosis. *Liver* 1984; **4**: 15–21.

## Uses and Administration

Calcium carbimide has actions and uses similar to those of disulfiram (p.2297). It is an aversive agent used as an adjunct in the treatment of chronic alcoholism (see Alcohol Withdrawal and Abstinence, p.1626). It is given in a dose of up to 60 mg twice daily by mouth. Citrated calcium carbimide has been used similarly.

### References

- Peachey JE, et al. A comparative review of the pharmacological and toxicological properties of disulfiram and calcium carbimide. *J Clin Psychopharmacol* 1981; **1**: 21–6.