

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Austria:** Mariazeller; **Braz.:** Balsamo Branco; **Cz.:** Klosterfrau Melisana; Naturland Grosser Swedenbitter†; Stomatosan†; **Ger.:** Doppelherz Melissegeist†; Inconturina†; Melissegeist; **Ital.:** Biphase Shampoo; Promix†; Saugella Uomo; **Port.:** Midro†; **Rus.:** Doppelherz Melissa (Доппелхерц Мелисса); Maraslavin (Мараславин); Original Grosser Bitter Balsam (Оригинальный Большой Бальзам Биттнера); **S.Afr.:** Claro; Melissegeist; Spiritus Contra Tussim Drops; **Switz.:** Alcoolat de Melisse†; Odontal; Tisane pour les problemes de prostate; **UK:** Melissa Comp.; Revitonil.

Clove Oil

Caryophylli floris aetheroleum; Caryophylli Floris Etheroleum; Clavo, aceite esencial de; Clou de girofle, huile essentielle de; Esencia de Clavo; Essence de Girofle; Gvazdikéliu eterinis aliejus; Neilikkaöljy; Nejljolja; Nelkenöl; Ol. Caryoph.; Oleum Caryophylli; Silice hřebčičkovcového květu; Szegfűszegolaj.

Pharmacopoeias. In *Eur.* (see p.vii) and *Jpn.* Also in *USNF*. **Ph. Eur. 6.2** (Clove Oil). A clear yellow liquid obtained by steam distillation from clove containing 75.0 to 88.0% of eugenol. It becomes brown on exposure to air. Miscible with dichloromethane, with toluene, and with fatty oils. Store in well-filled airtight containers. Protect from light and heat. **USNF 26** (Clove Oil). The volatile oil distilled with steam from clove. It contains not less than 85.0% of phenolic substances, chiefly eugenol. Soluble 1 in 2 of alcohol (70%). Store in well-filled airtight containers.

Incompatibility. PVC bottles softened and distorted fairly rapidly in the presence of clove oil, which should not be stored or dispensed in such bottles.¹

- Department of Pharmaceutical Sciences of the Pharmaceutical Society of Great Britain. Plastics medicine bottles of rigid PVC. *Pharm J* 1973; **210**: 100.

Profile

Clove oil is a carminative that is sometimes used in the treatment of flatulent colic. It is also used as a flavour.

Applied externally clove oil is irritant but can produce local anaesthesia. It is used as a domestic remedy for toothache, a plug of cotton wool soaked in the oil being inserted in the cavity of the carious tooth; repeated application may damage the gingival tissues. Mixed with zinc oxide, it is used as a temporary anodyne dental filling, although eugenol (p.2301), one of its constituents, is often preferred. Clove oil is included as a counter-irritant in preparations for musculoskeletal and joint disorders. It is also used in aromatherapy.

Eugenol may cause hypersensitivity.

Adverse effects. Severe toxicity after ingestion of clove oil by young children has been reported.¹⁻⁴ Adverse effects included coma, acidosis, a generalised seizure, disordered blood clotting, and acute liver damage.

For reference to the harmful effects of smoking clove cigarettes, see under Clove, above.

- Lane BW, et al. Clove oil ingestion in an infant. *Hum Exp Toxicol* 1991; **10**: 291-4.
- Hartnoll G, et al. Near fatal ingestion of oil of cloves. *Arch Dis Child* 1993; **69**: 392-3.
- Eisen JS, et al. N-acetylcysteine for the treatment of clove oil-induced fulminant hepatic failure. *J Toxicol Clin Toxicol* 2004; **42**: 89-92.
- Janes SE, et al. Essential oil poisoning: N-acetylcysteine for eugenol-induced hepatic failure and analysis of a national database. *Eur J Pediatr* 2005; **164**: 520-2.

Preparations

BP 2008: Aromatic Cardamom Tincture.

Proprietary Preparations (details are given in Part 3)

S.Afr.: Naeltjie-Olie; **UK:** Dentogen; Soothake Toothache Gel.

Multi-ingredient: **Austral.:** Tiger Balm Red; Tiger Balm White; **Austria:** Parodontax; Tiger Balsam Rot; **Braz.:** Aligident†; Anestesiol†; Dentisan; **Canad.:** Tiger Balm Red; Tiger Balm Ultra; Tiger Balm White; **Chile:** Agua del Carmen; Agua Melisa Carminativa; Hustagil†; **Cz.:** Amol; Herbadent; Parodontal F5†; Stopangin; Tiger Balm Rot†; **Fr.:** Aromasol; Baume Arome; Gouttes aux Essences; Nazinette du Docteur Gilbert; Tigridol; **Ger.:** Amol Heilkrautgeist N; China-Balsam†; esto-gast; Hustagil Erkaltungsbalsam†; Melissegeist; Nur I Tropfen medizinisches Mundwasser†; Repha-Ös; Salviathymol N; **Hong Kong:** Magesto; **India:** Arowash; Sensus; **Indon.:** Balsam Sakti; Corsabalm; **Israel:** Tiger Balm Red; Tiger Balm White; **Italy:** Dentosan Azione Intensiva; Dentosan Mese; Fialetta Odontalgica Dr Knapp; Ondroly-A†; **NZ:** Electric Blue Headlice; Toothache Drops†; **Pol.:** Amol; Argol Essenza Balsamica; Argol Grip; Argol Rheuma; Aromatol; Carmolis; Olbas; Salviasept; **Rus.:** Carmolis (Кармолис); Carmolis Fluid (Кармолис Жидкость); Efcamon (Эфкамон); **S.Afr.:** Alpha Toothache Essence; Balsam Vita GEEEL; Balsam Vita ROOL; Balsam Vita WIT; Enterodyne; Helmontskruie; Moultons Pain Paint; Muscle Rub; Prep; Puma Balm; SB Toothache Drops; **Spain:** Dentol Topico; Otogen Calmante; **Switz.:** Baume de Chine Temple of Heaven blanc; Carmol; Carmol Plus†; Olbas; Osa gel dentaire aux plantes; Parodontax†; Samsilla; Spagyrom; **Thai.:** Magesto; Masaga; Mesto-Of; **Turk.:** Disinol; **UK:** Hactos; Nine Rubbing Oils; Olbas; Olbas for Children; Potters Sugar Free Cough Pastilles; Red Oil; Snowfire; Soothake Toothache Tincture; Teestick; Tiger Balm; **USA:** Dentapaine; Numzit†; Toothache Gel; **Venez.:** One Drop Only†.

Red Clover

Cow Clover; Meadow Clover; Purple Clover; Trébol rojo; Trefoil.

Pharmacopoeias. In *US*, which also includes the powdered form and powdered extract.

USP 31 (Red Clover). The dried inflorescence of *Trifolium pratense* (Fabaceae). It contains not less than 0.5% of isoflavones, calculated on the dried basis as the sum of daidzein (p.2391), genistein (p.2391), formononetin, and biochanin A. Protect from light and moisture.

Profile

The flowerheads of red clover have been used in herbal medicine. The isoflavones present in red clover have been investigated, similarly to other phytoestrogens, for their potential endocrine effects.

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USP 31: Red Clover Tablets.

Proprietary Preparations (details are given in Part 3)

Austral.: Promensil; Trinovin; **Braz.:** Climadil; Clinet; **Indon.:** Promeno; **UK:** Menoflavan.

Multi-ingredient: **Austral.:** Bioglan Mens Super Soy/Clover; Bioglan Soy Power Plus; Lifechange Menopause Formula†; Trifolium Complex†; **Indon.:** Femosa; Osteopor; **Malaysia:** Cleansa Plus†; **Spain:** Fitygn.

Cnicus Benedictus

Blessed Thistle; Cardo Santo; Chardon Bénit; Holy Thistle; Kardobenediktenkraut.

Profile

Cnicus benedictus, the flowering tops of *Cnicus benedictus* (*Carbenia benedicta*; *Carduus benedictus*) (Compositae), has been used as a bitter.

Homoeopathy. Cnicus benedictus has been used in homoeopathic medicines under the following names: *Carduus benedictus*.

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Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Austria:** Mariazeller; **Braz.:** Digestron†; **Cz.:** Ungolent†; **Ger.:** Carvomin†; Cheiranthol†; Gallexier; Gastritol; **Pol.:** Artecholin; Artecholwex; **Rus.:** Original Grosser Bitter Balsam (Оригинальный Большой Бальзам Биттнера); **S.Afr.:** Essens Amara of Groen Amara; **Switz.:** Gastrosan; **UK:** Bio-Strath Artichoke Formula; Sure-Lax (Herbal).

Cobalt Chloride

Cloruro cobaltoso; Cobalto, cloruro de; Cobaltous Chloride; Kobaltu(II) chlorek.

CoCl₂·6H₂O = 237.9.

CAS — 7646-79-9 (anhydrous cobalt chloride); 7791-13-1 (cobalt chloride hexahydrate).

Adverse Effects

Reactions to cobalt have included anorexia, nausea and vomiting, diarrhoea, precordial pain, cardiomyopathy, flushing of the face and extremities, skin rashes, tinnitus, temporary nerve deafness, renal injury, diffuse thyroid enlargement, and hypothyroidism. In large doses it may reduce the production of erythrocytes.

References

- Kennedy A, et al. Fatal myocardial disease associated with industrial exposure to cobalt. *Lancet* 1981; **i**: 412-4.
- Cugell DW, et al. The respiratory effects of cobalt. *Arch Intern Med* 1990; **150**: 177-83.
- Evans P, et al. Cobalt and cobalt compounds. *Toxicity Review* 29. London: HMSO, 1993.

Uses and Administration

Cobalt chloride, when given to both normal and anaemic subjects, produces reticulocytosis and a rise in the erythrocyte count. This property suggested its use in the treatment of certain types of anaemia, but its general therapeutic use is, however, unjustified and not without danger.

In veterinary medicine, cobalt chloride has been given as a dietary supplement to ruminants.

Cobalt Oxide

Cobalto, óxido de; Tetraóxido de tricobalto; Tricobalt Tetroxide.

Co₃O₄ = 240.8.

CAS — 1308-06-1.

Pharmacopoeias.

In *BP* (Vet).

BP(Vet) 2008 (Cobalt Oxide). It consists of cobalt (II, III) oxide (tricobalt tetroxide) with a small proportion of cobalt (III) oxide (dicobalt trioxide). A black powder. Practically insoluble in water; dissolves in mineral acids and in solutions of alkali hydroxides.

Profile

Cobalt oxide is used in veterinary practice for the prevention of cobalt deficiency in ruminants. The chloride and sulfate have been used similarly. For the adverse effects of cobalt, see Cobalt Chloride, above.

Coccidioidin

Coccidioidina.

Pharmacopoeias.

In *US*.

USP 31 (Coccidioidin). A sterile solution containing the antigens obtained from the byproducts of mycelial growth or from the spherules of the fungus *Coccidioides immitis*; it contains a suitable antimicrobial. A clear, practically colourless or amber-coloured liquid. Store at 2° to 8°. Any dilutions should be stored at 2° to 8° and used within 24 hours. The expiry date is not later than 3 years (mycelial product) or 18 months (spherule-derived product) after release from the manufacturer's cold storage.

Profile

Coccidioidin has been used as an aid to the diagnosis of coccidioidomycosis and, in conjunction with other antigens, to assess the status of cell-mediated immunity. A usual dose of 0.1 mL of a 1 in 100 dilution by intradermal (intracutaneous) injection has been used.

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USP 31: Coccidioidin.

Proprietary Preparations (details are given in Part 3)

USA: Spherulin.

Cocoyl Caprylocaprate

Coco-Caprylate/Caprate; Cocoyle, caprylocaprate de; Cocoylis caprylocapras; Cocoylis Octanodecanoas; Kokoilo kaprilokapratas; Kokoyil oktanodekanoat; Kokoyilkaprylokapat; Kokoyilkaprylokapraatti; Kókuszahlkohol kaprilátjai és kaprátjai.

CAS — 95912-86-0.

Pharmacopoeias.

In *Eur.* (see p.vii).

Ph. Eur. 6.2 (Cocoyl Caprylocaprate). A mixture of esters of saturated C₁₂ to C₁₈ alcohols with caprylic (octanoic) and capric (decanoic) acids obtained by the reaction of these acids with vegetable saturated fatty alcohols. Relative density about 0.86. Viscosity about 11 mPa s. A slightly yellowish liquid. Practically insoluble in water; miscible with alcohol and with liquid paraffin.

Profile

Cocoyl caprylocaprate is used as an emollient.

Coenzyme A

CoA; CoASH; Coenzima A. 5'-O-[3-Hydroxy-3-[2-(2-mercaptoethylcarbamoyl)ethylcarbamoyl]-2-dimethylpropyl]adenosine-3'-dihydrogenphosphate-5'-trihydrogendiphosphate.

C₂₁H₃₆N₇O₁₆P₃S = 767.5.

CAS — 85-61-0.

Profile

Formed from adenosine triphosphate, cysteine, and pantothenic acid, coenzyme A is involved in the body in many physiological roles, including the formation of citrate, the oxidation of pyruvate, the oxidation and synthesis of fatty acids, the synthesis of triglycerides, cholesterol, and phospholipids, and the acetylation of amines, choline, and glucosamine. It has been given by injection in a variety of metabolic disorders.

Cogalactoisomerase Sodium

Cogalactoisomerasa sódica; UDPG; Uridine-5'-diphosphoglucose Sodium.

C₁₅H₂₂N₂Na₂O₁₇P₂·3H₂O = 664.3.

CAS — 133-89-1 (cogalactoisomerase).

Profile

Cogalactoisomerase sodium has been used in various hepatic disorders.

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Proprietary Preparations (details are given in Part 3)

Ital.: Bivotox†; Epatoxil†; Liverasit†; Torexapit†.

Colforsin (USAN, rINN)

Boforsin; Colforsina; Colforsine; Colforsinum; Forscolin; Forskolin; HL-362; L-75-1362B. (3R,4aR,5S,6S,6aS,10S,10aR,10bS)-Decahydro-5,6,10,10b-tetrahydroxy-3,4a,7,7,10a-pentamethyl-3-vinyl-1H-naphtho[2,1-b]pyran-1-one, 5-acetate.

Колфорсин

C₂₇H₃₄O₇ = 410.5.

CAS — 66575-29-9.