

Drops (Гербийон Урологические Капли); Sibectan (Сибектан); **S.Afr.:** Arnica Massage Oil; **Spain:** Diurinat; Genurat; Natusor Artlane†; Natusor High Blood Pressure†; Natusor Renal†; Rensus†; Tensibent†; **Switz.:** Dragées S pour les reins et la vessie; Nephrosolid; Phytomed Nephro†; Tisane Diurétique; Tisane pour le cœur et la circulation; Tisane pour les reins et la vessie; Urinex; **UK:** Massage Balm with Calendula.

## Black Catechu

Cutch.  
CAS — 8001-76-1.

NOTE. Distinguish from Catechu (p.2278).

**Pharmacopoeias.** In *Chin*.

## Profile

Black catechu is an extract from *Acacia catechu* (Leguminosae) that is used as an astringent.

## Preparations

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

**Multi-ingredient:** **India:** Arowash.

## Black Currant

Blackcurrant; Cassis; Grosella negra (casis); Rib. Nig.

**Pharmacopoeias.** *Br.* includes the fruit.

*Fr.* includes the leaf.

**BP 2008** (Black Currant). The fresh ripe fruits of *Ribes nigrum* together with their pedicels and rachides. It has a strong, characteristic odour and a pleasantly acidic taste.

## Profile

Black currant fruit is a source of vitamin C (p.1983). It is used to prepare black currant syrup, which is used as a nutritional supplement and as a flavour.

Black currant leaf is included in herbal preparations for urinary, musculoskeletal, and gastrointestinal disorders. Black currant is reported to contain bioflavonoids and is also included in preparations for vascular disorders. It has also been used as a diuretic in folk medicine.

Black currant seed oil (below) is used as a source of gamolenic acid (see p.2308).

## Preparations

**BP 2008:** Black Currant Syrup.

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

**Braz.:** Tili.

**Multi-ingredient:** **Austria:** Amersan; **Cz.:** Amersan; **Fr.:** Arkophytum†; Drainactil; Hydracur; IgeE; Maxidrainet†; Mediflor no 11 Draineur Renal et Digestif†; Mediflor Tisane Antirhumatisme No 2; Mincifit; Resource. Rhubagil; Veinobiase; **Ger.:** Venobiase†; **Ital.:** Nepiros; Ribovin†; **Pol.:** Melisal; Melised; **Spain:** Exodren; Fitosvelt†.

## Black Currant Seed Oil

Blackcurrant seed oil.

## Profile

Black currant seed oil is derived from the seeds of *Ribes nigrum* (Grossulariaceae). It contains gamolenic acid (p.2308) and is used similarly to evening primrose oil (p.2302).

## Preparations

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

**Austral.:** Proglan†.

## Black Haw

American Sloe; Nanny Bush; Stag Bush.

Калина Сивомистная

**Pharmacopoeias.** In *Fr.*

## Profile

The bark of black haw, *Viburnum prunifolium* (Adoxaceae) is claimed to have spasmolytic activity on uterine and other smooth muscle. It is included in herbal preparations for peripheral vascular disorders and menstrual disorders. The root bark is also used.

## Preparations

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

**Multi-ingredient:** **Braz.:** Bromidrastina†; Gineburno†; **Canad.:** Thunas Tab for Menstrual Pain†; **Fr.:** Aphloine P; Climaxol; Jouvence de l'Abbe Soury; Phlebosedol†; **Mex.:** Reglosedy†; **Mon.:** Fluon.

## Black Nightshade

Hierba mora; Morelle Noire.

## Profile

Black nightshade is the leaves and flowering tops of the black or garden nightshade, *Solanum nigrum* (Solanaceae). It contains solanine and its allied alkaloids. Black nightshade is distributed throughout most of the world as a weed of cultivation. It appears to have little medicinal value but was used in liniments, poultices, and decoctions for external application. Ingestion can cause typical antimuscarinic effects that may require treatment as described under Atropine, p.1220.

The symbol † denotes a preparation no longer actively marketed

## Preparations

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

**Multi-ingredient:** **Pol.:** Liv 52; **Rus.:** Дипана (Дипана); Liv 52 (Лив 52).

## Blackthorn

Black Thorn; Épine noir; Prugnolo; Prundier; Schlehe; Schwarzdorn; Sloe.

Тёрн; Терновник

## Profile

The flowers of the blackthorn or sloe, *Prunus spinosa* (Rosaceae), are included in herbal preparations for constipation and urinary-tract disorders.

The fruit (sloes) are used for mild inflammation of oral and pharyngeal mucosa.

*Prunus spinosa* is used in homeopathic medicine.

Culinary uses of sloes include preserves and as a flavour in alcoholic beverages.

## Preparations

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

**S.Afr.:** Schlehen Elixir.

**Multi-ingredient:** **Ger.:** Nasenbalsam; Nasenbalsam für Kinder; **S.Afr.:** Lotio Pruni Comp cum Cupro; **Switz.:** Wala Baume nasal; Wala Baume nasal doux.

## Blue Cohosh

Caulófilo; Caulophyllum; Papoose Root; Squaw Root.

NOTE. Distinguish from Black Cohosh, which is *Cimicifuga*, p.2282.

## Profile

Blue cohosh, the rhizome and roots of *Caulophyllum thalictroides* (Berberidaceae), has uterotonic and antirheumatic properties. It is used for menstrual and other gynaecological disorders.

**Homeopathy.** Blue cohosh has been used in homeopathic medicines under the following names: Caulophyllum; Caulophyllum thalictroides; Caulph.

**Adverse effects.** Acute myocardial infarction associated with profound congestive heart failure and shock has been reported in a newborn infant whose mother ingested blue cohosh to promote uterine contractions.<sup>1</sup>

1. Jones TK, Lawson BM. Profound neonatal congestive heart failure caused by maternal consumption of blue cohosh herbal medication. *J Pediatr* 1998; **132**: 550–2.

## Preparations

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

**Multi-ingredient:** **Austral.:** Dyzzo; Lifesystem Herbal Formula 4 Women's Formula†; Women's Formula Herbal Formula 3†.

## Bog Myrtle

Sweet Gale.

NOTE. Bog myrtle has also been used as a common name for *Mentha trifoliata* (see *Mentha*, p.2340). Bayberry (see p.2263) has also been used as a synonym for bog myrtle.

## Profile

The essential oil obtained from bog myrtle, *Myrica gale* (Myricaceae), has been used as an insect repellent.

## Preparations

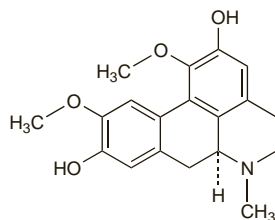
**Proprietary Preparations** (details are given in Part 3)

**Multi-ingredient:** **UK:** MuzzyOff Cocktail.

## Boldo

Boldi folium; Boldo, feuille de; Boldo Folium; Boldo Leaves; Boldoblád; Boldólevél; Boldonlehti; Boldovníkový list; Kva-píjujy čilmedžij lapai; Liść boldo; Peumus.

CAS — 476-70-0 (*boldine*); 1398-22-7 (*boldoglucin*).



(boldine)

**Pharmacopoeias.** In *Eur.* (see p.vii), which also includes Boldo Leaf Dry Extract.

*Fr.* includes Boldine.

**Ph. Eur. 6.2** (Boldo Leaf). The whole or fragmented dried leaf of *Peumus boldus*. It contains not more than 4% v/w of essential oil calculated with reference to the anhydrous drug. It contains not less than 0.1% of total alkaloids, expressed as boldine ( $C_{19}H_{21}NO_4 = 327.4$ ), calculated with reference to the anhydrous drug. It has a characteristic odour especially when rubbed. Protect from light.

## Profile

Boldo is employed in herbal medicine as a diuretic, for hepatobiliary disorders and for gastrointestinal disorders such as constipation. The alkaloid boldine is also used.

**Homeopathy.** Boldo has been used in homeopathic medicines under the following names: Peumus boldus.

## Preparations

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

**Braz.:** Prinachol; **Mex.:** Bliz.

**Multi-ingredient:** **Arg.:** Bil 13; Biliosan Compuesto†; Boldina; Digenat; Dioxicolagol; Drenocol†; Hepacur; Hepatagina; Hepatodirectol; Hepatotal Family†; Herbaccion Dig Fresh†; Herbaccion Digestivo†; Metigen; Opobyl; Radicura; Trixol†; **Austral.:** Berberis Complex; Lexat†; **Austria:** St Bonifatius-Tee; **Braz.:** Alcafelol†; Alcaflor†; Bilifelt†; Boldopeptan†; Boljuprima†; Colachofra; Dorveran†; Ductoveran; Emagrevit†; Eparema; Figatil; Gotas Digestivas; Hepatogregius†; Jurubileno†; Solvobil; **Chile:** Hepabil; Nature Complex Reduct-Te; Reduct-Te; Te Laxante; **Cz.:** The Salvat; **Fr.:** Bolditol; Drainactil; Elixir Spark; Grains de Vals; Hepaclem; Hepax; Jecopeptol; Mediflor no 11 Draineur Renal et Digestif†; Mediflor Tisane Hepatique No 5; Mucinum a l'Extrait de Cascara; Opobyl; Oxyboldine; Petites Pilules Carters; Solution Stago Diluee; Tisane Hepatique de Hoerd†; Vegela†; **Ger.:** Cynarzym N†; Gallemolan G†; Heumann Leber- und Gallente Solu-Hepar S†; Heumann Verdaungstee Solu-Lipar; **Hong Kong:** Mucinum Cascara†; **Ital.:** Amaro Medicinale; Boldina He; Caramelle alle Erbe Digestive; Coladren; Colax; Confeetti Lassativi CM; Critichol; Digela†; Dis-Cinil Complex; Eparema; Eparema-Levul; Eupatol; Frangulina†; Hepatos; Hepatos B12; Magisbile†; Mepalax; Schias-Amaro Medicinale†; Solvobil; **Mex.:** Chofabol; Hopedren; Ifuchol; Peptochol†; **Pol.:** Boldaloin; Boldovera; **Port.:** Mucinum; **Spain:** Boldolaxin†; Menabil Complex†; Natusor Hepavesical†; Nico Hepatocyn; Odisor†; Opobyl; Resolutivo Regium; Solucion Schoum; **Switz.:** Boldocynara; Heparfelen; Stago N†; Tisane hepatiche et biliaire; **UK:** Adios; Boldex; HealthAid Boldo-Plus; Weight Loss Aid; **Venez.:** Cynascocool; Natrossil.

## Boneset

Feverwort; Thoroughwort.

NOTE. Boneset has also been used as a common name for *Symphytum officinale* (see Comfrey, p.2286).

## Profile

Boneset, the aerial parts of *Eupatorium perfoliatum* (Compositae), has diaphoretic and immunostimulant properties and has been used in the treatment of fever, influenza, the common cold, and other upper respiratory-tract disorders.

**Homeopathy.** Boneset has been used in homeopathic medicines under the following names: Eupatorium perfoliatum; Eup. perf.

◇ References.

1. Habtemariam S, Macpherson AM. Cytotoxicity and antibacterial activity of ethanol extract from leaves of a herbal drug, boneset (*Eupatorium perfoliatum*). *Phytother Res* 2000; **14**: 575–7.

## Preparations

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

**Multi-ingredient:** **Austral.:** Flavos; **UK:** Catarrh Mixture.

## Borage

Borrajá; Bourrache.

**Pharmacopoeias.** *Fr.* includes monographs for flowers and flowering tops.

## Profile

The aerial parts of borage *Borago officinalis* (Boraginaceae), have been used in herbal medicine as a demulcent and emollient. However, it contains pyrrolizidine alkaloids that may be toxic and internal use is not recommended.

Borage seeds are the source of borage oil (below), which is used as a source of gamolenic acid.

## Preparations

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

**Chile:** Dexol.

**Multi-ingredient:** **Chile:** Celltech Gold; **Ital.:** Sclerovis H; **Mex.:** Aven-dix; **NZ:** Mr Nits.

## Borage Oil

Boraginis Oleum; Borage officinalis oleum; Borrajá, aceite de; Bourrache, huile de; Brútnákový olej; Gürkörtolja; Purasruo-hoöljy; Starflower Oil; Vaistinių augurkių aliejus.

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

**Ph. Eur. 6.2** (Borage (Starflower) Oil, Refined; Refined Borage Oil BP 2008). The fatty oil obtained from seeds of *Borago officinalis* by extraction and/or expression. It is then refined. A suitable antioxidant may be added. A clear, light yellow or yellow liquid. Relative density about 0.921. Practically insoluble in water and in alcohol; miscible with petroleum spirit. Store in well-filled, airtight containers under an inert gas. Protect from light.

The BP 2008 gives Refined Starflower Oil as an approved synonym.

### Profile

Borage oil is a source of essential fatty acids, principally gamolenic acid (p.2308). It is included in dietary supplements, often in combination with fish oils or other sources of omega-3 fatty acids (see p.1362).

**Eczema.** For the effects of borage oil on eczema, see under Gamolenic Acid, p.2308.

**Rheumatoid arthritis.** For the use of borage oil as a source of gamolenic acid for the management of rheumatoid arthritis, see under Gamolenic Acid, p.2309.

### Preparations

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

**Braz.:** Tily L; **Fr.:** Gamatol<sup>†</sup>; Omegaline; **Malaysia:** Primolin GLA MAX<sup>†</sup>; **Pol.:** Biogal<sup>†</sup>; Neoglandyna; **Switz.:** Boracaps; **UK:** Floresse.

**Multi-ingredient:** **Arg.:** Ureadin Facial; **Braz.:** Borag; Gamaline-V; Livten Vit; **Canad.:** Primanol Borage Oil; **Chile:** Pruriced; Ureadin Facial; **Fr.:** Efadiane relipidantes; Elteans; Omegaline Solaire; Phytophanere; Phytosolaire; Pruriced; Topialyse; Topialyse Fluide; Topialyse Plus; **Ital.:** Topia-lyse; **Pol.:** Dehalid<sup>†</sup>; **Port.:** Antiestrias; Bioclin Sebo Care<sup>†</sup>; Hidratante VV; Nutraisdin; Rilastil Dermo Solar; Ureadin Facial; **UK:** Arheumacare.

### Borax

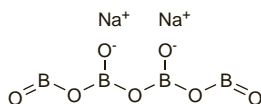
Boraks; Boraksas; Bórax; Disodium Tetraborate; Disodu tetraboran; E285; Natrii Tetraboras; Natrii Tetraboras Decahydricus; Natrium Boricum; Nátrium-tetraborát; Purified Borax; Sodium Baborate; Sodium Borate; Sodium Pyroborate; Sodium Tetraborate; Soda tetraboran; Tetraboritan sodný dekahydrát.

$\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O} = 381.4$ .

**CAS** — 1330-43-4 (anhydrous borax); 61028-24-8 (anhydrous borax); 1303-96-4 (borax decahydrate).

**ATC** — S01AX07.

**ATC Vet** — QS01AX07.



**Pharmacopoeias.** In *Chin.*, *Eur.* (see p.vii), and *Jpn.* Also in *USNF*.

**Ph. Eur. 6.2** (Borax). Colourless crystals or crystalline masses, or white or almost white, crystalline powder. It effloresces. Soluble in water; very soluble in boiling water; freely soluble in glycerol. A 4% solution in water has a pH of 9.0 to 9.6.

The BP 2008 gives Sodium Borate and Sodium Tetraborate as official synonyms.

**USNF 26** (Sodium Borate). Odourless transparent colourless crystals or white crystalline powder. Its solutions are alkaline to phenolphthalein. It effloresces in warm dry air. Soluble 1 in 16 of water, 1 in 1 of boiling water, and 1 in 1 of glycerol; insoluble in alcohol. Store in airtight containers.

### Boric Acid

Acide borique; Ácido bórico; Acidum boricum; Boorihappo; Boracic Acid; Borato rügštis; Borsäure; Bórsav; Borsyra; E284; Kwas borowy; Kyselina boritá; Orthoboric Acid; Sal Sedativa de Homberg.

$\text{H}_3\text{BO}_3 = 61.83$ .

**CAS** — 10043-35-3.

**ATC** — S02AA03.

**ATC Vet** — QS02AA03.



**Pharmacopoeias.** In *Chin.*, *Eur.* (see p.vii), *Jpn.*, and *Viet.* Also in *USNF*.

**Ph. Eur. 6.2** (Boric Acid). Colourless shiny plates greasy to the touch, or white or almost white crystals, or white or almost white crystalline powder. Soluble in water and in alcohol; freely soluble in boiling water and in glycerol (85%). A 3.3% solution in water has a pH of 3.8 to 4.8.

**USNF 26** (Boric Acid). Odourless, colourless, somewhat pearly lustrous scales, or crystals, or white powder, slightly unctuous to the touch. Soluble 1 in 18 of water, 1 in 4 of boiling water, 1 in 18 of alcohol, 1 in 6 of boiling alcohol, and 1 in 4 of glycerol.

**Stability.** Boric acid volatilises in steam. It forms a complex with glycerol which is a stronger acid than boric acid.

### Adverse Effects, Treatment, and Precautions

The main symptoms of acute boric acid poisoning are vomiting

and diarrhoea, abdominal pain, an erythematous rash involving both skin and mucous membranes, followed by desquamation, and stimulation or depression of the CNS. There may be convulsions and hyperpyrexia. There may also be renal tubular damage. Abnormal liver function and jaundice have been reported rarely. Death, resulting from circulatory collapse and shock, may occur within several days.

The slow excretion of boric acid can lead to cumulative toxicity during repeated use. Symptoms of chronic intoxication include anorexia, gastrointestinal disturbances, debility, confusion, dermatitis, menstrual disorders, anaemia, convulsions, and alopecia. Fatalities have occurred most frequently in young children after the accidental ingestion of solutions of boric acid or after the application of boric acid powder to abraded skin.

In the UK the use of boric acid, borates, and tetraborates in cosmetics is controlled: the concentration is limited to 5% in talcs, to 0.1% in products for oral hygiene, and to 3% in other cosmetic products; tetraborates are limited to 18% in bath products. Such cosmetic products should not be used in children under 3 years of age; preparations used for oral hygiene should not be swallowed; and topical preparations containing greater than the equivalent of 1.5% of boric acid should not be applied to peeling or irritated skin.

Deaths have resulted from absorption after lavage of body cavities with solutions of boric acid, and this practice is no longer recommended.

Inhaled boric acid and borax are pulmonary irritants.

Treatment of poisoning is symptomatic. The stomach should be emptied if the patient presents within 1 hour of ingesting a large amount of boric acid; activated charcoal is not effective. Haemodialysis may be of value in severe cases.

◇ In Great Britain pharmacists have been advised not to sell boric acid as such for use as a dusting powder (see also above). Pharmacists have also been advised not to supply Borax Glycerin or Honey of Borax, even with an appropriate warning, because of the hazards associated with the use of these preparations in infants.

### Pharmacokinetics

Boric acid is absorbed from the gastrointestinal tract, from damaged skin, from wounds, and from mucous membranes. It does not readily penetrate intact skin. About 50% of the amount absorbed is excreted in the urine within 24 hours and most of the remainder is excreted within 96 hours of ingestion.

### Uses and Administration

Boric acid possesses weak bacteriostatic and fungistatic properties; it has generally been superseded by more effective and less toxic disinfectants. It is used as a pesticide against ants and cockroaches.

Boric acid is used, usually with borax, as a buffer and antimicrobial in eye drops, and was formerly used as a soluble lubricant in solution-tablets. It is also used as a preservative for urine samples. Boric acid and borax are not used internally.

In the UK, the use of boric acid in cosmetics and toiletries is restricted (see above).

Borax is used similarly to boric acid and has also been used externally as a mild astringent and as an emulsifier in creams. Preparations of borax in glycerol or in honey (Borax Glycerin; Honey of Borax) were formerly used as paints for the throat, tongue, and mouth, but should not be used because of the risk of toxicity.

Other salts of boric acid, including potassium and zinc salts, have been used.

**Homoeopathy.** Boric acid has been used in homoeopathic medicines under the following names: Acidum boricum; Acidum Boracicum; Ac. boric.

Borax has been used in homoeopathic medicines under the following names: Natrium tetraboracicum.

**Antimicrobial activity.** Evaluation of the antimicrobial activity of 1.22% borate buffer.<sup>1</sup>

1. Houlshy RD, *et al.* Antimicrobial activity of borate-buffered solutions. *Antimicrob Agents Chemother* 1986; **29**: 803-6.

**Urine preservation.** Boric acid in concentrations of about 2% may be a suitable preservative for urine samples in transit requiring bacteriological examination.<sup>1,2</sup> However, overnight storage of specimens preserved with boric acid may significantly alter culture results.<sup>3</sup>

1. Porter IA, Brodie J. Boric acid preservation of urine samples. *BMJ* 1969; **2**: 353-5.
2. Lum KT, Meers PD. Boric acid converts urine into an effective bacteriostatic transport medium. *J Infect* 1989; **18**: 51-8.
3. Gillespie T, *et al.* The effect of specimen processing delay on borate urine preservation. *J Clin Pathol* 1999; **52**: 95-8.

**Vaginitis.** Vaginal candidiasis (p.518) caused by *Candida glabrata* and other non-*albicans* species frequently responds to topical boric acid.<sup>1,2</sup> Satisfactory clinical and mycological responses to topical boric acid were reported in 2 patients with *Candida glabrata* vaginitis who had not responded to repeated courses ofazole antifungals.<sup>3</sup> Treatment with boric acid effected clinical and mycological cure in 4 of 6 patients with refractory vaginitis caused by *C. krusei*.<sup>4</sup> Long-term boric acid treatment showed

promise in the treatment and prevention of relapses of vulvovaginal candidiasis, but its efficacy ended when treatment was stopped.<sup>5</sup>

1. Sobel JD, Chaim W. Treatment of *Torulopsis glabrata* vaginitis: retrospective review of boric acid therapy. *Clin Infect Dis* 1997; **24**: 649-52.
2. Pappas PG, *et al.* Infectious Diseases Society of America. Guidelines for treatment of candidiasis. *Clin Infect Dis* 2004; **38**: 161-89. Also available at: <http://www.journals.uchicago.edu/doi/pdf/10.1086/380796> (accessed 24/07/08)
3. Redondo-Lopez V, *et al.* *Torulopsis glabrata* vaginitis: clinical aspects and susceptibility of antifungal agents. *Obstet Gynecol* 1990; **76**: 651-5.
4. Singh S, *et al.* Vaginitis due to *Candida krusei*: epidemiology, clinical aspects, and therapy. *Clin Infect Dis* 2002; **35**: 1066-70.
5. Guaschino S, *et al.* Efficacy of maintenance therapy with topical boric acid in comparison with oral itraconazole in the treatment of recurrent vulvovaginal candidiasis. *Am J Obstet Gynecol* 2001; **184**: 598-602.

### Preparations

**BP 2008:** Kaolin Poultice;

**BPC 1973:** Magenta Paint; Surgical Chlorinated Soda Solution;

**USP 31:** Rose Water Ointment.

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

**Canad.:** Eye Wash; **Fr.:** Dacryum; Hydralin; Optrex; **Pol.:** Aphant; Borasol; Gemiderma; **Turk.:** Biora; **Venez.:** Sax.

**Multi-ingredient:** **Arg.:** Anusol; Baby-Tex; Banoftal<sup>†</sup>; Bentophyto; Calusan Bebe; Fungocop; Gineseptina<sup>†</sup>; Griseopius; Hipoglos; Cicatrizante; Hipoglos con Hidrocortisona; Histidanol<sup>†</sup>; Hyaluron; Ingial; Lagrimas de Santa Lucia<sup>†</sup>; Lemil; Paracian<sup>†</sup>; Perfungol<sup>†</sup>; Phylarm; Pluserm<sup>†</sup>; Prunedan; Sebulex; **Austral.:** Gold Cross BOZ Ointment<sup>†</sup>; **Austria:** Colodophthal; Ophthalgutal; **Belg.:** Alcasol; Boradine; Borostyrol; Ocal; Sedemol; Sulfademedol; **Braz.:** Adeglos<sup>†</sup>; Antiphlogistine<sup>†</sup>; Bluderm<sup>†</sup>; Candemol<sup>†</sup>; Cloraseptic; Colpagex N; Dermosed<sup>†</sup>; Dinil; Gynax-N; Gyrol<sup>†</sup>; Higicid; Hipodermon; Lavilol<sup>†</sup>; Leucocida<sup>†</sup>; Lucretin; Malvona<sup>†</sup>; Oto-Biotic<sup>†</sup>; Otuga; Po Antiseptico; Polivilo Antiseptico<sup>†</sup>; Pomaderme; Senophiler<sup>†</sup>; Talco Alivio<sup>†</sup>; Vagitrin-N; Visiplex; Visual<sup>†</sup>; **Canad.:** British Army Foot Powder<sup>†</sup>; Thunus Eye Drops<sup>†</sup>; **Chile:** Dexagin; Frescansol; Hipoglos; Homeoplasmia<sup>†</sup>; Perfungol; **Cz.:** Aphlox<sup>†</sup>; Herbadent; Ophthal; Ophthalm-Septonex; Pityol; **Fin.:** Otiboron; **Fr.:** Borostyrol; Dacryboraline; Dacryoserum; Dacudoses; Eau Precieuse; Homeoplasmie; Hydralin; Optadair; Ophthalmine; Paps; Pate a l'Eau Roche-Posay<sup>†</sup>; Phylarm<sup>†</sup>; Sophtal; **Ger.:** Ensinger Schiller-Quelle Heilwasser<sup>†</sup>; **Gr.:** Oulogram; Septobore; Vaseline Bonique; **Hong Kong:** Eye Glo Plus; Eye Glo Regular; Eye Wash; Gly Thymol; Hydralin; **India:** Andre; Feul Chill; New Eye Lotion; Proto-Boric; **Indon.:** Skintex; Verile; **Irl.:** Phytex; **Israel:** Gargol; **Ital.:** Aquasalina<sup>†</sup>; Bagno Oculare<sup>†</sup>; Bergacid; Borna; Fotofit; Fucina Fenica; **Mex.:** Clarex; Forcremol; Hipoglos; Lav Ofteno; Lowila; Oftabloril; Tokolinio; **Mon.:** Boroclarine; **Philipp.:** Soothing Eye Wash; United Home Burn Ointment; **Pol.:** Acufingon; Afronis; Dentosept A; Gargarin; Hemorectal; Neo-Tormentil; Pigmentum Castellani; Tormentile Forte; Tormentol; **Rus.:** Contracéptin T (Контрацептин Т); Lysoplac (Лизоплак); Osarlon (Осарлон); **S.Afr.:** Anugesc; Caloplast; Prep; Universal Eye Drops; Vagorol; **Singapore:** Eye Mo<sup>†</sup>; New Daigaku<sup>†</sup>; **Spain:** Banoftal; Cloran Hemidex; Coliocolina Adren Astr; Dermomycose Liquido; Fungosol; Lamnotyl<sup>†</sup>; Milrosina; Natusan; Oftalmol Ocular; Pomada Infantil Vera<sup>†</sup>; Topico Dention Vera<sup>†</sup>; Vaseline Boricada; Zolina; **Swed.:** Antasten-Privin; **Thai.:** Eye Mo; Eye-Gene; Eye-Gene Soft; Mano; Opplint; Opsil<sup>†</sup>; Optal; Optic; Quinadon-N; Visotone; **Turk.:** Antidot; Dermikolin; Undo-Talk; **UK:** Oxy Clean Facial Scrub; Phytex; **USA:** BFI; Castademe; Collyrium for Fresh Eyes; Columbia Antiseptic Powder; Dri/Ear; Ear-Dry; Paladin; Phylorinol; RA Lotion; Saratoga; Seale's Lotion; Star-Otic; Trimo-San; **Venez.:** Ademina; Boramint<sup>†</sup>; Bori-Zinc<sup>†</sup>; Borocanfor; Borogin; Diodonato<sup>†</sup>; Hipoglos<sup>†</sup>; Micofest; Polifix<sup>†</sup>; Sebaxyl.

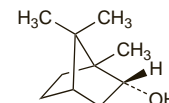
### Borneol

Baros Camphor; Bhimsaim Camphor; British Camphor; Borneokampher; Bormyl Alcohol; Camphol; Dryobalanops Camphor; Malayan Camphor; Sumatra Camphor. endo-1,7,7-Tri-methylbicyclo[2.2.1]heptan-2-ol.

**Борнеол**

$\text{C}_{10}\text{H}_{16}\text{O} = 154.2$ .

**CAS** — 507-70-0.



**Pharmacopoeias.** In *Chin* as synthetic borneol (Borneolum Syntheticum).

### Profile

Borneol is a constituent of several essential oils. It has antiseptic and antispasmodic actions and is included in preparations for the treatment of biliary- and urinary-tract disorders.

### Preparations

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

**Multi-ingredient:** **Austria:** Rowachol; Rowatinex; **Chile:** Rowatinex; **Cz.:** Rowachol; Rowatinex; **Fr.:** Biolar; **Ger.:** Rowachol; Rowachol comp<sup>†</sup>; Rowachol-Digestiv; Rowatinex; **Hong Kong:** Neo-Rowachol; Neo-Rowatinex; Rowachol; Rowatinex; **Hung.:** Rowachol; Rowatinex; **Irl.:** Rowachol; Rowatinex; **Israel:** Rowachol; Rowatinex; **Malaysia:** Rowachol; Rowatinex; **Mex.:** Cholex; **Philipp.:** Mentopas; Rowachol; Rowatinex; **Pol.:** Rowachol; Rowatinex; Terpichol; **Singapore:** New Daigaku<sup>†</sup>; **Spain:** Rowachol; Rowanefrin; **Switz.:** Rowachol; **Thai.:** Rowachol; Rowatinex; **UK:** Rowachol; **Venez.:** Rowachol; Rowatinex.