

## Preparations

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

**Multi-ingredient:** **Ital.:** Magisbile†.

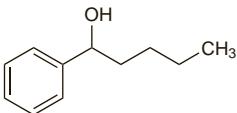
## Fenipentol (rINN)

Fenipentol; Fenipentolum. 1-Phenylpentan-1-ol; α-Butylbenzyl alcohol.

Фенипентол

$C_{11}H_{16}O = 164.2$ .

CAS — 583-03-9.



### Profile

Fenipentol is a choleretic that has been given orally for the treatment of hepatic and biliary-tract disorders in doses of 100 to 200 mg three times daily. The hemisuccinate and sodium hemisuccinate have also been used.

## Preparations

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

**Cz.:** Febichol; **Ger.:** Febichol; **Ital.:** Pentabil†.

**Multi-ingredient:** **Chile:** Digezin†; **Ital.:** Critichol; **Spain:** Menabil Complex†; **Venez.:** Cholipin.

## Fennel

Édesköménytermés (bitter fennel); Fánkál, bitter (bitter fennel); Fánkál, söt (sweet fennel); Fenchel; Fenkoli, karvas (bitter fennel); Fenkoli, makea (sweet fennel); Fennel Fruit; Fennel Seed; Fenouil; Fenouil Amer; Fenouil amer; fruit de (bitter fennel); Fenouil doux; fruit de (sweet fennel); Foeniculi amari fructus (bitter fennel); Foeniculi dulcis fructus (sweet fennel); Foeniculum; Fruto de Hinnojo; Funcho; Hinnojo; Kartieji pankolių vaisiai (bitter fennel); Kerti édesköménytermés (sweet fennel); Owoc kopru włoskiego (bitter fennel); Plod fenylku obecného pravého (bitter fennel); Plod fenylku obecného sladkého (sweet fennel); Saldieji pankolių vaisiai (sweet fennel).

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

**Ph. Eur. 6.2** (Fennel, Bitter; Foeniculi Amari Fructus). It consists of the dry, cremoncarps and mericarps of *Foeniculum vulgare*, subsp. *vulgare*, var. *vulgare*. It contains not less than 4.0% v/w of essential oil, calculated with reference to the anhydrous drug. The oil contains not less than 60.0% of anethole and not less than 15.0% of fenchone. Bitter fennel is greenish-brown, brown, or green. Protect from light and moisture.

**Ph. Eur. 6.2** (Fennel, Sweet; Foeniculi Dulcis Fructus). It consists of the dry, cremoncarps and mericarps of *Foeniculum vulgare*, subsp. *vulgare*, var. *dulce*. It contains not less than 2.0% v/w of essential oil, calculated with reference to the anhydrous drug. The oil contains not less than 80.0% of anethole. Sweet fennel is pale green or pale yellowish-brown. Protect from light and moisture.

### Profile

Fennel is the source of fennel oil (below). It is used as a flavour and carminative, although the efficacy of such traditional remedies in infant colic is considered dubious (see Gastrointestinal Spasm, p.1696). It is also used in herbal remedies for respiratory-tract disorders.

## Preparations

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

**Cz.:** Fenkylový Caj; Galenteet†; **Rus.:** Plantex (Плантекс).

**Multi-ingredient:** **Arg.:** Arcelgasol; **Austral.:** Bupleurum Compound; Crampexe Stomach Cramps; Digestive Aid; **Austria:** Brädy's-Magentropfen; Euka; Illings Bozner Maycur-Tee†; Laxalpin; Mag Kottas Kräuterexpress Abführtee; Mag Kottas May-Cur-Tee; Nesthakchen; Planta Lax; Species Carvi comp†; **Canad.:** Herbal Laxative; Herbal Laxative plus Yogurt; Thun-nas Laxative†; **Chile:** Instalax; Reduc-Te; **Cz.:** Blahungstee N†; Bronchialtee N†; Cajova Smes pn Nachlazeni; Carminativum Babyños†; Detska Cajova Smes; Detsky Caj s Hерманеком; Diabetian Erkaltungstee†; Nervova Cajova Smes; Projimava; Pulmoran; Reduktan; Species Pectoralaria Plantata; Stoffwechseltee N†; Stomaran; Ungolen†; Zaludem Cajova Smes; **Fr.:** Benetranst; Bolitol; Mediflor Tisane Contre la Constipation Passagere No 7; Mediflor Tisane Digestive No 3; Mediflor Tisane No 4 Diuretique; **Ger.:** Carminativum Babyños†; Carminativum-Hetterich; Em-eukal Husten- und Brusttee†; Em-medical†; Floradix Multipretten N; Gallexier; Gastricholan-L-Gastril St†; Kneipp Husten- und Bronchial-Tee; Leber-Galle-Tropfen 83†; Lomatol†; Majocarmin-Tee; Pascopankreat nov†; Presselin Blähungs K 4 N†; Presselin Dyspepticum†; Presselin Stoffwechsel-Tee Hapeka 225 N†; Ramend Krauter†; Stovalid N†; **Israel.:** Junghorn; **Ital.:** Actenacol; Altea (Species Composta)†; Anice (Species Composta)†; Cadifen; Cadimint; Colimil; Dicalmri; Epagesit†; Evamilk; Relaxol; Senna-Specie Composita†; Timo (Species Composta)†; **Jpn.:** The Guard Seichojo; **Malaysia:** Eyebright Plus†; **Pol.:** Amarosal; Diges-Tonic; Rhelax; Salvasept; Sirupus Pin Compositus; Sirupus Tussipini; Sirupus Tussipini D; **Rus.:** Insti (Инсти); **Spain:** Cristalox; Himelan†; Natusor Aerofane†; Natusor Malvasein†; Senosal†; **Switz.:** Ker-

nosan Elixir; Kernosan Heidelberger Poudre; Tisane favorisant l'allaitement; Tisane laxative; Tisane pectorale et antitussive; Tisane pour nourrissons et enfants; **UK:** Cleansing Herbs; Herbal Indigestion Naturtabs; Indigestion and Flatulence; Lion Cleansing Herbs; Lustys Herbalene; Out-of-Sorts; Re-vitonil; Senokot Dual Relief; Sure-Lax (Herbal).

## Fennel Oil

Aetheroleum Foeniculi; Bitterfänkålsolja (bitter-fennel fruit oil); Esencia de Hinnojo; Essência de Funcho; Fenouil amer (fruit de), huile essentielle de (bitter-fennel fruit oil); Foeniculi amari fructus aetheroleum (bitter-fennel fruit oil); Hinnojo, aceite esencial; Karčiūju pankolių vaisių eterinis aliejus (bitter-fennel fruit oil); Karvaskenfoljöljy (bitter-fennel fruit oil); Olejek kopru włoskiego (bitter-fennel fruit oil); Oleum Foeniculi; Rezene Yağı; Silice fenylu horčkého (bitter-fennel fruit oil).

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

**Ph. Eur. 6.2** (Bitter-Fennel Fruit Oil; Foeniculi Amari Fructus Aetheroleum). The essential oil obtained by steam distillation from the ripe fruits of *Foeniculum vulgare*, subsp. *vulgare*, var. *vulgare*. It contains 12.0 to 25.0% fenchone and 55.0 to 75.0% anethole. A clear, colourless or pale yellow liquid with a characteristic odour. Store in well-filled, airtight containers at a temperature not exceeding 25°. Protect from light.

**USNF 26** (Fennel Oil). The volatile oil distilled with steam from the dried, ripe fruit of *Foeniculum vulgare* (Apiaceae). Congealing temperature not lower than 3°. Soluble 1 in 1 of alcohol (90%). If solid matter has separated, carefully warm the oil until it is completely liquefied, and mix before using. Store in airtight containers.

### Profile

Fennel oil is used as an aromatic flavour and carminative (but see the comment under Fennel, above); the German expert committee for herbal drugs and preparations (Commission E) considers that the use of fennel oil in infants and toddlers is contra-indicated. It is also used in herbal remedies for respiratory-tract disorders and in aromatherapy.

## Preparations

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

**Belg.:** Babyfen; **Ger.:** Stern Biene Fenchelsirup†; **Rus.:** Plantex (Плантекс).

**Multi-ingredient:** **Austria:** Eucarbon; Luuf-Hustentee; Nesthakchen; Sabatif; Spasmo-Claim; **Canad.:** Chase Kolik Grippe Water Alcohol-Free; **Chile:** Calmatol; **Cz.:** Biotussit; Bronchosan; Contraspant; Herbident; Nutridunt; Ophthalmo-Septone; Solutan†; **Ger.:** Cystium-wem†; Em-eukal Husten- und Brusttee†; Ephepet-Pastillen N; Euflat H; Floradix Multipretten N; Gastricard†; Gastrostas; Hevertopect N†; Majocarmin forte†; Nierentee 2000†; Pulmocordio mitte SL†; ratioGast†; Salviathymol N; **Hong Kong:** Magesto; **Indon.:** Minyak Telon; **Israel.:** Novcarbon; **Ital.:** Relaxol; **Malaysia:** Eucarbon; **Pol.:** Woodwards Grippe Water; **S.Afr.:** Borsdruppels; Oleum Salviae Comp; **Switz.:** Flatulex; Huile Po-Ho A. Vögel; Laxasan; **Thai.:** Gas-Nep; Magesto; **Turk.:** Eucarbon.

## Fenoverine (rINN)

Fenoverina; Fénovérine; Fenoverinum. 10-[4-(Piperonyl-1-piperazinyl)acetyl]phenothiazine.

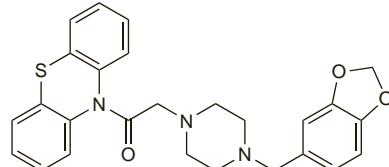
Феноверин

$C_{26}H_{25}N_3O_3S = 459.6$ .

CAS — 37561-27-6.

ATC — A03AX05.

ATC Vet — QA03AX05.



### Profile

Fenoverine has been used as an antispasmodic but has been withdrawn in some countries after reports of rhabdomyolysis.

**Adverse effects.** Reports of rhabdomyolysis associated with fenoverine,<sup>1,2</sup> including a fatality.<sup>1</sup> A genetic predisposition has been suggested.<sup>2</sup>

1. Chariot P, et al. Fenoverine-induced rhabdomyolysis. *Hum Exp Toxicol* 1995; **14:** 654–6.

2. Jouglard J, et al. Research into individual predisposition to develop acute rhabdomyolysis attributed to fenoverine. *Hum Exp Toxicol* 1996; **15:** 815–20.

3. Chen CW, Chang MH. Rhabdomyolysis induced by fenoverine: a case report and literature review. *Acta Neurol Taiwan* 2005; **14:** 143–6.

## Preparations

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

**Mex.:** Spasmoprin; **Singapore:** Spasmoprin; **Thail.:** Spasmoprin; Tavidan†.

The symbol † denotes a preparation no longer actively marketed

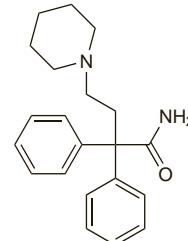
## Fenpipramide (BAN, rINN)

Fenpipramid; Fenpipramida; Fenpipramidi; Fenpipramidum. 2,2-Diphenyl-4-piperidinobutyramide.

Фенипрамид

$C_{21}H_{26}N_2O = 322.4$ .

CAS — 77-01-0.



## Fenpipramide Hydrochloride (BANM, rINNM)

Fenpipramide, Chlorhydrate de, Fenpipramidi Hydrochloridum; Hidrocloruro de fenpipramida.

Фенипрамида Гидрохлорид

$C_{21}H_{26}N_2O \cdot HCl = 358.9$ .

CAS — 14007-53-5.

## Fenpiverinium Bromide (rINN)

Bromuro de fenpiverinio; Fenpipramide Methobromide; Fenpipramide Methylbromide; Fenpiverinii Bromidum; Fenpiverinium, Bromure de. 1-(3-Carbamoyl-3,3-diphenylpropyl)-1-methylpiperidinium bromide; 2,2-Diphenyl-4-piperidinobutyramide methyl bromide.

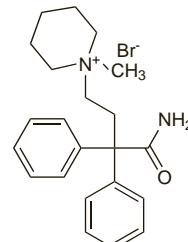
Фенивериния Бромид

$C_{22}H_{29}BrN_2O = 417.4$ .

CAS — 125-60-0.

ATC — A03AB21.

ATC Vet — QA03AB21.



### Profile

Fenpipramide (as the hydrochloride) and its methobromide, fenpiverinium bromide have been used as antispasmodics. Fenpipramide hydrochloride is also used for its antimuscarinic actions in veterinary medicine.

## Preparations

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

**Multi-ingredient:** **Cz.:** Aligfen; Analgin; Spasmopan; **Pol.:** Spasmalgon; **Rus.:** Baralgetas (Баралгетас)†; Maxigan (Максиган); Nebgalan (Небгалан); Novigan (Новиган); Revalgin (Ревалгин); Spasgan (Спазган); Spasmalgon (Спазмалгон); Spasmalin (Спазмалин); **S.Afr.:** Baralgan†; **Thail.:** Kanegan; **Venez.:** Flembar.

## Fenugreek

Bockhornsfrö; Bockhornsame; Faenum-Graecum; Fenogreco; Fenugrec; Görögzséhamag; Greek hay; Ožrägi séklos; Sarviapaliansiemi; Semen Foenugraeci; Semen Trigonellae; Semeno piskavice řeckého sena; Trigonella Foenugraeci Semen; Trigonella foenugraeci semen.

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

**Ph. Eur. 6.2** (Fenugreek). The dried ripe seeds of *Trigonella foenum-graecum*. It has a strong characteristic odour. Protect from light.

### Profile

Fenugreek has been used as an appetite stimulant and as an ingredient in preparations for respiratory disorders. It also has emollient properties.

**Adverse effects.** Loss of consciousness occurred in a 5-week-old infant after ingestion of a herbal tea containing fenugreek.<sup>1</sup> On recovery the infant and his urine had an aroma characteristic of that found in 'maple syrup urine disease', an inborn condition involving defective metabolism of branched-chain amino acids.

Further investigation revealed that the infant did not have the disease; the aroma was due to the presence of sotolone in the fenugreek seeds used to prepare the tea.

1. Sewell AC, et al. False diagnosis of maple syrup urine disease owing to ingestion of herbal tea. *N Engl J Med* 1999; **341**: 769.

### Preparations

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

**Fr.:** Fenugrène; Stenorex<sup>†</sup>.

**Multi-ingredient:** **Austral.:** Bilberry Plus; Garlic and Horseradish + C Complex; Panax Complex<sup>‡</sup>; **Fr.:** Phytoöl; **India:** Happy'tizer; **Indon.:** Provigor; **Malaysia:** Horseradish Plus<sup>†</sup>.

### Ferric Chloride

Chlorid železitý hexahydrt; Chlorure Ferrique; Ferr Perchlor; Ferrí chloridum hexahydricum; Férrico, cloruro; Ferrikloridhexahydrt; Ferrikloridihexahydrtat; Ferrie (chlorure) hexahydrtat; Ferrum Sesquichloratum; Geležies(III) chloridas heksahidratas; Iron Perchloride; Iron Sesquichloride; Iron Trichloride; Vas(III)-klond-hexahydrt; Želaza(III) chlorek.

$\text{FeCl}_3 \cdot 6\text{H}_2\text{O} = 270.3$ .

CAS — 7705-08-0 (anhydrous ferric chloride); 10025-77-1 (ferric chloride hexahydrate).

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

**Ph. Eur. 6.2** (Ferric Chloride Hexahydrate). A very hygroscopic, crystalline mass or orange-yellow to brownish-yellow crystals. Very soluble in water and in alcohol; freely soluble in glycerol. Store in airtight containers. Protect from light.

### Profile

Ferric chloride has the general properties of iron salts (p.1949) but is exceptionally astringent. It has been used mainly by local application for its styptic and astringent properties. Local application of ferric chloride or other iron salts may cause permanent discolouration of the skin.

### Preparations

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

**Ital.:** Cotone Emostatico; **Rus.:** Hemofer (Гемофер); **S.Afr.:** Staaldruppels.

**Multi-ingredient:** **Belg.:** Ouate Hemostatique; **UK:** Glykola.

### Fibronectins

Fibronectina.

Фибронектины

### Profile

Fibronectins are high molecular weight endogenous adhesive glycoproteins found in plasma and in the extracellular matrix. Plasma fibronectin was originally known as cold-insoluble globulin. Fibronectins are principally involved in cellular attachment and migration in normal physiological processes as well as in various malignant diseases. They have an important role in the function of the extracellular matrix, and in morphogenesis and tissue remodelling. They also play a part in aggregation of platelets, and are used in combinations with other blood products in wound-sealant preparations. Manipulation of the activity of fibronectins (for example with fibronectin inhibitors or fibronectin fragments) is being investigated in the treatment of connective tissue diseases, malignancies, and wound healing. Fibronectin itself has potential use as a research tool for the study of cell adhesion and migration processes.

### References

1. Kaspar M, et al. Fibronectin as target for tumor therapy. *Int J Cancer* 2006; **118**: 1331–9.

### Preparations

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

**Multi-ingredient:** **Arg.:** Tissucol Duo Quick<sup>†</sup>; **Austral.:** Tisseel Duo; **Austria:** Tissucol; Tissucol Duo Quick; **Belg.:** Tissucol Duo; **Canad.:** Tisseel; **Cz.:** Tissucol; **Denm.:** Tisseel Duo Quick; **Fin.:** Tisseel Duo Quick; **Fr.:** Tissucol; **Ger.:** Quixil; Tissucol Duo S; Tissucol-Kit; **Hong Kong:** Tisseel; **Hung.:** Tissucol-Kit; **Israel:** Tisseel; **Ital.:** Quixil; **Mex.:** Tissucol<sup>†</sup>; **Neth.:** Quixil; Tissucol; Tissucol Duo; **Spain:** Tissucol Duo; **Swed.:** Tisseel Duo Quick; **Switz.:** Tissucol; Tissucol Duo S; **UK:** Tisseel.

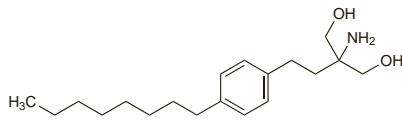
### Fingolimod (rINN)

Fingolimodum; FTY-720 (fingolimod hydrochloride). 2-Amino-2-[2-(4-octylphenyl)ethyl]propane-1,3-diol.

Финголимод

$\text{C}_{19}\text{H}_{33}\text{NO}_2 = 307.5$ .

CAS — 162359-55-9 (fingolimod); 162359-56-0 (fingolimod hydrochloride).



NOTE. Fingolimod hydrochloride is USAN.

### Profile

Fingolimod is an immunomodulator under investigation for multiple sclerosis and prophylaxis of acute rejection in kidney transplantation. Fingolimod is a prodrug, which after phosphorylation, acts as a sphingosine-1-phosphate receptor agonist that binds to the surface of lymphocytes and redirects them from the bloodstream and graft sites to the lymph nodes.

### References

1. Kappos L, et al. Oral fingolimod (FTY720) for relapsing multiple sclerosis. *N Engl J Med* 2006; **355**: 1124–40.

### Flavonoid Compounds

Bioflavonoids; Flavonoides; Vitamin P Substances.

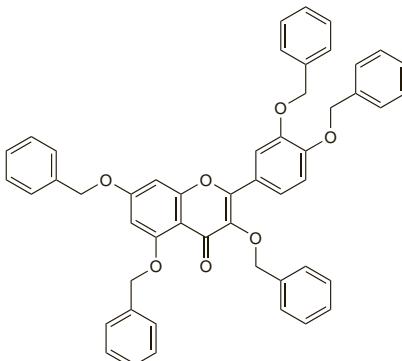
### Benzquercin (rINN)

Benzquerçina; Benzquercine; Benzquerçinum. 3,3',4',5,7-Pentakis(benzoyloxy)flavone.

Бензкверцин

$\text{C}_{50}\text{H}_{40}\text{O}_7 = 752.8$ .

CAS — 13157-90-9.



### Diosmin (BAN, rINN)

Barosmin; Buchu Resin; Diosmetin 7-Rutinoside; Diosmiini; Diosmina; Diosminas; Diosmine; Diosminum; Diozmin. 3',5,7-Trihydroxy-4'-methoxyflavone 7-[6-O-(6-deoxy- $\alpha$ -L-mannopyranosyl- $\beta$ -D-glucopyranoside].

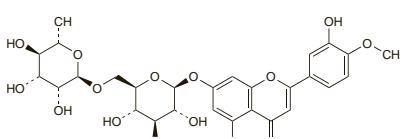
Диосмин

$\text{C}_{28}\text{H}_{32}\text{O}_{15} = 608.5$ .

CAS — 520-27-4.

ATC — C05CA03.

ATC Vet — QC05CA03.



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

**Ph. Eur. 6.2** (Diosmin). A greyish-yellow or light yellow hygroscopic powder. Practically insoluble in water and in alcohol; soluble in dimethyl sulfoxide. It dissolves in dilute solutions of alkali hydroxides. Store in airtight containers.

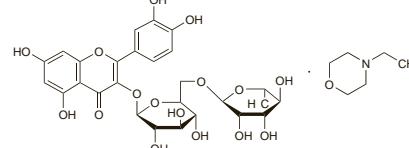
### Ethoxazorutoside (rINN)

Aethoxazorutin; Ethoxazorutoside; Ethoxazorutin; Éthoxazorutoside; Ethoxazorutidum; Etoxazorutóido; Oxarutinum. 2-Morpholinioethylruthrin.

Этоксазорутозид

$\text{C}_{33}\text{H}_{41}\text{NO}_{17} = 723.7$ .

CAS — 30851-76-4.



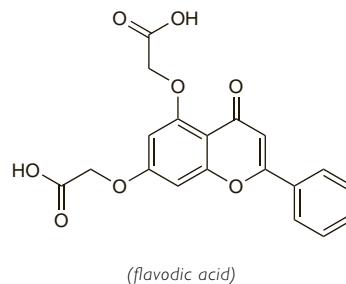
### Flavodate Sodium (rINNM)

Flavodate de Sodium; Flavodate Disodium; Flavodato sódico; Natrii Flavodatas. Disodium (4-oxo-2-phenyl-4H-chromene-5,7-diyldioxy)diacetate.

Натрий Флаводовая

$\text{C}_{19}\text{H}_{12}\text{Na}_2\text{O}_8 = 414.3$ .

CAS — 37470-13-6 (flavodic acid); 13358-62-8 (flavodate disodium).



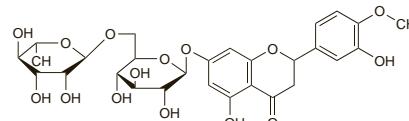
### Hesperidin

Hesperidiini; Hesperidina; Hesperidinum; Hesperdyna. 5-Hydroxy-2-(3-hydroxy-4-methoxyphenyl)-4-oxo-4H-chromen-7-yl rutinoside.

Гесперидин

$\text{C}_{28}\text{H}_{34}\text{O}_{15} = 610.6$ .

CAS — 520-26-3 (hesperidin); 24292-52-2 (hesperidin methyl chalcone).



**Description.** Hesperidin is a flavonoid isolated from the rind of certain citrus fruits.

### Leucocianidol (rINN)

Leucocianidolum; Leucocyanidin; Leucocyanidol. 2-(3,4-Dihydroxyphenyl)chroman-3,4,5,7-tetrol.

Лейкоцианидол

$\text{C}_{15}\text{H}_{14}\text{O}_7 = 306.3$ .

CAS — 480-17-1.

