Other salts of laurilsulfate have been used for their surfactant properties. These include monoethanolamine, diolamine, and trolamine laurilsulfates, and magnesium and ammonium laurilsulfates. Similar surfactants include sodium lauril ether sulfate and sodium alkyl sulfoacetates such as sodium lauril sulfoacetate.

Sodium laurilsulfate and related surfactants are also included in some combination preparations used rectally for the management of constipation.

Preparations

BP 2008: Emulsifying Wax.

Proprietary Preparations (details are given in Part 3)

Arg.: Euroclear; Limectant; ***Chile:*** Solucion Detergente; ***Fr.:*** Gyalmet†; Saforelle; ***Hong Kong:*** Lowila Cake; ***Mex.:*** Aquanil; ***Spain:*** Anticerumen.

Multi-ingredient: ***Arg.:*** Caien; Micronema; Nigalax; Plus & Plus; ***Austral.:*** Fleet Micro-Enema; Microlax; Pinetarsol; ***Austria:*** Microklist; ***Belg.:*** Microlax; Neo-Sabenyl; ***Canad.:*** Microlax; Plax; ***Cz.:*** Dermofug; ***Denm.:*** Microlax; ***Fin.:*** Microlax; ***Fr.:*** Bactident; Microlax; Ysol 206; ***Ger.:*** Dermowas; Microklist; ***Gr.:*** Sabenyl†; ***Hong Kong:*** Fleet Micro-Enema†; Microlax; ***Indon.:*** Laxarec; Microlax; ***Irl.:*** Micolette; Microlax; ***Israel:*** Microlet; ***Ital.:*** Eso Zim; Novilax; ***Malaysia:*** Dentinox Cradle Cap; Lorasil Feminine Hygeine†; Microlax†; ***Mex.:*** Microlax; ***Neth.:*** Casen Mikroklysma; Microlax; ***Norw.:*** Microlax; ***NZ:*** Fleet Micro-Enema†; Microlax; ***Pol.:*** Rektiolax; ***Port.:*** Fleet Micro-Enema; Microlax; ***Rus.:*** Microlax (Микролакс); ***S.Afr.:*** Medigel; Microlax†; ***Singapore:*** Dentinox Cradle Cap; Microlax; ***Spain:*** Clisteran; Micralax; ***Swed.:*** Fleet Micro†; Microlax; ***Switz.:*** Microklist; ***UK:*** Dentinox Cradle Cap; Micolette; Micralax; Relaxit; ***USA:*** Bodi Kleen; Cetaklenz; Geri-Lav Free; Klout; Maxilube; Summers Eve Post-Menstrual; Trichotine; Trimo-San; ***Venez.:*** Novafix; Vitar†.

Sodium Oleate

Oleato de sodio.

Олеиновокислый Натрий

CAS — 143-19-1.

Profile
Sodium oleate is an anionic surfactant used as an ingredient in preparations for the symptomatic relief of haemorrhoids and pruritus ani.

Zinc oleate and potassium oleate have also been used in skin preparations, while the sodium, potassium, and calcium salts have had applications as food additives.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Belg.:*** Cose-Anal; ***Ger.:*** Alcos-Anal†; Neo-Ballistol†; ***Neth.:*** Epianal; ***Norw.:*** Alcos-Anal; ***Swed.:*** Alcos-Anal.

Sodium Stearate

Estearato de sodio; Natrii stearas; Natrio stearatas; Natriumstearaatti; Natriumstearat; Sodium, stéarate de; Sodu stearynian; Stearan sodný.

Стеарат Натрия

CAS — 408-35-5 (sodium palmitate); 822-16-2 (sodium stearate).

Pharmacopoeias. In *Eur.* (see p.vii). Also in *USNF.*
Ph. Eur. 6.2 (Sodium Stearate). A mixture of sodium salts of different fatty acids consisting mainly of stearic acid ($C_{18}H_{35}O_2Na$ = 306.5) and palmitic acid ($C_{16}H_{31}O_2Na$ = 278.4). It contains 7.4 to 8.5% of sodium, calculated with reference to the dried substance. The fatty acid fraction contains not less than 40% of stearic acid and the sum of stearic acid and palmitic acid is not less than 90%. A white or yellowish, fine powder, with a greasy touch. Slightly soluble in water and in alcohol. Store in airtight containers. Protect from light.
USNF 26 (Sodium Stearate). A mixture containing not less than 90% of sodium stearate ($C_{18}H_{35}NaO_2$ = 306.5) and sodium palmitate ($C_{16}H_{31}NaO_2$ = 278.4); the content of sodium stearate is not less than 40% of the total. It contains small amounts of the sodium salts of other fatty acids. A fine, white powder, soapy to the touch, usually with a slight tallow-like odour. Slowly soluble in cold water and in cold alcohol; readily soluble in hot water and in hot alcohol. Protect from light.

Profile
Sodium stearate is an emulsifying and stiffening agent used in a variety of topical and rectal preparations.

Sodium Stearyl Fumarate

Fumarato de estearilo y sodio; Natrii stearylis fumaras; Natrio stearilfumaratas; Natriumstearylfumarat; Natrium-stearyl-fumarát; Natriumstearylifumaraatti; Nátrium-sztearil-fumarát; Stéaryle (fumarate de) sodique.

Натрия Стеарилфумарат

$C_{22}H_{39}NaO_4$ = 390.5.
CAS — 4070-80-8.

Pharmacopoeias. In *Eur.* (see p.vii). Also in *USNF.*
Ph. Eur. 6.2 (Sodium Stearyl Fumarate). A fine, white or almost white powder with agglomerates of flat, circular shaped particles. Practically insoluble in water, in alcohol, and in acetone; slightly soluble in methyl alcohol.
USNF 26 (Sodium Stearyl Fumarate). A fine white powder. Practically insoluble in water; slightly soluble in methyl alcohol.

Profile
Sodium stearyl fumarate is used as a lubricant in the manufacture of tablets and capsules.

Sodium Tetradecyl Sulfate *(rINN)*

Natrii Tetradecylis Sulfas; Natriumtetradecylsulfat; Natriumtetradekyylisulfaatti; Sodium Tetradecyl Sulphate; Tetradecilsulfato de sodio; Tétradécyl Sulfate de Sodium. Sodium 4-ethyl-1-isobutyloctyl sulfate.

Натрия Тетрадецил Сульфат

$C_{14}H_{29}NaO_4S$ = 316.4.
CAS — 139-88-8.
ATC — C05BB04.
ATC Vet — QC05BB04.

Pharmacopoeias. *Br.* includes as a concentrated form.
BP 2008 (Sodium Tetradecyl Sulphate Concentrate). A clear, colourless gel. Store at a temperature not exceeding 25°. Protect from light.

Adverse Effects and Precautions
The complications of injection sclerotherapy with sclerosants such as sodium tetradecyl sulfate are discussed under Monoethanolamine Oleate, p.2346.

Uses and Administration
Sodium tetradecyl sulfate is an anionic surfactant. It has sclerosing properties and is used in the treatment of varicose veins (p.2347). It has also been given in the management of bleeding oesophageal varices (p.2346), and tried in endoscopic injection therapy for nonvariceal bleeding associated with peptic ulcer disease (p.1702).

For sclerotherapy of varicose veins a solution of sodium tetradecyl sulfate is injected slowly into the lumen of an isolated segment of an emptied superficial vein, followed by compression. Solutions are available in a variety of strengths (0.2 to 3%); doses depend on the site and condition being treated. A test dose is advisable in patients with a history of allergy. Facilities for treating anaphylaxis should be available.

Preparations

BP 2008: Sodium Tetradecyl Sulphate Injection.

Proprietary Preparations (details are given in Part 3)

Arg.: Fibro-Vein; ***Austral.:*** Fibro-Vein†; ***Canad.:*** Tromboject; Trombovar†; ***Cz.:*** Fibro-Vein†; ***Fr.:*** Trombovar; ***Hung.:*** Fibro-Vein; ***Irl.:*** Fibro-Vein; ***Ital.:*** Fibro-Vein; Trombovar; ***Malaysia:*** Trombovar†; ***Neth.:*** Trombovar; ***NZ:*** Fibro-Vein; ***Rus.:*** Trombovar (Тромбовар); ***S.Afr.:*** Fibrovein; STD; ***UK:*** Fibro-Vein; ***USA:*** Sotradecol.

Soft Soap

Green Soap; Jabón blando; Jabón de potasa; Jabón verde; Medicinal Soft Soap; Mydło potasowe; Potassium Soap; Sabão Mole; Sapo Mollis.

Зелёное Мыло; Калиевое Мыло

Pharmacopoeias. In *Br., Chin.,* and *US.*
BP 2008 (Soft Soap). It is made by the interaction of potassium hydroxide or sodium hydroxide with a suitable vegetable oil or oils or their fatty acids. It may be coloured with chlorophyll or not more than 0.015% of a suitable green soap dye. A yellowish-white to green or brown, unctuous substance. Soluble in water and in alcohol.
USP 31 (Green Soap). It is made by the saponification of suitable vegetable oils, excluding coconut oil and palm kernel oil, without the removal of glycerol. The method given in the USP 31 involves mixing the oil with oleic acid and to the heated mixture adding potassium hydroxide dissolved in glycerol and water. The homogeneous emulsion is then adjusted to weight with hot water. A yellowish-white to brownish- or greenish-yellow, transparent to translucent, soft unctuous mass with a slight, characteristic odour.

Adverse Effects and Treatment
Soaps and anionic detergents, in general, may be irritant to the skin by removing natural oils and may produce redness, soreness, cracking and scaling, and papular dermatitis. There may be some irritation of the mucous membranes and this limits the use of soap enemas; marked irritation may occur if soaps or detergents enter the eye. Ingestion of anionic detergents may cause gastrointestinal irritation with nausea, diarrhoea, intestinal distension, and occasionally vomiting. Treatment is symptomatic.

Uses
Soft soap is used to remove incrustations in chronic scaly skin diseases such as psoriasis (p.1583) and to cleanse the scalp before the application of lotions. A solution of soft soap in warm water has been used as an enema to soften impacted faeces but should be avoided as it may inflame the colonic mucosa; other measures are now preferred (see Constipation, p.1693). Alcoholic solutions of soft soap, such as Soap Spirit (BP 2008) and Green Soap Tincture (USP 31), are used as skin cleansers and detergents.

Potash soap (linseed oil soap) has been used in the preparation of liquid soaps. Hard soap (castile soap) and curd soap were formerly used as pill excipients and hard soap was also formerly used in the preparation of plasters.

Preparations

BP 2008: Soap Spirit;
USP 31: Green Soap; Green Soap Tincture.

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Austria:*** Waldheim Abfuhrdragees forte; Waldheim Abfuhrdragees mild; ***Spain:*** Linimento Naion; ***USA:*** Therevac Plus; Therevac SB.

Sulfated Castor Oil

Aceite de ricino sulfatado; Ol. Ricin. Sulphat.; Oleum Ricini Sulphatum; Red Oil; Sulfonated Castor Oil; Sulphated Castor Oil; Turkey-red Oil.

Ализариновое Масло; Сульфированное Касторовое Масло

CAS — 8002-33-3.

Profile
Sulfated castor oil is a detergent and wetting agent derived from castor oil (p.2278); it has been used as a skin cleanser and emulsifying agent. Sodium ricinoleate has been used similarly.

Sulfated hydrogenated castor oil (hydroxystearin sulfate) has been used in the manufacture of hydrophilic ointment bases and other emulsions.

Zinc Stearate

Cinko stearatas; Cink-sztearát; Cynku stearynian; Estearato de zinc; Sinkkistearaatti; Stearan zinečnatý; Zinc, stéarate de; Zinci stearas; Zinkstearat.

Стеарат Цинка

CAS — 4991-47-3 (zinc palmitate); 557-05-1 (zinc stearate).

Pharmacopoeias. In *Eur.* (see p.vii) and *US.*
Ph. Eur. 6.2 (Zinc Stearate). Zinc stearate [$(C_{17}H_{35}CO_2)_2Zn$ = 632.3] may contain varying proportions of zinc palmitate [$(C_{15}H_{31}CO_2)_2Zn$ = 576.2] and zinc oleate [$(C_{17}H_{33}CO_2)_2Zn$ = 628.3]. A light, white or almost white, amorphous powder, free from gritty particles. Practically insoluble in water and in dehydrated alcohol.
USP 31 (Zinc Stearate). A compound of zinc with a mixture of solid organic acids obtained from fats and consisting mainly of variable proportions of zinc stearate [$(C_{17}H_{35}CO_2)_2Zn$ = 632.3] and zinc palmitate [$(C_{15}H_{31}CO_2)_2Zn$ = 576.2]. A fine, white, bulky powder, free from grittiness, with a faint characteristic odour. Insoluble in water, in alcohol, and in ether.

Adverse Effects
Zinc stearate inhalation has caused fatal pneumonitis, particularly in infants.

Uses
Zinc stearate is added to granules as a lubricant in the manufacture of tablets and capsules.

Zinc stearate has also been used as a soothing and protective application in the treatment of skin inflammation. It may be used either alone or with other powders or in the form of a cream.

Preparations

USP 31: Compound Clioquinol Topical Powder.

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Arg.:*** Prurisedan; ***Ital.:*** Steril Zeta; ***Switz.:*** Hydrocortisone compositum; ***Thai.:*** Banocin; ***UK:*** Simpsons.

Stabilising and Suspending Agents

The stabilising and suspending agents described in this chapter have the property of increasing the viscosity of water when dissolved or dispersed. The rheological properties of the dispersions can vary widely from thin liquids to thick gels.

They have wide applications both in pharmaceutical manufacturing and in the food industry. As well as being used as thickening and suspending agents many are used in emulsions as stabilisers and in some cases as emulsifying agents; some are also used in the manufacture of tablets as disintegrants, binding and granulating agents, and for film or enteric coating.

Some are used in artificial tear and artificial saliva preparations which are used in the management of dry eye and dry mouth respectively. Those most commonly used are carbomers, cellulose ethers such as carmellose and hypromellose, polyvinyl alcohol, and povidone. Some, such as the alginates and methylcellulose, are also used in gastrointestinal disorders.

Dry eye

Dry eye is a chronic condition caused by instability of the tear film covering the eye; the tear film breaks up to leave dry spots rather than being maintained between blinks. Tears consist of a slightly alkaline fluid that is spread across the eye by blinking and is lost via the lachrymal ducts or by evaporation. Mucus secreted by the conjunctiva is also required to maintain tear film stability and dry eye can result from reduced production of either tears or conjunctival mucus. Reduced tear secretion is common in the elderly, but also occurs in some systemic disorders or as an adverse effect of drugs such as those, like tricyclic antidepressants, that have antimuscarinic effects. Tear film instability may also result from increased tear evaporation, for example due to corneal exposure in thyroid disease, or from lid, corneal, or other eye disorders.

The main symptoms of dry eye are discomfort, typically with a chronic gritty sensation, visual disturbances, and sometimes photophobia. If left untreated corneal ulceration and eventual loss of sight may occur. Keratoconjunctivitis sicca (corneal inflammation) may result from severe dry eye in Sjögren's syndrome (see below).

Treatment of dry eye is primarily symptomatic using 'artificial tears' preparations; eye drops containing hypromellose or other cellulose ethers (carmellose, hyetellose, methylcellulose), polyvinyl alcohol, or povidone are used. Carbomer, in liquid gel formulations, and ointments containing soft or liquid paraffins are also used. Ointments have a longer duration of action than drops, but tend to blur the vision and are most suitable for use at night. Drops should be used as frequently as required, up to hourly or more often if necessary. Frequent use of eye drops may cause sensitivity to the preservative, in which case preservative-free preparations should be considered. An alternative in patients needing very frequent instillation of drops is a slow-release ophthalmic insert of hyprolose. Punctal occlusion with gelatin rods or collagen implants is used diagnostically to block tear outflow and treatment by permanent occlusion may be considered. Mucus build-up due to reduced tear production may respond to topical mucolytics such as acetylcysteine or bromhexine. Topical immunosuppressants such as ciclosporin may be of benefit in some patients with keratoconjunctivitis sicca;[1] combination of topical ciclosporin with punctal occlusion has been tried.[2]

Sjögren's syndrome is an auto-immune inflammatory disease primarily affecting the lachrymal and salivary glands, and manifests as dry eye and dry mouth. It is often secondary to an auto-immune disorder such as rheumatoid arthritis.[3] Treatment is mainly symptomatic[4] using artificial tears and topical mucolytics for dry eye; dry mouth is treated with artificial saliva as outlined below. Oral pilocarpine may be of benefit for both dry eye and dry mouth;[5,6] systemic treatment with the mucolytic bromhexine has produced conflicting results.[7-9] Corticosteroids and immunosuppressants may have a role in patients with CNS involvement.[10]

1. Anonymous. Ophthalmic cyclosporine (Restasis) for dry eye disease. *Med Lett Drugs Ther* 2003; **45:** 42–3.
2. Roberts CW, *et al.* Comparison of topical cyclosporine, punctal occlusion, and a combination for the treatment of dry eye. *Cornea* 2007; **26:** 805–9.
3. Fox RI. Sjögren's syndrome. *Lancet* 2005; **366:** 321–31.
4. Oxholm P, *et al.* Rational drug therapy: recommendations for the treatment of patients with Sjögren's syndrome. *Drugs* 1998; **56:** 345–53.
5. Vivino FB, *et al.* Pilocarpine tablets for the treatment of dry mouth and dry eye symptoms in patients with Sjögren syndrome: a randomized, placebo-controlled, fixed-dose, multicenter trial. *Arch Intern Med* 1999; **159:** 174–81.
6. Tsifetaki N, *et al.* Oral pilocarpine for the treatment of ocular symptoms in patients with Sjögren's syndrome: a randomised 12 week controlled study. *Ann Rheum Dis* 2003; **62:** 1204–7.
7. Frost-Larsen K, *et al.* Sjögren's syndrome treated with bromhexine: a randomised clinical study. *BMJ* 1978; **i:** 1579–81.
8. Tapper-Jones LM, *et al.* Sjögren's syndrome treated with bromhexine: a reassessment. *BMJ* 1980; **280:** 1356.
9. Prause JU, *et al.* Lacrimal and salivary secretion in Sjögren's syndrome: the effect of systemic treatment with bromhexine. *Acta Ophthalmol (Copenh)* 1984; **62:** 489–97.
10. Rogers SJ, *et al.* Myelopathy in Sjögren's syndrome: role of nonsteroidal immunosuppressants. *Drugs* 2004; **64:** 123–32.

Dry mouth

Dryness of the mouth (xerostomia) resulting from decreased salivary secretion is often an adverse effect of therapy with drugs such as antimuscarinics, antihistamines, tricyclic antidepressants, and diuretics. Other causes include dehydration, anxiety, Sjögren's syndrome (see Dry Eye, above), and radiotherapy of the head and neck. Dry mouth can cause eating difficulties and lead to oral disease such as candidiasis, dental caries, and bacterial infections.[1,2] Where possible any underlying disorder should be treated first.

Frequent sips of fluids help to relieve dry mouth. Artificial saliva products are also important in the symptomatic treatment of dry mouth. They aim to mimic normal saliva and generally contain viscosity-increasing agents, such as mucins or cellulose derivatives such as carmellose,[3,4] as well as electrolytes, including fluoride; they seldom relieve symptoms for more than 1 or 2 hours. It may be possible to stimulate saliva production with sialogogues such as sugarless chewing gum or citrus products but the low pH of the latter can damage the teeth. Malic acid has also been used as a sialogogue.

A number of systemic therapies have also been tried. Pilocarpine is an effective sialogogue, increasing salivary production where some function remains,[5] and is used in dry mouth following radiotherapy; it may also be effective in Sjögren's syndrome or other causes of dry mouth. Adverse effects, particularly increased sweating, may, however, limit its use.[6] Carbachol has been suggested as an alternative to pilocarpine with a study[7] reporting comparable efficacy but less sweating. Anethole trithione and cevimeline have been used similarly. Amifostine is used for the prevention of dry mouth associated with radiotherapy.

1. Fox PC. Management of dry mouth. *Dent Clin North Am* 1997; **41:** 863–75.
2. Silvestre-Donat FJ, *et al.* Protocol for the clinical management of dry mouth. *Med Oral* 2004; **9:** 276–9.
3. Vissink A, *et al.* A clinical comparison between commercially available mucin- and CMC-containing saliva substitutes. *Int J Oral Surg* 1983; **12:** 232–8.
4. Duxbury AJ, *et al.* A double-blind cross-over trial of a mucin-containing artificial saliva. *Br Dent J* 1989; **166:** 115–20.
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6. Davies AN, Shorthose K. Parasympathomimetic drugs for the treatment of salivary gland dysfunction due to radiotherapy. Available in The Cochrane Database of Systematic Reviews; Issue 3. Chichester: John Wiley; 2007 (accessed 23/06/08).
7. Joensuu H. Treatment for post-irradiation xerostomia. *N Engl J Med* 1994; **330:** 141–2.

Acacia

Acac.; Acaciae gummi; Akaasiakumi; Akaciagummi; Arabmézga; Arabská klovatina; E414; Goma arábiga; Gomme arabique; Gomme de Sénégal; Gum Acacia; Gum Arabic; Guma arabska; Gumiarabikas; Gummi Africanum; Gummi Arabicum; Gummi Mimosae.

CAS — 9000-01-5.

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

Ph. Eur. 6.2 (Acacia). The air-hardened gummy exudate from the trunk and branches of *Acacia senegal*, other species of *Acacia* of African origin, and *Acacia seyal*. Yellowish-white, yellow, or pale amber tears, sometimes with a pinkish tint. It is friable, opaque, frequently with a cracked surface, easily broken into irregular, whitish or slightly yellowish angular fragments with conchoidal fracture and a glassy and transparent appearance. Very slowly but almost completely soluble, after about 2 hours, in twice its mass of water leaving only a very small residue of vegetable particles; the liquid obtained is colourless or yellowish, dense, viscous, adhesive, translucent, and weakly acid to blue litmus paper. Practically insoluble in alcohol. Protect from light.

Ph. Eur. 6.2 (Acacia, Spray-dried; Acaciae Gummi Dispersione Desiccatum). It is obtained from a solution of acacia. Dissolves, rapidly and completely, after about 20 minutes, in twice its mass of water. The liquid obtained is colourless or yellowish, dense, viscous, adhesive, translucent, and weakly acid to blue litmus paper. Practically insoluble in alcohol. Protect from light.

USNF 26 (Acacia). The dried gummy exudate from the stems and branches of *Acacia senegal* (Leguminosae) or of other related African species of *Acacia*. Spheroidal tears or angular fragments of white to yellowish-white colour. It is translucent or somewhat opaque from the presence of numerous minute fissures. It is very brittle, the fractured surface is glassy and occasionally iridescent. It is also available as flakes, powder, granules, or as a spray-dried form. It is practically odourless. Insoluble in alcohol. Store in airtight containers.

Incompatibility. Incompatibilities of acacia have been reported with a number of substances including alcohol, aminophenazone, apomorphine, cresol, ferric salts, morphine, phenol, physostigmine, tannins, thymol, and vanillin. Acacia contains an oxidising enzyme that may affect preparations containing easily oxidised substances; the enzyme may be inactivated by heating at 100° for a short time.

Adverse Effects

Hypersensitivity reactions have occurred rarely after inhalation or ingestion of acacia.

Uses

Acacia is used in pharmaceutical manufacturing as a suspending and emulsifying agent, as a tablet binder, and in pastilles. It is often used with tragacanth.

It is used as an emulsifier and stabiliser in the food industry.

Preparations

USNF 26: Acacia Syrup.

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Indon.:*** Norflam.

Agar

Agar-agar; Agaras; Colle du Japon; E406; Gelosa; Gélose; Japanese Isinglass; Layor Carang.

CAS — 9002-18-0.

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

Ph. Eur. 6.2 (Agar). Polysaccharides extracted from various species of Rhodophyceae algae, mainly those belonging to the genus *Gelidium*. It is prepared by treating the algae with boiling water; the extract is filtered while hot, concentrated, and dried. Colourless to pale yellow translucent strips, flakes, or powder; tough when damp but becoming more brittle on drying.

USNF 26 (Agar). The dried, hydrophilic, colloidal substance extracted from *Gelidium cartilagineum* (Gelidiaceae), *Gracilaria confervoides* (Sphaerococcaceae), and related red algae (Class Rhodophyceae). It usually consists of thin, membranous, agglutinated strips, but may occur in cut, flaked, or granulated forms. May be weak yellowish-orange, yellowish-grey to pale yellow, or colourless. It is tough when damp, brittle when dry. Odourless or has a slight odour. Insoluble in cold water; soluble in boiling water.

Uses and Administration

Agar is used as a suspending or thickening agent in pharmaceutical manufacturing and as an emulsifying and stabilising agent in the food industry.

It was formerly used similarly to methylcellulose (p.2145) as a bulk laxative. Preparations containing agar with liquid paraffin and phenolphthalein are available to treat constipation, but the relatively small amount of agar in these probably acts solely as an emulsion stabiliser.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Arg.:*** Agarol; Usar Fibras†; ***Austral.:*** Lexat†; ***Braz.:*** Agarol; Fenogar†; ***Chile:*** Agarol; ***Fr.:*** Pseudophage; ***India:*** Agarol†; ***Port.:*** Byl†; ***Switz.:*** Paragar; ***USA:*** Agoral; ***Venez.:*** Agarol†.

Alginic Acid

Acide alginique; Acidum alginicum; Algiinihappo; Algínico, ácido; Algino rūgštis; Alginsav; Alginsyra; Aljinik Asit; E400; Kyselina alginová; Polymannuronic Acid.

CAS — 9005-32-7.

ATC — A02BX13.

ATC Vet — QA02BX13.