

Profile

Magnesium peroxide is used as an antiseptic. It is also an ingredient of preparations for gastrointestinal disorders.

Preparations

Proprietary Preparations (details are given in Part 3)

Ger.: Ozovit†.

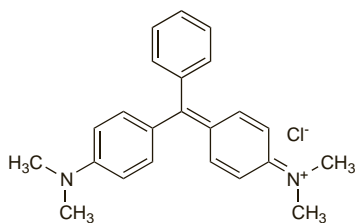
Multi-ingredient: **Israel:** Digestif-Ara†; **Ital.:** Carbonesia; Ektogan; **Switz.:** Desaquick extra fresh†; Desaquick fresh†; Magenpulver Hafter†.

Malachite Green

Aniline Green; China Green; CI Basic Green 4; Colour Index No. 42000; Diamond Green B; Verde de malaquita; Viride Malachitum; Zieleń malachitowa. [4-(4-Dimethylaminobenzhydrylidene)cyclohexa-2,5-dienylidene]dimethylammonium chloride.

CAS — 569-64-2.

ATC Vet — QP53AX16.

**Profile**

Malachite green is a triphenylmethane antiseptic dye with actions similar to those of brilliant green (p.1632). It has been used for skin disinfection.

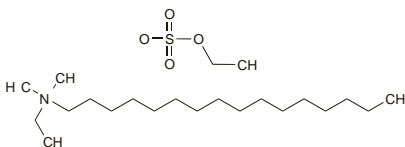
Mecetronium Etilsulfate (BAN, rINN)

Etilsulfato de mecetronio; Mecetronii Etilsulfas; Mecetronium Etilsulfate (USAN); Mecetronium Etilsulphate; Mécétronium, Etilsulfate de. Ethylhexadecyldimethylammonium ethyl sulphate.

Мецетрония Этилсульфат

C₂₂H₄₉NO₄S = 423.7.

CAS — 3006-10-8.

**Profile**

Mecetronium etilsulfate is a quaternary ammonium antiseptic with actions and uses similar to those of other cationic surfactants (see Cetrimide, p.1634). It is active against bacteria, including mycobacteria, fungi, and viruses, including hepatitis B virus. It is used in alcoholic solution for disinfection of the skin and hard surfaces.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Fr.:** Sterillium†; **Ger.:** Bacillo; St-Tissues; Sterillium; **Gr.:** Sterillium; **Neth.:** Sterillium; **Switz.:** Sterillium†.

Merbromin (rINN)

Disodium 2,7-dibromo-4-hydroxymercurifluorescein; Merbromina; Merbromine; Merbrominum; Mercurcescine Sodique; Mercurochrome; Mercurodibromofluorescein; Merkürokrom. The disodium salt of [2,7-dibromo-9-(2-carboxyphenyl)-6-hydroxy-3-oxo-3H-xanthen-5-yl]hydroxymercury.

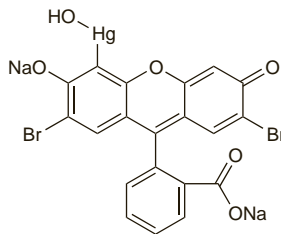
Мербромин

C₂₀H₈Br₂HgNa₂O₆ = 750.7.

CAS — 129-16-8.

ATC — D08AK04.

ATC Vet — QD08AK04.



NOTE: The use of the name Merbromin is limited; in some countries it is a trade-mark.

Pharmacopoeias. In *Fr., It., Jpn., and Viet.*

Incompatibility. Merbromin is incompatible with acids, most alkaloidal salts, many local anaesthetics, metals, and sulfides. Activity may be reduced in the presence of organic material.

Adverse Effects and Treatment

As for Mercury, p.2341.

◇ General references.

1. Risher JF, *et al.* Organic mercury compounds: human exposure and its relevance to public health. *Toxicol Ind Health* 2002; **18**: 109-60.

Toxicity. Reports of merbromin toxicity have included contact dermatitis¹ and epidermal cell toxicity.² A fatality has occurred after transcutaneous absorption of merbromin during treatment of infected omphalocele (umbilical hernia)^{3,4} and death due to shock, with aplastic anaemia, has followed application to surgical wounds and decubitus areas.⁵ Anaphylaxis has also occurred.⁶ Extensive absorption after ingestion has also been reported.⁷ There has also been a case report⁸ of severe encephalopathy and meningitis within 24 hours of an accidental intrathecal application into a CSF fistula.

1. Camarasa G. Contact dermatitis from mercurochrome. *Contact Dermatitis* 1976; **2**: 120.
2. Anonymous. Topical antiseptics and antibiotics. *Med Lett Drugs Ther* 1977; **19**: 83-4.
3. Yeh T-F, *et al.* Mercury poisoning from mercurochrome therapy of infected omphalocele. *Lancet* 1978; **1**: 210.
4. Yeh TF, *et al.* Mercury poisoning from mercurochrome therapy of an infected omphalocele. *Clin Toxicol* 1978; **13**: 463-7.
5. Slee PHJT, *et al.* A case of Merbromin (mercurochrome) intoxication possibly resulting in aplastic anemia. *Acta Med Scand* 1979; **205**: 463-6.
6. Galindo PA, *et al.* Mercurochrome allergy: immediate and delayed hypersensitivity. *Allergy* 1997; **52**: 1138-41.
7. Magarey JA. Absorption of mercurochrome. *Lancet* 1993; **342**: 1424.
8. Stark AM, *et al.* Accidental intrathecal mercury application. *Eur Spine J* 2004; **13**: 241-3.

Uses and Administration

Merbromin is a mercurial antiseptic that has been used for disinfection of skin and wounds.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg.: Rojobacter†; **Belg.:** Medichrom; **Braz.:** Mercurio Cromo†; **Fr.:** Pharamdose mercurcescine†; Soluchrom; **Ger.:** Mercurchrom†; **Gr.:** Merbromin; Mercurochrome; **Ital.:** Cromocur†; **S.Afr.:** Red Seal; **Spain:** Cinfacromin; Cromer Orto; Merchromina; Mercurin; Mercurobromo; Mercurina Brota; Super Cromer Orto; **Turk.:** Mersol.

Multi-ingredient: **S.Afr.:** Achromide; Daromide; Ung Vernleish; **Spain:** Argentocromo†; Mercurona; **Venez.:** Thimerfesa†.

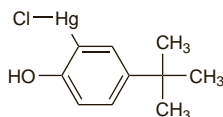
Mercurobutol (rINN)

L-542; Mercurobutolum. 4-tert-Butyl-2-chloro-mercuriphenol.

Меркуробутол

C₁₀H₁₃ClHgO = 385.3.

CAS — 498-73-7.



Pharmacopoeias. In *Fr.*

Profile

Mercurobutol is an organic mercurial antiseptic with antifungal properties. It has been used in the treatment of infections of the skin and mucous membranes.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Gr.:** Sabeny†.

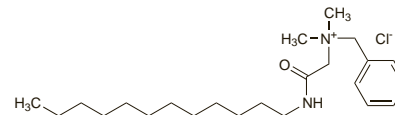
Metalkonium Chloride (rINN)

Cloruro de metalconio; Dodecarbonyl Chloride; Metalkonii Chloridum; Métalkonium, Chlorure de. Benzyl(dodecylcarbamoylmethyl)dimethylammonium chloride.

Металкония Хлорид

C₂₃H₄₁ClN₂O = 397.0.

CAS — 100-95-8.

**Profile**

Metalkonium chloride is an antiseptic used for skin disinfection.

Preparations

Proprietary Preparations (details are given in Part 3)

Ital.: Theotex.

Methylated Spirits

Alcoholes desnaturalizados.

CAS — 8013-52-3 (ethyl alcohol-methyl alcohol mixture; industrial methylated spirit).

Description. Three classes of methylated spirits are listed under the Methylated Spirits Regulations, 1987 (SI 1987: No. 2009): industrial methylated spirits, mineralised methylated spirits, and denatured ethanol (denatured alcohol).

Industrial Methylated Spirits is defined as 95 parts by volume of spirits mixed with wood naphtha (mostly methyl alcohol—p.2024) 5 parts by volume. **Mineralised methylated spirits** is spirits mixed with wood naphtha 9.5 parts by volume and crude pyridine 0.5 parts by volume, and to every 2000 litres of this mixture is added 7.5 litres of mineral naphtha (petroleum oil) and 3 g of synthetic organic dyestuff (methyl violet). This is the only variety that may be sold in Great Britain for general use. **Denatured ethanol** is 999 parts by volume of spirits (of a strength not less than 85%) mixed with 1 part by volume of tertiary butyl alcohol, and to this mixture is added Bitrex (denatonium benzoate) 10 mg/litre.

As Industrial Methylated Spirit may contain small amounts of acetone it should not be used for the preparation of iodine solutions, since an irritating compound is formed by reaction between iodine and acetone; for such preparations Industrial Methylated Spirit (Ketone-free) should be used.

Pharmacopoeias. **Br.** includes Industrial Methylated Spirit and Industrial Methylated Spirit (Ketone-free).

BP 2008 (Industrial Methylated Spirit). A mixture of 19 volumes of ethyl alcohol of an appropriate strength with 1 volume of approved wood naphtha. Two strengths are available containing 99% and 95% v/v alcohol (also known as 74 OP and 66 OP respectively). It is a colourless, clear, mobile, volatile liquid with an odour which is spirituous and of wood naphtha. B.p. is about 78°.

The BP 2008 gives Industrial Methylated Spirits and IMS as approved synonyms.

BP 2008 (Industrial Methylated Spirit (Ketone-free)). A mixture of the same strength as Industrial Methylated Spirit, but it is substantially free from ketones, containing not more than the equivalent of 500 ppm of acetone.

Adverse Effects

As for Alcohol, p.1625, and Methyl Alcohol, p.2024. Adverse effects are due chiefly to consumption of methylated spirits rather than its topical use as a disinfectant.

Uses and Administration

Industrial methylated spirit, in a concentration of about 70%, is the usual form in which alcohol (p.1625) is used for disinfection. It is applied externally for its astringent action, but mucous membranes and excoriated skin surfaces must be protected. It may be used for skin preparation before injection.

Methylated spirits may be used in the form of Surgical Spirit (BP 2008), a mixture of methyl salicylate (0.5% v/v), diethyl phthalate (2% v/v), and castor oil (2.5% v/v) in industrial methylated spirit.

Preparations

BP 2008: Surgical Spirit.

Proprietary Preparations (details are given in Part 3)

Ital.: Eosan Gel.