

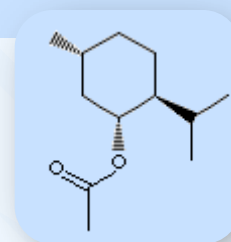
L-MENTHYL ACETATE

SYNONYMS

(-)-Menthyl acetate; (1R,2S,5R)-5-Methyl-2-isopropyl-cyclohexanyl acetate; Acetic acid L-p-menth-3-yl ester; L-2-Isopropyl-5-methylcyclohexan-1-ol acetate; L-Menthyl acetate; L-p-Menth-3-yl acetate; (1R,2S,5R)-5-Methyl-2-(1-methylethyl)cyclohexanol 1-acetate; (1R-(1alpha,2beta,5alpha))-5-Methyl-2-(1-methylethyl)cyclohexanol acetate; (5-Methyl-2-propan-2-ylcyclohexyl) acetate; (1theta-(1alpha,2beta,5alpha))-5-amethyl-2-(1-methylethyl)cyclohexanol acetate; L-Menthyl acetate; (1R,3R,4S)-(-)-Menthol acetate; FEMA No. 2668;

PRODUCT IDENTIFICATION

CAS RN	2623-23-6
EINECS RN	220-076-0
FORMULA	C ₁₂ H ₂₂ O ₂
MOLE WEIGHT	198.31



PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Colorless to pale yellow oily liquid
MELTING POINT	< 25 C
BOILING POINT	229 – 230 C
DENSITY	0.924 - 0.929
SOLUBILITY IN WATER	Slightly soluble (soluble in alcohol, fixed oils)
pH	
VAPOR DENSITY	
REFRACTIVE INDEX	1.4470 - 1.4490
FLASH POINT	92 C

STABILITY AND REACTIVITY

STABILITY	Stable under normal conditions.
INCOMPATIBLE MATERIALS	Strong acids, alkali, oxidizing agents.
DECOMPOSITION PRODUCTS	Carbon oxides, nitrogen oxides
POLYMERIZATION	Has not been reported
NFPA RATINGS	

SAFETY

HAZARD NOTES	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid release to the environment. Refer to special instructions/Safety data sheets.
EYE	Cause eye irritation.
SKIN	Harmful if absorbed through skin. Cause skin irritation.
INGESTION	Cause gastrointestinal irritation with nausea, vomiting and diarrhea.
INHALATION	Avoid breathing directly on the product.



L-MENTHYL ACETATE

CHRONIC

TRANSPORT & REGULATORY INFORMATION

UN NO.	3082
HAZARD CLASS	9
PACKING GROUP	III
HAZARD SYMBOL	N
RISK PHRASES	51/53
SAFETY PHRASES	61

OTHER INFORMATION

Menthol is an organic compound naturally occurring in mint plants. It is also synthetically manufactured. Menthol is widely used in a number of products and features certain therapeutic qualities. It was first isolated from peppermint oil in 1771 in the West, but it may have been in use in Japan for much longer. Most of menthol's uses are related to its stimulation of the skin's cold receptors. This property makes menthol produce a cooling effect when inhaled or applied to the skin. Similarly to the capsaicin chemical found in hot peppers, which stimulates heat receptors, menthol does not actually change the skin's temperature, but merely produces the sensation of temperature change. Because of its cooling effect, menthol is used in products meant to relieve skin irritation, sore throat, or nasal congestion. It may be used to treat sunburn, fever, or muscle aches as well. In traditional Asian medicine, menthol may be prescribed for nausea, diarrhea, indigestion, headache, cold, or sore throat. When used as a supplement for health reasons, menthol is usually taken in the form of peppermint oil. Products that commonly contain menthol include toothpaste, cough drops, lip balm, mouthwash, gum, and cigarettes. (source: <http://www.wisegeek.com/>)

Menthol is a terpene alcohol with a strong minty, cooling odour and taste. It is obtained from peppermint oil or is produced synthetically by hydrogenation of thymol. Menthol is used medicinally in ointments, cough drops, and nasal inhalers. It is also used as flavouring in foods, cigarettes, liqueurs, cosmetics, and perfumes. The menthol molecule can exist as one of two enantiomers (mirror-image isomers). The naturally occurring material is the levorotatory form (the compound that rotates the plane of polarized light to the left), called (-)-menthol (or l-menthol). Synthetic menthol is racemic, consisting of equal amounts (-)-menthol and (+)-menthol (or d-menthol), the latter being the isomer that rotates the plane of polarized light to the right. (source: <http://www.britannica.com/>)

Peppermint is a cooling, relaxing herb that contains properties that help ease inflamed tissues, calm muscle spasms or cramps, and inhibit bacteria and microorganisms. It also has pain-relieving and infection-preventing qualities. The medicinal parts of peppermint are derived from the whole plant, and include a volatile oil, flavonoids, phenolic acids, and triterpenes. The plant is primarily cultivated for its oil, which is extracted from the leaves of the flowering plant. The essential oil contains the principal active ingredients of the plant: menthol, menthone, and menthyl acetate. Menthyl acetate is responsible for peppermint's minty aroma and flavor. Menthol, peppermint's main active ingredient, is found in the leaves and flowering tops of the plant. It provides the cool sensation of the herb. (source: <http://www.healthline.com/>)

Menthyl acetate is milder than menthol. It is used in floral notes especially of roses, giving freshness and lift at the same time without a very strong minty note. It gives a lavender odor and has been used to flavor



L-MENTHYL ACETATE

caraway extracts or for mint flavors.

SALES SPECIFICATION

APPEARANCE	Colorless to pale yellow oily liquid
ASSAY	98.0% min (GC)
SPECIFIC GRAVITY	0.924 - 0.929
REFRACTIVE INDEX	1.4470 - 1.4490
OPTICAL ROTATION	-79.5° ~ -81.5° (c = 8% in benzene)

PACKING

PRICE

