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1. Identification

Product identifier used on the label

L-Menthyl acetate FCC

Recommended use of the chemical and restriction on use

Recommended use*: Chemical, Chemical for detergents, Cosmetic and oral care chemical, flavoring substance

Unsuitable for use: Not intended for sale to or use by the general public.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Synonyms: L-Menthyl acetate

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Aquatic Acute 2 Hazardous to the aquatic environment - acute Aquatic Chronic 2 Hazardous to the aquatic environment - chronic

^{*} The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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Label elements

Pictogram:



Hazard Statement:

H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P273 Avoid release to the environment.

Precautionary Statements (Response): P391 Collect spillage.

Precautionary Statements (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

No data available.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Cyclohexanol, 5-methyl-2-(1-methylethyl)-, 1-acetate, (1R,2S,5R)-

CAS Number: 2623-23-6

Content (W/W): >= 75.0 - <= 100.0%

Synonym: No data available.

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

If on skin:

Wash thoroughly with soap and water

If in eves:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Rinse mouth and then drink 200-300 ml of water.

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Most important symptoms and effects, both acute and delayed

Symptoms: No data available.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: carbon dioxide, dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons: water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting: carbon oxides, harmful vapours

The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Wear a self-contained breathing apparatus.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Cool endangered containers with water-spray.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures, see section 8.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Inform authorities in the event of product spillage to water courses or sewage systems.

Methods and material for containment and cleaning up

For small amounts: Contain with absorbent material (e.g. sand, silica gel, acid binder, general purpose binder, sawdust).

For large amounts: Dike spillage. Pump off product.

Dispose of absorbed material in accordance with regulations.

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7. Handling and Storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Take precautionary measures against static discharges. Avoid all sources of ignition: heat, sparks, open flame.

Conditions for safe storage, including any incompatibilities

Odour-sensitive: Segregate from products releasing odours.

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

Personal protective equipment

Respiratory protection:

Breathing protection if gases/vapours are formed. Wear a NIOSH-certified (or equivalent) respirator as necessary.

Hand protection:

Wear impermeable chemical resistant protective gloves.

Eye protection:

Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

9. Physical and Chemical Properties

Form: liquid

Odour: of peppermint oil, fruity, herbal

Odour threshold: < 100 ppm
Colour: colourless
pH value: of low solubility

Melting point: -84.5 °C (OECD Guideline

(996 hPa) 102)

Freezing point: No data available.

Boiling point: 229.3 °C (OECD Guideline

(1,013 hPa) 103)

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Flash point: 98.5 °C (ISO 2719, closed

cup)

Flammability: hardly combustible (derived from flash

point)

Lower explosion limit: For liquids not relevant for

classification and labelling.

Upper explosion limit: For liquids not relevant for

classification and labelling.

Autoignition: 254 °C (DIN EN 14522) Vapour pressure: 0.45 hPa (OECD Guideline

(20 °C) 104)

Density: 0.93 g/cm³ (OECD Guideline

(20 °C, 1,013 hPa) 109)

Relative density: 0.93 (OECD Guideline

(20 °C) 109)

Vapour density: > 1 (calculated)

(20 °C)

Heavier than air.

Partitioning coefficient n- 4.39 (other)

octanol/water (log Pow): (25 °C)

Self-ignition Based on its structural properties the temperature: product is not classified as self-

igniting.

Thermal decomposition: 435 °C (DSC (DIN 51007))

Viscosity, dynamic: 4.48 mPa.s (internal method)

(20 °C)

1.92 mPa.s (internal method)

(50 °C) 0.83 mPa.s

0.83 mPa.s (internal method)

(100 °C)

Viscosity, kinematic: No data available.

Particle size: The substance / product is marketed

or used in a non solid or granular

form.

Solubility in water: 21 - 25.4 mg/l

(20°C)

Molar mass: 198.31 g/mol

Evaporation rate: Value can be approximated from

Henry's Law Constant or vapor

pressure.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

Formation of Remarks: Forms no flammable gases in the

flammable gases: presence of water.

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Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Avoid electro-static discharge. Avoid all sources of ignition: heat, sparks, open flame.

Incompatible materials

None known during use and storage if used according to instructions.

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition: 435 °C (DSC (DIN 51007))

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Oral

Type of value: LD50

Species: rat

Value: > 5,000 mg/kg (similar to OECD guideline 401)

The product has not been tested. A mixture of isomers has been tested.

Inhalation

No data available.

Dermal

Type of value: LD50 Species: rabbit

Value: > 5,000 mg/kg (similar to OECD guideline 402)

The product has not been tested. A mixture of isomers has been tested.

Assessment other acute effects

Assessment of STOT single:

Based on available data, the classification criteria are not met.

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Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.

<u>Skin</u>

Species: In vitro assay Result: non-irritant

Method: OECD Guideline 439

The product has not been tested. A mixture of isomers has been tested.

Eye

Species: rabbit Result: non-irritant

Method: OECD Guideline 405

The product has not been tested. A mixture of isomers has been tested.

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Mouse Local Lymph Node Assay (LLNA)

Species: mouse Result: Non-sensitizing. Method: OECD Guideline 429

The product has not been tested. A mixture of isomers has been tested.

Aspiration Hazard

No data available.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No substance-specific organtoxicity was observed after repeated administration to animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Genetic toxicity

Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The product has not been tested. A mixture of isomers has been tested.

Carcinogenicity

Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Reproductive toxicity

Assessment of reproduction toxicity: Repeated oral uptake of the substance did not cause damage to the reproductive organs. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

<u>Teratogenicity</u>

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

12. Ecological Information

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Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms.

Toxicity to fish

LC50 (96 h) 6.72 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EEC, C.1, semistatic) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic invertebrates

(48 h) 9.1 mg/l, Daphnia magna (Directive 92/69/EEC, C.2, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants

EC50 (72 h) 2.7 mg/l (growth rate), Selenastrum capricornutum (OECD Guideline 201, static) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

EC10 (72 h) 0.61 mg/l (growth rate), Selenastrum capricornutum (OECD Guideline 201, static) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

No data available.

Assessment of terrestrial toxicity

No data available concerning terrestrial toxicity.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

other aerobic

aerobic bacteria from a domestic water treatment plant/No observed effect concentration (14 d): 2.6 mg/l

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria).

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Elimination information

48 % BOD of the ThOD (28 d) (Directive 92/69/EEC, C.4-E) (aerobic, domestic sewage, non-adapted)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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Assessment of stability in water

In contact with water the substance will hydrolyse slowly.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on Stability in Water (Hydrolysis)

t_{1/2} 133 h (pH value 7), (OECD Guideline 111, pH 7)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulative potential

Assessment bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible.

Mobility in soil

Assessment transport between environmental compartments

The substance will slowly evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is possible.

Additional information

Other ecotoxicological advice:

No data available.

13. Disposal considerations

Waste disposal of substance:

Observe national and local legal requirements.

Container disposal:

Dispose of in accordance with national, state and local regulations.

14. Transport Information

Land transport

USDOT

Hazard class: 9
Packing group: III

ID number: UN 3082 Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains L-MENTHYL ACETATE)

Sea transport

IMDG

Hazard class: 9 Packing group: III

ID number: UN 3082 Hazard label: 9, EHSM

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Marine pollutant: YES

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains L-MENTHYL ACETATE)

Air transport IATA/ICAO

Hazard class: 9
Packing group: III

ID number: UN 3082 Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains L-MENTHYL ACETATE)

Further information

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

NFPA Hazard codes:

Health: 0 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 0 Flammability: 1 Physical hazard: 0

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Aquatic Acute 2 Hazardous to the aquatic environment - acute Aquatic Chronic 2 Hazardous to the aquatic environment - chronic

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2022/08/29

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