

Safety Data Sheet

L-Menthol FCC

Revision date : 2023/02/22
Version: 5.0

Page: 1/11
(30564715/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

L-Menthol 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: Tobaccos, tobacco products

* 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.

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: 2-isopropyl-5-methylcyclohexanol

2. Hazards Identification

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

Classification of the product

Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2B	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22
Version: 5.0

Page: 2/11
(30564715/SDS_GEN_US/EN)

Label elements

Pictogram:



Signal Word:
Warning

Hazard Statement:

H320	Causes eye irritation.
H315	Causes skin irritation.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P280	Wear protective gloves.
P273	Avoid release to the environment.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical attention.
P337 + P313	If eye irritation persists: Get medical attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
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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)-, (1R,2S,5R)-
CAS Number: 2216-51-5
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 immediately and clean before re-use or dispose it if necessary. Keep patient calm, remove to fresh air.

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22
Version: 5.0

Page: 3/11
(30564715/SDS_GEN_US/EN)

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Seek medical attention.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. If irritation develops, seek medical attention.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Information on: Cyclohexanol, 5-methyl-2-(1-methylethyl)-, (1R,2S,5R)-

Symptoms: Overexposure may cause:, Eye irritation, skin irritation, erythema, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
harmful vapours, carbon oxides
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:

Cool endangered containers with water-spray. 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.

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22
Version: 5.0

Page: 4/11
(30564715/SDS_GEN_US/EN)

Impact Sensitivity:

Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Keep people away and stay on the upwind side.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For large amounts: Sweep/shovel up.

For residues: Pick up with suitable appliance and dispose of.

Dispose of absorbed material in accordance with regulations. Cleaning operations should be carried out only while wearing breathing apparatus. Avoid dust formation.

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Keep away from sources of ignition - No smoking.

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

Segregate from oxidants. Segregate from peroxides. Segregate from pesticides and fertilizers. Segregate from strong acids.

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:

Chemical resistant protective gloves

Eye protection:

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

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22
Version: 5.0

Page: 5/11
(30564715/SDS_GEN_US/EN)

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 required additionally to the stated personal protection equipment. Avoid contact with the skin, eyes and clothing. Avoid contact with skin and eyes. Remove soiled or soaked clothing immediately. Wash off any contamination that gets onto the skin with plenty of water and soap, skin care. Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Form:	solid	
Odour:	of menthol	
Odour threshold:	< 100 ppm	
Colour:	colourless to white	
pH value:	4 - 7	
	(0.4 %(m), 20 °C)	
melting range:	41 - 44 °C	
	(1,013 hPa)	
Freezing point:	No data available.	
Boiling point:	212 °C	(measured)
	(1,013 hPa)	
	Literature data.	
Flash point:	94 °C	(ISO 3679, closed cup)
Flammability:	not highly flammable	(UN Test N.1 (ready combustible solids))
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Autoignition:	271 °C	(DIN EN 14522)
SADT:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.	
Vapour pressure:	0.804 hPa	
	(50 °C)	
	0.085 hPa	(measured)
	(25 °C)	
	Literature data., Extrapolated value	
Density:	0.878 g/cm3	(ISO 2811)
	(50 °C)	
	0.890 g/cm3	
	(20 °C)	
	Literature data.	
Relative density:	approx. 0.878	
	(50 °C)	
Bulk density:	not applicable	
Vapour density:	not applicable	
Partitioning coefficient n-octanol/water (log Pow):	3.15	(Directive 84/449/EEC, A.8)
	(25 °C)	
Self-ignition temperature:	not self-igniting	
	not self-igniting	(other)

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22
Version: 5.0

Page: 6/11
(30564715/SDS_GEN_US/EN)

Thermal decomposition:	≥ 140 °C (DSC (DIN 51007))
Viscosity, dynamic:	not applicable, the product is a solid
Viscosity, kinematic:	No data available.
Solubility in water:	0.397 g/l (20 °C)
Solubility (quantitative):	alcohols soluble
Molar mass:	156.27 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 flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
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Chemical stability

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

Peroxides:

The product does not contain peroxides. The product/the substance has not a tendency towards the formation of peroxide.

Possibility of hazardous reactions

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

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. See SDS section 7 - Handling and storage.

Incompatible materials

oxidizing agents, strong acids, peroxides, nitrogen fertilizer

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

≥ 140 °C (DSC (DIN 51007))

11. Toxicological information

Primary routes of exposure

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22

Version: 5.0

Page: 7/11

(30564715/SDS_GEN_US/EN)

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: Of low toxicity after single ingestion. Of low toxicity after short-term inhalation. Virtually nontoxic after a single skin contact. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Oral

Type of value: LD50

Species: rat

Value: 2,615 mg/kg

Inhalation

Type of value: LC50

Species: rat (male/female)

Value: approx. 5.29 mg/l (OECD Guideline 403)

Exposure time: 4 h

An aerosol was tested.

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

Dermal

Type of value: LD50

Species: rabbit

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

Assessment other acute effects

Assessment of STOT single:

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

Irritation / corrosion

Assessment of irritating effects: Skin contact causes irritation. Eye contact causes irritation.

Skin

Species: rabbit

Result: Irritant.

Method: OECD Guideline 404

Eye

Species: rabbit

Result: Slightly irritating.

Method: OECD Guideline 405

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

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22
Version: 5.0

Page: 8/11
(30564715/SDS_GEN_US/EN)

Aspiration Hazard
not applicable

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No substance-specific organotoxicity was observed after repeated administration to animals. The product has not been tested. A mixture of isomers has been tested.

Genetic toxicity

Assessment of mutagenicity: Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic. The product has not been tested. A mixture of isomers has been tested.

Carcinogenicity

Assessment of carcinogenicity: In long-term animal studies in which the substance was given in high concentrations by feed, a carcinogenic effect was not observed. The product has not been tested. A mixture of isomers has been tested.

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. A mixture of isomers has been tested.

Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible. Acutely harmful for aquatic organisms.

Toxicity to fish

LC50 (96 h) 15.6 mg/l, Brachydanio rerio (OECD Guideline 203, static)

The statement of the toxic effect relates to the analytically determined concentration.

Aquatic invertebrates

LC50 (48 h) 26.6 mg/l, Daphnia magna (Directive 92/69/EEC, C.2, static)

The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants

EC50 (72 h) 21.4 mg/l (growth rate), Desmodesmus subspicatus (Guideline 92/69/EEC, C.3, static)

The statement of the toxic effect relates to the analytically determined concentration.

Chronic toxicity to fish

No data available regarding toxicity to fish.

Chronic toxicity to aquatic invertebrates

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22
Version: 5.0

Page: 9/11
(30564715/SDS_GEN_US/EN)

No data available regarding toxicity to daphnids.

Assessment of terrestrial toxicity

No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN EN ISO 8192 aerobic

activated sludge/EC10 (3 h): 51 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Readily biodegradable (according to OECD criteria).

Elimination information

79 % BOD of COD (28 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, activated sludge, domestic)

Readily biodegradable (according to OECD criteria).

Assessment of stability in water

Substance is readily biodegradable, therefore hydrolysis is not expected to be relevant.

Bioaccumulative potential

Assessment bioaccumulation potential

Accumulation in organisms is not to be expected.

Bioaccumulation potential

Bioconcentration factor: < 11 (42 d), Cyprinus carpio (OECD Guideline 305 E)

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

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 not expected.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. Do not discharge into drains/surface waters/groundwater.

Container disposal:

Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22
Version: 5.0

Page: 10/11
(30564715/SDS_GEN_US/EN)

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

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: 2 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 2 Flammability: 1 Physical hazard: 0

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

Aquatic Acute	3	Hazardous to the aquatic environment - acute
Acute Tox.	5 (oral)	Acute toxicity
Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2B	Serious eye damage/eye irritation
Acute Tox.	5 (Inhalation - mist)	Acute toxicity

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2023/02/22

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

Safety Data Sheet

L-Menthol FCC

Revision date: 2023/02/22

Version: 5.0

Page: 11/11

(30564715/SDS_GEN_US/EN)

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