

Section 1. Product and Company Information

GHS Product Name: Eucalyptol
Product Code: TER-18-1000
CAS: [470-82-6]
Molecular Formula: C₁₀H₁₈O
1,3,3-Trimethyl-2-oxabicyclo[2.2.2]octane; 1,8-Cineole; 1,8-Epoxy-p-menthane; p-Cineole; CINEOL; Zedoary oil; 1,8-Oxido-p-menthane; Zineol; Limonene oxide; Cajeputol;

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Section 2. Hazards Identification

2.1 GHS classification

PHYSICAL HAZARDS Flammable liquids (Category 3), H226

HEALTH HAZARDS

Skin sensitisation (Category 1), H317

ENVIRONMENTAL HAZARDS Not classified

2.2 GHS label elements, including precautionary statements

Pictograms or hazard symbols



Signal word Warning

Hazard statements

H226 Flammable liquid and vapour

H317 May cause an allergic skin reaction

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves/eye protection/face protection.

P302 + P352	IF ON SKIN: Wash with plenty of water.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P402	Store in dry place.
P403	Store in a well-ventilated place
P410	Protect against Sun Light

Section 3. Information on Basic Physical and Chemical Properties

Physical States:	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid
Melting Point:	1.5°C (34.7°F)
Boiling Point:	176-177°C
Flash Pt:	52°C - Closed cup
Evaporation Rate:	No data
Flammability (solid, gas):	No data available.
Explosive Limits:	LEL: No data. UEL: No data
Vapor Pressure (vs. Air or mm Hg):	1.6±0.3 mmHg at 25°C
Vapor Density (vs. Air = 1):	No data.
Specific Gravity (Water = 1):	0.9268 at 25°C
Solubility in Water:	2.397 g/l at 25°C
Solubility Notes:	DMSO (Soluble); Chloroform (Soluble); Ethanol (Soluble); Ethyl ether (Soluble); Carbon tetrachloride (Slightly soluble); Ethyl Alcohol (Soluble); Water (Very slightly soluble);
Autoignition Pt:	No data
Percent Volatile:	No data
Partition coefficient:	log Pow: 3.4 (n-octanol/water)
pH:	No data

Section 4. First aid measures

Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2).

Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

Suitable extinguishing

Media: Dry chemical, foam, water spray, carbon dioxide, dry sand.

Do NOT use water jet.

Precautions for firefighters: Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.

Special protective:

equipment for firefighters: When extinguishing fire, be sure to wear personal protective equipment.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Do not let product enter drains.

General Information:

Use proper personal protective equipment as indicated in **Section 8**.

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete.

Section 7. Handling and Storage

Precautions for safe handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

Storage:

Store in a well closed container. Protected from air and light. Store in cool place.

Recommended storage temperature: 2-8°C.

Specific end uses

Use in a laboratory fume hood where possible. Refer to employer is COSHH risk assessment.

Section 8. Exposure Controls / Personal Protection

Engineering controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Control parameters: Not set up

Personal protective equipment:

Respiratory protection: Dust respirator. Follow local and national regulations.

Hand protection: Protective gloves.

Eye protection: Wear safety glasses and chemical goggles if splashing is possible.

Section 9. Stability and Reactivity

Reactivity

Stable under recommended transport or storage conditions.

Chemical Stability

Stable under normal temperatures and pressures.

Conditions to Avoid

Incompatible materials, strong oxidants, heat, flames, and sparks.

Incompatibilities with Other Materials

Strong oxidising/reducing agents, strong acids/alkalis.

Hazardous Decomposition Products

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

Hazardous Polymerization

Has not been reported.

Section 10. Toxicological Information

Acute Toxicity:	LD50 Oral - Rat - 2480 mg/kg
Skin corrosion/irritation:	No data
Serious eye damage/irritation:	No data
Respiratory/skin sensitisation:	Local Lymph Node Assay (LLNA)-Mouse Result: Positive
Germ cell mutagenicity:	No data
Carcinogenicity:	IARC = No data NTP = No data
Reproductive toxicity:	No data

Section 11. Ecological Information

Toxicity:

Toxicity to fish: Semi-Static Test LC50 - *Oncorhynchus mykiss* (Rainbow trout) - 57 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates: Static Test EC50-Daphnia magna (Water flea)- 100 mg/l - 48 h
Toxicity to algae: Static Test EC50 - *Pseudokirchneriella subcapitata* (Green algae) - 74 mg/l - 72 h
Toxicity to bacteria: Static Test EC50 - Activated Sludge - 100 mg/l - 3h

Persistence and degradability:	82% - Readily biodegradable
Bioaccumulative potential:	No data
Mobility in soil:	No data
Results of PBT & vPvB assessment:	No data
Other adverse effects:	Harmful to aquatic life. Discharge into the environment must be avoided.

Section 12. Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 13. Transport Information

Hazards Class

Not a hazardous material for transportation

UN number

ADR/RID: 1993

IMDG: 1993

IATA: 1993

UN proper shipping name

ADR/RID

FLAMMABLE LIQUID, N.O.S. (Cineole)

IMDG

FLAMMABLE LIQUID, N.O.S. (Cineole)

IATA

Flammable liquid, n.o.s. (Cineole)

Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

Section 14. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

no data

Chemical Safety Assessment

no data

Section 15. Additional Information

This MSDS above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

-----End of safety data sheet-----