

Material Safety Data Sheet

Alpha-Terpinene

Section 1 - Chemical Product and Company Identification

Synonyms : p-Mentha-1,3-diene, alpha-Terpine
Molecular Weight : 136.24 g/mol
Chemical Formula : C₁₀H₁₆
Company Identification : Tradeasia International Pte. Limited
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Section 2 - Composition and Information on Ingredients

Composition:

Chemical Name	CAS No	Purity, %
Alpha-Terpinene	99-86-5	min. 80.0

Section 3 – Hazards Identification

3.1 Classification of the substance according to GHS

Flammable liquids (Category 3)

H226: Flammable liquid and vapour

Acute toxicity, Oral (Category 4)

H302: Harmful if swallowed

Aspiration hazard (Category 1)

H304: May be fatal if swallowed and enters airways

Chronic aquatic toxicity (Category 2)

H422: Toxic to aquatic life with long lasting effects



3.2. GHS Label elements, including precautionary statements



Warning



Warning

GHS07: Harmful	GHS09: Environmental hazards
	
GHS08: Health hazard	GHS02: Flammable

Prevention

- P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P233: Keep container tightly closed.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ ventilating/ lighting equipment.
- P242: Use only non-sparking tools.
- P243: Take precautionary measures against static discharge.
- P264: Wash skin thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

- P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P330: Rinse mouth.
- P331: Do NOT induce vomiting.
- P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
- P391: Collect Spillage

Storage

- P403 + P235: Store in a well-ventilated place. Keep cool.
- P405: Store locked up.

Disposal

- P501: Dispose of contents/ container to an approved waste disposal plant.

3.3. Other hazards which do not result in classification

Not applicable.

Section 4 – First-Aid Measures

4.1. Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

Consult a physician.

4.2. 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) and/or in section 11

4.3. Indication of any immediate medical attention and special treatment needed

N.A.

Section 5 – Fire Fighting Measures

5.1. Suitable Extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical as far as possible. Use very large quantities (flooding) of water applied ineffective. Cool all affected containers with flooding quantities of water.

5.2. Specific hazards arising from the chemical

Carbon oxides

5.3. Special protective actions for fire-fighters

Wear a self-contained breathing apparatus for firefighting if necessary.

5.4 Fire-fighting/Further advice

Use water spray to cool unopened containers.

Section 6 – Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

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

For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4. Reference to other sections

For disposal see section 13.

Section 7 – Handling and Storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

- Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Recommended storage temperature -20 °C
- Store under inert gas. Air sensitive.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8 – Exposure Controls/Personal Protection

8.1. Control parameters

Components with workplace control parameters

We are not aware of any national exposure limit.

8.2. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm

Break through time: 480 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,2 mm

Break through time: 30 min

Material tested: Dermatril® P (KCL 743 / Aldrich Z677388, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de

test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9 – Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance : Form: Liquid

Odour : N.A.

Odour threshold : N.A.

pH @ 20°C : N.A.

Melting point : N.A.

Boiling point : 173 - 175 °C - lit

Flash point : 50°C – closed cup

Evaporation rate : N.A.

Flammability : N.A.

Upper/lower flammability or explosive limits : N.A.

Vapour pressure : N.A.

Vapour density : N.A.

Relative density : 0.837 g/mL at 25°C

Solubility in water : N.A.

Partition coefficient: n-octanol/water : N.A.

Auto-ignition temperature : N.A.

Decomposition temperature : N.A.

Viscosity : N.A.

9.2. Other information

N.A.

Section 10 – Stability and Reactivity

10.1. Reactivity

N.A.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

N.A.

10.4. Conditions to avoid:

Heat, flames and sparks.

10.5. Incompatible materials

Strong acids, strong bases

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

Section 11 – Toxicological Information

11.1. Information on likely routes of exposure

Inhalation: No data available.

Eye contact: No data available.

Skin contact: No data available.

Ingestion: No data available.

11.2. Information on toxicological effects

Symptoms: No information available.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity: No information available.

11.4. Numerical measures of toxicity – Product Information

LD50 Oral – Rat – 1.680 mg/kg

11.5. Additional Information

RTECS: OS8060000

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 – Ecological Information

12.1. Toxicity

No information available.

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available. (p-Mentha-1,3-diene)

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

Toxic to aquatic life.

Section 13 – Disposal Considerations

13.1. Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

Section 14 – Transport Information

14.1. UN number : UN2319

14.2. UN proper shipping name : Terpene hydrocarbons, n.o.s.

14.3. Transport of hazard classes : 3

14.4. Packing group : III

14.5. Environmental Hazards: No

14.6. Incompatible materials: Strong acids and bases.

14.7. Emergency Response Guide Number : 128

Section 15 – Regulatory Information

15.1. International Inventories

All of the components in the product are on the following Inventory lists:

- TSCA (United States)
- Canada (DSL/NDL)
- Europe (EINECS/ELINCS/NLP)
- Australia (AICS)

- South Korea (KECL)
- China (IECSC)
- ENCS (Japan)
- Philippines (PICCS)

15.2. US Federal Regulations

15.2.1. SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

15.2.2. SARA 311/312 Hazard Categories

Acute health hazard: Yes

Chronic Health Hazard: No

Fire hazard: Yes

Sudden release of pressure hazard: No

Reactive hazard: No

15.2.3. CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

15.3 US State Regulations

California Proposition 65: This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations: This product does not contain any substances regulated by state right-to-know regulations.

Section 16 : Additional Information

References: Not available.

Other Special Considerations: Not available.

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