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Material Safety Data Sheet
Beta Pinene

Section 1: Chemical Product and Company Identification

Product Name : Beta Pinene
Chemical Formula : $C_{10}H_{16}$
Company Identification : Tradeasia International Pte Ltd
Email : contact@chemtradeasia.com

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS#	% by Weight
Beta pinene	127-91-3	100

Section 3: Hazards Identification

3.1 GHS Classification Flammable liquids (Category 3),

- H226 Skin corrosion/irritation (Category 2)
- H315 Skin sensitisation (Category 1), H317 Aspiration hazard (Category 1)
- H304 Acute aquatic toxicity (Category 1)
- H400 Chronic aquatic toxicity (Category 1)

3.2 GHS Label elements, including precautionary statements

- Signal word: Danger
- Hazard statement(s):
  - H226 Flammable liquid and vapour.
  - H304 May be fatal if swallowed and enters airways.
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.
  - H410 Very toxic to aquatic life with long lasting effects.
- Precautionary statement(s)
  - P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  - P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
  - P273 Avoid release to the environment.
  - P280 Wear protective gloves/ eye protection/ face protection. Response
  - P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  - P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - P331 Do NOT induce vomiting.
  - P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

- P362 + P364 Take off contaminated clothing and wash it before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

3.3 Other hazards - none

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: Flush eyes with water as a precaution.
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: No data available

Section 5: Fire and Explosion Data

5.1 Extinguishing media: Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture: Carbon oxides
5.3 Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.
5.4 Further information: 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.

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 materials 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

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.

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.

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters:

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

8.2 Exposure controls

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

Personal protective equipment:

- **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 industria 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 (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee 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

Appearance Form: clear, liquid
Colour: light yellow
Odour: No data available
Odour Threshold: No data available
pH: No data available
Melting point/freezing point: Melting point/range: -61 °C - lit.
Initial boiling point and boiling range: 165 - 167 °C - lit.
Flash point: 36 °C - closed cup
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper/lower flammability or explosive limits: No data available
Vapour pressure: 2 mmHg at 20 °C
Vapour density: 4,7 - (Air = 1.0) m)
Relative density: 0,866 g/cm3 at 25 °C
Water solubility: No data available
Partition coefficient: noctanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Explosive properties: No data available
Oxidizing properties: No data available

Section 10: Stability and Reactivity Data

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: No data available
Conditions to avoid: Heat, flames and sparks.
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products: No data available

Section 11: Toxicological Information

Information on toxicological effects:

- Acute toxicity: No data available(-)-Pin-2(10)-ene
- Skin corrosion/irritation
- Serious eye damage/eye irritation: No data available((-)-Pin-2(10)-ene)
- Respiratory or skin sensitization: May cause sensitisation by skin contact.((-)-Pin-2(10)-ene)
- Germ cell mutagenicity: No data available((-)-Pin-2(10)-ene)
- Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- Reproductive toxicity: No data available((-)-Pin-2(10)-ene)
- Specific target organ toxicity - single exposure: No data available((-)-Pin-2(10)-ene)
- Specific target organ toxicity - repeated exposure: No data available
- Aspiration hazard: The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.((-)-Pin-2(10)-ene)
- Additional Information RTECS: Not available
- To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.((-)-Pin-2(10)-ene)

Section 12: Ecological Information

12.1 Toxicity Toxicity to fish: LC50 - Pimephales promelas (fathead minnow) - 0,01 mg/l - 96 h((-)-Pin-2(10)- ene) No data available

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available

12.4 Mobility in soil: No data available((-)-Pin-2(10)-ene)

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: Very toxic to aquatic life with long lasting effects. No data available

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

14.1 UN number: ADR/RID: 2319 IMDG: 2319 IATA-DGR: 2319

14.2 UN proper shipping name: ADR/RID: TERPENE HYDROCARBONS, N.O.S. IMDG: TERPENE HYDROCARBONS, N.O.S. IATADGR: Terpene hydrocarbons, n.o.s.

14.3 Transport hazard class(es): ADR/RID: 3 IMDG: 3 IATA-DGR: 3

14.4 Packaging group: ADR/RID: III IMDG: III IATA-DGR: III
14.5 Environmental hazards: ADR/RID: no IMDG Marine pollutant: no IATA-DGR: no
14.6 Special precautions for user: No data available

Section 15: Other Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture: No data available

Section 16: Other Information

References: Not available.
Other Special Considerations: Not available.

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