

Material Safety Data Sheet

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Version 1.1
According to 91/155/EEC

1 - Product and Company Information

Product Name ALPHA-PINENE OXIDE, 97%
Product Number 218308

Company Sigma-Aldrich Pty, Ltd
Unit 2, 14 Anella Avenue
Castle Hill NSW 1765
Australia

Technical Phone # +61 2 9841 0555
Fax +61 2 9841 0500
Emergency Phone # +61 2 9841 0566

2 - Composition/Information on Ingredients

| Product Name | CAS # | EC no | Annex I Index Number |
|---|-----------|-----------|----------------------|
| ALPHA-PINENE OXIDE, 97% | 1686-14-2 | 216-869-6 | None |
| Formula C10H16O | | | |
| Molecular Weight 152.24 AMU | | | |
| Synonyms 2,3-Epoxy pinane * 3-Oxatricyclo(4.1.1.0(sup 2,4))octane, 2,7,7-trimethyl- (9CI) * alpha-Pinene epoxide * alpha-Pinene oxide * 2,7,7-Trimethyl-3-oxatricyclo(4.1.1.0(sup 2,4))octane | | | |

3 - Hazards Identification

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Shut off all sources of ignition.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed. Keep away from heat and open flame. Store in a cool dry place.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Mechanical exhaust required. Safety shower and eye bath.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Special Protective Measures: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

9 - Physical and Chemical Properties

| | | |
|----------------------|--------------|----------------------------|
| Appearance | N/A | |
| Property | Value | At Temperature or Pressure |
| pH | N/A | |
| BP/BP Range | 102 - 103 °C | 50 mmHg |
| MP/MP Range | N/A | |
| Flash Point | 66 °C | Method: closed cup |
| Flammability | N/A | |
| Autoignition Temp | N/A | |
| Oxidizing Properties | N/A | |
| Explosive Properties | N/A | |

| | |
|-----------------------|-------------------------|
| Explosion Limits | N/A |
| Vapor Pressure | N/A |
| SG/Density | 0.964 g/cm ³ |
| Partition Coefficient | N/A |
| Viscosity | N/A |
| Vapor Density | N/A |
| Saturated Vapor Conc. | N/A |
| Evaporation Rate | N/A |
| Bulk Density | N/A |
| Decomposition Temp. | N/A |
| Solvent Content | N/A |
| Water Content | N/A |
| Surface Tension | N/A |
| Conductivity | N/A |
| Miscellaneous Data | N/A |
| Solubility | N/A |

10 - Stability and Reactivity

STABILITY

Materials to Avoid: Acids, Bases, Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

11 - Toxicological Information

RTECS NUMBER: TK4565000

ACUTE TOXICITY

LD50
Intramuscular
Mouse
100 MG/KG

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Eye Contact: May cause eye irritation.
Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption.

CHRONIC EXPOSURE - MUTAGEN

Hamster
500 UMOL/L
Cell Type: lung
Sister chromatid exchange

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

Non-hazardous for road transport.

IMDG

Non-hazardous for sea transport.

IATA

Non-hazardous for air transport.

15 - Regulatory Information

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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