



Safety Data Sheet
1,4-Cineole

1. Identification

Product name:	1,4-Cineole
Catalog#:	MSI0452BA
IUPAC name:	1-methyl-4-propan-2-yl-7-oxabicyclo[2.2.1]heptane
Product use restrictions:	Only for research and development use by, or directly under the supervision of, a technically qualified individual.
Company:	MetaSci Inc. 1 Yonge St., Suite 1801 Toronto, M5E 1W7, ON, Canada
Telephone:	(510) 429-8835
Website:	www.metasci.ca
Emergency contact number:	1-800-633-8253 United States & Canada 1-801-629-0667 International

2. Hazard Identification

GHS Classification
Flam. Liq. (category 3)

Pictogram



Signal word
Warning

Hazard statement(s)
H226

Flammable liquid and vapor.

Precautionary statement(s)
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.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353

IF ON SKIN (or hair): Remove/Take off immediately all



P370+P378

P403+P235
P501

contaminated clothing. Rinse skin with water/shower.
In case of fire: Use dry sand, dry chemical, CO₂, water spray or alcohol-resistant foam for extinction.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS
None

3. Composition/Information on Ingredients

Synonyms: 1,4-Cineole;Isocineole;470-67-7;1,4-Cineol;1,4-EPOXY-P-MENTHANE
CAS#: 470-67-7
Purity: >93.0%(GC)
EC#: 207-428-9

4. First Aid Measures

General information: Immediately remove any clothing contaminated by the product. Move out of dangerous area. Consult a physician and show this safety data sheet.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical aid.

Skin contact: Immediately flush skin with running water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Obtain medical aid immediately.

Eye contact: Immediately flush open eyes with running water for at least 15 minutes. Obtain medical aid immediately.

Ingestion: Do NOT induce vomiting without medical advice. Rinse mouth with water. Never administer anything by mouth to an unconscious person. Obtain medical aid immediately.

Most important symptoms and effects, both acute and delayed: No further information available. Please see sections 2 and 11.

Indication of any immediate medical attention and special treatment needed: No further information available.

5. Fire Fighting Measures

Suitable extinguishing media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Specific hazards arising from the chemical: Carbon oxides

Advice for firefighters: As in any fire, wear a NIOSH-approved or equivalent, pressure-demand, self-contained breathing apparatus and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment and keep unprotected personnel away. Ensure adequate ventilation. Remove all



sources of ignition. Prevent further leak or spill if safe to do so. For personal protective equipment, please refer to section 8.

Environmental precautions: Do not let product enter drains, other waterways, or soil.

Methods and materials for containment and cleaning up: Prevent further leak or spill if safe to do so. Vacuum, sweep up, or absorb with inert material and place into a suitable disposal container. Consult local regulations for disposal. See section 13 for further disposal information.

7. Handling and Storage

Precautions for safe handling: Avoid contact with skin, eyes, and personal clothing. Wash hands thoroughly after handling. Avoid breathing fumes. Use only with adequate ventilation. Wear suitable protective clothing, gloves, and eye/face protection. Keep away from sources of ignition. Minimize dust generation and accumulation. Keep container tightly closed. Open and handle container with care. Do not eat, drink, or smoke while handling.

Conditions for safe storage, including any incompatibilities: Store in a tightly-closed container when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from sources of ignition. Error, no match for Store long-term in a cool, dry place

8. Exposure Controls/Personal Protection

Exposure limits

OSHA PEL:	No data available.
NIOSH REL:	No data available.
ACGIH TLV:	No data available.

Appropriate engineering controls: Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Facilities storing or utilizing this material should be equipped with an eyewash fountain. Use adequate general and local exhaust ventilation to keep airborne concentrations low.

Personal protection

Eyes:

Hands:

Skin and body:

Respiratory:

9. Physical and Chemical Properties

Physical State:	No data available.
Molecular Formula:	C ₁₀ H ₁₈ O
Molecular Weight:	154.25
Odor:	No data available.
pH:	No data available.
Boiling Point Range:	65 °C/16 mmHg (lit.)
Freezing/Melting Point:	No data available.



Flash Point:	116.6 °F/47 °C
Evaporation Rate:	No data available.
Flammability (solid, gas):	Please see section 2.
Explosive limits:	No data available.
Vapor Pressure:	No data available.
Vapor Density:	No data available.
Solubility:	No data available.
Relative Density:	0.887 g/mL at 25 °C (lit.)
Refractive Index:	No data available.
Volatility:	No data available.
Auto-ignition temperature:	No data available.
Decomposition Temperature:	No data available.
Partition Coefficient:	No data available.

10. Stability and Reactivity

Reactivity:	No data available.
Chemical stability:	Stable under recommended temperatures and pressures.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Dust generation. Heat.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	Carbon oxides

11. Toxicological Information

RTECS#:	OS9274000
Acute toxicity:	No data available.
Routes of exposure:	Inhalation, eye contact, skin contact, ingestion.
Symptoms related to the physical, chemical and toxicological characteristics:	Skin contact may result in inflammation characterized by itching, scaling, reddening, blistering, pain or dryness. Eye contact may result in redness, pain or severe eye damage. Inhalation may cause irritation of the lungs and respiratory system. Overexposure may result in serious illness or death.
Carcinogenicity	
IARC:	Not classified.
NTP:	Not listed.
OSHA:	Not listed.
Acute toxic effects:	Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

12. Ecological Information



Ecotoxicity: No data available.
Persistence and degradability: No data available.
Bioaccumulative potential: No data available.
Mobility in soil: No data available.
Other adverse effects: No data available.

13. Disposal Considerations

Disposal of waste:
Disposal of packaging:

14. Transportation Information

DOT (United States)
UN number: UN1993
Proper shipping name: Flammable liquids, n.o.s. (1,4-Cineole)
Transport hazard class: 3
Packing group: III

IATA
UN number: UN1993
Proper shipping name: Not applicable.
Transport hazard class: Not applicable.
Packing group: Not applicable.

15. Regulatory Information

TSCA Chemical Inventory:

Canada
DSL/NDSL: This product is NOT listed in the Domestic Substance List (DSL) NOR the NonDomestic Substance List (NDSL). A New Substance Notification may be required prior to import or manufacture in Canada.

California
Proposition 65:
NFPA Rating: Health: No data available.
Flammability: No data available.
Instability: No data available.

16. Additional Information

Revision Date: 08/08/2019
Printed Date: 5/30/2023

Disclaimer:

The information 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,



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