
Section 1 — Chemical Product and Company Identification

1,10-Phenanthroline

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

Section 2 — Composition, Information on Ingredients

1,10-phenanthroline, monohydrate

Synonym: o-phenanthroline

CAS#: 5144-89-8

Section 3 — Hazards Identification

White crystal or powder. Odorless.

Highly toxic by ingestion. Mild skin irritant.

FLINN AT-A-GLANCE

Health-3

Flammability-1

Reactivity-0

Exposure-1

Storage-0

0 is low hazard, 3 is high hazard

Section 4 — First Aid Measures

Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Give large quantities of water. Call a physician or poison control at once.

Section 5 — Fire Fighting Measures

Combustible solid.

When heated to decomposition, emits toxic fumes of NOx.

Fire Fighting Instructions: Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

None

Established

Section 6 — Accidental Release Measures

Restrict unprotected personnel from area. Sweep up, place in sealed bag or container and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

Section 7 — Handling and Storage

Flinn Suggested Chemical Storage Pattern: Organic #2. Store with alcohols, glycols, amines and amides.

Store in a cool dry place.

Section 8 — Exposure Controls, Personal Protection

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron.

Material Safety Data Sheet (MSDS)

Section 9 — Physical and Chemical Properties

White crystal or powder. Odorless.

Melting Point: 93-94 C

Solubility: Soluble in alcohol, benzene and acetone; slightly in water.

Formula: C₁₂H₈N₂ H₂O

Formula Weight: 198.21

Section 10 — Stability and Reactivity

Avoid contact with strong oxidizing agents and acids.

Shelf life: Poor; hygroscopic.

Section 11 — Toxicological Information

Acute effects: N.A.

ORL-RAT LD50: 132 mg/kg

Chronic effects: N.A.

IHL-RAT LC50: N.A.

Target organs: N.A.

SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

Section 12 — Ecological Information

Data not yet available.

Section 13 — Disposal Considerations

Please consult with state and local regulations.

Flinn Suggested Disposal Method #5 is one option.

Section 14 — Transport Information

Shipping Name: Not regulated

Hazard Class: N/A

UN Number: N/A

N/A = Not applicable

Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (200-629-2).

Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

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