





SDS #: 585

Revision Date: March 21, 2014

## 1 10-Phenanthroline Safety Data Sheet (SDS)

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### 1 10-Phenanthroline

Signal Word  
DANGER

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261  
Chemtrec Emergency Phone Number: (800) 424-10106

Pictograms

### SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Acute toxicity, oral (Category 3). Toxic if swallowed (H301). Do not eat, drink or smoke when using this product (P270).



### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
1,10-Phenanthroline monohydrate	5144-89-8	C <sub>12</sub> H <sub>8</sub> N <sub>2</sub> •H <sub>2</sub> O	198.21	
Synonyms: o-Phenanthroline monohydrate				

### SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.

**If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

**If on skin:** Wash with plenty of water.

**If swallowed:** Rinse mouth. Immediately call a POISON CENTER or physician (P301+P310+P330).

### SECTION 5 — FIRE FIGHTING MEASURES

Combustible solid.

When heated to decomposition, may emit toxic fumes.

In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA Code  
None established

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**SECTION 6 — ACCIDENTAL RELEASE MEASURES**

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Wipe 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.

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**SECTION 7 — HANDLING AND STORAGE**

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Flinn Suggested Chemical Storage Pattern: Organic #2. Store with alcohols, glycols, amines and amides. Store in a cool dry place.

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**SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION**

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Wear protective gloves, protective clothing, and eye protection. Wash hands thoroughly after handling (P264).

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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White crystal or powder. Odorless. Melting point: 93-94 °C (decomposes)  
Soluble: Alcohol and acetone. Slightly in water.

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**SECTION 10 — STABILITY AND REACTIVITY**

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Avoid contact with strong oxidizing agents and acids.  
Shelf life: Poor, hygroscopic. See Section 7 for further information.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Toxic if ingested.	ORL-RAT LD <sub>50</sub> : 132 mg/kg
Chronic effects: N.A.	IHL-RAT LC <sub>50</sub> : N.A.
Target organs: N.A.	SKN-RBT LD <sub>50</sub> : N.A.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please review all federal, state and local regulations that may apply before proceeding.  
Flinn Suggested Disposal Method #5 is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

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**SECTION 15 — REGULATORY INFORMATION**

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

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**SECTION 16 — OTHER INFORMATION**

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

N/A = Not applicable

**Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.**

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