



Material Safety Data Sheet
Phenanthroline, 0.1% - 0.3% APHA

Section 1 - Chemical Product and Company Identification

MSDS Name:

Phenanthroline, 0.1% - 0.3% APHA

Catalog Numbers:

LC18150, LC18155, LC18160

Synonyms:

1,10-phenanthroline, phenanthroline.

Company Identification:

LabChem, Inc.
 200 William Pitt Way
 Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
5144-89-8	1.10-Phenanthroline monohydrate	0.1-0.3

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

*Appearance: Colorless**Caution! May cause eye and skin irritation.**Target Organs: none known.***Potential Health Effects****Eye:**

Causes redness, pain, and irritation.

Skin:

May cause redness, pain, and irritation.

Ingestion:

May cause irritation of the digestive tract.



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Inhalation:

Inhalation may cause coughing, respiratory tract irritation, dyspnea, and pulmonary edema.

Chronic:

Repeated or prolonged contact may cause irritation, dermatitis, conjunctivitis, and mucous membrane irritation.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:

Get medical aid at once. Give oxygen if respiration is depressed. Induce vomiting (touch finger to back of throat) keeping head lower than hips (prevent aspiration into lungs).

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust.

Extinguishing Media:

Use carbon dioxide or dry chemical. For large fires, use water spray, fog or regular foam.

Autoignition Temperature:

No information found.

Flash Point:

Not applicable.

NFPA Rating:

CAS# 7732-18-5: Not published.

CAS# 5144-89-8: Not published.

Explosion Limits:

Lower: Upper:

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Area may be washed down with water.



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Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing.

Storage:

Store capped at room temperature. Keep away from water reactive substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Provide local exhaust or general dilution ventilation.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
1.10-Phenanthroline monohydrate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs

Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Not required for normal use. Firefighting-SCBA F:PD,PP. (Respirator Codes: DHEW (NIOSH) Publication No. 78-210)

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: Colorless

Odor: Odorless

pH: No information found.

Vapor Pressure: 14mm Hg @20°C

Vapor Density: > air

Evaporation Rate: < ether

Viscosity: No information found.

Boiling Point: 212°F (100.00°C)

Freezing/Melting Point: 32°F (0.00°C)



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Decomposition Temperature: No information found.

Solubility in water: Slightly soluble.

Specific Gravity/Density: 1.0

Molecular Formula: No information found.

Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, none reported.

Incompatibilities with Other Materials

None reported.

Hazardous Decomposition Products

No information found.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 5144-89-8: SF8437000.

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 5144-89-8:

No information found.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 5144-89-8: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

1.10-phenanthroline may irritate skin, eyes, mucous membrane.

Teratogenicity:

Reproductive:

Mutagenicity:

Neurotoxicity:

Section 12 - Ecological Information

No information found.



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Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 5144-89-8 is not on the TSCA Inventory, however, it is anhydrous form on the inventory and so this hydrate is exempt from TSCA Inventory requirements (40 CFR 270.3(u)(2)).

SARA Reportable Quantities (RQ)

None of the components are on this list.

CERCLA/SARA Section 313

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

US State

State Right to Know

California Regulations

European/International Regulations

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

Canada Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 5144-89-8 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: November 18, 1997

Revision Date: November 6, 2007



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