



COLUMBUS CHEMICAL INDUSTRIES INC.

P.O. BOX 8
COLUMBUS, WISCONSIN 53925-0008
(920) 623-2140
FAX (920) 623-2577

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910 1200. Standard must be consulted for specific requirements

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (as Used on Label and List)

1,10-Phenanthroline monohydrate

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturers /Distributor Address Number Street City State and Zip Code

Columbus Chemical Industries, Inc.

N4335 Temkin Road

Columbus, WI 53925-0008

Emergency Telephone Number

CHEMTREC 1 (800) 424-9300

Telephone Number for Information

1 (920) 623-2140

Date Prepared

04-10-2006

Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Table with 6 columns: Hazardous Components (Specific Chemical Identity, Common Name(s)), CAS #, OSHA PEL, ACGIH TLV, Other Limits Recommended, % (optional). Row 1: 1,10-Phenanthroline monohydrate*, 5144-89-8, Not Available, Not Available, Not Available.

*Synonyms: Orthophenanthroline monohydrate, 4,5-diazaphenanthrene

Section III - Physical/Chemical Characteristics

Table with 4 columns: Property, Value, Property, Value. Rows: Boiling Point (Not Available), Specific Gravity (H2O = 1) (Not Available), Vapor Pressure (mm Hg) (Not Available), Melting Point (100°C(212°F)), Vapor Density (AIR = 1) (Not Available), Evaporation Rate (Butyl Acetate = 1) (Not Available).

Solubility in Water

Soluble

Appearance and Odor

White solid

Section IV Fire and Explosion Hazard Data

Table with 4 columns: Flash Point (Method Used), Flammable Limits, LEL, UEL. Row 1: Not flammable., Not applicable, Not Applicable.

Extinguishing Media

Carbon dioxide, dry chemical powder, water spray, appropriate foam.

Special Fire Fighting Procedures

In the event of a fire, wear full protective clothing and NIOSH/MSHA-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards

Emits toxic fumes under fire conditions.

Section V Reactivity Data

Stability	Unstable		Conditions to Avoid	Incompatibles
	Stable	X		

Incompatibility Materials to Avoid

Strong Oxidizers

Hazardous Decomposition or Byproducts

Carbon oxides, Nitrogen oxides.

Hazardous Polymerization**Conditions to Avoid**

	May Occur		None.
	Will Not Occur	X	

Section VI Health Hazard Data**Routes of Entry****Inhalation ?****Skin ?****Ingestion ?**

	Yes		Yes	Yes
--	-----	--	-----	-----

Health Hazards (Acute and Chronic)

Material is irritating to mucous membranes and upper respiratory tract. May cause skin and eye irritation upon contact. Repeated or prolonged inhalation may produce respiratory tract irritation.

Carcinogenicity**NTP****IARC Monographs****OSHA REGULATED?**

	Not listed	Not Listed	Not Listed
--	------------	------------	------------

Signs and Symptoms of Exposure.

SKIN: Redness, swelling, itchiness. EYES: Redness, itchiness, tearing. INGESTION: Nausea and vomiting.

INHALATION: Irritation of lungs leading to coughing, choking or shortness of breath.

Medical Conditions Generally Aggravated by Exposure

Asthma, emphysema, other respiratory diseases.

Emergency and First Aid Procedures

INGESTION: If swallowed, wash out mouth with water provided person is conscious, call a physician. SKIN: Immediately wash skin with soap and large amounts of water. Flush skin with water. EYES: In case of contact, immediately flush with large amounts of water for at least 15 minutes. Call physician. INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician.

Section VII Precautions for Safe Handling and Use**Steps to be Taken in Case Material is Released or Spilled**

Evacuate area. Wear Dust respirator, chemical-resistant goggles, rubber boots, apron and rubber gloves. Sweep up and place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Waste Disposal Method Dispose in accordance with all Federal, state, and local regulations.

Precautions to be Taken in Handling and Storing

Keep in tightly closed plainly-labelled containers, stored in a cool, dry, ventilated area away from materials. Protect against physical damage and light. Maintain adequate ventilation. Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Do not ingest or breathe.

Other Precautions Containers, even when empty, will retain residue and vapors that may be dangerous. Always obey hazard warnings and handle empty containers as if they were full.

Section VII Control Measures

Respiratory Protection (Specify Type) NIOSH/MSHA-approved respirator with dust/mist cartridges if necessary

Ventilation	Local Exhaust	Necessary.	Special	Eyewash nearby.
	Mechanical (General)	Recommended.	Other	Safety shower nearby.

Protective Gloves Rubber gloves. Eye Protection Chemical safety goggles.

Other Protective Clothing or Equipment Rubber boots, body-covering clothing.

Work /Hygienic Practices Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area. Avoid prolonged or repeated exposure. Ensure prompt removal from skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing dust.

Columbus Chemical Industries, Inc. ("Columbus") believes that the information herein is factual but it is not intended to be all inclusive. The information relates only to the specific Material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Columbus has no continuing control over the Material, those handling, storing or using the Material should satisfy themselves that they have current information regarding the particular way the Material is handled, stored and used and that the same is done in accordance with federal, state and local law. COLUMBUS MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE.