



COLUMBUS CHEMICAL INDUSTRIES INC.

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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)

Cupric Sulfate, Pentahydrate

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, Wisconsin 53925

Emergency Telephone Number

CHEMTREC 1 (800) 424-9300

Telephone Number for Information

(920) 623-2140

Date Prepared

09-01-2004

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: Cupric Sulfate Pentahydrate\*, 7758-99-8, 1 mg/m³ Cu (inhalation), 1 mg/m³ Cu (inhalation), 1 mg/m³ NIOSH(Inhalation), >95%

Synonyms: Blue Copper; Blue Stone; Blue Vitreol; Copper (II) Sulfate Pentahydrate.

Section III - Physical/Chemical Characteristics

Table with 4 columns: Property, Value, Property, Value. Row 1: Boiling Point, 150°C (302°F), Specific Gravity (H₂O = 1), 2.28. Row 2: Vapor Pressure (mm Hg), Not applicable, Melting Point, 110 °C (230 °F). Row 3: Vapor Density (AIR = 1), Not available, Evaporation Rate (Butyl Acetate = 1), Not available.

Solubility in Water
31.6 g/100 cc water @ 0 deg C, 203.3 g/100 cc @ 100 deg C

Appearance and Odor
Blue crystalline, granular or powdered solid without odor.

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, Not applicable.

Extinguishing Media

Water spray, dry chemical, carbon dioxide, alcohol foam. Use methods appropriate for surrounding fire.

Special Fire Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece respirator operated in positive pressure mode. Cool fire-exposed containers.

Unusual Fire and Explosion Hazards

Emits toxic fumes under fire conditions. May cause sensitization by inhalation or contact with skin.

**Section V Reactivity Data**

Stability	Unstable		Conditions to Avoid	Excessive heat, incompatible
	Stable	X		materials, air.

**Incompatibility Materials to Avoid**

Reactive with alkalis, metals, hypochlorites and hypobromites salts, nitromethanes, reducing agents and acetylides.

**Hazardous Decomposition or Byproducts**

Copper oxides, sulfur oxides.

**Hazardous Polymerization****Conditions to Avoid**

	May Occur		Not applicable.
	Will Not Occur	X	

**Section VI Health Hazard Data**

Routes of Entry	Inhalation ?	Skin ?	Ingestion ?
	Yes	Yes	Yes

**Health Hazards (Acute and Chronic)**

SKIN: Causes irritation. EYES: Causes eye damage. INHALATION: Causes irritation to mucous membranes and upper respiratory tract. Ulceration of nasal septa possible. INGESTION: Harmful and may be fatal if swallowed. May be toxic to liver and kidneys. Reported to be mutagenic for mammalian somatic cells. May cause sensitization in certain

Carcinogenicity	NTP	IARC Monographs	OSHA REGULATED?
	Not Listed	Not Listed	Not Listed

**Signs and Symptoms of Exposure.**

Burning sensation of mucous membranes. Headache, nausea, vomiting, dizziness, drowsiness, weakness, edema

edema, chest pains, gastrointestinal disturbances, difficulty breathing, metallic taste. SKIN/EYES: Itchiness, redness, swelling, pain.

**Medical Conditions Generally Aggravated by Exposure**

Expected to aggravate asthma, emphysema, other respiratory diseases.

**Emergency and First Aid Procedures** INGESTION: If swallowed, wash out mouth with water provided person is conscious, DO INDUCE VOMITING. Call physician immediately. EYES: Immediately flush with large amounts of water for at least 20 minutes. Call a physician. INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician. SKIN: Immediately wash skin with soap and large amounts of water.

**Section VII Precautions for Safe Handling and Use**

**Steps to be Taken in Case Material is Released or Spilled** Evacuate personnel from area. Wear NIOSH/MSHA-approved respirator, chemical-resistant goggles, rubber boots, apron and rubber gloves. Sweep up, place in a bag and hold for waste disposal. Avoid contact, inhalation and ingestion. Ventilate area and wash spill site after material pickup is complete. Prevent release to

**Waste Disposal Method** Dispose of spillage, empty containers and other materials used for cleanup in compliance with all applicable 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. Protect against physical damage, air and light. Maintain adequate ventilation. Store below 80 °F (27 °C). Do not breathe or ingest. Avoid contact with skin or eyes. Wash thoroughly after handling.

**Other Precautions** Containers, even when empty, will retain residue and vapors. Always obey hazard warnings and containers as if they were full. Avoid raising dust. DO NOT INGEST! DO NOT BREATHE DUST!

**Section VII Control Measures**

**Respiratory Protection (Specify Type)** NIOSH/MSHA-approved respirator with dust/mist cartridge or self-contained breathing apparatus.

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

**Protective Gloves** Appropriate chemical resistant gloves. **Eye Protection** Chemical goggles.

**Other Protective Clothing or Equipment** Chemical-resistant boots and apron. Faceshield if appropriate.

**Work /Hygienic Practices** Contact lenses should not be worn when working with this material. Avoid eye and skin contact. Do not breathe dust. Wash thoroughly after handling. Avoid prolonged or repeated exposure. Wash contaminated thoroughly before reuse. Maintain eye wash station and quick-drench facilities in work area.

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