



MATERIAL SAFETY DATA SHEET Copper(II) Sulphate Pentahydrate

Section 1 - Chemical Product and Company Identification

MSDS Name : Copper(II) Sulphate
Synonym : Cupric Sulphate Pentahydrate
Company Identification : Mahavir Chemicals
Plot No. 2026, Phase – III, G. I. D. C., Vatva,
City : Ahmedabad – 382 445
State : Gujarat
Country : India
Contact No. : +91 79 2583 4748
Website : www.copperchloride.com
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Section 2 - Compositional, Information on Ingredients



Irritant



Corrosive



Marine Pollutant



Hazardous

Hazardous Ingredients : This product is considered to be hazardous under the OSHA Hazardous Communication Standard.
CAS Number : 7758-99-8
Chemical Name : Copper(II) Sulphate
Chemical Family : Metal Salts
Product Type : Inorganic Chemical

Section 3 - Hazardous Identification

Emergency Overview: Blue Crystal or Powder Non dusting. Odorless.
Not considered to be flammable or explosive. However, dusty conditions increase the risk of a dusting hazard. Appropriate precautions should be taken including a properly grounded dust collection system. Hazardous decomposition products may be produced under fire conditions including oxides of carbon and nitrogen, hydrogen chloride as well as other toxic gases and vapors. Protective gloves and eyewear are recommended when handling this material. This material is a non-volatile solid and is practically water insoluble.



Section 4 - First Aid Measures

- Eye Contact : Flush eyes with plenty of water for several minutes. Get medical attention if irritation persists.
- Skin Contact : Wash affected areas with plenty of soap and water, if available, for several minutes. Get medical attention if irritation occurs.
- Ingestion : If swallowed give at least 3-4 glasses of water but do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person.
- Inhalation : If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Section 5 - Fire Fighting Measures

- Extinguishing Media : Carbon Dioxide, Dry Chemical, Foam and Water Mist.
- Fire Fighting Equipment : Use self contained breathing apparatus.
- Fire And Explosion Hazard : No unusual fire hazard.
- Flash Point : Not applicable
- Flammable Limits in Air-Lower : Not applicable
- Flammable Limits in Air-Higher : Not applicable

Section 6 - Accidental Release Measures

- Spill Procedures : Pre-wet material with water to avoid dust formation. Sweep or vacuum and place in closable container for disposal.

Section 7 - Handling and Storage

- Storage : Separate /Dedicated Storage Area away from manufacturing place.
- Notice : In accordance with good industrial practice, handle with care and avoid personal contact. Use only with adequate ventilation. Avoid breathing dust, mist or vapors. In dusty conditions, use with dust respirators certified by NIOSH. Wash hands and face thoroughly after handling and before eating, drinking or using tobacco products.

For Industrial Use Only.

HMIS Rating:	Health	2
	Flammability	0
	Reactivity	0



Section 8 - Exposure Controls, Personal Protection

Protective Gloves	: Protective gloves are recommended as a standard industrial handling procedure.
Respiratory Protection	: Wear NIOSH approved dust respirator for potentially dusty handling operations.
Eye Protection	: Wear safety glasses or goggles to protect against dust particles.
Engineering Controls	: Local exhaust is recommended. Appropriate precautions should be taken including a properly grounded dust collection system.
Osha Pel	: Not determined
ACGIH TLV	: Not determined

Section 9 - Physical and Chemical Properties

Appearance	: Blue Crystal or Powder
Odor	: Odorless
Molecular Formula	: $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
Molecular Weight	: 249.68 gm/mole
Melting Point	: 100 'C [212 'F] to [Loses 2H ₂ O]
Bulk Volume (LITRES/KILO)	: Kilo
Solubility	: Soluble
pH	: 2.8
Percent Volatile	: Negligible
Vapor Pressure	: Not Applicable
Reportable Voc	: Negligible
Hazardous Air Pollutants	: None known

Section 10 - Reactivity

Stability	: Stable under normal condition
Hazardous Polymerization	: Will not occur
Incompatibility	: No unusual hazards
Decomposition Temperature	: Not available
Hazardous Decomposition Products	: Burning may produce oxides of carbon and nitrogen, compounds as well as other toxic gases and vapors. Conditions to Avoid: None known.



Section 11 - Toxicological Information

ACUTE ORAL LD50 (RATS)	: Not determined
SKIN IRRITATION	: Not determined
EYE IRRITATION	: Not determined
SENSITIZATION	: Not determined
MUTAGENICITY	: Not determined
CARCINOGENICITY	: This product does not contain ingredients listed as carcinogens by NTP, IARC, or OSHA.

Section 12 - Ecological Information

Fish Toxicity LC50	: Not determined
Daphnia Toxicity EC50	: Not determined
Sludge Toxicity EC50	: Not determined
Biological Degradation	: Soluble in Water, Alcohol & Acetone

Section 13 - Disposal Considerations

DISPOSAL METHODS : Dispose in accordance with all federal, state, and local regulations.

Section 14 - Transportation Information

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Proper Shipping Name	: Copper(II) Sulphate or Copper Sulphate
Technical Shipping Name (N O S Classification)	: Copper(II) Sulphate
Hazard Class	: 9
Packing Group	: III
Label Required	: Yes
UN No.	: 3077



Section 15 - Regulatory Information

TSCA Inventory Status: All chemical components in this product are listed on the U.S. EPA Toxic Substances Control Act Chemical Substances Inventory.

Canadian Domestic Substance List: All chemical components in this product are listed on the Canadian Domestic Substance list (DSL)

European Inventory of Existing Chemical Substances: All chemical components in this product are listed on the European Inventory of Existing Chemical Substances (EINECS)

EPCRA TITLE, SECTION 313 (40CFR 372): This product does not contain a toxic chemical for routine annual toxic chemical release reporting under Title of the Emergency Planning and Community Right - to - know Act (SARA 313).

California Proposition 65: No ingredient in this product is regulated by the California Safe Drinking Water and Toxic Enforcement Act of 1986.

Section 16 - Other Information

Issue Date: 30 July, 2015 REVISION: 03

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