



Material Safety Data Sheet

LA2614
Copper Sulphate

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: LA2614
Product Name: Copper Sulphate
Synonyms: None
Chemical Family: None Known
Application: Not Available.

Distributed By:

Univar Canada Ltd.
9800 Van Horne Way
Richmond, BC
V6X 1W5

Prepared By: The Safety, Health and Environment Department of Univar Canada Ltd.

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Telephone number of preparer: 1-866-686-4827

24-Hour Emergency Telephone Number (CANUTEC): (613) 996-6666

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percentage (W/W)	LD50s and LC50s Route & Species:
Copper Sulphate 7758-98-7	40-70	Dermal LD50 (Rabbit) = 1000 mg/kg Oral LD50 (Rat) = 300 mg/kg

Note: No additional remark.

3. HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Eye Contact: Causes severe eye irritation, watering, redness and swelling of the eyelids.

Skin Contact: Causes skin irritation. May cause sensitization by skin contact. Causes redness. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

Inhalation: May cause irritation of the respiratory tract. Inhalation can cause coughing, sore throat or breathing problems.

Ingestion: Harmful if swallowed. May cause abdominal discomfort, nausea, vomiting and diarrhea.

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Notes to Physician: Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE FIGHTING MEASURES

Flash Point: None.

Flash Point Method: Not applicable.

Autoignition Temperature: Not available.

Flammable Limits in Air (%): Not Available.

Extinguishing Media: Does not burn. Use extinguishing media appropriate for surrounding fire.

Special Exposure Hazards: Not Available.

Hazardous Decomposition/Combustion Materials (under fire conditions): Oxides of sulphur. Oxides of copper.

Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.

NFPA RATINGS FOR THIS PRODUCT ARE: Not Available.

HMIS RATINGS FOR THIS PRODUCT ARE: Not Available.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment. Avoid creating and breathing dust.

Environmental Precautionary Measures: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Consult local authorities.

Procedure for Clean Up: Isolate hazard area and restrict access. Shovel, sweep up or use industrial vacuum cleaner to pick up. Place in a chemical waste container for disposal. Use a method that does not generate dust.

7. HANDLING AND STORAGE

Handling: For industrial use only. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment. Avoid breathing in dust. Use with adequate ventilation. Do not consume food, drink or smoke while handling this material. Avoid prolonged contact with eyes or prolonged skin contact.

Storage: Store in a cool, dry, well ventilated area, away from heat and ignition sources. Place away from incompatible materials. Store in accordance with good industrial practices. Protect against moisture. Avoid extreme temperatures and humidity. Keep away from reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Respiratory Protection: Use a NIOSH approved dust respirator. If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator. In case of spill or leak resulting in unknown concentration, use a NIOSH approved supplied air respirator.

Gloves:

Appropriate chemical resistant gloves should be worn.

Skin Protection: Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities.

Ingredients	Exposure Limit - ACGIH	Exposure Limit - OSHA	Immediately Dangerous to Life or Health - IDLH
Copper Sulphate	Not available.	Not available.	Not Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Colour: Blue

Odour: Odourless

pH 3 - 5 (5% solution @ 20°C)

Specific Gravity: 2.284

Boiling Point: Not Available.

Freezing/Melting Point: >100°C / 212°F

Vapour Pressure: Not Available.

Vapour Density: Not Available.

% Volatile by Volume: Not Available.

Evaporation Rate: Not Available.

Solubility: Easily soluble in hot water, acetone. Soluble in cold water, methanol.

VOCs: Not Available.

Viscosity: Not Available.

Molecular Weight: Not Available.

Other: Decomposition : 897 - 934 °C/ 1646 - 1713 °F

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: High temperatures. Moisture.

Materials to Avoid: Reducing agents. Acetylene. Hydroxylamine. Magnesium metal. Aluminum powder. Sodium Hypobromite. Nitromethane.

Hazardous Decomposition Products: Oxides of sulphur. Oxides of copper.

Additional Information:

No additional remark.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: Harmful if swallowed. May cause abdominal discomfort, nausea, vomiting and diarrhea.

Skin Contact: Causes skin irritation. May cause sensitization by skin contact. Causes redness. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

Inhalation: May cause irritation of the respiratory tract. Inhalation can cause coughing, sore throat or breathing problems.

Eye Contact: Causes severe eye irritation, watering, redness and swelling of the eyelids.

Additional Information: Prolonged or repeated exposure may cause kidney damage. Long term exposure can cause irritation, ulceration and perforation of nasal septum.

Acute Test of Product:

Acute Oral LD50: Not Available.

Acute Dermal LD50: Not Available.

Acute Inhalation LC50: Not Available.

Carcinogenicity:

Ingredients	IARC - Carcinogens	ACGIH - Carcinogens
Copper Sulphate	Not listed.	Not listed.

Carcinogenicity Comment: No additional information available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: Copper sulfate is a teratogen and a mutagen.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ingredients	Ecotoxicity - Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity - Freshwater Algae Data
Copper Sulphate	LC50 96 h (Oncorhynchus mykiss) 0.1 mg/L	Not Available.	Not Available.

Other Information:

Toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (CUPRIC SULPHATE)

DOT Hazardous Class 9

DOT UN Number: UN3077

DOT Packing Group: III

DOT Reportable Quantity (lbs): Not Available.

Note: No additional remark.

Marine Pollutant: Yes.

TDG (Canada):

TDG Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CUPRIC SULPHATE)

Hazard Class: 9

UN Number: UN3077

Packing Group: III

Note: No additional remark.

Marine Pollutant: Yes.

15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Note: Not available.

U.S. Regulatory Rules

Ingredients	CERCLA/SARA - Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA - Section 313:
Copper Sulphate	Not Listed.	Listed	Not Listed.

California Proposition 65: Not Listed.

MA Right to Know List: Listed.

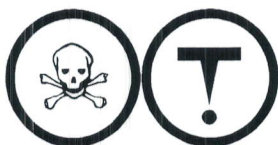
New Jersey Right-to-Know List: Listed.

Pennsylvania Right to Know List: Listed.

WHMIS Hazardous Class:

D1B TOXIC MATERIALS

D2B TOXIC MATERIALS



16. OTHER INFORMATION

Additional Information:

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Disclaimer:

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END OF MSDS