

Mallinckrodt

Material Safety Data

C11560

Emergency Phone Number: 314-982-5000

CUPRIC CHLORIDE

PRODUCT IDENTIFICATION:

Synonyms: Copper dichloride; copper chloride dihydrate
Formula CAS No.: 10125-13-0 (Hydrate)
TSCA CAS No.: 7447-39-4 (Anhydrous)
Molecular Weight: 170.48
Chemical Formula: $CuCl_2 \cdot 2H_2O$
Hazardous Ingredients: Not applicable.

PRECAUTIONARY MEASURES

WARNING: HARMFUL IF SWALLOWED OR INHALED.
CAUSES EYE IRRITATION.
Avoid breathing dust.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.
Avoid contact with eyes.

EMERGENCY/FIRST AID

If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. In all cases call a physician.
SEE SECTION 5.

DOT Hazard Class: ORM-B

Effective Date: 08-28-85

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Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 40361.

SECTION 1 Physical Data

Appearance: Fine, light blue-green crystals.
Odor: Slight hydrochloric odor.
Solubility: 110.4g/100ml water @ 0°C (32°F).
Boiling Point: No information found.
Melting Point: Loses water @ 70-200°C (158-392°F)
Specific Gravity: 2.54
Vapor Density (Air=1): No information found.
Vapor Pressure (mm Hg): No information found.
Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire: Not considered to be a fire hazard.
Explosion: Not considered to be an explosion hazard.
Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.
Special Information: Use protective clothing and breathing equipment appropriate for the surrounding fire.

SECTION 3 Reactivity Data

Stability: Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products: Emits toxic fumes of chlorine when heated to decomposition.
Hazardous Polymerization: This substance does not polymerize.

Incompatibilities:

Potassium, sodium, hydrazine, nitromethane, aluminum, strong oxidizers, acetylene, and sodium hypobromite.

SECTION 4 Leak/Spill Disposal Information

Ventilate area of leak or spill. Clean-up personnel require protective clothing and respiratory protection from dust.
Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate dust. Disposal: Whatever cannot be saved for reclamation may be disposed in a RCRA approved hazardous waste facility. Do not flush to sewer. Toxic to fish.

Reportable Quantity (RQ)(CWA/CERCLA): 10 lbs.

Ensure compliance with local, state and federal regulations.

CUPRIC CHLORIDE

SECTION 5 Health Hazard Information

A. EXPOSURE/HEALTH EFFECTS

Inhalation:

May cause irritation to the upper respiratory tract. Symptoms may include coughing, sore throat, and shortness of breath. May also cause symptoms similar to the common cold, including chills and stiffness of the head.

Ingestion:

May cause burning pain in the mouth, esophagus, and stomach. Hemorrhagic gastritis, nausea, vomiting, abdominal pain, metallic taste, and diarrhea may occur. If vomiting does not occur immediately, systemic copper poisoning may occur. Symptoms may include capillary damage, headache, cold sweat, weak pulse, kidney and liver damage, central nervous excitation followed by depression, jaundice, convulsions, paralysis and coma. Death may occur from shock or renal failure.

Skin Contact:

May cause irritation, redness, and pain.

Eye Contact:

May cause severe irritation with symptoms of redness, pain, blurred vision, discoloration, and possible eye damage.

Chronic Exposure:

Prolonged or repeated skin exposure may cause dermatitis. Prolonged or repeated exposure to dusts of copper salts may cause discoloration of the skin or hair, ulceration and perforation of the nasal septum, runny nose, metallic taste, and atrophic changes and irritation of the mucous membranes.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or impaired liver, kidney, or pulmonary function or pre-existing Wilson's disease may be more susceptible to the effects of this material.

B. FIRST AID

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:

If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Call a physician immediately. Never give anything by mouth to an unconscious person.

Skin Exposure:

Remove any contaminated clothing. Wipe off excess from skin. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Exposure:

Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA (RTECS, 1982)

No LD50/LC50 information found relating to normal routes of occupational exposure. Antidotes: Oral rat LD50:140 mg/kg Mutation references cited.

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:

- OSHA Permissible Exposure Limit (PEL): 1 mg(Cu)/m³ (TWA)
- ACGIH Threshold Limit Value (TLV): 1 mg(Cu)/m³ (TWA) 2 mg(Cu)/m³ (STEL)

Ventilation Systems:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)

If the TLV is exceeded, a dust/mist respirator with chemical goggles may be worn, in general, up to ten times the TLV. Consult respirator supplier for limitations. Alternatively, a supplied air full facepiece respirator or airtight hood may be worn.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances.

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