



SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	COPPER (II) CHLORIDE DIHYDRATE
Other identification (Chemical name, Commercial name, Synonymous)	COPPER (II) CHLORIDE DIHYDRATE, CUPRIC CHLORIDE DIHYDRATE; CHLORURE DE CUIVRE (II)
Product code	CR-0169
Chemical formula	$\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$
Molar weight	170.48
Recommended use and Restrictions on use	For laboratory, school, commercial or industrial use. Not for medical or household use. Do not use for medical, food or household purposes.
Supplier	LABORATOIRE MAT 610, rue Adanac Québec Québec G1C 7B7 418-660-8666 Mon-Fri 8h-16h www.labmat.com labmat@labmat.com
Emergency phone	418-660-8666 Mon-Fri 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS	2026-06-29

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Skin corrosion/irritation - Skin irritation - category 2
- Serious eye damage/eye irritation - Eye irritation - category 1
- Corrosive to metals - category 1
- Acute toxicity - Dermal - category 4
- Acute toxicity - Oral - category 4

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- Causes skin irritation
- Causes serious eye damage
- May be corrosive to metals
- Harmful in contact with skin
- Harmful if swallowed

Precautionary statements (P)

- Wash thoroughly after handling.
- IF ON SKIN: Wash with plenty of water
- Specific treatment (see section 4 on the SDS on this label).
- If skin irritation occurs: Get medical attention.
- Take off contaminated clothing and wash before re-use.
- Wear protective gloves (nitrile, butyl, neoprene), protective clothing and eye and face protection.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER or a physician.
- Keep only in original container.
- Absorb spillage to prevent material damage.
- Store in a corrosion resistant container or a container with corrosion resistant liner.
- Call a POISON CENTER or a doctor or if you feel unwell.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- Do not eat, drink or smoke when using this product.
- IF SWALLOWED: Call a POISON CENTER or a physician if you feel unwell.
- Rinse mouth.

Other dangers

NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)

Health 2
Fire 0
Reactivity 0
Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Cupric chloride dihydrate	10125-13-0	<=100%

SECTION 04 - FIRST AID MEASURE

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Cough. Fever. Abdominal pain. Muscular weakness. Ref. section 11. The product is a corrosive material. Main symptoms of high exposure: Chemical burns of the skin, eyes and respiratory and digestive mucous membranes. Skin, eye and respiratory system irritation. The corrosive effect will outweigh the toxicity for the concentrated product. Nausea and vomiting.
Immediate medical attention and special treatment, if necessary	Treat according to symptoms. Show this sheet to the attending physician.

SECTION 05 - FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Combustion products	Hazardous combustion products formed under fire conditions: Copper oxides. Gaseous Hydrogen Chloride.
Specific hazards of the dangerous product	May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency measures	Evacuate personnel to safe areas. When handling, wear appropriate safety equipment (reference Section 8 for protective equipment to be used). Ensure a good ventilation. Use NIOSH cartridge respiratory protection if necessary or for larger spills.
Methods and materials for containment and cleaning up	Pick up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Discharge into the environment must be avoided.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Hygroscopique Store in a cool, dry, and well-ventilated place. Keep container tightly closed and store away from heat, water, moisture, and incompatible products (ref. section 10).
Methods of handling	This product is corrosive to metals. Do not bottle in a metal container. Avoid contact with eyes, skin and clothing. Avoid ingestion and inhalation. Wear personal protective equipment (ref. section 8) when handling. Always ensure good ventilation. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Component	CAS-No.	Value
Cupric chloride dihydrate	10125-13-0	No occupational exposure limits established by region-specific regulators - Quebec, Alberta, Ontario, British Columbia.

Respiratory

If work under the hood is not possible, or if the permissible levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator.

Gloves

Gloves resistant to acidic corrosive materials. Suggested material: Nitrile. Neoprene. Butyl. The type, thickness and length of the glove must be chosen according to the use, the concentration of the product, as well as the duration of use. Replace gloves regularly for better protection.

Eyes

Safety goggles with safety shutters.

Shoes

Use safety shoes.

Clothes

Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Engineering control

Use fan. Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Color	Green
Odour	Data not available
Odour threshold	Data not available
Melting point and freezing point	100°C
Boiling point	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Flash point	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
pH	Soln 5% = pH 3.0 - 3.8
Kinematic viscosity	Data not available
Solubility	Very soluble in water and alcohol
Partition coefficient water/n-octanol	Data not available
Vapour pressure	Data not available
Relative density	2.51g/cm ³
Vapour density	Data not available
Particle characteristics	Cristalline powder

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Acid product, reacts strongly with strong bases. Reacts strongly with metals.
Chemical stability	Stable under recommended storage conditions. Hygroscopic.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions to avoid	Avoid moisture. Avoid contact with incompatible materials and extreme temperatures.
Incompatible materials	Bases. Alkali metals. Acetylene. Sodium. Potassium.
Hazardous decomposition products	Copper oxides. Gaseous hydrogen chloride.

SECTION 11 - TOXICOLOGICAL INFORMATION

COPPER (II) CHLORIDE DIHYDRATE

Routes of exposure	Ingestion and inhalation.
Acute exposition effects / symptoms:	By exposure route below. The corrosive effect will outweigh the toxicity for the concentrated product.
- Eyes	Causes serious eye damage. Severe burns and destruction of ocular tissue that can lead to corneal ulceration and blindness.
- Skin	Irritation.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Cough. Sneezing.
Acute toxicity (Ingestion)	Mucous membrane irritation. Abdominal pain. Nausea and vomiting. Gastric irritation. Fever. Muscular weakness.
Chronic exposure effects / symptoms	To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 336mg/kg. LD50 Dermal - Rat - 1224-2000mg/kg. Data based on the anhydrous product.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

COPPER (II) CHLORIDE DIHYDRATE

Ecotoxicity	Toxicity to fish: LC50 - Cyprinus carpio (Carp) - 0.12 - 0.23 mg/l - 96.0 h. LC50 - Lepomis macrochirus - 0.9 mg/l - 96.0 h. NOEC - Ictalurus punctatus - 0.013 mg/l - 60 d.
Persistence and degradability	May persist based on information provided. Not applicable for inorganic substances.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	Very toxic to aquatic organisms. Causes long-term adverse effects. Avoid release to the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	2802
UN Proper shipping name	
Transport hazard class(es)	Corrosive materials 8
Packing group	III
Limited quantity index	5 kg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA

- Skin corrosion/irritation - Skin irritation - category 2
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SECTION 16 - OTHER INFORMATION

CNESST: Commission des normes, de l'équité et de la santé et sécurité au travail

NIH: National institute of health (U.S. National Library of Medicine)

ECHA: Agence Européenne de Chimie

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

VECD: Valeur d'exposition courte durée

VEMP: Valeur d'exposition moyenne pondérée

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TLV : Threshold limit value

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

RSST: Règlement sur la santé et sécurité au travail (Québec)

INRS: l'Institut national de recherche et de sécurité pour la prévention des accidents du travail et des maladies professionnelles (France)

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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