Copper (II) Chloride Solution, 0.1M

MSDS # 217.00

Section 1: Product and Company Identification

Copper (II) Chloride Solution, 0.1M

Synonyms/General Names: Cupric Chloride Dihydrate
Product Use: For educational use only
Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300 **CANUTEC (Canada): 613-424-6666**

ScholAR Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

Clear pale blue liquid. No odor

HMIS (0 to4)

Health	**1**
Fire Hazard	**0**
Reactivity	**0**

WARNING! Slightly toxic by ingestion.
Target organs: Respiratory system, liver, kidneys.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Cupric Chloride Dihydrate (10125-13-0), 1-2%

Water (7732-18-5), 98-99%

Section 4: First Aid Measures

Always seek professional medical attention after first aid measures are provided.

Eyes: Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.

Skin: Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.

Ingestion: Call Poison Control immediately. ***Do not induce vomiting***. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration.

Section 5: Fire Fighting Measures

Noncombustible solution. When heated to decomposition, emits acrid fumes of chloride and copper oxides.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire. Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

Section 6: Accidental Release Measures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage Green

Handling: Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.

Storage: Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.

Section 8: Exposure Controls / Personal Protection

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Copper dusts and mists, as Cu: OSHA PEL: 1 mg/m^3, ACGIH TLV: 1 mg/m^3, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	$CuCl_2 \cdot 2H_2O$.	**Appearance**	Clear pale blue liquid.	
Molecular weight	170.48.	**Odor**	No odor.	
Specific Gravity	1.00 g/mL @ 20°C.	**Odor Threshold**	N/A.	
Vapor Density (air=1)	N/A.	**Solubility**	Soluble in water and alcohol.	
Melting Point	N/A.	**Evaporation rate**	N/A.	*(Butyl acetate = 1).*
Boiling Point/Range	N/A.	**Partition Coefficient**	N/A.	*(log P_{OW}).*
Vapor Pressure (20°C)	N/A.	**pH**	3.0, acidic.	
Flash Point:	N/A.	**LEL**	N/A.	
Autoignition Temp.:	N/A.	**UEL**	N/A.	

Section 10: Stability and Reactivity

Avoid heat and ignition sources.
Stability: Stable under normal conditions of use and storage.
Incompatibility: Potassium, sodium and ammonia. Corrosive to aluminum.
Shelf life: Poor shelf life, store in a cool dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: ***Eyes***: Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. ***Skin***: Redness, blistering, burning, itching, tissue destruction with slow healing. ***Ingestion***: Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. ***Inhalation***: Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.
Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision. **Sensitization:** none expected
Copper (II) Chloride, Dihydrate: LD50 [oral, rat]; N/A; LC50 [rat];N/A; LD50 Dermal [rabbit]; N/A
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal – toxic to terrestrial and aquatic plants and animals. Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name:	Copper Chloride solution.	**Canada TDG:**	Copper Chloride solution.
DOT Hazard Class:	8, pg III, Marine Pollutant .	**Hazard Class:**	8, pg III, Marine Pollutant.
Identification Number:	UN2802	**UN Number:**	UN2802

Section 15: Regulatory Information

EINECS: Not Listed.

WHMIS Canada: D1B: Toxic material causing immediate/serious effects
E: Corrosive Material.

TSCA: All components are listed or are exempt

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009