

# Safety Data Sheet

## Copper (II) Chloride, Anhydrous

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** Copper (II) Chloride, Anhydrous  
**Recommended Use:** Science education applications  
**Synonyms:** Cupric Chloride  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**WARNING**



Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

**GHS Classification:**

Hazardous to the aquatic environment - Acute Category 1, Hazardous to the aquatic environment - Chronic Category 1, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Acute Toxicity - Oral Category 4

|  |  |
|--|--|
| <b>Acute Toxicity Dermal Contains</b>      | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Acute Toxicity Inhalation Gas</b>       | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Contains</b>                            |  |
| <b>Acute Toxicity Inhalation Vapor</b>     | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Contains</b>                            |  |
| <b>Acute Toxicity Inhalation Dust/Mist</b> | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Contains</b>                            |  |

### Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u>            | <u>CAS #</u> | <u>%</u> |
|---------------------------------|--------------|----------|
| Copper (II) Chloride, Anhydrous | 7447-39-4    | 100      |

### Section 4 First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
**Skin Contact:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.  
**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.

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**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.  
**Hazardous Combustion Products:** Hydrogen chloride

## Section 6 Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Collect spillage.

## Section 7 Handling and Storage

**Handling:** Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Do not ingest or take internally. Keep locked up and out of the reach of children.  
**Storage:** Keep container tightly closed in a cool, well-ventilated place.  
**Storage Code:** Green - general chemical storage

## Section 8 Protection Information

| <b>Chemical Name</b>            | <b>ACGIH</b>                                   |               | <b>OSHA PEL</b> |               |
|---------------------------------|--|---------------|-----------------|---------------|
|                                 | <b>(TWA)</b>                                   | <b>(STEL)</b> | <b>(TWA)</b>    | <b>(STEL)</b> |
| Copper (II) Chloride, Anhydrous | 1 mg/m <sup>3</sup> TWA (dust and mist, as Cu) | N/A           | N/A             | N/A           |

**Control Parameters**  
**Engineering Measures:** Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.  
**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.  
**Respiratory Protection:** No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 11. A respirator is not normally required.  
**Respirator Type(s):** None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.  
**Eye Protection:** Wear chemical splash goggles when handling this product. Have an eye wash station available.  
**Skin Protection:** Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.  
**Gloves:** No information available

## Section 9 Physical Data

|  |  |
|--|--|
| <b>Formula:</b> CuCl <sub>2</sub>                    | <b>Vapor Pressure:</b> No data available             |
| <b>Molecular Weight:</b> 134.45                      | <b>Evaporation Rate (BuAc=1):</b> No data available  |
| <b>Appearance:</b> Yellow to Brown Crystalline Solid | <b>Vapor Density (Air=1):</b> No data available      |
| <b>Odor:</b> No data available                       | <b>Specific Gravity:</b> 3.39 at 20 °C               |
| <b>Odor Threshold:</b> No data available             | <b>Solubility in Water:</b> Soluble                  |
| <b>pH:</b> No data available                         | <b>Log Pow (calculated):</b> No data available       |
| <b>Melting Point:</b> 630 C                          | <b>Autoignition Temperature:</b> No data available   |
| <b>Boiling Point:</b> No data available              | <b>Decomposition Temperature:</b> 993 C              |
| <b>Flash Point:</b> No data available                | <b>Viscosity:</b> No data available                  |
| <b>Flammable Limits in Air:</b> No data available    | <b>Percent Volatile by Volume:</b> No data available |

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## Section 10

## Reactivity Data

|  |  |
|--|--|
| <b>Reactivity:</b>                       | Mildly reactive - See below                              |
| <b>Chemical Stability:</b>               | Stable under normal conditions.                          |
| <b>Conditions to Avoid:</b>              | Exposure to moisture                                     |
| <b>Incompatible Materials:</b>           | Hypobromite, Sodium Metal, Potassium Metal, Strong acids |
| <b>Hazardous Decomposition Products:</b> | Hydrogen chloride  |
| <b>Hazardous Polymerization:</b>         | Will not occur   |

## Section 11

## Toxicity Data

|                          |  |
|--------------------------|--|
| <b>Routes of Entry</b>   | Inhalation and ingestion.  |
| <b>Symptoms (Acute):</b> | Convulsions, Tachycardia, Paralysis, Hypotension, Gastric Hemorrhage, Hemolytic Crisis |
| <b>Delayed Effects:</b>  | Hepatolenticular Degeneration (Wilson's Disease)                                       |

### Acute Toxicity:

| Chemical Name                   | CAS Number | Oral LD50  | Dermal LD50    | Inhalation LC50 |
|---------------------------------|------------|--|----------------|-----------------|
| Copper (II) Chloride, Anhydrous | 7447-39-4  | Oral LD50 Mouse<br>233 mg/kg<br>Oral LD50 Mouse<br>110 mg/kg<br>Oral LD50 Rat 584<br>mg/kg | Not determined | Not determined  |

### Carcinogenicity:

| Chemical Name                   | CAS Number | IARC       | NTP        | OSHA       |
|---------------------------------|------------|------------|------------|------------|
| Copper (II) Chloride, Anhydrous | 7447-39-4  | Not listed | Not listed | Not listed |

### Chronic Effects:

|                              |   |
|------------------------------|---|
| <b>Mutagenicity:</b>         | No evidence of a mutagenic effect.                  |
| <b>Teratogenicity:</b>       | No evidence of a teratogenic effect (birth defect). |
| <b>Sensitization:</b>        | No evidence of a sensitization effect.              |
| <b>Reproductive:</b>         | No evidence of negative reproductive effects.       |
| <b>Target Organ Effects:</b> |   |
| <b>Acute:</b>                | Kidneys, Liver                                      |
| <b>Chronic:</b>              | No data available                                   |

## Section 12

## Ecological Data

|                               |  |
|-------------------------------|--|
| <b>Overview:</b>              | Severe ecological hazard. This product may be toxic to plants and/or wildlife. |
| <b>Mobility:</b>              | No data  |
| <b>Persistence:</b>           | No data  |
| <b>Bioaccumulation:</b>       | No data  |
| <b>Degradability:</b>         | No data  |
| <b>Other Adverse Effects:</b> | No data  |

| Chemical Name                   | CAS Number | Eco Toxicity                         |
|---------------------------------|------------|--------------------------------------|
| Copper (II) Chloride, Anhydrous | 7447-39-4  | Aquatic EC50 (48h) Daphnia 0.04 MG/L |

## Section 13

## Disposal Information

|                                |   |
|--------------------------------|---|
| <b>Disposal Methods:</b>       | Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance. |
| <b>Waste Disposal Code(s):</b> | Not Determined  |

## Section 14

## Transport Information

|   |   |
|---|---|
| <b>Ground - DOT Proper Shipping Name:</b> | <b>Air - IATA Proper Shipping Name:</b> |
|---|---|

# Safety Data Sheet

UN2802  
Copper Chloride  
Class 8  
P.G. III

UN2802  
Copper Chloride  
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P.G. III

## Section 15

## Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

| Chemical Name                   | CAS Number | § 313 Name | § 304 RQ | CERCLA RQ                           | § 302 TPQ | CAA 112(2) TQ |
|---------------------------------|------------|------------|----------|-------------------------------------|-----------|---------------|
| Copper (II) Chloride, Anhydrous | 7447-39-4  | No         | 10 lb RQ | 10 lb final RQ;<br>4.54 kg final RQ | No        | No            |

## Section 16

## Additional Information

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**Replaces: 09/03/2014**

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

### Glossary

|        |   |      |   |
|--------|---|------|---|
| ACGIH  | American Conference of Governmental Industrial Hygienists             | NTP  | National Toxicology Program                   |
| CAS    | Chemical Abstract Service Number                                      | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL  | Permissible Exposure Limit                    |
| DOT    | U.S. Department of Transportation                                     | ppm  | Parts per million                             |
| IARC   | International Agency for Research on Cancer                           | RCRA | Resource Conservation and Recovery Act        |
| N/A    | Not Available   | SARA | Superfund Amendments and Reauthorization Act  |
|        |   | TLV  | Threshold Limit Value                         |
|        |   | TSCA | Toxic Substances Control Act                  |
|        |   | IDLH | Immediately dangerous to life and health      |