

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name	Copper (II) chloride, anhydrous
CAS number	7447-39-4
Synonyms	Cupric chloride

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals.
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#### 1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

#### 1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute Oral Toxicity	Category 4
Acute Dermal Toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

Causes skin irritation.  
Causes serious eye damage.  
Harmful if swallowed or in contact with skin.

Precautionary statements

Prevention: Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

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 doctor/physician.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Disposal: Dispose of contents/container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Very toxic to aquatic life with long lasting effects.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Copper (II) chloride	Cupric chloride	7447-39-4	>95%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

General advice

<b>If inhaled</b>	Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
<b>In case of skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
<b>In case of eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>If swallowed</b>	Do NOT induce vomiting. Call a physician or poison control center immediately.

#### 4.2 Most important symptoms and effects, both acute and delayed

Causes severe eye damage.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media**                      Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

**Unsuitable extinguishing media**                      No information available.

#### 5.2 Specific hazards arising from the substance or mixture

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition. Do not allow run-off from fire-fighting to enter drains or water courses. Hazardous Combustion Products: Hydrogen chloride gas.

#### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 5.4 Further information

**Flash Point** No information available.

**Autoignition Temperature** No information available.

### Explosion limits

**Upper** No data available.

**Lower** No data available.

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

### NFPA

Health	Flammability	Instability	Physical hazards
3	0	1	N/A

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

### 6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

### 6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

### 6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Precautions on safe handling

Wear personal protective equipment/face protection. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed, seek immediate medical assistance.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

### 7.2 Conditions for safe storage, including any incompatibilities

### Storage conditions

Keep containers tightly closed in a dry, cool, and well-ventilated place. Store contents under argon. Corrosives area. Store under an inert atmosphere. Protect from moisture.

### Incompatibilities

Strong oxidizing agents.

## SECTION 8: Exposure controls/personal protection

### 8.1 Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Component	Type	Value
Cupric chloride	TWA	1 mg/m <sup>3</sup>

#### US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Cupric chloride	IDLH	100 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>

#### Biological occupational exposure limits

No information available.

### 8.2 Exposure controls

#### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Personal protective equipment

##### Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

##### Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Body Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory protection

No protective equipment is needed under normal use conditions.

##### Control of environmental exposure

No information available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Blue-green
Odor	Odorless
Odor Threshold	No information available
pH	3 (50 g/l aq.sol (20°C))
Melting Point/Range	498 °C / 928.4 °F
Boiling Point/Range	993 °C / 1819.4 °F @ 760 mmHg
Evaporation Rate	Not applicable
Flammability (solid)	No information available
Flammability or explosive limit	No data available
Upper	
Lower	
Vapor Pressure	No information available
Vapor Density	Not applicable
Density	No information available
Solubility	620 g/L (20°C)
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available
Decomposition Temp	> 300°C
Viscosity	Not applicable
Molecular Formula	Cl <sub>2</sub> Cu
Molecular Weight	134.45 g/mol
VOC Content(%)	No information available
Oxidizing properties	No information available

### 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

Hygroscopic.

### 10.3 Possibility of hazardous reactions

None under normal processing.

### 10.4 Conditions to avoid

Incompatible products. Excess heat. Avoid dust formation. Exposure to moist air or water.

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

Hydrogen chloride gas.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

##### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cupric chloride	584 mg/kg (Rat)	1224 mg/kg (Rat)	-

##### Skin corrosion/irritation

Irritating to skin.

##### Serious eye damage/eye irritation

Causes eye burns.

##### Respiratory or skin sensitization

Irritating to respiratory system.

##### Germ cell mutagenicity

No information available.

##### Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Cupric chloride	7447-39-4	Not listed	Not listed	Not listed	Not listed	Not listed

##### Specific target organ toxicity - single exposure

None known.

##### Specific target organ toxicity - repeated exposure

None known.

##### Reproductive toxicity

No information available.

##### Chronic effects

No information available.

## 11.2 Additional Information

The toxicological properties have not been fully investigated.

## SECTION 12: Ecological information

### 12.1 Toxicity

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Product		Species	Test Results
Cupric chloride	EC50	Freshwater Algae	0.12 - 0.2 mg/L/96h
	LC50	Freshwater Fish	0.120 - 0.130 mg/L/96h
	LC50	Freshwater Fish	0.9 mg/L/96h
	LC50	Freshwater Fish	0.08 mg/L/96h
	EC50	Water Flea	0.04 mg/L/48h

### 12.2 Persistence and degradability

Soluble in water. Persistence is unlikely based on information available.

### 12.3 Bio accumulative potential

No information available.

### 12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

### 12.5 Results of PBT and vPvB assessment

No information available.

### 12.6 Endocrine disrupting properties

No information available.

### 12.7 Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### DOT (US)

UN-No

UN2802

Proper Shipping Name

COPPER CHLORIDE



Hazard Class 8  
Packing Group III

### **IMDG**

UN-No UN2802  
Proper Shipping Name COPPER CHLORIDE  
Hazard Class 8  
Packing Group III

### **IATA**

UN-No UN2802  
Proper Shipping Name COPPER CHLORIDE  
Hazard Class 8  
Packing Group III

## **SECTION 15: Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not applicable.

**CERCLA Hazardous Substance List (40 CFR 302.4)**  
Listed, Cupric chloride (CAS #7447-39-4), RQ: 10 lb.

**SARA 304 Emergency release notification**  
Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**  
Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**  
**SARA 302 Extremely hazardous substance**  
Not listed.

**SARA 311/312 Hazardous**  
See Section 2 for more information.

**SARA 313 (TRI reporting)**  
Listed, Cupric chloride (CAS #7447-39-4).

### **Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**  
Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**  
Not regulated.

**Clean Water Act (CWA)**

Listed, Cupric chloride (CAS #7447-39-4), RQ: 10 lb.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Not listed.

**US state regulations****US. Massachusetts RTK - Substance List**

Listed, Cupric chloride (CAS #7447-39-4).

**US. New Jersey Worker and Community Right-to-Know Act**

Listed, Cupric chloride (CAS #7447-39-4).

**US. Pennsylvania Worker and Community Right-to-Know Law**

Listed, Cupric chloride (CAS #7447-39-4).

**California Proposition 65**

Not listed.

**SECTION 16: Other information**

Issue date: 10/25/2024

**SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.