

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name Copper Chloride

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

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, smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Skin

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.

Eyes

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.

Ingestion

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

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 chloride	Cupric chloride	7447-39-4	>95%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled

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 air of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
In case of eye contact	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.
If swallowed	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

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 product 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.

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. Thermal decomposition can lead to release of irritating gases and vapors.

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 then 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. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

No information available.

US. ACGIH Threshold Limit Values

Component	Type	Value
Copper Chloride	TLV	1 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Copper Chloride	IDLH	100 mg/m3
	TWA	1 mg/m3

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 describe by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and 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	No information available

Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
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	No information available
Molecular Formula	Cl ₂ Cu
Molecular Weight	134.45
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

None known, based on 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 and 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
Copper 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
Copper 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

No information available

SECTION 12: Ecological information**12.1 Toxicity**

Product		Species	Test Results
Copper chloride	EC50	Freshwater Algae	0.12 - 0.2 mg/L 96 h
	LC50	Carp	0.120 - 1.130 mg/L 96 h
	LC50	Bluegill sunfish	0.9 mg/L 96 h
	LC50	Rainbow trout	0.8 mg/L 96 h
	EC50	Water flea	0.04 mg/L 48 h

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)

Listed (COPPER CHLORIDE (7447-39-4))

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed (COPPER CHLORIDE (7447-39-4)) 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 (COPPER CHLORIDE (7447-39-4)) Weight: >95%, Threshold Values %: 1.0

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.

Safe Drinking Water Act

Listed (COPPER CHLORIDE (7447-39-4))

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

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Listed (COPPER CHLORIDE (7447-39-4))

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

Listed (COPPER CHLORIDE (7447-39-4))

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

Listed (COPPER CHLORIDE (7447-39-4))

California Proposition 65

Not listed

SECTION 16: Other information

Issue date: 07/18/2024
Revision: 0

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.