



## MATERIAL SAFETY DATA SHEET SDS/MSDS

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

#### 1.1 Product identifiers

Product name : **Cuprous Chloride**

CAS-No. : 7758-89-6

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

Identified uses : Laboratory chemicals, Industrial & for professional use only.

#### 1.3 Details of the supplier of the safety data sheet

Company : Bio-Chem Chemicals  
5455 Nicholson Road, Science Market  
Ambala Cantt, 133001 - Haryana  
+91 82952 41953  
info@biofinechemical.com - www.biofinechemical.com

#### 1.4 Emergency telephone number

Emergency Phone # +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No

**1272/2008** Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 Label elements

##### Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word : Danger

Hazard statement(s)

H302

Harmful if swallowed.

H315

Causes skin irritation.

|                                |                                                                          |
|--------------------------------|--------------------------------------------------------------------------|
| H318                           | Causes serious eye damage.                                               |
| H410                           | Very toxic to aquatic life with long lasting effects.                    |
| Precautionary statement(s)     |                                                                          |
| P273                           | Avoid release to the environment.                                        |
| P280                           | Wear protective gloves/ eye protection/ face protection.                 |
| P305 + P351 + P338             | IF IN EYES: Rinse cautiously with water for several minutes.             |
| P501                           | Remove contact lenses, if present and easy to do. Continue rinsing.      |
| Supplemental Hazard Statements | Dispose of contents/ container to an approved waste disposal plant. none |

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                    |
|------------------|--------------------|
| Synonyms         | : Cuprous chloride |
| Formula          | : ClCu             |
| Molecular weight | : 99.00 g/mol      |
| CAS-No.          | : 7758-89-6        |
| EC-No.           | : 231-842-9        |
| Index-No.        | : 029-001-00-4     |

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component               |              | Classification                   | Concentration |
|-------------------------|--------------|----------------------------------|---------------|
| <b>Cuprous chloride</b> |              |                                  |               |
| CAS-No.                 | 7758-89-6    | Acute Tox. 4; Skin Irrit. 2; Eye | <= 100 %      |
| EC-No.                  | 231-842-9    | Dam. 1; Aquatic Acute 1;         |               |
| Index-No.               | 029-001-00-4 | Aquatic Chronic 1; H302,         |               |
|                         |              | H315, H318, H400, H410           |               |
|                         |              | M-Factor - Aquatic Acute: 10 -   |               |
|                         |              | Aquatic Chronic: 1               |               |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.2 Special hazards arising from the substance or mixture**

Hydrogen chloride gas, Copper oxides

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **5.4 Further information**

No data available

## **SECTION 6: Accidental release measures**

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **6.4 Reference to other sections**

For disposal see section 13.

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Air, light, and moisture sensitive.

Storage class (TRGS 510): Non Combustible Solids

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

### **8.2 Exposure controls**

#### **Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### **Personal protective equipment**

##### **Eye/face protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

|                                                 |                                       |
|-------------------------------------------------|---------------------------------------|
| a) Appearance                                   | Form: Beads<br>Colour: beige          |
| b) Odour                                        | No data available                     |
| c) Odour Threshold                              | No data available                     |
| d) pH                                           | 5 at 50 g/l at 20 °C                  |
| e) Melting point/freezing point                 | Melting point/range: 430 °C - lit.    |
| f) Initial boiling point and boiling range      | 1,490 °C - lit.                       |
| g) Flash point                                  | Not applicable                        |
| h) Evaporation rate                             | No data available                     |
| i) Flammability (solid, gas)                    | No data available                     |
| j) Upper/lower flammability or explosive limits | No data available                     |
| k) Vapour pressure                              | 1.3 mmHg at 546 °C                    |
| l) Vapour density                               | No data available                     |
| m) Relative density                             | 4.140 g/cm <sup>3</sup>               |
| n) Water solubility                             | 0.047 g/l at 20 °C - slightly soluble |
| o) Partition coefficient: n-octanol/water       | No data available                     |
| p) Auto-ignition temperature                    | No data available                     |
| q) Decomposition temperature                    | No data available                     |
| r) Viscosity                                    | No data available                     |
| s) Explosive properties                         | No data available                     |
| t) Oxidizing properties                         | No data available                     |

## 9.2 Other safety information

Bulk density 1.7 g/l at 20 °C

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Air Avoid moisture. Light.

### 10.5 Incompatible materials

Oxidizing agents, Alkali metals

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Copper oxides

Other decomposition products - No data available

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 336 mg/kg(Cuprous chloride)

LC50 Inhalation - Mouse - 1,008 mg/m3(Cuprous chloride)

#### Skin corrosion/irritation

Skin - Rabbit(Cuprous chloride)

Result: Irritating to skin.

#### Serious eye damage/eye irritation

Eyes - Rabbit(Cuprous chloride)

Result: Risk of serious damage to eyes.

#### Respiratory or skin sensitisation

Maximisation Test - Guinea pig(Cuprous chloride)

Does not cause skin sensitisation.

(OECD Test Guideline 406)

#### Germ cell mutagenicity

Rat(Cuprous chloride)

Ascites tumor

Cytogenetic analysis

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### Reproductive toxicity

No data available(Cuprous chloride)

#### Specific target organ toxicity - single exposure

No data available(Cuprous chloride)

#### Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available(Cuprous chloride)

## Additional Information

RTECS: GL6990000

Symptoms of systemic copper poisoning may include: capillary damage, head and central nervous system excitation followed by depression, jaundice, convulsions, renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, copper deposition in the cornea as exemplified by humans with Wilson's disease leading to hemolytic anemia and accelerates arteriosclerosis. (Cuprous chloride)

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 0.05 - 0.36 mg/l - 96.0 h (Cuprous chloride)

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available (Cuprous chloride)

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 2802                      IMDG: 2802                      IATA: 2802

### 14.2 UN proper shipping name

ADR/RID: COPPER CHLORIDE  
IMDG: COPPER CHLORIDE  
IATA: Copper chloride

### 14.3 Transport hazard class(es)

ADR/RID: 8                      IMDG: 8                      IATA: 8

### 14.4 Packaging group

ADR/RID: III                      IMDG: III                      IATA: III

### 14.5 Environmental hazards

ADR/RID: no                      IMDG Marine pollutant: yes                      IATA: no

### 14.6 Special precautions for user

No data available

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

## **15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

## **SECTION 16: Other information**

### **Full text of H-Statements referred to under sections 2 and 3.**

|      |                                                       |
|------|-------------------------------------------------------|
| H302 | Harmful if swallowed.                                 |
| H315 | Causes skin irritation.                               |
| H318 | Causes serious eye damage.                            |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |

### **Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. 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. It does not represent any guarantee of the properties of the product.