# Copper(II) chloride:sc-252631

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Copper(II) chloride
**Product Number:** sc-252631

**Supplier:** Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, CA 95060
800.457.3801 or 831.457.3800

**Emergency:** ChemWatch
Within the US & Canada: 877–715–9305
Outside the US & Canada: +800 2436 2255 (1–800-CHEMCALL) or call +613 9573 3112

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms:** Copper dichloride, Cupric chloride
**Formula:** CuCl2
**Molecular Weight:** 134.45 g/mol

| *CAS-No.* | *EC-No.* | *Index-No.* | *Concentration* |
|---|---|---|---|
| **Copper(II) chloride** | | | |
| 7447–39–4 | 231–210–2 | - | - |

### 3. HAZARDS IDENTIFICATION

**Emergency Overview**

**OSHA Hazards**
Target Organ Effect, Harmful by ingestion., Irritant

**Target Organs**
Liver, Kidney, Brain., Cardiovascular system.

**HMIS Classification**

- **Health Hazard**: 2
- **Chronic Health Hazard**: *
- **Flammability**: 0
- **Physical hazards**: 0

**NFPA Rating**

- **Health Hazard**: 2
- **Fire**: 0
- **Reactivity Hazard**: 0

**Potential Health Effects**

- **Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.
- **Skin:** May be harmful if absorbed through skin. Causes skin irritation.
- **Eyes:** Causes eye irritation.
- **Ingestion:** Harmful if swallowed.

### 4. FIRST AID MEASURES

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

**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.

## 5. FIRE-FIGHTING MEASURES

### Flammable properties

| | |
|---|---|
| Flash point | not applicable |
| Ignition temperature | no data available |

**Suitable extinguishing media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
**Special protective equipment for fire-fighters**
Wear self contained breathing apparatus for fire fighting if necessary.
**Further information**
The product itself does not burn.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.
**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.
**Methods for cleaning up**
Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

**Handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
**Storage**
Keep container tightly closed in a dry and well-ventilated place. hygroscopic Store under inert gas.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.
**Personal protective equipment**
**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
**Hand protection**
Handle with gloves.
**Eye protection**
Safety glasses
**Skin and body protection**
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|---|---|---|
| Form | solid | pH | no data available |
| Melting point | 620 °C (1,148 °F) | Boiling point | no data available |
| Flash point | not applicable | Ignition temperature | no data available |

| | | | |
|---|---|---|---|
| Lower explosion limit | no data available | Upper explosion limit | no data available |
| Water solubility | no data available | Density | 3.386 g/cm3 at 20 °C (68 °F) |

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

**Materials to avoid**

Strong bases, Alkali metals

**Hazardous decomposition products**

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

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

LD50 Oral – rat – 584 mg/kg
LD50 Intravenous – rat – 5 mg/kg
LD50 Intraperitoneal – rat – 14.7 mg/kg

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Signs and Symptoms of Exposure**

Symptoms of systemic copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, and kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis., Gastrointestinal disturbance, Lowered blood pressure, Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue.

**Potential Health Effects**

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes:** Causes eye irritation.

**Ingestion:** Harmful if swallowed.

**Target Organs:** Liver, Kidney, Brain., Cardiovascular system.

**Additional Information**

RTECS: GL7000000

## 12. ECOLOGICAL INFORMATION

**Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

| | |
|---|---|
| Toxicity to fish | mortality LC50 – *Cyprinus carpio* (Carp) – 0.12 – 0.23 mg/l – 96 h |
| Toxicity to algae | EC50 – *Chlorella vulgaris* (Fresh water algae) – 0.2 mg/l – 96 h |
| Toxicity to *daphnia* and other aquatic invertebrates. | Immobilization EC50 – *Daphnia magna* (Water flea) – 0.04 mg/l – 48 h |

**Further information on ecology**
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 13. DISPOSAL CONSIDERATIONS

**Product**
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.
**Contaminated packaging**
Dispose of as unused product.

## 14. TRANSPORT INFORMATION

**DOT (US)**
UN-Number: 2802 Class: 8 Packing group: III
Proper shipping name: Copper chloride
Marine pollutant: Severe marine pollutant
Poison Inhalation Hazard: No

**IMDG**
UN-Number: 2802 Class: 8 Packing group: III EMS-No: F-A, S-B
Proper shipping name: COPPER CHLORIDE
Marine pollutant: Severe marine pollutant

**IATA**
UN-Number: 2802 Class: 8 Packing group: III
Proper shipping name: Copper chloride

## 15. REGULATORY INFORMATION

**OSHA Hazards**
Target Organ Effect, Harmful by ingestion., Irritant
**TSCA Status**
On TSCA Inventory
**DSL Status**
All components of this product are on the Canadian DSL list.
**SARA 302 Components**
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

| **SARA 313 Components** | CAS-No. | Revision Date |
|---|---|---|
| Copper dichloride | 7447–39–4 | 1991–07–01 |

**SARA 311/312 Hazards**
Acute Health Hazard, Chronic Health Hazard
**Massachusetts Right To Know Components**

| | CAS-No. | Revision Date |
|---|---|---|
| Copper dichloride | 7447–39–4 | 1991–07–01 |

**Pennsylvania Right To Know Components**

| | CAS-No. | Revision Date |
|---|---|---|
| Copper dichloride | 7447–39–4 | 1991–07–01 |

**New Jersey Right To Know Components**

| | CAS-No. | Revision Date |
|---|---|---|
| Copper dichloride | 7447–39–4 | 1991–07–01 |

**California Prop. 65 Components**
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

## 16. OTHER INFORMATION

***The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.***

8/4/2011