

## MATERIAL SAFETY DATA SHEET OF

### COPPER OXYCHLORIDE 97% TC

#### 1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

**Supplier:** Shanghai Bosman Industrial Co., Ltd.

**Street address:** Room 1804, No.1611, North Sichuan Road, Hongkou District, Shanghai, P.R. China.

**FAX:** +86 21 63065878

**TEL:** +86 21 63065878

**Product name:** Copper oxychloride 97% TC

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Active Ingredients:** Copper oxychloride

**Chemical Abstracts name:** copper chloride oxide hydrate; copper chloride hydroxide

**IUPAC name:** dicopper chloride trihydroxide (approximate composition); copper oxychloride

**CAS NO.** 1332-65-6

**Composition:**

| INGREDIENT         | CAS NO        | PROPORTION(w/w) |
|--------------------|---------------|-----------------|
| Copper oxychloride | 1332-65-6     | 97% Min         |
| Inert ingredients  | Not available | up to 100%      |

Other ingredients determined not to be hazardous

#### 3. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302

Skin corrosion (Category 1B), H314

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

**Label elements**

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word    Danger

**Hazard statement(s)**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

**Precautionary statement(s)**

P280 Wear protective gloves/ protective clothing/ eye protection/ faceprotection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

Supplemental Hazard Statements    none

## **4. FIRST AID MEASURES**

**Inhalation:**

Remove victim from area of exposure - avoid becoming a casualty. Seek medical advice if effects persist.

**Skin Contact:**

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

**Eye Contact:**

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

**Ingestion:**

If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

**Medical attention and special treatment:** Treat symptomatically.

## **5. FIRE FIGHTING MEASURES**

**Extinguishing media**

**Suitable extinguishing media**

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

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

Hydrogen chloride gas, Copper oxides

**Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

## **6. ACCIDENT RELEASE MEASURES**

**Emergency procedures:**

If contamination of sewers or waterways has occurred advise local emergency services.

**Methods and materials for containment and clean up:**

Wear protective equipment to prevent skin and eye contact and breathing in dust. Contain - prevent run off into drains and waterways. Collect and seal in properly labelled containers.

## **7. HANDLING AND STORAGE**

**Precautions for safe handling:** Keep out of reach of children. Avoid skin and eye contact and breathing in vapour, mists and aerosols.

**Conditions for safe storage:** Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Store away from foodstuffs. Keep containers closed when not in use - check regularly for spills.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering controls:** Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**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:** Do not let product enter drains.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Solid

**Odor:** Odourless

**Solubility:** Dispersible in water

**pH:** 6-9.5

**Melting Point:** 140°C (at 760 mm Hg)

**Decomposition point(°C):** approx. 220°C

## 10. STABILITY AND REACTIVITY

**Reactivity:** No data available

**Chemical stability:** Stable under normal conditions of use.

**Conditions to avoid:** No data available

**Incompatible materials:** Strong oxidizing agents

**Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions. -

Hydrogen chloride gas, Copper oxides

**Hazardous reactions:** None known.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Ingestion:** Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain.

**Eye contact:** An eye irritant.

**Skin contact:** Contact with skin may result in irritation. May cause skin sensitisation in sensitive individuals. Repeated or prolonged skin contact may lead to allergic contact dermatitis.

**Inhalation:** Breathing in dust may result in respiratory irritation.

### Long Term Effects:

Evidence indicates that repeated or prolonged exposure to this chemical could result in effects on the gastrointestinal system, and liver.

Toxicological Data: No LD50 data available for the product. However, for COPPER OXYCHLORIDE:

Oral LD50 (rat): 700-800 mg/kg, Dermal LD50 (rabbit): >2000 mg/kg

## 12. ECOLOGICAL INFORMATION

**Birds** Dietary LC50 (8 d) for bobwhite quail 167.3 mg Cu/kg b.w. daily.

**Fish** LC50 (96 h) for rainbow trout 0.217 mg Cu/l.

**Daphnia** LC50 (48 h) 0.29 mg Cu/l.

**Algae** EbC50 56.3 mg Cu/l; ErC50 >187.5 mg Cu/l.

**Bees** LD50 (oral) 18.1 µg Cu/bee; (contact) 109.9 µg Cu/bee.

**Worms** LC50 (14 d) >489.6 mg/kg soil.

### 13. DISPOSAL CONSIDERATION

**Pesticide disposal:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Comply with local legislation applying to waste disposal.

**Container disposal:** Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

**TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.

Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal.

### 14. TRANSPORT INFORMATION

#### ADR/RID/ADNR

UN Number: 3261

UN Proper shipping name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (copper oxychloride)

Transport hazard class: 8

Packing group: III

#### IMDG

UN Number: 3261

UN Proper shipping name: Environmentally hazardous substance, solid, N.O.S. (copper oxychloride) Transport hazard class: 8

Packing group: III

#### IATA

UN Number: 3261

UN Proper shipping name: Environmentally hazardous substance, solid, N.O.S. (copper oxychloride)

Transport hazard class: 8

Packing group: III

## **15. REGULATORY INFORMATION**

Follow local, international laws and regulations.

## **16. OTHER INFORMATION**

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

-- END OF MSDS --