



CURE CHEM INDIA

The Chemical People

A-85, 1ST FLOOR, MASOODPUR MAIN ROAD, VASANT KUNJ, NEW DELHI-110070 (INDIA)
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Material Safety Data Sheet COPCURE Copper Oxychloride 85 % WP

1. Product & Company Identification:

Product Name: Copper Oxychloride 85% wettable powder.

Formula: $\text{CuCl}_2 \cdot 3\text{Cu}(\text{OH})_2$

CAS: 1332-40-7 - Copper chloride oxide hydrate.

Supplier: CURE CHEM INDIA
Address: A-85, 1ST FLOOR, MASOODPUR MAIN ROAD, VASANT KUNJ, NEW DELHI-110070 (INDIA)
Contact details: +91-11-26898689/26139884

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2. Composition / Information:

Recommended Use: Fungicide and bactericide.

Appearance: Odourless, bluish-green powder.

Chemical entity: The technical Copper Oxychloride is mixed with sulphite lye and a disbursement agent to produce a 50% metallic copper equivalent, wettable powder.

3. Hazards Identification:



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Acute health effects: Irritation to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound.

Chronic health effects: 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 haemolytic anaemia and arteriosclerosis.

Carcinogenicity: This product is not listed by the National Toxicology Program (US), International Agency for Research on Cancer or regulated as a carcinogen by OSHA (Occupational Safety and Health Administration (USA)).

4. First Aid Measures:

- Ingestion:** Rinse mouth with water. Give plenty of water to drink. If vomiting occurs, give further water and seek medical attention.
- Eye contact:** Irrigate with copious quantities of water for 15 minutes. In all cases of eye contamination, it is a sensible precaution to seek medical advice.
- Skin contact:** Wash contaminated skin with soap and water. Remove contaminated clothing and wash before reuse. If irritation occurs, seek medical advice.
- Inhalation:** Remove victim from exposure - avoid becoming a casualty. Remove clothing and loosen remaining clothing. Allow patient to assume comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.
- Notes to physician:** Elevated urinary copper is an indication of excess copper exposure. If swallowed, perform gastric lavage with water or 0.1% solution of potassium ferrocyanide. Mucosal damage may contraindicate gastric lavage. Many copper salts by skin contact cause itching, eczema and rarely sensitization reactions.



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5. Fire Fighting Measure:

Specific hazards: Not a combustible material.

Extinguishing media: Foam, dry chemical, carbon dioxide or water spray (fog).

Further advice: Thermal decomposition will release hydrogen chloride, oxides of Hydrogen, oxides of Copper and other toxic and/or hazardous gases.

Special fire fighting procedures: Remain up wind, wear self contained breathing apparatus, and keep run-off out of water systems.

NB: Be aware, that in unique conditions, dusts may form explosive mixtures in air.

6. Accidental Release Measures:

Small spills: Wear protective equipment to prevent skin and eye contamination. Sweep or vacuum up, and avoid generating dust. Collect and seal in properly labeled containers for disposal. Wash area down with detergent and excess water.

Large spills: Wear protective equipment to prevent skin and eye contamination and inhalation of dust. Cover with a damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labeled containers for disposal. Wash area down with detergent and excess water, and try to avoid run-off from entering waterways or groundwater. If contamination of crops or water system has occurred, advise the relevant emergency services or national department of agriculture.

7. Handling and Storage:



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Handling: This product is not classified as dangerous for the purpose of transport. Transport away from foodstuffs. Keep out of reach of children. Operatives should be provided with, and made to wear:

- Gloves and long sleeve overalls.
- Approved respirator for toxic dusts.
- Goggles or a face shield.

Storage: Store in closed containers or bags in a cool, dry, well ventilated area, away from heat sources and reducing agents. Ideally, bags should be placed on pallets.

8. Exposure Controls/Personal Protection:

Exposure standards: No exposure Standard (TWA) is available for this product. The standard for dust is suggested i.e. 10mg. /m³.

Engineering measures: Ensure ventilation is adequate and that air concentrations of the component are controlled below quoted Exposure Standards. Avoid generation and inhaling dusts. Use with local exhaust ventilation or while wearing a dust mask. Keep containers / bag closed when not in use.

Personal protection equipment: Overalls, safety shoes, safety glasses, gloves and dust mask. After direct contact, always wash hands before smoking, eating or using the toilet. Wash contaminated equipment before storing or reusing.

9. Physical and Chemical Properties:

Odour / form / colour: Odourless, bluish to green, micro granular solid.

Solubility: Insoluble in water and organic solvents. Soluble in dilute acids and ammonium hydroxide.

Specific gravity (20°C)	0.75g/cm ³	Melting point (°C)	Decomp. @
220			
Relative Vapour density	N Av.	Boiling point (°C)	N Av.
Vapour pressure (20°C)	N Av.	Decomp. Point (°C)	220
Flash point	N Applicable	pH (1% aq. Soln.)	7



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Molecular weight: 427.2 Solubility in water (g/Lt) Disperses

N Av. - Not available

10. Stability and Reactivity:

Stability: This material is stable, but should avoid exposure to high moisture conditions for prolonged periods, and temperatures above 51°C.

Reactivity: Avoid sodium or potassium metals, and strong acids.

11. Toxicology Information:

No adverse health effects if the material is handled in accordance with this Safety Data Sheet. Routes of entry include skin and eye contact, acute inhalation and ingestion. Symptoms that may arise if the product is mishandled are mentioned in section 3 : 'Hazards Identification'

Copper Oxychloride is a powerful emetic (induces vomiting). The active substance is almost completely eliminated by vomiting. It is insoluble in water, however it is soluble in dilute acids. Doses of 5 - 8 grams have damaged capillaries and digestive tract mucus membranes, caused dehydration and patients have shown signs of heavy metal poisoning.

12. Ecological Information:

Avoid contaminating waterways.

Aquatic toxicity: Toxic to aquatic organisms.
48 hr LC₅₀ (carp): 2.2 mg/Lt
24 hr LC₅₀ (daphnia magna): 3.5 mg/Lt.



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Terrestrial toxicity: Not toxic to bees.

Environmental fate: Copper Oxychloride is insoluble in water and organic solvents. It is strongly absorbed by soils making it virtually immobile and does not leach into groundwater. In animals it is excreted in the faeces.

13. Disposal Considerations:

It is normally suitable for disposal at approved land waste sites; however refer to your Land Waste Management Authority.

14. Transport Information:

It is not classified as a Dangerous Material for transport by road or rail. Do not transport with foodstuffs.

15. Regulatory Information:

CAS No.: 1332-40-7 (98-100%)

OSHA Status: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Chemical Inventory: This compound is on the EMA Toxic Substance Control Act (TSCA) inventory List

Hazardous Categories: None



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Toxic Chemicals: This product may be subject to reporting. Copper Content 55.0 – 59.5%

16. Other Information:

This MSDS summarizes, at the date of issue, our best knowledge of the health and safety hazard information of the product, and in particular how to handle and use the product in the workplace. Since Cure Chem Pvt Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle the product in the workplace. The buyer assumes risks of the use, storage or handling. We advise that on applications for control of crop diseases, consult the product label and read it carefully and thoroughly.