



MATERIAL SAFETY DATA SHEET

PRODUCT : Copper Oxychloride 50% WP

PRODUCT DESIGNATION : Fungicide

Section 1. Product & Company Identification

Common Name : Copper Oxychloride

Grade : Formulation

Active Ingredient : Copper Oxychloride

Chemical Name of Active : Dicopper chloride trioxide

Ingredient (IUPAC)

Chemical Family of A. I. : Transition metal basic halide

Molecular Formula of A. I. : $(ClCu_2H_3O_3)_2$

Molecular Mass of A. I. : 427.14 g/mol

Manufacturer & Supplier : **M/s PERFECT SOLUTIONS**

Office Add: B-371, Paschim Vihar, New Delhi -
110063 (India)

Factory Add: 15/1, 15/2, 15/3 Industrial Estate,
Vidisha - 464001 (M.P)

Telephone Number : +91 8375844625

Section 2. Composition / Information on Ingredients

<u>Name of Components</u>	<u>Concentration% w/w</u>
Copper Oxychloride a.i.	50.00% w/w
Inert ingredient	50.00% w/w
TOTAL	100.00% w/w

Section 3. Hazards Identification

EMERGENCY OVERVIEW

- May be harmful if swallowed.
- Causes severe eye irritation.
- Avoid breathing dusts or spray mist.



- Avoid contact with eyes, skin or clothing.

- Keep out of reach of children

Section 4. First Aid Measures

If in Eyes : Flush immediately with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

If in Skin : Wash thoroughly with soap and water. Remove contaminated clothing and shoes and launder.

If Inhaled : Remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If Swallowed : Offer a glass of water or milk to drink. Call a physician or poison control center. Do not induce vomiting unless directed.

Antidote: There is no specific antidote. Treat symptomatically.

Section 5. Fire Fighting Measures

Fire hazard and explosion hazard: No fire hazard, but fine dust in air may form an explosive mixture if source of ignition is present.

Extinguishing agents: Extinguish fires with water, carbon dioxide, dry powder, or alcohol-resistant foam.

Firefighting: Fight fire from maximum distance. Remove container from fire area if possible. Contain fire control agents for later disposal. Water can be used to cool unaffected containers.

Personal protective equipment: Fire-fighters and others that may be exposed should wear full chemical protective clothing and full-face breathing apparatus.

Section 6. Accidental Release Measures

Personal precautions: For personal protection see Section 8.

Environmental precautions: Do not allow entering drains or watercourses. When the product contaminates public waters, inform appropriate authorities immediately in accordance with local regulations.

Occupational spill:



For small dry spills, sweep up with damp earth or sand or other suitable absorbents, taking care not to raise a dust cloud. Place the material into a clean, dry container and cover for subsequent disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away and upwind.

Large spills: Should be covered to prevent dispersal. Vacuum or shovel wasted into an approved drum. To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Label drums with its content and dispose it in accordance with local regulations.

Section 7. Handling & Storage

Handling: Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing.

Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage: Keep out of reach of unauthorized persons, children and animals. Store in its original labeled container in shaded, well-ventilated area. Store in dry area. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

Section 8. Exposure Control, Personal Protection

Causes irreversible eye damage Inform workers orally by posting warning signs at entrances to treated areas

Engineering controls Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit, Facilities storing or utilizing this material should be equipped with an eye-wash facility and a safety shower

PERSONAL PROTECTIVE EQUIPMENT

Eye protection Safety goggles Clothing Long-sleeved shirt and long pants, shoes plus socks, chemical resistant apron when participating in dip treatments



Gloves Chemical resistant gloves made of any water proof material (except applicators driving motorized equipment) such as barrier laminate, butyl rubber, natural rubber, neoprene rubber, or nitrile rubber.

Respirator Not normally required. If vapors or dusts exceed acceptable levels, wear a NIOSH approved pesticide respirator.

User safety recommendations Wash hand before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticides get inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Section 9. Physical and Chemical Properties

Appearance / state	: Light green powder Solid
Colour	: Light green
Odour	: Odourless
Ph	: 6 - 9.5 (20 °C)
Bulk Density	: 0.7 to 0.8 kg/litre
Flash point	: Not applicable
Solubility	: Dispersible in water
Melting point	: Not applicable

Section 10. Stability & Reactivity

Stability: Stable under normal, dry storage conditions. (Very stable in neutral media).

Incompatibility: Incompatible with mercury-containing compounds, thiram, DNOC, lime sulfur and dithiocarbamates.

Thermal decomposition: Decomposes on heating above 220°C. Decomposes on heating in alkaline media with the formation of copper oxides (toxic).

Section 11. Toxicological Information

Acute Oral Toxicity : LD₅₀ for rats : >500 mg/kg



Acute Dermal Toxicity : LD50 for rats : >2000 mg /kg

Acute Inhalation : LC50 (4h) rats : >5 mg/l

Eye Irritation : Non irritant

Skin Irritant : Non irritant

Skin sensitization : non- skin sensitizer

Section 12. Ecological Information

Aquatic Toxicity : Rainbow Trout: LC50: (0.01 mg/L)

Daphnia magna: 48 hour LC50: 0.046mg/L

Section 13. Disposal Consideration

Waste treatment methods: do not dispose in household garbage

Sewage disposal recommendation: do not dispose of waste into sewer.

Waste disposal recommendation: dispose in a safe manner in accordance with local/national regulations.

Additional information: clean up even minor leaks or spills is possible without unnecessary risk.

Section 14. Transport Information

IMDG Classification

Shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S.

Class : 9

Packing group : III

UN number : 3077

Marine pollutant : Yes

Section 15. Regulatory Information

Risk phrases :

May cause sensitization by skin contact.

Irritating to eyes.

Safety phrases :



Keep out of reach of children.

Keep away from food, drink and animal feeding stuffs.

When using do not eat, drink or smoke.

Avoid contact with skin.

Section 16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

Safety Division: PERFECT SOLUTIONS, SAFETY DIVISION