

# COPPER OXYCHLORIDE WP

# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE

**Product name:** COPPER OXYCHLORIDE WP  
 Fungicide  
**UN Number:** 2775  
**Supplier:** Universal Crop Protection (Pty) Ltd.  
 PO Box 801  
 Kempton Park, 1620, South Africa  
**Telephone:** (011) 396 2233  
**Fax:** (011) 396 4666  
**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

### Emergency telephone numbers:

#### 24 Hr Transport / Spill emergency no:

Envirosure. +27 31 205 4918  
 (Hazcall24) +27 86 044 4411  
 (Client: Villa Crop Protection)  
 Griffon Poison Information Centre +27 82 446 8946  
 (Client: Villa Crop Protection)

### Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946  
 Poisons Information Centre +27 861 555 777

### Villa Crop Protection Emergency number:

**National Safety, Health and Environmental Manager:**  
 +27 63 698 0668

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

**Common name:** Copper oxychloride  
**Chemical Name:** Dicopper chloride trihydroxide  
 (IUPAC)  
**CAS No.:** 1332-40-7  
**Chemical Family:** Inorganic  
**Chemical Formula:**  $ClCu_2H_3O_3$  (Mol. Wt.: 213.6)  
**Use:** Foliar fungicide with protective action.  
**Formulation:** Copper oxychloride: 850 g/kg  
 (metallic copper equivalent:  
 500 g/kg)  
 Wettable Powder  
**Active Ingredient:** copper oxychloride  
**SYMBOLS:**  $X_n$   
**RISK-PHRASE(S)** R 22

## 3. HAZARD IDENTIFICATION

### Toxicity class:

WHO III; EPA III

### Likely routes of exposure:

Skin and eye contact and ingestion.

### Eye contact:

Irritant to eyes.

### Skin contact:

Slightly irritant.

### Ingestion:

The product can be harmful.

### Inhalation:

Negligible toxicity

## 4. FIRST AID MEASURES AND PRECAUTIONS

Reactions are not likely to occur unless the absorbed dose is extraordinary.

### Inhalation:

Unlikely to occur. Remove source of contamination or move victim to fresh air. Monitor for respiratory distress. Administer 100% humidified supplemental oxygen with assisted ventilation as required.

### Skin contact:

Remove contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Seek medical advice if necessary. Persons who become sensitized may require specialized medical management with anti-inflammatory agents.

### Eye contact:

Immediately flush the eyes with gently flowing lukewarm water or sodium bicarbonate solution for 20 to 30 minutes, occasionally lifting the upper and lower lids. Obtain medical attention if necessary.

### Ingestion:

The ingestion of a large quantity of copper oxychloride is followed by nausea and vomiting. Metallic taste and a burning sensation in the oesophagus and stomach. The stomach should be emptied by aspiration and lavage and demulcents such as milk or egg white should be given freely.

### Advice to physician:

Treat symptomatically and supportively. Chelating agents such as penicillamine or sodium calciumedetate should be given. Pethidine may be given to relief pain if necessary.

## 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.

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## 6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

**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.

## 7. HANDLING AND STORAGE REQUIREMENTS

**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.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

Comply with occupational safety, environmental, fire, and other applicable regulations.

**PERSONAL PROTECTIVE EQUIPMENT:**

**Clothing:**

Employee must wear appropriate protective (impervious) clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

**Gloves:**

Employee must wear appropriate chemical resistant protective gloves to prevent contact with this substance.

**Eye protection:**

The use of safety goggles is recommended.

**Emergency eyewash:** Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:**

Light green powder

**Odour:**

Odourless

**Flash point:**

Not applicable

**Explosive properties:**

Fine dust in air may form an explosive mixture if source of ignition is present.

**Oxidizing properties:**

No information currently available.

**pH:**

No information currently available.

**Bulk density:**

0.7 to 0.8 kg/litre

**Persistent foaming:**

8 ml/minute in standard hard water.

**Storage stability:**

Stable up to two years under normal conditions.

**Suspensibility:**

88 % suspended after standing for 30 minutes in standard hard water.

**Solubility in water:**

Dispersible in water

**Solubility in organic solvents:**

Soluble in dilute acids and ammonium hydroxide

**Partition-coefficient in n-octanol / water:**

No data information available.

**Melting point:**

Not applicable.

## 10. STABILITY AND 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:**

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

surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Comply with local legislation applying to waste disposal.

## 11. TOXICOLOGICAL INFORMATION

**Acute oral LD<sub>50</sub>:**  
 > 1694 mg/kg in rats.  
**Acute dermal LD<sub>50</sub>:**  
 > 2400 mg/kg in rats.  
**Acute inhalation LC<sub>50</sub>:**  
 LC<sub>50</sub> > 30mg/l (4 hour)  
**Acute skin and eye irritation:**  
 Skin and eye irritating.  
**Dermal sensitization:**  
 No information currently available  
**Carcinogenicity:**  
 Animal studies did not detect any carcinogenic activity. No human data available.  
**Teratogenicity:**  
 Animal studies did not detect any teratogenic effects. No human data available.  
**Mutagenicity:**  
 Not mutagenic

### Package product wastes:

Emptied containers retain vapor and product residues. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed. Combustible containers should be disposed of in pesticide incinerators or buried in an approved landfill. Non-combustible containers must first be triple-rinsed with water. Containers should be punctured and transported to a facility for recycling or disposal in approved landfill site. Comply with any local legislation applying to disposal.

## 12. ECOLOGICAL INFORMATION

**Degradability:**  
 Formation of toxic oxides on heating. Decomposes at temperatures > 220 °C.  
**Mobility:**  
 Strongly absorbed by soils  
**Accumulation:**  
 No information currently available.  
**ECOTOXICOLOGY:**  
**Birds:**  
 No information available  
**Fish:**  
 LC<sub>50</sub> (48 hours) = 2.2 mg/l (Carp)  
**Daphnia:**  
 LC<sub>50</sub> (24 hours) = 3.5 mg/l  
**Bees:**  
 Not toxic to bees  
**Earthworms:**  
 No information available  
**Soil micro-organisms:**  
 No information available

## 14. TRANSPORT INFORMATION

**UN NUMBER:** 2775  
**ADR/IRD:**  
 Substance ID NR: 2775  
 Hazard ID NR: 60  
 Label: 6.1 + 3  
**AIR/IATA:**  
 Class: 6.1  
 Subsidiary Risk: -  
 Hazard Label: Poison  
 Packaging group: III  
 Passenger aircraft: 619 (max 100 kg)  
 Cargo aircraft: 619 (max 200 kg)  
**IMG/IMO:**  
 Packaging group: III  
 Label of class: 2775  
 Subsidiary Risk: -  
 Shipping Name: Poison

## 15. REGULATORY INFORMATION

**Symbol:** X<sub>n</sub>  
**Indication of danger:** Harmful if swallowed.  
**Risk phrases:**  
**R 22** Harmful if swallowed.  
**Safety phrases:**  
**S 2** Keep out of the reach of children.  
**S 22** Do not breathe dust.

## 13. DISPOSAL CONSIDERATION

**Pesticide disposal:**  
 Contaminated absorbents, surplus product, etc., should be burned in a high-temperature incinerator (> 1000 °C) with effluent gas scrubbing. Never pour untreated waste or

## 16. PACKING AND LABELING

Packed in a) 50 and 25 kg HDPE bags with virgin polythene liner and b) in 2 kg plastic containers and labeled according to the South African regulations and guidelines.

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### 17. 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.

### 18. REFERENCES

- Applicable own physical and chemical, toxicity and ecotoxicity research studies.
- *The Pesticide Manual*; Tenth Edition; Editor Clive Tomlin; Crop Protection Publications, 1994.
- *Pestline*; Material Safety Data Sheets for Pesticides and Related Chemicals; Volume II; Occupational Health Services Inc., 1991.
- *IPCS*; Health and Safety Guide No. 22; World Health Organization, Geneva, 1990.
- *Agriculture and Public Health*; Guide to the Treatment of Poisoning by Chemicals, 1993.
- *EuroChem Monitor*; European Community Legislation on the Marketing and Use of Dangerous Substances and Preparations, Volume 1 and 5.
- *Dangerous Goods Regulations; IATA 1945 – 1995*; International Air Transport Association, 36 th Edition, Effective 1 January 1995.
- *Guidelines for personal protection when using pesticides in hot climates.* GIFAP, G8/7 5M/989/ENG/QUA.

### END OF DOCUMENT

**Compiled:** March 2000  
**Reviewed:** March 2019  
**Revision no.:** (2)  
**Next revision date:** March 2024

For detailed information on revisions, contact the Registration holder.