

ROYAL COP 50 WP™

MATERIAL SAFETY DATA SHEET

SECTION 1 Chemical product and Company identification

Product Name: Royal Cop 50 WP™ (Copper Oxychloride)

Chemical name: Dicopper chloride trihydroxide

Formula: ClCu₂H₃O₃

Product Use: Commercial Fungicide

Supplier: SINERIA HOLLAND BV

Randwycksingel 20-A015

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www.sineria.com

SECTION 2 Composition/Information on Ingredients

<u>Product Name</u>	<u>Quantity (%)</u>	<u>CAS NR</u>
Copper Oxychloride	50%	1332-40-7

SECTION 3 Hazards Identification

- This product is unlikely to present a toxicity hazard during normal use.

- WHO Classification: III (Low toxicity fungicide)

Likely routes of exposure: Skin and eye contact; ingestion.

Eye contact: Irritant. Product may pose a slight risk of serious damage to eyes.

Skin contact: Minimally toxic and prolonged skin contact can cause possible skin irritation. Slightly irritant.

Ingestion: Can be harmful if ingested

Inhalation: Inhalation of the dust poses minimum risk of toxicity.

SECTION 4 First Aid Measures

- If poisoning occurs, contact a Doctor or Poisons Information Centre.

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Ingestion: If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice if necessary.

Eyes: If product gets in eyes, wash material from them with running water for 20-30 minutes. If they begin watering or reddening, take special care in washing thoroughly. Seek medical advice if necessary.

Skin: If product gets on skin, wash skin to remove material. No further measures should normally be required.

Inhalation: No first aid measures normally required. However, if vapours or mists have been inhaled, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice if necessary.

Advice to Doctor: Treat symptomatically. Note the nature of this product.

SECTION 5 Fire Fighting Measures

- There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Flashpoint: Does not burn.

Flammability limits: Not applicable. This product does not burn.

Extinguishing Media: Use extinguishing media suited to the materials that are burning.

Special Fire Fighting procedures: When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat and preferably, goggles.

Unusual Fire & Explosion Hazards: Fire decomposition products from this product are not normally hazardous.

Fire-fighting: Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.

Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways. Do not use high volume water jet, due to contamination risk. Contain water used for fire-fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Personal protective equipment: Fire-fighters and others that may be exposed should wear full chemical protective clothing and self-contained breathing apparatus. See section 8 for recommendations regarding Exposure Controls/Personal Protection. Fire may produce irritating or poisonous vapours (toxic oxides of carbon, nitrogen and sulphur) of combustion.

SECTION 6 Accidental release measures

Personal precautions: Do not breathe in dust or fumes. Avoid contact with skin and eyes. For personal protection see Section 8 and see section 4 regarding First Aid Measures when exposed to material during clean-up operations.

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Environmental precautions: Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) must be reported immediately to the Police and to the Department of Water/Environmental Affairs.

Occupational spill: Remove all sources of flames and sparks. For dry spills, shovel up and sweep up with damp earth or sand or other suitable absorbents, taking care not to raise a dust cloud. Place the material into a labelled, clean, dry container and cover for subsequent disposal and store in a safe place to await proper disposal. All contaminated cleaning materials should be placed in closable receptacles.

In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Do not contaminate water while cleaning equipment or disposing of wastes. Keep spectators away and upwind.

SECTION 7 Handling and storage

Handling: Wear appropriate protective equipment when handling the product. Do not handle material near food, feed or drinking water. Avoid contact with eyes, prolonged contact with skin, and inhalation of dust and vapour. Avoid high concentrations of dust in air and accumulation of dust on equipment. An airborne dust of this material can create a dust explosion. Use with adequate ventilation to control dust and reduce exposure to vapours. Protect all equipment from explosions.

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. Local regulations should be complied with.

Storage: Store the product in its original labeled container in cool, dry, well-ventilated area, away from heat, sparks and other sources of ignition. No smoking is allowed. Do not store next to food, feed and water supplies. Keep out of reach of unauthorized persons, children and animals. Avoid breaking the containers, spillage or leaks. Comply with the local regulations.

SECTION 8 Exposure controls/Personal protection

- Provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT

Respirator: Wear an approved full-face respirator suitable for protection from dusts and mists of pesticides is required. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.



Clothing: Wear appropriate chemical-resistant protective clothing or other impervious clothing. Wear boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing. Wash clothing after use.

Gloves: Wear appropriate chemical-resistant protective gloves whenever the product is handled to prevent contact with this substance. Wash gloves after use.

Eye protection: Use safety goggles and face-shield which is compatible with respiratory equipment.

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

SECTION 9 Physical & Chemical properties

Appearance: Light green powder.

Odour: Mild characteristic odour.

Melting/softening point: No specific data. Solid at normal temperatures.

Boiling point and vapour pressure: Decomposes before boiling at 100kPa.

Volatile materials: No specific data. Expected to be low at 100°C.

Flashpoint: Does not burn.

Solubility in water: Dispersible.

Corrosiveness: Not corrosive.

Stability: This product is unlikely to spontaneously decompose.

Polymerisation: This product is unlikely to spontaneously polymerise.

Decomposition Products: Chlorides, copper oxide.

Materials to avoid: Acids.

SECTION 10 Stability & Reactivity

Stability: Considered stable in unopened original packages, under normal, dry storage conditions. Reacts with acids and oxidizing agents.

Storage stability: Stable for 2 years under normal, dry storage conditions in unopened packages.

Incompatibility: Avoid contact with oxidizing agents and acids. Keep away from moisture, heat or flame. Compatible with most commonly used fungicides and insecticides, used at recommended rates. Always perform a compatibility test before using with other products. Do not physically mix concentrate directly with other pesticide concentrates, always dilute first.

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SECTION 11 Toxicological Information

- The acute dermal LD₅₀ for Sprague Dawley rats was > 1000mg/kg.
- The inhalation LC₅₀ for Wistar rats was > 5.23mg/L.
- The oral LD₅₀ was 1067mg/kg b.w. in both male and female Sprague Dawley rats
- The test substance was a Weak-sensitizer to the skin of guinea pigs
- The test substance was considered as Non-Irritant to rabbit skin
- The test substance was considered as: minimal irritant at ocular irritation of rabbits

SECTION 12 Ecological Information

Toxicity to birds (Technical Ingredient)

- The dietary LC₅₀ for Bobwhite Quail was >5000 mg/kg
- The dietary LC₅₀ for Japanes Quail was >5000 mg/kg

Toxicity to fish (Technical Ingredient)

- The LC₅₀ (96h) for Rainbow trout was determined 2.2 mg/lt

Toxicity to honeybees/beneficial insects (Technical Ingredient)

- The result of the study indicated that COPPER OXYCHLORIDE Technical exhibited only 45.20% mortality at higher concentrations of 1.8% w/w after 24 hours of treatment indicating that the product is less toxic to honeybee *Apis cerana indica*.

Toxicity to earthworms (Technical Ingredient)

The LD₅₀ of Copper Oxychloride Tech. may be >1000mg/kg (dry soil wt.) on earthworm (*Lampito mauritii*)

SECTION 13 Disposal Considerations

Pesticide disposal: Open dumping or burning of this pesticide is prohibited Waste resulting from the use of this product that 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.

Package product wastes: Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed. Empty the container of excess product into the container of the applicator. Destroy the emptied containers by perforation and flattening. Bury in an approved, designated landfill. Do not re-use the empty container for any other purpose. Do not burn the empty container. Comply with any local legislation applying to disposal.

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SECTION 14 Transport Information

No special storage and transport requirements. This product has no UN classification. This product is a S6 Poison. Observe all relevant regulations regarding sale, transport and storage of this class of product. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames, and make sure that the product does not come into contact with substances listed under "Materials to avoid" below.

SECTION 15 Regulatory Information

Xn: Harmful if swallowed

Risk Phrases: R22 - Harmful if swallowed.

Safety Phrases: S20 - When using, do not eat or drink.

SECTION 16 Other Information

The information contained in the Material Safety Data Sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for use with other materials or in processes other than those specifically described herein.

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