



SAFETY DATA SHEET

Mankocide® DF Fungicide

Date of Issue: 9 September 2021

1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

Chemical name of active ingredient(s): Mancozeb plus copper hydroxide
Recommended use: Fungicide

Supplier: UPL New Zealand Limited
PO Box 51584, Pakuranga
Auckland
Phone 0800 100 325
www.upl-ltd.com/nz

Emergency telephone number: 0800 CHEM CALL (0800 243 622) 24 Hours

2. HAZARDS IDENTIFICATION



Hazard Classification: 6.1D, 6.3B, 6.4A, 6.5B, 6.9B, 9.1A, 9.3B
Required identification Details: **Signal Word: WARNING**
Keep out of reach of Children.
Read label before use.

May be harmful if swallowed, inhaled or absorbed through the skin.
May cause skin and eye irritation.
May cause sensitisation from prolonged skin contact.
May cause lung and liver damage from repeated oral exposure at high doses.
Very toxic to aquatic organisms.
Toxic to terrestrial vertebrates.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
Copper hydroxide	20427-59-2	30
Mancozeb	8018-01-7	15
Inert ingredients		

4. FIRST-AID MEASURES

Description of necessary first aid measures:

Inhalation: If inhaled, remove from exposure and have patient lie down and keep quiet. If patient is not breathing, start artificial respiration immediately. Never give anything by mouth to an unconscious person. Call a physician if necessary.

Ingestion: If swallowed, DO NOT induce vomiting. For advice, contact the

National Poisons Centre 0800 POISON (0800 764766) or call a doctor if feeling unwell.

Skin contact:

If spilt on the skin, remove contaminated clothing and wash affected areas of skin immediately.

Eye contact:

If concentrate is splashed in eyes, flush with running water for at least 15 minutes. Take to hospital without delay. For advice contact the National Poisons Centre 0800 POISON (0800 764 766).

Notes to a physician:

5. FIRE-FIGHTING MEASURES

Hazchem:

2Z

Extinguishing media:

Fog, foam, dry chemical, CO₂, Halon.

Fire/Explosion Hazard:

NA

Combustion products:

Not known

Fire Fighting Instructions:

Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment Shut off source of fuel, if possible and without risk. Use water spray. Cool tank/container with water spray. Fight fire from maximum distance, use extreme caution as heat may decompose material and rupture containers.

If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Use appropriate Personal Protective Equipment during clean up. (See Section 8).

Spill containment and clean-up:

Dyke spill: Prevent liquid from entering the sewers, waterways, or low areas.

Shovel or sweep up. DO NOT flush with water. Place material in a clean, dry container and cover for disposal. Wash contaminated areas with water and detergent.

Environmental precautions:

Prevent liquid from entering sewers, waterways or low areas.

Methods for cleaning up:

Soak up with sawdust, sand or other absorbent material. Shovel or sweep up. Never return to container for reuse. (See section 13 for disposal instructions.). Dispose of to an approved landfill.

7. HANDLING AND STORAGE

Handling:

Avoid skin and eye contact. Avoid inhaling the vapour, or spray mist. Wash thoroughly after handling. Wash clothing after use.

Storage:

Store in the closed, original container in a dry, well ventilated area, as cool as possible out of direct sunlight and under lock and key. Keep from contact with fertilisers, fungicides and seeds. Do not store with Classes 1,2,3,2,4 or 5 substances. Stores containing more than 100kg of this product, either alone or in aggregate with other hazardous substances are subject to requirement of an emergency management response plan, secondary containment and signage.

Packaging materials:

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Guidelines

Exposure Standards:

None Established.

Engineering measures

Exposure control measures: Use only with adequate ventilation.
Keep container tightly closed.

Personal Protective Equipment

Detail specifications for equipment:

Respiratory system:

Skin and body:

Hands:

Eyes:

General hygiene:

Wear long sleeved shirt and long pants.

Use waterproof gloves.

Wear safety glasses.

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles or face shield and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Colour, Odour. Dark green granules. Odour not determined.

pH: 9.63

Vapour Pressure: Not determined.

Boiling Point: Not determined.

Vapour Density:

Freezing/melting point:

Solubility:

Specific Gravity/Density: 0.5485 g/ml

Flashpoint Not determined.

Flammability: Non-flammable.

Corrosivity: Non-corrosive.

Octanol/water partition coefficient:

Explosive Properties:

Oxidation Properties: Not an oxidiser
(Also, see sections 5 & 10)

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Conditions to avoid:

Incompatible materials: No incompatibilities reasonably foreseeable.

Hazardous Decomposition Products:

Hazardous polymerization: Polymerisation will not occur.

Hazardous reactions:

11. TOXICOLOGICAL INFORMATION

Toxicity Data:

Acute oral: LD₅₀ 2,535 mg/kg (rat)

Acute dermal: LD₅₀ >5,000mg/kg (rabbit)

Inhalation: LD₅₀ > 1.266mg/litre (rat-4 hr)

Ingestion: May produce toxicity if ingested in large quantities. Symptoms of over exposure may include nausea and vomiting, abdominal pain and central nervous system depression, which, if severe enough, may lead to death

Skin: Irritating to the skin. Excessive exposure, especially if prolonged may produce skin irritation. Repeated exposure may cause allergic contact dermatitis.

Inhalation: Irritating to the respiratory system. Excessive exposure may cause cough, mucous production, shortness of breath, reflecting metal fume fever.

Chronic Effects: Low chronic toxicity unless excessive exposure is encountered. Excessive exposure to copper by inhalation may result in irritation of the upper respiratory tract which, if severe, may lead to perforation of the nasal septum after long periods of exposure.

Chronic toxicity

Mutagenicity: Not mutagenic.
Reproduction toxicity: NA
Carcinogenic: None of the components in this material is listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Copper hydroxide:
Fish LC₅₀ (24hr) rainbow trout 0.80mg/L;
fathead minnow (96hr) 0.023mg/L; bluegill sunfish > 180mg/L;
Daphnia LC₅₀ (48hr) 0.0065mg/L.
(9.1A) Very toxic to aquatic organisms. Avoid contamination of any water supply with chemical or empty container.
Birds acute oral LD₅₀ bobwhite quail > 3,400mg/kg.
Dietary LD₅₀ (8 days) > 10,000mg/kg for bobwhite quail and mallard duck.
Acute oral LD₅₀ rat 489mg/kg (9.3C)
Non-toxic to bees.
Mancozeb:
Fish LC₅₀ (96hr) rainbow trout 1.1, catfish 5.2, goldfish 9.0mg /L.
Daphnia EC₅₀ (48hr) 0.073mg/L.
Algae EC₅₀ (5 day) 0.049 mg/L.
(9.1A) Very toxic to aquatic organisms. Avoid contamination of any water supply with chemical or empty container.
BCF 2.1. Log kow 1.33
Birds In 10-day dietary studies there were no mortalities in mallard.
Ducks at 6,400mg/kg daily and in Japanese quail at 3,200mg/kg daily.
Rat oral LD₅₀ 4,500mg/kg (9.3B) Bees LC₅₀ 193µg/bee.

13. DISPOSAL CONSIDERATIONS

Methods of disposal: Dispose of this product only by using in accordance with label directions. Dispose of solid contaminated material/or contaminated soil in an approved landfill. Disposal must be in accordance with applicable local regulations. Ensure bag is completely empty and dispose of at an approved landfill. Do not contaminate any waterway with chemical or empty bag.

14. TRANSPORT INFORMATION - International transport regulations

Hazchem: 2Z
UN number: 3077
Class or Division: 9

Packing Group: III
Marine Pollutant:
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID N.O.S (Mancozeb, Copper Hydroxide)

**INTERNATIONAL AIR
TRANSPORT ASSOCIATION
(IATA):**

15. REGULATORY INFORMATION

ACVM Registered Number: P5674
HSNO Approval Code: HSR000614

16. OTHER INFORMATION

Additional information: **Original Issue Date:** 16th September 2016
Revision Date: 9 September 2021
Replaces: ES426

Disclaimer EXCLUSION OF LIABILITY: PLEASE READ

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