



SAFETY DATA SHEET MANCOZEB 750 WDG FUNGICIDE

Section 1: Identification of the Substance and Supplier

Product name: MANCOZEB FUNGICIDE
Substance: Mancozeb is a dithiocarbamate compound

Supplier: ADAMA New Zealand Limited
Level1/19 Elms Street, Wakatu Estate, Stoke, Nelson, New Zealand
P.O. Box 1799, Nelson New Zealand.

Telephone +64 3 543 8275 Fax: +64 3 543 8274

Emergency Telephone: 0800 POISON (0800 764 766)

Section 2: Hazards Identification

Hazard Classifications: 6.4A, 6.5A, 6.5B, 6.9B, 9.1A

Most important hazards: **TOXICITY**
Toxic –
May cause eye irritation.
Harmful –
May cause sensitisation from prolonged skin contact.
May cause organ damage from repeated oral exposure at high doses.
Avoid eye and skin contact.
Avoid inhalation of spray mist.

ECOTOXICITY
Very toxic to fish and aquatic organisms. DO NOT contaminate aquatic environment with product or empty container. DO NOT spray over or allow spray to drift over an aquatic environment.

Section 3. Composition/Information on Ingredients

Substance/preparation	Preparation				
Information on hazardous ingredients *					
Common name	CAS No.	%	EC Number	Symbol	R-Phrases
Mancozeb	008018-01-7	75			
Other non hazardous ingredients secret		to 100			

- Occupational Exposure Limit(s), if available, are listed in section 8**

Section 4: First-Aid Measures

First-aid measures:

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Ingestion: If swallowed do NOT induce vomiting, unless told to do so by the Poisons Centre or doctor. **For advice, contact the National Poisons Centre 0800 POISON (0800 764766) or a doctor immediately.**

Skin contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items, which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

Eye contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 15 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

Note to Physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.



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Section 5: Fire-Fighting Measures

Extinguishing media:	Carbon dioxide, dry chemical, water spray or foam. Contain run-off. Use water spray to cool containers exposed to fire.
Suitable:	
Hazardous thermal (de)composition products:	Particulates can become airborne. Combustion generates toxic fumes including the following: hydrogen sulfide, sulfur oxides and carbon oxides.
Flash Point:	Not Flammable
Protection of fire-fighters:	wear protective self contained breathing apparatus with full protective clothing. Remain up wind and avoid breathing smoke.

Section 6: Accidental Release Measures

Personal precautions:	As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC.
Environmental precautions:	Do not discharge into drains or the environment.
Methods for cleaning up:	Where practical, sweep up spills and place in suitable container for disposal.

Section 7: Handling and Storage

Handling:	When mixing or applying wear appropriate protective clothing including impervious, elbow length gloves and eye protection. Remove protective clothing and wash hands, arms and face with soap and water before meals and after work. Keep out of reach of children. Do not smoke, drink or eat while using.
Storage:	Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from sources of ignition, stockfeed or foodstuffs. As a Class 9 Substance with Ecotoxicity Classifications storage of Mancozeb Fungicide must be carried out in such a manner as to prevent contamination of waterways. Stores containing more than 100kg of Mancozeb Fungicide require bunding and are subject to signage. Storage must generally be in accordance with The New Zealand Standard for the Management of Agrichemicals (NZS8409). See Safety Data Sheet for further information.

Section 8: Exposure Controls/Personal Protection

Common name:	Mancozeb
Engineering measures:	Provide general and or local exhaust ventilation to control airborne levels below the exposure guideline.
Hygiene measures:	When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.
Personal protective equipment:	
Respiratory system:	Atmospheric levels should be maintained below the exposure guidelines. If respiratory irritation is experienced, use an air-purifying respirator for dust that complies with the relevant New Zealand standard
Skin and body:	Prevent skin contact by protective clothing including impervious, elbow-length gloves, chemical resistant boots, eye protection and cotton overalls buttoned to the neck and wrist.
Hands:	Chemical resistant gloves. Use protective clothing of rubber or PVC.
Eyes:	Safety goggles or face shield.

Section 9: Physical and Chemical Properties

Physical state:	Solid - microgranules
Colour:	Yellow - brown
Odour:	Musty Odour
Vapour pressure:	Negligible $<1.33 \times 10^{-2}$ mPa
Solubility in water:	Dispersible



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pH: 5.9 [10% solution]
Bulk Density: 0.6-0.7 g/cc

Section 10: Stability and Reactivity

Stability: Material is stable under normal storage conditions.
Materials to avoid: Keep away from moisture, heat or flame.
Incompatibilities: Strong oxidising agents and acids.
Hazardous decomposition products: Thermal decomposition may yield the following: carbon disulfide and hydrogen sulfide.
Polymerisation: Not known to occur.

Section 11: Toxicological Information

Preparation **Mancozeb**
Toxicity - Oral: LD₅₀ (rats) >5000 mg/kg
LC₅₀ (rats) > 5.14 mg/L for 4 hours
Toxicity - Dermal: LD₅₀ (rabbits) >5000 mg/kg
Eye irritation: May cause severe eye irritation
Common name: **Mancozeb**
Systemic (other target organ) effects: In animals, Mancozeb effects have been reported on the following organs; thyroid, liver, nervous system, and eyes.
Cancer Information: Mancozeb has caused cancer in laboratory animals.
Teratology (birth defects) Mancozeb has caused birth defects in laboratory animals only at doses toxic to the mother.
Reproductive Effects: Mancozeb did not interfere with reproduction in laboratory animal studies.
Mutagenicity: Mancozeb, in-vitro genetic toxicity studies were predominantly negative and animal genetic toxicity studies were negative.

Section 12: Ecological Information

Ecotoxicity:
Mancozeb is very highly toxic to aquatic organisms on an acute basis
LC₅₀ or EC₅₀ is < 1mg/L in most sensitive species tested.
Mancozeb is practically non-toxic to birds on a dietary basis LC₅₀ is >5000 ppm
Mancozeb is practically non-toxic to birds on a acute bases LD₅₀ is >2000 mg/kg

ENVIRONMENTAL FATE:

MOVEMENT AND PARTITIONING: Based largely or completely on information for the active ingredient (Mancozeb). Does not leach readily. Readily metabolized to carbon dioxide.

DEGRADATION AND PERSISTENCE: Based largely or completely on information for the major component(s)
Chemical degradation – quick degradation in water.
Degradation occurs in the soil environment by microbial degradation.

Section 13: Disposal Considerations

Methods of disposal: Puncture or shred and bury empty bags in a local authority landfill. If no landfill is available, bury the bags below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty bags and product should not be burnt. Dispose of equipment cleaning water onto ground away from susceptible crops and plants. Dispose of the product only by using according to the label, or at an approved landfill. Do not dispose of this product; spray mix or equipment cleaning water down drains or sewers.



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Section 14: Transport Information

UN Number	3077
Proper shipping name	Environmentally hazardous substance, solid, N.O.S.
DG Class	9
Packing Group	III
Hazchem Code	2X
Marine Pollutant	Yes
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National transport regulations: Do not carry this product on a passenger service vehicle.

Segregation: Check the land transport Rule Dangerous Goods 1999, Rule 45001 for additional information. Sea transport may require additional segregation. Refer: NZS5433; Sea Segregation, or the International Maritime Dangerous Goods Code for details.

Section 15: Regulatory Information

New Zealand Regulatory Information:

NZFSA Approval: Registered pursuant to the ACVM Act 1997, No. P7552
See www.nzfsa.govt.nz/acvm for registration conditions

Approved pursuant to the HSNO Act 1996, Approval No. HSR002701
See www.ermanz.govt.nz for approval controls

HSNO Classifications: 6.4A, 6.5A, 6.5B, 6.9B, 9.1A



APPROVED HANDLER - THIS PRODUCT MUST BE UNDER THE CARE OF AN APPROVED HANDLER WHEN

- a) applied in a wide dispersive manner; or
- b) used by a commercial contractor

Section 16: Other Information

Note: This product is a registered agricultural chemical and must be therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

The information contained in the 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 combinations with other materials or in processes other than those specifically described herein.

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HISTORY

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