



Material Safety Data Sheet

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Infosafe No. 3NU40 Issue Date : July 2004 ISSUED by NUFARM

Product Name : PENNCOZEB 750DF Fungicide

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name PENNCOZEB 750DF Fungicide
Product Code 5360
Product Use For the control of certain fungus diseases of field crops, vegetables, fruit, tobacco, turf and ornamentals as per the Directions for Use Table.
Company Name NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address 103-105 Pipe Road Laverton North
Victoria 3026 Australia
Emergency Tel. 24hr 1800 033 498
Telephone/Telex Number Tel: (03) 9282-1000 Fax: (03) 9282-1001
Product Type Group Y Fungicide
Other Information This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Solid

Ingredients	Name	CAS	Proportion
	Mancozeb	8018-01-7	750g/Kg
	Inerts (not hazardous)		to 100%

Substance Chemical Family Dithiocarbamate
Synonyms Mancozeb

3. HAZARDS IDENTIFICATION

Irritating to respiratory system.
May cause sensitization by skin contact.

Other Information Poisons Schedule 5

4. FIRST AID MEASURES

Inhalation Remove affected person to fresh air until recovered.
If symptoms develop or persist, seek medical advice.

Ingestion If swallowed DO NOT induce vomiting.
Give a glass of water.
Seek medical advice if effects persist.
If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia).

Skin If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water.
Remove contaminated clothing and launder before re-use.

Eye If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.
Seek medical advice if irritation develops or persists.

Advice to Doctor Treat symptomatically.
Avoid giving alcohol - may cause vomiting and shock.

5. FIRE FIGHTING MEASURES



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Extinguishing Media None required but use water spray to cool containers or personnel threatened by fire.
If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
Avoid using large volumes of water which would spread the product.

Hazardous Non-combustible.

Combustion Products If involved in a fire, the dehydrated components may emit nitrogen and sulphur, possibly carbon disulphide or ethylene diamine and oxides of manganese or zinc.

Protective Equipment Breathable air apparatus should be worn when fighting a fire in which mancozeb is involved.

Other Information Contain fire water.
Prevent fire water from entering drains or water bodies.
Hazchem code has not been assigned.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Recover the product by sweeping up or vacuuming without raising dust.
Collect in sealed open top containers for disposal.

Environmental Precautions Prevent from entering drains, waterways or sewers.

Clean-up Methods - Large Spillages Place damaged containers in recovery bins (if available) and return to manufacturer.

7. HANDLING AND STORAGE

Handling Do NOT spray in high winds.
Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.
No special precautions are necessary when handling sealed containers.

Storage Store in the closed, original container in a cool, well ventilated area.
Do not store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits No exposure standard for this product has been set, however, an exposure standard has been set for manganese, dust and compounds at 1 mg/m³.

Respiratory Protection Do not inhale spray mist.

Personal Protective Equipment When opening the container and preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles.

Eng. Controls Natural ventilation is sufficient when handling concentrate and preparing spray solution.

Hygiene Measures After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
After each day's use, wash contaminated clothing and safety equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Greyish free flowing granules

Melting Point None - decomposes at about 192°C without melting

Solubility in Water Disperses in water. Not soluble.
Solubility of mancozeb is 6.2 mg/l @ 25°C

Vapour Pressure Negligible at 20°C mancozeb

Volatile Component None

Flammability Not flammable

10. STABILITY AND REACTIVITY



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Stability Stable under normal conditions.
Hazardous Polymerization Hazardous polymerisation is not possible.
Materials to Avoid Avoid contact of the concentrate with strong acids.

11. TOXICOLOGICAL INFORMATION

Toxicology Information No harmful effects are expected if the precautions on the label and this MSDS are followed.
Inhalation Inhalation of dust may result in respiratory irritation.
Ingestion The concentrate is of low toxicity if swallowed.
Skin May cause sensitisation by prolonged skin contact.
Eye May irritate the eyes.
Chronic Effects Prolonged exposure to dust or mists containing manganese compounds can cause progressive poisoning. The signs and symptoms are apathy, loss of balance and weakness. More advanced poisoning may show evidence of central nervous system disturbance.
Acute Toxicity - Oral LD50 (rat) >5000 mg/kg for mancozeb technical
Acute Toxicity - Dermal LD50 (percutaneous, rat) >10,000 mg/kg for mancozeb
LD50 (percutaneous, rabbit) >5,000 mg/kg for mancozeb
Skin Irritation Mild to moderate skin irritant.
Human Effects Prolonged and repeated exposure can occasionally cause skin irritation, conjunctivitis and bronchitis.
May cause sensitisation by inhalation or skin contact.
Other Information The Australian Acceptable Daily Intake (ADI) for mancozeb for a human is 0.006 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.6 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, August 2003).

12. ECOLOGICAL INFORMATION

Persistence / Degradability Mancozeb is rapidly absorbed and inactivated by contact with soil.
Half life in soil is typically 6 - 15 days.
Acute Toxicity - Fish Harmful to fish. LC50 (48hr) for goldfish is 9.0 mg/l.
Harmful to fish. LC50 (48hr) for rainbow trout is 2.2 mg/l.
Harmful to fish. LC50 (48hr) for carp is 4.0 mg/l.
Acute Toxicity - Other Organisms Bees: Not toxic to bees. LD50 193 µg/bee.
Birds: Not toxic to birds. LD50 for mancozeb is >1000 mg/kg

13. DISPOSAL CONSIDERATIONS

Product Disposal On site disposal of the concentrated product is not acceptable.
Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemCollect).
Container Disposal Shake the last amount of product from the bag into application equipment.
Dispose of in accordance with local regulations.
If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.
Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

U.N. Number None Allocated



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DG Class None Allocated
Hazchem Code None Allocated
Packing Group None Allocated
Storage and Transport Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
UN Number (Sea Transport) 3077
IMO Class/Packing Group Class 9; Packing Group III
IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains Mancozeb)

15. REGULATORY INFORMATION

Risk Phrase R37 Irritating to respiratory system.
R43 May cause sensitization by skin contact.
Safety Phrase S24/25 Avoid contact with skin and eyes.
S46 If swallowed, seek medical advice immediately and show this container or label.
S8 Keep container dry.
Poisons Schedule S5
Hazard Category Irritant
Packaging & Labelling CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point Normal Hours: Mr Volker Maier Phone: (03) 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498
Revisions Highlighted The MSDS was reviewed. Minor changes were made to the information. The MSDS is now issued in a 16 header format.
...End Of MSDS...