



Infosafe No™ 3NU40 Issue Date : February 2011 ISSUED by NUFARM

Product Name **PENNCOZEB® 750DF Fungicide**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name PENNCOZEB® 750DF Fungicide
Product Code 5360
Product Type Group M3 Fungicide
Company Name NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address 103-105 Pipe Road Laverton North
Victoria 3026 Australia
Emergency Tel. 1800 033 498 (24hr Australia)
Telephone/Fax Number Tel: +61 3 9282-1000
Fax: +61 3 9282-1001
Recommended Use For the control of certain fungus diseases of field crops, vegetables, fruit, tobacco, turf and ornamentals as per the Directions for Use Table.
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. HAZARDS IDENTIFICATION

Hazard Classification Classified as hazardous
HAZARDOUS SUBSTANCE.
NON-DANGEROUS GOODS.
Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.
Risk Phrase(s) Classified as hazardous
R43 May cause sensitization by skin contact.
R63 Possible risk of harm to the unborn child.
Safety Phrase(s) S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S46 If swallowed, seek medical advice immediately and show this container or label.
Other Information Poisons Schedule S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Solid
Ingredients

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

Substance Chemical Family Dithiocarbamate
Synonyms Mancozeb

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 the Poisons Information Centre (Australia) on 13 11 26.
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



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Advice to Doctor least 15 minutes.
Seek medical advice if irritation develops or persists.
Treat symptomatically.
Avoid giving alcohol - may cause vomiting and shock.

5. FIRE FIGHTING MEASURES

Suitable 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.

Hazards from Combustion Products Non-combustible.
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.

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

Other Information STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

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.
Do not mix recovered product with combustible waste (eg. saw dust, cotton waste, paper, card board etc). Spontaneous combustion is possible in the presence of moisture.

Clean-up Methods - Large Spillages Environmental Precautions Place damaged containers in recovery bins (if available) and return to manufacturer.
Prevent from entering drains, waterways or sewers.

7. HANDLING AND STORAGE

Precautions for Safe 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.

Conditions for Safe 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

National Exposure Standards 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.

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

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.
Re-entry period: Do not enter treated area until spray has dried.

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

Form Solid

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

pH Value 6 - 7.5 (1% dispersion)

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Vapour Pressure Negligible at 20°C mancozeb

Volatile Component None

Flammability Not flammable

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.
May decompose slowly in the presence of heat or moisture.

Incompatible Materials Avoid contact of the concentrate with strong acids, strong oxidizing agents, quaternary ammonium salts and sequestering agents.

Hazardous Polymerization Hazardous polymerisation is not possible.

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.

Reproductive Toxicity Evidence from animal studies suggests the potential for developmental toxicity on repeated or prolonged exposure.

Acute Toxicity - Oral LD50 (rat) >5000 mg/kg for mancozeb technical

Acute Toxicity - Dermal LD50 (percutaneous, rat) >2,000 mg/kg for mancozeb

Acute Toxicity - Inhalation LC50 (rat) (4hr) 5.14 mg/l

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 Office of Chemical Safety, 'ADI List', December 2008).

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 rainbow trout is 0.074 mg/l.

Acute Toxicity - Daphnia EC50 (48hr) for daphnia magna is 0.073 mg/l for mancozeb.

Acute Toxicity - Algae EC50 for Pseudokirchneriella subcapitata is 0.044 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 (ChemClear®).



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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

Storage and Transport Considered non dangerous for road and rail transport (in packaging) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.
For bulk shipments as Class 9, use UN 3077, HazChem code 2Z.

UN Number (Sea Transport) 3077

IMO Class/Packing Group Class 9; Packing Group III

IMO Marine Pollutant Marine Pollutant

IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(contains Mancozeb)

15. REGULATORY INFORMATION

Poisons Schedule S5

Packaging & Labelling CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Hazard Category Harmful, Irritant

AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Date of preparation or last revision of MSDS Revised 04/02/2011

Contact Person/Point Revisions Highlighted Other Information Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498
The MSDS was reviewed. Various changes were made to the information.
Risk Phrases updated and subsequent sections as required.
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