



Material Safety Data Sheet

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Infosafe No. NU0F9 Issue Date : December 2006 ISSUED by NUFARM

Product Name : **PENNCOZEB® 420SC Fungicide**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name PENNCOZEB® 420SC Fungicide
Product Code 5355
Product Type Group Y Fungicide
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/Fax Number Tel:
(03) 9282-1000
Fax:
(03) 9282-1001
Recommended Use For the control of leaf spot and suppression of other diseases on bananas and control of fungal diseases of cucurbits, potatoes, tomatoes, almonds, grape vines, chickpeas, faba beans, lentils, oilseed poppy and turf as shown in the Directions for Use Table on the label.
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 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) R37 Irritating to respiratory system.
R43 May cause sensitization by skin contact.
Safety Phrase(s) 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.
Other Information Poisons Schedule S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	Mancozeb	8018-01-7	420 g/L
	Petroleum Oil		100 g/L
	Inerts (not hazardous)		to 100%

Substance Chemical Family Dithiocarbamate
Synonyms Mancozeb
Other Information This product contains a hazardous component in trace quantities.
The concentration of ethylene thiourea is < <0.05 %.

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



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Skin 26.
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

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 oxides of 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.

Hazchem Code None Allocated

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 Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).
Collect in sealed open top containers for disposal.
If possible, ring 1800 033 498 for specialist advice.
On-site disposal of concentrate is not acceptable.

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

Environmental Precautions Use earthen bunds or absorbent bunding to prevent spreading of spillage.

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.

Other Information Always read the label and any attached leaflet before use.

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.
When using the prepared spray, wear cotton overalls buttoned to the neck and



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Hygiene Measures wrist (or equivalent clothing), a washable hat and elbow length butyl rubber gloves.
After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid
Appearance Yellow-green coloured liquid.
Melting Point <0°C
Boiling Point ~100°C
Solubility in Water Disperses in water. Not soluble.
Solubility of mancozeb is 6.2 mg/l @ 25°C
Specific Gravity 1.250
Vapour Pressure Negligible at 20°C mancozeb
Volatile Component ~50% (water)
KOC >2000
Flash Point >100°C
Flammability Non combustible material.
Flammable Limits - Lower N/A

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.
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 The components of the product are of low volatility and no adverse effects are expected from handling the concentrate.
However, care should be taken to avoid the inhalation of excessive amounts of spray mist during field spraying, respiratory irritation may occur.
May cause sensitisation by repeated inhalation.
Ingestion The concentrate is of low toxicity if swallowed.
If aspirated into the lung, e.g. from vomiting, the presence of adjuvants may result in lung damage.
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.
Skin Sensitisation Prolonged and repeated skin contact may result in skin sensitisation.
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



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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, September 2005).

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 (ChemClear®).

Container Disposal Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMuster symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. 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. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage.

14. TRANSPORT INFORMATION

U.N. Number None Allocated

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.

15. REGULATORY INFORMATION

Poisons Schedule S5

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

Hazard Category Irritant

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



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Revisions Highlighted	After Hours: Shift Supervisor	Phone: 1800 033 498
Other Information	The MSDS was reviewed. Minor changes were made to the information.	
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	...End Of MSDS...	