

SAFETY DATA SHEET

According to Safe Work Australia

Printing date 04.03.2015

Revision: 04.03.2015

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: TITAN MANCOZEB 750 DF FUNGICIDE**Other Means of Identification:** Mixture**Recommended Use of the Chemical and Restriction on Use:** Agricultural fungicide**Details of Manufacturer or Importer:**Titan Ag Pty Ltd
Suite 15 / 16 Princes Street
Newport NSW 2106**Phone Number:** 02 9999 6655**Emergency telephone number:** 02 9999 6655

2 . HAZARDS IDENTIFICATION

Hazardous Nature:

health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



Skin Sens. 1 H317 May cause an allergic skin reaction.

Signal Word Warning**Hazard Statements**

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child.

H400 Very toxic to aquatic life.

Precautionary Statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P272 Contaminated work clothing should not be allowed out of the workplace.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P321 Specific treatment (see on this label).

P308+P313 IF exposed or concerned: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P391 Collect spillage.

P302+P352 IF ON SKIN: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national regulations.

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3 . COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.**Hazardous Components:**

8018-01-7	mancozeb	75%
		

4 . FIRST AID MEASURES

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:

In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion:

If swallowed, do not induce vomiting. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: Severe inhalation irritant. Symptoms may include headache, extreme irritation of nose and throat and increased secretion of mucous. Symptoms may last long after exposure has ceased.

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing media suitable for the surrounding fire.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, nitrogen and its compounds and under some circumstances oxides of nitrogen.

Not a fire or explosion hazard.

Special Protective Equipment and Precautions for Fire Fighters:

Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.

6 . ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear Safe Work Australia approved dust/particulate filter respirator and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe dust. Ensure adequate ventilation. Avoid generating dust.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

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Stop leak if safe to do so and sweep granules into a pile and shovel into drums for subsequent disposal. Avoid generating dust. Provide adequate ventilation. Decontaminate spill area with detergent and water. Prepared spray spill absorb with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

7 . HANDLING AND STORAGE

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of dust. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep in original container tightly closed when not in use. Protect from direct sunligh and moisture. Keep away from strong oxidising agents, acids and bases.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

8018-01-7 mancozeb

NES	TWA: 1 mg/m ³ as Mn
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Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards.

Respiratory Protection:

Where an inhalation risk exists, wear a Class P1 (particulate) respirator. At high dust levels, wear a powered air purifying respirator (PAPR) with Class P3 (Particulate) filter or an air-line respirator or a full-face Class P3 (particulate) respirator. See Australian/New Zealand Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Elbow-length PVC gloves, cotton overall buttoned to the neck and wrist, safety boots and a washable hat. See Australian Standards AS/NZS 2161, 2210.1 and 2210.2 for more information.

Eye and Face Protection:

Eye and face protectors for protection against dust. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form:	Powder
Colour:	Yellow
Odour:	Mild sulfurous odour
Odour Threshold:	Not determined.
pH-Value:	Not applicable.
Melting point/Melting range:	Not determined
Initial Boiling Point/Boiling Range:	Not applicable
Flash Point:	Not applicable
Flammability:	Not determined.
Auto-ignition Temperature:	Product is not self-igniting.
Decomposition Temperature:	194-204 °C

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Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure:	Not applicable.
Density:	Not determined.
Relative Density:	Not determined.
Vapour Density:	Not applicable.
Evaporation Rate:	Not applicable
Solubility in Water:	Dispersible
Partition Coefficient (n-octanol/water):	Not determined.

10 . STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Moisture and direct sunlight.

Incompatible Materials: Strong acids, strong bases and strong oxidising agents.

Hazardous Decomposition Products:
Oxides of carbon, nitrogen and its compounds and under some circumstances oxides of nitrogen.

11 . TOXICOLOGICAL INFORMATION

Toxicity:

Acute Health Effects

Inhalation:

Severe inhalation irritant. Symptoms may include headache, extreme irritation of nose and throat and increased secretion of mucous. Symptoms may last long after exposure has ceased.

Skin: No irritating effect.

Eye: No irritating effect.

Ingestion: No information available

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.

Serious Eye Damage / Irritation: Based on classification principles, the classification criteria are not met.

Respiratory or Skin Sensitisation: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity: This product does NOT contain any IARC listed chemicals.

Reproductive Toxicity:

Suspected of damaging fertility or the unborn child.

Mancozeb is classified by Safe Work Australia as Toxic to Reproduction Category 3.

Specific Target Organ Toxicity (STOT) - Single Exposure:

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

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Chronic Health Effects:

At high levels mancozeb affects the thyroid, liver, and nervous system in laboratory animals. The thyroid and liver effects are due to its metabolism in small amounts to ethylenethiourea (ETU), which interferes with thyroid hormone synthesis and induces stress-related liver growth.

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological 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', June 2014). - Based on a NOEL of 0.6 mg/kg bw/d from a 2-year dietary study in dogs, and a 100-fold safety factor.

12 . ECOLOGICAL INFORMATION

Ecotoxicity: Mancozeb is of low toxicity to bees, birds and earthworms.

Aquatic toxicity: Mancozeb is highly toxic to fish and aquatic organisms

Persistence and Degradability:

Mancozeb is of low soil persistence, with a reported field half-life of 1 to 7 days. Mancozeb rapidly and spontaneously degrades to ETU (ethylenethiourea) in the presence of water and oxygen. ETU may persist for longer, on the order of 5 to 10 weeks.

Bioaccumulative Potential: Mancozeb does not bioaccumulate.

Mobility in Soil: Mancozeb has low mobility in soil due to rapid degradation

Other adverse effects: No information available

13 . DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

14 . TRANSPORT INFORMATION

UN Number

IMDG UN3077

Proper Shipping Name

ADG Void

IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (mancozeb), MARINE POLLUTANT

Dangerous Goods Class

IMDG Class: 9 Miscellaneous dangerous substances and articles.

Packing Group:

IMDG III

Marine pollutant: Yes

Symbol (fish and tree)

EMS Number: F-A,S-F

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15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:

8018-01-7 | mancozeb

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 5

16 . OTHER INFORMATION

Creation Date: 04.03.2015**Last Revision of MSDS:** 01.03.2010**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Data compared to the previous version altered: GHS format

Disclaimer

This MSDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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