

SECTION 1: Identification of the substance/mixture and of the supplier/undertaking

1.1. GHS product identifier

Product form : Mixture
Trade name : FarmAg Mancozeb 800 WP
Type of product : Fungicide
Product group : End product

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Fungicide

1.4. Supplier's details

Supplier

Farm-Ag International (Pty) Ltd
Old Mill Industrial Park
61, Marshall Drive
P.O. Box 1523
4300 Mount Edgecombe – Durban KwaZulu Natal
South Africa
T 031 003 3486

1.5. Emergency phone number

Emergency number : 24 Hr Emergency Number:
In case of poisoning, call the following number: Poison Information Helpline (24 hrs) 0861 555 777
Emergency Number: Disaster Management Centre Spill Tech 086 100 0366

SECTION 2: Hazard identification

2.1. GHS classification of the substance/mixture and any national or regional information

Classification according to the United Nations GHS

Acute toxicity (oral), Category 5 H303
Acute toxicity (dermal), Category 5 H313
Acute toxicity (inhalation:dust,mist) Category 4 H332
Reproductive toxicity, Category 2 H361
Hazardous to the aquatic environment – Acute Hazard, Category 1 H400

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : May be harmful if swallowed or in contact with skin, Harmful if inhaled, Suspected of damaging fertility of the unborn child, Very toxic to aquatic life.

2.2. GHS label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA) :



Signal word (GHS-ZA) : Warning
Hazard statements (GHS ZA) : H303+H313 - May be harmful if swallowed or in contact with skin
H332 - Harmful if inhaled
H361 - Suspected of damaging fertility or the unborn child

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Precautionary statements (GHS ZA)	: H400 - Very toxic to aquatic life : P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P203 - Obtain, read and follow all safety instructions before use. P261 - Avoid breathing dust. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, eye protection, face protection, hearing protection P301+P317 - IF SWALLOWED: Get medical help. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P317 - Get medical help. P318 - IF exposed or concerned, get medical advice. P391 - Collect spillage. P405 - Store locked up. P501 - Dispose of container to an approved waste disposal plant.
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2.3. Other hazards which do not result in classification or are not covered by the GHS

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to the United Nations GHS
Mancozeb active ingredient	CAS-No.: 8018-01-7	≥ 80 – < 85	Acute Tox. 5 (Oral), H303 Acute Tox. 5 (Dermal), H313 Acute Tox. 4 (Inhalation:dust,mist), H332 Repr. 2, H361 Aquatic Acute 1, H400

SECTION 4: First aid measures

4.1. Description of necessary first aid measures

First-aid measures general	: There are not expected to be any reactions unless the absorbed doses are extraordinary. Symptoms of expose to this product are: itching, scratchy throat, sneezing, coughing, nausea, vomiting, diarrhea, and headaches. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. This is not likely to occur. Move victim to a source of fresh air and remove source of contamination. Monitor patient for respiratory distress. Administer 100 % humidified supplemental oxygen with assisted ventilation as required.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Flush eyes immediately with flowing, fresh, clean water or sodium bicarbonate solution for 15 to 30 minutes, lifting the upper and lower eyelids. If necessary seek medical attention. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Should mancozeb be ingested seek medical advice immediately. Do not induce vomiting. Two glasses water should be given to drink. Do not give anything via the mouth to an unconscious person. Medical personnel should administer gastric lavage or oxygen. Call a poison center or a doctor if you feel unwell.

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4.2. Most important symptoms/effect, acute and delayed

Symptoms/effects after inhalation	: Negligible toxicity, inhalation of the dust may be irritating to the nose, throat and lungs.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically and supportively. No specific antidotes are available for dithiocarbamate poisoning. Should a large amount of mancozeb have been ingested in the last few hours, and if copious vomiting has already occurred, the stomach must be emptied and steps taken to limit gastrointestinal absorption. If the patient is fully alert and conscious and nervous system depression is not anticipated, oral administration of Syrup of Ipecac is probably the best way to empty the stomach. Should the consumption have been minimal, administration of charcoal without cathartic, with observation of the patient should represent optimal management.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Carbon dioxide. Dry powder. Foam. Water. Water spray.
Unsuitable extinguishing media	: Do not use direct jet of water. Avoid water coming in contact with the product.

5.2. Specific hazards arising from the chemical

Explosion hazard	: There is a slight fire hazard when exposed to heat or flame. Avoid heat and flame. Fine dust in the air may form an explosive mixture if source of ignition is present. The minimum ignition temperature of a dust cloud is 310°C. The minimum ignition temperature of a dust layer is 132°C.
Hazardous decomposition products in case of fire	: Pesticide particle can become airborne. Combustion generates toxic fumes of hydrogen sulphide, carbon disulphide, sulphur oxides, nitrogen oxides and carbon oxides.

5.3. Special protective actions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Personal protection (Emergency response)	: Wear respiratory protection, Wear protective gloves, Wear protective clothing, Wear eye protection, Gloves, Face-shield



SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Do not breathe dust, mist. Avoid contact with skin and eyes.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

For containment	: Collect spillage.
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Methods for cleaning up	: Mechanically recover the product. For small dry spills, sweep up with damp earth or sand or other suitable absorbents, taking care not to raise a dust cloud. Place the material into a clean, dry container for disposal at a later stage. Where the product has come into contact with water, contain contaminated water for disposal at a later stage. Do not flush spilled material into drains. Keep onlookers away and upwind. Large Spills: These should be covered to prevent further dispersal. Vacuum or shove waste into an approved container. To de-contaminate a spill area, tools and equipment, wash with a suitable solution (organic solvent, detergent bleach, or caustic). Add the solution to the containers already collected. Label the containers stating the contents and dispose in accordance to local regulations. . Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust, mist. Avoid contact with skin and eyes.
Hygiene measures	: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store locked up. Store in a well-ventilated place. Keep cool.
Storage area	: Store in a dry area. Store in a dark area. Store out of reach of unauthorised persons, children and animals. Keep only in the original container.
Information on mixed storage	: KEEP SUBSTANCE AWAY FROM: Food supplies. Water supplies.
Special rules on packaging	: Do not store bagged product more than 3 pallets high. Loose bags should not be stacked more than 2x2x2 meters. Local regulations should be complied with.
Storage temperature	: 0 – 49 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of inadequate ventilation wear respiratory protection.
Personal protective equipment symbol(s)	



8.4. Exposure limit values for the other components

No information available

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SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder
Colour	: Yellow to greyish yellow
Odour	: Sulphurous
Odour threshold	: No data available
pH	: 5-8
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: 192 – 204 °C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability	: Not flammable.
Vapour pressure	: No data available
Vapour pressure at 50°C	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: 1.92
Relative density of saturated gas/air mixture	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: Dispersible.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable
Lower explosion limit	: No data available
Upper explosion limit	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No information available

SECTION 10: Stability and Reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical Stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No information available

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : May be harmful if swallowed.
Acute toxicity (dermal) : May be harmful in contact with skin.
Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

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ATE ZA (oral)	2518.75 mg/kg bodyweight
ATE ZA (Dermal)	2518.75 mg/kg bodyweight
ATE ZA (dust, mist)	1.511 mg/l/4h

mancozeb (8018-01-7)	
LD50 oral rat	> 2000 mg/kg (Rat, Oral)
LD50 dermal rat	> 2000 mg/kg (Rat, Dermal)
LC50 Inhalation - Rat	> 1.766 mg/l/4h (4 hours)

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life.
Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic) : Not classified

mancozeb (8018-01-7)	
LC50 - Fish [1]	< 1 mg/l (96 h, rainbow trout)
EC50 - Crustacea [1]	< 1 mg/l (48 h, Daphnia magna)
EC50 96h - Algae [2]	< 1 mg/l Selenastrum Capricornutum
Additional data	Birds: Practically non-toxic to birds. Honeybees: Non toxic to bees. Earthworm LC50 (14d) Eisenia foetida > 1000 mg/kg soil

12.2. Persistence and degradability

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Persistence and degradability	No information available

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Mancozeb (8018-01-7)

Persistence and degradability	Not rapidly biodegradable
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No information available
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mancozeb (8018-01-7)

Partition coefficient n-octanol/water (Log Pow)	1.38
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Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
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12.4. Mobility in soil

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Mobility in soil	No information available
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mancozeb (8018-01-7)

Surface tension	Not applicable (water solubility < 1 mg/l)
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Ecology - soil	Low potential for adsorption in soil.
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12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available




SECTION 13: Disposal Considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
3077	3077	3077
14.2. UN Proper Shipping Name		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains mancozeb)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains mancozeb)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains mancozeb)
14.3. Transport hazard class(es)		
9	9	9
		
14.4. Packing group, if applicable		
III	III	III

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SANS	IMDG	IATA
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

14.6. Special precautions for user

SANS

Special provisions (SANS)	: 179, 274, 331, 335
Limited quantities (SANS)	: 5 kg
Limited quantities (SANS)	: 5 kg
Packagings, large packagings and IBCs Packing instructions (SANS)	: P002, IBC08, LP02
Packagings, large packagings and IBCs Special packing instructions (SANS)	: PP12, B3
Portable tank and bulk containers instructions (SANS)	: T1, BK2
Portable tank and bulk container special provisions (SANS)	: TP33

IMDG

Special provisions (IMDG)	: 274, 335, 966, 967, 969
Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP02, P002
Special packing provisions (IMDG)	: PP12
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B3
Tank instructions (IMDG)	: BK1, BK2, BK3, T1
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW23

IATA

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y956
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 956
PCA max net quantity (IATA)	: 400kg
CAO packing instructions (IATA)	: 956
CAO max net quantity (IATA)	: 400kg
Special provisions (IATA)	: A97, A158, A179, A197, A215
ERG code (IATA)	: 9L

14.7. Transport in bulk according to IMO instructions

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

15.1.1. Occupational health and safety act, 1993

Prohibited Hazardous Chemical Agents

Not regulated

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15.2. Safety, health, and environmental national regulations specific for the product

No additional information available

SECTION 16: Other information

Issue date : 18/07/2024
Revision date : 18/07/2024
Supersedes : 18/07/2024

Full text of H-statements:

H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H332	Harmful if inhaled
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life

Safety Data Sheet (SDS), South Africa (HCA)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.