



Metastar 700 WP (Mancozeb 600 g/kg + Metalaxyl 100 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8
Issue date: 7/3/2024 Revision date: 7/3/2024 Supersedes: 7/3/2024 Version: 21.0

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

1.1. GHS product identifier

Product form : Mixture
Trade name : Metastar 700 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 4	H302
Acute toxicity (dermal), Category 5	H313
Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 3	H316
Serious eye damage/eye irritation, Category 2	H319
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 : Suspected of damaging fertility or the unborn child,Harmful if inhaled,Harmful if swallowed,Causes mild skin irritation, Causes serious eye irritation,Very toxic to aquatic life.

2.2. GHS label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA) :



Metastar 700 WP (Mancozeb 600 g/kg + Metalaxyl 100 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

Signal word (GHS-ZA)	: Warning
Hazard statements (GHS ZA)	: H302+H332 - Harmful if swallowed or if inhaled H313 - May be harmful in contact with skin H316 - Causes mild skin irritation H319 - Causes serious eye irritation H361 - Suspected of damaging fertility or the unborn child H400 - Very toxic to aquatic life
Precautionary statements (GHS ZA)	: 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, spray. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment. P280 - Wear protective clothing, eye protection, face protection, protective gloves. P301+P317 - IF SWALLOWED: Get medical help. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302+P317 - IF ON SKIN: Get medical help. P318 - IF exposed or concerned, get medical advice. P332+P317 - If skin irritation occurs: Get medical help. P391 - Collect spillage. P405 - Store locked up. P501 - Dispose of container to an approved waste disposal plant.

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	≥ 60 – < 65	Acute Tox. 5 (Oral), H303 Acute Tox. 5 (Dermal), H313 Acute Tox. 4 (Inhalation:dust,mist), H332 Repr. 2, H361 Aquatic Acute 1, H400
Metalaxyl, active ingredient	CAS-No.: 57837-19-1	≥ 10 – < 15	Acute Tox. 4 (Oral), H302 Eye Irrit. 2B, H320 Aquatic Acute 3, H402
Sodium salt of dialkyl naphthalene sulphonate	CAS-No.: 25638-17-9	≥ 1 – < 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319
Sodium salt of naphthalene sulphonate formaldehyde condensate	CAS-No.: 68425-94-5	≥ 1 – < 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Metastar 700 WP (Mancozeb 600 g/kg + Metalaxyl 100 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

SECTION 4: First aid measures

4.1. Description of necessary first aid measures

- First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately remove source of contamination or move victim to fresh air. If breathing has stopped, perform artificial respiration and administer oxygen. Do not give mouth-to-mouth resuscitation if victim ingested or inhaled the substance. Keep person warm and at rest. Treat symptomatically and supportively as and when required. Obtain medical advice if necessary. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Immediately flush the eyes with gently flowing lukewarm water or sodium bicarbonate solution for 20 to 30 minutes, occasionally lifting the upper and lower lids. If irritation persists, seek medical advice immediately. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Do not induce vomiting. Never induce vomiting or give anything to drink to an unconscious person. . Rinse mouth. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effect, acute and delayed

- Symptoms/effects after inhalation : Harmful if inhaled.
- Symptoms/effects after eye contact : Causes serious eye irritation.
- Symptoms/effects after ingestion : Harmful if swallowed.

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

No antidote available. Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam.
- Unsuitable extinguishing media : Water spray as a fog can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Contain water used for fire-fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

5.2. Specific hazards arising from the chemical

- Explosion hazard : Not Flammable. Combustible. Dust-air mixtures may explode when in contact with moisture.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

- Firefighting instructions : Remove spectators from surrounding area. Remove container from fire area if possible without risk. Eliminate all ignition sources in immediate area. Fight fire from maximum distance. For massive fire, use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours. Keep upwind. Fire may produce irritating or poisonous vapours (toxic oxides of carbon, nitrogen and sulphur) of combustion.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Personal protection (Emergency response) : Gloves, Safety glasses, Protective clothing, Wear respiratory protection



Metastar 700 WP (Mancozeb 600 g/kg + Metalaxyl 100 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

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. Avoid breathing dust, mist. Avoid contact with skin and eyes.

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".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Mechanically recover the product. For small liquid spills, soak up with lime, damp earth or sand, or other non-combustible absorbent material and place into containers for later disposal. For large liquid spills, contain the liquid for later disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away. 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 : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust, mist. Avoid contact with skin and eyes.
Hygiene measures : 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.
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: Water supplies. Food supplies.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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)



Metastar 700 WP (Mancozeb 600 g/kg + Metalaxyl 100 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Colour	: Yellow
Odour	: No data available
Odour threshold	: No data available
pH	: 5-8
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability	: Non 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	: No data available
Relative density of saturated gas/air mixture	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: Water: 815 ppm
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 additional 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).

Metastar 700 WP (Mancozeb 600 g/kg + Metalaxyl 100 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

10.5. Incompatible materials

No additional information available

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

Metastar 700 WP	
ATE ZA (oral)	1155.612 mg/kg bodyweight
ATE ZA (Dermal)	2142,86 mg/kg bodyweight
ATE ZA (dust, mist)	1.5 mg/l/4h
Unknown acute toxicity (GHS ZA)Unknown acute toxicity (GHS ZA)	Total content of ingredient(s) of unknown acute toxicity is > 10% (Oral) Total content of ingredient(s) of unknown acute toxicity is > 10% (Dermal) Total content of ingredient(s) of unknown acute toxicity is > 10% (Inhalation (Dust/Mist))

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)

Metalaxyl (57837-19-1)

LD50 oral rat	300 – 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 5.206 mg/l

Skin corrosion/irritation : Slightly irritating
Serious eye damage/irritation : Eye irritant
Respiratory or skin sensitization : Not a skin sensitizer
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)
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Metastar 700 WP (Mancozeb 600 g/kg + Metalaxyl 100 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

Mancozeb (8018-01-7)	
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. Honeybes: Non toxic to bees. Earthworm LC50 (14d) Eisenia foetida > 1000 mg/kg soil
Metalaxyl (57837-19-1)	
LC50 - Fish [1]	> 100 mg/l Rainbow trout
EC50 72h - Algae [1]	> 10 mg/l
NOEC 48h crustacea	> 10 mg/l

12.2. Persistence and degradability

Metastar 700 WP	
Persistence and degradability	No data available
Mancozeb (8018-01-7)	
Persistence and degradability	Not rapidly biodegradable
Metalaxyl (57837-19-1)	
Persistence and degradability	No data available

12.3. Bioaccumulative potential

Metastar 700 WP	
Bioaccumulative potential	No data available
Mancozeb (8018-01-7)	
Partition coefficient n-octanol/water (Log Pow)	1.38
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Metalaxyl (57837-19-1)	
Bioaccumulative potential	No data available

12.4. Mobility in soil

Metastar 700 WP	
Mobility in soil	No data available
Mancozeb (8018-01-7)	
Surface tension	Not applicable (water solubility < 1 mg/l)
Mobility in soil	Low potential for adsorption in soil.
Metalaxyl (57837-19-1)	
Mobility in soil	No data available

12.5. Other adverse effects

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

Metastar 700 WP (Mancozeb 600 g/kg + Metalaxyl 100 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

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 and metalaxyl)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains mancozeb and metalaxyl)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains mancozeb and metalaxyl)
14.3. Transport hazard class(es)		
9	9	9
14.4. Packing group, if applicable		
III	III	III
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

Metastar 700 WP (Mancozeb 600 g/kg + Metalaxyl 100 g/kg)

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

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

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

No additional information available

SECTION 16: Other information

Issue date : 03/07/2024
Revision date : 09/10/2025
Supersedes : 03/07/2024

Full text of H-statements:

H302	Harmful if swallowed
H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H315	Causes skin irritation
H316	Causes mild skin irritation
H319	Causes serious eye irritation
H320	Causes eye irritation
H332	Harmful if inhaled
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life
H402	Harmful 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.