

Safety Data Sheet (SDS) Controller

According to UN GHS 8th Ed

Revision Date: 07/08/2022

First print date: 01/06/2018

Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: Controller

Common name: Cymoxanil 60 g/kg + Mancozeb 700 g/kg WP

Relevant identification uses of the substance and uses advised against:

Identified uses: Fungicide

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Details of the Registration Holder:

RT Chemicals CC, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Contact Details:

Telephone: +27 87 231 7261

Fax: 086 541 7948

Website: www.envirobiochem.co.za

Emergency telephone numbers:

24 Hour Emergency Number: Bateleur: +27 83 123 3911

Griffon Poison Information Centre: +27 82 446 8946

Poisons Information Helpline: 0861 555 777

Tygerberg Hospital: +27 21 931 6129

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

Hazard classes/Hazard categories	Hazard statement
Skin sensitisation (Category 2)	H317
STOT RE (Category 2)	H373
Carcinogenicity (Category 2)	H351
Reproduction (Category 1B)	H360D
Aquatic Toxicity Acute (Category 1)	H400
Aquatic Toxicity Chronic (Category 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None known

The most important adverse human health effects: Suspected of causing cancer. May damage the unborn child.

May cause damage to organs through prolonged or repeated exposure. May cause an allergic skin reaction.

Label elements



Hazard pictograms

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Signal Word: Danger

Hazard Statements:

H317	May cause an allergic skin reaction
H351	Suspected of causing cancer
H360D	May damage the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P102	Keep out of reach of children
P103	Read label before use
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands, forearms, and face thoroughly after handling
P270	Do not eat, drink, or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P314	Get medical advice/attention if you feel unwell.
P405	Store locked up
P273	Avoid release to the environment.
P391	Collect spillage
P501	Dispose of contents/container in accordance with local/regional/ national regulations

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS
Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
Mancozeb	8018-01-7	70%	Skin Sensitisation (Category 1) H317 Carcinogenicity (Category 2), H351 STOT RE (Category 2), H373 Reproduction Toxicity (Category 1B) H360D Aquatic Acute (Category 1) H400 Aquatic Chronic (Category 1) H410
Cymoxanil	57966-95-7	6%	Acute Toxicity Oral (Category 4) H302 Skin Sensitisation (Category 1) H317 STOT RE (Category 2), H373 (Blood, Thymus) Reproduction Toxicity (Category 2) H361fd Aquatic Acute (Category 1) H400 Aquatic Chronic (Category 1) H410

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Sodium dodecyl sulphate	151-21-3	< 3 %	Acute Toxicity Oral (Category 4) H302 Skin Irritation (Category 2) H315 Eye damage (Category 1) H318 Aquatic Chronic (Category 3) H412
Other Ingredients	-		Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: Avoid inhalation of vapour or mist spray. If inhaled, remove to fresh air. Administer artificial respiration if breathing is stopped. Seek medical attention.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Seek medical attention if symptoms persist.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. If eye symptoms (redness, irritation, or pain) persist refer patient to ophthalmologist for examination of eyes.

In case of ingestion: Wash out mouth with water if the patient is alert and conscious. Do NOT induce vomiting . If vomiting occurs spontaneously, keep head below hips to avoid aspiration. Keep patient at rest and transport to nearest medical facility for further treatment. attention. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt, or waistband.

Most important symptoms and effects, both acute and delayed:

Anticipated acute effects:

Ingestions: May be harmful if swallowed. Coughing , sneezing. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Gastrointestinal pain.

Skin contact: Irritant, may cause an allergic reaction.

Anticipated delayed effects: Suspected of causing cancer. May damage the unborn child. Maya cause damage to organs after prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically and supportively.

SECTION 5. FIRE FIGHTING MEASURES

Extinguisher media:

Suitable extinguisher media: Foam. Dry powder. Carbon dioxide. Water spray.

Small Fire: Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam.

Large Fire: Water fog or foam can be used for larger fires or cooling of unaffected stock but avoid the accumulation of polluted run-off from the site.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

May release irritating fumes upon combustion such as oxides of carbon and nitrogen

Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters:

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Avoid inhaling hazardous vapours and fumes. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.

Contain fire control agents for later disposal according to Section 13.

Water can be used to cool unaffected containers.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment, and emergency procedures:

For non-emergency personnel: Keep all personal away may be toxic by inhalation. Avoid contact with eyes and skin.

For emergency responders: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent Avoid contact with eyes and skin. Do not breathe in fumes. Refer to section 8 for recommended personal protective equipment. Evacuate unnecessary personnel.

Environmental precautions:

Stop leak if without risk. Do not touch spilled material. Prevent entry into drains, watercourses, groundwater or confined areas: dike if needed. This product is classified to be very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

If the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations.

Dispose in a safe manner in accordance with local/national regulations.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth

For large spills Prevent entry into drains, watercourses, or confined areas. Cover contained spill with an inert absorbent material e.g., sand, earth, vermiculite, or diatomaceous earth. Vacuum, scoop or sweep up material into a clean, dry, sealable container. Label container with the contents and dispose of according to local regulations. Do not reuse spilled material. To decontaminate the spill area, tools and equipment, wash with water and a suitable detergent.

Reference to other sections:

See section 1 for emergency contact details.

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid inhalation. Avoid contact with eyes, skin, or clothing. Ensure adequate ventilation during use and handling.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet

Conditions for safe storage, including incompatibilities:

Store product in a locked, segregated, and approved area, out of reach of unauthorized persons, children, and animals.

Store in its original, labelled container, tightly closed, in an isolated, dry, cool, and well-ventilated area. Store at temperature not exceeding 30°C. Avoid excess heat. Not to be stored next to foodstuffs, feed, and water supplies.

Avoid cross contamination with other pesticides and fertilisers.

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Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): No information available.

Biological exposure indices (BEI): No information available.

Additional exposure limits under the conditions of use: No information available.

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Adequate ventilation is essential. Appropriate measures depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Personal Protective Equipment

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort wear chemical goggles.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Use only in well ventilated areas. An approved full-face respirator suitable for protection from spray or mists of pesticides is required. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Fine powder
Colour	Yellow-grey
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point / freezing point (°C)	136
Boiling point (°C)	No data available
Flash point (°C)	No data available
Evaporation rate	No data available
Flammability	No data available
Upper /lower flammability limits	No data available
Vapour pressure	No data available

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Vapour density	No data available
Relative density g/ml (20°C)	No data available
Water solubility (g/l) at 20°C	No data available
Partition coefficient : n-octanol/water	No data available
Auto-ignition temperature (°C)	No data available
Decomposition temperature (°C)	No data available
Viscosity, dynamic (mPa s)	No data available
Explosive properties	Dust explosions is a possibility.
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: None known

Chemical stability: Will degrade at 0.18% per month when stored at 35 °C. Decomposes under humid and acidic conditions at high temperatures. Stable under normal storage conditions.

Possibility of hazardous reactions: No information available.

Conditions to avoid: Avoid excessive heat and ignition sources.

Incompatible materials: Should not be applied in combination with strong acidic and strong alkaline products.

Hazardous decomposition products: Products of hydrogen Sulphide, carbon dioxide, carbon monoxide, nitrogen oxides, sulphur dioxide and carbon disulphide form on heating

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has not been tested. The data reported is for the main ingredients in the mixture.

Mancozeb CAS No. 8018-01-7	
Acute toxicity:	
Acute Oral LD50 (rat)	>2000 mg/kg
Acute Dermal LD50 (rat):	> 2000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	1.77 mg/l air
Skin irritation/ corrosion (rabbit)	Not a skin irritant
Respiratory or skin sensitization	Causes skin sensitisation
Germ cell mutagenicity	Not classified
Carcinogenicity	Suspected carcinogen
Reproductive toxicity	Suspected of damaging unborn child
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Aspiration hazard	No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Cymoxanil CAS No. 57966-95-7	
Acute toxicity:	
Acute Oral LD50 (rat - male)	1100 mg/kg

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Acute Dermal LD50 (rat):	>3000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	>5.06 mg/l
Skin irritation/ corrosion	Irritating to skin
Eye damage / irritation	Not an eye irritant
Respiratory or skin sensitization	Not a respiratory or skin sensitizer
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	Suspected of damaging fertility or unborn child
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Aspiration hazard	No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Sodium dodecyl Sulphate CAS No. 151-21-3	
Acute toxicity:	
Acute Oral LD50 (rat - male)	977 mg/kg
Acute Dermal LD50 (rat):	>2000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	No data available
Skin irritation/ corrosion (rabbit)	Irritating to skin
Eye damage / irritation (rabbit)	Irreversible effects on eyes
Respiratory or skin sensitization (Guinea pig)	Not a respiratory or skin sensitizer
Germ cell mutagenicity	Negative in Ames test
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Mancozeb CAS No. 8018-01-7	
Toxicity	
Birds Acute oral LD ₅₀	>5500 mg/kg Mallard Duck; 5000 mg/kg Japanese quail;>1290 mg/kg European Starlings
Acute Dietary LC ₅₀ (8d)	>5200 mg/kg Mallard Duck and Bobwhite quail
Aquatic Toxicity Fish LC ₅₀ Flow through (96 hr) Aquatic Toxicity Daphnia EC ₅₀ Flow through (48 hr) Toxicity to algae – static test EC ₅₀ (120h) Toxicity to bees LD ₅₀ (48 h) for contact	Rainbow trout 1.0 mg/l, Bluegill sunfish >3.6 mg/l, 3.8 mg/l 0.044 mg/l for green algae (<i>Selenastrum capricornutum</i>) >209 µg/bee (contact); >400 µg/bee (oral)
Persistence and degradability	Mancozeb is rapidly degraded in the environment by hydrolysis, oxidation, photolysis, and metabolism. Is strongly adsorbed to soil, and half-life in soil is 3 to 11 days (clay and loam soil).
Bioaccumulation potential	Shows little tendency to bioaccumulate. Bioaccumulation: log POW = 0.66 (pH 7).

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Mobility in soil	Low mobility and is not likely to leach
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

Cymoxanil CAS No. 57966-95-7	
Toxicity	
Birds Acute oral LD ₅₀ Acute Dietary LC ₅₀ (8d)	>2250 mg/kg Mallard Duck and Bobwhite quail >5620 mg/kg Mallard Duck and Bobwhite quail
Aquatic Toxicity Fish LC ₅₀ (96 hr) Aquatic Toxicity Daphnia semi static LC ₅₀ (48 hr) Toxicity to algae – static test EC ₅₀ (5D) Toxicity to bacteria EC ₅₀ (3h)	Rainbow trout 61 mg/l, Bluegill sunfish 29 mg/l, 27 mg/l 1.21 mg/l for green algae (<i>Selenastrum capricornutum</i>) >25 µg/bee (contact); >1000 µg/bee (oral)
Persistence and degradability	Cymoxanil is rapidly degraded in the environment by hydrolysis and photolysis. Half-life in bare soil is 0.9 to 9 days. Though Cymoxanil has low K _{ow} values and would be expected to leach to ground and surface water, the chemical degrades rapidly and not likely to pose a threat to ground and surface waters
Bioaccumulation potential	The low K _{ow} for Cymoxanil (3.9 to 4.7) indicates a very low potential to bio-accumulate in fish
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

Sodium dodecyl Sulphate CAS No. 151-21-3	
Toxicity	
Aquatic Toxicity Fish flow through test LC ₅₀ (96 h) Aquatic Toxicity Daphnia flow through test LC ₅₀ (48h) Toxicity to algae – static test ErC ₅₀ (72h) Toxicity to bacteria static test EC ₅₀ (3h)	29 mg/l Pimephales promelas (fathead minnow) 5.55 mg/l Ceriodaphnia dubia (water fleas) >120 mg/l Desmodesmus subspicatus (green algae) 135 mg/l activated sludge
Persistence and degradability	No data available
Bioaccumulation potential	No data available
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

SECTION 13. DISPOSAL CONSIDERATIONS
Waste treatment methods:
Product:

Keep out of drains, sewers, ditches, and waterways. Open dumping or burning of this pesticide is prohibited.

Waste resulting from the use of this product cannot be re-used or reprocessed. Refer to container label for disposal information. Treat as hazardous waste and dispose of in accordance with local/ regional/ national/ international regulations.

Container:

Refer to container label for disposal information. Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is cleaned, reconditioned, or destroyed. Rinse empty container three times with a volume of water equal to at least one tenth of that of the container. Pour rinse water into spray tank. Dispose of as hazardous waste.

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not contaminate water when disposing of rinse water. Dispose of using an approved waste disposal service provider.
Follow all local/ regional/ national/ international regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number	3077
UN proper shipping name	Environmentally Hazardous Substance, solid, N.O.S. (Mancozeb 700 g/kg + Cymoxanil 60 g/kg)
Transport hazard class	9
Packaging group	III
Marine pollutant	Yes

SECTION 15. REGULATORY INFORMATION

Safety, health, and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations:

National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management Waste Act 59 of 2008.

Act 36 of 1947 of the Republic of South Africa. This product is registered under it is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

Classification according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

GHS aligned – all sections

Relevant H statements (number and full text):

H302-Harmful if swallowed

H315-Causes skin irritation

H318-Causes serious eye damage

H412-harmful to aquatic life with long lasting effects

H361-Suspected of damaging fertility or the unborn child

Skin sensitisation (Category 1) : May cause an allergic skin reaction

Carcinogenicity (Category 2): Suspected of causing cancer

Reproduction toxicity (Category 1B): May damage the unborn child

STOT RE 2 H373- Specific Target Organ Toxicity repeated exposure (Category 2

Aquatic Toxicity acute (Category 1): Very toxic to aquatic life

Aquatic Toxicity chronic (Category 1): Very toxic to aquatic life with long lasting effects

Training instructions:

Use as indicated on the label, special training may be required for application.

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Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.