

# CONTROLLER

## SAFETY DATA SHEET

### 1. PRODUCT & COMPANY IDENTIFICATION

**Product Name:** CONTROLLER  
**Pesticide Classification:** Fungicide  
**UN No.:** 3077

#### Supplier

Enviro Bio-Chem (Pty) Ltd  
Co. Reg. No.: 2013/194774/07  
44 Kerk Street, Lichtenburg  
North West, South Africa 2740

#### Registration Holder

RT Chemicals CC  
Co. Reg. No.: CK87/21925/23  
44 Kerk Street, Lichtenburg  
North West, South Africa 2740

**Telephone:** +27 87 231 7261  
**Fax:** 086 541 7948  
**Website:** [www.envirobiochem.co.za](http://www.envirobiochem.co.za)

**24 Hr Emergency Number:** Bateleur: +27 83 123 3911

#### **In case of Poisoning:**

Poison Information Centre: +27 82 446 8946  
Tygerberg Hospital: (+27 21) 931 6129  
Poison Emergency Enquiries: (+27 21) 689 5227

**Common Name:** Cymoxanil 60 g/kg + Mancozeb 700 g/kg WP

**Chemical Name:** Cymoxanil: 1-(2-cyano-2- methoxyiminoacetyl)-3-ethylurea  
Mancozeb: Manganese ethylenebis (dithiocarbamate) (polymeric) complex with zinc salt

**Empirical Formula:** Cymoxanil:  $C_7H_{10}N_4O_3$   
Mancozeb:  $C_8H_{12}MnN_4S_8Zn$

**CAS No.:** Cymoxanil: 57966-95-7  
Mancozeb: 8018-01-7

**RSA Reg. No.:** L6783 Act/Wet No. 36 of/van 1947

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Cymoxanil	60 g/kg
Mancozeb	700 g/kg

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## 3. HAZARD IDENTIFICATION

**Hazards Class:** WHO Class III -Slightly hazardous.

**Main Hazard:** Slightly hazardous by ingestion.

**Flammability:** Flammable

**Chemical Hazard:** No specific chemical hazard to mention.

**Biological Hazard:** Product is very toxic to fish and aquatic organisms.

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## 4. FIRST AID MEASURES AND PRECAUTIONS

If poisoning is suspected, do not wait for symptoms to develop. Contact a physician, the nearest hospital, or the nearest Poison Control Centre.

**Symptoms of Human Poisoning:** No signs and symptoms of poisoning are known or expected in humans.

### First Aid Measures:

**Skin Contact:** Remove contaminated clothing and wash before re-use. Wash affected skin areas with fresh running water and soap. Treat symptomatically. Seek medical attention if symptoms persist.

**Eye Contact:** Hold eyes open and flush immediately with clear, clean running water for at least 15 minutes. If eye symptoms (redness, irritation or pain) persist refer patient to ophthalmologist for examination of eye.

**Ingestion:** Only induce vomiting if advised to do so by a physician. If vomiting occurs spontaneously, keep airway clear. Keep patient at rest and seek medical attention. Do not perform gastric lavage if victim is unconscious. Administration of gastric lavage and oxygen should be performed by qualified medical personnel.

**Inhalation:** Move victim from contaminated area to fresh air. Avoid inhalation of vapor or spray mist. Seek medical attention.

**Advice to Physician:** See product pH value.

**Antidote:** There is no specific antidote for poisoning with this product.

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## 5. FIRE FIGHTING MEASURES

**Flammability:** Flammable

**Extinguishing Agents:** Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam.

**Firefighting:** Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways. Firefighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

**Special Hazards:** Combustion/fire generates products of hydrogen sulphide, carbon dioxide, carbon monoxide, nitrogen oxides, sulphur dioxide and carbon disulphide.

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## 6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

**Personal Precautions:** Wear protective clothing. Avoid breathing vapours or spray drift. If necessary, wear a self-contained breathing apparatus.

**Environmental Precautions:** Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay or other absorbent material.

**Spills:** For small spills, soak up with sand or suitable non-combustible absorbent material. Place product waste into containers for subsequent disposal according to Section 13 of this document. Do not allow the product to come into contact with the water systems. For large spills contact the manufacturer. Contain liquid far ahead of spill. Contain spillage and contaminated water for subsequent disposal. Do not flush spilled material into drains. Keep spectators away and upwind.

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## 7. HANDLING AND STORAGE REQUIREMENTS

**Handling:** Store at temperature not exceeding 30 °C. Avoid contact with skin, eyes and clothing. Store in original sealed containers, in a well-ventilated and dry storehouse. Keep away from direct sunlight, food, seed, animals, children and uniformed persons. Do not leave spray solution in spray tanks for long periods. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Remove clothing immediately if the product gets inside, then wash skin thoroughly using non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present or to intertidal areas below the mean high-water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

**Storage:** It will lose weight 1.2% per month for Mancozeb and 0.02% per month for Cymoxanil at 35 °C storage. Store in its original container in isolated, dry, cool and well-ventilated area. Avoid cross contamination with other pesticides and fertilizers. Keep under lock and key out of reach of unauthorized persons, children and animals. Store away from incompatible substances. Not to be stored next to foodstuffs and water supplies.

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## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

**Exposure Limits:** No data available.

**Engineering controls:** It is essential to provide adequate ventilation. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

### Personal Protective Equipment:

**Clothing:** Long-sleeved shirt, long pants, shoes plus socks, protective waterproof (impermeable) gloves. Employee must wear appropriate protective clothing and equipment to prevent prolonged skin contact with this product. Clothing soaked with CONTROLLER solution should be promptly removed and laundered before re-use.

**Gloves:** Protective waterproof (impermeable) rubber or plastic gloves are recommended.

**Eye Protection:** Wear eye protection. During mixing or pouring operations or other activities in which eye contact with undiluted CONTROLLER is likely to occur, splash goggles should be worn. Where there is any possibility that an employee's eyes may be exposed to this substance the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

**Respiratory:** An approved full-face respirator suitable for protection from mists of pesticides is required. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

**Other Protection:** Do not eat, drink or smoke while handling this product. Prevent contamination of food, feeds, drinking water and eating utensils. After using this product wash hands and face before eating. Take extreme care to avoid drift. Wash accurately (preferably a shower) after work shift. Wash hands during breaks and at the end of the work with soap and water.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Grey-yellow fine powder.

**Melting Point:** 136 °C

**Flammability:** Flammable

**Explosive Properties:** Dust explosions is a possibility.

## 10. STABILITY AND REACTIVITY

**Stability:** It will lose weight 0.18 % per month at 35 °C. It will decompose under humid and acidic conditions at a high temperature.

**Conditions to Avoid:** Flames, heat and ignition sources.

**Incompatible Materials:** Do not physically mix concentrate directly with other herbicides or pesticide concentrates. Always dilute first. Avoid contact with oxidizing agents and acids.

**Decomposition Products:** Products of hydrogen sulphide, carbon dioxide, carbon monoxide, nitrogen oxides, sulphur dioxide and carbon disulphide form on heating.

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## 11. TOXICOLOGICAL INFORMATION

Acute toxicity based on active ingredient toxicity.

**Acute Oral LD<sub>50</sub> (rat):** 3 160 mg/kg.

**Acute Dermal LD<sub>50</sub> (rat):** >4 000 mg/kg.

**Acute Inhalation LC<sub>50</sub> (rat, 4 hr):** No data available.

**Skin and Eye Irritation (rabbit):** Mildly irritating to skin and eyes.

**Sensitization (guinea pig):** May cause skin sensitizing.

**Chronic Dietary NOEL (24 month):** Not observed.

**Carcinogenicity:** Animal studies did not detect any carcinogenic effects. No human information available.

**Mutagenicity:** Animal studies did not detect any mutagenic effects. No human information available.

**Reproductive Hazards:** It is unlikely that the compound would produce any reproductive effects in humans.

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## 12. ECOLOGICAL INFORMATION

Ecotoxicity based on active ingredient toxicity.

**Aquatic Toxicity Fish LC<sub>50</sub> (96 hr):** 18.7 mg/l (rainbow trout); 13.5 mg/l (bluegill sunfish).

**Aquatic Toxicity Daphnia EC<sub>50</sub> (48 hr):** No data available.

**Aquatic Toxicity Algae EC<sub>50</sub> (5 days):** No data available.

**Avian Toxicity LD<sub>50</sub> (9 days):** No data available.

**Bee Toxicity LD<sub>50</sub>:** No data available.

**Biodegradability:** The half-life period of Cymoxanil in soil is two weeks. Residue of mancozeb. In soil is 0.008 - 0.3 ppm.

**Bio-accumulation:** No data available.

**Mobility:** No data available.

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## 13. DISPOSAL CONSIDERATION

**Pesticide Disposal:** Waste resulting from the use of this product that cannot be re-used or reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable local procedures. Hydrolysis under alkaline conditions is a suitable method to dispose of small quantities of the product. After hydrolysis, dilute and dispose of in landfill. Comply with any local legislation applying to waste disposal.

**Package Product Wastes:** 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. Add the rinsings to the spray tank before perforating and flattening the container. Dispose of in approved landfill or preferably in a pesticide incinerator.

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## 14. TRANSPORT INFORMATION

**UN No.:** 3077

**Class:** 9

**Packaging Group:** III

**Proper Shipping Name:** Environmentally Hazardous Substance, solid, N.O.S. (contains Mancozeb)

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## 15. REGULATORY INFORMATION

**Risk Phrases:**     **R36-** May cause eye irritation.  
                          **R43-** May cause sensitization by skin contact.

**Safety Phrases:**   **S2-** Keep out of the reach of children.  
                          **S8-** Keep container dry.  
                          **S13-** Keep away from food, drink and animal feeding stuffs.  
                          **S22-** Do not breathe dust.  
                          **S24/25-** Avoid contact with skin and eyes.  
                          **S36/37-** Wear suitable protective clothing and gloves.  
                          **S46-** If swallowed, seek medical advice immediately and show this container and label.

**National Legislation:** This product is registered under Act 36 of 1947 of the Republic of South Africa. 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.

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## 16. OTHER INFORMATION

**Note:** Read and understand all the information on the product label before using the product.

**Disclaimer:** 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.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

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