

Difence

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Difence
Pesticide Classification: Fungicide
UN No.: 3082

Supplier

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

Registration Holder

Erintrade CC t/a RT Chemicals CC
Co. Reg. No.: CK2001/036403/23
44 Kerk Street, Lichtenburg
North West, South Africa 2740

Telephone: +27 87 231 7261
Fax: 086 541 7948
Website: 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: Difenoconazole 250 g/l EC

Chemical Name: 1-[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-ylmethyl]-1H-1,2,4-triazole

Empirical Formula: C₁₉H₁₇Cl₂N₃O₃

CAS No.: 119446-68-3

RSA Reg. No.: L7922 Act/Wet No. 36 of/van 1947

Namibia Reg. No.: N-AR 1459

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Difenoconazole	≥ 250 g/l
Inert Ingredients	≤ 750 g/l

3. HAZARD IDENTIFICATION

Hazards Class: WHO Class III -Slightly hazardous.

Main Hazards: Harmful when swallowed. If large amounts are swallowed and aspiration of the solvent into the lungs occurs, chemical pneumonitis may develop.

Flammability: Flammable. Vapour and air mixtures may explode.

Chemical Hazard: No data available.

Biological Hazard: Product is considered a marine pollutant.

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 reuse. 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: Wash out mouth with water. Do not induce vomiting. If vomiting occurs spontaneously, keep airway clear. Keep patient at rest and seek medical attention. Give a glass of water. Begin artificial respiration if victim is not breathing. Use mouth to nose rather than mouth to mouth.

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

Advice to Physician: Treat symptomatically.

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

5. FIRE FIGHTING MEASURES

Flammability: Flammable and combustible.

Extinguishing Agents: Extinguish fires with CO₂, dry powder or alcohol-resistant foam.

Firefighting: Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

Special Hazards: During a fire this product may release smoke and hazardous decomposition products.

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: Keep all bystanders away. Wear goggles, half face-piece respirator with combined dust and vapor cartridge, full length clothing and PVC gloves. Reposition any leaking containers so as to minimize further leakage. Dam and absorb spill with an absorbent material (e.g. sand or soil). Shovel the absorbed spill into drums. Dispose of the absorbed material will depend upon the extent of the spill. For quantities greater than 50ℓ seek advice from the manufacturer before attempting disposal. Contain in a secure location until disposal method is established. Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Avoid contact with skin, eyes and clothing. 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.

Handling/Storage: Store at temperature not exceeding 30 °C. 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits: No data available.

Engineering Controls: Use outdoors in a well-ventilated area. Comply with occupational safety, environmental, fire, and other applicable regulations. Wear suitable personal protective equipment.

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 Difence 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 Difence 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: Avoid inhaling fumes or spray drift. During periods of abnormal exposure to heavy spray or mist, use a NIOSH approved mist respirator. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Slightly yellow transparent liquid.

Odor: No data available.

pH: 5 - 8

Flammability: Flammable

Explosive Properties: Not an explosion hazard.

Density: 1.01 to 1.05 g/ml at 20 °C.

Solubility in Water: Forms an emulsion in water.

10. STABILITY AND REACTIVITY

Stability: The product is stable when stored under normal storage conditions at normal temperatures.

Conditions to Avoid: Avoid ignition sources of excessive heat.

Incompatible Materials: Incompatible with strong bases.

Decomposition Products: Emits toxic and irritant vapours under fire conditions.

11. TOXICOLOGICAL INFORMATION

Acute toxicity based on active ingredient toxicity.

Acute Oral LD₅₀ (rat): 1 453 mg/kg.

Acute Dermal LD₅₀ (rabbit): >2 010 mg/kg.

Acute Inhalation LC₅₀ (rabbit, 4 hr): 3,3 mg/l air.

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

Sensitization (guinea pig): Not a skin sensitizer.

Chronic Dietary Study: Chronic 2-year feeding studies revealed no compound-related tumourigenic effects in rats, whereas in mice high doses were associated with an increased incidence of liver tumors. The absence of mutagenic effects and the pronounced restriction of tumor appearance to one organ and one species suggest an underlying promotion process which is frequently seen in mice and which is considered to have no bearing in humans. Repeated high doses of difenoconazole technical were associated with cataracts in dogs and hens. Studies on other species and a subsequent dog study did not confirm this effect. Other effects at high doses included liver toxicity and adverse effects on blood cells and platelets.

Carcinogenicity: No data available.

Mutagenicity: No data available.

Reproductive Hazard: No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity based on active ingredient toxicity.

Aquatic Toxicity Fish LC₅₀ (96 hr): 0.81 mg/l (rainbow trout). Highly toxic to fish

Aquatic Toxicity Daphnia EC₅₀ (48 hr): 0.77 mg/l.

Aquatic Toxicity Algae EC₅₀ (5 days): Very toxic to algae.

Avian Toxicity LD₅₀ (9 days): >2 150 mg/kg (mallard duck). Practically non-toxic to birds.

Bee Toxicity LD₅₀: Non-toxic to bees.

Biodegradability: Soil dissipation rate is slow and dependent on application rate (DT₅₀ is 50 to 150 days).

Bio-accumulation: No data available.

Mobility: Difenoconazole is practically immobile in soil and is strongly adsorbed to soil particles.

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Do not contaminate crops, grazing, rivers or dams with chemical or used container. 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 in accordance with applicable local procedures. 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.

14. TRANSPORT INFORMATION

UN No.: 3082

Class: 9

Packaging Group: III

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (contains Difenoconazole)

15. REGULATORY INFORMATION

Risk Phrases: R7- May cause fire.

R22- Harmful if swallowed.

R36/37/38- Irritation to eyes, respiratory system and skin.

R40- Limited evidence of a carcinogenic effect.

R50- Very toxic to aquatic organisms.

Safety Phrases: S1/2- Keep locked up and out of the reach of children.

S15- Keep away from heat.

S24/25- Avoid contact with skin and eyes.

S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

S60- This material and its container must be disposed of as hazardous waste

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.

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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