

Perfecta

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Perfecta
Pesticide Classification: Herbicide
UN No.: 1993

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
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: Diclofop-methyl 378 g/l EC
Chemical Name: Methyl (RS) 2-[4-(2,4-dichlorophenoxy) phenoxy] propionate
Empirical Formula: C₁₆H₁₄Cl₂O₄
CAS No.: 51338-27-3
RSA Reg. No.: L8210 Act/Wet No. 36 of/van 1947

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Diclofop-methyl (97% Tech)	390 g/l
Heavy aromatic petroleum solvent	535 g/l

3. HAZARD IDENTIFICATION

Hazard Class: WHO Class II -Moderately hazardous.

Main Hazard: Harmful if swallowed.

Flammability: Flammable

Chemical Hazard: In a fire, irritant and toxic fumes containing compounds of chlorine and oxides of carbon and sulphur may be generated.

Biological Hazard: Dangerous to the aquatic environment. This product is 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: Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema. High vapor concentrations may be irritating to the respiratory tract, may cause headaches, drowsiness and dizziness.

First Aid Measures:

Skin Contact: Remove contaminated clothing and wash affected areas with plenty of soap and water. Wash clothing before re-use. Call a physician if irritation develops or persists. If signs of poisoning occur, get medical attention immediately.

Eye Contact: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Ingestion: If victim is conscious and alert, give 2-3 glasses of water to drink and do not induce vomiting. Material may enter lungs and cause severe damage. Do not give anything by mouth to an unconscious victim. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Persons attending the victim should avoid direct contact with heavily contaminated clothing and vomitus. Wear impervious gloves while decontaminating skin and hair.

Inhalation: Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation), with the use of a resuscitation aid – to protect the first aid personnel. Seek medical attention.

Advice to Physician: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

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

5. FIRE FIGHTING MEASURES

Flammability: Flammable

Extinguishing Agents: Water fog, fine water spray, foam or dry agent.

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: In a fire, irritant and toxic fumes containing compounds of chlorine and oxides of carbon and sulphur may be generated.

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 another absorbent material.

Spills: Extinguish or remove possible sources of ignition. Keep people and animals away. Contain spill and absorb with earth, clay, sand or another absorbent material. Collect and store in properly labelled, sealed drums for safe disposal according to Section 13. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Keep out of reach of children. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale vapor. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Storage: Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Keep away from all ignition sources.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Acceptable Daily Intake (ADI): 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. Control process conditions to avoid contact.

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 product solution should be promptly removed and laundered before re-use.

Gloves: Wear elbow-length PVC gloves.

Eye Protection: Wear eye protection. During mixing or pouring operations or other activities in which eye contact with undiluted product 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: If inhalation exposure is likely to exceed the exposure levels above, and approved respirator suitable for organic vapours should be worn.

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

Reaction for the formulation (pH value): pH 4.5 – 6.5

Appearance: Light brown clear liquid.

Specific Gravity: 1.00~ 1.08 g/cm³ at 20 °C.

Solubility: Emulsifies in water.

Flash Point: 35 °C

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of use.

Conditions to Avoid: All the electrical appliance used in a storage room should be installed directly to the ground, the appliances must be explosion-proof. Keep containers tightly closed and store in cool, dark and dry place. Keep away from heat, steam pipes or combustible materials.

Incompatible Materials: Incompatible with strong oxidizing agents.

Decomposition Products: Hydrogen chloride and other toxic compounds may be released in a fire.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): >2 000 mg/kg. Harmful if swallowed.

Acute Dermal LD₅₀ (rat): >5 000 mg/kg

Acute Inhalation LC₅₀ (rat, 4 hr): Products is expected to have low toxicity by the inhalation route.

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

Skin Sensitization (guinea pig): Not a skin sensitizer.

Chronic Effects: Inhalation, dermal absorption or ingestion of this material may result in systemic intoxication due to inhibition of the enzyme cholinesterase. The sequence of development of systemic effects varies with the route of entry, and the onset of symptoms may be delayed up to 12 hours. Complete symptomatic recovery from sub-lethal poisoning usually occurs within one week once the source of exposure is completely removed.

Cholinesterase inhibition sometimes persists for 2 – 6 weeks, thus, repeated exposure to small amounts of this material may result in an unexpected cholinesterase depression causing symptoms such as malaise, weakness and anorexia that resemble other illnesses such as influenza. Exposure to a concentration that would not have produced symptoms in a person who was not previously exposed person. In addition, certain pre-existing skin disorders may be aggravated by exposure to this product due to the solvent components.

Carcinogenicity: Did not cause animal carcinogenic effects under the trail dosage. Do not cause the abnormal phenomena in slow neurotoxic study.

Mutagenicity: Did not cause animal mutagenic and teratogenic effects under the trail dosage.

Reproductive Hazard: No data available.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Fish LC₅₀ (96 hr): 0.24 mg/l (Iepomis macrochirus).

Aquatic Toxicity Daphnia EC₅₀ (48 hr): 0.23 mg/l.

Aquatic Toxicity Algae EC₅₀ (72 hr): 1.5 mg/l (scenedesmus subspicatus).

Avian Toxicity LD₅₀ (9 days): >10 000 mg/kg (Japanese quail). Practically non-toxic to birds.

Bee Toxicity LD₅₀: Low toxicity to bees.

Biodegradability: Dicofof-methyl degrades in soil due to microbial activity, moisture, sunlight and air. DT₅₀ in various soils in field trails was found to be 1 - 57 days and DT₉₀ was 30 - 281 days.

Bio-accumulation: No data available.

Mobility: Irrigation studies indicate low levels of leaching. From model calculations, a hazard to groundwater or to drinking water supplies can be excluded, even in sandy soil. Soil adsorption K_{OC} 14 000 - 24 400 mg/kg.

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Do not contaminate crops, grazing, rivers or dams with chemical or used containers. Waste resulting from the use of this product that cannot be re-used or reprocessed should be disposed of as hazardous waste via a licensed disposal contractor to an approved 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 waste product via a reputable disposal contractor to an approved landfill. Empty container and product should not be burnt.

14. TRANSPORT INFORMATION

UN No.: 1993

Class: 3

Packing Group: III

Proper Shipping Name: Flammable Liquid; N.O.S. (contains Diclofop-methyl)

15. REGULATORY INFORMATION

Risk Phrases: R22- Harmful if swallowed.

R65- Harmful: May cause lung damage if swallowed.

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

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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