

VERONA

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: VERONA
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: Flusilazole 100 g/l EC
Chemical Name: 1-[[Bis(4-fluorophenyl)methylsilyl]methyl]-1H-1,2,4-triazole (IUPAC)
Empirical Formula: C₁₆H₁₅F₂N₃Si
CAS No.: 85509-19-9
RSA Reg. No.: L8179 Act/Wet No. 36 of/van 1947

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Flusilazole	≥ 100 g/l
Inert Ingredients	≤ 900 g/l

3. HAZARD IDENTIFICATION

Hazard Class: WHO Class II -Moderately hazardous.

Main Hazard: The product may be irritating to skin.

Flammability: Non-flammable

Chemical Hazard: Fire may produce irritating or poisonous vapours (toxic fumes of hydrogen cyanide, chlorine, and oxides of nitrogen and carbon), mists or other products of combustion.

Biological Hazard: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

First Aid Measures:

Skin Contact: Remove contaminated clothing and wash before re-use. Wash affected skin areas with clear 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 eyes.

Ingestion: Call a physician immediately. Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice. If swallowed, seek medical advice immediately and show this container or label. Never give anything by mouth to an unconscious person.

Inhalation: Move victim from contaminated area to fresh air. Avoid inhalation of vapor or spray mist. Seek medical attention. Give oxygen if the patient has difficulty breathing.

Advice to Physician: Treatment is supportive and symptomatic. The product contains inert ingredients that may cause chemical pneumonitis if aspirated into lungs. If ingested perform gastric lavage and administer activated charcoal.

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

5. FIRE FIGHTING MEASURES

Flammability: Non-flammable

Extinguishing Agents: Water spray, dry chemical CO₂ or dry powder as suitable for fire conditions.

Firefighting: Wear full protective clothing and self-contained breathing apparatus. 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 and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. 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. Do not use high volume water jet, due to contamination risk. Contain water used for firefighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Special Hazards: Fire may produce irritating or poisonous vapours (toxic fumes of hydrogen cyanide, chlorine, and oxides of nitrogen and carbon), mists or other products of combustion.

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: Soak up with absorptive material such as damp earth or sand or other suitable non-combustible absorbent material. Place the material into a clean, dry container and cover for subsequent disposal. In situations where product comes in contact with

water, contain contaminated water for later disposal. Prevent material from spreading by damming in with absorptive material. Do not flush spilled material into drains. Keep spectators away and upwind. To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Label drums with its content and dispose it in accordance with local regulations. Open burning or dumping of this material is prohibited.

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.

Storage: Store at temperatures below 30 °C and above 5 °C. Store in original sealed containers in a cool, well-ventilated and dry storehouse. Keep away from direct sunlight, food, seed, animals, children and uniformed persons.

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 VERONA 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 VERONA 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 respirator suitable for protection from mists of pesticides is adequate. Limitations of respirator use specified by the approved 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: Light yellow liquid.

Odor: Characteristic of solvent.

pH: 4 - 7.5

Flammability: Non-flammable.

Density: 1.025 - 1.055 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 extreme temperatures.

Incompatible Materials: Incompatible with oxidizing agents.

Decomposition Products: Vapors may form explosive mixture with air. No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity based on the active ingredient toxicity.

Acute Oral LD₅₀ (rat): 674 - 1 100 mg/kg

Acute Dermal LD₅₀ (rat): >2 000 mg/kg

Acute Inhalation LC₅₀ (rat, 4 hr): 27 mg/l air. Inhalation of excessive amounts may cause respiratory irritation.

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

Skin Sensitization: Not expected to be a skin sensitizer. Individuals may develop an allergic response due to inert ingredients.

Chronic Dietary Study: No data available.

Carcinogenicity: No data available.

Mutagenicity: No data available.

Reproductive Hazard: There was no evidence of a treatment related effect on mating or fertility when rats were fed daily diets containing technical-grade Flusilazole.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Fish LC₅₀ (96 hr): 1.2 mg/l (rainbow trout); 1.7 mg/l (bluegill sunfish). Toxic to fish.

Aquatic Toxicity Daphnia EC₅₀ (48 hr): 3.4 mg/l. Moderately toxic to daphnia.

Aquatic Toxicity Algae EC₅₀: No data available.

Avian Toxicity LD₅₀: 1 988 mg/kg (bobwhite quail). Practically non-toxic to birds.

Bee Toxicity LD₅₀: Non-toxic to bees.

Biodegradability: Results of several different studies under varying environmental conditions indicate average of DT₅₀ 95 days.

Bio-accumulation: No data available.

Mobility: No data available.

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be re-used or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with 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 Flusilazole)

15. REGULATORY INFORMATION

Risk Phrases:

- R40-** Limited evidence of a carcinogenic effect.
- R22-** Harmful if swallowed.
- R38-** Irritating to skin.
- R51/53-** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R61-** May cause harm to the unborn child.
- R62-** Possible risk of impaired fertility.

Safety Phrases:

- S35-** This material and its container must be disposed of in a safe way.
- S36/37-** Wear suitable protective clothing and gloves.
- S45-** In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
- S53-** Avoid exposure - obtain special instructions before use.
- S57-** Use appropriate containment to avoid environmental contamination.

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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