

MILANO

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: MILANO
Pesticide Classification: Herbicide
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
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: Metribuzin 480 g/l SC

Chemical Name: 4-amino-6-tert-butyl-4,5-dihydro-3-methylthio-1,2,4-triazin-5-one; 4-amino-6-tert-butyl-3-methylthio-1,2,4-triazin-5(4H)-one (IUPAC)

Empirical Formula: C₈H₁₄N₄OS

CAS No.: 21087-64-9

RSA Reg. No.: L8252 Act/Wet No. 36 of/van 1947

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Metribuzin	± 480 g/l
Sodium dodecyl benzene sulfonate	± 30 g/l
Other Inert Ingredients	± 40 g/l
Water	> 500 g/l

3. HAZARD IDENTIFICATION

Hazard Class: WHO Class III -Slightly hazardous.

Main Hazard: Harmful if swallowed or inhaled.

Flammability: Non-flammable

Chemical Hazard: In a fire, carbon oxides (CO, CO₂), nitrogen oxides (NO_x) and sulfur oxides (SO_x) may be formed.

Biological Hazard: No specific biological hazard to mention.

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: Move the victim to fresh air and remove all contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with cold water and non-abrasive soap. Do not rub the skin. If irritation persists, obtain medical attention.

Eye Contact: Immediately flush the eyes with clean, gently flowing cold water for 20 minutes, holding the eyelid(s) open. If irritation persists, obtain medical attention.

Ingestion: Have victim rinse mouth thoroughly with water. Do not induce vomiting. Seek medical advice immediately, showing container and label.

Inhalation: Remove source of contamination or move victim to fresh air. Keep affected person warm and at rest. Treat symptomatically and supportively. If breathing is difficult, a qualified person should administer oxygen. Get medical attention immediately if effects persist.

Advice to Physician: Treat symptomatically and supportively as and when required. Gastric lavage could be considered. Give oxygen if respiration is depressed.

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

5. FIRE FIGHTING MEASURES

Flammability: Non-flammable

Extinguishing Agents: Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Use as little water as possible. Use spray or fog. Solid stream may cause spreading. Contain water used for firefighting for later disposal.

Firefighting: Remove spectators from surrounding area. Remove container from fire area if possible. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind.

Special Hazards: In a fire, carbon oxides (CO, CO₂), nitrogen oxides (NO_x) and sulfur oxides (SO_x) may be formed. Fire may produce irritating or poisonous vapours (toxic fumes of carbon oxides, nitrogen oxides and sulfur oxides), mists or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal Precautions: Avoid contact with skin and eyes. Do not breathe in spray or fumes. For personal protection see Section 8.

Environmental Precautions: Do not allow product to enter drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) must be reported immediately to the Department of Water/Environmental Affairs.

Spills: Do not touch spilled material. Stop the leak if it can be done without risk. For small liquid spills, soak up with damp earth, sand or another non-combustible absorbent material. Place the material into a clean, dry container and cover for subsequent disposal.

For large liquid spills, contain the liquid by damming in with absorptive material and pump into containers. Soak up the remaining liquid with absorbent material. Label containers with its content and dispose of product waste according to Section 13 of this document. Open burning or dumping of this material is prohibited. Do not flush spilled material into drains. Keep spectators away. In situations where product comes in contact with water, contain contaminated water for disposal.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Avoid breathing vapours or mist. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Wash clothing after use. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Keep away from heat, sparks and flames.

Storage: Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool and dry place. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Acceptable Daily Intake (ADI): 0.13 mg/kg body weight.

Engineering Controls: Use only with adequate ventilation.

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.

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 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: 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: Beige free flowing homogenous liquid.

Odour: Musty odour.

Relative density: 1.15 g/cm³ at 20 °C.

Solubility in Water: Forms a suspension in water.

Flash point: Non-flammable

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Conditions to Avoid: None to specifically mention.

Incompatible Materials: No data available.

Decomposition Products: Toxic oxides of carbon, nitrogen and sulfur are released when the product decomposes on heating.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): 2 000 mg/kg. Low toxicity.

Acute Dermal LD₅₀ (rabbit): >2 000 mg/kg. Slight to moderate toxicity.

Acute Inhalation LC₅₀ (rat, 4 hr): > 5.3 mg/l air. Very low toxicity.

Skin and Eye Irritation (rabbit): This product is a slight eye irritant but is not a skin irritant.

Sensitization (guinea pig): This product is not a skin irritant or skin sensitizer.

Chronic Dietary Study: No data available.

Carcinogenicity: Data suggest that metribuzin is not carcinogenic.

Mutagenicity: Tests on live animals and on tissue cultures have shown that metribuzin has no mutagenic activity.

Reproductive Hazard: No data available.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Fish LC₅₀ (96 hr): 74.6 mg/l (rainbow trout).

Aquatic Toxicity Daphnia EC₅₀ (48 hr): No data available.

Aquatic Toxicity Algae EC₅₀ (5 days): No data available.

Avian Toxicity LD₅₀: 460 - 680 mg/kg (mallard duck); 164 mg/kg (bobwhite quail). Moderately toxic to birds.

Bee Toxicity LD₅₀: No data available.

Biodegradability: Metribuzin is of moderate persistence in the soil environment. The half-life varies according to soil type and climatic conditions. Soil half-lives range from 30 to 120 days with a average value of approximately 60 days.

Bio-accumulation: No data available.

Mobility: Metribuzin is poorly bound to most soils and soluble in water, giving it a potential for leaching in many soil types.

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Dispose of waste product as hazardous waste via a licensed disposal contractor to an approved landfill. Do not discharge into drains or sewers. 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:

Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incinerator.

Fibre Sacks: Completely empty fibre sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration if allowed by state and local authorities.

Fibre Drums with Liners: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by local authorities. If drum is contaminated and cannot be re-used, dispose of in the same manner.

Metal Containers (non-aerosol): Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill.

Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration.

14. TRANSPORT INFORMATION

UN No.: 3082

Hazard Class: 9

Packing Group: III

Proper Shipping Name: Environmentally Hazardous Substance; Liquid; N.O.S.

15. REGULATORY INFORMATION

Risk Phrases: R20/22- Harmful by inhalation and if swallowed.

R36- Irritating to eyes.

R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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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