

Atador

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Atador
Pesticide Classification: Insecticide
UN No.: 3018

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.: CK 2001/036403/23
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: Fenamiphos 400g/l EC
Chemical Name: Ethyl 3-methyl-4-(methylthio)phenyl (1 methylethyl) phosphoramidate
Empirical Formula: C₁₃H₂₂NO₃PS
CAS No.: 2222-4-92-6
RSA Reg. No.: L7167 Act 36 of 1947

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Fenamiphos	400 g/l

3. HAZARD IDENTIFICATION

Hazard Class: WHO Class Ia -Extremely hazardous.

Main Hazard: This compound inhibits cholinesterase enzyme activity in the nervous tissue. It is highly toxic. Contact with skin, inhalation of spray, or swallowing may be fatal.

Flammability: Non-flammable

Chemical Hazard: During a fire this product may release smoke and hazardous decomposition products.

Biological Hazard: Highly toxic to aquatic organisms and birds.

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: 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.

First Aid Measures:

Skin Contact: In case of 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 intoxication (poisoning) occur, get medical attention immediately.

Eyes Contact: Hold eyelids open and flush with copious amounts of water for 15 minutes. Seek medical attention immediately.

Ingestion: If ingestion is suspected, call a physician or poison control center. Drink one or two glasses of water and induce vomiting by touching back of throat with finger or if available, administer syrup of ipecac. If syrup of ipecac is available, administer 1 tablespoonful (15 ml) of syrup of ipecac followed by 1 to 2 glasses of water. If vomiting does not occur within 20 minutes, repeat the dose once. Do not induce vomiting or give anything by mouth to an unconscious person.

Inhalation: If a person is overcome by excessive exposure to aerosols or vapors of this material, remove to fresh air or uncontaminated area. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention as soon as possible.

Note to Physician: This product contains an organophosphorus insecticide. If symptoms of organophosphate poisoning are present, the administration of atropine sulfate is indicated. Administer atropine sulfate in large therapeutic doses. In mild cases, start treatment by giving 1-2 mg of atropine intravenously every 15 minutes until signs of atropinization appear (dry mouth, flushing and dilated pupils if pupils were originally pinpoint). In severe cases, start treatment by giving 2-4 mg intravenously every 5-10 minutes until fully atropinized. Dosages for children should be appropriately reduced. 2-PAM is also antidotal and may be administered in conjunction with atropine. Do not give morphine. Watch for pulmonary edema which may develop in serious cases of poisoning even after 24 hours. At first sign of pulmonary edema, place patient in oxygen tent and treat symptomatically.

Plasma and/or red blood cell cholinesterase activity can be used to detect excessive absorption of fenamiphos. It is preferable to establish a pre-exposure baseline value for best comparisons. If significant cholinesterase depression occurs, no further exposure should be allowed until cholinesterase values return to normal.

Antidote: Refer to paragraph above.

5. FIRE FIGHTING MEASURES

Flammability: Non-flammable

Extinguishing Agents: Extinguish fires with CO₂, dry powder or water.

Firefighting: Keep out of smoke. Cool exposed containers with water spray. Fight fire from upwind position. Use self-contained breathing equipment. Contain runoff to prevent entry into sewers or waterways. Equipment or materials involved in pesticide fires may become contaminated.

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 another absorbent material.

Spills: Isolate area and keep unauthorized people away. Do not walk through spilled material. Avoid breathing vapors and avoid skin and eye contact. Remove sources of ignition if combustible or flammable vapors may be present and ventilate the area. Wear proper protective equipment. Dike contaminated area with absorbent granules, soil, sand, etc. Small spills can be absorbed with absorbent granules, spill control pads or any absorbent materials. Carefully sweep up absorbed spilled material. Place wastes in covered container for disposal according to Section 13 of this document. Scrub contaminated area with detergent and bleach solution and/or detergent and lye in water solution. After this has been repeated, rinse the area with water. Use dry absorbent material such as clay granules to absorb and collect wash solution for proper disposal. Contaminated soil may have to be disposed. Do not allow material to enter streams, sewers or other waterways or contact vegetation.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Avoid contact with skin, eyes and clothing. Keep away from direct sunlight, food, seed, animals, children and uniformed persons. 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 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.

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. Maintain exposure levels below the applicable exposure limits through the use of general and local exhaust 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. Clothing soaked with product 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 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: Wear a NIOSH approved pesticide respirator.

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 a work shift. Wash hands with soap and water during breaks and at the end of work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical form: Liquid

Appearance: Clear light brown liquid.

Colour: Amber

Alkalinity: ≤ 0.05% (calculated as NaOH).

Flashing Point: 30-35 °C

Melting/freezing Point: 0 °C

Solubility in Water: 560 ppm

Specific Gravity: 1.02 at 20 °C.

Stability: It is stable under the neutral and slightly conditions.

10. STABILITY AND REACTIVITY

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

Conditions to Avoid: Avoid temperatures above 50 °C. Subject to hydrolysis.

Incompatible Materials: Alkaline materials, strong oxidants should be avoided.

Decomposition Products: Decomposition compounds due to fire or other extreme conditions include SO₂, H₃PO₄ and Amines.

11. TOXICOLOGICAL INFORMATION

Acute toxicity based on the active ingredient toxicity.

Acute Oral LD₅₀ (rat): 20-30 mg/kg.

Acute Dermal LD₅₀ (rabbit): 71.5 mg/kg

Acute Inhalation LC₅₀ (rat, 4 hr): >2.5 mg/l air.

Skin Irritation (rabbit): Slight dermal irritant.

Eye Irritation (rabbit): Severe, irreversible irritation to the cornea and/or conjunctiva was observed. This product is highly toxic and can be readily absorbed through the mucous membranes of the eye.

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

Chronic Effects: Cholinesterase inhibition sometimes persists for 2-6 weeks. 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 may produce severe symptoms of cholinesterase inhibition in a previously exposed person. Repeated skin contact may result in defatting of the skin by the solvents in the product which can lead to redness and irritation of the skin. Chronic overexposure to these solvent components may cause mucous membrane irritation, nausea, headaches, loss of appetite, weakness and alcohol intolerance

Carcinogenicity: Fenamiphos was investigated for carcinogenicity in chronic feeding studies using mice and rats. There was no evidence of a carcinogenic potential observed in either species at dose levels up to and including 50 ppm, the highest dose tested.

Mutagenicity: When tested in cytogenetic studies under in vivo conditions, fenamiphos gave no indication of genotoxic potential.

Neurotoxicity: In a neurotoxicity study, antidote-protected hens were administered 2 oral doses of fenamiphos at 25 mg/kg. Following each dose, hens were observed for a 3 week period. There was no clinical or histopathological evidence of delayed neurotoxicity.

Reproductive Hazard: No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity is based on the active ingredient toxicity.

Aquatic Toxicity Fish LC₅₀ (96 hr): 0.072 mg/l (rainbow trout); 0.010 mg/l (bluegill sunfish). Moderately to highly toxic to fish.

Aquatic Toxicity Daphnia EC₅₀ (48 hr): 0.002 mg/l (daphnia magna). Highly toxic to daphnia.

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

Avian Toxicity LD₅₀: 0.9 to 1.2 mg/kg (mallard duck). Highly toxic to birds.

Bee Toxicity LD₅₀: Practically non-toxic to bees.

Biodegradability: Fenamiphos is moderately persistent in the soil, with a reported soil half-life of about 50 days.

Bio-accumulation: No data available.

Mobility: Fenamiphos is not strongly absorbed to soils and classified as compound with low mobility.

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: Do not re-use the container. Dispose of containers as hazardous waste via a licensed disposal contractor to an approved landfill. Comply with any local legislation applying to waste disposal.

14. TRANSPORT INFORMATION

UN No.: 3018

Class: 6.1

Packaging Group: I

Proper Shipping Name: Organophosphorus pesticides; liquid; toxic (Fenamiphos).

15. REGULATORY INFORMATION

Risk Phrases: **R26/27/28-** Very toxic by inhalation, in contact with skin and if swallow.

R24/25- Avoid contact with skin and eyes.

R36/38- Irritating to eyes.

R50/53- Very toxic to aquatic organisms.

R65- Harmful: may cause lung damage if swallowed.

R68- Possible risk off irreversible effects.

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

S3/9/14- Keep in a cool, well-ventilated place away from open flames and sparks.

S23- Do not breathe fumes or vapour.

S24/25- Avoid contact with skin and eyes.

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

S61- Avoid release to the environment. Refer to special instructions / Safety data sheets.

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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