

ABAMEC X&M

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Abamec X&M
Pesticide Classification: Insecticide/Acaricide
UN No: 2903

Supplier

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

Registration Holder

Enviro Bio-Chem (Pty) Ltd
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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: Abamectin 18 g/l EC
Empirical Formula: $C_{48}H_{72}O_{14}$ / $C_{47}H_{70}O_{14}$
CAS No.: 71751-41-2
RSA Reg. No.: L10933 Act 36 of 1947

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Abamectin	18 g/l

3. HAZARD IDENTIFICATION

Hazard Class: WHO Class Ia -Extremely hazardous.

Main Hazard: Fatal if swallowed or inhaled. Contact may irritate skin and eyes.

Flammability: Combustible liquid.

Chemical Hazard: Toxic substances are formed when product is exposure to high temperatures.

Biological Hazard: Highly toxic to aquatic organisms. Highly toxic to bees.

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: Initially dilation of pupils, slow breathing and sedation. More severe poisoning may cause lethargy, muscle tremors and convulsions.

First Aid Measures:

Skin Contact: Remove contamination clothing, shoes and leather goods. Wash affected skin immediately with water and non-abrasive soap. Seek medical attention if symptoms persist.

Eye Contact: Hold eyes open and flush immediately with clear, clean running water for at least 15 minutes. Seek medical attention immediately.

Ingestion: Do not give any liquid to the person. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Keep the victim quiet and maintain normal body temperature. Effects may be delayed, keep the victim under observation. Seek medical advice immediately.

Inhalation: Remove source of contamination or move victim to fresh air. Keep affected person warm and at rest. Seek medical advice immediately.

Advice to Physician: Toxicity following accidental ingestion of Abamectin can be minimized by early administration of chemical adsorbents (e.g. activated charcoal). Abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic Abamectin exposure. Treat symptomatically. Do not induce vomiting.

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

5. FIRE FIGHTING MEASURES

Flammability: Combustible liquid.

Extinguishing Agents: Extinguish fires with water, carbon dioxide, dry powder or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid high-pressure hose, which may spread the product from the broken containers. This will increase the confirmation hazard.

Firefighting: Firefighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus. Fight fire from maximums distance. Remove containers from fire area if it is safe to do so. Contain fire control agents for later disposal according to Section 13. Use a recommended extinguishing agent for the type of surrounding fire. Water can be used to cool unaffected containers. Avoid inhaling hazardous vapours. Keep upwind.

Special Hazards: None to specifically mention.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal Precautions: Avoid contact with skin and eyes. Do not breathe in fumes. See Section 8 for personal protective equipment.

Environmental Precautions: Do not allow product to enter drains or watercourses. When the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations.

Spills: Provide adequate ventilation and wear protective clothing. For small spills, sweep up with damp earth, sand or another suitable absorbent, such as sawdust, taking care not to raise a dust cloud. Place the material into a clean, dry container and cover for subsequent disposal according to Section 13. In situations where product comes in contact with water, contain

contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away and upwind. For large spills contact the manufacturer. Dike far ahead of a liquid spill. Contain spillage and contaminated water for subsequent disposal. Do not flush spilled material into drains. Keep spectators away and upwind.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Avoid contact with eyes, prolonged contact with skin and inhalation of spray mist. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Remove clothing immediately if the product gets inside. 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 below 30 °C. Keep out of reach of unauthorized persons, children and animals. Store on its original labelled container in shaded, well ventilated area, away from heat, sparks and other sources of ignition. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Acceptable Daily Intake (ADI): 0.0002 mg/kg body weight.

Occupational Exposure Limits: No exposure limits have been established by OSHA, NIOSH or ACGIH.

Engineering Controls: It is essential to provide adequate ventilation. Ensure that control systems are properly designed and maintained. Only spark-resistant equipment should be used. Comply with occupational safety, environmental, fire and other applicable regulations.

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. Do not wear leather clothing.

Gloves: Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance

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: An approved full-face respirator suitable for protection from dusts and mists of pesticides may be required. 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 a work shift. Wash hands during breaks and at the end of the work with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: A light yellow to brownish liquid with a light special smell.

Density: 0.881 g/cm³

Flammability: Combustible liquid.

Flash Point: 18 °C (closed cup)

pH: 4.5. – 7.0

Corrosiveness: Corroding rubber

Storage Stability: Stable for 2 years under normal storage.

Melting Point: Not applicable to product.

10. STABILITY AND REACTIVITY

Stability: Stable for 2 years under normal storage.

Conditions to Avoid: Avoid excessive heat.

Incompatible Materials: Should not be applied in combination with strong acidic and strong alkaline products. Abamectin can be hydrolysed by strong caustic solutions.

Decomposition Products: Can decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): 844 mg/kg.

Acute Dermal LD₅₀ (rabbit): >5050 mg/kg.

Acute Inhalation LC₅₀ (rat, 4 hr): 2.10 mg/l.

Skin and Eye Irritation (rabbit): Slight skin irritation. Severely irritating to the eyes.

Skin Sensitization (rabbit): No sensitization.

Chronic Dietary Study: Abamectin was not carcinogenic in rats or mice fed the maximum tolerated doses.

Carcinogenicity: The ingredients of this product are not classified as carcinogenic by ACGIH (American Conference of Governmental Industrial Hygienists) or IARC (International Agency for Research on Cancer). The ingredients are also not regulated as carcinogens by OSHA (Occupational Safety and Health Administration) and not listed as carcinogens by NTP (National Toxicology Program).

Mutagenicity: Not mutagenic.

Teratogenicity: Not available.

Reproductive Hazard: In male rat's results showed that abamectin exposure induces testicular damage and affects sperm dynamics.

12. ECOLOGICAL INFORMATION

Ecotoxicity is based on the active ingredient toxicity.

Aquatic Toxicity Fish LC₅₀ (96 hr): 3.2 µg/l (rainbow trout); 9.6 µg/l (bluegill sunfish). Highly toxic to aquatic organisms.

Aquatic Toxicity Daphnia EC₅₀ (48 hr): 0.34 µg/l

Aquatic Toxicity Algae EC₅₀ (5 days): 100 mg/l (*Pseudokirchneriella subcapitata*).

Avian Toxicity LD₅₀ (9 days): 84.6 mg/kg (mallard ducks); >2 000 mg/kg (bobwhite quail).

Bee Toxicity LD₅₀: 0.009 µg/bee (Oral); 0.002 µg/bee (Contact)

Earthworms LD₅₀: 28 mg/kg

Biodegradability: Not available.

Bio-accumulation: Not available.

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Contaminated absorbents, used containers, surplus product, etc., should be burnt at > 1000 °C in an incinerator (preferably designed for pesticide disposal) or buried in an approved landfill. Hydrolysis using caustic solution is a suitable method to dispose of small quantities of the product. After hydrolysis, dilute and dispose of in pits or landfill. Comply with local legislation applying to waste disposal.

Package Product Wastes: Emptied containers retain product residues. Do not re-use product containers. Observe all labelled safeguards until container is cleaned, reconditioned or destroyed. Combustible container should be disposed of in pesticide incinerators or buried in an approved landfill. Non-combustible containers must first be triple-rinsed with water.

14. TRANSPORT INFORMATION

Un Number: 2903

Class: 6.1

Packaging Group: III

Shipping Name: Pesticide; Liquid; Toxic; Flammable; N.O.S. (Abamectin solution)

15. REGULATORY INFORMATION

Risk Phrases:

- R20/22-** Harmful by inhalation and if swallowed.
- R36/38-** Irritating to eyes and skin.
- R43-** May cause sensitisation by skin contact.
- R52/53-** Harmful to aquatic organisms, may cause long-term adverse effects in aquatic environment.
- R57-** Toxic to bees.

Safety Phrases:

- S1/2-** Keep locked up and out of reach children.
- S13-** Keep away from food, drink and animal feeding-stuffs.
- S24/25-** Avoid contact with skin and eyes.
- S36/37/39-** Wear suitable protective clothing, gloves and eye/face protection.
- S46-** If swallowed, seek medical advice immediately and show this container or label.
- S56-** Dispose of this material and its container to hazardous or special waste collection point.
- S62-** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

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: All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfers of all relevant information from this MSDS to their own MSDS.

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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