

# VILLA BIOMECTIN® 18 EC

# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

**Product Name:** BIOMECTIN® 18 EC  
 Insecticide  
**UN No.** 2903  
**Supplier:** Villa Crop Protection (Pty) Ltd.  
 PO Box 10413  
 Aston Manor, 1620, South Africa  
**Telephone:** (011) 3962233  
**Fax:** (011) 3964666  
**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

**Emergency telephone numbers:**  
**24 Hr Transport / Spill emergency no:**  
 Envirosure. +27 31 205 4918  
 (Hazcall24) +27 86 044 4411  
 (Client: Villa Crop Protection)  
 Griffon Poison Information Centre +27 82 446 8946  
 (Client: Villa Crop Protection)  
**Poisoning Emergency telephone numbers:**  
 Griffon Poison Information Centre +27 82 446 8946  
 Poisons Information Centre +27 861 555 777  
**Villa Crop Protection Emergency number:**  
**National Safety, Health and Environmental Manager:**  
 +27 63 698 0668

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

**Common Name:** ABAMECTIN / avermectin  
**CAS No.:** 71751-41-2 (ABAMECTIN)  
**Chemical Family:** avermectin  
**Composition:** A mixture containing  
 ≥ 80% ABAMECTIN B<sub>1a</sub> and  
 ≤ 20% ABAMECTIN B<sub>1b</sub>.  
**Chemical Formula:** B<sub>1a</sub>: C<sub>48</sub>H<sub>72</sub>O<sub>14</sub> (Mol. wt.: 873.1)  
 B<sub>1b</sub>: C<sub>47</sub>H<sub>70</sub>O<sub>14</sub> (Mol. wt.: 860.1)  
**Use:** Insecticide and acaricide with  
 contact and stomach action and  
 limited plant systemic activity, but  
 exhibits translaminal movement.  
**Formulation:** ABAMECTIN: 18 g/l  
 Emulsifiable Concentrate  
**Hazardous component:** ABAMECTIN  

Inert:	concern:	% present:
ABAMECTIN	harmful	2 %
Light aromatic solvent	harmful	78 %

**SYMBOLS:** F, Xi, Xn  
**RISK-PHASE(S):** R 10, R 20/22, R 36/37/38, R 41,  
 R 43, R 48

## 3. HAZARD IDENTIFICATION

**Likely routes of exposure:** Harmful if swallowed or  
 absorbed through the skin. Toxic if inhaled.

**Swallowed:** Harmful when swallowed. If large amounts  
 are swallowed and aspiration of the solvent into the lungs  
 occurs, chemical pneumonitis may develop. Small  
 amounts of product aspirated into the respiratory system  
 during ingestion or vomiting may cause mild to severe  
 pulmonary injury.

**Skin contact:** Harmful by skin contact. Mild irritant. Can  
 cause dermatitis through defatting of tissue.  
 May cause skin sensitization.

**Eye contact:** Product is a mild irritant to eyes and may  
 cause damage.

**Inhalation:** Product is toxic when inhaled.

## 4. FIRST AID MEASURES AND PRECAUTIONS

**Inhalation:** Remove patient from source of poisoning to a  
 well-ventilated area and keep him calm and reassured.  
 Keep air passages open. Get medical attention  
 immediately.

**Skin contact:** Remove contaminated clothing and rinse  
 contaminated body area with plenty of soap and cold  
 water. Do not rub the skin. Get medical attention if  
 necessary.

**Eye contact:** Flush contamination out of eyes for 15  
 minutes or longer with clean water. Get medical attention if  
 necessary.

**Ingestion: Do not induce vomiting due to the solvent.**  
 Do not give anything by mouth. Obtain medical attention  
 immediately. If the person is alert, rinse mouth thoroughly  
 with water.

**Advice on treatment:** There is no specific antidote  
 available. Treat symptomatically. The product contains  
 solvent that may cause chemical pneumonitis if aspirated  
 into lungs. Watch for delayed onset of pulmonary. If  
 ingested perform gastric lavage and administer activated  
 charcoal.

## 5. FIRE FIGHTING MEASURES

**Fire and explosion hazard: Flammable.** Flash Point:  
 61 °C.

**Extinguishing agents:** Extinguish small 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. Contain  
 water used for fire fighting 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. Water  
 can be used to cool unaffected containers but must be  
 contained for later disposal. Avoid inhaling hazardous  
 vapours. Keep upwind.

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**Personal protective equipment:** Fire may produce irritating or poisonous vapours including carbon monoxide and carbon dioxide, 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 entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs. Considered a marine pollutant

**Occupational spill:** Remove all sources of flames and sparks. For small liquid spills, soak up with lime, damp earth or sand, or other non-combustible absorbent material and place into containers for later disposal. For large liquid spills, contain the liquid for later disposal. 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.

### 7. HANDLING AND STORAGE REQUIREMENTS

**Handling:** Harmful by skin or eye contact, toxic by inhalation or ingestion. Avoid contact with eyes and skin, and inhalation of spray and vapour. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a 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:** Do not store near sources of sparks, flame or heat. Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original labelled container in isolated, dry, cool and well-ventilated area. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

### 8. EXPOSURE CONTROL / PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

### PERSONAL PROTECTIVE EQUIPMENT:

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

**Respirator:** An approved respirator suitable for protection from dusts and mists of pesticides is adequate. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

**Clothing:** Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

**Gloves:** Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.

**Eye protection:** The use of safety goggles is recommended.

**Emergency eye wash:** 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.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Emulsifiable Concentrate.  
**Odour:** Aromatic.  
**Colour:** Yellow  
**Flash point:** 61 °C. **Flammable.**  
**Specific gravity:** @ 20 °C 0.90 g/ml

### 10. STABILITY AND REACTIVITY

**Storage stability:** Stable for up to 2 years under normal warehouse and field conditions.

**Stability:** Product is unlikely to spontaneously decompose or polymerise. Avoid oxidizing agents.

**Decomposition products:** Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds and oxides of nitrogen.

### 11. TOXICOLOGICAL INFORMATION

**Acute oral LD<sub>50</sub>:** >221 mg/kg in rats  
**Acute dermal LD<sub>50</sub>:** > 2000 mg/kg in rabbits  
**Acute skin irritation:** Product is a mild skin irritation.  
**Acute eye irritation:** Product is a mild irritant to eyes. Effects may be long lasting, and in severe exposure even permanent effects such as corneal damage may occur.

### 12. ECOLOGICAL INFORMATION

**Degradability:** In animals, **ABAMECTIN** is rapidly eliminated (80 to 100% in 96 hours), mainly via faeces. In plants degradation/metabolism of **ABAMECTIN** occurs predominantly by photolysis on the plant surfaces.

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**ABAMECTIN** binds tightly to soil, with rapid degradation by soil micro-organisms. No bioaccumulation.

**ECOTOXICOLOGY:**

**Birds:** Acute oral LD<sub>50</sub>: 84.6 mg/kg (mallard ducks)  
 > 2000 mg/kg (bobwhite quail)  
**Fish:** LC<sub>50</sub> (96 hr): 3,2 µg/l (rainbow trout)  
 9,6 µg/l (bluegill sunfish)

**TOXIC TO FISH.**

**Bees:** **TOXIC TO BEES.**  
**Daphnia:** The 48-hour EC<sub>50</sub> is 0.34 ppb  
**Algae:** *Pseudokirchneriella subcapitata* >100 mg/l (72 h)  
**Earthworms:** LC<sub>50</sub> (28 days): 28 mg/kg soil.

**13. DISPOSAL CONSIDERATION**

**Pesticide disposal:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product that cannot be reused or reprocessed. 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 destroyed.

**TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a minimum of a third of the volume of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.

Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils.

**14. TRANSPORT INFORMATION**

**UN Number:** 2903  
**Road Transport ADR/RID:**  
 Class: 6.1 (3)  
 Packaging group: III  
 Shipping name: **Flammable liquid, N.O.S.**  
 (ABAMECTIN 18 g/l)

**Maritime Transport IMDG/IMO:**  
 Class: 6.1 (3)  
 Packing group: III  
 Shipping name: **Flammable liquid, N.O.S.**  
 (ABAMECTIN 18 g/l)

**Considered a marine pollutant.**

**15. REGULATORY INFORMATION**

**Symbol:** F, Xn, Xi

**Indication of danger:** **Flammable;** Harmful, Irritant

**Risk phrase(s):**

**R 10 Flammable.**  
**R 20/22** Harmful by inhalation and if swallowed.  
**R 36/37/38** Irritating to eyes, respiratory system and skin.  
**R 41** Risk of serious damage to eyes.  
**R 43** May cause sensitisation by skin contact.  
**R 48** Danger of serious damage to health by prolonged exposure.

**Safety phrases:**

**S 1/2** Keep locked up and out of reach children.  
**S 13** Keep away from food, drink and animal feeding stuffs.  
**S 23** Do not breathe vapour/spray.  
**S 24/25** Avoid contact with skin and eyes.  
**S 36/37/39** Wear suitable protective clothing, gloves and eye/face protection.  
**S 46** If swallowed seek medical advice immediately and show container or label.  
**S 61** Avoid release to the environment. Refer to special instructions/safety data sheets.

**16. OTHER INFORMATION**

Packed in 10 ml, 20 ml, 25 ml, 50 ml, 100 ml, 250 ml. 500 ml 1 l, 5 l, 10 l, 20 l and 25 l fluorinated plastic containers and labelled according to South African regulations and guidelines.

**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 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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For detailed information on revisions, contact the Registration holder.