

Safety Data Sheet

VITEX 50 - Reg. No: L 9525 (Act No 36 of 1947) N-AR 1687

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1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER.	
Product name:	VITEX 50
Other means of identification:	Emamectin (as emamectin benzoate) 50 g/kg
UN number:	3077
Recommended use:	Agriculture
Restrictions on use:	No information available
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 WESTERN CAPE POISONS TELEPHONE SERVICE 0861 555 777 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
Chemical Name:	(4''R)-5-O-demethyl-4''-deoxy-4''-(methylamino)avermectin A _{1a} + (4''R)-5-O-demethyl-25-de(1-methylpropyl)-4''-deoxy-4''-(methylamino)-25-(1-methylethyl)avermectin A _{1a} (9:1)
2) Classification of the substance / mixture:	
Classification of the product:	GHS: Oral: Category 4 Dermal: Not classified Specific target organ toxicity – single exposure: Category 2 Specific target organ toxicity – repeated exposure: Category 2 Aquatic Acute: Category 1 Aquatic Chronic: Category 1 Skin Irritation: Not an irritant Eye Irritation: Moderate irritant
Label elements:	N : Dangerous for the environment Xn: Harmful  Signal word: Warning
Health effects: eyes:	Moderate irritant

Health effects: skin:	Not an irritant
Health effects: ingestion	May be harmful
Health effects: inhalation	May be harmful
Health effects: Other	No data available

3) COMPOSITION / INFORMATION ON INGREDIENTS:

Mixture:

Chemical name	Composition	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)	Classification according to 67/548/EEC
Emamectin benzoate	50 g/kg	155569-91-8	-	Acute Tox.3: Toxic if swallowed: H301 Acute Tox. 3: H311: Toxic in contact with skin. Eye Da. 1: H318: Causes serious eye damage. Acute Tox. 3: H331: Toxic if inhaled STOT SE 1: H370: Causes damage to organs. STOT RE 1: H372: Causes damage to or Aquatic acute 1: H400: Very toxic to aquatic Aquatic chronic 1: H410: Very toxic to aquatic life with long lasting effects:	R22 R23/25 R39/23/24/25 R41 R48/25 R50/53 R57
Diatomaceous earth	765 g/kg	61790-53-2	-	Acute Tox. 4: H302: Harmful if swallowed. Eye Irrit. 2: H319: Causes serious eye irritation. STOT SE 3: H335: May cause respiratory irritation. STOT RE 2: H373: May cause damage to organs.	

Full text of R- and S-phrases: see section 15.

4) First Aid Measures:

Eye contact:	Flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Remove contact lenses. Seek medical assistance immediately
Skin contact:	Immediately remove contaminated clothing and flush body and clothes with large amounts of water. Wash affected areas with soap and water. Do not rub skin. Persons providing first aid must wear gloves to avoid self-contamination. Wash contaminated clothing before re-use. Seek medical assistance if irritation persists.
Ingestion:	Never give anything by mouth to an unconscious person. DO NOT induce vomiting. For advice, contact the National Poisons Centre. Seek medical assistance immediately.

<p>Inhalation:</p> <p>Most important symptoms and effects, acute and delayed:</p> <p>Indication of immediate medical attention and special treatment needed: Advice to physician</p>	<p>Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.</p> <p>Lack of coordination, tremors, dilation of the pupil.</p> <p>No specific antidote known. This material in this product is believed to enhance GABA activity in animals. Thus it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic mectin exposure. Toxicity can be minimized by the early administration of chemical absorbents (e.g. activated charcoal). If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, as well as other required supportive measures as indicated by clinical signs, symptoms and measurement.</p>
<p>5) Fire-Fighting Measures:</p>	
<p>Suitable extinguishing media:</p> <p>Unsuitable extinguishing media:</p> <p>Special hazards arising from the substance or mixture:</p>	<p>Carbon dioxide, dry chemical powder, water spray or alcohol-resistant foam</p> <p>DO NOT use a direct jet of water</p> <p>Combustion products are toxic and/or irritant. This product consists of combustible organic components that may burn and decompose during a fire and produce hazardous combustion products.</p>
<p>Fire-fighting:</p> <p>Protective clothing:</p>	<p>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.</p> <p>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. Do not scatter the material. Avoid pollution of waterways.</p> <p>Full protective clothing and self-contained breathing apparatus</p>
<p>6) Accidental Release Measures:</p>	
<p>Personal precautions:</p> <p>Environmental precautions:</p>	<p>Avoid contact with skin, eyes and clothing. Do not breathe in spray or fumes. For personal protection see Section 8. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use.</p> <p>For quantities up to 50kg of product: Bury in a secure landfill site.</p> <p>For quantities great than 50kg: Seek advice from manufacturer before disposal. Contain in a secure location until the disposal method is established.</p> <p>Heavily contaminated soil layers have to be dug out down to clean soil.</p> <p>Decontaminate the spillage area with water and detergent, and then rinse with water. If spill does enter waterways contact the local authority. If containers cannot be recycled, they should be disposed of together with the waste chemical. Generating poisonous and corrosive fumes.</p>

Cleaning procedure:

Clear area of unprotected personnel. Wear protective gear: goggles. Half face-piece respirator with combined dust and vapour cartridge, full length clothing and PVC gloves. Reposition leaking containers to minimize further leakage. For a product spillage: sweep granule concentrates into a pile and remove by scoop or vacuum. For a prepared spray spillage: Dam up and absorb spill with an inert absorbent material such as sand or soil. Shovel the absorbed spill into drums.

Disposal:

Waste Disposal:

In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with the chemical or used containers. Do not dispose of the waste water into the sewer. Where possible, recycling is preferable to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations

The disposal of the absorbed material will depend on the extent of the spill

For quantities up to 50kg of product: Bury in a secure landfill site.

For quantities great than 50kg: Seek advice from manufacturer before disposal. Contain in a secure location until the disposal method is established.

Container Disposal: Refer to the product label for instructions.

Empty the remaining contents. Triple rinse the container. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Do not re-use empty containers. If containers cannot be recycled, they should be disposed of together with the waste chemical.

7) Handling & Storage:

Handling:

Avoid skin and eye contact as this product will irritate. Thus Harmful if swallowed. Wash hands thoroughly with soap and water before breaks and immediately after handling the product. Do not eat, drink, smoke or apply cosmetics when there is a possibility of exposure to the product. Wash goggles or face shield and contaminated clothing thoroughly after each day's use. When opening the container and preparing the spray wear the following protection:

Cotton overalls buttoned up to the neck and wrist (or equivalent clothing)

Elbow length PVC gloves

Goggles or face shield

Storage:

Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Keep away from children or uninformed persons.

DO NOT store in direct sunlight for prolonged periods. Avoid extreme temperatures.

8) Exposure Control / Personal Protection:

<p>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.</p> <p><u>PERSONAL PROTECTIVE EQUIPMENT:</u></p> <p>Clothing:</p> <p>Gloves:</p> <p>Eye protection:</p> <p>Respiratory protection:</p> <p>Emergency eye wash:</p>	<table border="1"> <thead> <tr> <th>Component</th> <th>Exposure limit(s)</th> <th>Type of exposure limit</th> </tr> </thead> <tbody> <tr> <td>Emamectin benzoate</td> <td>0.02 mg/m³</td> <td>8 h TWA</td> </tr> </tbody> </table> <p>Consult supplier to confirm that the equipment is suitable.</p> <p>Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation or penetration characteristics of the clothing material. A dust impervious protective suit is recommended.</p> <p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance. Gloves should be certified to an appropriate standard and should have a minimum breakthrough time that is appropriate to the duration of the exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be discarded if there is any indication of degradation or chemical breakthrough.</p> <p>Suitable material: Nitrile rubber</p> <p>Not usually required, but the use of face shields or safety goggles with side shields is recommended. Follow any site specific eye protection policies.</p> <p>A particulate filter respirator may be needed until effective technical measures are installed. The protection provided by air-purifying respirators is limited.</p> <p>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.</p>	Component	Exposure limit(s)	Type of exposure limit	Emamectin benzoate	0.02 mg/m ³	8 h TWA
Component	Exposure limit(s)	Type of exposure limit					
Emamectin benzoate	0.02 mg/m ³	8 h TWA					
<p>9) Physical & Chemical Properties:</p>							
<p>Form:</p> <p>Colour:</p> <p>Odour:</p> <p>Odour threshold:</p> <p>pH:</p> <p>Melting point / Freezing point</p> <p>Initial boiling point and boiling range</p> <p>Flash point:</p> <p>Evaporation rate:</p> <p>Flammability (solid, gas)</p> <p>Upper/ lower flammability or explosive limits:</p> <p>Vapour pressure:</p> <p>Vapour density:</p> <p>Relative density:</p> <p>Solubility(ies)</p> <p>Partition coefficient: n-octanol/water</p> <p>Auto-ignition temperature:</p> <p>Viscosity:</p>	<p>Granules</p> <p>Tan</p> <p>Characteristic</p> <p>No data available</p> <p>6.2</p> <p>No data available</p> <p>No data available</p> <p>Not flammable</p> <p>No data available</p> <p>Not flammable, not combustible.</p> <p>No data available</p> <p>No data available</p> <p>No data available</p> <p>No data available</p> <p>No data available</p> <p>Disperses in water</p> <p>No data available</p> <p>No data available</p> <p>No data available</p>						
<p>10) Stability & Reactivity:</p>							
<p>Reactivity:</p>	<p>No hazardous reactions if stored and handled as indicated.</p>						

Chemical stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Hazardous decomposition product(s):	May decompose at very high temperatures forming toxic gases. Combustion products are toxic and/or irritant. Hazardous polymerization does not occur.
Conditions to avoid:	None known
Incompatible materials:	No data available

11) Toxicological Information:

Acute: Emamectin benzoate
 Oral LD50 76 - mg/kg, rat GHS: Category 4
 Dermal LD50 >2000mg/kg, rabbit: GHS: Not classified
 Inhalation LC50 (4h): 2.12 – 4.44 mg/L , rat. GHS: N/A
 Skin irritation : Not an irritant
 Eye irritation : Moderate irritant
 Sensitisation : Not a sensitizer
 Germ Cell Mutagenicity: No data available
 Carcinogenicity: No data available
 Reproductive Toxicity: No data available
 STOT-SE: No data available
 STOT-RE: No data available

12) Ecological Information:

Information below based on active ingredient:

Bees : Toxic to bees.
Birds : Acute oral LD₅₀ for mallard ducks 46, bobwhite quail 264 mg/kg.
 Dietary LC₅₀ (8 d) for mallard ducks 570, bobwhite quail 1318 ppm
Fish : LC₅₀ (96 h) for rainbow trout 174, sheepshead minnows 1430 µg/l.
Worms : LC₅₀ >1000 mg/kg dry soil
Other aquatic species: Toxic to *Daphnia magna*, LC₅₀ 0.99 µg/l

Persistence: Rapidly degraded in biologically active soils under aerobic conditions. DT₅₀ 13-20days.
 Soil DT₅₀ 24–43days (20 °C), DT₉₀ 80–143 days (20 °C). K_d 0.05–0.7. In water, DT₅₀ 15days (pH 5, 20 °C).

Biodegradation:
 Emamectin benzoate is not persistent in soil or water.

Bioaccumulative potential:
 Emamectin benzoate does not bioaccumulate.

Mobility in Soil:
 Emamectin benzoate is immobile in soil.

13) Disposal Considerations:

Waste Disposal: In accordance with local and national regulations.
 Do not contaminate ponds, waterways or ditches with the chemical or used containers. Do not dispose of the waste water into the sewer. Where possible, recycling is preferable to disposal or incineration.
 If recycling is not practicable, dispose of in compliance with local regulations.

Container Disposal: Refer to the product label for instructions.
 Empty the remaining contents. Triple rinse the container.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.

14) Transportation Information:

UN Number: 3077

Road transport ADR/RID

Class: 9

Packaging group: III

Labelling no: 9

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (EMAMECTIN BENZOATE)

Air transport: ICAO / IATA

Class: 9

Packaging group: III

Labelling no: 9

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (EMAMECTIN BENZOATE)



Considered a marine pollutant.

Maritime transport: IMDG

Class: 9

Packaging group: III

Labelling no: 9

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (EMAMECTIN BENZOATE)

Considered a Marine pollutant.

Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code): N/A

15) Regulatory Information:

Symbols: Xn – Harmful

N - Dangerous for the environment

Risk – Phrase:

R22 - Harmful if swallowed

R23/25 - Toxic by inhalation and if swallowed

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

R57 - Toxic to bees

R39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Safety – Phrase:

S1/2 - Keep locked up and out of reach of children.

S7 - Keep container tightly closed.

S13 - Keep away from food, drink and animal feeding stuffs.

S20/21 - When using do not eat, drink or smoke.

S35 - This material and its container must be disposed of in a safe way.

S36/37 - Wear suitable protective clothing and gloves.

S57 - Use appropriate containment to avoid environmental contamination.

Hazard Statements

H302 - Harmful if swallowed.

H371 - May cause damage to the nervous system.

H373 - May cause damage to the nervous system through prolonged or repeated exposure.

H410 - Very toxic to aquatic life with long-lasting effects.

Precautionary Statements:

P102 - Keep out of reach of children.
P260 - Do not breathe dust.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P309 + P311 - If exposed or if you feel unwell: Call a POISON CENTER or doctor / physician.
P391 - Collect spillage.
P501 - Dispose of contents / container to an approved waste disposal plant.

Sensitising components:

N/A.

Special labelling of certain preparations

To avoid risks to man and the environment, comply with the instructions for use.

The product is classified and labelled in accordance with Directive 1999/45/EC

N/A

For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)

16. Other Information

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS 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.

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