





Safety Data Sheet

Verdex 18 EW L10610 (Act 36 of 1947)

Date of issue: 29 / 04/ 2019

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER	
Product name:	Verdex EW
Other means of identification:	Abamectin 18 g/L EW
UN number:	2902
Recommended use:	Crop protection product, insecticide.
Restrictions on use:	For use as an Agricultural remedy only.
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 (OR POISONS HELPLINE): 0861 555 777 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
Chemical Name:	Mixture of Avermectin B _{1a} (at least 80%) and Avermectin B _{1b}
2) Classification of the substance / mixture:	
Classification of the product:	According to Directive 67/548/EEC or 1999/45/EC R26/28 R48/25 R50/53 Full text of R and S-phrases: see section 15.
Label elements:	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  Xi – Irritant </div> <div style="text-align: center;">  Health Hazard </div> <div style="text-align: center;">  N – Dangerous for the environment </div> </div> <div style="margin-top: 20px;">  Very toxic </div> <p>Hazard statements: H302: Harmful if swallowed H330: Fatal if inhaled H372: Causes damage to organs through prolonged or repeated exposure if swallowed. H410: Very toxic to aquatic life with long lasting effects.</p> <p>Precautionary statements: P102 Keep out of reach of children. P270 Do not eat, drink or smoke when using this product. P284 Wear respiratory protection. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p>

	<p>P314 Get medical advice/attention if you feel unwell. P391 Collect spillage. P501 Dispose of contents/container to an approved waste disposal plant.</p> <p>Other hazards: No other hazards known.</p>
Health effects: eyes:	Slight irritation
Health effects: skin:	May cause an allergic skin reaction
Health effects: ingestion	Harmful if swallowed
Health effects: inhalation	Fatal if inhaled

3) COMPOSITION / INFORMATION ON INGREDIENTS:

Mixture: Oil in Water Emulsion (EW)
Abamectin 18 g/L

Chemical name	% composition	CAS No.	EC No.	R-phrases	Symbol(s)
Abamectin	8 % w/w	71751-41-2, 65195-56-4,55-3 65195-55-3	NA	R 26/28 R 48/25 R 50/53	N T+
Acetophenone	9% w/w	98-86-2	202-708-7	R22 R38 R41	NA

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

4) First Aid Measures:

Eye contact:	Flush eyes with plenty of water for 15 minutes holding eyelids open. Remove contact lenses. Seek medical assistance if irritation develops and persists.
Skin contact:	Immediately wash body and clothes with large amounts of soap and water. Remove contaminated clothing and footwear. Do not rub skin. Seek medical assistance if irritation persists. Wash contaminated clothing before re-use.
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.
Inhalation:	Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and at rest. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
Most important symptoms and effects, acute and delayed:	Symptoms may include: Dilation of pupils, slow breathing and sedation. More severe cases of poisoning may result in lethargy, muscle tremors and convulsions.
Indication of immediate medical attention and special treatment needed: Advice to physician	This material 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 mectin exposure. Toxicity can be minimized by 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, along with other

	<p>required supportive measures as indicated by clinical signs, symptoms and measurements. Treat symptomatically and supportively. Emetine syrup or ephedrine may be taken. Do not treat with drugs which can increase the activity of GABA, such as barbital or propyl valenic acid in an emergency.</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>Small fires: Water fog or fine spray, dry chemical, alcohol-resistant foam, carbon dioxide or sand. Large fires: Alcohol-resistant foam or water spray.</p> <p>Do not use high volume water jet, due to contamination risk.</p> <p>As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion.</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. Avoid inhaling hazardous vapours and fumes from burning materials. Beware of vapours accumulating to form explosive concentrations. Vapours can accommodate in low areas. Remove all sources of ignition. 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>Cleaning procedure:</p> <p>Disposal:</p>	<p>Wear the appropriate safety clothing and eye / face protection. For personal protection see Section 8. Keep people away from, and upwind of, the spill or leak.</p> <p>Heavily contaminated soil layers have to be dug out down to clean soil. If spill does enter waterways contact the local authority. For large spills, barricade the area and contact the manufacturer.</p> <p>Wear protective clothing. Clear area of unprotected personnel. Contain and absorb liquid spills with an inert material such as sand, earth, diatomaceous earth or vermiculite, remove by scoop or vacuum. Use approved industrial vacuum cleaner for removal and place in labelled waste containers for later disposal. Wash area with water and detergent and absorb with further inert material.</p> <p>Waste Disposal:</p> <p>In accordance with local and national regulations. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Spilled product cannot be re-used and must be disposed of.</p> <p>Container Disposal: Refer to the product label for instructions. If containers cannot be recycled, they should be disposed of together with the waste chemical.</p>

7) Handling & Storage:

Handling:

Use good personal hygiene. Avoid contact with skin and eyes. Avoid inhalation and do not swallow. Use only in area provided with appropriate exhaust ventilation. Keep working clothes separately.

Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Remove soiled clothing immediately and wash contaminated clothing thoroughly before re-use. Garments that cannot be cleaned must be destroyed by burning.

APPROVED HANDLER: This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor.

Storage:

Store in the original container tightly closed and in a locked, dry, cool, well-ventilated area away from foodstuffs, fertilisers, seeds, drink, pharmaceuticals or cosmetics. Store in compliance with local regulations. Protect from excessive heat and cold.

Keep away from children or uninformed persons.

Keep away from direct sunlight.

Suitable materials: Fluorinated HDPE (High Density Polyethylene)

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.

Components with workplace control parameters

Component	Exposure limit(s)	Basis
Abamectin	0.02mg/m3 (TWA)	Internal Occupational Exposure Standard.

PERSONAL PROTECTIVE EQUIPMENT:

Clothing:

Consult supplier to confirm that the equipment is suitable. Select skin and body protection based on the physical job requirements.

If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose as per advice from the manufacturer.

If this product is handled while not enclosed, and if contact may occur: Complete suit protecting against chemicals.

Gloves:

Chemically resistance gloves are not usually required, Select gloves based on the physical requirements of the job to be performed.

Eye protection:

Eye protection is not usually required. However, all site specific eye protection policies must be adhered to.

Respiratory protection:

A particulate filter respirator is necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection

Emergency eye wash:

The use of technical measures should always take preference over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

9) Physical & Chemical Properties:

<p>Form: Colour: Odour: Odour threshold Solubility: pH: Melting point / Freezing point Initial boiling point and boiling range Flash point: Evaporation rate: Flammability (solid, gas) Upper/ lower flammability or explosive limits: Vapour pressure: Vapour density: Relative density: Partition coefficient: n-octanol/water Auto-ignition temperature: Viscosity: Oxidative properties</p>	<p>Liquid, emulsion White liquid Characteristic Not determined Emulsifies in water 4.0-7.0 No data available No data available >100 °C. No flash point, determination conducted up to the boiling point. Not applicable No data available Not explosive. No data available No data available Approximately 0.99 g/L Abamectin: log Pow: 4.4 at pH 7.2 No data available No data available No oxidizing properties</p>
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10) Stability & Reactivity:

<p>Reactivity: Stability: Hazardous decomposition product(s): Conditions to avoid: Incompatible materials:</p>	<p>No hazardous reactions known. Hazardous polymerisation does not occur. Combustion or thermal decomposition will evolve toxic and irritating vapours. Stable under normal conditions. When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Avoid strong basic, acidic or oxidising materials. None under normal conditions of storage and of use. No data available. No data available. Store only in the original container.</p>
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11) Toxicological Information: Based on data for formulated product

<p>Acute: Oral : > 2000 mg / kg Rats. Dermal : > 2000 mg / kg Rats Inhalation : May be harmful Aspiration toxicity: NA Skin irritation: Mild irritant Eye irritation : Rabbit: Mild irritant Sensitization : Guinea pig: NA Repeated dose toxicity This statement has been derived from the properties of the active ingredient. Abamectin did not cause any specific target organ toxicity in experimental animal studies. Mutagenicity This statement has been derived from the properties of the active ingredient. Tests revealed no mutagenic or genotoxic potential based on the overall weight of evidence in a battery of in vitro and in vivo tests. Carcinogenicity: The statement has been derived from the properties of the active. Tests revealed no indication of a carcinogenic effects in lifetime feeding studies in rats and mice. Reproductive toxicity:</p>
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The statement has been derived from the properties of the active. Abamectin caused male reproductive toxicity in the presence of general toxicity in the rat at very high experimental dose levels. There were no effects on male fertility in mice and dogs. The reproductive toxicity seen with Abamectin is due to an overwhelmed elimination capacity at high doses. The high dose levels needed for this effect cannot be achieved even in a worst case exposure scenario.

Teratogenicity:

The statement has been derived from the properties of the active. Abamectin did not cause any teratogenic effects in experimental animal studies.

Causes central nervous system effects in chronic / sub chronic animal tests.

12) Ecological Information: Based on technical material

Bees : Toxic to bees
Birds : Acute oral LD₅₀ for mallard ducks 84.6, bobwhite quail >2000 mg/kg.
Fish : LC₅₀ (96 h) for rainbow trout 3.2, bluegill sunfish 9.6 µg/l.
Daphnia : EC₅₀ (48 h) 0.34 ppb.
Algae : EC₅₀ (72 h) for *Pseudokirchneriella subcapitata* >100 mg/l.
Worms : LC₅₀ (28 d) for earthworms 28 mg/kg soil.
Other aquatic species: LC₅₀ (96 h) for pink shrimps (*Panaeus duorarum*) 1.6, blue crabs (*Callinectes sapidus*) 153 ppb.

Persistence and degradability:

Not persistent in water
Biodegradability: Not readily biodegradable

Bioaccumulative potential

Bioaccumulation: Does not bioaccumulate.

Mobility in soil

Slightly mobile in soils.

Results of PBT and vPvB assessment

PBT and vPvB assessment: This substance is not considered to be persistent, bio accumulative and toxic (PBT). This substance is not considered to be very persistent and very bio accumulative (vPvB).

Other adverse effects:

Additional ecological information: No other effects to be mentioned.

13) Disposal Considerations:

Waste Disposal: In accordance with current regulations and, if necessary, after consultation with the site operator and / or with the responsible authority, the product may be taken to a waste disposal site or incineration plant. Do not contaminate ponds, waterways or ditches with any chemical or used container. Do not dispose of waste into the sewer. Where possible, recycling is preferable to disposal or incineration. If recycling is not practicable, dispose of in accordance with local and national regulations
Do not contaminate water, food or feed by disposal.

Container Disposal: Refer to the product label for instructions.

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

If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.

Do not transport if this container is damaged or leaking.

14) Transportation Information:

UN NUMBER: 2902
Road Transport ADR/ RID:
Class: 6.1
Packaging group: III
Proper shipping name: PESTICIDES, LIQUID, TOXIC, N.O.S. (Abamectin)
Environmental hazards: Environmentally hazardous. Marine pollutant.
Special precautions for user: None known.

Maritime Transport IMDG / IMO:

Class: 6.1
Packaging group: III
Proper shipping name: PESTICIDES, LIQUID, TOXIC, N.O.S. (Abamectin)
Environmental hazards: Environmentally hazardous. Marine pollutant.
Special precautions for user: None known.

MARINE POLLUTANT

Air (ICAO / IATA):
Class: 6.1
Packaging group: III
Proper shipping name: PESTICIDES, LIQUID, TOXIC, N.O.S. (Abamectin)
Environmental hazards: Environmentally hazardous. Marine pollutant.
Special precautions for user: None known.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC code): NA

15) Regulatory Information:

Safety, health and environmental regulations / legislation specific for the substance or mixture.

Labelling according to EC directives:

Hazardous components which must be listed on the label: Abamectin

Symbol(s):

N : Dangerous for the environment.
T+: Very toxic

R-phrases(s):

R22: Harmful if swallowed.
R26/28: Very toxic by inhalation and if swallowed.
R38: Irritating to skin
R41: Risk of serious damage to eyes.
R48/25: Toxic: danger of serious damage to health by prolonged exposure if swallowed.
R50/53: Very toxic to aquatic organisms, may cause long – term adverse effects in the aquatic environment.

S-phrase(s):

S2: Keep out of reach of children
S13: Keep away from food, drink and animal feeding stuffs.
S20/21: When using, do not eat, drink or smoke.
S28 : After contact with with skin, wash immediately with plenty with plenty of water.
S36/37 : Wear suitable protective clothing and gloves.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S57: Use appropriate container to avoid environmental contamination.

Special labelling of certain mixtures:

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

GHS- Labelling

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Pictogram



Signal word : Danger

Hazard Statements:

H302: Harmful if swallowed

H330: Fatal if inhaled

H372: Causes damage to organs through prolonged or repeated exposure if swallowed.

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

Precautionary statements:

P102 Keep out of reach of children.

P270 Do not eat, drink or smoke when using this product.

P284 Wear respiratory protection.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P314 Get medical advice/attention if you feel unwell.

P391 Collect spillage.

P501 Dispose of contents/container to an approved waste disposal plant.

Remarks

Classified using all GHS hazard classes and categories. In cases where the GHS contains options, the most conservative option has been selected. Regional or national implementations of GHS may not implement all hazard classes and categories.

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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