


Safety Data Sheet

PROMEK 20 EW - Reg. No: L 9729 (Act No 36 of 1947)

Date of issue: 25/11/2013

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1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER.	
Product name:	PROMEK 20 EW
Other means of identification:	Emamectin (as emamectin benzoate) 20 g/L EW
UN number:	3082
Recommended use:	Insecticide
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:	Emamectin benzoate: A mixture containing 90% of (10E,14E,16E,22Z)- (1R,4S,5'S,6S,6'R,8R,12S,13S,20R,21R,24S)-6'-[(S)-sec-butyl]-21,24-dihydroxy-5',11,13,22-tetramethyl-2-oxo-3,7,19-trioxatetracyclo[15.6.1.1 ^{4,8} .0 ^{20,24}]pentacosa-10,14,16,22-tetraene-6-spiro-2'-(5',6'-dihydro-2'H-pyran)-12-yl 2,6-dideoxy-3-O-methyl-4-O-(2,4,6-trideoxy-3-O-methyl-4-methylamino-α-L-lyxo-hexopyranosyl)-α-L-arabino-hexopyranoside and 10% of (10E,14E,16E,22Z)- (1R,4S,5'S,6S,6'R,8R,12S,13S,20R,21R,24S)-21,24-dihydroxy-6'-isopropyl-5',11,13,22-tetramethyl-2-oxo-3,7,19-trioxatetracyclo[15.6.1.1 ^{4,8} .0 ^{20,24}]pentacosa-10,14,16,22-tetraene-6-spiro-2'-(5',6'-dihydro-2'H-pyran)-12-yl 2,6-dideoxy-3-O-methyl-4-O-(2,4,6-trideoxy-3-O-methyl-4-methylamino-α-L-lyxo-hexopyranosyl)-α-L-arabino-hexopyranoside
2) Classification of the substance / mixture:	
Classification of the product:	T, N; R23/25 R39/23/24/25 R41 R48/25 R50/53 Full text of symbols and R-phrases: see section 15.

Label elements:	<p>Hazard symbols:</p>  <p>Signal word: Danger</p>
Health effects: eyes:	May cause severe irritation.
Health effects: skin:	May cause mild irritation.
Health effects: ingestion	May cause irritation and may be harmful.
Health effects: inhalation	May cause irritation and may be harmful in long-term.
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	2% w/w	155569-91-8	-	-	T, N; R23/25 R39/23/24/25 R41 R48/25 R50/53
Benzyl alcohol	9 – 10 %	100-51-6	202-859-9	Acute Tox. 4: H302: Harmful if swallowed, H332: Harmful if inhaled, Eye Irrit. 2: H319: Causes serious eye irritation.	Xn R20/22 S26

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.
Inhalation:	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.
Most important symptoms and effects, acute and delayed:	None known
Indication of immediate medical attention and special treatment needed: Advice to physician	No specific antidote known. This material in this product is believed to enhance GABA activity in animals. Thus it is

	<p>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>
5) Fire-Fighting Measures:	
<p>Suitable extinguishing media:</p> <p>Unsuitable extinguishing media:</p> <p>Special hazards arising from the substance or mixture:</p>	<p>Small fires: Carbon dioxide, dry chemical powder, water spray or alcohol-resistant foam</p> <p>Large fires: Alcohol-resistant foam or water spray</p> <p>DO NOT use a direct jet of water</p> <p>Combustion products are toxic and/or irritant</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>This product consists of combustible organic components that may burn and decompose during a fire and produce hazardous combustion products. Thermal decomposition may result in oxides of carbon, phosphorous, hydrocarbons</p> <p>Full protective clothing and self-contained breathing apparatus</p>
6) Accidental Release Measures:	
<p>Personal precautions:</p> <p>Environmental precautions:</p> <p>Cleaning procedure:</p> <p>Disposal:</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>Do not contaminate waterways, drains and groundwater. Heavily contaminated soil layers should be removed and disposed of in an approved way. If contamination of waterways, drains, rivers or lakes is unavoidable, warn the local authorities (Police and Department of Water / Environmental affairs) immediately.</p> <p>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. Dam up and absorb spill with an inert absorbent material such as sand or soil. Shovel the absorbed spill into drums. Decontaminate the spillage area with water and detergent, and then rinse with water.</p> <p>Waste Disposal:</p> <p>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.</p>

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. If recycling, replace cap and return clean containers to a recycler or designated collection point. If not recycling, break crush or puncture and bury the empty containers in a local authority landfill. If no landfill is available, bury below 500 mm into a specially marked disposal pit clear of waterways, desirable vegetation and tree roots. Do not burn. **Never** re-use the empty container for any other purpose. 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:

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:

Clothing:

Consult supplier to confirm that the equipment is suitable.
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.

Gloves:

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.
Suitable material: Nitrile rubber.

Eye protection:

The use of face shields or safety goggles with side shields is recommended. Follow any site specific eye protection policies.

Respiratory protection:

A suitable air-purifying respirator may be needed until effective technical measures are installed. The protection provided by air-purifying respirators is limited.

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 & Chemical Properties:	
Form: Colour: Odour: Odour threshold: 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: Solubility(ies) Partition coefficient: n-octanol/water Auto-ignition temperature: Viscosity:	Liquid White to off-white Characteristic No data available 6-8 No data available No data available Moderately flammable No data available No data available No data available No data available No data available No data available 0.8 g/L Emulsifiable in water No data available No data available No data available
10) Stability & Reactivity:	
Reactivity: Chemical stability: Hazardous decomposition product(s): Conditions to avoid: Incompatible materials:	Not available. When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. May decompose at very high temperatures forming toxic gases. Combustion products are toxic and/or irritant. Hazardous polymerization does not occur. DO NOT store in direct sunlight for prolonged periods. Avoid extreme temperatures. No data available
11) Toxicological Information:	
Acute: Oral LD50 76-89 mg/kg, rat Dermal LD50 >2000mg/kg, rabbit Inhalation LC50 (4h): 2.12-4.44 mg/L, rat. Skin irritation : Not an irritant, rabbit Eye irritation : Moderate irritant, rabbit Sensitisation : Did not cause sensitization on laboratory animals, guinea pig. Other : N/A	

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: 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.
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.

If recycling, replace cap and return clean containers to a recycler or designated collection point. If not recycling, break crush or puncture and bury the empty containers in a local authority landfill. If no landfill is available, bury below 500 mm into a specially marked disposal pit clear of waterways, desirable vegetation and tree roots. Do not burn. **Never** re-use the empty container for any other purpose.

14) Transportation Information:

UN Number: 3082

Road transport ADR/RID

Class: 9 Miscellaneous Dangerous Goods

Packaging group: III

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID (N.O.S.)

Environmental hazards: Marine pollutant

Special precautions: None

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

Air transport: ICAO / IATA

Packaging group: III

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID (N.O.S.)

Environmental hazards: Marine pollutant

Special precautions: None

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

Maritime transport: IMDG

Packaging group: III

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID (N.O.S.)

Environmental hazards: Marine pollutant

Special precautions: None

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

15) Regulatory Information:

Symbols: Xn – Harmful

N - Dangerous for the environment

Xi: Irritant

Risk – Phrase:

- R22 - Harmful if swallowed
- R23/25 - Toxic by inhalation and if swallowed.
- R39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- R41 - Risk of serious damage to eyes.
- R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed.
- 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
- R57 - Toxic to bees
- R68/20/21/22 – Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

Safety – Phrase:

- S2 - Keep out of reach of children.
- S 7 - 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
- H370 - Causes damage to organs
- H372 - Causes damage to organs through prolonged or repeated exposure.
- 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.
- P314 - Get medical advice / attention if you feel unwell.
- P391 - Collect spillage.
- P501 - Dispose of contents / container

Remarks: Classified according to all GHS hazard classes and categories. Where the GHS contains options, the most conservative option has been chosen. 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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