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Date of Issue: February, 2001

MATERIAL SAFETY DATA SHEET

STATEMENT OF HAZARDOUS NATURE:

Hazardous according to the criteria of Worksafe NOHSC

COMPANY DETAILS:

Syngenta Crop Protection Pty Limited Telephone No.: (02) 9688 0444

ABN 33 002 933 717 **24 Hours Emergency No.: 1 800 033 111**

140-150 Bungaree Rd., PENDLE HILL, NSW, 2145

IDENTIFICATION

PRODUCT NAME: VERTIMEC MITICIDE/INSECTICIDE

Formulation Type: Emulsifiable concentrate Dangerous Goods Class: 6.1

Active Ingredient: Abamectin Subsidiary Risk (ADG): None allocated

Product Code No.:A-8612AHazchem Code:2XChemical Type:Macrocyclic lactonePacking Group:IIIUN Number:2902Poisons Schedule:6

USE: Insecticide for the control of certain mite and insect pests on various crops.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance: Colourless to yellow liquid Flash Point: 71°C (closed cup) Odour: Hexanol odour Flammability: Non flammable Vapour Pressure: Not known Combustibility: Combustible C1 Specific Gravity: 0.90 to 0.92 at 25°C Behaviour in Water: Dispersible

OTHER PROPERTIES

pH: 3.6 Corrosiveness: Non corrosive to HDPE or steel

Viscosity: 26 centipoise (at 20°C)

INGREDIENTS -

	CAS No.	Content (% w/v)
abamectin (technical grade)	65195-55-3	>2.0
to give abamectin	65195-56-4	2.0
hexanol	111-27-3	10-<30
methyl pyrrolidone	872-50-4	10-<30
butylated hydroxytoluene	128-37-0	<10
parrafinic oil	8042-47-5	<10
other ingredients determined not to be hazardous		to 100

HEALTH HAZARD INFORMATION

HEALTH EFFECTS

ACUTE

Toxicity - This product is moderately hazardous (WHO Hazard Class II)

Swallowed: MODERATE TOXICITY

Tests indicate a moderate toxicity following single doses of a similar formulation.

 $(LD_{50} = 0.312 \text{ mL/kg (approx. } 325 \text{ mg/kg})).$

Dermal absorption: MODERATE TOXICITY

Tests indicate a moderate toxicity due to skin contact with a similar formulation.

(LD₅₀ 1400 mg/kg)

Inhaled: LOW TOXICITY

Tests indicate a low toxicity due to inhalation of a similar formulation.

(LC₅₀ (4 h) 3.5 mg/L)

Note:

Pure abamectin is considered highly toxic in acute animal studies. Acute oral toxicity studies with abamectin have shown clear differences among species in sensitivity to abamectin. Rodents are particularly sensitive compared to the other species in which the compound has been tested. It is therefore inappropriate to base human risk assessment on the response in rodents.

<u>Irritation</u>

Eye: MODERATE IRRITANT
Skin: MODERATE IRRITANT

Sensitisation

Skin: NOT A SENSITISER

Poisoning Symptoms:

Decreased activity, slow rate of breathing, dilation of the pupils, muscle tremors and lack of coordination.

CHRONIC (Active Ingredient)

Abamectin technical has been extensively tested in laboratory animals and test tube systems. No evidence of mutagenic or carcinogenic effects have been obtained. Abamectin and its delta-8,9 isomer have caused foetal abnormalities including cleft palate, skeletal abnormalities and abdominal wall defects in mice and rabbits at doses toxic to the mother. These effects are considered to be not relevant to normal exposure to this product as the effects on the foetus occurred at doses which were toxic to the mother.

FIRST AID

In case of poisoning by any exposure route contact a doctor or Poisons Information Centre, Phone 131 126.

Swallowed: If swallowed, and if more than 15 minutes from a hospital, induce vomiting preferably

using Ipecac Syrup APF.

Eye: If product gets in eyes hold eyes open, flush with running water for at least 15 minutes and

see a doctor.

Skin: If skin contact occurs remove contaminated clothing and wash affected areas thoroughly

with soap and water. Wash contaminated clothing before re-use.

Inhaled: Move person to fresh air and keep at rest until recovered. If any signs or symptoms occur

or persist, get medical attention.

ADVICE TO DOCTOR

No specific antidote is available. If poisoning is suspected apply symptomatic therapy.

PRECAUTIONS FOR USE

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

EXPOSURE STANDARDS

Ingredient Occupational Exposure Limit

Abamectin: 40μg/m³ (Novartis recommended exposure limit during manufacture/

formulation of the product. A NOHSC exposure standard has not been

assigned to abamectin.)

Mineral Oil Mists (Parrafinic Oil): 5 mg/m³ (NOHSC - time weighted average)
Butylated Hydroxytoluene: 10 mg/m³ (NOHSC - time weighted average)

No official exposure standards have been set for the other ingredients of this product.

Exposure Potential - Swallowing is unlikely under normal conditions of usage. Significant skin uptake does not occur. Inhalation is a possible route of exposure. This product is diluted with water prior to use as a spray. This diluted form is less toxic by all routes of exposure.

Re-entry Period - Do not enter treated areas without protective clothing until the spray has dried.

ENGINEERING CONTROLS

No special requirements. Product is used outdoors.

PERSONAL PROTECTION

Poisonous if absorbed by skin contact or swallowed. Will damage eyes. Will irritate the skin. Avoid contact with eyes and skin. Do not inhale spray mist.

When opening the container, preparing spray and using the prepared spray, wear:

- · cotton overalls buttoned to the neck and wrist and a washable hat,
- · elbow length butyl rubber gloves and
- goggles.

For space applications, wear:

- cotton overalls buttoned to the neck and wrist and a washable hat,
- · elbow length butyl rubber gloves,
- goggles and
- half face respirator with dust cartridge or canister.

If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles, respirator (and if rubber with detergent and warm water) and contaminated clothing.

Only use protective equipment bearing the mark of the Standards Association of Australia.

FLAMMABILITY

This product is NON-FLAMMABLE, however it is combustible.

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT

Stable under normal conditions of use. Store bottle in carton to protect from light and store below 30°C. Store in tightly sealed original containers in a dry secure place away from fertilisers, seed, feed and food. Store out of direct sunlight. Keep out of reach of children, unauthorised persons and animals.

Transport Classification - Road and Rail (ADG), Sea (IMDG):

Proper Shipping Name: PESTICIDE, LIQUID, TOXIC, N.O.S. UN No.: 2902

Class: 6.1 (CONTAINS ABAMECTIN)

Packing Group: Ш Additional Information: ABAMECTIN 2%, MARINE POLLUTANT

SPILLS AND DISPOSAL

In case of spillage it is important to take all steps necessary to:

- Avoid eye and skin contact.
- · Avoid contamination of waterways.

Procedure for spill:

- (1) Keep all bystanders away.
- (2) Wear full length clothing and butyl rubber gloves.
- (3) Re-position any leaking containers so as to minimise further leakage.
- (4) Dam and absorb spill with an absorbent material (e.g. sand or soil).
- (5) Shovel the absorbed spill into drums.
- (6) Disposal of the absorbed material will depend upon the extent of the spill.
 - For quantities up to 50L of product bury in a secure landfill site.
 - For quantities greater than 50L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.
- (7) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable

Dispose of empty, used containers by:

- (a) Triple rinsing or preferably pressure rinsing containers with water. Add the rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site.
- (b) If recycling, replace cap and return clean containers to recycler or designated collection point.
- (c) If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

FIRE/EXPLOSION HAZARD

This product is non-flammable, non-explosive and is combustible. Extinguish warehouse and factory fires using fine-water spray or foam. Do not allow fire-water to enter drains. During a fire this product may release smoke and hazardous decomposition products. When fighting a major fire wear an air-supplied respirator.

OTHER INFORMATION

Abamectin is very toxic to aquatic species. DO NOT contaminate streams, rivers or waterways with the chemical or used containers. Prevent spilled material from entering surface waterways.

This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Federal health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

CONTACT POINT: Regulatory Affairs Manager - Crop Protection - (02) 9688 0444

> 24 HOURS EMERGENCY CONTACT: 1 800 033 111

This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Acknowledgments:

Collated by HerbiGuide. Phone 08 98444064 for more information.