

SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	VERTIMEC® MITICIDE/INSECTICIDE
Other Names:	Proper shipping name: Pesticide Liquid Toxic, N.O.S. (abamectin) Product code: A8612A
Recommended Use:	Insecticide for the control of certain mite and insect pests on various crops.
Company Details:	Syngenta Crop Protection Pty Limited ABN 33 002 933 717
Address:	Level 1, 2-4 Lyonpark Road MACQUARIE PARK NSW 2113 AUSTRALIA
Telephone Number:	(02) 8876 8444
Emergency Telephone Number:	24 hours - 1800 033 111

Section 2: HAZARDS IDENTIFICATION

Hazard Classification:	Classified as a hazardous chemical according to the Australian criteria for the classification of chemicals
Risk Phrases:	R21/22 Harmful in contact with skin and if swallowed R36/38 Irritating to eyes and skin R43 May cause sensitisation by skin contact
Safety Phrases:	—

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
Chemical Identity of Pure Substance:	Abamectin
Synonym:	Avermectin, MK936
CAS Number:	65195-55-3, 65195-56-4

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/v)
Abamectin	65195-55-3, 65195-56-4	1.9
hexanol	111-27-3	10 - <30
N-methyl pyrrolidone	872-50-4	10 - <30
butylated hydroxytoluene	128-37-0	<10
Other ingredients determined not to be hazardous	-	to 100

Section 4: FIRST AID MEASURES

Description of Necessary First Aid Measures:	<p>In case of poisoning by any exposure route get to a doctor or hospital quickly. Phone Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.</p> <p>Ingestion: If swallowed, seek medical advice immediately and show this container or label. DO NOT induce vomiting.</p> <p>Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.</p> <p>Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.</p> <p>Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Control Centre immediately.</p>
Poisoning Symptoms: Medical Advice:	<p>Constriction of pupils, lack of coordination, tremors</p> <p>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 required supportive measures as indicated by clinical signs, symptoms and measurements.</p>

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	<p>Extinguishing media - small fires Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide extinguisher. DO NOT use direct jet of water.</p> <p>Extinguishing media - large fires Use alcohol-resistant foam or water spray. DO NOT use direct jet of water.</p>
Hazards from Combustion Products:	<p>This product contains combustible organic components that may burn and decompose during a fire producing dense black smoke containing hazardous products of combustion. Combustion products are toxic and /or irritant. Exposure to decomposition products may be a hazard to health</p>
Special Protective Precautions and Equipment for Fire Fighters:	<p>When fighting a major fire wear self-contained breathing apparatus and protective equipment</p>
Hazchem Code:	2X

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	In case of spillage it is important to take all steps necessary to <ul style="list-style-type: none">• Avoid eye and skin contact• Avoid contamination of waterways
Methods and Materials for Containment and Clean Up:	Procedure for spill <ol style="list-style-type: none">(1) Keep all bystanders away(2) Wear full length clothing and PVC gloves(3) Reposition any leaking containers so as to minimise further leakage(4) Dam and absorb spill with an absorbent material (eg sand or soil)(5) Shovel the absorbed spill into drums(6) Disposal of the absorbed material will depend upon the extent of the spill<ul style="list-style-type: none">• For quantities up to 50 L of product bury in a secure landfill site• For quantities greater than 50 L 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 spill area with detergent and water and rinse with the smallest volume of water practicable

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:	<p>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.</p> <p>When opening the container, preparing spray and using the prepared spray, wear :</p> <ul style="list-style-type: none">• cotton overalls buttoned to the neck and wrist• a washable hat,• elbow length butyl rubber gloves• goggles. <p>For space applications, wear :</p> <ul style="list-style-type: none">• cotton overalls buttoned to the neck and wrist• a washable hat,• elbow length butyl rubber gloves,• goggles• half face respirator with dust cartridge or canister. <p>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.</p>
Conditions for Safe Storage:	Store in the closed original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

	<i>Component</i>	<i>Exposure limit</i>	<i>Value type</i>
National Exposure Standards:	N-methyl pyrrolidone	103 mg/m ³	TWA
		25 ppm	TWA
		309 mg/m ³	STEL
		75 ppm	STEL
	butylated hydroxytoluene	10 mg/m ³	TWA
Syngenta exposure standards	Abamectin	0.02 mg/m ³	TWA
Biological Limit Values:	No biological limits allocated		
Engineering Controls:	No special requirements. Product is used outdoors.		
Personal Protective Equipment:	<p>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.</p> <p>When opening the container, preparing spray and using the prepared spray, wear :</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist • a washable hat, • elbow length butyl rubber gloves • goggles. <p>For space applications, wear :</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist • a washable hat, • elbow length butyl rubber gloves, • goggles • half face respirator with dust cartridge or canister. <p>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.</p>		

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellow to red brown liquid	Boiling Point/Range:	>150°C
Odour:	solvent	Freezing/Melting Point:	Not available
pH:	2.6 - 3.6 (1 % w/v)	Solubility:	Miscible in water
Vapour Pressure:	Not available	Specific Gravity or Density:	0.96 g/cm ³ at 25°C
Vapour Density:	Not available		

Flash Point:	72.5°C at 1,013.25 hPa (DIN EN 22719)	Explosive Properties:	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Not available	Oxidising Properties:	Not oxidising
Ignition Temperature:	Not available	Combustibility:	Combustible C1
		Corrosiveness:	Not corrosive

Section 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under standard conditions.
Conditions to Avoid:	None known.
Incompatible Materials:	None known.
Hazardous Decomposition Products:	Combustion or thermal decomposition will evolve toxic and irritant vapours.
Hazardous Reactions:	None known. Hazardous polymerization does not occur.

Section 11: TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:													
Acute:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Oral toxicity:</td> <td style="padding: 5px;">HARMFUL Tests on rats indicate this product is harmful following single doses of undiluted product (LD₅₀= 300 mg/kg)</td> </tr> <tr> <td style="padding: 5px;">Dermal toxicity:</td> <td style="padding: 5px;">HARMFUL Tests on rabbits indicate this product is harmful following skin contact with undiluted product. (LD₅₀ = >1800 - 2000 mg/kg (formulation))</td> </tr> <tr> <td style="padding: 5px;">Inhalation:</td> <td style="padding: 5px;">LOW TOXICITY Tests on rats indicate this product is not harmful due to inhalation of undiluted product. (LC₅₀ (4h) = 7.8 mg/L air (formulation))</td> </tr> <tr> <td style="padding: 5px;">Skin irritation:</td> <td style="padding: 5px;">MODERATE IRRITANT</td> </tr> <tr> <td style="padding: 5px;">Eye irritation:</td> <td style="padding: 5px;">MODERATE IRRITANT</td> </tr> <tr> <td style="padding: 5px;">Sensitisation:</td> <td style="padding: 5px;">SENSITISER</td> </tr> </table>	Oral toxicity:	HARMFUL Tests on rats indicate this product is harmful following single doses of undiluted product (LD ₅₀ = 300 mg/kg)	Dermal toxicity:	HARMFUL Tests on rabbits indicate this product is harmful following skin contact with undiluted product. (LD ₅₀ = >1800 - 2000 mg/kg (formulation))	Inhalation:	LOW TOXICITY Tests on rats indicate this product is not harmful due to inhalation of undiluted product. (LC ₅₀ (4h) = 7.8 mg/L air (formulation))	Skin irritation:	MODERATE IRRITANT	Eye irritation:	MODERATE IRRITANT	Sensitisation:	SENSITISER
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Skin irritation:	MODERATE IRRITANT												
Eye irritation:	MODERATE IRRITANT												
Sensitisation:	SENSITISER												
Chronic:	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												

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	<p><i>Toxicity to fish:</i> Highly toxic to fish <i>Lepomis macrochirus</i> (Bluegill sunfish): LC₅₀ = ~ 0.3 mg/L, 96 h <i>Oncorhynchus mykiss</i> (rainbow trout): LC₅₀ = 0.13 mg/L, 96 h</p> <p><i>Toxicity to daphnia and other aquatic invertebrates:</i> Very highly toxic to aquatic invertebrates <i>Daphnia magna</i> (Water flea): EC₅₀ = 29 µg/L, 48 h (Based on studies with a similar formulation)</p> <p><i>Toxicity to algae:</i> Slightly toxic to algae <i>Pseudokirchneriella subcapitata</i> (green algae): E_rC₅₀ > 82 mg/L, 72 h (Based on studies with a similar formulation)</p> <p><i>Toxicity to soil dwelling organisms:</i> Moderately toxic to soil dwelling organisms</p> <p><i>Bees:</i> Highly toxic to bees</p>
Persistence and Degradability:	Abamectin is not persistent in water and soil. It is not readily biodegradable.
Mobility	Slight mobility in soil.
Environmental Fate (Exposure):	Fully degraded and incorporated into organic molecules.
Bioaccumulative Potential:	Abamectin does not bioaccumulate.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods and Containers:	<p>Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.</p> <p>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.</p>
Special Precautions for Landfill or Incineration:	Not applicable

Section 14: TRANSPORT INFORMATION

LAND TRANSPORT			
ADG			
UN Number:	2902	Packing Group:	III
UN Proper Shipping Name:	Pesticide Liquid Toxic, N.O.S. (Abamectin)	Special Precautions for User:	None allocated
Class:	6	Hazchem Code:	2X
Subsidiary Risk:	-		

SEA TRANSPORT IMDG			
UN Number:	2902	Subsidiary Risk:	-
UN Proper Shipping Name:	Pesticide Liquid Toxic, N.O.S. (Abamectin)	Packing Group:	III
Class:	6	Marine Pollutant:	Marine pollutant

AIR TRANSPORT IATA - DGR			
UN Number:	2902	Subsidiary Risk:	-
UN Proper Shipping Name:	Pesticide Liquid Toxic, N.O.S. (Abamectin)	Packing Group:	III
Class:	6		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	50772
Poisons Schedule (SUSDP):	6

Section 16: OTHER INFORMATION

Date of preparation or last revision: May 2010
Source of Data: The information provided in this SDS is sourced from Syngenta internal studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.
Note: This product is a registered agricultural chemical and must, therefore, be used in accordance with the container label directions
CONTACT POINT: Regulatory Affairs Manager, Syngenta Crop Protection Pty Limited (02) 8876 8444 24 HOURS EMERGENCY CONTACT: 1800 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 SDS 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.

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