

SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	PROCLAIM® Insecticide
Other Names:	Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Emamectin benzoate) Applicable only for marine and air transport
	Product code: A10324A
Recommended Use:	For the control of Diamondback Moth (Cabbage Moth) and Cabbage White Butterfly in Brassica vegetables and Lightbrown Apple Moth and Grapevine Moth in Grapes
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:	R 22 Harmful if swallowed R 36 Irritating to eyes
Safety Phrases:	-

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
Chemical Identity of Pure Substance:	Emamectin-benzoate
Synonym:	MK244, Avermectin B1, 4"-deoxy-4"-(methylamino)-,(4"R)-, benzoate (salt)
CAS Number:	155569-91-8

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/w)
Emamectin benzoate	155569-91-8	5
Sodium N-methyl-N-oleoyl taurate	137-20-2	<10
Other ingredients determined not to be hazardous	--	to 100

Section 4: FIRST AID MEASURES

Description of Necessary First Aid Measures:	In case of poisoning by any exposure route contact a doctor or Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.
Ingestion:	If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting.
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.
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.
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 Information Centre immediately.
Poisoning Symptoms:	Lack of coordination, Tremors, Dilatation of the pupil
Medical Advice:	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.

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	<i>Extinguishing media - small fires</i> Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide extinguisher. <i>Extinguishing media - large fires</i> Use alcohol-resistant foam or water spray. DO NOT use direct jet of water.
Hazards from Combustion Products:	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.
Special Protective Precautions and Equipment for Fire Fighters:	When fighting a major fire wear self-contained breathing apparatus and protective equipment.

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:	<p>Procedure for spill:</p> <ol style="list-style-type: none">(1) Keep all bystanders away.(2) Wear goggles, half face-piece respirator with combined dust and vapour cartridge, full length clothing and PVC gloves.(3) Reposition any leaking containers so as to minimise further leakage.(4) For a product spill: Sweep granule concentrates into a pile. For a prepared spray spill: 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.<ul style="list-style-type: none">• For quantities up to 50 kg of product bury in a secure landfill site.• For quantities greater than 50 kg seek advice (use emergency contact number below) from the manufacturer 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 water

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:	Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing the spray wear <ul style="list-style-type: none">• cotton overalls buttoned to the neck and wrist (or equivalent clothing),• elbow length PVC gloves,• goggles or face shield. Wash hands after use. After each day's use, wash gloves, goggles or face shield and contaminated clothing
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:	No exposure standard allocated		
Syngenta Exposure Standards:	Emamectin benzoate	0.02 mg/m ³	TWA
Biological Limit Values:	No biological limit allocated		
Engineering Controls:	No special controls needed. Product is used outdoors		
Personal Protective Equipment:	<p>Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing the spray wear</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist (or equivalent clothing), • elbow length PVC gloves, • goggles or face shield. <p>Wash hands after use. After each day's use, wash gloves, goggles or face shield and contaminated clothing</p>		

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to tan granules	Boiling Point/Range:	Not applicable
Odour:	Not determined	Melting Point:	Not available
pH:	4 - 8 (1% w/v water)	Solubility in water	Soluble
Vapour Pressure:	3 x 10 ⁻⁸ mmHg at 21°C	Specific Gravity or Density:	0.60 g/cm ³

Flash point:	Does not flash	Explosive properties:	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Not highly flammable	Oxidising properties:	Not oxidising
Ignition Temperature:	Not available	Combustibility:	Not applicable
		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:	Oral toxicity:	HARMFUL Tests on rats indicate this product is harmful following single doses of undiluted product. (LD ₅₀ = 1,516 mg/kg)
	Dermal toxicity:	LOW TOXICITY Tests on rats indicate this product has low toxicity following skin contact with undiluted product. (LD ₅₀ = >2000 mg/kg)
	Inhalation:	LOW TOXICITY Tests on rats indicate this product is not harmful due to inhalation of the undiluted product. (LC ₅₀ (4 h) = 6.28 mg/L)
	Skin irritation:	NON IRRITANT (Rabbit)
	Eye irritation:	MODERATE IRRITANT (Rabbit)
	Sensitisation:	NOT A SKIN SENSITISER (Guinea Pig)

Chronic: Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments. Reproductive toxicity noted in rats that is not relevant to humans. Central nervous system effects in chronic/subchronic animal tests. No adverse effects in humans are expected at levels below the occupational exposure limit and when the product is handled and used according to the label. This information applies to Emamectin benzoate.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	<i>Toxicity to fish:</i>	Moderately toxic to fish <i>Cyprinus carpio</i> (common carp): LC ₅₀ = 6.8 mg/L, 96h
	<i>Toxicity to daphnia and other aquatic invertebrates:</i>	Very highly toxic to aquatic invertebrates <i>Daphnia magna</i> (Water flea): EC ₅₀ = 0.08 mg/L, 48 h
	<i>Toxicity to algae:</i>	Slightly toxic to algae <i>Selenastrum capricornutum</i> (green algae): E _b C ₅₀ = 28.4 mg/L; E _r C ₅₀ = 157 mg/L, 72 h
	<i>Toxicity to soil dwelling organisms:</i>	Practically non-toxic to earthworms <i>Eisenia foetida</i> (earthworm): LC ₅₀ >1000 mg/kg (14 d)
	<i>Bees:</i>	Highly toxic to bees <i>Apis mellifera</i> (honey bee) LD ₅₀ (24 h) oral = 0.0036 µg/bee
	Persistence and Degradability:	Emamectin is not persistent in water and soil
Mobility	Emamectin is immobile in soil	
Environmental Fate (Exposure):	Incorporated into organic molecules	
Bioaccumulative Potential:	Emamectin does not bioaccumulate.	

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods and Containers:	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. 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.
Special Precautions for Landfill or Incineration:	Not applicable

Section 14: TRANSPORT INFORMATION

LAND TRANSPORT ADG			
Not a dangerous good in Australia			
UN Number:	None allocated	Packing Group:	None allocated
UN Proper Shipping Name:	None allocated	Special Precautions for User:	None allocated
Class:	None allocated	Hazchem Code:	None allocated
Subsidiary Risk:	None allocated		

SEA TRANSPORT IMDG			
UN Number:	3077	Subsidiary Risk:	None allocated
UN Proper Shipping Name:	Environmentally Hazardous Substance, Solid, N.O.S. (emamectin benzoate)	Packing Group:	III
Class:	9	Marine Pollutant:	Marine pollutant

AIR TRANSPORT IATA-DGR			
UN Number:	3077	Subsidiary Risk:	None allocated
UN Proper Shipping Name:	Environmentally Hazardous Substance, Solid, N.O.S. (emamectin benzoate)	Packing Group:	III
Class:	9		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	50919
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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