

## SAFETY DATA SHEET

### Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name:</b>	<b>INNOVA BIFENTHRIN 100 MITICIDE / INSECTICIDE</b>
<b>Other Names:</b>	<b>Product code:</b> A16240A
<b>Recommended Use:</b>	For the control of <i>Helicoverpa</i> spp. in Cotton, Tomatoes, Lucerne Seed Crops, Navy Beans; <i>Carpophilus</i> Beetle in Stone Fruit (except Cherries); certain species of mites in Bananas, Cotton and Tomatoes; Longtailed Mealy Bug in Pears; Banana Weevil Borer and Banana Rust Thrips in Bananas; Mirids in Cotton; Whitefly in Tomatoes; Redlegged Earth Mite, Blue Oat Mite, Bryobia Mite, Webworm and Brown Pasture Looper in Faba Beans, Subterranean Clover, Clover, Canola, Wheat, Barley, Field Peas, Lupins and Lucerne; certain species of Wireworms in Cotton and Sugarcane; and Fig Longicorn in Grapes and Citrus Leafeating Weevil in Citrus
<b>Company Details:</b>	<b>Syngenta Crop Protection Pty Limited</b> ABN 33 002 933 717
<b>Address:</b>	<b>Level 1, 2-4 Lyonpark Road</b> <b>MACQUARIE PARK NSW 2113</b> <b>AUSTRALIA</b>
<b>Telephone Number:</b>	<b>(02) 8876 8444</b>
<b>Emergency Telephone Number:</b>	<b>24 hours - 1800 033 111</b>

### Section 2: HAZARDS IDENTIFICATION

<b>Hazard Classification:</b>	Hazardous according to the criteria of NOHSC Australia
<b>Risk Phrases:</b>	R22- Harmful if swallowed. R36- Irritating to eyes. R65- May cause lung damage is swallowed.
<b>Safety Phrases:</b>	—

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
<b>Chemical Identity of Pure Substance:</b>	Bifenthrin
<b>Synonym:</b>	ASF311
<b>CAS Number:</b>	82657-04-3

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/v)
Bifenthrin	82657-04-3	10
Solvent Naphtha (petroleum)	64742-95-6	75-80
Other ingredients determined not to be hazardous	-	to 100

## Section 4: FIRST AID MEASURES

<b>Description of Necessary First Aid Measures:</b>	<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><b>Ingestion:</b> If swallowed, DO NOT induce vomiting, give a glass of water. DO NOT give anything by mouth to a semi-conscious or unconscious person.</p> <p><b>Eye contact:</b> If in eyes, hold eyes open and flush with water for at least 15 minutes. Remove contact lenses.</p> <p><b>Skin contact:</b> If on skin wash with plenty of soap and water. Remove contaminated clothing.</p> <p><b>Inhalation:</b> Move patient to fresh air.</p>
<b>Poisoning Symptoms:</b>	<p>Ingestion of large doses of Bifenthrin by laboratory animals produced signs of toxicity which included clonic convulsions, tremors and bloody nasal discharge.</p>
<b>Medical Advice:</b>	<p>Bifenthrin the active ingredient in this product is a synthetic pyrethroid insecticide. The formulation also contains petroleum distillates that can cause severe pneumonitis or fatal pulmonary oedema if aspirated. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise symptomatic and supportive.</p>

## Section 5: FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	Carbon dioxide, dry chemical, foam, or water fog.
<b>Hazards from Combustion Products:</b>	During a fire will emit toxic fumes of carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine, and hydrogen fluoride.
<b>Special Protective Precautions and Equipment for Fire Fighters:</b>	Evacuate downwind. Isolate fire area. Contain all runoff. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated.
<b>Hazchem Code:</b>	2XE

## Section 6: ACCIDENTAL RELEASE MEASURES

<b>Emergency Procedures:</b>	<p>In case of spillage it is important to take all steps necessary to:</p> <ul style="list-style-type: none"><li>• Avoid eye and skin contact.</li><li>• Avoid contamination of waterways.</li></ul> <p>Shut off all possible sources of ignition. DO NOT smoke.</p>
------------------------------	--

**Methods and Materials for Containment and Clean Up:**

**Procedure for spill:**

- (1) Keep all bystanders away.
- (2) Wear full length clothing and PVC 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.

## Section 7: HANDLING AND STORAGE

**Precautions for Safe Handling:**

Poisonous if swallowed. Attacks eyes. Will irritate the skin. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water. DO NOT inhale spray mist. When preparing spray, wear:

- cotton overalls buttoned to the neck and wrist
- washable hat
- elbow-length PVC gloves
- goggles

When using the prepared spray with hand held application equipment in bananas and grapes wear:

- cotton overalls buttoned to the neck and wrist
- elbow length PVC gloves

Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

**Conditions for Safe Storage:**

Store in the closed, original container in a dry, cool well ventilated area out of direct sunlight.

## Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

**National Exposure Standards:**

No exposure standard allocated.

**Biological Limit Values:**

No biological limit allocated.

**Engineering Controls:**

No special requirements. Product is used outdoors.

**Personal Protective Equipment:** Poisonous if swallowed. Attacks eyes. Will irritate the skin. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water. DO NOT inhale spray mist. When preparing spray, wear:

- cotton overalls buttoned to the neck and wrist
- washable hat
- elbow-length PVC gloves
- goggles

When using the prepared spray with hand held application equipment in bananas and grapes wear:

- cotton overalls buttoned to the neck and wrist
- elbow length PVC gloves

Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Pale brown clear liquid.	<b>Boiling Point/Range:</b>	Not available
<b>Odour:</b>	Aromatic hydrocarbon odour.	<b>Freezing/Melting Point:</b>	Not available
<b>pH:</b>	Not available	<b>Solubility:</b>	Emulsifiable in water
<b>Vapour Pressure:</b>	0.024 mPa (25°C)	<b>Specific Gravity:</b>	0.93 at 20°C

<b>Flash Point:</b>	Approx 68°C	<b>Corrosiveness:</b>	Non corrosive.
<b>Upper and Lower Flammable (Explosive) Limits in Air:</b>	Not established	<b>Oxidising Properties:</b>	Not available.
		<b>Combustibility:</b>	Combustible (C1)

### Section 10: STABILITY AND REACTIVITY

**Chemical Stability:** This product is stable under normal storage conditions and is unlikely to react or decompose under normal storage conditions.

**Conditions to Avoid:** Avoid high temperatures, open flame, sparks and direct sunlight.

**Incompatible Materials:** Strong acids, strong bases, and strong oxidising agents.

**Hazardous Decomposition Products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition that may be toxic and/or irritating. Take appropriate protective measures. It may emit oxides of carbon, nitrogen and possibly toxic fumes of hydrogen chloride and phosgene.

**Hazardous Reactions:** None known.

## Section 11: TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:	
<b>Acute:</b>	<p><b>Oral toxicity:</b> LD50 rat 531 mg/kg (similar formulation)</p> <p><b>Dermal toxicity:</b> LD50 rabbit &gt; 2000 mg/kg (similar formulation)</p> <p><b>Inhalation:</b> LC50 4.9 mg/4 hrs (similar formulation)</p> <p><b>Skin irritation:</b> Irritant. Skin contact may result in irritation with a degreasing action on the skin</p> <p><b>Eye irritation:</b> Irritant and may cause damage to the eye.</p> <p><b>Sensitisation:</b> Prolonged contact with the skin may cause sensitisation.</p>
<b>Chronic:</b>	<p>Bifenthrin has been extensively tested on laboratory mammals and in test-tube systems. No evidence of carcinogenic, mutagenic, teratogenic or reproductive effects was obtained. Kidney and liver damage is possible from over-exposure to liquid hydrocarbons over long periods. In addition, some reversible haematopoietic depression has been observed in animals with extended exposure to liquid hydrocarbons.</p>

## Section 12: ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	<p>Figures below are for Bifenthrin</p> <p>Moderately toxic to birds.                      LD 50 bobwhite quail 1800 mg/kg</p> <p>Highly toxic to aquatic organisms                      LD50 rainbow trout 0.15 ug/L                      LC50 (48 hrs) daphnia 0.16 ug/L</p> <p>Toxic to bees                      LD50 (oral) 0.1 ug/bee                      LD50 (contact) 0.015 ug/bee</p>
<b>Persistence and Degradability:</b>	<p>Bifenthrin degrades at a moderate rate in soil (DT50 65-125 days).</p>
<b>Mobility</b>	<p>Low mobility.</p>

## Section 13: DISPOSAL CONSIDERATIONS

<b>Disposal Methods and Containers:</b>	<p>Store in the closed, original container in a dry, cool well ventilated area out of direct sunlight. 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. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If not 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>
<b>Special Precautions for Landfill or Incineration:</b>	<p>Not applicable.</p>

## Section 14: TRANSPORT INFORMATION

<b>LAND TRANSPORT</b> ADG		Not a dangerous good in Australia	
<b>UN Number:</b>	None allocated	<b>Packing Group:</b>	None allocated
<b>UN Proper Shipping Name:</b>	None allocated	<b>Special Precautions for User:</b>	None allocated
<b>Class:</b>	None allocated	<b>Hazchem Code:</b>	2XE
<b>Subsidiary Risk:</b>	None allocated		

<b>SEA TRANSPORT</b> IMDG			
<b>UN Number:</b>	3082	<b>Packing Group:</b>	III
<b>UN Proper Shipping Name:</b>	Environmentally Hazardous Substance, Liquid, N.O.S. (contains 10% bifenthrin)	<b>Special Precautions for User:</b>	None allocated
<b>Class:</b>	9	<b>Hazchem Code:</b>	2XE
<b>Subsidiary Risk:</b>	None allocated	<b>Marine Pollutant:</b>	Yes

<b>AIR TRANSPORT</b> ICAO / IATA			
<b>UN Number:</b>	3082	<b>Packing Group:</b>	III
<b>UN Proper Shipping Name:</b>	Environmentally Hazardous Substance, Liquid, N.O.S. (contains 10% bifenthrin)	<b>Special Precautions for User:</b>	None allocated
<b>Class:</b>	9	<b>Hazchem Code:</b>	2XE
<b>Subsidiary Risk:</b>	None allocated	<b>Marine Pollutant:</b>	Yes

## Section 15: REGULATORY INFORMATION

<b>APVMA Product Number:</b>	62211
<b>Poisons Schedule (SUSDP):</b>	POISON S6

## Section 16: OTHER INFORMATION

**Date of preparation or last revision:** February 2008

**Source of Data:** The information provided in this SDS is sourced from various publications. 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.

®Registered trademark of a Syngenta Group Company