

SAFETY DATA SHEET**Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Product Name:	DEMAND Insecticide
Other Names:	Product code: A12689A
Recommended Use:	Insecticide for the control of Cockroaches, Spiders, Fleas, Ants, Flies, Silversfish and Mosquitoes in Domestic, Public Service, Commercial and Industrial situations.
Company Details:	Syngenta Crop Protection Pty Limited ABN 33 002 933 717
Address:	Level 1, 2-4 Lyon Park Road NORTH RYDE NSW 2113 AUSTRALIA
Telephone Number:	(02) 8876 8444
Emergency Telephone Number:	24 hours - 1800 033 111

Section 2: HAZARDS IDENTIFICATION

Hazard Classification:	Classified as hazardous according to the criteria of NOHSC
Risk Phrases:	(R43) May cause sensitisation by skin contact.
Safety Phrases:	S13 Keep away from food, drink and animal feedingstuffs.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
Chemical Identity of Pure Substance:	Lambda-cyhalothrin
Synonym:	PP321
CAS Number:	91465-08-6

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (%w/v)
Lambda-cyhalothrin	91465-08-6	2.5
Aromatic Hydrocarbon	64742-94-5	<10
Propylene glycol	57-55-6	<10
Hydrated aluminium magnesium silicate	12174-11-7	<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.</p> <p>Have the product label or SDS with you when calling or going for treatment.</p> <p>Swallowed: If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting.</p> <p>Eye: 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: 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>Inhaled: 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:	<p>Symptoms that may arise if the product is mishandled and overexposure occurs are nausea, vomiting, diarrhoea, abdominal pain, ataxia, unsteady gait, hyperexcitability, salivation, tremors and incontinence. Larger doses may cause convulsions and loss of consciousness. If the victim is uncoordinated there is a greater likelihood of vomit entering the lungs and causing subsequent complications. Contact with the skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis. May cause tingling, burning, itching or numbness in exposed areas which can last up to 36 hours. Lambda-cyhalothrin can be absorbed through the skin. Effects can include those described above</p>
Medical Advice:	<p>If the amount of chemical is judged to be less than a lethal dose, observe the patient and treat symptomatically. If gastric lavage is considered necessary, prevent aspiration of gastric material. Consider administration of activated charcoal and a laxative.</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>

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and overalls
Methods and Materials for Containment and Clean Up:	<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) Dam and absorb spill with an absorbent material (e.g. sand or soil). (5) Shovel the absorbed spill into drums. (6) Decontaminate the 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>Will irritate the eyes, nose, throat and skin. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes and skin. When preparing the 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 and • elbow-length PVC gloves. <p>If product on skin, immediately wash area with soap and 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 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

National Exposure Standards:	No value assigned for this specific material by NOHSC
Syngenta Exposure Standards:	<p>Lambda-cyhalothrin Syngenta OEL 8 hr TWA 0.04 mg/m³</p> <p>Propane-1,2-diol (Propylene glycol) OES/HSE Total(vapour & particulates) 8 hr TWA 150 ppm 470 mg/m³ Particulates 8 hr TWA 10 mg/m³</p> <p>Mixed hydrocarbon solvents OEL 8 hr TWA 100 mg/m³</p>
Biological Limit Values:	Not applicable
Engineering Controls:	Not applicable
Personal Protective Equipment:	Use only protective equipment bearing the mark of the Standards Association of Australia/ New Zealand. In case of heavy exposure, wear goggles, chemical resistant gloves and heavy duty cotton overalls.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	off-white suspension of microcapsules	Boiling Point/Range:	Not available
Odour:	mildly phenolic	Freezing/Melting Point:	Not available
pH:	5 - 6	Solubility:	Miscible in water
Vapour Pressure:	Not available	Specific Gravity or Density:	1.02 - 1.04 g/ml at 20 °C
Vapour Density:	Not available		

Flash point:	does not flash	Explosive properties:	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Not available	Oxidising properties:	Not oxidising
Ignition Temperature:	Not available	Combustibility:	Combustible C2
		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.

Section 11: TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:	
Acute:	<p>Swallowing: LOW TOXICITY Tests on rats indicate a low toxicity following single doses of a similar formulation (LD₅₀ Rat, >5000 mg/kg)</p> <p>Skin contact: LOW TOXICITY Tests on rats indicate a low toxicity due to skin contact with a similar formulation (LD₅₀ > 4000 mg/kg)</p> <p>NOT IRRITANT (rabbits)</p> <p>SENSITISING (rabbits)</p> <p>In humans may cause tingling or numbness in exposed areas (paraesthesia). The effect may result from splash, aerosol or transfer to the face from contaminated gloves and hands. This effect is transient, lasting up to 24 hours.</p> <p>Eye contact: SLIGHT IRRITANT (rabbits)</p> <p>Inhalation: LOW TOXICITY LC₅₀ (4hour) > 4.62 mg/l 4 hours</p>
Chronic :	Lambda-cyhalothrin technical has been extensively tested in mammals and in test-tube systems. No evidence of mutagenic, carcinogenic, neurotoxic or teratogenic effects was obtained. A three-generation reproductive study in rats revealed minor reproductive effects at the highest dose only (100 mg/kg) (reduction in litter size and weight gain

only)

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	<p>Very Toxic to fish: Rainbow Trout, <i>Oncorhynchus mykiss</i> , LC₅₀ (96 h) = 0.44 µg/L Sheephead minnow LC₅₀ (96 h) = 0.81 µg/L Bluegill Sunfish, LC₅₀ (96 h) = 0.21 µg/L</p> <p>Moderately toxic to algae: EC50 (96h) <i>Selenastrum capricornutum</i> > 1000 µg/L</p> <p>Very Toxic to aquatic invertebrates: Water Flea, <i>Daphnia magna</i>, LC₅₀ (48 h) = 0.36 µg/L</p> <p>Practically non-toxic to soil dwelling organisms: LC50 Earthworm - > 1000 mg/L</p> <p>Very Toxic to bees oral LD₅₀ = 38 ng/bee, contact LD₅₀ = 909 ng/bee</p>
Persistence and Degradability:	There is evidence of rapid biodegradation in soil and water
Mobility	Lambda-cyhalothrin has low mobility in soil.
Environmental Fate (Exposure):	Fully degraded and incorporated into organic molecules
Bioaccumulative Potential:	Lambda-cyhalothrin has high potential for bioaccumulation. It is rapidly metabolised and excreted.

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 Not a dangerous good in Australia	
UN Number:	Packing Group:
UN Proper Shipping Name:	Special Precautions for User:
Class:	Hazchem Code:
Subsidiary Risk:	Marine Pollutant:

SEA TRANSPORT		IMDG	
UN Number:	3082	Packing Group:	III
UN Proper Shipping Name:	PESTICIDE, LIQUID, TOXIC, N.O.S. (LAMBDA-CYHALOTHRIN 2.5% AND SUBSTITUTED BENZENOID HYDROCARBONS)	Special Precautions for User:	--
Class:	9	Hazchem Code:	2X
Subsidiary Risk:	--	Marine Pollutant:	Yes

AIR TRANSPORT		IATA-DGR	
UN Number:	3082	Packing Group:	III
UN Proper Shipping Name:	PESTICIDE, LIQUID, TOXIC, N.O.S. (LAMBDA-CYHALOTHRIN 2.5% AND SUBSTITUTED BENZENOID HYDROCARBONS)	Special Precautions for User:	--
Class:	9	Hazchem Code:	2X
Subsidiary Risk:	--		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	47196
Poisons Schedule (SUSDP):	5

Section 16: OTHER INFORMATION

Date of preparation or last revision: October 2006
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.