

**MATERIAL SAFETY DATA SHEET**

**SENTINEL 2G INSECTICIDE**

**STATEMENT OF HAZARDOUS NATURE**

Hazardous according to criteria of Worksafe Australia.

**COMPANY DETAILS**

Company Greenshed Australia Pty. Ltd.  
 Address PO Box 580 Leichhardt, NSW. 2040  
 Telephone Number 02 9517 9107  
 Fax 02 9517 9207

Emergency Telephone Number 1800 033111

**IDENTIFICATION**

Product Name **SENTINEL 2G INSECTICIDE**  
 Other Names **BIFENTHRIN**  
 UN Number Not applicable  
 Dangerous Goods Class Not a Dangerous Good  
 Sub-Risk Class Not applicable  
 Packaging Group Not applicable  
 Hazchem Code Not applicable  
 Poisons Schedule Exempt from scheduling  
 Uses **READY TO USE INSECTICIDE GRANULE**

**Physical Description /Properties**

Appearance & Odour Solid granule, tan colour, slightly musty odour  
 Melting point/softening point Not available  
 Boiling Point Not available  
 Vapour Pressure Not available  
 Flashpoint  
 Flammability Limits Not flammable  
 Solubility in Water Product insoluble. Bifenthrin insoluble [ $<0.1$  ppb]  
 pH Not available  
 Incompatibility  
 Bulk Density 1.39  
 Volatile Proportion Not volatile  
 Corrosiveness Non corrosive

**Ingredients**

Ingredient	Chemical Name	CAS Number	Proportion Wjw
Active ingredients	Bifenthrin	82657-04-3	0.2%
Inerts	Silica, quartz [screened sand]	14808-60-7	>80%
	Other ingredients deemed non	Undisclosed	<10%
	Surfactants, stickers	14808-60-7, 102-71-6	<2%

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**HEALTH HAZARD INFORMATION**

**Health Effects**

<u>Acute</u>	Because of its dilute form (0.2% w/w of active ingredient bifenthrin) this product has low toxicity. Ingestion of large doses of bifenthrin by laboratory animals produced signs of toxicity that included clonic convulsions, tremors and bloody nasal discharge but these symptoms are unlikely to be caused by this product.
Swallowed:	The product has very low toxicity if swallowed; the Acute Oral LD50 [rat] for the product >5000 mg/kg.
Eye:	Non-irritating to the eye. This product contains granular material [sand] that may cause mechanical irritation to the eyes.
Skin:	The product is practically non-toxic, non-sensitizing and non-irritating.
Inhaled:	Unlikely to be a hazard. Should dust develop during handling and use this may be harmful if inhaled.

Chronic

No data is available on this product [formulation]. In studies with bifenthrin, the active ingredient, it did not cause reproductive toxicity or teratogenicity in laboratory animals. Tremors were associated with repeated exposure of dogs, rats, rabbits and mice to bifenthrin. The overall results from a battery of genotoxicity studies indicate that bifenthrin is not considered to be genotoxic. Ames test results were negative. Crystalline forms of silica [quartz] over a prolonged period, may cause silicosis.

**First Aid**

Swallowed	If poisoning occurs, contact a doctor or Poisons Information Centre [phone t311261].
Eyes	Flush with water. If irritation occurs and persists, obtain medical attention.
Skin	If on skin or clothing, remove any contaminated clothing, and wash skin thoroughly with soap and water.
Inhaled	Remove to fresh air.
First Aid Facilities	Eye wash, water, soap.

**Advice to Doctor**

	Bifenthrin, the active ingredient in this product is a pyrethroid insecticide. Sentinel 2G insecticide has low oral and dermal toxicity, and is non-irritating to the eyes and skin. This product contains a granular material [sand] that may cause mechanical irritation to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.
Medical conditions	None known which may be aggravated by contact

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**PRECAUTIONS FOR USE**

- Exposure Standards: No Exposure Limit has been assigned by NOI ISC Australia for bifenthrin. The following non-active constituent exposure standard is applicable.  
Atmospheric Contaminant Exposure Standard - Time Weighted Average  
Quartz 0.2 mg/in'
- Engineering Controls: Thoroughly ventilate all transport vehicles prior to unloading. General air replacement or dilution ventilation is sufficient for material handling and storage, but local exhaust ventilation should be used when filling or emptying this product.
- Personal Protection
- Work Clothing: For normal handling wear long sleeve uniform or overalls.
- Eye Protection: Where potential for dusting or direct eye contact exists, wear goggles or safety glasses. Eye wash facilities should be located nearby. Avoid contact with the eyes.
- Skin Protection: Wear gloves handling this product.
- Respiratory Protection: For dusting exposure wear a half face dust mask.
- Personal Hygiene: Wash skin before eating, drinking or smoking.
- Flammability The product has low flammability but may support combustion at elevated temperatures.

**SAFE HANDLING INFORMATION**

- Storage and Transport GREENSHED Sentinel 2G is not classified as a Dangerous Good under the Australian Code. Store in the original container in a cool, dry, well-ventilated location. Keep out of the reach of children and animals. Do not locate near or contaminate food or feed by storage or disposal.
- Spills and Disposal: In the case of spillage contain spilled material and sweep or shovel up. If suitable return product to bag. Otherwise dispose of waste as indicated below or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Wear prescribed protective clothing and equipment. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with a suitable solution [i.e. organic solvent, detergent, bleach or caustic] and add the solution to the drum/s of wastes already collected. Label for contents. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities.
- Dangerous to fish: Do not allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.*
- Container Disposal: Shake containers empty onto treatment site. Puncture or shred 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.

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**OTHER INFORMATION**

Environmental Protection: Bifenthrin is highly toxic to fish and aquatic arthropods, but has no effect on molluscs at its limit of water solubility. It is only slightly toxic to birds. Do not contaminate sewers, drains, dams, creeks or any other waterway with the product or the used container.

Animal Toxicity Data      For bifenthrin  
Acute Oral LD50 [Rat] = 632 mg/kg  
Acute Dermal LD50 [Rabbit] = >2000 mg/kg  
Acute Inhalation LC50 = >0.25 mg/L/4 hr.  
LC 50 96hr [Rainbow trout] = 0.15 ppb  
LC 50 96hr [Bluegill] = 0.35 ppb  
Oral LD50 [Mallard duck] = >2150 mg/kg  
Oral LD50 [ Bob-white quail] = 1800 mg/kg  
Dietary LC50 8 day [Mallard duck] = 1280 ppm  
Dietary LC50 8 day [Bob-white quail] = 4450 ppm

Bioaccumulation/Degradation: Bifenthrin degrades at a moderate rate in soils [t 0.5 = 50 to 205 days], and more rapidly on the surface of bare soils [t 0.5 = 7 to 62 days]. Bifenthrin is tightly bound in moist soils and has extremely low water solubility.

APVMA registration number: 59968

**CONTACT POINT**

Emergency Response for Transport and Exposure:

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