

MATERIAL SAFETY DATA SHEET

SENTINEL 80SC INSECTICIDE

STATEMENT OF HAZARDOUS NATURE

Hazardous according to the criteria of Worksafe Australia.

COMPANY DETAILS

Company Greenshed Australia Pty. Ltd.
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IDENTIFICATION

Product Name **SENTINEL 80SC INSECTICIDE**
 Other Names Sentinel 80SC, Bifenthrin
 UN Number 3082
 Dangerous Goods Class 9
 Sub-Risk Class Not applicable
 Proper Shipping Name Environmentally Hazardous Substance, Liquid, N.O.S. (Contains Bifenthrin)
 Packaging Group III
 Hazchem Code Not applicable
 Poisons Schedule S6
 Uses A suspension concentrate agricultural insecticide

Physical Description /Properties

Appearance & Odour Beige to white liquid Melting point/softening point
 Boiling Point Not available
 Vapour Pressure Not available
 Flashpoint >100°C/not flammable
 Flammability Limits Not available
 Solubility in Water Product suspends in water. Bifenthrin <0.1 ppb. pH
 Incompatibility
 Specific Gravity 1.024 at 20°C
 Corrosiveness Non corrosive, compatible with aluminum, glass & phenolic lined steel containers.

In redients

Ingredient	Chemical Name	CAS Number	Proportion
Active ingredients	Bifenthrin	82657-04-3	80g/L
Inerts	Water	7732-1 8-5	>60%
	Propylene glycol	57-55-6	1-10%
	Other proprietary non toxic inerts	-	1-10%

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HEALTH HAZARD INFORMATION

Health Effects

Acute Studies with laboratory animals have shown this product to be slightly toxic. Ingestion of large doses of bifenthrin by laboratory animals produced signs of toxicity which included clonic convulsions, tremors, and bloody nasal discharge R22 Harmful if swallowed. R20 Harmful by inhalation.

Swallowed The product is harmful if swallowed; the Acute Oral LD₅₀ (rat) = 632mg/kg.

Eye Practically non-irritating.

Skin This product is practically non-toxic. The Acute Dermal LD₅₀ in the rabbit is >2000mg/kg. It is non-sensitizing and non-irritating.

Inhaled The product is harmful by inhalation. Acute Inhalation LC₅₀ > 11.58mg/L/hr.

Chronic No data available on this formulation. In studies with laboratory animals, bifenthrin, the active ingredient in SENTINEL 80SC, did not cause reproductive toxicity or teratogenicity. 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. Repeated overexposure to propylene glycol may cause central nervous system effects, destruction of red blood cells and kidney damage.

First Aid

Swallowed If poisoning occurs, contact a doctor or Poisons Information Centre [phone 13 11 26]. Do not induce vomiting or give anything by mouth to an unconscious Person. Get to a doctor or hospital quickly.

Eye Flush with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

Skin If on skin or clothing, remove any contaminated clothing at once, and wash skin thoroughly with soap and water. See a doctor if irritation persists.

Inhaled Remove to fresh air. If breathing discomfort occurs, contact a medical doctor.

First Aid Facilities Eyewash, soap, water.

Advice to Doctor

Bifenthrin the active ingredient in this product is a pyrethroid insecticide. The product has moderate oral toxicity and produces minimal Irritation. After removal from exposure treatment is symptomatic and supportive. Digestive fats, oils, alcohol and milk products increase absorption and should be avoided.

Medical conditions None known which may be aggravated by contact

PRECAUTIONS FOR USE

Exposure Standards No exposure limit has been assigned to this material by NOHSC Australia.

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 and head covering. For larger exposures, as in the case of spills, wear full body cover barrier suit, such as rubber rain suit.

Eye Protection: Where potential for splash, spray or mist exists, wears chemical protective goggles or a full-face shield. Emergency eye wash facilities would be located nearby. Avoid contact with the eyes.

Respiratory Protection: For splash, vapour or mist exposure wear a half face air purifying respirator which is approved for pesticides (Australian Standards). Respirator selection is based on an airborne concentration.

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PRECAUTIONS FOR USE (cont')

Gloves: Wear chemical protective gloves made of rubber or neoprene or PVC gauntlet-style gloves when handling this product. Inspect regularly for leaks.
Personal Hygiene: Wash skin before eating, drinking or smoking. Shower at the end of the workday.

Flammability The product has low flammability. (Flashpoint >1 00°C)

SAFE HANDLING INFORMATION

Storage Store in a cool dry, well ventilated location. Avoid excess heat. No smoking, eating or drinking should be allowed where material is used or stored. Keep out of reach of children and animals. Store in original containers only. Do not locate near or contaminate food or feed by storage or disposal. Wash all exposed skin surfaces prior to smoking, drinking or eating. All workers should shower at the end of each workday after handling this product. Wash all clothing after each use.

Road and Rail Transport Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Marine Transport Classified as Dangerous Goods by the Criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea. This material is classified as a *severe Marine Pollutant (PP)* according to the International Maritime Dangerous Goods Code.

Spills and Disposal In the case of spillage contain and absorb spilled material with absorbent material such as sand, clay or cat litter and dispose of waste as indicated below or according to Australian Standard 2507 - Storage and Handling of Pesticides. Wear proscribed protective clothing and equipment. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an appropriate drum. To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent, bleach or caustic) and add the solutions to the drums of wastes already collected and label contents. Dispose of drummed waste 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 sewer drains, dams, creeks or any other waterways.***

Spills and Disposal Drum Disposal: Triple or preferably pressure rinse containers before disposal. Add all 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 recycling, break, crush or puncture and bury empty containers in a local authorized landfill. If no landfill is available, bury empty containers below 500mm in a disposal specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Do not re-use empty containers.

Fire/Explosion Hazard Extinguishing media: Soft stream water fog, foam, CO2 or dry chemical. Contain all runoff.
Degree of Fire/Explosion Hazard: Slightly combustible. Avoid excess heat and fire. Thermal decomposition and burning may produce toxic by-products.
Hazardous decomposition products: Carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen fluoride.
Special Fire Fighting Procedures: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe contact smoke, gases or vapours generated. Try to keep containers cool with soft stream water fog.

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OTHER INFORMATION

Environmental Protection No data is available on SENTINEL 80SC. The active ingredient, bifenthrin, degrades at a moderate rate in soils ($t_{1/2}$ = 50 to 205 days), and more rapidly on the surface of bare soils ($t_{1/2}$ = 7 to 62 days). Bifenthrin is tightly bound in most soils and extremely low water solubility. Bifenthrin is toxic to aquatic organisms. Do not contaminate waterways, creeks, ponds, and sewers, drains or dams with product or used container.

Animal Toxicity Data *This product is toxic to fish.*
Technical bifenthrin

Rainbow trout	LC50 (96hr) 0.00015 mg/L
Bluegill	LC50 (96hr) 0.00035 mg/L
Daphnia magna	LC 50 (48hr) 0.00016 mg/L
Mallard duck	LD50 (Oral) >2150mg/kg
Bobwhite quail	LD50 (Oral) 1800mg/kg
Mallard duck	Oral LD50 2150 mg/kg
Bobwhite quail	Oral LD50 1,800 mg/kg
Rat	LD50 (Oral) 375mg/kg
Rabbit	LD50 (Dermal) >2000mg/kg
ug/bee	0.1 ug/bee

APVMA Registration No. 59967

CONTACT POINT

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