

# MATERIAL SAFETY DATA SHEET



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## SUREFIRE **fivestar** Insecticide

Classified as hazardous according to criteria of NOHSC

### 1. IDENTIFICATION OF THE PRODUCT AND THE MANUFACTURER

**Product Name:** Surefire FIVESTAR Insecticide  
**Product Code:** none  
**Product Use:** termiticide & insecticide for use as described on the product label  
**Poison Schedule:** S6  
**Supplier:** PCT International Pty Ltd  
**ABN:** 44 101 170 923  
**Street Address:** Unit 1 / 74 Murdoch Circuit, ACACIA RIDGE QLD 4110  
**Telephone:** + 61 7 3711 7022  
**Facsimile:** + 61 7 3711 7055

**Emergency telephone No:** **1800 630 877** (all hours)

**Other Information:** This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

**MSDS Creation Date:** 13<sup>th</sup> September 2010

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical Formulation Type:** Liquid suspension concentrate

Ingredients	CAS No	Concentration
Bifenthrin	82657-04-3	80 g/L
Other non-hazardous ingredients	-----	5 – 20%
Water		to 100%

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## 3. HAZARDS IDENTIFICATION

**Emergency Overview** Hazardous substance ; Non-dangerous goods ; Harmful to aquatic organisms.

### Physical Appearance

**Form:** Liquid  
**Colour:** White  
**Odour:** almost odorless  
**Water Solubility:** Insoluble. Product forms a suspension  
**pH:** not available

### Potential Health Effects

**Eyes:** Irritating to the eyes  
**Skin:** May cause slight irritation  
**Ingestion:** Bifenthrin is harmful to mammals when ingested. Large doses may cause incoordination, tremor, salivation, vomiting, diarrhoea, and irritability to sound and touch. Although it does not cause inflammation or irritation on human skin, it can cause a tingling sensation which lasts about 12 hours.  
**Inhalation:** May be slightly toxic based on acute animal studies. Exact effects on humans are not known.  
**Primary Routes of Entry:** Eyes, Skin, Inhalation, Ingestion  
**Target Organs:** Eyes, Skin, Respiratory Tract, Digestive System  
**Carcinogenicity:** Not listed by NTP, IARC, ACGIH or OSHA as a carcinogen

## 4. FIRST AID MEASURES

**Eyes:** Flush eye(s) for 15 minutes or more- If irritation persists, consult a doctor (preferably an eye specialist) and show this MSDS.  
**Skin:** Remove any contaminated clothing. Wash affected areas immediately and thoroughly with soap and water.  
**Ingestion:** Rinse mouth and then drink plenty of water. Do not induce vomiting. If swallowed seek medical advice and show this MSDS.  
**Inhalation:** Remove affected person from site of exposure to fresh air until recovered. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Seek medical attention if symptoms persist.  
**First Aid Facilities:** If poisoning occurs, contact a doctor or Poisons Information Centre on **13 11 26** (Australia).  
**General Advice:** Remove soiled or soaked clothing immediately.  
**Information for doctor:** The active constituent of this product, Bifenthrin, is a pyrethroid insecticide. It has moderate oral toxicity and causes minimal irritation to eyes and skin. After removal of the patient from exposure, treatment is symptomatic and supportive. Digestible fats, oils, alcohol and milk products increase absorption and should be avoided.

## 5. FIRE-FIGHTING MEASURES

**Flash Point:** > 100°C.  
**Autoignition Temperature:** Not applicable.  
**Upper Explosion Limits:** Not applicable.  
**Lower Explosion Limits:** Not applicable.  
**Suitable Extinguishing Media:** Soft stream water fog, foam, CO<sub>2</sub> or dry chemical. Contain runoff.  
**By-products in case of Fire:** In the event of a fire the following can be released:  
- Carbon Monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen fluoride.  
**Further Information:** Keep unnecessary persons away from the area. If safe to do so, remove intact containers, otherwise use water spray to cool them.

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Collect contaminated firefighting water separately, by bunding the area with sand or earth. Fire control water must not be discharged into drains.

## Special Protective

**Equipment for Firefighters:** As in any fire, water, self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

### Methods for Cleaning Up/ Taking Up:

Spills: Dealing with spills has the potential to increase the risk of personal exposure- during such operations, ensure that protective clothing is worn as detailed below. Avoid contact with spilled material or contaminated surfaces. Keep people and animals away. Prevent spillage from entering drains, sewers or watercourses. If contamination thereof is unavoidable, warn the local water authority. Spills should be contained and absorbed with soil, sand, sawdust, clay, cat litter or other similar material, and once absorption is complete, this material then be placed in sealable, labeled, drums for safe disposal in an approved landfill, and in accordance with the requirements of local or State Waste Management Authorities. Alternatively, bury under at least 500<sup>mm</sup> of soil in an area away from crops, pastures, homes or water sources. To decontaminate spill area, tools and equipment, wash with a suitable solution, e.g. organic solvent, detergent, bleach or caustic, and add this material to the drums of waste already collected. Label all contents. Do not burn empty containers or product.

## 7. HANDLING AND STORAGE

### Advice on safe

**Handling:** Keep out of reach of children. Avoid contact with eyes and skin. Wash hands after use, and before smoking or eating / drinking. Wash protective gear and clothing after each day's use.

### Advice on protection against fire and explosion:

Not flammable- no special measures required.

**Storage information:** Keep product in the original container, tightly closed, in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### General protective Measures:

Avoid contact with eyes and skin  
Do not inhale mists.

### Hygiene Measures:

No smoking, eating or drinking allowed when using this product.  
Wash hands before breaks and at end of work shift.  
Protective ointment is recommended.

### Respiratory Protection:

In case of formation of mists or vapours, an organic vapour cartridge respirator should be used.

### Hand Protection:

Elbow length PVC gloves should be worn when using this product.

### Eye Protection:

Safety goggles and/or face shield is recommended when using this product.

### Protective clothing;

Cotton overalls buttoned to the neck and wrist, and a washable hat, are required when using this product.

### Engineering Controls:

Use in a well ventilated area only. Good general (mechanical) ventilation should be sufficient to control airborne mist levels.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	White / beige liquid suspension concentrate
<b>Odour:</b>	Almost odourless
<b>Solubility in Water:</b>	Miscible with water.
<b>Specific Gravity (H<sub>2</sub>O=1):</b>	approx. 1.024 @ 20°C
<b>pH Value:</b>	not available
<b>Vapour Pressure:</b>	not available
<b>Melting Temperature:</b>	not measured
<b>Boiling temperature:</b>	not measured
<b>Viscosity, dynamic:</b>	not measured

## 10. STABILITY AND REACTIVITY

<b>Conditions to avoid:</b>	None with proper storage and handling, other than extreme heat.
<b>Thermal Decomposition:</b>	Not measured, although if involved in a fire, the formation of carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen fluoride can be expected.
<b>Hazardous reactions:</b>	No hazardous reactions with proper storage and handling
<b>Hazardous Polymerization:</b>	Unlikely to occur.
<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous decomposition products:</b>	None with proper storage and handling.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Toxicity - Oral:</b>	LD <sub>50</sub> (rat) = 632 mg/kg.
<b>Acute Toxicity - Inhalation:</b>	LC <sub>50</sub> > 11.58 mg/L/hr.
<b>Acute Toxicity - Dermal:</b>	LD <sub>50</sub> (rat) >2000mg/kg
<b>Eye Irritation:</b>	(Species - rabbit) slight irritant
<b>Skin Irritation:</b>	(Species - rabbit) non - irritant
<b>Skin Sensitisation:</b>	(Species - guinea pig) non-sensitising
<b>Note:</b>	harmful by inhalation and in contact with skin Irritant to skin The toxicological data refer to the undiluted 100% product.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity Effects:</b>	
<b>Acute Toxicity – Fish:</b>	LC <sub>50</sub> for rainbow trout is 0.15 µg/Lt.
<b>Acute Toxicity - Bees:</b>	48h LD <sub>50</sub> for bees is 0.1 µg / bee.
<b>Acute Toxicity – Birds:</b>	LD <sub>50</sub> for Japanese Quail is 2,150 mg/Kg
<b>Further ecological information:</b>	
<b>Ecological notes:</b>	This product is considered to be a water pollutant, and is toxic to aquatic organisms. It is classified as immobile in soil and is not expected to leach. Bifenthrin degrades at a moderate rate in agricultural soils (t <sup>1/2</sup> = 50 to 205 days), The ecotoxicological data refer to the undiluted 100% product.

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## 13. DISPOSAL CONSIDERATIONS

**ALWAYS DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.**

**Product Disposal:** In accordance with local authority regulations, take to special waste incineration plant.

**Container Disposal:** Dispose of empty, used containers by triple rinsing, or preferably pressure rinsing. Add the rinsate to the spray tank or dispose of the rinsate in a disposal pit away from desirable plants and their roots and from watercourses. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return cleaned containers to a recycler or designated collection point. If not recycling, break, crush or puncture empty containers and bury in a local authority landfill. If no landfill available, bury the containers at least 500<sup>mm</sup> deep 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.

## 14. TRANSPORT INFORMATION

**MARINE AND AIR TRANSPORT:** Product is a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA). If transporting by SEA or by AIR, the following Dangerous Goods Classification applies:

**UN No. :** 3082  
**Shipping Name :** BIFENTHRIN  
**Dangerous Goods Class :** 9  
**Subsidiary Risk :** None Allocated  
**Pack Group :** III  
**Special Precaution for user :** TOXIC  
**Hazchem Code :** 2Z  
**Proper Shipping Name :** ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, LIQUID, N.O.S. (contains 8% Bifenthrin)



**EPG:** n/a  
**Storage and Transport:** Considered non – dangerous goods for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

## 15. REGULATORY INFORMATION

**APVMA Approval No:** 59452/1/1005  
**Risk Phrases:** R22 Harmful if swallowed. R20 Harmful by inhalation  
**Safety Phrases:** S23 Do not breathe vapor or spray. S24 Avoid Contact with skin  
**Poisons Schedule:** S6  
**Packaging & Labeling:** READ SAFETY DIRECTIONS BEFORE OPENING OR USING  
**Hazard Category**  
**AICS (Australia):** Listed on the Australian Inventory of Chemical Substances.

## 16. OTHER INFORMATION

**Contact Person/Point:** Mr David Pearson Phone: (07) 3711 7022  
This MSDS updates our previous one dated Dec 04.

**This MSDS contains only safety-related information. For other data, see product literature.**

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...End of MSDS...