

## SAFETY DATA SHEET: Biforce 80SC

### 1. IDENTIFICATION

**Product name:** BIFORCE 80SC Insecticide

**Other names:** Bifenthrin 80 g/lit Suspension concentrate

**Use:** Environmentally Hazardous Substance, Liquid, NOS (contains bifenthrin)

**Distributor:** **Key Industries Ltd**  
PO Box 65 070 Mairangi Bay, Auckland 0754  
Telephone: 09 917 1791  
Emergency contact: 027 4941659  
National Poisons Centre: 0800 764 766

**International Company name & Contact Details:** **Sherwood Chemicals Australasia Pty Ltd**  
Address: Level 3, 1060 Hay Street, WEST PERTH 6005 AUSTRALIA  
Tel: +61 8 9219 4683 Fax: +61 8 9219 4672  
Web: [www.sherwoodchemicals.com.au](http://www.sherwoodchemicals.com.au)  
**Emergency Telephone number: All hours +61 421 667972**

**Other information:** All reasonable care has been taken to ensure the information and advice contained in this data sheet is accurate at the time of printing. However, Sherwood Chemicals accepts no liability for any loss or damages suffered as a consequence of reliance upon the information contained herein.

### 2. HAZARDS IDENTIFICATION

**HSNO Hazard classification:** 6.1D, 6.9B, 9.1A, 9.2C, 9.3B, 9.4A

**Hazards Description:**

- Toxic to humans
- Harmful to human target organs or systems
- Very toxic to aquatic life
- Harmful to soil organisms
- Toxic to terrestrial vertebrates
- Very toxic to terrestrial invertebrates

### 3. COMPOSITION: INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Concentration (%w/w)
Bifenthrin	82657-04-3	7.8 – 8.5%
Propylene Glycol	57-55-6	< 9%
Balance – ingredients of proprietary nature	Proprietary	To 100%

### 4. FIRST AID MEASURES

Consult the National Poisons Information Centre 0800 POISON (0800 764 766) or a doctor in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur seek medical attention immediately.

**Eye:** Quickly and gently blot or brush away product. Immediately flush the contaminated eye(s) with lukewarm, Gently flowing water until the product is removed or until a few minutes after irritation has ceased, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face.

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**Ingestion:** If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poison Information Centre, or call a doctor.

**Inhalation:** No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

**Skin:** Blot or brush away excess chemical. Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 10 minutes or until chemical is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts). If irritation persists, repeat flushing and obtain medical advice.

**ADVICE TO DOCTOR** - Treat symptomatically

### 5. FIRE FIGHTING MEASURES

**Fire/Explosion Hazard:**

**Extinguishing Media** - Soft stream water fog, Foam, CO2 or dry chemical. Contain all runoff.

**Degree of Hazard** - Slightly combustible. Avoid excess heat and fire. Thermal decomposition and burning may produce toxic by-products.

**Special Fire Fighting Procedures - Isolate fire area.** Evacuate downwind residents. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated. Try to keep containers cool with soft stream water fog.

**Hazardous Decomposition Products** - Carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen

### 6. ACCIDENTAL RELEASE MEASURES:

#### **Small Spills**

Wear appropriate protective clothing whilst cleaning up small spills (see Personal Protection). Apply absorbent material such as earth, sand or clay granules to the spill. Sweep up material for disposal when absorption is complete. Clean up minor spills immediately.

#### **Large Spills**

Wear protective clothing. Clear the area of all unprotected personnel. As a standard precautionary measure, shut off all sources of ignition. Place leaking containers into salvage drums. Apply absorbent material such as earth, sand or clay granules to spill area. Form a barricade around the spill and in front of drains or waterways in spill vicinity, using earth or other available material. Prevent entry of material into drains or water ways.

#### **Waste Disposal Method**

Contaminated absorbent and wash water should be disposed of according to local regulations under the Resource management Act. Avoid contamination of any water supply with chemical or empty container.

### 7. HANDLING AND STORAGE

#### **Precautions for safe handling**

Wear chemically impervious gloves. Wear approved safety glasses, goggles, or a full-face shield. Mechanical ventilation should be used when handling this product in enclosed spaces. Wearing a respirator is not normally required when handling this product, but recommended in the absence of proper mechanical ventilation. Do not contaminate water, feed, or food by storage, handling, or disposal.

Read and observe all precautions and instructions on the label. Avoid contact with food, clothing, drugs or other household goods during transportation.

#### **Conditions for safe storage**

Store containers upright and closed. Store in a cool, dry place away from direct sunlight and in well-ventilated areas. Keep away from heat, ignition sources and strong oxidizers. Emptied containers may retain product residues.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Engineering Controls

No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.

#### Hygiene Controls

Facilities storing or utilising this material should be equipped with an eyewash facility, safety shower and facility for washing hands/face after work.

#### Personal Protective Equipment

**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:** Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

**Skin protection:** You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product.

**Respirator:** Usually, no respirator is necessary when using this product.

Eyebaths or eyewash stations should be provided near to where this product is being used.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Chemical:</b>	Bifenthrin
<b>Appearance:</b>	Beige to white, slight odour.
<b>Flashpoint:</b>	>100 Deg C Not Flammable
<b>Solubility In Water:</b>	Insoluble. Active suspended in water
<b>Corrosive Hazard:</b>	Non corrosive; compatible with aluminum, HDPE, glass and phenolic lined steel containers.
<b>Specific Gravity:</b>	1.024 approx at 20°C
<b>Flammability:</b>	Not flammable – Combustible

### 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable at normal temperature and pressure
<b>Conditions to avoid:</b>	Excess heat, ignition sources
<b>Incompatibility:</b>	Should not be stored or transported with flammable gases, explosives, spontaneously combustible substances, oxidizing agents or food stuffs.
<b>Hazardous decomposition products:</b>	Carbon monoxide, carbon dioxide and nitrogen oxides, may be produced during combustion.
<b>Hazardous polymerisation:</b>	Will not occur.

### 11. TOXICOLOGICAL INFORMATION

#### **Potential Health Effects:**

Studies with laboratory animals have shown this product to be harmful if swallowed. Ingestion of large doses of Bifenthrin by laboratory animals produced signs of toxicity which included clonic convulsions, tremors and bloody nasal discharge. Irritating to eyes and respiratory system.

#### **Acute**

**Swallowed:** This product is harmful if swallowed; the acute oral LD50 (rat) = 675 mg/kg (calculated).

**Eye:** Not irritating.

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**Skin:** This product has a low dermal toxicity. The dermal LD50 (rabbit) > 2000 mg/kg. Skin sensitising may occur in sensitive individuals.

**Inhaled:** The products estimated Inhalation LC50: 1.88 mg/L (calculated)

**Chronic:** No data available on this formulation. In studies with laboratory animals, Bifenthrin Technical did not cause teratogenicity or reproductive toxicity. 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.

Studies in rats indicates that amitrole does not cause birth defects. Exposures having no effect on the mother should have no effect on the foetus. In vitro mutagenicity studies were negative in some cases and positive in other cases, with the majority being negative. No data is available for ammonium thiocyanate.

### 12. ECOLOGICAL INFORMATION

Breakdown of chemical in soil and groundwater: Bifenthrin does not move in soils with large amounts of organic matter, clay and silt. It also has a low mobility in sandy soils that are low in organic matter. Bifenthrin is relatively insoluble in water, so there are no concerns about groundwater contamination through leaching. It's half-life in soil, the amount of time it takes to degrade to half of its original concentration, is 7 days to 8 months depending on the soil type and the amount of air in the soil.

Breakdown of chemical in vegetation: Bifenthrin is not absorbed by plant foliage, nor does it translocate in the plant

### 13. DISPOSAL CONSIDERATIONS

#### **Product Disposal:**

Dispose of product only by using according to label or using an approved waste disposal contractor. If this material as supplied becomes a waste care should be taken to ensure compliance with national and local authorities. It is the responsibility of the waste generator to determine the toxicity and physical properties of the waste generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Do not dispose of via municipal sewers, drains, natural streams or rivers

#### **Packaging Disposal:**

Triple rinse container and add rinsate to the spray tank. Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain product residue that may be harmful. Incinerate via approved incinerators or crush and bury in an approved landfill. Ensure that empty packaging is managed in accordance with Dangerous Goods and HSNO regulations.

### 14. TRANSPORT INFORMATION

#### **Marine and Air Transportation**

Biforce 80SC Insecticide is a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA). If transporting by sea or air the following Dangerous Goods

Classification applies:-

UN 3082,

Class 9 (Miscellaneous Dangerous Goods),

Packing Group III,

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 8% Bifenthrin).

Hazchem Code: 3Z

#### **Dangerous Goods Segregation**

This product is classified as Dangerous Goods by Road and Rail. Please consult the Land Transport Rule: Dangerous Goods 2005, and NZS 5433:1999 Transport of Dangerous Goods on Land for further information.

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### 15. REGULATORY INFORMATION

<b>Country/ Region:</b>	New Zealand
<b>MPI Approval Number:</b>	N/A
<b>EPA Approval Number:</b>	HSR008033
<b>HSNO Classifications:</b>	6.1D Acute Toxicity (Oral); 6.1D Acute Toxicity (Inhalation); 6.4A Eye Irritant; 6.9B Target Organ Toxicant; 9.1A Aquatic Ecotoxicant; 9.2C Soil Toxicant; 9.3B Ecotoxicant: Terrestrial Vertebrate; 9.4A Ecotoxicant Terrestrial Invertebrate
<b>HSNO Controls:</b>	Trigger Quantities for this Material: <ul style="list-style-type: none"><li>• Approved Handler Test Certificate: Required if applied – see label</li><li>• Location/Transit Depot Certificate: Not required</li><li>• Hazardous Atmosphere Zone: Not required</li><li>• Signage: 100 L</li><li>• Emergency Plan, Secondary Containment: 100L</li><li>• Tracking: Not required</li></ul> The trigger quantities above must take into account any other hazardous substance that is present at that location. This represents a partial list of the controls for this material. Contact Key Industries Ltd a full list of HSNO controls

### 16. OTHER INFORMATION

#### Reasons for Issue:

Update format and content to comply with legislation.

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the supplier's knowledge. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact Key Industries Limited