

Safety Data Sheet: Biforce Granular Insecticide

1. IDENTIFICATION

Product Name:	Biforce Granular Insecticide
Other Names:	Bifenthrin 2 g/kg Granular
Recommended Use:	Insecticide
Distributor:	Key Industries Ltd
Address:	P.O. Box 65070, Mairangi Bay, Auckland 0754
Telephone:	09 917 1791
Emergency Phone:	0800 CHEMCALL (0800 243 622) 24 hours
National Poisons Centre:	0800 POISON (0800 764 766)

2. HAZARDS IDENTIFICATION

Hazardous substance according to the HSNO Act 1996 Hazardous Substances (Hazard Classification) Notice 2020.

Approval:	HSR000047
Hazard Classifications:	Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1.

Pictograms:



Signal word:	WARNING
Hazard statements:	Very toxic to aquatic life and with long-lasting effects. Harmful to terrestrial vertebrates. Very toxic to terrestrial invertebrates.
Precautionary statements:	
Prevention:	Read label before use. Avoid release to the environment.
Response:	Collect spillage.
Storage:	-
Disposal:	Dispose of product and container in accordance with local regulations.

Other information:

Hazardous Substance (Labelling) Notice 2017

Refer Section 15.

NZS5433 Transportation of Dangerous Goods on Land

Classified as DG Class 9 for transport. Refer Section 14.

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3. COMPOSITION: INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration (%w/w)
Bifenthrin	14808-60-7	0.2
Quartz (crystalline silica)	82657-04-3	>60
Other ingredients*	Trade secret	Balance

* do not affect the hazardous classifications of the product

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. Have product label or Safety Data Sheet at hand.

INGESTION: Rinse mouth. Get medical advice.

SKIN CONTACT: Remove contaminated clothing. Wash skin with plenty of soap and water. If irritation or rash develops, obtain medical advice. Wash contaminated clothing before reuse.

EYE CONTACT: Flush with running water for at least 15 minutes. Remove contact lenses if present, and easy to do after 5 minutes before continuing rinsing. Get medical advice if irritation persists.

INHALATION: Remove patient to fresh air and keep at rest in a position comfortable for breathing until recovered. Get medical advice if person feels unwell or has respiratory symptoms, e.g. difficulty breathing.

First Aid facilities: Provide eye baths and safety showers close to work areas.

Advice to Doctor: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flashpoint: Non-flammable.

Suitable extinguishing media: Dry chemical, carbon dioxide, foam or water fog as appropriate to surrounding materials.

Hazards from combustion products: May generate harmful/toxic fumes/gases and smoke.

Precautions for fire fighters and special protective equipment: Cool fire exposed containers with water. Stay upwind. Wear self-contained breathing apparatus with full face-piece and protective clothing.

Hazchem Code: 2Z

6. ACCIDENTAL RELEASE MEASURES:

Personal Precautions:

Read label before use. Avoid facial contact as risk of paresthesia. Wear appropriate personal protection equipment to prevent contact with skin and eyes. Do not breathe dust.

Environmental Precautions:

Contain spill and prevent from entering drains, sewer or any water course. In event of large spill and contamination of a watercourse, notify the Police, local Health Protection Officer and Council.

Methods and materials for containment

Do not breathe dust. Collect into labeled container that can be sealed for disposal to landfill if product is unable to be used for intended purpose.

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7. HANDLING AND STORAGE

Precautions for Safe Handling:

Keep out of reach of children. Read and observe all precautions and instructions on the label. Do not breathe dust. Wear PVC or rubber gloves and dust-proof goggles. When using large quantities, wear coveralls and face shield. Observe good personal hygiene, including washing hands before rest breaks or eating/drinking.

Conditions for Safe Storage:

Store securely in closed original packaging in cool, dry, well-ventilated area and out of reach of children. Do not store with incompatible substances or foodstuffs.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Health Exposure Standards: Workplace Exposure Standards (WES), have been set by Worksafe (ed. 13, April 2022) for a compound in this substance:

Silica-crystalline (all forms) WES-TWA 0.1 mg/m³ (respirable dust)

Biological limit values: None established

Engineering Controls:

Ventilation: Only use outdoors or in a well-ventilated area.

Personal Protective Equipment:

Respiratory Protection: Respiratory protection should not be necessary when used well-ventilated area. Where an inhalation risk exists, wear a Class P1 (Particulate) respirator.

Eye Protection: Dust-proof goggles. Wear face shield when using large quantities.

Skin/ Body Protection: PVC or rubber gloves. Wear overalls when using large quantities or heavy contamination is likely.

The following Standards provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Tan to light brown granular solid
Odour	Slight
Odour threshold	Not determined
pH	Not determined.
Melting/Freezing point °C	Not determined
Boiling Point/Range °C	Not applicable
Flash Point °C	Non flammable
Flammability (solid, gas)	Not applicable
Upper/lower flammability/explosive limits	Not applicable
Vapour Pressure mm Hg @ 25°C	Not determined
Vapour Density Pa @ 25°C	Not applicable
Relative density @ 25°C	1.40 – 1.60

EMERGENCY PHONE: 0800 CHEMCALL (0800 243 622) 24 hours

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Date of Revision: August, 2027

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Solubilities	Insoluble in water
Partition coefficient: n-octanol/water	Not applicable
Autoignition Temperature °C	Not determined
Decomposition Temperature °C	Not determined
Kinematic viscosity	Not applicable
Particle characteristics:	Not available.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions.

Conditions to avoid: Heat or flame/ignition sources. Contact with incompatible substances; oxidizing agents (e.g. hypochlorite's), acids (e.g. nitric acid), and alkalis (e.g. sodium hydroxide).

Hazardous decomposition products: On combustion, harmful toxic fumes/gases and smoke generated.

Hazardous reactions: Not known to occur.

11. TOXICOLOGICAL INFORMATION

Toxicity classifications determined by assessment of the components in the formulated mixture.

Acute toxicity: Not classified

Aspiration hazard: Not classified.

Respiratory irritation: Not classified as respiratory irritant.

Skin corrosion/irritation: May be mildly irritating to skin as result of mechanical irritation. Bifenthrin may cause paraesthesia of face.

Serious eye damage/irritation: Irritating to eyes as result of mechanical irritation.

Respiratory or skin sensitization: Product is not classified although bifenthrin is a contact sensitiser.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified. The product contains crystalline silica classified as carcinogenic to humans (IARC Group 1). However adverse health effects are not anticipated given non-respirable nature of the silica quartz in this product. Product also contains bifenthrin which is suspected of causing cancer at levels below that required for classification.

Reproductive toxicity: Not classified.

Specific organ toxicity: Not classified.

Narcotic effects: Not classified.

Toxicological Information:

Bifenthrin	Oral, LD ₅₀ (mouse)	45 mg/kg
	Oral, LD ₅₀ (rat)	54.5 mg/kg
	Dermal, LD ₅₀ (rabbit)	2 g/kg
	Inhalation, LC ₅₀ 4h (rat)	4.9 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity: This product is classified as very toxic to aquatic life and with long lasting effects, harmful to terrestrial vertebrates, and very toxic to terrestrial invertebrates. Do not contaminate waterways, sewers, or drains when using product, or when disposing of product or container.

Persistence and degradability: No specific information on product is available.

Potential to be bioaccumulative: No specific information available.

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Mobility in soil: No specific information available.

Other adverse effects: No information available

Ecotoxicological Information:

Bifenthrin Honey bee, contact LD₅₀ 0.01462 µg/bee

Environmental Exposure Limits (EEL's): EEL_{water} 0.00005 µg/L (0.05 ng/L)

13. DISPOSAL CONSIDERATIONS

Disposal Methods: Dispose of product and packaging to approved landfill.

Ensure disposal of packaging and product is in compliance with requirements of national and local authorities.

14. TRANSPORT INFORMATION

Road and Rail Transport		Marine Transport		Air Transport	
UN No.	3077	UN No.	3077	UN No.	3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(CONTAINS 0.2% BIFENTHRIN)	Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(CONTAINS 0.2% BIFENTHRIN)	Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(CONTAINS 0.2% BIFENTHRIN)
DG Class	9	DG Class	9	DG Class	9
Sub. Risk	-	Sub. Risk	-	Sub. Risk	-
Pack Group	III	Pack Group	III	Pack Group	III
Hazchem	2Z	Hazchem	2Z		

Marine Pollutant: Yes

Dangerous Goods Segregation

This product is classified as a Dangerous Good Class 9 for Transport.

Please consult the Land Transport Rule: Dangerous Goods 2005, and NZS 5433:2020 Transport of Dangerous Goods on Land for information.

15. REGULATORY INFORMATION

HSNO Act 1996

Approval Code:

HSR000047; RB-2-105.

Classifications:

Hazardous to terrestrial vertebrates,
Hazardous to terrestrial invertebrates,
Hazardous to the aquatic environment acute Category 1,
Hazardous to the aquatic environment chronic Category 1.

Controls:

Refer to www.epa.govt.nz for information on Controls.

When applied under commercial conditions a suitably qualified handler is required.

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Additional Controls under Regulation 77a: Refer to www.epa.govt.nz

Label to include warning of effects of paresthesia and how to avoid it.

Apply no more than 2.5 kg product/100 m².

ACVM Act 1997

Registration Number: Not applicable (exempt)

Tradename:

16. OTHER INFORMATION

Date of issue: 31st August 2022

Reasons for Issue: Update product information and GHS hazard classification statements.

Replaces: SDS dated 25th November 2019

Abbreviations:

ACVM	Agricultural Compounds and Veterinary Medicines
ECHA	European Chemical Agency
EPA	New Zealand Environmental Protection Authority
GHS	Global Harmonised System
HSIS	Hazardous Substance Information System
HSNO	Hazardous Substances and New Organisms
IARC	International Agency for Research on Cancer
NZIoC	New Zealand Inventory of Chemicals
STEL	Short Term Exposure Limit (15 minute exposure period)
TWA	Time-Weighted Average (8 hours exposure period)
WES	Workplace Exposure Standard

References:

EPA www.epa.govt.nz

Supplier information and SDS

Worksafe NZ www.worksafe.govt.nz

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 SDS 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.