



SAFETY DATA SHEET

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Date of Issue: 7/03/2025

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: MaxGuard 2G® GRANULAR INSECTICIDE
Other Names: Bifenthrin.
Use: A granular insecticide for control of certain pests in turf.
Company: Everris Australia Pty Ltd.
Address: 211/33 Lexington Drive, Bella Vista, NSW 2153, Australia. Tel: +61(2) 8801 3300
Emergency Telephone Number: Australia: (02) 8014 4558
New Zealand: 0800 446 881
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenthrin).

SECTION 2 HAZARDS IDENTIFICATION

Globally Harmonised System (GHS) Classification:

Not a hazardous substance or mixture

GHS Label elements:

No hazard pictogram, no signal word, no hazard statements, no precautionary statements required.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

INGREDIENT	CAS NUMBER	PROPORTION
Bifenthrin	82657-04-3	< 1% w/w
Quartz [Silica crystalline]	14808-60-7	> 90% w/w
Other ingredient determined to be non-hazardous		balance

SECTION 4 FIRST AID MEASURES

FIRST AID

If Swallowed: If poisoning occurs, induce vomiting immediately and contact a doctor or Poisons Information Centre. Phone Australia (13 11 26).

Keep respiratory tract clear

Do not give milk or alcoholic beverages

Never give anything by mouth to an unconscious person.

If symptoms persist call a physician.

Eye Contact: Granules may scratch eye surfaces and/or cause mechanical irritation. Flush with water until granules and chemical are removed. Remove contact lenses and keep eye wide open while rinsing. If irritation persists, obtain medical attention.

Skin Contact: If on skin or clothing, shake off, remove contaminated clothing and then wash skin with soap and water. If skin irritation persists, consult a physician.

If Inhaled: Remove patient to fresh air. If breathing discomfort occurs, obtain medical attention.

Most important symptoms and effects, both acute and delayed:

May cause damage to organs if inhaled.

Advice to Doctors: Bifenthrin, the active ingredient in this product is a pyrethroid insecticide. Bifenthrin is toxic by ingestion and highly toxic by inhalation. However, due to the very low concentration of bifenthrin in this product, symptoms are unlikely to be caused by this product. Treat symptomatically.

SECTION 5	FIRE FIGHTING MEASURES
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Specific Hazard: Product may support combustion at elevated temperatures.

Extinguishing media: Foam, CO₂ or dry chemical. Soft stream water fog if no alternatives. Contain all run-off.

Unsuitable Extinguishing media: High Volume water jet.

Hazards from combustion products: Thermal decomposition can lead to release of irritating gases and vapours.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated. Do not allow run-off from fire fighting to enter drains or water courses.

Hazchem code: 2Z

SECTION 6	ACCIDENTAL RELEASE MEASURES
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Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.

Environmental precautions:

Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up:

Keep in suitable, closed containers for disposal.

SECTION 7	HANDLING AND STORAGE
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Advice on protection against fire and explosion:

Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling:

Avoid formation of respirable particles.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

Hygiene measures: When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.

SECTION 8 | EXPOSURE CONTROLS / PERSONAL PROTECTION

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Quartz (SiO ₂)	14808-60-7	TWA (Respirable dust)	0.05 mg/m ³	AU OEL
		Further information: Category 1A (Carc. 1A). Known to have carcinogenic potential for humans		
		TWA (Respirable particulate matter)	0.025 mg/m ³ (Silica)	ACGIH

Personal Protective equipment (PPE):

Respiratory protection: No personal respiratory protective equipment normally required.
In case of dust exposure wear suitable personal respiratory protection and protective clothing.

Hand Protection: Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.

Eye Protection: Safety goggles

Skin and body protection: Lightweight protective clothing that minimises skin contact with this product.

Personal Hygiene: Wash skin before eating, drinking or smoking.

SECTION 9 | PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Tan, solid granules.

Odour: Slightly musty odour.

pH: 6.8 – 7.1

Boiling point: Not available.

Freezing point: Not available.

Density: 1.39 g/mL.

Solubility in Water: Not soluble.

Flammability: May support combustion at elevated temperatures.

Corrosive hazard: Non corrosive; compatible with stainless steel, glass & aluminium.

Flashpoint (°C) : Not applicable - granule.

Flammability Limits (%): Not established.

Poisons Schedule: Product is a not a scheduled poison.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: No decomposition if stored as directed.

Conditions to avoid: Heat, flames, sparks. Keep out of the sun

Incompatible materials: Strong oxidizing agents. Strong acids and strong bases.

Hazardous decomposition products: When the product is heated to high temperatures, the active constituent will decompose and emit toxic fumes.

Hazardous reactions: No particular reactions to avoid.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity: Based on available data, the classification criteria are not met.

Product:

Acute oral toxicity:

LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity:

Acute toxicity estimate: > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: Calculation method

Acute dermal toxicity:

LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation:

Based on available data, the classification criteria are not met.

Product:

No skin irritation

Serious eye damage/eye irritation:

Based on available data, the classification criteria are not met.

Product:

No eye irritation

Skin sensitisation:

Based on available data, the classification criteria are not met.

Respiratory sensitisation:

Based on available data, the classification criteria are not met.

Product:

Not a skin sensitizer

Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

Bifenthrin

Genotoxicity in vitro:

Gene mutilation test

Chinese hamster ovary cells

With and without metabolic activation

Result: Negative

Test Type: reverse mutation assay

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Mouse lymphoma assay

Metabolic activation: with and without metabolic activation

Result: negative

Test Type: Sex-linked Recessive Lethal Test

Species: Drosophila melanogaster (vinegar fly)

Result: negative

Test Type: unscheduled DNA synthesis assay

Species: Rat

Method: OECD Test Guideline 486

Result: negative

Quartz (SiO₂):

Genotoxicity in vitro:

Test Type: reverse mutation assay

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vitro:

Test Type: Micronucleus test
Species: Rat
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity:

Product:

Based on available data, the classification criteria are not met. Weight of evidence does not support classification as a carcinogen. This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product.

Reproductive toxicity:

Bifenthrin:

Effects on fertility:

Based on available data, the classification criteria are not met.

Test Type: Two-generation study
Species: Rat
Application Route: Oral
General Toxicity - Parent: NOAEL: 3 mg/kg bw/day
General Toxicity F1: NOAEL: 5 mg/kg bw/day
Result: negative

Effects on foetal development:

Test Type: Embryo-foetal development
Species: Rabbit
Application Route: Oral
General Toxicity Maternal: NOAEL: 2.7 mg/kg bw/day
Teratogenicity: NOAEL: 2.7 mg/kg bw/day
Symptoms: Maternal effects
Result: No teratogenic effects

Test Type: Embryo-foetal development
Species: Rat
Application Route: Oral
General Toxicity Maternal: NOAEL: 1 mg/kg bw/day
Teratogenicity: NOAEL: 2 mg/kg bw/day
Result: No teratogenic effects

Species: Rat
Application Route: Oral
General Toxicity Maternal: LOAEL: 7.2 mg/kg bw/day
Developmental Toxicity: LOAEL: 7.2 mg/kg bw/day
Embryo-foetal toxicity: NOEL: 9.0 mg/kg bw/day
Method: OECD Test Guideline 426
Result: Animal testing did not show any effects on fertility. Some evidence of adverse effects on development, based on animal experiments.

STOT - single exposure:

STOT – repeated exposure:

Product:

Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. The substance or mixture is not classified as specific target organ toxicant, repeated exposure. This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product.

Aspiration toxicity:

Bifenthrin:

Based on available data, the classification criteria are not met. The substance does not have properties associated with aspiration hazard potential.

SECTION 12 ECOLOGICAL INFORMATION**Ecotoxicity**Bifenthrin:

Toxicity to fish:

LC50 (*Salmo gairdneri*): 0.00015 mg/l

Exposure time: 96 h

Test Type: flow-through test

LC50 (*Lepomis macrochirus* (Bluegill sunfish)): 0.00035 mg/l

Exposure time: 96 h

Test Type: flow-through test

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 0.000256 mg/l

Exposure time: 96 h

Test Type: semi-static test

Method: OECD Test Guideline 203

GLP: yes

LC50 (*Pimephales promelas* (fathead minnow)): 0.000234 mg/l

Exposure time: 96 h

Test Type: semi-static test

Method: OECD Test Guideline 203

GLP: yes

Toxicity to aquatic invertebrates:

EC50 (*Daphnia* (water flea)): 0.00011 mg/l

Exposure time: 48 h

LC50 (*Daphnia* (water flea)): 0.0016 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic plants:

EC50 (algae): 0.822 mg/l

Exposure time: 72 h

Toxicity to fish (Chronic toxicity):

NOEC (*Oncorhynchus mykiss* (rainbow trout)): 0.00012 mg/l

Exposure time: 21 d

Toxicity to aquatic invertebrates
(Chronic toxicity):NOEC (*Daphnia magna* (Water flea)): 0.0013 µg/l

Exposure time: 21 d

NOEC (*Daphnia magna* (Water flea)): 0.00095 µg/l

Exposure time: 21 d

Toxicity to soil dwelling organisms:

LD50 (*Eisenia fetida* (earthworms)): > 16 mg/kg

Exposure time: 14 d

Toxicity to terrestrial organisms:

LD50 (*Colinus virginianus* (Bobwhite quail)): 1,800 mg/kgLD50 (*Anas platyrhynchos* (Mallard duck)): > 2,150 mg/kgLD50 (*Apis mellifera* (bees)): 0.1 - 0.35 µg/bee

Exposure time: 24 h

End point: Acute oral toxicity

Method: OECD Test Guideline 213

LD50 (*Apis mellifera* (bees)): 0.1 - 0.3 µg/bee

Exposure time: 24 h

End point: Acute contact toxicity

Method: OECD Test Guideline 214

Quartz (SiO₂):

Toxicity to fish:

LC50 (*Cyprinus carpio* (Carp)): > 10,000 mg/l

Exposure time: 72 h

Persistence and degradability

Bifenthrin:

Biodegradability: Result: Not readily biodegradable.

Stability in water: Degradation half-life (DT50): 2.2 d
Hydrolysis: at 60 °C

Degradation half-life (DT50): 15.6 d
Hydrolysis: at 40 °C

Quartz (SiO2):

Biodegradability: Result: Not biodegradable

Bioaccumulative potential

Bifenthrin:

Bioaccumulation: Species: *Lepomis macrochirus* (Bluegill sunfish)
Bioconcentration factor (BCF): 1,709
Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is possible.

Partition coefficient: n-octanol/water: log Pow: 6.6

Quartz (SiO2):

Bioaccumulation: Remarks: Does not bioaccumulate.

Mobility in soil

Bifenthrin:

Distribution among environ-mental compartments: Koc: 236610 ml/g, log Koc: 5.37
Remarks: immobile

Other adverse effects

Product:

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13	DISPOSAL CONSIDERATIONS
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Disposal Methods:

Waste from residues: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14	TRANSPORT INFORMATION
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Road & Rail Transport: MaxGuard 2G Granular Insecticide is exempt from classification as a Dangerous Good in packs less than 500 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is classified as UN3077, Class 9, Packing group III. (See special provision AU01)

IATA-DGR:

UN Number: UN3077
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenthrin)
Class: 9
Packing group: III
Packing instruction (cargo and passenger aircraft): 956

Environmentally hazardous: Yes

IMDG-Code

UN Number: UN3077
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenthrin)
Class: 9
Packing group: III
EmS Code: F-A, S-F
Marine pollutant: Yes

Hazchem code: 2Z

SECTION 15 REGULATORY INFORMATIONTherapeutic Goods (Poisons Standard) Instrument:

No poison schedule number allocated (Please use the original publication to check for specific uses, specific conditions or threshold limits that might apply for this chemical)

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 54257.

SECTION 16 OTHER INFORMATION

Issue Date: 7/03/2025

Key to abbreviations and acronyms used in this SDS:

GHS - Globally Harmonized System
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Con-centration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
NO(A)EC - No Observed (Adverse) Effect Concentration
NO(A)EL - No Observed (Adverse) Effect Level
NOELR - No Observable Effect Loading Rate
OECD - Organization for Economic Co-operation and Development
SDS - Safety Data Sheet
UN - United Nations

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. 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 including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End SDS