

SAFETY DATA SHEET

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF SAFE WORK AUSTRALIA

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

RICHGRO GARDEN PRODUCTS

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PRODUCT NAME**RECOMMENDED USE:**

Richgro Hose on Lawn Beetle and Grub Killa

Garden insecticide for domestic use

SECTION 2 - HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF SAFE WORK AUSTRALIA
NOT CLASSIFIED AS A DANGEROUS GOOD.
NOT A SCHEDULED POISON.

PHYSICAL HAZARDS: Not Classified

HEALTH HAZARDS: The active ingredient is below the concentration cut-offs for classification as hazardous according to Safe Work Australia

ENVIRONMENTAL HAZARDS: Hazardous to the aquatic environment

HAZARD STATEMENT:

None

PREVENTION

P102: Keep out of reach of children

P261: Avoid breathing spray mists

P262: Do not get in eyes, on skin, or on clothing.

P264: Wash hands thoroughly after handling.

RESPONSE

P363: Wash contaminated clothing before reuse.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice.

STORAGE

P402+P404: Store in a closed container, in a dry place.

Label elements

GHS Signal Word: None

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS Number	Concentration
Bifenthrin	82657-04-3	4.8g/L
Non-hazardous ingredients	secret	balance

SECTION 4 - FIRST AID MEASURES

GENERAL INFORMATION: If in doubt, get medical attention promptly. Show this Safety Data Sheet to medical personnel.

EYES: Hold eyelids open and rinse the eye continuously with a gentle stream of clean running water for at least fifteen minutes. Seek medical attention.

SKIN: Remove contaminated clothing and wash thoroughly with soap and water. Use water alone, if soap is unavailable. Apply a moisturising hand cream, if available. Seek medical attention if any soreness or inflammation of the skin persists or develops later. Launder affected clothing before re-use.

INGESTION: Rinse mouth out with water ensuring that mouth wash is not swallowed. Give about 250mL (2 glasses) of water to drink. DO NOT attempt to induce vomiting. Seek medical attention as a precautionary measure.

INHALATION: First aid is unlikely to be required as a result of exposure during normal use but spray/mists may cause respiratory tract irritation. If symptoms occur, remove to fresh air. Keep warm and at rest. Seek medical attention if symptoms persist.

Additional Information:

First Aid Facilities: Not required.

Advice to Doctor: Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Extinguish using whatever is suitable for the primary cause of the fire. Foam, dry chemical powder (bicarbonate or ammonium phosphate based) or carbon dioxide are all suitable. Do not use high volume water jets, as this may spread the fire.

HAZARDS FROM COMBUSTION PRODUCTS: This product is likely to decompose only after heating to dryness, followed by further strong heating. In that situation, oxides of carbon and other toxic fumes may be evolved.

PROTECTIVE EQUIPMENT: Fire fighters should wear self-contained breathing apparatus. Keep containers as cool as possible by spraying with water from a protected position.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES: Wear protective equipment as specified for handling (See Section 8).

SPILLS: Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material contaminating drains or waterways. Sweep up and shovel into labelled containers for recycling or disposal. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Recycle containers wherever possible after careful cleaning. Recycling is preferred but if necessary, dispose to approved landfill.

SECTION 7 - HANDLING AND STORAGE

SAFE HANDLING PRECAUTIONS: Avoid eye contact and prolonged or repeated skin contact.

SAFE STORAGE PRECAUTIONS: Keep out of reach of children. No special storage precautions required but product life will be maximised if it is stored out of direct sunlight in a cool well ventilated area.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE STANDARDS: None allocated

Exposure standards represent the airborne concentration of a particular substance in the worker's breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers. The exposure standard can be of three forms; time-weighted average (TWA), peak, or short term exposure limit (STEL).

BIOLOGICAL LIMIT VALUES: None allocated

ENGINEERING CONTROLS: Ventilation requirements depend on the quantity of product in use and the method of application. If using more than minor quantities, work area should have good, mechanical ventilation. Local exhaust ventilation is unlikely to be required for foreseeable uses of this product.

PERSONAL PROTECTION: Requirements depend on working conditions, method of application and quantity of product in use. No special equipment is required for handling small quantities but safety glasses or goggles must be worn if there is any potential for eye contact. Nitrile, neoprene, PVC or natural rubber gloves should be worn if there is any potential for skin contact.

Respiratory protection is unlikely to be required for foreseeable uses of this product.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

Physical Description & colour:	White, viscous liquid
Odour:	Negligible
Boiling Point:	Approximately 100°C at 100kPa.
Freezing Point:	Approximately 0°C.
Volatiles:	Water component.
Vapour Pressure:	18mmHg or 2.37 kPa at 20°C (as water).

Vapour Density:	As for water.
Specific Gravity:	1.05.
Water Solubility:	Completely miscible in water.
pH:	Neutral
Volatility:	As for water.
Evaporation Rate:	As for water.
Auto ignition temp:	Non-combustible.
Flash point:	Will not burn.
Upper Flammability Limit:	None.
Lower Flammability Limit:	None.
Flammability Class:	None.

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions of use and storage

CONDITIONS TO AVOID: Avoid exposing sealed containers to heat as this may cause a vapour build up and possible rupture.

INCOMPATIBLE MATERIALS: Bases, strong oxidising agents, zinc, tin, aluminium and their alloys.

HAZARDOUS DECOMPOSITION PRODUCTS: May evolve carbon dioxide and traces of incompletely burned carbon products if heated to decomposition or burned after the water content has evaporated

HAZARDOUS REACTIONS: None known.

POLYMERISATION: This product will not undergo polymerisation reactions.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE - SWALLOWED: Irritating.

ACUTE – EYE: Irritating. Contact may cause redness, swelling and pain.

ACUTE – SKIN: Slightly irritating in case of skin contact. Prolonged or repeated skin contact may result in skin sensitisation in sensitive individuals.

ACUTE – INHALED: Liquid or spray mist may cause irritation to mucous membranes of eyes, mouth and respiratory tract, characterised by coughing, choking, or shortness of breath.

Toxicity: Bifenthrin is harmful to mammals when ingested. Large doses may cause incoordination, tremor, salivation, vomiting, diarrhoea, and irritability to sound and touch. LD₅₀ for Bifenthrin is about 54 mg/kg in female rats and 70 mg/kg in male rats. The LD₅₀ for rabbits whose skin is exposed to Bifenthrin is greater than 2,000 mg/kg. Bifenthrin does not sensitize the skin of guinea pigs. Although it does not cause inflammation or irritation on human skin, it can cause a tingling sensation which lasts about 12 hours. It is virtually non-irritating to rabbit eyes.

SECTION 12 - ECOLOGICAL INFORMATION

Effects on Birds: Bifenthrin is moderately toxic to many species of birds. The dietary concentration (8 day) at which half of the test animals die, the LC₅₀, is 1,280 ppm for mallard ducks and 4,450 ppm for bobwhite quail. The acute oral LD₅₀ is 1,800 mg/kg for bobwhite quail and 2,150 mg/kg for mallard ducks. There is concern about possible bioaccumulation in birds.

Effects on Aquatic Organisms: Bifenthrin is very highly toxic to fish, crustaceans and aquatic animals. The LC₅₀ after a 96-hour exposure is 0.00015 mg/L for rainbow trout, 0.00035 mg/L for bluegill, and 0.0016 mg/L for Daphnia. Because of its low water solubility and high affinity for soil, Bifenthrin is not likely to be found in aquatic systems.

Effects on Other Animals (Nontarget species): Bifenthrin is toxic to bees.

ENVIRONMENTAL FATE

Breakdown of Chemical in Soil & 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.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL: Recycling is the preferred option but if that is not practicable, dispose to approved landfill. Do not allow to enter groundwater.

SECTION 14 - TRANSPORT INFORMATION

This product is not a dangerous good according to the Australian Code for the Transportation of Dangerous Goods by Road and Rail (ADG Code), the International Maritime Dangerous Goods Code (IMDG) nor the International Air Transport Association (IATA) criteria.

UN Number: None allocated
Proper shipping name: None allocated
DG Class: None allocated
HazChem code: None allocated
Packing group: None allocated

SECTION 15 - REGULATORY INFORMATION

All ingredients in this formulation are listed in the Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme (NICNAS).

Bifenthrin is listed by Safe Work Australia as

Carcinogenicity – category 2;
Acute toxicity – category 2;
Acute toxicity – category 3;
Specific target organ toxicity (repeated exposure) – category 1;
Skin sensitisation – category 1B;
Hazardous to the aquatic environment (acute) – category 1;

However, the concentration of bifenthrin in this product is below the concentration cut-offs which would result in classification as a hazardous chemical.

Similarly bifenthrin is listed as a scheduled poison but only at concentrations greater than those occurring in this product.

SECTION 16 - OTHER INFORMATION

REFERENCES

1. National Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals, 2011
2. Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC: 1003(1995)] and subsequent amendments
3. Australian Code for the Transportation of Dangerous Goods by Road and Rail (ADG Code), 7.6th Edition, 2018
4. Standard for the Uniform Scheduling of Medicines and Poisons No. 23, February 2019 and subsequent amendments

ABBREVIATIONS

BOD	Biological oxygen demand
CAS number	Chemical Abstracts Service Registry Number
EC50	Half maximal effective concentration
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
LDLo	Lowest documented lethal dose
LD50	Lethal Dose for 50% of test population (ingestion or skin contact)
LC50	Lethal Dose for 50% of test population (inhalation)
NOEL	No observable effect level
UN Number	United Nations Number
TD	Toxic Dose

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