



Safety Data Sheet

EnviroMax Bifenthrin 2G Granular Insecticide

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: EnviroMax Bifenthrin 2G Granular Insecticide
Other means of identification: Bifenthrin Granular
Recommended use of the chemical and restrictions on use: For the control of certain pests in turf: ants, fleas and ticks in external surrounds of buildings and structures as specified.
Supplier: EnviroMax Technologies Pty Ltd
ABN: 132 643 577
Street Address: 504 Boundary Road, Archerfield QLD 4108, Australia
Telephone No: + 61- (0) 409 926 561
Fax: +61-7-3386 3333
Email: www.awct.com.au
Distributed by: Australasian Wholesale Chemical Technologies Pty Ltd
PO Box 984
North Lakes QLD, Australia 4509
Emergency Telephone: + 61- (0) 409 926 561

2. HAZARDS IDENTIFICATION

Classification of the substance mixture: Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition).

Not classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion (w/w)
The components in this formulation are considered not to be hazardous and therefore are not required to be disclosed according to the WHS Regulations. Following is the information for the active constituent which is not classified as hazardous in this formulation.		
Bifenthrin	82657-04-3	0.2%

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor. Have this MSDS with you when you call. Avoid contact with the skin, eyes and clothing.

Inhalation: There is no inhalation risk with this product. Bring affected person to fresh air.
Skin Contact: Remove contaminated clothing and wash with plenty of water and soap. If irritation develops, seek medical attention.
Eye Contact: Flush eyes immediately with large amounts of water or normal saline solution, occasionally lifting upper and lower lids until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.
Ingestion: Rinse mouth immediately and then drink plenty of water. Seek medical attention. Do not induce vomiting unless told to by the Poisons Information Centre or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.
First Aid Facilities: Eyewash and normal washroom facilities.
Indication of immediate medical attention and special treatment needed: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Not Combustible. Water fog or spray, foam, carbon dioxide (CO ₂) or dry chemical.
Specific hazards arising from the substance or mixture:	Only small quantities of decomposition products are expected from this products at temperatures normally achieved in a fire. Fire decomposition products from this product may be harmful if inhaled. Take appropriate protective measures.
Special protective equipment and precautions for fire-fighters:	In case of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and chemical-protective clothing. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately. Do not allow contaminated water to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/ Environmental precautions:	In the event of a spill, prevent spillage from entering drains or water courses with absorbent material and call emergency services.
Personal precautions/ Protective equipment:	No special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products.
Methods and materials for containment and cleaning up:	Contain - prevent run off into drains and waterways. For minor spills, clean up, rinsing to sewer and put empty container in garbage.

7. HANDLING AND STORAGE

Precautions for safe handling:	Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Keep containers closed at all times - check regularly for leaks or spills. Transport and store upright. Refer to Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under 'Storage' should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.
Conditions for safe storage, including any incompatibilities:	Store packages of this product in a cool place. Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under 'Incompatibilities' in Section 10. Check packaging - there may be further storage instructions on the label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:	No value assigned for this specific material by Safe Work Australia. No biological limit allocated for the product or any of its ingredients. No biological monitoring is required.
Appropriate engineering controls:	Use in well ventilated areas. Keep containers closed when not in use.
Individual protection measures, such as Personal Protective Equipment (PPE):	The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors. Observe good standards of hygiene and cleanliness. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.
Respiratory Protection:	A respirator is not needed under normal and intended conditions of product use however if ventilation is not adequate then a respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Safety Data Sheet

EnviroMax Bifenthrin 2G Granular Insecticide

Eye and Face protection:	Safety glasses/goggles with side shield protection should be worn as a general precaution. Consult AS/NZS 1336 and AS/NZS 1337 for further information.
Skin Protection:	PVC or nitrile rubber gloves should be worn as a general precaution. Always check with the glove manufacturer or your personal protective equipment supplier regarding the correct type of glove to use. Consult AS/NZS 2161 for further information. Trousers, long sleeved shirt or overalls and closed in shoes or safety footwear should be worn as a general precaution. Consult AS/NZS 2210 and AS/NZS 2919 for further information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Free flowing granules
Colour:	White to yellowish
Odour:	Faint odor
pH:	No data available
Bulk Density:	1.5
Melting Point/Freezing Point:	Decomposes before melting
Boiling Point/range:	No data available
Flash Point:	Not flammable
Evaporation Point:	No information available
Vapour Pressure:	Negligible at usual room temperatures
Vapour Density:	No information available
Volatility:	Negligible at usual room temperatures
Solubility:	Negligible
Partition coefficient: n- octanol/water	No information available
Auto-ignition Temperature:	Not applicable - does not burn
Decomposition Temperature:	No information available
Viscosity:	Not relevant.

10. STABILITY AND REACTIVITY

Reactivity:	This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
Chemical stability:	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Possibility of hazardous reactions:	None when stored and used as directed. This product is unlikely to undergo polymerisation processes.
Conditions to avoid:	None known. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatible materials:	No particular incompatibilities. Store and use as directed.
Hazardous decomposition products:	Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Oxides of sulphur (sulphur dioxide is a respiratory hazard) and other sulphur compounds. Most will have a foul odour.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Oral LD50 (rat, calculated from ingredients) 27000 mg/kg Dermal LD50 (rabbit, calculated from ingredients) >2000 mg/kg Inhalation LC50 (calculated from ingredients) 305 mg/L
Ingestion:	Available information indicates that it is not considered an acute oral toxicant

Safety Data Sheet

EnviroMax Bifenthrin 2G Granular Insecticide

Inhalation:	Available information indicates that it is not considered an inhalation risk.
Skin:	Not considered a skin irritant.
Eye:	Not considered an eye irritant.
Respiratory or skin sensitisation:	Not a skin sensitiser and not expected to be a respiratory sensitiser.
Germ cell mutagenicity:	No data for the product. Bifenthrin is not considered to be genotoxic via in-vitro and in-vivo studies.
Carcinogenicity:	No data for the product. The EPA has classified Bifenthrin as a class C carcinogen, a possible human carcinogen.
Reproductive toxicity:	No data for the product. Bifenthrin is not considered to have significant reproductive toxicity.
STOT-single exposure:	No data for the product or Bifenthrin. Not expected to cause toxicity to a specific target organ.
STOT-repeated exposure:	No data for the product or Bifenthrin. Not expected to cause toxicity to a specific target organ.
Aspiration hazard:	No data for the product or Bifenthrin. Not expected to be an aspiration hazard.
Other information:	Teratogenic Effects: Bifenthrin does not demonstrate any teratogenic effects at the highest levels tested (100 ppm, approximately 5.5 mg/kg/day) in a two-generational study in rats.

Fate in Humans and Animals: Bifenthrin is absorbed through intact skin when applied topically. It undergoes similar modes of breakdown within animal systems as other pyrethroid insecticides. In mammals, Bifenthrin is rapidly broken down and promptly excreted. Rats treated with 4 to 5 mg/kg, excreted 70 % in the urine and 20% in the faeces within 7 days. After 7 days, the remaining Bifenthrin was found accumulated in tissues with high fat content such as the skin and fat in males and females and the ovaries of females. Bifenthrin is less toxic to warm-blooded animals, such as mammals, than to cold-blooded animals. There is no data to hand indicating any particular target organs.

Exposure levels and health effects: The ADI for Bifenthrin is set at 0.01mg/kg/day. The corresponding NOEL is set at 1mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2002.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Information on bifenthrin technical grade active constituent:
Fish:	LC50 (96 h)= 0.00015 mg/l for rainbow trout LC50 (96 h)= 0.00035 mg/l for bluegill
Aquatic invertebrates:	EC50 =0.0016 mg/l for Daphnia
Aquatic plants:	No information available.
Birds:	Acute oral LD50=1,800 mg/kg for bobwhite quail Acute oral LD50=2,150 mg/kg for mallard ducks
Terrestrial insects:	Bifenthrin is toxic to bees.
Persistence/ degradability:	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.
Bioaccumulative potential:	Due to LogPow=6.6 for bifenthrin the potential to bioconcentrate was considered to be high. Evidence that the bioconcentration factor or bioaccumulation factor in aquatic species is greater than 5000. Based on a re-evaluation of the available bioaccumulation studies on fish, the more reliable and relevant BCF is 1709.

Safety Data Sheet

EnviroMax Bifenthrin 2G Granular Insecticide

Mobility in Soil: 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.

13. DISPOSAL CONSIDERATIONS

Disposal methods: **Product Disposal:** On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals.

Container Disposal: Do not use this container for any other purpose. Triple or preferably pressure rinse empty containers before disposal or recycling. Add rinsings to spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of water ways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

Road and Rail Transport: Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport: Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON- DANGEROUS GOODS.

Air Transport: Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON- DANGEROUS GOODS.

15. REGULATORY INFORMATION

Poison Schedule (SUSMP): 6

APVMA: 64999

AICS: All the constituents of this material are either listed on the Australian Inventory of Chemical Substances (AICS), not required due to the nature of the chemical, or have been assessed under the National Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

16. OTHER INFORMATION

General Information: None

Issue Number: 002

Issue Date: 22 July 2016

In any event, the review and, if necessary, the re-issue of an SDS shall be no longer than 5 years after the last date of issue.

Reason(s) for Issue: Second Issue.
Revised Primary SDS and updated to GHS requirements

Literary Reference: EFSA Journal 2011;9(5):2159-- Conclusion on the peer review of the pesticide risk assessment of the active substance bifenthrin.
http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/2159.pdf

Key abbreviations or acronyms used: ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICS - Australian Inventory of Chemical Substances
AgVet Code Act 1994 – Agricultural and Veterinary Chemicals Code Act 1994
APVMA – Agricultural Pesticides and Veterinary Medicines Australia

Safety Data Sheet

EnviroMax Bifenthrin 2G Granular Insecticide

GHS - Globally Harmonised System of Classification and Labelling of Chemicals (3rd revised edition) 2009

IARC - International Agency for Research on Cancer

LD₅₀ or LC₅₀ – Estimated lethal dose / concentration to kill 50% of the population/sample.

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (December 2016)

STEL - Short term exposure limit means the average airborne concentration of a substance calculated over a 15 minute period. The STEL should not be exceeded at any time during a normal eight hour working day.

STOT – Specific Target Organ Toxicity

SUSMP - Standard for the Uniform Scheduling of Medicines & Poisons

SWA - Safe Work Australia, formerly ASCC and NOHSC

TGA – Therapeutic Goods Australia

WHS – Workplace Health and Safety

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Innovate Ag cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact Innovate Ag representative or Innovate Ag at the contact details on page 1.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the manufacturer be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the manufacturer has been advised of the possibility of such damages.

END OF SDS