

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name:</b>	EnviroMax Bifenthrin 100EC Termiticide & Insecticide
<b>Other means of identification:</b>	Bifenthrin 100 g/L emulsifiable concentrate; synthetic pyrethroid insecticide
<b>Recommended use of the chemical and restrictions on use:</b>	A residual liquid synthetic pyrethroid termiticide and insecticide concentrate suitable for a broad range of applications as described by the label.
<b>Supplier:</b>	EnviroMax Technologies Pty Ltd
<b>ABN:</b>	132 643 577
<b>Street Address:</b>	504 Boundary Road, Archerfield QLD 4108, Australia
<b>Telephone No:</b>	+ 61- (0) 409 926 561
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<b>Email:</b>	www.awct.com.au
<b>Distributed by:</b>	Australasian Wholesale Chemical Technologies Pty Ltd PO Box 984 North Lakes QLD, Australia 4509
<b>Emergency Telephone:</b>	+ 61- (0) 409 926 561

## 2. HAZARDS IDENTIFICATION

Classification of the substance mixture: This product is not classified as a Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail. See section 14 for Marine transportation information.

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

**Classification of the substance or mixture:**

Acute toxicity – oral – Cat 4

Acute toxicity-inhalation—Cat 4

**SIGNAL WORD:** CAUTION



**Hazard statements:**

H302-Harmful if swallowed

H332-Harmful if inhaled

**Precautionary Statements:**

**Prevention:**

Do not eat, drink or smoke when using this product.

Avoid breathing vapours or spray.

Use only outdoors or in a well-ventilated area.

Wash hands, arms and face thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.



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**Response:**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Rinse mouth.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**Disposal:**

Dispose of contents/container in accordance with container label instructions as per local State and Council requirements.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion (w/w)
Bifenthrin	82657-04-3	10%
Hydrocarbon liquid	64742-94-5	>60%
N-methyl -2-pyrrolidone	872-50-4	5%
Emulsifiers	Confidential	1-9%

Other components are not considered hazardous in this formulation and therefore are not required to be disclosed according to the WHS Regulations.

### 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.

**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 Contact:** Blot or brush away excess chemical. Wash gently and thoroughly with water (use non-abrasive soap) 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.

**Eye Contact:** 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.

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

**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:** Soft stream water fog, Foam, CO<sub>2</sub> or dry chemical. Contain all runoff.

**Specific hazards arising from the substance or mixture:** Carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen.

**Special protective equipment and precautions for fire-fighters:** Fire fighters should wear self-contained breathing apparatus and suitable protective clothing to prevent risk of exposure to products of decomposition.

### 6. ACCIDENTAL RELEASE MEASURES

**Emergency procedures/ Environmental precautions:** Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.



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**Personal precautions/ Protective equipment:**

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation.

**Methods and materials for containment and cleaning up:**

Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal.

### 7. HANDLING AND STORAGE

**Precautions for safe handling:**

Keep containers closed at all times - check regularly for leaks or spills. Transport and store upright. Avoid skin and eye contact. Keep out of reach of children. Do not eat, drink or smoke in contaminated areas. Always remove contaminated clothing and wash hands before eating, drinking, smoking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

**Conditions for safe storage, including any incompatibilities:**

Store in the original container, in a cool dry well-ventilated area out of direct sunlight. Keep containers closed when not in use - check regularly for leaks.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters:**

No value assigned for this specific material by Safe Work Australia.

**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.

**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:**

Pale/amber coloured liquid. Characteristic solvent odour.

**Colour:**

Pale/amber

**Odour:**

Characteristic solvent odour.

**pH:**

No data available.

**Specific Gravity:**

0.91 approx at 20°C

**Melting Point/Freezing Point:**

No data available.

**Boiling Point/range:**

No data available.

**Flash Point:**

>62.5 Deg C.

**Evaporation Point:**

No data available.

**Vapour Pressure:**

No data available.

**Vapour Density:**

No data available.

**Solubility:**

Emulsifiable

**Partition coefficient: n- octanol/water**

No data available.



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<b>Auto-ignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Non-reactive under normal conditions.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Possibility of hazardous reactions:</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid:</b>	Excess heat, ignition sources
<b>Incompatible materials:</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.

### 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity:</b>	
<b>Ingestion:</b>	No studies available for the product. Bifenthrin is moderately toxic to mammals when ingested. Large doses may cause uncoordination, tremor, salivation, vomiting, diarrhoea, and irritability to sound and touch. LD50 for Bifenthrin is about 54mg/kg in female rats and 70mg/kg in male rats.
<b>Inhalation:</b>	No studies available for the product.
<b>Skin:</b>	The LD50 for rabbits whose skin is exposed to Bifenthrin is greater than 2,000mg/kg.
<b>Eye:</b>	It is virtually non-irritating to rabbit eyes.
<b>Respiratory or skin sensitisation:</b>	Not a skin sensitiser and not expected to be a respiratory sensitiser.
<b>Germ cell mutagenicity:</b>	Not considered to be a mutagenic hazard.
<b>Carcinogenicity:</b>	Not considered to be a carcinogenic.
<b>Reproductive toxicity:</b>	Not considered to be toxic to reproduction.
<b>STOT-single exposure:</b>	Not expected to cause toxicity to a specific target organ.
<b>STOT-repeated exposure:</b>	Not expected to cause toxicity to a specific target organ.
<b>Aspiration hazard:</b>	Not expected to be an aspiration hazard.

#### **BIFENTHRIN TOXICITY (technical grade)**

Bifenthrin is moderately toxic to mammals when ingested. Large doses may cause uncoordination, tremor, salivation, vomiting, diarrhoea, and irritability to sound and touch. LD50 for Bifenthrin is about 54mg/kg in female rats and 70mg/kg in male rats. The LD50 for rabbits whose skin is exposed to Bifenthrin is greater than 2,000mg/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

#### **Reproductive effects:**

The dose at which no toxic effect of Bifenthrin is observed on the mother (maternal toxicity NOEL) is 1mg/kg/day for rats and 2.67mg/kg/day for rabbits. At higher doses, test animals had tremors. The dose at which no toxic effect is observed on development (developmental toxicity NOEL) is 1mg/kg/day for rats and is greater than 8mg/kg/day for rabbits.

**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.

**Mutagenic Effects:** Evidence of mutagenic effects from exposure to Bifenthrin are inconclusive. Studies of mouse white blood cells were positive for gene mutation. However, other tests of Bifenthrin's mutagenic effects, including the Ames test and studies in live rat bone marrow cells, were negative.

**Carcinogenic Effects:** There was no evidence of cancer in a 2-year study of rats who ate as much as 10 mg/kg/day of Bifenthrin. However, an 87 week feeding study of mice with doses of 7, 29, 71, and 86 mg/kg showed a significantly higher, dose related trend of increased tumour incidence in the male urinary bladder. The incidence

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was significantly increased at 86 mg/kg/day. Also, females had higher incidences of lung cancer than the controls at doses of 7 mg/kg and higher. The EPA has classified Bifenthrin as a class C carcinogen, a possible human carcinogen.

**Organ Toxicity:** Pyrethroids are poisons that affect the electrical impulses in nerves, over-stimulating nerve cells causing tremors and eventually causing paralysis.

**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.

### Other information

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

<b>Ecotoxicity:</b>	Avoid contaminating waterways. Under normal and intended conditions of use, the product does not present an ecotoxicity hazard however accidental spills and leaks directly into waterways is very toxic to aquatic organisms.
<b>Persistence/degradability:</b>	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.
<b>Bioaccumulative potential:</b>	No information available.
<b>Mobility in Soil:</b>	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

<b>Disposal methods:</b>	Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations. Normally suitable for incineration by an approved agent.
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## 14. TRANSPORT INFORMATION

<b>Road and Rail Transport:</b>	Not subject to the ADG Code when transported by Road or Rail in Australia, in packages 500kg (L) or less; or IBCs.
<b>Marine Transport:</b>	<b>Marine and Air Transportation</b> EnviroMax Bifenthrin 100EC Termiticide & 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 10% Bifenthrin).
<b>Air Transport:</b>	

## 15. REGULATORY INFORMATION

<b>Poison Schedule (SUSMP):</b>	S6
<b>APVMA:</b>	This product is registered for use by the APVMA. Registration approval number: 63648



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**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:** 19 Sep 2017

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](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  
GHS - Globally Harmonised System of Classification and Labelling of Chemicals (3<sup>rd</sup> revised edition) 2009  
IARC - International Agency for Research on Cancer  
LD<sub>50</sub> or LC<sub>50</sub> – 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

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**END OF SDS**