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# Section 1 - Identification of The Material and Supplier

Ensystex Australasia Pty Ltd Warehouse D, Building 6, The Switchyard 161 Manchester Road, AUBURN, NSW 2144 13 35 36 (all hours) Ensystex New Zealand Ltd 17C Corinthian Drive Albany, Auckland 0752 0800 ENSYSTEX (0800 367 978)

Chemical nature: Bifenthrin is a pyrethroid derivative

Trade Name: MAXXTHOR® 100 Water-based Termiticide & Insecticide -

Diluted for use at 0.25% MAXXTHOR

**Product Code:** Australia APVMA: 60113 New Zealand HSR Approval: HSR 100773 **Product Use:** Diluted termiticide / insecticide for use as described on the registered product label.

APPROVED for use in food manufacturing and food processing areas.

Creation Date: March 2025

**This version issued:** March 2025 and is valid for 5 years from this date.

### Section 2 - Hazards Identification

### **Statement of Hazardous Nature**

**SUSMP Classification:** S6

ADG Classification: Not subject to the ADG Code when transported in Australia by Road or Rail in packages 500 kg(L) or less;

or IBCs (refer to SP AU01).

UN Number: 3082

GHS Classification:

Hazardous to aquatic environment, short-term hazard: Category 1 Hazardous to aquatic environment, long-term hazard: Category 1



# **GHS Signal word: WARNING**

# **HAZARD STATEMENT:**

H400+H410: Very toxic to aquatic life with long lasting effects.

### **PREVENTION**

P102: Keep out of reach of children. P273: Avoid release to the environment.

### **RESPONSE**

P391: Collect spillage.

### STORAGE DISPOSAL

P501: If they cannot be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

# **Emergency Overview**

Physical Description & colour: Very pale white watery coloured liquid.

Odour: Negligible.

**Major Health Hazards:** Bifenthrin is harmful to mammals when ingested. Large doses may cause incoordination, tremor, salivation, vomiting, diarrhoea, and irritability to sound and touch.

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#### **Potential Health Effects**

#### Inhalation:

Short term exposure: Available data indicates that this product is not harmful. **Long Term exposure:** No data for health effects associated with long term inhalation.

**Skin Contact:** 

**Short term exposure:** Available data indicates that this product is not harmful.

Long Term exposure: No data for health effects associated with long term skin exposure.

**Eye Contact:** 

**Short term exposure:** Available data indicates that this product is not harmful.

Long Term exposure: No data for health effects associated with long term eye exposure.

### **Ingestion:**

Short term exposure: Significant oral exposure is considered to be unlikely. Available data shows that this product is harmful, but symptoms are not available. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has

Long Term exposure: No data for health effects associated with long term ingestion.

### **Carcinogen Status:**

**NTP:** No significant ingredient is classified as carcinogenic by NTP. **IARC:** No significant ingredient is classified as carcinogenic by IARC.

Section 3 - Composition/Information on Ingredients				
Ingredients	CAS No	Conc, %	TWA (mg/m³)	STEL (mg/m³)
Bifenthrin	82657-04-3	0.025	not set	not set
Other non-hazardous ingredients	various	0.025 approx.	not set	not set
Water	7732-18-5	to 100	not set	not set
This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous				

ingredients are also possible. The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5-day

working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

### **Section 4 - First Aid Measures**

#### **General Information:**

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned, or irritated by this product. The number is 13 11 26 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

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: Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

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

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# Section 5 - Fire Fighting Measures

**Fire and Explosion Hazards**: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Fire decomposition products from this product are likely to be toxic and corrosive if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Not combustible. Use extinguishing media suited to burning materials.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

**Autoignition temperature:** Not applicable - does not burn.

Flammability Class: Does not burn.

# **Section 6 - Accidental Release Measures**

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the clean-up area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

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 spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions.

After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

# **Section 7 - Handling and Storage**

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS 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.

**Storage:** This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport, and storage of this schedule of poison. Make sure that containers of this product are kept tightly closed. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

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# **Section 8 - Exposure Controls and Personal Protection**

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

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits TWA (mg/m³) STEL (mg/m³)

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

The ADI for Bifenthrin is set at 0.01 mg/kg/day. The corresponding NOEL is set at 1 mg/kg/day. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Data from Australian ADI List, June 2013.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well-ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Protective glasses or goggles should be worn when this product is being used

**Skin Protection:** Prevent skin contact by wearing impervious gloves and overalls. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, PVC.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

### **Section 9 - Physical and Chemical Properties:**

**Physical Description & colour**: Very pale white watery coloured liquid.

Odour:Characteristic odour.Boiling Point:100 °C at 100 kPa

Freezing/Melting Point:0 °CVolatiles:No data.Vapour Pressure:No data.Vapour Density:No data.Specific Gravity:1.0.

Water Solubility: Completely soluble.

pH: No data.
 Volatility: No data.
 Odour Threshold: No data.
 Evaporation Rate: No data.
 Coeff Oil/water distribution: No data

**Autoignition temp:** Not applicable - does not burn.

# Section 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.

**Incompatibilities:** Strong acids, strong bases, oils.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form hydrogen fluoride gas and other compounds of fluorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** This product will not undergo polymerisation reactions.

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# **Section 11 - Toxicological Information**

### **Toxicity:**

Bifenthrin is harmful to mammals when ingested. Large doses may cause incoordination, tremor, salivation, vomiting, diarrhoea, and irritability to sound and touch.  $LD_{50}$ , for bifenthrin is about 54 mg/kg in female rats and 70 mg/kg in male rats. The  $LD_{50}$  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.

Chronic Toxicity: No information Available.

**Reproductive Effects:** The dose at which no toxic effect of bifenthrin is observed on the mother (maternal toxicity NOEL) is 1 mg/kg/day for rats and 2.67 mg/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 1 mg/kg/day for rats and is greater than 8 mg/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.

**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.

### **Classification of Hazardous Ingredients**

Ingredient Risk Phrases

Bifenthrin >=3%Conc<25%: Xn; R22

There is no data to hand indicating any particular target organs.

### **Section 12 - Ecological Information**

Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

**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 LC<sub>50</sub>, is 1,280 ppm for mallard ducks and 4,450 ppm for bobwhite quail. The acute oral LD<sub>50</sub> is 1,800 mg/kg for bobwhite quail and 2,150 mg/kg for mallard ducks.

**Effects on Aquatic Organisms:** Bifenthrin is very highly toxic to fish, crustaceans, and aquatic animals. The LC<sub>50</sub> 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 (Non-target 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:** Containers should be emptied as completely as practical before disposal. If possible, recycle product and containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site.

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## **Section 14 - Transport Information**

UN number: 3082

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bifenthrin contained)

Transport class: 9
Packing group: III
Environmentally hazardous: Yes

According to AU01 of Australian Special Provision, Environmentally Hazardous Substances meeting the description of UN3082 are not subject to this Code (ADG 07) when transported by road and rail in:

a) packaging that does not incorporate a receptacle exceeding 500 kg (L); or

b) IBCs.

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA special provision A197, and ADR/RID special provision 375.

This material is not a hazardous material as defined by the U.S. Department of Transportation 49 CFR Parts 100 through 185, unless shipped in bulk packaging. This classification pertains only to the shipment in bulk packaging [(>119 gal, liquid) or (882 lb, solid)].

### **Section 15 - Regulatory Information**

**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: Bifenthrin, is mentioned in the SUSMP.

### **Section 16 - Other Information**

This SDS contains only safety-related information. For other data see product literature.

If there is any conflict between this SDS and the registered label, instructions on the label prevail.

**Acronyms:** 

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail (7<sup>th</sup> edition)

Australian Inventory of Chemical Substances

SWA Safe Work Australia, formerly ASCC and NOHSC

CAS number Chemical Abstracts Service Registry Number

Hazchem Code Emergency action code of numbers and letters that provide information to emergency services

especially fire-fighters

International Agency for Research on Cancer

NOS Not otherwise specified

NTP National Toxicology Program (USA)

**R-Phrase** Risk Phrase

**SUSMP** Standard for the Uniform Scheduling of Medicines & Poisons

**UN Number** United Nations Number

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 MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

#### SAFETY DATA SHEET

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