



Safety Data Sheet

EnviroMax Deltamethrin 10SC Residual Insecticide

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: EnviroMax Deltamethrin 10SC Residual Insecticide.
Other means of identification: Deltamethrin suspension concentrate; synthetic pyrethroid insecticide.
Recommended use of the chemical and restrictions on use: A liquid, synthetic pyrethroid insecticide concentrate suitable for a broad range of applications as described by the label.
Supplier: EnviroMax Technologies Pty Ltd
ABN: 132 643 577
Street Address: Level 6, 10 Eagle Street, Brisbane QLD 4000
Telephone No: + 61-7-3897 8300
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.

The following health hazard categories fall outside the scope of the Workplace Health and Safety Regulations:

Acute Aquatic Toxicity - Category 1

Chronic Aquatic Toxicity - Category 1

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.		
Deltamethrin	52918-63-5	10 g/L

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: Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and wash skin and hair with soap and water. If irritation occurs seek medical advice.

Eye Contact: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.



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Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice.

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: Normal foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards arising from the substance or mixture: Non- combustible material.

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.

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:	Liquid
Colour:	Beige to white
Odour:	Slight odour
pH:	~7.0 (1% w/w solution)
Specific Gravity:	1.01 at 20°C
Melting Point/Freezing Point:	No information available.
Boiling Point/Range:	No information available.
Flash Point:	>100°C Not flammable
Evaporation Point:	No information available.
Vapour Pressure:	No information available.
Vapour Density:	No information available.
Solubility:	Insoluble. Active suspended in water.
Partition coefficient: n- octanol/water	No information available.
Auto-ignition Temperature:	No information available.
Decomposition Temperature:	No information available.
Viscosity:	No information available.

10. STABILITY AND REACTIVITY

Reactivity:	Stable under normal storage conditions and use.
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. Hazardous polymerisation is not possible. This product is unlikely to undergo polymerisation processes.
Conditions to avoid:	Excess heat, ignition sources.
Incompatible materials:	Strong acids, strong bases, strong oxidising agents.
Hazardous decomposition products:	This product is likely to decompose only after heating to dryness, followed by further strong heating. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Oral LD50 (estimated from ingredients) > 5,000 mg/kg bw Dermal LD50 (estimated from ingredients) > 5,000 mg/kg bw Inhalation LD50 (dust/mist, estimated from ingredients) > 5 mg/L bw
Ingestion:	Available information indicates that it is not considered an acute oral toxicant.
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:	Not considered to be a mutagenic hazard.
Carcinogenicity:	Not considered to be a carcinogenic.
Reproductive toxicity:	Not considered to be toxic to reproduction.
STOT-single exposure:	Not expected to cause toxicity to a specific target organ.
STOT-repeated exposure:	Not expected to cause toxicity to a specific target organ.
Aspiration hazard:	Not expected to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Avoid contaminating waterways. Avoid contaminating waterways. Do not discharge product into the environment without control.
	Information on Deltamethrin technical grade active constituent:
Fish:	Moderately to highly toxic to fish. 96-hour LC50 ranges from 0.91-3.50 µg/L. However, field applications of deltamethrin are not expected to affect fish as it binds tightly to soil and breaks down quickly.
Aquatic invertebrates:	Deltamethrin spiked water with artificial sediment was highly toxic to larvae of the midge <i>Chironomus riparius</i> with a 28-day LC50 of 16 µg/L. Deltamethrin spiked water with natural sediment had no effect on larval survival or development rate.
Birds:	Deltamethrin is practically non-toxic to birds, acute oral LD50 for mallard ducks >4640 mg/kg; 8-day dietary LC50 >8039 mg/kg for mallard ducks and >5620 mg/kg for quail. Deltamethrin did not affect the reproduction of female Japanese quail when fed up to 1.0 mg for 34 days.
Terrestrial insects:	Deltamethrin is highly toxic to honeybees: oral LD50 51 ng/bee and a contact LD50 of 51 ng/bee. In field studies, deltamethrin did not harm bees at rates up to 12.5 g a.i./ha and formulated products had a repellent effect lasting for 2-3 hours. No effects on earthworms in soil at 12.5 g/ha of deltamethrin for 28 days.
Persistence/degradability:	Aerobic half-life in soil is 26 days in lab conditions, and 21 days in field dissipation studies. Deltamethrin was stable to hydrolysis in solutions of pH 5 and 7. In a pH 9 solution, the average half-life was 2.5 days.
Bioaccumulative potential:	Deltamethrin is predicted to have limited potential to bioaccumulate in the environment.
Mobility in Soil:	Deltamethrin is considered relatively immobile in soils. Deltamethrin has little potential to leach into groundwater due to its strong tendency to bind to soil organic matter.

13. DISPOSAL CONSIDERATIONS

Disposal methods:	On site disposal of the concentrated product is not acceptable. 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

Road and Rail Transport:	According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500kg or 500 L are not subject to the ADG Code.
	If transported above these limits, then it is classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; DANGEROUS GOODS
UN Number:	3082
Proper Shipping Name or Technical Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DELTAMETHRIN)
Transport Hazard Class:	9
Packaging Group:	III
Hazchem Code:	•3Z



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Marine Transport:	Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS. UN Number: 3082 Proper Shipping Name or Technical Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DELTAMETHRIN) Transport Hazard Class: 9 Packaging Group: Not assigned. IMDG EMS Fire: F - A IMDG EMS Spill: S - F
Air Transport:	Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS. UN Number: 3082 Proper Shipping Name or Technical Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DELTAMETHRIN) Transport Hazard Class: 9 Packaging Group: Not assigned.

15. REGULATORY INFORMATION

Poison Schedule (SUSMP):	5 - CAUTION
APVMA Approval No:	63673
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:	<p>Pyrethroids are poisons that affect the electrical impulses in nerves, over-stimulating nerve cells causing tremors and eventually causing paralysis. Deltamethrin is considered to be readily absorbed when administered orally. Rats absorbed 3.6% of the deltamethrin applied to their skin, which was then excreted within 24 hours. Absorption of deltamethrin through human skin is expected to be relatively weak. Deltamethrin was poorly absorbed from the gastrointestinal tract of lactating cows. Deltamethrin was absorbed by rats after they were fed plant material with deltamethrin residues. Deltamethrin distributed to nerve tissues and all regions of the brain tested. There is little tendency for deltamethrin to accumulate in tissues. In rats, deltamethrin had a half-life in blood of 5.5 hours. Human volunteers ingested a single dose of 3 mg deltamethrin and researchers tested urine, faeces, saliva, and blood samples. The highest levels in the blood were observed within one to two hours after the exposure. The elimination half-life ranged from 10.0-11.5 hours in plasma and 10.0-13.5 hours in urine. The majority of ingested deltamethrin (64-77%) was excreted in faeces and urine within four days of exposure.</p> <p>The ADI for Deltamethrin 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.</p>
Issue Number:	003
Issue Date:	28 th June 2019
	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:	Third issue. Revised Primary SDS and updated to GHS requirements

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Literary Reference:

IUPAC Agrochemical Information: Deltamethrin

<http://sitem.herts.ac.uk/aeru/iupac/205.htm>

United States Environmental Protection Agency: Deltamethrin. Human Health Assessment Scoping Document in Support of Registration Review

<http://www.epa.gov/oppfead1/endanger/litstatus/effects/redleg-frog/2013/deltamethrin/appendix-i.pdf>

EFSA Scientific Opinion Potential developmental neurotoxicity of deltamethrin 1 Scientific Opinion of the Panel on Plant Protection Products and their Residues (PPR).

<http://www.efsa.europa.eu/en/efsajournal/doc/921.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 (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

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END OF SDS