Section 1 - Identification

eChem Australia Pty Ltd
Level 4, Lantos Place, 80 Stamford Rd
Indooroopilly, Qld 4068
Phone: 1300 781 649 (office hours)
Fax: 1300 781 650
Emergency 1800 033 111 (any time)

Chemical nature: Insecticide containing lambda-cyhalothrin.
Trade Name: **eChem Lambda 250 CS Insecticide**
APVMA Code: 90078
Product Use: Agricultural insecticide for use as described on the product label.
Creation Date: **May, 2026**
This version issued: **May, 2026** and is valid for 5 years from this date.
Poisons Information Centre: Phone 13 1126 from anywhere in Australia

Section 2 - Hazards Identification

Statement of Hazardous Nature
SUSMP Classification: S6
ADG Classification: Class 6.1: Toxic Substances.
UN Number: 3352, PYRETHROID PESTICIDE, LIQUID, TOXIC

GHS Signal word: DANGER
Acute Toxicity Oral Category 4
Acute Toxicity Inhalation Category 3
Hazardous to aquatic environment Short term/Chronic Category 1

HAZARD STATEMENT:
H302: Harmful if swallowed.
H331: Toxic if inhaled.
H410: Very toxic to aquatic life with long lasting effects.

PREVENTION
P220: Keep or store away from combustible materials.
P261: Avoid breathing fumes, mists, vapours or spray.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash contacted areas thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well ventilated area.

RESPONSE
P311: Call a POISON CENTRE or doctor.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
P301+P312: IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304+P340: IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
P370+P378: In case of fire: Use carbon dioxide, dry chemical, foam, to extinguish.

STORAGE
P405: Store locked up.
P410: Protect from sunlight.
P402+P404: Store in a dry place. Store in a closed container.
P403+P235: Store in a well-ventilated place. Keep cool.

DISPOSAL
P501: Dispose of contents and containers as specified on the registered label.

Emergency Overview

Physical Description & Colour: Beige liquid.

Odour: Negligible odour.

Section 3 – Composition and Information on Ingredients

Ingredients	CAS No	Conc, g/L	TWA (mg/m^3)	STEL (mg/m^3)
Lambda-cyhalothrin	91465-08-6	250	not set	not set
Other non hazardous ingredients	secret	to 1 L	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 1126 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: If inhalation occurs, contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Remove source of contamination or move victim to fresh air. Apply artificial respiration if not breathing. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice.
Skin Contact: Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.
Eye Contact: No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.
Ingestion: If swallowed, do NOT induce vomiting. Rinse mouth thoroughly with water and contact a Poisons Information Centre, or call a doctor at once. Give activated charcoal if instructed.

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 little risk of an explosion from this product if commercial quantities are involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.
Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Extinguishing Media: In case of fire, use carbon dioxide, dry chemical or foam. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.
Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include no specific manufacturer recommendations. Use impermeable gloves with care. Eye/face protective equipment should comprise, as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup 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).
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. Because of the toxicity of this product, special personal care should be taken in any cleanup operation. 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. Store in a cool, well ventilated area. Check containers periodically for leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 10000kg or L of Dangerous Goods of Packaging Group III, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

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/m^3)** **STEL (mg/m^3)**

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

The ADI for Lambda-cyhalothrin is set at 0.001mg/kg/day. The corresponding NOEL is set at 0.1mg/kg/day. ADI means Acceptable Daily Intake

NOEL means No-observable-effect-level. Data from Australian ADI List, March 2017.

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: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product for lengthy periods. See below for suitable material types.

Protective Material Types: There is no data that enables us to recommend any type except that it should be impermeable.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Beige liquid.
Odour:	Negligible odour.
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Boiling Point:	Not available.
Flash point:	No data
Upper Flammability Limit:	No data.
Lower Flammability Limit:	No data.
Flammability Class:	No data.
Volatiles:	No data.
Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	Approx 1.10
Water Solubility:	Dispersible.

pH:	Approx 5.4
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	No data
Particle Characteristics:	Not applicable for liquids.
Autoignition temp:	No data.

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.
Conditions to Avoid: Keep isolated from combustible materials. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatibilities: strong acids, strong bases, strong oxidising agents.
Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation: Polymerisation reactions are unlikely. They are not expected to occur.

Section 11 - Toxicological Information

Toxicity: Acute Toxicity, lambda-cyhalothrin: Reported oral LD50 values in corn oil are 79 mg/kg and 56 mg/kg for male and female rats, respectively. It has also been reported as 144 mg/kg. The reported rat LD50 for the technical product is similar
64 mg/kg. These indicate that the product is toxic by oral exposure. No data were available regarding the acute toxicity of the technical compound via the inhalation route, but for a formulated product, the reported 4-hour inhalation LC50s were 0.175 mg/L and 0.315 mg/L for female and male rats, respectively, indicating a moderate to high toxicity. Dermal LD50s of 632 mg/kg and 696 mg/kg have been reported for male and female rats (vehicle used was propylene glycol). It has also been found to be non-irritating to the skin of rabbits and non-sensitizing to the skin of guinea pigs but may cause mild eye irritation in rabbits. In formulated product however, it causes severe primary skin irritation in rabbits and mild skin sensitization in guinea pigs. Other acute effects due to exposure to lambda cyhalothrin, like those of other pyrethroids, will be mainly neuropathy (effects on the nervous system). These effects may result in observable effects such as: tingling, burning or numbness sensations (particularly at the point of skin contact)
tremors, incoordination of movement, paralysis or other disrupted motor function
and confusion or loss of consciousness. Since most pyrethroids are generally absorbed only poorly through the skin, the latter two systemic effects are unlikely unless the compound has been ingested. Effects are generally reversible due to rapid breakdown of the compound in the body.
Chronic Toxicity: The principal toxic effects noted in chronic studies were decreased body weight gain and decreased food consumption. In two teratology studies, no maternal toxicity was observed at doses of 10 mg/kg/day in both rats and rabbits. It is unlikely that lambda cyhalothrin would cause chronic effects in humans under normal conditions.
Reproductive Effects: It is unlikely that lambda cyhalothrin would cause reproductive effects in humans under normal conditions.
Teratogenic Effects: No teratogenic or foetotoxic effects were observed in teratology studies of lambda cyhalothrin in rats and rabbits at the highest doses tested in both species. It is unlikely that lambda cyhalothrin causes teratogenic effects.
Mutagenic Effects: Lambda cyhalothrin produced negative results in all Ames mutagenicity assays using five different test strains, both with and without metabolic activation. The available evidence suggests that lambda cyhalothrin is non-mutagenic and non-genotoxic.
Carcinogenic Effects: The evidence regarding the carcinogenicity of lambda cyhalothrin is inconclusive, but suggests that it is probably not carcinogenic.
Organ Toxicity: No specific target organs or organ systems have been identified in the available studies of chronic toxicity. The nervous system may be affected after acute exposure. This product may affect lungs, gastrointestinal system.
Major Health Hazards: Lambda-cyhalothrin is toxic by the oral route. Skin contact may cause tingling, burning or numbness sensations (particularly at the point of skin contact). Major exposures may cause tremors, incoordination, paralysis or other disrupted motor function and confusion or loss of consciousness. toxic if swallowed, toxic if inhaled.

Classification of Hazardous Ingredients

Ingredient	Health Hazard Statement Codes
Lambda-cyhalothrin	H330, H301, H312, H410

- Acute toxicity – category 2
- Acute toxicity – category 3
- Acute toxicity – category 4
- Hazardous to the aquatic environment (acute) – category 1
- Hazardous to the aquatic environment (chronic) – category 1

Potential Health Effects

Inhalation:
Short Term Exposure: Available data shows that this product is toxic, but symptoms are not available. However product is unlikely to cause any discomfort or irritation.
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. It should present no hazards in normal use. However product may be irritating, but is unlikely to cause anything more than mild transient discomfort.
Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:
Short Term Exposure: This product may be irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.
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 toxic, but further symptoms are not available. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.
Long Term Exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:
SWA: No significant ingredient is classified as carcinogenic by SWA.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 12 - Ecological Information

This product is very toxic to aquatic life with long lasting effects. This product is not readily biodegradable; it may accumulate in the soil or water and cause long term problems.
Effects on Birds: Lambda cyhalothrin's toxicity to birds ranges from slightly toxic to practically non-toxic. There is evidence that it does not accumulate in the eggs or tissues of birds.
Effects on Aquatic Organisms: Lambda cyhalothrin is very highly toxic to many fish and aquatic invertebrate species. Bioconcentration is possible in aquatic species, but bioaccumulation is not likely. A bioconcentration factor of 858 has been reported in fish, but concentration was confined to non-edible tissues and rapid depuration was observed.
Effects on Other Animals (Nontarget species): Lambda cyhalothrin is highly toxic to bees, with a reported contact LD50 of 0.9 µg/bee.
ENVIRONMENTAL FATE
Breakdown of Chemical in Soil and Groundwater: Lambda cyhalothrin is moderately persistent in the soil environment. Reported field half-lives range from 4 to 12 weeks. Its field half-life is probably close to 30 days in most soils.
Breakdown of Chemical in Surface Water: Lambda cyhalothrin has extremely low water solubility and is tightly bound to soil, it is therefore not expected to be prevalent in surface waters. Section 13 - Disposal Considerations
Disposal: This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to separate the contamination in some way. Only if neither of these options is suitable, we suggest that you contact a specialist disposal company to arrange disposal. Disposal by untrained personnel may cause a dangerous incident.

Section 14 - Transport Information

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

UN Number: 3352, PYRETHROID PESTICIDE, LIQUID, TOXIC
Hazchem Code: 2X
Special Provisions: 61, 223, 274
Limited quantities: ADG 7 specifies a Limited Quantity value of 5 L for this class of product.
Dangerous Goods Class: Class 6.1: Toxic Substances.
Packing Group: III
Packing Instruction: P001, IBC03, LP01

Class 6 Toxic Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids where the Flammable Liquid is nitromethane), 5.1 (Oxidising Agents where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides where the Toxic Substances are Fire Risk Substances), 8 (Corrosive Substances where the Toxic Substances are cyanides and the Corrosives are acids), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes, 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Toxic Gases), 3 (Flammable liquids, except where the flammable liquid is nitromethane), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents except where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides except where the Toxic Substances are Fire Risk Substances), 7 (Radioactive Substances), 8 (Corrosive Substances except where the Toxic Substances are cyanides and the Corrosives are acids), 9 (Miscellaneous Dangerous Goods)

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with AICIS regulations.
The following ingredient: Lambda-cyhalothrin, is mentioned in the SUSMP.

Section 16 - Other Information

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

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICS/AIIC	Australian Inventory of Industrial Chemicals
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 firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
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.

This SDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” (July 2020) and GHS Revision 7

http://www.kilford.com.au/ Phone (02)8321 8866