

MATERIAL SAFETY DATA SHEET



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**Emergency Contact:
1800 033 111**

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: eChem Alpha-Cyp 100 Duo Insecticide

Full Product Name: eChem Alpha-Cyp 100 Duo Insecticide.
Other Names: Alpha Cypermethrin, Alphamethrin.
Use: Synthetic Pyrethroid Insecticide for the control of insect pests.
Company: eChem (Australia) Pty Ltd
Address: Level 4, Lantos Place 80 Stamford Road, Indooroopilly QLD 4068
ACN/ABN: 089 133 095
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SECTION 2 HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.
Combustible Liquid (C1).**

Risk phrases: R22 Harmful if swallowed.
R36/37 Irritating to eyes and respiratory system.
R65 Harmful: may cause lung damage if swallowed.

Safety Phrases: S2 Keep out of reach of children.
S13 Keep away from food, drink and animal feedstuffs.
S23 Do not breathe vapour or spray.
S24/25 Avoid contact with skin and eyes.
S36/37 Wear suitable protective clothing and gloves.
S39 Wear eye/face protection.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:	CAS NUMBER	PROPORTION
CHEMICAL		
Alpha-cypermethrin	67375-30-8	100 g/L
Aromatic Hydrocarbons	64742-94-5	735 g/L
Other ingredients (including water) determined not to be hazardous		to 100%

Trace quantities of impurities are possible.

SECTION 4 FIRST AID MEASURES

FIRST AID

Ingestion: If swallowed do NOT induce vomiting. Give plenty of water to drink. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 13 1126.

SECTION 4 FIRST AID MEASURES (Continued)

- Eye contact:** Immediately hold eyes open and flood with clean water until chemical is removed. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. If irritation persists, seek medical advice.
- Skin contact:** Remove contaminated clothing. Wash skin thoroughly with soap and water. If skin irritation persists, seek medical advice.
- Inhalation:** Remove to fresh air and observe until recovered. If irritation or symptoms persists more than about 30 minutes, seek medical advice.

Advice to Doctor: Alpha-cypermethrin, the active ingredient in this product is a synthetic pyrethroid insecticide. The formulation also contains liquid hydrocarbons that can cause severe pneumonitis or fatal pulmonary oedema if aspirated. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise symptomatic and supportive. In cases of skin contact, it has been reported that topical applications of Vitamin E acetate was found to have very high therapeutic value, eliminating almost 100% of the skin pain associated with synthetic pyrethroids.

SECTION 5 FIRE FIGHTING MEASURES

- Specific Hazard:** Product is a C1 combustible liquid (Flash point > 62°C). Sealed, overheated containers may present an explosion hazard.
- Extinguishing media:** Extinguish fire using foam blanket, carbon dioxide or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained. Contain all runoff.
- Hazards from combustion products:** Will produce toxic and noxious vapours when burnt. Will not polymerise. Sealed, overheated containers may present explosion hazard.
- Precautions for fire-fighters and special protective equipment:** Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or vapours generated.

SECTION 6 ACCIDENTIAL RELEASE MEASURES

Emergency procedures: Wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and a face shield or goggles. In the case of spillage, contain and absorb spilled material with absorbent material such as sand, clay or cat litter. Evacuate unprotected and unnecessary personnel from area of spill. If material is leaking from a container, stop the leak only if this can be done safely. Prevent spillage entering drains or watercourse. Large spills should be dyked or covered to prevent dispersal. Vacuum, shovel or pump spilled material into an approved container and dispose of as listed below. Keep out animals and unprotected persons. Keep material out of streams and sewers.

Material and methods for containment and cleanup procedures: To decontaminate spill area, tools and equipment, wash with a suitable solution (ie organic solvent, detergent, bleach or caustic) and add the solution to the drums of wastes already collected. Label for contents. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities. Do not cut or weld metal containers. Vapours that form inside may create an explosion hazard.

SECTION 7 HANDLING AND STORAGE

Precautions for safe Handling: No smoking, eating or drinking should be allowed where material is used or stored. Harmful if swallowed. Will irritate the eyes and skin. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes and skin. Avoid inhaling vapour or spray mist. When preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and a face shield or goggles. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Conditions for safe Storage: Store in the closed, original container in a well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight. Do not re-use container for any purpose. Not classified as a Dangerous Good.

SECTION 7 HANDLING AND STORAGE (Continued)

This product is a combustible liquid (C1) and must be stored away from naked lights, heat sources and oxidising agents. Observe procedures detailed in Australian Standard AS1940-2004 for flammable and combustible liquids. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Guidelines:**

No exposure limit has been assigned to this material by Safe Work Australia. The following Standard may apply - Aromatic Hydrocarbons: TWA 100 ppm.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Use in ventilated areas. Keep containers closed when not in use. No special engineering controls are required.

Personal Protective equipment (PPE):

General: When preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and a face shield or goggles. Avoid contact with the eyes and skin. Avoid inhaling vapour or spray mist.

Respiratory Protection: Generally not required. Use of a respirator may be required in certain circumstances to protect from inhalation of spray mist.

Personal Hygiene: After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Shower at the end of the workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid.
Odour:	hydrocarbon odour.
Boiling point:	Not known.
Freezing point:	Not known.
Specific Gravity:	0.94 at 25°C.
Solubility in Water:	Forms an emulsion in water.
pH:	Not known
Flammability:	Combustible liquid.
Corrosive hazard:	Not corrosive.
Flashpoint (°C):	> 62°C – Combustible liquid.
Flammability Limits (%):	Not established.
Poisons Schedule:	This product is a schedule 6 (S6) poison.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Avoid alkaline materials.

Incompatible materials: Avoid strong acids, bases and oxidizing agents.

Hazardous decomposition products: In a fire, toxic and noxious decomposition products maybe formed.

Hazardous reactions: No particular reactions to avoid.

SECTION 11 TOXICOLOGICAL INFORMATION

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure. This formulation also contains aromatic hydrocarbons. Inhalation of aromatic hydrocarbon vapours may cause central nervous system depression, dizziness, disturbances in vision and respiratory irritation. Moderately irritating to the eyes. Contact with the skin may be irritating.

Potential Health Effects:**ACUTE EFFECTS**

- Swallowed: This product is harmful if swallowed; the Acute Oral LD₅₀ (rat) = 79 mg/kg (Technical Alpha-cypermethrin). Calculated value for Alpha-Cyp: LD₅₀ = 790 mg/kg.
- Eye: This product may be irritating to the eyes.
- Skin: This product may be irritating to the skin and may be sensitising. Repeated or prolonged exposure may cause irritant contact dermatitis. If substantial contact occurs it could cause facial numbness.
- Inhaled: Inhalation of mists or sprays may produce respiratory irritation. Inhalation of aromatic hydrocarbon vapours may cause dizziness, disturbances in vision, and irritation to the eyes, skin and mucous membrane of the respiratory and gastrointestinal tracts.

Long Term Exposure: No data available on this formulation. In studies with laboratory animals, Alpha-cypermethrin Technical did not cause teratogenicity or reproductive toxicity. The overall results from a battery of genotoxicity studies indicate that alpha-cypermethrin is not considered to be genotoxic. Ames test results were negative.

Kidney and liver damage is possible from over-exposure to aromatic hydrocarbons over long periods. Additionally, some reversible haematopoietic depression has been observed in animals with extended exposure to aromatic hydrocarbons.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: No data is available on this product. Alpha-cypermethrin is toxic to fish and aquatic arthropods. Do not contaminate sewers, drains, dams, creeks or any other waterways with product or the used container. The physical and environmental toxicology of Alpha-cypermethrin is similar to cypermethrin. Cypermethrin is very slightly toxic to birds and Oral LD₅₀ values are greater than 10,248 mg/kg. Cypermethrin is considered highly toxic to fish and aquatic arthropods and has LC₅₀ values which range from 0.004 µg/L to 3.6 µg/L. The aquatic arthropods tend to be some of the more sensitive species. Dangerous to bees. DO NOT spray on any plants in flower while bees are foraging.

Environmental Fate: The physical and environmental properties of Alpha-cypermethrin are similar to cypermethrin. Cypermethrin has a high affinity for organic matter and a Log P_{ow} of 5.0, yet, because of the ease with which the material undergoes degradation, it has a very low potential for bioconcentration, and is not mobile in soil. Cypermethrin is rapidly degraded in soil with a half life of 2 to 4 weeks. It is rapidly hydrolysed under basic conditions (pH = 9) but, under acidic and neutral conditions, hydrolysis half life can be 20 to 29 days.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills and Disposal: Keep material out of streams and sewers. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities. In rural areas contact ChemClear <http://www.chemclear.com.au> for help with collection of unwanted rural chemicals.

Disposal of empty containers: Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. 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 an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in

SECTION 13 DISPOSAL CONSIDERATIONS (Continued)

compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product. Do not cut or weld metal containers.

SECTION 14 TRANSPORT INFORMATION

Road & Rail Transport: eChem Alpha-Cyp 100 Duo Insecticide is exempt from classification as a Dangerous Good in packs less than 3,000 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3082. (See special provision AU01).

Marine and Air Transport: eChem Alpha-Cyp 100 Duo 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% Alphacypermethrin). EPG: Guide No. 47.
Not to be loaded with explosives (Class1), oxidising agents (Class 5.1), organic peroxidies (Class 5.2), however exemptions may apply.

SECTION 15 REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Drugs and Poisons (SUSDP), this product is a schedule 6 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 53218.

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. (Xn: Harmful. Xi: Irritating).

This product is not classified as a Dangerous Good according to the ADG Code for packs less than 3000 litres (SP AU01) (7th Ed)

Product is a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

SECTION 16 OTHER INFORMATION

Issue Date: 20 March 2013. Valid for 5 years (Updated address details).

Key to abbreviations and acronyms used in this MSDS:

ADG Code: Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).

Carcinogen: An agent which is responsible for the formation of a cancer.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

PPE: Personal protective equipment.

Teratogen: An agent capable of causing abnormalities in a developing foetus.

TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.

References

1. "Search Hazardous Substances". Safe Work Australia website. (2013).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.

This MSDS 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 should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End MSDS