

# SAFETY DATA SHEET



**eChem (Australia) Pty Ltd**  
Level 4, Lantos Place, 80 Stamford Road,  
Indooroopilly, Qld, 4068  
Phone: 1300 781 649  
Fax: 1300 781 650

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**Emergency Contact:**  
**1800 033 111**

## SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name: eChem Bifenthrin 100 EC Insecticide**

**Full Product Name:** eChem Bifenthrin 100 EC Insecticide.  
**Other Names:** Bifenthrin. Group 3A Insecticide.  
**Use:** An liquid agricultural insecticide.  
**Company:** eChem (Australia) Pty Ltd.  
**Address:** Level 4, Lantos Place, 80 Stamford Road, Indooroopilly, Qld, 4068.  
**ACN/ABN:** 089 133 095.  
**Telephone Number:** 1300 781 649 **Fax Number:** 1300 781 650  
**Emergency Contact:** 1800 033 111

## 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).**

### GHS classification of the substance/mixture

Acute Toxicity – Inhalation: Category 4.  
Acute Toxicity – Oral: Category 4.  
Eye Damage/Irritation Category 2A.  
Specific Target Organ Toxicity (Single Exposure): Category 3.  
Aspiration Hazard: Category 1.

**Signal Word:** DANGER.

### Hazard statements:

H332 Harmful if inhaled.  
H302 Harmful if swallowed.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H304 May be fatal if swallowed and enters airways.

### Precautionary Statements:

#### Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271 Use only in outdoors or in a well ventilated area.  
P264 Wash hands, arms and face thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

#### Response:

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if feel unwell.

**SECTION 2 HAZARDS IDENTIFICATION (Continued)**

- P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
 P330 Rinse mouth.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 If eye irritation persists: Get medical advice/attention.

**Storage and Disposal:**

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with national regulations.

**Pictograms:****SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

| CHEMICAL   | CAS NUMBER | PROPORTION |
|--|------------|------------|
| Bifenthrin                                       | 82657-04-3 | 100 g/L    |
| Liquid Hydrocarbons                              | 64742-46-7 | > 60% w/w  |
| Other ingredients determined not to be hazardous |            | Balance    |

**SECTION 4 FIRST AID MEASURES****FIRST AID**

- Ingestion:** If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 13 11 26). If swallowed, do not induce vomiting. Rinse any residual product from mouth and lips. Give water to drink and seek medical help.
- 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 occurs and persists see a doctor.
- Skin contact:** Remove contaminated clothing and launder before re-use. Wash skin with soap and water. If irritation occurs and persists see a doctor.
- Inhalation:** Remove to fresh air and observe until recovered. Seek medical advice if effects persist.

**Advice to Doctor:** Bifenthrin the active ingredient in this product is a pyrethroid insecticide. The formulation also contains petroleum distillate 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.

**SECTION 5 FIRE FIGHTING MEASURES**

**Specific Hazard:** Product is a combustible liquid. Flash point approximately 94°C. Eruption of containers is likely if confined at high temperatures. Intact containers exposed to excessive heat should be cooled with water to reduce drum pressure.

**Extinguishing media:** Use carbon dioxide, dry chemical or foam. If no alternative use water fog and contain all run off. Violent steam generation or eruption may occur if directed water stream is applied on hot liquids. If containers are ruptured contain all runoff.

**Hazards from combustion products:** On burning will produce toxic and noxious vapours, including hydrogen chloride, hydrogen cyanide and oxides of carbon and nitrogen can be expected.

**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. Evacuate personnel to a safe area.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Emergency procedures:** Isolate and post spill area. Keep out unprotected persons and animals. Wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and goggles. Large spills should be dyked. Absorb spilled material with absorbent material such as sand, clay or cat litter. Vacuum, shovel or pump spilled material into an approved container and dispose of waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep material out of streams and sewers.

**Material and methods for containment and cleanup procedures:** To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

**SECTION 7 HANDLING AND STORAGE**

**Precautions for safe Handling:** No smoking, eating or drinking should be allowed where material is used or stored. Poisonous if swallowed. Will damage eyes. Will irritate the nose, throat and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When preparing spray, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and goggles. When using the prepared spray wear cotton overalls buttoned to the neck and wrist and washable hat and elbow length PVC gloves. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

**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. This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport requirements. Do not store or use near naked flame, or heat sources. Do not cut or weld container. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations. Not classified as a Dangerous Good by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION****National Exposure Standards:**

No exposure standard for bifenthrin has been assigned by Safe Work Australia to this material.

**Biological Limit Values:**

No biological limit allocated.

**Engineering controls:**

Keep containers closed when not in use. No special engineering controls are required, however make sure that the work environment remains clean and that vapours and mists are minimised.

**Personal Protective equipment (PPE):**

General: When preparing spray, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and goggles. When using the prepared spray wear cotton overalls buttoned to the neck and wrist and washable hat and elbow length PVC gloves. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

Personal Hygiene: Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

|                             |   |
|-----------------------------|---|
| <b>Appearance:</b>          | Clear straw to golden yellow liquid.      |
| <b>Odour:</b>               | Aromatic hydrocarbon odour.               |
| <b>Boiling point:</b>       | No data available.                        |
| <b>Freezing point:</b>      | No data available.                        |
| <b>Specific Gravity:</b>    | Approximately 0.9.                        |
| <b>Solubility in Water:</b> | Emulsifies in water.                      |
| <b>pH:</b>                  | No data available.                        |
| <b>Flammability:</b>        | Combustible liquid (C1).                  |
| <b>Flashpoint (°C):</b>     | Approximately 94°C.                       |
| <b>Poisons Schedule:</b>    | This product is a schedule 6 (S6) poison. |
| <b>Formulation type:</b>    | Emulsifiable Concentrate.                 |

**SECTION 10 STABILITY AND REACTIVITY**

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

**Conditions to avoid:** Do not store for prolonged periods in direct sunlight. Store away from sources of ignition. Avoid alkaline materials.

**Incompatible materials:** Incompatible with strong oxidizing agents, strong acids and strong bases.

**Hazardous Decomposition Products:** On burning will emit toxic fumes of carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen fluoride etc.

**Hazardous Reactions:** Does not polymerise.

**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. 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 liquid hydrocarbons. Harmful: May cause lung damage if swallowed. Inhalation of liquid 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. Dermal sensitisation may occur.

**Potential Health Effects:****ACUTE EFFECTS**

**Swallowed:** Acute Oral LD<sub>50</sub> (rat) = 531 mg/kg (similar formulation).

**Eye:** Moderately irritating to the washed eye and severely irritating to the unwashed eye. Product can be absorbed through the eyes.

**Skin:** This product has a low dermal toxicity. The dermal LD<sub>50</sub> (rabbit) > 2000 mg/kg. Skin sensitising may occur in sensitive individuals. Skin contact may result in irritation with a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

**Inhaled:** This product is harmful if inhaled. Inhalation of liquid hydrocarbon vapours may cause dizziness, disturbances in vision and irritation to the eyes, skin and mucous membrane of the respiratory and gastrointestinal tracts. Acute inhalation LC<sub>50</sub> = 4.9 mg/L/4 hour.

**Long Term Exposure:** No data available on this formulation. In studies with laboratory animals, Bifenthrin Technical did not cause teratogenicity or reproductive toxicity. Tremors were associated with repeated exposure of dogs, rats, rabbits and mice to Bifenthrin. The overall results from a battery of genotoxicity studies indicate that Bifenthrin is not considered to be genotoxic. Ames test results were negative.

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

**SECTION 12 ECOLOGICAL INFORMATION**

**Environmental Toxicology:** The active ingredient, Bifenthrin, is highly toxic to fish and aquatic arthropods with LC<sub>50</sub> values ranging from 0.0038 µg/L to 17.8 µg/L. In general, the aquatic arthropods are the most sensitive species. Care should be taken to avoid contamination of the aquatic environment. Bifenthrin had no effect on molluscs at its limit of water solubility. Bifenthrin is only slightly toxic to both waterfowl and upland game birds with LC<sub>50</sub> values range from 1800 mg/kg to > 2,150 mg/kg. Do not contaminate sewers, drains, dams, creeks or any other waterways with product or the used container.

**Environmental Fate:** The active ingredient, Bifenthrin, degrades at a moderate rate in agricultural soils (t<sub>1/2</sub> = 50 to 205 days), and more rapidly on the surface of bare soils (t<sub>1/2</sub> = 7 to 62 days). Bifenthrin is tightly bound in most soils and has extremely low water solubility.

**SECTION 13 DISPOSAL CONSIDERATIONS****Spills and Disposal:****1) After intended use - 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 compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

**2) After spill or accident**

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.

**SECTION 14 TRANSPORT INFORMATION**

**Transport:** This product 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:** This product 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 60% Triclopyr).

**SECTION 15 REGULATORY INFORMATION**

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

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 69549.

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

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

*Requirements concerning special training:*

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

**SECTION 16 OTHER INFORMATION**

Issue Date: 16 February 2014. Valid for 5 years. (First issue).

Key to abbreviations and acronyms used in this SDS:

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

Ataxia: Inability to control the coordinate movements of the muscles.

Bradycardia: Is a resting heart rate of under 60 beats per minute (adults).

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

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

Mutagenic: Able to produce a mutation (a change in the genetic material of cells).

Neurotoxicity: An adverse change in the structure or function of the nervous system.

Oedema: Accumulation of fluid in tissues.

PPE: Personal protective equipment.

Teratogen: An agent capable of causing abnormalities in a developing foetus, that is causing birth defects.

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

Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

**References**

1. "Search Hazardous Substances". Safe Work Australia HSIS website. (2014).
2. "Approved Criteria for Classifying Hazardous Substances" 3<sup>rd</sup> Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.

*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 should read this SDS 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 SDS.