



## SAFETY DATA SHEET VENOM 100 EC INSECTICIDE

### Section 1: Identification of the Substance and Supplier

**Product name:** VENOM 100 EC INSECTICIDE  
**Chemical name of active Ingredient(s):** Bifenthrin is pyrethroid derivative  
**Supplier:** ADAMA New Zealand Limited  
Level1/19 Elms Street, Wakatu Estate, Stoke, Nelson, New Zealand  
P.O. Box 1799, Nelson New Zealand.  
**Telephone:** +64 3 543 8275 Fax: +64 3 543 8274  
**Emergency Telephone:** 0800 POISON (0800 764 766)

### Section 2: Hazards Identification

**Hazard Classifications:** 3.1D, 6.1D, 6.3A, 6.4A, 6.9A, 9.1A, 9.2B, 9.3B, 9.4A

**Most important hazards:** **Warning - Combustible liquid. Do not store or use near heat or naked flame. Will burn if ignited.**  
**TOXICITY**  
**May be harmful if swallowed, inhaled or absorbed through the skin.**  
**May cause skin and eye irritation.**  
**Presumed to cause organ damage from repeated oral exposure at high doses.**  
**Avoid contact with skin and eyes.**  
**ECOTOXICITY**  
**Very toxic to fish with long-lasting effects.** Avoid contamination of any water supply with product or empty container.  
**Toxic to the soil environment.**  
**Toxic to terrestrial vertebrates. Very toxic to terrestrial invertebrates.**  
**Toxic to Bees.** Do not apply to kiwifruit flowering plants except in the early morning or evening when bees are not foraging kiwifruit. Spray must not contact plants in flower if they are likely to be visited by bees.

### Section 3. Composition/Information on Ingredients

Substance/preparation	Preparation				
<b>Information on hazardous ingredients *</b>					
Common name	CAS No.	%	EC Number	Symbol	R-Phrases
Bifenthrin		82657-04-3	10		
Aromatic hydrocarbons	64742-94-5	74			
Other non hazardous ingred. Surfactants	Secret	to 100			

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible

- **Occupational Exposure Limit(s), if available, are listed in section 8**

### Section 4: First-Aid Measures

#### **First-aid measures:**

**Inhalation:** If symptoms of poisoning becomes evident, contact The National Poisons Centre **0800 POISON (0800 764766)** or a doctor immediately. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by training personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

**Ingestion:** If swallowed do NOT induce vomiting. Wash mouth out with water and call National Poisons Centre or a doctor immediately.

**Skin contact:** Quickly and gently, blot or brush away excess chemical. Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 20 minutes or until chemical is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts). If irritation persists, repeat flushing and obtain medical advice. Completely decontaminate clothing, shoes and leather goods before reuse or discard.



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**Eye contact:** Quickly and gently blot or brush away product. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water until the product is removed or until a few minutes after irritation has ceased, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face.

### Section 5: Fire-Fighting Measures

**Extinguishing media** Carbon dioxide, dry chemical, foam.  
**Suitable:**  
**Hazardous thermal (de)composition products:** This product is classified as a C1 combustible product. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water on hot liquids.  
**Flash Point:** Approx 63°C (PMCC, solvent)  
**Protection of fire-fighters:** When fighting fires involving significant quantities of this product, wear a splash suit complete with self contained breathing apparatus.

### Section 6: Accidental Release Measures

**Personal precautions:** As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC.  
**Environmental precautions:** Do not discharge into drains or the environment.  
**Methods for cleaning up:** Absorb remainder in sand or other inert material. Avoid using sawdust or other combustible materials. Dispose of in an authorized waste collecting point.

### Section 7: Handling and Storage

**Handling:** When mixing or applying wear appropriate protective clothing including impervious, elbow-length gloves and eye protection.  
Remove protective clothing and wash hands, arms and face with soap and water before meals and after work.  
**Storage:** Keep out of reach of children. Do not smoke, drink or eat while using.  
Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs.  
As a Class 9 Substance with Ecotoxicity Classifications, storage of Venom Insecticide must be carried out in such a manner as to prevent contamination of waterways. Stores containing more than 100L of Venom Insecticide require bunding and are subject to signage. Storage must generally be in accordance with The New Zealand Standard for the Management of Agrichemicals (NZS8409).

### Section 8: Exposure Controls/Personal Protection

**Engineering measures:** No special ventilation requirements are normally necessary for this product. However, make sure that the work environment remains clean and that dusts are minimized.  
**Hygiene measures:** When handling, do not eat, drink or smoke. Wash hands thoroughly after handling.  
Wash clothing separately before re-use.

**Occupational Exposure Limits**

**Common name:** Bifenthrin

**Personal protective equipment:**

**Respiratory system:** Usually, no respirator is necessary when using this product.  
**Skin and body:** Prevent skin contact by wearing impervious gloves, clothes and, preferably apron. Make sure that all skin areas are covered.  
**Hands:** Chemical resistant gloves. Use protective clothing of rubber or PVC.  
**Eyes:** Safety goggles or face shield.



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### Section 9: Physical and Chemical Properties

<b>Physical state:</b>	Liquid
<b>Colour:</b>	Clear-yellowish
<b>Odour:</b>	Hydrocarbon odour
<b>Flash point [°C]</b>	67
<b>Boiling point:</b>	Solvent boils in a range above 180°C
<b>Density:</b>	0.915-0.925 g/ml
<b>Vapour pressure:</b>	Approx 0.083 kPa at 20°C (solvent)
<b>Solubility in water:</b>	Emulsifiable
<b>Octanol/water partition Coefficient</b>	No Data
<b>pH:</b>	No Data
<b>Flammability Upper limit:</b>	7%
<b>Flammability Lower Limit:</b>	0.6% (solvent)
<b>Auto ignition temp:</b>	No Data

### Section 10: Stability and Reactivity

<b>Stability:</b>	This product is unlikely to react or decompose under normal conditions.
<b>Materials to avoid:</b>	This product should be kept in a cool place, preferable below 30 °C. Keep containers and surrounding areas well ventilated. Protect this product from light.
<b>Incompatibilities:</b>	Strong oxidising agents.
<b>Hazardous reactions:</b>	None
<b>Hazardous decomposition products:</b>	carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water.
<b>Polymerisation:</b>	This product is unlikely to undergo polymerisation processes.

### Section 11: Toxicological Information

Bifenthrin is moderately toxic to mammals when ingested. Large doses may cause in coordination, tremors, salivation, vomiting, diarrhoea and irritability to sound and touch.

<b>Preparation</b>	<b>Bifenthrin</b>
<b>Toxicity - Oral:</b>	LD <sub>50</sub> (Female rats) 54 mg/kg LD <sub>50</sub> (Male rats) 70 mg/kg

<b>Toxicity - Dermal:</b>	LD <sub>50</sub> (rabbits) >2000 mg/kg
<b>Eye irritation (rabbits):</b>	non- irritating
<b>Sensitization (Guinea pigs):</b>	non- sensitizer

<b>Common name:</b>	<b>Bifenthrin</b>
<b>Chronic toxicity:</b>	No information available

**Carcinogenicity:** There was no evidence of cancer in a 2 year study of rats that ate as much as 10 mg/kg/day of Bifenthrin. However, an 87 week feeding study of mice with doses of 7, 29, 71 and 86 mg/kg showed a significantly higher, dose related trend of increased tumour incidence in the male urinary bladder. The incidence was significantly increased at 86 mg/kg/day. Also, females had higher incidences of lung cancer than the controls at does of 7 mg/kg and higher. The EPA has classified Bifenthrin as a class C carcinogen, a possible human carcinogen.

**Mutagenicity:** Evidence of mutagenic effects from exposure to Bifenthrin was inconclusive. Studies of mouse white blood cells were positive for gene mutation. However, other tests of bifenthrin's mutagenic effects, including the Ames test and studies in live rat bone marrow cells, were negative.

**Reproduction toxicity:** The dose at which no toxic effect of Bifenthrin is observed on mother (maternal toxicity NOEL) is 1 mg/kg/day for rats and 2.67 mg/kg/day for rabbit's. 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 that 8 mg/kg/day for rabbits.



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**Other information:** 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.

### Section 12: Ecological Information

#### Ecotoxicity:

**Fish** Bifenthrin is very highly toxic to fish, crustaceans and aquatic animals.

LC <sub>50</sub> (96 hours)	Rainbow trout	= 0.00015 mg/L
	Bluegill	= 0.00035 mg/L
	Daphnia	= 0.00016 mg/L

Because of its low water solubility and high affinity for soil, Bifenthrin is not likely to be found in aquatic systems.

Bifenthrin is toxic to bees.

**Birds** Bifenthrin is moderately toxic to many species of birds.

LC <sub>50</sub>	Mallard ducks	= 1280 ppm
	Bobwhite quail	= 4450 ppm
LD50 Acute oral	Mallard ducks	= 2150 mg/kg
	Bobwhite quail	= 1800 mg/kg

There is concern about possible bioaccumulation in birds.

#### ENVIRONMENTAL FATE:

**Breakdown in soil and ground water:** Bifenthrin does not move in soils with large amounts of organic matter, clay and silt. It also as 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. Its 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 t soil type and the amount of sir in the soil.

**Breakdown in vegetation:** Bifenthrin is not absorbed by plant foliage, nor does it translocated in the plant.

### Section 13: Disposal Considerations

#### Methods of disposal:

Triple rinse empty container and add rinsate to spray tank. Do not burn empty containers that have not been rinsed. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle

### Section 14: Transport Information

UN Number	3082
Proper shipping name	Environmentally hazardous substance, Liquid, N.O.S, (Bifenthrin)
DG Class	9
Packing Group	III
Hazchem Code	2X
Marine Pollutant	Yes
IER Guide page	47

**National transport regulations:** Do not carry this product on a passenger service vehicle.

**Segregation:** Check the land transport Rule Dangerous Goods 1999, Rule 45001 for additional information. Sea transport may require additional segregation. Refer: NZS5433; Sea Segregation, or the International Maritime Dangerous Goods Code for details.



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### Section 15: Regulatory Information

#### New Zealand Regulatory Information:

**NZFSA Approval:** Registered pursuant to the ACVM Act 1997, No. P7421  
See [www.nzfsa.govt.nz/acvm](http://www.nzfsa.govt.nz/acvm) for registration conditions

Approved pursuant to the HSNO Act 1996, Approval No. HSR000277  
See [www.ermanz.govt.nz](http://www.ermanz.govt.nz) for approval controls

**HSNO Classifications:** 3.1D, 6.1D, 6.3A, 6.4A, 6.9A, 9.1A, 9.2B, 9.3B, 9.4A



**APPROVED HANDLER -** THIS PRODUCT MUST BE UNDER THE CARE OF AN APPROVED HANDLER WHEN IT IS APPLIED IN A WIDE DISPERSIVE MANNER OR USED BY A COMMERCIAL CONTRACTOR

### Section 16: Other Information

Note: This product is a registered agricultural chemical and must be therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

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#### **HISTORY**

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