



## SAFETY DATA SHEET INVERT EW INSECTICIDE/MITICIDE

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

**Product name :** INVERT EW  
**Chemical name of active Ingredient(s):** Abamectin C48H72O14; C47H70O14  
**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 5438275 Fax: +64 3 5438274  
**Emergency Telephone:** 0800 POISON (0800 764 766)

### Section 2: Hazards Identification

**Hazard Classifications:** 6.1D,6.3A, 6.4A , 6.8B, 6.9B, 9.1A, 9.2C, 9.3C, 9.4A.  
**APPROVED HANDLER** This product must be under the control of an approved handler during use.  
**Most important hazards:** **WARNING:** This substance may be harmful if swallowed, inhaled or absorbed through the skin.  
May cause skin and eye irritation, avoid contact with the skin and eyes. May cause reproductive/development and organ damage from repeated oral exposure.  
**ECOTOXIC:** Very toxic to aquatic organisms. Avoid contamination of any water supply with chemical or empty container.  
Toxic to terrestrial vertebrates. Very toxic to terrestrial invertebrates.  
Harmful to the soil environment.

### Section 3. Composition/Information on Ingredients

#### Information on hazardous ingredients \*

Common name	CAS No.	Value	EC Number	Symbol	R-Phrases
Abamectin	71751-41-2	18%			
Acetophenone	98-86-2	<20%	202-708-7		
1,2-Benisothiazol-3(2H)-one	2634-33-5	<0.5%	220-120-9		

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

### Section 4: First-Aid Measures

**First-aid:**  
**Inhalation:** Remove victim to fresh air. Keep victim warm and at rest. Give oxygen if breathing is difficult. If not breathing, give artificial respiration. Obtain medical attention.  
**Ingestion:** **DO NOT induce vomiting.** Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Give water to drink. Seek medical advice immediately.  
**Skin contact:** Remove contaminated clothing. Wash away remainder with water and Soap. Followed by a warm water rinse. Seek medical attention if ill effects develops.  
**Eye contact:** Rinse immediately with plenty of water. Immediately consult an eye specialist.

### Section 5: Fire-Fighting Measures

**Extinguishing media Suitable:** Water spray, carbon dioxide, foam, sand.  
**Specific hazards:** Thermal decomposition may generate: Carbon dioxide, carbon monoxide, smoke  
**Protection against fire:** Use self-contained breathing apparatus when in close proximity to fire.  
Do not enter fire area without proper protective equipment, including respiratory protection.  
**Special procedures:** Exercise caution when fighting any chemical fire. Dike to prevent contaminated runoff into drains or the environment or coming into contact with class 1, 2, 3.2, 4 & 5 substances.



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Absorb remainder in sand or other inert material. Dispose of all contaminated materials in an authorised waste collection point.

### Section 6: Accidental Release Measures

<b>Personal precautions:</b>	Wear appropriate protective clothing. (see section 8)
<b>Environmental precautions:</b>	Prevent entry into sewers and public waters. Notify authorities if product enters sewers or public waters.
<b>Methods for cleaning up:</b>	Clean up any spills as soon as possible, using an absorbent material to collect it. Use suitable disposal containers.

### Section 7: Handling and Storage

<b>Handling:</b>	<b>PERSONAL PROTECTION:</b> Avoid skin and eye contact and inhalation of spray mist. When mixing or applying wear suitable protective clothing, including face shield, waterproof gloves, eye protection, boots and overalls. Do not eat, drink or smoke while using. Wash splashes of concentrate from skin immediately. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.
<b>Storage:</b>	Store in original container, tightly closed and in a locked, dry, cool area away from sources of ignition and foodstuffs, avoiding direct sunlight and temperatures above 30°C. Store in accordance with NZS 8409 Management of Agrichemicals.

### Section 8: Exposure Controls/Personal Protection

<b>Industrial Hygiene:</b>	Provide local exhaust or general room ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work. Wash clothing before re-use.
<b>Personal protective equipment:</b>	
<b>Respiratory system:</b>	Suitable respiratory equipment.
<b>Skin and body:</b>	Skin protection appropriate to the conditions of use should be provided.
<b>Hands:</b>	Wear suitable gloves resistant to chemical penetration.
<b>Eyes:</b>	Chemical goggles or face shield.

### Section 9: Physical and Chemical Properties

<b>Physical state:</b>	Liquid
<b>Colour:</b>	White – non-transparent
<b>Odour:</b>	Organic
<b>pH value:</b>	1%: 6-8
<b>Freezing Point [°C]</b>	No available
<b>Melting Point [°C]</b>	No available
<b>Boiling Point [°C]</b>	No available
<b>Flash Point [°C]</b>	>95
<b>Flammability:</b>	Not flammable (water based formulation)
<b>Vapour pressure [20°C]</b>	Abamectin: $<3.7 \times 10^{-6}$ mPa (25°C)
<b>Relative density</b>	1.00-1.06
<b>Solubility</b>	Emulsifiable
<b>Log P octanol water @ 20°C:</b>	4.4 Abamectin
<b>Auto-ignition temperature [°C]</b>	430
<b>Decomposition point [°C]</b>	Not available



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<b>Viscosity</b>	20°C: 864 – 187.1 mPa.s {shear rate 5-100s (-1)} 40°C: 687.4-123.5 mPa.s {shear rate 5-100s (-1)}
<b>Surface tension mN/m</b>	28.0 (25°C)
<b>Explosive Properties</b>	Not explosive
<b>Oxidizing Properties</b>	Not oxidizing

#### Section 10: Stability and Reactivity

<b>Hazardous decomposition</b>	
<b>Products:</b>	Thermal decomposition may generate: carbon monoxide, carbon dioxide, smoke.
<b>Hazardous Polymerisation:</b>	Will not occur.
<b>Conditions to avoid:</b>	Direct sunlight, heat, open flame

#### Section 11: Toxicological Information

<b>Toxicity information</b>	For a similar formulation containing 18 g/L Abamectin
<b>Rat oral LD50 [mg/kg]:</b>	MCW 8732 (EW): 1000
<b>Rabbit dermal LD50 [mg/kg]:</b>	>2000
<b>Rat inhalation LC50 [mg/1/4h]:</b>	>5
<b>Dermal irritation (rabbit):</b>	Not irritating
<b>Eye Irritation (rabbit):</b>	Irritant
<b>Sensitization:</b>	Non sensitizer
<b>Mutagenicity:</b>	Abamectin: Not mutagenic
<b>Carcinogenicity:</b>	Abamectin: Not carcinogenic
<b>Acute toxicity</b>	
<b>Toxic for reproduction:</b>	Fertility Abamectin: Reproductive toxin in animal studies only at maternal acutely toxic doses.

#### Section 12: Ecological Information

<b>Common name:</b>	Abamectin
<b>96 H-LC<sub>50</sub> – Rainbow trout [µg/l]:</b>	154
<b>48 H-LC<sub>50</sub> – Daphnia magna [µg/l]:</b>	38
<b>72 H – EC<sub>50</sub> Algae [mg/l]:</b>	41.7
<b>LD<sub>50</sub> – Birds [mg/kg]:</b>	Abamectin: < = 77
<b>Bees LD<sub>50</sub> [µ/Bee]:</b>	Abamectin: Toxic to bees
<b>Persistence – degradability:</b>	Soil: Not readily biodegradable
<b>Mobility:</b>	Low mobility; KOC = 1495-7893 mg/l

#### Section 13: Disposal Considerations

<b>Methods of disposal:</b>	Triple rinse empty container and add rinsate to the spray tank. If recycling, discard cap and deliver clean container to an Agrecovery depot. Alternatively crush and bury in a suitable landfill. Dispose of product only by using according to the label, or at an approved landfill.
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#### Section 14: Transport Information

<b>UN Number</b>	2902
<b>Proper shipping name</b>	PESTICIDE, LIQUID, TOXIC (ABAMECTIN)
<b>DG Class</b>	6.1
<b>Packing Group</b>	III
<b>Hazchem Code</b>	2X
<b>Marine Pollutant</b>	YES
<b>IER Guide page</b>	34

**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 P8661  
See [www.foodsafety.govt.nz/acvm](http://www.foodsafety.govt.nz/acvm) for registration conditions.

Approved pursuant to the HSNO Act 1996, Approval No. HSR100729  
See [www.epa.govt.nz](http://www.epa.govt.nz) for approval controls.

##### HSNO Classifications:

6.1D, 6.3A, 6.4A, 6.8B, 6.9B, 9.1A, 9.2C, 9.3C, 9.4A.



**APPROVED HANDLER:** This product must be under the control of an approved handler during use

### 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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