

Infosafe No™ 3NUX8	Issue Date : November 2016	ISSUED by NUFARMNZ
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Product Name **TORPEDO®**

## 1. Identification

<b>GHS Product Identifier</b>	TORPEDO®
<b>Product Code</b>	03800
<b>Product Type</b>	Insecticide
<b>Company Name</b>	Nufarm NZ
<b>Address</b>	6 Manu Street, Otahuhu Auckland 2024 New Zealand
<b>Telephone/Fax Number</b>	Tel: 0-9-270 4150 Fax: 0-9-270-4159
<b>Emergency phone number</b>	0800 651 911
<b>Email</b>	info@nz.nufarm.com
<b>Recommended use of the chemical and restrictions on use</b>	A non-systemic insecticide for the control of leafrollers on avocados, grapes, kiwifruit and pipfruit.
<b>Other Information</b>	This SDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

## 2. Hazard Identification

<b>Other Information</b>	<p>6.1D acute toxicant, 6.3B skin irritant, 6.8B reproductive/developmental toxicant, 6.9B organ toxicant, 8.3A eye corrosive, 9.1A aquatic toxicant, 9.3B terrestrial vertebrate toxicant, 9.4A terrestrial invertebrate toxicant</p> <p><b>TOXICITY</b> Harmful - may be harmful if swallowed, inhaled or absorbed through the skin. May cause skin irritation. May cause reproductive/developmental damage from repeated oral exposure at high doses.</p> <p><b>CORROSIVE</b> This product is corrosive and may cause eye damage.</p> <p><b>ECOTOXIC</b> Very toxic to aquatic organisms with long-lasting effects. High risk of toxic effects in estuarine environments. Avoid contamination of any water supply with product or empty container. Direct contamination or spray drift to any aquatic environment must be strictly avoided. Toxic to terrestrial vertebrates. Very toxic to terrestrial invertebrates. Toxic to bees.</p>
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## 3. Composition/information on ingredients

<b>Chemical Characterization</b>	Solid		
<b>Ingredients</b>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Emamectin Benzoate	155569-91-8	5 % w/w

## 4. First-aid measures

<b>First Aid Measures</b>	For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention.
<b>Inhalation</b>	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.
<b>Skin</b>	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.

Infosafe No™ 3NUX8	Issue Date : November 2016	ISSUED by NUFARMNZ
--------------------	----------------------------	--------------------

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<b>Eye contact</b>	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance. Remove contact lenses, if present and easy to do.
<b>First Aid Facilities</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
<b>Advice to Doctor</b>	Probable mucosal damage may contraindicate the use of gastric lavage. Early signs of intoxication include dilation of pupils, muscular incoordination and muscular tremors. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since emamectin benzoate is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic emamectin benzoate exposure.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Hazards from Combustion Products</b>	During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.
<b>Special Protective Equipment for fire fighters</b>	Full protective clothing and self-contained breathing apparatus.
<b>Specific Methods</b>	Keep up wind. Do not allow washings to reach sewage or effluent systems. Contain run-off and dispose of fire control water later.
<b>Hazchem Code</b>	2Z
<b>Other Information</b>	Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable

## 6. Accidental release measures

<b>Spills &amp; Disposal</b>	Wear protective clothing. Clear area of unprotected personnel. Sweep up solids without generating dust (use water to dampen). Contain and absorb liquid spills with inert material and place in waste containers. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill. Wash area with water and absorb with further inert material. Dispose of waste safely in an approved landfill.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Environmental Precautions</b>	Prevent from entering drains, waterways or sewers.

## 7. Handling and storage

<b>Precautions for Safe Handling</b>	Avoid skin and eye contact and inhalation of spray mist. APPROVED HANDLER: This product must be under the control of an approved handler when it is applied in a wide dispersive manner, or used by a commercial contractor. TRACKING: Is not required RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3kg or more is applied within 24 hours. Do not apply when bees are actively foraging. Avoid direct application to bee hives. Do not apply onto or into water.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep out of reach of children. Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Storage must be in accordance with NZS 8409 Management of Agrichemicals. Stores containing 100kg of TORPEDO are subject to signage, and more than 100kg require emergency response plans.

Infosafe No™ 3NUX8	Issue Date : November 2016	ISSUED by NUFARMNZ
--------------------	----------------------------	--------------------

 Product Name **TORPEDO®**

**Other Information** Always read the label and any attached leaflet before use.  
 Aggregate Storage Volume Thresholds:  
 When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

## 8. Exposure controls/personal protection

**Occupational exposure limit values** The following ADE and PDE values are set for Emamectin Benzoate.  
 ADE=0.002 mg/kg bw/day  
 PDE (Food)= 0.0016 mg/kg bw/day  
 PDE (Drinking water)= 0.0004 mg/kg bw/day  
 No WES and EEL values are set for this product.

**Appropriate engineering controls** Handle in well ventilated areas, generally natural ventilation is adequate. Local exhaust ventilation may be required in confined spaces.

**Personal Protective Equipment** When opening the container, preparing spray and using the prepared spray wear safety goggles, waterproof gloves, washable hat, dust mask, cotton overalls buttoned to the neck and wrist, and boots.

**Hygiene Measures** Do not eat, drink or smoke while using.  
 Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.

## 9. Physical and chemical properties

**Form** Solid

**Appearance** Off white loose granules.

**pH** 7.0-9.0 (1%aq)

**Vapour Pressure**  $4 \times 10^{-3}$  mPa @ 21°C, for emamectin benzoate

**Partition Coefficient: n-octanol/water** Kow Log P = 5 @ pH 7 for emamectin benzoate

**Density** 0.64g/cm<sup>3</sup>

**Other Information** (SG) Water soluble granule

## 10. Stability and reactivity

**Chemical Stability** Stable under normal conditions of handling and storage.

**Conditions to Avoid** Heat and light.

**Incompatible Materials** Strong oxidizing agents, alkalis and acids.

**Hazardous Decomposition Products** Can decompose at high temperatures forming toxic gases.

**Hazardous Polymerization** Hazardous polymerisation will not occur.

## 11. Toxicological Information

**Toxicology Information** No specific toxicological data is available for this product. Data below is for constituents.

**Acute Toxicity - Oral** LD50 (rat) 56 mg/kg for emamectin benzoate

**Acute Toxicity - Dermal** LD50 (rat) >2000 mg/kg for emamectin benzoate

**Acute Toxicity - Inhalation** LC50 (rat) 0.66mg/L/4h for emamectin benzoate

**Skin** May cause skin irritation

**Eye** It is an eye corrosive

**Skin Sensitisation** Not a skin sensitiser

**Other Information** The Australian Acceptable Daily Intake (ADI) for emamectin for a human is 0.002 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.25 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most

Infosafe No™ 3NUX8	Issue Date : November 2016	ISSUED by NUFARMNZ
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 Product Name **TORPEDO®**

sensitive species. (Ref: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', Dec 2014).

## 12. Ecological information

**Persistence and degradability** Emamectin benzoate is rapidly degraded in soil. DT50 (animals)= 34-51 hours.

**Basis for Assessment** Ecotoxicological data have not been determined specifically for this product.

**Acute Toxicity - Fish** LC50 (96hr) sheephead minnows = 1430mg/L for emamectin benzoate  
LC50 (96hr) rainbow trout = 174 mg/L for emamectin benzoate

**Acute Toxicity - Daphnia** LC50 (48hr) daphnia = 0.99µg/L for emamectin benzoate

**Acute Toxicity - Other Organisms** Birds: LD50 for mallard duck = 76mg/kg for emamectin benzoate  
Worms: LC50 = >1,000mg/kg soil for emamectin benzoate  
Toxic to bees.

## 13. Disposal considerations

**Product Disposal** Dispose of product only by using according to the label, or at an approved landfill.

**Container Disposal** Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

## 14. Transport information

**Transport Information** It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

**U.N. Number** 3077

**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. - (emamectin benzoate, 5%)

**Transport hazard class(es)** 9

**Hazchem Code** 2Z

**Packaging Method** -

**Packing Group** III

**EPG Number** -

**IERG Number** 47

**IMO Marine Pollutant** Yes. Environmentally Hazardous Substance mark required.

**IMDG EMS** F-A, S-F

**Other Information** Do not carry more than 2 kg of TORPEDO on a passenger service vehicle.  
Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details.

## 15. Regulatory information

**National and or International Regulatory Information** Registered pursuant to the ACVM Act 1997, No. P9343  
See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions  
Approved pursuant to the HSNO Act 1996, Approval Code HSR101150  
See [www.epa.govt.nz](http://www.epa.govt.nz) for approval controls.

**Hazard Rating Systems** NFPA/HMIS: 3-1-1

**Hazard Category** HARMFUL \* CORROSIVE \* ECOTOXIC - Keep out of reach of children

## 16. Other Information

**Date of preparation or last revision of SDS** Not applicable, First Issue.

**Contact Person/Point** IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE  
24Hr Tollfree Emergency No: 0800 651 911  
24Hr Emergency No: National Poisons Centre Phone: 0800 764 766



# Safety Data Sheet

infosafe  
CS: 1.7.2

Page: 5 of 5

Infosafe No™ 3NUX8	Issue Date : November 2016	ISSUED by NUFARMNZ
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Product Name **TORPEDO®**

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