

## SAFETY DATA SHEET

According to  
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

### Section 1. Identification of the material and the supplier

Product:	<b>Vitis</b>
Product Use:	Insecticide
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	<b>Adria Crop Protection Solutions</b>
Address:	407 State Highway 16 Kumeu 0841, Auckland
Telephone:	+64 9 412 9817
Fax:	+64 9 412 9807
Website:	www.adria.nz
<b>Emergency No:</b>	<b>0800 734 607 (24hr)</b> <b>0800 764 766 (National Poison Centre)</b>
Date of SDS Preparation:	9 November 2018

### Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

**EPA Approval No: HSR100581**

#### Pictograms



Toxic



Chronic



Corrosive



Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
6.9B	H373	May cause damage to organs through single, prolonged or repeated exposure.	STOT RE 2
8.3A	H318	Causes serious eye damage.	Eye Corr. 1
9.1A	H410	Very toxic to aquatic life with long lasting effects.	Aquatic Chronic 1
9.3B	H432	Toxic to terrestrial vertebrates.	-
9.4A	H441	Very toxic to terrestrial invertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fumes, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.

Response code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical attention or doctor/physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Storage Code	Storage Statement
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Refer to Section 13.

### Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Content (%w/v)	CAS NUMBER.
Emamectin benzoate	5.0%	155569-91-8
Non-hazardous ingredients	To bal	-

### Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, call a POISON CENTRE or doctor/physician.
If on Skin	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If skin irritation or rash occurs: Get medical advice/attention.
If Swallowed	If swallowed, do NOT induce vomiting. Rinse mouth. For advice contact the National Poisons Centre 0800 POISONS (0800 764 766) or a doctor immediately.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

## Most important symptoms and effects, both acute and delayed

Symptoms:

**Ingestion:** Harmful if swallowed.

**Inhalation:** Not applicable.

**Skin:** Not applicable.

**Eye:** Causes severe eye damage.

**Chronic:** May cause damage to organs through single, prolonged or repeated exposure. Suspected of damaging fertility or the unborn child.

**Further info:** This material 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. Toxicity can be minimised by early administration of chemical absorbents (e.g. activated charcoal). If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures as indicated by clinical signs, symptoms and measurements.

### Section 5. Fire Fighting Measures

<b>Hazard Type</b>	This product is not flammable.
<b>Hazards from products</b>	During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.
<b>Suitable Extinguishing media</b>	Extinguish warehouse and factory fires using dry chemical extinguisher, alcohol-resistant foam, carbon dioxide or fine-water spray. DO NOT use direct jet of water.
<b>Recommended protective clothing &amp; Precautions for firefighters</b>	Wear SCBA and chemical-protective clothing.
<b>HAZCHEM CODE</b>	<b>2Z</b>

### Section 6. Accidental Release Measures

#### Personal precautions:

Use protective clothing as per Section 8. Avoid contact with skin, eyes and clothing. Remove contaminated clothes and shoes immediately.

#### Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

#### Spill and Disposal procedures:

Absorb spills with inert material and place in waste containers. Wash area with water and absorb with further inert material. Dispose of waste safely, according to Local Council regulations.

### Section 7. Handling and Storage

#### Precautions for Handling:

- Read label before use.
- Do not breathe fumes, vapours, or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Ensure adequate ventilation.
- Cleaning water should be disposed of in appropriate manner.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.

### Precautions for Storage:

- Keep away from children.
- Store locked up.
- Store in original container tightly closed and in a locked, cool, dry, ventilated area away from foodstuffs, fertilisers and seeds.
- Protect from extreme temperatures.
- Refer to the current standard NZS8409 Management of Agrichemicals.
- Store away from incompatible materials listed in Section 10.

## Section 8 Exposure Controls / Personal Protection

### WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>

No ingredient has exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

### Engineering Controls / Industrial Hygiene

Provide local exhaust or general room ventilation to minimize dust and/or vapour concentrations.

### Personal Protection Equipment



<b>Eyes</b>	Safety goggles with side-shields.
<b>Skin</b>	Suitable chemical resistant safety gloves (e.g. nitrile rubber (.4mm)). Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure.
<b>Respiratory</b>	Wear respiratory protection if ventilation is inadequate. Use particle filter with medium efficiency for solid and liquid particles.
<b>General</b>	Females of childbearing age should not come into contact with the product. Use personal protection if required. Avoid contact with skin and eyes and inhalation of dust from concentrate or spray mist. When mixing or applying, wear protective clothing, including face shield, impervious gloves and footwear. If clothing becomes contaminated with product, remove clothing immediately. DO NOT eat, drink or smoke while using. Wash hands and exposed skin thoroughly with soap and water before meals and after work. Wash protective clothing daily after work.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Granule
<b>Colour</b>	White to off white
<b>Odour</b>	Characteristic odour
<b>Odour Threshold</b>	Not available
<b>pH</b>	6.2
<b>Melting Point/Boiling Point</b>	141-146°C
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available

<b>Flammability</b>	Not available
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Density</b>	Not available
<b>Water Solubility</b>	Not available
<b>Octanol/water partition coefficient:</b>	Not available
<b>Auto Ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not available

### Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None known.
<b>Conditions to Avoid</b>	Heat and light.
<b>Incompatible Materials</b>	None known at time of publishing.
<b>Hazardous Decomposition Products</b>	None known at time of publishing.

### Section 11 Toxicological Information

#### Acute Effects:

<b>Swallowed</b>	Harmful if swallowed. LD50 (Rat) 1,516 mg/kg
<b>Dermal</b>	Not applicable. LD50 rabbit: $\geq 2,000$ mg/kg
<b>Inhalation</b>	Not applicable. LC50 (4h): 6.28 mg/L
<b>Eye</b>	Causes severe eye damage.
<b>Skin</b>	Not applicable.

#### Chronic Effects:

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Suspected of damaging fertility or the unborn child.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	May cause damage to organs through single exposure.
<b>STOT/RE</b>	May cause damage to organs through prolonged or repeated exposure.

### Section 12. Ecotoxicological Information

<b>Ecological effects information</b>	9.1A = Very toxic to aquatic life with long lasting effects. 9.3B = Toxic to terrestrial vertebrates. 9.4A = Very toxic to terrestrial invertebrates.
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	No data available
<b>Acute fish toxicity:</b>	Trout: LC50/EC50: 174 $\mu$ g/L Bluegill: LC50/EC50 180 $\mu$ g/L
<b>Toxicity for daphnia:</b>	EC50: 0.08mg/L, 48h
<b>Toxicity to algae:</b>	EbC50 = 28.4mg/L ErC50 = 157 mg/L, 72h
<b>Precautions:</b>	Do not allow to enter waterways.

## Section 13. Disposal Considerations

### Disposal Method:

Triple rinse container and add residue to spray tank. Return empty container to an AgRecovery collection point for disposal.



### Empty container precautions:

Avoid contamination of any water supply with chemical or empty container.

**Precautions or methods to avoid:** Avoid release to the environment.

## Section 14 Transport Information

**This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012**



### Road, Rail, Sea and Air Transport

<b>UN No</b>	3077
<b>Class - Primary</b>	9
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	<b>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (EMAMECTIN BENZOATE)</b>
<b>Marine Pollutant</b>	Yes
<b>Special Provisions-Limited Quantities</b>	If the product's individual container is below 5kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

## Section 15 Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval Code: HSR100581

HSNO Classification: 6.1D(oral), 6.8B, 6.9B, 8.3A, 9.1A, 9.3B, 9.4A

<b>HSW (HS) Regulations 2017</b>	<b>Trigger Quantity</b>
Certified Handlers	Not required
Location Certificate	Not required
Signage Trigger Quantities (Schedule 3)	100kg (9.1A)
Emergency Response Plan (Schedule 5)	100kg (9.1A)
Secondary Containment (Schedule 5)	100kg (9.1A)
Tracking (Schedule 26)	Not required
<b>HSNO Additional Controls (Restrictions of use)</b>	<b>Refer to EPA <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for controls document - HSR100581</b>
<b>77A - A maximum application rate is set for this substance.</b>	The maximum application rate for this substance is 40 g Vitis/ha.
77A	The substance must not be applied onto or into water.

77A - A restriction has been placed on the application method for this substance.	This substance shall be applied via ground-based methods only.
<b>Hazardous Property Controls Notice 2017</b>	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 3	Hazardous substances in a place other than a workplace.
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances.
HPC Notice Part 4 Subpart C	Qualifications required for applications of class 9 pesticides.
<b>ACVM Act and Regulations</b>	
ACVM Approval No See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration controls	P8283

## Section 16 Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label. The data contained in this safety data sheet is based on our current knowledge and describes the product only with regard to safety requirements. The data does not describe the products properties. Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any existing laws and legislation are observed.

### Glossary

EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

### References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

### Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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Issue Date: 9 November 2018      Review Date: 9 November 2023