

SAFETY DATA SHEET

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

Section 1. Identification of the material and the supplier

Product: **DeltaMax**
 Product Use: Insecticide
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Adria Crop Protection Solutions**
 Address: 407 State Highway 16
 Kumeu 0841,
 Auckland

Telephone: +64 9 412 9817
 Fax: +64 9 412 9807
 Website: www.adria.nz

Emergency No: 0800 734 607 (24hr)3
0800 764 766 (National Poison Centre)

Date of SDS Preparation: 17 October 2018

Section 2. Hazards Identification

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

EPA Approval No: HSR000328

Pictograms:



Flammable Toxic/Irritant Chronic Ecotoxic

Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
3.1C	H226	Flammable liquid and vapour.	Flam. Liq. 3
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
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.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
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.

Response code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use dry chemical, water, carbon dioxide or foam for extinction.

Storage Code	Storage Statement
P403 + P235	Store in a well-ventilated place. Keep cool.

Disposal Code	Disposal Statement
P501	Refer to Section 13.

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Content (%w/v)	CAS NUMBER.
Deltamethrin	2.5	052918-63-5
Non hazardous		

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: Get medical advice/attention.
If on Skin	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.
If Swallowed	Rinse mouth. If swallowed do NOT induce vomiting. Never give anything to an unconscious person. IF SWALLOWED: Call a POISON CENTER or doctor/physician.

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: Causes mild skin irritation.

Eye: Causes serious eye irritation.

Chronic: May cause damage to lungs if swallowed through repeated or prolonged exposure. May also cause skin dryness or cracking.

Section 5. Fire Fighting Measures

Hazard Type	This product is flammable. Keep away from sources of ignition. No naked lights. No smoking.
Hazards from products	May form flammable vapour-air mixture. Thermal decomposition generates: Carbon monoxide. Carbon dioxide. Nitrogen oxides. Halogens.
Suitable Extinguishing media	Small fire: Dry chemical. Large fire: Foam. Water spray. Water fog. Do not use a heavy water stream. Surrounding fires: Use water spray or fog for cooling exposed containers.
Recommended protective clothing & Precautions for firefighters	Wear SCBA and chemical-protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
HAZCHEM CODE	3Y

Section 6. Accidental Release Measures

Personal precautions:

No smoking. Eliminate every possible source of ignition. Keep public away from danger area. Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

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. Place in waste containers. Dispose of waste safely, according to Local Council regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Do not breathe fumes, mist, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.

- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Apply using calibrated and maintained equipment in accordance with the NZ Standard for the Management of Agrichemicals (NZS8409).

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store securely out of reach of children.
- Store in a well-ventilated place. Keep cool.
- Both local exhaust and good general room ventilation must be provided not only to control exposure but also to prevent formation of flammable mixtures.
- Keep in fireproof place.
- Refer to the current standard NZS8409 Management of Agrichemicals.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³

No ingredients have 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



Eyes	Chemical goggles or face shield with safety glasses.
Hands	Wear suitable gloves resistant to chemical penetration e.g. nitrile rubber gloves with a minimum thickness of 0.4 mm.
Skin	Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure.
Respiratory	Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.
General	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Keep away from food, drink and animal feedstuffs. No eating, drinking or smoking during use. Wash hands and face before breaks and after work.

Section 9 Physical and Chemical Properties

Appearance	Emulsifiable concentrate, Liquid
Colour	Clear to yellowish or brown liquid
Odour	Characteristic
Odour Threshold	Not available
pH	6-8
Melting/Boiling Point	Not available
Freezing Point	Not available

Flash Point	> 43 °C
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Density	0.891 g/L
Water Solubility	Emulsifies in water
Log P Octanol / water at 20°C	Not available
Ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available
Particle Characteristics	Not available
Surface tension	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	May release flammable gases.
Conditions to Avoid	Open flame. Sparks. Overheating.
Incompatible Materials	Strong acids. Strong oxidizers.
Hazardous Decomposition Products	According to process conditions, hazardous decomposition products may be generated. Thermal decomposition generates: Carbon dioxide. Carbon monoxide. Nitrogen oxides. Halogens.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed. Deltamethrin = 31 mg/kg (Rat)
Dermal	Not applicable. Deltamethrin = 700 mg/kg (Rat)
Inhalation	Not applicable. Deltamethrin = 0.79 mg/l (Rat) dust/mist
Eye	Causes serious eye damage.
Skin	Causes mild skin irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May causes damage to lungs if swallowed through prolonged or repeated exposure. May also cause skin dryness or cracking.

Section 12. Ecotoxicological Information

Ecological effects information	9.1A = Very toxic to aquatic life with long lasting effects. 9.3B = Toxic to terrestrial vertebrates. 9.4A = Very toxic to terrestrial invertebrates.
Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available
Precautions:	Do not allow to enter waterways. VERY TOXIC TO AQUATIC ORGANISMS. DO NOT contaminate an aquatic environment with chemical or empty container. DO NOT spray over, or allow drift to

	drift over, an aquatic environment. Must not be applied onto or into water. DO NOT allow drift outside the target area to occur. Spray must not be applied in an area where bees are foraging. Toxic to the soil environment. Very toxic to terrestrial vertebrates. Very toxic to terrestrial invertebrates.
--	---

**Individual component information (Please refer to www.epa.govt.co.nz for full details):
Deltamethrin (Cas No 52918-63-5):**

Route	Species	Duration	Value LC50/EC50
Acute aquatic, fish	Oncorhynchus mykiss Rainbow trout, donaldson trout	96 hr	0.00025 mg/L
Chronic aquatic, fish	Fathead minnow (Pimephales promelas)	280 day	0.000017 mg/L
Acute aquatic, Crustacean	Mysid	96 hr	0.0000017 mg/L
Chronic aquatic, Crustacean	Water flea (Daphnia magna)	21 day	0.0000041mg/l
Harmful in the soil environment	Earthworm	-	28.7 mg/kg
Very ecotoxic to terrestrial vertebrates	Rat (F)	-	LD50 = 31mg/kg
Very ecotoxic to terrestrial invertebrates	Musca domestica (house fl)	-	LD50 = 0.0125 ug/g org
Bioaccumulative	Yes		
Rapidly Degradable	No		

Section 13. Disposal Considerations

Disposal Method:

Triple rinse container and add residue to spray tank. Return empty to 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

UN No	1993
Class - Primary	3
Packing Group	III
Proper Shipping Name	FLAMMABLE LIQUIDS N.O.S. (HYDROCARBON-SOLVENTS (AROMATIC)) (DELTAMETHRIN)
Marine Pollutant	Yes
Special Provisions-Limited Quantities	If the product's individual container is below 5L/kg, 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: HSR000328

HSNO Classification: 3.1C, 6.1D(oral), 6.3B, 6.4A,6.9B, 9.1A, 9.3B, 9.4A

HSW (HS) Regulations 2017	Trigger Quantity
Certified Handlers	Not required
Location Certificate	500L(>5L), 1500L(<5L), 250L open (3.1C)
Signage Trigger Quantities (Schedule 3)	100L (9.1A)
Fire Extinguishers (Schedule 4)	500L – 2 extinguishers
Emergency Response Plan (Schedule 5)	100L (9.1A)
Secondary Containment (Schedule 5)	100L (9.1A)
Tracking (Schedule 26)	Not required
For all further controls	Refer to EPA www.epa.govt.nz for controls document - HSR000328
HSNO Additional Controls (Restrictions of use)	
77A	The substance must not be applied onto or into water.
Hazardous Property Controls Notice 2017	
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 application of class 9 pesticides.
ACVM Act and Regulations	
ACVM Approval No See www.foodsafety.govt.nz for registration controls	P8576

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 ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	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

UEL authority.
WES Upper Explosive Level
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

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact Adria, if further information is required.

Issue Date: 17 October 2018 Review Date: 17 October 2023