

# SAFETY DATA SHEET

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

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

Product: **Grainex 500EC**  
 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: 22 August 2018

## Section 2. Hazards Identification

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

**EPA Approval No: HSR000196**

### Pictograms



Flammable   Irritant   Chronic   Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
3.1C	H226	Flammable liquid and vapour.	Flam. Liq. 3
6.1E (oral)	H303	May be harmful if swallowed.	Acute Tox. 5
6.1E (dermal)	H313	May be harmful in contact with skin.	Acute Tox. 5
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
6.9A	H372	Causes damage to organs through prolonged or repeated exposure.	STOT RE 1
9.1A	H400	Very toxic to aquatic life.	Aquatic Acute 1

9.2D	H423	Harmful to the soil environment.	
9.3A	H431	Very 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.
P202	Do not handle until all safety precautions have been read and understood.
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.
P281	Use personal protective equipment as required.

Response code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P391	Collect spillage.
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.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
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 water spray, foam, dry chemical or Carbon dioxide (CO2) for extinction.

Storage Code	Storage Statement
P405	Store locked up.
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.
Pirimiphos-methyl	500g/L	29232-93-7
Not hazardous	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: Get medical advice/attention.

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. Seek medical attention immediately.

If Swallowed Do NOT induce vomiting if swallowed. For advice, contact the National Poisons Centre on 0800 POISON (0800 764766) or seek medical attention 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:** May be harmful if swallowed.  
**Inhalation:** Not applicable.  
**Skin:** May be harmful if in contact with skin. Causes mild skin irritation.  
**Eye:** Causes severe eye damage.  
**Chronic:** May damage fertility or the unborn child.  
 May cause damage to organs through prolonged or repeated exposure.

**Treatment:** Grainex 500EC is an organophosphorus insecticide, which inhibits cholinesterase activity and interferes in nerve impulse transmission. Onset of symptoms may be delayed for several hours. Atropine is the specific antidote and may be given immediately by qualified staff at a level of 2-5 mg (intravenously or intramuscularly), every 20 minutes until atropinisation occurs. Considerable amounts of atropine may be necessary. Atropine must NOT be given to cyanosed patients; administer oxygen first. Do NOT use opiates or barbituates. If convulsions occur, administer diazepam (10mg intravenously). Take venous blood sample for determination of blood cholinesterase activity. Cholinesterase reactivators (Pralidoxime) should, if possible, be given at the same time as atropine. They are not effective 24 hours after exposure and are not substitutes for atropine. Pralidoxime should be administered at: Mild poisoning: 1g in 2-3ml water (intramuscularly); Severe poisoning: 2g in 30ml water (intravenously). Following ingestion, adsorbents such as charcoal may be of value. If gastric lavage or emesis is considered necessary, inhalation of hydrocarbons must be prevented. Hydrocarbon aspiration may complicate poisonings involving ingestion.

**Section 5. Fire Fighting Measures**

<b>Hazard Type</b>	Flammable liquid and vapour. Explosive concentrations of vapours may be formed in enclosed or poorly ventilated areas.
<b>Hazards from combustion products</b>	None known.
<b>Suitable Extinguishing media</b>	Water spray, foam, dry chemical, Carbon dioxide (CO2). Avoid water jet.
<b>Recommended protective clothing &amp; Precautions for firefighters</b>	Wear SCBA and chemical-protective clothing.
<b>HAZCHEM CODE</b>	<b>2YE</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. Wash contaminated clothing before re-use.

### Environmental precautions:

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.

Grainex 500EC 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. 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:

- Keep out of reach of children.
- Read label 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, 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.
- Use personal protective equipment as required.
- Apply using calibrated and maintained equipment in accordance with the NZ Standard for the Management of Agrichemicals (NZS8409).
- Grainex 500EC must be applied via ground-based methods only.
- METHOD RESTRICTIONS: This product cannot be applied indoors with high pressure handgun spray equipment.
- Clean protective clothing daily after work.

### Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store in original container tightly closed and in a locked, cool, dry, ventilated area away from foodstuffs, fertilisers and seeds.
- Protect from extreme temperatures.

## Section 8 Exposure Controls / Personal Protection

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

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

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Date of SDS: 22 August 2018

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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

Ensure there is sufficient ventilation of the area.

## Personal Protection Equipment



<b>Eyes</b>	Wear safety goggles with side-shields or full respirator with visor.
<b>Hands</b>	Elbow-length barrier multilayer PVC/nitrile gloves.
<b>Skin</b>	Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure.
<b>Respiratory</b>	Respirator (organic vapour and particulate matter) when handling or applying.
<b>General</b>	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>	Liquid
<b>Colour</b>	Clear to brown
<b>Odour</b>	Characteristic
<b>Odour Threshold</b>	Not available
<b>pH</b>	4.8
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	38°C
<b>Flammability</b>	Not flammable
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Density</b>	1.026 g/L
<b>Water Solubility</b>	Not available
<b>Partition Coefficient:</b>	Not available
<b>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>	Sources of ignition. Heat and high temperatures.

<b>Incompatible Materials</b>	Reacts with: Strong acids. Strong bases.
<b>Hazardous Decomposition Products</b>	Products arising from combustion or thermal decomposition may be toxic, corrosive or flammable.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	May be harmful if swallowed.
<b>Dermal</b>	May be harmful in contact with skin.
<b>Inhalation</b>	Not applicable.
<b>Eye</b>	Causes serious eye irritation.
<b>Skin</b>	Causes mild skin irritation.

### Chronic Effects:

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

### Acute Toxicity -

Chemical Name	LD50 (Oral)	LD50 (Dermal)	LC50 (inhalation)
Pirimiphos-methyl (29232-93-7)	2050mg/kg (rat)	1505mg/kg	-

## Section 12. Ecotoxicological Information

<b>Ecological effects information</b>	9.1A = Very toxic to aquatic life. 9.2D = Harmful to the soil environment 9.3A = Very toxic to terrestrial vertebrates. 9.4A = Very toxic to terrestrial invertebrates.
<b>Persistence and degradability</b>	ND
<b>Bioaccumulation</b>	Yes
<b>Mobility in Soil</b>	LC50 (14 day) = Eisenia Foetida (earthworm) = 41.9 mg/kg
<b>Other adverse effects</b>	No data available
<b>Acute fish toxicity:</b>	Acute: LC50 (96 h) Rainbow trout = 0.2mg/l Chronic: NOEC - Rainbow trout = 0.023mg ai/litre
<b>Toxicity for crustacean:</b>	Acute: EC50 (48 h) = Daphnia Magna (water Flea) = 0.00021mg/l Chronic: NOEC (Reproduction) = Daphnid = 0.0005mg/l
<b>Toxicity to algae:</b>	EC50 (72hr) - Growth inhibitor = Raphidocellis subcapitata = 1 mg ai/litre
<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.

<b>Section 14</b>	<b>Transport Information</b>
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**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>	1993
<b>Class - Primary</b>	3
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	<b>FLAMMABLE LIQUID, N.O.S. (AROMATIC HYDROCARBON SOLVENT 36%, BUTANOL 2%), ORGANOPHOSPHORUS INSECTICIDE (PIRIMIPHOS-METHYL 50%).</b>
<b>Marine Pollutant</b>	Yes
<b>Special Provisions-Limited Quantities</b>	If the product's individual container is below 1L/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.

<b>Section 15</b>	<b>Regulatory Information</b>
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This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval Code: HSR000196

HSNO Classification: 3.1C, 6.1E (oral, dermal), 6.3B, 6.4A, 6.8B, 6.9A, 9.1A, 9.2D, 9.3A, 9.4A

HSW (HS) Regulations 2017	Trigger Quantity
Certified Handlers	Not required
Location Certificate	500L(>5L), 1500L (<5L), 250L open
Signage Trigger Quantities (Schedule 3)	100L (9.1A)
Emergency Response Plan (Schedule 5)	100L (9.1A)
Fire Extinguishers (Schedule 4)	500L: 2 extinguishers
Secondary Containment (Schedule 5)	100L (9.1A)
Tracking (Schedule 26)	Not required
For all further controls	Refer to EPA <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for controls document - HSR000196
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 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.
<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	P8811

## 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

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

Please contact Adria, if further information is required.

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