

# SAFETY DATA SHEET

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

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

Product: **Gramina**  
 Product Use: Herbicide  
 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: HSR101076**

### Pictograms



Chronic      Corrosive      Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
3.1D	H227	Combustible liquid.	Flam. Liq. 4
6.1E (oral)	H303	May be harmful if swallowed.	Acute Tox. 5
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
8.3A	H318	Causes serious eye damage.	Eye Corr. 1
9.1B	H411	Toxic to aquatic life with long lasting effects.	Aquatic Chronic 2
9.2A	H421	Very toxic to the soil environment.	
9.4C	H443	Harmful 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.
P260	Do not breathe fumes, vapours or spray.
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.
P310	Immediately call a POISON CENTER or doctor/physician.
P391	Collect spillage.
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.
P370 + P378	In case of fire: Use water spray, foam, dry chemical or Carbon dioxide (CO <sub>2</sub> ) 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.
Sethoxydim	18%	74051-80-2
Aromatic hydrocarbon C10 Solvent	65 - 70%	64742-94-5
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.	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:

<b>Ingestion:</b>	May be harmful if swallowed.
<b>Inhalation:</b>	Not applicable.
<b>Skin:</b>	Causes mild skin irritation.
<b>Eye:</b>	Causes severe eye damage.

Product Name: Gramina  
Date of SDS: 22 August 2018

Prepared by: Technical Compliance Consultants (NZ) Ltd  
Tel: 64 9 475 5240 www.techcomp.co.nz

**Chronic:** May cause damage to organs through prolonged or repeated exposure.

**Treatment:** Treatment: Treat according to symptoms (decontamination, vital functions).

### Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Combustible Liquid
<b>Hazards from combustion products</b>	Carbon and nitrogen oxides.
<b>Suitable Extinguishing media</b>	Water spray, foam, dry chemical, Carbon dioxide (CO <sub>2</sub> ).
<b>Recommended protective clothing &amp; Precautions for firefighters</b>	Wear SCBA and chemical-protective clothing.
<b>HAZCHEM CODE</b>	<b>3Z</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:**

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.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Do not breathe fumes, vapours or spray.
- Ventilation required.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.

**Precautions for Storage:**

- Store away from incompatible materials listed in Section 10.
- Keep away from heat and protect from sunlight.
- Protect against freezing.
- Stores containing more than 100L are subject to requirement of an emergency management response plan, secondary containment and signage.

### 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 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

Ensure there is sufficient ventilation of the area.

## Personal Protection Equipment



<b>Eyes</b>	Safety goggles with side-shields.
<b>Hands</b>	Suitable chemical resistant safety gloves (e.g. nitrile rubber (.4mm)).
<b>Skin</b>	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. Particle filter with medium efficiency for solid and liquid particles.
<b>General</b>	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

<b>Appearance</b>	Liquid
<b>Colour</b>	Characteristic
<b>Odour</b>	Characteristic
<b>Odour Threshold</b>	Not available
<b>pH</b>	4.0 – 6.0
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	65°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>	0.96 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>	Temperature extremes.
<b>Incompatible Materials</b>	Oxidizing agents, acids and alkali.
<b>Hazardous Decomposition Products</b>	Carbon and nitrogen oxides.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	May be harmful if swallowed.
<b>Dermal</b>	Not applicable.
<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>	Not applicable.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<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 -

<b>Chemical Name</b>	<b>LD50 (Oral)</b>	<b>LD50 (Dermal)</b>	<b>LC50 (inhalation)</b>
Sethoxydim (74051-80-2)	>5000mg/kg	>4000mg/kg	>7.6mg/l (4hrs)

## Section 12. Ecotoxicological Information

<b>Ecological effects information</b>	9.1B = Toxic to aquatic life. 9.2A = Very toxic to the soil environment 9.4C = Harmful 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>	LC50 (Rainbow trout): 170 ppm
<b>Toxicity for daphnia magna:</b>	EC50: 78.1ppm
<b>Toxicity to aquatic plants:</b>	EC50 (algae): > 0.3 ppm
<b>Honey Bee:</b>	LD50: > 10 ug/bee
<b>Mallard Duck:</b>	LC50: > 5,620 ppm
<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.

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>	3082
<b>Class - Primary</b>	9
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	<b>ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S (contains sethoxydim).</b>
<b>Marine Pollutant</b>	Yes
<b>Special Provisions-Limited Quantities</b>	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: HSR101076

HSNO Classification: 3.1D, 6.1E(oral), 6.3B, 6.9B, 8.3A, 9.1B, 9.2A, 9.4C

<b>HSW (HS) Regulations 2017</b>	<b>Trigger Quantity</b>
Certified Handlers	Not required
Location Certificate	Not required
Signage Trigger Quantities (Schedule 3)	1000L (8.3A, 9.1B)
Emergency Response Plan (Schedule 5)	1000L (9.1B)
Fire Extinguishers (Schedule 4)	500L: 2 extinguishers
Secondary Containment (Schedule 5)	1000L (9.1B)
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 - HSR101076
<b>HSNO Additional Controls (Restrictions of use)</b>	
77A	<p>a). The substance must not be applied onto or into water.</p> <p>b). The person in charge of the application of this substance, and any person applying the substance, must ensure that the application is carried out in accordance with the following restrictions:</p> <p>i). the substance must not be applied at rates exceeding 1.5 L of formulated product/ha per application (equivalent to 279 g sethoxydim/ha); and</p> <p>ii) the substance must not be applied to the same area more than once in any 365-day period.</p> <p>c). The product label and safety data sheet must note the following restrictions that apply to this substance:</p>

	<p>i) the maximum application rate (1.5 L of formulated product per hectare (equal to 279g sethoxydim / ha)</p> <p>ii) the maximum number of applications per 365-day period (once)</p> <p>iii) that the substance can only be applied using ground-based application methods</p> <p>iv) that the substance must not be applied into or onto water.</p> <p>d). This substance must be applied via ground-based methods only. [1] [1] Ground-based methods of applying pesticides include, but are not limited to, application by ground boom, airblast or knapsack, and do not include aerial application methods.</p>
<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 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	Not applicable.

## 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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Please contact Adria, if further information is required.

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