

## SAFETY DATA SHEET

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

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

Product: **Curalan**  
 Product Use: Fungicide  
 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: 19 July 2018

### Section 2. Hazards Identification

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

**EPA Approval No: HSR100514**  
**Pictograms**



Toxic/Irritant    Chronic    Corrosive    Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (inh)	H332	Harmful if inhaled.	Acute Tox. 4
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
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
9.1A	H400	Very toxic to aquatic life.	Aquatic Acute
9.2D	H423	Harmful to the soil environment.	
9.3C	H433	Harmful to terrestrial vertebrates.	

<b>Prevention Code</b>	<b>Prevention Statement</b>
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 and spray.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.

<b>Response code</b>	<b>Response Statement</b>
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

<b>Storage Code</b>	<b>Storage Statement</b>
P405	Store locked up.

<b>Disposal Code</b>	<b>Disposal Statement</b>
P501	Refer to Section 13.

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

<b>Ingredients</b>	<b>Wt%</b>	<b>CAS NUMBER.</b>
Fluazinam	50.0	79622-59-6

### **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. Seek medical assistance immediately should irritation persist.
If on Skin	Wash immediately with soap and water. Do not rub skin. May cause slight irritation. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
If Swallowed	Do NOT induce vomiting if swallowed. May be harmful. A glass of water may be given. 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:** Not applicable.

**Inhalation:** Harmful if inhaled.

**Skin:** Causes mild skin irritation. May cause an allergic skin irritation.

**Eye:** Causes serious eye damage.

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

**Treatment:** No known specific antidote. Treat symptomatically (decontamination, vital functions).

## Section 5. Fire Fighting Measures

<b>Hazard Type</b>	This product is not flammable.
<b>Hazards from combustion products</b>	Thermal decomposition generates: carbon dioxide, carbon monoxide, nitrogen oxide, sulfur oxide, sulfides.
<b>Suitable Extinguishing media</b>	Dry chemical, carbon dioxide water spray, alcohol resistant foam.
<b>Recommended protective clothing &amp; Precautions for firefighters</b>	Wear SCBA and appropriate 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.

### 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. Prevent material from entering waterways. 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.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe fumes, vapours and spray.
- Use only outdoors or in a well-ventilated area.
- Cleaning water should be disposed of in appropriate manner.
- Contaminated work clothing should not be allowed out of the workplace.
- Wash contaminated clothing before re-use.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.

### Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.

- Store in original container tightly closed and in a locked, cool, dry, ventilated area away from foodstuffs or stockfeed.
- As a Class 9 Substance with Ecotoxicity Classifications, storage of Curalan must be carried out in such a manner as to prevent contamination of waterways. Stores containing more than 250L of Curalan require bunding and are subject to signage. Storage must generally be in accordance with The New Zealand Standard for the Management of Agrichemicals (NZS8409).

## 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 adequate ventilation.

### Personal Protection Equipment



<b>Eyes</b>	Wear safety goggles with side-shields or full-face shield.
<b>Hands</b>	Wear suitable gloves resistant to chemical penetration e.g. nitrile rubber gloves with a minimum thickness of 0.4 mm.
<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>	Yellow
<b>Odour</b>	Characteristic
<b>Odour Threshold</b>	Not available
<b>pH</b>	4.5 – 4.9
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	> 100°C
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not flammable
<b>Upper and Lower Explosive Limits</b>	Not explosive
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Density</b>	1200 - 1300 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>Kinematic 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>	Sunlight, open flame, sources of heat void excessive temperatures.
<b>Incompatible Materials</b>	None known.
<b>Hazardous Decomposition Products</b>	Thermal decomposition generates: carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxide, sulfides.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Not applicable.
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Harmful if inhaled.
<b>Eye</b>	Causes severe eye damage.
<b>Skin</b>	Causes mild skin irritation. May cause an allergic skin reaction.

### 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>	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>
<b>Product</b>			
Fluazinam (79622-59-6)	>5000 mg/kg	>2000mg/kg	0.463mg/l (Rat)

## Section 12. Ecotoxicological Information

<b>Ecological effects information</b>	9.1A = Very toxic to aquatic life. 9.2C = Harmful to the soil environment. 9.3B = Harmful to terrestrial vertebrates.
<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 (96 h) for rainbow trout 0.036 mg/l.
<b>Toxicity for daphnia:</b>	LC50 (48 h) 0.22 mg/l
<b>Toxicity to algae:</b>	EC50 (96 h) for Selenastrum capricornutum 0.16 mg/l
<b>Precautions:</b>	Do not allow to enter waterways.

## Section 13. Disposal Considerations

### Disposal Method:

When emptying container, triple rinse and add remaining material to spray tank. Return the 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>	3082
<b>Class - Primary</b>	9
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	<b>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (fluazinam)</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: HSR100514

HSNO Classification: 6.1D(inh), 6.3B, 6.5B, 6.8B, 6.9B, 8.3A, 9.1A, 9.2D 9.3C

<b>HSW (HS) Regulations 2017</b>	<b>Trigger Quantity</b>
Certified Handlers	Not required
Signage Trigger Quantities (Schedule 3)	100L (9.1A)
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 <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for controls document - HSR100514
<b>HSNO Additional Controls (Restrictions of use)</b>	
77A	This substance must not be applied onto or into water.
<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 See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration controls	P8299

## 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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