

SAFETY DATA SHEET

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

Section 1. Identification of the material and the supplier

Product:	Fludio
Product Use:	Seed Treatment
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) 0800 764 766 (National Poison Centre)
Date of SDS Preparation:	21 March 2023

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: HSR100622

Pictograms



Signal Word: **Warning**

GHS Classification and Category	Hazard Code	Hazard Statement
Specific target organ toxicity - repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment chronic Cat. 2	H411	Toxic to aquatic life with long lasting effects.

Prevention Code	Prevention Statement
P103	Read carefully and follow all instructions.
P260	Do not breathe fumes, vapours or spray.
P273	Avoid release to the environment.

Response code	Response Statement
P314	Get medical advice/attention if you feel unwell.

P391	Collect spillage.
------	-------------------

Storage Code	Storage Statement
None allocated	

Disposal Code	Disposal Statement
P501	Refer to Section 13.

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Content (%w/v)	CAS NUMBER.
Fludioxonil	10.00	131341-86-1
Other ingredients determined not to be 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	After contact with skin, wash immediately with soap and water. If skin irritation occurs: get medical advice/attention.
If Swallowed	Do NOT induce vomiting if swallowed. Administer medicinal charcoal in a large quantity of water. 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. Call a POISON CENTRE or a doctor immediately.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion:	Not applicable.
Inhalation:	Not applicable.
Skin:	Not applicable.
Eye:	Not applicable.
Chronic:	May cause damage to organs through single, repeated or prolonged exposure.
Treatment:	No known specific antidote. Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	This product is non-flammable.
Hazards from products	Combustion products are toxic and/or irritants. Measures must be taken to prevent the contaminated extinguishing agent from seeping into the ground or from spreading uncontrollably.
Suitable Extinguishing media	Wear Self-contained breathing apparatus and appropriate chemical-protective clothing.
Recommended protective clothing & Precautions for firefighters	Wear Self-contained breathing apparatus and appropriate chemical-protective clothing.
HAZCHEM CODE	3Z

Section 6. Accidental Release Measures

Personal precautions:

Use protective clothing as detailed in Section 8. Avoid contact with skin, eyes and clothing. Remove contaminated clothes and shoes immediately. Rewash contaminated clothing before reuse.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Notify authorities if product enters sewers or public waters.

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 carefully and follow all instructions.
- 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.
- Ventilation required.

Precautions for Storage:

- Store in original container tightly closed and in a locked, cool, dry, ventilated area away from foodstuffs, fertilisers and seeds and sources of ignition.
- Protect from extreme temperatures.
- Protect from temperatures above: 40 °C.
- 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 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 APRIL 2022 13TH EDITION.

Engineering Controls / Industrial Hygiene

Ensure adequate ventilation.

Personal Protection Equipment



Eyes	Wear safety goggles with side-shields.
Hands	Suitable chemical resistant safety gloves (e.g. nitrile rubber (.4mm)).
Skin	Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure.
Respiratory	Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles.
General	Keep away from food, drink and animal feedstuffs. No eating, drinking or smoking during use and wash hands and face before breaks and after work. Clean protective gear and contaminated equipment with soap or soda solution.

Section 9 Physical and Chemical Properties

Appearance	Liquid (suspension concentrate)
Colour	Red
Odour	Characteristic
Odour Threshold	Not available
pH	7.9
Melting Point/Boiling Point	Not available
Freezing Point	Not available
Flash Point	>100°C
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Density	1.044g/l
Water Solubility	Not available
Partition Coefficient:	Not available
Ignition Temperature	460°C(auto-ignition)
Decomposition Temperature	Not available
Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	Stable under normal storage and handling conditions.
Possibility of hazardous reactions	None under normal storage and use conditions.
Conditions to Avoid	Avoid intense heat. Keep away from foodstuffs, acids and alkalis.
Incompatible Materials	None under normal conditions. Poisonous fumes may be released during fire.
Hazardous Decomposition Products	None known at time of publishing.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable. LD50: > 2000 mg/kg, rat.
Dermal	Not applicable.
Inhalation	Not applicable. LC50 (4 hr) (Rat) >4.37 mg/l
Eye	Not applicable.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.

Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Section 12. Ecotoxicological Information

Ecological effects information	Toxic to aquatic life with long lasting effects.
Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available
Acute fish toxicity:	LD50 = > 2,000 mg/kg (mallard ducks and bobwhite quail)
Toxicity for daphnia:	LC50 (48 h) = 10 mg/L (Daphnia magna straus)
Toxicity to algae:	EbC50 (72 h) = 3.0 mg/L (Pseudokirchneriella subcapitata [green algae]) ErC50 (72 h) = 11 mg/L (Pseudokirchneriella subcapitata [green algae])
Toxicity to bees:	LD50 (48 hours, oral) = > 329 µg/bee; LD50 (48 hours, contact) = > 101 µg/bee
Precautions:	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 5433:2020



Road, Rail, Sea and Air Transport

UN No	3082
Class - Primary	9
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, (FLUDIOXONIL) LIQUID, N.O.S.
Marine Pollutant	Yes
Special Provisions-Limited Quantities	If the product's individual container is below 5L, 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: HSR100622

HSW (HS) Regulations 2017	Trigger Quantity
Certified Handlers	Not required
Location Certificate	Not required
Signage Trigger Quantities (Schedule 3)	1000L
Emergency Response Plan (Schedule 5)	1000L
Secondary Containment (Schedule 5)	1000L
Tracking (Schedule 26)	Not required
For all further controls	Refer to EPA www.epa.govt.nz for controls document - HSR100622
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
Hoc 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.
ACVM Act and Regulations	
ACVM Approval No See www.foodsafety.govt.nz for registration controls	P8411

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 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 April 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
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: 21 March 2023 Review Date: 21 March 2028