SAFETY DATA SHEET

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

Section 1. Identification of the material and the supplier

Product:	**Ormax**
Product Use:	Fungicide
Restriction of Use:	Refer to Section 15
Supplier:	**Adria Crop Protection Solutions**
Address:	407 State Highway 16 Kumeu 0841, Auckland
Telephone:	+64 9 412 9817
Website:	www.adria.nz
Emergency No:	**0800 734 607 (24hr)** **0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	31st January 2025

Section 2. Hazards Identification

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

EPA Approval No: HSR101503

Pictograms

Signal Word: **Warning**

Hazard statements

GHS Classification and Category	Hazard Code	Hazard Statement
Corrosive to metals Cat. 1	H290	May be corrosive to metals.
Carcinogenicity Cat. 2	H351	Suspected of causing cancer.
Reproductive toxicity Cat. 2	H361	Suspected of damaging fertility or the unborn child.
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	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.

P391 Collect spillage.
P406 Store in corrosive resistant polypropylene container with a resistant inner liner.
P501 Dispose of contents/container in accordance with local regulation.

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Content (w/v)	CAS NUMBER.
Fluopicolide	6.33%	239110-15-7
Propamocarb hydrochloride	65.78%	25606-41-1
Non-hazardous ingredients	To bal	

Section 4. First Aid Measures

Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. Place and transport victim in stable position (lying sideways).

Routes of Exposure:

If in Eyes — Rinse cautiously with water for at least 15 minutes under running water holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Get medical advice/attention.

If on Skin — Wash off immediately with polyethylene glycol 400, then with plenty of water. If symptoms persist, call a physician.

If Swallowed — Do NOT induce vomiting if swallowed. Ingest activated charcoal. Seek medical attention immediately. For advice, contact the Poison centre 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:

Local: Lethargy, Ataxia, Convulsions

Treatment: Treat symptomatically. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. There is no specific antidote. Contraindication: atropine.

Section 5. Fire Fighting Measures

Hazards from products	In the event of fire the following may be released:, Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Hydrogen fluoride, Carbon monoxide (CO), Nitrogen oxides (NOx).
Suitable Extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Recommended protective clothing & Precautions for firefighters	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

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. Avoid dust formation.

Environmental precautions:
Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Spill and Disposal procedures:

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labelled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Dispose of waste safely, according to Local Council regulations.

Section 7. Handling and Storage

Precautions for Handling:
- Read label before use.
- No special measures necessary if stored and handled correctly.
- Do not handle until all safety precautions have been read and understood.
- Avoid contact with skin and eyes.
- When using do not eat , drink or smoke.
- Keep away from: sparks, open flame and direct sunlight.
- Avoid release to the environment.
- Use personal protective equipment as required.
- Prevent electrostatic charge.
- Do not breathe gas/fumes/vapour/spray.

Precautions for Storage:
- Store away from incompatible materials listed in Section 10.
- Store locked up.
- No smoking.
- Protect against moisture.
- Protect from temperatures above 50°C

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³
Fluopicolide		1.1 mg/m³		
Propamocarb hydrochloride		2.2 mg/m³		

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

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

Personal Protection Equipment

Eyes	Wear safety goggles with side-shields (frame goggles)
Hands	Gloves material, e.g. outside: rubber, vinyl chloride resin; inside: cotton, rayon.
Skin	Wear standard coveralls and Category 3 Type 4 suite, hand protection and boots.
Respiratory	Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
General	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	Liquid
Colour	Off white to beige liquid
Odour	Ester like
Odour Threshold	No data available
pH	5-9
Boiling/Melting Point	No data available
Freezing Point	No data available
Flash Point	No data available
Flammability	No data available
Upper and Lower Explosive Limits	No data available
Vapour Pressure	No data available
Vapour Density	No data available
Density	1081
Water Solubility	Soluble in water

Partition Coefficient:	No data available
Ignition Temperature	Does not burn
Decomposition Temperature	No data available
Viscosity	No data available
Particle Characteristics	No data available
Surface tension	No data available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	None known.
Conditions to Avoid	High temperature.
Incompatible Materials	Strong acids, strong bases, strong oxidizing agents.
Hazardous Decomposition Products	This product is likely to decompose only after heating to dryness, followed by further strong heating. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Section 11 Toxicological Information

Acute Effects (Based on the active ingredients):

Swallowed	Propamocarb HCL: rats >2000 mg/kg Fluopicolide: rats >5000 mg/kg
Dermal	Propamocarb HCL: rats >5000 mg/kg Fluopicolide: rats >5000 mg/kg
Inhalation	Propamocarb HCL: >5.54 mg/L Fluopicolide: rats >5.16 mg/L
Eye	Propamocarb HCL: Not an irritant (rabbits) Fluopicolide: Not an irritant (rabbits)
Skin	Propamocarb HCL: Not an irritant (rabbits) Fluopicolide: Not an irritant (rabbits)

Chronic Effects:

Carcinogenicity	No data available
Reproductive Toxicity	No data available
Germ Cell Mutagenicity	No data available
Aspiration	No data available
STOT/SE	No data available
STOT/RE	No data available

Section 12. Ecotoxicological Information

Based on the active ingredient:

Ecological effects information	No relevant data found.
Persistence and degradability	Fluopicolide: Not rapidly biodegradable Propamocarb hydrochloride: rapidly biodegradable
Bioaccumulation	Fluopicolide: Bioconcentration factor (BCF) 121 Does not bioaccumulate. Propamocarb hydrochloride: Does not bioaccumulate.

Mobility in Soil	Fluopicolide: Moderately mobile in soils Propamocarb hydrochloride: Slightly mobile in soils
Other adverse effects	
Acute fish toxicity:	Propamocarb HCL: LC_{50} (96 h) for bluegill sunfish >92, rainbow trout >99, sheepshead minnows >110, carp >100 mg/l. Fluopicolide: LC_{50} (96 h) for rainbow trout 0.36, bluegill sunfish 0.75 mg/l.
Toxicity for daphnia:	Propamocarb HCL: LC_{50} (48 h) >106 mg/l. Fluopicolide: EC_{50} (48 h) >1.8 mg/l.
Toxicity to algae:	Propamocarb HCL: E_rC_{50} and E_bC_{50} (72 h) for *Pseudokirchneriella subcapitata* >85 mg/l. Fluopicolide: E_rC_{50} (72 h) for *Selenastrum capricornutum* >4.3, Navicula pelliculosa 0.069 mg/l.
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 5433:2012

Road, Rail, Sea and Air Transport

UN No	3082
Class - Primary	9
Packing Group	III
Proper Shipping Name	**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluopicolide solution)**
Marine Pollutant	YES
Special Provisions- Limited Quantities	NA

Section 15 Regulatory Information

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

EPA Approval No: HSR101503

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 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

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

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