

SAFETY DATA SHEET

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

Section 1. Identification of the material and the supplier

Product: Voltage
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)
0800 764 766 (National Poison Centre)

Date of SDS Preparation: 8 January 2025 v2

Section 2. Hazards Identification

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

EPA Approval No: HSR101441

Pictograms:



Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Flammable Liquids Cat. 4	H227	Combustible liquid.
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Aspiration hazard Cat. 1	H304	May be fatal if swallowed and enters airways.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Skin sensitisation Cat. 1	H317	May cause an allergic skin reaction.
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.
Hazardous to soil organisms.	H421	Hazardous to soil organisms

Hazardous to terrestrial vertebrates.	H432	Hazardous to terrestrial vertebrates
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Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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.
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 SDS Section 8.

Response code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P391	Collect spillage.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use water spray, carbon dioxide (CO ₂), alcohol resistant foam, dry chemical to extinguish.

Storage Code	Storage Statement
P405	Store locked up.
P403	Store in a well-ventilated place.

Disposal Code	Disposal Statement
P501	Refer to Section 13.

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Content (%w/w)	CAS NUMBER.
Pinoxaden (8-(2,6-diethyl-4-methylphenyl)-9-oxo-1H,2H,4H,5H,9H-pyrazolo[1,2-d][1,4,5]oxadiazepin-7-yl 2,2-dimethylpropanoate)	<11%	243973-20-8
Cloquintocet mexyl ((2R)-heptan-2-yl 2-[(5-chloroquinolin-8-yl)oxy]acetate (2S)-heptan-2-yl 2-[(5-chloroquinolin-8-yl)oxy]acetate)	<3%	99607-70-2
Tetrahydrofurfuryl alcohol	<60%	97-99-4
Solvent naphtha (petroleum), Heavy aromatic	<20%	64742-94-5

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	Take off contaminated clothing and wash before re-use. Wash skin with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
If Swallowed	Rinse mouth. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Immediately call a POISON CENTER or doctor/physician.
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:	Harmful if swallowed.
Inhalation:	Not applicable.
Skin:	May cause an allergic skin reaction.
Eye:	Causes serious eye irritation.
Chronic:	May cause damage to organs through prolonged or repeated exposure.

Treatment: Treatment: Treat according to symptoms (decontamination, vital functions). No known specific antidote.

Section 5. Fire Fighting Measures

Hazard Type	Combustible Liquid
Hazards from products	Fire might produce dense black smoke containing hazardous products of combustion (toxic and irritant vapours). Exposure to decomposition products may be hazardous to human health.
Suitable Extinguishing media	Water spray, carbon dioxide (CO ₂), alcohol resistant foam, dry chemical. Do not use a solid water stream as it may scatter and spread fire.
Recommended protective clothing & Precautions for firefighters	Wear SCBA and chemical-protective clothing. Self-contained breathing apparatus is required. Do not allow the runoff from firefighting media to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Addition of water may cause excessive foaming. Vapours may be toxic.
HAZCHEM CODE	3Z

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 i.e. clay granules, sand or other absorbent material and place in waste containers. Wash area with water and absorb with further inert material. Return empty container to an AgRecovery collection point for disposal. Dispose of waste safely, according to local Council regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read Keep out of reach of children.
- Read carefully and follow all instructions.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Do not breathe fumes, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Keep containers tightly closed.
- Chemical resistant gloves and eye protection should be worn when handling this product. Other personal protective equipment appropriate to the situation when handling product, eg Full body cover [ankle to wrist clothing and boots] should also be worn. Wash protective clothing daily after work.
- Use personal protective equipment as required.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store securely out of reach of children and locked up.
- Store in a well-ventilated place.
- Keep away from heat and protect from sunlight.
- Protect against freezing.
- Store in original container, tightly closed away from food, food related materials, animal feedstuffs, seed or fertilizer.

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 NOV 2023 14TH EDITION.

Engineering Controls

Comply with occupational safety, environmental, fire and other applicable regulations.

Personal Protection Equipment



Eyes	Safety goggles with side-shields.
Hands	Suitable chemical resistant safety gloves (e.g. nitrile rubber (.4mm)). Contaminated gloves should be washed. Gloves should be disposed of when

	contaminated on the inside, perforated or contamination on the outside cannot be removed.
Skin	Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure. Decontaminate contaminated clothing, remove and dispose of in accordance with the manufacturer's instructions.
Respiratory	Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles. Respiratory protection is not normally required except during the formation of mists or aerosols or in the case of fire.
General	Females of childbearing age should not come into contact with the product. Keep away from food, drink and animal feedstuffs. No eating, drinking or smoking during use. Wash hands and face before breaks and after work. Potentially fatal if inhaled. When handling wear full protective clothing such as gloves, hat, coat and trousers (worn outside rubber boots). Suitable or appropriate respiratory and eye protection should also be worn. The use of a skin barrier cream is useful to give additional skin protection.

Section 9 Physical and Chemical Properties

Appearance	Liquid EC
Odour	Characteristic
Odour Threshold	No data available
pH	4 - 6
Melting/Boiling Point	No data available
Freezing Point	No data available
Flash Point	Not applicable
Flammability	Non-flammable
Upper and Lower Explosive Limits	Not applicable
Vapour Pressure	No data available
Vapour Density	No data available
Relative Density	1.05 g/L
Water Solubility	Emulsifies in water
Ignition Temperature	No data available
Decomposition Temperature	Not available
Viscosity	Not available
Particle Characteristics	Not available
Surface tension	Not 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	Temperature extremes and direct sunlight.
Incompatible Materials	Store only in original containers.
Hazardous Decomposition Products	Combustion or thermal decomposition will evolve toxic and irritant vapors.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed: LD50 (rat) 5000 mg/kg
Dermal	Not applicable. LD50 (rat) >2000 mg/kg
Inhalation	Not applicable. LC50 (rat -male) 4.63 mg/L (4 hours)
Eye	Causes serious eye irritation.
Skin	May cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity	Not applicable.
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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 Hazardous to soil organisms Hazardous to terrestrial vertebrates
Persistence and degradability	Parent pinoxaden is rapidly metabolized (DT ₅₀ < 1 d) and is rapidly degraded in plants (DT ₅₀ < 1 d)
Bioaccumulation	Degrades quickly, DT ₅₀ < 1 d. Pinoxaden and its degradation products are not persistent and do not accumulate in soil. K _{oc} 121–852 ml/g (median 323, 9 soils).
Mobility in Soil	Does not leach into groundwater.
Other adverse effects	No other effects
Acute fish toxicity:	LC ₅₀ (96 hr) rainbow trout 10.3, fathead minnows 20, sheepshead minnows 16
Toxicity for daphnia:	EC ₅₀ (48hr) for daphnia 52mg/l
Toxicity to algae:	EbC ₅₀ (96h static): <i>Navicula pelliculosa</i> 10.2, <i>Anabaena flos-aquae</i> 5.0, <i>Skeletonema costatum</i> 0.909, <i>Pseudokirchneriella subcapitata</i> 16
Toxicity for birds	LD ₅₀ = bobwhite quail >2250 mg/kg. Dietary LC ₅₀ (5 d) for bobwhite quail and mallard ducks >5620 mg/kg diet.
Toxicity for worms	LC ₅₀ (14 d) = <i>Eisenia fetida</i> >1000
Toxicity bees	LD ₅₀ µg/bee] (48 h) ->100 (contact), >200 (oral)
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 (Solvent naphtha)
Marine Pollutant	Yes
Special Provisions-Limited Quantities	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 2020

EPA Approval Code: HSR101441

HSW (HS) Regulations 2017	Trigger Quantity
Certified Handlers	Not required
Location Certificate	Not required
Signage Trigger Quantities (Schedule 3)	100L
Emergency Response Plan (Schedule 5)	100L
Secondary Containment (Schedule 5)	100L
Tracking (Schedule 26)	Not required
HSNO Additional Controls (Restrictions of use)	
For all further controls	Refer to EPA www.epa.govt.nz for controls document – HSR101441
77A - Application method restrictions	The substance must be applied using ground-based methods only, excluding vehicle-driven air-blast equipment. The substance must not be applied when wind speeds are less than 3 km/hr or more than 20 km/hr as measured at the application site.
ACVM Act and Regulations	
ACVM Approval No See www.foodsafety.govt.nz for registration controls	P9867

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

Cat	Category
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 2023 14th 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

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Please contact Adria, if further information is required.

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