SAFETY DATA SHEET

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

Section 1. Identification of the material and the supplier

Product:	**Procura**
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:	4 September 2020

Section 2. Hazards Identification

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

EPA Approval No: HSR000481

Pictograms

Chronic Corrosive Ecotoxic

Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1E (oral)	H303	May be harmful if swallowed.	Acute Tox. 5
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
8.1A	H290	May be corrosive to metals.	Met. Corr. 1
9.1D	H413	May cause long lasting harmful effects to aquatic life.	Aquatic Chronic 4
9.2B	H422	Toxic to the soil environment.	-
9.3C	H433	Harmful to terrestrial vertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P234	Keep only in original container.
P260	Do not breathe mist, vapours or spray.
P273	Avoid release to the environment.

Response code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.

Storage Code	Storage Statement
P406	Store in corrosive resistant container with a resistant inner liner.

Disposal Code	Disposal Statement
P501	Refer to Section 13.

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Content (%)	CAS NUMBER.
Propamocarb hydrochloride	>78%	25606-41-1

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — If product or spray enters eyes, wash out immediately and continue rinsing with clean water for at least 15 minutes. Obtain medical attention.

If on Skin — After contact with skin, wash immediately with water for at least 15 min. Immediately remove contaminated clothing. Wash contaminated clothing before reuse. Seek medical attention.

If Swallowed — If swallowed, rinse mouth immediately and seek medical advice. Do NOT induce vomiting. For advice, contact the National Poisons Centre on 0800 POISON (0800 764766) or a doctor immediately.

If Inhaled — Keep patient calm and warm. Remove to fresh air and seek medical attention. Remove contaminated clothing and loosen remaining clothing. If ill-effects persist, consult a doctor. Keep at rest until fully recovered. Apply artificial respiration if not breathing.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: May be harmful if swallowed.
Inhalation: Not applicable.
Skin: Not applicable.
Eye: Not applicable.
Chronic: May cause damage to organs (oral) through repeated or prolonged exposure.

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

Section 5. Fire Fighting Measures

Hazard Type	This product is Non-Flammable.
Hazards from products	None known.
Suitable Extinguishing media	Water spray, water fog, foam, dry chemical. Do not use a heavy water stream.
Recommended protective clothing & Precautions for firefighters	Wear SCBA and chemical-protective clothing including respiratory protection. Do not allow the run off from firefighting media to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Use water spray or fog for cooling exposed containers.
HAZCHEM CODE	**2Z**

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. Evacuate personnel from the contaminated area. Spill area may be slippery.

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. Dispose of waste safely, according to Local Council regulations detailed in Section13.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Keep only in original container.
- Do not breathe mist, vapours or spray.
- Avoid release to the environment.
- Avoid contact with skin and eyes.
- Ventilation required.
- Keep away from: sparks, open flame and direct sunlight.
- Chemical resistant gloves and eye protection should be worn when handling this product. Other personal protective equipment appropriate to the situation when handling product, e.g., Full body cover [ankle to wrist clothing and boots] should also be worn.
- Wash protective clothing daily after work.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store in corrosive resistant container with a resistant inner liner.
- 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.
- Store above -10°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

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 2019 11TH EDITION.

Engineering Controls / Industrial Hygiene
Comply with occupational safety, environmental, fire and other applicable regulations.

Personal Protection Equipment

Eyes	Chemical goggles or face shield with safety glasses.
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. 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. When handling wear full protective clothing such as gloves, hat, coat and trousers (worn outside rubber boots). Suitable eye protection should also be worn.

Section 9 Physical and Chemical Properties

Appearance	Liquid, SL
Odour	Characteristic
Odour Threshold	Not available
pH	4 – 6
Boiling	100^0C
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not flammable
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Relative Density	1.074 g/L
Water Solubility	Soluble in water
Partition coefficient: n-octanol/water	-1.36

Auto Ignition Temperature	>400^{0}C
Decomposition Temperature	Not available
Kinematic Viscosity	810 cPs, 20°C
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	None known.

Section 11 Toxicological Information

Acute Effects:

Swallowed	May be harmful if swallowed.
Dermal	Not applicable.
Inhalation	Not applicable.
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 repeated or prolonged exposure (oral).

Toxicological Information (Based on the active ingredient Propamocarb-HCl):

Acute oral toxicity [LD_{50} mg/kg]:	Rats > 2000
Acute inhalation toxicity [LC_{50} mg/L]:	Rats > 5.54 (4h)
Acute dermal toxicity [LD_{50} mg/kg]:	Mice > 3000, rats > 5000

Section 12. Ecotoxicological Information

Ecological effects information	9.1D = May cause long lasting effects on aquatic life. 9.2B = Toxic to the soil environment. 9.3C = Harmful to terrestrial vertebrates.

Ecological Information (Based on the active ingredient Propamocarb-HCl):

Acute fish toxicity [LC_{50} mg/L] (96 h, flow-through):	LC_{50} (96 h) for bluegill sunfish >92, rainbow trout >99, sheepshead minnows >110, carp >100 mg/l.
Toxicity for daphnia [EC_{50} mg/L] (48 h, flow-through):	LC_{50} (48 h) >106 mg/l.
Toxicity to algae [ErC50 mg/L] (72 h, static):	E_rC_{50} and E_bC_{50} (72 h) for *Pseudokirchneriella subcapitata* >85 mg/l.
Toxicity for birds [LD50 mg/kg]	Acute oral LD_{50} for bobwhite quail and mallard ducks >1842 mg/kg. Dietary LC_{50} (5 d) for bobwhite quail >5000, mallard ducks >5500 mg/kg diet.
Toxicity for worms [LC50 mg/kg] (14 d)	LC_{50} (14 d) for earthworms >660 mg/kg soil.
Toxicity bees [LD50 µg/bee] (48 h)	>100 (contact), >84 (oral)

Persistence and degradability:	Rapidly degraded in soil by microbial processes, following a brief lag phase, DT_{50} <30 d, DT_{90} <70 d.
Bioaccumulative potential:	Stable in aqueous medium, but rapidly degraded by aquatic micro-organisms (up to 97% in 35 d). It is adsorbed onto sediment, but with limited desorption.
Mobility in soil	Propamocarb hydrochloride is retained in the upper soil layer (4–20 cm) and little is found in leachate.
Results of PBT and vPvB assesment	No specific data available
Other adverse effects	No other effects

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:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance//product.

Precautions or methods to avoid: Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ; NZS 5433:2012
This product is NOT classified as a Dangerous Good for transport under IMDG/IATA

Section 15 Regulatory Information

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

EPA Approval Code: HSR000481

HSNO Classification: 6.1E(oral), 6.9B, 8.1A, 9.1D, 9.2B, 9.3C

HSW (HS) Regulations 2017	**Trigger Quantity**
Certified Handlers	Not required
Location Certificate	Not required
Signage Trigger Quantities (Schedule 3)	1000L (8.1A)
Emergency Response Plan (Schedule 5)	Not required
Secondary Containment (Schedule 5)	Not required
Tracking (Schedule 26)	Not required
For all further controls	Refer to EPA www.epa.govt.nz for controls document – HSR000481
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
Hpc 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

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

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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