



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Prothago**
Product Use: Fungicide
Restriction of Use: Refer to Section 15

New Zealand Supplier: ADAMA New Zealand Ltd
Address: Level 1/93 Bolt Road
Tahunanui, Nelson
Telephone: +64 3 543 8275
Fax Number: +64 3 543 8274

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 29 June 2020

Section 2. Hazards Identification

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

EPA Approval No: HSR101428

Pictograms



Toxic



Ecotoxic

Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.1E (inh)	H333	May be harmful if inhaled.	Acute Tox. 5
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
9.1B	H411	Toxic to aquatic life with long lasting effects.	Aquatic Chronic 2
9.3C	H433	Harmful to terrestrial vertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
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 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.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Storage Code	Storage Statement
None known	Store in the original, tightly closed container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs.

Disposal Code	Disposal Statement
P501	Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill. Do not allow product to enter waterways. Do not burn product or container.

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Prothioconazole	20-26	178928-70-6
Poly(oxy-1,2-ethanediyl), .alpha.-phenyl-.omega.-hydr oxy-, styrenated	14-18	104376-75-2
1-Octyl-2-pyrrolidinone	12-16	2687-94-7
Acetophenone	31-35	98-86-2

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
If on Skin	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.
If Swallowed	Wash out mouth thoroughly with water. Drink plenty of water. 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. Seek medical attention if needed.

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. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: Harmful if swallowed.

Skin: May cause an allergic skin reaction.

Inhalation: May be harmful if inhaled.

Chronic: May cause damage to organs through repeated or prolonged exposure.

Notes to doctor: Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable.
Hazards from combustion products	No specific hazard known.
Suitable Extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Precautions for firefighters and special protective clothing	In the event of fire, wear self-contained breathing apparatus In the event of fire and/or explosion do not breathe fumes.
HAZCHEM CODE	3Z

Section 6. Accidental Release Measures

Wear full protective clothing as detailed in Section 8. Evacuate area from unnecessary personnel. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Dispose as per Local Regulations in Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Do not breathe fumes, vapours or spray.
- Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).
- Use only with adequate ventilation.
- Avoid contact with skin, eyes or clothing.
- In case of insufficient ventilation, wear suitable respiratory equipment.
- 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.
- Wash contaminated clothing before reuse.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.

Precautions for Storage:

- Store in the original, tightly closed container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs.
- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Keep away from food, drink and animal feeding stuffs.
- Keep containers tightly closed in a dry, cool and well-ventilated place.
- Keep in properly labeled containers.

Section 8	Exposure Controls / Personal Protection
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WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm mg/m ³	STEL ppm mg/m ³
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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

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eyes	Tight sealing safety goggles.
Hands	Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).
Body	Gloves made of plastic or rubber, Rubber boots, Suitable protective clothing, Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact, Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate.
Respiratory	Use only with adequate ventilation.
General	When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

Section 9	Physical and Chemical Properties
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Appearance	Yellow liquid
Odour	Not available
Odour Threshold	Not applicable
pH (1% solution)	6.5 – 7.5
Boiling Point	Not applicable
Melting Point	Not available
Flash Point	94.4°C (EEC A.9)

Flammability	Not flammable
Upper and Lower Exposure Limits	Not applicable
Vapour Pressure	Not available
Relative Density(20°C)	1.03 – 1.13 (EEC A.3)
Solubilities	Not available
Partition Coefficient:	Not applicable
Auto-ignition Temperature	Not available
Kinematic viscosity mm²/s 40 °C	26 (OECD 114)
Particle Characteristics	Not applicable
Surface Tension	Not available

Section 10. Stability and Reactivity

Stability of Substance	Stable under normal conditions.
Conditions to Avoid	Exposure to air or moisture over prolonged periods.
Incompatible Materials	None known.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed. LD 50 = Rat 1030mg/kg (rat) (OECD 425)
Dermal	Not applicable. LD50 = >2000 mg/kg (rat) (OECD 402)
Inhalation	Not applicable LC50 = 5.02mg/l 4hr (rat) (OECD 403)
Eye	Not applicable
Skin	May cause an allergic skin reaction.

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.

Section 12. Ecotoxicological Information

HSNO Classes: 9.1B = Toxic to aquatic life.
9.3C = Harmful to terrestrial vertebrates.

	Values	Method	Remarks
Persistence and degradability Abiotic Degradation Water DT50 Prothioconazole	0.8 – 1.0		
Soil DT50 days Prothioconazole	2.8		
Biodegradation	-		

Bioaccumulation Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow Prothioconazole Bioconcentration factor (BCF) Prothioconazole	3.04 19.7	pH7;20°C
Mobility in Soil Prothioconazole	-	
Terrestrial Toxicity Birds Oral LD50 mg/kg Prothioconazole Bees Oral LD50 pg/bee Prothioconazole	Bobwhite quail = >2000 >71	 Apis Mellifere OECD213

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method: Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill.

Precautions: Do not allow product to enter waterways.

Disposal methods to avoid: Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012



Road and Rail Transport

UN No: 3082
Class-primary 9
Packing Group III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole 1-Octyl-2-pyrrolidinone)

Air Transport

UN No: 3082
Class-primary 9
Packing Group III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole 1-Octyl-2-pyrrolidinone) **Marine**

Transport

UN No: 3082
Class-primary 9

Product Name: Prothago
Date of SDS: 29 June 2020

Issued by: Technical Compliance Consultants (NZ) Ltd
Tel: 64 9 475 5240 www.techcomp.co.nz

Packing Group
Proper Shipping Name:

III
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Prothioconazole 1-Octyl-2-pyrrolidinone)
Yes

Marine Pollutant:

Special Provisions:

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 hazardous according to the *Hazardous Substances (Classification) Notice 2017*

EPA Approval Code: HSR101428

HSNO Classification: 6.1D (oral), 6.1E(inh), 6.5B, 6.9B, 9.1B, 9.3C

Please refer to www.epa.govt.nz for full control details for HSR101361

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	1000L (9.1B)
Emergency Response Plan (Schedule 5)	1000L (9.1B, 6.1D)
Secondary Containment (Schedule 5)	1000L (9.1B, 6.1D)
Certified Handlers	Not required
Tracking (Schedule 26)	Not required
HSNO Additional Controls (Restrictions of use)	
Section 77	
Application rate	The maximum application rate of this substance is 200 g /ha of prothioconazole. The maximum application frequency and minimum interval period of this substance must not be more than twice per calendar year with a minimum interval period of 21 days.
Buffer zone	For this substance the following buffer zones apply, according to the relevant application method and scenario: Ground-based: Downwind water body: 5m Aerial: Downwind water body: 50m
Application method	When applied using ground-based or aerial methods, the nozzle must be set to medium or coarse droplet quality spray, as defined by the American Society of Agricultural and Biological Engineers ASABE Standard (S572) or the British Crop Production Council guideline. 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.
Hazardous Property Controls Notice 2017	
HPC Notice Part 1	Hazardous Property Controls preliminary provisions
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
HPC Notice Part 4 Subpart B	Use of class 9 substances in any place.
HPC Notice Part 3	Hazardous substances in a place other than a workplace
ACVM Act and Regulations	
ACVM Approval No	P9778

Tolerable Exposure Level (TEL)	No TEL set
Environmental Exposure Level (EEL)	No EEL set

Section 16 Other Information

Glossary

EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC50	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD50	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

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Please contact Adama, if further information is required.

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