



## 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  
Email: [nzorders@adama.com](mailto:nzorders@adama.com)

**Emergency Telephone: 0800 764 766 (National Poison Centre)  
0800 734 607 (24hr Emergency Response)**

Date of SDS Preparation: 11 July 2022

### Section 2. Hazards Identification

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

**EPA Approval No:** HSR101428

#### Pictograms



Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement
Acute oral toxicity Category 4	H302	Harmful if swallowed.
Skin sensitisation Category 1	H317	May cause an allergic skin reaction.
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment chronic Category 1	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to terrestrial vertebrates	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 unintended release into the environment.
P280	Wear protective clothing as detailed in Section 8.

<b>Response Code</b>	<b>Response Statement</b>
P101	If medical advice is needed, have product container or label at hand.
P301 + P312 + P330	IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P362 + P364	Take off contaminated clothing and wash before reuse.
P391	Collect spillage.

<b>Storage Code</b>	<b>Storage Statement</b>
P410	Protect from sunlight. Store in the original, tightly closed container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs.

<b>Disposal Code</b>	<b>Disposal Statement</b>
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**

<b>Ingredients</b>	<b>Wt%</b>	<b>CAS NUMBER.</b>
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:** Not applicable.  
**Chronic:** May cause damage to organs through repeated or prolonged exposure.

**Notes to doctor:** Treat symptomatically.

## Section 5. Fire Fighting Measures

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

## 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.
- Avoid contact with skin, eyes or clothing.
- 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 unintended release into the environment.
- Wear protective clothing as detailed in Section 8.

### Precautions for Storage:

- Protect from sunlight. 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

### WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm mg/m3	STEL ppm mg/m3
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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

<b>Eyes</b>	Tight sealing safety goggles.
<b>Hands</b>	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).
<b>Body</b>	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.
<b>Respiratory</b>	Use only with adequate ventilation.
<b>General</b>	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

<b>Appearance</b>	Yellow liquid
<b>Odour</b>	Not available
<b>Odour Threshold</b>	Not applicable
<b>pH (1% solution)</b>	6.5 – 7.5
<b>Boiling Point</b>	Not applicable
<b>Melting Point</b>	Not available
<b>Flash Point</b>	94.4°C (EEC A.9)
<b>Flammability</b>	Not flammable
<b>Upper and Lower Exposure Limits</b>	Not applicable
<b>Vapour Pressure</b>	Not available
<b>Relative Density(20°C)</b>	1.03 – 1.13 (EEC A.3)
<b>Solubilities</b>	Not available
<b>Partition Coefficient:</b>	Not applicable
<b>Auto-ignition</b>	Not available

<b>Temperature</b>	
<b>Kinematic viscosity mm<sup>2</sup>/s 40 °C</b>	26 (OECD 114)
<b>Particle Characteristics</b>	Not applicable
<b>Surface Tension</b>	Not available

### Section 10. Stability and Reactivity

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

### Section 11 Toxicological Information

#### Acute Effects:

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

#### Chronic Effects:

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	May cause damage to organs through repeated or prolonged exposure.

### Section 12. Ecotoxicological Information

**HSNO Classification:** Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial vertebrates.

	Values	Method	Remarks
<b>Persistence and degradability</b> Abiotic Degradation Water DT50 Prothioconazole	0.8 – 1.0		
<b>Soil DT50 days</b> Prothioconazole	2.8		
<b>Biodegradation</b>	-		
<b>Bioaccumulation</b> Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow Prothioconazole	3.04		pH7;20°C
Bioconcentration factor (BCF) Prothioconazole	19.7		
<b>Mobility in Soil</b> Prothioconazole	-		

<b>Terrestrial Toxicity</b> Birds Oral LD50 mg/kg Prothioconazole	Bobwhite quail = >2000
Bees Oral LD50 pg/bee Prothioconazole	>71                      Apis Mellifere                      OECD213

### 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. Do not burn product or container.

### Section 14 Transport Information

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



#### **Road and Rail Transport**

UN No: 3082  
 Class-primary 9  
 Packing Group III  
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains prothioconazole)

#### **Air Transport**

UN No: 3082  
 Class-primary 9  
 Packing Group III  
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains prothioconazole)

#### **Marine Transport**

UN No: 3082  
 Class-primary 9  
 Packing Group III  
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains prothioconazole)  
 Marine Pollutant: Yes

#### **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.

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

**HSNO Approval Code:** HSR101428

<b>HSW (HS) Regulations 2017</b>	<b>Trigger Quantity</b>
Signage Trigger Quantities (Schedule 3)	1000L
Emergency Response Plan (Schedule 5)	1000L
Secondary Containment (Schedule 5)	1000L
Certified Handlers	Not required
Tracking (Schedule 26)	Not required
<b>HSNO Varied/Additional Controls</b>	
Variations to Hazardous Property Controls Notice Part 4B	<p><u>Application Rates</u> The maximum application rate of this substance is 200 g /ha of prothioconazole.</p> <p>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.</p> <p><u>Buffer Zones</u> For this substance the following buffer zones apply, according to the relevant application method and scenario:</p> <p>Ground-based: Downwind water body: 5m Aerial: Downwind water body: 50m</p>
77A	<p><u>Application method restrictions</u> 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.</p> <p>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.</p>
<b>Hazardous Property Controls Notice 2017</b>	
HPC Notice Part 1	Hazardous Property Controls preliminary provisions
HPC Notice Part 3	Hazardous substances in a place other than a workplace
HPC Notice Part 4 Subpart A	Substances that are hazardous to the environment: Site and storage controls
HPC Notice Part 4 Subpart B	Use of substances that are hazardous to the environment
HPC Notice Part 4 Clause 47	Equipment for environmentally hazardous substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of ecotoxic pesticides and plant growth regulators
HPC Notice Part 4 Clause 52	Agrichemicals that are hazardous to the aquatic environment must not be applied to water
HPC Notice Part 4 Subpart C	Qualifications required for the application of substances that are hazardous to the environment
<b>ACVM Act and Regulations</b>	
ACVM Approval No See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration controls	P9778

**Glossary**

ACVM	Agricultural Compounds and Veterinary Medicines Act 1997.
EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority.
HSNO	Hazardous Substances and New Organisms Act 1996.
HSW	Health and Safety at Work Act 2015.
HSW (HS) Regulations	Health and Safety at Work (Hazardous Substances) Regulations 2017.
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.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
WES	Workplace Exposure Limit.

**References:**

1. Hazardous Substances (Safety Data Sheets) Notice 2017
2. Hazardous Substances (Hazard Classification) Notice 2020
3. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
4. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
5. Transport of Dangerous goods on land NZS 5433
6. HSW (Hazardous Substances) Regulations 2017

**Disclaimer:**

This document has been issued by Adama New Zealand Ltd and serves as their Safety Data Sheet ('SDS'). It is based on information concerning the product which is held by Adama New Zealand Ltd or has been 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. While Adama New Zealand Ltd 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, Adama New Zealand 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.

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