

**WARNING**  
**KEEP OUT OF REACH OF CHILDREN**  
**ECOTOXIC**



# PROTUGAN<sup>®</sup> HERBICIDE

GROUP **C2** HERBICIDE

*Selective post-emergence herbicide for grass and broadleaf weed control in wheat and winter sown barley*

**READ THE ATTACHED BOOKLET COMPLETELY BEFORE MIXING OR APPLYING**

**Active Ingredient:**

Contains 500 g/L ISOPROTURON in the form of a suspension concentrate

Adama New Zealand Limited  
Level 1, 93 Bolt Road  
Tahunanui, Nelson 7011  
PO Box 1799, Nelson 7040  
New Zealand  
Telephone 03 543 8275  
www.adama.com

NET CONTENTS  
1 L, 5 L, 10 L,  
20 L

# ADAMA

**REFER TO BOOKLET FOR FULL LABEL INSTRUCTIONS.****HAZARD CLASSIFICATIONS: 6.1E, 9.1A, 9.2A, 9.3C****ECOTOXIC****PCBU RESPONSIBILITIES**

A PCBU with management or control of work using this substance must ensure that every worker who uses, handles, manufactures, or stores this hazardous substance (including hazardous waste) is, before the worker is allowed to carry out or supervise work involving those substances, provided with adequate information, training and instruction. This includes the use of personal protective equipment to be used to minimise risks to the health and safety of workers when carrying out work using this substance.

**QUALIFICATIONS REQUIRED FOR APPLICATION OF CLASS 9 SUBSTANCES**

Anyone who mixes, loads, or applies this product, either by air or ground based methods, is required to be suitably qualified, or must receive guidance and, if required, assistance from a suitably qualified person. Refer to Schedule 10 of the Hazardous Substances (Hazardous Property Controls) notice 2017 for a list of suitable qualifications.

**RECORD KEEPING**

Where 3 kg or more of the substance is applied within 24 hours, in a place where the substance is likely to enter air or water and leave the application area, a PCBU with management or control of the substance must ensure that a written record is kept of each application of the substance. Refer to Part 4 Clause 48 of the Hazardous Substances (Hazardous Property Controls) notice 2017 for details of information that must be recorded.

**TOXICITY****WARNING**

**May be harmful if swallowed.**

**ECOTOXICITY**

**Very toxic to aquatic life with long lasting effects.** Do not apply onto or into water. Avoid contamination of any water supply with product or empty container.

**Very toxic to the soil environment.**

**Harmful to terrestrial vertebrates.**

**HANDLING PRECAUTIONS**

Keep out of reach of children.

Do not eat, drink or smoke while using.

**EQUIPMENT**

A PCBU with management or control of work using this substance must ensure that equipment used to handle this substance retains the substance, without leakage, at all of the temperatures and pressures at which the equipment is to be used; and dispenses or applies the substance, without leakage, at a rate and in a manner that the equipment is designed for. The PCBU must ensure that the equipment is accompanied by documentation that is readily available and readily understandable about the use and maintenance of the equipment.

**STORAGE**

Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from stockfeed, seeds, fertilisers or foodstuffs.

There are requirements when storing this product in a workplace, relating to labelling, safety data sheets, stationary container systems, separation distances, secondary containment, emergency response plans, and signage; and in a place other than a workplace, relating to stationary container systems, separation distances, emergency response plans, secondary containment, and signage.

Secondary containment and emergency response plans are required where greater than 100 L of this product are stored. Refer to the product SDS for further information.

**SHELF LIFE**

When stored appropriately this product should show no significant degradation for two years from the date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

**PERSONAL PROTECTION**

When mixing or applying wear appropriate protective clothing including cotton overalls buttoned to the neck and wrist, impervious, elbow-length gloves, and eye protection. Remove protective clothing and

wash hands, arms and face with soap and water before meals and after work.

#### **SPILLAGE**

Exclude all bystanders from the vicinity of the spill and prevent material from entering waterways. Wear appropriate protective clothing as in the personal protection section of this label to clean up spills. Absorb liquid spills with an inert material (such as vermiculite, earth, sand or synthetic absorbent substance) and place in waste containers. Wash area with water and alkaline detergent. Then absorb any remaining liquid with further inert material. Dispose of the waste safely in an approved landfill.

#### **DISPOSAL**

**Container Disposal** - Triple rinse empty container and add rinsate to spray tank. Submit clean empty container to an Agrecovery® depot for recycling. Alternatively, burn in an appropriate incinerator if circumstances such as wind direction permit, or puncture and bury in a suitable landfill. Avoid contamination of any water supply with product or empty container.

**Product Disposal** - Dispose of this product only by using according to the label, or through the Agrecovery® Chemical Recovery service or other approved facility.

#### **FIRST AID**

**If medical advice is needed, have product container or label at hand.**

**For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately.**

**IF SWALLOWED:** Call a POISON CENTRE or doctor if you feel unwell.

#### **CONDITIONS OF SALE**

Adama New Zealand Limited will not accept any responsibility whatsoever and howsoever arising and whether for consequential loss or otherwise in connection with the supply of these goods other than the responsibility for the merchantable quality of the goods and such responsibilities mandatorily imposed by the Statutes applicable to the sale and supply of these goods. To the extent allowed by such Statutes the liability of Adama New Zealand Limited is limited to the replacement of the goods or (at the option of Adama New Zealand Limited) the refund of the price paid and is conditional upon a claim being made in writing and where possible sufficient part of the goods to enable proper examination being returned to Adama New Zealand Limited within thirty days of delivery.



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**EMERGENCY RESPONSE**  
(All hours)  
Ring from anywhere in New Zealand  
**0800 734 607**

In a Transport  
Emergency  
Phone 111  
Police or Fire

Batch Number:  
Date of Manufacture:

*Bar code to be inserted*

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#### **SAFETY DATA SHEET**

A Safety Data Sheet for this product is available from Adama New Zealand Limited on request. Call 03 543 8275.

#### **GENERAL INFORMATION**

PROTUGAN HERBICIDE should be applied to actively growing weeds at the 1-2 true leaf stage. Susceptible weeds germinating after application will be controlled by residual activity.

If prolonged dry weather follows application to a dry soil, the speed of action will be slow and the overall level of weed control reduced, especially in the spring. Overall weed control may be reduced if the seedbed is coarse or if there is excess organic matter. Do not use on soils with an organic matter content greater than 10%. Do not apply to waterlogged soils, or those prone to waterlogging after heavy rain as weed control may be reduced. To avoid run off, do not use PROTUGAN HERBICIDE where soils are cracked or excessively dry.

PROTUGAN HERBICIDE may be used on all varieties of wheat at any growth stage up to jointing, although slight crop yellowing may occur under cool wet conditions or on light soils. This is temporary and will not affect subsequent crop growth or yield.

PROTUGAN HERBICIDE **should not** be applied to: cereals under-sown with grass or clover; oats; triticale; durum wheat; rye or other cereals not listed on this label. Do not apply under drought conditions or if severe frosts are expected.

**WEEDS CONTROLLED**

<b>SUSCEPTIBLE</b>	<b>MODERATELY SUSCEPTIBLE</b>	<b>TOLERANT</b>
Annual Poa, chamomiles, charlock, chickweed, fathen, groundsel, lesser canary grass, nettle, penny cress, shepherd's purse, spurrey	Ryegrasses, wild oats	Cleavers, black nightshade, fumitory, henbit, sow thistles, speedwells

**DIRECTIONS FOR USE**

**TAKE ALL REASONABLE STEPS TO ENSURE THAT THE SUBSTANCE DOES NOT CAUSE ANY SIGNIFICANT ADVERSE EFFECTS TO THE ENVIRONMENT BEYOND THE APPLICATION AREA. THIS INCLUDES ENSURING NON-TARGET TERRESTRIAL VERTEBRATES ARE NOT ADVERSELY AFFECTED BY THE SUBSTANCE.**

**Apply this product carefully. Spray drift may cause serious damage to desirable plants.**

<b>CROP</b>	<b>RATE</b>	<b>CRITICAL COMMENTS</b>
<b>Wheat</b> – winter and spring sown <b>Barley</b> – winter sown only <b>Do not</b> apply to oats or durum wheat	2–3 L/ha	Apply between early post-emergence and first node. Best control will be achieved by application to weeds at the 1-2 leaf stage. May be tank-mixed with chlorsulfuron to give improved control of certain weeds. Use the higher rate on heavy soils or soils, which are high in organic matter.

**It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residue Levels for Agricultural Compounds.**

**APPLICATION METHOD**

PROTUGAN HERBICIDE may be applied through all conventional spray equipment. Apply in a water volume of 150-300 L of water/ha. Avoid overlapping as this can cause crop injury.

**MIXING**

Half fill the spray tank with clean water and begin agitation. Add the required quantity of PROTUGAN HERBICIDE to the spray tank and add the remaining water. Continue agitation until spraying is complete. Do not leave the sprayer standing with mixture in it. Ensure the sprayer and all measuring equipment is thoroughly cleaned with water and a wetting agent after use.

**SOIL RESIDUES**

After harvest, thoroughly cultivate soil before sowing subsequent crops. In the event of a winter crop failure due to drought or disease, replant in the spring only with wheat after thorough cultivation.

**RAINFALL**

Rainfall within 6 hours following treatment may reduce effectiveness.



## COMPATIBILITY

Compatible in tank-mixtures with bromoxynil, chlorsulfuron and mecoprop. Tank-mixtures with other herbicides may result in crop damage.

## RESISTANCE MANAGEMENT

PROTUGAN HERBICIDE contains the GROUP C2 urea herbicide, isoproturon. Unless directed, do not use another product containing herbicides in the same groups in conjunction with PROTUGAN HERBICIDE. Where possible alternate the types of herbicides used within any one paddock over time. Herbicides from different group codes should either be used alternately or mixed together to prevent the numbers of resistant individuals building up.

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