# **WARNING**



# **ADAPT® HERBICIDE**

GROUP 2 HERBICIDE

For the post-emergence control of perennial and annual grasses and broadleaf weeds in grain and silage maize crops

READ THE ATTACHED BOOKLET COMPLETELY BEFORE MIXING OR APPLYING

# **Active Ingredient:**

Contains 750 g/kg NICOSULFURON in the form of a water dispersible granule

UN No: 3077
Class-primary 9
Packing group III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

SOLID, N.O.S. (Contains Nicosulfuron)

Marine pollutant:

Batch number:
Date of Manufacture:
Barcode to be inserted

NET CONTENTS: 500 g, 1 kg, 2 kg, 5 kg, 10 kg, 15 kg,

20 kg

# REFER TO BOOKLET FOR FULL LABEL INSTRUCTIONS.



#### **WARNING**

Very toxic to aquatic life. Very toxic to the soil environment.

#### HANDLING PRECAUTIONS

Avoid unintended release into the environment. Collect spillages.

# QUALIFICATIONS REQUIRED FOR APPLICATION OF ECOTOXIC 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.

#### **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 original, tightly closed container in a dry, cool area away from foodstuffs, fertilisers and seeds. Store in accordance with NZS 8409 Management of Agrichemicals. Secondary containment and emergency response plans are required where 100 kg or more of this product are stored. Refer to the product SDS for further information.

#### PERSONAL PROTECTION

When mixing or applying wear appropriate eye protection, waterproof gloves, boots and overalls. Wash hands and exposed skin before meals and after work.

#### **SPILLAGE**

Wear appropriate protective clothing and prevent material from entering waterways. Contain spills and absorb with inert absorbent material (such as vermiculite, earth, sand or synthetic absorbent substance) and place in waste container. Dispose of waste safely in a suitable landfill.

#### DISPOSAL

**Container Disposal –** Ensure container is empty. Crush and bury in a suitable landfill or other approved facility. 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<sup>®</sup> Chemical Recovery service or other approved facility.

Do not burn product or container.

# **SAFETY DATA SHEET**

A safety data sheet for this product is available at www.adama.com.

#### **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.

# **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

# PRODUCT INFORMATION

ADAPT HERBICIDE is rapidly absorbed by foliage and translocated throughout the weeds. Weeds stop growing immediately and discoloration of weeds occurs, followed by dieback that spreads slowly throughout the weed.

WEEDS CONTROLLED	WEEDS SUPPRESSED
<b>Grasses:</b> Barnyard grass, Bristle grass, Couch, Crowfoot grass, Kikuyu, Pasture grasses	Grasses: Mercer grass.
(volunteers), Rough bristle grass, Smooth witchgrass, Summer grass, Wild oats.	Broadleaf weeds: Apple of Peru, Bindweed, Buttercup, Californian thistle, Chicory, Dock, Clover, Oxalis, Potatoes (volunteers), Scotch thistle.
Broadleaf weeds: Bathhurst bur, Black nightshade, Groundsel, Fathen, Fumitory, Redroot, Sow thistle, Thorn apple, Twincress, Water pepper, Wild portulaca, Willow weed.	

#### **DIRECTIONS FOR USE IN MAIZE**

TAKE ALL REASONABLE STEPS TO ENSURE THAT THE SUBSTANCE DOES NOT CAUSE ANY SIGNIFICANT ADVERSE EFFECTS TO THE ENVIRONMENT BEYOND THE APPLICATION AREA. PREVENT SPRAY DRIFT AS IT MAY CAUSE SEVERE DAMAGE TO NON-TARGET PLANTS

# **EPA Controls**

- Do not apply onto or into water.
- Maximum number of applications: one application to the treatment area per year.
- Maximum application rate: 110 g/ha.

#### **APPLICATION TIMING**

The best maize crop growth stage for application is between the 2 and 8 leaf stage when the crop is growing vigorously without moisture stress.

CAUTION: Application to maize greater than 500 mm in height risks crop injury.

CAUTION: Do not use on sweetcorn or popcorn. Do not use on field maize grown for seed unless tested on existing NZ varieties under NZ conditions.

#### **Grass weeds**

Apply when there is sufficient leaf area for good uptake but before the grass has formed a thick layer. Apply to summer grass at a maximum of three tillers or 75 mm in length.

# **Broadleaf weeds**

For best results ADAPT HERBICIDE should be applied before weeds have reached the 4 true leaf stage. Weeds larger than 4 true leaf stages may only be suppressed.

# Weather conditions

Warm, moist conditions and adequate soil moisture, both before and after application, will improve control. Maize stressed due to weather conditions may show a temporary yellowing or crop stunting.

# **RATES OF APPLICATION**

WEED	RATE	CRITICAL COMMENTS
Annual grasses	50-80 g/ha + Bonza <sup>†</sup> spray adjuvant at 500 mL/100 L spray volume	Use the low rate only if following a pre- emergence herbicide application and if weed pressure is low. Add a suitable tank-mix herbicide with ADAPT HERBICIDE and use in soil areas where the organic matter level is low to medium. Apply when sufficient grass foliage is present for good coverage.

Broadleaf weeds	50-80 g/ha + Bonza spray adjuvant at 500 mL/100 L spray volume	Use the low rate only if following a pre- emergence herbicide application and if weed pressure is low. Add a suitable tank mix herbicide with ADAPT HERBICIDE and use in soil areas where the organic matter level is low to medium. Mature weeds will not be adequately controlled.
Couch	80 g/ha + Bonza spray adjuvant at 500 mL/100 L spray volume	Apply when sufficient couch foliage is present for good coverage.
Mercer grass (suppression)	110 g/ha with the addition of Bonza spray-adjuvant at 500 mL/100 L spray volume	Apply when sufficient Mercer grass foliage is present for good coverage. Shading from a good crop canopy after application will improve control. In the following season, a subsequent application will improve overall Mercer grass control.
Oxalis (suppression)	80-110 g/ha + Bonza spray adjuvant at 500 mL/100 L spray volume	The higher rate will improve control.

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

# WITHHOLDING PERIODS Silage maize: 56 days

#### **MIXING**

Prior to mixing ADAPT HERBICIDE, thoroughly rinse sprayer, tank, boom, hoses and nozzles with water. Pour ADAPT HERBICIDE into the spray tank half-filled with water. Complete water filling. Maintain a moderate agitation until the mix is applied. If adding other post-emergence herbicides and/or Bonza spray-adjuvant, add after ADAPT HERBICIDE is thoroughly mixed in the half-filled tank. Apply the spray mixture within 24 hours of mixing.

#### COMPATIBILITY

ADAPT HERBICIDE plus Bonza spray adjuvant is compatible in tank mixtures with ATRANEX® WG, ATRANEX SC or Flumetsulam 800 WG formulations. ADAPT HERBICIDE may be tank-mixed with Kamba† 500 (applied to maize less than 30 cm tall) or Emblem to increase broadleaf weed control. However, Bonza spray adjuvant should not be used with these mixtures as there is a greater risk of crop injury (which can be minimized by the use of dropper nozzles). Grass weed control with ADAPT HERBICIDE may be reduced when Bonza spray adjuvant is not used. Do not apply ADAPT HERBICIDE plus Bonza spray adjuvant in tank mixture with Triffid† growth enhancer.

#### INTERACTION WITH INSECTICIDES

Do not apply to maize previously treated with soil-applied organophosphate insecticides or to maize that has been treated within 7 days before or after with foliar applied organophosphate insecticides, as severe crop injury may result.

# **APPLICATION**

Make sure that spray equipment is correctly calibrated. For best results ensure complete spray coverage of the weeds. Position the boom nozzles between the rows of maize. The use of droppers from the boom will improve target weed coverage. Do not overspray and do not apply ADAPT HERBICIDE into the maize whorls as crop damage may occur.

# Aerial and ground broadcast application

Apply ADAPT HERBICIDE in 100-300 L water/ha. Use the higher water rate where weeds are dense.

# **CDA** application

Use a large (250-300 micron) droplet size and apply not less than 30 L of water/ha. CDA application may result in less effective weed control than conventional boom spraying.

#### SPRAYER CLEANUP

To avoid injury to subsequently sprayed sensitive crops, all traces of ADAPT HERBICIDE must be removed from mixing and spraying equipment immediately after spraying.

- 1. Drain tank, then flush tank, pump and boom with clean water for 10 minutes.
- 2. Fill tank with clean water and add 1 litre chlorine bleach (containing 3% sodium hypochlorite) per 100 L water. Agitate, flush through the system, allow to stand for 15 minutes with agitation engaged, then drain.
- 3. Repeat step 2.
- 4. Remove all nozzles and filters and clean separately. Thoroughly rinse tank and flush clean water through pump and boom to remove all traces of chlorine solution.

#### **RAINFALL**

ADAPT HERBICIDE is rainfast 6 hours after application.

#### **CULTIVATION**

Do not cultivate during the 10 days before an ADAPT HERBICIDE application as this may decrease weed control by placing weeds under stress. The optimum timing for cultivation or side dressing of fertiliser is 7-14 days after an ADAPT HERBICIDE application.

# **SOIL RESIDUES**

To minimise soil residues, treated areas should be deeply cross cultivated to ensure maximum dispersal of residues. Ryegrass and small grain cereals should not be sown in areas treated within the previous 5 months.

# **RESISTANCE MANAGEMENT**

ADAPT HERBICIDE contains the GROUP 2 sulfonylurea herbicide, nicosulfuron. Do not use another product containing an herbicide in the same group in conjunction with ADAPT HERBICIDE, and 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. Naturally occurring biotypes resistant to sulfonylurea herbicides are known to exist. Since the occurrence of resistant weeds is difficult to detect prior to use ADAMA New Zealand Ltd accepts no liability for losses that may result from the failure of this product to control resistant weeds. Refer to https://resistance.nzpps.org/ for further resistance management advice.

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