### WARNING Ecotoxic



# **MESOFLEX<sup>®</sup> HERBICIDE**

GROUP 27 HERBICIDE

## A selective herbicide for the control of broadleaf weeds in grain and silage maize

READ THE ATTACHED BOOKLET COMPLETELY BEFORE MIXING OR APPLYING

Active Ingredient: Contains 480 g/L MESOTRIONE in the form of a suspension concentrate

UN No: Class-primary Packing group Proper shipping name:

Marine pollutant:

Batch number: Date of Manufacture: Barcode to be inserted 3082 9 III ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Mesotrione) YES

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

#### REFER TO BOOKLET FOR FULL LABEL INSTRUCTIONS.



#### WARNING

Very toxic to aquatic life with long-lasting effects. Very toxic to the soil environment. Selective herbicide - very toxic to some plant species.

#### 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.

#### **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**

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#### STORAGE

Store in the original, tightly closed container in a secure place away from feed, seeds or foodstuffs. Store in accordance with NZS 8409 Management of Agrichemicals. Secondary containment and emergency response plans are required where 100 L or more 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 overalls, boots, gloves and eye protection. Remove protective clothing and wash hands and face thoroughly 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 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<sup>®</sup> depot for recycling. Alternatively, 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<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

#### **GENERAL INFORMATION**

MESOFLEX HERBICIDE is a selective herbicide for the control of a wide range of broadleaf weeds in grain and silage maize. MESOFLEX HERBICIDE can be applied either pre- or post-emergence. MESOFLEX HERBICIDE is absorbed through the leaves, shoots and roots of weeds, interfering with carotenoid biosynthesis. Complete weed death may take up to 2 weeks.

MESOFLEX HERBICIDE is effective against a range of broadleaf weeds including Bathurst bur, black nightshade, chickweed, dandelion, fathen, fennel, fishtail oxalis, hairy nightshade, galinsoga, mallow, redroot, seedling docks, spurrey, stagger weed, twin cress, willow weed and wire weed.

MESOFLEX is only partially effective against grass weeds. It is recommended that MESOFLEX HERBICIDE is used in conjunction with other herbicides to provide broad spectrum weed control (see under "directions for use" below).

#### PRECAUTIONS

#### Organophosphate or carbamate insecticides

Severe crop damage can occur if MESOFLEX HERBICIDE is applied in a tank-mix with any organophosphate or carbamate insecticide or within 7 days of any such application. MESOFLEX HERBICIDE may be applied with pyrethroid insecticides such as ALPHA-SCUD<sup>®</sup> INSECTICIDE or MAVRIK<sup>®</sup> AQUAFLO INSECTICIDE.

#### Bleaching

Transient bleaching may occur after post-emergent applications if undertaken when the crop is stressed, e.g. in drought. The crop will outgrow this and develop normally. Yield will not be affected.

#### Popcorn and sweetcorn

MESOFLEX can be phytotoxic to varieties of popcorn and sweet corn and is NOT recommended for use on these crops.

#### 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.

#### **EPA Controls:**

- Do not apply onto or into water;
- This substance may only be applied by ground based low-boom application;
- The maximum application rate for this substance is 940 mL/ha with a maximum of one application per year.

CROP	RATE	CRITICAL COMMENTS
Maize	<b>Pre-emergence:</b> 350-450 mL/ha	Apply to the freshly prepared seedbed immediately after planting and before crop emergence. To increase the spectrum of weed activity use in combination with 2 L of ATRANEX <sup>®</sup> FLOW or 1.1 kg of ATRANEX WG.

CROP	RATE	CRITICAL COMMENTS
	Post-emergence: 150-200 mL/ha	MESOFLEX HERBICIDE is most effective when applied to weeds up to the 8 leaf stage. To increase the spectrum of weed activity use in combination with 1-1.5 L of ATRANEX FLOW or 0.5-0.8 kg of ATRANEX WG, or 40 g of 750 g/kg primisulfuron-methyl products per hectare. For optimal post-emergent weed control, particularly against grasses such as summer grass and smooth witchgrass, MESOFLEX HERBICIDE , on its own or with tank-mixes, must be used in conjunction with a crop oil adjuvant such as Synoil or D-C-Trate <sup>®</sup> at 1% by volume of the spray mix. Do NOT use methylated seed oil adjuvants or cationic surfactants.

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.

#### WITHHOLDING PERIODS

#### Grain maize and green feed/silage:

70 days from the last application

#### **APPLICATION METHOD**

MESOFLEX HERBICIDE may only be applied by ground based low-boom application. Use 100-300 L of water/ha. Use the higher volumes when used in conjunction with other herbicides. Do not use strainers finer than 300 micrometres.

Dry conditions following application may reduce pre-emergent effectiveness. If activating rain is not received within 7-10 days after a pre-emergent application, rotary hoeing is recommended to activate the herbicide.

#### MIXING

MESOFLEX HERBICIDE mixes readily with water. If the container has been standing for some time, roll the drum from side to side or if the container is small, shake well several times to ensure a uniform mixture is drawn off. Add the required amount of MESOFLEX HERBICIDE to the partly filled spray tank and top up with water. Keep mechanical agitator or bypass running while filling, during spraying and before recommencing spraying after a stoppage. Unused spray mixture will settle overnight. If tank-mixing, add next product(s) immediately after MESOFLEX HERBICIDE.

#### RAINFALL

For post-emergence application, light rain after post emergent spraying will not affect the results, providing the spray has dried on the foliage. Otherwise, rain within 3 hours of treatment may reduce effectiveness.

#### PLANTBACK RESTRICTIONS

To minimise soil residues which could affect subsequent crops, areas treated with MESOFLEX HERBICIDE should be ploughed and cross cultivated between crops to ensure maximum dispersal of residues. Because residues may result from the use of MESOFLEX HERBICIDE, planting of certain crops should be delayed to allow residues to decay. Allow at least 6 months before sowing white clover or ryegrass. Allow at least 12 months for legume crops such as lucerne, peas and red clover. For further advice contact a representative of ADAMA New Zealand Limited.

#### **RESISTANCE MANAGEMENT**

MESOFLEX HERBICIDE contains the GROUP 27 Triketone herbicide, mesotrione. Unless directed, do not use another product containing a herbicide in the same group in conjunction with MESOFLEX 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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