

WARNING
KEEP OUT OF REACH OF CHILDREN



ADAMA



METSULFURON HERBICIDE

GROUP 2 HERBICIDE

**For the control of blackberry, gorse and many scrub weeds in
pasture, forest site preparation and waste areas**

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

Active Ingredient:

Contains 600 g/kg METSULFURON METHYL 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. (Metsulfuron-methyl)
Marine pollutant:	YES
Batch number:	
Date of Manufacture:	NET CONTENTS: 5 x 40 g, 200 g, 500 g, 5 kg
Barcode to be inserted	

REFER TO BOOKLET FOR FULL LABEL INSTRUCTIONS**WARNING**

Causes serious eye irritation. Very toxic to aquatic life. Do not apply onto or into water unless permission has been obtained under section 95A of the Hazardous Substances and New Organisms Act 1996. Very toxic to the soil environment.

HANDLING PRECAUTIONS

Keep out of reach of children. Do not eat, drink or smoke while using. Wear protective clothing as in the personal protection section of this label. Wash exposed skin thoroughly after handling.

A person applying this substance to water must ensure that the substance is not applied in a manner that may cause harm to aquatic farms where food is produced; or in a manner that may cause harm to crops using water taken from that water body. Any person applying this product to water must adhere to all notification, testing and reporting requirements specified in the approval controls. Refer www.epa.govt.nz for approval controls.

Avoid unintended release into the environment. Collect spillages.

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 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 the original, tightly closed container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs.

Store in accordance with NZS 8409 Management of Agrichemicals. Signage, secondary containment and emergency response plans are required where greater than 100 kg 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 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 protective clothing as in the personal protection section of this label to clean up spills. Sweep up spilled material and place in waste containers. 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, 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.

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 immediately.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

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.



ADAMA

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Registered pursuant to the ACVM Act 1997, No. P007371
See www.foodsafety.govt.nz for registration conditions

Approved pursuant to the HSNO Act 1996, Approval No. HSR000242
See www.epa.govt.nz for approval controls



EMERGENCY RESPONSE

(All hours)

Ring from anywhere in New Zealand
0800 734 607

In a Transport
Emergency
Phone 111
Police or Fire

PRODUCT INFORMATION

ADAMA METSULFURON HERBICIDE is a dry flowable granule to be mixed in water and applied as a foliar spray for control of certain scrub weeds in pasture and waste areas. It is non-corrosive, non-flammable and non-volatile. Best results are obtained when ADAMA METSULFURON HERBICIDE is applied to actively growing weeds during late spring to late autumn.

Weeds not controlled include black nightshade, woolly nightshade, boxthorn, browntop, cocksfoot, paspalum, Kikuyu grass, Indian doab, couch and pampas grass.

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.

ADDITIONAL HSNO CONTROLS – WHEN APPLYING THIS SUBSTANCE ONTO OR INTO WATER

- The maximum application rate for application of this substance onto or into water is: 0.084 kg ai/ha, a maximum of 3 times per year with a minimum application interval of 30 days.
- A person who applies the substance onto or into water must ensure that any parties who may be potentially directly affected are notified of details of the operation, including treatment dates, the identity of the substance which is being used and relevant restrictions on the use of water, at least five working days prior to each application of the substance.
- A person who applies the substance onto or into water must ensure that any instances of unintended or accidental by-kills, are reported (including the time, date and location monitoring was undertaken) to the EPA within a week of the application of the substance. This excludes the by-kill of non-target plants that may be expected from the herbicidal nature of the substance.
- A person who applies the substance onto or into water must ensure that the substance is not applied, in any single application, onto more than 33% of the surface area of any static water body. If applications of the substance onto or into any static water body, taken cumulatively within a seven-day period, arrive at more than 33% of the surface area of the water body, the substance must not be applied to any additional sections of the water body for at least seven days after the last application of the substance to that water body. These controls do not apply if the average dissolved oxygen level for the static water body is less than 4 mg/L at the time of application.
- A person who applies the substance onto or into water must ensure that signs are erected and maintained at all public access points within 100 m of the application area to notify the public that application of a herbicide onto or into water has been undertaken and state the following:
 - Do not swim;
 - Do not gather food from the waterway (including fish); and
 - Do not take water for consumption.

The signs must be erected on the day of, and prior to, the operation and remain in place for five days after application. The signs must be removed at the end of this period.

The signs must be capable of being read at a distance of at least 5 m during daylight hours.

- A person who applies the substance onto or into water must ensure that the Environmental Protection Authority is provided with an annual written report by 31st July each year. This report will cover all applications of the substances onto or into water for which they are responsible and must include the following information;
 - A map of all locations where the substance has been applied;
 - Details of the spray operation by location, including application method used, quantity of the substance applied, rates of application, frequency of application and the dates of application;



- Details (including results) of water sampling conducted to confirm compliance with EEL values;
- Details of sediment testing conducted;
- Details of pest plant species targeted;
- Details of dissolved oxygen levels prior to application of the substance to any static water body;
- Details of pH testing conducted prior to application of substances containing metsulfuron-methyl;
- Details of engagement/consultation activities undertaken;
- Details of any incidents reported or complaints received in reference to the application of the substance and details of any actions taken to remedy complaints; and
- An overall assessment of the outcome of each operation and any proposed follow-up spraying for the forthcoming year.

IMPORTANT

Injury to or loss of desirable trees or other plants may result from failure to observe the following. **DO NOT** apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.

DO NOT use on lawns, walks, driveways, tennis courts or similar areas. Application to drains and irrigation channels must only be made when these waterways are dry and at least two months is allowed to elapse before the channels are used for carrying water. Prevent drift of dry powder or spray to desirable plants. Keep from contact with fertilizers, insecticides, fungicides and seeds.

RE-ESTABLISHMENT OF PASTURE

ADAMA METSULFURON HERBICIDE is extremely injurious to clovers and ryegrass. Residues of ADAMA METSULFURON HERBICIDE in the soil may prevent early re-establishment of clovers and ryegrass after treatment. The period that residues persist in the soil will vary according to site conditions such as climate, soil and the rate used. A minimum period of 3 months should elapse before oversowing treated areas with clover or ryegrass. It is suggested that small areas be oversown 1-2 months prior to the planned time for sowing to check for possible harmful residues. Where quick cover of vegetation is required a resistant grass such as browntop or cocksfoot can be oversown.

FORESTRY


Radiata Pine (Only).

Use only as a pre-plant treatment. Apply 170g ADAMA METSULFURON HERBICIDE per ha for control of bracken, blackberry and seedling gorse. **DO NOT** plant trees within 2 months of spraying.



WEED	HANDGUN RATE/100L WATER	KNAPSACK RATE/10L WATER	MIST-BLOWER RATE/10L WATER	BROADCAST, AERIAL OR GROUND BOOM RATE/HA	CRITICAL COMMENTS
Barberry	35 g	5 g	10 g	-	Apply from November to May. Best results are achieved treating single bushes less than 3 m high.
Blackberry	20-35 g	5 g	10 g	200-300 g	Use the higher rate on harder to kill blackberry types such as those occurring in some Northland areas and on the east coast of the North Island. ADAMA METSULFURON HERBICIDE may be applied from November to June, but for best results apply from January to May. Apply prior to leaf discolouration. Whenever possible use ground application equipment. Crushing, slashing or burning of treated bushes is

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					recommended and these operations should be carried out whenever canes are brittle enough. Intensive stocking (sheep or goats) and oversowing of treated areas will minimise amount of re-growth. There may be some re-growth requiring follow-up treatment two years after spraying.
Bracken	35 g	5 g	10 g	170 g	Apply when fronds are unfurled (January to June) but before frost browning. Best results can be expected when plants are burnt and frond re-growth is sprayed.
Broadleaf weeds (waste areas)	5 g	1 g	2 g	50 g	For control of a wide range of broadleaf weeds on roadsides, water tables, drains and industrial plant sites apply when weeds are actively growing.
Broom	35 g	5 g	10 g	-	Apply from November to May to actively growing bushes. Ensure the addition of a penetrant.
Fennel	5 g	1 g	2 g	50 g	Can be applied when weeds are actively growing.
Gorse	20 g ¹	5 g ²	10 g ² 20 g U.L.V. ²	500 g ³	Apply at any time of the year. The addition of a penetrant at the following rates is essential - ¹ Handgun - 100 mL/100 L ² Knapsack, mistblower - 10 mL/10 L ³ Aerial or boom - 400 mL/100 L Ensure full coverage and complete canopy penetration. Otherwise significant regrowth may occur. Follow up aerial spraying with slashing, crushing or burning and oversowing of pasture species.
Seedling gorse	-	-	-	170 g	Add a penetrant at 400 mL/100 L.
Hawthorn	35 g	5 g	10 g	-	Apply from November to March. Best results are achieved treating single bushes less than 3 m high.
Horehound	-	-	-	75 g	Apply when actively growing. Use only in waste areas or sheep camps where pasture damage is acceptable.
Inkweed	25 g	5 g	10 g	50 g	Apply when weeds are actively growing.
Manuka / Kanuka	30 g	5 g	10 g	300 g	Ensure complete coverage of tall growing bushes. Add a silicone based penetrant at 2 L/ha for aerial application.
Matagouri	25 g	5 g	10 g	170 g	Apply when bushes are actively growing, generally December – April.
Old Man's Beard	35 g	5 g	-	170 g	Apply from November to May. Add a penetrant at 100mL/100 L.
Privet	35 g	5 g	10 g	-	Apply when privet is actively growing during the spring or autumn.
Ragwort/ Thistles	2.5 or 5 g	1 g	-	-	While application can be made to ragwort from the rosette stage to late flowering,

WEED	HANDGUN RATE/100L WATER	KNAPSACK RATE/10L WATER	MIST-BLOWER RATE/10L WATER	BROAD-CAST, AERIAL OR GROUND BOOM RATE/HA	CRITICAL COMMENTS
					<p>application at the rosette stage is preferable. Use the higher rate on multicrown plants. Direct spray to the centre of the plant. Seed from treated flowering plants will not be viable providing application is made before senescence (flowers discolour).</p> <p>CAUTION: Ragwort plants may become more palatable following spraying. Stock should be removed until the treated plants die.</p>
Sweet brier	35 g	5 g	10 g	170 g	Apply from November to April. Ensure complete coverage of trees.
Tauhinu	-	-	-	300 g	Apply when weed is actively growing. The addition of a penetrant is recommended. Larger bushes may be less well controlled.
Tutu	25 g	5 g	10 g	-	Apply when weeds are actively growing.
Wild ginger	25 g	5 g	10 g	-	Apply from spring to late autumn.
Willows	35 g	5 g	10 g	-	Apply from November to April. Ensure complete coverage of trees.

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 PERIOD

DO NOT graze treated areas with dairy cows for three days after application or 1 day for other stock.

MIXING

Use the graduated measuring cylinder provided, measure the correct amount of ADAMA METSULFURON HERBICIDE required for the area to be sprayed and add to the required volume of water. Continuous agitation is required to keep the product in suspension.

ADDITIVES

Apply an organo-silicone penetrant such as Input[®], Pulse[®], Freeway[®] or Boost at the rate of 100 mL per 100 L of spray mixture where indicated under recommendations for specific weeds in the table **except** for aerial or boom application to gorse and application to seedling gorse where the rate required is 400 mL per 100 L of spray mixture.

MARKER DYES

ADAMA METSULFURON HERBICIDE is compatible with commonly used marker dyes. However, tank-mixtures including marker dyes based on acetic acid should be used within 24 hours.

APPLICATION

Handgun spraying

Apply to achieve full coverage of foliage and stems and penetration into bushes. Use pressures of 1,000–2,000 kPa preferably through a No. 4 or No. 6 spray tip. Apply no less than 1,000 L of spray per hectare. The amount of spray required will vary with the height, density and type of scrub.

Knapsack spraying

Use a hand knapsack only on small bushes where full coverage of foliage and stems can be achieved.

Mistblower

Obtain good coverage of foliage and stems and penetration into bushes. For U.L.V. attachments use the largest setting.

Aerial application

AERIAL APPLICATION IS RECOMMENDED FOR USE IN NON-AGRICULTURAL AREAS ONLY. Addition of an organosilicone penetrant at a rate of up to 2 L/ha may assist in weed control.

Standard boom system

Apply no less than 200-300 L of water per hectare as two overlapping passes of 100-150 L/ha.

Foaming nozzle system

Apply in a minimum of 230 L of water/ha as two overlapping passes of 115 L/ha.

Carpet roller/wiper application

For control of ragwort, buttercup, Scotch, Californian, winged and nodding thistles. Graze pasture to maximise height difference between pasture and weeds. Pre-mix 1 g ADAMA METSULFURON HERBICIDE per L of water and ensure roller is wet before starting off. In heavy weed infestations a second pass in the opposite direction will provide best results. Keep the wiping area moist and free of debris. To prevent localised pasture damage avoid dripping from the roller/wiper.

Stump swabbing

Gorse, barberry

Mix 5 g ADAMA METSULFURON HERBICIDE per L of water and using a paintbrush or knapsack sprayer, apply liberally to the freshly cut surface and stem to ground level.

Stem injection

Poplars, willows, privet and pines

Mix 20 g of ADAMA METSULFURON HERBICIDE per L of water and inject 2 mL of solution into cuts or holes made at 10 cm intervals around the trunk of the tree. Control of larger willow trees may be variable.



SPRAYING CLEANUP

To avoid subsequent injury to crops, immediately after spraying thoroughly remove all traces of ADAMA METSULFURON HERBICIDE from mixing and spray equipment as follows:

1. Drain tank, then flush tank, boom and hoses with clean water for a minimum of 10 minutes.
2. Fill the tank with clean water and add 1 L chlorine bleach (containing 3% solution sodium hypochlorite) per 100 L of water. Flush through with agitation then drain.
3. Repeat step 2.
4. Nozzles and screens should be removed and cleaned separately. To remove traces of chlorine bleach, rinse the tank thoroughly with clean water and flush through hoses and boom.

RESISTANCE MANAGEMENT

ADAMA METSULFURON HERBICIDE contains the **GROUP 2** sulfonylurea herbicide, metsulfuron. Naturally occurring biotypes resistant to ADAMA METSULFURON HERBICIDE and other sulfonylurea herbicides are known to exist. These resistant weeds will not be controlled by ADAMA METSULFURON HERBICIDE or other sulfonylurea herbicides. To help prevent or delay the development of resistant weeds, use ADAMA METSULFURON HERBICIDE in tank-mixes (if appropriate) and/or rotations with herbicides having different modes of action effective on the same weed species.

To help prevent the development of resistant weeds, ADAMA METSULFURON HERBICIDE, or any other sulfonylurea herbicide, should not be applied alone (i.e. without an appropriate tank mix herbicide) to the same paddock more than three times within three successive years.

For more information about resistance management strategies see

<https://www.resistance.nzpps.org/>

Since the occurrence of resistant weeds is difficult to detect prior to use, ADAMA New Zealand Limited accepts no liability for any losses that may result from the failure of Metsulfuron Herbicide to control resistant weeds.

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Pulse is a registered trademark of Nufarm Technologies USA Pty Ltd.

Freeway is a registered trademark of Nufarm Limited.

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