

WARNING
KEEP OUT OF REACH OF CHILDREN



ADAMA
TOWER®

GROUP 5 + 3 + 12 HERBICIDE



Barayan

**Pre-emergence herbicide for the control of certain broadleaf
and grass weeds in autumn/winter and spring sown wheat
and barley**

READ THE ATTACHED BOOKLET COMPLETELY BEFORE MIXING OR APPLYING

Active Ingredients:

Contains 250 g/L CHLOROTOLURON, 300 g/L PENDIMETHALIN, 40 g/L
DIFLUFENICAN 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

10 L,
20 L

REFER TO BOOKLET FOR FULL LABEL INSTRUCTIONS.

HAZARD CLASSIFICATIONS: Carcinogenicity Category 2
 Reproductive toxicity Category 2
 Specific target organ toxicity – repeated exposure Category 2
 Hazardous to the aquatic environment acute Category 1
 Hazardous to the aquatic environment chronic Category 1
 Hazardous to soil organisms
 Hazardous to terrestrial vertebrates



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

A PCBU with management or control of the substance must ensure that a written record is kept of each application of this substance. This record must include the product name, date and time of each application, amount of substance applied, location where the substance was applied, wind speed and direction and electronic data files indicating the application area (if applied by air), and details of measures taken to ensure no adverse effects beyond the boundary of the application area.

WARNING

Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure
Harmful to soil organisms
Harmful to terrestrial vertebrates
Very toxic to aquatic life. Do not apply onto or into water. Avoid contamination of any water supply with product or empty container.

HANDLING PRECAUTIONS

Keep out of reach of children.
 Do not eat, drink or smoke when using this product.
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Use personal protective equipment as required.

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 locked up in the original, tightly closed container in a cool, dry place out of direct sunlight and away from stockfeed, seeds, fertilisers or foodstuffs. Storage temperature must not exceed 30°C.
 Store in accordance with NZS 8409 Management of Agrichemicals. Secondary containment and emergency response plans are required where greater than 100 L of this product are stored.

PERSONAL PROTECTION

When mixing or applying wear appropriate protective clothing including cotton overalls buttoned to the neck and wrist, 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 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.

FIRST AID

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

For advice, or if you are exposed or concerned, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately.

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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Approved pursuant to the HSNO Act 1996, Approval No. HSR101690
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Tower is a registered trademark of an ADAMA Group Company.



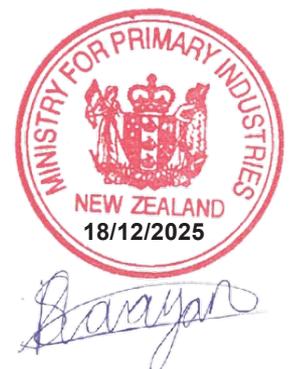
EMERGENCY RESPONSE
(All hours)
Ring from anywhere in New Zealand
0800 734 607

In a Transport
Emergency
Phone 111
Police or Fire

Batch Number:
Date of Manufacture:

Bar code to be inserted

UN No.: 3082
PROPER SHIPPING NAME:
Environmentally hazardous substance, Liquid,
NOS (Chlorotoluron, diflufenican, pendimethalin)



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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.

PRODUCT INFORMATION

TOWER is a pre-emergence herbicide for use in autumn/winter and spring sown wheat and barley. It is absorbed by the roots and shoots of germinating seedlings, providing residual weed control.

TOWER contains diflufenican, which can damage grass and clovers. DO NOT use on under-sown cereals, on oats, or on other cereals not listed on this label.

TOWER has very good crop safety in winter and spring sown wheat and barley. Transient yellowing may occur under some conditions. However, this is temporary and will not have any lasting effect on the crop.

WEEDS CONTROLLED:

Broadleaf weeds: Black nightshade, chickweed, cut leaf geranium, fathen, field pansy, field speedwell, hedge mustard, parsley piert, red dead nettle, scentless chamomile, shepherd's purse, twin cress, volunteer brassicas†, volunteer oilseed rape†, wireweed.

Grass weeds: Annual Poa

† Weeds emerging from root chips may not be controlled

WEEDS SUPPRESSED:

Broadleaf weeds: Cleavers, groundsel, volunteer radish, sow thistle

Grass weeds: Ryegrass spp. (Italian ryegrass, perennial ryegrass)

SPRING WEED CONTROL

TOWER should be used as part of an integrated weed management programme in spring plantings.

SPRING APPLICATIONS: Tower requires adequate soil moisture up to canopy closure for optimum efficacy. Application to dry soils and soils that alternate between moist and dry will reduce efficacy. Adequate moisture/irrigation is essential for successful weed control in spring sown crops and caution is advised.



DIRECT DRILLED CROPS: Efficacy in direct drilled crops may be impaired if there is trash on the soil surface.

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.

**MAXIMUM APPLICATION RATE: 2.5 L/ha.
MAKE ONLY ONE APPLICATION PER YEAR.**

RESTRICTIONS:

Only apply post-sowing and pre-emergence when weeds are no larger than three true leaves. Only apply by ground-based equipment (such as ground boom or knapsack and at a low height of ≤ 0.5 m).

Only apply by a nozzle set to provide spray droplets not smaller than a coarse spray droplet size category, as defined by the American Society of Agricultural and Biological Engineers ASABE Standard (S572) or the British Crop Production Council guideline.

WARNING: very toxic to the aquatic environment via spray drift.

WARNING: very toxic to the aquatic environment via runoff.

WARNING: very toxic to some plant species.

DO NOT apply the substance when wind speeds are less than 3 km/h or more than 20 km/h as measured at the application site.

DO NOT apply the substance if there are surface temperature inversion conditions present at the application site during the time of application.

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The substance **MUST NOT** be applied within 25 m of a downwind waterbody.

The substance **MUST NOT** be applied within 20 m of a down-slope waterbody.

Certain plants may be damaged or killed from contact with this substance. The substance **MUST NOT** be applied within 5 m of a downwind area containing any non-target plants.

Before application, users must check with the regional authority to establish if there are wetlands, indigenous vegetation habitat areas or reserves which may contain threatened plants adjacent to the application area.

The substance **MUST NOT** be applied if heavy rainfall, meaning rainfall greater than 100 mm in a 24-hour period, is forecast within 72 hours.

DO NOT irrigate to the point of water runoff from the treatment area for at least 72 hours after application.

Groundwater Advisory: Chlorotoluron has properties and characteristics associated with chemicals detected in groundwater. Chlorotoluron may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Users must follow the guidance on Groundwater contamination provided in Appendix J (Environmental Management) of New Zealand Standard: Management of Agrichemicals. NZS8409:2021.

Chlorotoluron is persistent and may carryover in soil. The substance **MUST NOT** be used in areas treated with this active ingredient during the previous 12 months.



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CROP	RATE	CRITICAL COMMENTS
Wheat, barley (Autumn, winter and spring sown)	2.5 L/ha	Apply post sowing and pre-emergence of crop when weeds are no larger than 3 true leaves. Apply evenly to a fine, compact, well prepared seedbed free of clods and trash in a minimum 200 L/ha water.

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

Forage: Do not graze or harvest for silage for 56 days after application.
Grain and Straw/stubble: Not required when used as directed (prior to crop emergence)

MIXING

TOWER mixes readily with water. Shake, roll or otherwise agitate containers to ensure product is homogenous prior to opening. To ensure a uniform solution pour the correct amount into the partly filled tank and add the remainder of the water while agitating. Agitate thoroughly before and during spraying, and before spraying after a stoppage.

APPLICATION

TOWER may be applied by ground based application methods only, using coarse droplets and low boom height.

Apply with conventional boom spraying equipment in a minimum 200 L of water/ha.

Thoroughly clean equipment after use.

COMPATIBILITY

TOWER may be tank mixed with glyphosate if required **PRIOR TO CROP EMERGENCE ONLY**. For advice about other tank mixtures please contact your ADAMA representative.

FOLLOWING CROPS

Thoroughly cultivate soil after harvest prior to sowing following crops.

The following minimum follow crop (plant back) intervals should be observed:

Sensitive grasses (eg ryegrass) and beets (including fodder beets) – 3 months

Cucurbits – 6 months

Other crops – seek advice from your local ADAMA Sales Representative

Where soils contain high levels of clay or organic matter, or following prolonged periods of dry conditions or cold wet weather, risk of adverse effects may be increased.

In the event of crop failure, replant only with wheat or barley following thorough cultivation. **DO NOT** reapply TOWER.

RESISTANCE MANAGEMENT

TOWER contains the GROUP 5 urea herbicide Chlorotoluron, the GROUP 3 dinitroaniline herbicide pendimethalin and the GROUP 12 pyridinecarboxamide herbicide diflufenican. To minimise the risk of resistance development use strictly in accordance with label directions and use in a programme with herbicides from alternative chemical groups. Where possible, alternate the types of herbicides used within any one paddock over time. For further information on resistance management refer to <https://resistance.nzpps.org>.

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