

DANGER
KEEP OUT OF REACH OF CHILDREN



ADAMA

ARROW[®] 360

GROUP **1** HERBICIDE



A selective post-emergent herbicide for grass weeds control in broadleaf crops and forestry

READ THE ATTACHED BOOKLET COMPLETELY BEFORE MIXING OR APPLYING

Active Ingredient:

Contains 360 g/L CLETHODIM in form of an emulsifiable concentrate, also contains 582 g/L DEAROMATISED HYDROCARBON and 17.5 g/L DODECYLBENZENE SULPHONATE

NOT A DANGEROUS GOOD FOR TRANSPORT

Batch number:
Date of Manufacture:
Barcode to be inserted

NET CONTENTS: 1 L, 5 L, 10 L, 20 L, 200 L

REFER TO BOOKLET FOR FULL LABEL INSTRUCTIONS.



DANGER

Combustible liquid. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause damage to organs through prolonged or repeated oral exposure. Harmful to aquatic life with long lasting effects. Very toxic to the soil environment. Harmful to terrestrial vertebrates.

HANDLING PRECAUTIONS

Keep out of reach of children. Read label carefully and follow all instructions. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe spray mist or vapours. Wear protective clothing as specified in the personal protection section of this label. Wash hands and any exposed skin thoroughly after handling.

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, unopened container in a cool, dry, well-ventilated place, out of direct sunlight and away from stockfeed or foodstuffs. Store in accordance with NZS 8409 Management of Agrichemicals. Stores containing 1000 L of this product require secondary containment and signage, and emergency response plans. In case of fire use carbon dioxide, dry chemical, foam, or water spray (fog) for extinction.

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 spraying product, wear cotton overalls buttoned to the neck and wrist, impervious gloves and eye protection. Remove protective clothing and wash hands 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) 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.



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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, or if you feel unwell, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately.

IF SWALLOWED: IMMEDIATELY call the POISON CENTER or doctor/physician. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, get medical attention. Take of contaminated clothing and wash before reuse.

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. P009274
See www.foodsafety.govt.nz for registration conditions

Approved pursuant to the HSNO Act 1996, Approval No. HSR100921
See www.epa.govt.nz for approval controls

Arrow 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



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 this substance onto or into water; and
- The application of this substance must be limited to ground based application methods only.

For best results apply to young actively growing grass weeds. Do not apply to plants under stress from drought or waterlogging. Use the lower rate on seedling grass weeds (2–5 leaf) or actively regenerating rhizomes. Use the higher rate on tillering plants or hardy rhizomatous grasses. On established sod-bound rhizomatous grasses and established turf ryegrass in non-cultivated crops, suppression only may be obtained. On crops, which have been grazed, remove stock and allow grasses to freshen up for a few days (5–10 cm new growth) before treating. To minimize any possible crop damage, avoid spray overlaps. ARROW 360 is considered to be rainfast if applied at least one hour before rainfall.

Always add an emulsifiable crop mineral oil at 2 L/ha with all applications.

CROP	CRITICAL COMMENTS
White clover seed	Apply after closing up, to control annual and perennial ryegrass and other grass weeds.
Legume feeds (e.g. lucerne, lupins, clover, lotus, trefoil)	To control annual and perennial ryegrass and other grass weeds.
Fodder brassicas	Apply when grass seedlings are small (typically 3–6 weeks after planting) and well before canopy closure.
Fodder beet, sugar beet	For best results apply when grass seedlings are small (typically 6-8 weeks after planting) and before canopy closure. Do not apply in tank mixture with other herbicides, fungicides or insecticides unless crop safety is known. Ensure thorough cultivation prior to sowing and do not use more than 1.3 L/ha.
Forage herbs (e.g. plantain, chicory)	To control annual and perennial ryegrass and other grass weeds. Do not apply ARROW 360 to plantain seed crops after flower heads are first visible in the base of the plants.
Orchards	To control actively growing grass weeds. Apply as a directed spray to the base of the trees to avoid fruit contact.
Vegetables	To control actively growing grass weeds. Do not apply more than 670 mL/ha. Crop safety has been demonstrated on onions, carrots and lettuce. Where crop safety is unknown, a small area should be treated before widespread application. NB: Asparagus – do not apply during the cutting period.
Peas, lentils, oilseed rape	To control wild oats. Apply 170 mL/ha when the majority of oats are in the 2–5 leaf growth stage. A temporary effect on leaf colour and shape may occur in peas. This does not affect crop vigour or yield.



Forestry (Radiata pine, Macrocarpa, Douglas fir)	Do not exceed 670 mL/ha. Tree release – Spot treatment: Use 23 mL ARROW 360 plus 100mL emulsifiable crop oil per 10 L of water. Apply 20 mL spray solution/m ² . To control broadleaf weeds and for residual control, apply in combination with MAGNETO® at recommended label rates.
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GRASSES CONTROLLED AND RECOMMENDED USE RATES	
GRASS SPECIES	RATE/HA
Wild oats, annual and perennial ryegrass, cocksfoot, barnyard grass, summergrass, floating sweet grass, canary grass, bristle grass, volunteer cereals Note: Turf ryegrasses and tillered cereals will only be suppressed at these rates.	170-330 mL
Annual poa, smooth witchgrass, soft brome, phalaris, tall fescue, prairie grass, ripgut brome, browntop, barley grass. Note: Chewings fescue, Yorkshire fog and hairgrass will be suppressed, but not controlled at these rates.	330-670 mL
Couch, paspalum, Indian doab	1.3-2 L

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

Vegetable crops:	5 weeks
Legume crops, forage herbs and fodder brassica crops:	3 weeks
Fodder beet and sugar beet:	9 weeks

MIXING

Half fill the spray tank and with the agitator operating and add the correct volume of ARROW 360. Add the remainder of the water. Then add the adjuvant and agitate thoroughly before using. After standing, agitate spray solution well before reusing.

COMPATIBILITY

ARROW 360 is compatible with terbuthylazine and clopyralid. Do not apply in combination with other herbicides unless experience shows that efficacy is not affected. Do not apply within 7 days of phenoxy herbicides.

EQUIPMENT

Apply using well maintained spray equipment that is accurately calibrated to apply 100-400 L of water/ha. Use nozzles and pressures that produce a droplet size of 150–300 microns VMD. Use the high water rate for dense grass infestations. Clean equipment thoroughly after use.

APPLY ONLY BY GROUND BASED APPLICATION METHODS.



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RESISTANCE MANAGEMENT

ARROW 360 contains the GROUP 1 Cyclohexanedione "DIM" herbicide, clethodim. Some naturally-occurring weed biotypes resistant to ARROW 360 and other Group 1 Herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by ARROW 360 or other Group 1 Herbicides. To minimise the risk of resistance developing, use strictly in accordance with the label directions. Do not use another product containing a herbicide in the same group in conjunction with ARROW 360. Where possible, herbicides from different group codes should either be used alternately or mixed together to prevent the numbers of resistant individuals building up. 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 ARROW 360 Herbicide to control resistant weeds. See www.resistance.nzpps.org for further information on modes of action.

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