

POISON

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING



syngenta®

ACTIVE CONSTITUENT: 800 g/L PROSULFOCARB

GROUP **J** HERBICIDE

For the control of Annual Ryegrass (*Lolium rigidum*) in
Wheat and Barley

Syngenta Australia Pty Ltd
Level 1, 2-4 Lyonpark Road, Macquarie Park NSW 2113

In a transport emergency dial 000, Police or Fire Brigade
For specialist advice in an emergency only, call 1800 033 111 (24 hours)

APVMA Approval No.: 81708/103781

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DIRECTIONS FOR USE

Restraints

DO NOT apply by aircraft

DO NOT apply to soils prone to waterlogging, sodic soils or soils affected by physical compaction.

DO NOT apply if heavy rains or storms that are likely to cause runoff are forecast within 2 days of application.

DO NOT irrigate treated fields to the point of run off within 3 days of application.

DO NOT apply more than 3.0 L/ha per single growing season.

DO NOT apply if another product containing prosulfocarb has been, or is intended to be, applied during the same growing season.

Spray Drift Restraints

DO NOT apply with spray droplets smaller than a **COARSE** spray droplet size category according to "APVMA Compliance Instructions for Mandatory COARSE or Larger Droplet Size Categories" located under this title in the GENERAL INSTRUCTIONS section of this label.

DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour, as measured at the application site.

DO NOT apply during surface temperature inversion conditions at the application site.

Users of this product **MUST make an accurate written record** of the details of each spray application within 24 hours following application, and must **KEEP** this record for at least 2 years. The spray application details that must be recorded are:

1 date with start and finish times of application

2 location address and paddock(s) sprayed

3 full name of this product

4 amount of product used per hectare and number of hectares applied to

5 crop or situation and weed or pest

6 wind speed and direction during application

7 air temperature and relative humidity during application

8 nozzle brand, type, spray angle, nozzle capacity and spray system pressure measured during application

9 name and address of person applying this product.

(Additional record details may be required by the state or territory where this product is used.)

Mandatory No-Spray Zones

DO NOT apply if there are sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat within 5 metres downwind from the application area.

DO NOT apply if there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers within 10 metres downwind from the application area.

Crop	Weeds	Rate/ha	Critical Comments
Wheat, Barley	Suppression of Annual Ryegrass (<i>Lolium rigidum</i>), including Group D resistant populations	2.5 L	Apply pre-emergent and incorporate mechanically by the sowing operation (IBS). Application should be made to a moist seedbed up to 7 days prior to sowing and sufficient rain to thoroughly wet the top 3 to 4 cm of soil should occur within 10 days after spraying. Avoid soil throw into adjacent seeding rows or sites where furrow walls may collapse.
	Control of Annual Ryegrass (<i>Lolium rigidum</i>), including Group D resistant populations	3.0 L	Refer to crop tolerance, incorporation and tillage requirements under General Instructions.

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION

WITHHOLDING PERIODS

Harvest: NOT REQUIRED WHEN USED AS DIRECTED

Grazing: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 10 WEEKS AFTER APPLICATION

GENERAL INSTRUCTIONS

ARCADE is a short residual, soil applied, pre-emergent herbicide that is absorbed by the roots and shoots (coleoptile) of germinating seedlings with inhibition of growth in the meristematic region. Foliar uptake is possible but of lower effect. Upstream translocation in the plant occurs but movement in the phloem is very unlikely. Best activity can be expected from applications before or shortly after the germination of target weeds.

The product should be applied to a moist smooth seedbed free of soil clods and emerged weeds. Product efficacy may be reduced by improper incorporation, high levels of crop or trash residues, stones or foreign matter and in areas of extremely high weed seed density such as header rows. For optimal efficacy and crop safety in wheat and barley, avoid shallow seeding and ensure accurate seed placement that avoids placement of seed in the herbicide band. Avoid water repellent soils, soils subject to water logging or where furrow walls are likely to collapse. Duration and effectiveness of weed control will depend on use rate, soil type and rainfall or irrigation after application. Adequate rainfall or irrigation should occur within 10 days of application, as this herbicide requires sufficient available soil moisture to ensure soil movement and uptake by emerging weed seeds.

Crop Tolerance

The selectivity of ARCADE in cereals is a combination of positional and physiological selectivity. Positional selectivity must be maintained by sowing at an adequate depth below the herbicide band. The physiological selectivity of ARCADE is given by the ability of cereals to metabolise the herbicide to inactive compounds more rapidly than susceptible weed species. Environmental factors such as rainfall events following application and soil type will influence product movement into the seed zone. Crop injury may occur when used in sandy soils with high leaching potential or in all soil types when heavy rainfall is received between sowing and emergence. Crop injury may also result from tank mixes with other herbicides. Shallow seeding is not recommended due to the greater potential for movement of herbicide within close proximity of the emerging crop. Conditions resulting in poor root development or the occurrence of crop stresses including waterlogging, drought, frost, nutrient deficiency or disease can result in unacceptable crop damage and yield loss as a result of root uptake of herbicide. Risk of crop damage may be exacerbated where varieties with short coleoptile length are planted in conjunction with the use of some fungicide seed treatments.

Tillage System

IBS with knife or blade points: Working speed should ensure adequate incorporation of product but avoid soil throw into the adjacent seeding row. Use of presswheels will minimise potential for herbicide to be dragged back into seeding rows. Weed control may be reduced in seeding rows as a result of concentration of herbicide in crop inter-rows. A knife or blade point is defined as being <12 mm in width, having no wings, inverted T or blade and is generally on a minimum 200 mm row spacing.

Disc seeding systems: Disc seeding systems are compatible with the use of ARCADE as long as attention is paid to ensuring sufficient separation of the crop seed from treated soil (see Crop Tolerance section). The safety of disc seeding systems can be improved where additional mechanisms to move treated soil (eg leading wavy coulters) are employed if soil throw from the seeding system itself is not sufficient to create positional selectivity. The use of single-disc seeding systems will substantially increase the risk of crop damage due to minimal movement of treated soil and should be avoided.

Full disturbance or conventional cultivation, including trailing harrows/prickle chain: Care should be taken to ensure seed placement below the herbicide band as crop damage may result where seed is sown too shallow.

PRODUCT MUST BE INCORPORATED INTO THE SOIL WITHIN 7 DAYS OF APPLICATION

Mixing

ARCADE is an emulsifiable concentrate that mixes readily with water. Fill the spray tank to one quarter full. Add ARCADE and continue adding water to make up to the final spray volume. Agitate while mixing and spraying.

When tank mixing wettable powder or water dispersible granule formulations should be added to the tank first followed by suspension concentrates (flowables), water soluble salts then ARCADE or other emulsifiable concentrate formulations. Maintain thorough agitation during mixing and application. Agitate tank mixes vigorously if allowed to stand. Note: Tank mix spray solutions should NOT be left standing in the vat overnight.

Compatibility

ARCADE is compatible with any 1 of the following herbicides: 2,4-D ester, Hammer*, glyphosate, Logran® 750 WG Selective Herbicide, Logran® B-Power® Herbicide, metribuzin, metsulfuron methyl, Monza Herbicide, oxyfluorfen, Spray.Seed® 250 Herbicide, Dual Gold® Herbicide and trifluralin. DO NOT tank mix with 2,4-D amine. **Always refer to registered plant back restrictions on the label of the tank mix partner.** Refer to your local Syngenta representative for more information relating to the compatibility and crop safety of herbicide tank mixtures.

ARCADE is compatible with any 1 of the following insecticides: alpha cypermethrin, bifenthrin, chlorpyrifos, dimethoate and Karate Zeon® Insecticide.

ARCADE is compatible with liquid Urea Ammonium Nitrate (UAN) fertilisers provided the spray solution is under constant high agitation.

As formulations of other manufacturers' products are beyond the control of Syngenta and water quality varies with location, all mixtures should be tested prior to mixing commercial quantities.

Application

DO NOT apply by air.

Apply by ground rig only in a minimum of 50 L water/ha. Water rate selection should be based on soil type and stubble load. Stubble loads above 40 to 50% ground coverage can reduce weed control below acceptable levels. Water volumes greater than 70 L/ha are recommended in order to reduce the impact of stubble in direct drill or minimum tillage systems. Use a nozzle delivering spray quality in the coarse spray range.

Important information

These instructions inform those using this chemical product how to lawfully comply with the requirement of a COARSE or larger spray droplet size category for spray application.

Spray droplet size categories are defined in the ASAE S572 Standard (newer name may also be shown as ASABE) or the BCPC guideline. Nozzle manufacturers may refer to one or both of these documents, to identify droplet size categories; however, for a nozzle to comply with this requirement, the manufacturer must refer to at least one.

Complying with the label requirement to use a specific droplet size category means using the correct nozzle that will deliver that droplet size category under the spray operation conditions being used. The APVMA has approved only the following specific methods for choosing the correct nozzle. Use one of the methods specified in these instructions to select a correct nozzle to deliver a COARSE or larger droplet size category.

Mandatory instructions for ground application for COARSE droplet size or larger categories

<p>USE ONLY nozzles that the nozzles' manufacturer has rated to deliver a COARSE, a VERY COARSE or an EXTREMELY COARSE droplet size category, as referenced in ASAE S572 or BCPC. Choose a nozzle that is specified to provide the droplet size category required in the label Spray Drift Restraints. DO NOT use a higher spray system pressure than the maximum the manufacturer specifies for the selected nozzle to deliver the droplet size category required in the label Spray Drift Restraint.</p>
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Sprayer Clean Up

After using ARCADE, empty the tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean any filters in the tank, pump, line and nozzles.

To rinse: After cleaning the tank as above, quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice.

Resistant Weeds Warning

GROUP	J	HERBICIDE
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ARCADE Herbicide is a member of the thiocarbamates groups of herbicides. This product has the inhibitors of fat synthesis mode of action. For weed resistance management, this product is a Group J herbicide. Some naturally occurring weed biotypes resistant to this product and other Group J 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 this product or other Group J herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Syngenta Australia Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds. Advice as to strategies and alternative treatments that can be used should be obtained from your local supplier, consultant, local Department of Agriculture, Primary Industries Department or a Syngenta representative.

Resistance Management

Large numbers of healthy surviving weeds can be an indication that resistance is developing. Efforts should be made to prevent seed set of the surviving weeds. DO NOT make more than 1 application of a Group J herbicide with the inhibition of fat synthesis mode of action to a crop in the same season.

If the user suspects that the target weed population is resistant to herbicides with this mode of action, ARCADE or other Group J herbicides should not be used. Strategies to minimise the risk of herbicide resistance are available. The above recommendations should be incorporated into an Integrated Weed Management (IWM) Program that uses a diverse range of options to manage grass weeds and avoids over reliance on any 1 method of control. Consult your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local Syngenta representative for details.

PRECAUTION

Re-entry Period: DO NOT enter treated areas until the spray has dried unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT drain or flush equipment on or near desirable trees or other plants, where their roots may extend, or in situations where by movement of soil or by seepage absorption of the herbicide may occur.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight.

Refillable containers

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

Non-refillable containers

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

SAFETY DIRECTIONS

Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. Avoid contact with eyes and skin. When opening the container, preparing the product for use and using the product, wear:

- **cotton overalls buttoned to the neck and wrist (or equivalent clothing),**
- **elbow-length chemical resistant gloves**
- **face shield or goggles**

In addition, when opening the container and mixing and loading, wear a disposable mist face mask covering mouth and nose. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use wash gloves, face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 131 126.

SAFETY DATA SHEET

If additional hazard information is required refer to the Safety Data Sheet. For a copy phone 1800 067 108 or visit our website at www.syngenta.com.au

DISCLAIMER

This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Syngenta's liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Syngenta shall have no liability.

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