

READ SAFETY DIRECTIONS BEFORE OPENING OR USING



# Barricade<sup>®</sup>

## Turf Herbicide

syngenta<sup>®</sup>

ACTIVE CONSTITUENT: 480 g/L PRODIAMINE

GROUP **D** HERBICIDE

*For pre-emergent control of weeds in established turf  
as per the Directions for Use*

**Syngenta Crop Protection Pty Limited**  
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: 62982/44469**  
**0211**

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## DIRECTIONS FOR USE

### Restraints

DO NOT blend BARRICADE onto dry fertiliser or any other granular material

DO NOT apply with aircraft or through any type of irrigation equipment

DO NOT apply to turf under stress

DO NOT apply to golf course putting greens

DO NOT apply to newly seeded, sodded or sprigged turf. Delay application until turf is at 100% cover and root system is developed beyond a 3 cm depth

DO NOT apply if heavy rain has been forecast within 48 hours

### 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

DO NOT apply with a nozzle height greater than 50 cm above the ground

### Mandatory No-Spray Zones

DO NOT apply if there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers within 120 metres downwind from the application area

DO NOT apply if non-target vegetation is within 10 metres downwind from the application area

DO NOT apply if using Monument<sup>®</sup> Liquid Turf Herbicide and BARRICADE tank mix for control of winter grass if non-target vegetation is within 60 metres downwind from the application area

Situation	Weeds	Rate	Critical Comments
<b>Established turf:</b> <b>Bahia grass</b> <i>(Paspalum notatum)</i> , <b>Buffalo Grass</b> <i>(Stenotaphrum secundatum)</i> , <b>Carpet grass</b> <i>(Axonopus affinis,</i> <i>Axonopus compressus)</i> , <b>Common Couch</b> <i>(Cynodon dactylon)</i> , <b>Hybrid Couch</b> <i>(Cynodon dactylon x</i> <i>Cynodon transvaalensis)</i> , <b>Kikuyu</b> <i>(Pennisetum clandestinum)</i> , <b>Qld Blue Couch</b> <i>(Digitaria didactyla)</i> , <b>Seashore Paspalum</b> <i>(Paspalum vaginatum)</i> , <b>Zoysia</b> <i>(Zoysia japonica, Zoysia matrella)</i>	Crab Grass <i>(Digitaria sanguinalis)</i> , Summer Grass <i>(Digitaria ciliaris)</i>	1 to 3 L/ha	Apply prior to weed emergence in early spring for residual control of up to 6 months. A repeat application (3 to 4 months after initial application) may be needed if lower rates are used in high weed pressure situations or during extended germination periods due to environmental conditions. Refer to Application section for detailed information.
	Crowsfoot Grass <i>(Eleusine indica)</i>		Apply prior to weed emergence in early spring. For residual control of up to 4 months use 1 to 2 L/ha. For residual control of up to 6 months use 2 to 3 L/ha. A repeat application (3 to 4 months after initial application) may be needed if lower rates are used in high weed pressure situations or during extended germination periods due to environmental conditions. <b>Note:</b> Crowsfoot Grass germinates later than Crab Grass and/or Summer Grass. In situations with multiple weeds present use higher rates to ensure adequate residual control. Refer to Application section for detailed information.

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<b>Established turf:</b> <b>Bahia grass</b> <i>(Paspalum notatum)</i> , <b>Buffalo Grass</b> <i>(Stenotaphrum secundatum)</i> , <b>Carpet grass</b> <i>(Axonopus affinis, Axonopus compressus)</i> , <b>Common Couch</b> <i>(Cynodon dactylon)</i> , <b>Hybrid Couch</b> <i>(Cynodon dactylon x Cynodon transvaalensis)</i> , <b>Kikuyu</b> <i>(Pennisetum clandestinum)</i> , <b>Qld Blue Couch</b> <i>(Digitaria didactyla)</i> , <b>Seashore Paspalum</b> <i>(Paspalum vaginatum)</i> , <b>Zoysia</b> <i>(Zoysia japonica, Zoysia matrella)</i>	Winter Grass <i>(Poa annua)</i>	1 to 2 L/ha plus 0.3 L/ha Monument Liquid plus 0.25% v/v non-ionic surfactant	Apply during late summer to early autumn for residual control of up to 6 months. A repeat application (3 to 4 months after initial application) may be needed if lower rates are used in high weed pressure situations or during extended germination periods due to environmental conditions. Refer to Application section for detailed information.
		4 L/ha	Apply prior to weed emergence in late summer to early autumn for residual control of up to 6 months. A repeat application (3 to 4 months after initial application) may be needed if lower rates are used in high weed pressure situations or during extended germination periods due to environmental conditions. Refer to Application section for detailed information.

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

**WITHHOLDING PERIOD: DO NOT GRAZE TREATED TURF/LAWN OR FEED TURF/LAWN CLIPPINGS FROM ANY TREATED AREA TO POULTRY OR LIVESTOCK**

### GENERAL INSTRUCTIONS

BARRICADE is a selective pre-emergent herbicide that provides residual control of grass weeds in established turf. BARRICADE controls susceptible weeds by preventing growth and development of newly germinated weeds. Weed control is most effective when BARRICADE is activated by at least 6 mm of rainfall or irrigation before weed seeds germinate and within 7 days after application.

#### Mixing

Add the required quantity of BARRICADE directly to a spray tank containing 2/3 of the required spray volume. Add the rest of the water and ensure the mix is thoroughly agitated before application.

#### **Monument Liquid tank mix**

Add Monument Liquid and non-ionic surfactant after BARRICADE, then add the rest of the water and ensure the mix is thoroughly agitated before application. Refer to Monument Liquid label for specific mixing instructions.

#### Application

DO NOT apply with aircraft or through any type of irrigation equipment

Apply prior to weed emergence in early spring (summer weeds) or late summer to early autumn (*Poa annua*). Ensure product placement as close to soil surface as possible. Total application volume should not be lower than 500 L/ha. Use extremely coarse droplets [Turbo FloodJet® (TF5) or TurfJet® (TTJ10)], use strainers with no less than a 50-mesh rating. Wash in with at least 6 mm rain or irrigation within 7 days of application. Spray nozzles should be uniformly spaced and of the same size, and should provide accurate and uniform application. To ensure accuracy, calibrate sprayer at the beginning of the season before use and recalibrate frequently. Apply at a volume of greater than 500 L water/ha. Observe sprayer nozzles frequently during the spraying operation to ensure that the spray pattern is uniform. Avoid overlapping of spray runs. Ensure that boom height for broadcast application does not exceed 50 cm above the leaf blades of the turf. Avoid application under conditions when uniform coverage cannot be obtained or when spray drift may occur.

#### **Monument Liquid tank mix**

Ensure even product placement. Total application volume should be 400 to 800 L/ha. Use coarse droplets [AIXR\* (11004 or 10005) or Turbo Teejet\* (11004 or 10005)]. Wash in with at least 6 mm rain or irrigation within 7 days after application. Refer to Monument Liquid label for specific application instructions.

### **APVMA Compliance Instructions for Mandatory COARSE or Larger Droplet Size Categories**

These instructions inform users of 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 to identify droplet size categories, but 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 applications for COARSE droplet size or larger categories**

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 to ASAE S572 or BCPC. Choose a nozzle specified to provide the droplet size 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.

### **Compatibility**

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. BARRICADE is compatible with Monument Liquid.

### **Clean up**

After tank mixing with Monument Liquid refer to the Monument Liquid label for spray tank cleaning instructions.

### **Replanting interval**

DO NOT replant any crop, ornamentals or overseed with cool season grasses for winter cover to treated areas for a period of 6 months after application.

### **Herbicide Resistance Warning**

**GROUP D HERBICIDE**

BARRICADE Turf herbicide is a member of the dinitroaniline group of herbicides and has the tubulin formation inhibitor mode of action. For weed resistance management this product is a Group D herbicide. Some naturally occurring weed biotypes resistant to BARRICADE and other Group D 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 BARRICADE or other Group D herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Syngenta Crop Protection Pty Limited accepts no liability for any losses that may result from the failure of BARRICADE to control the 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.

### **Integrated Pest Management**

The possible effects of BARRICADE on integrated pest management (IPM) strategies in the turf industry have not been studied at the proposed rates. However, based on available information, it cannot be ruled out that BARRICADE may have an adverse effect on non-target beneficial turfgrass invertebrates where such IPM is practised.

### **PRECAUTION**

#### **Re-entry Period**

##### **Professional operators**

DO NOT allow entry into treated areas until 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.

##### **Public**

DO NOT allow entry into treated areas until spray has dried.

### **PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS**

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures. Avoid applications to areas where product may accumulate under the drip line of trees or where product may come into contact with roots of desirable plants.

## **PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**

Very toxic to aquatic life. DO NOT contaminate streams, rivers or waterways with the chemical or used containers. DO NOT apply if heavy rain has been forecast within 48 hours. DO NOT apply to waterlogged soil. DO NOT irrigate to the point of run-off within 3 days of application. DO NOT apply to turf which is not well established.

## **STORAGE AND DISPOSAL**

Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. DO NOT burn empty containers or product.

## **SAFETY DIRECTIONS**

**May 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 spray and using prepared spray wear:**

- cotton overalls buttoned to the neck and wrist (or equivalent clothing)
- elbow-length chemical resistant gloves

**If product on skin, immediately wash area with soap and water. Wash hands after use. After each day's use wash gloves and contaminated clothing.**

## **FIRST AID**

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

## **MATERIAL SAFETY DATA SHEET**

If additional hazard information is required refer to the Material Safety Data Sheet. For a copy phone 1800 067 108, or visit our website at [www.greencast.com.au](http://www.greencast.com.au) or [www.syngenta.com.au](http://www.syngenta.com.au)

## **MANUFACTURER'S WARRANTY AND EXCLUSION OF LIABILITY**

Syngenta has no control over storage, handling and manner of use of this product. Where this material is not stored, handled or used correctly and in accordance with directions, no express or implied representations or warranties concerning this product (other than non-excludable statutory warranties) will apply. Syngenta accepts no liability for any loss or damage arising from incorrect storage, handling or use.

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