

# CAUTION

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING



# Monument<sup>®</sup> Liquid

## Turf herbicide

syngenta<sup>®</sup>

ACTIVE CONSTITUENT: 100 g/L TRIFLOXYSULFURON SODIUM  
SOLVENT: 680 g/L LIQUID HYDROCARBONS

GROUP **2** HERBICIDE

For the control of Sedges, Grasses and Broadleaf Weeds  
in Turf as per Directions for Use

**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: 62571/0610**

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## DIRECTIONS FOR USE

### Restraints

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

DO NOT apply when the turf or weeds are not actively growing

DO NOT apply to turf under stress

DO NOT apply to golf course putting greens

DO NOT apply to Bent Grass, Buffalo, Centipede Grass, Fescue, Kikuyu, *Paspalum* spp, Ryegrass or any other turf species not listed in the table below (unless listed under weeds controlled)

DO NOT apply within 10 m upwind of Bent Grass 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 5 cm depth

### 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 with a nozzle height greater than 50 cm above the ground

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 **KEEP** this record for a minimum of 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/situation and weed/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 aquatic and wetland areas including aquacultural ponds, surface streams and rivers within 20 m downwind from the application area

DO NOT apply if there are sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat within 60 m downwind from the application area

Situation	Weeds	Rate	Critical Comments
<b>Established turf</b> as named: <b>Common Couch</b> ( <i>Cynodon dactylon</i> ), <b>Durban Grass</b> ( <i>Dactyloctenium australe</i> ), <b>Hybrid Couch</b> ( <i>Cynodon dactylon</i> x <i>Cynodon transvaalensis</i> ), <b>Qld Blue Couch</b> ( <i>Digitaria didactyla</i> ), <b>Zoysia</b> ( <i>Zoysia japonica</i> )	Burr Medic ( <i>Medicago polymorpha</i> )	115 mL/ha	<b>The addition of a quality non-ionic surfactant at a rate of 0.25% v/v (1000 g ai/L products) or 0.42% v/v (600 g ai/L products such as AGRAL® Spray Adjuvant) is strongly recommended.</b> Refer also to Mixing section for detailed information.  Ensure product placement as uniformly as possible onto leaves and into crowns. Ideal application volume should be 400 to 800 L/ha. Use higher volumes to ensure sufficient coverage in higher cut turf (>15 mm) in semi-roughs, roughs, parks, etc. A repeat application may be needed in 4 to 6 weeks.  Allow at least 6 weeks between last application and overseeding with cool season grasses for winter cover. Transient discolouration may occur when applied to Qld Blue Couch and Zoysia. For Kikuyu suppression, make 2 applications 21 to 28 days apart. Best results are gained from autumn applications.
	Mullumbimby Couch ( <i>Cyperus brevifolius</i> ), Nutgrass ( <i>Cyperus rotundus</i> )	150 mL/ha	
	Bindii ( <i>Soliva sessilis</i> ), Ryegrass ( <i>Lolium perenne</i> ), Winter Grass ( <i>Poa annua</i> )	225 mL/ha	
	Catsear ( <i>Hypochoeris radicata</i> ), Chickweed ( <i>Stellaria media</i> ), Clover ( <i>Trifolium repens</i> ), Cotula ( <i>Cotula australis</i> ), Creeping Oxalis ( <i>Oxalis corniculata</i> ), Curled Dock ( <i>Rumex crispus</i> ), Milk Thistle ( <i>Sonchus oleraceus</i> )	300 mL/ha	
	Kikuyu ( <i>Pennisetum clandestinum</i> ) <b>suppression only</b>		

			Refer to Application section for more detailed information.
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### Bahia Grass (*Paspalum notatum*) Suppression and Seedhead Control

Situation	Weeds	Rate		Critical Comments
		/ha	/100 m <sup>2</sup>	
<b>Common Couch, Durban Grass, Hybrid Couch, Qld Blue Couch, Zoysia only</b> in golf course long roughs, lawns, median strips, ovals, parks, roadsides, general grassed areas	<b>Bahia Grass (<i>Paspalum notatum</i>) suppression and seedhead control</b>	75 mL plus 2 to 4 L/ha PRIMO <sup>®</sup> MAXX Turf Growth Regulator or 1 to 2 L/ha PRIMO <sup>®</sup> 250 EC Turf Growth Regulator plus a quality non-ionic surfactant at 0.25% v/v (1000 g ai/L products) or 0.42% v/v (600 g ai/L products such as AGRAL <sup>®</sup> )	0.75 mL plus 20 to 40 mL/100 m <sup>2</sup> PRIMO <sup>®</sup> MAXX or 10 to 20 mL/100 m <sup>2</sup> PRIMO <sup>®</sup> 250 EC Plus a quality non-ionic surfactant at 0.25% v/v (1000 g ai/L products) or 0.42% v/v (600 g ai/L products such as AGRAL <sup>®</sup> )	Tank mix with 2 to 4 L/ha (20 to 40 mL/100 m <sup>2</sup> ) PRIMO <sup>®</sup> MAXX or 1 to 2 L/ha (10 to 20 mL) PRIMO <sup>®</sup> 250 EC plus a quality non-ionic surfactant at 0.25% v/v (1000 g ai/L products) or 0.42% v/v (600 g ai/L products such as AGRAL <sup>®</sup> ) and apply during summer when turf is actively growing and Bahia grass produces seedheads. DO NOT apply more than 2 consecutive applications of MONUMENT <sup>®</sup> LIQUID per season. See instructions under Bahia Grass ( <i>Paspalum notatum</i> ) Management for control of Bahia grass seedhead in established couch areas. Refer to Mixing and Application sections for detailed information. <b>Important:</b> Refer to the PRIMO <sup>®</sup> MAXX and PRIMO <sup>®</sup> 250 EC labels for specific directions on mixing, application and protection of non-target crops and the environment.

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

**DO NOT USE THIS PRODUCT IN THE HOME GARDEN**

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

#### GENERAL INSTRUCTIONS

MONUMENT<sup>®</sup> LIQUID is a selective herbicide for application after emergence of weeds, for control of certain weeds in established turf. MONUMENT<sup>®</sup> LIQUID is an oil dispersion formulation that mixes readily with water and is applied as a spray.

The degree of control resulting from application of MONUMENT<sup>®</sup> LIQUID is primarily dependent upon weed species, weed size at application, environmental conditions, amount of MONUMENT<sup>®</sup> LIQUID applied and growing conditions. Weed control is greatly improved when weeds have emerged, ample soil moisture exists and weeds are actively growing, rather than when the soil is dry and weeds are under stress from lack of moisture. Growth of susceptible weeds is inhibited soon after application of MONUMENT<sup>®</sup> LIQUID. The leaves of susceptible plants normally turn yellow, red or purple after several days, followed by necrosis and death of the growing point. Complete plant death generally occurs 2 to 4 weeks after application, depending on the weed species, growing conditions, etc.

Apply to actively growing weeds during early stages of development for best results. For optimum performance avoid mowing for 1 to 2 days prior to and following application.

#### Mode of Action

MONUMENT<sup>®</sup> LIQUID controls weeds by inhibiting a biochemical process that produces certain essential amino acids necessary for plant growth. The inhibited enzyme system is acetolactate synthase (ALS).

## **Bahia Grass (*Paspalum notatum*) Management**

Different grasses vary in their sensitivity to MONUMENT® LIQUID, PRIMO® MAXX and PRIMO® 250 EC. Bahia grass is very sensitive to the combination resulting in control of seedhead as well as vegetative growth suppression. Apply the combination as soon as seedheads start to form or when it becomes a regular mowing intervention issue, normally during October to January. Apply at 4 week intervals after mowing.

### **Mixing**

MONUMENT® LIQUID can be tank mixed with PRIMO® MAXX and PRIMO® 250 EC.

MONUMENT® LIQUID mixes readily with water, no pre-mixing is required.

If pH of water is less than 5.5, use a buffer solution to raise pH to near 7.0. DO NOT mix MONUMENT® LIQUID with acid forming compounds in the spray tank.

This product must be mixed with water and applied by suitable spray equipment.

1. Clean the spray tank before using. If it is contaminated with other materials, mixing problems and/or clogging may occur, or injury to the turf may result.
2. Fill tank no more than 25% full with clean water before adding MONUMENT® LIQUID. Begin agitating tank contents vigorously and continue agitation during entire mixing and spraying operation.
3. Pour required amount of MONUMENT® LIQUID steadily into tank. Allow vigorous bypass agitation to completely disperse product.
4. After adding required quantity of MONUMENT® LIQUID and obtaining complete dispersion, continue to fill tank to desired level for spraying.
5. Add required quantity of non-ionic surfactant if using and continue agitation.
6. Thorough agitation (preferably mechanical) of the spray liquid is essential during the addition of the product and during the entire spraying operation. Recirculate if left to stand.

**Note: Spray solution should NOT be left standing in the tank overnight.**

**Non-ionic Surfactants:** Use AGRAL® (600 g ai/L) at 0.42% v/v or 420 mL/100 L spray mix. Alternatively use other quality non-ionic surfactants (1000 g ai/L formulations) at 0.25% v/v or 250 mL/100 L spray mix.

### **Application**

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

#### **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.

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 400 to 800 L water/ha. Higher volumes should be used for severe weed infestations and higher cut turf (>15 mm) to ensure adequate spray coverage. Good weed coverage with the spray mixture is essential for optimum weed control. 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.

### **Rainfastness**

MONUMENT® LIQUID is rainfast within 3 hours of application.

### Instructions to Avoid Spray Drift

DO NOT allow spray to drift onto adjacent turf sites or ornamental plants as even small amounts may injure sensitive plants. When drift may be a problem, take steps to reduce spray drift.

DO NOT apply where wind speed is less than 3 or greater than 20 km/hour at application site.

Use extreme caution when conditions are favourable for drift, ie high temperatures and low relative humidity, especially when sensitive plants are located nearby. All plants not listed as turf species on this label should be considered as sensitive plants.

If sensitive plants are downwind, extreme caution must be used under all conditions. Drift from applications of this herbicide is likely to result in damage to sensitive plants adjacent to the treatment site. This damage can occur at levels below the concentrations that can be detected with chemical analysis.

DO NOT apply when a surface temperature inversion exists. If an inversion condition is suspected, consult with local weather services before making an application.

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

If conditions favour drift, recalibrate sprayer by reducing spray pressures and increasing spray volumes to produce larger droplets.

Apply as close to surface of target turf as practical to obtain a good spray pattern for adequate coverage according to the manufacturer's recommendations. Ground applications are limited to a nozzle height of 50 cm above the ground.

### Sprayer Cleanup

Thoroughly clean spray equipment using the following procedure when you have finished spraying highly active materials such as sulfonylurea products. Start with a thoroughly cleaned sprayer before beginning the next job.

1. **Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using this procedure. Wear appropriate protective clothing.**  
As a first step, flush tank, hoses, boom and nozzles with clean water.
2. Prepare a cleaning solution of 300 mL of household ammonia/100 L water. Ensure ammonia used is fresh as it can degrade significantly over time resulting in a reduction in cleaning ability.
3. When available, use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface and lid.
4. Completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system and, in cases where there is the possibility of heavy build up of residues, the cleaning solution may need to be left in the tank for extended periods to ensure adequate decontamination of the tank.
5. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
6. Dispose of rinsate from steps 1 to 5 in an appropriate manner.
7. **Repeat steps 2 to 5.**
8. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures. Be careful with filters, as they are a main source of contamination.
9. Rinse the complete spraying system with clean water.

**The above method is only effective if the cleaning solution comes into contact with every surface or contact point that may contain even minute sulfonylurea herbicide residues. In some boom sprayers this may not be physically possible and hence it may be advisable to use a different boomsprayer that has not been used to spray sulfonylurea herbicides, when spraying sensitive crops or turf species.**

### 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.

### Replanting interval

DO NOT replant any crop or ornamentals to treated areas other than turfgrasses listed in the Directions for Use for a period of 12 months after application.

## Resistant Weeds Warning

**GROUP 2 HERBICIDE**

MONUMENT® LIQUID Turf Herbicide is a member of the sulfonylurea group of herbicides and has the ALS Inhibitor mode of action. For weed resistance management this product is a Group 2 herbicide. Some naturally occurring weed biotypes resistant to MONUMENT® LIQUID and other sulfonylurea 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 MONUMENT® LIQUID or other Group 2 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 MONUMENT® LIQUID 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.

## PRECAUTION

**Re-entry Period:** DO NOT allow entry into 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

This product is very highly toxic to non-target plants including aquatic plants. DO NOT apply under weather conditions or from spraying equipment that may cause spray to drift onto nearby susceptible plants/crops, cropping lands, pastures and other non-target plants or natural and impounded lakes, dams or other waterways. 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. Refer to Instructions to Avoid Spray Drift.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very highly toxic to aquatic organisms. DO NOT contaminate streams, rivers or waterways with the chemical or used containers. DO NOT apply if heavy rain is forecast.

## 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

**Will irritate eyes and skin. May irritate nose and throat. Avoid contact with eyes and skin. DO NOT inhale vapour or spray mist. When opening the container, mixing and loading, preparing spray and using the 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. If swallowed, DO NOT induce vomiting. Give a glass of water.**

## 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.syngentaturf.com.au](http://www.syngentaturf.com.au) or [www.syngenta.com.au](http://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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