0.48% Barricade®

· Pre-emergent Weed Control For Lawns & Landscape **Ornamentals**

For preemergence control of grass and broadleaf weeds in established turf grasses (excluding golf course putting greens), lawns and sod farms, container and field grown ornamentals, landscape ornamentals, conifer and hardwood seedling nurseries, established perennial and wildflower plantings, non-crop areas on or surrounding managed rights-of-way for transportation systems and utilities (including roadways, roadsides, railways and equipment yards), facilities including substations, tankfarms, pumping stations, parking and storage areas, ungrazed fencerows, and Christmas tree farms.

ACTIVE INGREDIENT: Prodiamine*
OTHER INGREDIENTS:
Total *(CAS No. 29091-21-2) (CAS NO. 29091-21-2) EPA Reg. No. 9198-214 EPA Est. No. 9198-0H-1M, 9198-0H-2B, 9198-AL-001A Underlined letter is first letter used in run code.

KEEP OUT OF REACH OF CHILDREN CAUTION PRECAUTIONARY STATEMENTS **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Causes moderate eye injury (irritation). Harmful if inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

WPS USES:

- Applicators and other handlers:

 Long sleeved shirt and long pants
- Waterproof gloves
- · Shoes plus socks

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash all PPE separately from other laundry.

NON-WPS USES:

Mixers and loaders who handles this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR Part 170) - in general, only agricultural-plant uses are covered by the WPS - must wear:

Chemical-resistant gloves

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash all PPE separately from other laundry.

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Reco

- users should:

 Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

 Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

 After handling this product, immediately wash the outside of gloves before removing them, then remove gloves and all other PPE. Immediately wash thoroughly and change into clean clothing.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contacts, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 es. Call a poison control center or doctor for tre

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice

If swallowed: Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-757-8951 for emergency medical treatment information.

Environmental Hazards

This product has low solubility in water. At the limit of solubility, this product is not toxic to fish. However, at concentrations substantially above the level of water solubility, it may be toxic to fish. Do not apply directly to water or to areas where surface water is present or to intertidal areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not contaminate water when disposing of equipment

If material is spilled, contain and sweep up material of spill for disposal or reuse per label instructions. Wash cleanup equipment to prevent contamination elsewhere. Excess quantities above normal application rates could result in damage to plants subject to spill. Water-in remainder, disc under or cover with layer of soil, or leave exposed to sunlight, as deemed appropriate to the situation.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Workers Protection Standard 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, part 170. This standard contains requirements for the protection of agricultural workers on rains, forests, unreseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exception pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has bee

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

Net Wt. 18 lbs. (8.16kg)

- Coveralls
- Waterproof gloves
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to use of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The Worker Protection Standard applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until spray has dried or dusts have settled.

PRODUCT INFORMATION

This product is a preemergence herbicide that provides residual control of many grass and broadleaf weeds in established turf grasses (excluding golf course putting greens), lawns, sod farms, container, field grown and landscape ornamentals, established perennial & wildflower plantings, non-crop areas on or surrounding managed rights-of-way for transportation systems and utilities (including roadways, roadsides, railways & equipment yards), facilities including substations, tankfarms, pumping stations parking & storage areas, ungrazed fencerows, plants grown for cut foliage production and Christmas tree

This product controls susceptible weeds by inhibiting weed seeds germination and root development. Most effective weed control will be obtained when this product is activated by at least 0.5 inch of rainfall or irrigation, or with shallow (1 to 2 inches) incorporation, prior to weed seed germination and within 14 days owing application

Do not graze or feed livestock forage cut from areas treated with this product. Do not apply this product through any type of irrigation system unless otherwise instructed by this label. Do not apply to golf course putting greens. Do not apply aerially.

APPLICATION DIRECTIONS

ESTABLISHED TURE

Golf courses (except putting greens), lawns, parks, athletic fields and sod farms

Apply this product in the early spring prior to crabgrass emergence. All applications must be made prior to germination of the target weeds. This product will not control established weeds. See the map below for approximate crabgrass seed germination dates. For more effective control in Zones 4 and 5, use a higher rate or make a second application, if recommended for your turfgrass species

CRABGRASS SEED GERMINATION DATES



When used at the recommended rates this product will control

Barnyardgrass	Cupgrass, Woolly	Lambsquarter,	Rescuegrass ⁴
Bluegrass, Annual	Foxtails, Annual	Common	Shepherd's Purse
(Poa annua)1	Goosegrass ³	Lovegrass	Signalgrass, Broadle
Carpetweed	Henbit	Oxalis	Speedwell, Persian
Chickweed,	Itchgrass	Panicum	Sprangletop
Common	Johnsongrass	(Texas, Fall,	Spurge,
Chickweed,	(from seed)	Browntop)	Prostrate
Mouseear	Junglerice	Pigweed	Witchgrass
(from seed)	Knotweed	Purslane,	Woodsorrel, Yellow
Crabgrass	Kochia	Common	(from seed)
(Large, Smooth)2		Pusley, Florida	
Crowfootgrass			

In areas where Poa annua is a winter annual, apply this product in August or September to established non-overseeded turf before Poa annua seeds germinate. This timing is approximate. For specific timing for your area, contact your local State Extension Service.

²Fall Applications for Spring Crabgrass Control in Cool-Season turfgrasses: In areas where the ground freezes in the winter, apply this product in the fall after the soil temperature is below 50°F, but before the ground freezes to control crabgrass the following spring.

³In many areas a single application will control goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, make a second application after 60 to 90 days (if recomm your turfgrass species

Rates of Application

Turfgrass Species	Application Schedule ¹	Application Rate		
Bermudagrass (established) Bahiagrass Centipedegrass Kikuyugrass Seahorse Paspalum St. Augustinegrass Tall Fescue (including turf-type) Zoysiagrass	May be applied over two applications	1.8 - 7.2 lbs/1,000 sq. ft. (0.38 - 1.5 lbs. ai/A)		
Buffalograss Kentucky Bluegrass Perennial Ryegrass	May be applied over two applications	1.8 - 4.8 lbs/1,000 sq. ft. (0.38 - 1.0 lbs. ai/A)		
Fine Fescue (including Red Fescue)	One application only	1.8 - 3.6 lbs/1,000 sq. ft. (0.38 - 0.75 lbs. ai/A)		
Creeping Bentgrass (0.5 inch and greater height) ²	One application only	1.8 - 2.4 lbs/1,000 sq. ft. (0.38 - 0.5 lbs. at/A)		

¹A second application may be necessary due to heavy weed pressure or extended growing season. ²Do not apply this product to Creeping Bentgrass mowed to less than 0.5 inch in height

In areas of high weed pressure or with extended growing seasons, a second application 60-90 days after the initial application may be made. Do not make a second application to Fine Fescue and Creeping Bentgrass. Do not make a second application if using the high rate on Buffalograss, Kentucky Bluegrass or Perennial Ryegrass

Do not make more than 2 applications per year

Do not apply more than 7.2 lbs. 1,000/ sq. ft. per year.

Most effective weed control in turf grasses will be obtained when this product is activated by at least 0.2 inch of rainfall or irrigation prior to weed seed germination and within 14 days following application

When to Apply After Overseeding Turf

Do not apply to overseeded turf within 60 days after seeding or until after the second mowing, whichever is longer. Injury to desirable seedlings is likely if this product is applied before seedling secon are in the second inch of soil, not thatch plus soil.

When to Overseed After Application - All States*

This product will inhibit the germination of turf species if overseeded too soon after application. Follow rates and intervals in the table below for best overseeding/reseeding results.

The Andersons Professional Turf Products 0.48% Barricade on DG Pro		Interval Before Overseeding			
Lbs/1,000 sq. ft.	Lbs./A	ai/A	North	Transition	South
2.3	104	0.50	4 mo.	4 mo.	4 mo.
3.1	135	0.65	5 mo.	4 mo.	4 mo.
3.6	156	0.75	6 mo.	5 mo.	5 mo.
3.8	166	0.80		6 mo.	6 mo.
4.8	208	1.00		7 mo.	7 mo.
5.5	238	1.14			9 mo.
6.2	271	1.30			10 mo.
7.2	313	1.50			12 mo.

* Note: In AZ, CA, NV and TX, the overseeding interval can be shorter in established bermudagrass that has been overseeded with perennial ryegrass. See the next section "Poa annua Control in Established mudagrass Overseeded with Perennial Ryegrass (AZ, CA, NV, and TX only)".

Use on golf courses (excluding golf course putting greens) and lawns when overseeding with perennial

rvegrass (minimum seed rate of 350 lbs./A).

How Much and When to Apply

Amount to Apply Lbs/1,000 When to Apply I bs/Acre **Expected Control** 78-135 1.8-3.1 6 to 8 weeks before ryegrass overseeding control of Poa annua

Second application 4-8 weeks after overseeding date or when perennial ryegrass roots are in the cond inch of soil

One application for 70% or greater

Second application should enhance the residual under normal weather conditions.

Use Precautions

- Some seed mortality and temporary reduction in root growth of new seedlings may occur. To reduce the potential for seeding mortality, maintain a moist seedbed with light, frequent
- Irrigation.

 Make no more than 2 applications per year for this use, and do not exceed 4 lbs./1,000 sq. ft. (176 lbs./A) for these two applications for *Poa annua* control in ryegrass overseeded turf.
- Do not make a second application if any injury to the ryegrass is observed after the first
- Do not make a second application unless the product was first applied before overseeding.

Use Precautions and Restrictions

The following precautions apply to the use of this product in turf grasses and lawns:

- Application of this product may thin emerged annual bluegrass and newly over seeded grasses.
 Do not apply to over seeded turf within 60 days after seeding or until after the second mowing, whichever
- Injury to desirable seedlings is likely if this product is applied before seedling secondary roots are in the second inch of soil, not thatch plus soil
- Do not cut (harvest) treated sod before 120 days after application. Do not apply to newly set sod until the
- following year.

 Application of this product to turf stressed by drought, low fertility, or pest damage may result in turf
- injury.

 Disturbing the herbicide barrier with cultural practices such as disking may result in reduced weed
- Do not apply this product to putting greens or areas where dichondra, colonial bentgrass, velvet bentgrass, or annual bluegrass (*Poa annua*) are desirable species.

 Do not apply to golf course putting greens.

Spreader Settings
These spreader settings are not intended to replace calibration.
Please calibrate your spreader before applying product.

18 lbs. treats 5,800 sq. ft. at 135 lbs. product/acre - (3.1 lbs/1,000 sq. ft. rate) 18 lbs. treats 5,000 sq. ft. at 156 lbs. product/acre - (3.6 lbs/1,000 sq. ft. rate) 18 lbs. treats 3,700 sq. ft. at 209 lbs. product/acre - (4.8 lbs/1,000 sq. ft. rate) 18 lbs. treats 2,500 sq. ft. at 314 lbs. product/acre - (7.2 lbs/1,000 sq. ft. rate)

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			SPREADER SETTINGS			
SPREADER	GROUND SPEED	WIDTH OF COVEREAGE	3.1 Rate 0.65 lbs. ai/A	3.6 Rate 0.75 lbs. ai/A	4.8 Rate 1.00 lbs. ai/A	7.2 Rate 1.51lbs. ai/A
Andersons Model 2000/ AccPro (cone 6); Andersons 2000 SR/ SR- 2000 (cone 6)	3 mph	11 feet	K 1/2	L	M 1/2	Р
Scotts R-8, (cone 6)	3 mph	11 feet	J 1/2	К	L 3/4	0
Scotts Deluxe	3 mph		4	4 1/2	5 1/2	7 1/2
Scotts Drop AG3000	3 mph	Overlap wheels	6 1/4	6 1/2	7 1/2	9 1/2
Eathway 2000A; Earthway Drop 7300SU	3 mph		13 1/2	14	15 1/2	18
Lesco 020093 (pattern 0.25)	3 mph	7 feet	D 1/2	E	E 3/4	G 1/2
Lesco 705698 (pattern 0.25)	3 mph	7 feet	11	12	13 1/2	17

Note: These spreader settings were established using standard equipment available from the spreader manufacturer at swath widths and speeds typically used within the industry. Calibrate all spreader equipment at the time of application to achieve the desired application rate

CONTAINER, FIELD GROWN AND LANDSCAPE ORNAMENTALS

THIS PRODUCT MAY BE APPLIED FOR RESIDUAL PREEMERGENCE WEED CONTROL IN ORNAMENTALS (INCLUDING ESTABLISHED PERENNIAL AND WILDFLOWER PLANTINGS AND

Apply this product at 3.1 to 7.2 lbs./1,000 sq. ft. (135 to 313 lbs./A) in fall and/or spring. Use higher rate of product applied does not exceed the maximum annual application rate of 7.2 lbs./1,000 sq. ft. (313 lbs./ acre ft.). application for longer control periods. Sequential applications may be made so long as the total amount of

Application Timing and Information

This product is a preemergence herbicide and will not control emerged weeds. Most effective weed control in ornamentals will be obtained when this product is activated by at least 0.5 inch of rainfall or irrigation, or with shallow (1 to 2 inch) mechanical incorporation, prior to weed seed germination and within 14 days following application.

Best weed control is obtained when this product is applied to soil free of clods, weeds and debris such as leaves and mulch. Prior to application of this product, control existing vegetation by hand weeding, cultivation or the use of an appropriate postemergence herbicide.

Apply this product to dry foliage only. Overhead irrigation or rainfall soon after application will wash granules off plant foliage and activate this product in the soil.

Established Container, Field Nursery Stock or Landscape PlantsApply this product at any time to established container or field nursery stock. It may be applied as a

broadcast or over the top application.

Newly Transplanted Container or Field Nursery Stock
This product may be applied to newly transplanted container or field nursery stock, after the soil is allowed to settle and has been thoroughly watered. For cuttings, apply after the cuttings form roots and become established. Apply this product before budding/grafting or after the buds/grafts have taken. This is to avoid any inhibition of the tissue union.

This product may be used in shadehouses and uncovered polyhouses, as well as outdoor locations. Keep the covered polyhouse open for at least 7 days and 2 irrigations that total a minimum of 0.5 inch of water

Bare Ground Applications for Container Placement

This product may be applied to the soil, mulch, gravel, wood chips or other permeable base on which containerized ornamentals are located. After application, perform shallow cultivation or hand weeding only, minimizing exposure of untreated soil.

Tolerant Ornamental Species

This product will not harm most trees, shrubs, vines, and flowers. The species listed below in Table 1 are tolerant to this product. This product is approved for application to the species listed in Table 2, except in California. Best results will be obtained when this product is uniformly applied to the soil surface. This product may be applied over the top of these species.

When plants are under stress (such as heat, drought, or frost damage) some cultivars of listed plants re be sensitive to this product.



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