



City of Santa Fe, New Mexico

Memorandum



DATE: March 26, 2024

To: Melissa McDonald, Parks and Open Space Division Director

FROM: Ryan Pitcher, Integrated Pest Management Program Manager

Cc: John Voet, Troon Golf Course Superintendent

ACTION:

Request for the approval of pesticide use at the Marty Sanchez Golf Course Links de Santa Fe (MSLdSF). This request meets The City of Santa Fe Integrated Pest Management Policy. (Ord. #2001-10, §1).

Product:

Trade Name - Syngenta Barricade 4FL; Signal word "Caution"; EPA Reg. No. 100-1139; Label Rate 24 oz / Acre Label Rate

Active Ingredient:

- Prodiamine*: 40.7%
- Other Ingredients:59.3%

Target Pest(s):

For selective preemergence control of grass and broadleaf weeds in established turfgrasses including:

- crabgrass,
- foxtails,
- goose grass,
- spurge,
- chickweed

Item and Issue:

The Marty Sanchez Golf Course Links de Santa Fe, Troon Superintendent John Voet seeks to apply a selective preemergence control herbicide to the tees, fairways, and rough at MSLdSF. This application will assist in maintaining Course wide playability and health of the golf course.

Healthy course grasses are essential to the game of golf. A variety of weedy species may compete with desired species and effect the health of playing surfaces at the golf course. Due to conditions associated with the nature of the game, turf may become stressed making it less able to compete with weedy species. Chemical control will help alleviate the effects of weed competition and help to maintain the longevity of the playing surfaces.

Control methods used prior to chemical application:

1. Mechanical removal of unwanted weeds (pulling weeds).

2. Implementing a proper fertilization program to encourage desirable plants (Kentucky bluegrass, ryegrass) to thrive to outcompete undesirable plants (crabgrass, foxtails, goose grass, etc.).

Pesticide application plan:

Application Date: On April 8, April 9 and April 10, 2024 (weather dependent).

Applicator: John Voet (NMDA Non-Commercial Pest License # 69627).

Method: Apply the requested pesticide according to the directions on the product label Syngenta Barricade 4FL.

Location: Marty Sanchez Links de Santa Fe to the following areas: Tees, Fairways, and Roughs approximately 95 acres

- Prior notice and signage will be posted as required.
- Record of the pesticide application will be made and available for review.
- See attached Product Label and SDS documents.

Action Recommended:

For your immediate review and approval. Approved Melissa McDonald Date: 2/26/24

PRODIAMINE GROUP 3 HERBICIDE

PULL HERE TO OPEN ►



Barricade® 4FL

syngenta®

Herbicide

For selective preemergence control of grass and broadleaf weeds in:

- established turfgrasses (excluding golf course putting greens), lawns, and sod nurseries
- container, field-grown, and landscape ornamentals
- established perennial and wildflower plantings
- Christmas tree farms

Active Ingredient:

Prodiamine* 40.7%

Other Ingredients: 59.3%

Total: 100.0%

*CAS No. 29091-21-2

Barricade 4FL contains 4 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1139 EPA Est. 70815-GA-002

Product of India
Formulated in the USA

SCP 1139A-L10C 0121
4134921

1 gallon

Net Contents



®

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious or convulsing person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • 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 on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call 1-800-888-8372	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

May be harmful if swallowed, absorbed through skin, or inhaled. Avoid breathing vapor. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment

WPS Uses:

Applicators, mixers, loaders, and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR part 170) - in general, agricultural-plant uses are covered – must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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

Engineering Control Statements

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.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided with all of the PPE specified above for applicators and other handlers, and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

User Safety Recommendations

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 remove PPE, wash yourself thoroughly and change into clean clothing.

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, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not contaminate water when disposing of equipment wash water or rinsate.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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 Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions 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 Protection Standard.

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 been treated.

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:

- Coveralls
- Chemical-resistant gloves such as butyl rubber >14 mils or natural rubber >14 mils or neoprene rubber >14 mils or nitrile rubber >14 mils
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements of this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard for agricultural pesticides (40CFR part 170). The "WPS" applies when this product is used to produce agricultural plants on farms, forest or nurseries. Applicators and handlers should wear long-sleeved shirt, long pants, chemical resistant gloves, shoes with socks and protective eyewear. Thoroughly wash face and hands with soap and water after exposure and before eating or smoking. Launder exposed clothing before reuse. Do not allow reentry to treated areas until dust has settled and the turf grass or soil is dry.

USE INFORMATION

WHERE TO USE

Barricade 4FL is a selective preemergence herbicide that provides residual control of many grass and broadleaf weeds in:

- established turfgrasses (excluding golf course putting greens), lawns, and sod nurseries
- container, field-grown, and landscape ornamentals
- established perennial and wildflower plantings
- Christmas tree farms

HOW BARRICADE 4FL WORKS

Barricade 4FL controls susceptible weeds by preventing growth and development of newly germinated weeds. Weed control is most effective when Barricade 4FL is activated by at least 0.5 inch of rainfall or irrigation or shallow incorporation (1-2 inches) before weed seeds germinate and within 14 days following application.

WEED RESISTANCE MANAGEMENT

PRODIAMINE	GROUP	3	HERBICIDE
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For resistance management, Barricade 4FL is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to Barricade 4FL and other Group 3 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of Barricade 4FL or other Group 3 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.

continued...

- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Syngenta Crop Protection at 1-800-334-9481.

USE PRECAUTIONS AND RESTRICTIONS

1. Do not graze or feed livestock forage cut from areas treated with Barricade 4FL.
2. Follow all applicable directions, restrictions, and precautions on the labels of EPA-registered tank-mix partners.
3. Do not blend Barricade 4FL onto dry fertilizer or any other granular material.
4. **Chemigation:** Do not apply this product through any type of irrigation system unless instructed otherwise in this label.
5. Do not apply aerially.
6. Do not apply to golf course putting greens.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boomless Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift

MIXING AND APPLICATION PROCEDURES

MIXING BARRICADE 4FL ALONE

Barricade 4FL must be mixed thoroughly in the spray tank to ensure uniform application. Follow these steps.

1. Fill the spray tank 1/4 full with clean water only.
2. Start agitation and check to ensure it is working properly.
3. For tank mixing instructions, refer to the section "Mixing Order for Tank Mixtures."
4. Maintain vigorous agitation in the spray tank before and during the application. This will ensure a well-mixed spray suspension. If Barricade 4FL was mixed with fertilizer in the spray tank, the fertilizer may aid resuspension of Barricade 4FL if agitation is disrupted. However, it is recommended that the entire tank be used before stopping agitation.
5. A spray colorant may be used with Barricade 4FL to mark areas as they are treated. This will improve application accuracy by minimizing swath skips and overlaps.
6. Thoroughly clean the sprayer after use by flushing the system with water containing a detergent.
7. Refer to the **Pesticide Disposal** section of this label for waste disposal. Do not allow spray suspension to dry in the tank.

TANK MIXING BARRICADE 4FL

Barricade 4FL may be tank mixed with certain other EPA-registered herbicides to provide a broader spectrum of weed control or to control emerged weeds. Refer to the specific directions for use for tank-mix partners, and refer to the label(s) of the individual tank-mix partner(s) for use rate, application timing, weeds controlled, and specific precautions and/or restrictions. Tank mixes are permitted only in states where the tank-mix partner(s) are registered for the application site and the turf and ornamental species listed. When using Barricade 4FL in a tank mixture with other pesticides, follow restrictions and precautions on the labels of the products used.

Before tank mixing pesticides, test compatibility by mixing the products in a small container first. See the **Compatibility Test** section.

COMPATIBILITY TEST

Before mixing Barricade 4FL with other pesticides in the spray tank, test for compatibility by mixing all components (carrier and pesticide products) in an appropriate container in proportionate quantities. For example, 1 qt would be 1/100 the volume of a

25 gal/A spray rate. At 1.0 lb/A, the Barricade 4FL rate would be proportional to 6 ml per quart. Add approximately 1 teaspoon to a quart of water. (See following table.)

**Amount of Component to Add to One Quart of Spray Carrier
(Assuming Carrier Volume of 25 gal/A)**

Component Formulations	Rate Per		Level Teaspoons
	Acre	1,000 sq ft	
Barricade 4FL	21.0 oz	0.5 oz	1.0
Dry Tank-Mix Partners	1.0 lb	0.4 oz	1.5
Liquid Tank-Mix Partners	1.0 pt	0.4 oz	0.5

If components do not ball-up or form flakes, sludge, gels, oily films, or layers, then the mixture is compatible. Let the mixture stand for 15 minutes. Incompatibility will usually occur within 5 minutes after mixing. If components are not compatible, use a compatibility agent and rerun the test to determine if the mixture is suitable. If the components are still not compatible, do not tank mix.

MIXING ORDER FOR TANK MIXTURES

Notes: (1) When mixing Barricade 4FL with other components (carrier and partner pesticide products), allow products to completely dissolve between steps. (2) Maintain agitation throughout mixing and application of the mixture.

Add the products to the spray tank in the following order:

1. Add products packaged in water-soluble bags first. Agitate the tank mixture. Allow the water-soluble bags to completely dissolve and the products to disperse before adding any other tank-mix partners.
2. Then add water-dispersible granules (WDG or WG formulations) and wettable powders (WP formulations). Add wettable powders to the tank as agitation continues. Allow the product to disperse completely before other products are added.
3. Add spray adjuvants and spray markers. Read the adjuvant's label first and use only those adjuvants approved for application to turf and ornamentals.
4. Add Barricade 4FL, other flowable liquids (FL) or suspension concentrates (SC).
5. Add emulsifiable concentrates (EC) last.

APPLICATION

Apply Barricade 4FL in a minimum of 20 gal/A (0.5 gal/1,000 sq ft) of carrier (water and/or fluid fertilizer) using a calibrated, low-pressure sprayer with 50-mesh or coarser screens. A broadcast boom or handheld wand designed for herbicide or insecticide application will provide the best results. Select nozzle pressure and gallonage to provide complete coverage.

SPECIFIC USE DIRECTIONS

ESTABLISHED TURF

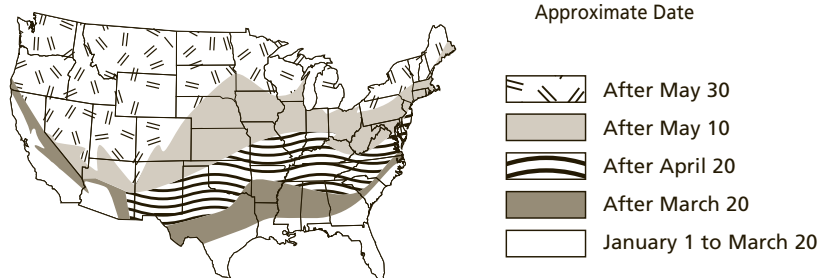
Barricade 4FL is a selective preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turfgrasses including:

- Golf courses **excluding** putting greens
- Lawns
- Sod nurseries

The maximum amount of Barricade 4FL that may be applied per year is given for each turfgrass species in the **Annual Use Rates** section of this label.

For optimum weed control, Barricade 4FL should be activated by at least 0.5 inch of rainfall or irrigation before weed seeds germinate and within 14 days following application. See the map below for approximate crabgrass seed germination dates.

Crabgrass Seed Germination Dates



Use Precautions and Restrictions - Turfgrass: Golf Courses, Lawns, and Sod Nurseries

1. Do not apply Barricade 4FL to areas where dichondra, colonial bentgrass, velvet bentgrass or annual bluegrass (*Poa annua*) are desirable species.

2. Do not cut (harvest) treated sod before 90 days after application. To avoid turfgrass injury, do not apply to newly set sod until the sod has rooted and exposed edges have filled in.
3. To avoid turfgrass injury do not apply Barricade 4FL to turf stressed by conditions such as drought, low fertility, or pest damage.
4. Disturbing the herbicide barrier with cultural practices such as disking may result in reduced weed control.
5. **Do not apply Barricade 4FL to golf course putting greens.**
6. If you consistently mow creeping bentgrass at a height of less than 0.5 inch do not apply Barricade 4FL.

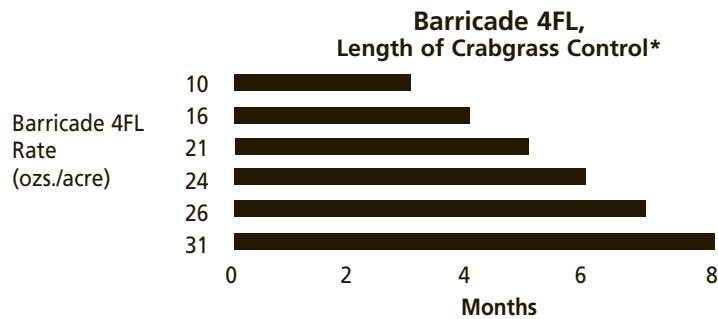
Application Timing And Rate - Turfgrass

Barricade 4FL may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications must be made before target weeds germinate because **Barricade 4FL will not control weeds that have already emerged.**

The amount of Barricade 4FL to apply depends upon:

1. the length of residual weed control desired (the higher the application rate, the longer the control),
2. the turf species,
3. the maximum amount which can be applied to the turf species per calendar year.

(See the next 2 tables.)



*Length of control varies by region. This table is an average.

Annual Use Rates - Turfgrass

Barricade 4FL can be applied to the turfgrass species listed in the following table. **Restriction:** Do not apply more than the highest rate listed for each species in a calendar year.

Maximum Application Rate of Barricade Per Calendar Year by Turf Species		
Turf Species	Oz. Product/A	Oz. Product/1,000 sq ft
Bermudagrass ² Bahia grass Centipedegrass Kikuyugrass Seashore Paspalum St. Augustinegrass ³ Tall Fescue (including turf-type) Zoysiagrass	21-48 ¹	0.5-1.1
Buffalograss Kentucky Bluegrass Perennial Ryegrass	10-30 ¹	0.23-0.70
Fine Fescue	10-24 ¹	0.23-0.55
Creeping Bentgrass (0.5 inch or more in height ⁴)	10-21 ¹	0.23-0.48

¹ Barricade 4FL may be applied more than once a year as long as the total amount applied is not greater than the maximum application rate for each turf species. All applications must be made before weed seeds germinate.

² May be used on newly sprigged or plugged bermudagrass at rates not to exceed 17 oz/A (0.39 oz/1,000 sq ft). Newly sprigged or plugged bermudagrass stolon rooting may be temporarily inhibited.

³ Use an initial rate of 16-32 oz/A per application.

⁴ To avoid grass injury, do not apply Barricade 4FL to creeping bentgrass mowed at less than 0.5 inch in height.

Weeds Controlled

When used as directed in this label, Barricade 4FL will control the following weeds:

Barnyardgrass	Kochia
Bluegrass, Annual (<i>Poa annua</i>) ¹	Lambsquarters, Common
Carpetweed	Lovegrass
Chickweed, Common ²	Panicum, (Texas, Fall, Browntop)
Chickweed, Mouseear (from seed)	Pigweed
Crabgrass (Large, Smooth) ³	Purslane, Common
Crowfootgrass	Pusley, Florida
Cupgrass, Woolly	Rescuegrass ⁴
Foxtails, Annual	Shepherdspurse ²
Goosegrass ⁵	Signalgrass, Broadleaf
Henbit ²	Speedwell, Persian
Itchgrass	Sprangletop
Johnsongrass (from seed)	Spurge, Prostrate
Junglerice	Witchgrass
Knotweed ²	Woodsorrel, Yellow (from seed)

¹ In those areas where *Poa annua* is a winter annual, apply Barricade 4FL (see rate table) in August or September to established, non-overseeded turf before *Poa annua* seeds germinate. These timings are approximate. Consult State Extension Service for more specific timing for your area. Also see the section of this label ***Poa annua* Control in Established Bermudagrass Overseeded with Perennial Ryegrass**

² To control this weed, apply Barricade 4FL in late summer, fall, or winter before weeds germinate.

³ **Fall Applications for Spring Crabgrass Control in Cool-Season Grasses:** In those areas where the ground freezes in the winter, Barricade 4FL can be applied in the fall at rates of 21-24 oz/A after soil temperatures fall below 50°F, but before the ground freezes. This application will control crabgrass the following spring.

⁴ Suppression only.

⁵ In many areas a single application of 21-48 oz/A of Barricade 4FL will control goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, weed control will be most effective by making an initial application of 21-26 oz/A followed by a second application 60-90 days later. **Note: Do not exceed the maximum rate for the turf species listed in the Maximum Application Rates Table.**

When to Apply Barricade 4FL After Overseeding Turf

Injury to desirable seedlings is likely if Barricade 4FL is applied before the secondary roots of seedlings are in the second inch of soil, not thatch plus soil. To reduce the potential to injure overseeded turf, wait 60 days after seeding or until after the second mowing, whichever is longer, before applying Barricade 4FL.

When to Overseed After Application - All States*

Barricade 4FL will inhibit the development of turfgrass species overseeded too soon after application. Follow rates and intervals in the table below for best overseeding/reseeding results.

*Note: See exceptions for *Poa annua* Control in Established Bermudagrass Overseeded with Perennial Ryegrass below.

Amount of Barricade 4FL Oz Product/A	Interval (Months Before Overseeding)*		
	North	Transition	South
16	4	4	4
21	5	4	4
24	6	5	5
26	---	6	6
31	---	7	7
36	---	---	9
42	---	---	10
48	---	---	12

***Poa annua* Control in Established Bermudagrass Overseeded with Perennial Ryegrass (Arizona, California, Nevada and Texas Only)**

Use on golf courses (excluding golf course putting greens), lawns, and sod nurseries when overseeding with perennial rye grass. (Minimum seeding rate of 350 lb/A)

How Much Barricade 4FL and When to Apply

Amount to Apply	When to Apply	Expected Control	Use Precautions and Restrictions
12-21 oz/A	<p>6-8 weeks before ryegrass overseeding</p> <p>second application: 4-8 weeks after overseeding or when perennial ryegrass roots are in the second inch of soil</p>	<p>1 application for 70% or greater control of <i>Poa annua</i></p> <p>second application may enhance control</p>	<ol style="list-style-type: none"> 1. Some seedling mortality and temporary reduction in root growth of new seedlings may occur. 2. To reduce the potential for seedling mortality maintain a moist seedbed with light, frequent irrigation. 3. Make no more than 2 applications per year for this use, and do not exceed a total of 27 oz/A per year. 4. Do not make a second application if any injury to the ryegrass is observed after the first application. 5. Do not make a second application unless the product was first applied before overseeding.

Control of *Poa annua* in Perennial Ryegrass Overseedings (Alabama, Louisiana, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee Only)

Use on golf courses (excluding golf course putting greens) when overseeding with perennial rye grass only (minimum seeding rate of 350 lb/A.)

How Much Barricade 4FL and When to Apply

Amount to Apply	When to Apply	Expected Control	Use Precautions
12-21 oz/A	8-10 weeks before ryegrass overseeding	70% or greater	<p>Some seedling mortality and temporary reduction in root growth of new seedlings may occur.</p> <p>To reduce the potential for seedling mortality maintain a moist seedbed with light, frequent irrigation.</p> <p>To maximize seedling establishment, use lower rate and/or the maximum time interval before overseeding. To maximize <i>Poa annua</i> control, use higher rate and shorter time interval before overseeding.</p>

CONTAINER, FIELD-GROWN, AND LANDSCAPE ORNAMENTAL PLANTINGS (INCLUDING CHRISTMAS TREE FARMS)

Application, Timing, and Information

Barricade 4FL:

1. Will not control emerged weeds.
2. May be applied to newly-transplanted and established ornamentals as a broadcast or over-the-top spray.
3. Is most effective when applied to soil free of clods, weeds, and debris such as leaves and mulch.
4. Is most effective when the product is activated in the soil before weed seeds germinate and within 14 days after application.
5. Is activated when the treated area receives at least 0.5 inch of irrigation or rainfall, or shallow (1 to 2 inches) mechanical incorporation.

Use Precautions

To reduce injury potential:

1. Direct application of Barricade 4FL to rapidly growing tissue or buds may injure desirable plants. In the spring when buds are rapidly growing and expanding, over-the-top application of Barricade 4FL may injure new growth of desirable plants, however, these effects are temporary. To reduce the possibility of injury at this time, wait to apply Barricade 4FL over the top of newly emerged vegetation until it has hardened off, unless your experience indicates that the ornamental plant will not be injured by the over-the-top application.
2. After application immediately apply overhead irrigation to the foliage to wash Barricade 4FL from plant surfaces onto soil (watering the foliage of plants before application may improve the washing process).

Ornamental and Christmas Tree Farms - Application Sites and Instructions

Site	Application Instructions
Newly-Transplanted Container or Field Nursery Stock	<ol style="list-style-type: none">1. Delay application until soil has settled around transplants.2. Water transplants thoroughly before application.3. Apply after cuttings form roots and are established.4. To avoid inhibition of the tissue union, apply before budding/grafting or after buds/grafts have taken.
Established Container, Field Nursery Stock, or Landscape Plants	<ol style="list-style-type: none">1. Apply at any time as a broadcast, over-the-top, or directed spray.
Landscape (or Ornamental) Plantings	<ol style="list-style-type: none">1. Apply as a broadcast, over-the-top, or as a directed spray.2. Delay applications to newly transplanted ornamentals until soil has settled around transplants.
Bare Ground Application for Container Placement	<ol style="list-style-type: none">1. Apply to soil (including mulch, gravel, wood chips, or other permeable base) upon which containerized ornamentals are placed.2. After Barricade 4FL is applied, perform shallow cultivation or hand weeding only, to avoid disturbing the herbicide barrier.

continued...

Ornamental and Christmas Tree Farms - Application Sites and Instructions (continued)

Site	Application Instructions
In Shadehouses and Uncovered Polyhouses	1. After Barricade 4FL is applied, uncovered polyhouses must remain open for at least 7 days and ornamentals must receive 2 irrigations totaling at least 1/2 inch of water before covering.
Ornamental Bulbs and Perennial Wildflower Plantings	1. Barricade 4FL may be applied to bulbs or perennial wildflower species listed in the section. Apply before or after bulbs emerge but before bulbs bloom and weeds emerge. 2. In wildflowers, a postemergence herbicide labeled for wildflowers may be needed to control weeds that have already emerged.

How Much Barricade 4FL and When to Apply - Ornamentals

Amount to Apply (Broadcast)*	When to Apply	Comments/Instructions
21-48 oz/A or 0.5-1.1 oz/1,000 sq. ft.	In fall or spring before weeds germinate or after weeds are removed.	1. Use the higher rate for longer control. 2. Barricade 4FL may be applied more than once per year as long as the total amount of product applied does not exceed 48 oz/A per year.

*NOTE: For band application, calculate amount per acre:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{broadcast rate} = \text{amount to apply/acre of field}$$

Equivalent Measurements for Barricade 4FL

oz/A	oz/1,000 sq ft	Approximate Equivalent – Tablespoons/1,000 sq ft
21	0.5	1.0
31	0.7	1.5
42	1.0	2.0
48	1.1	2.25

Tank Mixtures for Use on Container, Field Grown and Landscape Ornamentals

Barricade 4FL may be tank mixed with other registered herbicides listed on this label to provide a broader spectrum of weed control or to control emerged weeds. Tank mixes with Barricade 4FL are for use only in states where the tank-mix partner(s), application site and intended use pattern are registered.

Follow the label directions of the tank-mix partner(s) for application rates, timing, weeds controlled, tolerant ornamentals, and specific use precautions and/or restrictions. Before combining a tank-mix partner in the spray tank, test for compatibility as described on this label.

Tank-Mix Partners for Barricade 4FL on Ornamentals

Product	Precautions/Instructions
Goal® (use on conifers only)	1. Mix with Barricade 4FL for postemergence control of certain broadleaf weeds including malva and filaree.
Gallery®, Princep®, Pennant Magnum®	1. See product labels for weed spectrum and tolerant ornamentals.

continued...

Tank Mix Partners for Barricade 4FL on Ornamentals (continued)

Product	Precautions/Instructions
Touchdown Pro®, Roundup® or other glyphosate-based products, Finale®	<ol style="list-style-type: none"> 1. These nonselective tank-mix herbicides control many emerged annual broadleaves and grasses. 2. Take extreme care to prevent tank mixtures with these partner products from contacting the foliage and stems of turfgrass, trees, shrubs, or other desirable vegetation because desirable vegetation may be severely injured or killed. Apply these tank mixtures as a directed spray and use a shield to prevent spray from contacting foliage of desirable plants. 3. Following instructions on the tank-mix partner's label, delay irrigation of the treated area to allow time for the herbicide to be absorbed by weed foliage.

Tolerant Ornamental Species

Barricade 4FL will not harm most trees, shrubs, vines and flowers. The species listed below in Table 1 are tolerant to Barricade. Barricade 4FL may be used for application, except in CA, to the species in Table 2. Barricade 4FL may be applied over the top of the listed species. The species that are not tolerant to Barricade when grown in containers are indicated.

When plants are under stress (such as heat, drought, or frost damage), some cultivars of listed plants may be sensitive to Barricade 4FL.

Table 1. Tolerant Ornamental Species - All States

Scientific name	Common name
<i>Abies</i> spp.	Fir species** (Balsam, Fraser, Noble, etc.)
<i>Acer palmatum</i>	Japanese Maple
<i>Acer platanoides</i>	Norway Maple***
<i>Acer saccharum</i>	Sugar maple**
<i>Achillea</i> spp.	Yarrow: King Edward
<i>Actinidia chinensis</i>	Kiwi*
<i>Agapanthus africanus</i>	Lily-of-the-Nile (African Lily)
<i>Agastache rupestris</i>	Sunset Hyssop
<i>Aquilegia</i> spp.	Aquilegia: Red and Gold
<i>Arctostaphylos densiflora</i>	Vine Hill Manzanita
<i>Arctotheca calendula</i>	Cape Weed
<i>Aristida stricta</i>	Wiregrass

Scientific name	Common name
<i>Artemisia</i> spp.	Wormwood; Silver Mound, Castle
<i>Aspidistra elatior</i>	Cast-iron plant
<i>Aucuba japonica</i>	Japanese Aucuba
<i>Begonia</i> spp.	Fibrous Begonia: Hardy Grandis
<i>Berberis gladwynensis</i>	Barberry
<i>Berberis julianae</i>	Wintergreen Barberry
<i>Berberis mentorensis</i>	Mentor Barberry
<i>Berberis thunbergii</i>	Japanese Barberry
<i>Berberis verruculosa</i>	Warty Barberry
<i>Brassica oleracea</i>	Wild Cabbage
<i>Buddleia</i> spp.	Butterfly-Bush, Dwarf Blue; Royal Red
<i>Buxus microphylla</i>	Japanese Boxwood
<i>Callistemon viminalis</i>	Weeping Bottlebrush
<i>Calluna vulgaris</i>	Scotch Heather
<i>Carpobrotus edulis</i>	Hottentot Fig (Ice Plant)
<i>Cassia artemisioides</i>	Feathery Cassia
<i>Ceanothus rigidus</i>	Wild Lilac
<i>Centaurea gymnocarpa</i>	Dusty Miller
<i>Chamaecyparis pisifera</i>	False Cypress
<i>Cleyera japonica</i>	Cleyera
<i>Citrus</i> spp.	Citrus species*
<i>Cornus alernifolia</i>	Pogoda Dogwood
<i>Cornus florida</i>	Flowering Dogwood
<i>Cornus stolonifera</i>	American Dogwood
<i>Cortaderia selloana</i>	Pampas Grass
<i>Cotoneaster apiculatus</i>	Cranberry Cotoneaster
<i>Cotoneaster buxifolius</i>	Cotoneaster
<i>Cotoneaster dammeri</i>	Bearberry Cotoneaster
<i>Cotoneaster glaucophylla</i>	Gray-leaf Cotoneaster
<i>Cotoneaster microphyllus</i>	Rockspray Cotoneaster
<i>Crataegus</i> spp.	Hawthorne

continued...

Table 1. Tolerant Ornamental Species - All States (continued)

Scientific name	Common name
<i>Cupressus sempervirens</i>	Italian Cypress
<i>Delosperma alba</i>	White Trailing Ice Plant
<i>Dendranthemum</i> spp.	Chrysanthemum
<i>Diascia intergerrima</i>	Twinspur
<i>Digitalis</i> spp.	Foxglove
<i>Dodonea viscosa</i>	Hop Bush
<i>Elaeagnus pungens</i>	Silverberry
<i>Euonymus fortunei</i>	Wintercreeper
<i>Euonymus japonica</i>	Japanese Spindle Tree (Evergreen Euonymus)
<i>Euonymus kiautschovicka</i>	Spreading Euonymus
<i>Euonymus macrophylla</i>	Euonymus
<i>Fatsia japonica</i>	Japanese Aralia
<i>Forsythia intermedia</i>	Border Forsythia
<i>Forsythia viridissima</i>	Greenstem Forsythia
<i>Gardenia jasminoides</i>	Gardenia, Cape-Jasmine
<i>Gladiolus</i> spp.	Gladiolus species**
<i>Gypsophila</i> spp.	Baby's Breath
<i>Hedera helix</i>	English Ivy
<i>Hemerocallis</i> spp.	Daylily: Aztec Gold, Stella De Oro, Tender Love
<i>Hibiscus</i>	Rose of Sharon**
<i>Hibiscus Rosa-sinensis</i>	Chinese Hibiscus**
<i>Hosta</i> spp.	Hosta, Plantain Lily (Fragrant)
<i>Ilex cornuta</i>	Chinese Holly**
<i>Ilex crenata</i>	Japanese Holly
<i>Ilex opaca</i>	American Holly
<i>Ilex pernyi</i>	Holly
<i>Ilex vomitoria</i>	Yaupon Holly
<i>Iris</i> spp.	Iris species**
<i>Jasminum nudiflorum</i>	Winter Jasmine
<i>Juniperus chinensis</i>	Chinese Juniper

Scientific name	Common name
<i>Juniperus conferta</i>	Shore Juniper
<i>Juniperus horizontalis</i>	Creeping Juniper
<i>Juglans</i> spp.	Walnut*
<i>Justicia brandegeana</i>	Shrimp Plant
<i>Lagerstromia indica</i>	Crape Myrtle
<i>Lantana</i> spp.	Lantana
<i>Leucanthemum maximum</i>	Shasta Daisy
<i>Ligustrum amurense</i>	Amur Privet
<i>Ligustrum japonicum</i>	Japanese Privet
<i>Ligustrum lucidum</i>	Glossy Privet (Wax-Leaf)
<i>Lilium</i> spp.	Lily: Jazz
<i>Liriope muscari</i>	Big Blue Lillyturf
<i>Liriope spicata</i>	Liriope, Creeping
<i>Lobelia erinus</i>	Lobelia
<i>Lonicera japonica</i>	Japanese Honeysuckle
<i>Lonicera tatarica</i>	Tatarian Honeysuckle
<i>Magnolia</i> spp.	Magnolia species**
<i>Maleophora luteola</i>	Ice Plant
<i>Malus</i> spp.	Crabapple*
<i>Nandina domestica</i>	Heavenly Bamboo
<i>Narcissus</i> spp.	Narcissus species**
<i>Nerium</i> spp.	Oleander
<i>Oenothera fruticosa</i>	Narrow-leaf primrose
<i>Oenothera pallid</i>	Pale Evening Primrose
<i>Olea europaea</i>	Olive*
<i>Ophiopogon japonicus</i>	Mondo Grass**
<i>Origanum libanoticum</i>	Origanum*
<i>Osteospermum fruticosum</i>	Trailing African Daisy
<i>Oxydendrum arboreum</i>	Sourwood
<i>Perovskia atriplicifolia</i>	Russian Sage
<i>Persea americana</i>	Avocado*

continued...

Table 1. Tolerant Ornamental Species - All States (continued)

Scientific name	Common name
<i>Photinia fraseri</i>	Frasier's Photinia (Redtip)
<i>Picea</i> spp.	Spruce species*** (Colorado Blue, Norway, etc.)
<i>Pieris compacta</i>	Andromeda
<i>Pieris japonica</i>	Lily-of-the-Valley Shrub
<i>Pinus brutia</i>	Calabrian Pine
<i>Pinus canariensis</i>	Canary Island Pine
<i>Pinus elliotii</i>	Slash Pine
<i>Pinus halepensis</i>	Aleppo Pine
<i>Pinus nigra</i>	Austrian Black Pine
<i>Pinus palustris</i>	Longleaf Pine
<i>Pinus radiata</i>	Monterey Pine
<i>Pinus strobus</i>	Eastern White Pine
<i>Pinus sylvestris</i>	Scotch Pine
<i>Pinus taeda</i>	Loblolly Pine
<i>Pinus thunbergiana</i>	Japanese Black Pine
<i>Pinus virginiana</i>	Virginia Pine
<i>Pistacia</i> spp.	Pistachio*
<i>Pittosporum rhombifolium</i>	Queensland Pittosporum
<i>Pittosporum tobira</i>	Japanese Pittosporum
<i>Podocarpus macrophyllus</i>	Japanese Yew
<i>Prunus laurocerasus</i>	English Laurel
<i>Prunus</i> spp.	Almond, Apricot, Nectarine, Peach, Plum and Prune*
<i>Pseudotsuga menziesii</i>	Douglas Fir***
<i>Pyracantha coccinea</i>	Firethorn Scarlet
<i>Pyracantha fortuneana</i>	Firethorn
<i>Pyracantha koidzumii</i>	Firethorn
<i>Pyrus</i> spp.	Bradford Pear spp.
<i>Quercus borealis</i>	Northern Red Oak

Scientific name	Common name
<i>Quercus rubra</i>	Oak species
<i>Raphiolepis indica</i>	Indian Hawthorne
<i>Rhamnus smithii</i>	Buckthorn
<i>Rhododendron</i> (including Azalea)	'Coral Bells' 'Formosa' 'Hino-crimson' 'PJM' 'Roseum Elegans'
<i>Rosa banksiae</i>	Lady Bank's Rose
<i>Rosmarinus officinalis</i>	Rosemary*
<i>Rumohra adiantiformis</i>	Leatherleaf Fern
<i>Ruscus hypophyllum</i>	Butcher's Broom
<i>Salvia daghestanica</i>	Sage*
<i>Santolina virens</i>	
<i>Sedum</i> spp.	Stonecrop
<i>Spirea japonica</i>	Spirea
<i>Syzygium paniculatum</i>	Japanese Boxcherry
<i>Tagetes</i> spp.	Marigold
<i>Trachelospermum jasminoides</i>	Star Jasmine
<i>Taxus cuspidata</i>	Japanese Yew
<i>Taxus media</i>	Yew
<i>Thuja occidentalis</i>	American Arborvitae
<i>Trachelospermum asiaticum</i>	Star Jasmine
<i>Tsuga canadensis</i>	Canada Hemlock
<i>Tulipa</i> spp.	Tulip species
<i>Viburnum japonicum</i>	Japanese Viburnum
<i>Viburnum lantana</i>	Wayfaring Tree
<i>Viburnum odoratissimum</i>	Sweet Viburnum
<i>Viburnum plicatum</i>	Japanese Snowball
<i>Viburnum rigidum</i>	Canary Island Viburnum
<i>Viburnum tinus</i>	Laurustinus

continued...

Table 1. Tolerant Ornamental Species - All States (continued)

Scientific name	Common name
<i>Viburnum trilobium</i>	Cranberry Bush
<i>Viburnum wrightii</i>	Leatherleaf Viburnum
<i>Vinca major</i>	Vinca
<i>Vinca minor</i>	Dwarf Periwinkle
<i>Viola x wittrockiana</i>	Pansy
<i>Vitis</i> spp.	Grape*
<i>Weigela florida</i>	Old Fashioned Weigela
<i>Yucca aloifolia</i>	Spanish Bayonet
<i>Yucca filamentosa</i>	Yucca, Adam's Needle
<i>Zauschneria californica</i>	California Fushia

*Do not use on food producing trees, vines, or plants.

**Not for use on container grown plants.

***Use on landscape ornamentals only.

Table 2. Tolerant Ornamental Species/Varieties - All States Except CA

Scientific name	Common name
<i>Abelia grandiflora</i>	Abelia: Sherwood
<i>Agapanthus orientalis</i>	
<i>Akebia quintata</i>	Five-Leaf or Chocolate Vine
<i>Allium cernuum</i>	Lady's Leek, Nodding Onion
<i>Anemone hybrida</i>	Japanese Anemone
<i>Aster</i> spp.	Aster: Bonny Blue, Purple Dome
<i>Aster X frikartii</i>	
<i>Athyrium filix-femina</i>	Lady Fern; Fern Lady
<i>Bergenia cordifolia</i>	
<i>Boltonia asteroides</i>	Snowbank
<i>Bougainvillea</i> spp.	Bougainvillea
<i>Callistemon citrinus</i>	Crimson Bottlebrush

Scientific name	Common name
<i>Campanula carpatica</i> <i>Campis X tagliabuana</i>	Tussock Bellflower; (White Clips) Trumpet Creeper, Trumpet Flower; Madame Galen
<i>Ceratostigma plumbaginoides</i> <i>Chrysanthemum nipponicum</i> <i>Coreopsis</i> spp. <i>Crocosmia</i> spp. <i>Delosperma</i> spp. <i>Delphinium</i> spp. <i>Dianthus deltooides</i> <i>Dianthus gratianopolitanus</i> <i>Echinacea purpurea</i> <i>Forsythia suspensa</i> <i>Gaillardia</i> spp. <i>Gaura</i> spp. <i>Gentiana dahurica</i> <i>Geranium cinereum</i> <i>Helianthemum</i> spp. <i>Heucherella</i> spp. <i>Hibiscus</i> spp. <i>Hosta sieboldiana</i> <i>Houttuynia cordata</i> var. <i>variegata</i> <i>Hydrangea macrophylla</i> <i>Inula ensifolia</i> <i>Iris ensata</i> <i>Iris siberica</i> <i>Juniperus davurica</i> <i>Lagerstromia indica x fauriei</i> <i>Lantana montevidensis</i> <i>Lavender</i> spp. <i>Leontopodium alpinum</i>	Coreopsis (Calliopsis): Early Sunrise, Moonbeam Lucifer Cooperi Pink Larkspur; Blue Elf Dianthus, Maiden Pinks 'Zing' Cheddar Pink Coneflower, Purple; Magnus Weeping Forsythia Gaillardia, Blanket Flower: 'Goblin' Gentian Cranesbill Sunrose Coral Bell; Bridget Bloom Mallow; Disco Belle White Hosta, 'Searsucker' Bigleaf Hydrangea Sword-Leaved Iris; Jodlesong Siberian Iris; Cabernet Parsoni Crape Myrtle; Tuscarora Weeping Lantana Lavender; Munstead Edelweiss

continued...

Table 2. Tolerant Ornamental Species/Varieties - All States Except CA (continued)

Scientific name	Common name
<i>Ligustrum sinense</i>	Chinese Privet; Variegata
<i>Liriope muscari</i> var. <i>variegata</i>	Liriope, Variegated
<i>Lobelia cardinalis</i>	Cardinal Flower, Indian Pink
<i>Loropetalum chinense</i>	Burgundy
<i>Lythrum</i> spp.	Loosestrife; Modern Pink
<i>Miscanthus sinensis</i>	Yaku Jima**, Silberfeder**
<i>Oenothera missouriensis</i>	Evening Primrose
<i>Osmanthus heterophyllus</i>	Osmanthus (False Holly): Gulf Tide
<i>Paeonia suffruticosa</i>	Tree Peony
<i>Pennisetum setaceum</i>	Fountain Grass (Dwarf)**
<i>Physostegia virginiana</i>	Dragonhead, False; Vivid
<i>Quercus shumardii</i>	Oak, Shumard's Red
<i>Raphiolepis umbellata</i>	Yedda Hawthorne
<i>Rhododendron</i> (including Azalea)	'Delaware Valley White' 'Flame Creeper' 'Girard Crimson' 'George L. Tabor' 'Wakeiebisu' 'White Gumpo'
<i>Rudbeckia</i> spp.	Black-Eyed Susan: Goldstrum
<i>Saxifraga</i> spp.	Saxifrage; Purple Dome
<i>Scabiosa</i> spp.	Pincushion Flower
<i>Sedum caudicola</i>	Stonecrop; Lidakense
<i>Sedum dasyphyllum</i>	Stonecrop
<i>Sedum spurium</i>	Stonecrop; Dragon's Blood
<i>Spiraea bumalda</i>	Spirea: Anthony Waterer
<i>Syzygium paniculatum</i>	Australian Brushcherry
<i>Teucrium</i> spp.	Germander
<i>Thalictrum dipterocarpum</i>	Meadow Rue
<i>Viburnum suspensum</i>	Arrowwood Viburnum

**Not for use on container grown plants.

NEW PLANTINGS, REPLANTING AND ROTATIONAL PLANTINGS

Nursery, landscape, or non-cropped land areas treated with Barricade 4FL should be rotated only to ornamental species listed on this label for 1 year following application unless the following test has shown species safety:

Before planting a species not listed on this label, it is recommended that several test strips of an indicator plant such as wheat, sorghum or corn be sown into the treated area. If the indicator plants germinate and grow normally to a height of 12 inches with normal root development, it is safe to plant.

In areas disturbed by new plantings or replanting of labeled species, it may be necessary to retreat exposed soil to maintain satisfactory weed control, but do not apply more than 48 oz/A per year.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage

For minor spills, leaks, or other accidental contamination, follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during clean up and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling [less than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of container in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Handling [Bulk/Mini-bulk]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Chemigation

Do not apply this product through any type of irrigation system unless instructed otherwise in this label.

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For non-emergency (e.g., current product information), call
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1139A-L10C 0121
4134921

PRODIAMINE | GROUP 3 | HERBICIDE



Herbicide

For selective preemergence control of grass and broadleaf weeds in:

- established turfgrasses (excluding golf course putting greens), lawns, and sod nurseries
- container, field-grown, and landscape ornamentals
- established perennial and wildflower plantings
- Christmas tree farms

Active Ingredient:
Prodiamine* 40.7%

Other Ingredients: 59.3%

Total: 100.0%

*CAS No. 29091-21-2

Barricade 4FL contains 4 pounds active ingredient per gallon.

EPA Reg. No. 100-1139

EPA Est. 70815-GA-002

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Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1139A-L10C 0121

4134921

1 gallon

Net Contents

KEEP OUT OF REACH OF CHILDREN. CAUTION

See additional precautionary statements and directions for use inside booklet.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions For Use section for information about this standard.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements of this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard for agricultural pesticides (40CFR part 170). The "WPS" applies when this product is used to produce agricultural plants on farms, forest or nurseries. Applicators and handlers should wear long-sleeved shirt, long pants, chemical resistant gloves, shoes with socks and protective eyewear. Thoroughly wash face and hands with soap and water after exposure and before eating or smoking. Launder exposed clothing before reuse. Do not allow reentry to treated areas until dust has settled and the turf grass or soil is dry.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: For minor spills, leaks, or other accidental contamination, follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during clean up and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of container in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Chemigation: Do not apply this product through any type of irrigation system unless instructed otherwise in this label.



KEEP OUT OF REACH OF CHILDREN.

CAUTION

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

May be harmful if swallowed, absorbed through skin, or inhaled. Avoid breathing vapor. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID

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

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

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER: For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call **1-800-888-8372**.

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, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not contaminate water when disposing of equipment wash water or rinsate.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

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Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

**SCP 1139A-L11C 0121
4134920**



BARRICADE 4FL

Version 2.2 Revision Date: 01/13/2022 SDS Number: S1363384383 This version replaces all previous versions.

SECTION 1. IDENTIFICATION

Product name : BARRICADE 4FL
Design code. : A12333G
Product Registration number : 100-1139

Manufacturer or supplier's details

Company name of supplier : Syngenta Crop Protection, LLC
Address : Post Office Box 18300
Greensboro NC 27419
United States of America (USA)

Telephone : 1 800 334 9481
Telefax : 1 336 632 2192

E-mail address : sds.requests@syngenta.com

Emergency telephone : 1 800 888 8372

Recommended use of the chemical and restrictions on use

Recommended use : Herbicide
Restrictions on use : General Use Pesticide

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
prodiamine	29091-21-2	40.7
propane-1,2-diol	57-55-6	>= 1 - < 5

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

BARRICADE 4FL

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- General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.
- If inhaled : Take the victim into fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control center immediately.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.
- Most important symptoms and effects, both acute and delayed : Nonspecific
No symptoms known or expected.
- Notes to physician : There is no specific antidote available.
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
or
Water spray
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting : As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
- Further information : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.
- Special protective equipment for fire-fighters : Wear full protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.

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- Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Clean contaminated surface thoroughly.
Clean with detergents. Avoid solvents.
Retain and dispose of contaminated wash water.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : No special protective measures against fire required.
Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
For personal protection see section 8.
- Conditions for safe storage : No special storage conditions required.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.
Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
prodiamine	29091-21-2	TWA	4 mg/m ³	Syngenta
propane-1,2-diol	57-55-6	TWA	10 mg/m ³	US WEEL

- Engineering measures** : THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.
The extent of these protection measures depends on the actual risks in use.
Maintain air concentrations below occupational exposure standards.
Where necessary, seek additional occupational hygiene advice.

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Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hand protection
- Remarks : No special protective equipment required.
- Eye protection : No special protective equipment required.
- Skin and body protection : No special protective equipment required.
Select skin and body protection based on the physical job requirements.
- Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.
-

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Color : yellow
- Odor : No data available
- Odor Threshold : No data available
- pH : 6.68
Concentration: 1 % w/v
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : 210.9 °F / 99.4 °C
Method: Pensky-Martens closed cup
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Upper explosion limit / Upper flammability limit : No data available
- Lower explosion limit / Lower flammability limit : No data available
- Vapor pressure : No data available
- Relative vapor density : No data available
-

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Density : 1.17 g/cm³

Solubility(ies)

 Water solubility : No data available

 Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

 Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : No decomposition if used as directed.

Incompatible materials : None known.

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Ingestion
Inhalation
Skin contact
Eye contact

Acute toxicity**Product:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Components:**prodiamine:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

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Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): > 0.256 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation**Product:**

Species : Rabbit
Result : No skin irritation

Components:**prodiamine:**

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation**Product:**

Species : Rabbit
Result : No eye irritation

Components:**prodiamine:**

Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitization**Product:**

Species : Guinea pig
Result : Did not cause sensitization on laboratory animals.

Components:**prodiamine:**

Species : Guinea pig
Result : Did not cause sensitization on laboratory animals.

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Germ cell mutagenicity

Components:

prodiamine:

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

prodiamine:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Components:

prodiamine:

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 91 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 12 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.113 mg/l
Exposure time: 72 h

EC10 (Raphidocelis subcapitata (freshwater green alga)): 0.011 mg/l
End point: Growth rate
Exposure time: 72 h

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Components:

prodiamine:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.829 mg/l
Exposure time: 96 h
- LC50 (Lepomis macrochirus (Bluegill sunfish)): > 0.552 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0.013 mg/l
Exposure time: 48 h
Remarks: Highest attainable concentration
- Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.004 mg/l
Exposure time: 96 h
- NOEC (Raphidocelis subcapitata (freshwater green alga)): 0.00045 mg/l
End point: Growth rate
Exposure time: 96 h
- ErC50 (Navicula pelliculosa (Freshwater diatom)): 0.0047 mg/l
Exposure time: 72 h
- NOEC (Navicula pelliculosa (Freshwater diatom)): 0.0027 mg/l
End point: Growth rate
Exposure time: 72 h
- M-Factor (Acute aquatic toxicity) : 100
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.012 mg/l
Exposure time: 87 d
Test Type: Early-life Stage
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.0066 mg/l
Exposure time: 21 d
- M-Factor (Chronic aquatic toxicity) : 100

Persistence and degradability

Components:

prodiamine:

- Biodegradability : Remarks: No data available
- Stability in water : Degradation half life: 3 - 15 d
Remarks: Product is not persistent.

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Bioaccumulative potential**Components:****prodiamine:**

Bioaccumulation : Remarks: Bioaccumulates

Mobility in soil**Components:****prodiamine:**

Distribution among environmental compartments : Remarks: immobile
Stability in soil : Dissipation time: 30 - 113 d
Percentage dissipation: 50 % (DT50)
Remarks: Product is not persistent.

Other adverse effects**Components:****prodiamine:**

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(PRODIAMINE)

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Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (PRODIAMINE)

Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964
Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PRODIAMINE)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Remarks : Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Caution

Harmful if inhaled.

Harmful if swallowed.

Harmful if absorbed through skin.

Avoid breathing vapors.

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Avoid contact with skin, eyes or clothing.
 Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
 Wash thoroughly with soap and water after handling.
 Remove and wash contaminated clothing before re-use.

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

dioxosilane	14808-60-7
1,4-dioxane	123-91-1

Pennsylvania Right To Know

water	7732-18-5
prodiamine	29091-21-2
propane-1,2-diol	57-55-6
orthophosphoric acid	7664-38-2
sodium hydroxide	1310-73-2

Maine Chemicals of High Concern

dioxosilane	14808-60-7
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Vermont Chemicals of High Concern

1,4-dioxane	123-91-1
-------------	----------

Washington Chemicals of High Concern

1,4-dioxane	123-91-1
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The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

BARRICADE 4FL

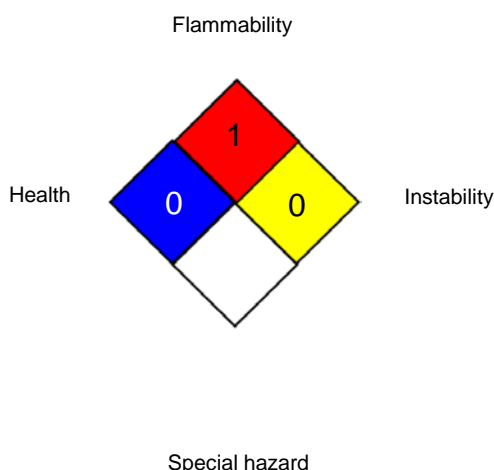
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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	/	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
 US WEEL / TWA : 8-hr TWA

AiIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative)

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tative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 01/13/2022

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / Z8

NOTICE

PESTICIDE APPLICATION



Target Pest:Click here to enter text.

Other Actions Attempted:Click here to enter text.

Area Treated:Click here to enter text.

Pesticide Name(s):Click here to enter text.

Active Ingredient:Click here to enter text.

Signal Word: **CAUTION/PRECAUTION**

EPA Number:Click here to enter text.

Re-Entry Period:Click here to enter text.

Integrated Pest Management Contact Info:Click here to enter text.

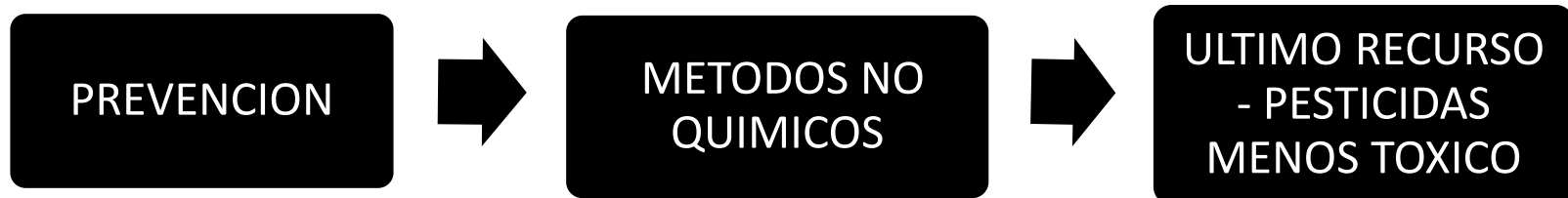
Date/Time of Application: BEFOREClick here to enter text.

Date Completed: Spray Postponed Until:Click here to enter text.



NOTIFICACION

APLICACION DE PESTICIDA



Organismo Dirigido:Click here to enter text.

Otras Acciones Tratadas:Click here to enter text.

Area Tratada:Click here to enter text.

Nombre de Pesticida(s):Click here to enter text.

Ingrediente Activo:Click here to enter text.

Señal: **Caucion/Precaucion**

Numero de EPA:Click here to enter text.

Periodo de Reingreso:Click here to enter text.

Persona encargada del Manejo de Pesticidas:Click here to enter text.

Fecha/Hora de Aplicacion: ANTES DE Click here to enter text.

Fecha de Culminacion:Click here to enter text.

