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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Jane M. Miller  
ProActive, LLC  
P.O. Box 5068  
Brookfield, CT 06804

AUG 5 2009

Dear Ms. Miller:

Subject: Pre-Amine 4 SC  
EPA Registration No. 74468-10  
Application and Letter Dated March 17, 2009, Request To Amend Registration by Adding an Alternate Confidential Statement of Formula (CSFs) Dated March 16, 2009, which Was Revised, Resubmitted and Dated July 7, 2009; and Application and Letter Dated March 20, 2009, Request To Update Storage and Disposal Directions, Warranty Statements and To Add New Use Sites: 1. Conifer Seedling Nurseries, 2. Non-Crop Areas Including Managed Rights-of-Way for Transportation Systems and Utilities Including Roadways, Roadsides, Railways, and Equipment Yards), 3. Facilities Including Substations, Tank Farms, Plumping Stations; Parking and Storage Areas, and Un-grazed Fence Rows, and 4. Plants Grown for Cut Foliage Production (Florida Only)

The Confidential Statements of Formula submitted on EPA Form 8570-4, and dated July 7, 2009 has been reviewed and found acceptable under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended. The revised CSF was filed with the record for this pesticide product registration. A copy of the product chemistry review of the new alternate CSF is enclosed for your records.

The proposed amended labeling submitted with your application dated March 20, 2009 has been reviewed and found acceptable under the FIFRA, as amended, provided that you:

1. Delete the claim "Product of India" on front panel, page 1 and on page 25. This claim is unacceptable as of this date there is no acceptable basis for this claim.
2. Delete the claim for the use site "plants grown for cut foliage production (Florida only)", the directions for this use-site are not on the labeling.

- 3. On page 4, preface the last statement under "CONDITIONS" by adding the phrase: "To the extent consistent with applicable Law".
- 4. On page 6, delete the heading "Chemigation" and the following statement that reads: "Do not apply this product through any type of irrigation system unless instructed otherwise in this labeling. The statement is redundant.
- 5. On page 7, in the last paragraph, replace the words "Refer" with the word "follow".
- 6. On page 9, add the word "Trufgrass" to the phrase: "ANNUAL USE Rates - Turfgrass"
- 7. On page 12, Under "Fall Applications for Spring Crabgrass Control in Cool-Season Grasses give dosage in fluid ounces of this product, not "ozs.IA".
- 8. Revise units of dosage to read: fluid Ounces (fl.ozs.) throughout this label
- 9. On page 11 and other pages, number all tables in this labeling consecutively, reference to tables starts on page 11.
- 10. On page 13, correct the typo error, i.e. "Ibs/A".
- 11. Submit one copy of the final printed labeling prior to shipping under the amended labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6(e). Your release for shipment of this product under the revised labeling constitutes acceptance of these conditions. A stamped copy of the accepted labeling is enclosed for your records.

Sincerely yours,

Joanne I. Miller  
 Product Manager (23)  
 Herbicide Branch  
 Registration Division (7505P)

Enclosures

Booklet

# PRE-AMINE 4SC

## Herbicide

For 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
- ✓ Conifer and hardwood seedling nurseries
- ✓ Established perennial and wildflower plantings
- ✓ Non-crop areas including managed rights-of-way for transportation systems and utilities (including roadways, roadsides, railways, and equipment yards)
- ✓ Facilities including substations, tank farms, pumping stations, parking and storage areas, and ungrazed fence rows
- ✓ Christmas tree farms
- ✓ Plants grown for cut foliage production (Florida only)

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:  
AUG 5 2009**  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

Active Ingredient:	
Prodiamine (CAS No. 29091-21-2).....	40.5%
Other Ingredients:.....	59.5%
<b>Total:</b>	<b>100.0%</b>

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PRE-AMINE 4SC 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. 74468-10

EPA Est. No. XXXX X-XX-XXX

Product of [China] [India]  
Formulated in the USA

Net Contents: \_\_\_ 1 gal. \_\_\_ 30 gals. \_\_\_ 110 gals.

<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious or convulsing person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	
<p><b>HOT LINE NUMBER</b>                      For 24 Hour Medical Emergency Assistance (Human or Animal) or                      Chemical Emergency Assistance (Spill, Leak, Fire, or Accident)                      Call  <b>1-800-222-1222</b></p>	

**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, 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.

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of liability before using this product.

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, because of manner of use and other factors beyond ProActive, LLC’s control it is impossible for ProActive, LLC to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, PROACTIVE, LLC MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of ProActive, LLC is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. ProActive, LLC disclaims any liability whatsoever for special, incidental or consequential damages, resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT PROACTIVE, LLC ELECTION, THE REPLACEMENT OF PRODUCT.

### 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

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container away from feed and foodstuffs and separated from other pesticides.

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 1-800-424-9300, 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 Disposal: Non-refillable containers.** Do not reuse or refill this container. Offer for recycling if available. Triple rinse (or equivalent) promptly after emptying.

**Non-refillable containers less than 5 gallons:** Triple rinse as follows: Empty the remaining contents into application equipment or a 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 a mix tank or store rinsate for later use or disposal. Drain for 10

seconds after the flow begins to drip. Repeat this procedure two more times.

**Non-refillable containers greater than 5 gallons:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows (all sizes):** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use for disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Chemigation**

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

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**GENERAL INFORMATION**

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**WHERE TO USE**

PRE-AMINE 4SC is a 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
- ✓ Conifer and hardwood seedling nurseries
- ✓ Non-crop areas including managed rights-of-way for transportation systems and utilities (including roadways, roadsides, railways, and equipment yards)
- ✓ Facilities including substations, tank farms, pumping stations, parking and storage areas, and ungrazed fence rows
- ✓ Established perennial and wildflower plantings
- ✓ Christmas tree farms
- ✓ Plants grown for cut foliage production (Florida only)

**HOW PRE-AMINE 4SC WORKS**

PRE-AMINE 4SC controls susceptible weeds by preventing growth and development of newly germinated weeds. Weed control is most effective when PRE-AMINE 4SC 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.



## USE PRECAUTIONS

1. Do not graze or feed livestock forage cut from areas treated with PRE-AMINE 4SC.
2. Follow all applicable directions, restrictions, and precautions on the labels of EPA-registered tank mix partners.
3. Do not blend PRE-AMINE 4SC 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.

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## MIXING AND APPLICATION PROCEDURES

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### MIXING PRE-AMINE 4SC ALONE

PRE-AMINE 4SC must be mixed thoroughly in the spray tank to ensure uniform application. Follow these steps.

1. Fill the spray tank  $\frac{1}{4}$  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 PRE-AMINE 4SC was mixed with fertilizer in the spray tank, the fertilizer may aid resuspension of PRE-AMINE 4SC 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 PRE-AMINE 4SC 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 PRE-AMINE 4SC

PRE-AMINE 4SC 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 PRE-AMINE 4SC in a tank mixture with other pesticides, follow restrictions and precautions on the labels of the products used.

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

**COMPATIBILITY TEST**

Before mixing PRE-AMINE 4SC 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 1/100th the volume of a 25 gals./A spray rate. At 1.0 lb./A, the PRE-AMINE 4SC 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 gals./A)**

Component Formulations	Rate Per		Level Teaspoons
	Acre	1,000 sq. ft.	
PRE-AMINE 4SC	21.0 ozs.	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 PRE-AMINE 4SC 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 PRE-AMINE 4SC, other flowable liquids (FL) or suspension concentrates (SC).
5. Add emulsifiable concentrates (EC) last.

### APPLICATION

Apply PRE-AMINE 4SC in a minimum of 20 gals./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.

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### SPECIFIC USE DIRECTIONS

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#### ESTABLISHED TURF

PRE-AMINE 4SC is a preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turfgrasses including:

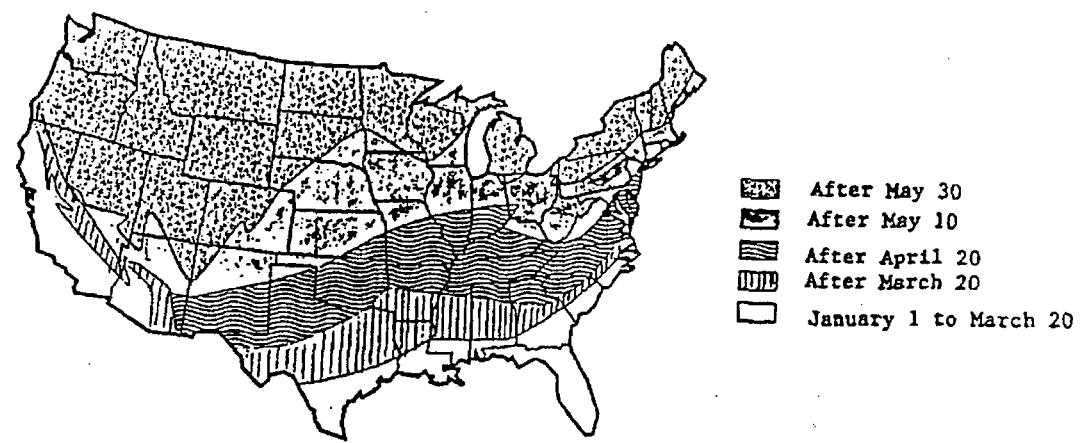
- Golf courses **excluding** putting greens
- Lawns
- Sod nurseries

The maximum amount of PRE-AMINE 4SC 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, PRE-AMINE 4SC 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

Approximate Date



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

1. Do not apply PRE-AMINE 4SC 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 PRE-AMINE 4SC 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 PRE-AMINE 4SC to golf course putting greens.**
6. If you consistently mow creeping bentgrass at a height of less than 0.5 inch do not apply PRE-AMINE 4SC.

**Application Timing And Rate - Turfgrass**

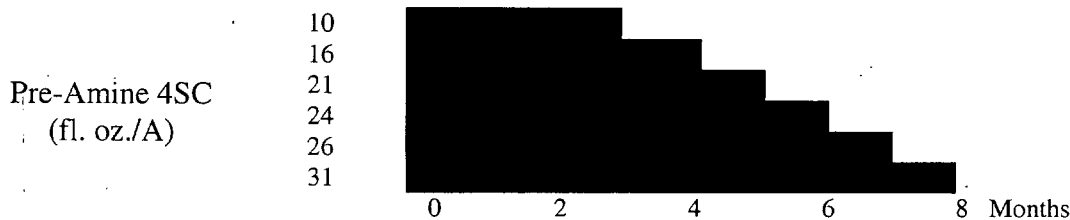
PRE-AMINE 4SC may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications must be made before target weeds germinate because **PRE-AMINE 4SC will not control weeds that have already emerged.**

The amount of PRE-AMINE 4SC 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 Crabgrass Control \*



\* Length of control varies by region. This table is an average for planning purposes.

**Annual Use Rates - Turfgrass**

PRE-AMINE 4SC can be applied to the turfgrass species listed in the following table.

**Note:** Do not apply more than the highest rate listed for each species in a calendar year.

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

<sup>1</sup> PRE-AMINE 4SC 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.

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

<sup>3</sup> Use an initial rate of 16-32 fl. ozs./A per application.

<sup>4</sup> To avoid grass injury, do not apply PRE-AMINE 4SC to creeping bentgrass mowed at less than 0.5 inch in height.

### Weeds Controlled

When used as directed in this label, PRE-AMINE 4SC will control the following weeds:

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

<sup>1</sup> In those areas where *Poa annua* is a winter annual, apply PRE-AMINE 4SC (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 (AZ, CA, NV, and TX Only)**

<sup>2</sup> To control this weed, apply PRE-AMINE 4SC in late summer, fall, or winter before weeds germinate.

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

<sup>4</sup> Suppression only.

<sup>5</sup> In many areas a single application of 21-48 ozs./A of PRE-AMINE 4SC 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 ozs./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 PRE-AMINE 4SC After Overseeding Turf

Injury to desirable seedlings is likely if PRE-AMINE 4SC 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 PRE-AMINE 4SC.

**When to Overseed After Application - All States**

PRE-AMINE 4SC 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: 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 Bermudagrass Overseeded with Perennial Ryegrass (AZ, CA, NV, and TX only).**

Amount of PRE-AMINE 4SC Fl. Ozs. 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 (AZ, CA, NV, and TX 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 lbs./A.)

**How Much PRE-AMINE 4SC and When to Apply**

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

\* The amount of PRE-AMINE 4SC to apply depends on: the length of residual control desired (the higher the application rate, the longer the control). **Note:** The higher the rate, the greater the potential for seedling mortality.

**ORNAMENTALS (CONTAINER, FIELD AND LANDSCAPE GROWN, INCLUDING CHRISTMAS TREE FARMS), RIGHTS-OF-WAY, GROUNDS OF UTILITIES, AND UNGRAZED FENCE ROWS**

PRE-AMINE 4SC may be applied to soil surfaces for preemergence control of many grass and broadleaf weeds:

- Around ornamental shrubs, trees, established perennial vegetation and wildflower plantings;
- On or surrounding managed rights-of-way for transportation systems including roadways, roadsides, railways, and equipment yards;
- On grounds of utilities such as power substations, tank farms, pumping stations, parking and storage areas;
- On ungrazed fence rows.

**Application, Timing, and Information**

**PRE-AMINE 4SC:**

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 PRE-AMINE 4SC 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 PRE-AMINE 4SC may injure new growth of desirable plants, however, these effects are temporary. To reduce the possibility of injury at this time, wait to apply PRE-AMINE 4SC 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 PRE-AMINE 4SC from plant surfaces onto soil (watering the foliage of plants before application may improve the washing process).

**Ornamentals and Christmas Tree Farms - Application Sites and Instructions**

Site	Application Instructions
Newly-Transplanted Container or Field Nursery Stock	<ol style="list-style-type: none"> <li>1. Delay application until soil has settled around transplants.</li> <li>2. Water transplants thoroughly before application.</li> <li>3. Apply after cuttings form roots and are established.</li> <li>4. To avoid inhibition of the tissue union, apply before budding/grafting or after buds/grafts have taken.</li> </ol>
Established Container, Field Nursery Stock, or Landscape Plants	<ol style="list-style-type: none"> <li>1. Apply at any time as a broadcast, over-the-top, or directed spray.</li> </ol>
Landscape (or Ornamental) Plantings	<ol style="list-style-type: none"> <li>1. Apply as a broadcast, over-the-top, or as a directed spray.</li> <li>2. Delay applications to newly transplanted ornamentals until soil has settled around transplants.</li> </ol>
Bare Ground Application For Container Placement	<ol style="list-style-type: none"> <li>1. Apply to soil (including mulch, gravel, wood chips, or other permeable base) upon which containerized ornamentals are placed.</li> <li>2. After PRE-AMINE 4SC is applied, perform shallow cultivation or hand weeding only, to avoid disturbing the herbicide barrier.</li> </ol>
In Shadehouses and Uncovered Polyhouses	<ol style="list-style-type: none"> <li>1. After PRE-AMINE 4SC is applied, uncovered polyhouses must remain open for at least 7 days and ornamentals must receive 2 irrigations totaling at least ½ inch of water before covering.</li> </ol>
Ornamental Bulbs and Perennial Wildflower Plantings	<ol style="list-style-type: none"> <li>1. PRE-AMINE 4SC 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.</li> <li>2. In wildflowers, a postemergence herbicide labeled for wildflowers may be needed to control weeds that have already emerged.</li> </ol>

**How Much PRE-AMINE 4SC and When to Apply – Ornamentals**

Amount to Apply (Broadcast)*	When to Apply	Comments/Instructions
21-48 fl. ozs./A or 0.5-1.1 fl. ozs./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. PRE-AMINE 4SC may be applied more than once per year as long as the total amount of product applied does not exceed 48 fl. ozs./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 PRE-AMINE 4SC**

Fl. Ozs./A	Fl. Ozs.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 Ornamentals**

PRE-AMINE 4SC 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 PRE-AMINE 4SC 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 partners) 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 PRE-AMINE 4SC on Ornamentals**

Product	Precautions/Instructions
Goal® (use on conifers only)	Mix with PRE-AMINE 4SC for postemergence control of certain broadleaf weeds including malva and filaree.
Gallery®, Princep® or other simazine-based products, Pennant Magnum®	See product labels for weed spectrum and tolerant ornamentals.
Touchdown Pro®, Roundup® or other glyphosate-based products, Finale®	<ol style="list-style-type: none"> <li>1. These nonselective tank mix herbicides control many emerged annual broadleaves and grasses.</li> <li>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.</li> <li>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.</li> </ol>

**Tolerant Ornamental Species**

The species listed below in Table 1 are tolerant to PRE-AMINE. PRE-AMINE 4SC may be used for application, except in CA, to the species in Table 2. PRE-AMINE 4SC may be applied over the top of the listed species. The species that are not tolerant to PRE-AMINE 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 PRE-AMINE 4SC.

**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>Actinidia chinensis</i>	Kiwi *

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

Scientific name	Common name
<i>Agapanthus africanus</i>	Lily-of-the-Nile (African Lily)
<i>Arctostaphylos densiflora</i>	Vine Hill Manzanita
<i>Arctotheca calendula</i>	Cape Weed
<i>Aucuba japonica</i>	Japanese Acuba
<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>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>Chamaecyparis pisifera</i>	False Cypress
<i>Cleyera japonica</i>	Cleyera
<i>Citrus</i> spp.	Citrus species *
<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 microphyllus</i>	Rockspray Cotoneaster
<i>Crataegus</i> spp.	Hawthorne
<i>Cupressus sempervirens</i>	Italian Cypress
<i>Delosperma alba</i>	White Trailing Ice Plant
<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>Fatsia japonica</i>	Japanese Aralia
<i>Forsythia intermedia</i>	Border Forsythia
<i>Forsytheia viridissima</i>	Greenstem Forsythia
<i>Gardenia jasminoides</i>	Gardenia, Cape-Jasmine
<i>Gladiolis</i> spp.	Gladiolis species **
<i>Hedera helix</i>	English Ivy
<i>Hibiscus</i> spp.	Rose of Sharon **
<i>Hibiscus Rosa-sinensis</i>	Chinese Hibiscus **
<i>Ilex cornuta</i>	Chinese Holly **

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

Scientific name	Common name
<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>Jasminium nudiflorum</i>	Winter Jasmine
<i>Juniperus chinensis</i>	Chinese Juniper
<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>Ligustrum amurense</i>	Amur Privet
<i>Ligustrum japonicum</i>	Japanese Privet
<i>Ligustrum lucidum</i>	Glossy Privet (Waxy-Leaf)
<i>Liriope muscari</i>	Big Blue Lillyturf
<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>Olea europaea</i>	Olive *
<i>Ophiopogon japonicus</i>	Mondo Grass **
<i>Osteospermum fruticosum</i>	Trailing Africa Daisy
<i>Oxydendrum arboreum</i>	Sourwood
<i>Persea americanum</i>	Avocado *
<i>Photinia fraseri</i>	Frasier's Photinia (Redtip)
<i>Picea</i> spp.	Spruce species ** (Colorado Blue, Norway, etc.)
<i>Pieris japonica</i>	Lily-of-the-Valley Shrub
<i>Pinus brutia</i>	Calabrian Pine
<i>Pinus canariensis</i>	Canary Island Pine
<i>Pinus elliottii</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

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

Scientific name	Common name
<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 species
<i>Quercus rubra</i>	Oak species
<i>Raphiolepis indica</i>	Indian Hawthorne
<i>Rhododendron</i> (including <i>Azalea</i> )	'Coral Bells' 'Formosa' 'Nino-crimson' 'PJM' 'Roseum Elegans'
<i>Rosa banksiae</i>	Lady Bank's Rose
<i>Rosmarinus officinalis</i>	Rosemary *
<i>Rumohra adiantiformis</i>	Leatherleaf Fern
<i>Santolina virens</i>	
<i>Sedum album</i>	Stonecrop
<i>Syzygium paniculatum</i>	Japanese Boxcherry
<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 odoratissimum</i>	Sweet Viburnum
<i>Viburnum plicatum</i>	Japanese Snowball
<i>Viburnum rigidum</i>	Canary Island Viburnum
<i>Viburnum tinus</i>	Laurustinus
<i>Viburnum trilobium</i>	Cranberry Bush
<i>Viburnum wrightii</i>	Leatherleaf Viburnum
<i>Vinca major</i>	Vinca

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

Scientific name	Common name
<i>Vinca minor</i>	Dwarf Periwinkle
<i>Vitis</i> spp.	Grape *
<i>Weigela florida</i>	Old Fashioned Weigela
<i>Yucca aloifolia</i>	Spanish Bayonet
<i>Yucca flamenfosa</i>	Yucca, Adam's Needle

\* Do not use on food producing trees, vines, or plants. \*\* Not for use on container grown plants.

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

Scientific name	Common name
<i>Abelia grandiflora</i>	Abelia: Sherwood
<i>Achillea</i> spp.	Yarrow: King Edward
<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>Aquilegia</i> spp.	Aquilegia: Red and Gold
<i>Artemisia</i> spp.	Wormwood: Silver Mound, Castle
<i>Aster</i> spp.	Aster: Bonny Blue, Purple Dome
<i>Aster X frikartii</i>	
<i>Athyrium filix-femina</i>	Lady Fern
<i>Begonia</i> spp.	Fibrous Begonia: Hardy Grandis
<i>Bergenia cordifolia</i>	
<i>Boltonia asteroides</i>	Snowbank
<i>Bougainvillea</i> spp.	Bougainvillea
<i>Buddleia davidii</i>	Butterfly Bush (Dwarf Blue); Royal Red
<i>Callistemon citrinus</i>	Crimson Bottlebrush
<i>Campanula carpatica</i>	Tussock Bellflower; (White Clips)
<i>Campis X taliabuana</i>	Trumpet Creeper, Trumpet Flower; Madam Galen
<i>Ceratostigma plumbaginoides</i>	
<i>Chrysanthemum nipponicum</i>	
<i>Coreopsis</i> spp.	Coreopsis (Calliopsis): Early Sunrise, Moonbeam
<i>Crocsmia</i> spp.	Lucifer
<i>Delosperma</i> spp.	Cooperi Pink
<i>Delphinium</i> spp.	Larkspur; Blue Elf
<i>Dianthus deltoides</i>	Dianthus, Maiden Pinks 'Zing'
<i>Dianthus gratianopolitanus</i>	Cheddar Pink
<i>Echinacea purpurea</i>	Coneflower, Purple; Magnus
<i>Forsythia suspensa</i>	Weeping Forsythia

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

Scientific name	Common name
<i>Gaillardia</i> spp.	Gaillardia, Blanket Flower: 'Goblin'
<i>Gaura</i> spp.	
<i>Gentiana dahurica</i>	
<i>Geranium cinereum</i>	Cranesbill
<i>Gypsophila repens</i>	Baby's Breath
<i>Helianthemum</i> spp.	Sunrose
<i>Hemerocallis</i> spp.	Daylily: Aztec Gold, Stella De Oro, Tender Love
<i>Heucherella</i> spp.	Coral Bell; Bridget Bloom
<i>Hibiscus</i> spp.	Mallow; Disco Bell White
<i>Hosta plantaginea</i>	Hosta, Plantain Lily (Fragrant)
<i>Hosta sieboldiana</i>	Hosta, 'Seersucker'
<i>Houttuynia cordata</i> var. <i>variegata</i>	
<i>Hydrangea macrophylla</i>	Bigleaf Hydrangea
<i>Inula ensifolia</i>	
<i>Iris ensata</i>	Sword-Leaved Iris; Jodlesong
<i>Iris siberica</i>	Siberian Iris; Cabernet
<i>Juniperus davurica</i>	Parsoni
<i>Lagerstromia indica</i> x <i>fauriei</i>	Crape Myrtle; Tuscarora
<i>Lantana montevidensis</i>	Weeping Lantana
<i>Lavender</i> spp.	Lavender; Munstead
<i>Leontopodium alpinum</i>	Edelweiss
<i>Ligustrum sinense</i>	Chinese Privet; Variegated
<i>Lilium</i> spp.	Lily: Jazz
<i>Liriope muscari</i> var. <i>variegata</i>	Liriope, Variegated
<i>Liriope spicata</i>	Liriope, Creeping
<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 missourensis</i>	Evening Primrose
<i>Osmanthus heterophyllus</i>	Osmanthus (False Holly): Gulf Tide
<i>Paeonia suffruticosa</i>	Tree Peony
<i>Pennisetum setaceum</i>	Fountaingrass (Dwarf) **
<i>Perovskia atriplicifolia</i>	
<i>Physostegia virginiana</i>	Dragonhead, False; Vivid
<i>Quercus shumardii</i>	Oak, Shumard's Red
<i>Raphiolepis umbellata</i>	Yedda Hawthorne



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

Scientific name	Common name
<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 ceuticola</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>Veronica</i> spp.	Veronica, Speedwell; Sunny Border
<i>Viburnum suspensum</i>	Arrowood Viburnum

\*\* Not for use on container grown plants.

### NEW PLANTINGS, REPLANTING AND ROTATIONAL PLANTINGS

Nursery, landscape, or non-cropped land areas treated with PRE-AMINE 4SC 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 fl. ozs./A per year.

### CHEMIGATION INSTRUCTIONS – OVERHEAD SPRINKLER IRRIGATION APPLICATION

- Apply this product only through an overhead sprinkler irrigation system. Do not apply this product through any other type of irrigation system.

- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result in non-uniform distribution of treated water. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.
- To avoid injury to foliage, make sure foliage is sufficiently wet before application or adequate irrigation is applied after application.
- If sprinkler distribution patterns overlap excessively, injury to leatherleaf ferns and other ornamentals may result.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to public water systems unless pesticide label-prescribed safety devices for public water systems are in place
- If necessary, a person knowledgeable of the chemigation system and responsible for its operation, or someone under the supervision of the responsible person, shall shut the system down and make necessary adjustments.

**Operation Instructions**

1. The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely effected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Prepare a mixture with a minimum of 20 parts of water and 1 part PRE-AMINE 4SC and inject this herbicide suspension mixture into the overhead system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
9. Before injecting PRE-AMINE 4SC into the system, run the irrigation system long enough to wet the foliage, then inject PRE-AMINE 4SC suspension mixture in the pesticide supply tank (see number 8 above) in 1 inch of irrigation water. After the application is complete, continue the irrigation until all residues are washed off the foliage.

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Finale® trademark of Bayer Environmental Science  
Goal® and Gallery® are trademarks of Dow AgroSciences  
Roundup® trademark of Monsanto Company

For non-emergency (e.g., current product information), call  
PROACTIVE, LLC at 1-203-740-1600.

Product of [China] [India]  
Formulated in the USA

Container Label

**PRE-AMINE® 4SC**  
**Herbicide**

For 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
- ✓ Conifer and hardwood seedling nurseries
- ✓ Established perennial and wildflower plantings
- ✓ Non-crop areas including managed rights-of-way for transportation systems and utilities (including roadways, roadsides, railways, and equipment yards)
- ✓ Facilities including substations, tank farms, pumping stations, parking and storage areas, and ungrazed fence rows
- ✓ Christmas tree farms
- ✓ Plants grown for cut foliage production (Florida only)

Active Ingredient:

Prodiamine (CAS No. 29091-21-2).....	40.5%
Other Ingredients:.....	59.5%
<hr/>	
Total:	100.0%

PRE-AMINE 4SC 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. 74468-10

EPA Est. No. XXXX

Product of China or India  
Formulated in the USA

Net Contents: \_\_\_1 gal. \_\_\_30 gals. \_\_\_110 gals.

Manufactured by:

PROACTIVE, LLC 115 Obtuse Hill Road, Brookfield, CT 06804

**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.

- 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

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**PRECAUTIONARY STATEMENTS**

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**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.

<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious or convulsing person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or Clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p><b>HOT LINE NUMBER</b></p> <p>For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident)</p> <p>Call <b>1-800-222-1222</b></p>	

### **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.

### **Chemigation**

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

**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Store in original container away from feed and foodstuffs and separated from other pesticides.

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 1-800-424-9300, 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 Disposal: Non-refillable containers.** Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**Non-refillable containers less than 5 gallons:** Triple rinse as follows: Empty the remaining contents into application equipment or a 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 a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**Non-refillable containers greater than 5 gallons:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows (all sizes):** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use for disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Do not contaminate water, food, or feed by storage or disposal.

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of liability before using this product.

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, because of manner of use and other factors beyond ProActive, LLC's control it is impossible for ProActive, LLC to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

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