

81927-49

7/27/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D C 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Michael Kellogg
Alligare, LLC
c/o Pyxis Regulatory Consulting, Inc
4110 136th St NW
Gig Harbor, WA 98332

JUL 27 2012

Subject Label Notification, Per PR-Notice 98-10
 Alligare Prodiamine 4L
 EPA Reg No 81927-49
 Date Submitted April 26, 2012

Dear Mr Kellogg

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated April 26, 2011 for the product referenced above. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions regarding this letter, please contact Jasmine Branch at (703) 347-0351 or branch.jasmine@epa.gov

Sincerely,

A handwritten signature in black ink, appearing to read "Kathryn V Montague".

Kathryn Montague
Product Manager 23
Herbicide Branch
Registration Division (7505P)

2/27

Please read instructions on reverse before completing form

Form Approved, 4B No. 2070-0060, Approval expires 2-28-95



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

Application for Pesticide - Section I

1 Company/Product Number 81927 49	2 EPA Product Manager K Montague	3 Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4 Company/Product (Name) Alligare LLC / Alligare Prodiamine 4L	PM# 23	
5 Name and Address of Applicant (Include ZIP Code) Alligare LLC c/o Pyxis Regulatory Consulting Inc 4110 136th St NW Gig Harbor WA 98332 <input type="checkbox"/> Check if this is a new address	6 Expedited Review In accordance with FIFRA Section 3(c)(3) (b)(i) my product is similar or identical in composition and labeling to EPA Reg No _____ Product Name _____ NOTIFICATION JUL 27 2012	

Section - II

<input type="checkbox"/> Amendment Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> Me Too Application
<input checked="" type="checkbox"/> Notification Explain below	<input type="checkbox"/> Other Explain below

Explanation Use additional page(s) if necessary (For section I and Section II)

Notification of a minor label revision per PR Notice 98 10 to facilitate registration in the state of California. This notification is consistent with the provisions of PR Notice 98 10 and EPA regulations at 40 CFR 152.46 and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98 10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1 Material This Product Will Be Packaged In				2 Type of Container	
Child Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If Yes Unit Packaging wgt	No per container	If Yes Package wgt	No per container
3 Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4 Size(s) Retail Container 2.5 30 275 gallon		5 Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6 Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other _____	

Section - IV

1 Contact Point (Complete items directly below for identification of individual to be contacted if necessary to process this application)					
Name Michael Kellogg		Title Agent		Telephone No. (Include Area Code) (253) 853 7369	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					6 Date Application Received (Stamped) () () () () ()
2 Signature 		3 Title Agent			
4 Typed Name Michael Kellogg		5 Date 4/26/12			

3/27

NOTIFICATION

Alligare Prodiamine 4L

Herbicide

JUL 27 2012

A selective preemergence herbicide for 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) non-crop facilities including substations tank farms pumping stations parking and storage areas non-grazed fence rows Christmas tree farms and drainage ditches (California and Arizona only)

ACTIVE INGREDIENT

Prodiamine*

% BY WT

40.7%

OTHER INGREDIENTS

59.3%

TOTAL

100.0%

Contains 4 pounds prodiamine per gallon

*CAS No 29091-21-2

KEEP OUT OF REACH OF CHILDREN

CAUTION

Manufactured for

Alligare LLC

13 N 8th Street

Opelika AL 36801

EPA Reg No 81927-49

EPA Est No

NET CONTENTS ____ GAL(S)

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 to 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 by mouth-to-mouth if possible • Call a poison control center or doctor for further 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 to 20 minutes • Call a poison control center or doctor for treatment advice
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment For emergency information concerning this product call the National Pesticides Information Center (NPIC) at 1-800-858-7378 seven days a week 6 30 am to 4 30 pm Pacific Time or your poison control center at 1-800-222-1222	

**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 (PPE)

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) - 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 CONTROLS 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

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 (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, or nurseries.

Applicators and handlers should wear:

- Long-sleeved shirt
- Long pants
- Chemical-resistant gloves
- Shoes with socks
- 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.

PRODUCT INFORMATION

Formulation and Mode of Action

Alligare Prodiamine 4L is a liquid herbicide containing the active ingredient prodiamine, a member of the dinitroaniline family of herbicides. Each gallon contains 4 pounds active ingredient. Alligare Prodiamine 4L is used for pre-emergent control of grasses and broadleaf weeds. The active ingredient inhibits mitotic processes in plants and controls susceptible weeds by preventing growth and development of newly germinated weeds. Weed control is most effective when Alligare Prodiamine 4L is activated by at least 0.5 inches of rainfall or irrigation or shallow incorporation (1 to 2 inches for non-turf applications) before weed seeds germinate and within 14 days following application.

Uses and Application

Apply Alligare Prodiamine 4L for selective preemergence control of many grass and broadleaf weeds in the following areas: 1) established turfgrasses (excluding golf course putting greens), 2) lawns, and sod nurseries, 3) container, field-grown, and landscape ornamentals, 4) conifer and hardwood seedling nurseries, 5) established perennial and wildflower plantings, 6) non-crop areas including managed rights-of-way for transportation systems and utilities (such as roadways, roadsides, railways, and equipment yards), 7) non-crop facilities including substations, tank farms, pumping stations, parking and storage areas, 8) non-grazed fence rows, 9) Christmas tree farms, and 10) drainage ditches in only California and Arizona.

Apply Alligare Prodiamine 4L in a minimum of 20 gallons/acre (0.5 gallons / 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.

New Plantings, Replanting and Rotational Plantings

Rotate nursery, landscape or non-cropped land areas treated with Alligare Prodiamine 4L only to ornamental species listed on this label for 1 (one) year following application unless the following test has shown species safety.

- Before planting a species not listed on this label, sow several test strips of an indicator plant such as wheat, sorghum or corn 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 oz/acre per year.

MIXING ALLIGARE PRODIAMINE 4L

When Used Alone

Mix Alligare Prodiamine 4L thoroughly in the spray tank to ensure uniform application. Steps to follow when mixing Alligare Prodiamine 4L include:

1. Filling the spray tank 1/4 full with clean water only.
2. Starting the agitation system and checking to ensure it is working properly.
3. Maintaining vigorous agitation in the spray tank before and during the application to ensure a well-mixed spray suspension.
4. Adding a spray colorant with Alligare Prodiamine 4L to mark treated areas and improve application accuracy by minimizing swath skips and overlaps, and
5. After use, thoroughly clean the sprayer by flushing the system with water containing a detergent.

Refer to the **PESTICIDE DISPOSAL** section of this label for waste disposal. Do not allow spray suspension to dry in the tank. If Alligare Prodiamine 4L was mixed with fertilizer instead of water in the spray tank, the fertilizer aids in re-suspension of Alligare Prodiamine 4L if agitation is disrupted. However, use the entire tank before stopping agitation.

When Used in Tank Mixtures

Alligare Prodiamine 4L can be applied in tank-mixtures with certain other EPA-registered herbicides to provide a broader spectrum of weed control and/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 Alligare Prodiamine 4L in a tank mixture with other pesticides, follow restrictions and precautions on the labels of the products used.

When mixing Alligare Prodiamine 4L with other components (carrier and partner pesticide products), allow products to completely dissolve between steps and be sure to maintain agitation throughout mixing and application. When products are to be tank-mixed with Alligare Prodiamine 4L, add them to the spray tank in the following order:

1. Products packaged in water-soluble bags. 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. 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. Spray adjuvants and spray markers. Read the adjuvant's label first and use only those adjuvants approved for application to turf and ornamentals.
4. Alligare Prodiamine 4L, other flowable liquids (FL) or suspension concentrates (SC) must be added next.

5 Add emulsifiable concentrates (EC) last

Compatibility Testing

Before mixing Alligare Prodiamine 4L 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 quart would be 1/100 the volume of a 25 gallons/acre spray rate. At 1.0 pound/acre the Alligare Prodiamine 4L rate would be approximately 1 teaspoon to a quart of water (see Table 1)

Table 1 Amount of Component to Add to One Quart of Spray Carrier (Using Carrier Volume of 25 gallons/acre)

Component Formulations	Rate Per		Level Teaspoons
	Acre	1,000 sq ft	
Alligare Prodiamine 4L	21.0 fl oz	0.5 fl oz	1.0
Dry Tank-Mix Partners	1.0 lb	0.4 oz	1.5
Liquid Tank-Mix Partners	16 fl oz	0.4 fl 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.

PRODUCT USE RESTRICTIONS

- 1 Do not graze or feed livestock forage cut from areas treated with Alligare Prodiamine 4L.
- 2 Do not apply Alligare Prodiamine 4L to plants that will be consumed for food use.
- 3 Follow all applicable directions, restrictions, and precautions on the labels of EPA-registered tank-mix partners.
- 4 Do not blend Alligare Prodiamine 4L onto dry fertilizer or any other granular material.
- 5 **Chemigation** Do not apply this product through any type of irrigation system unless instructed otherwise in this label.
- 6 Do not apply aerially.
- 7 Do not apply to golf course putting greens.
- 8 Follow all use directions in this label. In all cases, do not exceed a dosage of 1.5 pounds active/acre (48 fl oz/acre) per year on any use site.

WEEDS CONTROLLED IN ESTABLISHED TURF AND ORNAMENTALS

When used as directed in this label for established turf and container, field grown and landscape ornamental plantings including Christmas tree farms, Alligare Prodiamine 4L will control the grass and broadleaf weeds listed in Table 2.

Table 2 Weeds Controlled by Alligare Prodiamine 4L in Established Turf, Container, Field-grown and Landscape Ornamental Plantings Including Christmas Tree Farms

<u>Common Name</u>	<u>Scientific Name</u>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Betony, Florida*	<i>Stachys flordans</i>
Bluegrass Annual ¹	<i>Poa annua</i>
Carpetweed	<i>Mollugo verticillata</i>
Chickweed, Common ²	<i>Stellaria media</i>
Chickweed, Mouseear (from seed)	<i>Cerastium vulgatum</i>
Crabgrass Large ³	<i>Digitaria sanguinalis</i>
Crabgrass Smooth ³	<i>Digitaria ischaemum</i>

Common Name**Scientific Name**

Crowfootgrass	<i>Dactyloctenium aegypticum</i>
Cupgrass Woolly	<i>Eriochloa villosa</i>
Foxtails Annual	<i>Setaria</i> spp
Goosegrass ⁵	<i>Eleusine indica</i>
Henbit ²	<i>Lamium amplexicaule</i>
Itchgrass	<i>Rottboellia cochinchinensis</i>
Jew Wandering ⁴	<i>Zebrian pendula</i>
Johnsongrass (from seed)	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Knotweed ²	<i>Polygonum</i> spp
Kochia	<i>Kochia scoparia</i>
Lambsquarters Common	<i>Chenopodium album</i>
Lovegrass	<i>Eragrostis</i> spp
Oxalis Buttercup*	<i>Oxalis pes-caprae</i>
Panicum Texas	<i>Panicum texanum</i>
Panicum Fall	<i>Panicum dichotomiflorum</i>
Panicum Browntop	<i>Panicum fasciculatum</i>
Pigweed	<i>Amaranthus</i> spp
Purslane Common	<i>Portulaca oleracea</i>
Pusley Florida	<i>Richardia scabra</i>
Rescuegrass ⁴	<i>Bromus catharticus</i>
Shepherdspurse ²	<i>Capsella bursa-pastoris</i>
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>
Speedwell Persian	<i>Veronica persica</i>
Sprangletop	<i>Leptochloa</i> spp
Spurge, Prostrate	<i>Chamaesyce humistrata</i>
Vetch Common*	<i>Vicia sativa</i>
Witchgrass	<i>Panicum capillare</i>
Woodsorrel Yellow (from seed)	<i>Oxalis stricta</i>

¹ In those areas where *Poa annua* is a winter annual, apply Alligare Prodiamine 4L in August or September to established non-overseeded turf before *Poa annua* seeds germinate (see **Table 4** for maximum use rates) 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)**

² To control this weed apply Alligare Prodiamine 4L 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 Alligare Prodiamine 4L can be applied in the fall at rates of 21-24 fl oz/acre 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 fl oz/acre of Alligare Prodiamine 4L 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 fl oz/acre followed by a second application 60-90 days later **Note Do not exceed** the maximum rate for the turf species listed in **Table 4 (Maximum Application Rate of Alligare Prodiamine 4L per Calendar Year by Turf Species)**

*Not for Use in California

SPECIFIC USE DIRECTIONS - ESTABLISHED TURF

Product Information

Alligare Prodiamine 4L 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 and sod nurseries. The maximum amount of Alligare Prodiamine 4L that can be applied per year is given for each turfgrass species in **Table 4** of this label.

For optimum weed control activate Alligare Prodiamine 4L with at least 0.5 inches of rainfall or irrigation before weed seeds germinate and within 14 days following application. See the map below for approximate crabgrass seed germination dates.

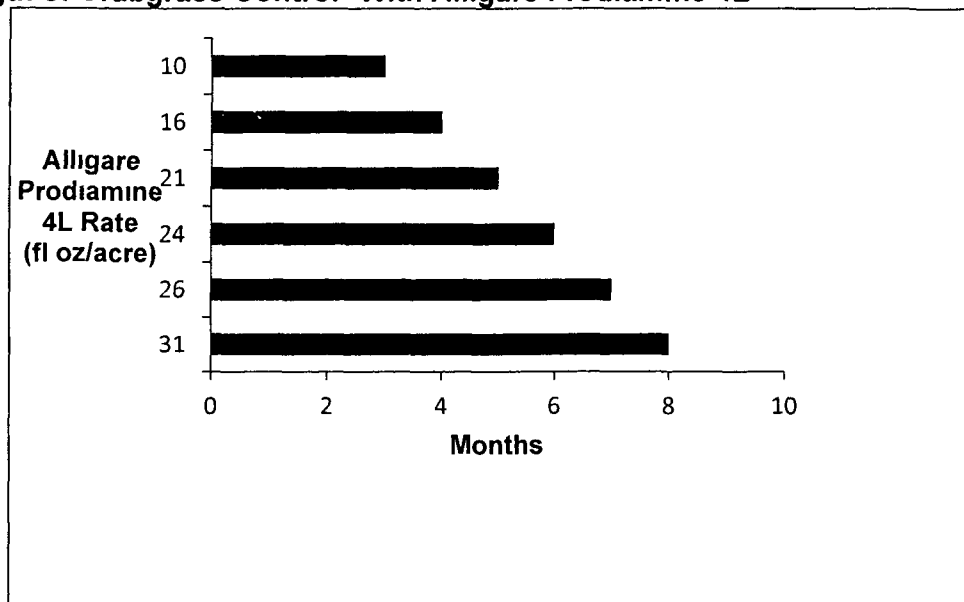
Crabgrass Seed Germination Dates



Timing and Method of Application to Turfgrass

Apply Alligare Prodiamine 4L 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 Alligare Prodiamine 4L will not control weeds that have already emerged. Apply Alligare Prodiamine 4L in a minimum of 20 gallons/acre (0.5 gallons/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.

The amount of Alligare Prodiamine 4L to apply depends upon the length of residual weed control desired (the higher the application rate the longer the control), the turf species, and the maximum amount which can be applied to the turf species per calendar year. Specific information is provided in **Table 3** and **Table 4**.

Table 3 Length of Crabgrass Control* With Alligare Prodiamine 4L

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

Dosage

Alligare Prodiamine 4L can be safely applied to the turfgrass species listed in **Table 4**. Do not exceed the highest rate listed for each species in a calendar year as injury can occur.

Table 4 Maximum Application Rate of Alligare Prodiamine 4L per Calendar Year by Turf Species

Turf Species	Fl oz Product/Acre ¹	Fl oz Product/1,000 sq ft ¹
Bermudagrass ²	21-48	0.5-1.1
Bahiagrass		
Centipedegrass		
Kikuyugrass		
Seashore Paspalum		
St. Augustinegrass ³		
Tall Fescue (including turf-type)		
Zoysiagrass		
Buffalograss	10-30	0.23-0.70
Kentucky Bluegrass		
Perennial Ryegrass		
Fine Fescue	10-24	0.23-0.55
Creeping Bentgrass (0.5 inch or more in height ⁴)	10-21	0.23-0.48

¹ Alligare Prodiamine 4L can 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 Alligare Prodiamine 4L can be used on newly sprigged or plugged bermudagrass at rates not to exceed 17 fl oz/acre (0.39 fl oz/1,000 sq ft). Newly sprigged or plugged bermudagrass stolon rooting can be temporarily inhibited.

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

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

When to Apply Alligare Prodiamine 4L after Overseeding Turf

Injury to desirable seedlings is likely if Alligare Prodiamine 4L 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 Alligare Prodiamine 4L.

When to Overseed After Application - All States

Alligare Prodiamine 4L will inhibit the development of turfgrass species overseeded too soon after application. Follow rates and intervals in **Table 5** for best overseeding/reseeding results.

Table 5 Waiting Interval before Overseeding Perennial Ryegrass Following Application of Alligare Prodiamine 4L

Amount of Alligare Prodiamine 4L Fl Oz Product/Acre	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

* 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 for additional information.

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 ryegrass. (Minimum seeding rate of 350 lbs/acre)

Table 6 Amount of Alligare Prodiamine 4L to Apply to Bermudagrass Overseeded with Perennial Ryegrass

Amount to Apply	When to Apply	Expected Control	Use Precautions
12-21 fl oz/acre*	6-8 weeks before ryegrass overseeding Second application 4-8 weeks after overseeding or when perennial ryegrass roots are in the second inch of soil	1 application for 70% or greater control of <i>Poa annua</i> Second application can enhance control	<ul style="list-style-type: none"> Some seedling mortality and temporary reduction in root growth of new seedlings can occur To reduce the potential for seedling mortality, maintain a moist seedbed with light, frequent irrigation Make no more than 2 applications per year for this use, and do not exceed a total of 27 fl oz/acre (0.85 pounds active/acre) per year Do not make a second application if any injury to the ryegrass is observed after the first application Do not make a second application unless the product was first applied

			before overseeding
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* The amount of Alligare Prodiamine 4L to apply depends upon 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

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

- 1 Do not apply Alligare Prodiamine 4L 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 Alligare Prodiamine 4L to turf stressed by conditions such as drought, low fertility, or pest damage
- 4 Disturbing the herbicide barrier with cultural practices such as disking can result in reduced weed control
- 5 **Do not apply Alligare Prodiamine 4L to golf course putting greens**
- 6 If the depth of the creeping bentgrass root system becomes shallow and root tips contact prodiamine-treated soil new root formation can be inhibited Mowing height can affect the depth of a plants root system To avoid this do not apply Alligare Prodiamine 4L to creeping bentgrass less than 0.5 inches in height

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

Product Information

Apply Alligare Prodiamine 4L to soil surfaces for preemergence control of many grass and broadleaf weeds around ornamental shrubs and trees, established perennial vegetation and wildflower plantings and Christmas tree farms (See **Table 2** for a list of weeds controlled)

Timing and Method of Application

Alligare Prodiamine 4L is a preemergence herbicide only and will not control emerged grass or broadleaf weeds It works best when applied to soil that is free of clods weeds and debris and is activated by at least 0.5 inches of irrigation or rainfall or shallow incorporation to a depth of 1 to 2 inches Weed control is improved if Alligare Prodiamine 4L is activated in the soil before weed seeds germinate and within 14 days after application Apply Alligare Prodiamine 4L to newly-transplanted and established ornamentals as a broadcast or over-the-top spray

Crop Tolerance

Direct application of Alligare Prodiamine 4L to rapidly growing tissue or buds can injure desirable plants In the spring when buds are rapidly growing and expanding, over-the-top application of Alligare Prodiamine 4L can injure new growth of desirable plants however these effects are temporary To reduce the possibility of injury at this time wait to apply Alligare Prodiamine 4L 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 After application, immediately apply overhead irrigation to the foliage to wash Alligare Prodiamine 4L from plant surfaces onto soil (watering the foliage of plants before application can improve the washing process)

Table 7 Amount of Alligare Prodiamine 4L to Apply to Container, Field Grown and Landscape Ornamental Plantings and Christmas Trees Farms

Amount to Apply (Broadcast)*	When to Apply	Comments/Instructions
21-48 fl oz/acre or 0.5-1.1 fl oz/1,000 sq ft	In fall or spring before weeds germinate or after weeds are removed	<ul style="list-style-type: none"> • Use the higher rate for longer control • Alligare Prodiamine 4L can be applied more than once per year as long as the total amount of product applied does not exceed 48 fl oz/acre (1.5 pounds active/acre) per year

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

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

Table 8 Equivalent Measurements for Alligare Prodiamine 4L

Fl oz/Acre	Fl 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

Table 9 Application Sites and Instructions for Alligare Prodiamine 4L Use on Container, Field Grown and Landscape Ornamental Plantings and Christmas Tree Farms

Site	Application Instructions
Newly-Transplanted Container or Field Nursery Stock	<ul style="list-style-type: none"> • Delay application until soil has settled around transplants • Water transplants thoroughly before application • Apply after cuttings form roots and are established • 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	<ul style="list-style-type: none"> • Apply at any time as a broadcast over-the-top, or directed spray
Landscape (or Ornamental) Plantings	<ul style="list-style-type: none"> • Apply as a broadcast over-the-top or as a directed spray • Delay applications to newly transplanted ornamentals until soil has settled around transplants
Bare Ground Application for Container Placement	<ul style="list-style-type: none"> • Apply to soil (including mulch, gravel, wood chips, or other permeable base) upon which containerized ornamentals are placed • After Alligare Prodiamine 4L is applied perform shallow cultivation or hand weeding only, to avoid disturbing the herbicide barrier
In Shadehouses and Uncovered Polyhouses	<ul style="list-style-type: none"> • After Alligare Prodiamine 4L is applied uncovered polyhouses must remain open for at least 7 days and ornamentals must receive 2 irrigations totaling at least 0.5 inches of water before covering

Site	Application Instructions
Ornamental Bulbs and Perennial Wildflower Plantings	<ul style="list-style-type: none"> Alligare Prodiamine 4L can be applied to bulbs or perennial wildflower species listed in Table 11 Tolerant Ornamental Species section. Apply before or after bulbs emerge but before bulbs bloom and weeds emerge. In wildflowers, a postemergence herbicide labeled for wildflowers may be needed to control weeds that have already emerged.

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

Tank mix Alligare Prodiamine 4L with other registered herbicides listed on this label to provide a broader spectrum of weed control or to control emerged weeds. Tank mixes with Alligare Prodiamine 4L 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 in the **Compatibility Testing** section of this label.

Table 10 Tank-Mix Partners for Alligare Prodiamine 4L Use on Container, Field Grown and Landscape Ornamental Plantings and Christmas Tree Farms

Product	Precautions/Instructions
Galigan [®] 2E (use on conifers only)	<ul style="list-style-type: none"> Mix with Alligare Prodiamine 4L for postemergence control of certain broadleaf weeds including malva and filaree.
Quali-Pro Isoxaben 75 WG [®] Princep [®] MANA Parallel	<ul style="list-style-type: none"> See product labels for weed spectrum and tolerant ornamentals.
Glyphogan [®] (or other glyphosate-based products) and Finale [®]	<ul style="list-style-type: none"> These nonselective tank mix herbicides control many emerged annual broadleaves and grasses. 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 could 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. 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

Alligare Prodiamine 4L will not harm trees, shrubs, vines, and flowers. The species listed below in **Table 11** are tolerant to Alligare Prodiamine 4L. Alligare Prodiamine 4L can be used for application to these species. Alligare Prodiamine 4L can be applied over the top of the listed species. The species that are not tolerant to Alligare Prodiamine 4L 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 Alligare Prodiamine 4L.

Table 11 Tolerant Ornamental Species**Scientific name**

*Abelia grandiflora*¹
Abies spp
Acer palmatum
Acer platanoides
Achillea spp ¹
*Actinidia chinensis**
Agapanthus africanus
*Agapanthus orientalis*¹
*Akebia quintata*¹
*Allium cernuum*¹
*Anemone hybrida*¹
Aquilegia spp ¹
Arctostaphylos densiflora
Arctotheca calendula
Aucuba japonica
Artemisia spp ¹
Aster spp ¹
*Athyrium filix-femina*¹
Begonia spp ¹
Berberis gladiolifolia
Berberis julianae
Berberis mentorensis
Berberis thunbergii
Berberis verruculosa
*Bergenia cordifolia*¹
*Boltonia asteroides*¹
Bougainvillea spp ¹
*Buddleia davidii*¹
Buxus microphylla
*Callistemon citrinus*¹
Callistemon viminalis
Calluna vulgaris
*Campanula carpatica*¹
*Campis X tagliabuana*¹

Carpobrotus edulis
Cassia artemisioides
Ceanothus rigidus
*Ceratostigma plumbaginoides*¹
Chamaecyparis pisifera
*Chrysanthemum nipponicum*¹
Cleyera japonica
Citrus spp *
Coreopsis spp ¹

Cornus spp
Cornus stolonifera
Cortaderia selloana

Common name

Abelia Sherwood
Fir species** (Balsam Fraser Noble etc)
Japanese Maple
Norway Maple
Yarrow King Edward
Kiwi*
Lily-of-the-Nile (African Lily)

Five-Leaf or Chocolate Vine
Lady s Leek Nodding Onion
Japanese Anemone
Columbine
Vine Hill Manzanita
Cape Weed
Japanese Aucuba
Wormwood Silver Mound Castle
Aster Bonny Blue Purple Dome
Lady Fern
Fibrous Begonia Hardy Grandis
Barberry
Wintergreen Barberry
Mentor Barberry
Japanese Barberry
Warty Barberry

Snowbank
Bougainvillea
Butterfly-Bush (Dwarf Blue) Royal Red
Japanese Boxwood
Crimson Bottlebrush
Weeping Bottlebrush
Scotch Heather
Tussock Bellflower (White Clips)
Trumpet Creeper Trumpet Flower Madame
Galen
Hottentot Fig (Ice Plant)
Feathery Cassia
Wild Lilac

False Cypress

Cleyera
Citrus species*
Coreopsis (Calliopsis) Early Sunrise
Moonbeam
Dogwood (Flowering & American)
American Dogwood
Pampas Grass

Scientific name

Cotoneaster apiculatus
Cotoneaster buxifolius
Cotoneaster dammeri
Cotoneaster microphyllus
Crataegus spp
Cupressus sempervirens
Crocosmia spp ⁻¹
Delosperma spp
Delphinium spp ⁻¹
*Dianthus deltoides*¹
*Dianthus gratianopolitanus*¹
Dodonea viscosa
*Echinacea purpurea*¹
Elaeagnus pungens
Euonymus fortunei
Euonymus japonica

Euonymus kiautschovicka
Fatsia japonica
Forsythia intermedia
*Forsythia suspensa*¹
Forsythia viridissima
Gaillardia spp ⁻¹
Gardenia jasminoides
Gaura spp ⁻¹
*Gentiana dahurica*¹
*Geranium cinereum*¹
Gladiolus spp **
*Gypsophila repens*¹
Hedera helix
Helianthemum spp ⁻¹
Hemerocallis spp ⁻¹

Heucherella spp ⁻¹
Hibiscus spp **
*Hibiscus Rosa-sinensis***
*Hosta plantaginea*¹
*Hosta sieboldiana*¹
Houttuynia cordata var *variegata*¹
*Hydrangea macrophylla*¹
*Ilex cornuta***
Ilex crenata
Ilex opaca
Ilex pernyi
Ilex vomitoria
Iris spp **
Jasminum nudiflorum
Juglans spp *
Juniperus chinensis
Juniperus conferta

Common name

Cranberry Cotoneaster
Cotoneaster
Bearberry Cotoneaster
Rockspray Cotoneaster
Hawthorne
Italian Cypress
Lucifer
Ice Plant
Larkspur Blue Elf
Dianthus Maiden Pinks 'Zing'
Cheddar Pink
Hop Bush
Coneflower Purple Magnus
Silverberry
Wintercreeper
Japanese Spindle Tree (Evergreen
Euonymus)
Spreading Euonymus
Japanese Aralia
Border Forsythia
Weeping Forsythia
Greenstem Forsythia
Gaillardia Blanket Flower 'Goblin'
Gardenia, Cape-Jasmine
Guara
Gentian
Cranesbill
Gladiolus species**
Baby's Breath
English Ivy
Sunrose
Daylily Aztec Gold Stella De Oro Tender
Love
Coral Bell, Bridget Bloom
Rose of Sharon**
Chinese Hibiscus**
Hosta Plantain Lily (Fragrant)
Hosta, 'Searsucker'

Bigleaf Hydrangea
Chinese Holly**
Japanese Holly
American Holly
Holly
Yaupon Holly
Iris species**
Winter Jasmine
Walnut*
Chinese Juniper
Shore Juniper

Scientific name

*Juniperus davuricae*¹
Juniperus horizontalis
Justicia brandegeana
Lagerstromia indica
*Lagerstromia indica and hybrids*¹
*Lantana montevidensis*¹
Lavender spp ¹
*Leontopodium alpinum*¹
Ligustrum amurense
Ligustrum japonicum
Ligustrum lucidum
*Ligustrum sinense*¹
Lilium spp ¹
Liriope muscari
*Liriope spicata*¹
*Lobelia cardinalis*¹
Lonicera japonica
Lonicera tatarica
*Loropetalum chinense*¹
Lythrum spp ¹
Magnolia spp **
Maleophora luteola
Malus spp *
Miscanthus sinensis^{**1}
Nandina domestica
Narcissus spp **
Nerium spp
*Oenothera missouriensis*¹
*Olea europaea**
*Ophiopogon japonicus***
*Osmanthus heterophyllus*¹
Osteospermum fruticosum
Oxydendrum arboreum
*Paeonia suffruticosa*¹
Pennisetum setaceum^{**1}
*Perovskia atriplicifolia*¹
*Persea americana**
Photinia fraseri
*Physostegia virginiana*¹
Picea spp **

Pieris japonica

Pinus brutia
Pinus canariensis
Pinus elliotii
Pinus halepensis
Pinus nigra
Pinus palustris
Pinus radiata

Common name

Parsoni
 Creeping Juniper
 Shrimp Plant
 Crape Myrtle
 Crape Myrtle
 Weeping Lantana
 Lavender Munstead
 Edelweiss
 Amur Privet
 Japanese Privet
 Glossy Privet (Wax-Leaf)
 Chinese Privet
 Lily
 Liriope Big Blue Lillyturf
 Liriope creeping
 Cardinal Flower Indian Pink
 Japanese Honeysuckle
 Tatarian Honeysuckle
 Loropetalum Burgundy
 Loosestrife, Modern Pink
 Magnolia species**
 Ice Plant
 Crabapple*
 Yaku Jima** Silberfeder**
 Heavenly Bamboo
 Narcissus species**
 Oleander
 Evening Primrose
 Olive*
 Mondo Grass**
 Osmanthus (False Holly) Gulf Tide
 Trailing African Daisy
 Sourwood
 Tree Peony
 Fountain Grass (Dwarf)**

 Avocado*
 Frasier's Photinia (Redtip)
 Dragonhead False Vivid
 Spruce species** (Colorado Blue Norway
 etc)
 Japanese Andromeda, Lily-of-the-Valley
 Shrub
 Calabrian Pine
 Canary Island Pine
 Slash Pine
 Aleppo Pine
 Austrian Black Pine
 Longleaf Pine
 Monterey Pine

Scientific name

Vinca minor
Vitis spp *
Weigela florida
Yucca aloifolia
Yucca filamentosa

Common name

Dwarf Periwinkle
 Grape*
 Old Fashioned Weigela
 Spanish Bayonet
 Yucca, Adam's Needle

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

**Not for use on container grown plants

¹Not for Use in California

Use Precautions - Container, Field-grown and Landscape Ornamental Plantings and Christmas Tree Farms

- 1 Do not exceed a dosage of Alligare Prodiamine 4L of 1 5 pounds active/acre (48 fl oz/acre) per year on any site
- 2 Disturbing the herbicide barrier with cultural practices such as disking harrowing and deep raking can result in reduced weed control

VEGETATION MANAGEMENT

Product Information

Apply Alligare Prodiamine 4L to soil surfaces for preemergence control of many grass and broadleaf weeds in non-crop areas including ornamentals (does not include container or field grown ornamentals) and established perennial and wildflower plantings on or surrounding non-crop areas such as managed rights-of-way for transportation systems and utilities (including roadways roadsides railways and equipment yards) and facilities including substations tank farms pumping stations parking and storage areas and non-grazed fence rows The best weed control occurs when the product is activated in the soil by 0 5 inch of irrigation or rainfall before weed seeds germinate and within 14 days after application

Timing and Method of Application

Alligare Prodiamine 4L is a preemergence herbicide only and will not control emerged grass or broadleaf weeds It works best when applied to soil that is free of clods weeds and debris and is activated by at least 0 5 inches of irrigation or rainfall or shallow incorporation to a depth of 1 to 2 inches Weed control is improved if Alligare Prodiamine 4L is activated in the soil before weed seeds germinate and within 14 days after application Apply Alligare Prodiamine 4L to newly-transplanted and established ornamentals as a broadcast or over-the-top spray

Crop Tolerance

Direct application of Alligare Prodiamine 4L to rapidly growing tissue or buds can injure desirable plants In the spring when buds are rapidly growing and expanding over-the-top application of Alligare Prodiamine 4L can injure new growth of desirable plants however these effects are temporary To reduce the possibility of injury at this time wait to apply Alligare Prodiamine 4L 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 After application, immediately apply overhead irrigation to the foliage to wash Alligare Prodiamine 4L from plant surfaces onto soil (watering the foliage of plants before application can improve the washing process)

WEEDS CONTROLLED - VEGETATION MANAGEMENT

When used as directed in this label for Vegetation Management Alligare Prodiamine 4L will control the grass and broadleaf weeds listed in **Table 12**

Table 12 Weeds Controlled by Alligare Prodiamine 4L Used in Vegetation Management

<u>Common Name</u>	<u>Scientific Name</u>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Betony Florida*	<i>Stachys flordana</i>
Bluegrass Annual ¹	<i>Poa annua</i>
Carpetweed	<i>Mollugo verticillata</i>
Chickweed, Common ¹	<i>Stellaria media</i>
Chickweed Mouseear (from seed)	<i>Cerastium vulgatum</i>
Crabgrass Large ³	<i>Digitaria sanguinalis</i>
Crabgrass Smooth ³	<i>Digitaria ischaemum</i>
Crowfootgrass	<i>Dactyloctenium aegyptium</i>
Cupgrass, Woolly	<i>Eriochloa villosa</i>
Foxtails Annual	<i>Setaria</i> spp
Goosegrass ³	<i>Eleusine indica</i>
Henbit ¹	<i>Lamium amplexicaule</i>
Itchgrass	<i>Rottboellia cochinchinensis</i>
Jew Wandering ²	<i>Zebrian pendual</i>
Johnsongrass (from seed)	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Knotweed ¹	<i>Polygonum</i> spp
Kochia	<i>Kochia scoparia</i>
Lambsquarters Common	<i>Chenopodium album</i>
Lovegrass	<i>Eragrostis</i> spp
Oxalis Buttercup*	<i>Oxalis pes-caprae</i>
Panicum, Texas	<i>Panicum texanum</i>
Panicum Fall	<i>Panicum dichotomiflorum</i>
Panicum Browntop	<i>Panicum fasciculatum</i>
Pigweed	<i>Amaranthus</i> spp
Purslane Common	<i>Portulaca oleracea</i>
Pusley Florida	<i>Richardia scabra</i>
Rescuegrass ²	<i>Bromus catharticus</i>
Shepherdspurse ¹	<i>Capsella bursa-pastoris</i>
Signalgrass Broadleaf	<i>Brachiaria platyphylla</i>
Speedwell Persian	<i>Veronica persica</i>
Sprangletop	<i>Leptochloa</i> spp
Spurge Prostrate	<i>Chamaesyce humistrata</i>
Vetch Common*	<i>Vicia sativa</i>
Witchgrass	<i>Panicum capillare</i>
Woodsorrel Yellow (from seed)	<i>Oxalis stricta</i>

¹ To control this weed apply Alligare Prodiamine 4L in late summer fall or winter before weeds germinate

² Suppression only

³ Make sequential applications as long as the total amount of product applied does not exceed 48 fl oz/acre per year To control weeds all applications must be made before weed seeds germinate

*Not for Use in California

Table 13 Amount of Alligare Prodiamine 4L to Apply in Vegetation Management

Amount to Apply (Broadcast)*	When to Apply	Comments/Instructions
21-48 fl oz/acre or 0.5-1.1 fl oz/1,000 sq ft	In fall or spring before weeds germinate or after weeds are removed	Use the higher rate for longer control. Alligare Prodiamine 4L can be applied more than once per year as long as the total amount of product applied does not exceed 48 fl oz/acre (1.5 pounds active/acre) per year.

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

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

Table 14 Equivalent Measurements for Alligare Prodiamine 4L

Fl oz/Acre	Fl 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

Table 15 Application Sites and Precautions for Alligare Prodiamine 4L Used in Vegetation Management

Site	Application Precautions
Ornamental Trees, Shrubs, Vines	<ul style="list-style-type: none"> Apply as a broadcast spray over-the-top or as a directed spray. Delay applications to newly transplanted ornamentals until soil has settled around transplants.
Ornamental Bulbs and Perennial Wildflower Plantings	<ul style="list-style-type: none"> Alligare Prodiamine 4L can be applied to bulbs or perennial wildflower species listed in the Tolerant Ornamental Species section (Table 11). Apply before or after bulbs emerge but before bulbs bloom and weeds emerge. In wildflowers, a postemergence herbicide labeled for wildflowers may be needed to control weeds that have already emerged.

Tank Mixtures for Use in Vegetation Management

Tank mix Alligare Prodiamine 4L with other registered herbicides listed on this label to provide a broader spectrum of weed control or to control emerged weeds. Tank mixes with Alligare Prodiamine 4L 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.

Table 16 Tank-Mix Partners for Alligare Prodiamine 4L Use in Vegetation Management

Product	Precautions/Instructions
Galigan 2E® (use on conifers only)	<ul style="list-style-type: none"> Mix with Alligare Prodiamine 4L for postemergence control of certain broadleaf weeds including malva and filaree
Quali-Pro Isoxaben 75 WG Princep® MANA Parallel	<ul style="list-style-type: none"> See product labels for weed spectrum and tolerant ornamentals
Glyphogan® (or other glyphosate-based products) and Finale®	<ul style="list-style-type: none"> These nonselective tank mix herbicides control many emerged annual broadleaves and grasses 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 might 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 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 - Vegetation Management

Alligare Prodiamine 4L will not harm trees shrubs vines and flowers The species listed above in **Table 11** are tolerant to Alligare Prodiamine 4L Alligare Prodiamine 4L can be used for application to these species Alligare Prodiamine 4L can be applied over the top of the listed species

When plants are under stress (such as heat drought or frost damage) some cultivars of listed plants may be sensitive to Alligare Prodiamine 4L

**VEGETATION MANAGEMENT – CONIFER AND HARDWOOD SEEDLING NURSERIES
(NON-ORNAMENTAL, FORESTRY USE ONLY)**

Product Information

Alligare Prodiamine 4L provides residual preemergence weed control in conifer and hardwood seedling nurseries The best weed control occurs when the product is activated in the soil by 0.5 inches of irrigation or rainfall before weed seeds germinate and within 14 days after application Apply Alligare Prodiamine 4L to conifer and hardwood seedling nurseries any time after the soil has settled around newly transplanted seedlings and liners

Table 17 Amount of Alligare Prodiamine 4L to Apply to Conifer and Hardwood Seedling Nurseries

Site	Application Rate	Timing	Comments/Instructions
Conifer and Hardwood Seedling Nurseries	21 - 48 fl oz/acre or 0.5-1.0 fl oz/1,000 sq ft	Apply in fall or spring before weed seeds germinate or after weeds are removed	Use higher rate range for longer control More than one application per year is permitted but do not apply more than 48 fl oz/acre (15 pounds active/acre) per year
Southern Pine Seedbeds	15.5 fl oz/acre or 0.4 fl oz/1,000 sq ft	Just after seeding and/or a minimum of 3 weeks after most seedlings have shed their seedcoat	To assist in the establishment of Southern pine seedbeds apply this product preemergence just after seeding pines Application after emergence of pine seedlings must not occur until 3 weeks after most seedlings have shed their seedcoat Mix this product with clean water

			and broadcast spray at 20 to 40 psi in a minimum of 20 gallons of water per treated acre After application sprinkler irrigate beds with approximately 0.5 inches of water
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Site	Application Rate	Timing	Comments/Instructions
Hardwood Seedbeds Oak (<i>Quercus</i> spp.) Sweetgum Green Ash	15.5-31 fl oz/acre Or 0.35-0.70 fl oz/1,000 sq ft	When seedlings are at least 6 weeks old (from time of 50% germination)	Use higher rate for longer control and when higher weed pressure is anticipated The lower rate will provide 2 to 3 months of weed control Broadcast to beds and apply approximately 0.5 inches of sprinkler irrigation afterwards

Tank Mixtures for Use in Conifer Seedling Nurseries

Tank mix Alligare Prodiamine 4L with other registered herbicides listed on this label to provide a broader spectrum of weed control or to control emerged weeds Tank mixes with Alligare Prodiamine 4L 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 See the **Compatibility Test** section

For Conifer Seedling Nurseries tank mix Alligare Prodiamine 4L only with oryzalin containing herbicides such as Galigan 2E® (for use on conifers only) Use this tank mix for postemergence control of certain broadleaf weeds including malva and filaree

VEGETATION MANAGEMENT - NON-CROP AREAS

Product Information

Apply Alligare Prodiamine 4L to soil surfaces for preemergence control of many grass and broadleaf weeds in non-crop areas including ornamentals (does not include container or field grown ornamentals) and established perennial and wildflower plantings on or surrounding non-crop areas as directed in **Table 18** The best weed control occurs when the product is activated in the soil by 0.5 inches of irrigation or rainfall before weed seeds germinate and within 14 days after application

Table 18 Amount of Alligare Prodiamine 4L to Apply to Non-Crop Areas for Control of Weeds Listed in Table 12

Site	Application Rate	Timing	Comments/Instructions
Non-crop areas including ornamentals on or surrounding managed rights-of-way for transportation systems and utilities (including roadways, roadsides railways and equipment yards) Facilities including substations, tank farms pumping stations parking	21 - 48 fl oz/acre or 0.5-1.0 fl oz/1,000 sq ft	Before weed seeds germinate	Use higher rate range for longer control More than one application per year is permitted but do not apply more than 48 fl oz/acre (1.5 pounds active/acre) per year

and storage areas and non-grazed fence rows			
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Tank Mixtures for Use in Non-Crop Areas

Tank mix Alligare Prodiamine 4L with other registered herbicides listed on this label to provide a broader spectrum of weed control or to control emerged weeds. Tank mixes with Alligare Prodiamine 4L 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. See the **Compatibility Testing** section of this label.

For non-crop areas, tank mix Alligare Prodiamine 4L with Glyphogan® (or other glyphosate-based products), Parazone 3SL® (or other paraquat-based products), Diuron 4L (or other diuron-based products), Oryzalin 4AS (or other oryzalin based products), Reward®, Predict®, Princep®, Vanquish®, Finale®, Quali-Pro Isoxaben 75 WG, Garlon®, Krovar® I and II, Oust®, Arsenal®, Spike®, and Telar®.

VEGETATION MANAGEMENT - FOR CONTROL OF CERTAIN WEEDS ON DRAINAGE DITCHES IN CALIFORNIA AND ARIZONA ONLY

For weed control in irrigation, drainage ditches, spreading grounds, channels, canals, and similar sites, apply 21 to 48 fl oz/acre of Alligare Prodiamine 4L for preemergent control of shallow germinating annual grasses and small seeded broadleaf weeds. Alligare Prodiamine 4L inhibits growth and development of newly germinated weed seeds. It will not control established vegetation. Higher rates of application provide for a longer control period. Sequential applications are allowed so long as the total amount of product applied does not exceed the maximum annual application of 48 fl oz/acre (1.5 pounds active/acre). Apply only when water is not present. For irrigation ditches, apply when ditch is not in use. To minimize movement of Alligare Prodiamine 4L with irrigation water and to activate product, it is essential that the herbicide be fixed in the soil by moisture. Apply before expected seasonal rainfall (if possible when soil in the ditch is still moist). Following treatment, if rainfall has not totaled at least 0.5 inches within 14 to 21 days, fill ditch with water and allow to stand for 48 hours, drain off any remaining water before using ditch.

For weed control in wastewater treatment facilities (Levees), apply 21 to 48 fl oz/acre of Alligare Prodiamine 4L for preemergent control of shallow germinating annual grasses and small seeded broadleaf weeds. Use the higher rate of application for longer control periods. Sequential applications are allowed so long as the total amount of product applied does not exceed the maximum annual application of 48 fl oz/acre (1.5 pounds active/acre). Applications can be made down to the water level. Do not apply to the water. Care must be taken not to allow overspray of the water or drift into the water.

Use Precautions - Vegetation Management

1. Do not exceed a dosage of Alligare Prodiamine 4L of 1.5 pounds active/acre (48 fl oz/acre) per year on any site.
2. Disturbing the herbicide barrier with cultural practices such as disking, harrowing and deep raking can result in reduced weed control.

CHEMIGATION INSTRUCTIONS - OVERHEAD SPRINKLER IRRIGATION APPLICATION

1. Apply this product only through an overhead sprinkler irrigation system. Do not apply this product through any other type of irrigation system.
2. 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.
3. To avoid injury to foliage, make sure foliage is sufficiently wet before application or adequate

irrigation is applied after application

- 4 If sprinkler distribution patterns overlap excessively injury to leatherleaf ferns and other ornamentals can result
- 5 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
- 6 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 Instruction

- 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 Alligare Prodiamine 4L 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 Alligare Prodiamine 4L into the system run the irrigation system long enough to wet the foliage then inject Alligare Prodiamine 4L 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

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

PESTICIDE DISPOSAL Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility

CONTAINER HANDLING

Nonrefillable Container (five gallons or less) Nonrefillable container Do not reuse or refill this container Offer for recycling if available Clean container promptly after emptying 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 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.

Nonrefillable Container (greater than five gallons) Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Clean container 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 or disposal. 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.

Refillable Container Refillable container. Refill this container with [common chemical name] only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. For final disposal, offer for recycling or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. For final disposal, offer for recycling or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

To the extent consistent with applicable law, upon purchase or use of this product, purchaser and user agree to the following terms:

Warranty Alligare, LLC (the Company) warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred to in the directions for use, subject to the exceptions noted below, which are beyond the Company's control. To the extent consistent with applicable law, the Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose. To the extent consistent with applicable law, no such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

Terms of Sale The Company's directions for use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. To the extent consistent with applicable law, all such risks are assumed by the user.

Limitation of Liability To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused the alleged loss, damage, injury or other claim. To the extent consistent with applicable law, under no circumstances shall the Company be liable for any special, indirect, incidental or

