

# Cavalcade® PQ

PRODIAMINE GROUP 3 HERBICIDE  
QUINCLORAC GROUP 4 HERBICIDE

Herbicide providing selective Post- and/or Pre-emergent control of problem grasses and broadleaf weeds in residential and nonresidential turfgrasses and other non-crop sites.

#### ACTIVE INGREDIENTS:

Prodiamine [N <sup>3</sup> ,N <sup>3</sup> -Di- <i>n</i> -propyl-2,4-dinitro-6-(trifluoromethyl)- <i>m</i> -phenylenediamine] .....	32.5%
Quinclorac [3,7-Dichloroquinoline-8-carboxylic acid, 3,7-Dichloro-8-quinolinecarboxylic acid] .....	32.5%

<b>OTHER INGREDIENTS:</b> .....	35.0%
<b>TOTAL:</b> .....	100.0%

## KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)

**FIRST AID: IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have affected person sip a glass of water if able to swallow. Do not induce vomiting unless told by a poison control center or doctor. Do not give anything by mouth to an unconscious person. **IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control center or doctor for treatment advice. **IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **Emergency phone numbers:** (800) 222-1222 Poison Control Center (human health), (800) 424-9300 CHEMTREC (transportation and spills)

See additional Precautionary Statements and Directions for Use inside booklet.

NET CONTENTS: 5 Pounds

MANUFACTURED FOR:

Advan LLC  
2525 Meridian Parkway  
Durham, NC 27713



**SIPCAM AGRO**  
USA, INC.

EPA Reg. No. 83070-9  
EPA Est. No. 60063-GA-1 (Lot No. begins with VL)  
EPA Est. No. 62171-MS-1 (Lot no. begins with OI)  
EPA Est. No. 37429-GA-1 (Lot No. begins with BT)  
EPA20210224 (9/21)

**READ THE LABEL  
CAREFULLY  
BEFORE OPENING  
THE CONTAINER**

HERBICIDE

5 lbs

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**Caution:** Causes moderate eye irritation. Avoid contact with eyes or clothing.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemically resistant to this product are listed below.

Mixers, loaders, applicators, and other handlers must wear:

- Protective eyewear (goggles or face shield),
- Long-sleeved shirt and long pants,
- Chemical resistant gloves, such as butyl rubber >14 mils, or neoprene rubber > 14 mils, or nitrile rubber >14 mils,
- 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/clothing separately from other laundry.

### **ENGINEERING CONTROLS STATEMENT**

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

### **USER SAFETY RECOMMENDATIONS**

Users should:

1. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **ENVIRONMENTAL HAZARDS**

Quinclorac has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Prodiamine 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.

Keep out of lakes, ponds, and streams. 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.

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

### **DIRECTIONS FOR USE**

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

Do NOT apply this product by air or through any type of irrigation equipment.

Advan LLC does not intend the use of this product in manufacturing, processing, or preparing custom blends with other products for application to turf.

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 specified area during application. For any requirement specific to your State or Tribe, consult the State or Tribal 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.

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, and water, is:

1. Coveralls
2. Chemical resistant gloves, such as butyl rubber >14 mils, or neoprene rubber > 14 mils, or nitrile rubber >14 mils
3. Shoes plus socks

### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in 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, nurseries, or greenhouses.

Professional applications to residential and nonresidential turf are not within the scope of the Worker Protection Standard.

Do not enter or allow others to enter the treated area until sprays have dried.

### **PRODUCT INFORMATION**

Cavalcade® PQ is a broadleaf and grassy weed herbicide that may be applied post-emergence or pre-emergence to residential and nonresidential turfgrasses and other non-crop sites (grounds or lawns around residential and commercial establishments, (multi-family dwellings, military, and other institutions, parks, airport grounds, school yards, picnic grounds, athletic fields, cemeteries, and golf courses (excluding golf course putting greens and collars)), road-sides, sod farms, managed transportation and utility rights-of-way, rail and equipment yards, and public utility facilities (substations, tank farms, pumping stations, parking/storage areas, un-grazed fencerows)).

### **HOW CAVALCADE® PQ WORKS**

**Pre-emergence Control:** Cavalcade® PQ controls susceptible weeds by preventing growth and development of newly germinated weed seeds. Weed control is most effective with Cavalcade® PQ when activated by at least 0.5 inches of rainfall, or irrigation, or shallow incorporation (1 to 2 inches) before weed seeds germinate and within 2-7 days following application. Cavalcade® PQ provides residual control of many grass and broadleaf weeds in:

- Established turfgrasses (excluding golf course putting greens and collars), lawns and sod nurseries;
- Managed transportation and utility rights-of-way, including rail and equipment yards, and public utility facilities (substations, tank farms, pumping stations, parking/storage areas, un-grazed fencerows).

**Post-emergent Control:** Cavalcade® PQ is absorbed by foliage and roots and trans-located throughout the plant. The control symptoms exhibited by broadleaf weeds include leaf and stem curl or twisting, and chlorosis. Susceptible grasses demonstrate stunting, chlorosis, and gradual reddening followed by necrosis and death. Apply Cavalcade® PQ to actively growing weeds as post-emergence broadcast or spot sprays using the rate, turf species, and growth stage indicated in Tables 1, 2 and 3.

## RESISTANCE MANAGEMENT

For resistance management, please note that this product contains both a Group 3 and a Group 4 herbicide. Any weed population may contain plants naturally resistant to Group 3 and/or Group 4 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed

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

- Rotate the use of this or other Group 4 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact your local Advan LLC representative.

## SPRAY DRIFT ADVISORIES

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

## IMPORTANCE OF DROPLET SIZE

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

### **Controlling Droplet Size – Ground Boom**

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

### **BOOM HEIGHT – Ground Boom**

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

### **SHIELDED SPRAYERS**

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

### **BOOMLESS GROUND APPLICATIONS**

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

### **HANDHELD TECHNOLOGY APPLICATIONS**

Take precautions to minimize spray drift.

### **TEMPERATURE AND HUMIDITY**

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

### **TEMPERATURE INVERSIONS**

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

### **WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **APPLICATION INFORMATION**

### **Additives in Spray Mix to Achieve Control:**

Methylated seed oil is the recommended adjuvant for post-emergence applications. Do not include additives when tank mixing with EC (Emulsifiable Concentrate) products as this may cause phytotoxicity. Consult your local Advan LLC representative or distributor for recommendations for your area. Other additives or adjuvants may be used such as DyneAmic<sup>®</sup>, Lescro Spreader Sticker<sup>®</sup>, LI-700<sup>®</sup>, Surf King Spreader<sup>®</sup>, Target Pro Spreader<sup>®</sup> or Thoroughbred<sup>®</sup>. However, under some environmental conditions some of these products may cause phytotoxicity or less than optimal efficacy.

### **Methylated Seed Oil Criteria:**

The methylated seed oil used as the adjuvant with Cavalcade<sup>®</sup> PQ must meet all the following criteria:

- be non-phytotoxic,
- contain only EPA-exempt ingredients,
- provide good mixing quality in the jar test, and
- be successful in local experience.

The exact composition of suitable products will vary, however, any methylated seed oil used should contain emulsifiers to provide good mixing. Use methylated seed oil at 0.55 oz/1000 sq. ft. (1.5 pts./A).

Adding adjuvants may cause slight leaf burn, but new growth is normal and turf vigor is not reduced. The potential for leaf burn is increased when relative humidity and temperature are high. Additional stress from low mowing heights may also increase the possibility of turf injury. Chelated iron or sprayable soluble nitrogen fertilizer will reduce a slight yellowing that may occur on some turfgrass species.

#### **AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR**

##### **Spot Applications:**

Post-emergence spot applications may be made to susceptible weeds in turfgrass that is tolerant to Cavalcade® PQ (see Tables 1 and 2). Apply 0.55 ounce of Cavalcade® PQ per 1,000 square feet (0.49 lb prodiamine and 0.49 lb quinclorac per acre) of treated area. Spray coverage should be uniform and complete.

##### **For use in New York by spot treatment only.**

**Spot treatment: Spray individual weeds only. Adjust the sprayer to course spray to minimize drift. Apply to the center of the weed and spray to lightly cover.**

##### **Mowing Information:**

Do not mow 2 days before or after applying Cavalcade® PQ to maximize weed control and minimize potential turf injury. Clippings from the first three mowings after treatment should be left on the treated area.

##### **Irrigation and Rainfall:**

If soil moisture is not sufficient prior to Cavalcade® PQ application, irrigation may improve weed control. For best results, do not water or irrigate for 24 hours after application. If rainfall does not occur within 2-7 days after application, irrigate the treated area to 0.5 inches. Do not irrigate to the point of run-off.

**MIXING INSTRUCTIONS FOR CAVALCADE® PQ:** Respective sections of this leaflet define recommended Cavalcade® PQ tank-mix treatments. If tank-mixing with products in PVA bags, always allow water soluble packets to dissolve before agitating.

##### **Mixing Order for Tank Mixtures:**

**Notes:** (1) When mixing Cavalcade® PQ with other components (carrier and partner pesticide products), allow products to completely dissolve between steps. This is key when tank mixing with ester formulations. (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 product to disperse before adding any other tank mix partner.
2. 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 Federally approved for application to turf and ornamentals.
4. Add flowable liquids (FL) or suspension concentrates (SC).
5. Add emulsifiable concentrates (EC) last.

##### **Ground Driven Sprayer:**

1. Begin with a clean spray tank. Fill tank one-half to three-quarters full with clean water.
2. Add Cavalcade® PQ alone.

When using Cavalcade® PQ alone, either premix (1 part product + 2 parts water) or slowly add Cavalcade® PQ to the partially filled tank while agitating until completely dispersed. Fill the remainder of the tank with water.

### 3. Cavalcade® PQ tank mixes

#### a. Wettable Powder Formulations

1. When using Cavalcade® PQ with a wettable powder formulation, add Cavalcade® PQ to the partially filled tank while agitating.
2. When Cavalcade® PQ is properly mixed add a slurry of the wettable powder (1 part WP + 2 parts water) slowly into the tank. Fill the remainder of the tank while agitating.

#### b. Flowable Formulations

1. When using Cavalcade® PQ with a flowable formulation, add Cavalcade® PQ to the partially-filled tank while agitating.
2. When Cavalcade® PQ is properly mixed, premix one part of the flowable with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating.

#### c. Emulsifiable Concentrate Formulations

1. When using Cavalcade® PQ with an emulsifiable concentrate formulation, add Cavalcade® PQ to the partially-filled tank while agitating.
2. When Cavalcade® PQ is properly mixed, premix one part of the emulsifiable concentrate with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating.

#### d. Dry Flowable (Water Dispersible Granule) Formulations

1. When using Cavalcade® PQ with a dry flowable formulation, add Cavalcade® PQ to the partially-filled tank while agitating.
2. When Cavalcade® PQ is properly mixed, premix one part of the dry flowable with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating.

4. MAINTAIN CONTINUOUS AGITATION WHILE ADDING HERBICIDES AND UNTIL SPRAYING IS COMPLETED. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to re-suspend the mixture before spraying is resumed. Continue agitation while spraying.

### **Backpack Sprayer:**

Begin with a clean spray tank. Fill the spray tank 1/2 full with clean water and add the required amount of Cavalcade® PQ to the sprayer. Cap sprayer and agitate to ensure mixing. Uncap sprayer and finish filling tank to desired level. Cap sprayer and agitate once again. During application it is desirable to agitate the mixture occasionally to ensure mixing. If the mixture is allowed to settle for any period of time, thorough agitation is essential to re-suspend the mixture before spraying is resumed.

### **Liquid Fertilizers:**

Prior to mixing, small quantities should always be tested using a simple jar test. Add the required amount of Cavalcade® PQ to half filled tank while agitating then add the fertilizer product. Complete filling spray tank to desired level.

## **COMPATIBILITY/JAR TEST FOR MIX COMPONENTS**

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint **of the label listed application** rate per acre.

1. Water: For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
2. Products in PVA bags: Cut an opening in the water-soluble PVA bag just large enough to use a teaspoon for measuring purposes. Use the opened water-soluble PVA bag first when preparing spray solution. Boron containing fertilizers can be incompatible with PVA material. Include PVA material if a boron fertilizer is intended to be used. Cap the jar and invert 10 cycles.
3. Water-dispersible products: (such as Cavalcade® PQ) (dry flowables, wettable powders, suspension concentrates, or suspoemulsions). Cap the jar and invert 10 cycles.
4. Water-soluble products: (such as Basagran® T/O) - Cap the jar and invert 10 cycles.
5. Emulsifiable concentrates: (methylated seed oil) - Cap the jar and invert 10 cycles.

6. Water-soluble additives: Cap the jar and invert 10 cycles.
7. Let the solution stand for 15 minutes.
8. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface nor thick (clabbered) texture. For WG or WP products, a fine precipitate that is easily re-suspended is normal; large non-dispersible particles (>300 microns) that precipitate on standing are a sign of tank mix incompatibility. Do not use any spray solution that could clog spray nozzles.

## RESTRICTIONS

- **DO NOT** apply more than 4.6 pounds of Cavalcade® PQ (1.50 lb prodiamine & 1.50 lb quinclorac) per acre (or 1.69 ounces per 1,000 square feet) in one year.
- For Ground Applications: **DO NOT** release spray at a height greater than 30 inches above the ground.
- For Aerial Applications: **DO NOT** release spray at a height greater than 10 feet above the crop canopy, unless a higher application height is required for reasons of pilot safety.
- Apply as a medium or coarser spray (ASABE 572).
- **DO NOT** graze or feed livestock forage cut from areas treated with Cavalcade® PQ.
- DO NOT apply to golf course putting greens and collars.
- DO NOT apply to fine fescue unless it is part of a seed blend.
- DO NOT apply to bahiagrass, carpetgrass, St. Augustinegrass, centipedegrass, dichondra, or lawns or turf where desirable clovers are present.
- DO NOT apply within 4 weeks after seedling emergence of Kentucky bluegrass, creeping bentgrass, fine fescue blends and perennial ryegrass.
- DO NOT apply to exposed feeder roots of trees or ornamentals. Be particularly careful within the drip line of trees and other ornamental species.
- DO NOT apply into any ornamental bed.
- DO NOT use clippings as mulch or compost around flowers, ornamentals, trees, or in vegetable gardens.
- DO NOT apply when wind speed is more than 10 mph as drift may cause damage or death of non-target area vegetation. DO NOT apply when conditions favor drift from target area.
- DO NOT use a lawn type sprayer with a fine mist spray, as wind drift is more likely to occur.
- DO NOT mist, spray, or pour spray solutions on or near vegetables, flowers, ornamentals, shrubs, trees, and other desirable plants, especially plants belonging to the Solanaceae family such as tomatoes, potatoes, eggplants, and bell peppers.
- DO NOT apply through any type of irrigation system.
- DO NOT apply aerially.
- DO NOT use to formulate or reformulate any other pesticide product which is not registered by EPA.
- **For use in New York by spot treatment only.**

## USE PRECAUTIONS - Turfgrass

- 1) DO NOT apply Cavalcade® PQ 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) DO NOT apply Cavalcade® PQ to turf stressed by conditions such as drought, low fertility, or pest damage.
  - 4) DO NOT disturb the pre-emergent herbicide barrier with cultural practices. Reduced weed control may result.
- Follow all applicable directions, restrictions, and precautions on the labels of EPA-registered tank mix partners. For best results, weeds should not be under stress from lack of water, excessive water, low fertility, mowing shock, excessive hot or cold temperatures, or injury from other herbicide applications.



## **SPRAYING INSTRUCTIONS FOR CAVALCADE® PQ**

Apply with properly calibrated ground equipment in sufficient water per acre to provide uniform spray distribution (at least 20 gallons of water per acre or at least 0.5 gallon per 1,000 sq. ft.). Low pressure (e.g., 20-40 psi) sprayers are recommended.

Maintain continuous agitation during spraying with good mechanical or bypass agitation. Nozzle screens must be no finer than 50 mesh (100 mesh is finer than 50 mesh). Check sprayer routinely to determine proper calibration. Flat fan, flood or cone nozzles may be used. Nozzles should be arranged to obtain uniform coverage of turf and weeds to be controlled. Boom height, nozzle selection, and pressure should be adjusted to provide uniform coverage and minimize spray drift.

Do not overlap applications that will increase rates above those listed on this label.

Do not apply when wind is greater than 10 mph, as drift to non-target areas may occur.

Procedure for Cleaning Spray Equipment:

Clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner, according to the manufacturer's directions, before and after applying this product.

## **TURFGRASS TANK-MIXES**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

To increase the spectrum of control of broadleaf weed species a tank mix with 2,4-D, triclopyr, MCPA, MCPP, products that are a mixture of 2,4-D, 2,4-D-p, and dicamba; or other broadleaf herbicides can be used. For sedge control, applications of Cavalcade® PQ with bentazone, imazaquin, or MSMA can be made.

Physical incompatibility, reduced weed control, or turf injury may result from mixing Cavalcade® PQ with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers.

Before tank-mixing a simple jar test is recommended to ensure compatibility of herbicides or other pesticide and/or additives (see Compatibility/Jar Test for Mix Components section on this label). Refer to EPA-registered labels for specific use directions, precautions, and limitations before tank mixing with Cavalcade® PQ and follow those that are most restrictive.

Tank mixes are permitted only in states where the tank mix partners(s) are registered for the application site and the turf and ornamental species listed. When using Cavalcade® PQ in a tank mixture with other pesticides, observe the most restrictive label limitations and precautions on the labels of the products used.

**Table 1. Post-emergent application of Cavalcade® PQ when used as directed on this label, will control the following weeds:**

Grasses controlled	Broadleaf weeds controlled	
Barnyardgrass	Bindweed, field	Medic, black
Crabgrass (Large and Smooth) <sup>1</sup>	Clover, hop	Morning glory
Foxtails, annual	Clover, red	Speedwell, common
Signalgrass, broadleaf <sup>2</sup>	Clover, white	Speedwell, slender
	Dandelion, common	Speedwell, thymeleaf
	Dollarweed	Violet, wild
	Geranium, Carolina	

1. Biotypes of large and smooth crabgrass in California have shown varied response to Cavalcade® PQ. Do not reapply Cavalcade® PQ if control failure occurs following the application of full or split application rates. Change to a herbicide with a different mode of action.

2. Under certain conditions applications of Cavalcade® PQ made to annual grasses at 2 - 4 tiller may not provide complete control. A sequential application will be required for grass control in these situations. Optimum control is achieved when applications of Cavalcade® PQ + methylated seed oil is applied either before second tiller or as weed grasses mature.

**Table 2. Pre-emergent application of Cavalcade® PQ when used as directed on this label, will control the following weeds:**

Barnyardgrass	Goosegrass <sup>5</sup>	Purslane, common
Bluegrass, annual ( <i>Poa annua</i> ) <sup>1</sup>	Henbit <sup>2</sup>	Pusley, Florida
Carpet weed	Itchgrass	Rescuegrass <sup>4</sup>
Chickweed, common <sup>2</sup>	Johnsongrass (from seed)	Shepherds purse <sup>2</sup>
Chickweed, mouseear (from seed)	Junglerice	Signalgrass, broadleaf
Crabgrass (Large, Smooth) <sup>3</sup>	Knotweed <sup>2</sup>	Speedwell, Persian
Crowfootgrass	Kochia	Sprangletop
Cupgrass, woolly	Lambsquarter, common	Spurge, prostrate
Foxtails, annual	Lovegrass	Witchgrass
Pigweed	Panicum (Texas, Fall, Browntop)	Woodsorrel, yellow (from seed)

1. In areas where *Poa annua* is a winter annual, apply Cavalcade® PQ in August or September to established, non-over-seeded turf before *Poa annua* seeds germinate. These timings are approximate. Consult State Extension Service for more specific timing for your area.

2. To control this weed, apply Cavalcade® PQ in late summer, fall, or winter before weed seeds germinate.

3. Fall applications for spring crabgrass control in cool-season grasses: In those areas where the ground freezes in the winter, Cavalcade® PQ Q can be applied in the fall at rates of 1.5 - 2.3 lbs/A (0.49 - 0.75 lb proflam and 0.49 - 0.75 lb quinclorac/A) after the soil temperature falls below 50°F but before the ground freezes. This application will control crabgrass the following spring.

4. Suppression only.

5. In any area a single application of 1.5 - 2.3 lbs/A of Cavalcade® PQ (0.49 - 0.75 lb proflam and 0.49 - 0.75 lb quinclorac/A) will control goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, most effective control may be obtained by making an initial application of 1.5 - 2.3 lbs/A (0.49 - 0.75 lb proflam and 0.49 - 0.75 lb quinclorac/A) followed, after 60 - 90 days, by a second application that does not exceed the maximum rate for that turfgrass species listed in Table 3.

### Maximum Use Rates -Turfgrass

Cavalcade® PQ can be applied to the turfgrass species listed in the following table. **DO NOT** apply more than the highest rate listed per treatment for each species. **DO NOT** apply more than the maximum annual rate in a calendar year. The maximum single application rate is 2.3 lbs. of this product per acre (0.75 lbs. prodiamine per acre; 0.75 lbs. quinclorac per acre).

Quinclorac requires 14 days between treatments. **DO NOT** allow less than 14 days between treatments.

1 level capful = 0.83 oz.

**Table 3. Turfgrass Use Rates**

<b>Turf Species Established Turf</b>	<b>Rate per treatment Lbs./Acre</b>	<b>Rate per treatment oz./1000 sq. ft.</b>	<b>Maximum Annual Lbs./Acre</b>
<b><i>Northern Highly Tolerant</i></b>			
Bluegrass, Kentucky <sup>2</sup> Buffalograss Ryegrass, Perennial <sup>2</sup>	1.0 – 2.30	0.36 – 0.83	3.00
Fescue, Tall	1.0 – 2.30	0.36 – 0.83	4.60
<b><i>Northern Moderately Tolerant</i></b>			
Fescue, Fine	1.0 – 2.30	0.36 – 0.83	2.30
Bentgrass, creeping	1.0 – 1.50	0.36 – 0.48	1.50
<b><i>Southern Moderately Tolerant</i></b>			
Bermudagrass hybrid <sup>3</sup>	2.0 – 2.30	0.72 – 0.83	4.60
<b><i>Southern Highly Tolerant</i></b>			
Bermudagrass, common <sup>3</sup> Zoysiagrass	2.0 – 2.30	0.72 – 0.83	4.60
Seashore paspalum	1.50	0.48	4.60

1. Cavalcade® PQ may be applied more than once a year as long as the total amount applied is not greater than maximum annual rate for the individual turf species.

2. Note: Under ideal conditions for disease development, these species may be more prone to rust infection.

3. May be used on newly-sprigged or plugged Bermudagrass at rates not to exceed 1.5 lbs./A (0.48 oz./1000 sq. ft. Newly-sprigged or plugged Bermudagrass stolon rooting may be temporarily retarded.

**Table 4. Pounds of active ingredient applied at the above product rates.**

<b>Product Rate</b>	<b>Lbs. AI Prodiamine</b>	<b>Lbs. AI Quinclorac</b>
1.00 lb./acre	0.33	0.33
1.50 lb./acre	0.49	0.49
2.00 lb./acre	0.65	0.65
2.30 lb./acre	0.75	0.75
3.00 lb./acre	0.98	0.98
4.60 lb./acre	1.50	1.50

**Table 5. Sensitive/Susceptible Turfgrass Species**

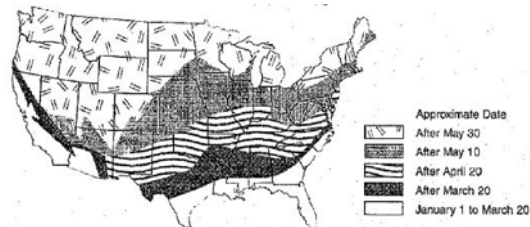
Northern Turfgrass Species Not Tolerant		Southern Turfgrass Species Not Tolerant
Ryegrass, Annual	Bluegrass ( <i>Poa trivialis</i> )	Bahiagrass
Fescue, Red	Bentgrass, Seaside	Centipedegrass
Fescue, Hard	Bentgrass, Colonial	Dichondra
Fescue, Chewings		St Augustinegrass

Cavalcade® PQ used as a pre-emergence herbicide, when properly applied, will control certain grass and broadleaf weeds in established turfgrasses including:

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

For optimum weed control, Cavalcade® PQ should be activated by at least 0.5 inches of rainfall or irrigation before weed seeds germinate and within 2-7 days following application. See the map below for approximate crabgrass seed germination dates

#### CRABGRASS SEED GERMINATION DATES



#### When to Apply Cavalcade® PQ before seeding/over-seeding turf:

Cavalcade® PQ will inhibit the development of turfgrass species seeded or over-seeded too soon after application. Follow rates and intervals in Table 6 for best over-seeding/reseeding results.

**Table 6. Number of months, given by typical turf growing zones, before seeding turfgrass varieties if Cavalcade® PQ is applied primarily for pre-emergence weed control (85% – 90% bare soil at application) as a single application**

Amount of Cavalcade® PQ Lbs Product/A	Months Before Over-seeding by Turf Growing Zones **		
	North	Transition	South
1.5	4	4	4
2.0	5	4	4
2.3	6	5	5

Notes: For lbs. active ingredient per pound of product applied, see Table 4.

\*\*In AZ, CA, NV, and TX, application of Cavalcade® PQ 6-8 weeks before over-seeding with perennial ryegrass can be used in established bermudagrass.

### **When to Apply Cavalcade® PQ after Over-seeding Turf**

Injury to desirable seedlings is likely if Cavalcade® PQ 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 over-seeded turf, wait 60 days after seeding or until after the second mowing, whichever is longer, before applying Cavalcade® PQ.

### ***Poa annua* control in Established Bermudagrass Over-seeded with Perennial Ryegrass (AZ, CA, NV, and TX only)**

Use on golf courses (excluding putting greens and collars), lawns, and sod nurseries when over-seeding with perennial ryegrass (minimum seeding rate of 350 lbs/A).

## **STORAGE AND DISPOSAL**

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

**STORAGE:** Store in original container away from feed or foodstuffs and separated from other pesticides.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of at an approved waste disposal facility. Open dumping is prohibited.

### **CONTAINER HANDLING:**

**Rigid plastic containers (50 lb or less):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into applications 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, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Paper and plastic film bags or boxes:** Nonrefillable container. Do not reuse or refill this container. Completely empty container into application equipment. Then dispose of empty bag or box in a sanitary landfill or incinerate; or, if allowed by state and local authorities, burn locally. Stay out of smoke from burning container.

**Fiber drums with plastic liners:** Nonrefillable container. Do not reuse or refill this container. Completely empty the plastic liner by shaking and tapping sides and bottom to loosen clinging particles. Pour residues into application equipment. Dispose of empty liner at an incineration facility. Offer the fiber drum for recycling or re-use. If the fiber drum cannot be recycled or re-used, dispose of at an incineration facility.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call CHEMTREC (phone: 1-800-424-9300) day or night.

## **WARRANTY AND LIMITATION OF DAMAGES**

**CONDITIONS OF SALE:** To the extent consistent with applicable law, Advan LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Advan LLC.

ADVAN LLC DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ADVAN LLC SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND ADVAN LLC'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER AND USER ACKNOWLEDGE AND ASSUME ALL RISKS AND LIABILITY RESULTING FROM HANDLING, STORAGE AND USE OF THIS PRODUCT. ADVAN LLC DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.

Cavalcade is a registered trademark of Sipcam Agro USA, Inc.  
DyneAmic is a trademark of Helena Chemical Co.  
Lesco Spreader Sticker is a trademark of Lesco, Inc.  
Lesco and Stonewall are registered trademarks of Lesco Technologies, Inc.  
LI-700 is a trademark of Loveland Products Inc.  
Basagran is a trademark of BASF Corp.  
Thoroughbred and Surf King Spreader are trademarks of Estes, Inc.  
Target Pro Spreader is a trademark of Target Specialty Products.

# Cavalcade® PQ

PRODIAMINE GROUP 3 HERBICIDE  
QUINCLORAC GROUP 4 HERBICIDE

Herbicide providing selective Post- and/or Pre-emergent control of problem grasses and broadleaf weeds in residential and nonresidential turfgrasses and other non-crop sites.

## ACTIVE INGREDIENTS:

Prodiamine [N <sup>3</sup> ,N <sup>3</sup> -Di- <i>n</i> -propyl-2,4-dinitro-6-(trifluoromethyl)- <i>m</i> -phenylenediamine].....	32.5%
Quinclorac [3,7-Dichloroquinoline-8-carboxylic acid, 3,7-Dichloro-8-quinolinecarboxylic acid].....	32.5%

**OTHER INGREDIENTS:** ..... 35.0%

**TOTAL:** ..... 100.0%

## KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)

**FIRST AID: IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have affected person sip a glass of water if able to swallow. Do not induce vomiting unless told by a poison control center or doctor. Do not give anything by mouth to an unconscious person. **IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control center or doctor for treatment advice. **IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **Emergency phone numbers:** (800) 222-1222 Poison Control Center (human health), (800) 424-9300 CHEMTREC (transportation and spills)

See additional Precautionary Statements and Directions for Use inside booklet.

NET CONTENTS: 5 Pounds

MANUFACTURED FOR:

Advan LLC  
2525 Meridian Parkway  
Durham, NC 27713

# 5lbs

EPA Reg. No. 83070-9  
EPA Est. No. 60063-GA-1 (Lot No. begins with VL)  
EPA Est. No. 62171-MS-1 (Lot no. begins with OI)  
EPA Est. No. 37429-GA-1 (Lot No. begins with BT)  
EPA20210224 (9/21)

  
**SIPCA AGRO**  
USA, INC.

**READ THE LABEL  
CAREFULLY  
BEFORE OPENING  
THE CONTAINER**

PEEL BACK BOOK HERE

# HERBICIDE