

2217-709

01/04/2001

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JAN 4 2001

Mr. Craig Martens  
 PBI/Gordon Corporation  
 P.O. Box 014090  
 Kansas City, MO 64101

Dear Mr. Martens:

Subject: Conversion from MCPP to MCPP-p  
 Quadmec® Turf Herbicide  
 EPA Registration Number: 2217-709  
 Your Resubmission Dated October 6, 2000

The Agency is conditionally approving an amendment to the registration of the above-referenced product under the authority of section 3(c)(7)(A) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Under this amendment the Agency is approving the conversion of the active ingredient mecoprop from its racemic form [2-(2-methyl-4-chlorophenoxy) propionic acid, or applicable salt thereof] to its single isomer form [(+)-R-2-(2-methyl-4-chlorophenoxy) propionic acid, or applicable salt thereof]. The revised labeling and Confidential Statements of Formula submitted in support of the conversion are acceptable with the following provisions:

1. This acceptance is based on our understanding that no changes have been made to the product labeling other than those specified within the body of your certification statement and cover letter dated August 8, 2000. No other revisions are being reviewed or considered with this action.
2. You may sell or distribute product containing the racemic form of mecoprop and bearing the previously approved labeling for 18 months from the date of this letter.

Copies of the revised Confidential Statements of Formula (Basic and Alternate Formulations, dated 10/6/2000) have been placed in the Agency's file for the subject product. These CSFs supersede all previously submitted CSFs for this product.

RD:STANTON:PM Team 23:Rm. 239:CM-2:305-5218:Disk #14:S586510.CNV

CONCURRENCES

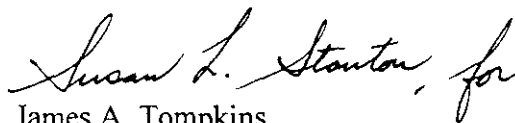
SYMBOL ▶	7505C							
SURNAME ▶	S. Stanton							
DATE ▶	Jan 4, 2001							

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A stamped copy of the labeling is enclosed for your records. Submit one copy of your final printed labeling before you release the product for shipment.

Sincerely yours,

A handwritten signature in cursive script that reads "Susan L. Stanton, for".

James A. Tompkins  
Product Manager (25)  
Herbicide Branch  
Registration Division (7505C)

Enclosure

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# QUADMEC® TURF HERBICIDE POSTEMERGENT GRASS & BROADLEAF HERBICIDE

### ACTIVE INGREDIENTS:

Monosodium acid methanearsonate .....	18.00%
Dimethylamine salt of 2,4-dichlorophenoxyacetic acid .....	5.83%
Dimethylamine salt of 2-(2-methyl-4-chlorophenoxy)propionic acid .....	5.86%
Dimethylamine salt of (+)-(R)-2-(2-methyl-4-chlorophenoxy)propionic acid ...	2.93%
Dimethylamine salt of dicamba: 3,6-dichloro-o-anisic acid .....	1.46%
<b>INERT INGREDIENTS:</b> .....	<b>68.85%</b>
<b>INERT INGREDIENTS:</b> .....	<b>71.78%</b>
<b>TOTAL</b>	<b>100.00%</b>

### THIS PRODUCT CONTAINS:

- 1.80 lbs. monosodium methanearsonate per gallon or 18.00%. Total Arsenic (as elemental) all in water soluble form 8.33%.
- 0.48 lbs. 2,4-dichlorophenoxyacetic acid equivalent per gallon or 4.84%
- 0.48 lbs. 2-(2-methyl-4-chlorophenoxy)propionic acid equivalent per gallon or 4.84%
- 0.24 lb. (+)-(R)-2-(2-methyl-4-chlorophenoxy)propionic acid equivalent per gallon or 2.42%
- 0.12 lbs. 3,6-dichloro-o-anisic acid equivalent per gallon or 1.21%
- Isomer Specific by AOAC Method.

### CONTAINS SINGLE ISOMER FORM OF MECOPROP-p

QUADMEC® and TRIMEC® are registered trademarks of PBI/Gordon Corporation.

## KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted in detalle. (If you do not understand the label, find some one to explain it to you in detail.)

### First Aid

<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

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

See side panels for additional Precautionary Statements.

**NET CONTENTS: 1 or 2½ U.S. GALLON(S)**

700/ APXXXXXX  
 EPA REG. NO. 2217-709  
 EPA Est. No. 2217-KS-1  
 MANUFACTURED BY:



ACCEPTED  
 with COMMENTS  
 In EPA Letter Dated

JAN 4 2001

Under the Federal Insecticide,  
 Fungicide, and Rodenticide Act  
 as amended, for the pesticide  
 registered under EPA Reg. No.  
2217-709

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**READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY.**

**PRECAUTIONARY STATEMENTS**

**Hazards To Humans and Domestic Animals**

**WARNING:** Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if swallowed. Harmful if absorbed through skin.

**Personal Protective Equipment (PPE):**

Applicators and other handlers must wear: • Long-sleeved shirt and long pants • Chemical-resistant gloves category A (such as nitrile or butyl) • Shoes plus socks • Protective eyewear • Chemical-resistant apron when cleaning equipment, mixing or loading.

For exposures in enclosed areas: • A respirator with an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter.

For exposure outdoors: • Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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

**Engineering Control Statements for WPS Uses:**

*Containers over 1 gallon and less than 5 gallons in capacity:* Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE.

*Containers of 5 gallons or more in capacity:* Do not open-pour from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a nonrefillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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:*

- ◆ 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.
- ◆ 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:**

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater. When cleaning equipment, do not pour the washwater on the ground; spray or drain over a large area away from wells and other water sources. Do not apply when weather conditions favor drift from treated area. Do not contaminate water used for domestic consumption, or by wildlife or aquatic life, or for irrigation purposes.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D and MCPP have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D and MCPP pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

**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 48 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, or water, is: • Coveralls • Chemical-resistant gloves category A (such as nitrile or butyl) • Shoes plus socks • Protective eyewear.

**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, forests, nurseries, or greenhouses.

Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until spray has dried.

For use on residential and ornamental turfgrass sites and sod farms.

**APPLICATION INFORMATION AND USE PRECAUTIONS:**

Do not apply this product through any type of irrigation system. Avoid drift of spray mist onto vegetables, flowers, ornamental plants, shrubs, trees and other desirable plants. Do not pour spray solutions near these plants. Do not use a hose end sprayer.

Coarse sprays are less likely to drift. Avoid fine mists. Do not spray roots of trees and ornamentals. Do not exceed specified dosages for any area; be particularly careful within the dripline of trees or other ornamental species.

Do not spray while grass is emerging from dormancy. Do not apply to newly seeded lawns until after the third mowing. Seed can be sown 3 to 4 weeks after application.

Do not use on St. Augustinegrass, centipedegrass, carpetgrass, red fescues, dichondra, nor on lawns or turf where desirable clovers are present.

Weed control is best achieved when temperatures are above 70°F. However, do not apply this product to Kentucky bluegrass, tall fescue, or turf-type tall fescues when air temperatures exceed 80°F nor when drought conditions exist. Do not apply this product to bermudagrass or zoysiagrass when air temperatures exceed 90°F nor when drought conditions exist.

Be sure soil is moist and lawn healthy before application. Temporary discoloration may occur and high spray volumes may reduce the turf discoloration. If turf is showing stress due to high temperatures and/or drought, irrigation is recommended 2 to 3 days after treatment.

Keep children and domestic animals off treated area until this material has been watered into the soil.

Failure to observe these use precautions may result in injury.

After using this product, clean sprayer with Gordon's® Spray Tank Cleaner and rinse thoroughly with water before applying other pesticides.

**ESTABLISHED BERMUDAGRASS AND ZOYSIAGRASS:**

Mix 3 to 5 fluid ounces of Quadmec® Turf Herbicide in 1 to 3 gallons of water for treatment of 1,000 square feet or 1 to 1 2/3 gallons of Quadmec® Turf Herbicide in 50 to 100 gallons of water for treatment of one acre of turf. Better control is obtained by making applications shortly after crabgrass emergence in the spring which will also control surviving winter annual broadleaf weeds and emerged summer annual broadleaf weeds. A second application may be necessary 10 to 14 days later for dense weed populations, especially dallisgrass. Do not apply this product to bermudagrass or zoysiagrass when air temperatures exceed 90°F nor when turf is under stress such as drought.

Zoysiagrass cultivars may vary in the levels of tolerance to applications containing MSMA.

The maximum application rate to turf is 0.9 pounds 2,4-D acid equivalent per acre per application per site. The maximum number of broadcast applications per treatment site is 2 per year.

**ESTABLISHED KENTUCKY BLUEGRASS, PERENNIAL RYEGRASS, TALL FESCUE, TURF-TYPE TALL FESCUES (IMPROVED AND LOW GROWING):**

Mix 3 fluid ounces of Quadmec® Turf Herbicide in 1 to 3 gallons of water for treatment of 1,000 square feet of turf or 1 gallon of Quadmec® Turf Herbicide in 50 to 100 gallons of water per acre of turf. Make a second application at the same rate 10 to 14 days after the first application. Make spring applications to newly emerged crabgrass and for broadleaf weed control, including oxalis. Summer applications can be made to more mature crabgrass and to broadleaf weeds. Do not apply this product to Kentucky bluegrass, tall fescue, or turf-type tall fescues when air temperatures exceed 80°F nor when turf is under stress such as drought.

Injury from this product may occur to mixed stands of Kentucky bluegrass and red fescues (chewings fescue, creeping fescue, and spreading fescues). If you are unwilling to accept some degree of turf injury, then do not use this product for mixed stands.

**SPOT TREATMENTS**

**SPOT TREATMENTS FOR ESTABLISHED BERMUDAGRASS, ZOYSIAGRASS, KENTUCKY BLUEGRASS, PERENNIAL RYEGRASS, TALL FESCUE, AND TURF-TYPE TALL FESCUE:**

Mix 3 fluid ounces of Quadmec® Turf Herbicide in 1 gallon of water for treatment of 1,000 square feet of turf. Spray the target weeds thoroughly and wet the entire leaf surface of the undesirable plants. Withhold sprinkling or irrigation for 24 hours after application. Two or more applications at 10 to 14 day intervals may be required. Temporary discoloration of the turfgrass may occur.

**GENERAL INFORMATION**

This product controls a wide variety of problem weed species including crabgrass, dallisgrass, nutsedge, spurge, dandelion and oxalis. Refer to partial list of weeds controlled by Quadmec® Turf Herbicide.

- WEEDS CONTROLLED -		
Aster, white heath & white prairie	False dandelion (*spotted catsear & common catsear)	Poison ivy
Bedstraw	Field bindweed (*momingglory & creeping jenny)	Poison oak
Beggarweed, creeping	Field oxeye-daisy (*creeping oxeye)	Prostrate knotweed (*knotweed)
Bindweed	Filaree, whitestem & redstem	Puncturevine
Black medic	Florida pusley	Purslane
Broadleaf plantain	Goosegrass	Ragweed
Buckhorn plantain	Ground ivy	Red sorrel (*sheep sorrel)
Bull thistle	Groundsel	Sandbur
Burclover	Hawkweed	Shepherdspurge
Burdock, common	Healall	Spotted spurge
Buttercup, creeping	Henbit	Spurge
Carpetweed	Lambsquarters	Thistle
Chickweed, common	Lawn burweed	Veronica (*corn speedwell)
Chicory	Lespedeza, common	Virginia buttonweed
Cinquefoil	Mallow, common	White clover (*Dutch clover, honeysuckle clover, white trefoil & purplewort)
Clover	Matchweed	Wild carrot
Compassplant	Mouseear chickweed	Wild garlic
Crabgrass, large & smooth	Nutsedge, yellow	Wild geranium
Curly dock	Oxalis (*yellow woodsorrel & creeping woodsorrel)	Wild lettuce
Dallisgrass	Parsley-piert	Wild mustard
Dandelion	Pennsylvania smartweed	Wild onion
Dayflower	Pennywort (*dollarweed)	Wild strawberry
Deadnettle	Pepperweed	Wild violet
Dock	Pigweed	Yarrow
Dogfennel	Pineappleweed	Yellow rocket
English daisy	Plantain	

\*Synonyms

**STORAGE & DISPOSAL**

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

**STORAGE:** Store in original container in a locked storage area. Keep from freezing.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your state Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities by burning. If burned stay out of smoke.

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**LIMITED WARRANTY AND DISCLAIMER.**

The manufacturer warrants only that the chemical composition of this product conforms to the ingredient statement given on the label, and that the product is reasonably suited for the labeled use when applied according to the Directions for Use.

THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE EXPRESSLY DISCLAIMED. This limited warranty does not extend to the use of the product inconsistent with label instructions, warnings or cautions, or to use of the product under abnormal conditions such as drought, excessive rainfall, tornadoes, hurricanes, etc. These factors are beyond the control of the manufacturer or the seller. Any damages arising from a breach of the manufacturer's warranty shall be limited to direct damages, and shall not include indirect or consequential damages such as loss of profits or values, except as otherwise provided by law.

The terms of this Limited Warranty and Disclaimer cannot be varied by any written or verbal statements or agreements. No employee or agent of the seller is authorized to vary or exceed the terms of this Limited Warranty and Disclaimer in any manner.



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**APPENDIX**

- I. Advertising claims that registrants may be presented on the retail container label or on the labeling accompanying the product.*
- ◆ For selective control of grass and broadleaf weeds in bermudagrass, bluegrass, tall fescue, turf-type tall fescue, and zoysiagrass turf.
  - ◆ One gallon covers up to one acre.
  - ◆ Keep from freezing.
  - ◆ Shake well before using.